



Dealing with shipwreck finds galore

Also in this issue

The PACR action plan • A conservation data project • Valuing student placements

JUNE 2019 Issue 82



From the Editor

In this issue you will find the second part of the interview with Simon Cane (the first part appeared in issue 80). His reflections on conservation as a subject and as a career are broad-ranging. His own working life has now taken him beyond conservation but, interestingly, he values and has chosen to retain his accredited status and puts the necessary effort in to maintaining it.

Valuing accreditation is also the theme of our Chief Executive Sara Crofts' piece. She has given a lot of thought to why it is important and, then having got you thinking about it too, asks you to contribute ideas which will help to promulgate the benefit of accreditation more widely. In a timely accompaniment, our Head of Professional Development, Susan Bradshaw has written an article to bring you up to date on the five-year plan, recently approved by the Board of Trustees, to develop Icon's accreditation further.

And in the rest of the magazine there is something for everyone: ship-wrecked finds, the value to students of work placements, the repair of a very sorry-looking plaster cast and a new project on improving the accessibility and sharing of the large amounts of data that conservators generate in their work.

Lynette Gill



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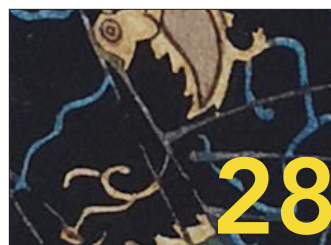
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2 NEWS

From the Chief Executive, PACR news, Group news, policy update, research directories to note, linked conservation data project

13 PEOPLE

15 THE ROOSWIJK
Handling hundreds of artefacts from a shipwreck

20 TALKING TO SIMON CANE
Part 2 of the interview about his career in conservation and beyond

24 REVIEWS
Scottish resilience, heritage science data, tracing paper and colour in Japanese prints

29 IN PRACTICE
Conserving a plaster cast and the emerging conservator on the value of student placements and lessons learned

Cover photo
Close-up of a thimble chest found on the shipwrecked Rooswijk
© RCE/ Historic England Image: James O. Davies (Historic England)

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professional update

From The Chief Executive



Sara Crofts on accreditation and why it matters

There are several strands of activity that link my previous post at the Heritage Lottery Fund (HLF) with my not-so-new-anymore role at Icon. Perhaps the most interesting and important is accreditation. As Head of Historic Environment at HLF I kept in touch with the various professional bodies (RIBA, CIfA, IHBC etc.) and was keen to champion the value and importance of

accreditation, but I was often challenged to explain why HLF didn't make employing accredited conservation professionals a key requirement of grant awards. The answer is essentially due to the problem of defining 'conservation' if you fund a broad range of projects across the spectrum, from objects to buildings to places. How do you help novice grant applicants understand what is conservation, and what it is not...? (If you think you know the answer please do tell me!).

In the past, the solution was offering grant programmes that specifically focussed on conservation and repair – such as the much-missed Grants for Places of Worship – but in the new Strategic Funding Framework¹ this becomes unworkable, because most grants are offered through 'open' programmes where almost anything heritage-related is in scope. So, the best that I could do was to write a policy statement setting out the value of accreditation. Hopefully, this statement will be published on the new National Lottery Heritage Fund website soon.²

Faced with a blank sheet of paper at the outset of writing this new policy, I assumed that the websites of the various professional bodies would offer a wealth of convincing arguments about the benefits of accreditation. I was confident that I would be able to Hoover up nuggets of wisdom on which to base my policy. However, to my dismay, my research uncovered very little useable material – though I have to say that the Icon website scored higher than most. I therefore concluded that accredited professionals know why accreditation is important, and are reasonably adept at explaining to their fellow professionals why accreditation supports personal professional development, but we haven't fully mastered the knack of selling the idea to our potential clients and commissioners.

So, still faced with a relatively blank sheet of paper, I attempted to construct my own case for why accreditation matters. My key argument was that accreditation provides assurance that the professional has a series of independently verified competencies. These competencies include:

- An appreciation of the complex relationships between materials, culture, history and context.
- An understanding of the range of philosophical approaches that can be taken, from preservation through conservation to restoration, and the ability to offer guidance to the client on the most appropriate approach for each project.
- A 'toolbox' of skills, expertise and experience that can be deployed to ensure the proper care and conservation of cultural heritage.
- An ability to develop and implement a responsible approach to the care and management of cultural heritage following best practice guidelines.
- A commitment to ongoing learning and development (CPD) monitored through regular reviews.

I also made the important point that, if should something go wrong, accrediting bodies have the necessary processes to deal with complaints and breaches of codes of conduct.

In addition, I also noted that becoming an accredited professional takes time and effort and requires a high degree of commitment to conservation. Accredited professionals are, without exception, extremely passionate about cultural heritage, which means that they share their client's enthusiasm for their object and are invested in the desire to achieve a positive outcome. The fact that they can draw on a body of highly relevant previous experience as well as current best practice in order to propose cost effective solutions makes achieving a successful outcome even more certain. And, on the flip side, project risks are likely to be lessened and more effectively managed, as experienced accredited professionals are likely to be highly aware of any potential problems and pitfalls and can take steps to address any issues at an early stage.

I hope that you agree that these are all good points, but I am sure that there are other important benefits that could also be added. So, this is where I need your help: if you have any ideas about how we advocate for accreditation more strongly and effectively, then please do let me know, as a renewed collective effort is required. We are already tackling this through our participation in the Client Demand Task Group³ and in the materials that will be developed to support the new Conservation Register but there is a great deal more that could be done to explain the value of accreditation to the public. I promise to continue to promote accreditation, but I call on all our ACRs to do the same.

¹ <https://www.heritagefund.org.uk/publications/strategic-funding-framework-2019-2024>

² <https://www.heritagefund.org.uk/hub/good-practice-guidance>

³ The Task Group was set up in recognition of the need to stimulate demand for skilled practitioners across the historic environment specialisms in order to ameliorate emerging shortages and gaps in skills and expertise which could compromise the proper care and investigation of the historic environment.

POLICY BRIEF

Workforce Research

Earlier this year, some exciting news appeared in my inbox. Historic England was writing to inform me that they had decided to support a project we have been hoping to progress at central office for some time. As a result, this year, Icon will be partnering with the Chartered Institute for Archaeologists in a new Historic England-funded workforce research project.

The project seeks to develop a sustainable toolkit for collecting, analysing and presenting labour market intelligence on the heritage workforce. The toolkit will comprise an accessible methodology and survey template that can be used by professional bodies and organisations wishing to survey the heritage workforce. This will encourage a common approach to undertaking research and result in consistent and comparable results on different subsectors of heritage, facilitating a broad overview of trends and developments.

The project has the potential to empower Icon and other sector bodies with a mechanism to independently conduct workforce research on a regular basis by reducing reliance on external funders. It will facilitate research that can vastly improve the evidence base upon which we base our policy and advocacy and professional development activities.

We expect to kick off the project this month with a model being delivered in the summer. This will allow us to undertake research in the autumn and have new labour market intelligence in hand by the end of the year. We will look to investigate key workforce questions such as skills needs, education and employment trends, salaries, and diversity.

Papers, Papers, Papers

This quarter, members of the Policy Advisory Panel have been kept busy with a steady stream of policy papers. We welcomed the NHS Long Term Plan's commitment to social prescription in a statement outlining the potential of heritage and conservation to support health and social services. In Wales, we commended the Arts Council's objectives to improve diversity, support international work and develop leadership within the arts and cultural sectors in its draft Lottery Strategy.

Our activity in Scotland focused on the environment, with responses to two consultations on climate change adaptation. Icon's submissions highlighted the risk of a changing climate to all types of cultural heritage and the power of conservation to inform action.

You can find these submissions on the Icon policy webpage, alongside other recent policy papers, at: <https://icon.org.uk/icon-policy-and-advocacy>.

International

As Icon's Policy Advisor, I have the pleasure of attending interesting conferences and events dealing with cross-cutting themes in heritage. In March, I joined delegates from across the sector at the British Library for the seventh Working Internationally Conference to discuss cross-border

collaborations and partnerships. *Working Together To Achieve More*, hosted by ICOM UK and National Museum Directors' Council, featured an invigorating array of sessions exploring the power of networks to address global problems, facilitate knowledge exchange and promote social cohesion.

The day's talks confirmed what I perceive to be one of the main values of working internationally. Speakers frequently mentioned profile-raising as a driver for global collaboration. At Icon, we have already seen evidence of an increased profile resulting from our engagement with China. Not least, DCMS Heritage Minister Michael Ellis invited Icon to a private meeting following the publication of our report on UK-China collaboration in conservation.

Cultural diplomacy is a strong agenda for the UK Government, with a soft power strategy in the works. Similarly, international engagement features heavily in the strategies of sector funders, for example in the National Lottery Heritage

Fund's Strategic Funding Framework. There is clearly widespread encouragement for our sector to collaborate with global partners. Making use of the opportunities to extend our influence abroad can increase Icon's visibility at home, helping us to strengthen our capacity to deliver our vision for cultural heritage.

Anni Mantyniemi

Icon's Policy Advisor



ICON JOINS THE CGA

The Cultural Governance Alliance (CGA) was set up at the end of last year with support from the Clore Leadership programme and backing from the National Lottery Heritage Fund, AIM and others. The aim of the CGA network is to be a light-touch collective of agencies, organisations and advocates working strategically to champion, share and promote best practice in the governance of culture.

Vision: A resilient and relevant cultural sector, with highly performing cultural organisations whose boards and trustees are supported to perform at their best: to be stronger, better informed and better equipped to demonstrate excellence in governance.

Mission: To develop and run a strategic peer network, supporting our members to be effective advocates and demonstrators of good governance through networking, collaboration, and the pooling and sharing of resources.

The key activities that the Cultural Governance Alliance will undertake include:

- **Signposting:** Providing a primary reference point for good governance advice, information and practice.

- **Collaboration:** Coordinating and promoting cross-sector opportunities including workshops, seminars, training and professional development. Creating and optimising opportunities for the co-production of resources and events.
- **Advocacy:** Sparking and encouraging dynamic and constructive engagement with the topic of good governance through dialogue, forums, events and activities.

Given our ongoing work of reviewing and improving our own governance we were delighted to see that the aims of the CGA were closely aligned with our own, and so we applied to join the network. Happily, our commitment to good governance and sharing our learning with others meant that our application was accepted. This will offer us the opportunity to take part in future governance activities and to learn from other organisations in the cultural sector. The CGA website has a useful knowledge library that we will be able to utilise too.

DEVELOPING ICON ACCREDITATION

There is progress to report since my article about the PACR Consultation in the last issue of Icon News. The activity list and action plan proposed to the Icon Board of Trustees on 20 March was approved.

Work is now underway to put this development work into action and the chart below offers an overview of what is planned to happen and when. Obviously, the actions proposed in the plan need to be phased over the five-year cycle and some actions need to be done before others can progress, such as sourcing funds for an on-line facility to be developed to support the accreditation process. Other actions will need to run in parallel, such as reviewing the Professional Standards while the Ethics Task & Finish Group work on the list of principles and guidance.

The actions in more detail

The activities noted on the left-hand side of the chart are listed in terms of their importance as indicated by members during the consultation period. Marketing accreditation is in pole position and will be firmly in place across this five-year plan. Icon will need to consider whether the PACR logo is fit for purpose and how meaningful the post nominal 'ACR' is to gain the right level of profile and its visible link with the Icon branding.

Second in line is reviewing Icon's Professional Standards and this will:

- Ensure that the Professional Standards reflect current working practice.
- Ensure that the Professional Standards are clear.
- Ensure that the Professional Standards are equally applicable to all areas of conservation.
- Ensure that all Icon members are fully aware of the Professional Standards and how they apply to their professional practice.

Activity number three in the chart is to investigate the development of the PACR Pathway and whether a new category is created that includes specific criteria for joining and how this would be undertaken, while supporting members to work towards accreditation.

Coming in at number four is action to review the cost of accreditation and how these costs can be presented to the membership. It is closely followed by activity number five, which will look at how IT provision can best be used to support the application process and how, by introducing an on-line facility, it can help all members record and plan their personal and professional development.

Development of Icon accreditation	2019/20				2020/21				2021/22				2022/23				2023/24				
	Financial year	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Areas of activity																					
1. Marketing of Accreditation		Target Icon Groups & Networks		New CR & Enhanced listing available	External engagement & promotion including website update with case studies																
		Engage emerging professionals network & students			Internal promotion including CPD																
		Launch of Client Demand Task Group webportal promoting registers of accredited professionals																			
2. Professional Standards				Ethics signed off	Update Standards	Promote new Standards and Ethics															
				Review Standards																	
3. PACR Pathway Membership Category				Create new category	Promote new category to members																
4. Cost of PACR		Review cost of PACR		PACR fees approved for 3 years										Review costs of PACR		PACR fees approved for 3 years					
5. Online application and CPD portal				Source funding for on-line system	Secure funding	Develop on line system	Implement online system														
				Review application format																	
				National Lottery Heritage Fund UK-wide digital capacity building campaign offering grants totalling £1million																	
6. PACR Assessment Process			Seek use of qualified assessors	LDD training for assessors	Update assessment process																
7. CPD marketing		The Heritage 2020 Capacity Building Group continues to work towards an "integrated approach to the education, training and continued development of heritage professionals"				Promote opportunities with an on line system				Engage members with on line system											

Evaluate actions and identify further development options

Activity six will investigate how volunteers, who are vital to a peer-review accreditation process, can be further supported in their roles. It will also consider whether it would be beneficial to the process if assessors had a qualification in assessment in addition to their ACR status. (As is the case with the ACRs who conduct assessments for the V&A's Conservation & Collections Care Technicians' Diploma.)

The seventh position - understanding the purpose of CPD - should certainly not be considered the least important, as it is still part of a priority list that heads up many other actions. It is about ensuring that all Icon members – not just those accredited - have a clear understanding of continuing professional development and understand the full range of possible CPD activities available to each and every practising conservator.

Susan Bradshaw

Icon's Head of Professional Development

BACK TO PAPER!

You may have noticed that this issue of Icon News reached you in a paper envelope instead of the plastic film wrap that we have been using for some time now. The change has been made in response to the emails we have received from members every month or two asking if we can replace the plastic film wrap with a biodegradable one such as that used by some other national charities and organisations.

We have researched these biodegradable wraps and we do not think that they are necessarily the best environmental option. The film used contains only 20% biodegradable starch-based material, whilst 80% is still oil-based. The manufacturers state that it will all biodegrade but we think this may mean that it disintegrates to plastic microparticles, invisible but still harmful in our rivers and oceans. More importantly it only biodegrades if it is put in a proper composting system operating at 60°C or more. This is hard to achieve in most home compost heaps. It will not biodegrade in hedges and ditches. Most people would simply put it into mixed waste as it is generally known that you should not put film into the recycling bin.

The good news is that our new paper envelopes are made out of 100% recycled paper and can of course be put in your paper recycling bin. If they somehow got into the wider environment, they would naturally compost down like trees and leaves.

The extra cost of using recycled paper envelopes compared to plastic film is about £180 per year. At our annual meeting with the publishers of the *Journal of the Institute of Conservation* in April 2019 we requested that they switched back to paper envelopes and they are looking into this.

A full 78% of paper in the UK is recovered and recycled. In contrast only 32% of plastic is collected for recycling but, since China stopped agreeing to import waste plastic from other countries, it is unclear how much is actually recycled into plastic products. It is a pretty fair assumption that none of the

plastic film used for wrapping magazines is recycled, whether it is said to be biodegradable or not.

Simon Barcham Green

Icon's Business Manager

(Simon Barcham Green has a BSc in Paper Science from the University of Manchester where he also studied Polymer Science.)

BELFAST CONFERENCE UPDATE

Critical mass from cross specialist diversity!

Icon's founding mission was to unite the varied and diverse range of conservation disciplines. With sixteen specialist Groups and five cross-disciplinary Networks under the Icon umbrella, there is a glittering constellation of events to attend in any given month – but Icon's triennial conferences seek to achieve a different objective. It is a rare opportunity to bring professionals working across the entire breadth of the conservation sector into one room: from paper, to metals, to stone, wall paintings and beyond; and for the first time to introduce new cross-disciplinary networks covering areas such as documentation, dynamic objects, modern materials and contemporary art – to name but a few.

In keeping with this, the theme for #Icon19, *New Perspectives: Contemporary Conservation Thinking and Practice*, underscores the percolation of ideas and approaches between one specialism and another, and to showcase this the #Icon19 Programme Committee, led by Icon member Leanne Tonkin, has organised seven parallel sessions over two days. Of course, with seven rooms in action at any one moment, there will be seven papers to choose from each session. Full details on the ninety-odd papers on offer are on the Icon website.

One of the key attractions of any conference is the chance to visit places and spaces one might not otherwise get to see in the course of ordinary life. Our conference tours in Belfast were devised with this in mind, taking their cues from Icon's members on the ground locally – showcasing the best that Belfast has to offer. Delegates can take in tours of the historic city centre and the sumptuous grandeur of Belfast City Hall; while a bus tour explores the famous local street art from a conservation perspective, and another bus takes delegates around venues and backstage areas of National Museums Northern Ireland. But surrounding Belfast are also a wide range of options – including historic Mount Stewart and Hillsborough Castle, both with a full-day agenda on offer for delegates.

Previous conference feedback emphasised that one of the most fundamental benefits of conference attendance is the chance to make new connections while catching up with established colleagues and friends – so the usual range of events around our triennial conference sessions has been expanded. A special event to welcome those coming from outside the UK takes place aboard the historic SS Nomadic, at

Titanic Belfast; while Icon's formal conference dinner will take place in the sumptuous grandeur of Belfast City Hall, beautifully conserved and originally decorated by the same craftsmen who produced the famous interiors of the Titanic. And with this connection to the great age of soot and steam, it seems appropriate to ensure that delegates have the chance to unwind together after the conference sessions are over – aboard a historic steam train with a cash bar and jazz band, with ample scope to get out and dance along the way.

With such a diverse and varied programme, along with a wide range of tours and variety of evening events to bring delegates together, #Icon19 seeks to deliver on the Institute's core mission with dynamic flair and bring a truly global discussion to bear in a part of the UK where Icon has not previously staged events. Tickets are still available at the time of writing, but in common with Icon's previous conferences – they are steadily going.

Michael Nelles

Head of Membership

NEWS FROM THE GROUPS & NETWORKS

Archaeology Group

After the fabulous response to our one-day conference in Birmingham last year the Archaeology Group committee is looking forward to hosting further events in 2019.

Our 2019 AGM will be held on 8 August at the Ashmolean Museum, Oxford. Please put the date in your diary. At the AGM there will be the opportunity to pick-up a complimentary copy of our publication, '*Decorated Surfaces on Ancient Egyptian Objects: Technology, Deterioration and Conservation*'. We are also looking forward to organising and hosting a Digital X-radiography Conference in London this November. Further information on both events will be released shortly.

Suggestions for future events and workshops are always welcome. Please watch Iconnect, Twitter, Facebook and the website for further announcements.

We'd also like to let our members know that we've got a Twitter account you can follow (@ICONArchaeology). We would love to hear about your current archaeological conservation projects big or small, please tag us in your posts and follow us on Twitter to see what everyone else is up to. Let's share how exciting our jobs can be!

Charlotte Wilkinson

Icon AG Communications Rep

Book & Paper Group

Chair's update

After serving as treasurer for about four years, I want to introduce myself as the new BPG chair. My name is Abby Bainbridge; an accredited conservator, I teach book conservation at West Dean College and run Bainbridge

Conservation with my husband, Tristram Bainbridge ACR, in south London.

Since the last issue, we've had several people step down, and welcomed new faces to the committee. Moving on are Elizabeth Ralph (Chair), Salvador Alcántara Peláez (Secretary), Nikki Tomkins (Student Liaison Officer), and Charlie Grimdsdell, and I want to thank them for all of their hard work. Liz, Salvador, and Nikki in particular were on the committee for a long time and gave valuable contributions. Newly elected to the committee are Amy Nicholl (Secretary), William Bennett (Treasurer), Arantza Dobbles Busto (Student Liaison Officer) and, in a brand new position, Kirstin Norwood as Development Officer. Kirstin will be coordinating donations to our new Fred Bearman Memorial Fund, which finances the annual grant and lecture, and sponsorship for conferences and other projects. Full bios (and photos!) of committee members are on the Icon website. We still have openings for special projects officers, so if you want to help us out, please get in touch.

This quarter we've been busy with discussions on how to respond to UAL's February announcement that they are working towards closing the Camberwell MA Book & Paper Conservation course. At the time of writing we're preparing for an internal Icon round table to inform the content of Icon's formal response to the closure announcement. We solicited opinions via Icon's Policy Advisor to feed into this round table to make sure people who couldn't attend would be able to express their opinions and advice.

I've also been participating in the Task & Finish Group convened by the Board of Trustees to review the operation of Icon's Groups, resolving issues based on our experiences and bringing the procedures up to date. This group includes Chairs and Treasurers, Trustees, and staff in order to make sure all views are represented. So far we have made progress towards the new governance documents and are working on financial issues next.

Abigail Bainbridge ACR

Events and Training Sub-committee

As I write this we have just held our 2019 AGM, many thanks to those who were able to make it and contributed thoughtful questions to our lightning session speakers and panel members. It was great to hear so many people engage with the topic of protection of cultural heritage in areas affected by conflict and crisis, it felt as though the discussion has carried on far beyond the end of the evening.

The Events and Training Subcommittee have hit the ground running in 2019 and already coordinated several practical workshops covering print identification, bamboo spatula making and letterpress printing. We have also held our first, completely online talk with Emma Nichols speaking about her experience of short term contract work after graduating. As we head into the summer months we will have a very exciting practical workshop on Indo-Islamic Papermaking allowing attendees to get their hands dirty, making, dyeing and

burnishing their own paper, learning through practice about these traditional techniques. I would like to thank the Clare Hampson Fund for supporting this workshop which has allowed us to keep ticket costs affordable.

There are plenty more exciting and ambitious events on the horizon so keep an eye on your inbox for upcoming adverts.

Holly Smith

BPG Events and Training Sub-committee Chair

Ceramics and Glass Group

The Ceramics and Glass Group is thrilled to announce that early bird booking is now open for the 2019 joint conference of ICOM-CC Glass and Ceramics Working Group and the Icon Ceramics and Glass Group, hosted by the British Museum in September. For details on the programme, tours available and how to book your place, please see the Group's pages on the Icon website.

The conference marks the 5th Interim Meeting of ICOM-CC Glass and Ceramics Group, and the 34th year of dedicated events from Icon's Ceramics and Glass Group. The joint conference promises to gather an impressive group of professionals specialising in the field of ceramics and glass conservation at a prestigious location in the heart of London. The three-day conference includes thematic sessions with paper presentations, a stimulating and broad poster session and several tours before and after the conference. We also feature a dedicated student session. Students currently enrolled (or enrolled at the time of the Call for Papers) in a conservation-training programme were selected to give short presentations of their current work.

The Nigel Williams Prize 2019, which awards an outstanding professional project focusing on the conservation/restoration of ceramic, glass or a directly related material, will be awarded at this conference.

All the professional papers contributed were peer-reviewed by the members of the scientific committee, published in colour preprints and will be distributed in hard copy with attendee registration packs.

Now is the time to book your place. An early bird conference fee is available until 14 July, so book now to avoid disappointment. Booking links are available through the Ceramics and Glass Group pages on Icon's website.

Furniture and Wooden Objects Group

Having recently had our biennial symposium, held at The Linnean Society, London, we would like to give our thanks to the speakers and attendees. We are now in the process of creating postprints which will be available on our Group page of the Icon website.

Next up, we are hosting a Japan Study event, in partnership with the Gilding & Decorative Surfaces Group, at the British Museum on 3 October. With a focus on Japanese Buddhist sculpture, the event includes a tour of the Japan gallery, and talks from curatorial and conservation departments and a



WEST DEAN COLLEGE
ARTS & CONSERVATION

PROFESSIONAL DEVELOPMENT IN CONSERVATION

6 June: Preventing Pests by IPM (At the British Library)	19 June: Disaster Response and Salvage (At the British Library)
10-13 June: Conservation of Historic Concrete* (Building Conservation Masterclass)	22 July: Understanding Bookbindings (At the British Library)
17-20 June: Managing Environmental Monitoring* (Object and Materials Conservation Courses)	24 July: Environment: Effective Monitoring and Management (At the British Library)

*10% discount for Icon members

www.westdean.ac.uk/cpd cpd@westdean.ac.uk
West Dean College of Arts and Conservation,
Chichester, West Sussex, PO18 0QZ



Japanese crafts specialist. More details soon.

If you are interested in getting involved, whether it is writing an article or joining the committee, or have any questions, comments or suggestions please don't hesitate to get in touch (furniture.events@gmail.com)

The Furniture & Wooden Objects Group committee

Heritage Science Group

Committee meetings

On 29 March, Committee member Eric Nordgren hosted the Heritage Science Group meeting at West Dean College. The committee meeting was preceded by a tour of the facilities at West Dean College. As well as hearing reports from our committee members, we discussed:

- the launch of our annual photo competition
- upcoming training events
- logistics for our AGM, guest lecture and reception
- recent developments in the Groups Review Task and Finish Group

AGM and guest lecture

Our AGM will take place on 26 June at 4.30pm at UCL's Institute of Archaeology. Following the AGM there will be a guest lecture from Nicola Grahamslaw from SS Great Britain. As Conservation Engineer, she is responsible for the conservation of Isambard Kingdom Brunel's SS Great Britain. A drinks and nibbles reception will follow the guest lecture. Tickets will

shortly be available on Eventbrite. Please keep an eye on our Twitter account where more details will be announced.

Photo competition

Our annual photo competition will be launched at the end of April. The competition will close shortly before our AGM, in order that we can announce the winner(s) at this event. The aim of the competition is to showcase photos that depict heritage science, whether actual data, instrumentation, interpretation or implementation.

Events

On 11 Feb, our Group supported a free seminar entitled 'Making Heritage Science Data FAIR and Impactful', jointly organised by the National Heritage Science Forum (NHSF) and the European Research Infrastructure for Heritage Science (E-RIHS). On page 25 you can see a review of this event by Committee Member Natalie Brown.

Artefact Sampling Guidance

Our artefact sampling guidance was officially launched in January 2019. It can be found on the HSG webpage: https://icon.org.uk/system/files/documents/icon_hsg_ethical_sampling_guidance_-_jan_2019.pdf

Keeping in touch

Finally, keep an eye out for our notices in Iconnect, on our webpages, and on Twitter (@ICONSci) and get in touch via our Group email address (hsg@icon.org.uk) if you would like to become more involved in the Group's activities.

Eleanor Schofield, HSG Chair

Icon Scotland Group

Training and events

We ran a two day course on 'Sewing a late-medieval Gothic binding' at the National Library of Scotland in Edinburgh on 25-26 April 2019. The tutor, Arthur Green, led a series of practical sessions, enabling each participant to produce a model on double supports with packed sewing. It was noted that this is the best way to understand a complex structure, and that the participants now felt much more confident about working with Gothic bindings.

We are hoping that our next event will be a theoretical and practical course on the salvage of library, archive and museum collections, hosted by the University of St Andrews library. The arrangements are still being finalised at the time of writing, but the details will be made available soon.

We have also recently released information about a five-day practical course on gilding, which is running from 9-13 September at Kelvin Hall in Glasgow. This is a fantastic course led by Tim Ritson, and when we ran it in 2018 it sold out almost immediately, which is why we're running it again! The course provides opportunities to learn a variety of skills relating to gilding, using traditional materials and techniques, and the participants prepare a gilded frame which is theirs to keep.

Contact and keep in touch

We obviously welcome primary and secondary members, but remember that all you need to do in order to receive the emailed Scotland Group Iconnects is tick the Group on your Icon membership form. You can also see our latest updates on social media: our blog is at <https://iconscotland.wordpress.com>, our Facebook page is <https://en-gb.facebook.com/iconscotlandgroup> and our Twitter feed is @icon_scotland. Comments and suggestions for events can be emailed to scotland@icon.org.uk.

Modern Materials Network

Call for papers #NoMaterialTooModern

The Icon Modern Materials Network is inviting abstracts for a one-day symposium on 17 October at the Science Museum, London. The day aims to bring together conservation and non-conservation professionals with an interest in the preservation of modern materials such polymeric materials (plastics), modern metal alloys, carbon fibre, modern production techniques (e.g. 3D printing) and modern objects that have intrinsic challenges, like batteries and modern technology.

Abstracts on all materials from the 20th and 21st century will be considered – no material is too modern!

The day will be split into twenty minute talks on current research and ten minute poster presentations. Please specify which you would like to submit to.

Submission criteria

- Abstract submission deadline: 30 June 2019
- Word max: 250 words
- Language: All abstracts and information must be submitted in English.
- Length: Current research talks should aim to be 20 minutes long with 10 minutes for questions at the end of each talk. Poster presentations should aim to be 10 minutes.
- Please state whether you are applying for a talk or poster presentation.
- Submissions should be made to: iconmodernmaterials@gmail.com

Photographic Materials Group

The PhMG committee will hold its next Group event in the first week of July. 'Protecting Daguerreotypes: a new Structural Housing System' will be a one-day workshop at the National Library of Scotland, taught by conservator Clara M. Prieto. More information and tickets will be available soon on the Icon website and our Eventbrite page.

Head over to our blog (<https://iconphmgblog.wordpress.com/>) to read about the joint meeting of the AIC PMG and ICOM-CC PMG, held earlier this year in New York and attended by some of our members. Another recent blog post from committee treasurer and Icon Intern Jordan Megyery discusses 'What to do with degraded film'.

Please get in touch with us and share your conservation stories (phmg@icon.org.uk). We are always looking for updates for our blog (<https://iconphmgblog.wordpress.com/>), Facebook (ICON Photographic Materials Group) and Twitter (@ICONPhMG) pages; we welcome posts of all sizes on all things photography related!

Stained Glass Group

In February, Historic England released the draft guidelines *Stained Glass Windows, Averting Environmental Deterioration*, which discusses the use of environmental protective glazing (EPG). This is an important document for the stained glass conservation industry, as it informs custodians and architects about the appropriate use of EPG. The SGG Committee supplied feedback on the original draft and there was a successful conference in London on May 27 by Historic England, where project examples were provided.

A Facebook group page has now been set up for the SGG. We would encourage our members using this platform to support our page and share stained glass and conservation projects. Similarly, we are working hard to update the SGG page on the Icon website. New information and new pages are being added, so keep an eye on this for further developments and information about events.

The SGG plan to host a one-day conference in October, which will include the Group's AGM. Iconnect messages will be sent to SGG members with information as soon as details of this event are finalised. Full details of all SGG events can be found on our Icon webpage.

The Stained Glass Group would be delighted to welcome new members to our Group. Even if you are not a direct Group member you can still attend our events and receive our Iconnect emails by selecting Stained Glass on your Icon membership form.

Textile Group

Icon Textile Group Events

The events team are finalising several workshops, including a toile-making workshop and an early morning tour of the Mary Quant exhibition at the V&A.

Textile Committee AGM

The Textile Group's AGM was held at the British Library in April and included a presentation given by Zenzie Tinker, 'Hidden Costume Treasures - Conserving the Westminster Abbey Royal Funeral Effigies'. The project involved more than 350 items of effigy costume as well as the wigs and effigies themselves. Many thanks to Zenzie for this and we are sure that it was a great draw for members, with nearly sixty people attending the AGM. Members of the Committee reported back on their work of the previous year. Two members of the Committee retired; Katy Smith (Secretary) and Nadine Wilson (News Officer). Their replacements on the Committee were announced at the AGM and a vacant Events team post was also filled. An Iconnect was circulated to members with details of the changes. The

gathering continued into the evening at a nearby pub, allowing us all to catch up further.

Colour Symposium- Call for papers

Keep an eye out on Iconnect for a call for papers for the Textile Group's one-day symposium based around the theme of colour, to be held on Friday 8 November at the People's History Museum, Manchester. Booking details to follow.

Recent Events

In March, Liz Rose, Textile Conservator at the British Library, presented her work on Royal East India Volunteers colours, allowing a small group to visit to view the results. In April, our events team organised a sold-out two-day workshop, *Understanding Tapestry*, led by Caron Penney at Atelier WEFTFACED in West Sussex. Many thanks to Liz and Caron for being involved in these events.

Keeping in touch

Due to publication deadlines, it is not always possible to mention all events so please check the Icon website, Facebook page, Twitter feed and Iconnect for details. If you have anything that you would like mentioned in our communications please contact the Textile Group's News Editor, whose details can be found on the Group's webpage. <https://icon.org.uk/groups/textiles/committee>.

A HERITAGE SCIENCE RESOURCE

The Heritage Science Expert Working Group (part of the Analytical Methods Committee, Royal Society of Chemistry) is pleased to announce the publication of an ongoing series of technical briefs in the journal *Analytical Methods*. These technical briefs are short papers on a variety of analytical methods for heritage science and are written to be accessible to conservators, curators, and related professionals. They are peer-reviewed by the Analytical Methods Committee. We hope they will be a useful resource.

You can find the papers in *Analytical Methods* and (for free!) as PDFs at:

www.rsc.org/Membership/Networking/InterestGroups/Analytical/AMC/Heritage-Science-sub-committee.asp

Abigail Bainbridge ACR

Chair, Icon Book & Paper Group

NPG RESEARCH DIRECTORIES

Conservators who work with art collections will be aware of the research directories created by Jacob Simon over the last twenty years, available on the National Portrait Gallery website. These give details of trades and businesses that developed and evolved to support the work of artists.

In order of their first appearance, the directories cover: Frame makers (1998), Artists materials suppliers (2006), British picture restorers (2009) Bronze sculpture founders and plaster cast makers (2011). They are all updated from time to time.

PREPARED MILLBOARD.



WINSOR & NEWTON (Limited),
ARTISTS' COLOURMEN
To Her Majesty,
AND TO
T. R. H. THE PRINCE AND PRINCESS OF WALES,
38, RATHBONE PLACE, W.
AND
NORTH LONDON COLOUR WORKS, KENTISH TOWN, N.W.

Labels used on solid supports are often very informative and may be helpful in confirming a date for the painting. Many versions of this label were produced up till the death of Queen Victoria in 1901. In this case the painting was signed and dated 1902

More recently, Jacob has been working on a series of illustrated guides in pdf format which aim to show all the known marks of suppliers who sold canvas and solid supports for oil painting. This work has now been completed. There are fourteen guides, nos.10-14 having been added recently. Some deal with a single firm, while smaller London-based firms are listed alphabetically.

1. London firms 1785-1831
2. London A-D
3. Thomas Brown
4. Robert & Charles Davy
5. London E-N
6. London O-Y
7. Reeves & Sons
8. Roberson
9. Rowney
10. Winsor & Newton canvas
11. Winsor & Newton panels
12. England outside London
13. Scotland
14. Marks of restorers, liners etc.

All the directories are available in the research section of the NPG website. The illustrated guides can currently be found at the foot of the page:

www.npg.org.uk/research/programmes/artists-their-materials-and-suppliers/

The plan is to look at the guides again at the end of 2019 and incorporate any new material. Jacob would be delighted to see any marks that have not been recorded before and also to know of marks from firmly dated paintings and of any that seem inconsistent with the current record. So, please check for any of your records that may not have been shared and see if they are shown.

Jacob has done a phenomenal job in creating all the directories and guides, and the commitment shown by the NPG in hosting them is very much appreciated.

I have been collecting records of suppliers' marks since my student days in 1968, and am delighted that my own archive has been made accessible to all in this way. Thanks to all those who have shared information with Jacob and myself over several decades.

Cathy Proudlove ACR, Researcher.

LINKED CONSERVATION DATA CONSORTIUM

Kristen St.John and Athanasios Velios introduce a new project on conservation documentation

As conservation professionals we create many types of data in the course of our work, from documents to databases to images to scientific data. Questions of how to make this information accessible over time and shareable (either in a lab, across institutions, or extending to the general public) abound. Data use offers opportunities and challenges, given the constraints of funding, technology, and other resources. FAIC's *Charting the Digital Landscape* (March 2016) investigated and documented many of these issues.

For structured data stored in databases and metadata that accompanies other forms of documentation, sharing can be accomplished through Linked Data. The term 'Linked Data' refers to a group of technologies and guidelines recommended by the World Wide Web Consortium which allow publishing records online with emphasis to reusability. (www.w3.org/standards/semanticweb/data) Linked Data uses data modelling methods so that data from disparate sources can be searched across, and accessed beyond, their originating context.

Potential applicability for this type of data sharing/modelling includes searching across the results of multiple stand-alone collection surveys, or sharing condition information for items traveling between exhibit venues. One could search past lab records for treatments done with a specific technique or material, or (if labs chose to share) documentation across institutions.

Linked Data is already successfully used in many fields including the natural and physical sciences and also in cultural heritage projects like *ResearchSpace* (www.researchspace.org/projects.html). and the *Rijksmuseum Linked Data project* (<http://rijksmuseum.sealinc.eculture.labs.vu.nl/home>). Other good examples of adoption of Linked Data are the *Art & Architecture Thesaurus* (www.getty.edu/research/tools/vocabularies/aat/) and the *Linked.Art* initiative by the Getty (<https://linked.art/>)

Linked Conservation Data (www.ligatus.org.uk/lcd/) is a consortium of partners working to establish best practices for sharing conservation data.

Consortium members

The consortium is funded by the UK's Arts and Humanities Research Council and includes the following initial partners:

- Bodleian Library (UK)
- British Museum (UK)
- Fitzwilliam Museum (UK)

- Foundation of Research and Technology Hellas (Greece)
- Gallery Systems (US)
- Getty Trust (US)
- Institute of Conservation (UK)
- International Institute for Conservation of Historic and Artistic Works (UK)
- Kent State University (US)
- Library of Congress (US)
- National Gallery (UK)
- Oxford University - EAMENA (UK)
- Stanford University (US)
- University of Cergy-Pontoise (France)
- University of the Arts London (UK)

This consortium will provide recommendations on how documentation information created by conservators can be shared as individual pieces of data so that other conservators can retrieve and use these observations.

As we investigate ways to determine best practices, two issues dominate: terminology and conceptual modelling.

Terminology

Conservators of different specialties, representing disparate national traditions or training backgrounds, may use different terms for the same concept. In our history as a field, numerous vocabularies (glossaries and thesauri) have been written to clarify or give preference to specific terminology. Linked Data does not require one 'right' word choice; instead it enables simultaneous use of multiple terminologies by aligning them.

In the consortium's first in-person workshop, we will look at vocabularies currently used by conservators when creating treatment reports and other conservation documentation. Examples of vocabularies available to conservators include CAMEO: Conservation & Art Materials Encyclopedia Online, (http://cameo.mfa.org/wiki/Main_Page), AIC Wiki Lexicon (www.conservation-wiki.com/wiki/Lexicon), the controlled vocabulary behind the Image Permanence Institute's Graphics Atlas (www.graphicsatlas.org/) or the Getty Conservation Institute's Illustrated Glossary of the Mosaics In Situ Project (www.getty.edu/conservation/publications_resources/pdf_publications/pdf/mosaicglossary.pdf).

In evaluating vocabularies, we will examine their coverage by asking questions such as whether a vocabulary describes damage types and treatment techniques in addition to manufacturing or material information. We will identify the work needed to improve the terminology and to align different thesauri with one another using a standard known as SKOS (www.w3.org/2004/02/skos/). A practical workshop on the SKOS data model will also be included.

SKOS

The Simple Knowledge Organization System (SKOS) (www.w3.org/2004/02/skos/) is a standard recommended by the World Wide Consortium for linking concepts and language terms in a domain. Knowledge organization systems help to categorize and index content, for example in a database holding conservation records. These can be subject headings, controlled vocabularies, glossaries, thesauri, etc. SKOS uses concepts to categorize content. Concepts are different from labels, i.e. the specific words we use in our language to communicate the concepts. Each concept can be communicated with multiple labels so that words from different communities or languages referring to the same concept can be matched together. This allows records created in one language to be searchable in another. For example, a Greek conservator looking for *κεφαλάρι* can retrieve results marked with *endband*. Concepts in SKOS can also be organized in a parent/child (broader/narrower) relationship. This allows retrieval of content at different levels of detail. For example, searching for *skin* can retrieve combined results classified with the narrower terms of *tanned skin* and *tawed skin*. SKOS is specifically designed to work with Semantic Web technologies.

Conceptual modelling

The second consortium meeting will be about modelling conservation data. Modelling is one way to express conservation data through relationships. For example, a manuscript as an object in a collection can be observed directly. The event of the manuscript being bound cannot be observed directly since it happened many years ago, however there is a clear relationship between the binding event and the book that was produced from it. Similar relationships can be established between an object and its condition, or between an object and its proposed conservation treatment, and other events related to how an object is created, treated, and ages.

Articulating these relationships becomes more complex when we look into the details of conservation documentation. In some cases the boundaries separating one record from another are not clear or the relationships among records exist indirectly through other records. Cultural heritage standards like those developed by ICOM can help us express data; see the CIDOC-CRM model for documentation. The purpose of this workshop will be to test whether these standards are sufficient to express conservation data specifically.

CIDOC CRM

The Conceptual Reference Model (CRM) is the result of work by the Committee for Documentation (CIDOC) of the International Council of Museums (ICOM). The **CIDOC CRM** is intended to promote a shared understanding of cultural heritage information by providing a common and extensible semantic framework that any cultural heritage information can be mapped to. It is intended to be a common language for domain experts and implementers to formulate requirements for information systems and to serve as a guide for good practice of conceptual modelling. In this way, it can provide the 'semantic glue' needed to mediate between different sources of cultural heritage information, such as that published by museums, libraries and archives (www.cidoc-crm.org/).

The **CIDOC CRM** is the culmination of over ten years work by the *CIDOC Documentation Standards Working Group* and *CIDOC CRM SIG* which are working groups of *CIDOC*. Since 9/12/2006 it is official standard ISO 21127:2006.

How to participate

We welcome additional members to the consortium. Our activities are all open with no registration fees. Following a Network introduction webinar on 3 May, the dates for the next webinar and two in-person workshops are:

- Workshop on terminology (Stanford University): 6, 7 June 2019
- Workshop on modelling conservation data (University of the Arts London): 12, 13 September 2019
- 2nd Network webinar: 8 November 2019

If you would like to help, please:

- Visit our website and contact us about your interest: www.ligatus.org.uk/lcd/
- Fill out our survey on terminology choices [https://docs.google.com/forms/d/e/1FAIpQLSdyabmNeRS0WvorUtlYPOA5fNtPo9ocfNbDf3cw_EIALAKjiw/viewform]
- Share examples of the types of documentation you create for us to use as models for our investigations

Note

1. Dr Athanasios Velios is Reader in Documentation, Ligatus, University of the Arts, London. Kristen St. John is Head of Conservation Services for the Stanford Libraries
2. This article is being published simultaneously in *AIC News* (the newsletter of the American Institute for Conservation)

Appointments



Jacqueline Moon has been appointed conservation manager for paper and photographs at Tate. She and her team of twelve work at Tate Modern and Tate Britain in London, as well as at Tate Liverpool and Tate St. Ives. Jacqueline oversees the preparation of objects for displays, exhibitions, loans and the international programme, condition checks new acquisitions, and works with Tate's archive, library and gallery records.

She arrives with a heritage science MRes on the causes of yellowing in silver gelatine photographs and several years' experience of leading on public and academic engagement at The National Archives. She has worked on the surveying and conservation of thousands of archival records, coordinated large volunteer projects, and developed extensive knowledge of the conservation of artworks. She is a specialist in photographic materials and modern and contemporary printmaking processes, and a lifelong art enthusiast.

Icon staff news



This March, **Ben Knox** joined the team at Icon as Advertising Officer. Working in the office one day a week on Thursdays, he will be responsible for compiling and distributing the weekly Iconnect Jobs as well as securing advertisers for Icon News and the Journal of the Institute of Conservation..

Originally hailing from New Zealand, Ben has been based in London for the last three years and has recently completed a MA in the Principles of Conservation at University College London. Ben volunteers at the City of Westminster Archives, conducting preventive work on the collections, as well as volunteering as a communication officer with a local charitable organisation based in London and Cardiff. Ben has previously worked in insurance for the last six years.

To contact Ben with regards to Iconnect Jobs or advertising in Icon News and Icon's Journal please contact him via email on ben.knox@icon.org.uk or call (Thursday only) at 020 3142 6789

New ACRs

The Accreditation Committee approved the accreditation of the following conservator-restorers at its meeting in February 2019

Congratulations to all these new ACRs!

Janet Berry
Conservation Management
Church of England

Derek Brain
Preventive Conservation
Birmingham Museum & Art
Gallery

Marie Chappell
Paper Conservation
National Conservation Service

Simon Cottle
Stone / Sculpture
Rupert Harris Conservation

Jillian Harrold
Paper Conservation
Plowden & Smith

Eleni Katsiani
Conservation Education
UAL: Camberwell

Chelsea McKibbin
Natural History Conservation
Natural History Museum

David Orr
Preventive Conservation
Historic Royal Palaces

Bethany Palumbo
Natural History Conservation
Oxford Museum of Natural
History

Aimee Sim
Collections Care
Eton College

Helen Smith
Preventive Conservation
Tate / Private Practice

Katy Smith
Textile Conservation
British Museum

Elizabeth Thompson
Textile Conservation
Historic Royal Palaces

Alexandra Walker
Preventive Conservation
Bodleian Libraries

Elizabeth Woolley
Wall Paintings Conservation
Opus Conservation

Welcome to these new members

We would like to extend a very warm welcome to all those who joined us in February and March 2019. We hope to see you at an Icon event soon!

Jessica Betz Abel
Michael C Carlos Museum
Associate

Thomas Bardwell
Associate

Barbara Beckett
Associate

Adam Boon
Supporter

Veronica Bullock
Significance International
Associate

Isabella Checchia
Associate

Christopher Cole
Associate

Katherine Dance
Student

Laura Davies
3d Conservation
Associate

Ting-Fu Fan
Associate

Jennifer Flasby
Student

Anna Geier
Associate

Amy Gingell
Supporter

Jennifer Gosling
Natural History Museum,
Bermuda Aquarium and Zoo
Associate

Fiona Henderson
Tobit Curteis Associates
Associate

Ghazala Jabeen
National Trust
Student

Karen Jutzi
Yale University
Associate

Charlotte Kenward
Associate

Annadelia Laterza
Associate

Tyler Lott
Student

Bruce Luckhurst
Associate

Loredana Mannina
Associate

Maria Martinez-Viciano
MCI
Associate

Kaisa Milsaar
Estonian Academy of Arts
Student

Hannah Mortell
Student

Fallon Murphy
The Centre for Creative
Photography, University of
Arizona
Student

Peter Orosz
Museum of Applied Arts
Associate

Oliver Osborne
Osborne Restoration
Associate

Jo Palmer
The Framing Lot
Associate

Joseph Pashley
Student

Marisa Prandelli
Associate

Vasare Rastonis
Arni Magnusson Institute for
Icelandic Studies
Associate

Matthias Sotiras
Associate

Elsa Thyss
The Metropolitan Museum of
Art
Associate

Freya Trotman
The Heritage Advisory Ltd
Associate

Mair Trueman
Student

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cumann mhúsaem na héireann

THE ROOSWIJK FINDS

Angela Middleton of Historic England and Kimberly Roche of MSDS Marine Ltd throw light on one shipwreck, two dive seasons and more than two thousand one hundred artefacts

Following an excavation, one would rightly assume that we are able to quantify the exact numbers of artefacts recovered and recommend treatment options and times. However, this is often difficult for marine sites, where a significant number of artefacts may be obscured in or by other materials and treatment times for different artefacts can vary widely.

In the case of the *Rooswijk*, a protected wreck on the Goodwin Sands, Kent, this is the challenge faced by the post-excavation team. During two seasons of under-water excavations in 2017 and 2018, a total of 2170 artefact numbers were allocated. Quite a few of those contain multiple artefacts, such as concretions, chests and barrels with content or assemblages such as a collection of lead shot or fused coin stacks. As we are now entering the post-excavation assessment phase, our aim is to quantify and qualify the artefactual remains of this shipwreck.

BACKGROUND

The *Rooswijk* was a Dutch-East-Indiaman, which traded as a VOC (Vereenigde Oostindische Compagnie) ship for the chamber of Amsterdam. It was built in 1737, completed one successful journey to the East Indies and was on its second journey to Batavia, modern-day Jakarta, when it got caught in a storm and sank only one day into its lengthy journey. There were no survivors. The sinking of the *Rooswijk* was a tragedy on a personal scale, but also a huge financial loss to the VOC. The cargo, including silver bullion, coins and trade goods, went down on the Goodwin Sands, which is also known as the great ship swallower.

After an extensive search, the wreck was discovered in the late 1990s and has been protected under the Protection of Wrecks Act 1973 since 2007. As the Dutch government took over the entire inventory after the bankruptcy of the VOC, including the shipwrecks and cargo, they claim ownership of the wreck. Due to its location in English waters, it falls under the management responsibility of Historic England. The site has been on the Heritage at Risk register since 2010.

In 2015, colleagues from both heritage agencies, Historic England (HE) and Rijksdienst voor het Cultureel Erfgoed (RCE; the Cultural Heritage Agency of the Netherlands) began discussing the possibility of a joint investigation of the *Rooswijk*. This was initiated by a survey in 2016, which confirmed that the wreck was uncovering. The Goodwin Sands are a highly dynamic area, and wreck sites are periodically uncovering when sandbanks shift and move. This leaves them vulnerable to unlicensed dive activities as well as environmental threats.

An archaeological survey of the site in 2016, undertaken by RCE and Historic England, showed that the wreck site was at high risk. As a result, a two-year excavation project began in 2017. Wrecks such as the *Rooswijk* are part of the shared cultural maritime heritage across Europe and it is important



The on-shore warehouse in Ramsgate. Artefacts, stored in large scaffolding tanks, are being examined by the 2017 project conservator Eric Nordgren, the zooarchaeologist Poly Baker and archaeobotanist Ruth Pelling

that cultural heritage agencies are able to work together to ensure that sites like this are protected, researched, understood and appreciated by all. The project involves an international team led by RCE in partnership with Historic England. MSDS Marine is the contractor for the project and have managed the whole project from initial planning, through fieldwork to post excavation assessment.

FIELDWORK AND TRAINING OPPORTUNITIES

By their very nature, underwater excavations often take place in remote or difficult to access locations. The project team for the *Rooswijk* was based in Ramsgate in Kent. The team benefitted from a diving support vessel, which accommodated the divers and the crew during the excavation. However, marine artefacts have specific first-aid requirements after they are removed from the marine environment, and space on dive vessels is often at a premium because of the need for dive gear, compressors and lifting equipment. For this project, a warehouse in Ramsgate

harbour was hired for the fieldwork duration and functioned as an on-shore facility for finds-storage, outreach, training and meetings.

One of the core aims of the project was to provide students with the opportunity to take part in this project, work alongside experienced professionals and learn principles of archaeology and conservation using freshly excavated material from the *Rooswijk* as an example. Throughout the fieldwork period, a large number of students worked under the supervision of the core project team and undertook artefact assessment, first-aid conservation, photography and photogrammetry. Additionally, the project also provided training courses and open days.

Training opportunities for this project continue. Two early career professionals have been employed for eighteen months each, to continue with the conservation work. There are also opportunities for students, volunteers and training courses, where the material from the *Rooswijk* is being used for hands-on activities.

POST-EXCAVATION

At the end of each fieldwork season, artefacts were transported to the Historic England conservation facilities at Fort Cumberland, Portsmouth. Here, the conservation assessment for the artefacts was completed (see diagram) and the lengthy process of desalination and investigative cleaning began. One of the major tasks during the assessment phase was X-radiography (X-ray) of a large number of finds. With over two hundred concretions excavated during the two seasons, this is an important first step when devising the appropriate treatments and informing the next steps. In some cases, a mystery may develop from an X-ray, where the artefact(s) contained within cannot be identified or interpreted.

Open day at the on-shore warehouse in Ramsgate. Visitors could see artefacts, talk to the divers and project specialists, as well as experience the Historic England virtual dive trails



Material	Number of Objects	
Inorganic	Ceramic - CBM*	36
	Ceramic - object	58
	Copper Alloy	96
	Flint	1
	Glass	54
	Iron	124
	Lead	50
	Pewter	23
	Silver	1350
	Slate	1
	Stone - worked	6
	Tin	1
	Sub-Total	1800
Organic material	Animal bone	5
	Charcoal	7
	Human remains	3
	Leather	8
	Plant Material**	4
	Rope	2
	Wood	84
	Sub-Total	113
Composite	33	
Concretion	213	
Unidentified	11	
All finds	2170	

Quantification of *Rooswijk* finds from both dive seasons by material.

Concretions form as hard, concrete-like deposits around corroding iron objects, encasing sediment, shells and other artefacts in the vicinity. The result can be that the iron artefact has corroded to such a degree that it totally disappears, and all that remains is an empty void. The concretion does however protect more fragile or vulnerable objects and materials. We have, for example, come across large numbers of tiny glass and copper beads in concretions, which would otherwise be easily washed away on the seabed. Organic materials such as wooden knife handles also benefit from

being encased in concretions and survive well, whilst the iron blades have almost always corroded away.

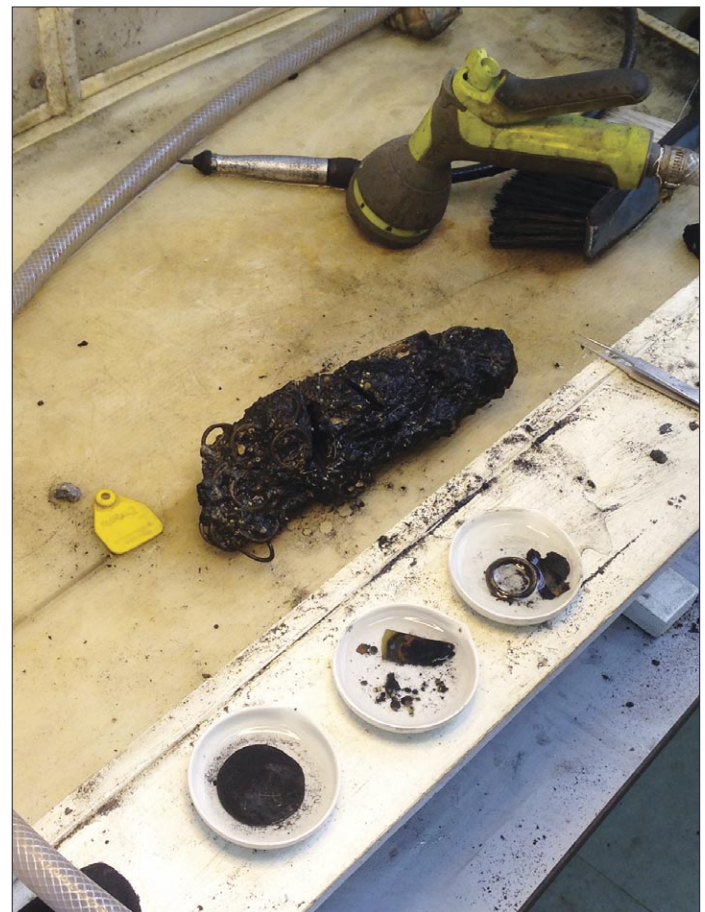
CONSERVATION TREATMENTS

With the second fieldwork season finished in August 2018 and artefacts arriving in Fort Cumberland in September, we are in the early stages of active conservation treatments. In some cases, we have to carry out material identification before developing a conservation treatment strategy. In those instances we work closely together with the material scientist to establish material composition.

Artefacts from the marine environment are laden with salts. Treating or drying these artefacts without desalination can lead to salt efflorescence and consequently surface loss as well as continued corrosion. It is advisable to start the desalination process as soon as possible after excavation. Artefacts are placed in tap water initially, which is then changed to distilled or deionised water. The water is changed on a regular basis and the progress is tracked by taking conductivity readings of the storage water. Once conductivity readings plateau off, artefacts can be slowly air-dried or solvent-dried, whilst organic artefacts are ready for the next steps, mainly impregnation with polyethylene glycol and vacuum freeze drying.

Following X-radiography, concretions are carefully micro-excavated to separate and remove the individual artefacts. Our tool of choice for this is an air-scribe, or pneumatic chisel, which removes corrosion and concretion by vibration. It has been successfully used on a number of artefacts, such as the

One of the many concretions and the corresponding X-ray



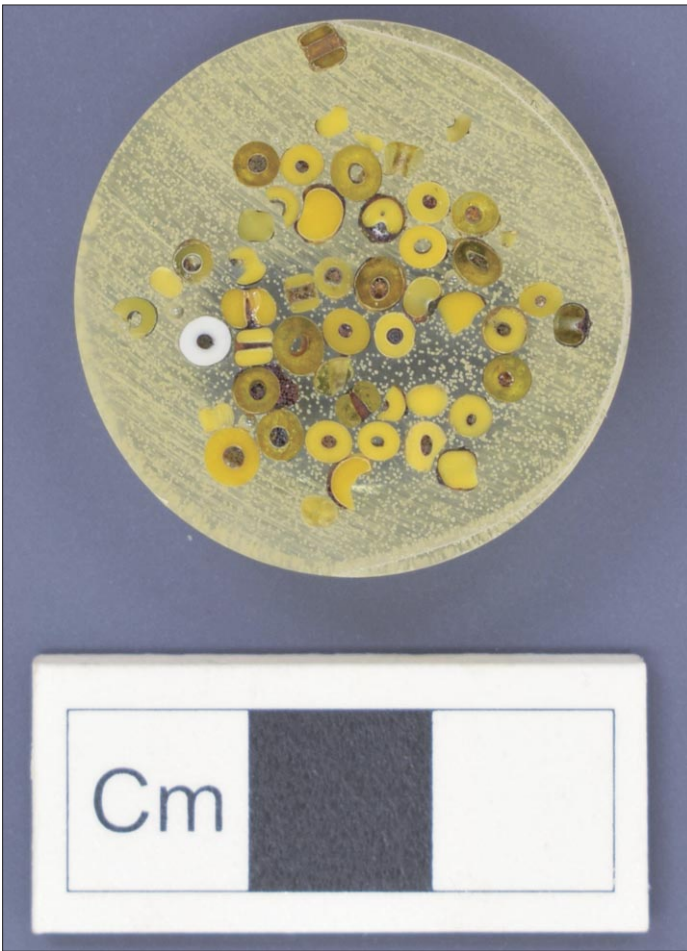
De-concreting in action: the concretion in the centre, the airscribe and a hose to the right, some artefacts removed from the concretion on ceramic dishes in the foreground.

densely packed concretion illustrated here. Apart from one silver coin and seventeen copper alloy rings, this concretion contained over one hundred and forty glass and copper alloy beads. The iron artefacts appear as voids on the X-ray image. Removing the larger and more robust artefacts such as the coin and copper alloy rings, worked well. However, the glass beads are very brittle and shatter easily when removing the surrounding concretion.

Micro-excavation of these materials often gives way to many surprises and discoveries. It is not uncommon during this process to discover artefacts, particularly organics, which were not revealed on the X-ray due to their lower density compared to the concretion. In other cases, the artefact

Tiny glass beads excavated from the concretion





© RCE/Historic England

The glass beads mounted in resin and polished, ready for material analysis

material may differ from the initial interpretation of the X-ray, and material identification by instrumental analyses is undertaken with the material scientist. Whether discovering new objects entirely or revealing known contents, the process is always exciting and requires close collaboration with other project specialists.

One artefact group that has progressed well are the many silver coins from the wreck. Their high silver content and good state of preservation meant that they completed desalination sooner than other materials. Most coins are relatively clean and well legible. Others have corrosion deposits or bulky encrustations. A third group is fused coins, which have been recovered in bundles and stacks. The encrusted and fused coins require careful examination to check for organic remains, such as textile or leather from clothes or bags, which may be preserved in the corrosion products. Cleaning tests were carried out to reduce the amount of light corrosion deposits on some of the coins. This involved mechanical cleaning using bicarbonate of soda, followed by several rinses in distilled water. Even though successful, this proved very time consuming with over thirteen hundred coins in the collection. Alternative treatments, which can be carried out in batches, will be investigated.

Investigative conservation is also underway for a number a pewter artefacts. Although a small percentage of the total artefact assemblage, the pewterware is significant because it represents the personal aspect of the *Rooswijk* and life on board the vessel. Pewter artefacts from the *Rooswijk* include spoons, jugs, tableware and other dining implements.

Of particular interest is a pewter writing set, illustrated here. Marine pewter often poses a challenge to conservators, where concretions or unsightly corrosion blisters can limit interpretation, and the lead-tin alloy is extremely soft. The writing set has relatively few and small corrosion blisters but is covered in a thin layer of marine concretion. To stabilise the object before drying and facilitate analysis of the possible contents within the closed compartments, mechanical methods are being investigated to remove the concretion. Air abrading with crushed walnut shell is currently being tested and might be implemented to treat the other pewterware, depending on its success.

SUMMARY

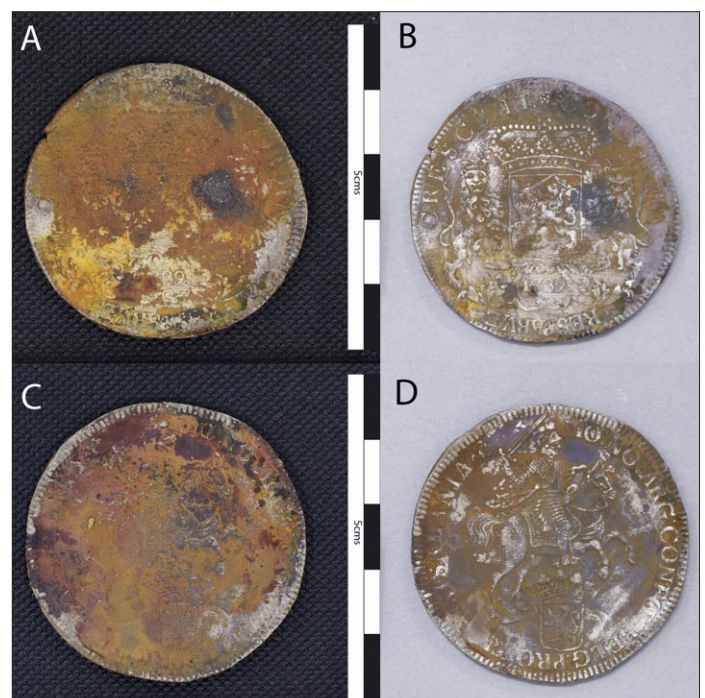
The artefacts from the *Rooswijk* will keep us busy for some time to come, with many more exciting discoveries along the way. Our artefact count increases on a weekly basis, as we are investigating concretions and larger chests. Marine artefacts can be challenging but also provide a conservator with fascinating and unusual objects.

Once everything is conserved and stabilised the documentary and physical archive will be deposited with the RCE in the Netherlands. The partners in the *Rooswijk* project aim to make all data and finds available in both the Netherlands and the UK, digitally and if possible also physically.

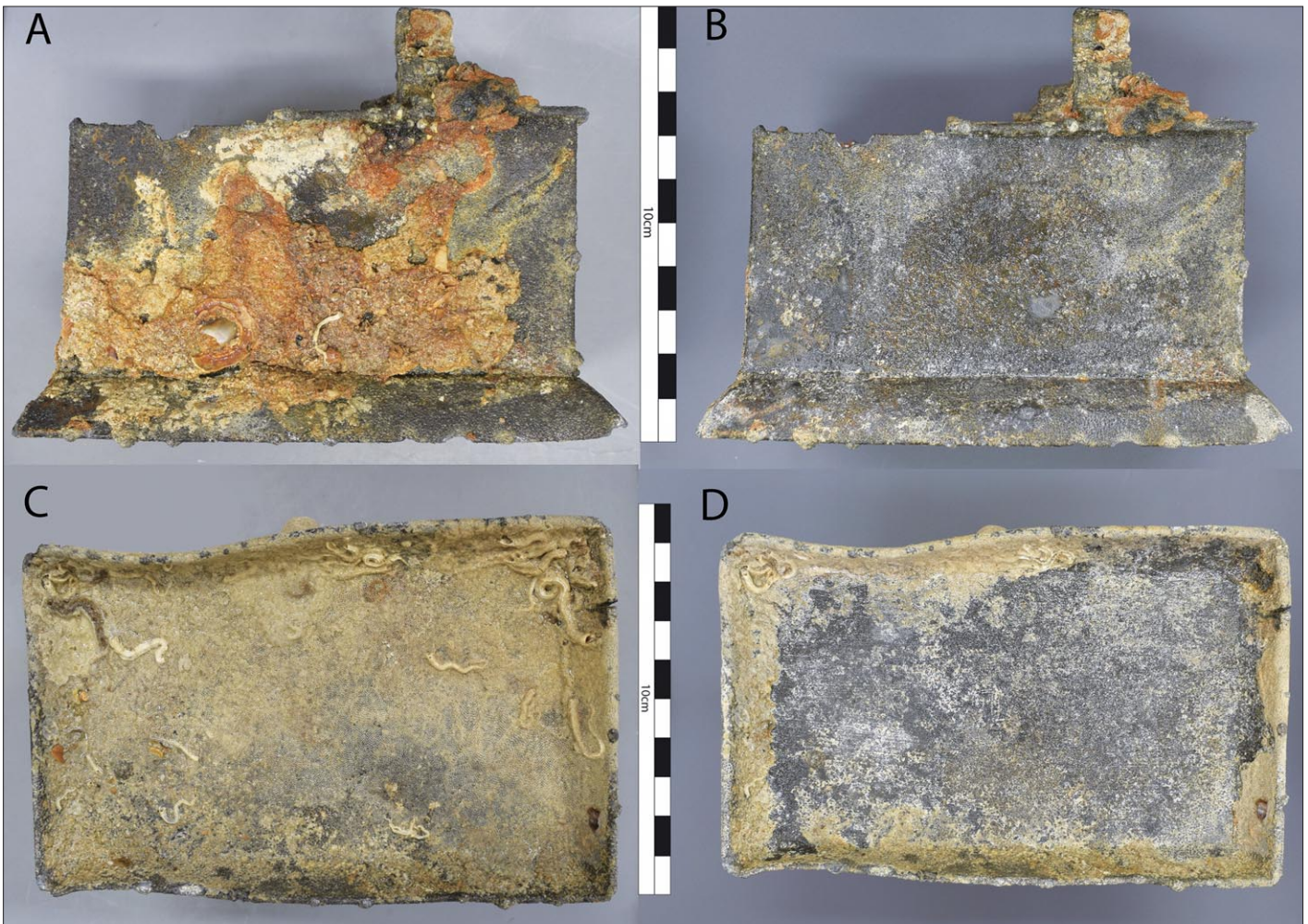
Training courses as part of the #Rooswijk1740 project are planned for 2019, funded by the Cultural Heritage Agency of the Netherlands and run by the Nautical Archaeology Society and MSDS Marine.

If you want to stay up to date with project news, follow the project on social media: @Rooswijk1740 or #Rooswijk1740.

Two coins before (A and C) and after cleaning (B and D)



© RCE/Historic England



A pewter writing set before (A and C) and during cleaning (B and D)

Acknowledgement

We are grateful to RCE for funding the excavation. Eric Nordgren, was the project conservator during the 2017

excavation and undertook the on-site conservation assessment and supervision of students. Elizabeth Kuiper undertook the initial investigation of concretion RK17 01341 illustrated opposite.

Intern Sara Bohuch (Cardiff University) and Angela Middleton (HE) examining the contents of the thimble chest



Talking to Simon Cane: part 2

In the second half of her interview with Simon Cane ACR conducted last autumn, Alison Richmond ACR asks him about the challenges and rewards of conservation and beyond

The first part of this interview charting the course of Simon's career to date appeared in issue 80 of Icon News in February 2019

AR: How do you manage your own thinking process? Do you have a mentor, do you discuss it with your wife or friends?

I have been using a mentor and I would recommend anybody to do that. Sometimes it's just to check that you're not completely mad and sometimes it's to get a bit of a steer on things. I have a fantastic group of very smart friends who are supportive but they don't let me feel too sorry for myself either! And, yes, my relationship with Deborah [SC's' wife] is really important. We're mutually supportive.

When you lay out your CV it all looks very linear and logical, but it isn't actually. One thing I'd say is that you have to be prepared to go off on tangents. It is about taking opportunities, taking a few risks, but constant development is the key for me. And some brilliant people, I'm lucky that at every stage of my career I've worked with some fantastic people. And I try to be as generous as I can, and that's important because if you give you receive.

AR: Tell us about the most satisfying aspects of your career to date.

Amongst them is being part of the revolution that's moved the sector forward, particularly in preventive conservation, expanding the meaning of conservation beyond people in white coats doing mysterious things to objects. I'm proud of the project that we developed around the *Renaissance at Work* training programme - we made a real difference to the way people manage and use collections.

Another aspect is the training and development that I've enabled, through internships and training. I have been supported through my career and I've tried to do that in turn. There's a tension between the sector and education providers. We've often talked about 'oven-ready conservators', the [sector] expects them to pop out of their education ready to go, whereas we know that internships are critical in helping bridge that gap. They're really important to the individual and important to the future of the sector.

I'm also proud of encouraging people to open up and talk in plain English and promote conservation practice, without being too stuffy or precious about it. I refer back to the fact that I feel everywhere I have worked, York, Manchester and Birmingham - I left those collections in a better state than I found them. That was achieved through working with teams, we made significant differences to those collections.

MAINTAINING LINKS

AR: You are still a very active member of the profession and that's quite an unusual choice to make. Some people who progress beyond the conservation profession, don't stay within it. And there are probably very good reasons for that. But you still stay very active and you're an accreditation assessor. I did an assessment recently and I've got one coming up as well.

Simon Cane



AR: And you still maintain your ACR status. You do your CPD recalls. I know that you've been involved recently in complaints procedures. That's a very important dimension of your career - you're not just dropping things as you go along, you're actually carrying them with you.

Just because I'm not practising conservation doesn't mean I'm not a conservator. Our definition of conservation needs to be broader. It's about how we think as well as what we do and I'm as interested in how we respond to the challenges of contemporary art practice as I am those posed by the 20th century industrial collections.

AR: It's got a wonderful cross-over with contemporary art, which deals with contemporary materials and structures.

And the complexity! Look at the industrial progress of the 20th century and the proliferation of new materials and we see that complexity in contemporary art, that we really don't understand very well. I did a lot of thinking about this when I was at Manchester and latterly it's come back into my thinking about how we use collections, because what I'm interested in is the use, not just the preservation of things.

MOVING BEYOND CONSERVATION

AR: We have talked about leadership, opportunity and people who influenced you, now I'm going to ask you about breaking through the glass ceiling. What do you think are the main factors for that progression and what were the barriers against that?

If we talk about the classic understanding of glass ceiling, really we're looking at women progressing, particularly into leadership. So is there a gender issue that's at play here, as a large percentage of conservators are women? And then the second element is what I talked about at the Icon16 Conference: *Ambition, Resilience, Integrity and Aptitude*. There is no doubt in my mind that the conservation sector has people with leadership potential. Are conservators really trying to progress, are they being blocked because they are predominantly female or is it that conservation practice is where most conservators are comfortable?

AR: That's why they went in to it!

If that's what you want to do then do that as well as you can, but if you're going to move into leadership you have to move out of what you might love doing. There might be other reasons for not moving out of what feels a safer place: it's about personal choice and ambition. And perhaps one of the reasons I stay in touch and maintain my various memberships is as much an emotional attachment. So are conservators really banging against that ceiling? Or are they saying 'you know what, I'm fine here with the objects and not taking the opportunities that maybe open to them'? I'm not sure I have an answer.

AR: We need to do some research into it!

Research is always about good data and understanding the problem. All I can say from my observation of lots of conservators - and I've been to more conferences than is

probably healthy and I've been in the sector a long time - is that conservators really like working with collections, and are they prepared to leave that behind?

AR: And it's painful to do.

Absolutely. And then there are other motivations. What matters to you personally? Do you want to earn more money? Because conservators always complain they don't get paid enough! Now, in every sector that I know, particularly in culture, everybody thinks they're under-valued. So it's about your personal drives and knowing yourself. What interested me was having the resources to make a difference. If you don't have the resources you can't make the difference, so that's the benefit of moving into those kind of places, where you're not just influencing but you're also in control of marshalling resources and using them in interesting ways.

Resilience is interesting too. If you put yourself into leadership roles, you have to develop a real inner strength. We've all been in situations where you've got to be prepared to be resilient enough to get up and go again.

Integrity: conservators have a high level of integrity. And that can be quite difficult when moving into leadership to feel that you can retain that, as it can involve making decisions that change people's lives such as redundancy. But I believe that it is still possible to retain integrity and make those difficult calls.

The last quality I talked about was aptitude. I think that plenty of people have leadership qualities, but you've got to be able to rise above the detail. Leadership is not for everyone and I think conservators are naturally detail people but leadership requires that we step back and consider the wider context.

I think we have moved from 'what's best for the object' to 'where is the public benefit?' I think some conservators have found it very difficult to make that adjustment. Objects have no feelings, you know, we're talking about people here. And I think that real connection to the bigger picture is so important to make.

INVEST IN YOURSELF

One of the things I advise as a mentor is to invest in yourself. I've often come across people saying 'I'm not going to do it in my own time'. Well, if you're not going to invest in yourself then why should anybody invest in you? I absolutely agree work life balance is important. I don't expect people to kill themselves but success does not come for free. I have funded myself to do conferences, I'm dyslexic and I forced myself to do papers and public-speaking. Push yourself to do those things. Think about what's good for you not just what you like to do.

And it's been great; I have travelled the world through conservation, and there's a great community out there, if you want to engage with it. There are opportunities and it's a very welcoming place but the downside for me is that it becomes a bit of a comfort blanket. Commenting from afar is always dangerous but [at recent conferences] there were similar people talking about similar things I was hearing twenty years ago and it doesn't feel like progress. However reflecting on the Icon conference in Birmingham, I found that really refreshing:

lots of new faces, it felt young, it felt really confident, so bring on the next generation!

I find it hard to gauge where the sector is when I look at some of the national institutions. It's partly because of the functionality of these institutions, about the emphasis on servicing loans and exhibitions, not seeing conservation practice develop. But I think the sector's stable, when you look at Icon membership, and employment numbers don't seem to have changed drastically, do they?

AR: No, the membership is stable and we don't have too many people lapsing their membership because they've lost their job.

We've looked at the glass ceiling and you've also talked a bit about how your views on conservation have changed over your career.

I think there's a natural progression. You start off because you love objects and you're really interested in materials and then your perspective changes. This is a natural progression and I wouldn't expect a younger conservator to necessarily be interested in what I have to say. I still think conservation is really essential. It's something fundamental about the human condition, and the way that our culture and identity are represented through material culture, whether it be dress, food,

A youthful Simon Cane stars in a local newspaper report about preparation for an exhibition at York's Castle Museum



language, dance or music, and material culture is integral to that.

The thing that we haven't touched on is this tension around craft and knowledge. There is space again for this craft discussion to come up without it being seen as detrimental and indeed that could be the key to the future: embracing it and hands-on practice. We need to trust people to put their hands on objects. I wouldn't even think about working with an object now, because I haven't done so for a long, long time. But I still know what good conservation is. And the best educational programmes are still delivering good hand skills but there is tension in those institutions, if we're being candid, some academics do not value that element of programmes. But it is important and perhaps we need to look again and think about how we can help conservators to develop those skills and institutions to really value them.

AR: I absolutely agree with you; it's a real struggle right now.

LEADERSHIP

AR: The next question is about the attributes you think a good leader needs to have. You've already flagged up where you think good leadership has appeared in your life. Is there anything you'd like to add?

The one thing I haven't talked about is compassion. You have to be really careful and act with compassion as much as you possibly can. It is important, because you do have to make some difficult decisions. And being generous about leadership - you need to create an environment where people can do their job really well. Your job as a leader is largely about securing the resources to empower and enable people to do what they do. What I've learned from experience is that when you're a younger manager you're very concerned about control. But it is important to give people the space to get on with it. And the resources to get on with it and the trust. And checking in at the right time and not being a micro-manager, your life will improve immeasurably if you let go a little.

The other side of the coin is when things don't work and you have difficult conversations when things aren't going as you would want them to do and people aren't performing. But if you try and do that with compassion and fairness as far as possible, then you won't go far wrong.

[In past roles] I tried to cut down on the management-speak and those awful acronyms and all this 'do less with more' and 'efficiency savings' and actually just say what you mean: 'We've got less money. We have to lose thirty jobs out of this organisation and this is how we're going to do it'. Because people will at least respect you for that more than if you said 'well, we've got some efficiency savings and we're going to look at how we're going to re-organise and...'. And I've done both. So it's about being able to do those difficult things as well. And again, I don't get it right all the time. I still make mistakes, I'm still learning.

There's a difficult balance between confidence - people have to believe in you - whilst not drifting into arrogance. It's a tricky line to walk and I don't always manage it. Good leadership is

really working at what motivates people; the emotional intelligence that you need to develop is an understanding that people are individual and they require different approaches. You can't just say 'well, I do this and that's how it works'

CONCEPTS OF CONSERVATION

AR: One size fits all! You talked about the human condition and how important material culture is to human beings and their identity. We are incredibly lucky in the United Kingdom because we take for granted the structures we have for looking after our heritage, although it's not perfect. It's quite harrowing when a culture - a country - can no longer look after its heritage. Actually looking after your heritage is as important as having the heritage in the first place. So I think we have to keep pointing that out, that we don't just take it for granted that we've got all this. We've made this happen, through centuries.

Exactly. I've travelled a lot in South East Asia and in fifteen to twenty years have really seen quite significant changes, rampant development, and listening to people talk about their traditions disappearing in quite a matter-of-fact way. There's this constant tension between people wanting the best for their kids and you wanting to say to them 'No, you should just stay in this hamlet, because this is a good life. You don't need this other stuff'; progress has a price.

But this is interesting in broader terms: our understanding is very much a European Western model of conservation. I've got friends and colleagues who are working currently with Inuit cultures and First Nations; we've got development in Africa where there's a very different model and I think we have to be open. It's how do we work with, rather than impose, those models and think of different forms of preservation: preservation of spoken word, preservation in performance. There's been a huge shift in Australia in the way they deal with Aboriginal cultural issues where the landscape is part of the culture. And we've seen it here where all of a sudden the Establishment come under fire from public groups: Seahenge was a great example where people said 'We don't want you to remove this, we want you to leave it where it is'. We're in a different paradigm where who makes decisions about culture is becoming a more democratic process, and where does conservation fit in there?

AR: That is the key to the future - ownership of heritage being much more democratic rather than top down.

And being prepared to acknowledge that paradigm shift. One of the reasons governments are struggling is because the way we share information has changed so dramatically. Society is still catching up with itself around this and I don't think we fully understand the implications.

ADVISING THE NEXT GENERATION

AR: The question which I'd like to move on to next would be about your advice for the next generation of conservators.

Well, they can make a significant difference to the way their

world and the world of conservation is. Try and work out what it is you're good at, and what it is you want to do and then aim for that. So it fulfils your ambitions in terms of the life you want to lead. Or it might be about the way you improve your practice. I don't want it to sound like a platitude but be the best person you can be. It's about saying 'Try something. If it doesn't work try something else, and don't be afraid to change direction if you need to. And be as open as possible'.

What are the big changes coming in the sector? Young conservators need to think about what the future of conservation looks like. For me, I think it's around new technologies. In my lifetime, we've seen a big reduction in the cost of analytical technology. So if I was a young conservator I'd be thinking about how to engage with the scientists and understand how you can use data to make better decisions. Conservators don't need to become scientists but they need to understand how they can better work with scientists.

Are we going to see some really big significant changes in the treatment of objects in the next twenty years? Is Nano technology the next thing? Is there something around 3D printing and reproducing stuff? Is the revolution going to be around data, how we gather it and how we can start to predict and to make decisions? But ultimately it is about use; for me conservation stopped being about protecting objects a long time ago, it's about how we allow people to enjoy and use objects effectively. Let's try and think about practice in a broader context, think about how we are engaging with issues about standards and the impact that has on the environment.

As well as those big challenges, I think there are opportunities for the sector in expanding the concept of what conservators do beyond people in white coats looking down microscopes, although the public will always love that. But also actually expanding the kind of practice space that we work in; and there's the Heritage Science Group and people really thinking about the challenges of future heritage and how we're going to meet them.

I want to finish off with ambition: I want young conservators to be ambitious for the practice and the importance of conservation, because everything's measured. Hard science and hard indicators have higher value than soft, narrative, cultural indicators. But we are a soft, narrative, cultural species, and I don't know how we solve that. But I think conservation could assist in the space between those things, and how those things can come together. And it still fascinates me, and I'm very fortunate to have had a career working with some amazing, generous people, and I've seen some amazing stuff. And you get to interact with objects in a way that other people don't, and that is a great privilege, and truth be told that is the thing I really miss - that I don't get up close and personal and seeing it one to one and under a microscope. It's just the best thing, there's nothing like it.

AR: I agree, everyone I've interviewed says they miss that!

CONFERENCES

SCOTTISH CONTINUITY: RESILIENT SCOTLAND

Edinburgh 19 February 2019

The annual Scottish Continuity conference, attended by around two hundred and twenty attendees, was held at Dynamic Earth, Edinburgh. There were seven main speakers, and attendees from a wide range of organisations including local government, Scottish Parliament, universities, service companies, and National Records Scotland. The conference was supported by a trade exhibition with thirteen exhibitors. Scottish Continuity is a membership organisation.

(www.scottishcontinuity.com/)

Lots of good things came out of the conference, both through presentations and from speaking to the exhibitors and other attendees. A common theme throughout was the importance of collaboration. In *Resilient Communications Made Easy*, **Russell Pearson**, Director, Alert Cascade Limited, stressed the need to diversify methods of communication, so as not to be reliant on one method which can create a single point of failure, and to know whether any of your methods of communication go through 'grey routing', i.e. through a foreign site.

Communication needs to be as simple as

possible for everyone. 'Nobody is resilient in isolation'. 'True collaboration requires communication'. Other tips included: consider drawing up message templates, tying in with risks identified in the organisation's site risk assessment/ risk register; consider having a dedicated phone number for staff to phone in to receive latest updates, and keep common terminology throughout the organisation, e.g. for locations. In *Building a case for an organisational knowledge and operational resilience*, **Richard Cooper**, Director of Global Accounts, Fusion Risk Management, again stressed the need to encourage collaboration.

As part of her presentation, *Live Disaster Recovery Scenario*, **Dr Sandra Bell**, Head of Resilience Consulting (Europe), Sungard Availability Services, carried out an interactive session. The scenario was an initial incident of a disgruntled employee depositing the contents of a slurry lorry in a staff carpark, coinciding with escalating hacking events. The audience was asked at each escalation to vote, through a weblink, for what action they would take. Some key points were: in an emergency people may like to stick together, so it is not necessarily best to send people home; be clear about trigger points for escalation of an incident, people's perception of risk varies and it may be difficult to know when to escalate up. In a



The banner for the Scottish Continuity annual conference

crisis you need a coherent group response; shared situational awareness; leaders who make things happen; an emphasis on getting the job done, and an awareness of each other and how you/they react. Training and exercising plans are great for getting to understand each other's reactions.

In *Is your business continuity plan fit for a cyber-attack?* **John Duncan**, Senior Advisor Emergency Response and Security, Total Exploration and Production UK, described a seven-day shutdown of all computer systems, networks and mobile phone data, and the impact on a multinational

Dynamic Earth – venue for the Scottish Continuity conference



organisation. They found the following useful: the importance of consistency of message both global and local; the Business Recovery Team met twice a day, and reported to the Crisis Management Team who reviewed priorities and prioritised actions; 'town halls' were very successful – gathering staff together for briefings from the managing director; having flip charts at the entrance/exit points with key messages for staff; a director chaired the Business Recovery Team, and then briefed the Crisis Management Team; found faxes were key and having an independent BT line. Standalone laptops are needed along with memory sticks holding key documents and these need to be kept up to date.

Professor Bill Buchanan, Professor of Computing at Edinburgh Napier University, spoke about cyber security and the need to build for the 21stC and not rely on using 20thC protocols. His talk *Threat of the Future? Tokenization, the Dark Web and Encryption* also explained elements of GDPR: citizens' rights over their own data, and the duty of others to protect and forget your data. He stressed the importance of encryption and the vulnerability of websites, 'remember the front door is just as open to be knocked down as your back door'. Make sure passwords are robust. Examples of Professor Buchanan's lectures can be viewed at <http://youtube.com/billatnapier> as referenced at <https://www.napier.ac.uk/people/bill-buchanan>

Learning from a Crisis before it Happens was a very useful session, delivered by **Richard Whitby**, Managing Director of Crisis Solutions. [In conversation before the meeting started it became clear that they can provide very impressive virtual training and testing of plans and also have e-learning modules in crisis management]. Whitby described briefly a Crisis Solutions Maturity Model; if aiming for the World Class category an organisation would be able to achieve the following:

- Activation: The organisation can quickly and effectively gather its Crisis Management team in a room or virtually.
- Communications: Clear and consistent internal and external messages can be approved and issued quickly.
- Information Management: There is an effective process for identifying and analysing critical information and conducting regular situational reviews during a crisis.
- Decision Making: The strategic goal is communicated widely and used to ensure effective resolution of the crisis.

Richard Whitby went on to describe seven key challenges:

- Challenge 1: Use the plan! Often people do not use the plan in an exercise. Also

ensure that the plan gets validated

- Challenge 2: Understanding what triggers activation. Identify the crisis triggers and ensure that those who may be responsible for activating the plan know it.
- Challenge 3: Getting the right people round the table. What other skills can be drawn on? Insurers, etc? Get access to as much experience/expertise as possible.
- Challenge 4: Crisis communications: who does what? Issue a holding statement quickly, it can take a long time to get a clear picture. One of the challenges can be who is responsible for issuing the statement, and does the person know they are responsible? The statement should not need sign-off by the CEO.
- Challenge 5: Information management within a team. Fragmented information can come into the room, via the phone, from round the table, brought in by people during a meeting. Good processes need to be in place for saying 'stop!' and to ensure that everyone around the table has the opportunity to speak: 'it is not always the loudest person who has the best ideas'. Get all the information and then identify the solutions. The role of Crisis Coordinator is a very useful one to help the Chair deal with the crisis: reminding them about actions, keeping a log on a white board, following up actions and so on.
- Challenge 6: Information management between teams. A very good briefing process between teams is needed and the structure needs to be reinforced. Allow people time to do what they need to do and to report back at scheduled times. Consider structured briefing formats: What's happened? What have you done? What next? Try 3-minute briefings.

- Challenge 7: Crisis mindset. We know people act differently in a crisis; people need to understand and recognise that they are in a crisis. A different way of thinking is needed. Someone to Chair and make decisions is needed.

In answers to questions raised at the end of the presentation, decision fatigue was identified as an issue. The longer an incident goes on the more likely it is that people will find it difficult to make decisions, so deputies are needed. If an incident is going on beyond a day, send some of the team to a hotel and bring in deputies over the course of a few hours, not everyone at once. Secondly, decision-making models were addressed: it may take an exercise first for people to realise that they have a problem in making decisions. Good processes should be established and prioritise looking after people first.

Fiona Macalister ACR

Independent Preventive Conservator

MAKING HERITAGE SCIENCE DATA FAIR AND IMPACTFUL

Icon Heritage Science Group et al.
London 11 February 2019

As a heritage scientist I collect and use data on a daily basis; whether it is documenting the condition of an object through visual observation or photography, collecting and analysing scientific data, or integrating data collected by others. However, like many other practitioners, I have sometimes underestimated the value of my data to wider audiences. The *Making Heritage Science Data FAIR and Impactful* seminar was a good opportunity for me to better understand my data, and an occasion to meet other conservation professionals and find out how they collect, use and manage data.

The expert panel. L to r.: Joe Padfield, Maja Maricevic, May Cassar, Barney Sloane, Time Evans



The event was jointly organised by the European Infrastructure for Heritage Science (E-RIHS UK), the Icon Heritage Science Group (HSG) and National Heritage Science Research Forum (NHSF) and held at the University College London (UCL) HereEast campus in Stratford, London.

Professor May Cassar, Director of the UCL Institute for Sustainable Heritage and UK national coordinator of E-RIHS, kicked the day off by introducing the organisers and highlighted why this kind of seminar is so important for the heritage community. All three organisations engage individually with heritage professionals - for example, Icon's HSG aims to support access to heritage science data and improve dialogue between Heritage Scientists and related professionals to develop best practices, as we have recently seen with the ethical sampling guide. NHSF has recently published a national Strategic Framework for Heritage Science, and a Europe-wide research infrastructure for heritage science (<https://e-rihs.ac.uk/>) is currently being formed. As such, it was motivating to see the three organisers coming together to build a stronger, integrated heritage science community.

The day began with a series of presentations, followed by an expert round table, and tours of the new technology applied by heritage researchers at UCL. From the presentations, participants gained greater understanding of differing types of heritage science data and how FAIR principles (findable, accessible, interoperable, reusable) can be applied to them. There were also animated discussions about 'born digital' data, 'big data' projects, and the economic power of data.

The first session explored what heritage science data is and how different institutions collect, manage and store it. Three case studies were presented; Fishbourne Roman Palace (presented by **Rob Symmons**), ISIS Neutron and Muon Source – Science & Technology Facilities Council (presented by **Antonella Scherillo**), and Historic England (presented by **Paul Bryan**). Each presenter drew from their own experiences and it was beneficial to hear about the range of techniques currently being used for various types of data and different organisational infrastructures. Although FAIR principles are being used in heritage science, it was clear from the presentations that it is tied to an institution's capabilities.

The second session focused on dissemination and impact. **Tim Evans** from Archaeological Data Service (ADS) discussed how ADS make their resources available through their online catalogue, as well as wider issues around data access and how we can improve this - something that E-RIHS is hoping to achieve



HES Conservator Elizabeth Hepher and Jane Thomas, Collections Development Project Manager, discuss drawings from the HES archive

through their DIGILAB platform. **Sara Gould** (British Library) and **Luigi Galimberti** (Tate) continued the session, discussing their project to create a shared research repository showcasing the multidisciplinary research conducted by organisations; to monitor and evaluate the impact of the research across organisations; and play a fundamental role in centralising, preserving and making research accessible. Currently the project is in its pilot phase but it could offer an exciting opportunity for professionals to instigate FAIR principles across UK organisations. **Maja Maricevic** (British Library) brought the presentations to a close with a thought-provoking presentation about heritage data's economic impact and the opportunities and challenges heritage organisations face when dealing with large amounts of data.

The seminar concluded with a round table discussion. Experts debated larger questions, such as changing technologies, political landscape and how this will affect FAIR principles, data ethics, how to best share data between institutions; and policy creation. They also discussed with the audience issues around resources and funding, data transfer, storage and how to disseminate data online. While not all the questions could be fully addressed by the panel, it was a great opportunity to start wider conversations about impact and FAIR heritage data.

The day ended with a poignant observation from the expert panel, which summed up the feeling in the room: in order to fully appreciate the power of our data we need to stop seeing ourselves as independent islands of heritage and start collaborating and sharing with each other. While this seminar was the first joint event by Icon's HSG, NHSF and E-RIHS, hopefully it won't be the last. It was easy to see the benefits of working together – not only to make heritage data FAIR but also to build a stronger heritage science community in the UK.

Natalie Brown SEAHA Doctoral Student UCL, Institute for Sustainable Heritage

TRACING PAPER: transparent perspectives Historic Environment Scotland Edinburgh 20 March 2019

The first presenter, **Lynn Teggart**, started off the conference with a much desired introduction to the world of tracing papers: the different types of paper, how they are made, identifying characteristics and their distinctive behaviours. She also touched upon standard treatment options and set the stage for the rest of the conference.

The very entertaining **Neil Gregory** was up next and he delved into how and why architects used tracing paper in their line of work. He described the positives for using tracing paper and explained why they are so often found in unfit storage conditions. This provided a fantastic perspective on the challenges that conservators face while treating tracing papers.

Anna Trist presented a case study on a project she did with 1830s' shawl designs from the University of Edinburgh. She rightly described these tracing paper objects as the 'prettiest but trickiest' of the pieces she has had a chance to work with. Designs with both sides of the paper painted provided a challenging, but ultimately very successful, treatment technique.

After the break, **Elizabeth Hepher** delivered a visual feast full of case studies of various tracing paper projects. She imparted to us the sheer variety of the paper's behaviours and thus treatment options available. From using isinglass to synthetic adhesives, it is obvious how complicated it can be to treat tracing paper. She ended with a handy top-tip list for handling tracing paper.

Emma Buchholz provided us with a perspective on dealing with tracing paper in large quantities for the Scottish Architects' Papers Preservation Project. She talked about realistic problems and simple yet effective solutions that are budget-friendly. We next delved into the Sir Basil Spence

Archive and some other unique qualities of tracing paper. Emma discussed the challenges with edge tape and leeching label adhesives, while presenting her creative solutions along with them. She further discussed a case study where she treated two hundred and forty pieces of tracing paper. From removing pressure sensitive tape to rehousing tracing paper, Emma provided us with real solutions to challenges posed by dealing with tracing paper in large quantities.

Nicely balancing the macro view that Emma brought, **Shona Hunter** presented a detailed look into treating a rolled plan on tracing paper. This was an in-depth case study that explored the detailed condition of the rolled plan, problems and solutions, including capturing the paper confetti with glass weights. The transformation of the plan was incredible: from being discovered in a tight roll, to a flat, cohesive and accessible document.

Helen Creasy explored two very different projects. Her presentation highlighted how unforgiving some papers can be while also demonstrating how, through treatment, a massive improvement can be made to the condition of an object. Helen focused on her various treatment decisions and surprised the room with the before and after photos of a Jessie M. King design.

The final presentation of the conference was given by **Richard Aitken** who described an interesting case study of a mid-17th century marine & landscape map of Tiree with a linen backing. There were a few unusual aspects to this project, including an attached magnification extract of the

Scarnish Harbour. Richard explored his methods of removing the lining and consolidating the map, again emphasising tracing paper's brittleness and complexity.

Following the presentations, delegates were invited to view two displays of HES archive material. On display were a selection of different tracing paper types, drawings on transparent paper by prominent architects as well as examples of items before and after conservation.

This conference was extremely insightful and educational. The main aspect that all of the presenters agreed upon is the variant nature of tracing paper and the complexity behind creating a treatment proposal. This area of conservation is an exciting one due to the constant improvement of our understanding around the behaviours of tracing paper and the continuing quest for solutions.

Stephanie Allen

Project Paper Conservator

TALK

COLOUR AND THE JAPANESE PRINT
Independent Paper Conservators Group
London 26 March 2019

The lecture given by Pamela de Tristan (an accredited conservator in private practice in London), for the Independent Paper Conservators' Group at Freemasons' Hall in March, was a very informative and well received talk attended by a large audience, not just from the London area but also from Oxford and even Paris.

History of Japanese prints and the use of

colourants: Pamela introduced the different styles of Japanese woodblock prints and colourants used, together with the development of the printing process. She explained that the first line block prints were inspired by Buddhist texts from China which were sent to be inserted into stupas in Japan in c.764.

These single line prints in lamp black (*sumi*), were followed by prints with hand colouring using natural dyes from petals, leaves and roots that were already in use in the textile industry in the Heian period (794–1185).

The most commonly used dyes and pigments were: *beni* (safflower) and *tan* (red lead) for red; *aigami* (dayflower petals) and *ai* (indigo leaves) for blues; *ukon* (turmeric) for yellow; other yellows were sourced from gardenia and berberis. *Beni* and *aigami* were overprinted for purple and *aigami* with turmeric were used to make green.

A further advancement on the hand coloured print was the use of metal dusting to simulate gold. *Sumi* was mixed with animal glue to create a black lacquer effect: these prints were known as *Urushi-e* (lacquer pictures). Gauffrage, (blind printing or embossing) was also introduced.

Japanese woodblock prints, known as *ukiyo-e* (pictures of the floating world), further developed over the Edo period (1603-1868) from black ink images (*sumizuri-e*, monochrome printing) to hand colouring and full colour printing, which became possible through the use of the *kento*, the invention of registration marks for positioning paper accurately on a series of printing blocks. Pamela explained the process with the aid of a wood block that she had engraved as a student at Camberwell. She showed how colourants were mixed with *nori* (paste made of cooked rice), which allows adhesion of the pigments, and applied to the wood blocks. The paper, usually a handmade *kozo* paper sized with *dousa* (a mixture of animal glue *nikawa* and alum), was then positioned face down onto the inked block between the *kento* registration guides, and the verso was rubbed using a barren, a disc-like hand tool with a covering of bamboo. This method produced the beautiful *nishiki-e* (brocade pictures), often layering impressions from ten or more colour-printing blocks. Pamela mentioned that the circular marks produced by the barren on the verso of a print are admired by collectors, and prints should not be lined as this covers up barren marks and other embossing effects.

Other special printing techniques include the use of mica (a sheet silicate) for *kirazuri* (mica printing) in the background of prints. Mica is ground to a white or grey powder and sprinkled over paper with a ground colour (*sumi* or *beni*) and *nori* or *nikawa*

HES Conservator Lynn Teggart describes how to identify different tracing paper types





Image: Pamela de Tristan

A Courtesan by Eisen (1790-1848) Natural colourants and Prussian blue

printed on before it dries, or block printed. The method produces a shiny appearance and is used in the works of Kitagawa Utamaro (1753?-1806) and Toshusai Sharaku (active 1794-1795).

Throughout the Edo Period (1603-1868), images of beautiful women (*bijin-ga*) and Kabuki actors (*yakusha-e*) were in high demand. People collected prints and put them into albums, a practice that fortunately allowed some prints to retain their original vivid colours. Popular themes for prints broadened to include landscapes, nature (birds, flowers and fish), heroes, and eroticism (*shunga*). Landscape images introduced popular sightseeing sites and served as travel magazines or souvenirs. 'Tokaido Gojusan tsugi no uchi (The 53 Stations of the Tokaido, 1833-1834)' by Utagawa Hiroshige (1797-1858) are an example.

The synthetic blue pigment *bero-ai* (Prussian blue) was first imported to Japan from China and was used in Japanese woodblock prints from the 1820s. *Bero-ai* has a high tint power and is fairly stable, and its use thus became very popular. Pamela introduced this colourant in the context of 'Kanagawa-oki Nami Ura (The Great Wave, 1829-1833)' by Katsushika Hokusai (1760-1849), in which *ai* was still used for outlines and *bero-ai* was used for dark and light wave colours, with *sekiou* (orpiment) for yellow and *beni* for pink in the sky. The print was discussed as an example of image reintegration and the consequent ethics of restoration.

In the Meiji period (1868-1912), other synthetic colorants, such as red and purple aniline dyes, were introduced. Pamela discussed these dyes in the context of printing after the historic opening up of Japan in 1853-54. Pamela also considered works from the *Shin-hanga* (new prints) art movement, such as Kawase Hasui (1883-1957) and Ito Shinsui (1898-1972) from 1920s, who



Image: Pamela de Tristan

Military men Meiji Period (1868-1912) by Yoshitoshi (1839-1889) Synthetic aniline colourants and Prussian blue

still used *bero-ai*, up to the *Sosaku-hanga* movement of contemporary artists who no longer use natural dyes but watercolour and other pigments. Mixed media are also used by some artists, incorporating wood blocks with intaglio printing.

Conservation: As Pamela explained, 'Colour is what the Japanese print relies on for vibrancy, mood and communication' but these colours are by their very nature unstable: they can be destroyed by light, moisture and any incorrect assessment of treatment by the conservator. Pamela then introduced a number of case studies with corresponding images illustrating the conservation techniques used.

When considering aqueous treatments, it is crucial that knowledge and experience of the colours and materials are used to assess the method and duration of treatments. *Sumi* is stable in moisture, while *beni* and *bero-ai* could change in hue. *Aobana* or *aibana* is very fugitive, so a print can be humidified for a short time in a controlled manner, but no washing is possible. Aniline dyes are very fugitive too, so washing should be avoided, but methylcellulose gel poultices can provide enough moisture to remove old linings where necessary.

To reduce two heavy creases in the centre of a print on heavy *kozo* paper by Keisai Eisen (1790-1848), which retained excellent colours, Pamela humidified the print in a controlled manner for one hour, the creases were targeted only by spraying from the verso, then the print was stretched and dried by placing weights along all four edges, instead of pressing the whole print. If a print has been folded and placed in an album, the print often suffers from a vertical fold down the middle. Pamela showed a print she had treated by float washing to remove paper and adhesive residues, then reinforced weak areas along the fold with Japanese tissue, a step which would also prevent the fold from returning. In the past, Japanese woodblock prints were often lined with Japanese paper to provide support. However, lining will flatten out embossing (blind printing) effects and circular marks from the barren, so lining is not recommended. Likewise, if there are extensive repairs on a print, use of a *karibari*

board or the friction method for drying and flattening is not advisable since they will pull out the repairs.

When treating a Hokusai print 'The Great Wave Off Kanagawa' (1823-1833), heavily damaged with losses and stains, Pamela cleaned it lightly with a chemical sponge, humidified and flattened it. Since the stains were severe and disturbing the image, she toned some of the areas down with pastel pencils. Whereas creating a facsimile of the image in a missing area was common in the past, current ethical practice tends only towards lighting or darkening (toning). Can any bleaching be used on Japanese prints? Pamela mentioned the use of hydrogen peroxide a few times on foxing. Bleach was formerly applied over a suction table, but nowadays is only used with a small brush (sizes 0-0000). My early personal experience warns against the use of a suction table with Japanese paper, which is porous and could trap pollutants/particles from the environment in the fibres, if used for too long.

Pamela's advice on the conservation of Japanese woodblock prints is that it is necessary to understand the support (paper) of the prints, to be aware of the colourants and of the amount of moisture that can safely be introduced, and always to take a careful and a conservative approach. She also told us that the Sumida Hokusai Museum, which opened in November 2016 in Tokyo, displays digital reproductions of his prints on paper in its permanent galleries, in order to protect the originals from fading. Since I haven't been to the Museum yet, I feel I need to pay a visit next time I am in Tokyo!

We were all delighted by Pamela's generous willingness to share her knowledge and experience in the research and conservation/restoration of Japanese woodblock prints.

Megumi Mizumura ACR

Paper Conservator, The British Museum



The cast in a cellar before conservation work began

CONSERVING A PLASTER CAST

Robert Entwistle ACR, and Carrie Willis, Conservation Technician, of Colchester and Ipswich Museums describe the conservation of a plaster cast of Michelangelo's Taddei Tondo

BACKGROUND

The Tondo marble relief by Michelangelo, in the collection of the Royal Academy of Arts in London, is the only original Michelangelo carving in Britain. Ipswich museum has a cast of it made by D. Brucciani and Co. The cast cost £2.10s. [£2.50p] when it was bought in 1898.

It is not known if it was bought by Ipswich Art School or Ipswich Museum; however, it was used by art students until the middle of the last century. After it was deemed surplus to requirements, it was relegated to a damp cellar, where it sustained substantial damage, and was later placed in a museum store. There is no evidence that the object was ever accessioned.

The cast was chosen for display in an exhibition of sculpture in Christchurch Mansion Ipswich and required conservation to make it safe and presentable for display. It was chipped, cracked, broken and a large area was missing. The cast had black mould stains, and ingrained dirt and it was attached to a heavy wooden backing with long corroded iron screws. The backing had rotted and was structurally unsound.

CLEANING

The Tondo was removed from its old wooden backing and came away in two large sections. The cast was first cleaned using a vacuum cleaner and brushes, and then wet cleaned with cotton wool, melamine sponges and A7 Symperonic non-ionic detergent. Melamine sponges have a mild abrasive action and were used as small two-centimetre cubes.

RE-BACKING

It was decided to join the separate pieces, recreate the missing area and reinforce the back using an epoxy resin foaming system. This would add support and reduce weight. The authors had used these materials before in mosaic conservation, in the conservation of a set of loom weights and when making mounts for skeletal material. The authors also consulted colleagues who had previously used this system.

Casting resin directly on the rear and painting the front caused us pause for thought. The main concern was safety. The Tondo was heavy and it was intended to display it high on the gallery wall. A good strong bond was essential and there were concerns that a separator may have compromised safety.

Previous tests had shown that the resin foam was readily softened with IMS and acetone, and easily removed once cured with scalpels and rasps. And as the Tondo was a cast and not an original, was unaccessioned and had been bought for the use of art students, it was decided to proceed as proposed. However, a 20% solution of pH neutral PVA was painted on the inside of the cast before the resin was applied.



Rear of a section of the cast after its removal from its wooden support

This was to consolidate the surface and act as a potential separator.

The resin chosen for the backing and adhesion process was a two-part epoxy resin to which could also be added a foaming or blowing agent as necessary. Two resins were used during the conservation. The first was a Biresin ER200 epoxy resin foaming system from John Burn Ltd, which was later discontinued by the suppliers, and the second was JB-03011B, which was compatible with the former. Both resins have a low exothermic reaction, and the amount of blowing agent can be varied to produce the required density.

Gloves and eye protection were worn during mixing. No

One section of the Tondo cast half cleaned



respiratory precautions were needed, but laboratory extraction was used as a precaution. Masks were only worn when the foam was rubbed down after curing as it produced a fine dust. Both resins and foaming agent were mixed by weight.

Joining the two separate pieces of the large and heavy plaster cast and preventing any steps was difficult. The pieces were placed together and levelled with a large spirit level and Plastazote chocks.

To allow the cast to be turned over to apply the backing, a plaster of Paris support was made of the front using clear plastic food wrap as a separator. This held the unattached pieces in their correct positions whilst work was undertaken on the rear.

The cast and its temporary support were then turned over and the loose pieces were re-attached to each other using the two-part resin and chopped strand fibre glass matting.

The Biresin foaming resin system was used first, until it ran out and then the JB-03011B. The back of the cast was later in-filled with the resin into which the foaming agent was added as a support. Strips of stainless steel weld mesh were sunk into the foaming epoxy resin during the process for added strength. Long steel bolts and plates were set into the resin beneath the weld mesh. These were held level in relation to each other and the Tondo with lengths of aluminium angle bracket.

RECREATING THE MISSING AREA

A resin cast of the original Tondo was supplied by the Royal Academy (RA). A drawing on Melinex was made of the missing area and superimposed on the RA cast. This area of the RA cast was treated with a thin layer of petroleum jelly as a release agent.

A negative cast was made of the area using alginate, a water-soluble material. This was thought to be the safest material and least likely to cause any damage to the resin RA cast. The alginate cured quickly. As the alginate mould was very flexible the rear was backed with polyurethane foam to prevent it distorting when the replacement part was cast. The missing area was then cast in fine casting plaster and attached to the Tondo using a further thin layer of plaster. It was thought more appropriate to use similar materials, rather than using an adhesive. The area was held in place until the plaster hardened.

All flash lines were rubbed down, and the Tondo turned over. The rear of the new cast piece was then treated as before with weld mesh, bolts and foaming epoxy resin.

DISPLAY

The plaster original was stained with dirt, water and mould. The replaced area was brilliant white. After consulting with conservation colleagues and curatorial staff it was decided to paint the whole cast a uniform colour. The cast was unaccessioned and could not be shown in its original condition. This was primarily a curatorial decision as the exhibition deadline was nearing. Again, a 20% solution of pH neutral PVA was applied to the surface prior to painting as a consolidant and separator.

Chalk paint was chosen as it was most akin to the plaster and was chemically similar. It was also water soluble and could be thinned to ensure that no definition was lost. Various other



The bolts, weld mesh and plates in position before the resin was applied and the alginate mould of the missing area

coverings were considered, such as lime wash, but these were found to result in loss of detail. A colour most resembling the original plaster was used and applied by brush.

The paint was then coated with a layer of microcrystalline wax to which a little pigment was added to tone down the colour. The whole was then buffed with a soft cloth.

For display purposes it was decided to attach the cast to a lightweight aluminium honeycomb resin board. This was to reduce weight and to protect the cast. The board used was 2.65mm thick Cellite epoxy resin impregnated woven glass cloth with aluminium honeycomb between.

The board was cut to size and painted to match the gallery walls. A template was made of the rear of the Tondo in Melinex and protruding bolt positions marked. This was superimposed on the aluminium honeycomb board and the bolt holes drilled through. The Tondo was then bolted to the board, using the protruding steel bolts. Excess bolt length was removed from the rear of the board with a hacksaw.

The board and Tondo cast were then attached to the gallery wall using a batten as a support and metal clips. The Tondo can be seen on display at Christchurch Mansion in Ipswich.

The project had limited time, resources and funds. The conservators had to work towards an exhibition deadline, and the project took two weeks to complete. More information about the work and further images can be found at: <https://cimuseums.org.uk/conserving-the-tondo/>.

Acknowledgements

We would like to thank the Friends of Ipswich Museum for their funding and support of the project and The Royal Academy, primarily Dan Bowmar and Maurice Davies, for facilitating the loan of their resin cast of the Tondo.

Suppliers

Resin: John Burn Ltd have since changed their name to Ellsworth Adhesives.

Biresin High performance foam system. ER200 Resin, EH 200-2 Hardener, EA 200 Foaming agent.

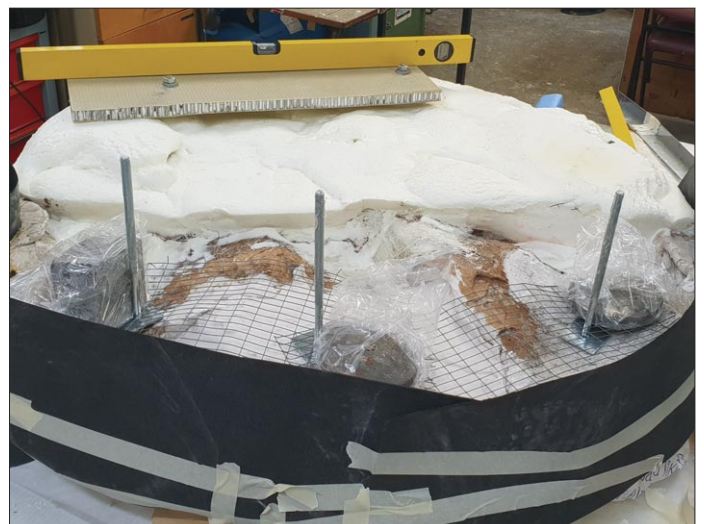
Resin JB-03011B compatible with the above hardener and foaming agent

Aluminium honeycomb board: TRB Light Weight Structures, Huntingdon



The missing piece attached with plaster

A view of the rear showing the foaming resin and bolts. Weights hold the weld mesh flat





The cast attached to its new board

Alginate: UnoDent Fast Set Alginate Refill

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On display with Rodin's sculpture *The Kiss* in the foreground



the emerging conservator

CAMBERWELL PLACEMENTS

Camberwell students reflect on the value of their placements and lessons learned

INTRODUCTION

The 2019 graduating class of MA Conservation students at Camberwell College of Arts have asked to use this space to say thank you to the many institutions that have hosted work placements over the past two years. The Camberwell programme benefits enormously from its location in London, and the programme has deep roots in the heritage community. Over the years, the course has built invaluable connections with heritage institutions in London, as well as elsewhere in the UK and even abroad. As students, we have benefited from having a weekly placement during the academic year, and an additional extended practical placement over the summer. We have reflected on how these placements have shaped our education, and found a series of recurring themes that highly resonated with our overall experiences.

DIFFERENT ENVIRONMENTS: DIFFERENT PERSPECTIVES

During my placements I have been fortunate to work on a variety of items for both private individuals and museums. It has

been interesting seeing the differences between working in a private practice compared to an institution and learning about client relationships. With smaller studio spaces, being organised was important – with everything having its rightful place! These placements also made me look at my time management, which has been crucial during my final project at Camberwell.

Kiri Douglas

The opportunity to gain an insight and understanding into different workplaces and their approaches to conservation has been one of the most valuable aspects of the MA Conservation course at Camberwell. I have been very privileged to gain experience at a number of varied institutions and to benefit from the wealth of knowledge of different professionals. Learning the wider context of conservation and how this impacts decision-making has been invaluable in contributing to my development as an emerging conservator.

Lizzie Fuller

I found there were some differences between the skills we learnt at Camberwell and other institutions. We need to follow the basic principles when repairing art works, but conservators will always attempt to do what they can, as each conservator has their own way of doing things. The placements provided me with the opportunity to increase my subject knowledge and develop observational, practical and other transferable work-based skills. I have a strong interest in Chinese paintings, and through my placements I learned that although the conservation

L. to r.: Miriam Kleingeltink and Jolanta Tursa cleaning mould from a Mammoth camera at FoMu





L. to r.: Wanda Robins, Samantha Hare, Rhea Evers and Lizzie Fuller cleaning an architectural plan at UCL. Also present in the photo Angela Warren Thomas and Vivian Yip

of Chinese paintings looks very different from western paper conservation, they do have some things in common, such as similar infilling and mould removal techniques.

Yue Li

SHARING IS CARING: COMMUNICATION AND COLLABORATION

I had placements in a number of different institutions and had the chance to learn more about the work environment of museums, libraries and archives. Other than improving my practical skills conserving a variety of objects, I had the privilege to work alongside conservators, librarians, archivists, curators, scientists and technicians. These heritage professionals were immensely generous in sharing their knowledge and time to make my work experience even greater. I feel that the good work environment that I had during placements and the people that I met widened my view of conservation as part of the heritage sector.

Marina Pelissari

Having the opportunity to learn conservation 'in the field' through practical, hands-on work placements in the UK and abroad has been an unforgettable and invaluable aspect of my training. I have learnt how paper conservators develop and fine-tune their processes through being adaptable, collaborative and by sharing knowledge - including across disciplines and cultures. In one placement, I learnt about the application of Japanese scroll-mounting techniques in the conservation of Western library materials. In another, I saw how techniques and materials used in paintings conservation could be adapted for the conservation of oil paintings on paper. These placement experiences have been eye-opening and inspirational. Additionally, they have helped me improve my hand-skills and increased my confidence - preparing me

for my final project and the conservation workplace.

Rachel Collins

Through my placements I have been very fortunate to learn from a wide breadth of institutions and individuals. It is incredible to have an understanding of the working environment and running of these departments. It has been a great privilege to work on collections that I have previously visited and been inspired by, with guidance from those I greatly admire. One of the aspects I have valued is cross-discipline communication. I have been able to approach and receive advice from other conservation specialisms, which has directly informed active conservation treatments. Exchanges and discussions with textile and scientific imaging departments have been particularly rewarding, allowing me to broaden my knowledge of the materiality of composite objects.

Samantha Hare

LEARNING FROM OTHERS: MENTORSHIP, DECISION MAKING AND ADAPTABILITY

I am deeply grateful to the three institutions that hosted me over the past two years. The conservators who have spent countless hours showing me how to do treatments and answering my many questions have been the greatest inspiration from these work placements. It has been invaluable to see how people work in their studios and to be able to ask and get advice from them in the moment. I am indebted to so many people and I am so proud to consider quite a few as mentors that I will stay in touch with. I hope one day to pay this kindness and generosity forward to give to others what has been shared with me.

Wanda Robins

I have learnt a good deal from all of my placements. I have



Rosemary Coppel presenting her talk at the latest Icon Book and Paper AGM Lightning talks

learnt, for instance, about the different priorities of different institutions, I have learnt about teamwork and working with colleagues from other departments, about time and space management, issues around preservation, and so on. These are all crucial topics and experiences. Most importantly perhaps, I have learnt about decision-making. In order to make good decisions in conservation, we need to consider various factors, from the properties of certain materials to ethical considerations, and reflect on what is best for a given item in a given situation. All the conservators I have worked with have been extremely generous in sharing their knowledge and thoughts and as a result these placements have been invaluable experiences.

Satomi Sasaki Verhagen

As an emerging conservator, the placements that I have undertaken have offered unique experiences that have greatly impacted my professional development. Through diverse studio environments and various conservation practices, I have learnt to become adaptable to treatment expectations, changes in pace, new materials, varying levels of collaboration and even the lavish tea breaks. I am extremely grateful to my supervisors and colleagues for being so open in sharing their

L. to r.: Satomi Sasaki Verhagen, Rhea Evers, Marina Pelissari, Samantha Hare, Sophie Coulthard, Kiri Douglas and Arantza Dobbels Busto in Copenhagen, attending the April 2018 Care and Conservation of Manuscripts conference.



various practices and accumulated knowledge, as I know I will apply what I have learnt from them into future opportunities.

Miriam Kleingeltink

BEYOND THE BENCH: COMMUNITY, ADVOCACY AND RESEARCH

The placements I have had during the course have been both friendly and immensely supportive of new conservators. This has gone beyond presenting exciting practical treatments and projects to include recommending articles, Icon events and workshops and encouraging me to approach other conservators and institutes for advice or a visit. The introduction to the wider conservation community is hugely beneficial as previously I have been too timid to network, and the people I have met and worked with have all encouraged me to become a more outgoing and active conservator. A heartfelt thank you to all.

Rosemary Coppel

Attending placements alongside my post-graduate studies has given me access to incredible experiences with varied paper-based artefacts under the supervision of practising professionals. There is nothing more valuable than the opportunity to learn from doing, to be entrusted with collection items and to discuss your ideas, rationale and decisions openly in a working environment. I have had the time and space to consolidate studio tuition and appraise my work one-to-one with supervisors. Alongside practical work, I have gained vital insights into the requirements of the conservator beyond the bench; advocacy, research and outreach have all played a role in my placements. I am thankful for these opportunities which, among many things, have served to reinforce the importance of a wider network of discussions and collaboration in conservation and the heritage sector.

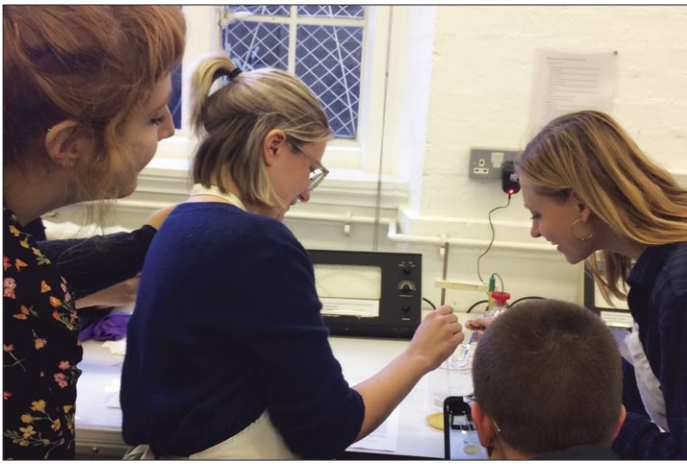
Rhea Evers

Through my placements I have had the opportunity to enrich my learning experience and go beyond what is taught in the classroom. I am very interested in the intersection between science and conservation, which made the chance to carry out research during my placement even more exciting! Working together with conservators, researchers and scientists brought amazing knowledge to the table, and it was very rewarding to work in research within a cultural heritage institution, knowing that I could be contributing to the wider conservation community. It also allowed me to become very familiar with scientific analysis techniques, which I now feel more confident using in my final project at Camberwell.

Arantza Dobbels Busto

A BURST OF CONFIDENCE: ENCOURAGEMENT

One of the most valuable aspects of the conservation MA at Camberwell, the placement programme has offered me the opportunity to gain a variety of hands-on experience across a range of settings. These include working on ship plans and



L. to r.: Lizzie Fuller, Samantha Hare, Rebekah Harbord and Jolanta Tursa testing the pH of the water after an immersion bath

globe boxes at the National Maritime Museum, 19th century prints at the British Museum, maps and Russian posters at Museum Conservation Services and Japanese prints at Bristol Museum of Art. The one thing that carried across all my placements was the dedication and encouragement I received from all the conservation professionals I met. I feel these experiences have expanded my knowledge of conservation and will help guide my career in the future.

Sophie Coulthard

I have had my study placements in very different institutions from small archives to large museums, which gave me insight into different working environments. Placements gave me the opportunity to learn practical conservation skills and to be open-minded to work with artefacts on many different materials, not only paper. I learned the importance of thinking about the context of the object and its storage environment and subsequently its enclosure. On some placements I had several projects simultaneously, which gave me insight into how to manage my workflow and time. Decision-making and confidence in my skills were the hardest to learn, but placements and my supervisors gave me massive encouragement.

Jolanta Tursa

Exposure to many beautiful and fascinating objects during my placements has not only reminded me of the privilege that comes with being a conservator, but also the responsibility. However, rather than remaining daunted by this, my placements and the many individuals who have offered, and continue to offer, their generous support have been invaluable in building my confidence, independence and helping me to contextualise 'text book' learning. From conservators of Asian works of art to those caring for the art collections of the Royal Family, I have learnt the importance of mastering technique but also of being adaptable and thinking creatively. In providing the opportunity to work on a variety of objects from design drawings in gouache on transparent paper, to an 18th century panoramic print, to organising eye-opening workshops and the opportunity to collaborate with other conservation professionals, I feel more prepared and incredibly excited to join the conservation community, bamboo tools in hand!

Rebekah Harbord

Thank you to Jocelyn Cuming, Eleni Katsiani, and Sarah Bowles from UAL for making these placements possible. And thank you to all the institutions:

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 Graham Bignell Studio, London
 Lambeth Palace Library, London
 Artworks Conservation, Harrogate
 Leeds University Library, Leeds
 Economic Botany Collection Kew Gardens, London
 Suzanne Press & Associates Ltd., London
 Bodleian Libraries, Oxford
 575 Wandsworth Road (National Trust), London
 Royal Collection Trust, Windsor
 Berkshire Record Office, Reading
 Sussex Conservation Consortium, Amberley
 MoDA (Museum of Domestic Design and Architecture), London
 The Fitzwilliam Museum, Cambridge
 Canterbury Cathedral, Canterbury
 The British Library, London
 Wellcome Collection, London
 UAL Archive and Special Collections Centre, London
 FotoMuseum Antwerpen, Antwerp (Belgium)
 Norfolk Record Office, Norwich
 Suzhou Museum, Suzhou (China)
 Wimbledon Lawn and Tennis Museum, London
 Museum of London, London

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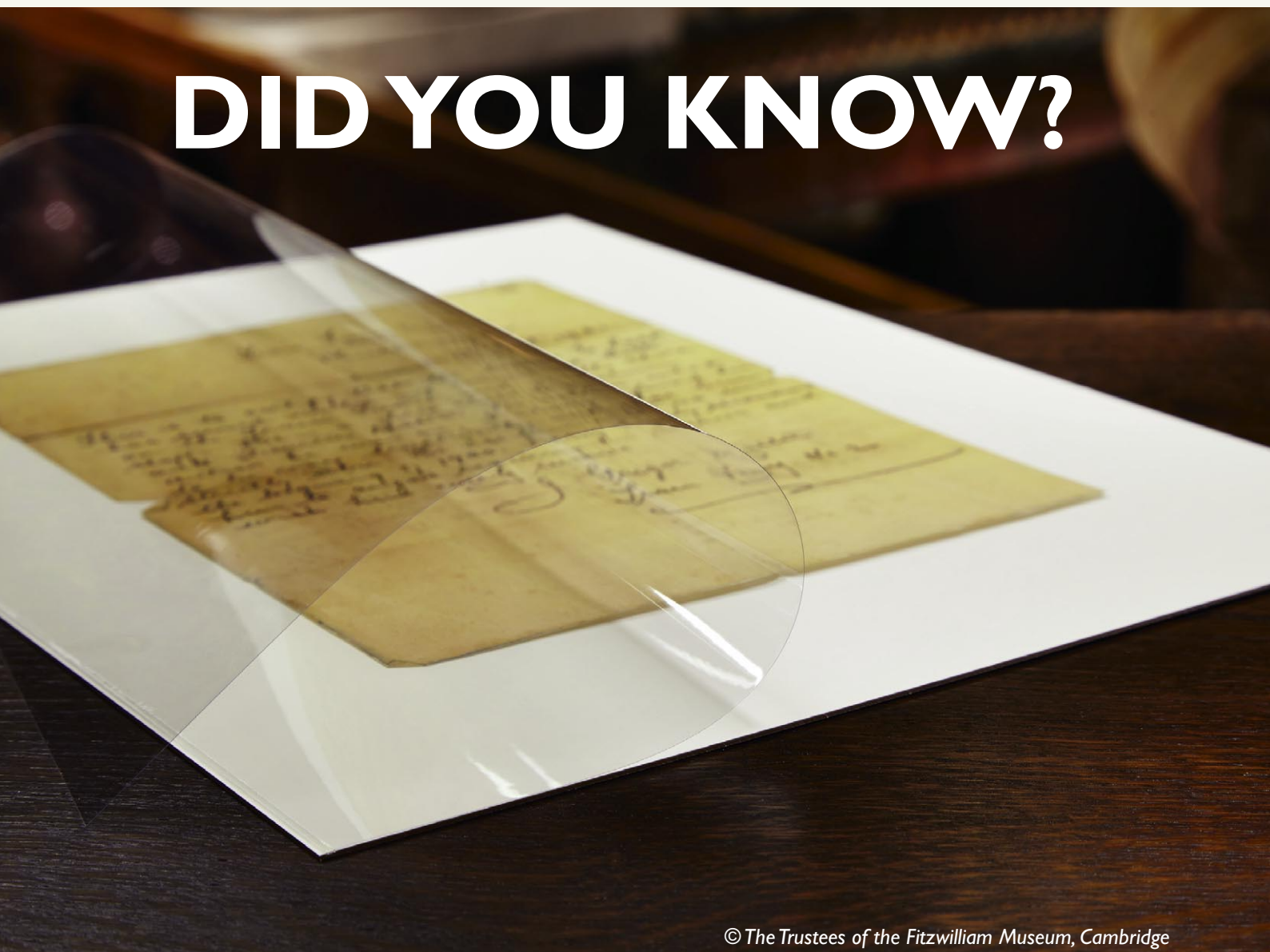
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