

GEM & JEWELLERY *News*

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A CRIME AGAINST CIVILIZATION

All too often, wars take a toll not only on human life, but also on the testimonies of human civilization; on art, architecture and archaeology. What happened in Iraq in April 2003, when museums and libraries were looted and plundered, will be remembered for centuries as an unparalleled crime against culture. Ancient Mesopotamia, as everybody must now know, was the cradle of civilization, where

agriculture, cities, writing, and the sciences had their birth. The collections of the Iraq Museum in Baghdad, which was sacked by an out-of-control mob on 11 April, formed the primary record of that early flowering of the human mind and spirit.

Baghdad Museum, though inaccessible to ordinary tourists for many years, was a world-class museum. The published accounts of its treasures, now appearing as on-

Headdress in gold, lapis lazuli and carnelian. From Grave 800 in the Royal Cemetery at Ur, circa 2600 BC. © The British Museum.



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line databases to help identify any objects that may appear on the illicit antiquities market¹, are catalogues of spectacular ancient works of art in stone and ceramic, in gold and other metals, and in hardstones such as carnelian and lapis lazuli. But in addition to the monumental sculpture and the exquisite jewellery, there were less obviously beautiful items, such as the drab little clay tablets covered with cuneiform script: it is these unglamorous artefacts which enable scholars to make contact with the minds and thoughts of people who lived not

Continued on p.45

I think it is somewhere in Kingsley Amis's *Lucky Jim* in which a multi-participant academic argument ends with somebody finishing a sentence with "... worth re-stating in every generation or not". We never find out what the topic was but all subjects have their core beliefs or conclusions and any vehicle of information has to re-state them before making additions, comments or refutations. This is one of the arguments for the appearance, with a respectable number of years between, of major reference books. I have recently reviewed several books (produced book notices would be a more accurate description of my activity in these particular instances) where the text was perfectly respectable for the intended aim of the author but which contained small, perhaps unimportant inaccuracies, mostly of locations and properties. There were omissions, too, in areas where the information would have helped the reader materially.

Examples of this kind of thing might include the omission of the predominating calcite inclusions in rubies from Pakistan in a paragraph which describes the stones under a general heading as close in hue and tone to Burmese rubies and as commanding high prices.

Furthermore the description is located in 'Kashmir (Pakistan)' and classed as newly discovered.

None of this is light-years away from the truth but it is misleading. The inclusions so often detract from the otherwise fine colour of the stones that they should have been mentioned; the deposit (Hunza) is not in 'Kashmir (Pakistan)' whose very existence would be disputed by many, but in Pakistan proper. A good example of near-truths with one quite serious omission which might find their way down the years into one book after another.

With the coming of the internet in which extensive, authoritative descriptions cost money to transmit, such apparently small faults seem graver. The dissolution and eventually the negation of truth for the sake of speed and reward may be one of the results of the dark side of the information revolution.

Is there, then, something to be said after all for what C.S. Lewis called the boundless self-confidence of the pure text book? I don't think Lewis meant to emphasize *pure* in this context, but I find I still use Dana (*System of mineralogy*, second to eighth editions) and Hintze (*Handbuch der Mineralogie*) still (nominally) in progress. This is because these two works are

reliable for composition and structure/locality information respectively. These two, with many later examples, do find it worth while stating what comes closest to the truth in each generation so far. These old and now hugely expensive sets contain information which has not been discredited but which has just fallen victim to the need to save space and expense. Use of such authorities is not usually enjoined in universities because their libraries (except for the largest ones) will not hold the older ones.

So the danger of a misinformation pandemic is real and at the present time avoidable only if the value of all authorities is realized and if later works are rigorously checked for accurate data and precise expression. Those of us who have the appropriate expertise, familiarity and influence should resist attempts to discredit standard authorities in a spirit of chronological snobbery and not confuse 'old' with 'old-fashioned' and 'discredited' with either, without fresh and validated replacement data.

Ask any mineral curator why that old card catalogue is so valuable when the species and locality names have come off his specimens!

Michael O'Donoghue

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Orange-pink sapphires: Harry Levy reports on the treatment and disclosure, and the truth about the beryllium content

There seems to be much confusion within the trade about how to disclose heated corundum.

Traditionally pale or grey sapphires were heated in a crucible which induced colour changes to bring a more attractive hue of blue to the stones. In recent years this process has been developed to produce fine coloured sapphires which match the best that nature can produce. Also very dark stones can be heated to produce lighter shades of blue.

When such stones first appeared on the market there was a debate as to how they should be designated. Initially the reaction was to call them 'treated' but as this process became more universal and acceptable within the trade CIBJO introduced the notions of 'general disclosure' and 'specific disclosure' with the heating of corundum falling into the general disclosure category. This in effect meant that a heated sapphire could be sold as a 'sapphire', provided one had put a general disclosure about heating of stones somewhere on the invoice.

Diffusion

Another process of producing fine coloured sapphires from pale or colourless ones was to coat the surface of the stone with a metallic oxide and then subject it to heat. Sufficient heat was used to melt the surface of the stone and the oxide penetrated the surface of the stone to produce a fine colour. These stones became known as 'diffusion sapphires' or 'deep diffusion sapphires' to distinguish them from coated sapphire whereby colour had been introduced only onto the surface of the stone. With the diffusion sapphires colour had been introduced into the surface of the stone. The trade agreed that such stones had to be designated as 'treated sapphires'.

The NET system

By the late 1990s, the International Coloured Stone Association (ICA) had introduced its own terminology for disclosure known as the NET system. Here every stone would have a letter attached to it to disclose what process it had undergone. Thus 'N' stood for natural, for stones that had no treatment, 'E' for stones that had been enhanced and corresponding to the 'general disclosure' terminology used by CIBJO, and 'T' for treatments corresponding to the 'specific disclosure' of CIBJO.

'Enhancement' is a softer and more trade-friendly term, whereas 'treated' produces connotations of something undesirable. Those who sell stones would like to avoid the use of the word 'treated'.

Orange-pink sapphires

Padparadscha is orange-pink and is the rarest colour of sapphire, stones selling for the highest prices. A couple of years ago there was a large influx of orange coloured sapphires which looked like the traditional padparadscha stones from Sri Lanka. They became very popular in Japan and were being sold at padparadscha prices. The stones were coming from Chanthaburi, a mining and cutting centre in Thailand and, according to the Thai cutters, the rough came mainly from Madagascar and simple heating had changed the colours to orange. When the laboratories examined these stones, they found that the colour was on the surface of the stones only; this indicated that they were diffusion stones and should therefore be sold as 'treated sapphires'. Such a designation would greatly reduce the value of the stones and the Thai cutters objected, saying that they had merely heated these stones in the traditional ways and no coating had been induced onto or into the stones.

We then had a period of great animosity and acrimony between the Thai cutters and the laboratories, and some very nasty e-mails and faxes were circulating around the trade. The Thai cutters challenged the laboratories to come to Chanthaburi to examine the process for themselves. For a while it was suggested that these stones be called 'mass diffusion' to try to distinguish them from the older process of producing diffusion sapphires, but the laboratories insisted that they had to be designated as treated.

My own conclusion is that the Thai dealers felt genuinely aggrieved in that they had not coated the stones with any substance before heating them, and thus felt the term 'treated' was inappropriate in this instance.

The laboratories looked more carefully into these stones and found that they all contained beryllium, a substance not usually associated with sapphires. This further strengthened their position that a foreign substance had been introduced into these stones, again suggesting diffusion.

It was at this juncture that a clearer and more general definition of diffusion began to emerge. When a sapphire was merely heated in a crucible to produce a colour change and no foreign substance was introduced into the stone, it was claimed that further heating was completing a process nature had started but not finished. Deliberately coating a stone with a foreign substance to produce a colour change was a process not normally found in nature and thus such stones are in some way inferior to purely natural ones, even if they have been heated.

So now our definitions have become heated, no specific disclosure if no colour change has been induced from outside the stone, but diffusion if the colour change has come from the outside ►

◀ of the stone. This is a subtle change, perhaps one known and used by laboratories, but one that has not been understood as such by the trade.

Beryllium

Regarding the orange sapphires, the question now became where did the beryllium come from? It is now known that one of the Thai cutters and a heater of sapphires found that one batch of his sapphires had become orange but he could not repeat the process. He then tried more closely to repeat the process and found only one of his crucibles (heating containers) was producing this change of colour. Further investigation revealed that he had previously been heating chrysoberyls in this crucible. He repeated the experiment heating

sapphires and chrysoberyls together and found that in this instance the sapphires turned orange. So natural chrysoberyls were the original source of the beryllium. The secret was now out and other cutters began to heat the stones with chrysoberyls to produce this colour change almost at will.

Two amusing stories emerged; one was that a dealer in Thailand suddenly found a market for "my lousy chrysoberyls I could never sell." The other was that no one complained that suddenly there were many thousands of orange sapphires on the market and although it was no longer a rare stone it was still being marketed as such.

The Thai dealers still wanted to differentiate these stones from the diffusion sapphires, but have agreed

to disclose them under a new category 'A' in the ICA NET system, where 'A' stands for "Thermal enhancement of corundum together with other minerals in an environment that allows inducing of beryllium and other elements into corundum".

All this has introduced some nice gemmology into the trade although it is still unclear as to how the trade in general will want to designate such stones. One thing is certain: this is a new process and we are not sure what other results it may produce if sapphires are heated to very high temperatures with minerals other than chrysoberyl. A useful booklet entitled *Beryllium-treated rubies and sapphires* has been produced by Ted Themelis who operates in Bangkok.

Harry Levy

Conflict diamonds and the Kimberley Process – a Government perspective

Clive Wright, Head of the Government Diamond Office in the United Nations Department at the Foreign Office, offers some thoughts on the Kimberley Process

Regular readers of this magazine will be familiar with the series of excellent articles written by Harry Levy on conflict diamonds and the Kimberley Process. I will try not to repeat anything Harry has already made clear in his articles, but I wanted to offer some personal thoughts on the Process and on its impact in the UK.

First, on the Process itself. It is a unique structure that produced an unparalleled agreement. The idea of governments, industry and civil society negotiating an international agreement together as equal partners had not been tried before in a serious fashion. All three parties took some time getting used to the idea. Some of my fellow diplomats were at times rather indignant at being lambasted by straight-talking NGOs. And it was hardly a secret that the diamond industry and government officials were not natural bedfellows. But it *did* work and it produced the first global response to the increasing problem of the illicit exploitation of natural resources for illegal purposes. The Kimberley Process is being held up

as an example that others might follow, both in form and in content.

So, secondly, has it worked? In short, it is too early to tell. Implementation began in January this year, but many countries started only more recently, including the UK which, as part of the European Community, began only in mid-February. But the initial signs are encouraging. With 58 countries now trading in rough diamonds according to the minimum common standards set by the Kimberley Process and a further 22 countries preparing to do so, the international community has created, for the best possible reasons, a unique club that only trades between its own members.

But, thirdly, how has this affected industry, in particular in the UK? Well, that is for industry to say in the first place (constructive feedback always welcomed!). However, the tripartite relationship that produced the agreement has continued into implementation, with industry playing a key role through self-regulation. From my perspective it is imperative that the working relationship between

government and industry remains one based on co-operation and mutual respect. Government can provide the legislative and administrative base for compliance. But it is industry itself that ultimately ensures the protection of a legitimate worldwide business on which literally millions of livelihoods depend. And the NGOs? They keep the other two on their toes, as instigators and guardians of the Process!

The key test in gauging whether the Kimberley Process has worked is a combination of a significant falling off in the presence of so-called conflict diamonds and the ability of the legitimate business to continue with minimum disruption. In the UK I think we have managed to achieve the latter. The outbreak of peace in Angola, the Democratic Republic of Congo (DRC) and Sierra Leone has clearly helped with the former. And there are some indications that the Kimberley Process has had a secondary, knock-on effect on other aspects of the illicit trade. So we should not shout out a victory at this stage. But a murmured "so far, not half bad" would do nicely.

A Crime Against Civilization

Continued from p.41

hundreds, but thousands, of years ago.

Some of the famous treasures may have been placed in safekeeping before the war: others may have been stolen to order, to go directly into the hands of dishonest dealers or corrupt collectors. The details are as yet unknown, and may never be known, for the looters probably ranged from knowledgeable agents of international art theft down to ordinary street thugs bent on wanton destruction. Many of the famous pieces may eventually be traced and returned, though there is a danger that if easily recognizable treasures in precious metal prove unsaleable, the criminals left holding them will choose simply to melt them down for the bullion value, or dismantle them and sell the parts, which will be harder to identify than the entire object. At least the famous treasures are well known. They have been extensively studied, photographed and published. Replicas exist of some of them, housed in museums outside Iraq that also have major Mesopotamian collections.

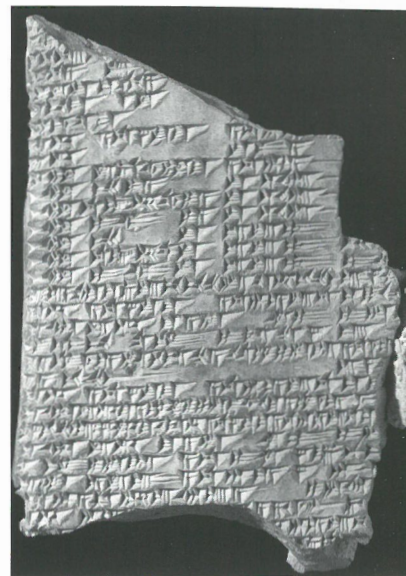
This is not the case when we turn to the research material in the storage areas of the museum, which were invaded by the rioters and trashed. Much of the material there will have been awaiting fuller study and publication. To the archaeologist, the most vital information about the past is often gained from objects that a museum visitor would pass by without a second glance. What of the flint implements, the potsherds, and those unprepossessing little clay tablets? An unfired clay tablet nearly 3000 years old cannot be mended if it has been dropped or stepped upon; it reverts to dust. Even when complete, it has little monetary or artistic value. Its value is intellectual, and lies in the information it may reveal; epic poetry, ancient daily life in the Land between the Rivers, religion, mathematical calculations,

astronomical observations, systems of law or medical practice. An ancient inscription may not look beautiful and arouse our aesthetic responses, but it speaks directly to us with the voice of our remote ancestors.

To reveal their secrets, such objects must be studied by experts, and the process is a slow and ongoing one, for in each generation, there will be only a few people able to do this work. The full importance of any archaeological object can only be understood when it is also known exactly where it was found, on what site, and in which layer and context. That is why we have museums; not only to display beautiful works of art to edify the public, but to care for, to curate, that permanent database of potential knowledge for successive generations of scholars to study, and thus to advance human understanding. The objects and the written records of their discovery must both be available.

So what of the Baghdad Museum's detailed written records of its 170,000 inventoried objects? In his heartbreaking account of his visit to the Museum on 12 April, Robert Fisk of *The Independent* described how not only newly-shattered pottery covered the floors, but also that "tens of thousands of hand-written card-index files, often in English and in graceful 19th century handwriting, now lie strewn amid the broken statuary".² No further comment is necessary.

The academic world had repeatedly issued warnings before the Iraq war that such looting might take place in the aftermath, and some sections of the Press, at least in Britain, had also shown highly responsible and well-informed concern about these dangers. The warnings were disregarded. Governments are now joining with museums, universities and bodies such as UNESCO to try to prevent the illegal export of major items and to plan strategies to assist whatever



Clay tablet with cuneiform inscription recounting the legend of Etana, from the library of King Ashurbanipal (reigned 669-631 BC). From Nineveh, 7th century BC. © The British Museum.

recovery is possible in Baghdad Museum itself. Perhaps certain governments may be brought to understand that the illicit trade in antiquities, as in paintings, diamonds and other commodities, is part of a criminal underworld that needs to be confronted on all fronts and on an international scale. The stable door may at last be closed, if not locked.

There are major collections of Mesopotamian antiquities in other great museums, including the British Museum, which is taking a leading role in the plans to assist colleagues in Iraq, the Louvre, the University of Pennsylvania Museum in Philadelphia, and the Metropolitan Museum of Art in New York. Quite fortuitously, for the exhibition has been in preparation for over five years, this summer sees a major loan exhibition at the Met focusing on this phase of early civilization.³ Its visitor figures will probably reflect a new level of awareness amongst the American public that the Ancient Near East holds a very special and noble place in the history of humankind. Some good may come of the tragedy in Baghdad, but it would have ►

◀ been infinitely better if it had not happened at all.

Catherine Johns

1. For example, <http://www-oi.uchicago.edu/OI/IRAQ/iraq>.

html and <http://www.theartnewspaper.com/iraqmus/index.html>

2. Robert Fisk, 'A civilisation torn to pieces', *The Independent on Sunday*, April 13, 2003

3. Art of the first cities: the third millennium bc from the Mediterranean to the Indus Metropolitan Museum of Art, New York, 8 May to 17 August, 2003

ORGANICS

Maggie Campbell Pedersen explains the confusion surrounding coral terminology

To a gemmologist, the term 'Precious Coral' denotes the red *Corallium rubrum* of the type found for centuries in the Mediterranean, whilst to a zoologist, it denotes any coral that can be used for gem purposes. This is just one example of the confusion surrounding corals.

Whilst researching for my forthcoming book on organics, I endeavoured to unravel some of the misunderstandings, and spent many hours with Dr Brian Rosen and Jill Darrell at the Natural History Museum in London. I soon discovered that there are few simple answers regarding corals. Even the word 'coral' has no formal meaning in taxonomic science, and originally covered a far wider selection of animals than it does today.

To add to the confusion, it can be very difficult to identify rough pieces of coral, as some of the animals' identifying features may be on the tips of its branches or in the pattern of the living tissue, which covers the calcium carbonate or horny skeleton used by jewellers. If the coral has been cut and polished, identification can be impossible. The main reasons for a jeweller to identify certain corals today firstly is to ensure that they are not amongst those that are protected by fishing and trade bans, and secondly that they are not dyed.

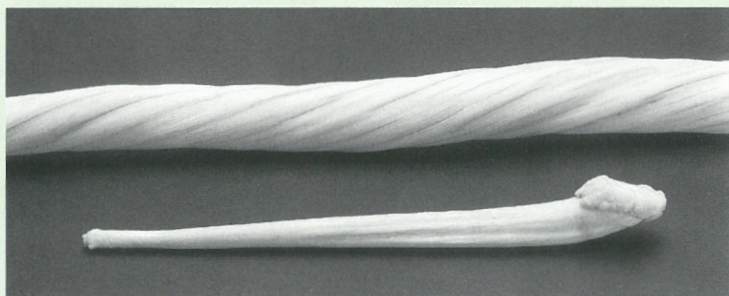
Some corals do display features that enable identification. For example, the *Corallium* corals which now come from the Far East as well as from the Mediterranean, and

which occur in colours from white, through pinks to reds, all have very fine striations running almost parallel – about 0.25 to 0.5 mm apart. Other corals may also display parallel striations, but the pattern is more coarse. Examples of this are the so-called bamboo corals (of the genus *Isis*), which have calcium carbonate skeletons interspersed with nodes of horny material. These occur in browns and whites, and are often dyed red to resemble *C. rubrum*.

Blue coral, *Heliopora coerulea*, is still found on the market but its trade is – or should be – strictly regulated, as the species is now listed as being partially endangered.

There is a red coral which is becoming increasingly popular, and which resembles blue coral in texture. However, it is from a very different species, and belongs to the group termed 'soft corals', hence it is sometimes called by this name. It is also occasionally called, simply, 'red

Narwhal ivory



Section of narwhal tusk and (below) an unerupted narwhal tooth.

The little Arctic narwhal is renowned for the single tusk carried by the males, which spirals anti-clockwise to a length of up to two metres, and resembles the horn of the mythical unicorn. Very occasionally a male will produce two tusks, and in rare instances tusks are also seen on females.

All narwhals can have several teeth in the top jaw at birth, but they lose these in infancy, and two teeth remain. One of these erupts as a tusk, and the undeveloped tooth remains within the jaw for the life of the animal. The Inuit let nothing go to waste, so the undeveloped teeth – which do not spiral and can measure up to 25 cm – have also been carved. The natural long, tapering shape with a 'bowl' at one end was ideal for carving into tobacco pipes. Other objects made were items such as knitting needles or crochet hooks.

Scottish Branch Conference

Adrian Smith reports on this year's conference held in Perth from 2 to 5 May



Corallium rubrum rough.

coral'. In most of the soft corals, the minute particles of calcium carbonate which make up the skeleton do not fuse, so the resulting skeleton is not totally rigid. However, confusingly, some of the soft corals do have fused – and therefore hard and rigid – skeletons. It would possibly be less confusing to refer to this coral by its Latin name, *Melithaea*.

Black and golden corals have skeletons that are made of a horny material related to keratin, which is known to gemmologists in the forms of horn, fingernail, hair and so forth. There are many different types of black coral used to make jewellery. Natural golden corals do occur but are very rare, and black corals can be bleached in strong hydrogen peroxide to resemble gold coral, in much the same way as brown hair can be bleached blond.

Most of the black corals used for jewellery come from the order Antipatharia. Common to all the corals of this order are a central canal surrounded by layers of horny material, and some form of spines, though these features may not be visible in a finished object. Some antipatharians have a matt surface, whilst others have a naturally glossy one. Other black corals come from the orders Zoanthinaria and Alcyonacea, but, as already stated, when once they are polished, accurate identification is often impossible.

We try to ease delegates into the weekend with something nice and gentle on the Friday evening. They don't come any nicer or more gentle than Dorothy Hogg. Dorothy has probably launched more successful designers' careers than anyone else in the trade with her total commitment to her students and her irrepressible enthusiasm. Her talk 'From imagination to manufacture' centred on the achievements of her students and the successes of the Edinburgh Art College. A rare insight into how the seemingly unconnected influences and inspiration find themselves being converted into jewellery.

Then came the chance to catch up with everyone over dinner. The inevitable peals of laughter and

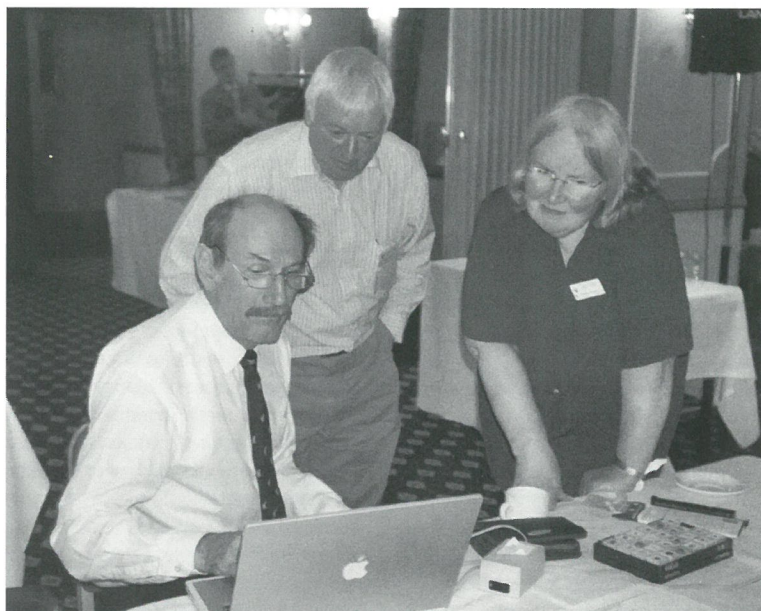
huddles in deep conversation continued in the hotel bar, accompanied by the sharing of little 'gems' dug out of every pocket and handbag.

The ill-treatment of corundum

Back by popular demand, Professor Henry Hänni was the keynote speaker this year. His professional presentations and charming accent are always welcome at the Scottish branch.

Henry's lecture 'The ill-treatment of corundum' on the Saturday morning centred on the treatments endured by the long-suffering corundum group. As if being tortured by heat wasn't enough, now they are being 'poisoned' by beryllium!

Professor Hänni gave an ►



Keynote speaker Professor Henry Hänni (seated) with John and Catriona McInnes (Scottish Branch Secretary).



Branch Chairman Brian Jackson presents the Ness Trophy to Clare Dorrell.

◀ account of the various heat processes currently employed to induce asterism, and to improve colour and clarity. He described how various results could be achieved by using differing temperatures and cooling rates, and also outlined the effects of heating using an oxidizing or reducing atmosphere.

It was interesting that the elements present in inclusions could also provide the fuel for colour enhancement – the blue surround to rutile inclusions after heat treatment.

Henry has conducted his own research on beryllium-treated sapphires at the SSEF and proffered a few suggestions as to what terminologies could be applied to these stones.

Emeralds from Sandawana

Hanco Zwaan has a wealth of personal experience of emeralds from Sandawana and pampered the more geologically inclined amongst us with a wealth of information on the regional structure of the area containing the Zeus emerald mine. The stones from this area may be small (generally 0.25 ct to 0.50 ct), but such is the concentration of these stones, one area is called 'The Bank of England'. Emeralds are quite literally lying on the surface waiting to

be picked up (field trip anyone? no rain, honest!). Hanco explored some of the inclusions that can be found, and explained the relationship between these inclusions and the surrounding rock types in this part of Sandawana. He revealed that even an occasional three-phase inclusion has been found.

Lunch followed with ample opportunity to view and/or buy the goodies on show from some of the sponsors of the conference.

The DTC Gem Defensive Programme

Suitably refreshed after lunch, and relieved of some hard-earned money, we were ready to see Dr Paul Spear next on the podium. Since viable production of synthetic diamonds is now a reality and there is the added marketing threat from HPHT diamonds, the Diamond Trading Company (DTC) have been concerned over what effect this will have on consumer confidence and buying.

Dr Spear outlined the steps that the DTC have taken to overcome this potential problem. Dramatically called the 'Gem Defensive Programme', this strategy attempts to shore-up any potential waning in the public's belief that diamonds are still a girl's best friend.

Paul gave a presentation which included an overview and the objectives of the programme, a brief history of synthetic diamond production since the late 1950s and comparison of the various methods currently employed to synthesize diamonds.

Two clever little boxes of tricks have been developed by the DTC to help sort out synthetic and imitation stones. One is the DiamondSure which passes most diamonds and identifies synthetic moissanite. The stones that are not passed, a small percentage of natural diamonds and all synthetic diamonds, are referred for further testing. DiamondView is able to separate these stones based on their structural properties viewed under UV light and also on differences in the resulting phosphorescence.

Jewellery of the art nouveau period

David Callaghan, in his enthusiastic and humorous style, delivered a fascinating lecture with the help of his dual slide show. Despite our best efforts to put him off his stroke, by fiddling with the lights, wafting curtains and asking him to move his screens around, nothing could stop him delivering a well researched and colourful exploration into the world of art nouveau design. With wonderful images of items as diverse as a church interior to a decidedly phallic looking fireplace, David gave an insight into the thoughts of the designers of this period and how they translated this into this much sought after jewellery. Exquisite photographs came thick and fast, featuring jewellery from the well-known jewellery houses to the lesser-known designers.

The AGM of the Branch followed when, as usual, the delegates learned of the activities of the branch over the year and some of the plans for the future. The existing committee all signed up for another year. It was announced that the Ness Trophy for the best candidate of the year in Scotland in the Gemmology Diploma examination had been awarded to Clare Dorrell, and the Pairman Trophy for the best student in the Preliminary examination to John Fleming.

Saturday night saw all the delegates and a few additional guests from some of the local jewellers join in the fun at the Ceilidh/Dinner. The usual 'suspects' could be found in merry huddles with more 'pocket emptying' long after the official programme had finished.

Old and new facts about diamonds

Henry's attention turned to diamonds on Sunday morning in his second presentation. Again, Professor Hänni's skill at conveying fairly complicated theories in a way that all present could understand was appreciated. Henry added emphasis to Dr Spear's presentation by giving additional background on the structure of both natural and

synthetic diamond and, more importantly, the methods that can distinguish them from each other. The ability that type IIa diamond possesses to transmit short-wave ultraviolet light was dramatically demonstrated by Henry's handy little invention, the SSEF Type IIa Diamond Spotter. The lecture was supported with fascinating photographs, one of which was a photograph of a sectorized 'floral' structure on one face of a diamond octahedron, a thing of beauty in itself.

Notes from the lab

Next it was Gem-A's Steve Kennedy who took the stand. Steve shared some of the more unusual items that had been submitted to the laboratory for analysis, including a synthetic opal that had previously been 'certificated' as natural by another laboratory. Steve explained the processes by which he arrived at his decision. For the customer's sake a third opinion was sought to corroborate his findings.

Other materials discussed were some chrysoberyl with vanadium trace elements, amber and turquoise.

The lab obviously seems to get drawn into trade description cases. A few of the cases that Steve has been recently involved with were highlighted. Pearls, or should I say stained freshwater pearls imitating South Sea pearls, cause more than a few problems for advertisers and consumers alike. Steve gave a brief run down of suggested terminology that should keep the consumer protected and the trader out of trouble.

Lunch was followed by more opportunities to part with next month's housekeeping at the hands of our sponsors.

Three hours of workshops followed, when delegates could wander from one 'stand' to another offering the chance to learn and to share information and techniques. Two whole tables of microscopes set up for those that wished to take a closer look at the masses of sample stones brought by our speakers and committee, all of whom

were on hand for one-to-one tuition if requested. A range of other demonstrations and workshops were there for the taking, ranging from innovative gemmological instruments to faceting to computer-aided appraisals to books.

There was just time for a quick wash and brush-up for dinner at a local restaurant. Goodies that had been bought during the day were passed around the assembled company for admiration. Then one last opportunity to try to empty the hotel of Drambuie before bed.

The final day saw a few of the harder delegates meet in the morning for a field trip to Glenfarg in search of agates. Most were not disappointed, some found amethyst too.

Yet another very successful conference completed. All ran as smoothly as ever, thanks to our hardworking secretary Catriona McInnes, who works tirelessly for

Thank you ...

The Branch Committee would like to take this opportunity to give very sincere thanks to:

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Cairncross of Perth

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Lyon and Turnbull

Ewan Millar Ltd

Perthshire Jewellery Company

months prior to the conference. I know the committee and delegates would join me in offering our sincere thanks for all that she does – it really wouldn't happen without you Catriona.

South East Branch

Tucson 2003

At a well attended meeting held at Christie's South Kensington on 6 April, Peter Wates and Colin Winter gave a talk entitled 'Tucson 2003' to a gathering of South East Branch members.

This topic was chosen because of a visit to the Tucson Gem and Mineral Show in February this year by the speakers and several other members of the South East Branch. The talk was intended to give an impression of the Tucson scene, its various shows and one of the larger events, the AGTA Show. Originally it was hoped that Alan Jobbins would be an active participant, but he was not able to be with us on the day due to a mix-up of dates. Peter and Colin extend their grateful thanks to Alan for his enthusiasm, technical input and a range of photos showing various organic materials.

The speakers introduced Tucson to the audience, most of whom had

never visited the world's largest gem and mineral fair, by showing photos of the venues and the facilities arranged for visitors, and a series of general photos. A wide range of new and interesting materials were shown, including 'raspberry' a new deep pink beryl from Madagascar, colour-change sapphires from China, new finds of opal from Louisiana and Indonesia etc, opalized fluorite, mammoth ivory both as full tusks or carvings and a huge block of 'chrysoprase' which was actually magnesite. One supplier offered amethyst and citrine geodes that had been altered by the addition of 'legs' with a geode-like exterior, perhaps to be used as coffee tables, etc, while others specialized in crystals, crystal healing, lapidary and jewellery tools, equipment or books; all aspects of the jewellery, gemmological and lapidary trades being catered for.

Peter showed photos of ►

◀ minerals, mineral displays and a range of fine-quality gemstones, including some very attractive Nigerian 'Ndogo' tourmalines, very similar in colour to the beautiful Paraiba material but considerably less expensive even with a price tag of \$5000 per carat for stones up to 10 carats. Also in great supply were pearls of every conceivable type, colour, size and quality, including some mixed naturally coloured 10 mm South Sea nucleated cultured pearls with a very fine lustre and literally tons of beads cut from an enormous range of materials including yellow prehnite, spodumene of various colours and faceted diamonds.

The talk also included a brief look at some of the other interesting places to visit whilst in Arizona including various Caverns, the Kitt Peak Observatory, the Grand Canyon and Meteor Crater. Tucson also has a wide range of other recreational facilities and is a very interesting place to visit apart from the Gem Show.

After the presentation Nigel Israel thanked the speakers and offered a vote of thanks both to Christie's South Kensington for the use of the venue and to David Lancaster and Sally Everitt for organizing the seating, projection facilities and the refreshments. The audience then enjoyed tea, coffee and biscuits while having an opportunity to get together with friends or discuss gemmology with the committee members.

Many thanks also to Hilary Taylor, without whose input the artwork and special effects for this Power-Point presentation would not have been possible.

Colin Winter

Information about forthcoming Gem-A branch meetings and events is given on p. 60, with contact details.

Midlands Branch One-Day Conference

On 18 May the Midlands Branch held a one-day conference attended by approximately 40 members, students and visitors. Gwyn Green, Chairman of the Branch, welcomed everyone and introduced the first speaker, Doug Morgan, one of the Midlands best-known and highly respected gemmologists. Doug told us about matters metallurgical and gemmological, as well as other fascinating topics with an odd ode as a bonus. We then had the opportunity to look closely at some of the specimens we had seen in his fascinating slides. The President, David Larcher, gave a vote of thanks and presented a memento.

Following a delicious lunch, a presentation was given by Professor Theerapongs Thanasuthipitak of Chiang Mai University, northern Thailand, and his two colleagues, Anuphap Chinudompong and Prajak Angkahiran, both of whom have long experience of treating sapphires at Chanthaburi. Paul Kessler welcomed

the Thai team in their own language. Dr Bill Gaskarth from Birmingham University explained how the connection between Birmingham and Thailand had started and introduced the members of the team. We enjoyed an interesting and detailed presentation on the gem market and heat treatment of corundum based on their research and current practices in Chanthaburi, Thailand. After a vote of thanks from the Chairman and a show of appreciation, the President presented each member of the team with a commemorative memento of their visit to the Midlands Branch.

Delegates then attempted to identify twenty gem/mineral specimens with a prize for the highest score. The answers were given during tea which resulted in a tie and the tie-breaker questions caused great amusement.

A very successful and enjoyable conference.

Elizabeth Gosling

Members' meeting in London

Heat treatment of corundum in Thailand

On Thursday 15 May an audience of more than 70 members and friends gathered at the Gem-A headquarters to hear a talk entitled 'The gem market of Chanthaburi and the heat treatment of gems in Thailand' by Professor Theerapongs

Thanasuthipitak of Chiang Mai University, northern Thailand, and his two colleagues from Chanthaburi, Anuphap Chinudompong and Prajak Angkahiran. A summary of their research results and views on terminology will be published in the next issue of *GJN*.

Roger Harding

North West Branch

Jewellery at auction

On Wednesday 26 March, Richard Slater gave a talk entitled 'Jewellery at auction' which was a resounding success.

We all had the opportunity to gain inside knowledge of some of the more unusual pieces which are submitted for auction each day. You never truly realize how diversely knowledgeable an auctioneer has to be.

We were entertained throughout with many stories, with a slide show presentation on each piece

discussed. The talk covered curiosities concerning tiaras, diamonds, silverware, hair jewellery, and horse jockey memorabilia of Fred Winter, twice winner of the Grand National Steeplechase in 1957 and 1962 here in Liverpool.

Richard's talk comfortably overran the allocated time without a weary eye in sight. I personally highly recommend him as a speaker to any of our gemmological groups.

Many thanks Richard!

Ray Rimmer

Adult Education Course is a Gem in the Emerald Isle!

A new eight-week Adult Education evening course entitled 'Exploring the Wonderful Colourful World of Crystals and Gemstones' was provided by Dr Martin Feely of the Department of Geology at the National University of Ireland Galway (NUIG), during the Spring semester. It offered a mix of lectures and practicals designed for the absolute beginner or those with a work-related interest in crystals, minerals and gemstones. These aims were reflected in the profiles of the ten students that attended the course; three came from the jewellery trade, one was a chemistry lecturer and the remaining students all professed a keen amateur interest in crystals and gemstones. The course outlined the nature and origin of crystals and their geological settings including photo-examples of microscopic crystals in Galway granite to remarkable 18 foot long crystal monsters (of beryl) from Maine in New England. The wonderful array of colours exhibited by crystals and their extraordinary interactions with different forms of light was also demonstrated. These topics formed the basis for an exploration of the occurrence and diagnostic properties of the main gemstones including diamond, ruby, sapphire and emerald. The students were provided with hands-on tuition on good practice in the basic gemmology of rough and cut crystals. The expansive collections of crystals, gemstones and minerals coupled with the microscopic equipment in the Geology Department formed the vital educational resources for this course. A fieldtrip to the Connemara hinterland of NUIG, a unique and remarkable outdoor educational resource, to view and collect a range



Exploring for crystals in Connemara. Members of the gem-course in a Galway granite quarry (just 30 minutes from the lecture hall!) that contains purple and rarer green fluorite crystals, as well as spessartine garnet, galena, pyrite/chalcopyrite, calcite and quartz (some smoky). Back row (left to right): Sean O'Muircheartaigh, Dan Griffin, Michael Mahon, Sean Cunnie, Francis Joyce and Victoria Knight. Front row: Martin Feely, Colm O'Muircheartaigh (budding gemmologist), Maura Gow and David Gow (another budding gemmologist!).

of crystals in their natural settings, marked the conclusion of the course. One highlight of the trip, apart from the brilliant sunshine, was a visit to a granite quarry which provided excellent and collectable examples of purple and rarer, green fluorite (see photograph), quartz crystals and cherry-red garnets. Elsewhere crystals of andalusite, cordierite,

tourmaline, biotite and muscovite hosted by pegmatite veins satisfied the student's eagerness to collect samples for their private collections. Dr Feely, a Gem-A approved tutor, is planning a new and more detailed evening course for the coming academic year.

Dr Martin Feely

Heat-treating ruby and sapphire

Gemlab (Thailand) Company is conducting a one-week training course in heat-treating ruby and sapphires at the company's lab facility in Bangkok, Thailand.

Gemlab's in-depth, diversified up-to-date knowledge on the subject provides the best information and expert training on the subject, not available anywhere else in the world. This unique course covers the most commonly practised methods in heating rubies and sapphires, including the beryllium heating process, incorporated with practical, hands-on experience

using Gemlab's furnace. The course is limited to five participants and is designed for gemmologists, gem traders, gem treaters, instructors, corporate executives and just about anyone who has a keen interest in the subject. The course is conducted by Ted Themelis, an international authority on the subject and author of the *Heat Treatment of Ruby and Sapphire, Gem Treatments and Enhancements and Beryllium-treated Ruby and Sapphire*.

For information please contact Ted Themelis at gemlab@themelis.com.

Gem-A visit to Idar-Oberstein – the gem capital of Europe

Jim Johnson, attending this popular event for the sixth time, recounts the highlights of the 2003 trip

Gem-A's annual visit to Idar-Oberstein took place this year during the last week of March. The visit was organized by Doug Garrod in conjunction with Susannah van Rose as leader. Despite occurring earlier in the year than previous visits this occasion was blessed with exceptional weather with rain and snow conveniently falling only during the night. Daytime was always blessed with warm sunshine, which matched the welcome from our German hosts.

Although this was the ninth visit to the region, those in the party who had visited the region several times before found plenty to interest them. As usual we had our regular coach driver Bill to smooth our passage, and we stayed at the Gethmann's Hotel overlooking the Ardennes above Idar.

A mine and a cutting workshop

The tour started at the beginning of Idar-Oberstein's gemstone history with a visit to the Steinkaulenberg Mine to see how various agates and amethysts were mined many years ago.



With great care, Helmut Wolf hands one of his exquisite bowls to Thet Khin while Vicky Landmark looks on.

This was followed by a visit to a historical cutting workshop, the Bieleeschleife to see how the mined agates were then cut and polished using waterpower to turn giant grindstones.

Gem collection

As in past years, Dr Bank invited us to tour the Gebrüder Bank in Idar

to see his collection of crystal and stones. This included seeing a geode containing 'water' and Dr Bank told the tale of another geode that on analysis was found to contain pure whisky. This had been sent to an eminent gemmologist as a practical joke as he had requested such a geode for testing. Also of interest were some blue synthetic diamonds that Dr Bank had obtained from Russia. The colour and clarity were good, although the size was small. Small quantities of boron are the cause of the blue colour. Once again Dr Bank and his wife entertained us all to an excellent lunch at their home before we progressed to the German Gemmological Association to view their teaching facilities and gem reference library.

Cameo and stone carving

In addition to visiting both the Idar and Oberstein museums, visits were also included to Erwin Pauly and Hans Ulrich Pauly to see their cameo and stone carving as well as to F.A. Becker to view their stocks of gems, carvings and crystals at the showroom in Idar.



Members of the group at a gem faceting demonstration at Gebrüder Bank.

As a break from matters gemmological the party were treated to a lunch time visit to the historical German village of Herrstein. This is a charming location with many timber framed houses set in cobbled streets making an excellent photo opportunity. A visit well worth repeating if the opportunity occurs another year.

Kirschweiler workshops

This year we were able to spend a whole day in Kirschweiler where we were given a demonstration in goldsmithing by Monika Leyser and then with Helmut Wolf to see bowl carving and stone carving on a large scale. The highlight of the trip was to visit Manfred Wild at Emil Becker to view his Fabergé style objects of jewellery in his showroom, which can only be described as visiting an Aladdin's Cave.

One day was reserved as a free day during which we all travelled around to make various purchases be it gems, tools or mineral samples. Several members of the group were heard to state that yet again they had spent far too much, but then we would all have to wait a year before the chance returned and some of our purchases were just too good to be missed.

Those who have been to Idar-Oberstein before will remember visiting the chocolate shop in Trier on the return trip and will be saddened to know that it has recently closed. However, not to be denied our fill of such delicacies another chocolate shop was discovered nearby so all is not lost.

Something special for 2004

Next year will be the 10th anniversary of the Gem-A trip to Idar-Oberstein and we have been promised something special to celebrate this anniversary. I have been on the last six trips to Idar-Oberstein and each year has been better than the previous one. It is hard to imagine how next year can be improved, but I hope to be there to find out.

Jim Johnson

The Dutoitspan diamond mine, South Africa

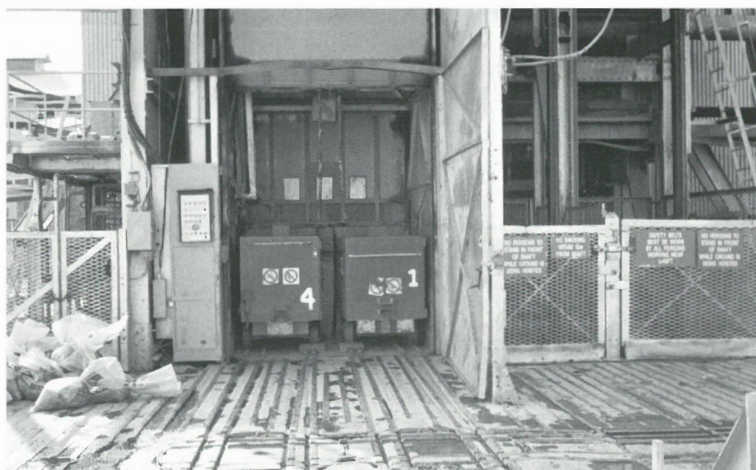
Gillian Mallett describes the noise and activity of a working diamond mine

In March of this year I took part in a geology trip to South Africa organized by the University of the Third Age, Cambridge. The trip included a visit to the Dutoitspan diamond mine in Kimberley – an opportunity for me to relate my studies for the Gem Diamond Diploma to the tunnels and noise and activity of a working diamond mine.

The mine now goes down 2000 ft to where the kimberlite pipe

ore was conveyed to the surface.

Further along the tunnel we passed the ends of 'scraper drifts', which penetrated at intervals into the kimberlite and which were being continuously emptied by a metre wide scraper bucket dragged on a chain and pulling lumps of ore to the end of the tunnel with considerable noise and clatter. The ore falls into the scraper drifts after being loosened by blasting; we were present when four



These two 'cocopans' (ore trucks) were removed from the lift cage so that our group could descend down the vertical shaft.

is narrowing and the mine nearing the end of its economic life. A vertical shaft through the igneous bedrock between the Bultfontein and Dutoitspan kimberlite pipes and connecting to both, carried our small party of visitors down in a cage the size of two cocopans (the name for the small ore trucks). A lighted sloping tunnel, with a conveyor belt for carrying ore upwards, then took us on foot down at 45 degrees for almost a kilometre to the tunnel near the ore face. Here a train of six trucks carrying ore stopped and noisily emptied ore down a chute to an underground crushing mill before the

nearly simultaneous resonant explosions of a new blasting occurred in the interior of the mine (earplugs had been provided with our helmets!). Near the working areas we saw where surveying with theodolite, lasers and plumb line, was needed to ensure that the position of tunnels was accurately known and blasting correctly aligned. Here also chains suspended in the tunnel indicated the entrance to a Rescue Room where up to 50 people could have food and life support for a week in the event of fire or problem in the mine. All visitors had helmets, overalls and boots, carried lamps with heavy batteries ►



Surveying lines on the wall and chains indicating the Rescue Room.

◀ at their waists and strapped on a rebreather apparatus in case the normally efficient ventilation or lighting failed in the mine. Scottie, our guide, explained the working of the mine.

Next we saw the large crushing mill underground, the size of a small factory, quiet at that moment from the task of crushing rocks up to a metre to the size of large gravel. Mightily impressed, we were then driven upwards in the van normally used for carrying cases of explosives down to the face and reached the lift shaft for our three minute journey from the mine to the surface.

Of course, the underground working needs machinery at the surface; we saw the enormous drums of cable, the safety gear and the design of the cables themselves which was complex and carefully checked. We did not see the ore after

concentration when the diamonds are finally separated and taken under tight security to Oppenheimer House. This tall, imposing building is the hub of diamond sorting in Kimberley. Recently, for the separation process the ore from underground has been mixed with material from the old mine dumps as this is almost twice as rich in diamonds, missed in the first fifty years of diamond mining and discarded as waste, when mining was opencast and generally dug by hand.

The Big Hole, about three miles away, was a unique and impressive chasm dug by hand from 1870 to 1914 by the miners who made Kimberley famous at the time of the Diamond rush.

Finally, I would like to thank Graham Oram, the leader of our party from Cambridge, for taking us to Kimberley, a fascinating source of diamonds.

Jewellery Techniques

The Society of Jewellery Historians is planning a two-day seminar in mid-April 2004, the week after Easter, on metalworking techniques and their application to jewellery. The first day would consist of professional demonstrations of a variety of processes, the second of lectures by specialists on the applications of these techniques in historical and

present-day jewellery. Expressions of interest are sought now, in order to confirm detailed plans for the event.

If anyone is interested please write to The Society's mailing address found on p.42 of this issue, and mark the outer envelope SJH – JT, 2004. (Please also include a stamped self-addressed envelope.)

EXHIBITION AND MUSEUM NEWS

Fabergé

The Queen's Gallery, Palace of Holyroodhouse, Edinburgh
11 April – 12 October 2003

The Queen's Gallery, Buckingham Palace, London
21 November 2003 – 7 March 2004

The Royal Collection of works by Carl Fabergé, the greatest Russian jeweller and goldsmith of the late 19th and early 20th centuries, is unparalleled in size, range and quality. Much of it has been acquired through the exchange of personal gifts between the Russian, Danish and British royal families. Tsar Alexander III of Russia appointed Fabergé Supplier to the Imperial Court in 1885, and King Edward VII and Queen Alexandra's enthusiasm for Fabergé's work encouraged the jeweller to open a London branch in 1903. This dazzling exhibition, which incorporates the results of new research in Russian archives, charts the royal passion for Fabergé through over 300 of its finest pieces.

Advance tickets available on-line at www.royal.gov.uk/output/Page1215.asp

Telephone: 0131 556 5100 (Edinburgh) or 020 7321 2233 (London)

'Love Story'

Goldsmiths' Hall, Foster Lane, London

29 May – 12 July 2003

Love is the all-consuming passion behind the Goldsmiths' Company's glittering annual summer exhibition. The exhibition celebrates the eternal marriage between weddings and precious metals and focuses on four different decades – the 1890s, the 1920s, the 1960s and today – illustrating wedding jewellery, fashions and memorabilia,

all of which vividly capture the essences and ritual of marriage in each of the four periods.

A number of stunning wedding dresses and elegant tiaras recall weddings of the 1890s, most notably the magnificent Castle Howard tiara, designed by Cartier as a wreath of twinned flowers and leaves and visually ablaze with diamonds. Similarly evocative of the era are the menu cards for wedding breakfasts, posy holders, and other fascinating items of wedding memorabilia. A charming gold, enamel, seed pearl

and diamond buckle, was coincidentally given to a young bride as a gift from the Goldsmiths' Company on the occasion of her wedding in 1899.

The considerable creativity and skill of Britain's contemporary jewellers and silversmiths is much in evidence. For example, a wedding ring and pendant designed and executed by Kevin Coates, one of the leading British artist-goldsmiths, are inscribed with the date of the wedding of the couple for whom they were made and the romantic words

'*Pour toujours*'. Elizabeth Gage's exquisite, Russian inspired, 'Anastasia Tiara', commissioned for the Victoria and Albert Museum's 2002 Tiara exhibition, together with a matching cuff bracelet, will make another public appearance at Goldsmiths' Hall. Other dazzling stars include wedding jewels by eminent jewellers such as Alan Craxford, Lilly Ann Hastedt, Jeremy Hicks, Catherine Martin, Theo Fennell and Rowlandsons to name only a few.

Art Deco exhibition at the V & A

Victoria & Albert Museum, South Kensington, until 20 July 2003.

Art Deco 1910-1939 follows the highly successful Art Nouveau exhibition of three years ago, and as with Art Nouveau, a vast range of materials and objects are explored, and a huge geographic area covered. Although many of the exhibits are on a monumental scale – notably the glass and chrome foyer that originally graced London's Strand Palace Hotel, and the model of New York's Rockefeller Center exhibited against a photo-montage of Manhattan's sky-scrapers – there is a wealth of items on a smaller scale, and much to interest the jewellery historian and gemmologist.

The exhibition starts by surveying the influences of the period. Ancient Egypt is the first to be considered, and fine reproductions of pectorals from the tombs of Princess Sit-Hathor and Tutankhamun are shown alongside exquisite work by Cartier from the 1920s. As visitors to the 1997 Cartier exhibition at the British Museum will remember, Cartier designed a number of pieces around Egyptian antiquities. The magnificent sarcophagus vanity case (with what is now believed to be a modern carved bone panel) is the most splendid of these, shown with two smaller *nécessaires* and a

faience scarab beetle brooch with richly jewelled wings. The traditions of East Asia brought exotic carved stones to the style, and bracelets by Mauboussin set with Chinese jade are shown, along with an oriental jade bangle mounted as a large annular brooch by Boucheron. Also by Boucheron, the massive and sumptuous corsage ornament of multi-coloured hardstones which was made for the influential Paris exhibition of 1925, the Exposition des Arts Décoratifs.

The jeweller Henry Wilson, who

produced the official British report on the jewellery shown in 1925, particularly praised the French who he felt had developed a completely new style and created pieces of exceptional beauty. This French domination of the fashions of the day is reflected in the exhibition. Cartier are well represented with three elegant pieces of diamond and black onyx jewellery dating from before 1920, the splendid necklace set with a 143 carat emerald made for Lady Granard in the 1930s, and two sleek vanity cases. More avant-garde ►



Bracelet with brooch (c. 1925-30). Raymond Templier (French, 1891-1968). © Virginia Museum of Fine Arts, Richmond.



Boucheron, corsage ornament. French, 1925. © Boucheron S.A.S., Paris.

◀ pieces include work by Georges Fouquet, his son Jean, Raymond Templier and Gérard Sandoz, the latter three of whom had been founder members of the radical *Union des Artistes Modernes*. Jean Fouquet's extraordinary circlet of ebony with four chromed discs can be seen alongside a Man Ray photograph of it being worn, while he demonstrates equal genius in bracelets of frosted rock crystal or in aquamarines and pavé-set diamonds. A splendid bracelet and initial brooch by Raymond Templier and a pendant by Gérard Sandoz complete the fine jewellery on display, while the dissemination of the style may be seen in the dramatic plastic necklace by Auguste Bonaz. Perhaps also worth a mention is the original footage of the dancer Josephine Baker doing the Charleston in little more than her jewellery.

Finally, don't miss the Art Deco jewels just acquired by the V&A and displayed outside the entrance to the Jewellery Gallery, a selection of pieces from the generous gift made by the American collector the late Patricia V. Goldstein.

Clare Phillips

Rock 'n' Gem Shows

Kempton Park Racecourse, Sunbury-on-Thames, Middx
Bath and West Showground, Shepton Mallet, Somerset
Newton Abbot Racecourse, Newton Abbot, Devon
Brighton Racecourse, Freshfield Road, Brighton
Newmarket Racecourse, Newmarket, Suffolk
Cheltenham Racecourse, Prestbury Park, Cheltenham
Hatfield House, Hatfield, Herts
Kempton Park Racecourse, Sunbury-on-Thames, Middx

2/3 August
30/31 August
6/7 September
20/21 September
27/28 September
18/19 October
25/26 October
1/2 November

All shows open 10 a.m. to 5 p.m. Enquiries to The Exhibition Team Ltd.
Tel: 01628 621697 (e-mail: Rockngems@aol.com)

Jewellery Sales

Spring 2003 sale dates from the auction houses

Bonhams, London

Montpelier Street, London SW7 1HH (Tel. 020 7393 3970)

Jewellery: 25 June, 16 July, 13 August, 3 and 24 September
101 New Bond Street, London W1S 1SR (Tel. 020 7468 8282)
Fine Jewellery 2 October

Christie's

South Kensington (Tel. 020 7581 7611)

Jewellery: 1 July, 2 September, 16 September (Rings)
Pawnbrokers Unredeemed Pledges: 26 September
King Street (Tel: 0207 389 2381)
Arts of India sale 24 September
(www.christies.com)

Dreweatt Neate, Donnington, Newbury, Berkshire

Priory Sale with Silver and Jewellery: 15 July, 2 September
Sale including Decorative Arts since 1860 25 June
Tel. 01635 553 553 (www.auctions.dreweatt-neate.co.uk)

Fellows & Sons, Birmingham

Second-hand Jewellery and Watches (by Direction of Pawnbrokers Nationwide):
3 and 17 July; 14 and 28 August; 11 and 25 September
Antique and Modern Jewellery and Watches: 24 July, 4 September
Tel. 0121 212 2131 (www.fellows.co.uk)

Gardiner Houlgate, The Bath Auction Rooms, Bath

Jewellery: 2, 16 and 30 July; 13 and 27 August; 10 and 24 September
Tel. 01225 812912 (e-mail: auctions@gardiner-houlgate.co.uk)

Hamptons, Godalming, Surrey

Antique and Modern Jewellery: 17 July
Tel. 01483 423567 (www.hamptons.co.uk/fineart)

Lyon and Turnbull Auctioneers, 33 Broughton Place, Edinburgh

Fine Jewellery and Silver 11 September
Tel. 0131 557 8844 (www.lyonandturnbull.com)

Sotheby's, London

Jewellery (New Bond Street) 2 July
Jewellery (Gleneagles, Scotland) 26 August
Tel: 020 7293 5000 (www.sothebys.com)

Dates correct at time of going to press but may be subject to alteration.

Eric Nussbaum, 1940-2003

In 1998, the platinum settings for the legendary Patiala necklace turned up in London. Nussbaum recalled that he "found them by pure chance. The chains were separated and the stones were gone, but I recognized it right away. I told Cartier I wanted to buy it and restore it even if we had to do it with substitute gems." The great bib-like necklace made for the Maharajah of Patiala by Cartier Paris in 1928, originally contained 2930 coloured diamonds, including the pale yellow De Beers diamond of 234.50 carats. Its discovery and recreation (which took two years) was the crowning glory of Nussbaum's career.

Eric Nussbaum was born on 18 April 1940 in Grosshöchstetten, Berne, Switzerland. His first job at Omega in Bienne sparked an interest in diamonds and gemstones that led him to study gemmology in Germany and England. After this he worked for Gübelin in Geneva, Lugano, Lucerne and Berne, before settling in Paris as an apprentice to a diamond merchant. In 1969, he joined Cartier and opened a shop in Geneva. Soon after he opened a shop in Munich and simultaneously ran the Munich and Geneva branches from 1973-75. From 1975-83, as Gianni Bulgari's personal assistant, he set up an office for Bulgari in Geneva and played a significant role in the development of the firm. He once recalled a day when he found himself driving with the photographer Norman Parkinson past the castles of Ludwig of Bavaria, with Wagner blaring at full volume, fur coats swinging in the back of the van and a bag of priceless jewels in his hand.

In 1983 he became Director of high jewellery at Cartier and began

the formation of the Cartier historic collection – now known as the Art of Cartier Collection. At that time no more than a handful of historic pieces were kept in each of the main branches: Paris, London and New York. Hans Nadelhoffer was preparing



Eric Nussbaum

the first scholarly book on Cartier; it came out in 1984 and prompted the decision by the then directors of Cartier to release major funds to replace the photographs with the objects themselves. Nussbaum had worked closely with Nadelhoffer and the book became Nussbaum's guide and model for the astounding collection that he built up over 20 years. Harnessing the indispensable aid of the company's comprehensive archive and its able archivists, Nussbaum assembled more than 1200 pieces – jewels, clocks, watches and *objets d'art* – with the intention of documenting Cartier's

artistic legacy of the past one hundred and fifty years. Starting as early as he did, Nussbaum was able to create probably the best and most representative collection of its kind. That selections from it were shown in museums across the

world is a measure of its breadth and quality. It would be impossible to list all the exhibitions which he organized or which he was instrumental in bringing to fruition, but the major ones at least should be mentioned: 1988 at Goldsmiths' Hall, London; 1989 at the Petit Palais, Paris; 1990 at the Academia Valentino, Rome; 1992 at the Hermitage, St Petersburg; 1995 at the Metropolitan Teien Museum, Tokyo; 1996 at the Fondation de l'Hermitage, Lausanne; 1997 at the Metropolitan Museum, New York and the British Museum, London; 1999 at the Museo del Palacio de Bellas Artes, Mexico; 1999-2000 at the Field Museum, Chicago; 2002 'Le Design Cartier vu par Ettore Sottsass' at the Vitra Museum, Berlin and the Palazzo Reale, Milan. When he died, he was working on a show to be held at the Shanghai Museum this autumn.

As an author, he is best known for *Cartier, le joaillier du platine* (published in English as *Platinum by Cartier*), which he wrote with Franco Cologni in 1995, but he also wrote or contributed to many of the catalogues of the exhibitions he organized. *Bon raconteur* as he was, he never consigned to paper his inexhaustible reservoir of tales of his adventures in pursuit of Cartier treasures or his meetings with exceptional clients. Some of these appeared in the press when the Patiala necklace was recreated: an article by Suzy Menkes in the ►

◀ *International Herald Tribune* recounts that in the early 1980s he went as Cartier's ambassador to the Sultan of Brunei. His fabulous Cartier jewels were rejected by the Sultan's 'first' wife as 'for little people'; he moved on to the second wife, for whom the Sultan announced that he would buy the entire collection. Nussbaum, hands trembling, found himself tucking the Sultan's chequebook into his own pocket, only to hear the Sultan say "I think this is mine".

At the time of the exhibition 'Cartier 1900-1939' at the British Museum, Nussbaum participated in a symposium organized by the SJH. His paper, 'The Creation of the Cartier Collection' was published in *Jewellery Studies*, vol. 9. This is the only account, in his own words, of his remarkable achievement. With characteristic modesty, he wrote, "It was a task that gave me many headaches. Even though I am the only member of the company employed to spend money, I became aware that it is sometimes very difficult to make decisions, especially the very quick ones at auctions, when you have to act then and there, not knowing what other pieces will show up in the future." He wrote of his successes – saving the Essex tiara of 1902 from being broken up by a diamond merchant who was interested only in the stones – and his disappointments – the sapphire and emerald necklace that he failed to secure at auction because, as he put it, "I was not generous enough in spending my budget." He recalled finding two 1920s vanity cases in Paris which had never been sold since they went into stock, still marked at the original prices. He took care to include touching personal commissions of little monetary value alongside the lavish diamond jewels, to represent as accurately as possible the full range of Cartier's production.

Travel was part and parcel of the job, lecturing all over the world, often devising special events for regular clients with pieces from the collection. His knowledge of and

feeling for gemstones meant that he could often distinguish at a glance between stock pieces and special commissions that used the client's stones: if the stones lacked quality or the colour did not match it was not going to be a stock piece. By his own admission, his overriding passion was for Cartier mystery clocks and he had planned to write a catalogue raisonné of them.

He was a man of slight build, always immaculate and given to boundless hospitality. Intensely

dedicated and hard-working, he was also a *bon vivant*, equally at home in the grandest of venues and in his local bistro in the Grande Rue in the old town in Geneva, tucking into piping hot fondue and a pichet of local wine. He died suddenly on 13 February, on a trip to Brazil, two months short of his 63rd birthday. His formidable expertise commanded the respect of all who knew him; a remarkable man and, above all, a kind and generous friend, he will be greatly missed.

Judy Rudoe

Dr Rudolf-Alexander Schütte

The SJH sadly has to announce that Dr Rudolf-Alexander Schütte, while recuperating from his operation, died unexpectedly on the 8 April 2003, at the age of 43. Members, who were looking forward to his promised lecture to The

Society, may wish to know that his eagerly awaited catalogue of the Kassel collection of silver plate and 'curiosities', will be sent for publication later this year. On behalf of The Society, sincere condolences have been conveyed to the family.

Peter Francis Jr, 1945-2002

On 8 December 2002 we learned that Peter Francis Jr of Lake Placid, New York State, died during a visit to Ghana.

Peter was the first and foremost pioneer archaeologist/researcher who understood the importance of beads whatever they were made of. He also recognized their fundamental but hitherto neglected place within the range of ancient and universal artefacts, that far from being merely worthless trifles often held the key to the histories of technologies, trade routes, migrations of whole civilizations and much more.

He founded the Center for Bead Research, hosted an enormously popular website and was a member of almost all the bead institutions worldwide. As well as extensive and thorough fieldwork, he wrote and published a great number of papers in academic and popular journals and

several books. He also directed a series of International Bead Conferences which gave other researchers the opportunity and incentive to bring their speciality topics to a worldwide audience.

As well as recently working with archaeological excavations such as at the burial site at Berenike, Egypt, a pre-Roman port at the Red Sea, he was dealing with all the bead finds at St Catherine's Island, the northernmost Spanish mission in North America. He also wrote a major book *Asia's Maritime Bead Trade: 300 BC to present* (University of Hawaii), the culmination of his many years of practical research.

Peter's most valuable contribution, though, was his friendly manner, his ability to talk with equal ease to amateur enthusiasts and to the most hard-boiled professors.

Stefany Tomalin

SJH AUTUMN EVENTS

Details of times, venue and prices are given on p.60

23 September

An introduction to the Tiffany & Co. archives and its collections

ANNAMARIE SANDECKI

Annamarie Sandeck is the Director of Archives of Tiffany & Co., the internationally renowned American jeweller. As Archivist, she administers the Tiffany Permanent Collection, which consists of hundreds of objects, as well as being responsible for new acquisitions. She travels extensively speaking about the history of the company, and curates the annual summer exhibition mounted in the New York store. Prior to joining Tiffany & Co., Ms Sandeck was the archivist for the advertising firms, J. Walter Thompson and N.W. Ayer.

28 October

The Waning of Medieval Jewellery

JOHN CHERRY

John Cherry worked for many years in the British Museum, retiring as Keeper of Medieval and Modern Europe in 2002, and is now an independent scholar. He has written on medieval jewellery and his publications include the Fishpool Hoard, the Dunstable Swan Jewel, Medieval Goldsmiths, and many other individual articles on individual finds. He wrote the *Middleham Jewel and Ring* and lectured on this subject to the SJH. He has written catalogue entries for the exhibition – Gothic: Art for England – which will open at the Victoria and Albert Museum in October 2003.

International Jewellery London 2003

Earls Court 2

31 August to 3 September

Seminar Programme to be expanded

Following the success of the 2002 seminars, plans are now being finalized for a full and varied programme for IJL 2003.

Of particular interest to Gem-A members will be 'Everything Included – Internal Features of Gemstones' by Doug Garrod, and research updates on diamond and coloured stone treatments by Matthew Hall of the GIA. Other topics will include white gold, fashion and design of jewellery, staff recruitment and aspects of the retail jewellery trade.

Full details of the Seminar Programme will be appear in the July issue of *The Journal of Gemmology*.

COMPETITION

Talk about bad days.

I have a little jewellery shop. A few days ago Fred, a dealer I know well, came in and sold me a nice little second hand silver ring for £10. Not big business, I know, but it's not all diamonds and tiaras these days. I paid him cash – two £5 notes from my till.

Well, while Fred and I were sitting in the back having a cup of tea, a customer came into the shop and, blow me, she wanted a silver ring. I sold her the ring I had just bought from Fred for £15 cash. She gave me a £50 note and so I had to beg the change off Fred. Fred took the £50 note and gave me ten £5 notes in exchange. So I gave the customer the ring and her change, and she left.

A few minutes later Fred, still supping his tea, shouted out, "Heck, this £50 note is a forgery. For crying out loud it's counterfeit." Or at least words to that effect. I looked at it. He was right. I dashed

outside, but the customer had disappeared. I did the right thing, of course, I went to the cash machine and took out a real £50 note to give Fred. I framed the fake.

Later that night I lay in bed mulling over the day. What made it really bad was that that ***** was the only customer I had that day. Serves me right, I suppose, for ignoring VAT – well it was all cash, and she didn't ask me for a receipt. But what a day, a total loss of ... Hang on, what was my total loss?

Jack Ogden (who reminds readers, of course, that neither Gem-A nor the SJH condones VAT or other tax fraud.)

Answers to the puzzles in the last two issues:

In the March puzzle, the number of stones or the price in each type is a multiple of three. This means that the product of each type is divisible by three and so is their sum. An easy test for the divisibility by three is to add up the digits in any number, no

matter how large, and this sum will always be divisible by three, and this process can be carried out by adding the digits in the answer if this is still a large number, as often as possible until the sum is reduced to 3, 6 or 9. We had a good response to this puzzle. Thank you to all who sent in an answer.

In the December issue, the puzzle stretched the imagination to extraterrestrials and their search for a gem material that would extend the experience of anyone prone to double vision. Phleght was the name of the optical phenomenon and the thickness of our visitors' sample was a resounding 1800 gloink. The ratio of the velocities of the ordinary and extraordinary rays was an 'out of this world' 1.57. The closest any known mineral came to this value is 1.152 – a privilege shared by cerussite and crocoite, so the extraterrestrials took off and the conservation lobby relaxed. Congratulations to Claude Lamarre of Montreal, Canada, who submitted the correct solution.

Gemmological Association and Gem Testing Laboratory of Great Britain

9 September. AGM followed by
DAVID J. CALLAGHAN
Jewellery of the Art Nouveau period
At Gem-A, 27 Greville Street, London EC1N 8TN.

Gem-A Conference 2003

Sunday 2 November
Kempton Park Racecourse,
Sunbury-on-Thames, Middx.
In conjunction with the Rock 'n' Gem Show

Speakers:
Bill Boyajian
Paula Crevosshay
Professor Henry Hänni
Dr Jack Ogden
Clive Wright

Midlands Branch

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

21 June. Midsummer Supper
26 September. PEGGY HAYDEN
19th century jet and other black jewellery
31 October. BRIAN DUNN
The Naughty Nineties (1890s)
28 November. BRIAN JACKSON
British gemstones with a Scottish flavour
6 December. 51st Anniversary Dinner

North West Branch

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

17 September. BRIAN JACKSON
Scottish minerals

15 October. STEPHEN KENNEDY
Notes from the laboratory – detection, disclosure and false description

Scottish Branch

For further details of Scottish Branch meetings contact Catriona McInnes on 0131 667 2199; e-mail scotgem@blueyonder.co.uk

11 September. ALAN JOBBINS
Organics in ornamentation
15 October. JAMES GOSLING.
The Cheapside Hoard

South East Branch

Admission £5.00 unless otherwise stated. For further details of South East Branch activities contact Colin Winter on 01372 360290; e-mail info@ga-seb.org or visit the branch website at www.ga-seb.org

27 July. The County Club, Guildford
E. ALAN JOBBINS. Fifty years plus in gemmology
7 September. Christies, South Kensington
COLIN WINTER. Workshop on spectroscopic techniques
19 October. SEMTA. 'Jem Jumble' bring-and-buy

South West Branch

Contact Richard Slater on 01635 553572.

Society of Jewellery Historians

Unless otherwise stated, all Society of Jewellery Historians' lectures are held at the Society of Antiquaries, Burlington House, London W1 and start at 6.00 p.m. sharp. Lectures are followed by an informal reception with wine. Meetings are open only to SJH members and their guests. A nominal charge is made for wine to comply with our charity status. Further details of Summer/Autumn meetings are given on p. 59.

24 June. HUGH TAIT, Past President of the SJH
Renaissance Jewellery: The use of 'Painted Enamels', Miniatures and Related Problems

23 September. ANNAMARIE SANDECKI
An introduction to the Tiffany & Co. Archives and its Collections

28 October. JOHN CHERRY
The Waning of Medieval Jewellery

25 November. DR BEATRIZ CHADOUR-SAMPSON
Rosaries, Prayer-beads and Jewels of Devotion in the Dreyfus-Best Collection

Copy date for the September issue of *Gem & Jewellery News* is 20 July