

Glass News

Published by The Association for the History of Glass Ltd
www.historyofglass.org.uk

July 2011

Number 30

ISSN 1362-5195



First century glass vessel made in the form of a fish (length 200 mm) and found at Begram (see page 5). National Museum of Afghanistan (©Thierry Ollivier / Musée Guimet)

Welcome to another issue of Glass News!

Firstly thank you to Justine Bayley, Caroline Jackson, Daniel Keller, Sandra Davison, Jennifer Price, St John Simpson and everyone who contributed to the hugely enjoyable two day meeting in York on the 19th and 20th of May 'Neighbours and successors of Rome: Traditions of glass production and use in Europe and the Middle East in the later first millennium AD' (see the photograph on page 2). There will be a review in the next issue of Glass News. In the meantime abstracts can be obtained from the conference website: <http://www.historyofglass.org.uk/meetings.html>

Read on for details of the next AHG meeting, kindly organised by David Martlew, to be held in London in November on the fascinating topic of 'Glass in Science and Medicine'.

A visit to Gloucester Cathedral is being planned for the spring 2012 AHG meeting. Details are still being finalised but the day will involve learning about the making of a stained glass window, how to 'read' a window and studying examples from the 1300s to the late 20th century. For details contact: sandbill@crash2000.net



Delegates at the recent two day meeting 'Neighbours and successors of Rome' in York, taken outside the Kings Manor (© Tassos Antonaras)

CONFERENCES AND MEETINGS

AHG AUTUMN STUDY DAY Incorporating the AGM

Glass in Science and Medicine
Thursday 17th November 2011
Science Museum's Dana Centre
South Kensington, London

Provisional Programme

10:00 Registration and Refreshments

First Session: Glass the stuff of Chymistry

10:30 Glass and the Alchemists

Dedo von Kerksenbrock-Krosigk (Glasmuseum Hentrich, Dusseldorf)

11:00 Islamic Chemical Glass

Susan Mossman (Science Museum)

11:30 Glass for medicine and distillation in medieval Europe

Rachel Tyson (independent researcher)

12:00 Lunch (not provided)

13:00 Association for the History of Glass - AGM

All are welcome to attend this meeting, but only Members may exercise a vote.

Second Session: Glass the stuff of Physics

13:30 lenses in Roman Egypt: Archaeological and Papyrological Evidence

Jane Draycott (Nottingham University)

14:00 Antimony glass and Newton's Telescope

Anna Marie Roos (Oxford University)

14:30 Pioneers in optical glass manufacture

Michael Cable (Sheffield University)

15:00 Refreshments

Third Session: Glass the Once and Future Thing

15:30 Two Centuries of Scientific Glassblowing

Paul Le Pinnet (British Society of Scientific Glassblowers)

16:00 Optical Fibres and the Struggle for Glass Purity

John Parker (Sheffield University)

16:30 X-actly so! Glass and the development of X-ray methods in analysis

Margaret West (West X-Ray Solutions)

17:00 Close

If you would like to attend, please send your full contact details, a **stamped, addressed envelope** and a cheque for **£35.00** (non members), **£25** (AHG members), or **£10.00** (students) payable to The Association for the History of Glass Ltd to:

Sandra Davison, Hon. Sec. AHG

Email: sandbill@crash2000.net

Postal address:

68, East Street, Thame, Oxon OX9 3JS

Receipt by email, with SAE or on the day.
(Participants who normally live outside the UK may pay upon arrival at the venue in UK sterling).

Members wishing to attend the AGM only may do so free of charge.

Society of Glass Technology Annual Meeting 2011



**Seminar on the
History & Heritage
of Glass**
*Part of the Annual
Conference of the
Society of Glass
Technology*

5th - 8th September 2011, Oxford

This year the SGT Annual Conference will be held at Lady Margaret Hall, University of Oxford on September 4th-8th 2011. This International Conference on the Chemistry of Glasses and Glass-Forming Melts is in celebration of the 300th anniversary of the birth of Mikhail Vasilievich Lomonosov, the great Russian scholar and Father of Glass Chemistry in Russia.

The History & Heritage seminar forms part of this conference. On each of the four days (5th to 8th September) we will have presentations from a wide range of speakers including:

- Isabelle Pallot-Frossard (*Laboratoire de Recherche des Monuments Historiques, Paris*)
- David Dungworth (*English Heritage*)
- Richard Jaques (*English Heritage*)
- Tobit Curteis (*TC Associates*)
- Jonathan and Ruth Cooke (*Stained Glass Conservators*)
- Alun Adams (*Swansea Metropolitan University*)
- Anna Marie Roos (*Oxford University*)

- Ralitsa Georgieva (*Bulgarian Academy of Sciences*)
- John Parker (*University of Sheffield*)
- Michael Cable (*University of Sheffield*)
- Antonio Pires de Matos (*University of Lisbon*)
- Dedo von Kerssenbrock-Krosigk (*Glasmuseum Hentrich, Dusseldorf*)
- Marco Beretta (*University of Bologna*)
- Martina Bertini (*Aberdeen University*)
- Sarah Paynter (*English Heritage*)
- Andrew Smith (*Avon Archaeological Unit*)
- Sally Haden (*Private Researcher*)

On the afternoon of Tuesday 6th September we plan a walking tour of the stained glass in the Oxford Colleges, conducted by expert Mr Paul Sancasciani.

The Registration Fee for attending the History & Heritage Seminar is £65 per day, and includes lunch and light refreshments.

See <http://www.oxford2011.sgthome.co.uk/> for further details.

CVMA Corpus Vitrearum Forum for the Conservation of Stained Glass:

STAINED GLASS AFTER 1920: TECHNOLOGY AND
CONSERVATION

Lisbon

26th - 28th September 2011

This three day Forum for the Conservation of Stained Glass Windows is being held under the auspices of the Portuguese Committee of the Corpus Vitrearum and the International Committee of the Corpus Vitrearum for the Conservation of Stained Glass.

20th and early 21st century stained glass presents particular technical features related to changing aesthetics. New technology and materials represent a great challenge to conservators and conservation scientists. The next forum intends to develop an overall approach to this subject and motivate related discussion. Art historical issues are central to the debate as well as an integrated vision of artistic production in the period. Workshops are a specific aspect of contemporary stained glass heritage which deserve particular attention.

There will be two full days of oral presentations and poster sessions, covering materials and techniques and conservation measures. The morning of the third day will be spent viewing stained glass in Lisbon.

Papers will be offered in English, French and German. Simultaneous translation will not be provided at the conference.

Monday, 26th September

- *Concepts in a changing universe*
- *Materials and techniques*

Poster session

Reception

Tuesday, 27th September

- *Conservation measures*

Conference dinner

Wednesday, 28th September

Morning: site visits in Lisbon:

- Igreja de Nossa Senhora de Fátima
- Instituto Nacional de Estatística
- Casa Museu Anastásio Gonçalves

Afternoon: visit to Sintra, Palácio da Pena

Information regarding the conference will be updated at:

http://www.dcr.fct.unl.pt/eventos/portal_factory/Docum ent/forum-for-theconservation-of-stained-glass-windows

History, Technology and Conservation of Ancient Metals, Glasses and Enamels

Athens, Greece

November 16-19, 2011

The N.C.S.R. "Demokritos"/Institute of Materials Science, The National Technical University of Athens (NTUA)/Department of Chemical Engineering and The National Hellenic Research Foundation (NHRF)/Institute for Greek and Roman Antiquity is organising this International Symposium on "History, Technology and Conservation of Ancient Metal, Glasses and Enamels". The official language of the Symposium will be English.

The emphasis will be on topics related to the technology of fabrication and of conservation of ancient materials, focusing on findings from Greece and the adjacent areas. The symposium will also focus on understanding and predicting the chemistry and technology of the fabrication, behaviour, corrosion and properties of ancient materials (copper-bronze-steel-brass-lead, glasses and enamels).

A special thematic session entitled "Hyalos-Vitrum-Glass: Ten years later", including review articles and outstanding papers dealing with vitreous material of the Mediterranean region, will be held to celebrate the ten year anniversary of the Conference Hyalos-Vitrum-Glass, organized in Rhodes, Greece, 3-5 April 2001.

The conference will be themed on the topics:

1. History and objects
2. Structure and Properties
3. Dating techniques and applications
4. Technology (Raw materials, Furnaces, Melting, and Forming)
5. Corrosion of ancient materials
6. Modern aspects of corrosion of materials
7. Conservation

Contact:

L. Filippaki; Tel: 0302106503801; Email: ilip@ims.demokritos.gr

A. Korda; Tel: 0302106503301; Email: akorda@ims.demokritos.gr

Registration

Registration fee before September 30, 2011 will be 180 euros (70 euros for students). After September 20, 2011 the registration fee will be 220 €. A number of reasonably priced hotels will be available to host the participants.

<http://www.aegeussociety.org/en/index.php/call-for-papers/cpf-history-technology-and-conservation-of-ancient-metals-glasses-and-enamels/>

Association Francaise pour l'Archeologie du Verre (AFAV) Metz 2011

18th-19th November
Metz, Lorraine

At the 26th annual meeting of the AFAV, participants from France, Belgium, Germany, Switzerland and Luxemburg, including archaeologists, researchers and conservators, will exchange data and ideas relating to the history of glass. The aim is to compare the results of research on both sides of the borders of Belgium, Luxembourg, Germany, Switzerland and France.

For more information see www.afaverre.fr

AHG Grants

Grants are available from the Association for the History of Glass, for educational or research activities consistent with the Association's charitable aims. These could include, for example, attendance at a conference to present a lecture or poster, a study visit, fieldwork, or publication of scholarly works.

There are no restrictions on who may apply or on the topics of applications, which will be judged on merit. Multiple applications in different years will be considered with individual awards up to £500. See also the AHG website for details (www.historyofglass.org.uk).

An application form may be downloaded from the website, or obtained from:

Sandy Davison, AHG Hon Secretary,
68 East Street, Thame, Oxfordshire OX9 3JS.
Email: sandbill@crash2000.net

EXHIBITIONS

Afghanistan: Crossroads of the Ancient World

At the British Museum until the 17th July

Glass from Begram

The current BM exhibition *Afghanistan: Crossroads of the Ancient World* contains nineteen of the roughly 180 glass vessels found in the ancient Kushan storerooms at Begram. Many have very close parallels from the Roman world which also support a date of about 100 AD for the sealing of the rooms. These include mosaic glass and ribbed bowls, facet-cut beakers, a drinking horn, a jug decorated with gold foil, another that appears almost black, and a stunning series decorated with scenes painted in brightly coloured vitreous enamels. All functioned as tablewares but, whereas some are very common, others were probably relatively expensive.

However, some of the vessels found at Begram remain something of a mystery and these include as many as twenty-two that are in the shape of fish (see the photograph on the front cover of this issue) and other creatures. Three of these are shown in the exhibition.

They were made by inflating the glass while it was hot and adding trails of glass to the body, and sometimes in a different colour, to create very distinctive fins. The composition of the glass resembles that of Roman glass made in Egypt yet there are no known parallels, either complete or fragmentary, for these vessels from the Roman world.

Some of the answers were provided at a conference held at the British Museum last March when Dr David Whitehouse and Bull Gudenrath, both from The Corning Museum of Glass, spoke about the significance of the Begram glass and how the fish-shaped vessels were made. Bill drew gasps from the audience as first he showed a specially filmed video of him making a copy and then theatrically produced not just one, but two, copies at the front of the lecture-theatre. The video is now posted on the BM's website. He also showed that the techniques of making the glass fish were not particularly complicated although the way in which the fins were trailed were so distinctive that they could be regarded as the sign of a particular glass-worker.

The workshop where these were made remains unlocated and may never be found but David pointed out that this could be located somewhere in India as the first-century text known as *The Periplus of the Erythraean Sea* – a unique account of Red Sea and western Indian Ocean trade at this period – refers to the export not just of Roman glassware from Egypt but also raw glass. Much of this was probably turned into beads, bangles and inlays but the implication of the fish-shaped vessels from Begram is that some was fashioned into glass vessels by someone who had picked up the basics of glass-blowing and set up shop in a world where this was a complete novelty.

It is not difficult to see how even the cheapest and most mass-produced types of Roman glassware were given exorbitant prices in places like India or Afghanistan in the first century but imagine the response when someone says they can make a vessel that looks like a fish, is unknown even in Rome and, to cap it all, rests perfectly on a table as its fins act as supports.

Afghanistan: Crossroads of the Ancient World, supported by Bank of America Merrill Lynch, is at the British Museum and has now been extended until 17 July; for details of the exhibition, the glassworking demonstration and a wide range of related events visit www.britishmuseum.org

EXCAVATION

Excavation of Roman glassworking waste from St Algar's Farm, Somerset

Excavations in 2010 at a Roman villa site at St Algar's Farm near Frome in Somerset, led by Ceri Lambdin and Robin Holley with the Bath and Camerton Archaeological Society, uncovered over 400 fragments of Roman glass. This included typical glassworking waste and fragments of 4th-century vessels, as well as 22 ceramic glass crucible fragments.

This is the first Roman glassworking site known in the south-west, and the first rural Roman glassworking site from Britain. The AHG has generously given a grant for

research on the glass finds, and a report will appear in the next issue of Glass News.

Further excavations will be carried out between July 25th and August 7th 2011. It is hoped that more evidence of the glassworking will be found, and visitors are welcome, preferably in small groups; please contact Ceri Lambdin in advance at: cerilambdin@hotmail.co.uk or 01225 761026.

AHG Grant Report:

The investigation of spiral decorated Iron Age Scottish glass beads with an emphasis on their technology of production

Martina Bertini

PhD student in Analytical Chemistry, University of Aberdeen
m.bertini@abdn.ac.uk

The first time I met Dr Fraser Hunter during a visit at the National Museum of Scotland (Edinburgh), he was approaching a display case in the archaeology collection. His first words in carefully placing a beautiful Iron Age spiral decorated Scottish glass bead under my nose were: 'We know virtually nothing about them'. It has been two years since, and our first meeting developed into a fruitful collaboration, which also saw the precious partnership of the Marischal Museum of Aberdeen.

The beads represent a mystery of Scotland's past. These complex and brightly coloured objects are often represented by stray finds, with little or no archaeological context. On the basis of new excavations, such as Birnie (Morayshire) and Culduthel (Inverness-shire), they are thought to date back to the 1st to 2nd century AD, and their peculiar distribution in Aberdeenshire and the wider area of the Moray district only makes them even more interesting for the investigation of glass working technology at the fringes of the Roman Empire.

This study used the most modern state-of-the-art analytical techniques, such as LA-ICP-MS (Laser Ablation Inductively Coupled Plasma Mass Spectrometry), which enabled us to gather a huge collection of compositional data, including a large number of trace elements, with such as small impact on the specimen that is virtually invisible to the naked eye.

From the analysis it emerged that all of the glasses were of the soda-lime type, with natron as a flux. The pattern of trace elements points to the use of costal Mediterranean sands, probably from the Levant or Syro-Palestinian area. The compositional characteristics and the high degree of homogeneity found fits the broader Roman glass composition, and the compositional consistency between glasses of the same colour, suggests that ancient glass makers were using standardized recipes and had control over the achievement of determinate hues, rather than employing unintentionally achieved colours.

Surprisingly, most of the beads seem to be produced with what appears to be cullet and waste glass, often contaminated with different colours, which might have reached Scotland as a result of trading activities in privileged trading centres located at the northern frontiers.

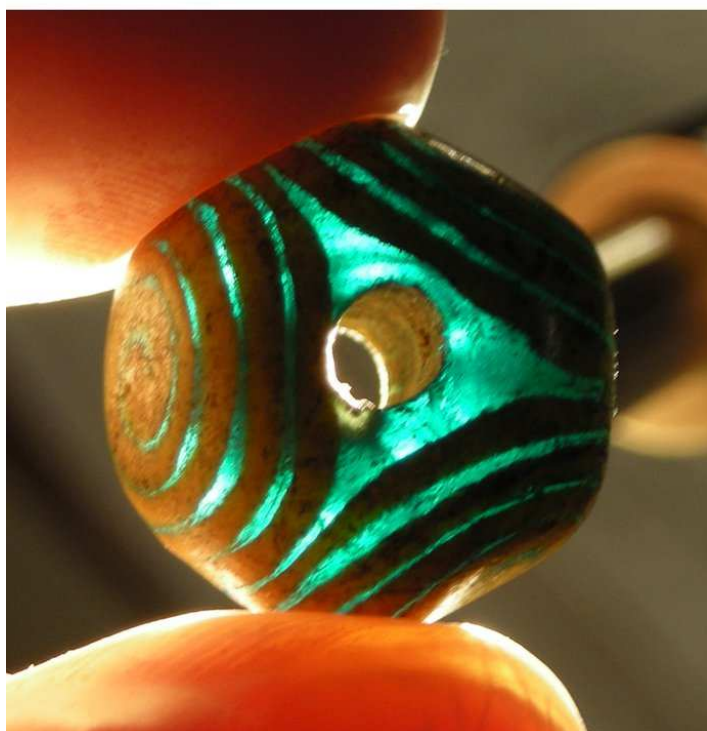


Figure 1. Different views of bead FJ 138, found at Callievar Hill, Cushnie (Aberdeenshire). The bright turquoise colour, obtained with the addition of bronze and little amounts of lead to the melt, is only visible when the bead is observed with strong transmitted light (©Martina Bertini).

The location of the manufacturing centre is still uncertain. However, together with the stylistic originality of the spiral design, the poor quality of the materials used, clashing with the mastery with which the beads were realized and pointing to the use and re-use of a material that must have been rare and precious to the ancient glass workers, hints to a local production for these artefacts, rather than the exportation of finished objects.

Amongst this wealth of information however, the technique used in the manufacture of spiral decorated beads seemed to remain out of grasp. In fact, according to Dr Hunter any attempt of producing replica beads had,

until now, failed. Thanks to the generous funding from the Association for the History of glass, that financed part of this project, it was possible for me to establish a collaboration with VICARTE (Facultade de Ciencias e Tecnologia, Universidade Nova de Lisboa), which allowed me to experimentat with some of the methods that might have been employed by the Scottish craftsmen. The first step of the study consisted of the investigation of the internal structure of some of the beads with 3D μ CT (Tridimensional micro-Computer Tomography) with Synchrotron radiation. The analysis gave excellent results in the identification of features pertaining to different techniques, such as winding, trailing a glass stinger into a decoration, and gathering chunks of waste glass into a new bead.

Secondarily, the production of replica beads was attempted. The methods used were a lost-wax casting technique, as suggested by Prof. Julian Henderson further to the finding of a bead encased in a mould in the Meare excavation in the late 70s and 80s, and the winding method proposed by Mrs Rosemarie Lierke. Whereas Prof. Henderson's technique proved to be long, complex, difficult, wasteful of precious material, required strict control of temperatures and materials and produced features on the artefact that do not match the marks on the analysed beads, the experiments carried out following Mrs Lierke's method gave positive and encouraging results. The latter technique in fact, involving the manufacture of a triangular shaped bead, and the coiling of the spirals onto its corners, produces well trailed spirals in a minimum working time and with no waste of glass. Once the triangular bead is formed, its corners can be sunk back into its body with the simple administration of heat, or with the help of a marver, producing characters, which are unmistakably linked to the originals. The project is still in progress and more conclusive data will be published in full once the work is complete.

I wish to thank Dr Fraser Hunter and the National Museum of Scotland, Mr Neil Curtis and Mrs Margot Wright and the Marischal Museum of Aberdeen for entrusting me with the rare and precious specimens that made the subject of my PhD studies. Thanks are due to Dr David Martlew for his help, support and encouragement and to Prof. Pires de Matos and all of VICARTE's staff for allowing me to use their excellent facilities, and for their teaching and kind collaboration. This work was made possible by funding from the Association for the History of Glass, the College of Physical Science of the University of Aberdeen and VICARTE, Universidade Nova de Lisboa.

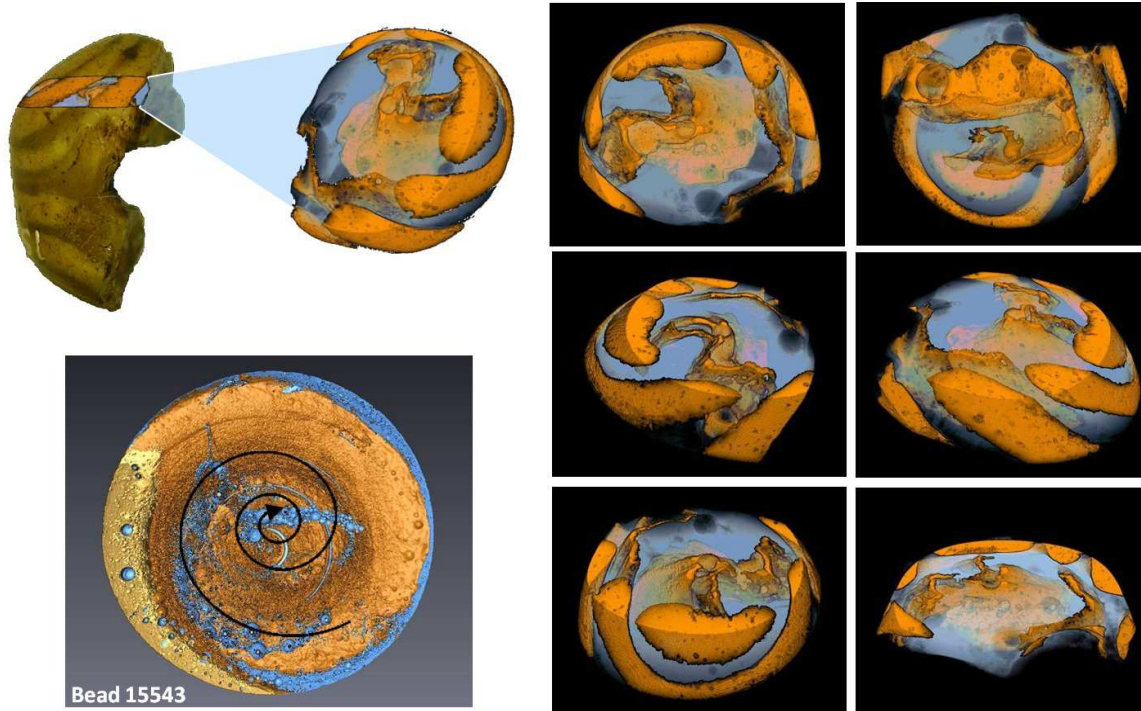


Figure 2. Investigation of the internal structure of two Class 13 Scottish spiral decorated glass beads (Marischal Museum reference n. 15514 and 15543) with 3D CT with Synchrotron light. The analysis highlights differences in density between different glasses, and makes it possible to see the outline of bubbles and cavities in the matrix. In this picture, the lead-rich yellow decoration is easily distinguished from the less dense soda-lime glass, and from the twirls of bubbles under the centre of the spiral (©Martina Bertini).



Figure 3. (Top row) three final stages in the production of moulded beads: a grooved bead just extracted from the mould and cold-worked for the removal of spruing, flashing and parting lines; the enamelling stage and a finished bead after polishing. (Bottom row) Lampworking for bead making and one of the examples of spiral beads successfully produced with this technique (©Martina Bertini).

New Discoveries of Glass in a Roman Grave at York

Hilary Cool

The York Archaeological Trust is currently conducting very large scale excavations over a five year period in Hungate. The site lies to the west of the River Foss and in the Roman period lay to the east of the legionary fortress. Last year some richly furnished graves were found, one of which contained both a glass vessel and beads from a necklace. One of your eagle-eyed editors saw them illustrating an article about the site in the magazine *Current Archaeology* and asked the Trust whether they could provide an article for *Glass News*. As I was the

one who had been consulted over the items from both this and other graves at Hungate, the Trust asked me to write this little piece.

In addition to the glass finds, the individual in this grave has been buried with a plain jet bangle and a colour-coated pottery beaker from Trier placed inside a Dales ware cooking jar. The glass vessel was a small indented blue/green unguent bottle (Price and Cottam 1998, 177-9).



Small indented bottle from Hungate 'glass grave' (©York Archaeological Trust).

The bead string consisted of small cubic beads in opaque mid green, opaque mid blue and opaque blue with red and white chevron with a single square-sectioned and asymmetrical rounded biconical jet bead. The distribution of the beads look as though they were probably worn as a necklace. Unfortunately the Hungate area is a brown field, former industrial area and this has not aided the preservation of the bone so we have no skeleton against which to judge this.

The necklace contains bead types which were in use by AD 230 as the distinctive polychrome beads were found in the fortress baths drain deposit of AD 160-230 at Caerleon. In the cemetery at Brougham they were found in graves of the last third of the third century. The glass flask is a third century form, possibly more common later in the century. The jet bangle is not closely dateable but would not be inconsistent with a third century date. My friend and colleague Ruth Leary who has looked at the pottery vessels says the jar can be

dated to the third century and the beaker to the early to mid third century.

So it seems likely that the person in this grave was buried somewhere in the last two thirds of the third century.

Whenever you are faced with a burial, the first question to ask is 'who was buried?'. Given the soil conditions at Hungate we cannot get any help from the skeleton. The grave cut was a size suitable for a small adult so an adolescent might also be possible. Elsewhere during the third century strings of small glass beads like these have very strong links to females when osteological evidence survives. It would be highly unusual for a male to have them. The pattern generally observed in Roman Britain is that it is young girls who tend to be buried with lots of jewellery like this when the skeleton can be sexed. So it is likely we are looking at the grave of a teenage girl here.

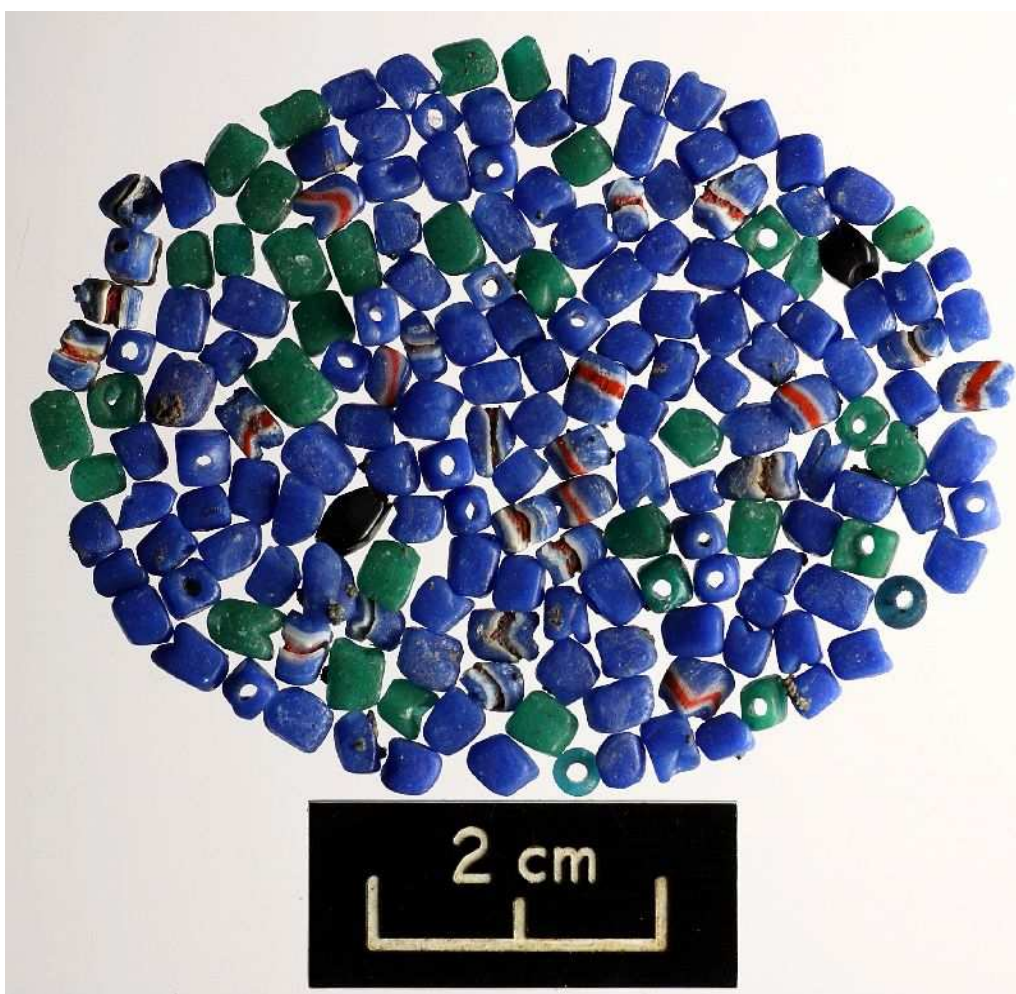
York was a very cosmopolitan place in the third century. The Emperor Septimius Severus had died there in AD 212 and the man who was to become known as Constantine the Great was acclaimed emperor in the city in AD 306. The suite of grave goods has many similarities with those buried with young people at Brougham, and there it is very likely we are looking at the cemetery belonging to an auxiliary military unit and their families that had been raised in the lands beyond the Danubian frontier and moved to Cumbria.

So are we looking at a teenager from a foreign family? Very possibly. But we should also remember that teenage girls in many periods are likely to be attracted to new fashions. Wearing bead necklaces was not a normal

fashion for native Romano-British women in the third century, but if there was one place in northern Britain where a young British girl would have been able to see new foreign fashions and seek them out, it was York.

The excavations at Hungate are due to finish in 2012 and at that point the work of post excavation assessment and analysis will start. Teasing out the information from both this grave and the others, as well as exploring the history of the site from the Roman period up to the 20th century promises to be a fascinating journey.

There is a website devoted to the Hungate excavation at <http://www.dihungate.com/>



Green, blue and polychrome blue/red/white beads from Hungate 'glass grave' (© York Archaeological Trust).

The Price and Cottam reference is, of course, Price, J. and Cottam, S. 1998. *Romano-British Glass Vessels: a Handbook* CBA Practical Handbook in Archaeology 14 (York).

More information about Brougham and Caerleon can be found in the following works:

Cool, H.E.M. 2004. *The Roman Cemetery at Brougham, Cumbria: Excavations 1966 and 1967*, Britannia Monograph 21 (London).

Zienkiewicz, J.D. 1986. *The Legionary Fortress Baths at Caerleon: Volume II the Finds* (Cardiff).

The Investigation and Conservation of the Glass from Lacock Abbey

Hazel Gardiner
UCL, London

Recently, about 300 fragments of archaeological medieval stained glass and leads from Lacock Abbey in Wiltshire were rediscovered by the National Trust. They were excavated in the late nineteenth or early twentieth century and until the National Trust encountered them a few years ago, had sat unremarked in metal biscuit tins in an outbuilding. The glass is now with University College London, Institute of Archaeology, where documentation and conservation is being undertaken by students of the MSc Conservation for Archaeology and Museums programme.

Excavated fragmentary window glass provides much of the evidence of medieval stained glass from the smaller religious houses in Britain, so the investigation and conservation of the Lacock glass should provide a valuable addition to this resource.

Lacock Abbey, now a National Trust property, was originally an Augustinian nunnery. Founded in 1230, the abbey buildings were substantially complete by 1247, with just one later addition: a Lady Chapel to the abbey church, built in the early fourteenth century. Repairs and restorations would, of course, have been made to the glazing in the course of its history, and there may also have been later glazing campaigns, but much of the stained glass would correspond approximately to the date of the buildings. At the Dissolution in 1539, the abbey church was demolished.

The glass has no early documentation but was probably found during excavation of the abbey church foundations by archaeologist Harold Brakspear in 1898, and possibly also in earlier investigations by Charles Henry Talbot, who owned the abbey in the late nineteenth century. An excavation in 2006, of the abbey drainage system, also uncovered a number of fragments of stained glass which were recorded and conserved by the National Trust at that time.

Of the fragments now at UCL, there are many examples of coloured and flashed glass, many pieces are grozed and shaped and most have some evidence of painted decoration. Of the selection studied so far, a number of these bear traces of stylised leaves, and some have cross-hatching. Such features could indicate a pre-1260 date, tying in with the earliest building campaign. [Fig. 1].



Figure 2 (©Hazel Gardiner)

There are also a number of fragments readily recognisable as parts of quarries. These are painted with delicate, stylised freehand foliage, although these have no cross-hatching. Another fragment, painted with a distinct oak-leaf, appears to be an example of the increasing naturalism found in depictions of foliage in the second half of the thirteenth century [Fig. 2].



Figure 1 (©Hazel Gardiner)

Some of the fragments retain some translucency, while for those in the poorest condition only a blackened, hollow pseudomorph of the original glass might survive, or laminating iridescent layers might have completely replaced all original glass. However, the painted surface may remain readable even when no original glass survives.

Although the evidence is hidden beneath layers of mud, and much of the glass is in a poor state, with a little careful investigative conservation most fragments may be read and documented [Fig. 3]. Analysis would yield further data about the glass and its composition.



Figure 3: Before cleaning (left) and after cleaning (right) with an image of a tracing made of the decoration on the fragment (inset) processed using Photoshop (© Hazel Gardiner)

Daniel Thomas Howells

May 1984-April 2011

It is with great sadness that we note the loss of Dan Howells who died suddenly in April of this year. Dan completed a BA at Winchester and an MA at Reading. Whilst working as a field archaeologist, he applied for an AHRC-funded collaborative doctorate at the British Museum, investigating Roman pewterware. Fortunately, he was unsuccessful and instead was offered, and accepted, a collaborative award to study the Late Antique gold-glass in the Museum's collections (see *Glass News* 28). Dan said he had thought he would be a Roman archaeologist; instead, he became an expert on gold glass and never regretted it. We never regretted it either.

Dan was an intelligent student with a questioning mind and enormous potential. His research on the British Museum's collection provided significant new

As little medieval glass survives from religious houses in England, and thirteenth century glass is particularly rare, it seems that the Lacock glass could prove a valuable research resource. More details about the glass and a discussion of the conservation and investigation options under consideration will be published in a forthcoming issue of *Vidimus* (www.vidimus.org).

Hazel Gardiner is currently a student on the MSc Conservation for Archaeology and Museums programme at UCL.

observations and insights into, and new discoveries about, a range of issues about gold-glass, from iconography and patronage to issues of manufacture and design. Indeed, Dan took himself to the Roman Glassmakers and learnt how to blow glass and experimented impressively with ways of making gold glass. Dan completed his doctorate successfully and was working on publications arising from it. We hope to bring these plans to fruition.

All of us who knew him will remember Dan's grin, his friendliness, his willingness to share his work, his enthusiasm for glass studies, his interest in everything that was going on around him. The passing of this promising young scholar is a blow to us all.

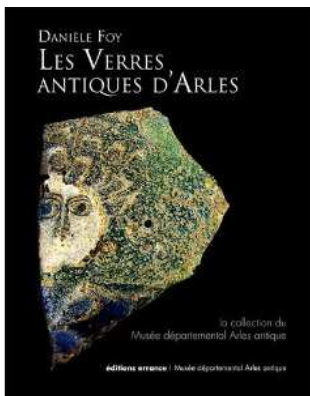


One of the gold glass replicas that Dan produced working with the Roman Glassmakers (© Roman Glassmakers)

Colleagues at the University of Sussex are planning an event on campus to celebrate Dan Howell's life and his contribution to glass studies. It will take place in the afternoon of **Wednesday 26 October 2011 in the Meeting House**. We will exchange memories of Dan, and erect either a tree or a bench on campus in his memory. All are welcome; please put the date in your diary and let us know you are coming and whether you would like to speak about Dan.

We would like to collect memories of Dan, both to read out at the event and also to print up into a booklet. If you have a memory, please send it to Sam Dunnett. If you would like to contribute to the cost of a tree or a bench in Dan's memory, Sam Dunnett is in charge of the collection. **Please make cheques payable to Liz James**. For all information, contact Samantha Dunnett: s.n.dunnett@sussex.ac.uk; Samantha Dunnett, HAHP, School Office, University of Sussex, Falmer, Brighton BN1 9QN.

PUBLICATIONS



Les Verres Antiques D'Arles

Daniele Foy

A catalogue of ancient glass in the collection du Musée Départemental Arles Antique, covering in excess of 1000 objects.

Editions Errance, Paris, 2010

Price: €65

Hardback, French text, 525 pages, many colour illustrations

A review will follow in the next issue of Glass News.

'Ancient Glass and Various Antiquities from the Frits Lugt Collection'

Ruurd Binnert Halbertsma

This catalogue of the Frits Lugt collection of ancient glass and other antiquities in the Fondation Custodia Paris contains descriptions and colour illustrations of 90 objects.

Fondation Custodia, Paris, 2010

Price: £29

89 pages, many colour illustrations

'L'avventura Del Vetro Dal Rinascimento al Novecento Tra Venezia e Mondì Lontani'

Aldo Bova

The catalogue of the Trento exhibition of Italian glass from the Renaissance to the 20th century in Venice and surrounding areas.

Skira, Milano, 2010

Price: €69

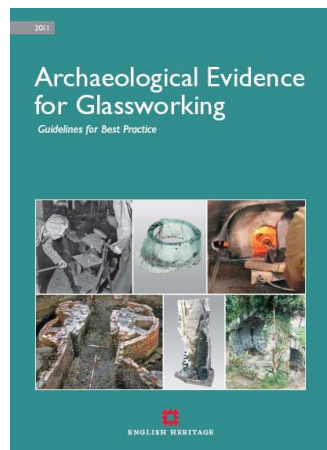
Hardback, 565 pages, Italian text, many colour plates

Archaeological Evidence for Glassworking

Guidelines for Best Practice

Sarah Paynter and David Dungworth

English Heritage, Swindon, 2011



The cover and an example page from the new guidelines

Available free of charge by contacting:
sarah.paynter@english-heritage.org.uk

Or download a free copy from the English Heritage website at: <http://www.english-heritage.org.uk/> and go to Professional > Publications > Guidelines and standards

This latest edition in the English Heritage Guidelines series focuses on the identification, investigation and interpretation of glassworking evidence at sites in England from the Bronze Age until the 20th century. Comprising 12 chapters, with numerous photographs and illustrations, this guidance draws on contributions and case studies from experts in the field, including archaeologists, glass specialists, glassworkers and archaeological scientists.

It begins with an introduction to glass, including the raw materials and how glass was made and worked, followed by a chapter on the practicalities of investigating glassworking sites, including research resources, surveying, excavation, sampling, dating, conservation and scientific analysis.

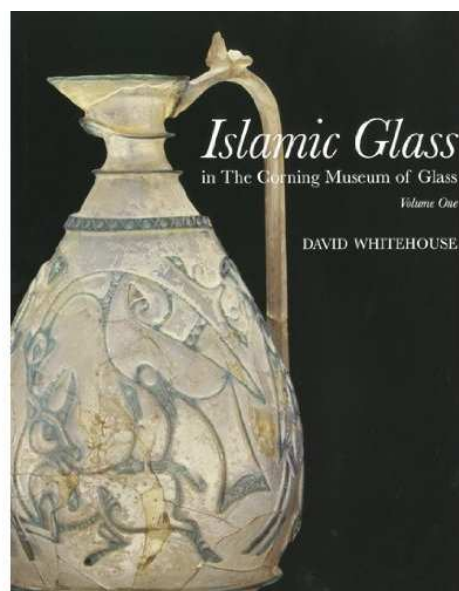
The middle chapters focus on the evidence of glassworking, and the different types of features and material that might survive, such as furnace remains, crucibles and glass waste. Common glassworking processes are described together with the diagnostic waste they produce. There is also a chapter on material commonly misinterpreted as glassworking evidence.

The final few chapters of the Guidelines make up a reference section, which includes where to go for help, a glossary, a bibliography, a chronological overview of development in glassworking and a summary table for quick reference.

BOOK REVIEW

Islamic Glass in The Corning Museum of Glass

Volume One: Objects with Scratch-Engraved and Wheel-Cut Ornament
 David Whitehouse



Corning, New York, 2010
 Price: \$95.00
 Hardback, 430 pages ISBN 978-0-87290-175-9

This splendid volume is the first of three which will provide a comprehensive catalogue of Islamic glass in Corning. It follows the author's four previous volumes on the Roman and Sasanian/post-Sasanian glass in this collection, and is published to the same format with introductory chapters, full catalogue descriptions with individual commentaries, colour photographs and line drawings of each piece, scientific analyses, bibliography and an index. It is informative, easy to use and a pleasure to consult.

Corning has one of the world's largest collections of Islamic glass. Although much lacks archaeological provenance, this is true of most collections and the fact that most are sherds rather than suspiciously pristine or

heavily restored objects adds to its value as a source of study and comparison. The manner in which they are analysed and presented adds to that, and sets a very high standard.

This volume contains as many as 595 objects, mostly dating between the eighth and eleventh centuries, almost two thirds of which were collected by Ray Winfield Smith and mostly published here for the first time. Others were collected by Jerome Strauss and Maurice Nahman, a leading dealer-collector from Cairo, and assumed to mainly come from Fustat (Old Cairo). A small number come from archaeological contexts, all from excavations there directed by George Scanlon under the auspices of the American Research Centre in Egypt and published in the volume on the excavated glass (reviewed in *Glass News* 14 with corrections added here by Whitehouse).

This catalogue is divided into three sections, namely pieces decorated with scratch-engraving, wheel cutting and cameo glasses, followed by an essay discussing relief-cut glass with zoomorphic decoration. Separate appendices discuss the spectacular Corning Hedwig beaker, an unusual polychrome fragment and eight fragments of carved rock crystal (including a waste fragment).

The collection includes as many as 44 scratch-engraved pieces (compared to seven in the Khalili Collection or a dozen in the BM). These appear to date between the mid-eighth and ninth centuries. Most are transparent deep blue, as is typical, but the compositions include both natron and plant ash glasses implying production both in Egypt and/or Syro-Palestine and somewhere further east. One of the plant ash pieces was acquired in Aleppo and therefore may have been found in north Syria or Mesopotamia whereas one of the natron glass fragments was acquired in Cairo. The forms are flat dishes, bowls and bottles, decorated in varying quality with geometric and stylised floral designs although two of the natron glasses show birds and one was inscribed. There is no evidence for the applied red and yellow pigment that is a feature of plates excavated at Samarra.

The second group consists of monochrome glass vessels decorated with wheel cutting. This is the largest category and totals a staggering 447 objects, divided into six groups according to cutting technique. The popularity of this deep cutting tradition probably lies in the earlier Sasanian world but the forms (whether straight-sided bowls, molar flasks or bottles) and many of the techniques (such as slant-cut faceting or figural relief-cutting) are new, as are the colourless, deep blue, opaque turquoise and emerald green fabrics (the remainder are naturally tinged to varying degrees). The variety of styles, quality of workmanship and wide distribution of finds imply production in multiple

workshops and more compositional analyses of the different groups would be instructive as only three vessels in this category were analysed by Brill (including an opaque turquoise blue bottle made from plant ash glass and a green lead glass bowl). 31 of the wheel-cut vessels, including a relief-cut bowl with a Kufic inscription ("happiness"), six molar flasks and twelve bottles of varying capacities were found in ninth-eleventh century contexts at Fustat. Many others were acquired in Cairo or appear from their minimal weathering to have been found in Egypt whereas one was acquired in Homs and yet others were acquired via the Iranian art market, including a small number said to come from Gurgan province and the medieval city-sites of Rayy, Saveh and Nishapur, all of which (like Fustat) were extensively mined by commercial excavators. The separation of pieces from the same findspot is illustrated by the noting of a virtual join between two relief-cut sherds now in Corning and Berlin (p.244). Several vessels show signs of grinding down of the neck following breakage of the upper portion and are probably modifications made by the art market (by comparison, a bell-shaped flask in the BM which was acquired in 1959 and published in *Masterpieces of Glass* as cat. 139 is a pastiche whereby the fragmentary neck of a separate vessel was added to the body but has now been separated).

The third group consists of cameo glasses: this is again an unrivalled collection of 94 pieces. They are arranged according to manufacturing technique (always a strength of Corning) and then by style.

Space precludes further comments but in short this volume is an essential point of reference for anyone working on Islamic glass. Specific comments and parallels are made to other published collections and excavated assemblages, particularly those from Fustat, Serce Limani, Samarra and Nishapur, but it remains unclear how representative these assemblages are and how common any of the present categories really were in antiquity. As with Islamic glazed pottery, there has been a tendency among dealers and collectors to elevate the status and value of the objects from craft products into works of art. Whitehouse's catalogue subtly undermines this thesis by, on the one hand, including sherds alongside complete (restored) vessels but also presenting a much larger volume of pieces. However, it also remains true that excavations at some major city-sites such as Siraf and Merv failed to produce the quantities of "luxury" glass that might be expected and disproportionate circulation and recycling may prove the answer. David Whitehouse's forthcoming catalogues and discussion of the glass from Siraf should be particularly instructive.

St John Simson

Please send your contributions:

Finds • Research • Ideas
Publications • Conferences • News

for *Glass News* **31**
by
18th November 2011
to:

Rachel Tyson
25 North Street
Calne
Wiltshire SN11 0HQ

rachel@glass-vessels.co.uk

THE ASSOCIATION FOR THE HISTORY OF GLASS

Registered charity 275236

Board of Management

President: Caroline Jackson

Hon Secretary: Sandy Davison

Acting Hon Treasurer: Angela Wardle

Members of Board

Denise Allen	David Crossley	Sarah Paynter
Justine Bayley	Aileen Dawson	Jennifer Price
Colin Brain	Suzanne Higgott	St John Simpson
John Clark	David Martlew	Rachel Tyson
	Martine Newby	