

Gem & Jewellery News

VOLUME 5 NUMBER 2

MARCH 1996

INTERNATIONAL GEMMOLOGICAL CONFERENCE



Delegates to the International Gemmological Conference watching gem gravel processing at the Bo Rai mine in eastern Thailand.

The 25th International Gemmological Conference (IGC) was held during October and early November last year in Thailand. It was hosted by the Asian Institute of Gemmological Sciences (AIGS) and opened with a reception in their new premises at the Jewelry Trade Centre in Bangkok. The Chairman of the Institute, Mr W K Ho and Mrs

Ho welcomed over 100 delegates, observers and guests to a series of presentations on the culture of Thailand and some reminiscences (through a video presentation) of past IGC highlights.

From Professors Gübelin, Sunagawa and Zwaan there were moving tributes to Dr Henry Meyer who had been a significant and

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stimulating personality at many IGCs before his untimely death last year. There was then a visit to the new display of AIGS gem materials before the opening Conference Dinner.

More details of the Conference are given on p. 22.

Gem & Jewellery News

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EDITORIAL

While the gemstone and jewellery trades pursue their unassuming course, gemstones and minerals are the unchallenged stars of quite another circuit, long established and at least equally successful. Since a good deal of initiative and imagination goes into the world of gemstone and mineral collecting it is not surprising that some of the larger mineral and gem shows attract visitors and buyers from all over the world. The Tucson and Munich shows are probably the best known but there are several good shows in the United Kingdom too.

The collector – who is often not too anxious to let the world know of his interest – provides a continuous input to part of the trade and the few dealers who carry stocks of the rarer stones and mineral specimens contribute as much to the gem and jewellery world in their way as the retail jeweller. Gemmological education has done a lot for the gemstone collector and the trade should be keeping a look-out for the gemmologist starting to build up a collection.

Tourmaline with the Kerez effect: synthetic spinel with the closest possible resemblance to alexandrite: synthetic spinel/strontium titanate doublet: the recently-published yellow-green garnet from Mali: a selection of Slocum stone opal imitations: the recently-reported peridot and clinozoisite from Pakistan: orange garnet from Montana: liddicoatite crystal and iolite cut into a cube from the Malagasy Republic: grandidierite cabochons: colourless sinhalite. What have all these specimens in common? They have all featured in the sessions of the Wednesday evening Gem Club held at GAGTL and all (this is only a selection from over 100 rarities) have been available for examination in the last six months.

Who comes to look at these specimens? The collectors! Where did the specimens come from? From specialist gemstone and specimen dealers. The list shows how great a variety of examples can be obtained if you log in to the network of specialist dealers which should not be as hard to find as it is now. Many collectors are potential recruits to the established commercial gemstone trade and the lift given to the imagination by a fine specimen – not necessarily expensive – may be of incalculable value in the wider gemstone world.

Locate, log into and support the specialist dealer!

Michael O'Donoghue

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.

Disclosure

The problems of disclosure of gemstone treatments continue to exercise certain opinion-formers in the trade. As soon as a consensus of opinion on one issue is reached, we are beset with some new treatment or enhancement, and the legislators have to go back to the drawing board.

The aim of disclosure is to inform the customer of what treatments to improve its appearance a stone has undergone other than the normal cutting and polishing. Part of the problem is that some such treatments are as old as the use of gemstones themselves. Emeralds have been oiled since time immemorial, and some stones have been subjected to heating, dyeing and bleaching. Such processes have not been declared in the past. As new processes come about and improvements are made to the old procedures, or some of the old procedures are applied to stones not so treated in the past, judgements must be made about how significant these are to the buying public.

Stone dealers are demanding more information from their sources at the mines and cutters about treatments to stones that they buy and most dealers are happy to pass this information on when they sell the stone. A tricky aspect of the problem is that dealers may well be unaware and unable to ascertain what exactly has been done to the stones they buy. It is difficult to differentiate between oil and some other fillers in emeralds. It is also difficult to know if minute traces of glass are a by-product of heating small rubies or have been deliberately put there to disguise fissures in the stone.

The problem now being tackled by such bodies as CIBJO is how retailers might pass such information on to the customers in their shops without spoiling a sale. One suggestion is that shops might display a notice saying they abide by CIBJO standards in describing their gems. But the design of such a notice would require a lot of thought.

Garrards have boldly tackled the issue by producing an attractive booklet with quite comprehensive information about gems currently on the market. The auction houses also are making their customers aware of the nature of the stones and their treatments sold under their auspices.

The ideal solution is for the public to be much more educated about the whole field of gems and their treatments, but this is a long and expensive process, and the problems of correct information and labelling are with us now.

Merger

The merger between the Diamond Bourse and Club in 1995 has proved to be successful. There were fears that members of the London Diamond Club would not join the new organization as the fees charged would be higher than they had been used to in the past. Fortunately most did and the new organization, after several shots at a new name, is known as the London Diamond Bourse and Club. Membership is open to all those associated with the diamond and jewellery trade.

Diamond reports

There is a great deal of misunderstanding about diamond grading reports in the market. Over the years, the Gemological Institute of America (GIA) has gained a reputation for integrity and impartiality for grading and reporting on diamonds, but unfortunately some laboratories in different parts of the world have acquired quite the opposite reputation and may be inconsistent or 'flexible' in their grading. Nevertheless, many laboratories operate and adhere to standards just as rigorous as those of the GIA and offer the customer a clear, concise description of a diamond in terms of its weight, dimensions, colour, clarity and cut.

Our own laboratory in London issues both the CIBJO diamond grading reports and, more recently introduced, the London Diamond Report. The CIBJO reports follow a scheme comparable to but not identical with that of the GIA, whereas the London Diamond Report reflects current thinking in rationalizing the whole diamond grading scene.

Most of the public are ill-informed or unaware of the different kinds of diamond reports available and are often happy with any 'certificate'. The desire for reports of a certain type comes from the trade itself and it is these people who, by default, tend to devalue honest and impartial reports produced by other laboratories. On a visit to Antwerp last year I was told that a laboratory had recently opened to cater specifically for the Japanese market and that their reports were preferred by the Japanese to those of the GIA or the established Antwerp laboratories.

For the benefit of both the customer and the diamond dealer I hope the different kinds of information on different reports will be brought together in a common scheme with the approval of the International Standards Organization (ISO). Currently an ISO working group is formulating the procedural details for a scheme of harmonized grading for polished diamonds and, on its implementation, it should save much time and money for those dealers who at the moment have to send their stones abroad for grading.

Diamond market stability

Another major factor affecting the future shape of the diamond industry is the nature of the contracts between De Beers and major diamond producers. At the time of writing the arrangement with Russia has not been concluded and the contract with the Australians regarding Argyle stones is due to be negotiated in a few months. These contracts concern the channel by which rough gem quality diamonds reach the market. Over many years, through the system of single channel marketing, De Beers have stabilized the price of diamonds by allocating rough in line with consumer demand. Recently, the stability of this system has been threatened by a growing volume of illicit diamonds mainly from the Russian stockpile which De Beers have so far been able to deal with. The nature of the new contracts will have a great bearing on the stability and health of the industry over the next few years, though it is widely believed that co-operation between the major pro-

ducers will continue even if the contractual relationship comes to an end.

TV selling

Recent developments in marketing and technology continue to bedevil the retail jeweller. What happens in markets outside the UK may eventually become significant here. Selling jewellery through television is not as marked in the UK yet as it is in the USA, but it is making inroads into the traditional jewellery market. Department stores and some supermarkets are also experimenting with selling jewellery and these are bound to affect both traditional jewellers and mail order companies.

The latest outlet exploited is that of the Internet. Adverts are already appearing with news sheets on gemstones and jewellery, and the offers to sell these. In terms of volume, this could eventually supersede all other outlets in the sale of stones.

Buyers beware

Two final alerts. There is now a convincing glass simulant for Mexican fire opal. Examples seen have been transparent red and also the more familiar and less transparent orange variety.

Secondly, some recent jadeite carvings have been found to be constructed of a hollow jadeite shell filled with a colourless substance. A casual examination would have indicated only jadeite, but a careful search in strong light would have revealed their true nature.

H.L.

Gemmology in North-East England

A GAGTL member in Newcastle is keen to get together with other members in the area with a view to forming a North-East Branch.

Would those interested please contact Mary Burland at the GAGTL.

Stick pins

A member of the GAGTL is currently researching the gentlemen's jewellery accessory called a stick pin. He would be pleased to hear from anyone with information on the history and origin of these items. If you are able to help please contact Mary Burland at the GAGTL on 0171-404 3334.

Call for Expert Witnesses

The *UK Register of Expert Witnesses* is a publication based on a 'live' database of expertise. Its aim is to provide litigation solicitors with easy access to experienced expert witnesses who have proved themselves able to provide a quality service to the legal profession. Now in its eighth edition the *Register* contains over 2300 expert witnesses and has a subject index running to more than 14000 terms. The *Register* is not restricted to actuarial matters but aims to cover all major disciplines (from Accountancy to Zoology, Accident Investigation to Surgery). It is used in the offices of over 4000 solicitors nationwide.

Inclusion in the *Register* is based on the recommendation of at least one solicitor who has actually instructed the applicant. Most experts in the *Register* have given evidence in the witness box. However, this is not a prerequisite for inclusion in the *Register*; some of the very best expert witnesses prevent court action by the quality of their written reports!

Applications are welcomed from any suitably qualified individuals on proforma available from Sandra Barrow at J S Publications, PO Box 505, Newmarket, CB8 7TF; Tel: 01638 561590, Fax: 01638 560924.

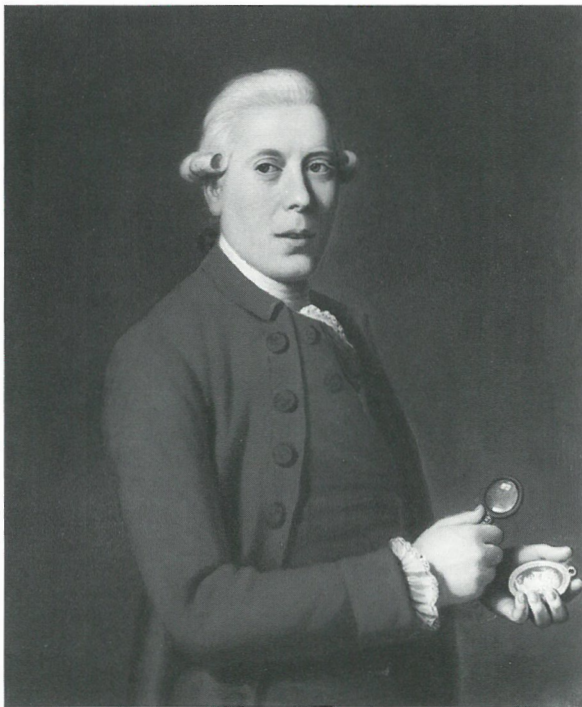
TASSIE AT HOME AND OVERSEAS

By one of those coincidences, Tassie cropped up strongly in my life towards the end of last year. Just before going to New York in early December to deliver a lecture on 'Mr Tassie's tassies' before our sister

organization, the American Society of Jewellery Historians, I was invited to an exhibition on Tassie and his contemporaries in Bond Street, which opened while I was away: I just managed to catch it on its last day after my return. It was arranged by John P. Smith of Mallett's and contained both glass pastes and portrait medallions by Tassie and others, including also ivory and gesso busts in small hanging frames. The coloured glass pastes, which the term 'Tassies' immediately conjures up, were very well displayed, mounted in light boxes, elegant square gilt frames containing panels into each of which c. 30-40 of the pastes were set, to be seen by transmitted lighting. They thus recreated the idea of the German *Lichtschirme*, c. 1800, in

which pastes were mounted in circular glass screens mounted on a stand – looking rather like a shaving mirror – and designed to be seen by transmitted daylight. The lighting in the Mallett frames was exactly right, directed from the sides, John Smith told me, and not too strong, so that the images were clearly seen. I was reassured to see that *these* tassies were indeed from the firm of the master; about half of the objects in the exhibition were acquired from the New York collection of Leonard Rakow, at one time chairman of the American Wedgwood Society. John Smith also produced an excellent publication to accompany the exhibition, entitled *James Tassie*

1735-1799 – *modeller in glass*. Its text includes excerpts from not easily accessible Tassie material and reviews the historical, aesthetic and technical background (John Smith trained as a chemist); the sitters of



David Allan, *James Tassie*, holding the cast of the Medusa Strozzi. (Photograph by kind permission of the Scottish National Portrait Gallery)

the portrait medallions are given extensive biographical sketches. Although we are still arguing about one or two points, and there are minor glitches, this catalogue is highly commendable to those interested in the subject. John Smith has certainly done his homework, as evinced by a long list of acknowledgements and a bibliography. Excellent, large colour photographs (those of the light boxes extend over two page-openings) reproduce all the objects and are detailed enough for study. Although the exhibition as such closed in mid-December, many of the objects, including lightboxes, can still be seen at Mallett's at the time of writing (141 New Bond

Street, London W1Y 0BS, telephone 0171-499 7411), and catalogues can be obtained (£15 including postage and packing).

During question time after my own lecture in New York, I was asked 'What are tassies worth?' As everybody should know, the answer is – 'as little or as much as you are prepared to pay': but I reiterated what I had said in my lecture, that they were truly mass-produced in their thousands and used for setting in cheap metal jewellery (among other purposes); that they are still about in vast quantities, but that I have seen them nowadays mounted in high-carat gold and sold as expensively as jewels set with gemstones: a pity from the point of view of the scholar to whom they are an invaluable tool, and who used to be able to acquire them at little expense. What was my surprise, to be subsequently invited to an antique jeweller's just off 5th Avenue, at 11 East 57th Street, (it's called

'James II' – but not after our unfortunate monarch) to view a whole large glass-case full of tassies, both clear and coloured, set in high-carat gold as, I must admit, exquisite-looking jewels! Dangling earrings of two colours and large ovals set as pendant medallions were particularly pretty. My sadness at seeing these so potentially *useful* objects well out of my reach, at several hundred dollars each, was somewhat mollified by a charming member of staff searching out and subsequently sending me photographs of all the 'Burches' she could lay her hands on. Hail tassie jewellery – farewell tassie, the scholar's tool!

Gertrud Seidmann

25TH INTERNATIONAL GEMMOLOGICAL CONFERENCE, THAILAND

As part of the programme connected with the International Gemmological Conference (IGC), delegates had the opportunity to attend a day of presentations by leading gemmologists for the Bangkok trade entitled 'Gem Horizons 1995'. This was a splendid opportunity for the IGC participants to meet or renew acquaintance with those connected with gems in Thailand and the event was very well organized by the AIGS staff led by Ms Muriel Ho, Executive Vice President, and Kenneth Scarratt, Director of Laboratory Services, Education and Research.

The conference proper was held at the Rayong Resort Hotel on the coast south-east of Bangkok, and was attended by 58 delegates and 21 observers from 23 countries. This was the largest ever attendance at an IGC and the traditional lectures were augmented by some excellent poster and equipment demonstrations. The scope and depth of current activities in gemmology is apparent in the list of topics covered over a full five days.

Undoubtedly one of the most interesting features of this conference was the assessment of the effect of Raman spectroscopy on gemmology, and an extra evening session exploring the potential and limitations of the method was held. Operators of Raman equipment from France, Italy, Switzerland, Thailand and the UK led a forum in which there was lively questioning about the current state of a database of comparative spectra, how repeatable spectra were for a crystal in different orientations, and how effective the Raman method was in detection of foreign materials in fractures in gems.

Following the conference there



IGC delegates examining ruby rough in the market at Bo Rai, eastern Thailand. Standing (from the left) are Dr Henry Hänni, Mrs Beatrice Hänni, Dr Bernard Lasnier, Mrs Jayshree Panjikar, Professor Dr Edward Gübelin and Professor Ichiro Sunagawa, with three local ruby dealers seated.

were visits to Chantaburi and Bo Rai near the Cambodian border, Kanchanaburi, then northern Thailand and, for some, Myanmar. The whole conference was most stimulating and I feel sure that many new and fruitful links have

been made with Thai gem enthusiasts both in trade and in the universities. The organization and smooth running of the whole conference was a tribute to the efforts of the staff of AIGS and to their meticulous planning. R.R.H.

Lectures

Speakers and authors	Topic
J.M. Dereppe and Moreaux	NMR in study of gemstones
B. Lasnier, H.Talay and Le Frant	Portable Raman spectrometer adapted for gem measurements
J.B. Nelson	Inclusion identification with Raman spectroscopy
R. R. Harding	Brewster angle meter
L. Sutherland	Ruby from Barrington Volcanic Field, E Australia
G. Zoysa and P.C. Zwaan	Scapolites from Sri Lanka
U. Henn	Garnets from Mali
H.A. Hänni	Sapphires from southern Madagascar
G. Du Toit	Raman spectroscopy in identifying inclusions
Tay Thye Sun	Nuclear microscopy of ruby
K. Schmetzer	Russian flux-grown synthetic alexandrite
C.E.S. Arps and J.C. Zwaan	Emeralds and green beryls from Nigeria
G. Bosshart	Sapphires and rubies from Laos
A. Chikayama	Gemstones of China
F. Pough	Red beryl from Utah
D. Schwarz	Emerald genesis
C.E.S. Arps	Tektite genesis
A.A. Levinson	Diamond economics
J. Saul	Electrum in antiquity: amber and alloy of gold and silver
J.-P. Poirot	Acheminid treasure from Suze
M. Sevdemish	Tanzanite treatment
V. Thiramongkol	Influence of environment in heat treatment of corundum
P. Zecchini	Computers in design of cut geometry
C. Sapalski	Spanish treasures
G. Graziani	Gems from excavations of Crypta Balbi (Rome)
F. Payette	Natural freshwater pearls from Lac St Jean, Canada
G. Brown	Unusual pearls
D. Piat	Emerald from Panjshir Valley, Afghanistan
J.I. Koivula	New and unusual inclusions
E. Gübelin	Significance of mineral inclusions in quartz
C.M. Ou Yang	Experiments on ageing of treated jadeite
J. Shida	Cathodoluminescence in diamonds

Speakers and authors	Topic
I. Sunagawa	X-ray topography and cathodoluminescence tomography of two diamonds
J.B. Nelson	Teaching aids in gemmology
O. Navon and Schrauder	Diamond origins
R. Hansawek and Pattamalai	Kanchanaburi sapphire
M. Gray	Role of lapidary in gemmological research
J. Panjkar	Emeralds from southern India
E.A. Jobbins	Diamonds in the Victoria and Albert Museum
M. Superchi	Pearl, coral, jadeite and emerald in the CISGEM laboratory
W. Atichat	Spectroscopic studies on Thai rubies and sapphires
R.E. Kane	Montana sapphires and reaction to heat treatment
P. Zecchini	IR spectra of natural and synthetic emeralds

Posters and equipment

Authors or Companies	Topic
K. Williams (Renishaw)	Raman spectroscopy
J.Kanis	Gems in Orissa, India
J.B. Nelson	Gemmological teaching aids
Chongkum	Trace elements in topaz
Philips	Analytical equipment
L. Sutherland and G. Webb	Ruby and sapphire from Barrington
Zhang Beili	Identification of heat-treated ruby
J.-P. Poirot and P. Zecchini	Natural and artificial hyaline and coloured quartz
Beta Color	Gem enhancement by electron accelerator
U. Henn and C. Milisenda	Madagascar sapphire
C. Milisenda and H. Bank	Pakistan peridot
E. Macgregor	Gem localities in Brazil
Lambdaspec	Imaging spectrometer
S. Intasopa and W. Atichart	Inclusions in Siamese ruby and sapphire
P. Wathanakul	Diamonds of southern Thailand
O. Navon	Fluid inclusions in diamond
Sarasota	Spectral analysis in a flash

Among stones recently seen are good quality blue sapphires from the **Malagasy Republic**, whose gem wealth seems to be appearing on world markets once more. Cubes of iolite shaped to display pleochroism through the faces ought to be in everyone's collection and from the same country well-shaped crystals of orthoclase are on offer from a few dealers.

Cobaltian blue spinel has been mentioned from time to time in the literature – the major paper is in the Spring issue of *Gems and Gemology* for 1984 – and stones appear to come exclusively from Sri Lanka and vary in colour from light to dark blue.

Gemmologists learn that cobalt-bearing blue spinel is almost invariably a synthetic product since Co is added to many Verneuil-grown stones in an attempt to simulate light blue topaz and aquamarine. Such stones show orange to red through the Chelsea filter and have higher RIs and SGs than the natural material. Once the Sri Lanka Cobalt spinels had been identified and a flux-grown dark blue spinel from Russia reported, any blue spinel with or without these higher constants was suspect. However, the presence of an iron absorption band at 460nm appears to distinguish natural Co-blue stones from possible synthetics (the Russian stones have constants closer to the natural ones than the Verneuil products though still rather high).

I was forced to look into this on examining a 4ct Sri Lanka stone with a cobalt absorption spectrum, an orange colour through the Chelsea filter, 'normal' constants and, to crown it all, a pronounced colour-change from a very attractive violet under strip lighting to a paler near-sapphire blue in daylight.

While colour changes in gemstones are far more common than students seem to believe, this specimen was exceptional.

Returning to the Malagasy Republic, I have recently seen a very fine crystal of **liddicoatite**, a gem-quality member of the tourmaline group with the composition $\text{Ca}(\text{Li}, \text{Al})_3 \text{Al}_6 (\text{BO}_3)_3 \text{Si}_6 \text{O}_{18} (\text{O}, \text{OH}, \text{F})_4$. Named for Richard T. Liddicoat Jr of the Gemological Institute of America, liddicoatite is most often seen (if at all) as slices with strong multi-coloured triangular markings. Well-shaped crystals such as the example under discussion are rare – this is the only one I have seen. The colour is a somewhat characteristic darkish green, but not the very dark unyielding green shown by most green tourmalines.

The gem wealth of Pakistan is enhanced by the rarely cut **clinozoisite**, a mineral forming a series with epidote and part of the group of the same name. The faceted stone I examined is a very attractive olive-green to brown, a characteristic colour for this material, which will show a strong absorption band at 455nm depending on composition.

Myanmar is continuing to produce a wider range of gemstones than hitherto. The latest is a beautiful green **tourmaline**; this has been found to approximate to vanadian uvite, the colour naturally suggesting chromium, but Cr content is little more than 0.13% while all stones examined contain V_2O_5 up to 2.05%. No detectable iron has been found and the ratio of Ca to Na is in the order of 3 : 1. Cut stones and crystals are very fine. Good quality crystals of **forsterite** [peridot] have been found in Pyaung Gaung.

M.O'D.

Visit by Grahame Brown

Dr Grahame Brown, editor of *The Australian Gemmologist*, visited the GAGTL at the beginning of the year. His first presentation was an evening lecture delivered to over 50 members entitled 'Gemstones, Australia's national treasure'. This was a beautifully illustrated lecture in which up-to-date information on all the major gem materials currently produced in Australia were reviewed and assessed. In particular Grahame Brown was able to pass on information gained at first hand from personal contacts in the opal fields and the South Sea pearl business. In addition to dealing with major commercial gems he also talked about collectors' stones and a newly discovered extension to the Marlborough deposit of high-quality chrysoptase.

The following day Dr Brown led an afternoon seminar on 'Hand lens characteristics of biological gem materials'. This comprised an hour's lecture with slides showing the identifying features of different kinds of biological gem materials, and then we had an opportunity to handle and study a wide variety of examples provided from the GAGTL collections.

It is often difficult to carry out conventional tests on biological materials as their shapes are awkward for use on the refractometer, and heavy liquids will damage any that are porous. It is therefore necessary to identify them by sight, and by looking in detail at their structure. We were given valuable tips on such subjects as how to detect colour enhanced pearls, how to tell plastic impregnated reef coral from

precious coral, and what to look for in dyed abalone shell. We were shown the characteristics of many ivories, and how different parts of a tusk or tooth were used for different purposes. Altogether it was a most enjoyable and instructive session studying a subject with its own particular set of challenges.

Maggie Campbell Pedersen

SJH AGM and Lecture, 22 January 1996

North Wales to W1 via Russia

The lecture following the AGM was given by the President of the Society, A. Kenneth Snowman. His talk, delivered with great charm and humour, was entitled 'North Wales to W1 via Russia' and constituted a personal reminiscence of the firm of Wartski, which was founded by the speaker's grandfather. The packed audience was able to gain a detailed insight into the development and influence of a most distinguished family firm. In his informal, conversational style, Kenneth Snowman told us about the personalities and events which have shaped Wartski, including an account of his father's visits to Russia in the 1920s, when exquisite pieces by Fabergé and others were acquired, and about his own trip to Egypt to purchase objects at the sale of King Farouk's collection. Fabergé naturally featured prominently in the lecture, and the major part played by the speaker in the great 1977 exhibition at the Victoria and Albert Museum was of particular interest. This lecture was a model of the accessible and enjoyable presentation of serious scholarship.

C.M.J.



Kenneth Snowman's late father, Emanuel Snowman, MVO, OBE, at the opening of Wartski's 1949 Fabergé Exhibition in Regent Street – the first in Europe. He is pictured holding an Imperial Egg by Fabergé – the Lilies of the Valley egg presented to the Dowager Empress Marie Feodorovna by Nicholas II, dated 5 April 1898. The Gold Egg is enamelled translucent rose on a guilloché field and supported on four dull green cabriolet legs composed of overlapping leaves veined with rose diamonds. The Egg is surmounted by a rose diamond and cabochon ruby Imperial Crown set with two bows and quartered by four lines of rose diamonds and decorated with lilies of the valley carried out in pearls and rose diamonds, the stalks lightly engraved green gold and the leaves enamelled translucent green on gold. The 'surprise' consists of three oval miniatures of Nicholas II in military uniform, and the Grand Duchess Olga and Tatiana, his first two grandchildren, signed by Zehngraf within rose diamond borders which are drawn out of the top of the Egg by means of a geared mechanism, and spread into a fan when a gold-mounted pearl button at the side is turned; a turn in the opposite direction automatically folds and returns the miniatures back to the interior of the Egg. The date is engraved on the reverse of the miniatures.

The Journal of Gemmology

Back issues

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

January and July 1978, Vol. 16, Nos. 1 and 3

We have also been advised that a member has the following issues of the *Journal* for sale: July and October 1979, Vol. 16, Nos 7 and 8; July and October 1980, Vol. 17, Nos 3 and 4; January, April, July and October 1991, Vol. 22, Nos 5, 6, 7 and 8.

Individual back issues are also available from the GAGTL. Please contact Mary Burland of the GAGTL on 0171-404 3334 for further information.

EDUCATION

Two choices for the GAGTL Gemmology Evening Course

Due to the high demand for places on the Sixteen-Month Gemmology Diploma evening course, the GAGTL Education Department will now start two courses per year.

One course will run from the very beginning of the traditional educational year, in September 1996, with the Preliminary examination in January 1997 and Diploma examination in January 1998.

The second course will commence after the Christmas and New Year rush, at the end of January 1997, with the Preliminary examination in June 1997 and Diploma examination in June 1998.

The new term times will be particularly suitable for students concerned with a number of religious

holidays late in the year. These can make it difficult for students just starting their Preliminary course to commit enough time in the autumn term to complete the syllabus before their January examinations. Students engaged in the jewellery trade also find it difficult to allow time during the Christmas trading period to devote enough time to study. For many, a January start should be most beneficial.

The two alternative start dates are:

2 September 1996 and
27 January 1997

For more information please contact the Education Office at the GAGTL.

GAGTL Gem Tutorial Centre

1-2 June

Two-Day Diploma Practical Workshop

The long-established intensive practical course to help students prepare for the Diploma practical examination or for non-students to brush up on technique. This is the course to help you practise the methods required to coax the best results from gem instruments.

The course includes a half-length mock exam for you to mark yourself.

Price £160.39 (£111.04 for GAGTL registered students)—includes sandwich lunches

15-16 June

Weekend Diamond Grading Revision

This intensive weekend course has been designed for all students about to take the Gem Diamond Diploma. This workshop will include a mock examination to help students gain familiarity and confidence with examination conditions.

Price £129.25 —includes sandwich lunches—Starts 10.00 a.m. Saturday

NOTE: All prices include VAT at 17.5%

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

Pearl farm in Vietnam?

During a recent visit to Hanoi I went out to To Hay, or West Lake, to see what was happening at the pearl farm featured in an article in the *Journal of Gemmology* in April 1993¹. It proved very difficult to find. In typical Vietnamese fashion, everyone wanted to help, but nobody wanted to disappoint me by admitting that they didn't know where it was, so I was sent on a wild goose chase to various offices and even to a new block of luxury flats, one of which they tried to sell to me.

I finally tracked down the location, and found that it was, as I had feared, in the same place as the Hanoi Club, a new, exclusive, water-sports club, and that the whole area is now under six feet of concrete. The fate of the oysters themselves is uncertain, but when the first part of the club was opened oysters and beer were on the menu.

The Managing Director of the new Ho Tay Investment Company which incorporates the old fish and pearl company, Mr Nguyen Hai, told me that it planned to re-open



Workers on the site of the Hanoi Club.

the pearl farm in the next year or two on the north shore of the lake. As with most developments the changes at Ho Tay are a joint venture with foreign finance.

With urban development progressing at its present speed in Hanoi, I fear that the water in the lake will soon be too polluted to

sustain a pearl farm. I also remain unconvinced that the oysters will enjoy entering into a joint venture with the water skiers on West Lake.

Maggie Campbell Pedersen

1. Bosshart, G., Ho, H., Jobbins, E.A., and Scarratt, K., 1993. Freshwater pearl cultivation in Vietnam. *Journal of Gemmology*, 23(6), 326-32

BOOKS

Tudor and Jacobean Jewellery, Diana Scarisbrick, Tate Publishing, £8.95. This large format soft-cover book was published to accompany the recent *Dynasties* exhibition at the Tate Gallery. This exhibition was the first exhibition for a generation to study the full range of pictures from the Tudor and Jacobean period in England. It included nearly one hundred paintings, together with miniatures, works on paper, tapestry and sculpture. This was an exceptional period in the jeweller's art, when the wealthy were gripped by a passion for display and recorded their favourite jewels in glittering portraits. The book covers in its 104 pages patrons, makers and materials, and themes, as well as the jewels themselves. Also included are an index and a short bibliography. It is profusely illustrated with fascinating pictures of both portraits and jewels. The book is written in an easy-to-read style, without in any way sacrificing the author's customary impeccable scholarship. Reading about the making and wearing of jewellery from late medieval simplicity, through the full flowering of the art of the Renaissance goldsmith, to the emphasis on stones rather than settings in the reign of James I, one feels totally immersed in the period. An excellent book at an amazingly low price!

N. Israel

NEW YEAR'S HONOURS

The Society of Jewellery Historians and the GAGTL are delighted that Bob Symes, Keeper of Mineralogy, Natural History Museum, was awarded the OBE (Order of the British Empire) in the New Year's Honours. Interested parties have long been aware of his dedication (far beyond the call of duty) to researching, and spreading information about, British mineralogy. Sincere congratulations, Bob, on such well deserved public recognition.

N. Israel

GEMSTONES – FACT AND MYTHOLOGY

Turquoise

Turquoise was one of the earliest stones to be found and used by man for decoration. It was found in the Sinai and used by the Egyptians; the Persians claimed to have the most beautiful material, it was used in Tibet and also by the ancient civilizations of the New World.

Turquoise is a hydrated phosphate of aluminium and copper, crystallizing in the triclinic system with a hardness of 5 to 6. The stone occurs as masses of tiny crystals and looks opaque and for this reason is cut into beads, slabs or cabochons. The relatively low hardness, below that of quartz (7), made it a material easy to work with, but the hardness varies depending on the content and distribution of impurities. The best turquoise takes a fine polish, but some is less coherent and will break and flake in the hand.

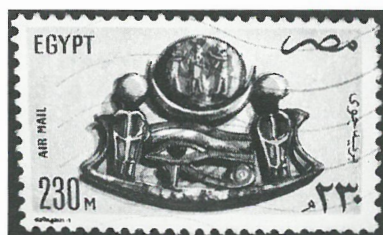
Turquoise is commonly found around or near copper deposits and occurs in veins and patches resulting from some dissolution of the primary copper and its crystallization in the surrounding country rocks. Its colour ranges from the 'pale blue of a Northern sky in spring' to the 'tender green of fresh foliage' and this is directly related to the relative contents of copper and iron: the more iron that is present, the greener the turquoise.

Talisman for horse riders

The magical colour of blue may have appealed to ancient man as representing the colour of the sky down here on the earth – at his feet. Pliny describes its use in ancient Egypt, under the name 'callais', and outlines its supposed magical qualities, including the possession of power in the stone to protect the wearer from injury by falling, particularly from horseback. We see evidence of this belief from the planes of Mongolia, through Samarkand and Persia to Turkey where horsemen have habitually attached these stones to the bridles and frontlets of their horses as amulets.

Volmar, writing in the thirteenth century *Steinbuch*, tells us:

'Whosoever own the true turquoise set in gold will not injure any of his limbs when he falls whether he be riding or walking so long as he has the stone with him, for the stone will absorb the crack or break.'



Egyptian postage stamp depicting artefacts covered in turquoise.

This quote is repeated by Sir John Mandeville when he wrote about the Turks in the fourteenth century. The ability of the stone to make a horse more sure-footed may arise from a conjecture that the horse may be regarded as a symbol of the sun in its rapid course through the blue heavens, the celestial hue of the turquoise providing an imaginative link with the sky. The transition from protecting the horse to protecting the rider can be easily made. The Persians have a saying that to escape evil and attain good fortune one must see the reflection of the new moon either on the face of a friend, on a copy of the Koran, or

on a turquoise. The Persian scholar Al Kazwini states:

'The hand that wears a turquoise and seals with it, will never be poor.'

Protection against evil

The protection of turquoise and the colour blue is a common concept today throughout the Middle East. Doors are often painted in blue and the modern concept is to protect the wearer and his family from the 'Evil Eye'. The belief is that harm can come to someone through the envy of another. This harm may be malevolent through an agent who knowingly wishes harm and may curse through his envy, or accidental through the benign good wishes of a friend or relative (in this case the 'Evil Eye' is subconsciously at work). The 'proof' of this evil force at work is that sometimes a worn turquoise will crack, for no apparent reason, and hence the wearer has been protected from the deliberate imposition of an evil eye, which the victim may remember or may not if it was given or delivered behind his back. Thus pregnant women, those getting engaged, new born babes and anyone who feels at risk will all wear a turquoise.

We find extensive use of turquoise in the New World. It was held in high esteem among the Moche in Northern Peru, and especially among the Aztecs, who called it 'Calchithuitl'. It decorated their ceremonial masks – human skulls were

Turkey stone

Turquoise arrived in Western Europe towards the end of the Middle Ages from Russia, Persia and Egypt through Turkey, and the Venetians gave it the name Turksea or Turkey Stone which led to its present name.

inlaid with turquoise – and accompanied their chiefs into their burial sites. The ancient Egyptians also used the stone in funerary ceremonies often contrasting its delicate blue with the more intense blue of lapis.

Sources today

Turquoise is quite commonly obtained from the Western part of the USA, from New Mexico to California. This material generally shows a greenish tinge, looks slightly weathered, does not have the intense blue of the material found in the Middle East and may occur finely interbanded with matrix. It is popular in American Indian jewellery.

The most precious turquoise comes from Iran. The stronger and purer the blue colour, the higher is the value, and ideally it should be free of matrix.

Turquoise is very fine-grained and is always porous to some degree and absorbed fluids will darken the colour of turquoise. It was customary amongst dealers when buying turquoise to seal a purchase in a packet for several days. Should the stones have been immersed in water this would show when the packet was opened, as the colour would have faded. Turquoise can also be waxed or oiled to deepen its colour and these are currently common practices for stones not of top quality.

Allegations have been made from time to time that rough turquoise from other sources would often be taken to Persian mines and sold as genuine Persian turquoise, incidentally a practice not unknown to this day for other stones and in other countries!

Treated stones

Turquoise is used in a wide range of modern jewellery. The native cut stones from Persia, especially larger pieces, find their way into suites made by the more expensive jewellery houses in Paris and other

European centres. The smaller cheaper native cut stones tend to be unpopular (too fragile?) with the 9 carat gold jewellery manufacturers and they tend to use 'stabilized' stones. 'Stabilization' involves subjecting the turquoise to wax or plastic under pressure. This improves and gives a uniform colour to the stones, but I have never been able to ascertain what percentage of wax or plastic is present in these stabilized stones.

Another method used to make the most of medium to low grade rough is to pulverize the native turquoise, remove the impurities and then bond it together into slabs for cutting into cabochon stones and beads. This material is known as 'reconstituted' or 'pressed' turquoise. There are also many paste and plastic imitations of all grades of turquoise.

Turquoise has been synthesized. Gilson produced a stone which imitated the very best Persian variety both in colour, purity and hardness, but its production costs made it too expensive for those manufacturing cheaper jewellery.

All the above imitations can be made with or without reproduction 'matrix' – in nature usually made up of veins and spots of black copper oxide – using paint or black concrete pressed into fissures or mixed in the body of the stone.

Finally, mention should be made of the so-called 'tooth-turquoise'. This consists of teeth and bones of prehistoric mammals, such as mammoth, mastodon, etc., turning blue after being in contact with phosphoric-acid-iron solution. These false turquoises can be identified by their fibrous structure and considerable colour loss in artificial light.

Harry Levy

I would like to acknowledge use of material from the ICA Gem Bureau and the booklet *The romance of the jewel* published by Bentley & Co., London. I was unable to find any postage stamps showing rough or polished turquoise, but Rosemary Ross, one of the GAGTL Examiners, came up with the stamp from Egypt of artefacts covered in turquoise.

Rubies or pearls?

I was very interested in Leslie Fitzgerald's letter (Letter to the Editor, *Gem and Jewellery News*, 1995, 5(1), 14) on my problem with the translation of the word Peninim into either rubies or pearls and stated that the word in modern Hebrew is used exclusively for pearls. He raised the problem of the use of pearls and corals by the Hebrews as both oysters and crustaceans were forbidden by the Old Testament. I know modern orthodox Jews wear both pearls and corals and they would not transgress any of the precepts of the Old Testament.

I have looked further into this problem and find that the prohibitions in the Old Testament fall into two categories: materials that may not be eaten, and those which may not be used to benefit a Jew. Thus, surprisingly, though it is forbidden to eat any part or product of a pig, other uses are permitted. One can use the skin to make leather products and wear them, and I understand parts of a pig may even be used in transplants, should the techniques be available. Thus pearls and corals would fall into this category.

A suggestion is made that the word Peninim is a corruption of the word Bifnim which means 'inside'. Thus the phrase 'Pininim from the Torah' should be translated not as 'pearls from the Bible' but rather as things that are found in the Bible. But I am still not clear how the change from rubies to pearls occurred in translations.

H.L.

OBITUARY

Deirdre Inches Carr FGA

The death of Deirdre Inches Carr has come as a devastating blow to us, in the jewellery industry, lucky enough to have known her. For her father Ian, the loss is surely incalculable, a final tragedy coming as it does so soon after the death of his wife Betty and of Deirdre's husband Malcolm. However, my strongest memories of Deirdre will always revolve around the great fun and laughter she brought into our lives, for she was truly the personification of the joy of life.

Deirdre was born into a family jewellery business, Hamilton & Inches, the renowned Edinburgh Jewellers and Silversmiths. It was always assumed that one day she would 'join the firm'. However this was not her original plan, and instead of coming into the trade after school, Deirdre went to Aberdeen University where she read Fine Arts and History of Music. It was not until sometime later that she considered entering the trade. At this point I was asked if Hancocks would train her, teach her about antique and period jewellery, about gemmology and the business itself. My fellow Directors agreed and there is an entry in the Company diary which reads:

'15th of October 1979 Miss Inches the daughter of Mr Inches of Messrs. Hamilton and Inches of Edinburgh came for 2 years to experience London business conditions, prices and to generally learn the trade.'

I remember her interview vividly as I quickly, and as it turned out mistakenly, formed the impression that Deirdre's main aim was to spend time in London, and that if she learned something about the trade, that would be 'well and good'. What an injustice, and how wrong I was! But looking back it

was her enthusiasm that put me on the wrong track. She quickly settled in at Hancocks – the first girl trainee we had ever had – and immersed herself in every aspect of our business. She possessed a lively and inquiring mind, she studied hard and was soon rewarded when she received the Diploma of the Gemmological Association of Great Britain (FGA) in 1982. It was at Hancocks that her life took a new direction, for it was here that she met her husband to be, Malcolm Carr. In 1981 he left to start his own business.

Deirdre and Malcolm made a truly united team and when they married and went to live in Edinburgh they both joined the family firm. Their London experience brought a new impetus to the company from the beginning. Deirdre and Malcolm shared a deep interest in the nineteenth century masterpieces of the great goldsmith Wiese and also in the Art Nouveau period. Close to home they decided to make an intensive study of the life and work of Phoebe Traquair, a Scottish arts and crafts jeweller and enameller. Only recently Deirdre and I were discussing her continuing efforts to raise funds to preserve for Scotland the major murals by this artist in the Mansfield Place church, closed since 1959. She was devoting a lot of her time to the Mansfield Traquair Trust, a project which meant a great deal to her.

Deirdre seemed to jump enthusiastically at every opportunity life offered. She was a keen squash and tennis player, a talented pianist, an engaging raconteur. I remember well her coming to our house when she met our three daughters. She saw the piano and asked if she might play for a while, but loudly! She said she was having some problems at the time and the piano was her ther-

apy. The piano took time to recover from her assault!

Once Deirdre met Malcolm they were seldom apart and it is my belief they are together again. These words of Francis Bret Harte come to mind:

If, of all words of tongue and pen
The saddest are, 'It might have
been'

More sad are these we daily see:
'It is, but hadn't ought to be!'

David Callaghan

Robert C. Kammerling

The Society of Jewellery Historians and the GAGTL are very sad to report the premature death, on 7 January, of Robert (Bob) C. Kammerling. Bob was vice-president of research and development for the Gemological Institute of America, Gem Trade Laboratory. He had worked for GIA since the very early 1980s as a course teacher, manager of marketing and new products, then as GIA's public information officer and director of technical development. Bob wrote and co-authored over 400 articles and columns on gemmology and related fields for a wide range of international journals. He was the joint author, with Cornelius Hurlbut, of the 1991 2nd edition of *Gemmology*, and contributed to many other books, including the new 5th edition of Webster's *Gems*. Bob's untimely death has left an enormous gap in the whole gemmological world, but those who knew him will also greatly miss his personal enthusiasm, sense of fun and warm friendship. He was a truly outstanding person, who will be long remembered.

N. Israel

COMPETITION

Boxing Match

I recently visited an old gem dealer who had a highly unusual method of business. He had three boxes. In one were two diamonds, in another two pastes and in the third box one diamond and one paste. The stones are £50 each he said, whether real or not. £50.00 was very cheap for diamonds, but there were two major problems. First the boxes had got muddled up so the labels giving the contents of each box were wrong in

all three cases. The second problem was the dealer's method of business.

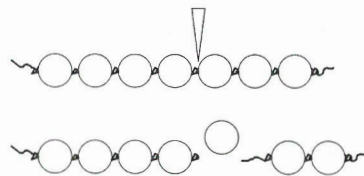
You can't look in the boxes, he said, you can choose one box and I'll show you one stone from it at random. Then you have to make your choice, but you can only buy whole boxes – at £100.00 each.

What is the least amount I would have to be prepared to pay to be sure of buying two diamonds?

Jack Ogden

Answer to competition in last issue

I cut the thread after the third pearl from one end, but on the near-side of the knot. I can then slide off the third pearl from the thread giving me this single pearl plus lengths of two and four pearls. From this combination of 1, 2 and 4 pearls I can make up any number from 1 to 7. Thus I never have to 'over pay'. (An alternative is to cut after the second pearl, but on the far side of the knot, which also allows me to remove the third pearl.)



There was a large response to this competition, and I must thank all those who wrote in to congratulate me on my elevation to the priesthood! However, I received only two correct entries; these were from R. I. McKay of London and Curtis D. Conley of Fairplay, Colorado, USA.

Jack Ogden

FORTHCOMING EVENTS

Additional London events

Society of Jewellery Historians

A special evening visit to the British Museum will be held on Wednesday 22 May. Dr Ian Jenkins will lecture on 'The reconstruction of Sir William Hamilton's collections of cameos and intaglios' followed by a viewing of the exhibition *Vases and volcanoes: Sir William Hamilton and his collection*.

GAGTL

David Minster of Pretoria, South Africa, will be visiting the UK in June. He has kindly agreed to give a 3-D slide presentation for members at the Gem Tutorial Centre on Wednesday 5 June.

For details of these and other events see 'What's on' on p. 32.

Symposium on Amulets

The Society of Jewellery Historians is planning a Symposium on Amulets to be held on Saturday 2 November 1996. Suggestions to the Chairman would be most welcome.

The British Museum

David Le Marchand (1674-1726) – Ivory Carver

Exhibition: 23 May-15 September 1996. A study day has been arranged for 29 June 1996 by the Department of Medieval and Later Antiquities and the Education Service. Booking necessary, fee £10. Contact the Education Service, British Museum, Great Russell Street, London WC1B 3DG (telephone 0171-323 8511).

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.

WHAT' SON

Gemmological Association and Gem Testing Laboratory of Great Britain

London

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.

- 3 April **Bringing gems to the market place**
Arthur Woolgar
- 8 May **Identifying inclusions within gemstones**
Dr Jamie Nelson
- 5 June **3-D slide presentation of gemstones and minerals**
David Minster
- 10 June Annual General Meeting and Reunion of Members (no charge)
- 14 June Annual Trade Luncheon. The Langham Hilton, London W.1.

Midlands Branch

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

- 29 March **Lavriotike: Treasure House of Attika**
Edgar Taylor
- 14 April **Gem Club**
- 26 April Annual General Meeting followed by a talk by D.H. Ariyaratna
- 28 April Preliminary Gemmology Seminar
- 5 May Diploma Gemmology Seminar
- 19 May **Gem Club** – day visit to Dolgellau Gold Mine

North West Branch

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

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

Scottish Branch

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

- 22 March **Bring and Buy**
- 19 and 20 April Annual General Meeting and Tutorial by Alan Hodgkinson

Society of Jewellery Historians

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

Monday 15 April **David Callaghan** will give a lecture about *Hancocks the Jewellers*.

Monday 20 May **Michael van Essen**, Curator of the Georg Jensen Museum in Copenhagen, will speak on *Georg Jensen Jewellery*.

Wednesday 22 May **Special evening visit to the British Museum**. Dr Ian Jenkins will lecture on 'The reconstruction of Sir William Hamilton's collections of cameos and intaglios', followed by viewing of the exhibition *Vases and volcanoes; Sir William Hamilton and his collection* (13 March–14 July). Dr Jenkins is joint organizer of this exhibition, which takes a new look at this remarkable antiquary, collector and natural historian. Admission by ticket only (application forms enclosed for SJH members)

Monday 24 June **Charlotte de Syllas** will speak about her work.

Monday 30 September **Charlotte Gere** will give a lecture entitled *From small beginnings: Jewel Cases and their Makers*.

Monday 4 November **Ulla Tillander-Godenhjelm** will speak about *The recently discovered Design Books of Henrik Wigstrom, Chief Workmaster to Fabergé*.

Monday 9 December **Oppi Untracht** will speak about the subject of his book: *Indian Jewellery*.

The copy date for contributions for the June issue of *Gem & Jewellery News* is 26 April 1996