

# Glass News

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Many thanks to the numerous contributors to this issue – so numerous that this preamble has to be short! As well as articles by the Roman Glassmakers, Andrew Smith, Bjarne Gaut and Kathryn Walker Tubb we have packed in meeting and book reviews, abstracts from speakers at the recent AHG meeting and details of a number of forthcoming events. David Crossley is shortly retiring as Treasurer for AHG and, after 9 years in the post, this is certainly the end of an era. We would like to thank David for all his work on behalf of AHG over this considerable period. We also welcome David Martlew as the new webmaster for the AHG website. He has already been very busy, and some of the features that he has introduced are detailed on the back page, together with the editors' details for contributors to issue 19. As always, we look forward to hearing from you.

Sarah and Juanita.

## AHG AGM and Study Day: Glass in Cambridge Museums

The Annual General Meeting of the Association for the History of Glass Ltd. will be held at the Fitzwilliam Museum, Cambridge, on Tuesday 15<sup>th</sup> November at 12.30pm. It will be combined with a Study Day on glass in the Fitzwilliam Museum and the Museum of Archaeology and Anthropology in Downing Street. Numbers for the study day are restricted to 50 and groups visiting the collections in the Fitzwilliam are limited to 15. Please state your 1<sup>st</sup> and 2<sup>nd</sup> preference for the afternoon session when booking as places will be assigned on a first come, first served basis.

The study day is £12 for AHG members and £18 for non-members. Cheques should be made payable to "The Association for the History of Glass Ltd." Please book and send cheques to: Meetings Secretary Martine Newby.

E-mail: [martine.newby@virgin.net](mailto:martine.newby@virgin.net)

### Programme for Glass in Cambridge Museums

- 10.00 The Fitzwilliam Museum opens
- 10.30 Registration and coffee, in the courtyard
- 10.50 Move to Lecture Room, in the basement
- 11.00 Julia Poole "Post medieval glass in the Fitzwilliam"
- 11.30 James Lin "Chinese glass in the Fitzwilliam"
- 12.00 Sandra Davidson "Glass in the Westminster Retable, recently conserved by the Hamilton Kerr Institute, Whittlesford"
- 12.30 *AGM for AHG members only. Please note attendance at the AGM is free and open to all AHG members.*

Lunch break (lunch is not provided)

In the afternoon participants divide into three groups for visits to galleries and study rooms:

- 2.15 Group 1: Glass in the Department of Antiquities - Lucilla Burn
- 2.15 Group 2: Glass in the Department of Applied Art - Julia Poole
- 2.15 Group 3. Walk to Downing Street.
- 2.30 Group 3. Glass in the Museum of Archaeology & Anthropology - Anne Taylor
- 3.45 Close

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## AIHV Congress 2006

### Call for papers

*3<sup>rd</sup> to 10<sup>th</sup> September 2006*  
Antwerp, Belgium

More information on this 17<sup>th</sup> Congress of the Association Internationale pour l'Histoire du Verre (AIHV) will follow in future issues. However details of the congress are now being added to the website at: <http://www.aihv17.ua.ac.be>, including a call for papers and details of the accommodation and impressive venue. The official languages of the conference will be English, French and German. There is a form for potential contributors that can be downloaded from the website and should be submitted by the 30<sup>th</sup> October, 2005, by post or e-mail to the conference secretariat: L. Van't Dack  
Department of Chemistry, University of Antwerp  
Universiteitsplein 1, B-2610 Antwerp, BELGIUM  
Tel./Fax: +32-3-820.23.43  
E-mail: [luc.vantdack@ua.ac.be](mailto:luc.vantdack@ua.ac.be)

## Annual Conference of the Society of Glass Technology

### Glass: Past, Present and Future

*7<sup>th</sup> to 10<sup>th</sup> September 2005*  
University of Sheffield

Also featured in the last Issue of Glass News was the SGT's Annual Conference "Glass: Past, Present and Future". The conference covers several days beginning with the New Researchers' Forum on the 7<sup>th</sup> and scientific and industrial programmes on the 8<sup>th</sup> with the industrial programme continuing on the 9<sup>th</sup>. Also on the 9<sup>th</sup> are a series of sessions celebrating the work of Professors M Cable and H Schaeffer. Special events marking the Centenary of Sheffield University will also take place. The History and Heritage programme, on the 10<sup>th</sup>, has the theme "Glassmaking in England". Only the programme on the 10<sup>th</sup> is given below but lectures on other days may also be of interest to Glass News readers. The other programmes plus abstracts are available on the Society's website: [www.sgt.org](http://www.sgt.org) and further details can be found on the AHG's website (see back page). Details of meals, including the conference dinner, and accommodation are also available from the website.

### Programme on the 10<sup>th</sup> September

- 9.30 Registration and Refreshments
- 9.30 Registration & Refreshments
- 10.20 SGT President welcomes delegates

#### Session 1: Early Industrial Glassmaking in Britain

- 10.30 The English Glasshouse - speaker to be announced
- 11.00 Percival Vickers glassworks archaeology - Ian Miller
- 11.30 Some reflections on furnace operation - David Martlew
- 12.00 Lunch and poster session

#### Session 2: The flowering of English glass

- 1.30 Lead Crystal Glass - Colin Brain
- 2.00 Glass engraving and cameo work - Roger Dodsworth
- 2.30 The Science of Beauty: how light and glass interact - John Parker, SGT
- 3.00 Refreshments and poster session

#### Session 3: Sheffield: Early modern glassmaking to 21st century innovation

- 3.30 Milestones in Glass Engineering - Michael Cable
- 4.00 Sheffield: the first University of the Glass Industry - Helen Mathers
- 4.30 Tomorrow's History: Vitriification of Harmful Waste - Russell Hand
- 5.00 Closure

Registration fees:	Before Aug.17 <sup>th</sup>	After Aug. 17 <sup>th</sup>
Full Conference (members)	£200	£220
Full conference (non-members)	£240	£260
Student / retired	£90	£100
One day registration	£120	£140
History and Heritage only (10 <sup>th</sup> )	£30	£35

## AHG Spring Study Day: Medieval Glass

### Call for papers and contributions

The AHG is currently preparing a Spring Study Day, which will take place at the Wallace Collection in central London on 5<sup>th</sup> March 2006. The theme will be Medieval Glass: early 12<sup>th</sup> to 16<sup>th</sup> centuries. If you would like to submit a paper for presentation or a brief contribution based on current work, please contact: Professor Ian Freestone,  
School of History and Archaeology  
Cardiff University, PO Box 99, Cardiff CF10 3XU

## **International Conference**

### **Glass art - science and conservation**

*19<sup>th</sup>-21<sup>st</sup> September 2005*

**Universidade Nova de Lisboa, Lisbon, Portugal**

This international conference is devoted to the applications of science to glass art and the conservation of glass artefacts and is being organized by the Departamento de Conservação e Restauro and the research unit Vidro e Cerâmica para as Artes of the Universidade Nova de Lisboa, and Instituto Tecnológico e Nuclear. The first two days will be entirely devoted to communications in both fields and the third day will be reserved for visits to the glass collections in Lisbon Museums. The conference will be hosted by the Conservation and Restoration Department and the Research Unit "Glass and Ceramics for Art", at the Faculty of Science and Technology (FCT) of Universidade Nova de Lisboa at the campus located on the Tagus River bank crossing Lisbon, 3 km from the beaches of Costa da Caparica.

For more information, please contact:

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## **Exhibition at Kew Gardens**

### **Gardens of Glass: Chihuly at Kew**

*28<sup>th</sup> May 2005 to 15<sup>th</sup> January 2006*

This major exhibition of glass by Dale Chihuly, currently at Kew Gardens, features glass placed around Kew's 132 hectares of historical landscaped gardens and in the greenhouses. The exhibition "will organically evolve for the viewer with the changing seasons and the lengthening and shortening of the days throughout the year until the exhibition's close in early 2006." Kew was made a UNESCO World Heritage Site in 2003. See the website at: <http://www.rbgkew.org.uk/chihuly>  
(To view images of many of the objects on display at Kew open the 'Image Gallery' and select 'Sections'.)

Entrance to the gardens: £10, concessions: £7, 16 year olds and under: free.

## **4th International Conference**

### **The history of the production of glass and jewellery in Bohemia**

*18<sup>th</sup> to 20<sup>th</sup> October 2005*

**Noby Bor and Jablonec nad Nisou, Czech Republic**

Conference languages will be German and Czech and the conference is being organised by:

- Tschechische Glasgesellschaft, Sektion Glasgeschichte
- Tschechische archäologische Gesellschaft Fachgruppe für die Glasgeschichte
- Museum für Glass und Bijouterie in Jablonec nad Nisou

#### **Preliminary programme:**

*Day 1 - at Novy Bor*

Opening of the conference and papers on Technology  
Evening: Presentation of the new book on Bohemian glass history

*Day 2 - journey to Jablonec nad Nisou*

- Visit to a glass furnace
- Evening: visit to the Museum für Glass und Bijouterie in Jablonec nad Nisou
- Panel discussion and poster presentation
- Day 3 - Jablonec nad Nisou*
- Papers on archaeology and history
- Closing of the conference

Please address your questions to: The Secretary  
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128 01 Praha 2  
Tel +420 224 990 824. Fax +420 224 918 681  
e-mail: [netikova@carolina.cz](mailto:netikova@carolina.cz)

## **International Colloquium**

### **'Verre et Fênetre'**

*13<sup>th</sup> to 15<sup>th</sup> October 2005*

**La Défense and Château de Versailles, Paris**

It is difficult to imagine private or public buildings without glass windows. This colloquium explores the period leading to glass becoming an integral part of architecture. There will be sections on antiquity, the middle ages and modern era and many international speakers, including presentations and posters from our very own Jennifer Price, Rosemary Cramp, John Shepherd, David Crossley and Justine Bayley.

The cost is 60 Euros, or 30 Euros for students. Other details, programme and full list of presentations and speakers may be found in the AHG website:  
[www.historyofglass.org.uk](http://www.historyofglass.org.uk)

Or from:

Sophie Lagabriele, Musée National de Moyen Age, 6 Place Painlevé, 75005 Paris.

E-mail: [sophie.lagabriele@culture.gouv.fr](mailto:sophie.lagabriele@culture.gouv.fr)

## State Exhibition

### Archaeology beneath the Streets (Archäologie unter dem Straßenpflaster)

*24<sup>th</sup> March to 31<sup>st</sup> October 2005*

**St. Georgen Church, Hanseatic town of Wismar,  
Germany**

The expanding building activities of the last 15 years have initiated archaeological excavations in the old towns of Mecklenburg-Vorpommern. Many remains were discovered “beneath the streets” that enrich our knowledge about the urban life of the last eight centuries. These glimpses of the past are the focal point of the 1,400m<sup>2</sup> exhibition area in Wismar’s St. Georgen Church. Multimedia productions integrating original finds, as well as reconstructions, allow you to immerse yourself in this newly discovered, unknown world.

Opening hours 10am to 8pm daily.

Entrance €4.00, concessions €2.50, group concessions available. Info-hotline (03841) 251-3025.

E-mail: [Stadt\\_ausstellung@archaeologie-mv.de](mailto:Stadt_ausstellung@archaeologie-mv.de)

Or: [toursitinfo@wismar.de](mailto:toursitinfo@wismar.de)

Internet: [www.wismar.de](http://www.wismar.de) (select ‘Veranstaltungen’ and use the link ‘Flyer Archäologie Englisch’ for ‘Archäologie unter dem Straßenpflaster’).

## Exhibition and Catalogue

### Karl Amendt Collection

*4<sup>th</sup> March to 28<sup>th</sup> August 2005*

**Finnish Glass Museum, Riihimäki, Southern  
Finland**

Dr Georg Haggrén has informed us of a seminar which took place on 5<sup>th</sup> March to celebrate the opening of the exhibition of the Karl Amendt collection. Presentations included Dr I Krueger on the spread of enamelled glass, Dr Markus Heikkanen on medieval window glass from Finland, Dr Georg

Haggrén on medieval vessel glass from Finland, Dr Heikki Matiskainen on medieval glass kilns in Europe and Dr Helmut Ricke, on the Karl Amendt collection.

Although the information on the seminar arrived too late for inclusion in the last issue of Glass News, the exhibition of the Karl Amendt collection at the Finnish Glass Museum is continuing until August. A new and much larger edition of the catalogue of the Karl Amendt collection has also been published by Museum Kunst Palast, Glasmuseum Hentrich, Düsseldorf. *Glas des Mittelalters und der Renaissance, 2005* (Glass of the Middle Ages and the Renaissance), is available for 40 euros + shipping from the Finnish Glass Museum. The exhibition in Riihimäki and the new catalogue are both part of a cultural exchange programme between Nordrhein-Westfalen and Finland.

The Finnish Glass Museum is located in Riihimäki in Southern Finland, about 60 kilometers from Helsinki. For more information about the exhibition, please e-mail: [glass.museum@riihimaki.fi](mailto:glass.museum@riihimaki.fi) or view the website: [www.finnishglassmuseum.fi](http://www.finnishglassmuseum.fi)

The Museum Kunst Palast, Glasmuseum Hentrich, Düsseldorf, also has a website at: [www.museum-kunst-palast.de](http://www.museum-kunst-palast.de)

## Recent AHG Study Day

### Glass and Lighting in Antiquity and the Medieval World

The following abstracts were provided by the speakers who took part in the successful Study Day organised by the AHG at London Archaeological Archive and Research Centre (LAARC) on 16<sup>th</sup> March 2005

#### LIGHTING IN THE EASTERN MEDITERRANEAN **Sarah Jennings**

This paper covered lighting using glass vessels in the Eastern Mediterranean, based in the main on the evidence from Beirut, and compared this with the evidence from sites further west, principally Butrint and Carthage.

In the Eastern Mediterranean most of the glass forms identified as lamps in the archaeological record were those specifically made to be suspended, either singly or in groups, or were forms with the addition of a wick holder attached to the base. Initially glass lamps are found in relatively small numbers in the mid- to

late 4<sup>th</sup> century, but their availability or use rapidly increases throughout the 5<sup>th</sup> and 6<sup>th</sup> centuries. This mirrors a corresponding decrease in the numbers of contemporary ceramic lamps, and suggests that the methods of lighting a room had changed.

In Beirut there are six basic forms identified as glass lamps in the period from the mid- to later 4<sup>th</sup> century through to the 7<sup>th</sup> or 8<sup>th</sup> century found on the Souks excavations, and they were probably all made locally. Before the 4<sup>th</sup> century, specific forms of glass lamps have not been identified, but there is also considerably less glass from the 3<sup>rd</sup> and earlier 4<sup>th</sup> centuries from the Souks sites than at other periods. Only a small number of the many lamp fragments were not likely to have been made locally, and these are all forms found in the western Mediterranean.

#### GLASS LAMPS AND WINDOWS FROM MONASTIC AND ECCLESIASTICAL CONTEXTS IN PETRA, 4<sup>TH</sup>-9<sup>TH</sup> CENTURIES AD

**Daniel Keller**

The archaeological contexts of glass lamps and windows from the ancient city of Petra, Jordan, illustrate their use in late Roman domestic houses and Byzantine churches. The Swiss excavations on domestic houses yielded evidence for the use of glass in corridors and dark working rooms without direct access to courtyards in the mid 4<sup>th</sup> and early 5<sup>th</sup> century AD. Furthermore, better glass lamps were used in the main corridor leading from the entrance to the reception rooms and ordinary glass lamps in kitchens and storage rooms.

The Finnish Jabal Harun Project (FJHP) yielded a typo-chronological development of glass lamps from a church and an adjacent chapel between the 5<sup>th</sup> and the 8<sup>th</sup>/9<sup>th</sup> century AD. In the last phase of the chapel, single suspended lamps were used in the apse around the baptismal font and the altar, whereas stemmed polycandela lamps were used in the nave.

Only round glass windows were found belonging to the last phase of the chapel. Up to 14 window-panes of six different colours were set into windows in the apse, whereas the nave only yielded seven circular windowpanes of six different colours.

#### USING LIGHT IN THE BYZANTINE CHURCH AT PETRA

**Fatma Marii**

The excavations in the Petra Church complex located in the centre of Petra city, Jordan, dated between the 4<sup>th</sup> and 7<sup>th</sup> centuries AD (1), revealed a large number of artefacts. The finds included glass used for lighting the church in various ways, such as:

- Window glass, allowing natural light into the church: crown windowpanes or “bull’s eye”, fragments with folded rims, grozed and plain edges, the colours varying between aqua greenish and aqua bluish and of variable thickness.

- Glass lamps to light the church artificially: fragments of lamps have been identified, with solid-stemmed bases of different thickness, lamps with handles attached to the rim, and lamps with different types of wick holders.

- Glass tesserae with different ranges of colours, such as blue, green-blue, blue-green, yellow, violet, white, black, ochre, red and tesserae of transparent glass covered with a sheet of gold. They were used for floor and wall mosaics, and although not enough evidence was available from the present excavation, there is enough evidence to show they are similar to other churches decorated with wall mosaic dated from the 6<sup>th</sup> century AD. Gilded tesserae were used in the background for the figures adding further light to the church.

To the west of the church in Room IX where found up to 50 fragments of glass cakes with different colours and shapes indicating kind or type of glass production in this location. Detailed study of these glasses and identification of their chemical composition will indicate the type of glass activity in this church and the Near East in Byzantine times.

(1) Fiema, Z, Kanellopoulos, C, Waliszewski, T, Schick, R. 2001. **The Petra Church**. Bikai, P. (ed.). Amman: American Center of Oriental Research.

#### MEDIEVAL GLASS LAMPS: THE ARCHAEOLOGICAL AND ICONOGRAPHIC EVIDENCE FROM CENTRAL ITALY

**Martine Newby**

Three main types of medieval glass lamp are found on archaeological sites in central Italy. Study of contemporary depictions can give further insights into how and where these vessels were used. From the 6<sup>th</sup> to 10<sup>th</sup> centuries the lamps are wide-mouthed, beaker-like vessels characterized by the position of three vertical triangular-shaped handles attached to the top of the rim. These were replaced by six-handled lamps on a bulbous body, possibly derived from Islamic prototypes. Both types could have been set onto flat surfaces or suspended from metal chains, whereas stemmed pendant lamps, in use from the 6<sup>th</sup> century, were designed to be inserted into polycandela.

Evidence for glass lamps from domestic or secular archaeological sites is noticeable by its absence, although fragments are retrieved from nearly every ecclesiastical site regardless of status. This is also borne out in the iconographical record where no form of lighting (including pottery lamps or candles) is included in scenes of feasting, in scenes set in bedrooms, or the death or miraculous recovery of a saint. This may be a reflection of the different hours observed by lay households and monastic communities. Depictions of the interior of churches, however, abound with images of glass lamps, either suspended singly or grouped together in polycandela. Different types of lamp were being used in the same church to satisfy different lighting requirements.

While the bodies of glass lamps are usually made in pale green glass, their handles are often intentionally coloured, with deep blue and purple being most popular. This use of colour is in stark contrast to the domestic table wares, even that from ecclesiastical sites like the wealthy monastic site of Farfa near Rome. The glass lamps may have been made in the same glasshouses that produced coloured window glass and mosaics for churches etc. and not in the glasshouses that produced domestic wares.

#### GLASS AND LIGHTING IN ROMAN AND MEDIEVAL LONDON.

**John Shepherd**

A review of our current knowledge of Roman and medieval glass exposes the fact that there is still so much London material awaiting proper study and interpretation. Very little is formally published and there are very few syntheses of the material. There are no glass lamps for the Roman period, admittedly rare throughout the Empire, which is in stark contrast to assemblages of the late Roman period especially, and 4<sup>th</sup> to 6<sup>th</sup> century assemblages elsewhere. This contrast, though, is probably not real as it is generally agreed that we ought to broaden the functional definition of the ubiquitous late Roman conical beaker to include their use as lamps in polycandela.

Again, and perhaps surprisingly, the medieval lamp with a pointed base is also a rare item in London assemblages. The glass itself is of the typical 'potash' quality, and has certainly affected the survival rate of body and rim sherds from these vessels, but it may be significant that the majority of those that are known, primarily by their pointed bases, come from the immediate post-dissolution deposits of London's monastic houses, when the sites were being cleared of their furnishings.

Finally, attention was drawn to a small but interesting deposit of grozing waste from an eleventh century ditch fill at the dorter undercroft of Westminster Abbey. It has been suggested that this debris came from the glazing programme of Edward the Confessor's rebuilding of Westminster Abbey in c.1050. The site is published by Peter Mills in the Transactions of the London and Middlesex Archaeological Society, Vol 46, 1995.

#### LIGHTING AND ANGLO-SAXON GLASS

**Rose Clark**

An excellent case can be made that glass vessels were used as lamps during the Anglo-Saxon period. There are types (palm cups and cone beakers in particular) that would have been very suited to use as lamps: they are ideal as they have a smooth outer profile and no constriction at the neck. Iron lamps are rare, suggesting that metal was not the normal material used for lighting. It may have been common to adapt existing items, like glass and pottery vessels, which would not necessarily be noticeable as lamps in the archaeological record.

Experiments showed both that the process required to convert glass vessels into lamps is very straightforward and would have been perfectly possible with contemporary equipment, and that the vessels can easily be suspended using a variety of means. Photographs of the experiments illustrated how much the unique transparency of glass enhances the visual spectacle.

Although there is no incontrovertible archaeological *proof*, it is hard to believe that the Anglo-Saxons did not utilise the properties of vessel glass, especially when we know they admired some of the same qualities in window glass, and when post conquest glass and manuscript evidence strongly indicate use of glass as lamps not much later.

#### LIGHT AND COLOUR IN BYZANTINE GLASS MOSAICS

**Liz James**

This paper considered two aspects of Byzantine glass mosaics. The first involved practical issues about the manufacture of glass and tesserae in Byzantium and the implications of this for the spread of mosaics in the Byzantine world and the practicalities of mosaic-making in Byzantium. Tied to this was discussion of the importance of the chemical analysis of glass for the understanding of the making and distribution of Byzantine mosaics. The other side of the paper considered the aesthetics of the use of glass in

mosaics, illustrating something of the techniques of the mosaicists as artists, discussing the interaction of glass and light within Byzantine mosaics and the effect this had within Byzantine churches more generally.

**'THROUGH A GLASS BRIGHTLY': THE ROLE OF GLASS IN THE LIGHTING OF MIDDLE BYZANTINE CHURCHES**  
**Claire Nesbitt**

*'It was singularly full of light and sunshine; you would declare that the place was not lighted by the sun from without, but that the rays are produced within itself, such an abundance of light is poured into this church' (Buildings I,I, 28-31)*

So writes Procopius about the Great Church of Hagia Sophia in Constantinople. From its use in the theatrics of the liturgy, to prosaic necessity, lighting played a fundamental role in Byzantine churches; but where did this light come from? The Byzantine church has always been considered a dark and mysterious place but was this really the case? Byzantine churches are often graced with large and ornamental windows, windows that have the potential to flood the interior with light. This paper considers the glazing of such windows in an attempt to determine just how much natural light would enter the building.

**WINDOW GLASS AS AN INSIGHT INTO CONSUMER PSYCHOLOGY AT ROMAN VILLAS: PERSPECTIVES FROM THE EAST OF ENGLAND**  
**Chris Martins**

Consumer theories allow us to discuss window glass on villas in the Roman period in terms that suggest its psychological, and not just utilitarian, importance. Such insights benefit from glass-making experiments that note the potential transparency of cast glass, to a distance of 30m or more, or up to 1km in the case of cylinder glass.

Environment and behaviour research recognises potentially relevant 'person-window transactions', for example that biologically restorative and stimulating mental benefits accrue from incoming sunlight and framed miniaturised views. Perhaps the resulting social desirability of window panes justified their place in a so-called 'constellation of consumption goods', symbolic of a Roman lifestyle. Certainly research at Piddington villa links the distribution of stratified glass with higher status 'public' rooms.

Window glass may not have been perceived (as today) as merely functional. If studied in the context of the cognitive evolution of the mind, and the emergence of the trait of materialism, it may instead throw light on the broader issue of personal values, and a possible change from collectivist to individualistic thinking.

## **Review:** **Roman Glass in Germania Inferior**

An international one-day colloquium on 'Roman Glass in Germania Inferior - inter-regional comparisons and recent results' took place on 13<sup>th</sup> and 14<sup>th</sup> May this year at the Gallo-Roman Museum, Tongres in Belgium. The colloquium was attended by more than 100 delegates from Belgium, Holland, France, Germany, Switzerland and UK.

Sixteen papers were given, of which the majority were studies of glass found in Germania Inferior. These included groups of vessel glass and objects from excavations in Roman military and urban settlements at Tongres, Cologne and Nijmegen, and smaller settlements and villas such as Kerkrade, Rumst, Tienen, and Velzeke, as well as the glass production sites in Cologne and the Hambach Forest. In addition, there were two studies of particular groups of finds in Belgium - 'black' glass vessels and jewellery and 'snake-thread' glass. A wider context for the glass of Germania Inferior was provided by more general papers on glass in the neighbouring provinces of Britannia and Germania Superior and overview accounts of the glass from Augusta Raurica and of the establishment and organisation of glass workshops in the provinces north of the Alps.

It was an excellent meeting, held in a splendid museum, which produced a great deal of new information as well as re-assessing old material. It was also a good illustration of the wide interest in the study of Roman glass, as well as the range of scholarship, which now exists in the region, and a timely reminder that the next Congress of the International Association for the History of Glass will be held in Belgium in September 2006.

**Jennifer Price**

## Experimental Archaeology

### Roman Furnace Project

Mark Taylor and David Hill are glassmakers specialising in high quality reproduction of a wide range of Roman glass vessels. Research and experimentation feature strongly in their efforts to understand techniques of glass production during the Roman period. Their major project (now in its final phase) is the recreation of two Roman furnaces. The following is a brief account of the furnace building and firing. More images can be found in their website (details follow) and Mark and David also produce The Roman Glassmakers Newsletter, for those interested in their work. Current and past Newsletters can be found at their website and also at the AHG's website.

#### ROMAN GLASS FURNACES - THE FIRES BELOW

This is a brief outline of the project we undertook earlier this year, during April and May, when we built and fired two furnaces based on the excavated remains of Roman examples, and protected by a temporary shelter. We chose to replicate furnaces of a circular or oval plan, with a sunken firing chamber. From the small amount of evidence we have, these Roman furnaces appear to be two-tiered, with a domed or flattish-roofed pot (or tank) chamber above a circular firing chamber. There is a stoke hole, and one or more gathering holes which double as glory holes. The designs on the oil lamps from Asseria, in Croatia, and Ferrara, in Italy, show such a structure, with seated glassworkers, indicating the level of the gathering hole to be perhaps 0.3-0.45m above the ground. There may be an exit hole in the top of the furnace.

Excavated remains, from France, Germany, Switzerland etc., and also from Mancetter in Warwickshire, are of circular, flat-bottomed pits, often lined with tiles and stone, together with a horizontal or sloping stoke hole, all with reddened or blackened surfaces. The superstructure is very rarely in situ, but the remains can indicate corbelling or doming. Fragments of superstructure, made from clay, can be curved and glazed on the inner surfaces. Some remains from London may suggest the use of a small tank suspended from and incorporated into the superstructure (pers. comm. John Shepherd).

We secured a large quantity of original Roman roof tile to line the pits of our furnaces, and the superstructures were built from a clay daub grogged

with sand, grit and chopped hay. The walls were about 0.15m thick and stood about one metre above ground level. The larger of our two furnaces was built as a pot furnace (Fig.1), with a firing chamber 0.8m in diameter and a horizontal stoke hole. The tile wall lining was continued upwards and corbelled inwards to form a shelf (sieve) for the pots. The central hole connecting the firing chamber and the pot chamber was reduced to 0.4m in diameter. Five fired terracotta pots were placed on the sieve.



Figure 1: Pot Furnace

The smaller, tank furnace had a firing chamber 0.6m in diameter and a steeply-sloping stoke hole. Inside the superstructure we incorporated a small tank made from clay daub about 0.3m above ground level. An annealing oven was attached to this tank furnace, rectangular in plan and elevation and lined on the inside with replica Roman *tegulae*. A small duct connected the furnace to the oven and the flow of waste gas was regulated with a damper.

Each furnace was fitted with an array of thermocouples, and wood was weighed in ten-kilo batches. In this way we could record the temperatures achieved and fuel consumption. The furnaces were fired for three weeks, during which time teams of stokers working in shifts, day and night, could easily maintain temperatures around 1050°C. The first four days were devoted to drying and firing the structures, after which time, glass could be melted.

Large amounts of flames and clouds of black, sooty smoke, although spectacular, are inefficient! To control the efficiency of the combustion in the

furnaces, the gathering hole stoppers were opened or closed as necessary, the stoke hole entrances were adjusted and logs were pushed into or pulled out of the firing chambers. Both furnaces together consumed a total of just over nine tonnes (over 900 separate weighing operations!), with the pot furnace burning 12-15 kg/hr. As the tank furnace sprung a series of leaks early on in the experiment, heating the annealing oven became its only function. This allowed us to drop the temperature to about 600°C overnight. Because of this, it only consumed 5-10 kg/hr.

We used a blue-green glass based on Roman glass compositions, fed into the pot furnace as raw glass and, later on, as recycled cullet. A two-day melting cycle gave us a good, workable glass that compared well, in terms of small bubbles (seed) and cord, with the appearance of Roman glass.

Working without a glassmaker's chair, but with thighboards, and seated on sections of tree-trunks in front of the gathering holes, we produced a small range of phials, oil flasks and bottles. It needed practice to become proficient at this way of working (Fig. 2) but during the time we had in which to blow glass, we could see noticeable improvements! The waste glass produced bears a striking resemblance to excavated waste glass, forming globular droplets and larger, rounded lumps with stumpy, contorted fingers of glass on the underside. They formed within and around ash and charcoal in the firing chamber and were discovered in the ash heaps derived from the rakings of the furnace.



Figure 2: Samples of glass

The pot furnace was a success. The structure was strong and durable, although there were areas of wear (particularly around the stoke hole). The tank furnace, with its fractured tank, needs to be rethought to

produce a functioning design, and this is something for a future project. The oven functioned reasonably well, but had noticeable hotspots. Temperature control needed practice, but one way of reducing the risk of overheating was to suspend thin rods of glass horizontally inside the chamber and periodically checking to see if they were sagging.

In an experiment such as this, there is always a danger to conclude that, if it works, the design must be correct. The pot furnace worked and the design elements are simple, but could take alternative forms (such as individual shelves to replace the continuous ring, provision for pot replacement, thicker or taller walls, etc.). In general, though, this structure has demonstrated how surviving firing chambers of this type could have functioned.

During the glassblowing stage, the furnaces were visited by several groups and interested parties, including many people involved in the history and technology of glass. We would like to thank everyone who has contributed photographs, thoughts and comments, all of which has formed welcome additions to the pool of information we have collected. The project has been funded from several sources, including English Heritage, the AHG, Andante Travels, Project Workshops and SE Validation Ltd. The experiment will be published in full course.

**Mark Taylor and David Hill 2005**

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## The Stained Glass Museum Library

The library at the Stained Glass Museum, Ely, has now been catalogued and the museum is keen to make this useful resource available to students and researchers. The Library is for reference only and books may not be borrowed. There is a daily Reader's charge of £10, and advance bookings must be made. The Stained Glass Museum is grateful to many donors who have generously given books to the Library and would be delighted to accept gifts of suitable books, as well as suggestions of further acquisitions.

A list of books can be found in their website:  
[www.stainedglassmuseum.com](http://www.stainedglassmuseum.com).

Tel: 01353 660347. Tel / Fax: 01353 665025

E-mail: [info@stainedglassmuseum.com](mailto:info@stainedglassmuseum.com)

## Nailsea Glassworks

A study of the archaeological evidence associated with the well-known Nailsea Glassworks has been carried out by Avon Archaeological Unit sponsored by Tesco Stores Ltd. The intention was that the whole study would be made freely available via the worldwide web and so the detailed report by Andrew Smith has therefore been deposited with the Archaeological Data Service (ADS) at York. Andrew has provided a summary, which follows, and the report may be accessed, as complete sections (broadband) or smaller subdivisions (dial-up connections) at: [http://ads.ahds.ac.uk/catalogue/library/nailsea\\_avon\\_2004/](http://ads.ahds.ac.uk/catalogue/library/nailsea_avon_2004/)

“The ADS levies no charges, there are no documents to sign, and none will be applied retrospectively” but users are required to accept their terms and conditions and Common Access Agreement, which asks that “users be fair and reasonable in their use of the data supplied”, and defines the conditions of use. “Users should also read the ADS Copyright and Liability Statements.”

### Report summary

The Nailsea Glassworks, 1788-1874, was in its time regarded as one of the most significant glassworks in the UK. The site then went through a long period of dereliction and piecemeal redevelopment. Informal archaeology started in 1975, becoming serious from 1983 onwards in response to various development proposals. Ultimately that by Tesco Stores Ltd, who has generously sponsored this Study by Avon Archaeological Unit, came to fruition. Andrew Young, head of the Unit asked the present writer to undertake the project. The remainder of the site has now been scheduled.

The Study is in five principal parts (including the Introduction), and it is intended that, while making up a cohesive whole, each may be considered in its own right. The Introduction covers some general points not specifically addressed in the subsequent parts.

Part 1 is a Desk-top Study. Briefly, for those not familiar with the term, it consists of examining historical records, considering the landscape in which the site is set and any known or inferred archaeology in the vicinity. This should result in a document that will focus the attention of the responsible parties involved in order to establish what, if any, archaeological intervention is desirable, and, if it is judged necessary, its extent. It forms a useful

background to the remaining parts. It is disturbing that it had not been required very much earlier.

Part 2 examines the archaeological interventions chronologically. In order to add value, admittedly with the benefit of hindsight, this has been done critically, as certain errors were detected. It was felt that these should be commented on in order that the evidence might hopefully be more meaningful overall.

Part 3 looks at the technology, starting with a brief look at the history of glass, gradually narrowing the focus down with time, finally considering what was done, as far as is known or can be extrapolated, at Nailsea itself. It is hoped that this section will not only be intelligible to the general reader, but will also be of value to the specialist.

Part 4 takes a brief look at the social and economic effects of the introduction of what was a modern manufacturing facility in to a largely rural community, and how it fitted in to the wider economic picture. Its demise is also considered. Some widely-held assumptions are challenged. There are still unanswered questions, about the technology in particular, which have arisen from the archaeology, no parallels having been found. It is hoped that some answers may come from the wider dissemination of the study. These and any other observations will be welcomed.

The author is most grateful to Dr David Martlew for his enthusiastic support in facilitating this. It is hoped that the study will have achieved its purpose to illuminate as much as possible what has been done in, by and to the Nailsea Glassworks.

Andrew Smith

### Enquiry: Glass Instruments

On a recent visit to Venice I saw in the distance two musicians playing what turned out to be glass instruments: a set of glass bowls and a set of glass tubes, both items graded in size to produce the different notes. Unfortunately they had packed up by the time I reached them. I have seen sets of Victorian glass bowls and glass xylophones in the UK. Does anyone have any information concerning glass instruments?

**Sandy Davison**, Glass conservator  
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## Early Carolingian pseudo-cameo glass brooches

### Excavations at Kaupang, Norway

A little known group of Carolingian glass objects are small round or oval casts in high relief made to imitate cut cameos. Some of these were originally set in brooches of iron or bronze. Rather surprisingly, one of these rare pieces has now come to light from a barrow cemetery surrounding the Viking Age emporia of Kaupang, in Southeast Norway. Although it was turned in to the museum in Oslo as early as 1867 it has not previously been identified.

The Kaupang glass-cameo measures 21.4 x 20.8mm (slightly damaged) (Fig. 1). The base of the disk is about 1.5 mm thick, with a cross-like design in distinct, raised relief. Around the motive an irregular oval band is made up of tall cone bosses. The central motive is best described as a degenerated cross symbol with two of the arms branching off in Y-shape. Small cone bosses are placed where the branches meet, and between the cross arms. Short lines connect the latter bosses to the main cross. No exact parallel has been found for this motive.



Figure 1: Obverse of pseudo-cameo, Historical Museum Oslo, Inv. No. C.4317 (Nordre Kaupang, Vestfold). Photo by the author, courtesy of the Historical Museum, Oslo

The disk is made from opaque greenish-white glass, containing several small impurities. A thin casting-seam toward the reverse of the object suggests that the glass was poured into, or pressed out in an open mould to achieve the desired design. The cast is not technically very well executed. There are a number of small scars from trapped air, especially at the apexes

of the cones. The reverse is roughly flattened. Small bits of iron corrosion fused to this side are likely to have been caused by contact with the metal brooch the glass originally was set in. The back-plate of the Kaupang piece is unfortunately not preserved, and there are no indications that it was among the artefacts originally donated to the museum.

Three different types of pseudo-cameo brooches appear to have been manufactured in the period from about 750-775 to 800-825 AD. The most frequent has a composite inlay with motif of a winged sea-monster (Type 1) (Fig. 2). The semi-plastic animal, cast in whitish opaque glass, is affixed to an oval dark blue, violet or red glass plate before the inlay is mounted on a pinned back-plate. The edge of the glass plate is often decorated with small triangular or rhomboid sheets of metal. Preserved examples measure up to 6.5 cm across. Notably, the application of pale glass casts on a dark background resembles an earlier group of bichrome busts seen in profile or *en face*. These late 7<sup>th</sup> and early 8<sup>th</sup> century objects are however exclusively preserved on ecclesiastical metalwork, like reliquaries or book covers, and seem not to have been intended for dress accessory.

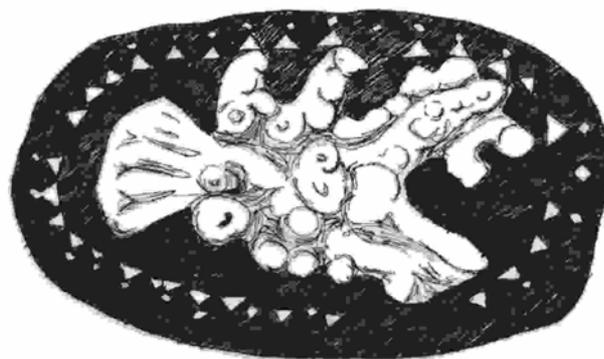


Figure 2: Composite pseudo-cameo inlay of Type 1. Opaque grey-green on dark red base, gold foil decoration, width 52 mm, height 31mm. Landesmuseum, Mainz Inv.no.5995, drawn by author.

Less frequent are monochrome glass casts, like the Kaupang pseudo-cameo. These appear either to have been modelled on coins (Type 2), or feature a non-figurative design of crossed lines and bosses (Type 3). Both these types are significantly smaller than the zoomorphic composite inlays, and often near circular in shape. Type 2's similarity to contemporary coin brooches of metal has been noted.

Until now only very few pseudo-cameos have been found, and only on the Continent. A total of 12 brooch-inlays or complete brooches, as well as a couple of potential fragments, are known to the author. The finds are distributed along the Rhine and its tributary rivers, and thus concentrate along one of the main arteries for trade connecting the North Sea with the Frankish heartland and eventually Northern Italy. The brooches are however unlikely to have been objects of long-distance trade in themselves, and should rather be regarded as part of Frisian or East-Frankish dress accessory, carried by people travelling.

One can only speculate how one of these objects came to end up in a barrow at Kaupang. During the first half of the 9<sup>th</sup> century, the site cultivated strong links with the West-European Continent, and there are archaeological indications that Continental merchants and artisans visited Kaupang in this period. The mound covering the grave and reports that an axe was found together with the brooch-inlay make it however unlikely that the deceased was from the Rhine area himself. It is more likely that a local tradesman picked up the brooch on a visit to the Continent or that the brooch changed hands when people from different ethnic groups met at Kaupang. Either way, it is an indication of the cosmopolitan character of the site.

Although parts of England enjoyed lively contact with Continental traders during the 8<sup>th</sup> and 9<sup>th</sup> century, no pseudo-cameo brooches are known to the author from this region. Should any of *Glass News*' readers know of similar artefacts from the British Isles, or parallels to the cross-motif on the Kaupang glass-cameo, information on this would be greatly appreciated (see details below).

#### **Further reading:**

Spiong, S, *Sibeln und Gewandnadeln des 8. bis 12. Jahrhunderts in Zentraleuropa. Eine archäologische Betrachtung ausgewählter Kleidungsbestandteile als Indikatoren menschlicher Identität*, Rudolf Habelt GMBH (2000) Bonn.

Gaut, B, in prep.: A Pseudo-cameo of Glass from Kaupang, Southeast Norway.

Gaut, B, in prep.: Vessel Glass and Evidence of Beadmaking at Kaupang. In: The Kaupang Excavation Project Publication Series.

Haevernick, TE, Karolingisches Glass aus St. Dionysius in Esslingen. In: *Beiträge zur Glasforschung; die wichtigsten Aufsätze von 1938 bis 1981*, Verlag Philipp von Zabern, Mainz am Rhein (1981) pp 384-398. [Reprinted from *Forschungen und Berichte des Mittelalters in Baden-Württemberg* 6:157-171].

Ypey, J, Die Funde aus dem Frühmittelalterlichen Gräberfeld Huinerveld bei Putten im Museum Nairac in Barneveld. *Berichten van de rijksdienst voor het oudheidkundig bodemonderzoek (BROB)* 12-13 (1962-1963): 99-152.

The author is currently involved in the publication of the 1998-2003 excavations at Kaupang ([www.kaupang.uio.no](http://www.kaupang.uio.no)). An article on the vessel glass and beadmaking debris from the site is to appear in the Kaupang Excavation Project Publication Series in 2006. A longer, referenced version of the study of pseudo-cameos is also under preparation.

#### **Bjarne Gaut**

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## **Illicit trade in antiquities**

The banner headline on the front page of a recent issue of the *Independent* read 'Art market scandal - most antiquities for sale are faked or looted', a report triggered by remarks made by Paul Craddock, British Museum Research Laboratory scientist, at a conference organised by the Fraud Advisory Panel (Jury, 24 May 2005). A report in the *Evening Standard* by Peter Watson followed a few days later, its headline reading 'Unmask the art thieves - London dealers know that up to 90 per cent of antiquities on the market are fakes or stolen' (Watson, 27 May 2005).

Leaving aside the issue of fakes, it is undeniably the case that there is a super-abundance of unprovenanced, and most probably largely looted, material on the market. Certainly the devastation of Sumerian city sites in Iraq bears witness to the ongoing exploitation of artefacts to satisfy the demands of a voracious market. Often fragile glass objects do not survive looting, but those that do not sustain irreparable damage do surface on the market usually without a known provenance.

Antiquities looted from the earth are much more vulnerable to theft. Because their existence was not known before the destruction of their context, they could not have been entered on an inventory or museum catalogue. This makes ownership claims extremely difficult to prove. Recovery rates for art theft are low even without this complicating factor. For archaeologists the loss of context represents obliteration of information about past societies.

Archaeological conservators regard the recovery of information from excavated artefacts during their examination and treatment as a vital part of their work, the results of which are channelled back into the archaeological record in collaboration with the director of the excavation. The archaeological, museum, conservation and heritage communities have been raising problems associated with portable antiquities for the past fifteen years, for example, by means of the Standing Conference on Portable Antiquities. Government responded in 2000 with an investigation into the illicit trade and recovery by the Culture, Media and Sport Committee, and with the setting up of a ministerial advisory panel on the illicit trade, commonly referred to as ITAP by Alan Howarth, then Minister for the Arts.

ITAP agreed sixteen recommendations. The first two have been enacted. In 2002, the UK became the 95<sup>th</sup> country to become a signatory to the 1970 UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property. The following year, the Dealing in Cultural Objects (Offences) Act 2003 became law in England and Wales. This 'Act is concerned with objects which had formed part of a building, or are removed from a monument, or excavated contrary to heritage legislation' (DCMS 2004: 4). For a person to be convicted the prosecution must prove that the individual acted dishonestly knowing or believing that the object was tainted. The offence can have taken place either within the UK or in any country where, for example, the state's legislation claims ownership of its material heritage and/or restricts export of such cultural property. For further information, a booklet (PP639, January 2004) entitled 'Dealing in Tainted Cultural Objects – Guidance on the Dealing in Cultural Objects (Offences) Act 2003' is available from the DCMS and on their website at [http://www.culture.gov.uk/cultural\\_property/illicit\\_trade.htm](http://www.culture.gov.uk/cultural_property/illicit_trade.htm).

In 2000, Frederick Schultz, New York dealer in ancient art and former president of the National Association of Dealers in Ancient, Oriental and Primitive Art, said of concerns about the illicit trade that 'It's a dying dinosaur issue' (Mason 2000) and that he 'ensures that his examples do not have a dubious past' (ibid). In 2002 he was convicted of conspiring to deal in antiquities stolen from Egypt and sentenced to 33 months in prison and fined \$50,000. (See, for example, Culture Without Context available at <http://www.mcdonald.cam.ac.uk/IARC/cwoc/issue10/USvSchultz.htm>

Such outcomes are few and far between. Conservators are asked to be vigilant and question the provenance of antiquities they encounter. Members of the Institute of Conservation (until recently known as UKIC\*) have a duty to report when he / she knows or has reason to believe that he / she is being asked to work on stolen property, cultural property which has been exported illegally from its country of origin, or imported illegally into the United Kingdom or illegally obtained, to the police, the Arts and Antiques Squad, Customs and Excise and the Cultural Property Unit of the Department of National Heritage (UKIC Rules of Practice Article 3.8. Illicit Material). We all need to act in concert if the destruction of the past is to be reined in.

\*UKIC, United Kingdom Institute for Conservation, is now the Institute of Conservation, following amalgamation with other conservation bodies.

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### **Kathryn Walker Tubb**

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Kathryn was ECCO's Deputy General Secretary and has written extensively on the subject of illicit trade in antiquities, including editing *Antiquities Trade or Betrayed: Legal, Ethical & Conservation Issues*, Archetype Publications, London (1995).

# GERALD HUGH TAIT

1927-2005

Hugh Tait died on 12 April 2005. Hugh was president of the Association for the History of Glass from 1977, when it was formed, until 1996, and was President of the *Association Internationale pour l'Histoire du Verre* from 1977-1979. During his time as president of AIHV the Association hosted the 8<sup>th</sup> Congress which was held in London and Liverpool in 1979, and as president of AHG he organised and chaired numerous memorable day and weekend conferences in Britain. He was an Honorary Fellow of Corning Museum of Glass from 1993 until his death and Honorary President of the Glass Circle.

A graduate of Cambridge and the Courtauld Institute, Hugh joined the British Museum as a curator in 1954, and rose to become Deputy Keeper in the Department of Medieval and Later Antiquities, retiring in 1993. There he was responsible for numerous exhibitions and catalogues, including *The Golden Age of Venetian Glass*, *Jewellery Through 7000 Years* and *5000 Years of Glass*.

Hugh's expertise, however, extended far beyond glass. He was a widely acknowledged international expert on European decorative art from the later medieval period through to the beginning of the nineteenth century and published extensively on porcelain, Renaissance enamels, goldsmiths work, horology and sculpture. He served on the government's *Export of Works of Art Committee* and among other honours was a Fellow of the Society of Antiquaries; a member of the Worshipful Company of Goldsmiths' Antique Plate Committee; and chairman of the Society of Jewellery Historians. At various times he was active in many other organisations, including the Society for Post-Medieval Archaeology and the English Ceramics Circle. He frequently lectured on his broad interests to learned societies and specialist groups in Britain, and at international conferences and seminars.

Those who were on the Board of the AHG when Hugh served as president will perhaps best remember the magical weekend of experimental glassblowing that he master-minded in Edinburgh in September 1992. Bill Gudenrath and Ray Flavell took about 30 participants through 3000 years of glass working techniques, from late Bronze Age core-forming to Renaissance Venice. The experimental work was interspersed with lectures from various participants on their areas of specialism. The unplanned appearance,

on Hugh's initiative, of George Scott, an Edinburgh furniture maker and antique restorer who had turned his hand to replicating cage cups, added an anarchic element to the affair, disrupting the programme and luring small groups to his garage to experiment with plaque-blowing using an acetylene blow-torch as a source of heat. The organisational and financial details of the weekend were something of a nightmare for those responsible, and Hugh deftly delegated these to the other AHG officers, confident in the knowledge that he had laid on an event which would remain with those involved for the rest of their lives.

I last saw Hugh about six months before his death, when we were working together on a paper on enamel. I was struck once again by his ability to define a problem and his determination to solve it; to extract from me pertinent information which I did not even know I possessed; and his insistence on perfection in the final product, right down to the smallest detail. Perhaps most remarkable, however, was Hugh's determination to convince his colleagues that his preferred course of action was by far the best and indeed the only one practicable. This made him a formidable committee member and ensured that every item was thoroughly aired before business moved on. Many a young curator or academic must have been surprised to find her/himself, with Hugh's encouragement, volunteering to organise a seminar or conference, but the end product was invariably very worthwhile. Hugh will be greatly missed.

**Ian Freestone**

## THE ASSOCIATION FOR THE HISTORY OF GLASS

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## Website for Books on Glass

[www.GilesAncientArt.com](http://www.GilesAncientArt.com)

David Giles has just launched this website specializing in books on ancient and antique glass and has generously offered an ongoing 10% discount to AHG members. Some 400 of the books are on display and for sale at Biblion, Davies Mews, London W1 (next to Bond Street Station, Davies Street exit). He has also published a hard copy catalogue, which can be sent on request, by sending your address by e-mail to: [ancientartbooks@aol.com](mailto:ancientartbooks@aol.com)

For queries contact: David Giles, Ancient Art Books London, 34 East Sheen Avenue, London SW14 8AS Tel +44 (0) 20 8878 8951. Fax +44 (0) 20 8878 9201

## Book Review

### **Glas in antike und mittelalter**

(Glass in antiquity and the middle ages:  
history of a material)

Karl Hans Wedepohl

E. Schweizerbart'sche Verlagsbuchhandlung (Nägele u. Obermiller), Stuttgart, 2003.  
ISBN 3-510-65207-X  
228 pages, 77 illustrations (32 in colour) and 29 tables  
240x170mm  
Euro 39.80.

Copies can be ordered by contacting:

E.Schweizerbart'schen Verlagsbuchhandlung (Nägele u. Obermiller), Johannesstr. 3 A, 70176 Stuttgart, Germany  
Tel: +49(0)711/351456-0. Fax: +49(0)711/351456-99  
e-mail: [order@schweizerbart.de](mailto:order@schweizerbart.de)

This is an ambitious book, covering glass development from the earliest examples known in the Near East and Egypt four millennia ago, through to the late medieval period. The book is written by a geoscientist, Professor Dr Hans Wedepohl, and is particularly timely; methods of analysis employed in that discipline have increasingly been applied to archaeological material, and the results are revolutionising our understanding of glass production and trade in the past. Furthermore, the author succeeds in providing a usable overview of different glass types over this substantial period, which is a considerable achievement.

Professor Wedepohl begins with an introduction to the raw materials used in glass production and then embarks on a detailed chronological account of the major categories of archaeological glass in terms of composition and regional distribution, including Egyptian, Mesopotamian, Sassanian, Islamic, Roman, Byzantine and early-, mid- and late-medieval European. Glass produced using lead, natron and various types of plant-ash, and products ranging from containers, vessels and windows, are all mentioned. There are some references to historical texts dealing with glass production and to archaeological remains and typological forms, but the emphasis is overwhelmingly on the questions that can be answered from the glass composition. The book is a handy sized paperback, easy to navigate, nicely presented with some colour illustrations, and very reasonably priced. It is also well referenced and contains tables of data (major and minor elements but not trace elements) drawn from a variety of sources for the groups of glass mentioned in the text.

*Glas in Antike und Mittelalter* is written in German and deals largely with scientific subject matter; although the illustrations have English captions a proportion of the figures are pairs of ternary diagrams, which take a certain amount of getting used to regardless of the language. I would certainly recommend the book to readers with a science background, not least because it is current and has such a broad scope, making it very useful for general reference. Sufficiently determined non-scientists may also find it a good overview of how analysis can help answer archaeological questions pertaining to glass.

### **Annales of the 16th Congress**

The AIHV publishes the proceedings of its congresses in a series called *Annales du Congrès de l'Association Internationale pour l'Histoire du Verre*. The *Annales* of the 16<sup>th</sup> Congress have now been published. AIHV members are sent free copies but non-members may also order copies from the Association for €45 or £32.

To order, please contact: Sarah Jennings, Fort Cumberland, Fort Cumberland Road, Eastney, Portsmouth. PO4 9LD. Tel: 02392 856715  
E-mail: [sarah.jennings@english-heritage.org.uk](mailto:sarah.jennings@english-heritage.org.uk)  
Payment by Stirling cheque from a British bank is accepted, payable to Association for the History of Glass Ltd. (Please note that credit card payments will be deducted in Euros). Postage within the UK is £5.70, within Europe £8.60 and outside Europe airmail £18.60 or surface mail £10.00. Sarah also has copies of the 14<sup>th</sup> and 15<sup>th</sup> *Annales* at £16 and £22 respectively. More details at: [www.aihv.org](http://www.aihv.org).

## AHG's Website

www.historyofglass.org.uk

Not all Members or Subscribers to *Glass News* will be aware that the Association for the History of Glass has a website – but it does. Its existence is a tribute to the vision, energy and tenacity of Hilary Cool, who started with a blank piece of paper, as it were, and created the whole thing from scratch. And when the AHG was organising an International Congress to take place in London in 2003, Hilary created another website for the *Association Internationale pour l'Histoire du Verre* to support the event.

All good things come to an end, however, and Hilary has handed on the role of AHG Webmaster to David Martlew, who acknowledges that she is a hard act to follow! But the website itself goes on, offering a mixture of news and views, articles and comment. All contributions will be gratefully considered for inclusion! We invite you to visit the website and tell us what you feel about it. How can it be improved? What missing items would you like to see there? Do please email your comments to <<David.Martlew@historyofglass.org.uk>>

We try to keep tabs on meetings and conferences where the history of glass is a major theme, so if you

know of one which is not on our *Events* page we'd be glad if you could let us have details. If you know of a good publication or article in the field we'd appreciate a brief review. And whilst *Glass News* is the usual publication route for articles of any substance, the website does offer a place for shorter pieces of comment or requests for information.

Also on the site is the reminder for subscription renewal (the same form handles this and also new applications for Membership). When you return the form with your remittance, please don't forget to provide your email address with all the dots and underscores clearly shown! Then we can draw your attention to items of interest as and when they arise by sending you an email with links to the appropriate web pages.

The website is yours - we look forward to hearing from you!

David Martlew

Webmaster  
David.Martlew@historyofglass.org.uk

## Finds • Research • Ideas Publications • Conferences

### REMEMBER

## *Glass News*

Please send your contributions to *Glass News* No. 19 by 13<sup>th</sup> January 2006 to:

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