

Icon NEWS

THE MAGAZINE OF THE INSTITUTE OF CONSERVATION • MAY 2014 • ISSUE 52

Made to measure mannequins

Also in this issue

The end of year interns' show

Architects on conservators

Pest ID scheme for Scotland



conservation register

Are you thinking of joining the Conservation Register?

The Conservation Register is the recognised source for finding professionally qualified conservator restorers in the UK & Ireland.

Practices that are included in the Conservation Register will benefit from:

- Referrals from organisations including the National Trust, the V&A museum, the Council for the Care of Churches;
- An individual entry providing full contact details and including automatic links to a website and email address; Inclusion in all UK and Ireland searches for your discipline;
- An opportunity to showcase examples of work to potential clients;
- Provision of information on the accreditation and skills of you and your staff;
- Login access for feedback on how often your own entry is viewed
- Practices in which the lead member is an accredited conservator-restorer (ACR) of Icon, or ARA, or BHI, accredited through PACR (Professional Accreditation of Conservator-Restorers) are eligible for a 15% discount with Heath Lambert insurance brokers.

For further information and full details on the requirements for inclusion in the Conservation Register visit:

www.conservationregister.com

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THE INSTITUTE OF CONSERVATION

MAY 2014 Issue 52



From the Editor

Following the Icon interns' end-of-year show in Manchester last month – see page 3 – I was pondering what prompted the Heritage Lottery Fund to give a small and untried organisation a large sum of money to run its new internship scheme. The answer is perhaps that a lot of hard work and energy went into devising and then delivering a model approach to training that HLF had confidence in. Nor does this exemplary scheme die with the end of direct HLF funding; others are picking up the baton. As well as the eight CTQ traineeships with PZ Conservation reported in the last issue, now we learn that the Bowes Museum has acquired lottery funding for a project that includes fifteen internships over five years – all these excellent training opportunities to be run on the Icon model, of course.

The good news doesn't end there, as word has just come in that The Pilgrim Trust has generously awarded Icon £15,000 for the Conservation Awards; this is in addition to the handsome sponsorship from Beko plc.

Finally, it is nice to bring you an article from authors outside of conservation who are really rather glowing in their assessment of working with conservators. Bask in the praise and enjoy all the other varied articles too!

Lynette Gill



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Front view of a finished mount made
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professional update

From the Chief Executive

PRESERVING MEMORY



Photo: Matt Wreford

Alison Richmond ACR FIIC reflects on the frisson of the artefact and the power of conservation to harness human experience to it

Occasionally, I have an experience that reminds me in a powerful way just how important conservation really is. Last week, I visited HMS Alliance, the last surviving A-Class submarine from the Royal Navy that served in World War II. Alliance has been the subject of a £7million conservation treatment, which has, in its latest, internal conservation

phase, revealed and presented the interior fittings as if the 1947 crew had just disembarked a few moments earlier.

Alliance is serving double duty as a visitor attraction at the Submarine Museum in Gosport and also as a memorial to all of those submariners who lost their lives in the War. Our guide was Terry Fearnley who had served for three years on Alliance during the Cold War. As I listened to Terry retelling his experiences of living on the sub with sixty four men for six weeks at a time, in such compelling detail that the only thing missing was the smell of diesel and sweat, I realised that it was proximity to the conserved artefact that enabled these memories to be evoked. Thus, conservators are preserving memories, our intangible culture, as well as the material heritage.

But this is not all, by involving the people who served on Alliance in the conservation project, the conservation process

Ian Clark and his team with volunteers on board the HMS Alliance



was both well informed and enriched. Ian Clark, who led the internal conservation phase of the project and who was on board Alliance almost every day for the past year, puts it this way 'I am often permitted to experience the human stories that are interwoven within the physical delivery of the conservation; something I find extremely powerful, and engineering conservation covers such diverse areas'. Involving people in the conservation process provides the time and place to tell it how it really was.

But, as Ian pointed out, this direct link to life on the submarine will soon be lost, when the submariners have all gone. So there is an urgency to capture the stories before that happens. This has most resonance in this year of all years, marking the one-hundredth anniversary of the beginning of the First World War, when all of those who served in the War have passed on. Conservators' contributions to this storytelling, by conserving and restoring the artefact, create the focus for memorials, social history, and the stories about people associated with it.

In June, we will be launching the Icon Conservation Awards 2015 and in this round we are putting renewed energy into generating as many stories as possible around the people involved in the conservation projects. Recognising excellence in conservation is still at the heart of the Awards and, by attracting press, media and social media coverage, we are aiming to stimulate greater public interest in conservation.

To this end, we have commissioned Erin Barnes and Gemma Clarke of ArtsMediaPeople to manage the project. Erin and Gemma have a great track record of working with the media and cultural organisations, such as Tate and HRP, developing outreach and liaising with audiences. They were the project managers on Art Everywhere which saw the fifty favourite British works of art posted on tens of thousands of billboard sites across the UK in August 2013.

In addition to the main Conservation Award, the Student of the Year Award, and the Anna Plowden Trust Award for Research and Innovation in Conservation, there are three new awards joining the Icon family: the Beko Award for Conservation in the Community, the Award for the Conservation of an Industrial Heritage Artefact and the Award for Volunteering in the Conservation of an Industrial Heritage Artefact.

The Beko Award is for a community project led by a professional conservator and involving volunteers. In the first instance, we will be aiming to follow the Beko Award shortlisted projects via media and social media coverage throughout the Autumn of 2014 and Spring of 2015. If one of your projects might fit these criteria, or you know of any projects that do, please do let me know and watch this space for more information about taking part in the Conservation Awards 2015!

<http://www.submarine-museum.co.uk/hms-alliance>

<http://artsmediapeople.com>

NADFAS APPOINTS OUR CEO

In a great compliment to her personally and to Icon, Alison Richmond has been appointed to the role of Vice President of the National Association of Decorative & Fine Arts Societies. She joins the current complement of four illustrious VPs: Martin Drury (former Director of the National Trust and a force in heritage conservation for forty years), Philippa Glanville (metalwork expert, historian and author), Desmond Shawe-Taylor (art historian and Surveyor of the Queen's Pictures) and Richard Chartres, Bishop of London.

Alison has long been a supporter of NADFAS's charitable aims and worked closely with the late David Bell, then Chief Executive of NADFAS, to bring our two organisations closer together and to work in a complementary way. Alison comments: 'This is a huge honour for me and for Icon. I think NADFAS is a key organisation in promoting the value of heritage and that's what Icon does too. NADFAS has a logo and branding that includes conservation. What I would like to do is empower the conservation in the philosophy of NADFAS and bring it out and build on it.'

'THE BEST YEAR OF MY LIFE!'

The 2014 Intern End of Year Show

'This has been the best year of my life!', exclaimed one of Icon's interns to our Chief Executive, Alison Richmond. The comment was made last month when the People's History Museum (PHM) in Manchester hosted a gathering of Icon members to celebrate the conclusion of the latest batch of internships.

Fourteen Interns were able to be present; nine of whom have finished their placements. Demonstrations and posters depicting a selection of the projects each had undertaken during the year were on hand for us to examine. Three Icon Intern Advisers were also present, as were several internship

Intern Ioannis Vasallos: photography conservation with National Galleries Scotland



Intern Rachel Morley: stone conservation with Hirst Conservation

hosts, Icon staff and our Chief Executive, two Icon Trustees (Pierrette Squires and Siobhan Stevenson), local conservators and others friendly to the cause.

The event took place in the Museum's beautiful Engine Hall, which had once contained a hydraulic pump supplying power to the businesses and buildings of the area. In her warm welcome, Louise Sutherland, Head of Collections and Engagement at PHM, commented on the suitability of the venue with its history of magic and electricity.

From the CEO's perspective

Alison summarised the by now eight-year history of the bursary scheme, none of which would have been possible without the £2.45 million of funding given by the Heritage

Intern Danielle Connolly explains her work at the People's History Museum on a studio tour





Intern Sibel Ergener: illuminated manuscripts conservation with the Fitzwilliam Museum, Cambridge



Alison Richmond with an overview of the programme so far

Lottery Fund, the £80,000 from Esmée Fairbairn Foundation and the funders of individual internships. Introducing staff past and present, she went on to acknowledge the 'unsung heroes' of the scheme – the supervisors and employers, both public and private sector, who gave pro bono their expertise, time, space and materials to train the next generation of conservators. She touched on some of the indicators that demonstrate the success of the scheme, for example, of seventy five HLF-funded internships completed by September 2012 forty eight are now in conservation related employment, twelve are employed in Museums and Heritage, nine have set up their own conservation businesses, and six are currently in conservation education.

Nick Randell, Heritage Lottery Fund Programme Manager



The view from the Board

Siobhan Stevenson, Chair of the Icon Board's Professional Standards and Development Committee, then took to the podium to stress the importance that Icon places on the internship programme, which was founded to develop a UK wide, well-trained and sustainable workforce. Responding flexibly to changing demands and skills gaps, the scheme provides both a bridge between training and work and also work-based opportunities for new entrants to the sector. As such, it makes a major contribution to Icon's National Conservation Education and Skills Strategy and ensures the preservation of our rich cultural heritage to the highest standards.

The view from the Heritage Lottery Fund

It was a compliment to the success of the internships that Nick Randell came to speak at the event. Programme Manager of the Heritage Lottery Fund (HLF) which has supported so many of the internships over the past eight years, Nick has been involved with Icon since the start of the scheme and he reflected on what HLF had got for its money over that time.

Siobhan Stevenson representing Icon's Board of Trustees





Studio tour with Vivian Lochhead (far left) explaining the treatment of banners at the PHM

On the issue of *quality of delivery* he commented on how supportive Icon's internship model is, commending its underpinning by the Professional Standards, the high rate of subsequent employment in the heritage sector and the fact that former interns are now coming through for accreditation.

On the provision of *new entry routes into the profession*, he noted that 40% of the appointed trainees did not have conservation qualifications; HLF welcomes a broadening of the workforce profile and would like to see a shift in the sector's approach to recruitment to embrace a vocational as well as the academic route.

Sharing good practice has also been a feature of the scheme over the years with interns' skills and work demonstrated at various events. Along with the online presence, these contributions also showcase Icon's work and the benefits of HLF funding. Finally Nick referred to the desirability of extending the HLF/Icon 'flagship model of training' to *partnerships* with other funders and employers.

HLF will continue to invest in heritage skills and workbased training through its Skills for the Future scheme, encouraging the sector to build training into projects. 'We look forward to seeing more training opportunities being created on the back of the capital projects we invest in' he concluded. 'Together we have demonstrated to the sector what can be achieved and we need to ensure we carry on the momentum so that we have a future workforce that is skilled, able to contribute to the future of our heritage and its sustainability and reflects our diverse nation'.

A grand day out

Speeches were, however, brief and to the point, leaving plenty of time to talk to the interns about their work and look at their posters, chat to friends and colleagues and visit the conservation studio where the Museum's many painted banners are treated. Senior Conservator Vivian Lochhead kindly organised two tours of the studio, assisted by Danielle Connolly, holder of one of the two internships which PHM is proud to have hosted. To meet the interns, as Siobhan

Stevenson commented, brings the scheme to life and all those present cannot fail to have been impressed by their enthusiasm. As she also said to them 'our very best wishes for your continued success in the profession'.

OUR NEW MEMBERSHIP MANAGER

A warm welcome to Michael Nelles who joined Icon on 6 May. He introduces himself in the People section on page 10. His normal working days will be Tuesday to Friday. He can be contacted on mnelles@icon.org.uk and on 020 3142 6785

OUTREACH TO SIXTH FORMERS

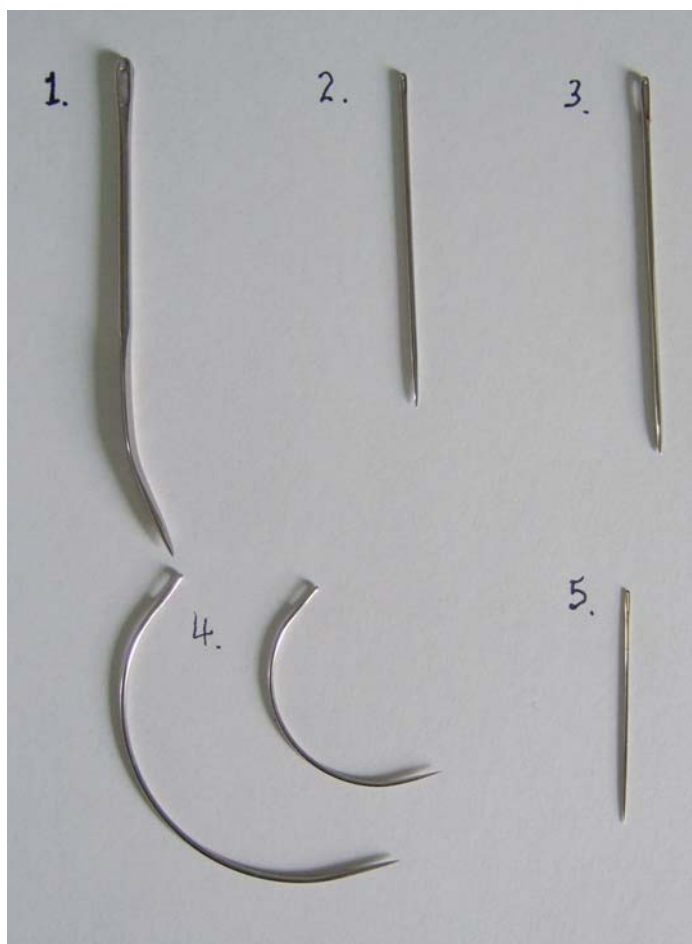
A splendid scheme to allow young people from Inner London schools to have an opportunity to experience the world of heritage has been running since 2010. It was the idea of Geoffrey Bond, a former Sheriff of the City of London, and the Lord Mayors in their year of office are Patrons.

Known as the Lord Mayor of the City of London Cultural Scholarship Scheme, it is run through the City of London Academy Southwark. Young people in the sixth form of this and other schools go through an application process for a placement at the end of the summer term. Successful applicants then give a written report about what they have learned at the start of the autumn term.

Placements are within a wide range of institutions such as the Guildhall Art Gallery, London Metropolitan Archives, Geffrye Museum, the V&A, Horniman Museum, National Archives, Wallace Collection and others. The Scheme encourages consideration of a career in the heritage industry by providing sixth formers with an insight into the heritage world and its expertise and opportunities.

TOOLS OF THE TRADE

They say a bad workman blames his tools but conversely there is nothing like having good tools: the feel of them, the weight, sharpness, balance and so on. Undoubtedly having



The right tool for the job: a 1960s' package of needles for upholstery, packing, carpets, sail-making and crewel (embroidery) work

the right tool for the job of a good quality contributes to the pleasure of doing a task well without loss of temper. If you are fascinated by tools The Tools and Trades History Society may interest you.

Founded over thirty years ago, TATHS's aim is to further the knowledge and understanding of hand tools and the people and trades who used them. The equipment of historic trades may now provide the only surviving evidence of what were once common activities. The Society seeks to preserve not only these artefacts but also to investigate, record and interpret the past, and present, performance of these trades. The links to conservation are obvious: tools themselves may be historic artefacts, along with the objects they made and we may not be able to treat the latter without understanding the materials and processes of their manufacture.

Find out more about the Society at www.taths.org.uk

PEST IDENTIFICATION IN SCOTLAND

A new initiative has been launched which will give individuals and institutions access to expert pest identification from a Scotland-based entomologist with experience and interest in the heritage sector. Jeanne Robinson, Curator of Entomology for GlasgowLife Museums, is working with conservators to assist with the correct identification of insect pests found in Scotland.

The service has been launched to help individuals actively involved in pest monitoring to assist with difficult pest identification. Conservators and staff stumped by their trap findings are now able to send their tricky specimens to



Pest identification at the workshop held in Glasgow in 2013

Jeanne for identification. A form is available on the Icon Scotland website giving instructions on how to access this new service. The easy availability of online pest resources, such as English Heritage's poster, the information leaflet produced by the Preservation Advisory Centre, and the 'What's Eating Your Collection?' website should protect Jeanne from a deluge of enquiries, but if there are other qualified entomologists out there in Scotland who might like to provide assistance, they should be encouraged to get in touch with Mel Houston (rmhouston@nts.org.uk).

Jeanne is also helping with a three year training initiative to advance pest identification skills within Scotland's heritage community. Three successive workshops are being held, aiming to teach identification of insect pest species found in Scotland and an awareness of species that may be found, and to provide a forum for sharing information and resources. The first workshop was held at the Zoology department of the University of Glasgow in 2013, and the next one will be at the Edinburgh Headquarters of the National Trust for Scotland in September this year. It has been supported by Icon and

A Monopis fungus moth on a sticky trap



booking information is available on the Icon website. Plans are afoot to hold the 2015 workshop in Aberdeen or Inverness, and any organisation interested in hosting this event should again contact Mel Houston.

Finally, all those with an interest in Integrated Pest Management are encouraged to take a look at the 'What's Eating Your Collection?' website (www.whatseatingyourcollection.com). The website was set up by Jane Thompson-Webb from Birmingham Museums and David Pinniger, with support from the Collections Trust, and it is free and accessible to everyone. It uses information provided by organisations and individuals across the UK to map where particular species have been found. A small number of 'super-users' are able to input data, and anyone with data to add should use the form on the website to register for recording pests. The website also includes a handy pest identification tool.

Mel Houston, preventive conservator at the National Trust for Scotland, **Rob Thomson**, independent preventive conservator, and **Sophie Younger** independent textile and preventive conservator

NEWS FROM THE GROUPS

Book & Paper Group Committee elections

The committee needs new members! The deadline for submitting applications is 16 June 2014.

We'd like to invite you to join our committee in one of the following positions, which became available as of the General Meeting on 31 March.

- Treasurer
- Co-operative Training Register (CTR) Chair
- Secretary
- IT officer
- Special Projects Officer

As a committee member, you will be in a position to make a real difference to the profession. We are an active committee and are always looking for new ways to improve how we represent the interests of our group members. By joining us, you will have the opportunity to network with great conservators and to contribute your own ideas for the future of our profession.

Posts usually carry a three-year term. The committee meets approximately four times per year for around four hours each time. In addition, work from home is sometimes required, with the amount depending on the position and projects in progress; you would need to be able to commit up to three hours per week on average. Travel expenses for committee meetings will be reimbursed.

The Group Chair will gladly provide a reference for future employers, or an official letter from Icon to current employers demonstrating how committee membership supports Icon

and the conservation profession in general.

We would like to encourage members from all UK geographical areas to join us. If you are interested in applying for any of these posts, please fill out an online application form, details of which can be found on the Book & Paper Group section of the Icon website. You will need to provide a few details about yourself (name, position, experience and qualities relevant for committee work and what you would like to contribute to the committee's work) in a short paragraph of around one to two hundred words.

If you would like to discuss any of the above positions, or for further information, please contact Group Chair Isabelle Egan at: isabelle.egan@ntlworld.com.

Your committee can only continue to function with support from you, the members.

Election procedures

The deadline for applications is 10.00 pm on 16 June 2014. Members will be notified of the names of all candidates via Iconnect within three working days of the closing date. Voting will take place via online poll, but members may request a postal ballot. Full instructions for voting will be provided when the candidates are announced. Voting will be open for a period of twenty four days, from Friday 20 June 2014 to Sunday 13 July 2014. Results of the election will be announced by Friday 18 July 2014.

Save the date

Icon Book & Paper Group Conference, 8–10 April 2015, London

Adapt & Evolve: East Asian Materials and Techniques in Western Conservation

Registration opens August 2014

This conference aims to explore the introduction, formalisation and evolution of East Asian materials and techniques that have become part of paper conservation practice across the globe. International specialists will look into how these practices, materials and techniques have been adapted and developed in the conservation of Western book and paper collections.

The event will feature the latest research into materials and techniques borrowed from Japan, China, Taiwan and Korea as well as participatory practical workshops. Specialist suppliers will also be on hand, including papermakers from East Asia.

The two-day conference will be preceded by a day of studio visits, where delegates will have the opportunity to book on to pre-arranged tours of conservation studios.

Metals Group

We have had a number of changes to the committee recently, so we would like to take this opportunity to remind Group members of our current committee members:

Chair: **Nicola Emmerson**

Secretary: **Sharon Robinson**

Treasurer: **Seoyoung Kim**

Events Coordinator: **Jacqui Ready**
Student Liaison Officer: **Katrina Redman**
Web Editor: **Cymbeline Storey**
Other Members:
Deborah Cane
George Monger
Sue Renault
Richard Rogers

The Metals Group wants to hear about what you've been working on. If you have been working on an interesting project, no matter how small or large, then tell us about it. We are seeking articles around 1500 words in length with images sent separately in JPG format that can be put forward for Icon News. For more details or to send an article please email the Group Chair, Nicola Emmerson (njemerson@aol.com).

We're planning some events for spring/summer, so for the latest Metals Group news follow us on Facebook and Twitter.

Stone & Wall Paintings Group

There have been recent additions to the Icon Stone and Wall Paintings Group Committee and some of the Committee roles have changed.

The Committee:
Co-Chairs: **Jez Fry** and **Caroline Babington**
Secretary: **Ruth McNeillage**
Treasurer: **Clara Willett**
Web Editor: **Berenice Humphreys**
News Editor: **Sarah Pinchin**
Lynn Humphries
Peter Martindale
Vicki Roulinson
Simon Swann
Lizzie Woolley

We would like to know about any interesting projects you are involved with or any topics you would like us to look into (Please contact: Sarah Pinchin at pinchin1@gmail.com).

Textile Group

The Textile Group Spring Forum 'Joined Up Thinking: Textiles and the Historic Interior' was held on 31 March at Birkbeck College. The Committee would like to thank Maria Jordan for chairing the Forum and all the speakers who gave very interesting presentations on a variety of textile issues. Also thank you to everyone who attended. The drinks reception at the end was a new addition for the Textile Forum but proved to be a great success. There is a full review of the event elsewhere in the magazine. The postprints will become available in due course.

The Committee are busy organising events for later in the year so do look out on Iconnect and the website for these being advertised.

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DON'T RISK IT

This is the title of the first advocacy campaign for records management which the Archives and Records Association (UK & Ireland) is undertaking in 2014. The 'Don't Risk It' campaign is targeted at CEOs and other senior managers in both public and private sectors.

The campaign has three core messages:

- There are significant benefits and economies for organisations which get records management right
- The legal and reputational dangers of getting recordkeeping wrong can be profound
- More organisations need to employ and empower recordkeeping professionals and use his or her skills wisely

The campaign will speak directly to decision makers through a letter writing and leaflet campaign in the autumn. It will also give records managers throughout the UK and Ireland the tools to communicate more effectively the important work they do within their own organisations.

Archives conservators and others interested in knowing more or in taking part in the campaign should contact: knowyourrecords@archives.org.uk

The Conservation Forum

Recent graduate and freelance conservator Maggie Harris is keen to spread the word to emerging conservators in the south east about one way to help 'bridge the gap'

There has been much recent discussion about 'emerging professionals' and the gap between gaining a formal qualification and finding paid employment as a newly-qualified (but possibly inexperienced) conservator. It can be difficult to keep in touch and to discuss conservation issues when you're on a low income or in unrelated employment.

The Conservation Forum, an informal group which has been meeting regularly in London for the past two years is one initiative which helps to bridge that gap.

The brainchild of a group of students on the (now discontinued) Postgraduate Diploma in Conservation at Camberwell College of Art in 2011, it has been run since its inception by Maartje Schalkx and Liza Rogers, with the help of other ex-students, including Alex Walker and Anna Hoffmann, who have provided equipment and technical assistance. They wanted to provide an opportunity for friendly, informal, conservation-focussed get-togethers, free of charge, when the course ended.

Members of the group get together, usually monthly, at Maartje's home to hear a visiting speaker and enjoy a relaxing, social evening together. They are a mix of current students, ex-students, inexperienced and experienced conservators. Usually about ten to twenty from the mailing list of over ninety names attend. Everyone brings some nibbles or a drink to share.

Speakers, including recent graduates as well as expert conservators, have responded positively to invitations and all have generously given their services free. Subjects have included conservation of easel paintings and sculpture, collections care, museum exhibition interpretation, setting up a private studio, the Apocalypso Project, Asian papers, preventive conservation and many other areas of interest.

The benefits of the forum are many and varied. Speakers have the opportunity to disseminate their research, rehearse more formal presentations or contribute to their CPD. Attenders keep in touch, extend their knowledge and discuss issues and opportunities. The organisers, who voluntarily contribute much time and effort, have developed their organisational skills. And everyone enjoys the chance to socialise, make new contacts and maintain old ones. Even Icon members benefit as Maartje has just been co-opted to lend her skills to the CTR sub-committee of the Book and Paper Group.

Ensuring the forum remains free and accessible as it continues into the future is a potential issue. There are small costs involved in the 'thank you' gifts provided by the organisers and a new projector was expensive. Future demonstrations or practical sessions have been proposed but these would involve material costs. Hopefully the funds needed can be raised.

I have attended and enjoyed a number of forum sessions over the last two years. A recent talk, on 27 February this year, was about the conservation of parchment and vellum given by Mariluz Beltran de Guevara, Conservation Team Leader at the British Library. It was a fascinating overview of the topic, including the history and processes of parchment and vellum production; the causes, characteristics and assessment of damage; recent research developments; treatment options and the advantages and drawbacks of choosing different methods and materials. Mariluz also presented a more detailed case study discussing the conservation of a large, five-parchment genealogy of James I for a recent exhibition at the British Museum. She drew on her extensive knowledge and experience at the British Library to present the talk and informally answer questions afterwards, and was warmly thanked by everyone for taking the trouble to come along and provide so much information and food for thought.

The Conservation Forum shows how initiative, imagination and commitment can create something new, based on goodwill, to help emerging conservators and the wider conservation profession. I would like to thank Maartje, Liza and friends for their hard work and hospitality, the speakers for their generosity, and all of them for finding time in their busy lives.

The Camberwell graduates I've mentioned have all now 'bridged the gap' in other ways too:

Liza Rogers is a Researcher at Barker Langham.

Maartje Schalkx is a Conservator at John Jones.

Alex Walker is a Preventive Conservator at the Bodleian Library.

Anna Hoffmann is a Conservator at the British Library.

If you are interested in attending the forum, please contact: maartjeschalkx@gmail.com.

Awards



Congratulations to **Fiona Macalister** ACR FIIC who was awarded the Fellowship of the Museums Association in March, this year, following her Fellowship Appraisal. She told Icon News: 'I am absolutely delighted to have been awarded the fellowship and urge others to consider applying. While conservation has been a wonderful path to have followed I started work at the British Museum two weeks after my 18th birthday taking a then less popular year between school and university. A love of collections and what they tell us about civilisations, came before a love of conservation. The Museums Association is an organisation which many of us are members of and they need us to contribute at all levels, from local to international.'

An independent Preventive Conservator, and an Intern Adviser for Icon's internship programme, Fiona trained in archaeological conservation as a postgraduate at Durham University, having graduated in Geological Sciences and Archaeology from Leeds. She is a member of the Executive Committee for ICOM-UK, of ICOMOS-

ICORP (International Committee for Risk Preparedness) and of the former DCMS Emergency Planning Group. She has lectured on planning and training for emergencies at conferences in Turkey, Georgia, Bhutan and Sweden and for ICCROM ICWCT in Norway.

New Icon staff



Our new Membership Manager, **Michael Nelles** writes:-

I am joining Icon after spending six years in museums in Hampshire, mostly in Winchester. I've always been fascinated by the vestiges of the past and went to work at the old Maritime Museum in Southampton as a Curatorial Assistant after I finished my first degree in History in Canada. That led to a front-line management role at Winchester Museums, and while there I joined the Committee of the Hampshire Field Club and Archaeological Society as Hon. Membership Secretary. Juggling these roles I somehow also managed to finish my MA – I like to keep busy!

I can't wait to meet everyone and get started. I am excited to be doing my part to help raise the profile of conservation and bring the sector closer together. I am also excited to experience for myself the full diversity of activity underway across the sector, fuelled by the dedication and enthusiasm of our members. Off duty I am a keen historian, and try to get to the archives as often as I can. I look forward to getting to know you all!

The architects' perspective

Andrew Harris and Martin Ashley, of Martin Ashley Architects, give us their view on working with professional conservators

The importance of collaboration

To work as an historic building conservation architect is to enjoy the privilege of working not only on some of the most historically significant and exciting buildings in the world, but also with an extraordinary assortment of talented and skilled conservators, craftspeople and experts. Few other professions require such a close degree of collaboration, trust and mutual respect.

At Martin Ashley Architects we are constantly working in close partnership with a wide range of expert conservators. These include projects at buildings such as St George's Chapel Windsor and the Old Royal Naval College at Greenwich, where our practice supports Martin in his role as Surveyor of the Fabric, and elsewhere such as Hampton Court, where our client – Historic Royal Palaces – has trusted our expertise and partnerships with conservators on a comprehensive series of external and internal fabric repairs.

Our area of architectural practice is, by necessity, intensely collaborative. John Ruskin before us correctly recognized the importance of involving specialist conservators and craftspeople in order to achieve conservation work of the highest order, whether on lowly vernacular or nationally important buildings. Without this input we would flounder, and we know that our best work arises out of close successful relationships with professional conservators – as well as our greatest understanding of the buildings entrusted to our care.

First catch your conservator

Knowing where to find specialist professional conservators can be difficult, given the often highly specialist fields in which they operate. Icon's Conservation Register and accreditation scheme are invaluable, and word of mouth recommendations from trusted colleagues and partners are important. Some well-informed and conscientious clients have their own

The Painted Hall at the Old Royal Naval College, Greenwich



Martin Ashley Architects

Canon's Cloister at St George's Chapel, Windsor Castle



Martin Ashley Architects



Traces of medieval wallpaintings at St George's Chapel, Windsor Castle

network of talented conservators with whom we are happy to work. Relationships are formed by attending talks, seminars and conferences, and we see it as an important aspect of our practice development to seek out opportunities to share ideas and experience with conservators.

Nurturing new talent

Our work on a series of fascinating conservation projects also allows us to do what we can as a practice to bring the next generation of professional conservators forward. We are enthusiastic supporters of schemes such as the SPAB Scholarship and craft-fellowship programmes, which allow us to share our own expertise with experienced and emerging conservators, and fulfil our duty to pass down knowledge and techniques to the next generation.

The selection process

The appointment of conservators is in most cases a direct appointment by the client to carry out a specialist function, usually under our oversight. We will often advise and guide the client on those appointments – particularly where we act as Surveyor of the Fabric, which is why a network of good relationships and a knowledge of how to identify the skills and individuals required is so important to our practice. This appointment arrangement can cause friction with main contractors – also a direct appointment by the client – particularly where one set of programme pressures comes up against another. Happily in our experience this rarely happens as contractors enjoy the opportunity to work with and learn

from professional conservators, and are anxious to do what they can to facilitate their work.

Exercising diplomacy

Our own softer people and management skills can often come in useful elsewhere too, where we sometimes find ourselves acting as the interface between conservators, clients and other project partners. Professional conservators are often so highly focused on their work – sometimes to the point of obsession – that whereas they express themselves beautifully fluently through their work they can struggle to articulate themselves with clients or on the more mundane contractual and project management aspects of a project. Here we are happy to step in to facilitate that dialogue – perhaps even to interpret – in order to keep the project running smoothly. It is a small price to pay for the privilege of working with passionate and extraordinarily skilled professionals.

Defining the project

A challenging aspect of any conservation project for us is specifying the project requirements. Some projects can be straightforward – for instance our recent work on Phase 1 of the restoration of the Thornhill wall paintings at the Old Royal Naval College, Greenwich. The key focus for the project was naturally the decorative scheme, and we initially brought in Stephen Paine ACR from specialist conservators Paine & Stewart to work alongside our team to scope the works. Once this had been done, Paine & Stewart were subsequently appointed as lead conservators through a competitive process, with other roles falling into place around their programme.

Voyages of discovery

Elsewhere it can be much more complicated. Take the Canons' Cloister at St George's Chapel for instance – a range of 14th century monastic buildings with later additions and adaptations and one of the oldest parts of Windsor Castle – where we have recently completed a two-year programme of external repairs and internal refurbishment.

Here we could not begin to specify the project at all until we had begun peeling back the layers and making a painstaking assessment of what was needed to successfully and sensitively conserve the buildings. The project, its programme and the team emerged on the scaffold, as we all came to understand the building and its needs. When the professional team prepare a specification and build a team in these instances, they do so on the basis of best expectation and what can be seen prior to work commencing. Every project is a voyage of discovery beyond that point as you find out more about the building and its character.

It is in those instances, perhaps, where the relationship between the architectural team and specialist conservators really comes into its own. In the detailed and specialist world of historic building conservation it is inconceivable that any one person will know the answers, and we are therefore highly



The Tijou screens at Hampton Court

reliant on the knowledge and experience of the conservators working alongside us to develop appropriate solutions.

Learning from the object

As conservation architects we spend our lives looking at failures – almost always because previous workmen, designers and, yes, conservators have completely missed the point about a building. We find that a building will always tell you what it needs if you are prepared to take time and care to look, and we would not be able to undertake this often highly forensic work without the knowledge and experience of the conservators alongside us. Our lives are made so much easier when we are working with specialists who can read the fabric and learn what it is telling them about how to solve its problems.

A number of examples spring to mind. At Kew Royal Kitchens we were charged with restoring this rare survival of Georgian domestic architecture*. The buildings had been neglected and abused over the years, and our immediate task was to understand the complex series of layers and surfaces within them. Every element was painstakingly studied as we decided what to discard and what to preserve – right down to a shattered charcoal stove where, together with Nimbus Stone, we traced how we could put it back together and restore something that would otherwise have been entirely lost.

At St George's Chapel, it was only thanks to the professional conservators carrying out stone cleaning that we discovered the faint surviving remains of some of the chapel's medieval

wall decorations. It was a joy then to work with them to make further discoveries and to ensure the paintings' long term survival.

We both know that working with professional conservators brings out the best in us as architects. With lead specialist Paul Webb, for instance, our partnership has allowed us all to raise our game as we have learned from each other and encouraged each other to strive for the best. Our recent work on the roof of the Canons' Cloister at Windsor is some of the finest leadwork we have ever had the pleasure to encounter. With Brian Hall ACR from Hall Conservation at Hampton Court we are working on the Tijou screens, making an exciting series of discoveries about the ironwork and developing an extremely detailed understanding of their preservation needs.

Trusting the experts

Another lesson is that projects work best when conservators are given the space and the trust that they need. Their track record, our knowledge of their work and experience of working alongside them makes it easier for us to guide clients over that leap of faith. A good example is the Chapel Royal at Hampton Court where a creaking beam led us to suspect that something was seriously amiss beneath the Royal Pew. Despite panelling remaining in place, we persuaded the client and English Heritage to allow Ward & Co to dismantle a major part of one of the world's most important Baroque interiors. Thanks to them pooling their immense knowledge with us and other experts, we shared the problem and found the solution. Here, as in so many other cases, we guided the client to give the specialists the space they needed, and to concentrate on the qualitative outcomes rather than simply the cost.

* Martin Ashley Architects and Historic Royal Palaces are shortlisted in the Restoration or Conservation category of the Museums + Heritage Awards for the Royal Kitchens project. The category winner will be known as we go to print.



The neglected Georgian Royal Kitchens at Kew Palace, originally designed by William Kent

The Kitchens revealed again as they would have been in 1789



Conservation v. restoration? No contest!

At times we have worked with people and organisations whose first instinct is to replace materials where there has been failure. More responsible individuals, like all professional conservators, will go to the ends of the earth to conserve, as would we. Professional conservators are our natural partners and we love being on the boards and scaffolds with them. As architects we are utterly dependent upon them not only for

the delivery of our projects but also our own professional development, and we would not want to work any other way.

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Paisley's Grand Fountain

The project's upturn begins and Jim Mitchell ACR takes us through the processes prior to reassembly, including a prize offer

Every large object conservation project hits the 'treacle phase'. Otherwise it would be no fun. This usually occurs when the object is fully dismantled, all the problems revealed and there are a thousand questions to answer; not least of which is how to meet the project completion date. At the time of writing we have managed to extract ourselves from the treacle field and are moving incrementally towards less sticky territory.

A recent meeting with Historic Scotland, the ultimate arbiter for the Category A listed structure and a major funder along with the Heritage Lottery Fund, went well with our interpretation of the Cottier painting scheme fully accepted.

PREPARING THE NEW FOUNDATIONS

The painfully slow drying of the hundreds of cleaned iron components reaches completion and the new, reinforced concrete raft foundation has been cast on site. This was necessary as there were no foundations to speak of before and ground movement probably exacerbated the leakage problem with the bolted plates forming the cast iron pool floor.

Application of the coatings system is now underway. The vast amount of iron pool floor plates (c. 60 tonnes), now all repaired, are being coated. The plates will sit, as before, on their bolt heads to create an air space, but this time on the concrete base with an intervening non-conductive barrier strip

The cover of the booklet that contains the tantalising description of the fountain's colour scheme



of PTFE. The plates are being primed with a 50/50 mix of zinc phosphate and chlorinated rubber then coated with 100% chlorinated rubber. This will ensure prolonged resistance to water.

COATINGS FOR THE MAIN BODY

As with any treatment, preparation is all, and the drying of the iron and sustaining warmth in the metal in a low RH is the key to successful long life coating of cast iron. In the case of the main fountain body we have relied on an earlier coatings survey by Historic Scotland alongside our own sampling process but the original description motivates us to achieve the 'look' created by Daniel Cottier. This invaluable but frustrating piece is from the grand opening booklet of 1868:

'The decorations of the central fountain, like those of the iron gateways, lamps and railings, are of the richest character. The main fountain is, at the base, toned with deep sombre tints appropriate to iron structures and gradually rises into a series of variegated bronzes that bring out the respective ornamental parts of the structure with additional effect. The base of the foundation, wherever the structure would allow of its appropriate introduction, has had piquancy added to it by small bits of brilliant colouring which take away entirely any feeling of heaviness, and look very pretty....'

It is frustrating, insofar as no actual colours are mentioned, but the description does inspire us to attempt to emulate the effect.

As you can see from the illustration on page 17, the scheme is based on two main dark, rich colours: a deep red brown and a dark green. It is lightened by bright, solid colour highlights, gilding and overlaid glazes of bronzed or gold-rich translucent varnishes. This is achieved by adding bronze powder in varying amounts to the first varnish mix.

The system, chosen after drawing on both our own experience and tests, is to be: two coats of zinc phosphate primer, one coat of two-pack polyurethane (2 pk PU) undercoat, 2 pk PU gloss coats and one coat of 2 pk PU varnish, holding the gold or bronze glazes as required then a final coat of clear 2 pk PU varnish.

This hard wearing coating system can be removed if required and is therefore 'reversible.' However it is vital that it keys well to the (dried) iron and remains flexible during expansion and contraction. This was why such an expensive system was chosen over epoxy, which, due to its rigidity, is much less suitable, in our view, for cast iron.

Achieving the effect of Daniel Cottier's coloured glazes has been a challenge. The blackening of the original varnishes obscured the level of metallic particles introduced into the varnish; the only evidence being an indication of particulate



A replacement lug is placed in the fixing position

Heat is applied beneath and around the repair



levels in magnified cross sections. The process was known then as 'bronzing' in relation to cast iron. 'Spons' Mechanics' Own Book' (1886) describes using a chrome green pigment in a medium of shellac and benzoin gum in several coats. Over this, the same varnish was applied clear and bronze powder dusted on highlights. Tests have indicated that the varnish used on the fountain was based on copal resin and linseed oil.

We have to achieve the effect, rather than replicate the method. More on this when we have some parts actually completed!

REPAIRING DEFECTS IN CAST IRON

The quality of the castings on this project varies considerably but this is not so unusual in mid 19th century cast iron. Indeed, one casting may have different repair needs from one end to the other. This means that fractured pieces must be dealt with on a one to one basis.

Where fractures are very clean or new, particularly on smaller pieces, silver solder is an excellent repair medium for smaller, more easily heated items, with no need for intrusive preparation other than scrupulous cleaning and degreasing of the mating surfaces. Correctly carried out it is an incredibly strong technique. It can also be reversed by bring the object up to the silver solder melting point and moving them apart.

Other available techniques include:

- **Brazing:** this is more akin to welding and entails intrusive preparation of the parent metal. It requires higher temperatures than silver solder and careful thought given to even heat spread through the object. The best medium is aluminium bronze applied without flux using an inert gas shield.
- **Welding:** high nickel content electrodes must be used, matching the nickel content of different electrodes by trial to the piece of iron. Some are against this approach as being overly intrusive but a mechanical repair, using a screwed-on clamp is no less so and leaves the fracture open to further corrosion.
- **Cold stitching** (a repair technique which does not involve heating): not in our view a satisfactory conservation repair, as it is very intrusive and can create more problems than it solves.

The degree of intrusion of such repairs, as always, must be balanced with the importance or uniqueness of the object; or indeed if a failure to repair will result in its ultimate loss. Very large objects tempt 'large solutions' but while repairs must be safe and therefore strong, the same decision-making process should apply as for any object, regarding appropriateness and intrusion.

EXAMPLES OF OUR APPROACH

Where fixing lugs had been broken, new iron lugs were cast and fitted to the side of the piece. A preheating process normalises the temperature around the repair to mitigate the risk of stress fracturing when cooling. As this is a structural element, welding with high nickel content electrodes was required. This means some material has to be lost in order to prepare the joint.

The dolphin casting illustrated had lost the end of the main body to which the tail was attached. In this case a new casting could have been made using one of the three others as a pattern. However it was deemed best to retain as much of the original as possible by introducing a small repair piece specially made in cast iron, fixed using a high nickel content welding electrode.



The dolphin casting: the red line indicates where the specially made repair piece was inserted

A PRIZE FOR A CORROSION PROTECTION SYSTEM

I must mention cathodic protection. One of the issues with 19th century iron assemblies is the use of wrought iron bolts and rivets. While these are very close on the PS (periodic scale) the wrought iron will – and does – sacrifice to the cast iron. The fountain structure had virtually no wrought iron bolts that were intact enough to ensure structural integrity.

As wrought iron of an acceptable quality for fastenings is no longer available, coated steel, stainless steel or a bronze alloy have to be used. These are above and below cast iron on the PS, so must be insulated from the iron to prevent corrosion of the fastening or the iron. The structure parts must also be electrically bonded to give continuity to earth (bypassing the insulation) and a galvanic protection system introduced. The latter is now going out to students with a prize offered for the best solution. Contact jimscottmitchell@gmail.com for details.

In the next issue reassembly will be well in hand with a modern water treatment system installed.



The agreed colour scheme for the fountain

around and about

© The British Museum



Plenty of cake helped the reminiscing at Orsman Road

Goodbye Orsman Road!

Earlier this year the summons went out for conservators who had previously worked in the British Museum's Organics Artefact Conservation Section to assemble at East London's Orsman Road premises. The purpose of the get-together was to drink a farewell toast to the studios. Organics will shortly be moving to new studios in the World Conservation and Exhibition Centre at the main British Museum site in Bloomsbury.

Some fifty people obeyed the summons, coming from far and wide to reminisce and celebrate all that had been achieved at Orsman Road over the years. Some interesting and beautiful artefacts were on display in the conservation studios and the splendid Orsman Road cake-making tradition would give Mary Berry a run for her money any day.

A Tanzanian headdress from the British Museum received a new storage mount at Orsman Road. It was complicated and difficult to devise due to the shape of the headdress and its basketry core.

© The British Museum



Courtesy of the Freud Museum London

Beneath the rugs and cushions: the famous Freud couch

Freud's Couch under Analysis

In 2011 the Freud museum contacted us to carry out an initial survey of Freud's iconic consulting couch, in situ within the study of 20, Maresfield Gardens. On lifting the rug covering, we found that the upholstery and textile elements were much in need of remedial conservation.

After a period of publicity and fund raising, the Freud Museum was able to carry out the conservation proposed, with the work being undertaken by ourselves, in situ, in full view of the public. Kate Gill, Upholstery Conservator, provided full documentation of the upholstery and stabilisation of a coil spring, while we documented and undertook non-interventive remedial conservation on the textile covering. The public enjoyed being party to the process and viewing the couch 'undressed' and on the receiving end of analysis.

Beneath the rug lay an unremarkable and working piece of furniture, with wooden frame and linen top cover. It is hardly surprising that it remained covered with a more luxurious rug, making Freud's patients immediately comfortable.

Textile conservation was limited to patched and stitched support of holes and splits in the linen top cover, and careful covering with dyed nylon conservation net in areas of wear.

The couch is back in Freud's study, sitting quietly, as always, the repository of so many dreams; truly an object that changed the 20th century.

Poppy Singer and Annabel Wylie
Textile Conservators

New publications

Maney Publishing has announced the launch of Science and Technology of Archaeological Research (STAR), a new open access, electronic journal to be published in association with the Society for Archaeological Sciences. STAR's aim is rapid



publication of the latest archaeological research resulting from the application of scientific and computational methods, in response to the changing needs of archaeology and heritage researchers and practitioners.

On a rather less academic note, the first issue of a new magazine BBC Antiques Roadshow Magazine was launched in April. Given the thirty five year success of the BBC One TV show which has inspired the publication, it is surprising that a print spin-off like this has not happened long before now. Surely an opportunity for some conservation stories?

Wallace Collection success

Congratulations to the Wallace Collection in London for winning a major grant from the TEFAF Museum Restoration Fund. TEFAF (The European Fine Art Fair), Maastricht, set up the Fund in 2012; it provides up to 50,000 euros each year to help institutions around the world conserve works of art in their collections. This year the Wallace Collection shared the honours with the Rijksmuseum van Oudheden (National Museum of Antiquities) in Leiden, the Netherlands.

The grant will be used to conserve Joshua Reynolds's portrait

Miss Nelly O'Brien by Joshua Reynolds before treatment.



© By kind permission of the Trustees of the Wallace Collection, London
Photo: The National Gallery, London

Miss Nelly O'Brien, one of a group of twelve paintings by Reynolds in the Wallace Collection, making it one of the most significant collections of his work in the world. With its thick layers of discoloured varnish, the treatment of the portrait will not only reveal its original beauty but also help to shed light on Reynolds's techniques and processes, as part of The Reynolds Research Project.

Museums applying for TEFAF funding must have visited the Maastricht Fair in the year of the application and the work of art to be conserved must be on public view for at least two years after the project is completed. Last year saw the Ashmolean Museum, Oxford, benefit from the Fund to conserve its 18thC intricately carved Piranesi candelabra.

Next year's TEFAF takes place 13–22 March 2015 and information can be found on www.tefaf.com

Memories all at sea

As we have observed in Icon News before, saving the past can take other paths than just pure conservation – replication and digitisation to name two – but here is an approach which

Collective Spirit at Sea



© Toby Adamson



Collective Spirit in front of the Emsworth boat shed where it was built

has a different take again: giving new life and new direction to artefacts. *The Boat Project* formed one of the south east region's contributions to the London 2012 Cultural Olympiad: a thirty foot sailing boat painstakingly fashioned over the course of a year from hundreds of donated wooden objects.

When the public was invited to come to the boatshed to hand over the wooden items that were to form the boat, people from all walks of life responded, giving treasured items from across the world and, more humbly, their garages. Donations of all shapes and sizes were accepted – from pencil to piano, from large crates used to transport British Securities (i.e. gold) to Canada during World War Two to a hairbrush used by a make-up artist at Pinewood Studios in the 1960s. The only criteria were that the items were, of course, made from wood and that they had a story behind them. Each and every

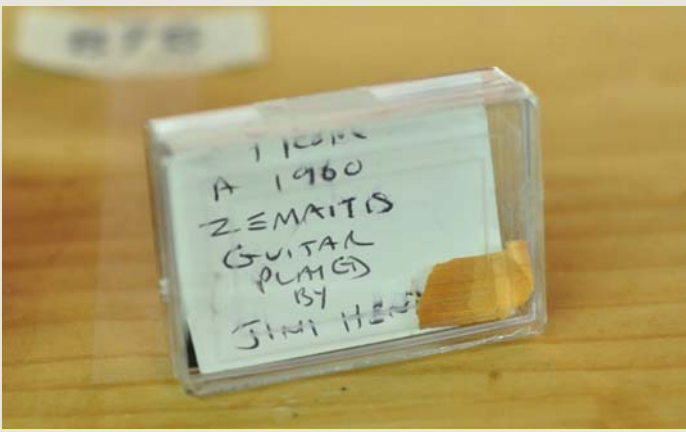
A piece of HMS Victory – donation 584



August 2011: stock-taking at the boat shed

Collective Spirit on the water at Emsworth





Donation No. 895 from Keith Smart: shaving from a Jimi Hendrix guitar



Donations galore!

fascinating back-story was digitally recorded and photographed with its donor.

Named *Collective Spirit* following a public vote, the 30ft boat was launched at Thornham Marina in Emsworth, near Chichester, in early May of the Olympic year and over the next few months it made its maiden voyage along and beyond the south east coast, stopping off at locations where a festival of events celebrated its arrival and mooring. The Boat Project Book was also launched at the same time, documenting every part of the project, the stories behind the donations and the people who gave them.

In all, this floating collage of memories incorporates some twelve hundred donations, including a tiny piece of the Mary Rose, a sliver of Jimi Hendrix's guitar, a salad server in the shape of a spanner, a plank from the new London 2012 Velodrome, several hockey sticks and a Victorian policeman's truncheon. The project was the brain child of a performance company *Lone Twin*, although the boat design and building were undertaken by professionals in their field, who brought traditional wooden boat-building techniques together with 21st century technology to construct a yacht capable of reaching speeds in excess of 20 knots.

At the end of its tour the boat was gifted back to the region as a permanent resource for the public. So, for example, she made her debut in London in October 2012 on display at Kings College; in May last year she visited ports on the northern coast of France and Belgium and in June came fifth in the Sportboat category in the *Round the Island Race* (the Isle of Wight, that is). More information can be found at www.theboatproject.com



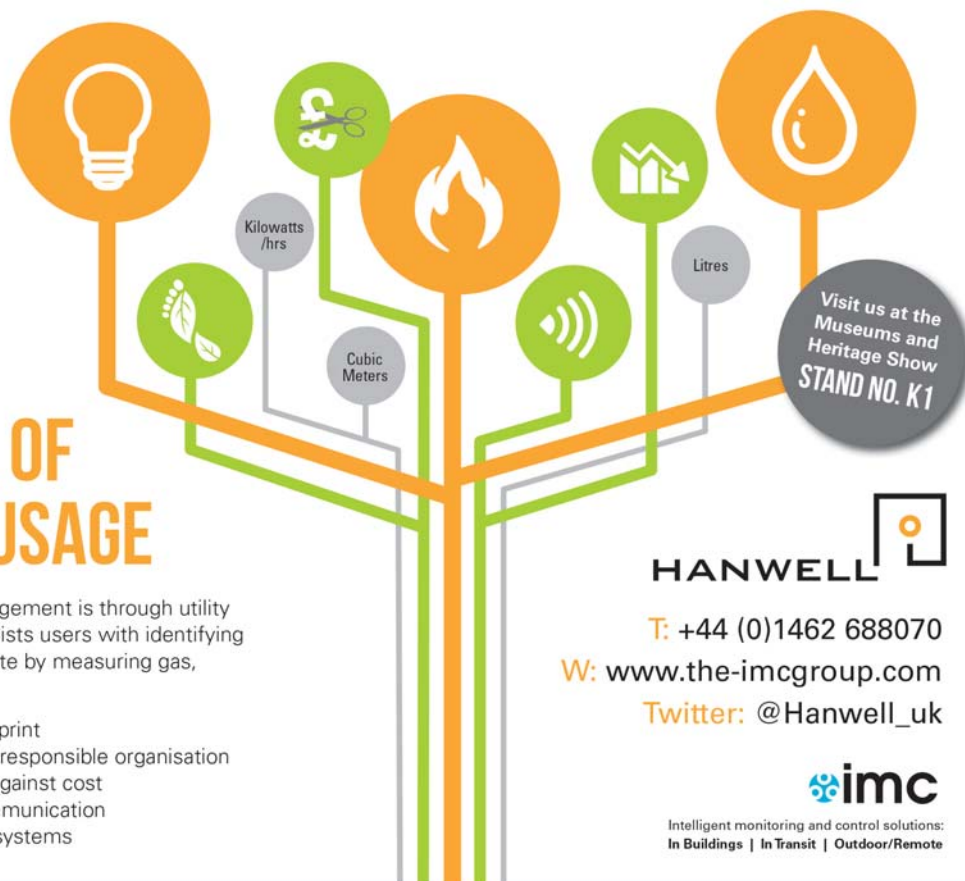
Then and now: above, Icon's Scotland Group at Abbotsford in September 2012 and below, award winning splendour



Abbotsford award

The conservation of Abbotsford, the home of Sir Walter Scott at Melrose in the Scottish Borders, has won one of this year's prestigious Europa Nostra Awards in the conservation category. The project has seen the revival of the house and grounds, contents and collections, along with the installation of modern visitor facilities. It was a major undertaking, as members of Icon's Scotland Group can testify from their visit there in September 2012 (Icon News issue 43).

The Europa Nostra Jury 'recognised and greatly valued the international importance of this project, celebrating Scott's beliefs and vision as well as his contribution to literature. The conservation of Abbotsford, which Scott designed himself, is of the utmost importance to the study of the Romantic Movement in Europe. The arrangement of its contents, gardens and landscape now enable his inspiration to be appreciated by visitors from all parts of the world'.



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Sophie Donaldson, MA student, working at Wilton House; courtesy of Lord and Lady Pembroke.

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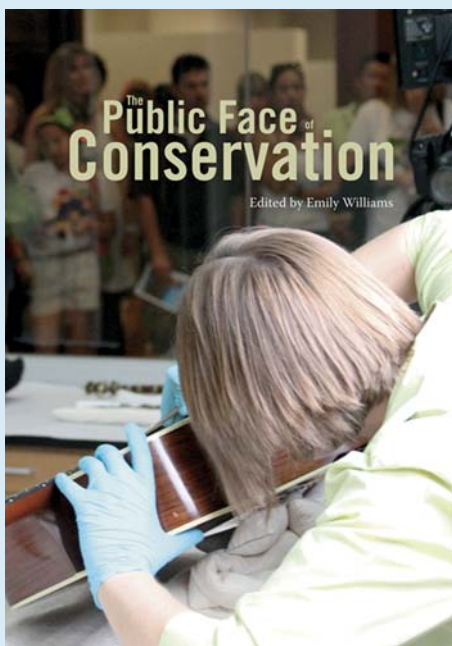
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BOOKS

THE PUBLIC FACE OF CONSERVATION Emily Williams, ed.

Archetype Publications 2013
ISBN 978-1-904982-16-6 304pp

This volume brings together papers presented at the conference 'Playing to the Galleries and Engaging New Audiences: The Public Face of Conservation', held in Williamsburg, Virginia in 2011. As well as thirty eight papers and posters from the conference, it includes transcripts from the general discussion sessions and papers and discussion from a session on conservation exhibits during the American Institute for Conservation's 2012 annual meeting on the theme 'Connecting to Conservation: Outreach and Advocacy'. It is thus the most comprehensive collection of papers on this subject to appear to date.



Public engagement with conservation is currently a hot topic, and most conservators are now involved with outreach to some degree. However, Emily Williams' foreword notes that 'Despite conservation's long history of outreach and the energy that is currently going into presenting the field to museum audiences and others, outreach remains under-represented in the conservation literature. Conservators may increasingly be more comfortable talking to the public about what they do but, until recently, we have been reluctant to talk amongst ourselves about how we approach these interactions. What philosophies underpin them? To what extent are those philosophies bounded or not by the conservation field as a whole, the institutions we work in and our own personal

experiences? What approaches have worked? What have not? How do we measure the efficacy of our activities and their impact on audiences?'

This hefty volume aims to address these questions and its sheer size (288 pages of A4, generously illustrated) suggests that conservators have a lot to say on this topic! As with many other conservation conferences, the majority of papers in this book describe case studies from professional practice. This focus can sometimes lead to an unsatisfying collection overall, where each individual case study is so specific to its own context that it is difficult to draw more widely-applicable conclusions.

Certainly, many of the papers in this volume come from conservators based in America and, necessarily, some of the projects described, and the conclusions drawn, do not translate readily to a UK context. However, the range of case studies presented here is wide and well-chosen, and there is surprisingly little duplication of subject matter. Most of the authors have also attempted to evaluate their projects in a broader context, drawing interesting and useful conclusions that can be applied by conservators elsewhere. What is notable is the sheer range of outreach initiatives that conservators are currently engaged in, from creating an online exhibition about conservation for a tribal museum without conservators to running a children's 'book hospital', and from live-tweeting the rewrapping of an Egyptian mummy to using touchscreens to research public and professional attitudes to damaged marquetry.

The real value of this collection, however, is in the 'extras' that extend the discussion beyond the presentation of individual case studies. The first part of the book is devoted to papers covering more general topics relating to public engagement, including ethical and theoretical perspectives. Mary Brooks' thought-provoking article outlines some of the tensions currently faced by the profession in the UK, including negative or false perceptions by the public and fellow professionals, poor communication by conservators, difficulty in defining our professional boundaries and the invisibility of conservation in a wider cultural context. She concludes that 'Conservation cannot afford to model itself as a self-evidently valuable activity that needs no justification ... Significance and accessibility need to be valued as much as preservation.'

There are also retrospective assessments of some of the longest-running public conservation programmes (at Winterthur and Liverpool), a review of the literature about conservation outreach and examinations of the conservator's place and authority within multidisciplinary teams. The last part of the book contains transcripts of the discussion

sessions from the conference, and touches on several areas that would themselves benefit from further research – for example, how much information about materials and treatments should we make public? What are the costs, in time and resources, of doing effective outreach? Do we run the risk of over-simplifying a complex subject in order to catch public attention?

As far as I am aware, this book is the first serious attempt to present these wider issues and to push the discussion about public engagement with conservation beyond the purely descriptive ('how we did it') and towards more reflexive practice ('why are we doing this? What is the most effective way to communicate conservation?') This is an encouraging development and I hope that it will stimulate more discussion and research in this area.

The photographs throughout the book are rather repetitive (many showing conservators sitting at a table and talking to museum visitors) but this is perhaps inevitable given the subject matter. It is interesting that many of the images (including the front cover) show conservators turned away from the camera, and an iconographic study of the illustrations to this book would certainly tell us something about 'The Public Face of Conservation' – something that the book itself is curiously silent about despite its title. I would have liked to hear more about what conservation's public face actually is, as well as more contributions from outside the profession. This is a minor quibble, however, in what is otherwise an interesting and useful addition to the literature about public outreach in conservation.

Christina Rozeik ACR

CONFERENCES

JOINED UP THINKING: Textiles and the Historic Interior

Icon Textile Group Annual Spring Forum
Birkbeck College London 31 March 2014

This year's annual Textile Spring Forum focussed on the collaborative and often challenging nature of conservation projects within the context of the historic interior.

The first speaker, **Alexandra Rusu**, was unfortunately unable to attend and **Deborah Phipps** stepped in to present on her behalf, skilfully tackling some tricky Romanian pronunciations. The talk investigated how experimental archaeology and Virtual Reality tools can contribute to developing public understanding and the cultural significance of archaeological textiles in their domestic context.

Hellen Elletson followed by introducing two William Morris interiors in Hammersmith, London and their mutually beneficial partnership in relation to the visitor experience and the ongoing preservation of



A packed lecture hall for the Textile Forum

their unique collections.

The first of two papers about Knole House was presented by **Emma Slocombe** who outlined the recent multi-million pound Heritage Lottery funded project which aims to transform the property back to its former glory using historical photographs to re-interpret the interiors. **Jenny Murray Band** gave a lively paper leading us through the stages of the library restoration at Westonbirt House, Gloucestershire, showing how joined-up thinking can generate astonishing results and enthusiasm within a community.

After lunch the papers became more science focussed with **Sophie Downes** eagerly sharing her ongoing PhD research into the presence of mould within historic houses and their effect on textile collections.

Philippa Duffus then talked us through the conservation treatment of textile wall hangings from Glasgow City Chambers. Various cleaning trials led to the use of Agar gels, highlighting the need for further research into this relatively new material.

Next **Siobhan Barratt** revisited the conservation project at Knole House, presenting the practical challenges of conservation work being carried out while remaining open to visitors. **Zenzie Tinker** followed by using the example of the de-installation of the 'spangled' state bed, putting theory into practice. The final paper of the day was given by **May Berkouwer**, who shared with us the complex conservation treatment she undertook on embroidered silk wall hangings from the Queen's Ante-chambers at Ham House.

Maria Jordan, the chair, concisely summarised the day comparing the different approaches of joined-up thinking from theoretical concepts to scientific investigations and finally the practical application.

Many thanks go to the organising committee

for arranging such an interesting and successful event.

Emily Austin & Maria Grabowska

MPhil Textile Conservation Students, CTC,
University of Glasgow.

FRESH BRUSH STROKES: contemporary practice and innovation in wall painting conservation

Icon Stone and Wall Paintings Group
London 27 March 2014

This diverse conference had something for everyone. The manipulation of light – including undertaking activities under the cover of darkness – was a thread that connected almost all the presentations and so perhaps a more fitting title would have been 'Spotlight'. It shed light on technical advances in imaging and cleaning, an impressive victory against a longstanding nemesis in the field, descriptions of unique ingredients in the manufacture of wall paintings of an innovative and prolific period, a direct challenge to conservators to desist in detachment, and a reconstruction which is both historically accurate and reversible as well as being unexpectedly contemporary.

The conference began with three imaging techniques using different wavelengths to non-invasively view beneath the surface of the painting for material characterisation, to differentiate elements of the substructure such as underdrawings or covered paintings, and to evaluate the coverage of a treatment during the treatment process.

The technology is, as ever, adapted from applications completely different to conservation and these techniques showed success in field trials. **Gillian Walker** in presenting a case study: 'Terahertz imaging and spectroscopy at St. Thomas's Church Salisbury' where she worked with Conference Chair **Peter Martindale**, described the challenges, 'there have been

115 years of X-ray imaging, 70 years of ultraviolet imaging, 55 years of infrared and only 15 years of Terahertz imaging. There is still a lot of development to be done'.

Haida Laing described using Optical Coherence Tomography on paintings at the National Gallery and the Byward Tower wall painting at the Tower of London. A broadband laser provides structural information similar to that which is gleaned from a cross-section, though without colour and with issues of scattering or blocking. The scans can be done swiftly so that a large area might be covered to help in the selection of cross sections.

In **Fiona Henderson's** research with Infrared Thermography, thermal imaging was used to detect hidden structural features in the palace complex of Nagaur in India, distinguishing which parts were cut into the rock and which were masonry. She also investigated whether the camera could help to locate grout injected beneath a wall painting in a monastery in Bhutan. As the grout was injected into a void, the surface became cooler and visible in the images, allowing the conservator to determine whether the grouting process needed to be modified or whether the area needed to be retreated. However, tests revealed that pre-wetting before grouting masks the grout in the images.

The FLIR thermal camera Henderson used is off-the-shelf, affordable and uses software that the user probably has. The Terahertz and Optical Coherence Tomography equipment are prototypes. Gillian Walker noted that the Science and Heritage EPSRC grant rather than the conservation project funded her research trials. She stressed that conservators should get in contact with researchers if they are interested in using new technology.

Katey Corda gave a fascinating lecture on the removal of an *Asellia tridens* bat colony of 300-500 bats from a temple in Luxor, Egypt. The building was repointed and snug barriers were designed for all openings to the building. These barriers were put in place several hours after the bats exited the building as usual after sunset. The windows and doors were blocked after the bats had left for several nights until the entire colony had vacated the building. The project also involved designing and building an alternative roost for the bats. Conference organiser **Clara Willett** pointed out that English Nature and the Bat Conservation Trust have bat guidance available online.

'Victorian mural painting: revivalist art, revolutionary technology' by **Lizzie Woolley** provided an unmissable primer for painting techniques of the era which she has gathered from artist records, colourmen archives, treatise of the period, observation, analysis and conservation reports.

In 'Street art belongs on the street—so why

detach it?', **Adrian Heritage** showed us wonderfully descriptive visual images, including a Banksy of a council cleaner removing rock art. The term for painting over street art with a grey colour is buffing and he showed images where the artist intentionally provoked this buffing writing 'here', 'here' or 'buff' around previous buffing. There is a code of practice that graffiti artists do not tag (sign) or paint over someone else's work. About £20,000 a year is spent removing graffiti, and our interest as conservators has mostly been in removing tags from monuments, but Heritage highlighted that we also have a responsibility to save this ephemeral artwork.

When street art becomes valuable, people want to remove it, to bring it indoors. The people they call upon to do this are wall painting conservators. Removing the painting from its wall and context is an act of brutality, he claimed, and museums around the world contain detached paintings. Heritage emphasized that the practice is legal and conservators are doing this right now in the UK, claiming that they are saving the paintings. He urged audience members not to engage in this 'atrocious' activity.

Martin Cooper introduced precise controlled treatment in 'Cleaning with light; twenty years of laser cleaning in the UK'. A SEM image of a feather before and after laser cleaning showed how delicate and controlled the cleaning can be, although it must be selective, since the laser will alter certain colours. At times the cleaning is done in several stages; at other times it is done in conjunction with other methods such as poulticing, as on the twelve Istrian limestone panel reliefs at National Museums Liverpool. The technique has been used to remove pollution crusts on sandstone and is employed on architectural details rather than on whole buildings.

A completely different type of presentation brought the conference to a close. In 'Sculpting with Light: digital projection of Norton Priory's St Christopher', **John Hipkiss** described how he created a reconstruction of the 14th century sculpture's original paint scheme to be projected over the sculpture. Conservator **John Larson** analysed the sculpture to determine the original paint scheme. The colour rendition was accurately reproduced and calibrated using a Spyder colorimeter. Hipkiss designed an animation to engage the viewer, allowing you to picture the sculpture as it originally appeared, showing medieval sculptors, alterations to the sculpture over its history, and even making the lips of the statue appear to move. The technique captivated the audience with its potential.

Thank you to the conference organisers, in particular to Caroline Babington for putting together a terrific programme.

Sarah Pinchin Insitu Conservation Services



Cheryl Porter working her alchemy

COURSES

RECREATING THE MEDIEVAL PALETTE

Icon Book & Paper Group Co-operative
Training Register

London 3-7 February 2014

Cheryl Porter has been teaching on the subject of medieval pigments at the Montefiascone Summer School and in workshops worldwide for several years now. Focusing on European medieval artists, Cheryl used this five-day course at the British Library to tell the history of pigments and colorants used in the western medieval palette, describing the histories of how they

were found or created, information which was greatly enhanced by daily sessions dedicated to handling the colorants and making them into paints.

Each morning began with a detailed lecture focusing on groups of pigments based on type. The first morning included a brief introduction about the artists using the pigments before moving on to intensive lectures on earth pigments, natural pigments, and leaf colours/metals. Over the five-day course we also learned about synthetic pigments, organic colours and binders, concluding with a lecture on inks.

These lectures covered a wide range of topics. We learned about advances in technologies and resources that the artist could use, such as developments in chemistry and complex trading routes, which explained the increase in available colours. We also learned about how colour choices made by artists were influenced by the availability of materials.

Afternoons were dedicated to the workshop, where we mixed the pigments discussed in our morning lectures and practised painting onto multiple substrates, including acid-free paper, cheaper acidic paper, and parchment. Preparation of these substrates also gave participants the opportunity to continue to observe how the various colorants react to their environment over time. Additionally, we painted the organic colours at each stage of their production. Seeing the differences in hue between madder juice and madder lake explained a

The medieval palette comes to life



great deal about why chemically similar colours can look so different, and over time we will also be able to see how these light-sensitive colours will fade and change.

Cheryl's willingness to share her extensive collection of pigments and intimate knowledge of their origin, gained from her personal experiences collecting, picking, and making pigments, helped inform how the artists themselves could have acquired or made their own palette. Using vinegar and a copper tube we also had a hand in making our own synthetic pigment, verdigris, allowing us to be involved in every stage of its creation from pigment to paint.

It is much easier to understand how certain pigments behave after working with them at various stages. For example, the dark, coarse azurite I painted with difficulty onto a piece of parchment abraded away during my journey home, which I can recognize in mechanical damage I have seen on manuscripts using similar pigments.

The final afternoon ended with a lecture on Cheryl's time collecting lac in Armenia, followed by a tour of the British Library's exhibit of manuscripts, in which we had a chance to test our new knowledge as we discussed the colours and likely pigments used in the illuminations on display.

This course is essential for any conservator who works with pigments. It is intensive, but the invaluable knowledge gained from Cheryl's highly researched lectures and the handling of such a wide range of pigments will greatly increase the body of understanding available to any conservator or scholar while working with medieval manuscripts.

Sibel Ergener

Icon Intern in the Conservation of Illuminated Manuscripts, Fitzwilliam Museum, Cambridge

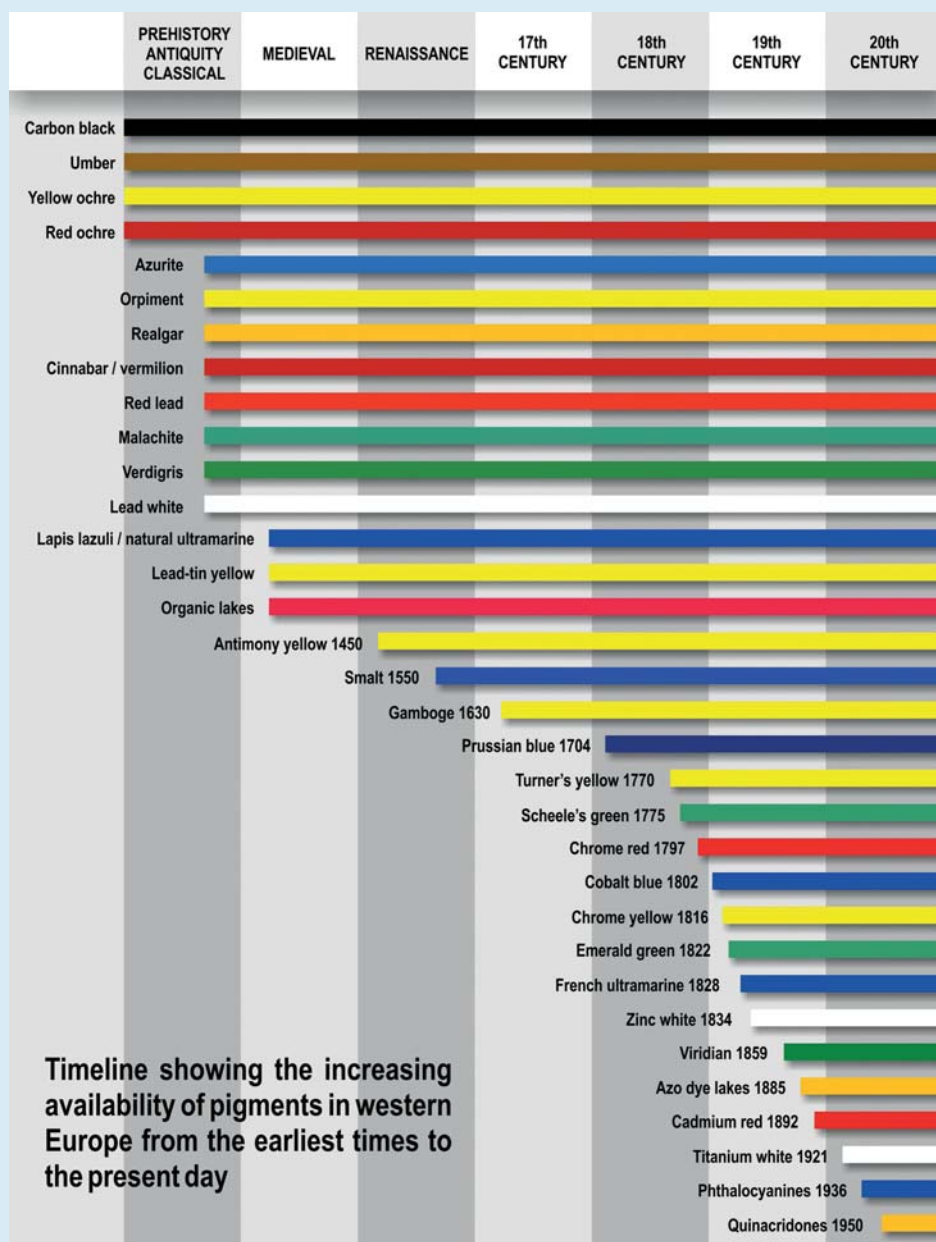
TALKS

MAKING AND COLOURING THE MEDIEVAL BOOK

Independent Paper Conservators' Group Evening Lecture
Freemasons' Hall London 25 March 2014

Dr. **Brian Davies's** lecture in the Grand Robing Room of Freemason's Hall had a great atmosphere with a large audience. A huge screen, as grand as the room, gave excellent visibility for his elaborate PowerPoint presentation. Since retiring from a senior lectureship in biochemistry at Aberystwyth University, Brian has been involved in archive conservation training and in lecturing in the UK and abroad on the historical and chemical aspects of the uses of dyes and pigments.

While the nature of a book offers good protection for its content when



A pigment timeline

recommended preservation conditions are met, some conservation problems may remain. Brian covered a wide range of subjects, from parchment production to modern pigment analysis, but with an awareness of those problems. The lecture was well structured and illustrated with plenty of evidence, historical, scientific and artistic.

Brian started with the writing substrates, parchment and paper. Woodcuts, engravings and modern photographs show that the medieval method of parchment's production has changed little. It was not until 1495 that the first manufacture of paper in England is recorded although imported papers had been in use for over a century. Rectangles of parchment, cut to the required size, were folded as bifolia with several bifolia making up a quire. Rulings between regular prickings made on the edges of the bifolia gave text boxes and consistent writing guides. Initially in drypoint, depressions made with the back of knife, the rulings were later in metalpoint or pen and ink, red ink being used for some heavily

illuminated manuscripts.

Quill pens were made from the wing feathers of geese or swans and the carefully-fashioned tips had to be sharpened frequently with a pen-knife. Mistakes could be erased, or used parchment cleaned for re-use, with pumice. Carbon ink, used in Roman times, was gradually replaced by iron-gall ink. The former, though chemically inert, was vulnerable to physical damage, while the latter, acting as a penetrating dye as well as remaining on the surface of the substrate, could lead to corrosion, particularly of paper.

While scribes kept their inks in inverted cattle horns, the illuminators' paints were prepared in oyster or mussel shells. They used red, blue and green paints with gold leaf for their most precious work. A timeline showed that the medieval palette was basic and largely mineral-based, for developments in chemistry and synthetic pigments were yet to come. Colours were prepared as paint, a mixture of pigment, binder and a solvent for the binder, while gold leaf was applied to a



Dr. Brian Davies with (l. to r.) Fiona Butterfield, Joanna Payne and Pamela de Tristan

layer containing red bole and egg-white glair as adhesive.

Most medieval pigments were chemically stable but verdigris has caused problems on both parchment and paper, migrating, striking through and staining the substrate and, in extreme cases, causing its disintegration. When prepared from metallic copper and vinegar, verdigris contains up to eight components with different solubilities and a range of colour from blue to green. They are much in evidence in the medieval Welsh texts where decorated letters alternate in red and green, rather than the red and blue pattern common elsewhere. Perhaps the blue pigments were not available in west Wales or were too expensive for use in these vernacular texts.

Corrosion caused by the copper of verdigris is reminiscent of, and analogous to, that caused by the iron of iron-gall ink, both metals initiating the formation of damaging reactive oxygen species. Medieval texts recommend that different shades of green could be achieved by adding saffron to the bluish verdigris. Although components of saffron are known today to be antioxidants, no protective role for saffron was envisaged in medieval Europe, but such an effect was described in 16th century Persian literature. Methods are being investigated for treating verdigris, in order to parallel the phytate treatment that has been successful in the case of iron-gall ink.

Throughout, Brian referred to the use of modern non-invasive analytical techniques, micro-Raman spectroscopy identifying compounds and X-ray fluorescence detecting elements. Knowing the nature of the materials of a manuscript is essential for the conservator, but these methods have also been used to demonstrate that

manuscript pages purporting to be medieval but containing 18th or 19th century pigments, are forgeries.

Towards the end, we saw how copies of the Gutenberg Bible, all with identically-printed text, were decorated by different illuminators. Printed rubrication was also attempted in Mainz and Gutenberg's colleagues succeeded in printing initial letters in colour for a psalter. For centuries, though, colour illustration in books was to depend on hand-coloured printed woodblocks and engravings. Brian concluded his lecture by paying tribute to the artists and craftsmen involved in 'Making and Colouring the Medieval Book'.

The talk was followed by questions and refreshments provided by the Independent Paper Conservators' Group. It was a great opportunity to catch up with my friends and colleagues. My only regret was I could not stay long enough to speak to everyone! It was a fruitful evening and I am already looking forward to the next lecture.

Sayaka Fukuda ACR

Independent Book Conservator

The date for lecture No.3 has been fixed for Tuesday 30 September so put it into your diaries now! Andrew Bush, Paper Conservation Advisor to The National Trust will talk to us on the subject of The Curatorial Challenges of Historic Wallpaper in the National Trust, including some case studies.

CLARE HAMPSON MEMORIAL LECTURE: 'Sweet smell of decay'

**Icon Book and Paper Group AGM
Artworker's Guild, London 31 March 2014**

This event inaugurated The Clare Hampson Memorial Lecture, sponsored by the Clare Hampson Scholarship Fund. This lecture will be sponsored annually.

Well this was a very interactive lecture!

Matija Strlič has a way of making even the most complicated science interesting and approachable. We started off by being given three smells in three separate bottles. Two were of a known substance – the essence of print paper and the essence of historic paper. The third bottle contained a mystery vapour. We had the course of the lecture to decide which was which and make a guess at the third mystery smell.

Strlič trained as a chemist and then became an accredited conservator in his native Slovenia. He has since been undertaking scientific research at UCL with help from the National Archives in Kew and the Netherlands to name just a couple of collaborations. His studies often involve PhD students at UCL, such as his current project which is on the subject of analysing decay from smell alone.

The lecture proceeded to tell us more about the questions Strlič has come up against and why he thinks that smell can be a powerful source of non-destructive analysis for identifying not just the origins of paper but also the various coatings, sizing and rate of deterioration too.

He started off by looking into acidic deterioration and how much of a part RH and temperature play in acid hydrolysis. He also looked into the rate of degradation before and after deacidification to test whether there really are long term effects of treatment. The results he showed us were logged into 'Isoperm' graphs.

After this, Strlič looked into a more theoretical debate concerning at what point does a book or print become 'unfit' for purpose? Is it about discolouration, tears, smell, or is it purely based on loss of content (missing areas etc)? For 333 users of books from libraries worldwide, it was simply the loss of content that they conceived to be a problem. Based on this result he started to chart 'Isochrone' graphs to work out at which point a particular paper type would reach depolymerisation to a stage where it would be at considerable risk of loss of information. These graphs really brought home how important temperature and humidity are to a collection – a stop-gap of one thousand years in some cases!

Going back to the 'smell' debate, Strlič relayed a story about a client of his project, the Wren Library in St Paul's Cathedral, where environmental assessment was to be carried out, but the client was anxious to retain that 'old book smell' as part of the visitor experience. What if we were to start using this smell to distinguish the condition and components of a collection?

To start to break down this 'old book smell' into tangible ingredients is incredibly difficult as it could involve at least two hundred compounds. For instance, lignin produces butanol, furfural, hexanol, benzaldehyde and

acetic acid, to name the most important 'marker' compounds of smell. There are some distinguishing smells that we already know of in relation to ageing papers – for instance vanillin – vanilla; benzaldehyde – bitter almonds; acetic acid – vinegar but the complexity and proportions are very hard to reproduce and bottle as vapours. In theory, for instance, paper could smell of vanilla ice-cream with a caramel sauce, but unfortunately it doesn't! Both smells contain the same compounds but in different proportions.

If we were to start analysing paper complexities with smell, such as 'Does this particular paper have rosin sizing?' we would have to sample and analyse those smells first as an identification aid. To do this, we need to have many different samples of aged papers to hand with known compounds to use as a sniff test. The three samples that were handed out at the beginning I found very hard to distinguish and I pride myself on my sense of smell. I for one am very interested to learn the next stage in Strlič's research.

Another very interesting piece of research that he explained to us was his work with the migration of volatile compounds, particularly through a book. How does this 'cross-infection' of a collection play a part in deterioration? Do outdoor/indoor pollutants vary in importance within this? Strlič found that archival boxes do protect markedly from outdoor pollutants, but inside the box there is a build-up of ten times the amount of volatile organic compounds (VOCs) from within the book itself and any VOC from the boxing/packaging itself. The good news, though, is that this build-up pales into insignificance when it comes to the deterioration caused by the additives to paper such as inherent acidity of the paper. The message is that micro-environments from archival housing are generally beneficial.

Sophie Sarkodie

Freelance paper conservator

VISIT

STONEHENGE VISITOR CENTRE & MARY ROSE MUSEUM

Icon Archaeology Group

Fort Cumberland & Portsmouth

21 October 2013

This was a day to remember for Icon's Archaeology Group as thirty five of us were spoilt with a behind-the-scenes look at two of the country's most exciting exhibitions: the plans for the new Stonehenge Visitor Centre and the recently opened Mary Rose Museum. The group was warmly welcomed to Fort Cumberland where **Sarah Lunt** (Senior Curator at English Heritage) began



Sarah Lunt at the English Heritage lab in Portsmouth describes the objects on display at the Stonehenge Visitor Centre.

the morning with an engaging talk about the selection and display of objects for the Stonehenge Visitor centre, including the challenges of borrowing objects from numerous museums such as Salisbury and South Wiltshire Museum, Wiltshire Museum and The Duckworth Collection. English Heritage also took the unusual step of conserving the objects to a condition reflecting their appearance when originally deposited.

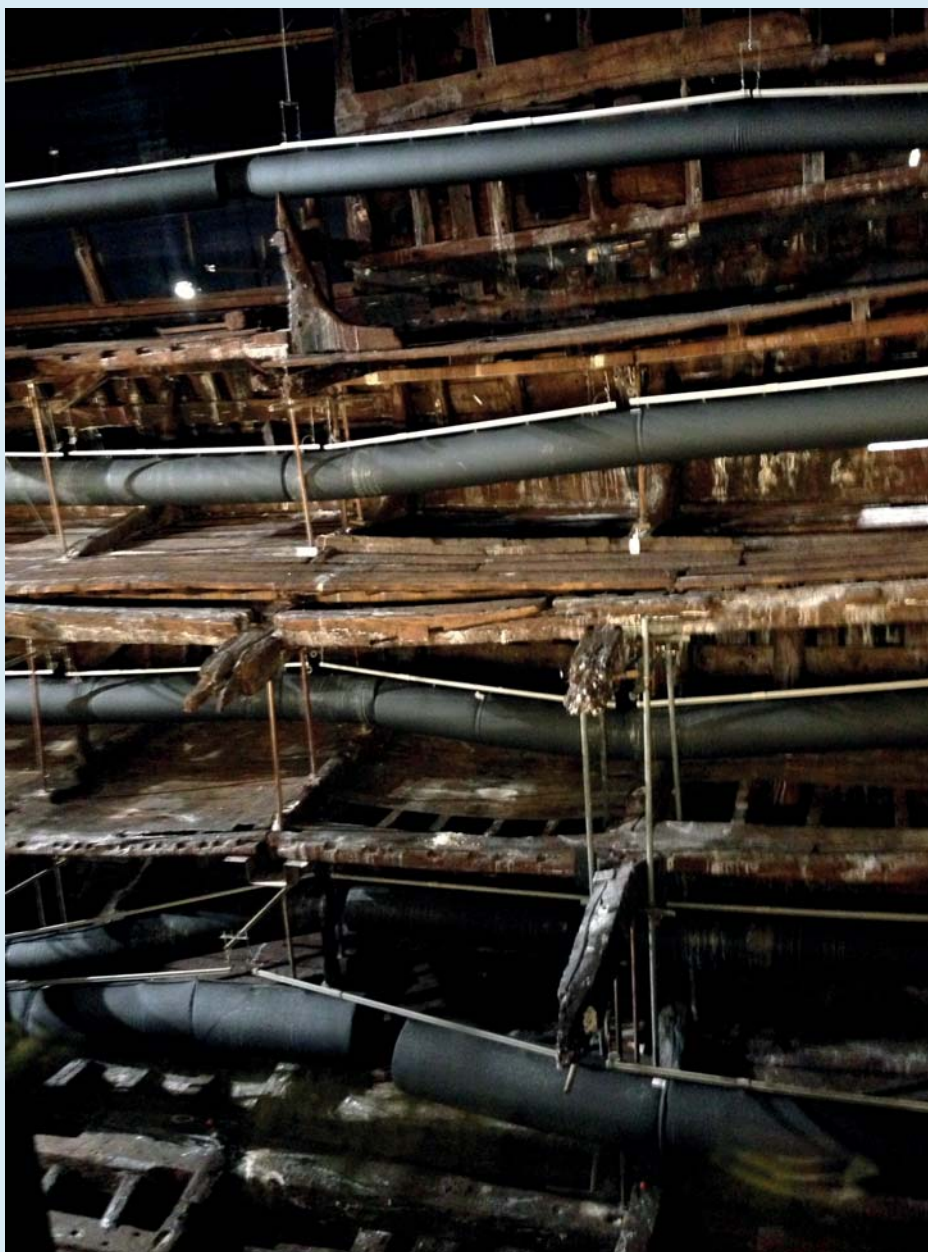
Karla Graham (Senior Archaeological Conservator) spoke about displaying human remains sympathetically in an upright position, so that the mounts provide

successful support without distracting from the display. The mounts were made from brass rod and bar, which are soldered and bent by way of an oxyacetylene torch. They were then painted and finished using shrink wrap plastic tubing or polyester flock to provide protection at the contact points between mount and object.

This led to **Claire Fry's** (Senior Collections Conservator) talk about the visitor centre and the impeccably planned environmental and display considerations. The centre itself is reversible: the structure can be dug up and rebuilt elsewhere and, like Stonehenge, it shares a direct and harmonious

A cannon with cannon balls from the Mary Rose





Hull of the Mary Rose, which is currently drying out.

relationship with the landscape. It takes full advantage of the natural resources, for example using ground heat for under floor heating but the environment inside is not controllable, so extreme care was taken with the design of each display case to provide sufficient and appropriate protection for the objects within. Contained cases with dehumidifiers, LED lighting and controlled heating were a few of the control measures used.

A number of Neolithic and Bronze Age objects were conserved by **Diana McCormack** (Science Museum conservator) who presented an eye-opening talk on the subject. Many of the objects had been excavated during the 19th century and had historic repairs from that period, including joins that are now failing and coatings that have yellowed and become brittle. However, some of the objects required a different display method rather than remedial conservation, for example, an incised chalk plaque was mounted so that raking light cast across it successfully highlights the

decoration without jeopardising the original surface.

Beth Werrett ACR worked on some of the larger objects on loan to the visitor centre. One of her more unusual projects was a reconstructed beaker vessel. We now know, due to greater understanding of beaker ware and the discovery of some extra sherds belonging to the vessel, that it would have had a different profile and shape. The original reconstruction also had an unusual colour that distracted attention away from the object itself. Beth explained how she and a ceramics expert mapped where the sherds would have been and how the beaker would have looked. She used a spinning technique to model the new beaker vessel and reconstructed the remaining vessel with plaster and sympathetic tinting.

After lunch, the group travelled to the Mary Rose Museum. **Brian Robinson** (Museum Project Officer) gave a fascinating talk about how the new Museum was built and designed, whilst facing some unusual challenges. First, the old building housing

the Mary Rose had to be knocked down in situ; secondly the dry dock is a grade two listed building, which affected available construction options, and lastly the Mary Rose's treatment with PEG (polyethylene glycol) had to continue whilst the museum was constructed. Brian described how first a 'hot box' was constructed around the starboard remains, providing a controlled, sealed environment in which the treatment could continue. Then a virtual port-side hull was created over three levels to allow viewing of the ship and house the context gallery.

Over nineteen thousand objects were recovered from the Mary Rose, from combs to cannons, and a third of the collection is displayed. **Helen Butler** (Conservator) spoke about their conservation and the logistical challenges of installing some items into the new exhibition. The sheer scale and weight of the cannons required lifting with a crane and positioning by specialist movers. One of the most fascinating objects was the oven complete with original cauldron which was meticulously re-built in the new gallery.

Eleanor Schofield (Conservation Manager) finished the afternoon with an interesting presentation about air drying the ship's hull. From 1982 the vessel was sprayed with filtered, recycled water at a low temperature to remove the salt from the structure, stop it from drying out and control microbial decay. From 1994 the ship was sprayed with PEG to replace the water in the cellular structure of the wood. In April 2013, the Museum started a five year process of air drying the structure at a temperature between 18–20°C. The ship is being recorded with the aid of surveying equipment to monitor how the structure reacts. Eleanor also discussed how each member of the team has to have a broad range of skills, including training in the use of heavy machinery such as cranes to gain access to various parts of the ship. Finally the group had the opportunity to explore the exhibition itself, which was both informative and exciting.

Wendy S-Woodiwis, Durham Intern
The Wiltshire and Swindon History Centre

ANOTHER MANNEQUIN-MAKING METHOD

Maggie Dobbie ACR was inspired to write this article after reading the article *Build your own paper mannequin* in Icon News no. 45, (p.29). She is a costume and textile conservator at Glasgow Museums, Glasgow Life

Introduction

Bathing Belles a recent exhibition of swimming costumes at Glasgow Museums provided an ideal opportunity to experiment with Fosshape in producing some made-to-measure mannequins. I had heard of the wonders of this material and wanted to compare it to the linen scrim and wheat starch paste method I have previously used.

The factors governing the choice of mannequins for this exhibition were:

- The budget – this was limited, so commercially available display torsos were used where possible.

A shop bought torso



The Fosshape cut and pinned on the torso

- Some of the 1950s' costumes were too small for shop-bought torsos and required made-to-measure mounts.
- The time schedule – this was tight, so a quicker made-to-measure method was desirable.
- Fosshape is available from Preservation Equipment Ltd at a reasonable price, and has been Oddy tested.

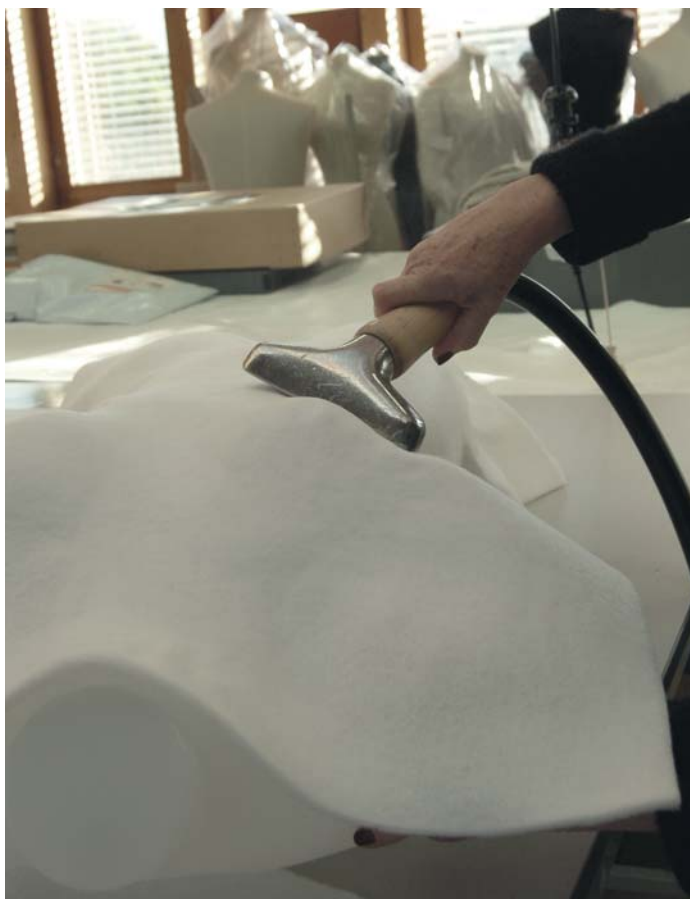
The material and its properties

Fosshape is a non-woven, low melt synthetic polyester fibre which is available by the metre. It sets and hardens and can be moulded over a form. It remains easy to cut to shape even after it has hardened, and is lightweight. The material shrinks as it sets, so an allowance for this must be made when calculating the amount of Fosshape needed.

The process of making a copy of the shop-bought torso was very quick: on average it took three hours to make a basic torso as opposed to three days using linen scrim and wheat starch paste.

The process

- Using a shop-bought torso as a model, a rectangle of 600gm Fosshape was cut for the front and back, allowing extra for shrinkage.
- The Fosshape was formed over each side of the torso using a steam gun and manipulated by hand to reproduce the underlying shape.
- Where necessary, the Fosshape was slashed and darted to get the material to bend to shape.



Steaming the Fosshape on the torso

Moulded Fosshape in process



A costume fitting for marking the neckline

- The size of the basic Fosshape torso was reduced to fit each costume by cutting away material down the side edges of both the front and back.
- The front and back were then stitched together down the side edges to form a three-dimensional mannequin.
- The costume was mounted on the mannequin, the outline edges of the costume pencilled onto the torso and the excess material cut away using a scalpel.
- The mannequin was then padded to fit each costume using polyester wadding, and finally covered with white silk jersey fabric.

The result

- Fosshape proved to be a very easy material to use, and made-to-measure mounts were produced relatively quickly, an average of four days for each mannequin.
- The material remains easy to cut to shape after setting, and can be re-shaped if necessary.
- Supports for straps can be made separately using two or more layers of Fosshape for extra strength and stitched on to the torso.
- Fosshape is very light, and it was necessary to add some weight to the torsos to increase their stability. This was done by infilling the end of the legs with wood inserts stapled in place which also helped to maintain their shape.



Final padding with marked neckline

- Fosshape does not set rock hard and can crumple if put under a lot of pressure, so it is probably best used for mounting lightweight costumes and for short-term exhibitions.
- Linen scrim and wheat starch paste mannequins take longer to make but the result is a solid structure suitable for long-term display, while Fosshape can offer an alternative, quicker, short-term solution.



Side and back views of the finished mount



AN INTERDISCIPLINARY APPROACH TO STAINED GLASS CONSERVATION

Kim Ackerley describes her placement experience at Lincoln Cathedral

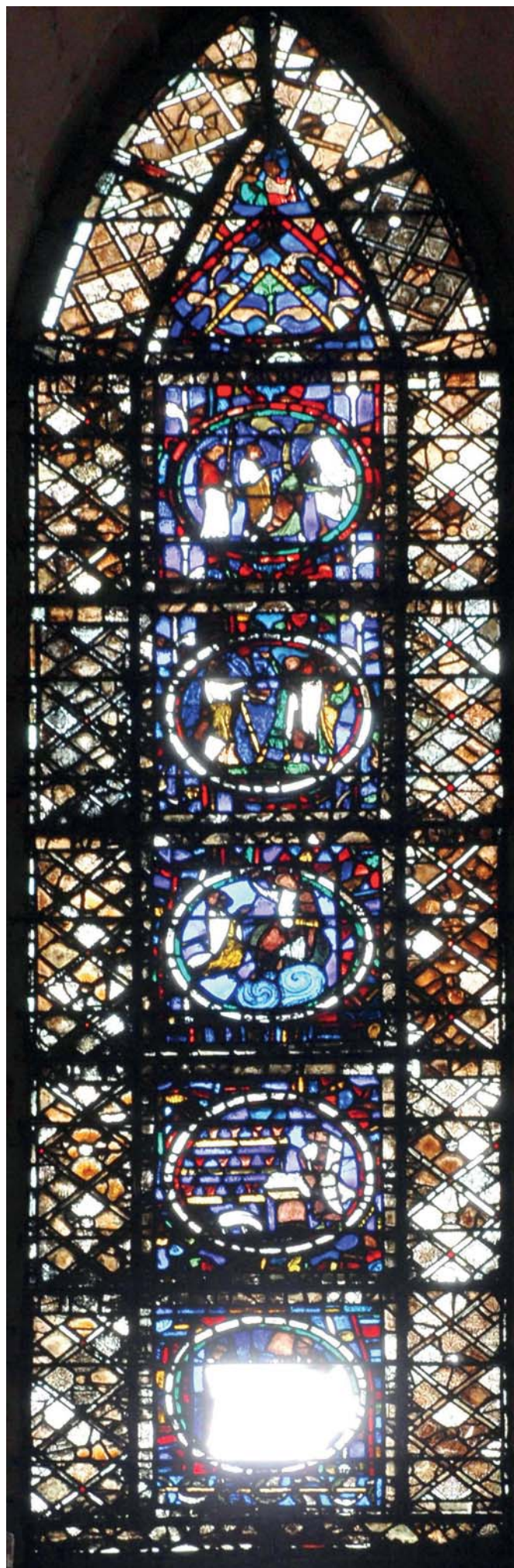
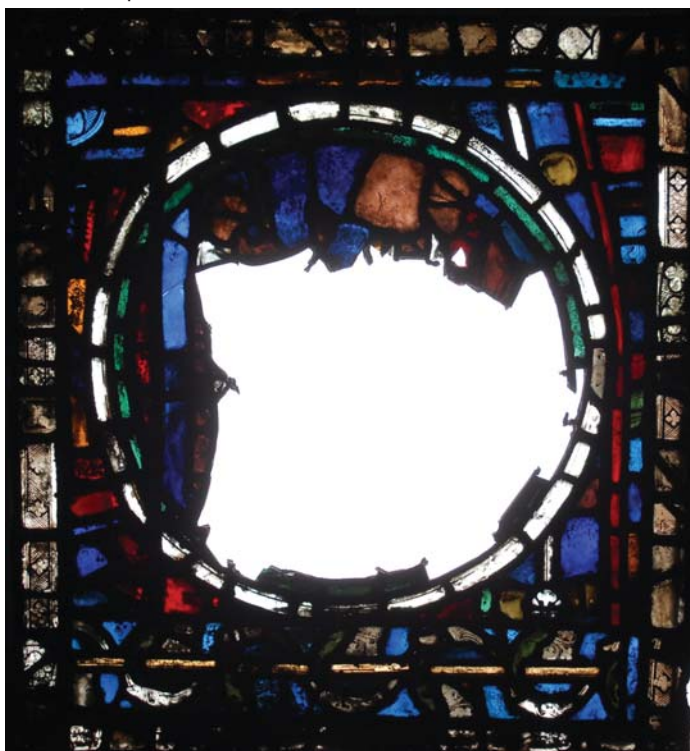
In the beginning....

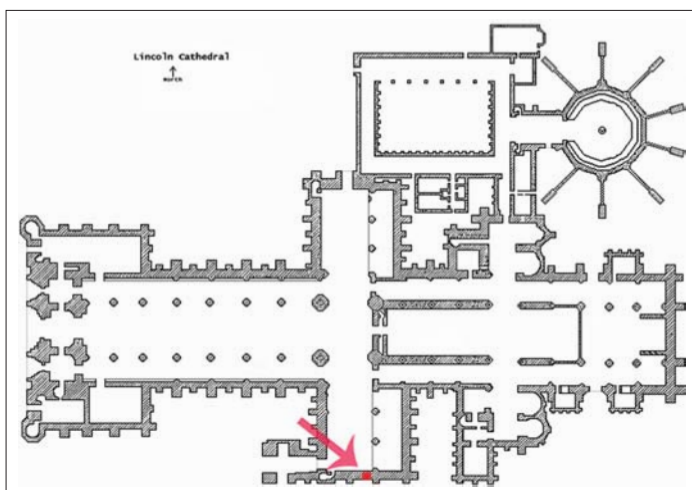
After completing an MA in stained glass conservation and heritage management at the University of York I was accepted on an eighteen month placement at Lincoln Cathedral funded by the Heritage Lottery Fund *Skills for the Future* scheme. I hoped to improve on my practical skills during the placement. One of the most significant opportunities to learn at Lincoln arrived in the form of a damaged medieval window.

In 2008 an intruder who intentionally had themselves locked inside the cathedral broke out through a medieval window in the south transept. The damaged panel is located at the bottom of a lancet containing glass which primarily dates from the 13th century. The panel was badly broken and it was subsequently removed from the cathedral; fragments of glass were gathered from the ground. A facsimile panel was made and inserted in its place.

The damaged panel was brought back into the conservation studio and examined. The glass was heavily pitted with craters and the external side of the glass was covered in thick accretions and many pieces were affected by manganese browning. Signs of severe paint loss were visible on the glass and previous repairs had covered it with strap and mending leads which affected its legibility.

The broken panel and, left, its location in the window





Floor plan of the Cathedral showing the location of the window

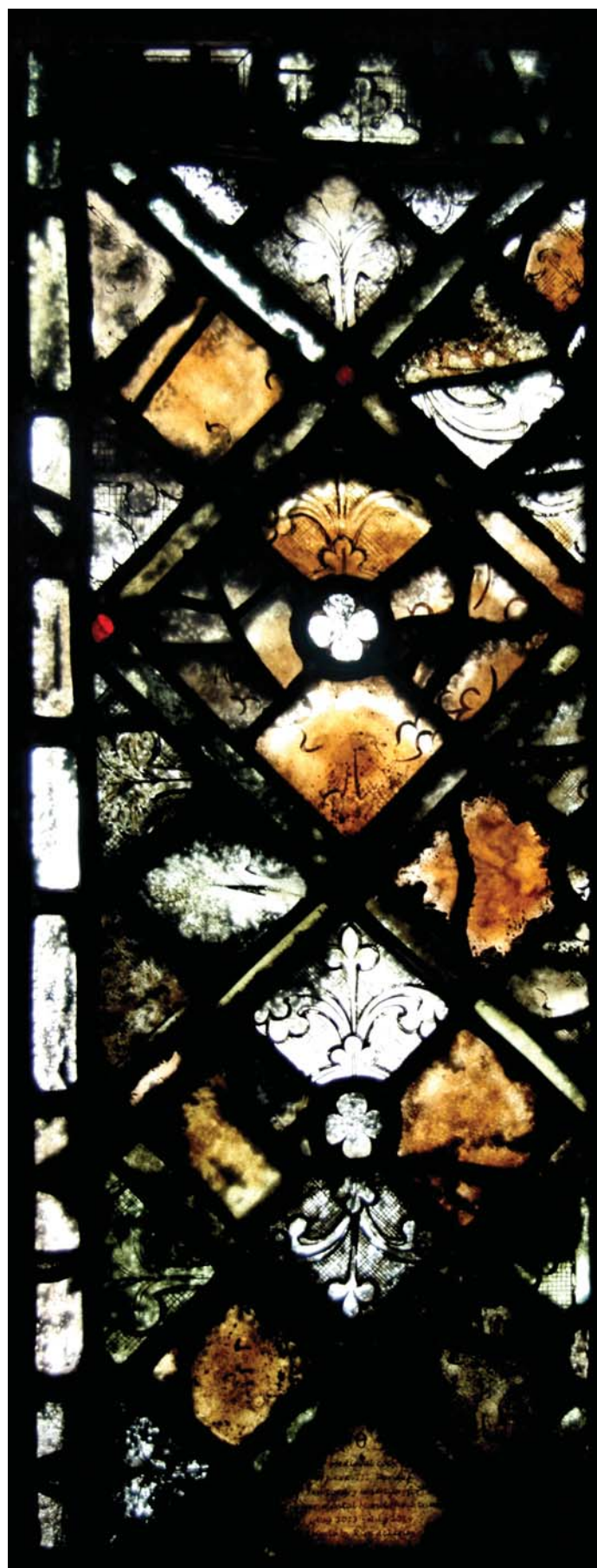
Upon closer inspection it became clear that this panel and the rest of the window required major conservation work. Samples of the glass, lead and accretions were sent for analysis to the Bundesanstalt für Materialforschung und-prüfung (BAM) in Berlin. In the meantime a French placement in the glazing department in 2012 analysed samples at the Laboratoire de Recherche des Monuments Historiques (LRMH) in Paris and compiled a full report on the manganese browning of the glass.

The analysis of the glass raised a series of questions about the condition and conservation of this window and its three partner windows. Not only did the glass require conservation work but so did the lead, the ferramenta, and the adjacent timber sub-frame and stonework. In order to make decisions on the conservation of the window it was decided that a meeting would be held with an interdisciplinary selection of specialists who were invited to fully explore various conservation options.

Meeting Preparation – Protective glazing

There was much work for the stained glass conservation department to complete in preparation for the meeting. We removed eight panels from the lower section of the window so they could be examined in the studio. It became apparent that the window was too vulnerable to be left in its location. So it was decided that installing a protective glazing system would be necessary. The precedent for protective glazing was set some years ago at Lincoln Cathedral by the Dean's Eye conservation project which used the mirror image system. This monumental rose window is located in an elevated position within the north transept. However, these medieval panels are on the south side of the cathedral and are located much lower down than the Dean's Eye which makes them very visible from ground level. Examples of different protective glazing systems were required to judge which would be aesthetically appropriate for the window viewed from the interior and for the cathedral viewed externally as a whole. A total of ten panels were prepared and presented at the meeting including mirror image and cast glass options.

My first task was to make a mirror image panel. A rubbing had been made of the original, so I traced the lead lines from this to create a cutline pattern which I used to cut untreated and treated float glass. Once I had the glass I was able to lead up, solder and cement my mirror image panel. My colleagues were also very busy with kiln forming panels based on a thermocast system as an alternative option.



Meeting preparation – Mock-up

The original panels required conservation work to stabilize them and were too fragile to be used to demonstrate protective glazing options. The panels were stored safely in the conservation studio and could be viewed during the meeting. We required replica panels so that the participants

Left The facsimile panel ready for environmental trials
Right The original panel

inserted into the original medieval ferramenta (metal work). The printed copies could be taken onto site and easily inserted into a secondary support frame built next to the original ferramenta.

The meeting

The meeting was attended by many experts coming from the UK and Europe. These included specialists in stained glass, environmental monitoring, chemistry and history of art. The mix of different experts was reflected in the discussion topics and questions that were raised. The dialogue highlighted the need for further investigation rather than providing solid answers about the treatment of the window. The day was rounded off by the cathedral architect who summarised the topics of discussion and conclusions that had been reached.

Meeting conclusions

Cleaning glass

There are several options required to treat the glass because of its many existing problems. There is no 'one-size-fits-all' cleaning method. Prior to any cleaning test a mapping of the different types of glass and their damage is essential. This will be followed by a series of cleaning tests in a controlled environment. These tests will try dry, mechanical and chemical methods. Once these tests have taken place, the samples will be sent off to the BAM where further investigations will be made. The results will demonstrate how the glass, corrosion, weathering layers and gel layer have been affected. The outcome of these tests will determine the most appropriate methods for treating the deterioration products.

Lead

Several of the border leads have become damaged and developed lead carbonate (white lead). It was recommended that these be replaced to improve the structural integrity of the panels. The possibility of fully releading the panels was discussed and then discounted because of the stable condition of the majority of the lead. It was also agreed that releading would be too invasive and ultimately unnecessary.

Ferramenta (original)

The meeting also discussed whether the original ferramenta should be removed for analysis and cleaning. It was suggested that the metal work should not be removed because of concerns that it could be damaged during removal and by the change in weight and tension. All of the treatment that the ferramenta requires can be applied while it is in situ. It was also agreed that a wax-oil coating could be applied to the ferramenta to protect it rather than a conventional painted system which is considered too invasive.

Timber frame

The preservation of the wooden frame also raised discussion over whether it should be removed for treatment of whether it could be treated in situ. There was a thought of moving the



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would be able to envisage the aesthetic effect of the protective glazing with the original panels without using the original glass. To replicate the original panels we used photographic images of the window printed onto transparent boards to be viewed internally and opaque boards were used for the external viewing. The protective glazing options were



External view of the window with the facsimile panel replacing the broken one

wooden frame inside the cathedral so that it would not be threatened by weathering and so that it would be kept with the medieval panels. The arguments against moving the wooden frame are that it could be damaged during the move and could flex out of position. The wooden frame can be seen from the exterior of the cathedral and moving it inside would affect the appearance of the building. The conclusion was that the timber frame would not be removed and that a timber specialist was required to judge the frame's safety and to advise on its future treatment. The group agreed that the frames must be thoroughly recorded and photographed as an intrinsic historic artifact.

Monitoring

It is a fact that protective glazing is necessary to slow the medieval window's rate of deterioration and to minimise potential damage from vandals. Before a full protective glazing system can be installed, tests are required to monitor the environmental conditions on site. For accurate monitoring tests it is essential to build facsimile panels as the original glass is too fragile in its current, pre-conservation state to be used.

Protective Glazing

The visual impact of a protective glazing system on a building should be minimal. The mirror image option would limit the disruption to the appearance of the cathedral. On the other hand, the cast glass option is appealing because it could allow the medieval panels to continue to be clearly viewed from the exterior and limits parallax issues. At the time of writing, a final decision has not been made regarding which protective glazing system should be used. Ultimately, it was agreed that the protective glazing choice was one purely of aesthetics and therefore, it should be left up to the people who live and work around the cathedral.

Conservation documentation process

Still using traditional recording methods but also moving with the times, the conservation studio uses slides and paper documentation but also digital images and electronic reports. There was a discussion about whether purely digital documentation should be used for this project and whether the glazing department should no longer take traditional slides. The reports are already stored in paper and digital format and the incorporation of digital mapping was discussed. More work is required before it is appropriate to



A piece of glass from the broken panel before cleaning

switch to a fully digital system. It is felt that, at this stage, the slides and paper documentation will continue to be used in conjunction with the digital system.

My Conclusion

The medieval glass is securely stored in the conservation studio in preparation for the cleaning trials. With regards to the cleaning of the glass the conservation team has gathered the most up to date information on relevant methods so that we can conduct the trials. A dendrochronologist has visited but was unable to date the timber because there was insufficient material to gather a sample. Preparations are also almost complete for the environmental monitoring trials to start.

We continue to progress but there is a great deal of work to be completed. I learnt a lot observing and partaking in this pre-conservation process. The long period of testing, documenting and assessing is the only way that a well informed conservator can understand the heritage he/she is about to conserve. This process is fascinating because it is an interdisciplinary project that has encouraged everyone involved to learn more about different fields of conservation.

Many thanks to Thomas Küpper, Daniel Beal and Fernando Cortés Pizano who have helped me with this article and during my placement. All of your time and patience has been greatly appreciated.

I have now finished my placement and am working as an Assistant Stained Glass Conservator for Jonathan and Ruth Cooke Ltd where I have been able to use the skills I learnt during this project.

From beetles to The Beatles



Entomology Products (Pages 71-75)



Phonograph Record Storage Sleeves (Page 27)

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