

NOVEMBER 2009

Issue 25

Work is in full swing to make Icon's conference in Cardiff next spring a great event and the programme is crammed with interesting lectures, talks, visits and opportunities to network. Read all the details now on the website by going to www.icon.org.uk and clicking on the link on the front page.

But before that, make plans, if you haven't already, to attend the AGM in Glasgow at the end of this month. This event too looks to be well worthwhile, quite apart from the importance of supporting your professional body. Why not combine it with the Plenderleith Lecture the day before? Delivered this year by Neil MacGregor, Director of the British Museum, the lecture is bound to be thought-provoking.

Meanwhile, there are lots of articles within to inform and entertain and one to sadden: the TCC tribute. Above all, read about the Sittingbourne experience of bringing conservation right into the shopping centre. As an outstanding example of advocacy, community engagement, sustainability and recycling, it can hardly be bettered.

Lynette Gill, Editor



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Conservation in the community; red rot research; graduate shows



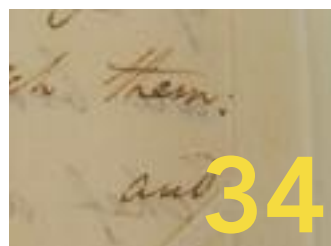
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Cover photo: An Ottoman campaign tent from The State Hermitage Museum in St Petersburg, Russia. This image shows the opulence of the interior of the canopy and the cantilevered end gable. Reproduced with permission Trustees of the National Museums Scotland

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Event listings: 24 November
Adverts: 9 December

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around & about



The Conservation Lab shopfront

CSI:Sittingbourne

Conservation comes to a shopping mall in Kent! When it comes to engagement with the community, it doesn't get more positive than this remarkable enterprise currently running in The Forum, Sittingbourne.

The story starts with an excavation ahead of the construction of a local housing estate. Along with Bronze Age and Roman remains, an important Anglo-Saxon cemetery of 229 graves, containing around two and a half thousand objects, was discovered. Enter Dana Goodburn-Brown of AMTeC, who put together a project to conserve the artefacts with minimum funding, supplemented by persuasion, cajolery and borrowing – of equipment, labour and services – to extraordinary effect.

First, Tesco generously lent two empty shops in the mall (and waived the service charges on them). One of the shops contains an exhibition about the dig and its finds of jewellery, weapons, pottery and glass. Opposite it, and also open to the

Fundraising!



On press day

public, the second premises is set up as a conservation lab (a **C**onservation **S**cience and **I**nvestigation Laboratory, no less). The fixtures and fittings were donated by the Barbara Piasecka Johnson Foundation, recycled from an art exhibition in Warsaw. Other benefactors include Kent County Council, Marston's Inns and Taverns, Sittingbourne Heritage Museum, the Canterbury Archaeological Trust, the Museum of London and the Institute of Archaeology. Donations include lab chairs, six microscopes – four for scalpel cleaning and two for air abrasive cleaning – and, from Rapiscan, an airport scanner to x-ray the finds.

Volunteers to work on the finds came forward after a recruitment drive at two public lectures about the dig and now people walk in off the street and offer their services. The workforce is about fifty strong and from all ages; many only work half a day a week but the lab is manned for six days a week with two shifts a day. Would-be workers are tried out on a practice piece and then given training by Dana but even the uncoordinated or unconfident are found a role, be it tidying

Using the air-abrading machine





At the Opening day

up or hoovering the floor. Dana herself is there to supervise, helped by Icon/HLF intern Katrina Redman.

Visitor numbers have averaged one hundred a day since the opening in mid-September to excellent local press coverage. Monitoring the project has been Natalie Mitchell, a Masters student at the Institute of Archaeology who as part of her studies has charted public opinion both before and after the opening, continuing her contribution even beyond the point where she had handed in her work. She has also conducted surveys of the volunteer workers' reactions before and after the launch. One interesting finding is the shift of opinion as to the purpose of conservation. Before opening, it was thought to benefit academics. Subsequently, people have revised their view, it is for them.

The project is scheduled to run for about five months and the objective in that time is to clean and conserve the finds from half the Anglo-Saxon burials. Ten days have been built in for educational purposes such as school visits and archaeological

Dave Goodburn-Brown in front of the exhibition shopfront



'tool boxes' have been put together as a teaching aid for children. Dana is hoping to raise funds to extend the venture and a second stage would put even greater emphasis on educational projects. In the meantime, an open day is planned for December 5 with Saxon re-enactors and a talk on conservation.

As one visitor noted 'This is first rate. Many more events such as this should be promoted by the local authorities'.

Any old leather?

Samples of old leather, with or without red rot, are wanted by the Leather Conservation Centre (LCC) to use as test samples in a new research project into the leather condition known as red rot. Red rot predominantly occurs in vegetable-tanned leathers from the mid-19thC and is the result of acid attack on the collagen protein fibres and the vegetable tannins. Although it is usually associated with books, it can arise on any leather objects such as chairs or wall hangings.

The LCC, in partnership with the University of Northampton, has recently appointed Anne Lama to research, design and implement a new generation of conservation materials to consolidate and combat this acidic degradation of leather. Anne has an MSc in Leather Technology and is submitting her PhD thesis to the University this month. Her appointment runs for two years and her aim is first to understand the condition and the treatments in use now to combat red rot and then to look for newer, better ones, which will work long-term and be safe for both the object and the conservator.

As part of her research, Anne is keen to talk to and visit conservators, archivists, librarians, bookbinders and anyone else who deals with leather and may have come across red rot. If you would like to help with this project, please contact Anne by email at lcc@northampton.ac.uk. And don't forget to look out for that discarded leather, even small pieces will be gratefully received.

Anne Lama (l) with Yvette Fletcher





At the West Dean show

Sir Henry Cole's legacy

Recent years have seen lots of good things happening at London's Victoria & Albert Museum, with new galleries, refurbishments and re-displays, and last year an annual Henry Cole Lecture was inaugurated to celebrate the institution's founding director. Sir Henry Cole was also the powerhouse behind the Great Exhibition of 1851 and the formation of many famous institutions such as the Royal College of Art, still going strong today. Earlier in his career he worked at the Public Record Office where he became Assistant Keeper and was instrumental in reforming the organisation and preservation of our national archives. So in stark contrast to the splendours of his legacy, it is something of a shock to wander through Brompton Cemetery and come across this neglected site. Are there any guerrilla gardeners out there?

National Gallery bargain

The National Gallery Technical Bulletin, published annually, is a unique record of research carried out at the National Gallery in London, covering all aspects of the conservation, technical study and care of the paintings in the collection. Although the latest issue costs £25, back issues are available for only £5. However, at the recent conference to celebrate the publication's 30th anniversary, (for a review of the event see page 29) it was announced that the anniversary issue will be the last printed version. The next Technical Bulletin will be available free on the National Gallery website and in time the whole back catalogue of the Technical Bulletin will be available online.

Graduate shows

The annual conservation graduate shows at Camberwell College of Arts and West Dean provide a great showcase for recent graduates to show off their expertise, share their

experiences and network with other conservation professionals. This year was no exception, with students from West Dean and Camberwell displaying a very high degree of skills.

At Camberwell's private view on 22 June, in a departure from their usual format, both conservation MA and BA graduates displayed in one show. The show had a very professional and polished look, with new added emphasis on preservation. Books and paper vied with objects from a wide range of conservation disciplines, including ethnographic, textile and photographic material.

On 9 July the sun shone down on West Dean's private view. Students were able to demonstrate their book conservation skills, amid lively discussions of treatment options with visitors, who clearly relished the opportunity of a close-up and personal view of the projects undertaken.

Artefacts on display at the Camberwell show



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Katy Archer, Director of NCCL,
Galleries of Justice Museum

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Icon Conference

24 to 26 March 2010



THE INSTITUTE OF CONSERVATION

Icon is pleased to announce that its first ever conference will be held in Cardiff, Wales' vibrant capital city, to consider the broad theme of UK Conservation – past, present and future. The aims of the conference are to advance and share knowledge about conservation and to provide a forum where conservators can come together and which will provide inspiration and allow you to learn from others. The conference will open in style with a welcome reception at the National Museum Wales on the evening of Wednesday 24 March and an evening reception will be held on Thursday 25 March at Cardiff Castle where delegates will have the opportunity to have guided tours of the recently conserved interiors.

Programme

The first day of the conference comprises plenary sessions and will focus on the two conference themes: evidence based decision making in conservation and a sustainable future for UK conservation. Day two will provide the opportunity for delegates to attend half day seminars hosted by some of Icon's special interest groups that are designed to inspire and stimulate debate.

Trade Fair

A variety of different suppliers and regional bodies will be taking part in the trade fair. Delegates will be able to spend time browsing the stands on both days.

Full details of the programme and the booking form can be found on the Icon website www.icon.org.uk. A link on the front page will take you to the conference page.



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The Castle Keep

Events

In addition to two full days of plenary sessions and lectures, your ticket includes entrance to three fantastic events. On the afternoon of Wednesday 24 March, delegates will be able to take an exclusive behind-the-scenes tour of the newly constructed Glamorgan Record Office before it opens to the public. **Spaces are limited for this event, so please indicate on your Booking Form if you want to attend as soon as possible.** On the evening of Wednesday 24 March, the first of two receptions will be held in the National Museum Cardiff. A second reception will be held at Cardiff Castle on the evening of Thursday 25 March. Both of these events are open to all attendees – **however, it is important to indicate your interest in attending these events on the Booking Form.** Finally, a **PACR clinic** will be held on Wednesday afternoon. Starting at 2pm, the aim of the clinic is to support candidates working on their application and address any queries they have about how to complete their form. If you wish to attend this clinic, please book directly by email to pacr@icon.org.uk

Accommodation

To arrange your accommodation in Cardiff, please go to www.conferencebookings.co.uk using the event code: CDFICON2010

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professional update

ELECTIONS 2009

Don't miss this opportunity to shape the future of the Icon Board. Six members are standing for election this year, manifestos and ballot papers have been sent to all eligible members. Completed ballot papers must be returned to the London office no later than Friday 20 November 2009. The successful new Board members will be announced at the Icon AGM in Glasgow on 26 November 2009.

AGM 2009

And don't miss your chance to attend this year's AGM to be held on Thursday 26 November 2009 at the Burrell Collection in Glasgow. The meeting will start at 13.00 and will finish no later than 16.45. Then there will be a series of talks considering the pitfalls, solutions and opportunities of working on large capital projects. Four speakers will share their experiences:

- Louise Lawson from Glasgow Museums
- Jim Tate - National Museums Scotland
- Nat Edwards – National Trust Scotland
- Jacqueline Ridge - National Galleries Scotland

To book your place please email Charlotte Cowin or call the Icon office on 020 7785 3804. All members are invited to attend and participate.

THE RAFFLE

The AGM is also the occasion when the tickets for the Icon raffle will start to go on sale. See previous Icon News' issues for pictures of the delightful French house which is yours for a week if you win. Or look on the website www.newbigin.demon.co.uk for lots of information about the house, its grounds and the surrounding area and sights. Don't forget that the number of tickets on sale is limited, so round up family and friends to take part and increase your chances of winning!

MORE INTERNSHIPS TO COME

Good news! Icon is very pleased to have been awarded £490,000 to provide twenty additional conservation internships. On 5 October, the Heritage Lottery Fund (HLF) announced seven projects, under its existing Training Bursary Programme, that are set to benefit from an additional £2.85m investment – creating an extra 220 training places overall up to March 2012. Icon is very pleased to be included in this extended scheme. HLF's £7m Training Bursary Programme, originally launched in 2004, has been a resounding success, and Icon has maintained an excellent track record within the programme, with a 98% success rate for those completing placements going on to secure jobs or further training in conservation in the UK. Icon's programme will continue to ensure that half of the placements are offered to those from more diverse backgrounds, targeting those without formal conservation training. Icon is committed to opening up new

routes into the profession by providing these pre-training work placements alongside the more traditional graduate internships. We will announce details of the new scheme in the next few weeks on the Icon website. For further information about the wider HLF programme, see: www.hlf.org.uk/hlfbursaries.

ICON AT THE MA CONFERENCE

Icon was well represented at the Museums Association Conference held at London's QEII Conference Centre in early October. Alison Richmond reports on the session organised by Icon on the theme of 'Making Conservation Public' on page 26. Michael Day, the Chief Executive of Historic Royal Palaces was our keynote speaker and other speakers presented short case studies to show the range of ways that engaging with conservation can benefit audiences and museums.

Icon also held its annual Interns Exhibition at the trade fair attached to the conference. All our Year 3 interns produced excellent posters for display and a small group of them were on hand to meet visitors to the stand and talk about their experiences of the preceding year. We have found over the three years of the scheme to date that producing a poster is a good way for interns to sum up feelings and reflections about their time as an intern; a way of measuring the true impact of the year. (A lesson here perhaps for any students thinking of entering the Cardiff Conference student poster competition?)

From the office Charlotte Cowin and PACR Administrator Susan Bradshaw also took their turn at manning the stand. Despite stiff competition from other stands giving away fairy cakes, they handed out lots of Icon literature (the Care and Conservation of... leaflets), made good contacts and report that there was great interest in the student posters, the variety of intern placements and other Icon activities such as the accreditation scheme and the conservation register.

The busy Icon stand at the MA Conference





At the Imperial War Museum's Family History Weekend in Esher in September, Dubravka Vukcevic from the Icon office (I) with IWM's Ros Whitford promoted the Conservation Register and the Care of... leaflets. Particular interest was expressed in textiles (old wartime uniforms), medals and photographs.

OFFICE MOVES

The Icon Training Office in Edinburgh has finally moved. Please make a note of our new address and particularly the telephone number, **which is now different from those previously advertised**:

**Icon, The Glasite Meeting House, 33 Barony Street, Edinburgh, EH3 6NX
0131 556 2289**

Congratulations also to Training Office Administrator Gillian, who was married in September – and has now changed her name to Gillian Joyce. You can email her at gjoyce@icon.org.uk

MUSEUM CARBON FOOTPRINTS

The National Museum Directors' Conference (NMDC) has recently published a set of guiding principles for reducing museums' carbon footprint. These guidelines, developed in consultation with UK conservators and a range of other stakeholders, have been approved by NMDC directors and adopted as NMDC policy on environmental conditions for collections. It is hoped that NMDC member commitment to the guidelines, indicating a move towards a less energy intensive approach to collections care, will send a powerful signal to other stakeholders such as policy-makers and funders that they can take a less rigid, more intelligent approach to the issue. The guidelines were supported by members of the European Bizot Group (which comprises directors of the world's leading museums and galleries) at their last meeting in May and were to be discussed at a meeting of the international Bizot Group in October. The outcome, at the time of Icon News going to press, is not known. More information is available on the NMDC website: <http://www.nationalmuseums.org.uk/news/?item=guiding-principles-reduce-carbon-footprint>

VOLUNTEERING

In our last issue one reviewer lamented the lack of information about what motivates volunteers in the heritage sector. A reader has brought to our attention a report by Adrian Babbidge of Egeria, who was commissioned by AIM (Association of Independent Museums) to research and present on the topic for this summer's AIM conference. The report makes thought-provoking reading on the strategic issues to affect volunteering in the years ahead. It can be found at www.aim-museums.co.uk under the AIM Conference & Events heading.

NHSS REPORT

In September, the last of three reports written to underpin the development of a UK-wide strategy for heritage science was produced and is now available to download from the National Heritage Science Strategy website www.heritagesciencesstrategy.org.uk.

This third report is about understanding capacity in the heritage science sector. It reviews the numbers of heritage scientists working and considers what they do and where they work. It explores gaps in capacity where demand exceeds current provision, along with arrangements for funding and training. A range of recommendations are drawn into three general themes which cover practitioner capacity and capability; access to information and infrastructure; and funding and its public benefit.

The first and second reports are also still available on the



website, along with two documents summarising responses to these reports. During October and November the steering group has been working to develop some preliminary ideas about the strategy itself. These emerging ideas are to be explored at a stakeholder meeting on 25 November at the New Armouries in the Tower of London and following the meeting the strategy will be produced and published.

If you would like to know more about the third report, the strategy development or the stakeholder meeting, please get in touch with the coordinator Jim Williams (nhss@english-heritage.org.uk).

QEST DEADLINE

The next deadline for applications to the Queen Elizabeth Scholarship Trust for spring 2010 scholarships is 8 January 2010. Application forms for QEST Scholarships can be downloaded from the QEST website: www.qest.org.uk or send a SAE (76p) to: The Secretary, The Queen Elizabeth Scholarship Trust, No.1 Buckingham Place, London, SW1E 6HE.

The Queen Elizabeth Scholarship Trust (QEST) was endowed by the Royal Warrant Holders Association to advance education in modern and traditional crafts and trades in the UK. Scholarships of up to £15,000 are open to men and women of all ages and are awarded twice a year. Since 1991, the Trust has awarded £1,343,570 to 208 craftsmen and women aged between 17 and 50+ to develop their skills through study, training and work experience. This summer, eight awards were made totalling £58,570 and you can read about recent winner and Icon member Catherine Dand on page 10.

DEVELOPING YOUR CAREER

Surprisingly few of us take advantage of the career development opportunities on offer. We all recognise that it is necessary to plan and undertake activities that will enhance our skills and increase our professionalism, but few of us are systematic in how we improve our career prospects and develop our professional standards.

We all know that conservation is a continuous learning process which must be led by our own professional needs and individual vision. A structured approach to Continuing Professional Development (CPD) helps all of us to maintain high standards, to achieve accreditation, and thereafter to retain our accredited status. However, many of us struggle to identify or obtain training to match our needs.

To increase awareness of career planning and continuing professional development, Icon has formed a working group to encourage conservators at all career levels and in all sectors of employment. Working group members are conservators who represent both the public and private sector, from beginners to experts. It is hoped that the broad

insights this group can offer will help guide practical solutions to the challenge of encouraging greater training activity and professional development amongst conservators.

The working group aims to

- increase awareness of the importance of CPD,
- enable Icon to provide CPD information and support to individuals and institutions on how their training needs may be met,
- sustain existing links with employers,
- build new links within and outside the profession.

The first objective of the working group is to provide materials on Icon's website for Developing your Career in Conservation that can be accessed by all, and supplemented in future.

These will include an interactive 'route map' to help conservators, or would-be conservators, at any stage in their career to identify appropriate opportunities for experience and training. The group is also developing web pages and a leaflet about careers in conservation aimed specifically at school leavers and career-changers.

Also in progress is the compilation of information about types of training courses useful for developing generic skills, including examples of courses in different parts of the country from which other conservators have already benefited.

For the future, the working group will encourage Icon specialist groups to organise more learning opportunities for their members, set up informal learning groups, and a 'buddy' system to support interest in accreditation. This might evolve into a mentoring scheme for Icon members at every stage of their career, involving specialist groups and employers. If resources and expertise allow, Icon might develop a web forum where you can post requests and queries about training provision, and information about formal and informal training opportunities you have identified.

In consultation with both professionals and employers, in the public and private sectors, the group aims to identify gaps in available skills and training. To encourage specialist skills to be passed on and developed for future generations, the group will work with external training providers which run CPD courses to provide courses in a modular form to fill skills shortages, for example in preventive conservation, integrated pest management, architectural glass and ceramics.

What do you think of these ideas? If you have views on what the working group should tackle first, and suggestions as to how this could be done effectively in the current economic climate, please email Helen Lloyd, Helen.lloyd@nationaltrust.org.uk, or speak to other members of the Working Group, Liz Pye, Allyson Rae, Sandra Smith, Emily Deacon, Sarah Peek, Isabelle Egan, Jenny Jacobs, Robert Turner and Susan Bradshaw.

WHAT'S NEW IN THE CHANTRY LIBRARY

After a busy Summer settling in here in the Chantry Library I am pleased to say we have received some very exciting new additions to the collection. Please let me know if you are interested in any of the journal articles, and would like copies (Icon members are entitled to ten free articles each year), or would like to find out more about the books featured below.

Also, as Autumn is the time of year for getting back into the reading and research for the darker and colder nights up ahead, you may want to plan a visit to the Chantry Library seeking inspiration and to check out our resources for yourself. Appointments to visit can be made by emailing chantrylibrary@icon.org.uk

Thank you to everyone who responded with feedback about library services. I am currently drafting a strategic plan for the library so all your comments, ideas and suggestions have been very helpful.

Ros Buck, Librarian and Information Manager

Restaurator, Vol.30, No.3 2009

- *IT supported Long Term Risk Analysis for the Savigny Estate at Marburg University Library* by Ulrike Hahner and Bernhard Seeger.
- *Survey of Historical Manuscripts Written with Iron Gall Inks in the Slovak Republic* by Josef Hanus et al.
- *The impact of Conservation Pressure Flattening on the Dimensions of Machine-Made Paper* by Salvador Muñoz-Viñas
- *Visible (420–720 nm) Hyperspectral Imaging Techniques to assess Inks in Historical Documents* by Douglas Goltz et al.
- *Advantages and Disadvantages of Various Techniques for the Visualization of Watermarks* by Peter Meinschmidt & Volker Margner

Studies in Conservation, Vol.54, No.3, 2009 **Articles**

- *ARTIC-1: A New Humidity Buffer for Showcases* by Ivan Glaznev et al.
- *Early Viridian Pigment Composition: Characterization of a (Hydrated) Chromium Oxide Borate Pigment* by Stefan Zumbuehl et al.
- *A Nineteenth-Century Colourman's Terminology* by Mark Clarke
- *Expanding the Conservation Canon: Assessing Cross-cultural and Interdisciplinary Collaborations in Conservation* by Robyn Sloggett

Studies in Conservation, Vol.54, No.3, 2009

Book Reviews

British Museum Technical Research Bulletin edited by David Saunders, Archetype, London (2007-), ISSN: 1755-814X (**copy in Chantry Library**)

East Asian Paintings: Materials, Structures and Deterioration Mechanisms by John Winter, Archetype, London (2008-), ISBN: 978-1-904982-31-9 (**copy in Chantry Library**)

Tapestry Conservation: Principles and Practice edited by Frances Lennard and Maria Hayward, Butterworth-Heinemann, Oxford (2006), 978-1-7506-6284-3 (**copy in Chantry Library**)

Art Technology: Sources and Methods: Proceedings of the Second Symposium of the Art Technological Source Research Working Group edited by Stefanos Kroustallis et al., Archetype, London (2008), ISBN: 978-1-904982-29-6 (**copy in Chantry Library**)

Plant Biology for Cultural Heritage: Biodeterioration and Conservation edited by Giulia Caneva et al. Getty Conservation Institute, Los Angeles (2008), ISBN: 978-0-89236-939-3 (**copy in Chantry Library**)

Plastics: Looking at the Future and Learning from the Past edited by Brenda Keneghan and Louise Egan, Archetype, London (2008), ISBN: 978-1-90482-43-2

New Books – recent additions to the collection include:

Conservation Legacies of the Florence Flood of 1966: Proceedings of the Symposium Commemorating the 40th Anniversary, edited by Helen Spande, Villa La Pietra and the Conservation Center of the Institute of Fine Arts, New York University, Archetype Publications, (2009), ISBN: 978-1-904982-44-9

Indigo by Jenny Balfour-Paul, Archetype Publications, London, (2006), ISBN: 1-904982-15-8

Dyes in History and Archaeology 21 (including papers presented at the 21st meeting), Avignon ND Lauris, France edited by Jo Kirby, 2008, Archetype Publications, London, (2002), ISBN: 978-1-904982-07-4

For a full listing of these papers, please email Ros at: chantrylibrary@icon.org.uk

East Asian Paintings: Materials, Structures and Deterioration Mechanisms by John Winter, Archetype, London (2008), ISBN: 978-1-904982-31-9

people

NEW LCC HEAD

Congratulations to Yvette Fletcher recently appointed Head of Conservation at the Leather Conservation Centre in Northampton. Yvette has been Acting Head for much of 2009 whilst Aline Angus has been on maternity leave. The LCC's Council has now made Yvette's appointment substantive following Aline's decision to take time off work to enjoy her family.



RETIREMENT AT SCIENCE MUSEUM



Hazel Newey, Head of Conservation and Collections Care at the Science Museum, retired on 30 September 2009. She joined the Museum in 1993 as the first Head of Conservation in the newly formed Collections Services Group led by Suzanne Keene.

After graduating in chemistry, she went on to Museum Studies at Leicester University, specialising in the history of

science and contemporary collecting. In 1972 she joined the British Museum as an assistant conservator and trained part-time at the Institute of Archaeology under Ione Gedyne and Henry Hodges. One of her first tasks was treating finds from the 1939 excavation at Sutton Hoo in Suffolk, including 3000 iron rivets, which led to her adopting a pragmatic approach to iron conservation. In 1981 she became Head of Metals Conservation, leading a section that conserved metalwork from all periods and regions and was one of the few places carrying out restoration techniques in the museum sector. This was highly contentious but necessary with certain types of objects. Together with colleagues from the Victoria and Albert Museum, Royal Armouries and National Maritime Museum Hazel formed the UKIC Metals section, and was the first chair, bringing together private and public sector metals conservators to share information.

When she joined the Science Museum the section staff consisted of engineers and woodworkers trained in conservation theory and practice on a specialist course devised by Ann Moncrieff. The Museum is famous for its working historic exhibits and their skills were essential to maintain these. In addition there were trained object conservators to supply preventive and practical conservation knowledge and skills; over the years, their numbers have increased to deal with the diversity of the Museum's

collections, including modern materials like plastics. The interaction and exchange of knowledge and skills between conservators and engineers was seen as key to the development of the section. In 1997 the Museum was joint winner of the Conservation Award for the conservation of the first car in the collections, the 1895 Panhard et Levassor. In 2000 the section took on a major role in managing the hazardous materials in the collections. In 2004 they acquired overall responsibility for storage and movement of the collections.

During her career Hazel has been an external examiner for the V&A/RCA MA course and for Metalwork Conservation at West Dean College, where she is currently a programme advisor. She sat on the validation panel for collections management and conservation courses for CHNTO and was metalwork advisor for the Council for the Care of Churches from 1984-2004. Hazel has given papers and taught courses in England and abroad on a range of topics from archaeological and industrial conservation, management of collections and ethics of conservation. She is intending to maintain her links with conservation during her retirement so you may continue to see her at meetings and conferences.

OCC NEWS

Conservators at the Oxford Conservation Consortium welcomed Arthur Green to the studio in early October. Arthur received the Post-graduate Diploma in book conservation from Camberwell College of Arts, then went on to complete a three-month internship at the Leather Conservation Centre in 2008, focussing on a collection of stationery bindings. He then moved to the British Library as one of Icon's Heritage Lottery funded interns, working at the Conservation Centre for a year.

At OCC, Arthur will gain experience of working within established collection care programmes and of the rich library

Katerina Powell and Arthur Green at work





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and archive collections of the Oxford colleges. Through working on these diverse collections, Arthur will be able to develop his conservation skills in a unique environment as well as share his experience and enthusiasm with existing staff.

Arthur fills the post left vacant by Maria Kalligerou and Katerina Powell, both on maternity leave for 2009/10.

QEST AWARD

Congratulations to Icon member Catherine Dand, from York, who has been awarded a £6,000 Queen Elizabeth Scholarship to fund the final three modules of the Society of Archivists' Certificate in Archive Conservation. Catherine is currently a conservation assistant at the Borthwick Institute at the University of York working on a Heritage Lottery funded project, run in conjunction with Harwood House Trust, to conserve, preserve and make publicly available the 18th and 19thC slavery records in the Lascelles Barbados Archive. 'The function of my post is to conserve the paper documents in the archive,' explained Catherine, 'under the tuition and supervision of the Borthwick senior conservator Trevor Cooper.' Winning a QEST Scholarship will enable Catherine to complete the final three modules, within an apprenticeship-style course, with placements on Maps and Plans, Parchment and Bookbinding at various specialist archive conservation departments around the country.



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VISITING PROFESSOR AT UAL

In recognition of his outstanding contribution to research in conservation science for over thirty years Dr Vincent Daniels has been made a visiting professor of the University of the Arts London. Dr Daniels gained his BSc and PhD at University College Cardiff. In 1974 he joined the British Museum where he worked until 2003 when he became research fellow at the RCA. He is also currently an Emeritus Researcher at the British Museum. In 2007 he was awarded the Royal Warrant Holders Association's Plowden Medal 'in recognition of his long and exceptional contribution to the development of understanding in conservation, the excellence of his dedicated research and his ready engagement with practitioners of the conservation profession'. His research has dealt with a wide range of subjects in conservation including paper conservation science, pigments, Maori textiles and the Rosetta Stone and he is the author or co-author of many published research papers. Dr Daniels has a long association with Camberwell College of Arts where he has acted as external examiner and given lectures.

Dr Daniels is a fellow of the Royal Society of Chemistry and the International Institute of Conservation.





Goodbye t

The Textile Conservation Centre was closed by the University of Southampton on 31 October 2009. This feature records some of the Centre's achievements and will bring back memories for those who've known the TCC. You can find out more at the TCC's new website, which provides a 'gateway' to the TCC Foundation, to former TCC staff, and to lots of information, e.g. on research and publications: www.textileconservationcentre.co.uk

The TCC was founded by Karen Finch OBE in 1975 and she was its Principal from 1975 to 1986. Mette Tang Simpson was appointed as the TCC's first Director (1986–1988), followed by Dinah Eastop (1988–1991) and Nell Hoare MBE (1991 to 2009). For the first twenty four years the TCC occupied Grace and Favour apartments at Hampton Court Palace. It was run as an independent charitable trust and its Postgraduate Diploma in Textile Conservation, validated by the Courtauld Institute of Art, trained 167 textile conservators.

In 1998 the TCC merged with the University of Southampton and in 1999 relocated to a purpose-designed building on the University's Winchester campus. This development ensured the TCC's continued existence for another decade. The TCC raised over £1.7m towards the costs of the relocation and in the following ten years raised more than £2m for bursaries, research and equipment. The Centre's Trust became the TCC Foundation and continued to support the Centre's work, notably by assisting in fundraising and in administering bursary funds.

A new MA Museums & Galleries (led by Mary Brooks) was developed alongside the MA Textile Conservation (led first by Alison Lister and then, from 2002, by Frances Lennard) which was evolved from the previous Diploma. The Centre pioneered the integrated teaching of conservators and curators. This was further enhanced when the MA History of Textiles and Dress (developed by Barbara Burman and Lesley





o the TCC

Miller) became one of the museum studies pathways. From 1999 to 2009, 86 students graduated from the MA Textile Conservation and 140 graduated from the MA Museums & Galleries. The TCC developed a thriving PhD culture in its last decade, building to twelve MPhil/PhD students; nine graduated before the TCC closed, the remainder are completing their studies now.

In the past seven years members of the TCC's staff have published over 230 papers, edited volumes and books. Six years ago Dinah Eastop secured an Arts and Humanities Research Council (AHRC) grant of nearly one million pounds to establish the AHRC Research Centre for Textile Conservation and Textile Studies (2002-2007). Dinah was the Centre's founding Director with Maria Hayward as one of three Associate Directors; they swapped roles in 2004. The resulting research was praised as outstanding. Jerry Podany, President of the IIC, memorably described the TCC as 'A National Treasure for Britain on which other National Treasures depend' and in a speech in June 2009 Lord Douro, Chairman of the TCC Foundation finished by saying:

'I will conclude by a further quote from the assessors of the AHRC Research Centre for Textile Conservation and Textile Studies which I think sums up this wonderful small institution which tonight we celebrate and mourn. "Excellent value for money. It has produced work which is not only of high academic quality but it has become recognised as the National if not the International Centre of Excellence for this work".'

The TCC Foundation continues to work to find a future for key aspects of the Centre's work and will post any news on www.textileconservationcentre.co.uk; these efforts are being led by Deputy Chairman Peter Longman. The TCC staff were made redundant by the University on 31 October 2009, but you can contact them through this website.



Tales from the Tent

Charles Stable ACR, of National Museums Scotland, describes how the installation of an Ottoman campaign tent from The State Hermitage Museum, was planned and carried out

The Royal Museum of Scotland has been the primary venue for the National Museums Scotland's (NMS) flagship temporary exhibitions, hosting both developed in-house exhibitions and prestigious international loan exhibitions. In the summer of 2006 NMS collaborated with The State Hermitage Museum in St Petersburg to exhibit a selection of their Islamic art collections to tie in with the 2006 Year of Islam, under the title *Beyond the Palace Walls: Islamic Art from the State Hermitage Museum*.

In December 2005 I had the great privilege to be part of a small team from NMS to visit The State Hermitage Museum to see the Islamic collections and develop the concept and content of the exhibition. My own role was specifically to identify and resolve technical and logistical problems involved with the handling, protection and display of the objects. The team spent a week working closely with Dr Anton Pritula, of the Department of Oriental Art, touring displayed exhibits in the Winter Palace and also collections in the new state of the art collections repository.

Some earlier discussions between the two institutions had progressed ideas for the content and the State Hermitage were very keen to lend tents from their Turkish and central Asian collections as a centrepiece to the exhibition. During the visit we were given access to their tent collection and we spent half a day examining six or so tents laid out for us with curators and State Hermitage conservators.

We had to decide what pieces of the collection might be practical and appropriate to lend based on the provenance, condition of the pieces and the physical logistics of installing the tents in the Royal Museum's 500m² temporary exhibition space. Weighing up these factors, two tents were selected for the exhibition content: an 18thC Ottoman campaign tent and a 19thC Bukhara tent. Neither tent had ever been exhibited before.

The tents comprise canopies and long wall sections; due to space limitations within the temporary exhibition gallery it was agreed to display one wall section of the Bukhara tent without the canopy, as the canopy and walls together were far too large – a wall section being over nine metres long.

The Ottoman campaign tent was of almost perfect dimensions to erect and display complete and fit as the central focus of the exhibit layout. Developing a system for displaying it and to make it physically and visually accessible to public visitors became the main challenge for the NMS exhibit team. As this would be the only opportunity we would have to see the tent before its arrival in Edinburgh six months later, we spent a long time making careful measurements of the whole tent and its elements.

The campaign tent had been acquired by the State



NMS staff deliberate over tents at the Hermitage Repository Carriage store, with the canopy and walls of the Bukhara tent in the background.

Hermitage Museum in 1931 from the Stables Museum which in turn had acquired it in 1842 from the Russian military. It is likely that the tent was used in military campaigns by both Turkish and Russian armies in the late 18th and early 19th centuries. It followed typical Ottoman Turkish campaign tent construction, being of a marquee type arrangement with an A-Frame canopy (6m long by 2.4m metres high) traditionally supported by two internal poles. The walls comprised of three sections 1.7m high, two of them were 7m long and a third just under 4m; the sections were attached to the canopy by a loop and toggle system. The tent was constructed with an inner and an outer layer of fabric, the exterior being a plain green canvas support lining with a band of appliqué coloured silk chevrons. The interior, however, is very opulently decorated in silk, cotton and wool, with a variety of embroidery and appliqué work ornamenting the walls and canopy. According to Marina Denisova, the State Hermitage conservator who worked on the restoration of the tent, the tent had undergone



The canopy support built in situ at the Royal Museum, Edinburgh

some 19thC interventions and major re-sewing.

At the Hermitage repository facility the staff had another Ottoman State Tent, presented to Catherine the Great, erected and on permanent display and which was also accessible. It can be viewed through the Virtual tour created on the State Hermitage website (address below). This Tent was mounted on a support frame constructed from aluminium glazing profile, with the interior wall sections fitted with glazing which enabled visitors to walk inside and view the opulence of the needlework without risk of physically damaging the textiles, secure behind the glass, it also negated the need to use the traditional pole supports which would hinder public access. In seeing this mounting arrangement we hoped we could emulate it in some way in our exhibition within the financial constraints of our exhibition budget.

BALANCING PUBLIC ACCESS WITH PHYSICAL PROTECTION

In agreement with the State Hermitage we had proposed that the interior walls would be protected by glazing but neither the exterior walls or interior canopy section would be glazed. Thus we had to develop a method and demonstrate to the State Hermitage that we could allow public access within the tent and provide adequate physical protection during display.

The low height of the tent walls brought the canopy eaves down below head height for a 6ft adult visitor and in easy touching distance for most average adults, presenting us with an interesting challenge. We resolved this by proposing to

Hinged tube connectors from Plastic Parts Centre used to construct the A-frame



Lifting the canopy over the framework



Hoisting the canopy and frame



Installing temporary supports after fitting the canopy onto the uprights

mount the tent on a U shaped stage; this would elevate the walls and canopy an extra 40 cm in height and set the walls out of arm reach of the majority of the public. The use of the stage created a single two metre wide reveal which would be not covered by the tent walls, allowing the public to walk in and giving Visitors Service staff an unrestricted view inside. Extending the width of the U stage and erecting height barriers which doubled as label text holders meant that we could effectively protect the exterior of the tent from the public without the need for completely glazing the outside.

The overall footprint and height of the stage would be dictated by the area covered by the tent canopy and by our restrictive ceiling height of four metres available in the gallery. The angle of the pitch of the canopy became critical in establishing the stage foot print: a 70° pitch provided the best



The tent installed with walls in place

solution for allowing the tent to fit within the height allowance, keeping the canopy eaves out of touching distance of the 6ft adult and providing an acceptable sized floor space within the tent for public access (including those with disabilities)

DESIGNING AND CONSTRUCTING THE SUPPORT

The next problem was to source and design a framing solution which would be able to support the tent adequately, could be easily adapted, would be possible to glaze, and could be constructed in-house. 25mm aluminium square tube was found to be the ideal solution. The tubing is readily available from local metal stockists and companies such as RS Components, who also supply plastic tube connectors to create rigid, strong joints and frameworks. We felt that this system would be strong enough and bear the weight but not be too visually distracting. But it still left a problem with creating the angle for the canopy A-Frame as RS Components only sells right angle connectors. Fortunately we were able to source hinged tube connectors through Plastic Parts Centre. These connectors available in 2, 3 and 4 way variants allowed us to create an adjustable A-frame. The appropriate number of lengths of tubing and connectors were ordered in advance based on the frame design and spray painted to match the design colour scheme. 12mm acrylic sheet was used for the interior glazing.

MOUNTING AND INSTALLATION

As with all installations it was important for us that everything was in place and that the mounting and installation of the tent worked first time so as to minimise direct handling of the object itself. The exercise was planned with this ethos in mind

and as much of the preparation that could be done before unpacking the tent had been carried out in advance.

With the stage for the tent constructed, painted and in place it was time to assemble the components of the framework and erect the tent. The tent canopy was unpacked so that final verification of the measurements could be made to calculate the exact length requirements for each section of tubing. This was done in the Royal Museum Main Hall before public opening; the hall provided the advantage of large free floor space in which to lay out the tent parts. The unpacking was carried out under the supervision of Marina Denisova who was part of the courier party.

The installation went as follows: the square tube was cut to size and the A-frame to support the canopy was assembled in situ in the exhibition space at floor level. The tube for the uprights were also cut and secured to the U stage. The canopy framework consisted of three pairs of rafters and floor ties connected together and which would be supported on the stage by eight uprights. A trial run of fitting the A-Frame to the uprights was then carried out to ensure a good fit. It also acted as a test to ensure that we would be able to dismantle the frame easily during exhibition de-installation. The A-frame was brought back down to floor level. Light cabling was fitted to the frame and thin strips of Plastazote foam cushioning secured to the metalwork where the textile would be in direct contact with the frame. Only at this stage was the tent canopy fitted over the A-frame and then the whole assembly was lifted onto the upright supports already mounted onto the U stage.

The fit of the canopy on the frame could not have been better, the rafters provided adequate support and prevented the canopy and the delicate needlework from either sagging too much or being over tensioned. For us it was one of the



Exterior review of the tent installed



Interior detail of the tent

most satisfying moments of the whole operation. The draping of the canopy involved eight people positioned inside and at each end and side of the A-frame. In practice it was felt that hoisting up the whole canopy already on its frame from ground level was much safer than attempting to work at height to drape the canopy over a ready built frame.

The calculations for height of the tent had left us with a very minimal clearance of 50mm between the canopy ridge and the gallery lighting track therefore the hoisting of the frame had to be undertaken with due care to avoid collisions. Some areas of the framework, particularly on joints of the A-frame were quite weak, and doubling up of some sections of the wall framing was necessary to impart extra rigidity.

Temporary stays were put in place while the Perspex glazing was fixed with self tapping screws to the outer face of the square tube uprights. The wall sections were then unpacked and attached using the existing toggle and loop system.

One problem that we could not successfully resolve until actual installation was the appearance and positioning of the gable ends. Contemporary illustrations of Ottoman campaigns suggested that the gable ends of the canopy and of the walls should taper out at the bottom edges, and our measuring and seeing the canopy in its two-dimensional state at the State Hermitage confirmed this; however in practice, once erected, we could not work out how the walls would then be configured. The State Hermitage had resolved the display of the Catherine the Great tent by simply dropping the ends vertically. In the end we decided on a compromise position, leaving the gable at the closed end flat, but, with some additional poles and hinged connectors we constructed a cantilevered support for the gable at the reveal opening. This had the added bonus of raising the height of the gable end keeping it well out of arm's reach of the public and exposing more of the detail of fine embroidery work.

Three suspended lanterns fitted with 40W tungsten bulbs were used for internal illumination to complete the internal ambience within the tent.

OUTCOMES

The tent became the real star of the whole exhibition, which itself received very high critical acclaim. Its interior became a focus for education and cultural activities, particularly for children, including poetry reading and music. The design of the external barriers around the tent provided an excellent support for text labels which would not necessarily be readable in the less well lit interior and there was enough

space to incorporate extracts and illustrations from middle eastern and near eastern literature entitled 'Tales from the Tent'. In all, it was very rewarding to see how the input and skills from the conservation profession could be used to make a display which might otherwise be accessible by a limited number of people, one in which the public could completely engage but at the same time adequately supported and protected for the duration of the three month exhibition. This was also the first time that staff from the State Hermitage had seen the tent erected and presented in an exhibition.

Currently the Royal Museum is partially closed for a major refurbishment; this includes our main temporary exhibition space. However, in 2011 the Royal Museum will reopen with major permanent gallery redisplays and a new 800 m² temporary exhibition facility. This new space will provide a venue that will allow us greater capacity and provide NMS Conservation with similarly interesting installation challenges as faced with the Ottoman Tent in *Beyond the Palace Walls*.

Acknowledgements

To make the plan of installing and mounting the tent a reality involved a cross disciplinary team which involved artefact and textile conservators, curators, designers, joiners and exhibition managers from both NMS and the State Hermitage. From the State Hermitage I would like to acknowledge Dr Anton Pritula, Lead Curator and Marina Denisova, conservator responsible for the conservation of the tents. From NMS I would like to acknowledge the exhibition design and technical team, Maureen Barrie, Exhibition Officer, Ulrike Al-Khamis, Lead Curator, Charlotte Hirst, Lead Designer and the NMS Joiners particularly Norman Proudfoot and Stephen Anderson who worked on building the tent staging and framework.

Further Reading

A fuller description of the provenance and techniques used in the creation of the Ottoman campaign tent and the Bukhara tent can be found in the Exhibition catalogue for *Beyond the Palace Walls: 'Beyond the Palace Walls, Islamic Art from the State Hermitage Museum'* NMSE Publishing 2006

Online access to the Hermitage Museum
www.heritagemuseum.org/html_En/index.html

A virtual tour of the Hermitage Repository Collection including the Catherine the Great State tent can be found at
www.heritagemuseum.org/html_En/08/hm88_6_2_4.html

Materials and Suppliers

25mm Aluminium square tube: RS Components Ltd. PO Box 99, Corby, Northamptonshire NN17 9RS www.rswww.com

Metal Supermarkets, 7 Kelvin Sq, Pumpherston, Livingston, EH54 5PF
www.metalsupermarkets.co.uk/

Square Tube connectors: RS Components Ltd. (as above)

Hinged Square tube connectors: Plastic Parts Centre, Unit 2, St Lukes Business Estate, St Luke's Place, Glasgow G5 0TS, www.plastic-parts.co.uk

3mm Plastazote: Paulamar Company Ltd, Woodilee Industrial Estate, Woodilee Road, Kirkintilloch, Glasgow, G66 3TU www.paulamar.co.uk

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CLARE HAMPSON SCHOLARSHIP FUND PUBLICATION GRANT

Clare Hampson was a founding member and Secretary of the Institute of Paper Conservation for over twenty years before her untimely death in 2002. She was deeply committed to promoting professional development opportunities as demonstrated by her generous legacy 'to provide for an annual scholarship for the study of paper conservation'.



To support this aim, an innovative programme has been launched to encourage individuals engaged in the field of book or paper conservation, or in related activities, to enable them to complete an article or a chapter of a book to peer reviewed publication standard.

Applications are invited by authors with advanced drafts based on completed research. Funding can be sought to support time away from work, travel, subsistence, translation and/or illustration costs. The award panel is keen to support individuals who have not yet published and, to facilitate this, editorial support and mentoring may be provided to successful candidates. Grants can be sought of up to £3,000.

Further information and application forms can be downloaded from www.icon.org.uk and returned electronically to sophie@zedat.fu-berlin.de by **31 December 2009**.

Successful applicant(s) will be informed by **1 March 2010**.

If you have any questions please contact Sonja Schwoil sophie@zedat.fu-berlin.de.

news from the groups

ARCHAEOLOGY GROUP AND CARE OF COLLECTIONS GROUP

A date for your diary – The AG and CCG are joining forces to hold a Christmas meeting and Party on Wednesday, December 16 at the Institute of Archaeology, London. The afternoon meeting will be on the theme of 'Less is more! – a sustainable conservator's mantra?'. If you would like to contribute a talk on this topic, please contact Jim Spriggs on spriggs.conserve@hotmail.co.uk. The meeting will be followed in the early evening by the traditional Christmas Party! Full details will be sent out later, via Iconnect.

BOOK AND PAPER GROUP

The Summer may be over but the sun is still shining in the hearts of all the BPG Committee members. Following on from our last Committee Meeting in June we have been working hard to update the website and plan events. Work has started in earnest for the CF10 conference. We are planning two sessions on the second day. We have been contacted by the **Photographic Materials Group** and they will join in with us and organise a few talks that will take place within our sessions. It is looking like a very exciting programme with talks on book, paper and photograph conservation.

The title for our sessions is *Did it work? – Review of Materials and Techniques*. Sonja Schwoil is taking the lead on this so e-mail her directly on sophie@zedat.fu-berlin.de.

Do not forget that you can still apply for the Clare Hampson Scholarship Fund. The deadline is 31 December 2009. Please use the existing form on the web.

The Groups are generally working more closely with the office to concentrate on those issues which affect the members most.

Please do contact me if you have any comments/ideas on caroline.checkley-scott@manchester.ac.uk

PAINTINGS GROUP

The Paintings Group would like to encourage our members to visit our section of the Icon website. We have recently added some new links on our resources page as well as Heida Liang's presentation 'Imaging Science in Conservation – Current Developments and Future Prospects' from our annual conference in April 2009.

Over the course of 2009 we presented five talks at the Icon Offices alongside the annual conference 'Seeing Further: An Overview of Advances in Digital Imaging and Investigations'. We are already planning our talk series for 2010 so if anyone has or knows of an interesting project, or would like to propose a suitable speaker, please get in touch. In 2010 we will not be organising a Paintings Group conference in order to support the Icon conference in Cardiff.

We have recently produced a leaflet 'Care of Modern Paintings' to complement the existing 'Care of Oil Paintings' leaflet. These are available to download from the

Conservation Register website and we are looking to print both leaflets in the New Year.

As 2009 comes to a close we send you all our best wishes. Perhaps make becoming involved with the Paintings Group one of your New Year's resolutions? We are always looking for help, from ushering and opening bottles of wine at talks to passing on information and news for the website and Icon News, so why not get involved? We'll be pleased to hear from you.

Contact us on: icon.paintingsgroup@googlemail.com

SCOTLAND GROUP

Book your ticket now for our 12th annual Dr Harold Plenderleith Memorial Lecture, which will be held on 25 November - it promises to be a great evening! Neil MacGregor, Director of the British Museum, will speak on 'Objects of History: Things and Ideas in the British Museum'. The Lecture will take place at 6.15pm at The Hawthornden Lecture Theatre in the Weston Link at the National Gallery Complex on Princes Street. Entrance will be by the back door of the Royal Scottish Academy from 6.00pm. A wine reception will be held between 7.15 and 9.00pm. All are welcome. Tickets must be booked and paid for in advance using the Icon booking form (ticket prices are Icon members £8, non-members £10, students and unwaged £5): www.icon.org.uk/index.php?option=com_content&task=view&id=1085&Itemid

Icon Scotland Group gratefully acknowledges Historic Scotland's support of this event.

Our final committee meeting for 2009 is 8 December, 6–8pm, venue tbc.

The Icon Scotland Group Committee

Chair: Linda Ramsay
Vice Chair: Kirsten Elliott
Secretary: Amanda Clydesdale
Treasurer: Audrey Wilson
Vice Treasurer: Gill Keay
Events team: Helen Creasy, Erica Kotze, Kirsten Elliott and Elizabeth Main
Publications/ publicity team: Stephen Umpleby and Ruth Honeybone
Ordinary Committee Members: Sophie Younger, Mo Bingham
Icon Scotland Member of the Board of Trustees: Louise Lawson
Observers: Carol Brown, Craig Kennedy and Clare Meredith

TEXTILE GROUP

We would like to start by thanking Jane Taylor-Bouvard very much for her sterling work as the Icon Textile Group Treasurer for the last few years, a new job abroad has prompted a slightly early departure from the committee but Poppy Singer

has kindly agreed to step into her shoes while we look for a new treasurer. Jane has done a brilliant job in sorting out the group finances and keeping us on the straight and narrow ensuring we remain in a healthy financial state! Her good humour and passion will be very much missed at our meetings; we wish her every success in her new job.

The next elections for the Icon Textile Group committee will take place early next year; there will be vacancies for the Treasurer, three ordinary committee members and a student rep. If anyone is interested in these posts please look out for further details early in the New Year.

By now all those who attended last year's Forum – *The Furnished Room* should have received their copy of the postprints, please e-mail Nicole Rode at nrode@thebritishmuseum.ac.uk if you have not received yours. Work is now progressing on the postprints for this year's Forum – *Mind The Gap*; we are trialling having them professionally edited and printed to enable us to get them to you sooner and to reduce the very onerous work for those committee members who have been involved in this task previously.

On the events front please see a review of the Dye Workshop

kindly written by Sally Jubb in this issue of Icon News. The second run of the Enzyme Workshop will be taking place in Glasgow very soon. Thank you very much to Helen Hughes, Alison Lister and Lynn McClean for organising this.

Unfortunately we had to cancel the visit to the Trimmings by Design factory in Derby due to lack of numbers, we also had to postpone the visit to the stores at the Museum of London but we hope we may be able to re-arrange this at a later date.

Please keep an eye on the Icon Group web pages for up-to-date information on events. We are also hoping to include a suppliers list on the group web pages for members use. We will let you know once this is up and running and would appreciate any comments or suggestions that you have about it.

And finally a message from Sheila Landi –

'I would like to take this opportunity to thank everybody within the Icon organisation and all the old friends and colleagues who have sent their good wishes for my 80th birthday and continuing good health. I am still working but whether I make my 90th is arguable!'

Graduate Voice

The use of re-moistenable tissue to line a textile design on semi-transparent copy paper by Tanya Millard, 2009 Camberwell MA graduate

INTRODUCTION

This article describes the conservation of a textile design on a semi-transparent copy paper by Winifred Mold (1894–1984). The design is a working sketch probably made for a furnishing fabric, which was commissioned by The Silver Studio where Winifred Mold worked between 1912 and 1935. It is now owned by MoDA: The Museum of Domestic Design and Architecture, based at the University of Middlesex. The object was to be made accessible for consultation and exhibition and, after assessment, it was decided that the use of aqueous treatments was to be minimal, due to the paper and pigment fragility. The conservation process included the removal of mould, surface cleaning, humidification and consolidation of flaking media. The object was then lined using a re-moistenable tissue.

CONSERVATION FOCUS

Lining is used in paper conservation 'only as a last resort when other, less interventive conservation methods prove inadequate' (Donnithorne, 1995, p. 14). In this case, lining the object aimed to strengthen embrittled areas of the support,

reinforce weak areas affected by mould, support tears and missing areas and to prevent future loss or further damage occurring. A remoistenable tissue was considered as a potential lining method, as 'remoistenable tissue techniques are generally accepted to work well on delicate papers or fragile objects that can withstand little moisture or handling' (Catcher, 1998, p.1). Experiments to find a suitable tissue and adhesive were carried out.

THE EXPERIMENTS

In order to maintain the weight and transparency of the object as far as possible whilst providing it with the necessary support, three lightweight tissues were chosen for consideration: Tenjugo 5gsm, Tenjugo 11gsm, and Lens tissue 8gsm. Tengujo tissues are traditionally used in paper conservation to line delicate or fragile objects due to their isotropic properties (Masuda, 1986, p.40). With their long kōzo fibres they are lightweight and strong and 'do not impose their characteristics on the objects they are attached to' (Huxtable, 1995, p.121). Similarly the manila fibres that make up Lens tissue are long and therefore strong and durable.

Four adhesives were initially chosen for testing; Wheat Starch Paste, Methyl Cellulose, Gelatine and Klucel G.¹ As wheat starch and methyl cellulose are traditionally used in paper conservation as adhesives, they were viewed as a good starting point for experimentation. Gelatine was chosen due to observations of successful use in transparent paper repair at the National Archives, Kew,² and on the recommendation of Emma Shaw (personal correspondence, 2008), who



Before treatment



Preparing lining



After lining



After treatment

successfully used it as an adhesive for remoistenable tissue linings of iron gall ink documents. Klucel G was chosen for trials based on its successful use as a remoistenable tissue adhesive in the repair of transparent papers. (Catcher, 2003; Page, 1997) In addition, Klucel G was deemed suitable for use with the object reported, because of its apparent mould resistant properties. (Fuchs, 2006, p.239).

Tissues were prepared using methods adapted from those recommended by Irene Brückle (1996) and Susan Catcher (1998). To assess the results of each tissue and adhesive, small pieces of remoistenable tissue measuring 50mm² were prepared, and adhered to a support paper similar to that of the object. Following a review, simulated linings using Tengujo 11gsm³ were made on a larger scale similar to that of the object. Because of the object's size, difficulties were encountered when laying the tissue onto the adhesive layer. A new method was adopted for laying out the tissue using a wooden baton as used in Japanese scroll mounting.⁴ The tissue was rolled up around the baton and the loose end positioned onto the adhesive layer. The tissue was slowly lowered, unrolled and gently brushed onto the adhesive. This method gave greater control and proved a successful approach in dealing with a large piece of tissue. Once lined, drying and pressing was done with the aid of a book press in order to maintain an overall even pressure. The simulated lining objects were left in the book press for a week, after which the results were visually noted.

The combination of Tengujo 11gsm and gelatine 5% w/v

proved the most successful combination for lining in terms of maintaining the feel, weight and transparency of the support as far as possible. Wheat starch and methyl cellulose were weightier in feel and gave a more opaque quality to the lined objects. Klucel G was disregarded after further research revealed its classification as unstable for use in conservation, due to poor thermo stability and tendency to discolour with age. (Feller and Wilt, 1990, p.94)

THE TREATMENT

By lining the object, the torn, fractured areas and areas suffering from the effects of mould damage were supported. A sheet of Tengujo 11gsm was prepared as a re-moistenable lining tissue using a 5% w/v solution of gelatine and water as above. The object was humidified for an hour and a half, in a humidity chamber made from a cedar wood enclosure, dampened capillary matting and roofing felt.⁵ The remoistenable lining tissue was lightly misted using distilled water. The humidified object was lowered onto the lining tissue, smoothed out through Bondina, and placed between boards, blotters and Bondina in a book press. It was left in the press for two hours, after which time the blotters were changed, then it was put back in the press and left for a week.

Following lining, detached fragments and toned infills were applied to the lining tissue using wheat starch paste. The object was tabbed and float mounted to a support board of off white Everest Mount Board 1250µm.



STUDENT POSTER COMPETITION

'Conservation in Focus'

Icon Conference
Cardiff University
24–26 March 2010

CONCLUSION

The treatment was successful in terms of stabilising the object, and maintaining its historical significance. The opportunity to test lining methods that includes re-moistenable tissues proved particularly crucial during the project. As a result, we gained a further understanding of wider preservation needs and options available to us. It is hoped that the results of this project will be contextualized into a broader conservation care program for the Museum of Domestic Design and Architecture, where roughly a fifth of the 40,000 original designs have semi, and fully transparent support materials.

Acknowledgments

Thanks go to Emma Shaw for her invaluable advice and support regarding this project. In addition thanks go to Zoë Brealey, Susan Catcher, Paul Cook, Rebecca Dean, Jonathan Farley, Anna Fricker, Zoë Hendon, Keren Protheroe, and to staff and students at Camberwell College of Arts.

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Footnotes

- 1 Adhesives were initially prepared to proportions of 2.5% v/w on the recommendation of literature on remoistenable tissues. A combination of 2.5% wheat starch and 2.5% methyl cellulose 1:2 was also prepared as suggested by Irene Bruckle. After initial tests, adhesive proportions were increased to 5% v/w.
- 2 Highlighting Collection Care at The National Archives: Studio Visit, preceding the Book and Paper Group Annual Meeting on March 11 2009.
- 3 Tengujo 5gsm proved too thin, the adhesives creating a sparkle effect visible through the tissue. Tengujo 11gsm and Lens tissue gave very similar results and so Tengujo 11gsm was chosen.
- 4 The use of a wooden baton for scroll mounting was observed in a demonstration given by Jin Xian Qiu (British Museum) at Camberwell College of Arts, 6 March 2009
- 5 Roofing felt is made from high-density polyethylene fibres. It allows water vapour to pass through it, but not liquid water. It is an affordable alternative to Gore-tex or Sympertex for use in conservation.

Do you have a project you would like to showcase?
Is the project related to:

EVIDENCE BASED DECISION MAKING
for example: scientific analysis; survey work leading to action; experimental environmental control; review of traditional treatments or research leading to an innovative treatment.

OR

THE SUSTAINABLE FUTURE FOR CONSERVATION **for example:**

community projects; ethical issues; environment topics; conservation solutions that are driven by financial constraints or sustainable materials in conservation.

We are welcoming poster submissions created by groups or individuals from inside and outside the U.K who are current Icon student members involved in conservation training.

Submissions will be short-listed by a panel of judges. The short-listed candidates will be notified and invited to display their poster at the conference.

The winning candidate will be selected by conference delegates. The prize will be awarded on day 2 of the conference

Send electronic submissions by
31 December 2009 to: sarahjaneshort@live.co.uk

For further information please contact Sarah at the above email address.

ENTRANTS MUST BE CURRENT ICON STUDENT MEMBERS www.icon.org.uk

The competition will be judged by

Lucy Cheng – Book Conservator, Cambridge University Library

Kate Jackson – Ethnography Conservator, Pitt Rivers Museum, Oxford

Trevor Proudfoot – Director, Cliveden Conservation

Shayne Rivers – Senior Furniture Conservator, V&A

Nicole Rode – Organic Artefacts Conservator, British Museum

reviews

CONFERENCES

ARCHAEOLOGICAL IRON: Reflection and Outlook

Icon Archaeology Group

Institute of Archaeology, London
11 September 2009

It has been at least five years since the Archaeology Group focused on the conservation of iron and the topic was very popular with close to fifty participants attending. Six speakers shared their enthusiasm for a material notoriously difficult to preserve long-term. **Helen Ganiaris** began the day with a very interesting insight into past and present treatments of iron at the Museum of London. The MoL tends to receive a large quantity of finds from waterfront excavations and Helen described the difference between the waterfront iron finds and their dry-site counterparts. The wet-site finds were better preserved and often demonstrated interesting and unusual corrosion products but were much more vulnerable to sudden and explosive deterioration making them particularly difficult to preserve. Looking back at the priorities for MoL conservators in the past, Helen identified a lack of concern for thorough documentation, treatments being recorded through a series of encrypted short-hand codes which could only be understood with a dog-eared reference guide. Different treatments ranged from total submersion in epoxy to the use of vapour phase inhibitor storage. Since the 80s there have been many changes in archaeological conservation: PPG16, MAP2, privatisation of archaeology and a leaning towards increased involvement in exhibitions has changed the focus for conservators. In a recent survey, visitors to the Museum of London recorded that they thought iron finds should indeed look corroded but that they preferred the shiny appearance of iron which had been stripped. The results of this survey sparked debate amongst the group during the discussion period at the end – is the conservation of iron dependent on fashion and what do we expect conserved iron to look like?

David Watkinson (Cardiff University) was all for challenging these expectations in his talk where he suggested that the current criteria for 'no corrosion' was neither realistic nor achievable. Current thinking, he proposed, is uncompromising and should aim more for corrosion control rather than prevention. Research into the deterioration of iron and in particular the behaviour of chloride ions has progressed significantly. The intention is to anticipate the corrosion rate – to quantify factors such as the degree of chloride present and identify the different types of corrosion products. David proposed that conservation treatments should be built

around the potential 'heritage value' of an object. By judging an object's value, this would indicate how long it would be required and how far treatment should go, therefore creating a potential 'lifespan' for an object.

Next up was **David Thickett** (English Heritage) who shared his results for anticipating the 'lifespan' of silica gel as a means of controlling corrosion rates. Maintaining a desiccated environment for iron objects both in display cases and store rooms is an extremely time consuming and costly process for English Heritage. If managed appropriately, silica gel can be very effective but its efficacy has been difficult to measure. Relative Humidity Indicator strips could not identify RH levels with any precision below 16% and regularly gave low readings compared to the Humbug. David road-tested two calculations designed to predict the expiration date of silica gel and found that by following G. Thompson's calculation (1977), he could anticipate that a 5kg bag of silica gel in a 12" Stewart box would expire in approximately 1.7 years. For the silica gel used in show cases, however, the equation was not as straightforward. David worked with display case designers to achieve the required desiccation for the archaeological finds at Helmsley Castle, North Yorks.

Melanie Rimmer, then reported on the work so far for her PhD at Cardiff University. Her work on the desalination of archaeological iron focused on expanding the work of Al-Zahrani's PhD (1999) which concluded that alkaline solutions worked best to remove chlorides from iron. Melanie followed the treatment procedure but increased some of the variables in order to include a larger and more varied sample of archaeological material. The results differed from Al-Zahrani's due to a number of factors but Melanie's conclusion to date is that corrosion control is useful without being flawless. Desalination of iron depends greatly on the condition of the object, how the corrosion is structured, the display requirements and the resources available. The results of her research will enable many conservators to make informed decisions about the desalination of archaeological iron in the future.

In a strong defence of iron, even in its most corroded and unrecognisable state, **Sharon Penton** (British Museum) shared her experiences with the finds from Saxon burials from Cliffs End Farm, Ramsgate, Kent where the majority of iron finds survived in large concreted masses, as did some precious metals and mineralised organics. Through a series of mechanical cleaning techniques and analysis, Sharon was able to identify textiles, bone and other mineralised materials associated with a number of the grave goods.

Finally, **John Merkel** and **Sue Harrington** spoke on the documentation for



John Merkel reinforcing a point – with a sword!

conservation and technical studies of archaeological ironwork at UCL. John Merkel, armed with his trusty sword ran through the approach for teaching conservation of iron artefacts, including weld lines and patterns, alkaline treatments and forging. In the first year, students study archaeometallurgy which includes research into techniques such as localised electrolytic reduction to reveal pattern welding. Sue Harrington, Research Associate at UCL, then shared the new web-based database: a project which aims to produce a register of the archaeological remains and material culture of the Anglo-Saxons from Kent. There are around 4500 burials featured on this database with critical information. Sue encouraged the two disciplines, conservation and archaeology to share information. She and her colleagues aim to facilitate this by attaching conservation records to the finds records on their newly created website which can be found at ads.ahds.ac.uk (then search on 'ASKED')

Kelly Abbott, Contract Conservator, Wiltshire and Swindon History Centre

NEW TECHNIQUES FOR OLD PROBLEMS

Conservation in Canterbury Cathedral: recent projects and research
Canterbury October 15 2009

Who would have thought that graphs – and lots and lots of them – could be so revelatory and interesting? But so it proved when **Tobit Curteis** (of Tobit Curteis Associates) set the scene at this recent Symposium with an exemplary opening lecture on environmental monitoring, explaining in detail the major monitoring programme which is in place at the Cathedral. In a huge saving of conservator time, the highly automated system takes the donkey work out of taking readings and creating graphs and spreadsheets; instead Tobit and the Cathedral conservators have time to consider, question and interpret the results from the data collection.

This is not a research exercise but a practical conservation project; it is nevertheless ground-breaking in its scope and sophistication and the broad environmental overview which it provides. Through his graphs Tobit took us on an environmental 'tour' of the Cathedral and its associated buildings, showing us interesting correlations or inverse relationships between relative humidity, absolute humidity and



Transmitting equipment on Canterbury Cathedral's South Oculus window

temperature: here the effect of entrance doors being frequently opened and closed, there the effect of poor roofing, here the impact of low winter sun coming through a window and there an inappropriate heating system. Some of the micro-climates and mutations in conditions are remarkable but, as Tobit pointed out, the variations within and between the various buildings is not a problem if it is managed properly: put your books in your stable conditions and more robust items in the fluctuating ones. With good information the various conditions can be identified and the causes of deterioration understood, which is the key to creating solutions.

Understanding the environment now over-arches all the conservation undertaken at the Cathedral and the structural engineers also tap into the system. The subsequent lectures demonstrated just how significantly it informs conservation work. It was noted, too, that it encourages a view of the Cathedral as one large work of art, so that all the interested parties have drawn together, holding regular meetings to coordinate and prioritise needs.

Léonie Seliger discussed the stained glass, its supporting metalwork and the aesthetic and ventilation issues surrounding the installation of protective glazing. Of particular concern in relation to the South Oculus window was whether a greenhouse effect would be created to the detriment of its ancient glass? Environmental monitoring was able to show in precise detail that the greenhouse effect is real but that the sun's energy is dissipated by the protective glazing before it reaches the medieval surfaces. **Peter Whitehead** the archives Conservation Manager, had similar stories about how the monitoring helps in his work, whether it is doing battle with an outbreak of mould, demonstrating how conditions within storage boxes show a significant buffering effect or planning the moving of books ahead of repairs to the library roof. With a better, insulated roof the very variable conditions within the library should be stabilised, permitting a return to treatment interventions. **Marie Louise Sauerberg** detailed the technical investigation and treatment of two royal canopied tombs with

their splendid medieval polychromy; treated on five occasions over the past hundred years, the prospect of being able to address the underlying problems of deterioration and prolong the duration of treatment as a result is very exciting. Finally, **Sung-Hyun Im** took us through the challenges and compromises of treating a set of medieval vestments to preserve them for both display and long-term storage.

This was a fascinating day and one which it is to be hoped the Cathedral authorities will repeat. The story is clearly a continuing one and, moreover, whole, large areas - the stonework, lead and woodwork - were not covered at all for lack of time in one day.

Lynette Gill

'MAKING CONSERVATION PUBLIC' The Icon session at the Museums Association Conference London, October 5 2009

At the launch of the Demos pamphlet, *It's a Material World: Caring for the Public Realm*, at the Banqueting House on 28 November 2008, **Michael Day**, Chief Executive of Historic Royal Palaces, challenged the conservation profession to show real leadership in turning conservators firmly towards their audience. At the session of the MA conference organised by Icon, he mused upon whether any steps in this direction had been taken in the last year. The presentations which followed his keynote speech, on the social value of conservation, showed that cultural organisations are indeed thinking creatively and have well developed public programmes to engage people through conservation and collections care.

That such collaborations can lead to unexpected developments for all concerned was a theme that threaded through the talks. This was dramatically demonstrated by **Rosanna Raymond**, an artist, curator and writer, born in New Zealand of Samoan-Pākehā descent, and **Ylva Dahnsjö**, Territory Conservator South, who collaborated on the conservation of Hinemihi, the ancestral house at the National Trust's Clandon Park. The need to activate the ancestral space with people and things, and to maintain and care for relationships, inspires new



Plotting surface temperature, dew point and condensation

approaches to conservation of the wider heritage and global citizenship. This was echoed by Michael Day who thought what matters is 'memory' - heritage sites hold memories and objects help to build relationships between people. **Helen Ganiaris**, Conservation Manager of Objects at the Museum of London, highlighted the benefit to the public and organizations alike of a number of major collections care projects at The London Archaeological Archive and Research Centre (LAARC) involving large numbers of volunteers, many from the local community. Once again, there were unanticipated outcomes when some volunteers were inspired to get back in touch with their creativity and revive their skills. **David Saunders**, Keeper of Conservation and Scientific Research at The British Museum, used the results of market research to evaluate the success in terms of benefits to visitors and to the Museum of the recent exhibition *Conservation in Focus*. In the exhibition, where visitors were offered a range of options for engagement, conservators treated objects, spoke to visitors about what they were doing and answered their questions; there were virtual displays and conserved objects, most visitors went for live engagement with conservators. Visitors reported that they felt 'included'. The exhibition's success has led the Department to continue developing public-facing activities.

The session, chaired by **Sam Jones**, Head of Culture at Demos, was a welcome opportunity to speak to our fellow professionals in museums and heritage organisations about the value of collaboration with conservators on public programming. The audience responded positively, debating questions about the roles of conservators and volunteers. Conservators were now firmly out from behind the scenes but what they were talking about was still much the same. Conservation is part of the journey of the object or site, the question is how to involve the general public in its different aspects. Further debate is needed around the role of conservators, now and in the future. Why aren't there more conservators heading programmes, being directors, running institutions? If conservators and conservation were valued differently there would automatically be more public engagement.

Every delegate at the conference was issued with a pamphlet containing Icon's key messages about the strategic value of conservation. Icon will continue to take the lead in shifting the conversation about conservation.

For more on the Icon MA session and the pamphlet go to www.icon.org.uk

Alison Richmond
Icon Trustee, allieri@onetel.com



Previous treatment had caused damage through surface tension (cockling)

CONSERVATION OF THE CODEX SINAITICUS

Centre for Conservation, British Library,
London, UK.
8 July 2009

Following the Codex Sinaiticus Conference in July to celebrate the virtual reunification of all extant leaves of the iconic manuscript, the British Library hosted a seminar day to summarize the conservation of the Codex Sinaiticus by the four partner institutions: British Library, National Library of Russia, St Catherine's Monastery and Leipzig University Library.

The day provided a series of interesting and lively presentations that discussed the various conservation and preservation processes applied to prepare the Codex for digitization, and eventual virtual reunification. The project scope was to create a superior virtual copy of the manuscript on the web in order to enable wider reader access and ensure the future digital preservation of the world's oldest known Bible. For the first time in centuries, the Codex has been reunited (albeit virtually) into one complete text, and conservation had to be completed in time to enable specialists from all over the world to transcribe, and then translate, the Bible's Greek script.

The seminar was officially opened by **Ronald Milne**, Director of Scholarship and Collections at the British Library, who explained some of the great achievements gained during the project to virtually reunify the 4thC Greek Codex, with the main aim of providing greater access for future generations. He described some of the ground-breaking ways of transcribing, translating and virtually reunifying the manuscript; and expressed the importance and value of collaborative projects, and how these can help to strengthen relationships with international partners for future projects.

Helen Shenton, Head of Collection Care at the British Library, reiterated the importance of collaborative partnerships and how

enriching the process can be, before beginning her overview of the project, which also helped to provide the context of the day. Helen described the various elements of the project from a British Library perspective including the history, conservation, digitisation, transcriptions, and dissemination. She discussed briefly why the manuscript required virtual reunification; over the centuries fragments of the Codex had been separated and displaced, where parts can now be found in Leipzig (43 leaves), the UK (347 leaves), Russia (4 leaves), and Mount Sinai (18 leaves) – the initial home of the Codex. Helen then gave a brief synopsis of the condition of leaves held in the British Library collection, from their repair and subsequent binding in the 1930s by Cockerell, to their more recent conservation by the project team.

A demonstration of the website was provided by **Juan Garcés**, the Greek Manuscripts Digitisation Project Manager for the British Library, who again mentioned the value of collaborations and communications between disciplines. He showed the complexities behind the digital image, including updating metadata and transcriptions as new translations are made. He described the challenges ahead for the website in terms of resource integration, supplying of data, models, format changes and standards, and overall the challenges for the project as a whole.

The seminar then introduced the British Library Conservation project team for the Codex, beginning with **Gavin Moorhead** describing the processes of conservation documentation and condition reporting of the Codex, which provided a clear overview of the British Library's conservation focus for their leaves. The main focus included recording various data, such as its function; requirements in relation to language, and scribal elements such as pricking, ruling, and ink; codicological features such as sewing style and early binding evidence; logging previous treatments; condition assessments that describe staining, losses, cut and tears;



Carefully trimming repairs from the edge of the leaves

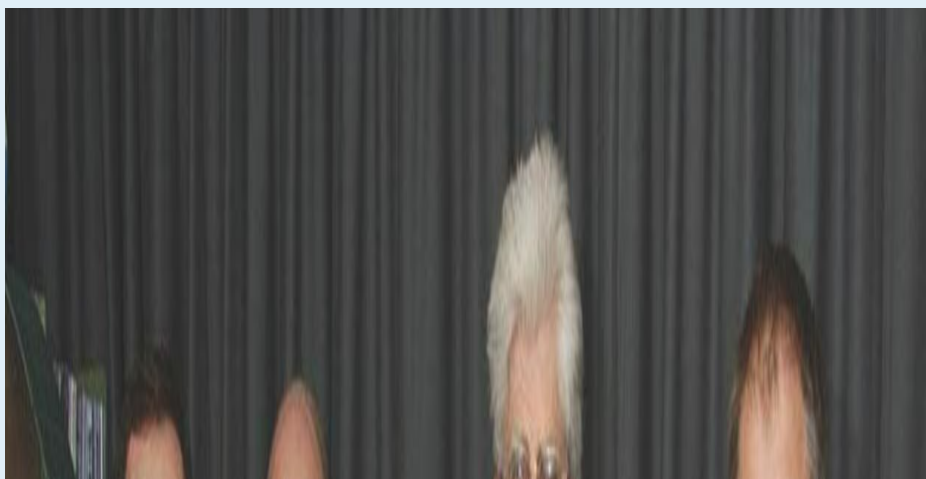


René Larsen identifying animal skin

to record treatments after the 2007 conservation programme; and the process for continuing to monitor the Codex's condition.

Sara Mazzarino then described the condition of the various inks found in the manuscript, including the main script ink (iron gall ink) that makes up the four written columns, the 'squiggles' in the margins, Arabic glossing, and red pigments. All of these had suffered some abrasion and fading (particularly on the flesh side of the skin), but overall seemed to be quite stable. Sara nonetheless concluded that this was so far only through visual assessment, and that the true effects of long-term damage to the inks could only be ascertained from further (micro) analysis as part of the Codex's future preservation strategy.

Conservation treatment was then discussed by **Flavio Marzo**, who began by referring to the repairs undertaken in the 1930s by Cockerell, who had provided a very thorough report of his work on the manuscript leaves and binding. The leaves had come to Cockerell as a group of folded gatherings that had evidence of overcast sewing, and a glued spine. At the time the British Museum specifications for preservation made to Cockerell was to ensure that the manuscript was made 'serviceable but not ornate', with no attempt to recreate the manuscript as a 4thC binding. Cockerell supported the tears and breakages within the parchment, by producing repairs that were supported with silk gauze and adhered with a corn flour, seaweed and water mix. The binding structure used for the Bible was to be simple, and an alum-tawed skin was to be used, but not pig skin as this would conflict with Jewish belief. Flavio then outlined his role as part of the team to assess the present and future preservation needs of the Codex, and to reassess some of the evidence, that resulted in discovering that the Codex was at some point sewn in two halves, a typical



Codex Sinaiticus conservation team, British Library

Greek Byzantine style. The team concluded that some of the repairs were ineffective in their aim of supporting the parchment, and thus required further stabilisation. The goal was to stabilise in-situ the damage to the parchment by removing some of the already lifting silk gauze, and re-supporting tears and breakages with a re-moistenable Japanese tissue (so as to avoid too much moisture) coated with an adhesive of 5% w:v isinglass (pure sturgeon) and water. The decision was to retain the binding as is, as it did not seem to be damaging the parchment leaves any further.

The conservation aspect was then cast in a more scientific discussion of multi-spectral imaging, whereby Dr **Barry Knight**, Head of Conservation Research at the British Library, discussed the processes used to enhance damaged and faded inks and pigments for reader usage. He explained the value of using systems that help to see beyond the visible, such as UV for faded and erased imagery, and IR for the underlying script and substitution. He described the way in which reflectance spectra could be used to identify different pigments, and that by using the 'Forth Photonics Musis' system he determined that the red pigment in the manuscript was most likely to be vermilion (mercuric sulphide). Barry again emphasised that in order to determine what inks and pigments were used to create the manuscript, a micro-analysis approach was required.

Identification of Animal Source and Specific Deterioration Phenomena was the subject discussed by **René Larsen**, Rector at the School of Conservation, from The Royal Danish Academy of Fine Arts, who described his active involvement in the process of

identifying the skin that the leaves were made from. His close work with the British Library team meant that he was given the valuable opportunity to spend time assessing the surface characteristics of the leaves. René was able to identify the follicle pattern on only seventeen of the 347 folios in the BL, of which fifteen were calf and two were wool sheep. One caveat was that gelatinisation (denaturation of the collagen molecules) may obscure the follicle pattern and make it impossible to determine the type of animal. René then described the principles of IDAP (Improved Damage Assessment of Parchment) and how we can only really understand the full impact of damage to parchment by assessing degrees of deterioration through from the macro, to micro, to nano, to molecular levels.

The St. Catherine's team then discussed their work to conserve the leaves and fragments found in 1975 at St. Catherine's Monastery, Mount Sinai, which was particularly interesting for us, as many of the Collection Care team at the British Library have at some point assisted on the preservation condition assessment survey of the library collection at the monastery. Professor **Nicholas Pickwood**, University of the Arts London, described his work to conserve the leaves with Chris Clarkson, freelance Book Conservator, and Dr. George Boudalis, Conservator at the Museum of Byzantine Culture, Thessaloniki, Greece. The Sinai fragments appeared to be heavily damaged, much of it from water. There was noticeable ink corrosion and insect damage, and overall the leaves had suffered some heavy losses. Nicholas explained that the extent of damage, including creasing and folds, meant that much of the script could not be read, so they

took the decision to humidify the fragments in a home-made polystyrene chamber sitting within 40–70% humidity for approximately 20 minutes. On removal the folds and creases were drawn back with 50:50 isopropanol and water. Bridging repairs were then used to support breakages with Japanese tissue and rice starch, and the fragments were temporarily housed in polyester for safe handling during the digitisation process. Nicholas then went on to tell us of a very recent and exciting discovery by an ex-member of the British Library project team, where hidden within a paste down (paper lining attached to the inner face of a book board) of a book binding was thought to be some of the missing Codex fragments of the Book of Joshua.

The seminars ended with a presentation by **Ute Feller**, supported by a translation from fellow conservator, **Sophie Manns** that outlined the conservation in 1993 of the leaves held at Leipzig University Library. The process included removing the leaves from the 20thC binding, and treating them as single sheet material where they were placed in between two boards that were clasped around the edges to restrain the leaves. The idea behind this was to assist in the long term preservation of the leaves by protecting them from any potentially damaging external particulates and other environmental factors.

The day ended with a brief discussion, and although sadly the Russian team could not make the day, it still proved to be most interesting and illuminating, and provided a very thorough insight into the project. Clearly, all the partners had worked hard to ensure its completion on time, and to a high standard for the specialists to transcribe then translate. It was a great opportunity also for us to meet with other delegates from all over the world, and thank you to the British Library for enabling us to attend as Library staff.

The website looks great and provides a huge amount of information for all levels of interest, and in addition it gives us all a chance to see all the leaves of the Bible that a physical exhibition would not be able to provide. It was clear that the success lies in the commitment given to the project by various conservators and other specialists, which has in turn also assisted in ensuring the future preservation, both physically and virtually, of the world's oldest Bible.

Please visit the Website: www.codexsinaiticus.org/ where you can see the results of the project, and virtual copy of the Codex. And of course you can visit the original leaves the next time you are in the UK, Russia, Germany and Egypt.

Email enquiries: collectioncare@bl.uk; collectioncare@parliament.uk

Lara Artemis ACR, Mari-Luz Beltran de Guevara ACR, Ann-Marie Miller ACR, Elisa Sgaravato, Ann Tomalak

Codex Sinaiticus conservation team, National Library of Russia



STUDYING OLD MASTER PAINTINGS: TECHNOLOGY AND PRACTICE

The National Gallery London
16–18 September 2009

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This year the National Gallery Technical Bulletin celebrates its 30th anniversary. To mark the occasion the Gallery's Scientific Department hosted this conference, the first devoted to this topic since the IIC congress *Painting Techniques: History, Materials and Studio Practice* held in Dublin in 1998.

Over three days, thirty two papers were presented to an audience of over 300 delegates. Beginning in 13thC northern Italy and presented roughly chronologically, topics ranged from the technical analysis of masterpieces such as Michelangelo's *Doni Tondo*, to the application of neuroscience research to the understanding of artistic insight, to tracing the travels of Ruben's *Last Judgement* from his studio in Antwerp to its current home in Munich. In order to give a flavour of the conference eleven papers have been chosen from across the three days. Common to all eleven papers is their analysis of groups of artworks rather than individual paintings.

Four papers examined multiple versions of one composition made by a single artist.

Cynthia Berry concluded that *St Francis Kneeling in Meditation*, recently restored at the Art Institute of Chicago, is in fact an autograph work of El Greco. The small painting shows the hatched oblique strokes and delicate touches characteristic of the artist. Comparison with technical analysis of four other authenticated St Francis paintings by El Greco revealed that all used a specific morphology of gypsum in the glue bound grounds, the imprimatura incorporated palette scrapings and copper resinat glazes were employed for the greens.

Biljana Topalova-Casadiego compared the two painted renderings of Munch's *Scream*, the 1893 version in tempera with crayon, and the c.1910 version in tempera and oil. The technical analysis was interrupted in 2004 by the theft of the Munch Museum's painting but resumed on the painting's return in 2006. Though similar in composition and executed on the same cardboard supports the paintings differ in texture and gloss. **Unn Plahter** then discussed the presence of cadmium-based pigments in the two paintings. X-ray fluorescence spectroscopy revealed a significant proportion of cadmium in the white paint strokes, indicating that they would have originally appeared light yellow but have since faded.

A comparative study of Van Gogh's bedroom series presented by **Ella Hendriks** offered a suggested chronology for the three paintings, now held at the Art Institute of Chicago, the Van Gogh Museum and the Musée D'Orsay. Analysis has shown that although the paintings are sketched in different ways, similar pigments have been used for the same elements in all three. For example the windows are all

painted with emerald green and chrome oxide. Van Gogh's letters detail water damage to the first painting, which was subsequently sent to his brother Theo to be repaired, accompanied by a small version painted for his sister. It was concluded that the Van Gogh Museum's painting is the prime version due to the presence of newsprint on the paint surface as well as on the small version, and its similarity to the description of the first painting in Van Gogh's letters.

The two versions of Benjamin West's *Cicero Discovering the Tomb of Archimedes* were painted seven years apart and show marked difference in colour, texture and tonality.

Mark Aronson described the technical analysis and comparison of both and revealed how the phoney manuscript on Venetian painting technique, proffered by Thomas Provis and his painter daughter Ann Jemima, had influenced the prime version. The more orthodox technique of the latter version, with white priming, warm palette and avoidance of Prussian blue can be seen as an attempt to repair West's damaged reputation.

Another theme was the examination and comparison of a number of paintings by one artist in order to gain an understanding of their technique.

A database of the work of Giovanni Bellini has been developed using the results of the examination of more than fifty works in situ with a range of mobile, non-destructive techniques. Included in the database are infrared images of more than one hundred Bellini paintings. **Gianluca Poldi** told how comparison of the infra red images has shown a clear progression in Bellini's under-drawing, from the hatched volumes and shadows of the 1470s, to the increased complexity of under-drawing with evidence of tracing in paintings from the 1490s.

Charlotte Hale described how the acquisition of four paintings by Francesco Granacci at the Metropolitan Museum of Art provided the opportunity to examine the artist's technique during his transition from tempera to oil paint. Two of the paintings, *St John the Baptist* and *St John the Baptist Bearing Witness*, are from the same cycle of paintings but use tempera and oil and pure drying oil respectively. Examination of the under-drawing revealed how the different media influenced his approach to execution. The oil and tempera painting has a single point perspective and ruler and dividers were used to mark out the bold and deliberate under-drawing, whilst the painting in pure drying oil has only a brief and schematic under-drawing with emphasis on the hands, as well as numerous changes to the composition.

Helene Dubois' presentation on Ruben's panel supports reported one element of a four-year research project studying paintings by Rubens and his circle in the collection of

the Museum of Fine Arts of Belgium. The twenty-six panels examined ranged from sketches to portraits as well as larger works and covered dates from 1615–37. In 17thC Belgium the production of panels was controlled by the joiners' guild and only panels that had passed inspection would have been branded. However assessment has found that guild stamps were found on panels with defects. The repaired damages were generally present on the front face of the panel under the ground layer, which could indicate that they were obscured at the time of purchase. However the inferior panels appear to have been used for sketches or painting from Rubens' own collection, which suggests that he may have been aware of their defects.

The technique of Danish Golden age artist Christen Købke was examined in a paper by **Jorgen Wadum** and **Kasper Morrandi**, following his creative process from sketch to completed composition. From the mid-1830s Købke began to paint on a larger scale and at the same time began to produce preliminary oil sketches for his compositions. After visiting Italy in 1838–40 he painted large-scale Italian views, as well as smaller studies of the landscape outside Copenhagen. Købke's surviving sketches are often squared up and infrared analysis has revealed grids under his final paintings. The progression of *The Northern Drawbridge* from drawing through oil study to final version showed that while some changes were made to the composition during painting, generally the meticulous drawing was followed. This style of painting is typical of early 19thC Danish painters.

The examination of paintings by different artists produced for the same setting allowed for the exploration of art commissions, the materials used in their execution and the relationships between fellow artists.

R Mazzo and **M Menu** presented a paper on the *Uomini Illustri* portraits from the *studiolo* of the Ducal Palace of Urbano. The twenty-eight portraits, originally on seven poplar boards, were cut down into separate easel paintings and removed in the 17thC. Seven of the portraits are now held in the Louvre and the remaining seven have been returned to their original location. All twenty-eight portraits are being examined in a collaborative project using non-destructive imaging techniques. The large amount of data generated will take some time to interpret and compare but there have already been some interesting preliminary results. X-ray images of the panels have allowed the original groupings to be reconfigured by matching up the wood grain. The incised lines used to position architectural elements also extend from one panel to the next. Three different styles of under-drawing have been found with infrared: freehand drawing, tracing and a combination of both.

Anne Haack Christensen's paper examined the paintings commissioned by King

Christian IV to decorate the Great Hall at Rosenborg Castle in Copenhagen. Fifteen of the original thirty paintings are on display at Kronberg Castle in Elsinore. They have been technically examined and the results related to an unpublished account book from the Royal Painting Stores 1610–1620 and contemporary chemists' price lists. At least five painters from Germany, the Netherlands and Denmark were involved in painting the Rosenborg series. Thirteen of the fifteen paintings were found to use a dark reddish ground, fourteen of the canvases have a plain weave, whilst the remaining twill weave canvas with a double ground layer was painted outside of Denmark. The repeated use of similar pigments for all the paintings was seen as an indication that the painters were supplied with materials from the Royal Store.

In the second paper of the conference to examine paintings from the Oranjezaal in Huis ten Bosch **Lidwien Speleers** compared adjacent works by Jan Lievens and Caesar van Everdingen. *Five Muses* and *Four Muses* were considered as a continuous composition in the decorative scheme devised by Jacob van Campen. Campen provided the artists with detailed compositional sketches, which even included notes on perspective and the direction of light. Everdingen carefully positioned the composition from the first with detailed under-drawing then, working from the background to the foreground, he left reserves and used optical blending to create the final, smooth finished surface. Lievens on the other hand used freehand sketching to lay in the composition, did not leave reserves for smaller forms and painted with broad strokes in many layers, often in high relief using a more suggestive style. The same range of colours were found to be used by both artists so the visual differences arose solely from their contrasting styles.

In summing up the proceedings **David Saunders** reflected on how technical examination has changed since the publication of the first Technical Bulletin. He highlighted the application of documentary evidence to the study of artists' materials and practice, the use of non-invasive techniques alongside targeted sampling with ever smaller samples, mobile analysis allowing the laboratory to come to the artwork, more investigation into pigments and binders in relation to the choices made by artists as well as their consequences, and increased levels of collaboration including disseminating results using the internet. However he also emphasised that many things have remained the same including, perhaps most importantly, a shared enthusiasm for deeper meaning.

Although this review has only touched on a few of the papers from the conference, postprints will be published in due course which will also include seven additional papers as well as posters.

Alexandra Gent

National Galleries of Scotland



Participants on the dyeing course

WORKSHOP

BACK TO BASICS PRACTICAL DYEING WORKSHOP

Textile Conservation Centre, Winchester
July 6 2009, repeated July 20 2009.

This popular, one day workshop at the Textile Conservation Centre gave a group of textile and paper conservators the chance to review current dyeing practices. Some participants were new to the techniques and were eager to understand the underlying concepts involved, whilst for others it was a welcome opportunity to enhance dyeing procedures that they may already have been using.

The various types of dye used in textile conservation were summarised during the morning session, by **Rosie Baker** (PhD student studying dyes), **Anna Kvitvang** (Conservator, TCC) and **Katherina Mackert** (Freelance Textile Conservator). Colour measurement and colour matching were discussed, including the fact that colours vary according to the ambient light. The importance of pH and temperature was also explored, with particular reference to the need to re-produce recipes accurately, a need which is especially problematic when bulk dyeing is attempted.

The variables of dyeing different fabrics and net were discussed, and the National Trust Conservation Studio contributed some notes on the difficulties that they had encountered in this respect. It was agreed that even when using net from a single manufacturer, dye may be taken up with varying success each time. Is some subtle, underlying factor present to thwart us? More likely, it is a combination of human error, the age and mixtures of dye powders, and the age and different stock batches of net. Tragically, trial and error remains an inevitable element in the process of getting the right result!

It was felt by some that the round table discussion, before lunch, on issues and experiences of dyeing, was the most valuable part of the day. After lunch, and a tour of the TCC for those wishing to look round, a practical dye session was held in the ground floor laboratory. We were divided into two groups and samples of cotton were dyed with Solophenol and Novacron (formerly Cibacron) dyes. Some conservators

would have liked the chance to do the calculations, weigh out the dyes and go through the initial preparations, although it was appreciated that there were time constraints on the day. One person, on the other hand, felt that a demonstration would have been sufficient, and found the practical process a distraction to learning more about the dyes themselves. Well, you can't please everyone! It's true that many people in a small space, carrying out the same task, was occasionally frustrating.

A copy of the latest dye manual and additional information was supplied to all who took part, enabling another textile conservator (who was not able to attend the course) to have my previous manual. Dyed fabric samples were available to take away with us after a long but enjoyable day.

Both days were well organised and much appreciated. Our thanks go to the Textile Conservation Centre for hosting the two days, laboratory technician Jenny Sandle, Rosie Baker, Anna Kvitvang and Katerina Mackert.

Sally Jubb, Freelance Textile Conservator

VISIT

DEEPSTORE

Icon Care of Collections Group
Winsford, Cheshire September 7 2009

Nine intrepid Icon members undertook the Care of Collections Group visit to the Deepstore storage facility near Winsford in Cheshire. This is not just any storage facility though; this is 550–700 feet below the surface in a salt mine! The facility is still within a working salt mine (the total mined area is 12 square miles) excavating the salt that we all so require on a snow-heavy day in January.

The owners of the business had the idea that all the excavated areas could be used as storage because of the unique environmental conditions brought about by the natural features of the salt and the airflow systems that supply the entire mine site – dried air is re-humidified by the salt pillars to 60–65%. To ensure that the roof remains well-supported after excavation, the process leaves substantial pillars (about 20m²; approximately 90% of each area is removed)

so that the excavated areas are generally in a criss-cross pattern. This has enabled the building of walls between the pillars to create discrete storage 'rooms' (6–7m high), which are then linked to 'roads' (a total of 130 miles) and fire-breaks throughout the facility.

We were given a very useful history of the site and a range of facts which encouraged an equally wide range of questions (summarized at the end of this piece). Our tour guides, **Kevin Matthams** (Regional Sales Manager) and **Geraldine Turner** (Account Manager) were very honest and open and withstood a conservation interrogation very well. The next phase was for us all to receive our PPE clothing (reflective overall, hard hat, and utility belt containing respirator, light and battery pack) and to be fully briefed on the emergency procedures. All participants had received the Deepstore safety information in advance to ensure that they all appreciated the weight of the equipment and the physical demands of the day.

It is fair to say that the group were most impressed by the standards of the storage provision and by Deepstore's thorough approach. However, participants were concerned about the vulnerability of sensitive materials such as metals and photographic materials. There was detailed discussion about the role of packaging as a buffer to atmospheric conditions but ultimately the decision on what to store will need to be taken by the customer.

The group then walked to the main entrance and descended via Shaft 3 to the mine level and walked around a small part of the facility (this took about 1.5 hours). We visited both shared vaults (those that require a general standard of storage and can be shared with other customers) and the BS 5454 vaults which have separate plant to ensure that the RH levels meet the standard requirements. Some BS 5454 vaults have a vestibule (second door) facility to ensure the stability of the vault environmental conditions.

Boxes are piled onto pallets and shrink-wrapped for transport to the vaults then removed and placed on the shelves.

After our walking tour the group returned to the main facility for a sandwich lunch and further discussion before being transported back to Crewe station for the journeys' home.

I would like to take this opportunity to thank Geraldine and Kevin for organizing the day and for providing transport from Crewe station, lunch and refreshments. I would also like to thank my eight colleagues for taking part and for asking such interesting questions. Finally, thank you to Frances Lunn for the photograph.

General questions:

1. *What are the general storage conditions in the mine?*

14°C ± 1°C, 60–65%

Each vault has a recording thermohygrograph linked to a single probe which provides a continuous paper readout. Some customers carry out their own monitoring programmes and their staff visit each month to collect data.

2. *What are the security arrangements?*

There is one level of security to enter the mine and a further level for the Deepstore storage area; all vaults are locked.

Customers can choose the level of storage (general storage vault or BS 5454 vault) and security as follows:

- Shared vault
- Shared vault with locked, caged section
- Dedicated vault

The customer provides an authorized list with signatories. All Deepstore staff are security-checked and cleared.

3. *What about flooding?*

There is no history of any natural flooding problems. Deepstore is not based in the deepest part of the mine – there are many miles of lower tunnels to fill first.

4. *What about the levels of Sodium Chloride in the atmosphere?*

There was a good deal of dust on all of the main routes and roadways, but it was very noticeable that the dust levels were reduced in the vaults due to the filtration systems. Deepstore does not provide any monitoring of dust levels – they had not been asked for this by customers. All vault floors are treated and sealed to reduce dust levels.

A team of four continually survey air quality, air venting and any subsidence issues throughout the site.

5. *What is provided in the vaults?*

- Lighting
- Industrial strength long-span shelving (capable of double depth storage); do not need to use mobile shelving (expensive and requires specialist maintenance) as there is plenty of space!
- Air-handling plant that cleans the air (3 stage filtration; filters changed monthly)
- De-humidification plant (installed by Munters) to reduce RH levels to c. 50% on BS 5454 vaults (or to meet customer specification)
- Fire detection; VESDA units linked to panels which are in turn linked to a main panel on the surface (24/7 monitoring)
- Fire suppression is provided by hand-held fire extinguishers and the on-site fire team uses an IFEX water and compressed air unit (www.ifexuk.com)

All sources of ignition are on the outside of the vaults; at night the site is powered down except for fire, security and air-handling. Deepstore has a dedicated Fire, Search and



In Deepstore

Rescue Team – the legislation for mines requires a very high level of Health and Safety. All maintenance of all plant and shelving is the responsibility of the on-site maintenance team.

Customers can pay for the specific cleaning of their area or dedicated vault.

6. *What is the construction of the vaults?*

Each vault is constructed so the walls link to the massive pillars at each corner; the walls are constructed as a stud wall with 2-hour fire-rating plasterboard and Rockwool insulation.

7. *What is the capacity of the vaults?*

Approximately 60,000 boxes (Deepstore boxes are records centre style with handholds). The newer vaults have a capacity of c. 80,000 boxes. These quantities will increase for average archive boxes.

8. *Is there a limitation to the size of an item for the Deepstore?*

The limitation is the size of the lifts; the plant lift can manage a 15 ton load.

9. *How are the box locations managed?*

Via a database and the use of barcodes; staff use portable scanners to identify/check the boxes. All labels use a rubber-based adhesive to address the problem of sticky labels drying out – on observation this appears to work very well.

Customer catalogue data can be uploaded.

10. *Can you only request a box?*

No, the database and picking system is able to go down to file/book level.

11. *Does Deepstore have any other facilities?*

There are two storage sites in London that provide faster access for time-critical material.

Jonathan Rhys-Lewis

Consultant in Preservation & Collections Management

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in practice

Non-adhesive hinging: two case studies

by David Giles, Conservation Moulder, British Museum

INTRODUCTION

The task of attaching paper works of art or documents to a secondary support for display using non-adhesive hinging methods often turns into a problem-solving exercise for the conservation moulder. This is particularly so if the objects need to be displayed vertically without a window mount 'clipping' the sides. Two recent case studies of items mounted at the British Museum offered a chance to reconsider non-adhesive hinging methods. One involved a series of Thomas Bewick prints entitled 'Tale-pieces' which were unbound from an album for an exhibition at the Ikon Gallery in Birmingham in April 2009, with the intention of being rebound after display. The other, the 19th century Hunt letter, BMGR 2006,0523.1, which describes the removal of sculptures from the Parthenon temple at Athens, went on display alongside the Parthenon sculptures at the British Museum in October 2008.

CONDITION OF THE OBJECTS AND DISPLAY REQUIREMENTS

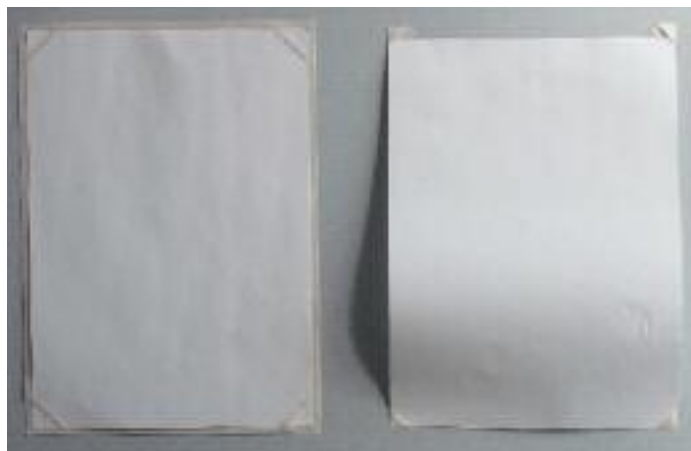
In both cases the sheets were irregular in format. The Bewick prints, measuring c.267 x 225 mm, were printed on lightweight paper (c.80 gsm) and showed a rough, serrated edge on one side where they had been extracted from the album. The Hunt letter, measuring c.310 x 210 mm, was written on very thin, soft, good quality paper (c.60 gsm) that had been folded several times in the past.

The requirements for the display of these objects were:

- that no adhesive should be used on them;
- that they should remain, as far as possible, unaltered on display in a vertical position for at least three months;
- the Bewick prints, once mounted, were to be framed for a touring exhibition;
- the Hunt letter was to be exhibited vertically in a glass display case.

COMMON NON-ADHESIVE HINGING METHODS

Probably the most common method of attaching paper without application of adhesive onto the sheet involves the use of photo corners made from either paper or Melinex (Kosek 2004, 91–100). Other methods used in the past at the British Museum include Japanese paper or Melinex channel supports, which overlap the length of the top and bottom edges of the object and are adhered to the backboard either with paste or double-sided tapes. Polyester strips are also



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Fig.1a) The double-slit and b) the photo corner method test pieces side by side after three weeks on display.

used; these are placed vertically near the edges and slotted through slits in the backboard. The slits correspond to the top and bottom edge of the object and are just hidden from view. They are then adhered with 3M Scotch Tape 850 to the verso of the backboard.

None of these methods seemed particularly suitable for the Bewick prints or the Hunt letter due to the distracting reflections of Melinex and polyester and the obscuring aspect of paper corners or channel supports. There was also concern that although these non-adhesive hinging solutions were adequate for more rigid paper, they would not give sufficient support to thin papers in a vertical position over a relatively long period of time. The use of magnets was also considered but was not taken up for these two projects.

THE DOUBLE-SLIT CORNER METHOD

The method that was preferred, and selected for testing, was a double-slit corner method. This method was first used in the late 19th century for mounting photographs in photo albums (Horton, 1999 cited in Carr, 2004). However, being printed on stiff paper, these photographs were very rigid and if ever displayed vertically would not be prone to the same warping effect exhibited by much thinner and larger paper sheets. A variation of this method for our purposes involved the use of a sheet of medium weight, machine-made Kōzo paper as a secondary support, cut to about 5 mm larger than the objects. This sheet had double-slits, 3 mm wide, cut into each of its corners to allow the corner of the object to be threaded through. The slight friction between this textured sheet and the object verso offered an added safeguard against slippage due to gravity.

PRACTICAL TESTS

It was interesting to see how the double-slit corner method compared to the paper photo corner method and tests were set up involving mock objects attached by these two methods. Two sheets of A4 office copier paper (c.80 gsm)



Fig. 2a Detail of Bewick print showing the double-slit corner method

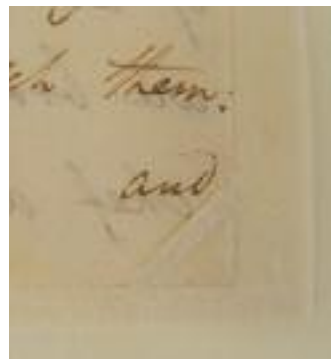


Fig. 3a Detail of the Hunt letter showing the double-slit corner method



Fig. 3b Detail of the Hunt letter showing the semi-circular support tab restraining a fold



Fig. 2b Framed Bewick print

Fig. 2c Bewick prints on display at the Ikon Gallery, Birmingham



were positioned vertically in the ambient environment (40–60% RH and 20°C, with temperature variations $\pm 5^\circ\text{C}$) of the mounters' studio in the British Museum over four months and observed. After this period the double-slit method proved more resistant to paper sagging than the photo corners, where the sample paper billowed after just three weeks (Fig. 1a, b).

MOUNTING FOR DISPLAY

Bewick prints

The prints were to be framed and put on temporary exhibition for three months. The main concern was to assemble the prints in their frames without turning the objects face down in order to secure the backboard, which could cause the objects to slip from their restraining corners. The frames, therefore, had to be assembled vertically by a team of picture framers in Birmingham. For aesthetic reasons the Kōzo support sheet was cut to the dimensions of the frame itself, and attached to a backboard along its edges with archival, self-adhesive, Neschen Filmoplast® P90 tape. This assemblage was held in place and away from the glass by spacers (Fig. 2 a, b, c).

Hunt letter

Due to the very thin nature of the paper and the fact that it had been folded several times, it was necessary to restrain the folds further to stop them from billowing. Therefore, in addition to the double-slit corners further restraining slits were cut in the Kōzo paper. They consisted of semi-circles corresponding to the edge folds of the letter (Fig. 3 a, b). The Kōzo paper was cut to a sheet size 5 mm larger than the widest points of the letter. This in turn was V-hinged in four corners with Japanese paper hinges and Culminal (methyl cellulose) adhesive to a sheet of 100% cotton Museum board 2200µm. The letter mounted in this way was displayed vertically in a glazed case.

CONCLUSION

The two case studies demonstrate that for lightweight objects such as documents or small format prints, the double-slit corner method provides an effective and unobtrusive way of mounting for display over a relatively long period of time, without the need to apply any adhesive to the object.

Bibliography

- Carr, E. (2004, unpublished). *Non adhesive mounts for photographs: Final MA Research project*, RCA/VA Conservation course, London
- Kosek, J.M. (2004) *Conservation Mounting for Prints and Drawings: A Manual Based on Current Practice at the British Museum*. Archetype Publications in partnership with the British Museum, London

listings

Full details of all the events listed here can be found on the Icon website www.icon.org.uk

Icon Offices: Please note that many events are now being held at the Icon Offices at 3rd Floor, Downstream Building, 1 London Bridge, London SE1 9BG. Security clearance for entry into the building must be arranged in advance so please follow any instructions included in the listings entry. The Icon website provides comprehensive directions on how to find the offices - from the home page, go to 'About Icon' and then to the 'Find us' page.

6 November

Icon Textiles Group

'Back to Basics' Workshop on Enzymes

Venue: The Burrell, Glasgow

This practical workshop will focus on the use of enzymes in textile conservation treatments and will involve discussions and demonstrations. Alison Lister will lead the day and details of the Albertina Komprese system will be given.

Cost: £95

Further details via the Icon website

11 November, 10am

Icon Book and Paper Group

Visit to the Marianne North Gallery and Conservation Studio.

Venue: Royal Botanic Gardens, Kew

The Marianne North Gallery is due to reopen in mid October after an extensive renovation to the building and 832 paintings inside – most of these are oil on paper. Painted in situ from all corners of the world in the 1870s and 1880s by Marianne North, the paintings feature 900 plant species in a huge variety of habitats, as well as indigenous people and animals. Both Jonathan Farley, Kew's Senior Conservator and Eleanor Hasler, MNG's Conservation survey will discuss the conservation project.

Contact: For information and to book please email Joanna Payne on jw@joannapayne.com

13 November

Traditional Paint Forum Conference

'Gilding the Lily' to 'Any Old Iron': Protecting and Decorating Metal with Traditional Paints.

Venue: The Geffrye Museum, Kingsland Road, London E2 8EA

Paints have always been used to protect and also decorate metal, but the many different types of metals such as steel, cast iron, lead, bronze, aluminium, galvanised iron and more all require that the specifier has knowledge of all the paint types available to him. Speakers will cover a range of materials and their use on objects as diverse as delicate statuary and clocks to massive iconic structures like the Forth Bridge.

Further details via the Icon website.

17 November

The Church of England Church Buildings Council Conservation Forum 2009

Venue: St Botolph's Church Hall, Bishopsgate, London EC2

The threat of climate change to the historic environment has imposed an urgent need to re-think approaches when caring for our church buildings and brought sustainability to the core of decision-making. The forum will bring together leading professionals to provide a unique insight on key national projects and emerging sustainable practices.

Cost: £50

Contact: Dr Pedro Gaspar, tel: 020 7898 1889

Further details via the Icon website

25 November, 6.15pm

Icon Scotland Group

Plenderleith Memorial Lecture Objects of History: Things and Ideas in the British Museum

Venue: National Galleries of Scotland Link Building, Edinburgh

Speaker: Neil MacGregor, Director of the British Museum.

Cost: £8 (£10 non-members, £5 students and unwaged)

Contact: Please purchase a place in advance on 020 7785 3804 or visit the Icon website for a booking form.

26 November, 1pm

Icon AGM

Venue: The Burrell Collection, Glasgow

Have you reserved your seat yet? All members are invited to attend and participate.

The AGM will be followed by a series of talks considering the pitfalls, solutions and opportunities of working on large capital projects. Four speakers will share their experiences from National Museums Scotland, National Galleries of Scotland, National Trust Scotland and Glasgow Museums.

Contact: Please reserve a place with Charlotte Cowin on email ccowin@icon.org.uk or call the Icon office on 020 7785 3804.

30 November

British Library Preservation Advisory Centre

Forum on Skills Development: 'Doing More With Less?'

Venue: British Library Conference Centre, London.

Caring for library and archive collections today demands new knowledge and new skills – responding to climate change and environmental impact, ensuring the survival of modern materials, incorporating information technology into our professional talent base. Among the key issues to be addressed in this first annual forum are:

What do we need to know to preserve today's physical and digital library and archive collections?

How does technology influence preservation (e.g. sound collections, digital objects, websites)?

Is learning changing? How can we use e-tools, distance learning and work-based training to develop preservation skills?

How do we prioritise skills development in challenging economic times?

Further details, including a full programme and booking details, via the Icon website
Contact: BLPAC on email blpac@bl.uk or tel. 020 7412 7612

16 December

Icon Archaeology and Care of Collections Groups

Christmas Meeting and Party

Venue: Institute of Archaeology, London
An afternoon meeting on the theme: 'Less is more! – a sustainable conservator's mantra?' We will explore some of the issues surrounding running a laboratory and maintaining stores and collections in more environmentally and cost-conscious ways. Meeting to be followed by the traditional festive Xmas party!
Contact: If you would like to contribute a talk, please contact Jim Spriggs on spriggs.conserve@hotmail.co.uk.
Further details to be announced via Iconnect.

3 February 2010

Icon Metals Group Soldering to Welding

Venue: Chilcomb House, Chilcomb Lane, Winchester, SO23 8RD
One-day hands-on workshop, providing an introduction into the practical applications of welding and soldering techniques. Learn the basics for a number of processes including Silver Soldering, Brazing, Gas and Electric Arc Welding and how these technologies were applied in our industrial and social history.
Cost: £65 (£75 Non-members, £55 Students)
Contact: Register by 27 January with Jacqui Ready on email: jacqui.ready@hants.gov.uk or tel: 01962 826700/826719

3 February 2010 11am

Icon & PACR event Introduction to Conservation

Venue: British Museum, London
This introductory event will aim to address the conservation approach, assessment and treatment of composite organic and metal objects. It will also include a session for those considering a PACR application.
Cost: free
Contact: Elliott Nixon on elliott.nixon@hotmail.co.uk Numbers are limited and places will be allocated on a first come first served basis

23 February 2010, 6pm

Icon Book and Paper Group Globe Sphere X-Radiography at the National Maritime Museum

Venue: Icon Offices, London
Speaker: Paul Cook ACR
An intact globe sphere reveals little of the possible complexities of construction beneath the drawn or printed image. X-ray imaging provides a non destructive method to investigate these otherwise inscrutable structures. Some seventy globes from the Museum collection have so far been X-ray imaged and some of the more interesting and unusual aspects of this investigation will be presented.
Cost: £10 (£15 non-members, £6 students)
Contact: Register by 19 February 2010 with Maria Vilaincour on email: mariavilaincour@hotmail.com.

24 March 2010, pm

PACR Clinic, Cardiff

Further details via the Icon website

25–26 March 2010

Icon Conference 2010 Conservation in Focus

Venue: Cardiff
Two day conference to include plenary sessions for all members and half-day Group events.
Further details via the Icon website.

14 April 2010, pm

PACR Clinic, Cardiff

Further details via the Icon website

11 May 2010, 6pm

Icon Book and Paper Group 'The Snail and the Baptism'

Venue: Icon Offices, London
Speaker: Piers Townshend ACR, Tate Gallery
An illustrated talk about paper conservation at the Tate. Conservators are hoping to find a safe way to transport The Snail by H. Matisse to New York. Plus washing and repair of chalk on paper on canvas on a grand scale with the treatment of The Baptism of Ethelbert by William Dyce.
These examples will lead into a discussion about exhibition servicing, possible de-skilling of museum conservators and ways to avert this.
Cost: £10 (£15 non-members, £6 students)
Contact: Register by 7 May 2010 with Maria Vilaincour on email: mariavilaincour@hotmail.com.

27–28 May 2010

IADA Symposium 2010 Out of Sight – Out of Mind?

Venue: Prague
Dedicated to collections management of paper-related cultural heritage.
Further details via the Icon website

20–24 September 2010

IIC Istanbul Congress

Conservation and the Eastern Mediterranean
Further details via the Icon website

23–27 September 2010

IPH Congress 2010

Venue: Angoulême, France
Three main themes for the event; Side-industries and crafts connected to papermaking, Paper Economy and Trade: national and international interactions, The Uses of Paper: gestures, words, expertise.
CALL FOR PAPERS
Deadline: 31 December
Further details via the Icon website.

11–15 October 2010

ICOM-CC Metal WG

International Conference on Historic Metals Conservation

Venue: Charleston, South Carolina, USA

Winter 2010

Conservation Matters in Wales Scary Objects

Venue: Cynon Valley Museum, Aberdare
CALL FOR PAPERS
Case studies of work on scary or dangerous objects or on work that presents safety challenges because of the location of the work.
Contact: Lyn.Weaver@museumwales.ac.uk

- Visit www.icon.org.uk for more events and full details of all the entries listed here. There is also lots of information about short training and CPD courses available from a variety of providers. On the website Home page choose Events and Careers & Training and follow the links.
- More PACR information and booking forms are in the Accreditation/CPD section.