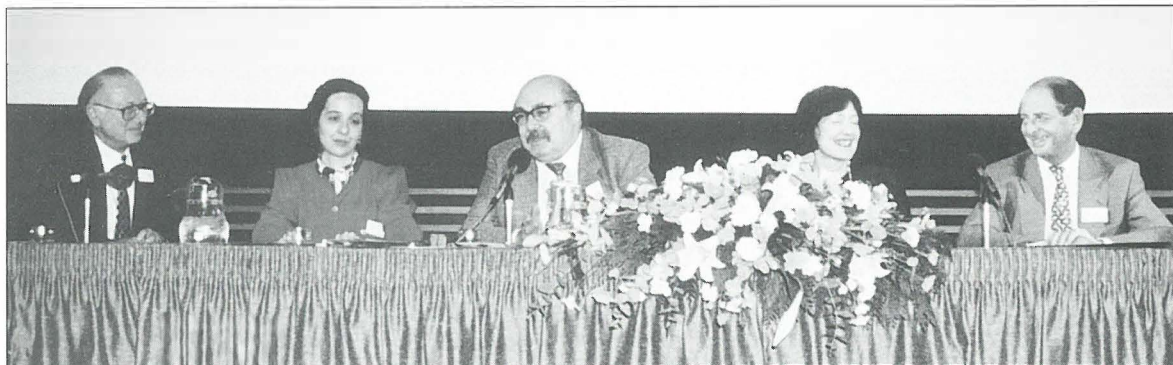


Gem & Jewellery News

GAGTL Conference Gems in Jewellery



Forum panel: From left Adrian Klein, Ana Castro, Harry Levy (Chairman), Rosamond Clayton and David Davis.

The GAGTL Annual Conference on the theme 'Gems in Jewellery' was held in the Barbican Conference Centre on Sunday 1 November. A total of 120 members and their guests assembled to hear nine speakers outline a range of topics concerning the sourcing of gems, how to identify them, and discuss new influences affecting pearls and gems in the current trade.

The opening presentation by Derek Palmer of De Beers outlined the company's thinking behind the current pilot project on branded diamonds. There was concern at the impact on the public of treatments, imitations and synthetic diamonds and to counteract

the threat of negative publicity arising from these De Beers wanted to protect the concept of the integrity of a diamond. Branding, consisting of a tiny mark on the table facet visible at 100x magnification, is one way to do this and the pilot being run from high-class jewellers in the north of England has so far had a favourable response from the public. A decision on whether to implement the idea is expected in 1999.

Then the interest switched to pearls and the recent increases in range of colour, size and perfection of cultured pearls now on the market. John Carter of Cellini, Cambridge, opened his lecture with reference to

the incomparable *Book of the Pearl* by Kunz and Stevenson and then looked at economic influences on the pearl market. In one revolution about 1930 the oil industry took personnel, including pearl divers, to develop the oil-fields, and now a second revolution involving a new range of culturing methods is upon us, supplying in some cases large numbers of pearls in colours that were seen only rarely in past times.

Stephen Kennedy of the GAGTL lab then dealt with details of the surface and structure of pearls on the market today. It was important not to

Continued on p. 6

Contents

Around the trade	3	Gems	9	A new gem!	12
Synthetic moissanite	4	Education	10	The 'Alexandrite' ring	13
Trade Dinner	7	Gem and Mineral Fairs	10	Book Shelf offers	14
Origin and Evolution	8	SJH visits Scotland	11	Competitions	15
		Holts anniversary	12	What's on?	16

Editorial Board

Roger Harding
Catherine Johns
Harry Levy
Michael O'Donoghue
Corinna Pike

Production Manager

Mary Burland

Published by

Gemmological Association and
Gem Testing Laboratory of
Great Britain

27 Greville Street

London EC1N 8TN

Telephone: 0171 404 3334

Fax: 0171 404 8843

email: gagtl@btinternet.com

Internet: www.gagtl.ac.uk/gagtl

and

Society of Jewellery Historians

c/o The Department of

Scientific Research

The British Museum

London WC1B 3DG

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Editorial

A lot of jewellery is bought around Christmas; most of it is modern, some is antique, and a very little is ancient. Jewellery dating back to the Medieval or Roman periods and earlier is usually very beautiful and wearable, it is more readily available than might be expected, and is not necessarily expensive – a tempting buy. All jewellery was made to be worn, and there is undoubtedly a special thrill in owning and wearing a ring, bracelet or earrings made 2000 years ago or more.

As a museum curator and archaeologist, however, I have rather mixed feelings about the propriety of actually using ancient jewellery. The obvious problem concerns condition and conservation. Most ancient gold jewellery is of very high purity and is soft and easily marked, while silver and base-metal items are usually far more brittle and fragile than they look; if they are to be preserved in good condition, long-term wear is not really a wise option, especially for finger-rings.

The responsible private collecting of antiquities, which may well include jewellery, should take account not only of aesthetic judgements but also the needs of scholarship. This means that the collector should learn about the subject, understand what he/she is buying, and take care to associate only with the most reputable dealers so as to discourage illicit trading in antiquities. For example, probably few people realise that if they buy a matching pair of Roman earrings, those earrings almost certainly came originally from a tomb, where they were buried along with the original owner and her other personal possessions, probably other jewellery, pottery and glass vessels, and maybe coins. The whole tomb-group would provide scholarly information which is lost when the earrings are sold separately as wearable trinkets. Once the separation has occurred, perhaps long ago, the information is irrevocably lost. Understanding of such matters can lead to more informed ethical

choices, to greater care in recording all facts known about an acquisition, and very likely to greater caution in putting an antiquity at risk by using it for its original purpose.

Good modern copies and replicas provide the opportunity to enjoy wearing ancient designs without endangering irreplaceable antiquities. The only problem is that so many copies, including some sold in museums, are rather disappointing, and some of the more down-market designs boldly advertised as 'Celtic' or 'Roman' in style are perfectly ridiculous. Again, knowledge and learning is the key. If you study the subject, you will be able to recognize and select the high-quality replicas.

What of the use of ancient elements in modern jewellery designs, such as the setting of classical coins or engraved hardstones in contemporary mounts? This is a very old practice. Even in the Roman period itself, fourth-century rings and pendants were often set with re-used first-century gems, and in the eighteenth and nineteenth centuries, superb 'archaeological' jewellery sometimes incorporated ancient elements. Such pieces are of great interest in themselves, showing the continued life of artefacts from the past. While I would deplore the use of an important, associated or provenanced antiquity in a modern construction, I think that such use of minor, very common or incomplete items is probably defensible. The buyer, as well as the maker, needs to be able to judge what is rare and significant, and what is more mundane.

The whole matter is a complex one (hence my mixed feelings), but the main point I want to make is that those who love jewellery and have a real interest in studying its history and owning examples from the past should be aware that when dealing with what is essentially archaeological evidence, there are considerations and implications that go beyond those which apply when collecting jewellery made in the last 300 years or so.

Catherine Johns

How can the independent jeweller compete?

By the time you read this article the Christmas season will be behind us.

At the time of writing it is difficult to predict what sort of Christmas our trade will have this year. The patterns of yesteryear have long since left us. In those days, by the end of October most outlets had placed their orders for Christmas and, apart from a few specials at the last minute, we all knew what sort of year we would have. As far as the independent jeweller is concerned today, most of his sales will consist of specials, and he will leave his orders up to the last minute, as will his customers.

So rather than sit and take stock as to what has happened this year let us try to look to the future, to next year and beyond.

Alternative outlets

The jewellery trade has fragmented and the loser has been the traditional high street jewellery shop. He has seen his business go to the multi-nationals, mail order catalogues and now mail order shops, TV outlets and soon the Internet, although this is with us already, as well as the auction houses. How much business these new outlets have actually taken away, as opposed to creating new demands and bringing in different sections of the public to buy jewellery items, is debatable.

I recall many years ago when I first set up home, I needed some fitted carpets. I had a cousin in the trade who promised me that he would supply me the carpets I needed at almost cost price. I bought from him and it was only several weeks later, when I was in one of the specialist carpet stores with branches everywhere, that I saw my identical carpets at prices about twenty per cent below what I had paid my cousin. On complaining to him, he informed me that the groups had a much higher buying power than him and thus could negotiate better prices than he could get.

We have a similar situation in our trade at present. Many jewellers have remarked that they cannot make an article for the price that the same thing can be bought from these outlets. How can they compete?

The simple answer is that they cannot. So in order to survive they must concentrate on selling articles which the outlets cannot make. Put very simply, it means that they must try to sell jewellery which cannot be readily duplicated.

Mass production

The mass market depends on selling numbers of identical units. A piece of jewellery is selected by a buyer or a panel to go into their range. In almost all cases the buyers are not jewellery specialists and in order to ensure that they get and sell pieces that match up to their original samples, they insist on each item being exactly the same for any given line. Thus, if one is selling an amethyst and diamond cluster ring, the diamonds must all be of a similar size and quality and the amethysts, likewise, must all be identical. It is not enough that they be of the same size and shape, but must all be of the same hue in colour and purity.

The manufacturer who supplies these articles must set up to produce identical units and periodically to reduce his prices in order to stay in with the buying group. He can do this by improving his manufacturing processes and reducing the price of his components, as well as reducing his profits.

Falling standards

Several years ago, one of the manufacturers who was supplying one of the multiples stopped buying a type of stone for which he had given me regular orders. When I asked him why he had stopped ordering these stones from me and accused him of buying them elsewhere, he remarked that the group was constantly asking

Overheard ...

...in the Diamond Bourse, where members still adhere to 'My word is my bond':
'My customer thinks a deal is a deal until a better deal comes along.'

him to reduce his price. The article was a pair of earrings, and the only way left for him to reduce the price was to make the gold thinner and thinner, until he reached the situation where there was not enough gold to hold the stones in place so they kept dropping out. In the end he dropped the line.

The manufacturers in this country try to source their components, and eventually find that the article can be produced and purchased much more cheaply abroad. Finally they become importers and put the finishing touches in this country as part of their manufacturing process. With the prospect of hallmarking being no longer mandatory in this country, they will become merely re-packers of such items. They also run the risk that their customers, in turn, will use outlets abroad and cut them out totally. Luckily for us, many of these items produced abroad do not have the quality of those that are made in this country and hopefully the buyers will appreciate this fact and return to rely on home produced goods.

I see little future for those of us who are middle people in our trade. The large groups will find ways of marketing the goods to the public, and sourcing them, cutting out our retailers and manufacturers. Their main criterion will be price and while it remains that way quality will suffer.

The way forward

Quality is the factor on which our own trade will survive, producing jewellery that is good in quality ►

◀ and value for money. Such jewellery must be sold on the rarity of its components and the craftsmanship of its makers. There will always be a place for the High Street jeweller, even if he has to move into a mall and be right next to his competitors, provided he can sell things which are not easily imitated.

I come across many young and new designers and they are all finding

outlets for the unique pieces of jewellery they produce. The mass of cheap jewellery available now is making the public more aware of jewellery: they buy these items to wear a few times and then throw away. Let us hope that this awareness they are getting will make them want something a little better and more lasting for that special occasion, and when they think of buying such an item they will come

into a high street jeweller.

I hope you all have an enjoyable Christmas and that some of you will put pen to paper and let us have your views about our trade. It is going through a state of flux, both in marketing, as the movement of goods becomes easier and in the amount and variety of treatments of the natural and synthetic gems that go in to making a piece of jewellery. *Harry Levy*

Synthetic moissanite – the latest diamond simulant

Is it synthetic moissanite or diamond?

A view by Dr Jamie Nelson

The comparison table of the properties of diamond and the near-colourless synthetic moissanite given by H. Levy in the March 1998 issue of *Gem and Jewellery News* is a useful guide as to how a distinction can be made between these two gemstones.

Unfortunately there is no simple unaided vision test that would yield a firm decision. A 10× loupe is mandatory. If the stone is unmounted, there is no difficulty if methylene iodide liquid is available. Another approach would be to see if a conoscopic uniaxial positive interference figure could be found.

If a gemmological microscope is to hand, then the unique nature of any inclusions present would no doubt settle the matter. The microscope method of Howard Rubin called the 'Culet single: table reflection doubled' test is most effective and simple if no awkward inclusion or fracture lies in the direct optical path to the culet. The microscope is also able to detect on individual facets the presence of polishing lines which all lie in one direction. Diamond facets hardly ever show this feature.

The 'visual optics' test of Hodgkinson is conclusive. 'Primary' images are absent in both stones. However, experience is needed to be confident that the 'secondary' images observed are true 'secondaries' and not the interfering specular reflections picked up by

the pavilion facets, which are abundant and strong. The true 'secondaries' differ considerably. Those arising from diamond are intense and sharp. Those from moissanite are weaker and more diffuse.

A careful use of the reflectance meter of Hanneman (Diamond Eye) can make a firm discrimination. The Ultra-Violet Tester (Model 590) of the company C3 Inc., who manufacture the only synthetic moissanite currently available, is now reported to be correct about only 70% of the time, but the manufacturer's claim that false readings arise from not following carefully the unit's operational directions.

If a large batch of unmounted dia-

monds of a range of sizes requires to be checked to determine if the batch has been 'salted' with moissanites, then there is an easy alternative method to the methylene iodide 'sink-or-float' separations. Place the stones, table down, on the bottom of a shallow, flat-bottomed, clear glass dish and cover all the stones *completely* with tap water. The much higher optical dispersion of moissanite will reveal itself as bright spectral-coloured flashes, while the diamonds will display less brightly coloured sparkles. The method will still work with open-backed bracelets, necklaces and other items provided that all the stones lie table down (i.e. culet uppermost).

Vigilance needed with mounted stones

A warning to jewellers from Harry Levy

Despite knowledge of its gem features, synthetic moissanite is still causing problems for jewellers because some are being sold as real diamond. This is happening all over the world. The problem is that the traditional instruments used to identify diamond simulants do not always distinguish between diamond and synthetic moissanite. When a stone is mounted, the average jeweller has become used to using a thermal pen which distinguishes a diamond from other colourless stones as a diamond's thermal properties are different from those of its simulants. This distinction does not exist in the case of synthetic moissanite. Although the manufacturers of the stone have marketed an instrument which depends on the refractive and

reflective differences of diamond and synthetic moissanite to separate them, this is not proving to be 100 per cent reliable.

Jewellers have to be careful when they are offered pieces of jewellery set with colourless stones. Unmounted synthetic moissanites are easier to detect as they have a different specific gravity from diamonds – they will float in di-iodomethane, whereas diamond will sink. For mounted stones large double refraction means that the doubling of the facet edges seen through the stone should be apparent. Jewellers must also remember that many of the synthetic moissanites on the market are slightly tinted in colour making them look like diamonds of Cape colour.

The distinction between the two stones becomes much less easy if the stone is mounted in a finger-ring or earring and almost impossible if it is in a closed setting.

Happily, use can be made of the facts relating to the manufacture of the alpha-SiC monocrystals. No actual production details are known, but it is almost certain that it is a seeded sublimation or vapour transfer chemical mechanism involving high temperatures (about 2300 °C) and ambient pressure, using the highest purity starting reactants, whether gases, liquids or solids.

The most prominent growth habit results in a single well-developed basal pinacoid face. Seeding could assist in the epitaxial development of large platy crystals and might even encourage the growth of more equant or 'blocky' crystals. As the manufacturers wish to minimize the face-up doubled images characteristic of highly birefringent stones, this preferred growth habit is indeed a fortunate one. It is therefore almost certain that all faceted moissanites will have their principal (c) axes oriented at right angles to the finished table facet. Since the material has no cleavage planes, unlike that for say topaz, this makes it possible to polish exactly on the crystal's basal plane without the occurrence of 'pluck-outs'.

This being so, in the case of a finger-ring-mounted moissanite, the only piece of equipment needed to ensure a confident distinction is a battery-operated hand-held polariscope. The ring is placed between the polars so that the plane of the stone's table lies parallel to the optic axis of the polariscope, i.e. the long torch battery stem. The polariscope is then rotated in the axis of the

Limerick Corner

Fred bought a fine 'diamond' on sight,
T'was sparkly and gorgeous and bright.
But now he's much wiser,
His crossed polariser
Says this is a cut moissanite.
A. Doug Morgan, FGA

Kurt Nassau speaks on synthetic moissanite

On 4 November at Imperial College, South Kensington, members of the GAGTL were treated to a lecture by Dr Kurt Nassau during his recent visit to the UK. As a member of the Board of Directors of C3 Inc., the company marketing synthetic moissanite, Dr Nassau was able to give a detailed account of the background to the development of the material.

The French scientist after whom the mineral is named, Henri Moissan, was very active in materials research and silicon carbide was a result of his trying to make diamond. Silicon carbide was first found in nature in the Canyon Diablo meteorite by Moissan in 1904 and named after him in 1905 by G.F. Kunz.

The new gem material, synthetic moissanite (silicon carbide, SiC) is a material that can serve as a diamond substitute with properties overall closer to those of diamond than any other substitute (refractive indices 2.648 and 2.691, birefringence 0.043, dispersion 0.104, hardness 9.25, specific gravity 3.22).

Dr Nassau outlined and discussed all the gemmological tests that could be performed, and evaluated the range of responses that the synthetic moissanite might show. The detection instruments on the market using absorption or conduc-

torch barrel while keeping the ring stationary.

If the stone is a moissanite, the usual 'winking' of the stone's image will be seen. If it is a diamond, little or no change in the scattered light intensity will be observed. If the colourless stone happens to be another uniaxial or biaxial material, such as zircon, rutile, linobate, corundum, scheelite, zincite, topaz or enstatite, then of course 'winking' effects will be seen. But all will be unable to pass a scratch-hardness test using the sharp edge of a Carborundum (alpha silicon carbide) monocrystal applied cautiously to the



Dr Kurt Nassau

tivity properties of the gem were also discussed and lively question and answer sessions followed.

As well as an excellent slide presentation, Dr Nassau had brought along samples of synthetic moissanite set in items of jewellery that those present could examine for themselves.

The lecture was repeated on 11 November at the British Geological Survey, in Edinburgh, for Scottish Branch members.

girdle. However, our concern here is only to disclose the presence of moissanite and not to identify any other non-diamond stone.

There is little doubt that synthetic moissanite manufacturers will continue to improve and expand their products in terms of size, clarity and colour. Mention has been made in the literature of the real and early possibility of producing clean, near-colourless monocrystals of up to three inches in diameter.

The dominating message for the diamond jewellery industry is ultimately: education, education, education.

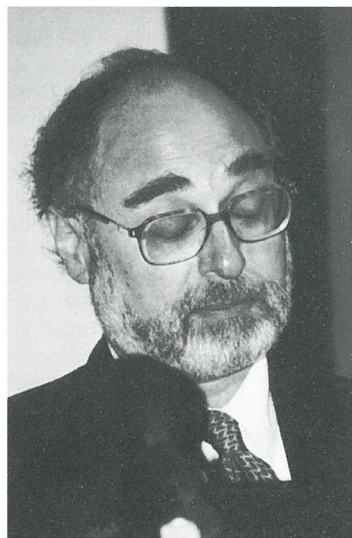
GAGTL Conference

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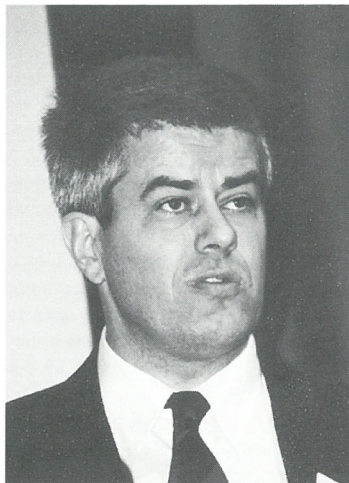
equate quality solely with nacre thickness (on beaded cultured pearls), and he discussed also the different mabe pearls, and their imitations, and the recent CIBJO deliberations about Keshis.

The morning session concluded with Michael Smookler, vice president of the London Diamond Bourse and Club, presenting a fascinating account of his ways of sourcing gems for his jewellery. Starting with the experiences of his grandfather in the trade, he went on to outline how to find suitable jewellery which could then be used as sources of appropriate stones for 'period' pieces. Some stones such as rubies were rare and expensive 20 years ago but now they are widely available. Unheated sapphires and untreated emeralds are still rare so in order to make affordable jewellery heated sapphires and oil- or resin-filled emeralds have to be used.

The afternoon session opened with a lecture and was then followed by a forum presentation. Chris Welbourn outlined the chronology of synthetic diamond development before reviewing the current methods



Michael Smookler speaking on reproduction jewellery.



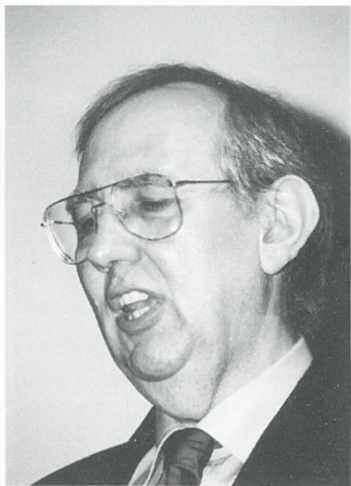
Pearls: Stephen Kennedy (above left) and John Carter (above right) spoke on the pearl market today. Below (from left), Ann Allnutt, Rosemary Ross and Catherine Verney White have the opportunity to examine samples brought along by John Carter.



of growing gem quality crystals. He described the occurrence of trace elements at the different growing surfaces of the crystals and outlined the fluorescence patterns of stones grown by the BARS and belt processes. He emphasized that the research and development of instruments to detect and display diamond properties was part of De Beers strategy to be prepared for any items that might appear on the market. He commented that, despite their low num-

bers, synthetic diamond and diamond simulants had a disproportionately negative effect on confidence in diamonds and the instrumentation helps to counteract this.

After tea the final session was devoted to four speakers on aspects of gems in jewellery. Chaired by Harry Levy, the subjects dealt with were first, identification of stones in their settings by Ana Castro. She emphasized the importance of cleanliness of the stones in order to correctly inter-



Diamonds: Derek Palmer (left) speaking on the branding of diamonds and and Chris Welbourne on the detection of synthetic diamonds.

pret the often subtle features critical in the identification problems of modern stones, and then went on to illustrate such features in sapphires, emeralds and rubies. Rosamond Clayton then gave us a glimpse into her varied tasks as a valuer with a 'Walk through October' in which she described the fun she had had with a pink diamond, a blue paste, Scottish pebble jewellery, and different jades. Unusual and collectors' stones in jewellery were described by David Davis, a long-time setter of such stones, and he described his experiences with diopsides, scapolites, tourmalines and zircons. He made a particular plea to jewellers to widen their horizons and promote the beauties of coloured stones to the public. The concluding 'cameo' was about 'quality stones' in which Adrian Klein described the essential approach to deciding on whether a stone was for you or not; to mean anything, a stone must smile at you – whenever you look at it and in whatever conditions. Decide on the stone and not on the 'designer labels' of Burma, Kashmir or Muza.

Such was the content of this last session that there was no official time for discussion, but after Harry Levy had thanked the speakers and organizers of the conference, there was much to talk about informally.

Roger Harding



Postscript

Conference n., (esp. annual) meeting of any organization, association etc. for consultation (*The Concise Oxford Dictionary*)

By association of ideas, words like 'fellow delegates', 'finger buffet' and even 'Blackpool' spring to mind, which may explain why – as an FGA of six years – I shamefully admit to only recently attending my very first GAGTL Conference. More fool me for waiting so long ... For what I was not expecting (aside from a Searcy's sit-down three-course lunch at its very best) was a day of apposite *balance*: a group size small enough to be friendly, but large enough to be eclectic and interesting, and a diverse range of talks from experts in varying aspects of the industry, providing something for us all – from the academic to the retailer. In short, thoroughly professional content delivered in an informal and relaxed context.

As such I would advise doubtful 'fellow delegates' of the future of the following amendment:

Conference n., get-together of like-minded individuals to exchange viewpoints, have a delicious lunch and learn something into the bargain; pref., fun, worthwhile. (*The Sarah Haslam updated definition.*)

Sarah Haslam

Trade Dinner A sparkling evening

GAGTL members spent an enjoyable evening at the Café Royal in London's Regent Street on Saturday 3 October on the occasion of the Annual Trade Dinner.

Following a candlelit dinner in the magnificent nineteenth-century Pompadour Suite. Terry Davidson introduced Geoffrey Munn, a regular contributor to the BBC's Antiques Roadshow, who gave a fascinating and entertaining talk on his years at Wartski's. He recalled a number of amusing incidents from the past involving some of their more eccentric customers as well as the rich and famous.

To the delight of those present, Geoffrey had brought along an antique brooch set with Tay pearls and gemstones. He explained that this had been a 'sleeper' that he had acquired, which had later been identified as a brooch given by Albert to Queen Victoria on the occasion of their third wedding anniversary.

The vote of thanks was given by Jeffrey Monnickendam.



Geoffrey Munn speaking at the GAGTL Trade Dinner.

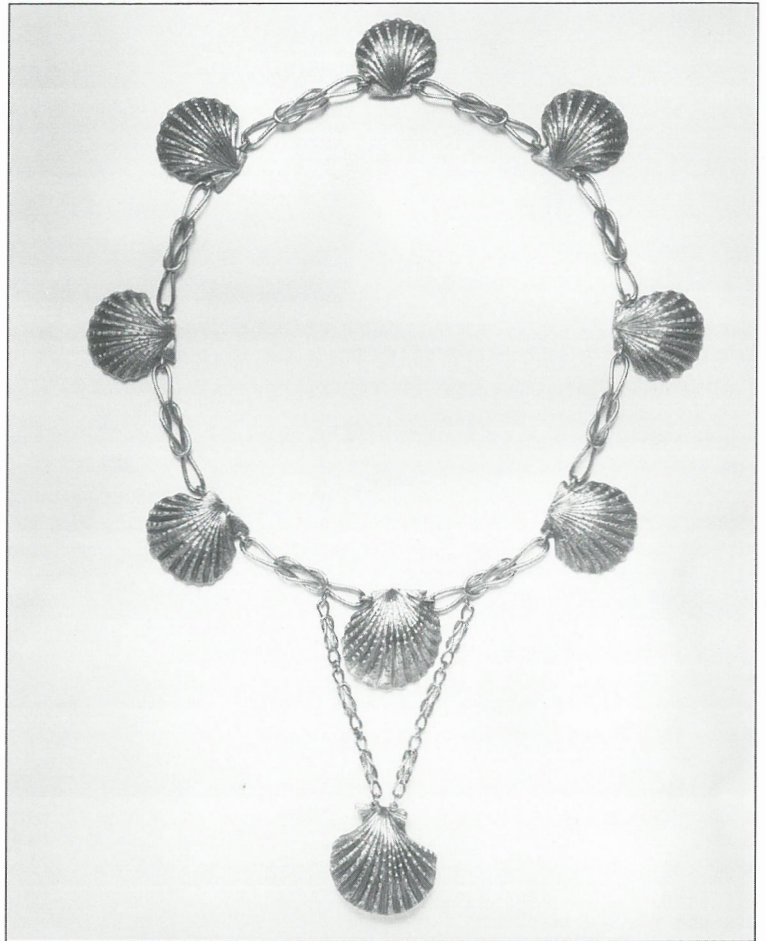
Origin and Evolution

Sea shells on the sea shore

Rare treasures of the deep and cast-away fragments on the sands, shells are the porcellanous products of nature with a durability and beauty that have charmed and fascinated man since time began.

The birth of Aphrodite emerging from a scallop shell and stepping ashore on the island of Cythera, evokes nostalgia with the sea and far away places. Ancient civilizations and primitive communities collected shells and bones for self-adornment. St James the Apostle, and patron saint of Spain, is associated with the attribute of a scallop shell; this emblem became the badge for those paying homage to his shrine, and was subsequently adopted by all pilgrims.

Conchology for the jeweller and gemmologist is a vast subject well worth studying. In addition to the use of actual shells, related products include – oyster pearls, conch pearls, mother-of-pearl, coral and opercula. Of the six classes of molluscs the two categories of main interest are the Gastropoda (single spiral-shaped shells from the sea or fresh water, some with an *operculum* 'trap door' closing, these also include snails of the land) and the Bivalvia (clam, oyster, scallop). The majority of marine Gastropoda spiral clockwise, and those which do not are extremely rare and much sought after, in the manner of a lucky four-leaf clover. Under a separate classification within the Cephalopoda class, is the chambered nautilus shell (*Nautilus pompilus*) embellished as weird and wonderful Mannerist styled table decorations. The tusk shell (*Dentalium*) from the Scaphopoda class, with a hole connecting from both ends, lends itself to being strung as beads. Of the fossilized varieties, the thin iridescent layer found in ammonites from Alberta called ammolite (korite), is used in jewellery usually cut and mounted as doublets or triplets. Colourful shell marbles used for carving *objets d'art* include broccatello (Spain), castra-



Gold necklace with 'scallop shell' motifs, original fitted case R. & S. Garrard & Co., c.1885.

cane (Asia, India), fire marble (Austria, Russia), and Jurassic Forest marble (England).

Man has respected and revered the bounty of the sea. Different cultures valued shells as protective amulets, currencies and symbols of power and fertility. Ethnic and tribal communities spanning the continents of the world, use natural materials and especially shells in jewellery, for their decorative, medicinal and magical qualities. Jewellery to denote rank and social position is worn with other orna-

mentation; which includes body painting, deliberate flesh incisions and tattooing. Multiple small whole shells are strung together, or shells are carved as discs and other shapes. The cowry is universally the most symbolic shell amulet. Shells were the earliest form of currency believed to have been in use from 2000 BC and still traded in some regions until the nineteenth century; the most suited for the purpose being the gold-ringed cowry (*Cypraea annulus*) and money cowry (*Cypraea moneta*).



'Ocean Conservation Medal' by Jocelyn Burton, cast 18ct gold, c. 1973. Courtesy of the Worshipful Company of Goldsmiths

Examples of shells from tropical waters, which were highly prized by early Western collectors were the triton trumpet (*Charonia tritonis*), hammer oyster (*Malleus albus*), nautilus (*Nautilus pompilius*), giant clam (*Tridacna gigas*), helmet (*Cassis madagascariensis*), conch (*Strombus gigas* – also produces pink pearls) and tiger cowry (*Cypraea tigris*). The clam bivalves, jointed and fitting so exactly, are nature's ideal containers, and were mounted in gold and silver set with precious stones. The land green snail shell (*Turbo marmoratus*), with a greenish pearly appearance when carved, was used for drinking vessels and decorative *objets*. Tiger cowries were particularly popular as table ornaments, such as snuff boxes.

Cameo carved shell was found to be a very attractive alternative option to the hardstone materials. Shell was less expensive to fashion than the stone cameos, and these skills flourished in Italy, as they do today, Naples being the main centre of the industry. The most usual varieties used are the queen conch and the large helmet shell. During the Napoleonic era there was great interest in neo-classical styles, giving a boost to the cameo cutting industry. From Rome, the famous Tommaso Saulini (1793-1864) and his son Luigi, specialized in classical depictions. Piotr Salzman from Leningrad, who was inspired by examples of the craft in the Hermitage, is one of today's master cameo carvers, and one whose works are to be found

worldwide in major collections and museums.

Mother-of-pearl, a substance that lends itself to intricate pierced work, became very popular in England from the mid nineteenth century – dress stud sets, cuff links and, of course, buttons as personified by the Pearly Kings and Queens of London. Between the great wars, the 1930s saw marine forms becoming strong motifs employed by the main jewel houses such as Boivin. Fulco di Verdura (b. 1898) is best remembered for his famous gem-set lion's paw scallop shells (*Lyropecten nodosa*), found in the coastal waters from Brazil to south-east USA. He worked in the 1920s with Coco

Chanel, then in 1937 moved to New York to join forces with Paul Flato. Marguerite Stix, also working in New York in the 1940s and 50s, studied and wrote about shells, and included unusual varieties in her jewellery designs. The diamond-set ammonite motif double clip brooches and scroll earclips were popular themes generally in jewellery of the period. Looking to the present day, Jocelyn Burton, twice winner of the Diamonds-International Award sponsored by De Beers, has enthusiastically utilized shells as favourite motifs to be found on her silver tableware pieces and jewellery designs.

Carinna Pike

Gems

Michael O'Donoghue reports on gem shows in Hong Kong and China

A recent visit to the Hong Kong Gem and Jewellery Show was instructive in more than one context.

The interest shown in the educational packages assembled by GAGTL and shown at their booth was very great and considering the proximity of competing organizations whose names have slipped my mind, this represents a notable triumph for home skills. Almost all books and instruments were sold – but this is a Gems column.

Rare and beautiful

The quality of stones round the halls of the exhibition was as good as ever: I particularly noticed some beautiful Sri Lanka star corundum, both ruby and sapphire, the rarely-seen peridot from Myanmar (much Myanmar material was being sold by lot, presumably as it came directly in fixed quantities from the state selling organization). None the less it was possible to get the odd single stone by careful discussion. The Collector (Pala International) showed some very large and fine materials from classic sources – noticed a superb tanzanite – and coloured diamonds could be found on many stands. I did not see

any of the fancy corundum (not ruby or blue sapphire) from East Africa but this did not mean that no specimens were present. It would be easy to overlook items considering several Earls' Court-sized halls were in operation.

Judith Osmer (J.O. Crystal Company) was selling cut and rough Ramaura ruby, as fine as ever and obtainable in cutting sizes. Judith was also selling a few beautiful green YGaG crystals: yttrium gallium garnet is very rarely found cut and resembles the finest tsavorite rather than demantoid. Presumably chromium is the dopant.

Jade

What about jade? readers will ask. There was plenty of it both inside the halls and outside in the streets and in the jade market of Hong Kong. Almost all of it is green jadeite and much would have been B, C or B+C material. I was on the look-out for simulants – hard to ask dealers for – and was able to get a fine three-box display from the Hong Kong Institute of Gemmology. The celebrated 'filled' jadeite specimens are rare, since it is cheaper to make and sell the dyed and impregnated material. ▶

◀ There was very little nephrite on sale either inside or outside the Show and on moving to Shanghai I found little there either. Very dark lavender jadeite was clearly dyed. In a shop close to the Hong Kong jade market I was able to find rough pieces of resin-impregnated jadeite-this was the only place I found offering this material (reluctantly).

Back in London ...

The Wednesday group have recently seen an orange-green ekanite, two specimens of moissanite (C3, the manufacturers, had a stand at the Hong Kong Show), very attractive star ruby and pink sapphire, golden-pink scapolite, virtually colourless chatoyant diopside, a pale blue drop and an olive-green kite-shaped sillimanite, an unusual peach-coloured tourmaline and a most interesting pale pinkish-yellow padparadschah.

As always the Wednesday class is greatly helped by Tony French who selects so many interesting specimens for students to examine.

The 'new' material 'nambulite' recently featured in *Gems & Gemology* (which has turned out to be out to be rhodonite or predominantly rhodonite) was available in attractive cabochons and faceting material.

While the Hong Kong Show was there only the fair organized by the Shanghai Gem and Jade Association was held in an upper floor of a department store close to or even in the famous Nanjing Road. Here again green jadeite was the commonest material on offer and sales seemed to be good.

Enthusiasm

As always the general public were taking a great interest in gemstones and there is clearly a very large enthusiast market to be tapped in all countries; thousands want a greater exposure to gemstones, perhaps not immediately with qualifications in mind, but with their hands actually on the specimens

Michael O'Donoghue

Education

GAGTL London Gem Tutorial Centre

Short Courses and Workshops

9 & 10 January	Two-day Diploma Practical Workshop £145 + VAT (£170.38) – includes sandwich lunches GAGTL student price £104 + VAT (£122.20)
17 February	Ruby and Sapphire – the inside story Price £104 + VAT (£122.20) – includes a sandwich lunch
24 February	Emeralds today Price £104 + VAT (£122.20) – includes a sandwich lunch
3 March	Organics – amber, ivory, jet, pearl and shell Price £104 + VAT (£122.20) – includes a sandwich lunch
17 March	Diamonds today £104 + VAT (£122.20) – includes a sandwich lunch
24 March	Everyday life – treatments and synthetics Price £80 + VAT (£94.00) - includes a sandwich lunch

For further details contact the GAGTL Education Department:

Tel: 0171 404 3334
Fax: 0171 404 8843

e-mail: gagtl@btinternet.com
Internet: www.gagtl.ac.uk/gagtl

Gem and Mineral Fairs

Rock 'n' Gem Shows

13 and 14 March. York Racecourse, York.

20 and 21 March. Cheltenham Racecourse, Cheltenham, Glos.

17 and 18 April. Kempton Park Racecourse, Sunbury, Middx.

Details from the Exhibition Team Ltd, Tel. 01628 621697.

London International Gem & Mineral Fair

27 and 28 March. The Regents Park Marriott Hotel, Swiss Cottage, London. Organized by the BLMDA. Tel/fax 01724 710361.

GAGTL at Tucson

English Afternoon Tea – Scottish Gemstones

The GAGTL will be hosting an afternoon tea at the 1999 Tucson Gem Show on Sunday 7 February at 3.00 p.m. to be held in the Promenade Room at the Holiday Inn Broadway, Tucson.

This will be followed by a talk entitled *Collecting Gemstones in Scotland* by Brian Jackson, curator of minerals, rocks and gemstones at the National Museums of Scotland and chairman of the Scottish Branch of the GAGTL.

For further information contact Lorne Stather on 0171 404 3334.

Jewellery Historians visit Scotland

by Jean Archer

The Society of Jewellery Historians made a weekend visit to Edinburgh from 15 to 18 October, primarily to see *Jewellery Moves, the much-acclaimed international exhibition at the National Museums of Scotland, presenting the work of contemporary studio jewellers.**

The exhibition, which has been jointly curated by Dr Elizabeth Goring, a committee member of the Society of Jewellery Historians, and Amanda Game, a Director of the Scottish Gallery, is most inspiring, incorporating the work of more than 120 makers from many parts of the world.

The jewellery is displayed in tall, futuristic showcases, illuminated from within, making it a pleasure to view. The exhibits are grouped under various themes – diverse, perhaps – but unified by their consistent quality and originality. Materials and techniques vary enormously. Some craftsmen use traditional materials in new and intriguing ways. Others use, for example, perspex, acrylic, rubber, wire, shell, rice paper and glass, providing a wondrous variety of colour and texture. The surrounding walls are hung with photographs showing selected pieces being worn. These images reinforce the concept of the exhibition, that jewellery is a vital art that moves with us, taking part in our lives.

Adjoining the gallery is a room for demonstrations and workshops where, on the first day, our SJH group enjoyed making or trying on an assortment of pieces. One of the members, Villemien Downes, produced an attractive feather creation which she wore to dinner in the evening! The workshops and demon-

strations are open to everyone, including children. How enterprising of the museum to educate young people in this way, making them aware of jewellery and adornment from an early age.



Malcolm Appleby in his trademark jumper signing catalogues at his retrospective exhibition in Aberdeen Art Gallery.

At a reception hosted by the museum we were able to meet and speak with local jewellers, curators and historians. Just how compelling this particular exhibition of contemporary jewellery has proven to be is evident from the number of traditional historians who came with us, specialists in jewellery of former centuries, who embraced the whole concept of *Jewellery Moves* with great fervour.

On our second day we assembled

at the long-established Scottish Gallery to see an impressive show of contemporary jewellery by Maria Hanson, sculptural pieces using silver, perspex and other materials. We then returned to the National Museum, where Dr Goring introduced us to the collection of the Twentieth Century Jewellery Gallery, including the new acquisitions and displays. She explained how she had put the collection together, as it now stands – and a fine collection it is, beautifully arranged. Afterwards we all had the opportunity to take a guided tour of the museum's almost completed new building, which by all accounts is splendid. I opted instead to see the magnificent collection of Scottish agates, which for me was too good to be missed.

In the afternoon we departed by coach to Aberfeldy, the home and workshop of Malcolm Appleby. The artist greeted us with open arms, wearing his trademark jumper of many colours decorated with his own specially designed silver buttons. He discussed many aspects of his work, showing us materials and tools, and explaining their uses. We saw large sheets of silver, which he had already begun to engrave, prior to transforming them into objects of art. He talked about the sources of his inspiration – mythology, nature and the world around him. In his house, where the walls are covered with his designs, we were delighted to meet his wife, who served us tea with home-made biscuits, his baby daughter and his black cat – a fascinating household.

After a night at the Maryculter House Hotel, Deeside, we set off on our third day, travelling to Aberdeen Art Gallery in the company of Malcolm Appleby for a guided tour of his retrospective exhibition ►

* *The Jewellery Moves exhibition continues until 4 January 1999 and a catalogue is available for purchase from the National Museum.*

◀ which examines thirty years of work. It charts for the first time his distinguished career. There are more than 250 objects and prints borrowed from a variety of public institutions and private collectors. Our lasting impression is that the artist is not only a brilliant designer and engraver but also a man of rare charm.

Christine Rew, Aberdeen Art Gallery's Keeper of Applied Art, arranged for us a display of twentieth-century jewellery which is not normally on view. She spoke about the collection which ranges from enamel work by Joseph Cromar Watt made in the 1940s, and more recent pieces by Marlene McKibbin in perspex, Louise Slater in formica, Kathie Murphy in resin, and a necklace by Colin Smith stylishly executed in white gold and diamonds. Another necklace, radically different, had been made by Alison Bailey-Smith from recycled electrical wire. These were just a few of the contemporary jewellers whose work we were pleased to see, in addition to the Georgian, Victorian and Edwardian jewellery in the Aberdeen collection.

On behalf of the entire group from the SJH, I should like to thank Dr Goring, Amanda Game, Christine Rew, Malcolm Appleby and, in particular, Muriel Wilson, the organizer of our visit.

A new gem!

Johachidolite is a new gem recently identified by staff at the Natural History Museum and the GAGTL.

The cut stone was brought in to the GAGTL for identification and is, at present, the only known gem-quality specimen of a rare borate mineral known hitherto only as tiny colourless grains in limestone from the Johachido district in Korea. It is pale yellow, weighs 14.02 ct and is probably natural. A description of the gem is planned for the next issue of the *Journal of Gemmology*.

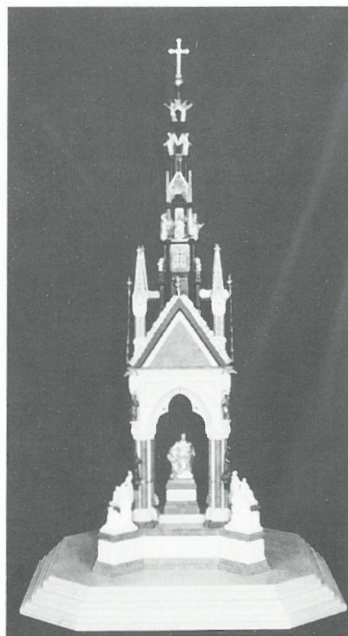
Roger Harding

Replica of the Albert Memorial

A model to mark the 50th Anniversary of R Holt & Co. Ltd

Having been involved in the restoration of the Albert Memorial in South Kensington and to celebrate the beauty of precious stones combined with British craftsmanship, Holt's of Hatton Garden, in conjunction with Bentley & Skinner the Bond Street jewellers, have created an Albert Memorial Miniature in precious stones and metals.

The Albert Memorial was designed by George Gilbert Scott in 1863–1865 not only to celebrate the Prince Consort's life but also to explain the ideas and aspirations of the Victorian age. It was Scott who envisaged that the memorial be a shrine to Prince Albert using gold and silver surrounded by all the gems of the earth. However, this was not implemented literally, given the expense of such a project. Holt's and Bentley & Skinner embarked upon this project to bring Scott's wish closer to fulfilment.



The Albert Memorial Scale Model (standing approx. 1 metre high): 'A celebration in precious gemstones of English Heritage's magnificent restoration of the Albert Memorial'



Roger Dunkin, in charge of the project at Holt's, working on the roof of the miniature. Roger was also involved in the restoration work on the memorial, when he had been responsible for supplying and cutting stones to replace those that had been lost over the years.

As fifty is the operative number, the model has been constructed on a scale of 1:50 using fifty different gemstones. Holt's produced the structure of the miniature using seven types of marble to match those used in the Memorial. In total there are approximately 3000 individually hand-cut, carved and polished components made from marble and gemstones.

Bentley & Skinner produced the carving on camponela marble of the frieze and industries, and the moulding and casting of Prince Albert and the figurines in silver gilt.

Together, Holt's and Bentley's are bringing to life the contemporary theme of 'geology and glamour' by creating a beautiful *objet* from natural treasures contained within the earth.

The model is currently on display at Holt's showroom at 98 Hatton Garden.

The case of the 'Alexandrite' ring

In 1964, Mr Williamson, a merchant seaman on the Mauretania, lent another seaman £100 to gamble with. When the cruise ended, the debt could not be repaid, and Mr Williamson was offered the choice of an 'Alexandrite' ring or a 'Rolex' watch. Mr Williamson took both to the ship's jeweller, who looked briefly at them and felt that they were both genuine and that the ring was worth most.

Mr Williamson, therefore, took the ring. The ring was apparently also examined by a jeweller in New York who thought that it was genuine. On his return home in April 1964 Mr Williamson gave the ring to his wife and, thinking it was valuable, they kept it as a nest-egg for the future.

Items lost

Mrs Williamson wore the ring no more than six to eight times over the following sixteen years. In August 1990 she handed the ring, together with a pair of grape scissors, to a representative of Phillips Son & Neale, who took it away to value and possibly to auction it. In October 1990 Phillips admitted losing both items. The value of the grape scissors was agreed to be £250, but the value of the ring was disputed.

After many years of gathering evidence, both lay and expert, and fruitless negotiations, the case came in July 1998 before Mr Justice Hidden in the High Court of Justice, Queen's Bench Division. The case lasted seven days with a further half day for the judgement. Expert gemmological witnesses for the Plaintiff were Richard Taylor and Roy Huddleston. Philip Stocker and Rosamond Clayton appeared for the Defendant as well as Geoffrey Munn (of Wartski) as an expert on Russian jewellery. This short précis has been extracted from the eighty-one page draft judgement (a privileged published document in the public domain).

Computer images

A computer graphics expert, Miss Shead, enhanced photographs that

had been taken of Mrs Williamson wearing the ring. From Mrs Williamson's recollections, and with the aid of her jewellery books and magazines, Miss Shead also produced computer images that Mrs Williamson was satisfied were good representations of the shape and style of her ring and its setting, and of the colours of the stone in both natural and artificial light.

The ring was described as having a rectangular cut stone of $\frac{3}{4}'' \times \frac{1}{2}''$, set in a raised mount with four claws and

Nigel Israel reports on an important and fascinating Court case

no supporting bezel. The mount had lines of beading. The four-split shank was claimed to be marked on the upper outside of each part of the shank (i.e. eight marks) and on the inside of each part (a further four marks). The Plaintiff remembered the marks as a person's head side on, facing left, with something around that person's forehead, either some sort of plait or tiara. To the left of the head there was a number which was either 65 or 56 and there was another mark on the right side of the head. The general consensus of the plaintiff, the computer simulations, and the lay witnesses (from their distant memories) was that the colour of the stone changed from a distinct green to a warm deepish-red, not purple or maroon.

Natural alexandrite?

Mrs Williamson, the Plaintiff, claimed that the ring was a Pre-Revolutionary Russian ring set with a rectangular fine Russian alexandrite of approximately 15.50 carats. The Plaintiff claimed the replacement value of £331,300 including VAT.

Mr Taylor thought that the stone was a natural Russian alexandrite. He rejected synthetic corundum as the colours described were wrong. He thought that synthetic spinel did not

make a convincing imitation of alexandrite and was also extremely scarce. He did not accept that a natural alexandrite of this size and rectangular cut was most unlikely. It took a little while of persistent cross-examination to get him to agree that the size was as 'near as nothing' to a standard size (18 × 13 mm) for synthetic stones. He did not accept that the setting was totally unsuitable for an extremely valuable stone. From the computer graphics he found the ring to be of a substantial and good quality manufacture involving a significant amount of skilled hand craftsmanship. He noted the beading effect on the edge of the setting which he said was granulation, an intricate and complex process.

Mr Huddleston produced two stones which he said he had had for twenty five years and were synthetic spinels made to imitate alexandrite. They did not do so convincingly and he thought that no better synthetic spinel imitations existed in the 1960s. He, therefore, also considered that the Plaintiff's stone was a natural alexandrite.

Synthetic imitation

Mr Stocker thought that Mr Huddleston's two spinels were in fact made to imitate aquamarine or 'Siam aquamarine' [a misnomer for heat-treated bluish-green zircon], not alexandrite, and proved this to the Judge's satisfaction with a Chelsea Colour Filter. He also drew attention to the excellent descriptions by Robert Webster of synthetic spinels that convincingly imitated alexandrite, both in the *Gemmologist* of 1935 and in the 1962 1st edition of *Gems*. He gave other evidence of such stones being set in rings in the 1950s and '60s.

Both Mr Stocker and Miss Clayton considered that if the stone was a natural alexandrite then the cut and the absence of an element of blue in the described colours meant that it would be a Sri Lankan rather than a Russian stone, and thus of considerably less value. However, both were convinced that the colour, cut, size, mount, etc.,

meant that the overwhelming probability was that it was a synthetic imitation. If it had in fact been a natural Russian stone then it would have been of such extreme rarity as well as value, so as to be 'worthy of the Crown Jewels of Imperial Russia'.

Ring marks

Mr Munn stated that the ring marks described were apparently of Koloshnik marks that were used in Russia from 1899-1917. However, he said that there was absolutely nothing in the photographs or drawings that suggested to him that the ring was of Russian manufacture. The ring was evidently of mid-twentieth-century manufacture and showed no sign of refined or sophisticated craftsmanship. The beading on the mount was not in his opinion granulation, which he had anyway never seen on a Russian ring, but cast. The number and position of the marks were inconsistent with all his experience. He said that he had seen large numbers of fake Russian rings.

Expert witnesses

The Judge stated that he found the evidence of all of the Defendant's three expert witnesses infinitely more credible and entirely preferable to the evidence of either of the Plaintiff's expert witnesses. The Defendant's expert witnesses had a breadth of knowledge and experience which gave their evidence a quality of authority which the evidence of the Plaintiff's expert witnesses lacked. Further, he found the evidence of Mr Taylor to be given in a manner lacking in impartiality and that he was unwilling to make concessions to which logic and his previous answers should have driven him. Where the evidence of the experts conflicted, he had no hesitation in preferring the evidence of the Defendant's experts.

Omnia praesumuntur contra spoliatorem

The Plaintiff's counsel had a further or alternative submission of law which was that the Plaintiff relied on the maxim that everything is presumed against the wrong-doer, *Omnia praesumuntur contra spoliatorem*. He submitted that if there was any possibility that the stone was a natural alexan-

drite, the Plaintiff was entitled to Judgement to the maximum value of such a stone. He relied on what he called the classic statement of this maxim in *Armory v Delimire* (1722). In that case the Plaintiff, a chimney sweeper's boy, found a jewel and took it to the Defendant's goldsmith's shop to know what it was and gave it to the Defendant's apprentice. He, under the pretence of weighing it, took out the stones calling to the jeweller to tell the boy that it came to three halfpence. The boy refused the money and insisted on having the ring back, at which the apprentice returned the socket without the stones. In an action for trover, evidence was called of what the finest jewels that would fit the socket would be worth and the Chief Justice directed the jury that unless the Defendant produced the jewel and showed it not to be of the finest water, they should presume the strongest against him and make the value of the best jewels the measure of their damages which, the report concludes, 'they accordingly did'.

The Judge found that this maxim could not be applied to this case. The law, like nature, abhors a vacuum. Thus in the circumstances such as

existed in *Armory* where there was a vacuum in that there was no evidence at all as to what that stone was, the law filled that vacuum by the use of the maxim. Here, however, there was no vacuum, there was no lack of evidence, rather there was a large body of both expert opinion, lay witness recollection, and computer graphic reproduction produced by an expert. It could not be right that the introduction of the maxim should be permitted to oust all that evidence as well as the judicial function of assessing it all and coming to a solution thereon. To seek to apply such a maxim in such circumstances would be impermissibly to oust the judicial function.

Judgement

The Judge was satisfied that the ring was in fact made by putting a synthetic spinel imitating alexandrite into a gold setting with false Koloshnik marks in order to suggest a Russian origin before the Revolution. Its value was no more than £250. Therefore Judgement was for the Plaintiff for £500 in respect of the ring and the grape scissors. Interest and costs to be determined.

Book Shelf

Special offers to readers of *Gem and Jewellery News*!

Jewellery in Britain 1066-1837, a documentary, social, literary and artistic survey. Diana Scarisbrick, 1994. xxiii and 431pp, hardbound.

The range of this book is immense. It is divided into five periods, Medieval 1066-1509, Renaissance 1509-1625, Stuart and Commonwealth 1625-1714, Early Georgian 1714-1789, and Late Georgian 1789-1837. Each period is dealt with by a pair of chapters, the first being the Social Context, and the second the Categories. The jewellery is related to the people involved with it and the way in which it was worn on different occasions. There is an extensive index (17 pages), as well as no less than 2881 source notes listed

under chapters. These together with a 17 page 'Bibliography and abbreviated references' section make this work a researcher's dream. The text is supplemented by 52 colour and 133 monochrome illustrations, plus 45 line illustrations. This highly recommended book is certainly guaranteed an extremely long life as the pre-eminent work on its subject.

Normally very reasonably priced at £65, it is available to SJH and GAGTL members direct from the publishers for £50 including postage.

Please send only UK cheques or drafts to: Michael Russell Publishing Ltd., Wilby Hall, Wilby, Norwich, NR16 2JP.

Picasso's Ladies, Jewellery by Wendy Ramshaw, 1998. 176 pages, 28.5 × 27.5 cm. English text. 148 illustrations (132 in colour). Hard-bound. Readers will know Wendy Ramshaw as one of the world's leading contemporary jewellers, Wendy has taken inspiration from 66 portrayals of ladies in Picasso's paintings, drawings and prints, and produced jewellery appropriate to each of them. Each portrait is shown with the jewellery on the facing page. An enormous range of materials and styles are utilized, every piece being beautifully made and finished (as Wendy's work always is). The rings are displayed on individually designed pillars. This is a Ramshaw 'trademark' that enables the rings to be enjoyed as ornaments when not being worn. There is an introduction by Eric Turner, articles by Marina Valzey and Paul Greenhalgh, and an interview with Wendy by Beatriz Chadour-Sampson. Many items shown in this beautifully produced book are on show in the Silver galleries of the V & A until

15th February 1999, with a parallel exhibition in the American Craft Museum, New York. Readers are urged to visit the exhibitions. Those who are uncertain about modern jewellery are almost certain to be converted! Unfortunately, possibly due to language problems, there are a number of gemmological blunders in the book descriptions, but this is a minor matter in a generally fascinating (dare one say unique) publication.

Normally £45, this book is available to readers direct from the publishers for £33.75. Please send cheques or credit card details to: Arnoldsche Art Publishers Senefeldstrasse 8, D-70178 Stuttgart, Germany. Credit card orders may also be faxed to. +49-711-6159843.

Also available direct from Arnoldsche at a special price of £50 (instead of the normal £60) is the following book.

Friedrich Becker, **Jewellery-Kinetic-Objects**, 1997. 304 pages, 30 x 24 cm. 425 illus. (277 in colour). Hard-bound. This sumptuous book is a

memorial to an extraordinary jeweller who died in 1997. It is full of stunningly imaginative jewellery and sculpture. Many of his creations involve mesmerizing moving stones, which often seem to be floating freely on their mounts. It is impossible to really describe these in words, and although even illustrations are far from a substitute for actually seeing the objects 'performing', readers are urged to buy the book which includes informative contributions by various excellent authors (all text is in both German and English).

Arnoldsche produce a number of other interesting jewellery books available in the UK through booksellers via their UK agents, Antique Collectors Club. Details are available on their website at <http://www.arnoldsche.com>.

Nigel Israel

Please mention membership of the SJH or GAGTL when ordering the above books.

Competitions

Our trickster friend turned up in my office again.

'Have you seen these new diamond simulants?' he asks me. 'They are called Moisy something or other. I have a parcel of twelve stones here, they are identical in size and shape and all weigh the same.'

I have a two pan beam balance and he placed six stones on one pan and six on the other. One side went down and the other up.

'Oh dear!' he exclaimed. 'I think I have mixed one up with a real diamond. I do not know if these stones weigh more or less than a similar diamond, they may not be these Moisy stones, but if you can find the diamond using your two-pan scales and tell me if its heavier or lighter than the simu-

lants then you can keep it. The only condition is that you are allowed only three weighings.'

How do I do it?

Harry Levy

Answer to last competition

All the stones are identical in size and weight. Since the weights of the two lots have not changed they still contain the same number of stones as in the beginning. Therefore the number of rubies have been replaced by an equal number of sapphires. No matter how many times you take stones from one lot, mix them with the other, and then remove an equal weight (i.e. equal number of stones from this mixture), the number of rubies in one lot will equal the number of sapphires in the other.

1999 GAGTL Photo Competition

Gems of the Century

In the context of the 1900s, which gem that you have encountered will be firmly placed in the public mind or endure as a symbol of this century? This could be because it is a species discovered this century, or because it is exceptional for its species in some respect, or perhaps you feel it is the most popular gem this century.

Enter your pictures taken by yourself on this theme for the 1999 Photo Competition. Please also say why you think it is a gem of the century.

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

The following prizes, sponsored by Quadrant Offset Ltd., Hertford, will be awarded: First Prize: £100, Second prize £75 and Third Prize £50.

Full details and entry forms will be sent to all members of the GAGTL.

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

Gemmological Association and Gem Testing Laboratory of Great Britain

London Branch

Unless otherwise stated, meetings will be held at the GAGTL Gem Tutorial Centre, 27 Greville Street (Saffron Hill entrance), London EC1N 8TN, at 6.00 for 6.30 p.m. Entry will be by ticket only at £4.00 for a member (£6.00 for a non-member).

13 January. Insects in amber
ANDREW ROSS

11 March. Some current problems in diamond research
DR H. JUDITH MILLEDGE

14 May. Shining examples – the teaching potential of a gemmologist's jewel box
CECILIA POPE

28 June. AGM followed by a Reunion of Members and Bring and Buy Sale. GAGTL members only (free of charge)

14 July. Demantoid garnet and other new gems and minerals from Namibia
PROF. PETER R. SIMPSON

Midlands Branch

Friday meetings will be held at The Earth Sciences Building, University of Birmingham, Edgbaston at 6.30 for 7.00 p.m. Admission £2 for a member. For further information call 0121 445 5359. Gem Club is held from 3 to 6 p.m.

29 January. Bring and Buy followed by a Quiz.

26 February. Cameos and gemstone carvings
DAVID CALLAGHAN

26 March. Jewels in the hand
JAMES GOSLING

30 April. Branch AGM and ID Challenge

23 May. Gem Club (venue Barnt Green, Worcs): Jet
PEGGY HAYDEN

26 June. Summer Supper (Barnt Green, Worcs).

North West Branch

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

17 March. Exotic diamonds
KEITH MASON

19 May. Pearls – romance and fact
ROSAMOND CLAYTON

Scottish Branch

For details of Scottish Branch meetings contact Catriona McInnes on 0131 667 2199.

21 February. Gemstone photography course

17 March. Diamonds from the crust to the core
DR JEFF HARRIS

30 April to 2 May. Annual Conference. Guest speaker: *DR W. W. HANNE-MANN*

Society of Jewellery Historians

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

25 January. *JESSICA RAWSON*
Extraordinary Luxuries in Gold and Jade. The impact of Western Asia and

the Steppe Area on the Imperial Court of the Han period (206 bc – ad 200)

8 March. *HUGH TAIT*
Jewellery of the Court of Henry VIII: New Research on the Royal Inventory of 1547

12 April. *PROF. SIR JOHN BOARDMAN*
Edward Warren and the Lewes House Gems

24 May. *FELICITY ASHBEE*
The Life and Work of C.R. Ashbee, Architect, Designer and Romantic Socialist, 1863–1942

21 June. *PROF. HENRY DIETRICH FERNANDEZ*
Papal Tiaras

4 October. *GERTRUD SEIDMAN*
A gift from Gabriele d'Annunzio and some other engravings on precious stones

8 November. *GEOFFREY MUNN*
The Tiara – elegance abandoned. A light-hearted look at an evolution of style

6 December. *GRAHAM HUGHES*
The International Exhibition of Modern Jewellery, Goldsmiths' Hall, 1961

The copy date for contributions for the May issue of *Gem and Jewellery News* is 19 January