

# Glass News

Number 20

July 2006

Published by  
THE ASSOCIATION FOR THE HISTORY OF GLASS LIMITED  
Reg'd Charity: 275236 ISSN 1362-5195

[www.historyofglass.org.uk](http://www.historyofglass.org.uk)

## IN THIS ISSUE

- Page 1. AHG study day and AGM
- Page 2. AIHV Congress, AFAV meeting, International Festival of Glass and British Glass Biennale 2006
- Page 3. 8th ESG Conference on Glass Science and Technology, Dublin Blaschka Conference
- Page 4. ICOM Glass Committee, CRAFTS 2007
- Page 5. Meeting review: Glass of the Roman Empire and Elsewhere
- Page 7. Interview: Professor Jennifer Price
- Page 8. Exhibition review: Art et sciences – le verre dans l'Empire Romain
- Page 10. Exhibition of Roman glass at Malton, Exhibitions database
- Page 11. Roman Glass Furnace Project 2006
- Page 13. Enquiry update: Glass musical instruments, Unusual glass auction
- Page 14. Stained-glass conservation, The Corning Museum of Glass 2006 Rakow Grants, Book reviews
- Page 16. Books, Editors' details

## **SUBSCRIPTION REMINDER!**

Your subscription will soon be due for renewal, and this is the last *Glass News* that you will receive under your present subscription.

Please see the enclosed form for information on changes to the way membership of the Association for the History of Glass and subscriptions to *Glass News* operate, and instructions on how to renew your subscription / membership for the year 2007.

## **AHG study day and AGM**

EXPERIMENTAL AND ETHNOGRAPHIC STUDIES  
RELATING TO ANCIENT GLASS

**Wednesday 22nd November 2006**

**The Wallace Collection**

Hertford House, Manchester Square, London W1U  
3BN

### PROVISIONAL PROGRAMME

- 10.00 Arrive/coffee
- 10.30 Introduction
- 10.40 Thilo Rehren - *Experiments in Bronze Age Egyptian glassmaking (title to be confirmed)*
- 11.10 Yvonne Gerber - *The Court Chaluet glass hut and its glass composition*
- 11.40 Jan Kock - *Bead and bangle making in India*
  
- 12.10 Lunch (there are a range of pubs, cafes and restaurants locally)
  
- 13.30 AGM of the Association for the History of Glass (AHG members\*)
  
- 14.00 St John Simpson - *Glass blowers in Lebanon*
- 14.30 To be arranged
- 15.00 Tea
- 15.30 Sarah Jennings - *A long established workshop of Damascus glass blowers*
- 16.00 Frances Liardet - *Being an apprentice in a (Roman) glass workshop*
- 16.30 End

If you would like to attend, please send your full contact details, a **stamped, addressed envelope** and a cheque for **£20.00** (full rate) or **£10.00** (student) payable to *The Association for the History of Glass Ltd* to: Justine Bayley, English Heritage, Fort Cumberland, Eastney, Portsmouth PO4 9LD.

Participants who normally live outside the UK may pay upon arrival at the venue in UK sterling.

\*Members of the AHG who wish to attend only the AGM may do so at no cost

## AIHV Congress 2006

**3rd to 10th September 2006  
Antwerp, Belgium**

A detailed programme for the 17th Congress of the Association Internationale pour l'Histoire du Verre (AIHV), including abstracts for the oral and poster presentations, is now available on the website <http://www.aihv17.ua.ac.be>. For each time slot, there is a choice of two sessions on different subjects, as shown below. A busy social programme is also planned. Payment of the registration fees is preferred before August 1st, 2006.

### **Monday 4 September 2006**

Invited plenary lectures

14h00 – 16h00

Session 1: Roman glass - I

Session 2: 15th and 16th century glass - I

### **Tuesday 5 September 2006**

09h00 – 12h00

Session 3: Pre-Roman and Hellenistic glass - I

Session 4: Glass decoration / enamels

14h00 – 16h00

Session 5: Archaeometry - I

Session 6: Stained glass / weathering

### **Wednesday 6 September 2006**

09h00 – 12h00

Session 7: Roman glass – II

Session 8: 16th and 17th century glass

### **Thursday 7 September 2006**

09h00 – 12h00

Session 9: Post-Roman glass

Session 10: 18th to 21st century glass

14h00 – 16h00

Session 11: Pre-Roman and Hellenistic glass - II

Session 12: Archaeometry - II

### **Friday 8 September 2006**

09h00 – 12h00

Session 13: Roman glass – III

Session 14: 15th and 16th century glass - II

Registration fees for AIHV members	€290
Registration fees for non-members	€330
Student registration fees	€150
Congress dinner	€ 50
Post-congress excursion	€850
Single occupation supplement	€ 50

## AFAV meeting

The next meeting of the Association Française pour l'Archéologie du Verre will be in Paris on Friday 17th and Saturday 18th November. Day 1 is at the Musée d'Archéologie Nationale at St Germain en Laye and Day 2 at St Denis. The glass on view is Roman, Merovingian, Carolingian and later. Papers will be on a variety of topics reflecting current research; offers of papers are welcome.

More details are available from:

Nicole Vanpeene / AFAV

10 allée de l'Aube 78310 Maurepas

E-mail: [vandy78@club-internet.fr](mailto:vandy78@club-internet.fr)

Website:

[www.institutduverre.fr/Afaverre/afaverre.php](http://www.institutduverre.fr/Afaverre/afaverre.php)

## The International Festival of Glass and British Glass Biennale 2006

**25th-28th August 2006  
Stourbridge**

This year the International Glass Festival and British Glass Biennale will take place over the bank holiday weekend 25th-28th August 2006, in six venues around Stourbridge. The 30-page programme of events contains a wide variety of lectures and exhibitions. The Master Classes and workshops take place in the week before the Festival, between the 21st and 24th August. Early application is recommended. Further information is available from the website: [www.ifg.org](http://www.ifg.org)

One of the most exciting parts of the Festival has to be the hot- and cold-work demonstrations by glass makers from all over the world, including unusual Viking Glass making and Glass Eye making. This year there will be exhibitions and a discussion on *Pâte de Verre*. There will also be a Professional Artists' Programme, including photography, promoting your work and using alternative fuels. Other activities include two Heritage Walks by the Amblecote Historic Society, Fun Auction, Trade Fair and a 'Glitz Glass Fashion Finale'.

Last, but by no means least, the British Glass Biennale will be on show at the Ruskin Glass Centre,

from the 25th August to the 17th September 2006.

More information and a programme of events are available from Ruskin Glass Centre

Tel. +44 (0) 1384 399444

E-mail: info@ifg.org.uk

Website: www.ifg.org.uk

## 8th ESG Conference on Glass Science and Technology

10th-14th September 2006  
University of Sunderland

To date almost 200 papers have been offered for presentation, either orally or as posters. The programme is comprised of half day sessions with key themes, and up to five sessions will run simultaneously. A more detailed programme for the conference will be published on the website: [www.esg2006.co.uk](http://www.esg2006.co.uk) but details of the speakers in the History and Heritage sessions, which may be of particular interest to Glass News readers, are given below.

One-day registration fee for the main conference is £150, provided applications are received before the 18th August. However a special day rate of £35 (including lunch and refreshments) has been negotiated for members of the AHG wishing to attend the History and Heritage sessions.

### PROPOSED PROGRAMME FOR HISTORY & HERITAGE SESSIONS

Dr Robert Brill - *The morphology of weathering on historical and archaeological glasses*

Dr Russell J. Hand - *The Ballidon glass burial experiment: thirty six years on*

Dr Sarah Fearn *et al.* - *Room temperature corrosion of museum glass - an investigation using SIMS*

Dr Stephen P. Koob - *Crizzling glasses: recent developments*

Dr Carol M. Jantzen *et al.* - *Relation of activated complex theory (ACT) and atomic ratios to glass durability: laboratory and burial studies*

Neil Chapman - *Title to be confirmed*

Dr Augusta M. Lima - *Comparison of a destructive and non-destructive XRF analysis of weathered glass fragments*

Professor Norman Tennent - *Title to be confirmed*

Mr Andy McConnell - *The decanter, an illustrated history*

Mr Nick Dolan - *Glass of the North East in 39 minutes and 53 seconds!*

Professor M. Cable - *Erik Laxman: a neglected pioneer in glass melting*

Professor Ezz Eldin Abd Elaziz Hassan - *The style and method of designing, executing and restoring archaeological artistic works made of stained glass in Mohammed Ali's palace*

Ms Sandy Davison - *Conservation of decomposed archaeological glass artefacts*

Ms Victoria Oakley - *Reflections on the care and conservation of unstable glass in historic collections*

## Dublin Blaschka Congress

September 28th-30th 2006  
Dublin

This congress is the first-ever international meeting focussed on the work of glass artists Leopold and Rudolf Blaschka. These 19th century artists produced sculptures that famously include anatomically detailed, scientifically correct models of hundreds of species of marine animals and greatly magnified microscopic organisms that, in many cases, are startlingly realistic. Modern glass artists have been unable to recreate these stunning, intricate sculptures and the father and son team never recorded their techniques. Art and science museums worldwide hold Blaschka sculptures, which are increasingly recognised for their historical, technical, and artistic importance. Bridging the gap between science and art puts the Blaschka's work in a unique position, which is long overdue for serious study.

The Dublin Blaschka Congress will be hosted by the partnership linking University College Dublin and the National Museum of Ireland (Natural History), in collaboration with the Natural History Museum (London). In addition to academic presentations and informal gatherings, a public exhibition of Blaschka models, never before seen on display, will be held in the National Museum of Ireland (Natural History), Dublin from September through December 2006.

### Attendance Fees

Please book by September 3rd 2006.

Rate	Registration Fee
Late Booking Rate	€320 / GBP£220 / US\$400
Day Rate	€160 / GBP£110 / US\$200

### Submitting papers

The deadline for abstract submissions is 4th August 2006. Submissions are welcome on *any* topic related to the Blaschkas and their work (or other biological glass models) from the disciplines of the sciences, arts, and craft. Technical proceedings will be published following the Congress, in early 2007.

### PROGRAMME

#### **Thursday 28th September**

Morning: Registration

Henri Reiling (University of Utrecht)

Afternoon:

David Whitehouse (The Corning Museum of Glass)

Susan Rossi-Wilcox (Harvard Botanical Museum)

Chris Meechan (National Museum Cardiff)

Evening: 'Museum after dark ice breaker' in the Natural History Museum, including launch of new Blaschka exhibition

#### **Friday 29th September**

Submitted papers (thematic sessions)

Poster sessions

#### **Saturday 30th September**

Morning: Submitted papers and focus workshops

Afternoon: Focus workshops and closing plenary address

Please contact the Congress local organiser, Catherine McGuinness with questions or comments:

National Museum of Ireland - Natural History

Merrion Street

Dublin 2, Ireland

Email: blaschka2006@ucd.ie

Or visit the website at: [www.ucd.ie/blaschka](http://www.ucd.ie/blaschka)

## ICOM Glass Committee Meeting

**October 15th -21st 2006  
Turkey**

The International Council of Museums Glass Committee's annual meeting will take place in Turkey, on the 15th-21st October 2006. Many interesting visits are planned to various sites in Turkey, including Istanbul, Izmir and Bodrum. Private guides and coaches have been arranged throughout.

A full programme of events may be obtained from the Glass Committee's Chairman:

Gunnel Holmér

Smålands Museum-Swedish Glass Museum

Box 1102

SE-351 04 VÄXJÖ

Sweden

Fax: +46-470 397 44

E-mail: [gunnel.holmer@smalandsmuseum.se](mailto:gunnel.holmer@smalandsmuseum.se)

ICOM membership and other information may be obtained from:

Victoria Whyte

ICOM UK, c/o Conservation Centre

Whitechapel, Liverpool L1 6HZ

Tel: 0151 478 4986

Fax: 0151 478 4789

E-mail: [databaseteam@liverpoolmuseums.org.uk](mailto:databaseteam@liverpoolmuseums.org.uk)

## CRAFTS 2007 International conference

**February 28th to March 3rd 2007  
University of Zurich**

This international conference proposes to present and discuss regional syntheses in a wider context, based on data gathered within the international CRAFTS project "Structures, economic and social role of the Roman craft industry in Italy and in the Western provinces of the Empire". In addition to talks on the work of the regional research groups, presented by invited speakers, space is also reserved for other contributions devoted to research on the craft industry, particularly on the topic "Continuity and change in craft production from the end of the la Tène period to the Roman era and from late Antiquity to the early medieval period". Oral contributions as well as posters are invited. Further information is available from the website and from the organisers (details below).

Address: Tagungsbüro CRAFTS 2007,  
E.+ S. Deschler-Erb, Universität Zürich,  
Abteilung Ur- und Frühgeschichte des Historischen  
Seminars, Karl-Schmidstr. 4/CH - 8006 Zürich

Email: [crafts2007@bluewin.ch](mailto:crafts2007@bluewin.ch)

Website: [www.prehist.unizh.ch](http://www.prehist.unizh.ch)

Tel: 0041 61 201 02 44.

Fax: 0041 1 634 49 92

## PROVISIONAL PROGRAMME

### **Thursday, March 1**

8.15-8.30 Opening comments

Session I: Overview, sources, current research

Speakers include Prof. Stefanie Martin-Kilcher, Prof. Helmuth Schneider, Prof. Vincent Serneels and Dr. Sabine Deschler-Erb

12.00-13.30 Lunch break

Session II: Organisation of handicrafts

Speakers include Prof. Hans-Joachim Drexhage, Dr. Kai Ruffing, Dr. Christa Ebnöther and lic. phil. Günther Thüry

15.30: Excursion to Augusta Raurica by bus.

Reception and dinner.

### **Friday, March 2**

Session III: Synthesis and perspectives

Presentations by representatives of regional CRAFTS research groups and other invited speakers, including Dr. Habil. Michel Polfer, Prof. Alain Férdière, Dr. Heidi Amrein, Dr. Habil. Günther Moosbauer, Mag. Kordula Gosten\_nik, Prof. Sara Santoro and Prof. Mike Fulford.

12.00-13.30 Lunch break

Session IV: Poster session and vacant time slots for lectures - topical submissions are welcome

19.00 Reception in the Swiss National Museum at Zurich

### **Saturday, March 3**

Session IV: Vacant time slots for lectures - topical submissions are welcome

11.30 Closing discussion

### **Sunday, March 4**

Full day excursion to Avenches

## **Meeting review:**

### **Glass of the Roman Empire and elsewhere**

A CELEBRATION OF THE CONTRIBUTION OF  
JENNIFER PRICE TO THE STUDY OF  
ARCHAEOLOGICAL GLASS

**14th and 15th March 2006**

The meeting was held in the luxurious surroundings of the Wallace Collection with an impressive array of speakers on all aspects of Roman glass and talks spread over two days. Martine Newby chaired the first session on Tuesday, which Marianne Stern began

with “East or West – Roman glass is best”. This was an overview of different techniques for shaping glass vessels and when and where the techniques were used. Birgitta Hoffmann described the “Glass from Fezzan, Libya”, an oasis in the middle of the Sahara, prompting an interesting discussion about the 5 enormous glass platters that were recovered (with diameters in excess of 0.4m), and how these may have been used. Souen D.Fontaine (co-authored with Danielle Foy) discussed “Mould-blown glass beakers with figurative scenes: new data on the Narbonensis Province”, highlighting production techniques, styles and subtle differences between examples, and discussing their distribution and possible origins.

Sarah Jennings chaired the session after lunch, which had an archaeological emphasis, beginning with Marie-Do Nenna describing “Primary glass workshops and glass craftsmanship in Graeco-Roman Egypt”. A number of glass production sites are now known in the area, and Marie-Do focused on the exciting discoveries at Beni Salama, where the remains of tank furnaces have been found. Yael Israeli gave us “More on the Jerusalem glass workshop: questions and speculations”. Amongst the large quantities of glass found were fragments of cast bowls, tokens and rod applicators as well as fascinating glass tubes used to blow glass objects and moulds for shaping glass. John Shephard talked about “The glassworkers of Londinium”, highlighting the archaeological evidence for how the glass industry developed over time in Roman London. This was followed by Martine Newby’s wonderful presentation on “Roman glass souvenirs”; her detailed interpretation of depictions on glass objects brought the Roman world vividly to life. The technical problems preceding the showing of the Roman Glass Furnace Project DVD were overcome just as we were all about to give up, but it was well worth the wait (see page 11 for more details about this year’s project)!

During Tuesday evening there was a reception for Professor Jennifer Price, attended by colleagues from throughout her career and family members. Providing a brief summary of Jenny’s exploits and achievements in archaeology and glass research was no easy task but Ian Freestone rose to the challenge, with an abridged version where each decade occupied just a few minutes! Finally the AHG board presented Professor Price with some unique and very apt gifts with thanks for her contributions to glass research. The star attraction was undoubtedly a beaker featuring gladiatorial penguins (see over the page for more details).



Figures 1a and b: One of the gifts that Jenny received: an engraved beaker by the Roman Glassmakers, Mark Taylor and David Hill, who provided the 'report' below.

"Two penguins engage as gladiators. The loser raises his left flipper in submission. The victor smirks broadly. A sphenisciform\* Neike hovers overhead bearing palm and laurel wreath for the victor. A tabula ansata relates that Vestitor and Collis are the makers. Scenes of sphenisciform combat are rare in Roman art, thus this engraved beaker is unique among recent British finds. The vessel most closely resembles Price and Cottam 1998 fig. 50a, and the style of point-engraved decoration recalls the Whitehall Villa gladiator beaker (J. Price on the telly - Time Team 2005). A full report by Professor Price will follow at a later date.

(\* Penguin)."

The first session on Wednesday, chaired by Justine Bayley, began with a presentation on the "Re-use of Roman Glass Fragments" by Sylvia Fuenfschilling. This talk focused on work in Switzerland and France into the reuse of glass fragments, for example as lids or counters. Caroline Jackson summarised the results of analytical studies in Roman glass, in "Sayre and Smith revisited". This was a clear and concise overview of the scientific work that has shed light on questions of glass production and use, from the groundbreaking work of Turner and Sayre and Smith continuing through to recent discoveries. Hilary Cool gave a well-received and thought provoking discussion of "Vessels and their people: beyond provenance and typology". This began with an entertaining history of how the field of Roman glass research evolved in England, and culminated by questioning the current direction of glass research and the domination of studies on typology, date or provenance. It was apt, therefore, that Daniel Keller followed, with an involving overview of "Roman glass in the domestic space: from Pompeii to Ephesos and Petra". Daniel's talk focused on subjects such as how glass was used, compared with pottery and metal tableware, where it was stored and its visibility. (These themes are also explored in the exhibition reviewed on page 8).

After lunch, in a session chaired by Caroline Jackson, David Whitehouse spoke about "The use of the pontil in the Roman Empire" and his conclusions following a comprehensive study of the different types (or absence) of pontil mark on 621 blown glass objects at The Corning Museum of Glass. Justine Bayley gave a brightly illustrated overview of the use of "Opaque coloured glass in the Roman World", including mosaics and enamelling. Peter Cosyns talked about "Beyond the channel! That's quite a different matter. A comparison of Roman black glass from Britannia and Gallia". This presentation focused largely on black glass bracelets, and investigated where, when and why they were worn, and who by. Ian Freestone concluded the meeting by discussing "Continent to consumer – new approaches to the scientific analysis of Roman glass". This talk and the following discussion focused on the application of isotope analysis to questions of provenance, and also the potential of particularly reproducible analytical techniques for identifying sets of glass tableware made from a single batch. (This is the work on glass from Stonea in Cambridgeshire referred to by Jenny Price on page 8).

The standard of the presentations throughout the meeting was very high, and it was impossible not to

learn something on the subject of Roman glass. The meeting also succeeded in celebrating the work of Jenny Price, as the speakers shared memories and anecdotes, spoke of her influence on their work and paid tribute to qualities they admired, such as “clarity of thought and simplicity of expression”. Overall, it was a very enjoyable occasion and, although abstracts were not available for Glass News, it is intended that papers from the meeting will be published in the near future.

Sarah Paynter

## Interview: Professor Jennifer Price

The two day meeting in London on Glass of the Roman Empire was held to celebrate the contribution of Professor Jennifer Price to the study of archaeological glass. During the meeting we spoke to Jenny, for Glass News, about her career and glass research in general. (Many thanks to Jenny for forfeiting a coffee break to answer our questions. SP)

*How did you become interested in glass?*

Well, my family made glass in Stourbridge, and so I always knew how it was made and as a child I used to play in the glasshouse. After I was called to the Bar I went abroad, worked on excavations and spent 6 months sticking the Masada glass together, so when I went to Cardiff to read archaeology I already had a research interest that I've never given up.

*And was the law useful?*

No, not really! It was useful because it told me what I didn't want to do, and I knew I couldn't work in it because it didn't interest me. The idea of doing that, until I retired meant that I wouldn't have wanted to get up in the morning, so I had to leave it, but it did teach me about the rules of evidence - which has been useful for archaeology.

*And you really enjoyed your career change?*

Yes, enormously - it was very exciting to have the chance to read archaeology, and I was lucky enough to be able to work in the subject.

*Is there a part that you enjoy most: field archaeology or teaching or research?*

Well, originally I loved digging, but because there are very few people who work with glass, there was always a lot of glass to study and so I gravitated

towards post-excavation work, and that's where I've stayed. I have been happy teaching students, and obviously I enjoy research. I'm not a field archaeologist any more and haven't run an excavation for about 30 years, but when I was teaching prehistory in Cardiff I excavated a Bronze Age burial barrow in south Wales - which is published! The most fun I ever had as a digger, apart from Masada, was at Stonehenge when we found a skeleton in a ditch when we went to open a trench previously excavated by Stuart Piggott and Richard Atkinson for John Evans to get some snail samples. Denise Allen and I were in the hole when the toes appeared in the section, and so we dug the skeleton - it was a wonderful and most unexpected find - and the first Beaker period stiff found there.

*What's the contribution that you're most proud of; can you pick a couple of things?*

I'm glad there are more people working with glass in Britain now than when I started, though I don't claim to have influenced many of them. I'm very happy to have had the opportunity to work on the EH-funded Romano-British glass project with Hilary Cool, Sally Cottam and Sally Worrell. They all brought new ideas to the subject, and together we moved Romano-British glass studies forward in ways I could not have done on my own - working on your own can be rather arid. When I started in glass there were two main glass specialists, Donald Harden who was about to retire as Director of the London Museum and Dorothy Charlesworth who was a Ministry of Works (now EH) inspector, and George Boon in the National Museum of Wales in Cardiff was also interested. Donald invited me to work on the Fishbourne glass with him in 1969 and generally encouraged me, as did George, and Dorothy accepted that I was there, but there were very few opportunities to meet and discuss things. By contrast, there now is a much bigger group of people who meet at conferences like this one and exchange ideas and news. I think we have managed to demystify the study of archaeological glass - there are more books and articles and more people are confident about writing their own reports.

*What do you see as the big things for the future, for you and the field?*

For me, I think I've done my time writing reports on bits of glass because they have come from particular holes in the ground and I now want to write about things that interest me that move different strands of research forward, to produce summaries of work I have done and conclusions I have reached. I have done a lot of work in Britain and Spain and some in France and Italy and Greece and north Africa and I

plan to complete my current commitments and then to explore some regional and empire-wide themes. That should keep me going into my dotage!

For the field, I am convinced that the best thing that's happened in the study of archaeological glass is the way that scientists and archaeologists now talk to each other and work together, and that many of the exciting discoveries in future will come from these collaborations. At one time, I didn't have much interest in scientific analysis because I kept being told what made glass blue and didn't find it useful, and also didn't see any point in analysing pieces of glass unless we knew what shape the vessels had been and when they were made. However, in recent years programmes of analyses of vessels of known form and date have produced really interesting archaeological results, as, for example in the work in Britain on four groups of colourless vessels from Colchester and Lincoln and Binchester and elsewhere - the benefits seem to be cumulative. The science is really exciting because it has caused us to think in different ways about how glass was made, and where it comes from, and about the processes of vessel production and distribution. The realisation that all the glass cups of a certain type found at Stonea in Cambridgeshire may have arrived in a single packing case would simply not have been possible without glass scientists and archaeologists working together.

*You've enjoyed the conference?*  
Oh enormously! It's been wonderful.

## Art et sciences – le verre dans l'Empire Romain Exhibition review

**Cité des sciences et l'industrie, Paris**  
**31st Jan-27th August 2006**

An exhibition of glass from Pompeii, Herculaneum and the surrounding region, *Le Verre dans l'Empire Romain*, is on display at the Cité des Sciences et d'Industrie de la Villette, 30 avenue Corentin Cariou, 75019 Paris (Tuesday-Sunday, 10am-6pm) until 27th August

This exhibition was first staged in the Palais Pitti in Florence in 2004, and is now in the huge exhibition hall in the Cité des sciences et l'industrie in La Villette, Paris. The ticket rather bizarrely allows joint

access to this and a major Star Wars exhibition, with light sabre sound effects floating across the space in between. Hence the many entries in the visitors' book along the lines of 'We came to see Jabba the Hut, but our teacher/ parents made us see this boring glass exhibition too'..... which do not do it justice at all.

Although the title is *Glass in the Roman Empire*, nearly all the material displayed is from Pompeii and, to a lesser extent, other Vesuvian sites. Another comment in the visitors book (this time from an archaeologist – although I wouldn't be surprised if some of those comments mentioned above weren't made by archaeologists as well) quite rightly suggests that it should better be entitled 'The use of Glass in Pompeii during the 1st century AD'. It does an excellent job of examining the many and diverse uses of this versatile material as illustrated by the artefacts and buildings of these sites, and displays many finds which have not seen the light of day in the National Archaeological Museum in Naples Museum for a very long time, if ever.

There is a brief introduction to the history of glass-making and a survey of what ancient scientists and philosophers said about glass. Large display boards with quotes from ancient authors are in French only, although the other labels are all in English too. Artefacts include some iron pincers from Pompeii, which may have been used for glass-making although the direct association is not clear (Fig. 2), the lamp showing a glass furnace with glass-blowing from Ferrara, and there is mention of finds of glass fragments awaiting re-use, including three amphorae found during excavations in 1997 in Pompeii Regio I,14,14. A display showing the diversity of shapes and decorations used for glass vessels includes a very good facsimile of the Blue Vase from Pompeii – when the exhibition was in the Pitti Gallery the original vessel was moved there (leaving a sad and empty case in Naples museum) but it was not allowed to go to Paris too.

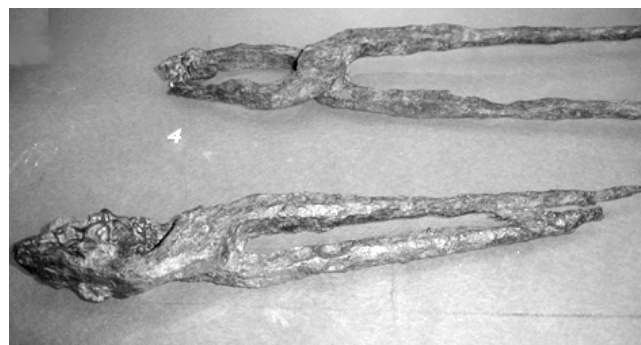


Figure 2. Pincers that may have been used for glass-working



So far so traditional – but there is then a room with a number of vessel assemblages from specific houses in Regio 1 in Pompeii, reunited in their entirety, and including those of other materials such as bronze and pottery. This provokes a brief discussion as to why some householders preferred glass vessels to other materials and vice versa, and what this might mean in terms of conflict between ceramics and glass for fine dining wares and other domestic vessels: *“The overall analysis of the materials conserved in these habitations shows that glass, for its transparency, light weight and elegance, was by now preferred over fine ceramics for dining. At the same time it performed a significant though not preponderant role in domestic activities concerning the preservation of foods as we can see in the still consistent presence of clay and bronze containers. The role of glass seems to be exclusive, however, in containers for unguents and perfumes, as widely attested in the Vesuvian area.”* It was certainly good to see the full assemblages displayed like this, with a big graphic map of the houses from which they came, together with some of the most famous wall-paintings with still-life scenes including glass vessels. Since the wall-paintings rooms in Naples Museum have been closed for years, it was a real treat to see these originals (Fig 3).



Figure 3. A wall painting with still-life scenes showing glass vessels in use

There is also a reconstruction of the wooden box with (original) bronze fittings which contained several glass vessels from the House of the Menander, and several bottles with lids and contents still surviving (Fig 4), although neither the labels nor the catalogue have any sort of explanation of what the lids/stoppers are made of, nor what analysis has been done on the contents. This survey of vessels includes a section on glass used in medicine and cosmetics, including ventouses.

Window glass is examined, displaying some wonderful big panes of both glass and mica, and including a reconstruction of the glazed peristyle in the House of the Mosaic Atrium at Herculaneum (Fig 5). Circular windows are included in the catalogue,

but none of the domed windows that have attracted attention recently. This room also reminds us that glasshouses for cucumbers are mentioned by Pliny and Columella, with a model of a mobile cucumber cart.



Figure 4. Glass bottles with surviving lids and contents

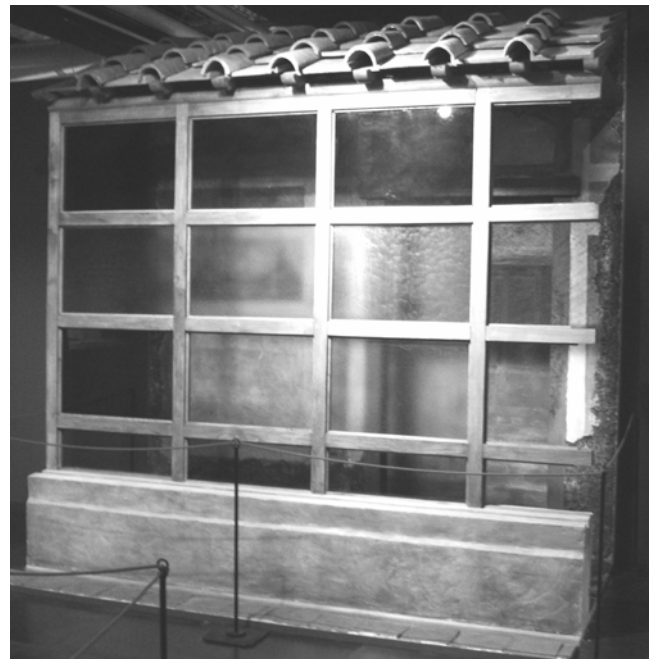


Figure 5. The reconstruction of the glazed peristyle in the House of the Mosaic Atrium at Herculaneum

The display on mirrors includes a rectangular obsidian

panel which was set in the wall of the House of the Ephebe, and there is a picture of the lozenge-shaped panels of the same material from the House of the Golden Cupids. There is also a rectangular polychrome panel from an unknown Pompeiian house wall with a gilded and painted cupid – similar to the circular panels that also came from the House of the Golden Cupids, showing how both natural and manufactured glass were used to decorate houses. When polychrome glass mosaics are considered too, one realises just how much glass must have existed in all sorts of architectural contexts around these towns.



Figure 6. The wall painting of a short-sighted scroll reader from the Temple of Isis

Finally, cases with prisms of rock crystal (and a wall-painting of a rainbow), small spheres of glass and crystal (did the Romans play marbles?), lenses (with a lovely wall painting from the Temple of Isis showing someone short-sightedly reading a scroll by holding it at arms length) (Fig 6), statues with glass eyes, and one of the very fine miniature painted portraits on a glass panel, all from Pompeii, remind us of the many uses of glass beyond vessels and architecture. Ancient ingenuity is then emphasised further by models of some of the scientific devices described by Hero and

other authors, including a glass drinking horn with siphon, a toy with rotating figures inside a glass cover powered by hot air, a glass Barullion for measuring the density of liquids, and other astronomical instruments which involve the use of glass.

This is, then, a very thorough introduction to how widespread the use of glass had become by the 1st century AD, covering almost all the uses to which it is still put to today. There is plenty of food for thought, completely covering (and much more thoroughly examining) some of the ideas about glass that had been germinating in my mind after many visits to Pompeii and the other Vesuvian sites over the last decade or so. There is now the perfect opportunity for someone with time and resources to take some of these ideas further and examine them in more detail.

The exhibition will be in Paris until 27th August, and it would be really excellent if it could then be moved as a permanent display to the Naples Museum (possibly the most frustrating museum in the world), instead of disappearing back into the stores again. The catalogue, available only in French, is excellent too, with very good pictures. It costs €39 (published 2006 by the Cité des Sciences et de l'industrie – see under books on page 16 – and an earlier version in Italian was also published in 2004).

Denise Allen  
denise\_allen52@hotmail.com

## Exhibition of Roman Glass

Until 31st October  
Malton

A small exhibition of Roman Glass is on display in the museum in Malton, north Yorkshire until 31st October (open 10am-4pm). It features glass fragments excavated in the fort and vicus, and more complete vessels from the Yorkshire Museum in York and Hull City Museum.

## Exhibitions Database The Corning Museum of Glass

A new searchable online database offers web users the ability to search for past, present and upcoming temporary glass exhibitions around the

world. Compiled and maintained by The Juliette K. and Leonard S. Rakow Research Library of The Corning Museum of Glass, the Worldwide Glass Exhibition Database can be found at: [www.cmog.org/exhibitionsdatabase](http://www.cmog.org/exhibitionsdatabase). The database currently provides information about more than 29,000 exhibitions, based on information the Rakow Library has received since 1982. Users may conduct a general search using keywords or such qualifiers as institution name or show dates. Organisations that wish to include their exhibitions can contribute information by going to the site and clicking "Contribute an Exhibition."

The Rakow Library currently holds more than 300,000 items relating to the art, history, craft and technology of glass and early glassmaking. The library is open to the public; visitors may also access the Rakow Library's online public access catalogue (OPAC) at <http://rakow.cmog.org> to search the library's record of holdings and find citations to glass-related periodical articles.

See the previous issue of Glass News (No. 19), or the website [www.cmog.org](http://www.cmog.org), for details of exhibitions currently running at The Corning Museum, including 'Glass of the Maharajahs: European Cut Glass Furniture for Indian Royalty' and 'Splitting the rainbow: cut glass in colour'.

## Roman Glass Furnace Project 2006

Encouraged by the success of last year's experiment with two Roman-style, wood-fired glassblowing furnaces (see Glass News 18, 2005), Mark Taylor and David Hill continued to explore early glassworking practices in 2006. This year we re-fired our larger furnace, built and ran a completely new smaller furnace, and constructed a completely new annealing oven.

Until we began hand-building these wood-fired daub furnaces, it did not occur to us that their very design and structure are dictated by the working practises of the individual glassmaker and his team. Although we can never be certain that the structures we built resemble those used by early glassmakers, certain design elements were crucial to the demands of glassworking and so the furnace began to determine its own shape and direction. We know that the circular (or oval) fire pits of ancient furnaces were often lined using large roof tile fragments crudely

layered in a manner similar to brickwork. These tiles or stones (found below the original ground level) have usually survived the intervening millennia but evidence for the furnace structures above ground is seldom present. One reason for this may be that these structures were made from a variety of daub (clay tempered with hay and sand). Daub (despite its partial firing during use), if unsheltered, simply cannot withstand the attacks of the elements, and eventually disintegrates, as did much of the (deliberately) exposed furnace from our experiments last year.

We built our new, smaller furnace re-using the completely intact tile-layered, fire pit from last year's one, and began by forming daub walls to a thickness of about 0.15m, initially in a horseshoe shape around the back of the circular pit. At the front, the walls were extended outwards to create a short tunnel over the fuel chute, which led into the fire chamber. From then upwards, as mentioned above, many elements of the basic design practically 'took over'!



Figure 7. The rebuilt smaller furnace with gathering holes on either side, plus doors supported on shelves beneath, and the fuel chute in the foreground.

We knew that the furnace needed to be conical in shape in order to help it to support its own weight. The gathering holes needed to be set at a certain height in order for the glassblower to be able to gather glass from a seated position. This in turn dictated the height that any glass pot (or tank) would need to be placed on the inside of the furnace, and established the height of the horizontal external shelf necessary to hold the doors used to close the gathering holes. The angle from the horizontal at which the glassmaker

gathers from the glass pot dictates the maximum upper height necessary for a gathering hole. Once past this point, there is little necessity to continue building the height of the furnace, so it was brought inwards to a gently rounded 'roof' (Figure 7). The finished structure proves strikingly similar in appearance to the glassblowing furnace depicted on the three surviving Roman oil lamps (Figure 8).



Figure 8. A glass furnace with glass blower as depicted on Roman oil lamps.

Last year's project established that a huge variety and quantity of glass vessels can quite easily be blown using what appears, at least initially, to be a very simple type of furnace. This year we wanted to add to the range of glassmaking techniques that we could demonstrate and set out to explore how bowls and windows could have been made using a variation of the same basic furnace. We have successfully reproduced many window panes and mosaic and ribbed bowls in our 'modern' workshop, but the challenge was to use these same techniques at the reproduction Roman furnace, and with an absolute minimum of basic tools and equipment, such as would have been readily available to early glassmakers. Therefore we adapted one of the gathering holes of the much larger main furnace to work exclusively with so-called Roman 'cast' glass, specifically window panes and ribbed bowls, both monochrome and mosaic.

We constructed a shelf projecting from, and level with, the largest of the three gathering holes, using a slab of sandstone. This gave us a generous flat table upon which to rest the very basic tool (which we refer to as a *bat'leth*), on which the window panes and bowls are balanced, enabling us to easily slide them in and out of the main body of the furnace for re-heating, and giving a firm base upon which to manipulate the glass (Figure 9).



Figure 9. Ribs were pinched on the surface of a circular slab of glass, which was then laid over a dome made from daub. Together these were placed on a sandstone shelf, or *bat'leth*, which was slid into the furnace. The glass slumped over the dome, forming a ribbed bowl.

With practice, we were able to make numerous window panes, and quite a few ribbed bowls using the standard Roman blue / green glass recipe, and were also able to fuse, pinch and slump several mosaic ribbed bowls as well. As in our modern workshop, we found that closely co-ordinated teamwork is essential in order to make these vessels successfully. Although we had the luxury of modern temperature indication equipment to enable us to monitor and record the heat of the furnaces throughout the project, we found that when working on the ribbed bowls, there was no time to consult the readings every few seconds. Instead, the glassmaker tooling the objects (Mark) relied upon working closely with the stoker, informing him whenever he particularly needed more heat for the manipulation of the glass. (We were especially grateful for the talents of our skilled stoker, Steve Wagstaff, to consistently maintain temperatures around 1100°C whilst making the bowls!) The Romans had no temperature indicators, of course, so Mark simply relied on the 'feel' of the hot glass when working, as they would have done.

We also devoted time to making ceramic moulds for several common 1st century AD vessels, including

small bottles, an almond knobbed or 'lotus' beaker, and the small 'date' flasks. These worked extremely well, exceeding our expectations, and demonstrated that, with care, many vessels could easily be produced from each mould, provided they were not allowed to over-heat or break through rough handling. We held two 'Glass Specialists' Days, and were joined for these by William Gudenrath from the Corning Museum of Glass. As well as working with Mark on Roman pieces, Bill demonstrated his own speciality - the Venetian style of glassblowing using a *cristallo* glass Mark had prepared (Figure 10).



Figure 10. Bill Gudenrath, of The Corning Museum of Glass, demonstrating Venetian glassblowing using *cristallo* glass.

Further details of the project will appear on our website [www.romanglassmakers.co.uk](http://www.romanglassmakers.co.uk) in due course, where many photographs of this, and last year's, projects can be seen. Mark and David wish to thank the Association for the History of Glass, Andante Travel and SE Validation Ltd. for their contributions to the project, and Elaine Wakefield of Wessex Archaeology for the use of photographs.

The Roman Glassmakers, Tel: 01264 889688  
[vitrearii@romanglassmakers.co.uk](mailto:vitrearii@romanglassmakers.co.uk)

## Glass musical instruments

### Enquiry update

Further to my enquiry in Glass News No 18, AHG member Ken Cannell kindly sent me a photocopy of the BBC Music Magazine, March 2002, containing an article on the Raffles Gamelan by John Milsom:

'Charles Burney.... in the course of researching his great *General History of Music* in the 1770s, came face to face with a Javanese gamelan, a relic of a gamelan orchestra that now stood isolated and silent'. With its 'bars of wood of differing lengths, as sonorous as if they had been made of metal, placed across a hollow vessel resembling the hull of a ship', it resembled nothing that Burney knew, except perhaps some kind of Sticcado (presumably the Sticcado Pastrole, a species of glass-barred xylophone that enjoyed some vogue in 18th century London). Peter Cosyns also kindly sent details of glass musical instruments in the MIM (Musical Instrument Museum) in the centre of Brussels, including two glass trumpets and a kind of piano with glass 'bells'. The MIM website is at: [www.mim.fgov.be](http://www.mim.fgov.be).

More information was received from Jan Kock concerning two glass harmonicas in Denmark: one in the Musikhistorisk Museum in Copenhagen and the other at the Society of Music at the Holmegaard Glassworks. Both date from the 19th century and feature a number of glass bowls of differing sizes mounted on an iron bar that is turned by a handle. The Music Society at Holmegaard also plays glass instruments blown at the glassworks (see also the Unusual glass auction, below).

Sandra Davison

## Unusual glass auction

**21st-23rd September 2006**  
**Durham University**

The 46th Annual Symposium of the British Society of Scientific Glassblowers (BSSG) will take place on the 21st-23rd September 2006 at St Aiden's College, Durham University. The BSSG has invited its members to make items with a musical theme for sale at this year's Charity Auction during the symposium. This is your chance to acquire the collectables of the future, although there is no mention of the musical quality required of the instruments!  
 [Editor's note: We would like to hear from anyone who attends this auction.]

Further information about the Symposium or the Auction may be obtained from BSSG Chairman Ian Pearson. Tel: 01847 802629/895637, or e-mail: [ian.pearson@ukaea.org.uk](mailto:ian.pearson@ukaea.org.uk)

## Stained-glass conservation

The Corpus Vitrearum Medii Aevi has augmented the conservation section of its website at [www.cvma.ac.uk](http://www.cvma.ac.uk) with translations (from German) of a number of important recent articles on the latest developments in stained-glass conservation. These will be invaluable to all those engaged in the subject. The papers can be downloaded free of charge.

## The Corning Museum of Glass 2006 Rakow Grants

The Corning Museum of Glass has awarded 2006 Rakow Grants for Glass Research to two scholars, one being a member of the AHG board, Sarah Jennings. Sarah's grant is for the editing and layout of her book, *Vessel Glass from Beirut*. This volume will report on an extensive collection of glass vessel fragments, dating from 300 B.C. to 1500 A.D., and recovered from three sites. The initial research was funded by a 1996 Rakow Grant. The book will be the first major publication on a large group of dated glass from the area of Lebanon, and is expected to contain about 500 pages, more than 1,600 line drawings, 75 photographs, and 13 tables. Sarah anticipates that the book will be published by the summer of 2006. The printing of the volume will be supported by a grant from the American University of Beirut.

## Book Reviews

### JOHN BAKER'S LATE 17TH- CENTURY GLASSHOUSE AT VAUXHALL

Kieron Tyler and Hugh Willmott

ISBN 1-901992-44-6, paperback

Price: £12.95

Museum of London, London 2005 (MoLAS  
Monograph 28)

The Thames-side site at the south-east end of the modern Vauxhall Bridge was excavated by the Museum of London in 1989 in advance of re-development. The main features recorded were the mid-17th-century barge-house of three city livery companies and the late-17th-century glass-house operated by John Baker. The glass-house was built between 1663 and 1681, was out of use by 1704 and had been demolished by 1706. The report is well presented, in the customary MoLAS format; the illustrations, many of which are in colour, are particularly well reproduced. The book gives a first impression of being a significant addition to our knowledge of post-medieval glass manufacture.

There are however difficulties over the treatment of the evidence, of which the reader should be warned. The excavation archive formed part of the Museum of London's publication backlog for some years, which presented the authors with difficulties over the completeness of the record. A particular problem is the assessment of the main glass furnace, of whose flue depth no record has been found (pp.34-5). Beyond such basic matters of evidence, it is hard to accept some of the conclusions set out in the report. The most important mis-interpretation is over the functioning of the main furnace. The excavated remains resembled the examples at Kimmeridge (Dorset), Denton (Greater Manchester) and Bolsterstone (Yorkshire), all of which possessed air-intake flues built in trenches below siege level. It is stated (p.33) that 'air entered the furnace through the north-western opening, fed the centrally located fire and then exited the furnace through the south-eastern flue.' This is in conflict with 18th and early-19th-century descriptions of glass furnaces, where it is clear that air was drawn through multiple flues by the carefully-designed configuration of the furnace superstructure, with smoke exiting through gathering holes. The authors' unworkable conclusion appears to have arisen from the interpretation of a feature seen only in the north-west flue as the housing for a shutter to regulate the entry of draught. This is not a feature known from contemporary descriptions, but if its function were as envisaged, one has to ask whether such a shutter might also have been placed at the south-east end of the system. This possibility is not discussed on p.35.

The other problem over structures lies in the interpretation of the secondary furnace. The juxtaposition with the main furnace is shown in plan in fig 23 (p.29), where the secondary furnace appears to be so close to the south side of the melting furnace that it would be impossible to operate at the south

gathering holes of the latter if the furnaces were contemporary. There is no published section to illustrate the stratigraphic and chronological relationship of these furnaces. The function of the secondary furnace is stated to be for fritting rather than for annealing, but without convincing evidence.

The treatment of the residues contains significant misunderstandings and omissions. Gall should have been described as a layer of alkali sulphates forming on, and skimmed from, the top of the pot. Lime improves the durability of glass rather than affecting viscosity. The scientific evidence is hard to understand, in particular the extent to which high-lead glasses were present. It is mentioned that results of ICPS (inductively coupled plasma spectrometry) showed low lead content, which subsequent EDX (energy-dispersive X-ray) analysis showed to be incorrect. This reviewer has learned that much scientific work was done at a late stage, as a result of referees' comments, which, regrettably, has not been incorporated in the published report. It is understood that this work will be published in *Post-Medieval Archaeology* in order to set the record straight.

David Crossley  
5 Canterbury Crescent  
Sheffield S10 3RW  
d.crossley@sheffield.ac.uk

### **CORPUS DES SIGNATURES ET MARQUES SUR VERRES ANTIQUES. 1 – LA FRANCE.**

Danielle Foy and Marie-Dominique Nenna (eds.)

Association Française pour l'Archéologie du Verre,  
2006.

Price (including postage in European Union): €53.00  
(Payment by postal transfer).

Available by contacting:  
Nicole Vanpeene, 10 allée de l'Aube – 78310  
Maurepas  
E-mail: vandy78@club-internet.fr

For more information:  
Website:  
[www.institutduverre.fr/Afaverre/afaverre.php](http://www.institutduverre.fr/Afaverre/afaverre.php)

### **LES VERRES ANTIQUES DU MUSÉE DU LOUVRE, II.**

Véronique Arveiller-Dulong and Marie-  
Dominique Nenna

ISBN: 2-350-31037-X  
Paris: Musée du Louvre, Somogy, 2005  
679 pages, 290 mm  
Price: 99 €

For more information:  
Website: <http://www.louvre.fr>

*'Corpus des signatures et marques sur verres antiques. 1 – La France'* is a comprehensive study (245 pages of text, 139 plates) containing essays on the interpretation of signatures and designs on glass vessels and four regional surveys of the material, as well as a descriptive corpus of the signatures and designs on cups and bowls, square bottles and jars, rectangular, hexagonal and Mercury bottles, unguentaria, cylindrical bottles with corrugated bodies found in France, and pieces from elsewhere held in French museums. It is a very useful collection of information and will be an invaluable tool for students of glass in the western provinces.

*'Les verres antiques du Musée du Louvre, II'* is a large book (679 pages), the second of the catalogues of ancient glass in the Louvre, has studied 1349 vessels from the first to the beginning of the seventh century AD. It contains blown and mould-blown pieces from five departments (Greek, Etruscan and Roman; Egyptian; Oriental; Islamic; *objets d'Art*) and these have been arranged in three chronological groups and sub-divided by regions of the Roman world, with a short introductory essay at the beginning of each section. A small section of corrigenda for volume I and 14 additional core-formed and moulded vessels and fragments has also been included (on pages 501-5). There is a great deal of information throughout, and the catalogue entries are clear and detailed. They are accompanied by black-and-white photographs, with some colour plates, and line drawings at the end. The book is a most valuable addition to the growing list of catalogues of ancient glass in museums, and it is very easy to use (though you have to be strong to lift it!)

Jenny Price

## Books

### LE VERRE DANS L'EMPIRE ROMAIN: ARTS ET SCIENCES

Marco Beretta

ISBN: 271185163X  
360 pages, colour illustrations, French  
Cité des Sciences et de l'industrie, Paris, 2006

Price: 39 €

This is the catalogue for the exhibition Art et Sciences  
- Le Verre dans l'Empire Romain (see the review on  
page 5)

### A HISTORY OF GLASSMAKING IN ENGLAND

Hugh Wilmott

ISBN: 0752431315  
Paperback, 208 pages, 16 Colour Pages, 248x172 mm  
Tempus Publishing Ltd, 2005

Price: £19.99

### NEW GLASS REVIEW

The New Glass Review is published annually by The Corning Museum of Glass. Every year invitations are sent worldwide to glassmakers to submit slides of work made during a one-year period and jurors choose 100 slides for publication in the next issue. The publication also includes the Juror's Choice section, where each juror is allowed to choose 'up to 10 examples of work in glass, either recent or historical, that impressed them during the year' and reflects their particular interests. *New Glass Review* 28 has recently appeared and includes work from 20 countries designed and made between 1 October 2005 and 15 September 2006.

To buy current and previous copies of *New Glass Review*, for further information and application forms, please go to the Museum's website: [www.cmog.org](http://www.cmog.org)

### THE NAILSEA GLASSWORKS, NAILSEA, NORTH SOMERSET

Andrew F Smith

ISBN: 1-905223-20-X  
Paperback, 253 pages, 295 x 210 mm  
Heritage Marketing and Publications Ltd, 2006

Price: £40

The Nailsea Glassworks was established in 1788 and ceased production in 1873. The site of the glassworks was developed by Tesco Stores Limited, who sponsored an archaeological study by Avon Archaeological Unit. The product is this publication, which includes an introduction, the results of the archaeological desk-top study, a summary of the known archaeological interventions from 1975-2004, a review of the technology and an account of the human story, describing the economic and social impact. It is well illustrated, with numerous plans and colour figures.

Available from:  
Avon Archaeological Unit Limited,  
Avondale Business Centre, Woodland Way,  
Kingswood, Bristol, BS15 1AW

Tel and Fax: 0117 960 8487  
Email: [avonarch@yahoo.co.uk](mailto:avonarch@yahoo.co.uk)

### Please send your contributions for Glass News No. 21

by  
**7<sup>th</sup> January 2007**  
to:

Juanita Navarro  
Ceramics and Glass Conservation  
Victoria and Albert Museum  
South Kensington  
London  
SW7 2RL  
[j.navarro@vam.ac.uk](mailto:j.navarro@vam.ac.uk)

(Sarah Paynter will be on maternity leave).