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MERMAID JEWEL BEQUEATHED TO V & A



Mermaid jewel. Photo courtesy of the Victoria and Albert Museum.

David Callaghan paid tribute to Deirdre and Malcolm Carr's enthusiasm for the celebrated family of Parisian jewellers, Wièse, in his obituary in the March edition of Gem & Jewellery News. With characteristic generosity Deirdre Carr has bequeathed to the Victoria and Albert Museum this enamelled gold | London (14 October 1992, lot 74).

mermaid jewel mounted with a baroque pearl and set with diamonds. It bears the mark of Louis Wièse (1852-1923), registered in 1890 following the death of his father, Jules, and has the original chain and case. It was acquired by Mr and Mrs Carr at Christie's,

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QUARTERLY BULLETIN OF THE GEMMOLOGICAL ASSOCIATION AND GEM TESTING LABORATORY OF GREAT BRITAIN AND OF THE SOCIETY OF JEWELLERY HISTORIANS

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EDITORIAL

Old soldiers never die but if the worst should happen they don't usually leave gemstone collections behind them. While the phrase 'old gemmologists' is surely a contradiction in terms, I have noticed, sometimes in a glass, signs of maturity in myself and friends whom I seem to have known for a long time. While I myself am not in this position, many gemmologists have collections, lovingly and sometimes even accidentally built up over years, during which specimens may have been added from locations which suddenly became important and just as suddenly seemed to produce no more. During the years, too, man-made gem-quality specimens may have been grown, released on to the gemstone market and then, when the need for their industrial or research properties lapsed, were grown no more – these are now very valuable scientific records.

It is easy, of course, to ensure your collection goes to the right people – isn't it? Your children may not share your interests – why should they? So you can sell the collection instead. Go to a gemstone mineral dealer. If you have a lot of fine faceted gemstones it should be easy for them to be sold. But not so fast – dealers have their own sources of supply and cannot often spare time to go through and perhaps test a miscellaneous, often undocumented, lot of unknowns. Their cash flow is almost certainly at a critical stage and will not permit a sudden outlay for stones which may take years and money to advertise and finally sell.

No dealers then. Of course – the auction houses! Have a go and see what happens. Look at the jewellery sale catalogues and see how many loose stones are featured (there are some). But look at the quality.

It took a time for the penny to drop but the answer is of course your local museum. Make an appointment with the curator of geology. The title may really be Leisure and Environment-Watch Officer or you may have to do what you can with the security officer sitting uneasily on his radio. Fortunately the answer will be unambiguous and succinct – no staff, no time, no cash (the three Ns). Then your local university? There are about a hundred of these so you ought to be well-suited. Sadly only the very largest and bestknown have mineral collections – you should already know which they are [did you watch the Boat Race?]. Here you might just strike lucky if your collection has items which may back-up research for which someone else has paid.

National Museums? The same applies – you could be fortunate if there is a paid-up programme for gemstone research. No museum (anywhere) has funds to buy specimens nor usually the staff to curate them. If your collection contains really good pieces ask if your museum would display them on indefinite loan. Then someone might ask whether they are for sale. Take care over insurance if you try this one.

Best of all, let it be known among societies and clubs that you have items for sale. That will do the trick? M.O'D.

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

AROUND THE TRADE

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

CIBJO Congress

The CIBJO Congress was held on the last weekend in April in Vienna. The Organization is becoming truly international, as opposed to just European-based with representatives from the USA, Japan, Israel, Brazil and India. China, who were accepted last year, had a large delegation and at long last the Thais came along and were accepted as full members of CIBJO.

CIBJO is divided into four Sectors representing Manufacturers, Wholesalers, Retailers and Sector III for all the materials used in jewellery making other than metals. They operate through Commissions dealing with Pearls, Diamonds and Coloured Gemstones.

There is Harmonization a Commission doing some crucial work, as the EU members have to come out with similar standards for the precious metal finenesses. As some of the European countries do not have an independent compulsory assaying body, those who do are fighting hard to maintain theirs. We could end up with a situation in the UK whereby manufacturers will be able to stamp a piece of jewellery themselves without resorting to an Assay Office. This problem has not yet been resolved.

Pearls

As far as our readers are concerned most interest is with Sector III. The Pearl Commission has become more active again, with more and more countries producing cultured pearls. Japan is no longer the main producer but, because pearls are so traditional there, it has become the largest importer. China is now the largest producer, especially of nonnucleated cultured pearls, and they are perfecting techniques for obtaining round pearls as opposed to the elongated 'rice' variety. Their annual production runs into many tonnes now, from both freshwater and seawater.

Many centres are now producing the 'South Sea Pearls' (cultured of course – but many distributors forget to mention this) and perfecting their methods so that a higher proportion of gem quality pearls are produced with many different hues including white, black and golden.

An interesting problem came up again at this year's conference - that of Keshi pearls. For many years when the oysters were opened to remove the matured cultured pearls. very small pearls were found in the oyster. They were like seed pearls, many with diameters below 2 mm. In order not to confuse them with natural seed pearls they became known as Keshi pearls and were sold as such, which sidestepped the problem as to whether they should be classified as natural or cultured pearls. Several years ago the Pearl Commission decided that, since they appeared in ovsters used for producing cultured pearls, they should be classified as cultured. The following year, at the next CIBJO meeting, representation was made from those dealing in Keshi pearls, that great harm would come to their trade if they suddenly became classified under the cultured variety, especially as this requirement had never been made before. They further argued that the oysters were natural and no seeding had been made to produce the pearls; they were an accidental by-product of cultivation and could not be differentiated from those produced from wild oysters. We

looked to the Japanese delegates for advice and they said that 'Keshi' meant small pearl in Japanese. We came to a compromise that we would not classify the Keshi pearls, but would merely define the term in the CIBJO *Pearl Book*. (The CIBJO *Blue Book* is the standard reference for the do's and don'ts of the trade when referring to diamonds, gemstones, and pearls.)

The problem of Keshi was again discussed this year as these pearls are also found in the larger South Sea oysters. They are a by-product of the cultivation of the much larger pearls. They are non-nucleated and can reach 6 mm in diameter; and producers are calling them Keshi Pearls. Again we looked to the Japanese for advice and the delegates in Vienna informed us that 'Keshi' was the Japanese term for poppy seed, hence the use of the term for the very small pearls. It was agreed that the term Keshi should come into the cultured part of the Pearl Book. I wonder, however, if everything that comes from an oyster that is used to cultivate pearls should be classified as cultured. I hope some of our readers will have views on this, somewhat philosophical, problem.

Lasered diamonds

In the Diamond Commission the dispute about the classification of lasered diamonds continued. Here a laser beam is used to remove a black inclusion in a diamond, the inclusion becoming colourless, and thus making the diamond more attractive and hence more valuable. When the process first came out, the trade universally accepted that this was a treatment and it had to be so classified. As the techniques have improved, and the laser drill holes

become less obvious, some cutters claim that using a laser beam is part of the cutting and polishing process of diamonds. As not all diamonds are manufactured by cleaving or sawing, and lasers are used in the cutting and polishing, the claim is that no differentiation should be made between the polishing of the outside on the stone and the inside of the stone. So we now have the situation that some trade authorities say that a lasered diamond need not be declared as such to the buyer, whilst others such as CIBJO say that the process should be declared at the point of sale of such stones.

Colour grading

At long last ISO (International Standards Organization) produced its report on the harmonization of the main grading systems in use for grading diamonds. Diamond grading reports have become an important part of the industry, but many of those who use these reports do not fully understand them. I hope to write on this whole subject in a future edition of our magazine, but perhaps if I can describe one detail that appears on these reports – that of colour – readers may appreciate some of the problems.

Let me use the most simplified system, that which uses letters to describe the colour, starting from D through E, F, etc. This is no magic scale; it was somewhat arbitrarily established by means of a series of diamonds of different hues which were graded against each other and set in order, starting from the whitest or the stone with least colour. The letters were not linked to wave-length, or any other measuring system.

The system is assumed to be linear, and a loose diamond is graded, using a trained eye, by placing it between the two consecutive master stones closest in colour; for example if the diamond falls between the F and the G master stones it will be called an F colour. Since there is a gap between these two master stones, two stones may both be graded as F but when placed next to each other, one will have a 'better' colour than the next. So some systems talk of a 'good F', or an 'F+' and some try to show where on the linear scale the colour of the stone will fall. So not all F stones should be worth the same. Since grading reports are used to determine the value of a stone, precise grading has certain consequences, and colour is just one parameter of many in a grading report.

Again, since the grading systems depend on the master stones, for any translation from one system to another, the master stones should be exactly the same. Even when two different laboratories use the same grading system, unless their master stones are identical in colour, they could grade stones differently. I will try to explore this problem in a future article.

Declaration of treatments

Although the CIBJO Blue Book has minor amendments made to it at each congress, some delegates feel that the Coloured Stone section should be totally re-written. This always meets great opposition from the more conservative members so the changes remain minute. Article 5 is the most contentious. This is the one dealing with processes undergone by gems, other than by cutting and polishing, to improve their appearance. Some processes need not be declared, whilst others do and there is considerable discussion about how to determine and present this bifurcation. Some suggest that the difference should be between those processes that produce permanent change and those that are temporary; between traditionally accepted ones and newer ones; between 'harmless ones' and those less innocuous. Whether or not a process can be detected by experts and laboratories is an important factor in this debate. Thus, initially, when corundums had their colour improved by heating, no-one could show whether the heating was done by nature or by man, and the process was not declared. Laboratories can now generally detect heated rubies and sapphires, but the trade continues to regard this process as innocuous and thus not declarable.

Emeralds

A different problem arose with emeralds which had their fractures filled not with oil, but with synthetic resins, such as Opticon; oiling had traditionally been accepted as nondeclarable. The trade was at a loss as to how to deal with this problem, as the resins were 'better' than oil, they were less volatile hence more durable, and their refractive indices closer to that of emerald than the traditional oils, and hence less noticeable. When the fractures were small, small amounts of fluid would go into the stone, and without destructive tests, laboratories and the experts could not differentiate between oils and resins, be they natural or synthetic. After many years of debate it has been agreed to accept resin filling in the same way as oil, i.e. a general declaration to inform the customer about the features of a stone should accompany it every time it changes hands, but a specific declaration need not be made. In Vienna we were informed that now the Raman Spectroscope has the potential to differentiate between different substances put into fissures in stones, so the debate has opened up again.

The problem in our trade is that there is a great amount of money to be made by improving the appearance of a gem, therefore research is affordable. However, when a new breakthrough is made, it is kept secret and is not trumpeted round the trade until it has been independently 'discovered' by an expert or a laboratory.

Gem dealers generally adhere to the dictates of the trade and declare when required to do so. Such declarations however appear to be more difficult at the retail level: for example a retailer would find it difficult to tell his customer that an emerald might have some plastic in it or that a ruby has some glass infused into the cracks. Attempts are being made to determine how retailers can present these processes without losing sales. One has to admire those who have grasped the bull by both horns and have tried to educate the public, and the booklet produced by Garrards explaining the processes stones can undergo is to H.L. be applauded.

AFRICAN TOUR Gemstones of Southern Kenya and Northern Tanzania

The GAGTL are arranging a two-week guided tour in September 1997 concentrating on the gemstones of the Proterozoic Mozambique metamorphic belt which runs through Southern Kenya and Northern Tanzania. The Mozambique belt is host to a variety of gemstones including tanzanite and tsavorite which are unique to this part of Africa. Nairobi and Arusha (Tanzania) are important gem trading centres for East African Gemstones.

The tour will include visits to mines producing materials including tsavorite, ruby and tanzanite. There will be opportunities to purchase gem materials both from dealers and directly from some of the mines. There will also be time to view the varied wildlife of this region.

The price is likely to be in the region of £3200 to include accommodation each night in hotels or lodges, all of a high standard. All meals are inclusive, except in Nairobi. Transfers to and from Jomo Kenyatta Airport are inclusive, but Airport Tax will be payable on departure.

For further information about the proposed trip contact Doug Garrod on 0171-404 3334.

RECENT EVENTS

Jewellers' Exchange '96

Planned and hosted by the Department of Design, University of Northumbria at Newcastle, this conference held from 21-24 March attracted a surprising total of around 140 delegates. About twothirds of these were working jewellers of every possible variety, and the rest included historians, curators, gallery owners, collectors, administrators and others. Some 19 nationalities were represented by jewellers from Europe, the USA and the Far East. No fewer than five SJH committee members attended and several other society members were spotted in the crowd.

The organizers had arranged an ambitious and densely packed programme of papers, presentations and visits to some of the many jewellery exhibitions currently showing in the area as part of the celebration of the visual arts taking place in the North of England throughout 1996. This made for a sustained level of excitement. concentration and although more time for discussions and questions would have provided a greater opportunity for the many highly articulate and committed jewellers present to share their views on an international level.

Exhibitions

The conference began with a reception at the Shipley Art Gallery across the Tyne, showing 'American Revelations', a remarkable exhibition of new work from the Society of North American Goldsmiths, and an opportunity to view not only the Shipley's distinguished contemporary craft collection, but also a Crafts Council exhibition, 'New for the Nineties', each with a notable jewellery constituent.

Friday and Saturday were given over to presentations and papers delivered in the performance theatre on the labyrinthine campus. Helen Drutt English opened the programme with an account of the history and philosophy of her own collection and gallery in Philadelphia, closely following the early chapters of her recent book (in collaboration with Peter Dormer) Jewellerv of our time: ornament and obsession. She was followed by David Poston, speaking on the theme of 'Jewellery and People' as presented by his 1995 exhibition for the Crafts Council, 'What is Jewellery?', and the Korean-born Eun Mee Chung, exploring the conflicting influences of her own heritage and those of her adopted USA.

After lunch there was a choice of a demonstration by Delcam International of a CADCAM programme or a presentation by the World Gold Council on its Gold trends book. This latter met with some hostility from the audience of artist-jewellers, who felt the book more relevant to a 'trade' constituency. Later Helen Drutt English chaired a panel on Collecting Jewellery, made up of Rosemary Ransome Wallis of the Goldsmiths' Company, Amanda Game of the Scottish Gallery, Veronica Schwarzinger of the V+V Gallery in Vienna and Jacqueline Ford of the Crafts Council. Sadly, shortage of time prevented anything more than a perfunctory question and discussion period after the sequence of short presentations by the panel. An opportunity may have been lost here to highlight properly the crucial role of shops and retail galleries in promoting and selling work and facilitating commissions for jewellers. That evening delegates were bussed to Middlesbrough for a reception at the Cleveland Crafts Centre, to see the Centre's acclaimed collection of



Five members of the SJH Committee: (from left) Clare Phillips, Liz Goring, Muriel Wilson, Susan Coelho and Corinna Pike.

contemporary non-precious jewellery, displayed in its entirety for the first time.

Jewellery of India and Japan

Saturday's programme opened with a mesmerizing performance by Oppi Untracht on his life-long passion for traditional Indian jewellery. Shamelessly over-running and wrecking subsequent timetabling, it was nonetheless worth every extra minute. Untracht was followed by Reicho Ichimura, Director of the Japan Craft Council and a jeweller, with an instructive survey of Japanese jewellery since the 1950s. Next, Jane Adam spoke about her own experience of demonstrating and teaching in India and the difference of perception which she encountered there.

jeweller Onno The Dutch Boekhout then expounded his personal philosophy in a fascinatingly ambiguous paper, but the focus of the afternoon session was the presentation on Mitsubishi Gold Clays (see GJN, 1995, 5(1), p. 9). Tim McCreight described the investigations of a workshop in the US, and Anne-Marie Shillito and Jeanne Werge-Hartley showed slides and spoke about their own experiments with the new materials. Great interest, mixed with some scepticism, was shown by the large audience.

Debate

A somewhat rushed discussion session ended the working day, in which groups argued the case for and against internationalism and the future of jewellery, reporting to a plenary session. The discussions threw up many important issues, but insufficient time, and the flagging energies of many of the delegates after the full and stimulating programme, made it impossible to develop a full scale debate as intended.

The social aspect of the conference climaxed with a dinner in the students' union building (something of a relief after all the cold quiche and sausage rolls of the everlasting buffets) at which the sculptor Andrew Logan showed slides of his mirrored jewellery and presented a troupe of six performers robed in his designs. This, although dated in style, was well received and set the mood for the live band and dancing later in the evening.

New Association

On Sunday morning delegates, some rather pale, assembled once more for a plenary meeting to discuss the establishment of a British association of fine metalworkers. The concept was enthusiastically welcomed and there was an extended discussion on ways and means. A small steering committee was set up to begin formulating aims and structures and to investigate the principal areas in which an association would be valuable both to the working jeweller and also to those concerned in whatever sense in the study and promotion of jewellery.

Finally buses took remaining delegates to Hexham for another exhibition 'The Capture of Europe', arranged by the Forum für Schmuck und Design, before everyone dispersed during the afternoon.

The conference was an exhilarating experience with a palpable friendliness and absence of posing and politics. Jewellers accustomed to working more or less in isolation seemed delighted to meet each other and a pin-swap on the first evening left many delegates festooned with tiny pins, brooches and badges. A further bonus was the opportunity of meeting jewellers from overseas and of sharing experience and views on education, sales, technique and so on. The unanimity of acceptance of the proposal for an association reflected the general recognition of the value of contacts and occasions to discuss issues, exchange information and experience on a regular basis. In all the conference was seen as the beginnings of something more permanent and as a resounding success, and the organizers, in particular Norman Cherry and Timandra Gustavson, were congratulated on their skilful management of a com-Muriel Wilson plex event.

Gemmology evening at Garrard the Crown Jewellers

The Basle Fair attracts visitors from all over the world, not just buyers but people from all sides of the trade who want to keep abreast of latest developments. Three such visitors stopped off in London *en route* to the fair to give their views on synthetic diamonds and diamond treatments. Dr James E. Shigley, Director GIA Research; Thomas M. Moses of the GIA's Gem Trade Laboratory in New York; and Susan B. Johnson, Director of Alumni Relations, were the guest speakers at an evening for 'UK – GIA Alumni and Associates' held at Garrard the Crown Jewellers on 17 April.

Dr Shigley gave a slide presentation illustrating the salient identification features of the synthetic products so far encountered by GIA laboratories. Practical identification is possible based on distinctive colour zoning, metallic-looking residual flux inclusions and fluorescence under the short wave ultraviolet lamp. Most synthetic material seen originates from Japan but Dr Shigley also reviewed other products from Russia and other possible suppliers such as Chatham. As well as practical everyday identification methods, he also outlined some increasingly useful laboratory techniques including cathodoluminescence.

Both Dr Shigley and Mr Moses were at pains to remind the audience that synthetic diamonds have not yet made any substantial impact on the practices of most working jewellers, far more significant at the moment is the prevalence of treated diamonds, both laser-drilled and filled stones.

Although the theme for the evening has regularly been the subject of major articles in the trade press, particularly *The Journal of Gemmology* and *Gems & Gemology*, the session was a timely reminder that all of us need to be constantly on our toes and alive to the latest developments. Brian Dunn

Cultured Pearls

On a flying visit to London, Mr Shigeru Akamatsu, Senior Manager of the Mikimoto Pearl Research Laboratory, found time on 30 April to address more than 100 members and guests at the GAGTL headquarters in London. His subject was 'Cultured pearls, their past, present and future' and covered the techniques of culturing developed by Kokichi Mikimoto, the current situation of Japanese Akoya pearls, Chinese freshwater pearls, Chinese Akoya pearls, South Sea pearls and Black pearls.

As long ago as the 1100s the Chinese invented mabe pearl culturing and pearl Buddhas produced by this technique were valued as temple decorations.

Mr Akamatsu initially studied the colour pigments in seafood and then changed course to concentrate on researching the pigments in pearls when his supervisor obtained a bucket of cultured pearls from Mikimoto! He said that the causes of colour in pearls included the interference which gives rise to the pink and green 'orient', the organic pigments connected with the protein conchiolin and the brown blemishes which when filtered through nacre, impart a blue colour. The great dream of the pearl cultivator is to control the pearl colour at the stage of cultivation.

Among a wealth of detail he explained that the term 'Keshi' originally meant poppy seed and, because of this resemblance, very tiny Akoya natural pearls came to be called 'Keshi'; eventually the term was broadened to include those pearls arising as a by-product of culturing.

Some activities of the International Pearl Summit held in Kobe, Japan, in 1994 and of the resulting assembly, the World Cultured Pearl Organization, were outlined. International co-operation has become imperative to maintain the reputation, quality and status of cultured pearls in the face of competition from other products, and research is continuing at Mikimoto particularly into the causes of colour and nacre formation.

R.R.H.

A weekend of Scottish gemmology

A weekend of Scottish gemmology was held in Perth from 19 to 21 April, organized by the recently reformed Scottish Branch of the GAGTL. The event attracted delegates from as far afield as Gateshead, Inverness and Sri Lanka.



Studious students in Scotland

The speaker and tutor for all sessions was Alan Hodgkinson. His opening talk on the Friday evening was about diamonds and he covered topics from glass filling and how to find the tell-tale colour flash to the magnetic quality of synthetics and how to detect it with nothing more expensive than a bowl of water, a piece of polystyrene and a rare earth magnet!

Saturday morning was devoted to the study of Visual Optics: a set of techniques devised by Alan which allows symmetry of cut, single or double refraction and the extent of the DR to be determined using nothing more than a single light source and the naked eye. Seeing is believing! Using the ingenious Hanneman-Hodgkinson Refractometer the RI of zircon with spectrums complete with absorption lines and the DR can be obtained with relative simplicity. (The added bonus is that no noxious chemicals need to be employed to achieve this.) During the course of the lecture the dispersion figure for diamond was also obtained using this simple set.

The final tutorial covered coloured gemstones. After a slide presentation the class had the opportunity to test, study and enjoy a superb selection of specimens both natural and synthetic, and in the case of opal, simulant as well.

The Annual General Meeting followed the final talk. Brian Jackson was elected Chairman; Joanna Thomson, Secretary; Gillian O'Brien, Treasurer; Ruth Cunningham, Membership and Recruitment Secretary. Then, Mary Burland, Membership Secretary of the GAGTL, gave a short talk on the activities of the Association and answered a few members' queries.

On the last day a field trip was organized to two local quarries near Dundee where some interesting

EDUCATION

specimens of agates and quartz were found, despite attempts to cloud the issue from a typically driech April day!

Those who attended the weekend considered it to have been a great success and the committee now feel that the Scottish Branch is very much back on the map.

The next event was held on Sunday 19 May; when members had the opportunity to visit the stone cutting department of the National Museums of Scotland in Edinburgh to cut the specimens collected on the field trip.

Joanna Thomson

Wednesday Club

'If there were an expensive restaurant which by a mere caprice of its proprietor was only open on Thursday afternoon, it would be crowded on Thursday afternoon', says Chesterton in the Father Brown story of *The Queer Feet*. The story was published in 1929 but in 1996 there is a place in London which is open only on a Wednesday evening and it is quite full then.

This is the Wednesday Club, already mentioned more than once in its history of over two years. What is happening now? For the past few weeks members have been testing a set of 36 specimens, each one showing some unexpected peculiarity of properties or of identification. They have included a faceted vellow Mali garnet, placed in the series grossular-andradite, showing an iron absorption band deep in the blue and an RI of approximately 1.76 (this has puzzled almost everyone): a particularly convincing Slocum stone: a blue diffusion-treated Montana sapphire crystal: a fine faceted clinozoisite from Pakistan with excellent absorption spectrum (if you don't know what this should be, come to the Club!): a fine crystal of liddicoatite from Madagascar and a colour-change natural cobaltbearing spinel from Sri Lanka – this is one of the few stones I have ever seen which looks really attractive in strip lighting. We are now enjoying Ted Thomson's reference collection of gemstones built up with outstanding specimens over many years.

Apart from looking at unexpected specimens, members are variously engaged on items they bring in, on an evaluation of the Hanneman-Hodgkinson SG balance and on the HH colour filters. There is also an evaluation of Pienaar's interesting attempt to establish a single constant for gemstones based on SG/RI readings. All these projects move quite slowly but there is a lot going on to distract! What is particularly pleasing is the desire of many Diploma students to use the Club as a source of additional practical experience. True to what I have always wanted, they are teaching themselves. These are the students who will bring the same enthusiasm to their future work in gemmology and we can never have enough of them. While the club is not devised for the student any more than for others, the combination of experience of and early acquaintance with gemmological problems produces a

lively atmosphere which I want to maintain.

Gemmology in the UK has not generated an élite (sorry, some readers!): the Club is helping to ensure that everyone is able to sustain their interest in gemstones and points to a healthy future for practical gemmology. M.O'D.

Jewellery courses at Sotheby's

Sotheby's Institute offers a onemonth course entitled *Understanding Jewellery*, led by Amanda Triossi and including lectures by a number of specialists and visits to museums and other collections. The next course is scheduled from 13 January to 7 February 1997.

The Institute will also hold a three-day jewellery seminar in Geneva, entitled 'From the elegance of platinum to the glamour of gold: a survey of jewellery design from the 1930s to the 1960s', from 12–14 November 1996.

For details contact Sotheby's Institute, 30 Oxford Street, London W1N 9FL (0171-323 5775)

Aquamarine

Like emerald, aquamarine is a member of the beryl family; it is an alumino-silicate of beryllium crystallizing in the hexagonal system. Large crystals of good quality can be found and are generally far less fractured than those of emerald. Pale green beryl coloured by iron is not called emerald (the particular green of emerald is caused by chromium) but is referred to in the trade as green beryl; on the Indian market however the term green aquamarine is used.

Folklore

Aquamarine has historically been a stone representing a universal symbol of youth, hope and health. Because it seems to have captured the colour of the ocean, and it would gather its full force when it was immersed in water in the full light of the sun, it became the jewel for the beginning of springtime hence the stone for the month of March. Folk tradition claims that it guarantees a happy marriage and makes its owner merry and rich. It is also the accepted anniversary gem for the nineteenth year of marriage. Also, if one dreams of aquamarine then one will meet new friends. As its name suggests, aquamarine is associated with the oceans, and according to legend its origin is in the treasure chest of mermaids. In ancient times the stone was said to aid seafarers, thus it was given as gifts to sailors or those who traversed the oceans.

In the Middle Ages light coloured aquamarines were cut into flat platelets and these were set into the 'peepholes' of the reliquary shrines

Medicinal values

Water, in which aquamarine had been immersed, was considered a remedy against troubles of the eyes, against toothache, sore throat, liver problems, glandular swellings and feelings of weakness. and monstrances (vessels in which the Host is exposed) so that things contained within would be better visible. The realization that aquamarine could enhance the clarity of view lead to its use, as early as around 1300, for eye-glasses. However this characteristic had already been known in antiquity and the German word Brille is derived from the word 'beryl'. Very clear beryl was also cut and polished to make 'magic mirrors' which were thought to predict the future. Thus one can understand the connection when aquamarine is ascribed the power to make one sharp-sighted against impending malice and peril. Much more puzzling is the belief that it turned black when its owner committed perjury.

Volmar, the Middle High German writer who composed a didactic poem on precious stones in about 1250, wrote:

'The speech of whoever drinks of it becomes praiseworthy in all respects. The devil will avoid him.'

Therefore the pale blue stone was worn as an amulet also against quarrels and dangers caused by enemies. It was considered to be powerful in love affairs and helped to preserve marriage, hence its use as an anniversary stone; others considered it advantageous in avoiding discovery for extra-marital love affairs!!

Brazil

Aquamarines have been traded from Sri Lanka for probably more than 2000 years, but the main source of the stones more recently has been Brazil. Large clear crystals were found from the eighteenth century onwards and the octagon step-cut was preferred. Anyone who has seen large parcels of cut and polished aquamarines from Brazil will immediately be able to see how the stones are graded for colour with one parcel showing distinctly better hues of blue than the other, but when a stone was removed from the parcel and viewed from above it seemed 'to lose its colour'. This is particularly true of the larger stones, and experienced sellers of the stone would place two stones from different



Brazilian postage stamp depicting a pearshaped aquamarine.

parcels adjacent to each other on a white piece of paper or on their white handkerchief and the colour difference would again become obvious. But as soon as they were separated the untrained eye would fail to see a clear distinction in colour. Great skill was needed to buy these stones, and stones that did 'retain' their colour when viewed on their own were very highly prized and priced.

Since the fashion is now to use much smaller stones for the mass of

jewellery now produced, this apparent loss in colour is not so obvious and stones are regularly cut into ovals and rounds, as well as the more traditional octagons.

At the height of the Brazilian control of the aquamarine market, mines existed which produced stones of an exceptionally fine dark blue, the most famous being 'Santa-Maria'. Anyone who has seen a good example of such a stone will never forget it, and the blue cannot be confused with the different blue hues of sapphires. But stones larger than about two carats are rare from this mine, and many have visible inclusions which reduces the beauty and the value of the stone. Other mines producing aquamarines of good colour are those of Espirito Santo, Maria Rocha (after a Brazilian beauty queen in 1954), Fortaleza and Marambaia. To the expert used to dealing with stones from these mines on a regular basis, the colours are distinctive and their expertise in this respect is most impressive to anyone not tuned to appreciate the particular nuances.



German postage stamp depicting a rectangular aquamarine.

Large crystals

These latter mines have produced very large clear crystals and one of the largest ever found was discovered in 1910 in Marambaia. The stone displayed colour zones with a greenish shell, yellowish-green middle and a blue centre. It was taken to Idar-Oberstein in Germany, where the cutters experimented with heat treatments and found that greenish tinted stones would turn to the much more highly valued blue and that the colour changes were stable. But if you are going to 'cook' any of your pale greenish aquamarines, make sure that they are inclusion free, as most stones with inclusions will shatter on heating.

Other large stones found have been a 34 kilogram stone from Maria-Rocha, and the largest aquamarine cut to date came from the nearly 26 kilogram Dom-Pedro crystal, named after two Brazilian emperors of the nineteenth century. The stone now lies in a bank vault awaiting a rich owner!

A rare and unusual variety of beryl is blue when mined but loses its colour in sunlight. This variety is known as Maxixe beryl (after the name of its source) and stones of this nature were recently the subject of a famous court case in Singapore (see *GJN*, 1995, **4**(4), p. 51). An article by Kurt Nassau on this variety of beryl entitled 'On the identification and fade testing of Maxixe beryl, golden beryl and green aquamarine' was published in *The Journal of Gemmology*, 1996, **25**(2), p. 108).

Opaque beryl crystals may reach weights of several tons, but these are not of gem quality, and are the raw material for the valuable element beryllium, which among other purposes, is used for absorption of radiation in nuclear reactors.

Translucent, as opposed to the transparent, beryls can be cut as cabochons, and a very few contain inclusions which give rise to the extremely rare star or cat's-eye effects. Many old pieces of jewellery contain quite pale stones, cabochon or faceted, which were foil-backed to intensify colour or brilliance.

Sources

In more recent years gem aquamarines have been found in quantity in countries other than Brazil and there are rich occurrences in the Inner Highlands of Madagascar, but these stones, although stronger in colour than the Brazilian ones, have a steely blue colour. Other commercial mines have been developed in Pakistan, South West Africa, Zimbabwe, India, the USA and Mexico. The latest commercial finds come from Nigeria. Many of the stones found are now regularly heated to improve their colour.



Postage stamp from SW Africa showing crystals and a cut specimen of aquamarine.

Aqua or topaz?

Aquamarine has been confused with blue topaz, a stone also found in Brazil, but because of the higher specific gravity of topaz a dealer can distinguish between the two on the basis of experience of the feel of the stone and how heavy it should be for a certain size. A similar test can distinguish yellow topaz from the 'lighter' yellow quartz or citrine.

White topaz can now be irradiated to produce the blue hues more commonly associated with aquamarine. Depending on the quantity of irradiation, electron bombardment produces an aqua-like colour of various hues, a neutron exposure will produce a steely blue colour, more zircon-like and known as 'London Blue', and if these stones are then subjected to an electron bombardment they will produce a rich aquamarine colour known as Swiss Blue or Super Blue.

No known commercially produced synthetic aquamarines are on the market. This may be because they are too expensive to produce. However the Verneuil-produced spinel is often referred to in the trade as 'synthetic aquamarine'. This is wrong and these stones should be called 'synthetic spinels aquamarine colour'.

H.L.

BOOKS

Roman Jewellery by Ljudmila Ruseva-Slokoska (Sofia 1991) ISBN 0–88168–188–1 (Distributed in UK by Cromwell Editions: price not known).

This volume, in English, is a scholarly catalogue of the Roman jewellery collection of the National Archaeological Museum in Sofia, Bulgaria and, although it is not a new publication, it is well worth bringing to the attention of those interested in Classical jewellery. It is fully illustrated in colour and blackand-white, and contains discussions of types and classes of ornament, plus individual catalogue entries giving detailed descriptions and references. The colour printing is not quite up to current standards, but it is acceptable, and in general the book is well produced and printed.

Dr Ruseva-Slokoska includes in her coverage not only the more impressive gold and silver jewellery but also humbler ornaments of bronze and iron which are usually omitted in more 'arty' books, and she provides full information about archaeological association. i.e. objects found together in hoards or graves. For any researcher working on Roman jewellery from elsewhere in the Roman Empire, this is an essential work of reference, but it would be a worthy addition to any library with a section on Greek and Roman jewellery. C.M.J.

Roman jet in the Yorkshire Museum by Lindsay Allason-Jones.

Most jewellery historians will think of jet jewellery as typical of the Victorian period, and they may even be unaware of the fact that jet was used for personal ornament as early as the Bronze Age and was very popular in Roman times.

This museum publication, priced at an extremely modest £4.50 for 55 large, beautifully-printed full-colour pages, will be of equal interest to the general reader who would like to

learn more about the early history of jet jewellery and to the specialized researcher into Roman jewellery. It is, first and foremost, a detailed catalogue of the 349 items of Roman jet jewellery in the Yorkshire Museum, fully referenced and illustrated with superb professional drawings; everyone familiar with Lindsav Allason-Jones's academic work will know that this aspect of the book is outstanding. At the same time, however, her skills as a popular communicator come out in the introductory sections, written in an accessible and enjoyable style. which provide the less specialist reader with a wealth of information about jet and related black materials, and the history of their use and manufacture. The very high-quality colour photographs make the book a visual delight, and the author, the Yorkshire Museum and several grant-giving bodies who have supported the publication deserve congratulations in spanning the popular/academic divide with such remarkable success. CML

Jewelry, From antiquity to the present, Clare Phillips, Thames and Hudson, ISBN 0-500-20287-7, 224 pages, 174 illustrations with 54 in colour, extensive bibliography and index. £6.95.

Offering a concise survey of the entire field, this book analyses jewellery's changing fashions, explores its social context, and examines how it has been worn by both men and women. It shows how jewellers have responded to new sources of gems. whether emeralds from the New World or diamonds from South Africa, and to the discovery of metals such as platinum and aluminium. Masterworks by unknown craftsmen and pieces designed by individual artists as diverse as Holbein, Pugin and Calder are illustrated alongside the glittering products of the major jewellery houses.

Apposite as the above description is, it does not do justice to the quite extraordinary amount of information crisply presented. The items shown have been superbly selected and mostly very well photographed. It is unfortunate that, in a book written by a curator of the Department of Metalwork, Silver and Jewellery of the Victoria and Albert Museum, jewellery is spelled in the American way (jewelry) both in the title and throughout the text. This is, however, a very small criticism of a generally excellent book.

Clare Phillips and the publishers are to be greatly congratulated on producing, at an incredibly low price, what will surely rapidly become the classic introduction to jewellery. Nigel Israel



Natural History Museum

The new Earth Galleries at London's Natural History Museum will open to the public on Saturday 20 July 1996.

The Galleries will draw extensively on the Museum's collections of over 9.5 million fossils, minerals, gems and meteorites, as well as including new specimens procured for the project.

Schmuckmuseum Pforzheim

The special exhibition at Pforzheim from 26 April to 22 September 1996 is entitled *Schmücken – Urtrieb der Völker*. It is a display of an important private collection of jewellery from Africa, the Middle East and Asia assembled by Eva and Peter Herion. In addition to the extensive range of personal ornament in different materials, the exhibition includes over sixty fine photographs by Peter Herion showing the jewellery as worn.

ANNUAL TRIP TO IDAR-OBERSTEIN

Sun, snow, stones and stars (well, a comet really) sum up this year's superb trip to this fascinating German centre of gem cutting, sales, education, research and history. Here we had a taste of all these and more: we shall remember the food, the coffee, the swimming and the sauna and above all the great welcome and interest from all those we visited.



Gethmanns Hotel again gave great comfort and service amid the Hunsrück upland forests.



▲ Our return visit to F A Becker was again a trip into Aladdin's cave – with a vivid explanation from Gerhard Becker.

Another spectacular cave – down in the mine, one of our own Diploma daytime course students is delighted to see agate and amethyst geodes in lava walls.



▲ In Idar, Professor Bank conjured up for us an amazing sequence of gemmological wonders —

together with a very informative demonstration of modern cutting, and our viewing of educational displays and classes at the German Gemmological Association.



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Ancient methods are still producing brilliant results at the water-driven Bieleschleife – while Susanna provides instant translation!

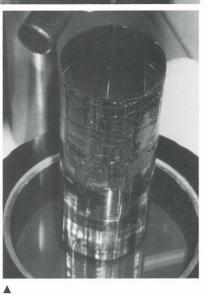


▲ Down the valley to Oberstein, under the Felsenkirche in the rocks and the old castle above, to see bygone wonders in the Museum —

and the modern wonders in the Research Institute for Precious Stones and Precious Metals, where Dr Ackermann showed us the ultra-modern facilities of their new workshops including diamond-cutting lasers — ♥



and working 'crystal-pulling' furnaces ----



with a new crystal of 'garnet' material ready to be made into laser rods.



Again an unforgettable tour, with a most happy crowd of delightful members, students, friends and relations. We suggest that you book with us extra early for next year's visit: we have already started the list! It will again be in our own coach, probably for six days this time as we shall have a new museum to look at in Idar, and possibly during the second week of April, after the Easter holiday.

ROMAN CAMEO FROM BRITAIN

Forthcoming sale

One of the finest cameos from Roman Britain, hitherto in private hands, will be sold in Christie's July Antiquities sale. The nicolo gem, 3.2 cm high and dating to the 2nd–3rd century AD, was found around 50 years ago at Wiveliscombe in Somerset. It is carved with a head of Hercules, a type which is well-known and widely paralleled in the Roman Empire, but seldom so skilfully executed.

Museums disadvantaged

The estimate placed on this admittedly exceptional piece by the auction house is sadly so high, that it makes it impossible for any public



Roman cameo with head of Hercules from Wiveliscombe, Somerset.

Photo: British Museum

institution to contemplate bidding for it. Its temporary export to Japan during March was clearly intended to raise interest amongst potential buyers there, and may well have succeeded. If the cameo is acquired by a foreign buyer, it will be very difficult indeed to prevent its export. however much we may regret seeing a small but exquisite work of art from Roman Britain leave the country. In order to withhold a licence, the purchase price must be met by a museum in this country, and museums are heavily disadvantaged in the harsh world of the international art market, not only severely and increasingly starved of actual funds, but constrained by their accountability to the taxpayer, which makes any hint of extravagant spending out of the question.

Readers may like to see a picture of this handsome cameo, for they are unlikely ever to see it on show in the Roman Britain gallery of the British Museum. C.M.J.

FORTHCOMING EVENTS

Regalia and Crown Jewels

'Symbols of Sovereignty: Regalia and Crown Jewels, their form and function', 27–29 June 1996.

A three-day conference on regalia will take place at the Tower of London (27 June), the Institute of Historical Research, Senate House (28 June) and Kensington Palace (29 June). It has been organized by the Society for Court Studies, the gem stone and gem trade project (IHR and the University of St Andrews) and the artefacts seminar of the Centre for Metropolitan History. For further information, please write to Ms Kay Ford, Historic Royal Palaces, Hampton Court Palace, Surrey KT8 9AU. Jewellery in Europe and America: New Times, New Thinking

The Society of Jewellery Historians has arranged a special evening viewing of the exhibition *Jewellery in Europe and America: New Times, New Thinking*, at the Crafts Council gallery on Tuesday 24 September. Ralph Turner, curator of the exhibition, will give an introductory talk, and it is hoped that some of the British jewellers represented in the exhibition will be present. Admission by ticket only (application forms enclosed for SJH members).

GEMS

Gem and mineral shows continue to produce familiar species from wellestablished localities and from some new ones. Specimens from Russia continue to appear and the Malagasy Republic is also slowly returning to the gem scene (by the way, does anyone know of an available copy of Lacroix's book on the minerals of Madagascar?)! At the Denver Show held way back in 1995 (account just published in the Mineralogical record this year), fine crystals of rhodochrosite are reported from the well-known Sweet Home mine, Alma, Colorado. The crystals, forming bright pink rhombs (students-why rhombs?) measure up to 1 cm. Other crystals, of exceptional interest to the mineral collector, occur on needle quartz. Also from Colorado were smoky quartz crystals up to 20 cm long and epidote crystals up to 5 cm across:

both species from the Calumet iron mine.

Crystals of chrysoberyl from Santa Tereza, state of Espirito Santo, Brazil, showed greater development of the prism faces compared to those from the more traditional location of Itaguaçu in the same state, first published in the 1940s. The colour of the newly-reported crystals (occurring in the usual trillings) is a translucent brownish or greyish-green with gem-quality areas quite small. In any case, you might not consider it quite appropriate to facet fine crystals!

Pink octahedra of fluorite (don't facet these either!) were on view at the Denver show. They came from Mont Blanc, France, where a pocket containing very deep pink gemquality crystals was recently (for 1995) opened. The crystals were found singly and in groups on white weathered granite. A rough guide to the price – the *Record* quotes US\$ 5,000 for two 8×10 cm matrixes with fluorite octahedra measuring 2 cm on an edge.

Nigerian emeralds were exhibited at Denver: supply of Nigerian beryl has been intermittent for at least ten years but from time to time some attractive crystals appear. This time some fine emerald crystals: the colour described as half-way between deepest aquamarine and full emerald green and the crystals reported to show a clear form with pinacoidal faces and high pyramids. One crystal doubly terminated. They were said to have been mined at the beginning of the 1990s. A new strike of elbaite [tourmaline group mineral] is reported from northern Pakistan: the crystals, sharp striated prisms, are coloured pistachio-green to colourless to bright blue, perpendicular to the *c*-axis. One specimen has a blue tip and thin pale candy stripes half-way along its length, which is 17 cm.

From Sri Lanka there is a report of a 71.11 ct gem taaffeite crystal from Elahera in the south of the island: reportedly this crystal was sold to the Smithsonian Institution, National Museum of Natural History, Washington DC.

From the show held at Pretoria, South Africa, also in 1995 and described in the same issue of the *Record*: green tourmaline crystals 25 cm long and 3.7 cm thick from Mozambique: yellow orthoclase from the Malagasy Republic and rhodochrosite from the Kalahari manganese field.

A useful insight into the operation of the Russian precious mineral and metal (and, by implication, the gem market) is given in Mineralogical record 27(1) 1996. Here is a précis: the Strategic Metals Reserve, a branch of the Ministry of Economics in Moscow, one of whose tasks is to back the currency. has branch agencies at places where important deposits are found. The rule is that 80 per cent by weight of what is produced must be sent to the branch. From this 80 per cent. 65 per cent must be sent on to Moscow. This leaves 20 per cent still at the mine. None of this can be sold to foreigners and the columnist in the Record does not himself know quite what happens to this residue. However, up to 35 per cent of what the branch agency receives can be sold to foreigners: it is also possible that some items from the Moscow stockpile may also be available. Any foreign buyer has to deal with the central agency or with the branch agency. M.O'D.

COMPETITION

The other day I went to see the old gem dealer mentioned in the March Competition with the boxes of diamonds and pastes. I wanted to try the test but he told me: 'Since they wrote about me in *Gem & Jewellery News* I have no end of customers for these. I now lose money every time I get a bidder. They will probably print a correct solution next, so I have stopped it.'

Seeing my disappointment he said: 'I have another offer. I packed four identical, empty match boxes with rubies, sapphires, topaz and amber, each type in a separate box, and labelled the lids correctly. My last client has mixed all the lids and now every box is incorrectly labelled. If you can guess correctly the contents of the four boxes I will give you £100, if you guess one or more wrong you give me £100. You can examine the boxes, but it is no use shaking them, you will hear nothing, I have put a small equal amount of cotton wool in each box so the stones will not rub together or move about in the boxes.'

As I walked away he shouted after me: 'You can also look into one box before you speculate; I normally let people look into two boxes, but since you are trade – only one look for you.'

Should I make a bid? An honourable mention for the most elegant and coherent advice. H.L.

Answer to competition in last issue

The answer is fairly simple. I first choose the box labelled, wrongly, 1 diamond + 1 paste. As the label is wrong it must really contain either two diamonds or two pastes. So if the stone taken at random from this box by the dealer is a diamond I know both stones are diamonds so I purchase just that box for £100. If the stone is a paste I know that the box labelled 2 pastes must really contain two diamonds so I buy that one (they cannot be in the box labelled two diamonds because, we are told, each label is wrong). So the answer is that I can pay £100 and be sure of buying two diamonds. We had a bumper response to this competition and I am pleased to say that the majority of answers were correct. J.O.

WHAT'S ON

Gemmological Association and Gem Testing Laboratory of Great Britain

London Branch

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

4 September The importance of gems in Brazil's development John Kessler

GAGTL Conference Exceptional Gems

The 1996 Annual Conference is to be held on Sunday 13 October at the Scientific Societies Lecture Theatre, New Burlington Place, London W1.

Extraordinarily beautiful and rare gemstones and methods of cutting to produce a truly outstanding specimen have inspired the theme of this year's Conference 'Exceptional gems'. The keynote speaker will be Dr H Bank from Idar-Oberstein, Germany. Other speakers will include Ben Gaskell who will outline work on top quality quartz crystal spheres, Brian Jackson on Scottish sapphire, Howard Vaughan who will relate the stories behind some famous diamonds and Peter Zaltsman who will be speaking on the art of cameo carving.

Full details of the Conference will be circulated in the near future.

20 November	The mystery of opal		
	E	David Callaghan	Saturday 2
4 December	Burmese gems at the	Natural History	November
	Museum	Cally Hall	
Midlands Branch Monthly meetings will be held at the Discovery Centre, 77 Vyse Street, Birmingham 18 (directions to the Sunday Gem Club venue available on request). Further details from Gwyn Green on 0121-445 5359.			
27 September	Beta Appraiser – an	IBM program	Monday 9
	for valuers	John Henn	December
25 October	Talk by Eric Emms		

North West Branch

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

18 September	Brush up your gemmology
	Deanna Brady
16 October	Second-hand and antique jewellery, and all you need to know about it
	Richard Digby
20 November	Annual General Meeting

Scottish Branch

For details of Scottish Branch meetings contact Joanna Thomson on 01721 722936 or Ruth Cunningham on 0131–225 4105.

23 June Field trip to Campsies to collect jasper

Society of Jewellery Historians

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

Tuesday 24 September	Special evening viewing of the Crafts Council exhibition <i>Jewellery in</i> <i>Europe and America: New Times,</i> <i>New Thinking</i> with a talk by the curator, Ralph Turner. Admission by ticket only (application forms enclosed for SJH members).
Monday 30 September	Charlotte Gere will give a lecture entitled From small beginnings: Jewel Cases and their Makers.
Saturday 2 November	Faith, Hope and Vanity – Amuletic and Synthetic Jewellery. A one-day symposium in London. Details to be announced.
Monday 4 November	Ulla Tillander-Godenhielm will speak about <i>The recently discovered Design</i> <i>Books of Henrik Wigstrom, Chief</i> <i>Workmaster to Fabergé.</i>

Oppi Untracht will speak about the subject of his book: *Indian Jewellerv*.

The copy date for contributions for the September issue of Gem and Jewellery News is 2 August 1996