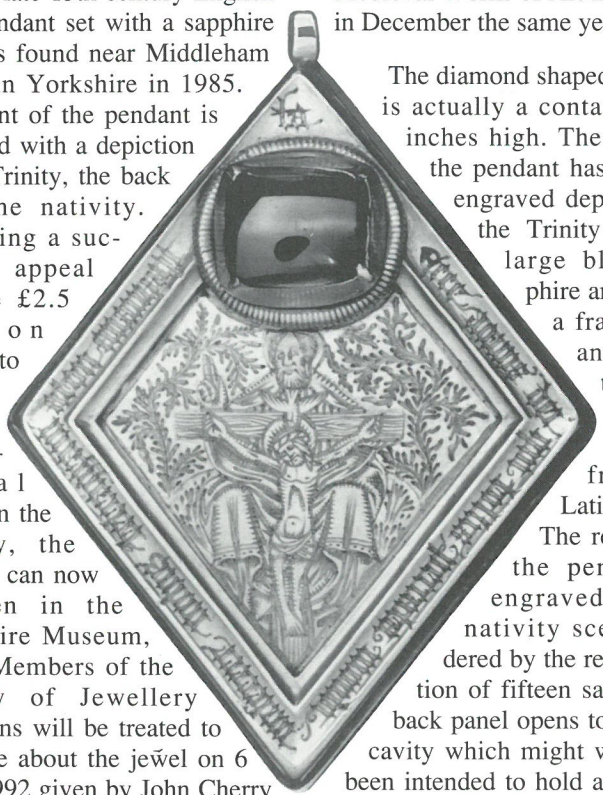
Gem & Jewellery News

VOLUME 1 NUMBER 1 DECEMBER 1991

MEDIEVAL JEWEL TO STAY IN BRITAIN

The photograph shows the so-called Middleham Jewel, a magnificent late 15th century English gold pendant set with a sapphire that was found near Middleham Castle in Yorkshire in 1985. The front of the pendant is engraved with a depiction of the Trinity, the back with the nativity. Following a successful appeal for the £2.5 million needed to keep this exceptional jewel in the country, the pendant can now be seen in the Yorkshire Museum, York. Members of the Society of Jewellery Historians will be treated to a lecture about the jewel on 6 April 1992 given by John Cherry of the British Museum.



This highly important English Gothic pendant was found near Middleham Castle in North Yorkshire in September 1985, near a footpath that linked Jervaulx and Coverham Abbeys. However, the private chapel of Middleham Castle is also a possible location for its original owner. The pendant was exhibited at Bowes Museum, Barnard Castle in 1986 and was then offered for sale in Sotheby's auction of Important Medieval Works of Art in London in December the same year.

The diamond shaped pendant is actually a container 2 1/2 inches high. The front of the pendant has a finely engraved depiction of the Trinity below a large blue sapphire and within a frame with an inscription largely taken from the Latin liturgy. The reverse of the pendant is engraved with a nativity scene bordered by the representation of fifteen saints. The back panel opens to reveal a cavity which might well have been intended to hold a communion wafer. The use of the sapphire - a symbol of a pure soul - might also point to a sacramental function. The pendant probably also had an amuletic function as suggested by part of the inscription which includes a term that is believed to have been a charm against epilepsy or the falling sickness.

The quality of workmanship is exceptional with finely detailed engraving which bears traces of original blue enamel. The large sapphire is flattered by the simple setting bordered by a spring-like coil of gold wire giving a beaded effect. The British Museum Research Laboratory has carried out a study of the gold and details of the remarkable deliberate use of gold coloration will be explained by John Cherry in his lecture to the Society of Jewellery Historians next April.

Photograph courtesy of The Yorkshire Museum, York.

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EDITORIAL

The *News* marks the beginning of co-operation between the Gemmological Association and Gem Testing Laboratory of Great Britain (GAGTL) and the Society of Jewellery Historians (SJH). Until now both organizations have produced scholarly journals and these will continue as before, but the Newsletters and Bulletins formerly produced by SJH will cease, their material now incorporated into Gem and Jewellery News. We hope that the *News* will be published alternately with the *Journal of Gemmology*, allowing for normal slippage, so that members will get some printed information most months of the year. *Jewellery Studies* will continue as before.

The *News* will carry current topics, notes on trade and historical themes, new gemstone discoveries, synthetics, treatments and instruments, notes on new books, exhibitions, saleroom notes and much more. Detailed discussion of scientific topics and jewellery history will continue to be the province of the *Journal of Gemmology* and of the SJH journal *Jewellery Studies*. Comments and contributions should be sent to the Editor, Michael O'Donoghue, c/o GAGTL, 1st Floor, 27 Greville Street, London EC1N 8SU. My direct telephone number is 0732 453503. Please remember that topical matters like forthcoming events must reach the Editor as soon as possible.

Michael O'Donoghue

THE SOCIETY OF JEWELLERY HISTORIANS

The Society of Jewellery Historians was formed in 1977 with the aim of stimulating interest in jewellery of all ages and cultures. Membership worldwide includes archaeologists, art historians, collectors, curators, dealers, gemmologists, practising jewellers, designers, scientists and others. The Society publishes a journal *Jewellery Studies*, has regular lectures in London (at the Society of Antiquaries, Burlington House) and also arranges conferences, one-day seminars, private views of special exhibitions and study visits. Members receive several mailings per year informing them of the Society's activities and listing forthcoming events and other jewellery news. Membership is open to all those with an interest in jewellery—for a membership application form please write to The Society of Jewellery Historians, c/o Judy Rudoe, Department of Medieval and Later Antiquities, The British Museum, London WC1B 3DG. The annual subscription for 1991/92 is £20.

AROUND THE TRADE

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

CUSTOMS — DR JEKYLL AND MR HYDE

For too long we have seen only the Mr Hyde face of HM Customs and Excise. Lately they have been ousted from their position as arch foe of the traders by the banks. But they still send a chill down many traders' spines. Recently I got a call from Mount Pleasant Customs House for a valuation of a small parcel of sapphires. My first reaction was that this was another suspected under-declaration. Much to my surprise it turned out that the importer was an amateur who had bought the sapphires in Bangkok. Customs felt that the purchaser had paid a highly inflated price and that VAT should be paid on a more realistic value. The price paid was in fact way, way over the going price. So the importer saved money on the VAT—while losing far more trying to resell the stones.

Customs are concerned about the amount of stones they see imported by youngsters, obviously not traders, from the main cutting centres in Asia, at prices often significantly higher than those paid by traders—and we are talking five or ten-fold. On confrontation—when parents are involved—some youngsters claim they do not even remember buying the stones. Customs officers wonder if these kids are drugged at the point of sale. More likely, the 'buyers' are told that the sellers are regular suppliers to firms in England. They are told they can sell these stones to these contacts and double their money or more. In fact, the only connection some such dealers have with UK firms is the Yellow Pages!

Well done, Customs, for showing that there is a Dr Jekyll face to every Mr Hyde. Many dealers and importers forget that Customs are there to prevent smuggling and under-declarations, which ultimately is for the protection of our local dealers, and prevents unfairly cheaper goods appearing on the market.

More customs talk

Some dealers have been having problems with re-importation of goods exported on appro or consignment. To prevent repayment of VAT, such goods are exempt on return. But re-identification of such goods when returned is a problem. However, the latest twist is that according to Customs Regulation Notice 236 (January 1988 in paragraph 29, page 19, for exemption of repayment of VAT) such goods must be owned by the importer. As our trade works on appro and consignment to a great extent, some goods exported are not actually owned by the exporter. It seems certain that the above regulation was not intended to trap such goods, and the matter is now being discussed urgently with HM Customs and Excise. In the meantime, exporters should note that if goods are exported on a 'sale' basis then on their return for any reason, they become subject to VAT again.

THE OPTICON DEBATE

Opticon-treated emeralds are being seen more and more on world markets. 'Opticon' is the trade name of an epoxy resin and hardener used in the filling of open cracks in emeralds. The process is applied to both rough and cut stones. The term 'Opticon-treated' should not be applied to such stones, as no lab can identify a particular mixture of hardened epoxy resin. Both the 'coated' sapphires and resin-filled emeralds must be sold as 'treated'.

All labs and regulators of trade nomenclature agree that filling a fissure in a stone with an epoxy resin is introducing a foreign body into the stone. However some dealers, faced with a problem that seems to be becoming widespread, are trying to argue that such treatment is no different from filling with a colourless oil; in fact it is an improvement on the oil filling as the process is more stable and the customer gets a stone much less liable to 'cracking' and discoloration. In a recent paper from Japan it was even argued that a resin is only another type of 'oil' — i.e. it was man-made and designated as a plastic! So, come on you chemists. Is a synthetic resin a man-made oil?

Harry Levy
1991

A FIRST IMPRESSION OF AN INTERNATIONAL TRADE FAIR

The 1991 Basel Fair represented a transitional period for the Watch and Jewellery trade. After a difficult year, exhibitors at Basel displayed their best in the hopes of bringing the market onto a rising path.

There were several highlights this year, one of which included the campaign for coloured diamonds being mined out of Argyle. These brilliant brown coloured diamonds have adopted the names 'Champagne' and 'Cognac', reminiscent of their colour. They represent a range of colour, from very light brown to a more intense brown colour. These diamonds were presented at the Basel Fair in magnificent settings designed especially to enhance their qualities. So far coloured diamonds in this range have attracted the Hong Kong market and there generally seems to be a positive outlook. 'Champagne' and 'Cognac' diamonds may make a breakthrough in future designs.

Paraiba tourmalines, new colours in the vast varieties of tourmalines, were delightfully displayed in many showcases of Idar Oberstein gem dealers. These gemstones are best described as a colour range between an intense Caribbean sea green and a deep rich sky blue. The colours are so bright, they appear almost electric. Found recently at a mine in Brazil, with their unusual colour owed to the content of copper, the Paraiba tourmaline is an example of an exciting discovery now being introduced to the European market. At Basel they were beautifully arranged as series of graduating colour varying in size and quality. Paraiba set jewellery in yellow gold for both men and women, can romantically represent the warm colours of a Caribbean sunset!

Although at this year's Basel Fair, temperatures reached an almost record low, there was a warm atmosphere among the exhibitors after-hours. Restaurants and bars were filled with the reunions of last year's acquaintances and this year's new encounters. Relaxed and comfortable social evenings in Basel and surrounding towns and cities provided ambience for international relations and general trade discussions. The Basel Fair is an international event where contacts are made, latest developments are discovered and where ideas for the future begin.

Colette Bensimon

WORLD DIAMOND CONGRESS

The Silver Jubilee meeting of the WDC was held in London during May and was attended by delegates from the World Federation of Diamond Bourses and the International Diamond Manufacturers' Association. The hosts were the London Diamond Bourse and the London Diamond Club. Edmund Goldstein, Chairman, was due to step down at the end of proceedings.

At the Congress Thailand was elected as a full member of IDMA as it has grown in importance as a diamond manufacturing centre. Members also discussed a variety of topics, including exchange of information on the credentials of potential clients, harmonization of diamond grading standards and the exchange of information on new technology. The question of India's attendance was reviewed and a welcome was extended by guest of honour Moshe Schnitzer. The new President, Eli Izhakoff wished for an early settlement of outstanding issues. World Federation President is now Mr Izhakoff, Jacques Rosen is new President of IDMA in succession to Daniel Legziel. Mr Goldstein and Mr Legziel were appointed Honorary Presidents of their individual associations. The next World Diamond Congress is scheduled for June 1993 in Antwerp, by then Cultural Capital of Europe.

BELGIAN DIAMOND SECTOR SUPPORTS JEWELLERY TRADE IN TAIWAN

The Asian countries are important trade partners for the Belgian diamond trade and industry. On behalf of the Antwerp diamond centre, the Diamond High Council organizes a number of activities to support mutual co-operation. In this framework a pilot-project has been started in Taiwan. The choice of this important market is the result of numerous contacts and meetings, held during past trade missions. In fact, the project comprises a series of events to support the Taiwanese diamond and jewellery trade and to strengthen the contacts with Antwerp as a world diamond centre. Gemmological courses in English and Chinese, courses on 'European Jewellery Design' and personal visits to some 1500 jewellers and traders, are part of this pilot project.

JEWELLERY FAIR, VICENZA 1991

A valuable educational opportunity was provided recently through Raffaele Zancanella of the Istituto Gemmologico Mediterraneo, at the massive and opulent Vicenzaoro 2 jewellery trade fair, and gemmological conference, in Vicenza, Italy. Several gemmologists involved in research and education were able to meet and talk informally in surroundings and a climate which made homecoming seem unthinkable.

The two-day visit left an impression of high quality jewellery in large volume and in a great variety of design, with an underlying message that, in Europe and in the USA, there is strong selling-power in gemmological knowledge and gem-test certification. The GAGTL Education Office can provide short tutorials for company training in gemmology, helping businesses to promote European connections with greater confidence. If you are wondering whether gemmology will provide that little extra for you to be Ready and Equipped for Europe, give Ian Mercer a ring on 071-404 3334.

GEMMOLOGICALLY SPEAKING, ARE YOU IN EUROPE?

Amongst items noticed at the trade fair were: specially-shaped gemstones cut as integral parts of jewellery design, with individual surface finishes or facet arrangements; large beads of polished, coarse sandstone with precious opal in the stone matrix; an opalised plesiosaur, ten feet long; high quality emerald and corundum cabochons in jewellery, notably from Israel; big sweetie jars full of cubic zirconias of many colours; large thin-walled goblets of Chinese, purple-banded fluorite, similar to Blue John but with larger single-crystal areas; no obvious UK jewellery was in evidence. Some points picked up (mostly from Bob Kammerling's review talk): recent 'new' gem sources include the Paraiba copper-tourmalines and Vietnam ruby; large rubies found in the Urals region contain lamellar twinning due to crystal deformation; lilac rhodonite found in schists in the polar Urals is pleochroic pink to yellow/pink; fine green/yellow-zoned Australian sapphires are retained by miners.

Reviews covered synthetic gem materials and treatments, and (importantly) their recent development. Hydrothermal synthetic emeralds — including Minke emerald— are selling at 5,000ct per month. These contain small scale 'chevron' or 'fern' patterns, seen in dark-field illumination under the microscope, as do pale blue hydrothermal synthetic beryls. RI's of USSR hydrothermal synthetic emerald have altered significantly as production methods develop. Bright blue, copper-containing hydrothermal synthetic beryl has similar colouring to the Paraiba copper tourmalines. Beryl is also coloured with iron and manganese to give a lilac or mauve colour and might be seen on sale as 'synthetic tanzanite'. Red (manganese) and 'padparadscha' colours are also produced. Biron pink beryl RI's have changed as production becomes more refined.

Cobalt coloured hydrothermal quartz is now made in dark blues (with the cobalt in a different structural site) and marketed as 'Siberian quartz' in large quantities.

A limited quantity of flux-grown, red synthetic spinel has so far appeared; it has identical properties to natural red spinel and it may or may not have primary and secondary flux inclusions. Research work is likely to be aimed at revealing the simplest possible 'spot' test. In the USSR, diamond synthesis has so far achieved small, yellow stones in iron/nickel catalyst. Biron synthetic emerald is marketed into the USA as 'Kimberley Created' emerald. Stones contain nailhead growth-blockage and metallic inclusions. A new, pink, Czochralski synthetic sapphire has appeared; it is coloured by titanium (possibly Ti^{3+}).

Silicon is increasingly being used as an effective lightweight alternative to the now-popular hematite beads. 'Reconstituted lapis lazuli' seen in the USA contains no lapis, but is density-adjusted with baryte in plastic. It is slightly translucent. In the field of treatment, there are developments in the RI's of filler materials for diamond and emerald. In diamond, the filled cracks may now be seen as a pink to purple 'flash' in dark field illumination, with yellow to green colours in transmitted light. Opticon filler is used in aquamarine and tourmaline. Low power microscopic inspection of some jadeite from Hong Kong has revealed plastic coating, looking like liquid on the surface. Viewing in diffused white light can reveal darkened facet-edges on diffusion-treated sapphire (stones up to 21ct have been treated) and 'aqua aura' quartz and topaz (gold coated, probably dry-sputtered). Quartz is crackle-dyed at over 570°C to give bright greens, reds and blues: the margins look colourless on immersion.

Ian Mercer
GAGTL Education Manager

Emeralds from the Panjshir Valley

The Spring issue of *Gems & Gemology*, the quarterly publication of the Gemological Institute of America, features an article on the emerald riches of the Hindu Kush Mountains that neighbour the Panjshir Valley in Afghanistan.

Large, dark green crystals have been found in the hundreds of tunnels and shafts dug there. The gemmological properties of Panjshir emeralds are consistent with those of emeralds from other localities, while their chemical properties are most similar to those of emeralds from the Muzo mine in Colombia. Approximately $10 million in emeralds were produced in 1990 and future prospects are excellent.

Carletonite

I have now examined a cut carletonite. The stone is fancy cut, no doubt because of the very easy cleavage and is a very attractive bright blue. Details of the occurrence can be found in *Monteregian Treasures* (Mandarino & Anderson, New York, 1989), but mineral details are as follows: Tetragonal crystal system forming ditetragonal bipyramids and occurring as cleavage masses up to 4cm and prismatic crystals up to 4cm in length. The hardness is 4 to 4.5 and the specific gravity 2.45. The colour may be blue, colourless, pink or grey. The refractive index is 1.521 for the ordinary ray and 1.517 for the extraordinary ray. The pleochroism is weak, the colour being very pale blue and very pale pinkish-brown.

Carletonite occurs in igneous breccia cavities and is named for Carleton University, Ottawa, Canada: first noted as UK (unknown)15 by Chao *et al.*, in 1967 (*Canadian Mineralogist*, 9, 109-23).

What's new?

In the section 'What's new in minerals' in the issue of *Mineralogical Record*, **22**, 1, some attractive gem minerals are illustrated. They include fine-coloured red beryl from the Violet claims in the Wah Wah Mountains of Utah, USA, and slabbed and polished stalactitic groups of rhodochrosite from the La Capillita mine, Catamarca Province, Argentina. A fine crystal of beryl (in the picture it looks like good quality aquamarine) is reported from the pegmatite at Dusso, Pakistan.

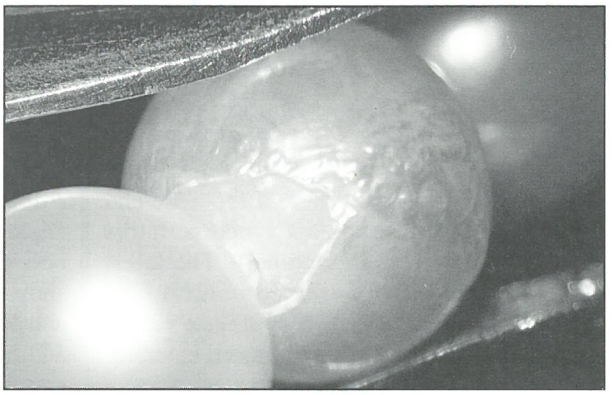
Other fine rhodochrosites are reported from the Uchucchaqua mine in the Lima Department of Peru and blocky crystals of azurite are coming from the upper levels of the Tsumeb mine, Namibia.

Azurite and malachite

Azurite, malachite and copper carbonates were the subject of a symposium organized by the Friends of Mineralogy, the Tucson Gem and Mineral Society and the Mineralogical Society of America at the Tucson Gem and Mineral Show in February 1991. Three papers are abstracted in *Mineralogical Record* **22**(1) and the abstracts are illustrated in colour. The subjects are: Azurite and malachite—chemically and structurally related minerals: Azurite and malachite from the Morenci and Metcalf mines, Greenlee County, Arizona: Azurite and other copper carbonates in northern Arizona solution-collapsed breccia pipes: Azurite roses—a comparison of morphologies at Bisbee, Arizona and Grant County, New Mexico: New Mexico azurite: Habits and haunts of azurite microcrystals. This last abstract is illustrated with crystal drawings from Goldschmidt's *Atlas der Krystallformen* whose 9 volumes of drawings and 9 volumes of text are essential to the serious mineralogist. Azurite and malachite are characteristic minerals of supergene copper deposits and have closely related compositions, differing only in the ratio of CuO,CO_2 and H_2O_2azurite is 3:2:1 and malachite 2:1:1. Both minerals owe their colour to divalent copper and in both structures the copper atoms are bonded to four oxygens and/or hydroxyls arranged at the corners of a distorted square. The Cu-(O,OH) interatomic distances range from 1.93-1.99 Angstroms in azurite and 1.91-2.12Å in malachite. There are near-neighbour oxygens and/or hydroxyls in addition bonded to divalent Cu cations in azurite at 2.36-2.98Å and in malachite at 2.35 to 2.63Å. These small differences in bonding create significant differences in the ways that the electrons of divalent copper absorb energy from white light in the crystal field effect. The small differences in structure between malachite and azurite thus give a different colour to each.

DEFINING THE THICKNESS OF NACRE ON CULTURED PEARLS

Today one of the most popular items of jewellery is the single row pearl necklace. Unfortunately, over recent years this popularity has induced companies not normally associated with this trade to enter the market. Some of these companies have indulged in selling 'cultured' pearls of an inferior quality to an unsuspecting public who, thinking they are obtaining a bargain, buy them for a relatively low price.



An example of the low quality pearls on the market today.

This type of low quality pearl usually has only a very thin layer of nacre over the mother-of-pearl bead. Indeed some of the pearls in a given row may be only partially covered in nacre. The life-span of these necklaces is very short, and as a result many complaints are generated. Such situations have increased in frequency of late, and the British Association of Cultured Pearl Importers have become very concerned that these could lead to the reputation of the trade being tarnished. To combat the situation, the British Association of Cultured Pearl Importers enlisted the assistance of the Gemmological Association and Gem Testing Laboratory of Great Britain, in order to set a minimum standard for nacre thickness in cultured pearls.

Explanation of nacre thickness grades

Average nacre thickness in a single row	Grade
Over 6 x Standard	T +
4 - 6 x Standard	T
3 - 4 x Standard	M
2 - 3 x Standard	S +
Standard (0.15 mm)	S

After measuring the thickness of the nacre on rows of pearls submitted to the Laboratory by members of the British Association of Cultured Pearl Importers, a minimum acceptable thickness was established. Examination of further necklaces established the thickness grades listed herein.

If any 'pearls' in a row have a nacre thickness of less than the minimum standard this will be noted on any report.

The nacre thickness grade in each necklace is established by measuring the distance between the edge of the mother-of-pearl bead and the outside of the pearl, at a point perpendicular to the centre of the drill hole for each pearl. The average thickness of all the pearls dictates the grade.

The GAGTL Laboratory fee for reporting on nacre thickness is £33.00 + VAT per test. The method used for testing will allow for up to three single rows to be tested at the same time, which, under those circumstances would mean a fee of £11.00 + VAT per row for Laboratory Members.

Uvarovite

Some very rare faceted uvarovite has been on the market in London. As might be expected the stones are small but the dark green colour is very fine; they are cut in various styles, reflecting the difficulty of obtaining suitable material from the edges of crystals. In any case, even allowing for the rarity of uvarovite generally, most crystals will be collected as such and not be available for faceting. The faceted stones I have seen come from the deposit at Outukumpu, Finland. M.O'D

Smuggling of emeralds

Smuggling emeralds out of Brazil is said to have lost the country an estimated US$800m in1990. The government is to crack down on smuggling by introducing a simpler system of seals as proof of purchase.

Chatham production in Japan

Chatham Created Emeralds are to be made in Kobe, Japan. Chatham Crystals and Development Co. of San Francisco will oversee the production. There will be a new link with Turgil SA, who own the production rights of Gilson Created emerald, opal, coral and turquoise.

Beware!

Deep diffusion sapphires—'coated' to the layman—are now extensively produced. Mixed in with sapphires not so treated, they are extremely difficult to detect with the naked eye when purchasing stones. A new Russian-produced red and strong pink synthetic spinel is now being cut in the Far East. To an unsuspecting buyer such stones may be sold as rubies or spinels. (See *Journal of Gemmology*, **22**, 53, 300-4.)

Sceptre quartz

Sceptre quartz crystals from a single pocket are shown in *Mineralogical Record*. They are the amethyst variety and come from the Fat Jack mine, Yavapai County, Arizona. About 80 amethyst sceptres were recovered from this pocket. The mine is located in a large schist inclusion in the Crazy Basin quartz monzonite. As always, the amethyst colour is seen only in the tips of the crystals. Sceptre quartz crystals have the characteristic prism and rhombohedron forms on a 'stalk' resembling the rod and head of a sceptre.

Mineralien Welt

Readers should try to get this magnificent new German magazine. Write to Herr Rainer Bode, Haltern 4, Germany. The photographs are so fine that you cannot fail to learn something from them. Do not be put off by 'language difficulties'. The magazine appears six times a year and currently costs DM12.50 per issue.

Pectolite imitation!

Unlikely as it sounds a specimen of Iimori stone (a partially devitrified glass with introduced fibrous inclusions) has been noticed in a colour that seems to imitate the blue form of pectolite known to the trade as 'Larimar' and occurring in the Dominican Republic.

EDUCATION

GAGTL Gem Workshops

The first series of practical tutorials for members of the trade and for correspondence course tutors was held in October. The latest features of treated natural diamonds, modern synthetic rubies and sapphires and treated emeralds were demonstrated in a programme designed to cater for current needs. Following this successful pattern a programme of one- and two-day practical tutorials has been arranged in the next few months to cater for both Preliminary and Diploma course students and members of the trade. In these workshops you will gather techniques and tips from GAGTL instructors and outside experts. Whether you want an up-date for business or pleasure, you can obtain details from Ian Mercer or Louise Macdougall at the Education Office on 071-404 3334.

Programme 1992

Preliminary Gem Workshop:	One day course 14, 15 or 16 January Price £35.00 plus VAT
Trade Workshop:	One day course 25, 26 or 27 February Price £60.00 plus VAT
Diploma Workshop:	Two-day workshop 1 and 2 April, 7 and 8 April, 11 and 12 April, or 25 and 26 April Price £120.00 plus VAT

Special price for all three Workshops

£195.00 plus VAT

The Gem Diamond Correspondence Course

A brand new correspondence course in gem diamonds was launched by GAGTL at the Earls Court Fair in September. It is designed for anyone whose business interests involve gem diamonds and also for students who wish to obtain a thorough professional qualification at the start of a career in the diamond trade.

The course contains the most

up-to-date techniques for identifying and grading diamond, and the background necessary for understanding these properly is explained in sections on origin, crystal structure and diamond colour. Diamond imitations and synthetic diamonds are described and the course concludes with a section on appraisal. During a six-day practical programme, methods of diamond identification and grading will be taught by Instructors from the GAGTL. At the end of the practical and theory instruction, students may sit for the Gem Diamond Diploma. Those successful in this examination will, on joining GAGTL, be entitled to use the letters DGA (Diamond member of the Gemmological Association) after their name. The course is open to all, without prior qualification, and further details can be obtained from Louise Macdougall at GAGTL on 071-404 3334.

Gems and jewels in Harrow

A brand new Jewellery Design Course has started at Harrow in NW London. Gemmology will be offered as an optional but integral part of the course. Ian Mercer, GAGTL's Education Manager, was invited to sit on the course validation panel to act for the management of the Polytechnic of Central London. After nearly five hours of deliberation (on the day of the Preliminary gemmology exam!) the panel concluded that the course should go ahead subject to set recommendations and requirements.

The course offers Preliminary gemmology during these first two years, with the Preliminary exam being available in both 1992 and 1993; discussions are now taking place to finalize course and exam arrangements. Following a review after two years, it is hoped that the Diploma course will be offered as a set of 'second level modules'. The new first level course, called the PCL Certificate of Jewellery and Allied Crafts is offered in sets of modules to allow students to study combinations of subjects most suited to their requirements.

Links between gemmology and jewellery design, in terms of history, materials or fashion, can be used as an integral part of the course, to be recorded in portfolio and practical form. Ultimately links with studies in commerce, materials science, earth science, languages, etc., could become a reality, allowing great flexibility in possible future nationwide or European courses.

Importantly, Preliminary gemmology will be offered also as a free-standing evening class for people wishing to take only the gemmology exam and not necessarily wishing to follow the PCL course. Talks are to take place with a view to starting a Diploma course in 1992 to 'fill the gap' before PCL courses at level two are decided.

For further information on gemmology courses ring Ian Mercer on 071-404 3334. For information on the PCL Jewellery Design Course ring 071-911 5000 ext 4015.

Understanding jewellery

A one month specialist study will be held in London from 20 January to 14 February 1992 by Sotheby's Educational Studies. The aim of the course is to enable students to develop the skills required to date jewellery stylistically; to discern quality pieces and to introduce them to the principles of gemmology and technological study.

Participants will have the opportunity to handle jewellery, see practical demonstrations of jewellery making and visit museum collections and other places of interest - including the world famous Cartier workshop. Further details from Sotheby's Educational Studies, Box 101, 30 Oxford Street, London W1R 1RE. Telephone 071-323 5775; Fax 071-580 8160.

Ancient Goldwork

A one week intensive course on the materials and techniques of ancient jewellery will be held at the Conservation Centre, The Institute of Fine Arts, New York University from 20 to 24 July 1992. The course will cover many aspects of ancient Old World jewellery and will include museum visits, hands-on microscopic examination of goldwork, and practical replication work. Course director Dr Jack Ogden.

Further details from The Conservation Centre, Institute of Fine Arts, 14 East 78th Street, New York, NY 10021. Telephone (212) 772 5849; Fax (212) 772 5807.

The British Museum

The Raymond and Beverly Sackler Gallery of Early Mesopotamia illustrates the remarkable achievements of Sumerian and early Babylonian civilisation, including the magnificent gold, lapis lazuli and carnelian jewellery from Ur, redisplayed.

The Wolfson Gallery of Roman Antiquities displays material from all over the Roman Empire including a large proportion of The British Museum's fine collection of Roman jewellery. For example the celebrated sardonyx cameo of Augustus, of the first century AD. The adjoining gallery of Greek and Roman life includes exhibits illustrating the technology of gem-engraving and gold and silversmithing.

New Acquisitions

Recent acquisitions at the Museum include a pair of Roman silver fibulae linked by silver chains with ivyleaf shaped pendants, formerly in the collection of Lieutenant General A. H. L. F. Pitt-Rivers. The Department of Western Asiatic Antiquities has recently acquired a collection of third millennium BC beads and silver hairrings from excavations at Tell Taya in Iraq.

Engraved gems

A 19th Century Collection at The Fitzwilliam Museum

The Lewis Collection is known to most engraved gem specialists through the publications of J H Middleton (*The Lewis Collection of Gems and Rings* (London 1892)) and later M. Henig (*The Lewis Collection of Engraved I Gemstones in Corpus Christi College, Cambridge* (Oxford 1975)). The collection was assembled between the years 1871 and 1891 by the Reverend Samuel Savage Lewis, Librarian of Corpus Christi College, Cambridge. Recently, this gem collection, consisting of 376 pieces, many in ancient mounts along with Lewis' classical antiquities and about 2000 of his coins were transferred from the obscurity of an inner office of the college to the Fitzwilliam Museum Cambridge. During the transfer, about 200 documents relating to the purchase of the material were found. Scholars are now studying how Lewis acquired his material, its provenance and the prices he paid. Lewis corresponded widely, particularly with C. W. King, a Trinity cleric and scholar who became an early gem expert, with Middleton and with C. D. E. Fortnum, whose gem collection went to the Ashmolean.

Until 3 January 1992 the Fitzwilliam Museum is exhibiting the Lewis Collection including all the engraved gems along with rare documentation ranging from receipts for the gems, jewels and classical antiquities to letters from scholars identifying the subjects and authenticating the intaglios.

Dr Eleni Vassilika
Keeper of Antiquities
Fitzwilliam Museum, Cambridge

EXHIBITIONS

UK

Treasures and Trinkets: Jewellery in London from Pre-Roman Times to the 1930s. Museum of London until February 1992. This exhibition covers jewellery from London from the earliest times to the present and objects on display include Roman rings and the incredible Cheapside Hoard.

Carlton House: The Past Glories of George IV's Palace. Queen's Gallery, Buckingham Palace, London, until January 1992. This exhibition includes a magnificent cameo-studded cup.

'The Making of England: Anglo-Saxon Art and Culture from Augustine to Alfred 600-900'. British Museum, London. This exhibition includes fine examples of Anglo-Saxon jewellery and metalwork, and is on view until 8 March 1992.

'The Snettisham Treasure: The wealth of an Iron Age tribe'. Castle Museum, Norwich, until the end of February 1992. The

Snettisham Treasure, in fact a series of finds made between 1948 and 1990, represents the largest collection of Iron Age torcs ever found in Western Europe. Believed to have been deposited between about 45 and 70 BC, the hoards include nearly 180 gold, silver and bronze torcs plus bracelets, coins and goldsmiths' scrap. The Treasure, on loan to Norwich from the British Museum, is beautifully displayed in the Castle Museum along with information regarding the objects, their deposition and discovery.

France

Lalique, Musée des Arts Décoratifs, Paris, 23rd October 1991 to March 1992. This exhibition will contain fine examples of Lalique jewellery and glass.

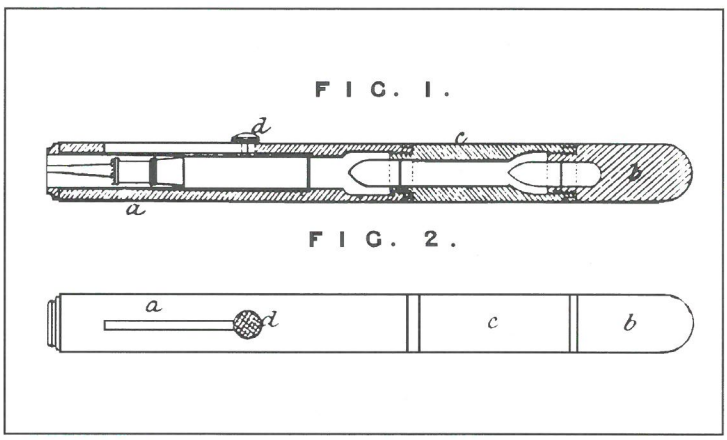
GLEANINGS

Patent place

The last issue of the *Bulletin of the Society of Jewellery Historians* contained a brief note about some strange recent patents involving gold. These included methods of gilding sausages and equipment to stimulate saliva secretion. Here we will look at some older, more jewellery orientated, patents involving precious metals.

A large number of patents were granted during the 17th to 19th centuries for the production of alloys intended to resemble gold or silver. Many of the imitation golds were essentially copper/zinc alloys. Some were given special names by their inventors and all, we are told, could rival gold in colour and brightness. A note on some of these alloys will be published in a future volume of *Jewellery Studies*.

The presence of so many imitations of gold and silver and—if we believe their inventors — the difficulty in telling them apart from the real thing, stimulated other inventors to come to the rescue. In 1865 Henri Levy patented a portable gold testing kit that is the forerunner of those used by many jewellers today (Patent no. 1994, 1865). This consisted of a wooden case with three compartments that contained a touchstone, a bottle of nitric acid and a set of touch needles. On the cover was a table of alloys and prices. Less familiar to us today (do any survive?) is an even more miniaturised gold testing kit patented by James Hickisson in 1860. This was a pen-like contraption to fit in the pocket, containing a pen or pencil, a stick of silver nitrate and a stick of acid mixed with Plaster of Paris (Patent no. 1262 1860). The holder consists of three compartments that screw together. The pencil in compartment *a* is slid out for use by means of knob *d*. This knob—or another part of the case—is made with a roughened surface 'to be used for taking off a portion of the metal to be tested'—in other words to remove any surface contamination or plating. In compartment *b* is a small stick of silver nitrate and *c* contains acid in solid form made by mixing acid with plaster of Paris. The silver nitrate stick will produce a brown or black stain when drawn across moistened base or imitation silver. It has no effect on silver of sterling quality. The acid stick would presumably be used to detect very base, plated or imitation gold (the latter two would produce a green mark), rather than be of any use in distinguishing between the higher carat golds. The inventor says that his equipment was 'particularly applicable to the detection of counterfeit coins'.



A great many nineteenth century patents dealt with methods of ore separation and refining. Prospecting itself received little mention although one patent from Stanislaus Hoga in 1852 (no. 679) is for 'an instrument to ascertain the existence of gold in the earth'. This consisted of a conductive rod that was pushed into the ground in likely places 'and the presence of that metal [gold] will be immediately indicated by the completion of the electric circuit'. It seems improbable that Mr Hoga made his fortune with such a machine!

JMO

Diamonds, doublets and the 'Devil of Metals'

The Conjuror's Magazine for September 1792 provided a section on *'Chemical Secrets for the Fabrication of Artificial Jewels'* communicated by N.D. of Montrose. The recipes given include methods of making imitation emeralds, diamonds and pearls. There is one interesting recipe for counterfeiting diamond by means of artificially whitened sapphire:

'Take a sapphire of a faint colour, put it into the middle of a crucible in quick lime, and put it into a gentle fire, and heat it by degrees till it be red-hot; keep it so for six or seven hours, let it stand in the crucible till cold, lest taking it out hot it should break, so will it lose all its colours and be perfectly like a diamond, so that no file will touch it; if the colour is not all vanished at the first heating, you must heat it again till it is perfect'.

The same magazine also describes a method of detecting doublets—a bane that had haunted jewellers since Renaissance if not Roman times: 'All falsified jewels are made either of a sapphire or two crystals, by putting a foyle (sic) between them and cementing them together with mastick. These mimicked stones may easily be discovered, by taking one of them betwixt the two nails of your thumbs, and holding them against the light, directing your eye towards the middle of the stone; if the two outer parts appear white, and the middle of a different colour, you may conclude the stone false, and made by art'. (Author's aside—when typing this on to the computer the spelling-checker stopped on 'doublet', a word it did not recognise, and suggested 'troubled'!)

The same magazine for November 1792 gives a more cryptic method of detecting imitation stones. Entitled 'To know a counterfeit stone from a natural precious stone', the paragraph merely says: 'Rub the stone on lead, and if it change the colour, then it is counterfeit; if it change not, it is a natural stone'. Can any gemmologist out there explain this?

The Conjuror's Magazine was a wonderful hotchpotch of recipes, conjuring tricks, astrology and curious facts. Some of the recipes rival the opening lines of Macbeth, others are more practical. Odd gems are tucked away among most unlikely topics. For example, platinum, which had begun to reach Europe from South America in the mid-eighteenth century, is referred to in the *Conjuror's Magazine* of July 1793. The anonymous author notes that 'The new metal Platina has, in like manner, been called the Devil of Metals', and then explains: 'The reason why platina is called the Devil, is, because, being of equal if not superior weight and purity to gold, superior lustre to silver, and superior hardness to iron and the best tempered steel; he does not dissolve with every vulgur menstruum, to please every puny blockhead, or impertinent experimenter'.

The scientific literature of the latter part of the eighteenth century is full of descriptions of platinum and its properties. However, the above passage must surely rate as one of the most appealing.

JMO

Body decoration

Those avant-garde jewellery lovers who do not flinch when confronted by fish-head brooches or even human embryo earrings might like to know that such methods of personal ornamentation have precedents. John Harris in *A Compleat Collection of Voyages and Travels*, vol. 1 published in 1705 notes that the ornaments worn by the Indian chiefs in Virginia included a dead rat hanging by its tail from an ear, a live snake worn through a pierced ear, and even the dried hand of an enemy set upright on top of the head.

JMO

Ancient Ring

A fine gold ring of late 14th to early 15th century date was found in Middleham in September 1990. This ring was offered at Christies sale of Jewellery, Antique Jewels and Rings, in London in October 1991. The heavy gold hoop has a continuous band of the letter 'S' with traces of black enamel. The inside of the hoop has an inscription which appears to read 'Sovereynly'. The repeated 'S' design links the ring with the insignia used by the House of Lancaster as found on gold collars. The 'S' might relate to the word Sovereign or a version of it. The ring is the sole surviving example of this design on rings.

Photograph courtesy of Christies, London.

RECENT EVENTS

On 11 December 1991 Leslie Webster, FSA, Deputy Keeper of the Department of Medieval and Later Antiquities at the British Museum, spoke to members of the Society of Jewellery Historians and their guests on 'Anglo-Saxon jewellery: Pagan into Christian'. This lecture was held at the British Museum and was followed by a special private view of the exhibition 'The Making of England: Anglo-Saxon Art and Culture from Augustine to Alfred 600-900' (see p.10).

Conferences

The highly successful International Symposium 'Ancient Jewellery and Archaeology', dedicated to the memory of Burton Y. Berry, was held in Bloomington, Indiana, on 26-28 September 1991. The papers covered aspects of the various approaches to jewellery from datable contexts, the methods of study for undocumented jewellery, and discussed particular North American collections of ancient jewellery. The papers presented at the Symposium will be published. The large number of participants, including many members of the Society of Jewellery Historians, also had the opportunity to view the exhibition 'Earrings from the Ancient World: Selections from the Burton Y. Berry Collection' that was held at the Indiana University Art Museum from 7 August to 6 October 1991. There was also a workshop concerned with the methodology of ancient jewellery study and discussion sessions centered around the museum's large holding of ancient goldwork.

The first Conference of the Gemmological Association and Gem Testing Laboratory of Great Britain was held in London on 3 and 4 November 1991. The full programme included Gem Identification and Diamond Grading workshops, as well as lectures and film shows. A full report will be published in *The Journal of Gemmology*, 1992, **23**, 1.

The Symposium 'Ancient and Historic Metal: Conservation and Scientific Research' was held at the J. Paul Getty Museum on 21 to 23 November 1991. Participants attended from all over the world and the papers dealt with subjects that ranged right across the field of metals from the three-dimensional X-ray tomography of Chinese bronzes to conservation problems with 19th and 20th century outdoor zinc sculptures. Papers related to jewellery history included 'Copper in Sasanian and Byzantine Silver' (Pieter Meyers); 'Gold Foil, Strip and Wire from the Iron Age of Southern

Africa' (Andrew Oddy); 'Methods of Restoration of Precious and Non-Precious Metal Objects from the Grave of the Lord of Sipan, Peru' (Maiken Fecht); 'The Technology of Gilding in the Eighteenth Century' (Martin Chapman); and 'The Technology of Medieval Jewelry' (Jack Ogden). The papers will be published in due course.

BOOKS

Natural glasses. The Second International Conference on Natural Glasses was held in Prague during 1987 and the proceedings of the conference were published by Charles University in 1988. This forms a large volume of 436 pages with coloured and black and-white illustrations. Among the papers are many with wide application: The structure of the metamict state, Glass in Czechoslovak volcanoes, From natural glass to crystalline aggregate, Use of moldavites in jewels production, Viscosity of tektite melts and glasses, Formation of tektites, are among some of the titles. The book is well worth getting though it may pose some problems of supply. So far as I can see it is unpriced; this is usually because it is intended for exchange with foreign libraries and institutions.

Sofianides, A S & Harlow, G. E., 1990. *Gems and crystals from the American Museum of Natural History*. Published by Simon and Schuster, New York, 1990. ISBN O 671 68704 2, pp208. Illustrated in black-and-white and in colour. Price on application. In the 1970s I was able to go round the newly-built gem hall of the American Museum of Natural History in New York City with the architect. At the time of my visit the exhibits were being arranged and it is only now that a book worthy of the collections has been published. Anna Sofianides and George Harlow have produced more than a catalogue since considerable detail on the major gem species is provided. In any case there has been no attempt to include the entire collection but rather to highlight the more spectacular accessions since the Museum opened in 1869. Great benefactors to the Museum include Charles L. Tiffany, John Pierpont Morgan and a celebrated Museum figure was George Frederick Kunz. The book introduces the main features of gemstones and then turns immediately to the species, beginning with diamond. In each case the main data are given (chemical composition, crystal system, cleavage, hardness, specific gravity, refractive index and dispersion where appropriate) and there are historical and general notes. But the text is overshadowed by the very fine colour photographs by Harold and Erica Van Pelt. These are not only large and of top quality but many have not been published before. There is a short table listing the properties of rare and unusual gems, a glossary, a short bibliography and an index. The book measures 31 x 24 cm so you can get some idea of the size of the pictures. It is worth noting that many books published in the United States, even though London may appear in the imprint, may not be available in British bookshops. Use the ISBN given above to order it.

Pocket Edition Jackson's Hallmarks is a handy sized edition of Jackson's Silver and Gold Marks. One thousand of the more important marks are listed alphabetically with comments on rarity, value, maker, marks and saleroom notes where appropriate. For further information phone Alistair Layzell 0394 385501. M.O'D

OLD BOOK DEPARTMENT

The System of Mineralogy, by James Dwight Dana, was first published in 1837. Up to the sixth edition the whole mineral world was covered in one volume; the current (though long-out-of-date) seventh edition is in three volumes but is incomplete, lacking the silicates. Work is slowly proceeding on the eighth edition. Up to the third edition minerals were classified into classes, orders and genera, as in botany and zoology. Thus we have three classes each divided into a number of orders and then into genera. Fluorite is placed in Class II (classes are not named), Order I (Halina), Genus 6 (Fluellus). In the genus it is accompanied by apatite and other minerals. The minerals are given Latin names — that of fluorite is Fluellus octahedrus. Diamond is placed in Class II, Order Vl (Hyalinea), Genus 7 (Adamas)—it is the only mineral in that genus and is given the name Adamas octahedrus. Topaz is placed in Genus 8 (Topazius) of the same Class and Order, is accompanied there by forsterite and is given the name Topazius rhombicus. Dana's second edition,

from which the above is taken was published by Wiley & Putnam New York and London, in 1844. This is a rare book and should be snapped up by the eager collector who will need to spend over £100 at least.

New Hampshire

I was recently able to get a copy of C H Hitchcock's *The geology of New Hampshire volume 4, mineralogy and lithology*, published in 1878 at Concord. Any old American state mineralogy is valuable and this one contains some coloured thin sections of rock (as illustrations) in a section at the end of the main text. Among the interesting minerals described are large crystals of beryl, green fluorite, large crystals of apatite in blue and green crystals and twin crystals of staurolite. A rarer occurrence is of bright red octahedra of spinel on Saddleback mountain. Some fine hessonite is reported from a number of sites. M.O'D

STOP PRESS...STOP PRESS...

As we go to press some news on emerald from Nigeria has appeared in the Messekatalog of the 1991 München Mineralientage (Europe's largest gem and mineral show). Though aquamarine has been known from Nigeria for many years and though there have been occasional reports of a green beryl, this is the first time that emerald has been exhibited. Stones are found as well-shaped crystals, with constants toward the higher end of the range for emerald; the occurrence is on the Jos Plateau and is said to be in a pegmatite.

Habachtal emerald has always been regarded as unsuitable for cutting due to its profuse inclusions (of mica) and to the frequency with which the crystals are found broken. However, in recent years several reports have appeared in German-language literature on these famous Austrian deposits and many of the illustrations suggest that at least some of the crystals do have gem potential. Towards the end of 1991 the German mineral journal *Lapis* published *Extra Lapis* no1, an issue devoted to Habachtal emerald and entitled *Smaragd*. This is a detailed account of the emerald with excellent photographs of the inclusions and details of the sporadic and largely amateur mining operations.

Axinite, cordierite, kyanite, ruby and sapphire, fluorite, tourmaline, anhydrite of a fine purple colour, dolomite, moonstone, apatite, aquamarine, chrysoberyl, chrome diopside, sphene, scapolite, vesuvianite - in which European country are facetable examples of these species found? Read issue 9(4) of the magazine *Schweizer Strahler* (do you know who or what Strahlers are?) to find out. Write to SVSM, Postfach 71,2500 Biel 8 Mett, Schweiz.

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QUIZ

1 Castellani and Giuliano. What was their relationship? What was Giuliano's first name (1832-95)?

2 What is or was Bonamite? What better-known ornamental material may it imitate?

3 Charles Louis Tiffany founded the well-known New York jewellery firm. What were the first names of the Tiffany who brought Art Nouveau to popularity in the United States?

4 What gemstone is particularly associated with Amelia, Virginia?

5 What is plique à jour?

6 Among the Duchess of Windsor's jewellery sold by Sotheby's a few years ago was a ruby, sapphire, emerald, citrine and diamond clip. Who made it (in 1940)?

7 A transparent green faceted stone showed a shadow-edge on the refractometer at 1.78. It also showed a narrow absorption band at 520nm. What country is it most likely to have come from?

8 Which came first, Art Nouveau or Art Deco? What is the difference?

9 Emerald from one of the lesser-known localities has sometimes shown quartz inclusions. What very rare green stone comes from the same region?

10 Whose mark is this? Gi

(answers next time)

What's on

Gemmological Association and Gem Testing Laboratory of Great Britain

London

Five meetings have been planned for 1992 with the theme 'Gemstone deposits and the trade associated with them'. Speakers with expert knowledge of the major gem deposits in Brazil, Sri Lanka, Australia, South East Asia and Africa will present unique insights into their occurrence and extraction.

Gemstone deposits and the trade associated with them

Tuesday 28 January 1992	Brazil
Tuesday 10 March 1992	Sri Lanka
Wednesday 13 May 1992	Australia
Tuesday 9 June 1992	South East Asia
Tuesday 24 November 1992	Africa

The venue for the meetings will be the City Conference Centre, 76 Mark Lane, London EC3R 7JN. Admission by ticket only, at a cost per lecture of £5.00 for GAGTL members, £10.00 a member and a guest, and £8.00 for non-members. For further details and tickets contact the GAGTL.

Midlands Branch

17 January 1992	Members' practical evening
21 February 1992	Clive Burch (subject to be announced)
20 March 1992	David Callaghan (subject to be announced)
10 April 1992	Annual General Meeting followed by lecture

Meetings to be held at Dr Johnson House, Bull Street, Birmingham. Further details from David Larcher on 021-554 3871.

North West Branch

15 January 1992	David Pelham. 'On small gold mines'
19 February 1992	Helen Fraquet. 'Amber'
18 March 1992	Dr Jeff Harris. 'An aspect on diamonds'
17 June 1992	'Exchange and Mart.' Buying and selling of books, crystals and instruments, plus social evening
16 September 1992	Adrian Klein. 'Emerald'
21 October 1992	Dr Jamie Nelson. 'Optical attributes of a diamond'
18 November 1992	Annual General Meeting

Meetings to be held at Church House, Hanover Street, Liverpool 1. Full details from William Franks on 061-928 1520.

Society of Jewellery Historians

13 January 1992
Shirley Bury, FSA, will speak on an aspect of her recently published *Jewellery 1789-1910: the International era*. Her lecture will be devoted to the Anglo-French connection.

2 March 1992
Ronald Lightbown, MA, FSA, FRAS, the Society's President, will give a lecture on'Fifteenth century Italian jewellery; a period of change in style'. This will coincide with the publication of his book on *Medieval Jewellery in Western Europe* in March 1992.

6 April 1992
John Cherry, FSA, of the Department of Medieval and Later Antiquities at the British Museum will speak on 'The Middleham Jewel' which has recently been saved for the nation and is how housed in the Yorkshire Museum (see p.l).

11 May 1992
Nuno Vassallo E. Silva will give a lecture entitled 'The Portuguese gem trade in the sixteenth century'.

15 July 1992
Rudiger Joppien, Keeper of the Twentieth Century Department of the Museum für Kunst und Gewerbe, Hamburg, will give a lecture on 'Elizabeth Trescow; Master of Granulation'. Dr Joppien has recently organized an exhibition devoted to Trescow's work shown in Cologne and Hanau during 1990.

Society lectures, which are for members of the Society of Jewellery Historians and their guests, are usually held at the Society of Antiquaries, Burlington House, Piccadilly, London Wl, and begin at 6.00 p.m. Lectures are followed by an informal reception and wine.