

THE MAGAZINE OF THE INSTITUTE OF CONSERVATION • JUNE 2020 • ISSUE 88



CPD in social isolation

Also in this issue

Treating a Mummy • Roundtable decision-making • Bats in churches

CPD CAN BE SIMPLE.

Becoming and remaining a successful conservator requires knowledge and skills which develop over time. By identifying your strengths and weaknesses and creating your own personal and professional goals it is possible to plan a long and rewarding career in conservation. Continuing Professional Development (CPD) is an essential part of becoming and remaining Accredited.

But CPD doesn't have to be complicated or difficult.

**We've compiled some quick ideas for your CPD - whether you have
5 minutes, 1 hour or 1 day.**

I've got...

5

min

5 MINUTES

- Take a virtual coffee break and talk to another conservator about your work
- Join an Icon Group, Network or Icon's online Discord community
- Visit the Icon website to look up potential future CPD activities
- Register for an on-line event or course
- Search for any CPD grants available
- Share an idea or resource with a peer
- Identify a skill or competency you would like to develop
- Ask a colleague for feedback

60

min

1 HOUR

- Fill out your Upgraded Listing on the Conservation Register
- Read relevant articles, newsletters, books, websites
- Attend a webinar or virtual seminar
- Respond to a debate on social media
- Record and reflect on your CPD activities in your CPD learning log
- Carry out online research or study a relevant topic
- Consider writing an academic article
- Write an article for Icon's publications
- Research conferences to submit an abstract to
- Peer review an article or find a book to review
- Write a case study for the Icon website
- Chair an on-line team/committee meeting
- If you are an ACR, consider becoming an Icon mentor
- Listen to a TED Talk
- Practice your IT skills by taking software tutorials
- Teach a colleague something online

8

HOURS

1 DAY

- Participate in an online event or workshop such as the many Icon courses planned for the year
- Virtually shadow someone by sitting in on online meetings
- Take a stress management e-learning course
- Present or network at a conference, e.g. Icon's Twitter Conference
- Plan or run an online course or event
- Plan and pitch a research project
- Volunteer in a related field
- Learn a new craft for pleasure

The Institute of Conservation is a membership organisation and charity which brings together those with a passion for the care of cultural heritage. Icon raises awareness of the cultural, social and economic value of caring for heritage and champions high standards of conservation.

Find out more about CPD at:
<https://icon.org.uk/training/continuing-professional-development>

JUNE 2020 Issue 88



From the Editor

It is hard to keep a good conservator or heritage scientist down! Even in bleak circumstances their ingenuity, flexibility and practical common-sense will out. Take the case of one of our members whose job folded when the small charity where she leads a team of conservation volunteers closed its doors for the coronavirus lockdown. Nothing daunted, she has transferred her conservation skills to making scrubs and scrub bags for the National Health Service.

Then there are the Book and Paper Group's live streamed talks on a range of topics under the title Conservation Together at Home. Enthusiastic participation - whether at the kitchen table, on the bed or with the cat - has provided the range of images that make up our fun front cover. And whilst you are at home, why not write an article for Icon News or the website? It is good CPD and there are lots more CPD suggestions on our front inside cover.

You will find a lot of material on Icon's website intended to help members through the pandemic, but its repercussions are likely to be significant for some considerable time. To support the profession, our Board of Trustees has added a new strategic priority for 2020/2021. Read about it in our Chief Executive's column.

Lynette Gill



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Cover photo
A collage of images sent in on Twitter and Instagram by participants in the Book and Paper Group's free *Conservation Together at Home* series, held during the coronavirus lockdown.
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Whilst every effort is made to ensure accuracy, the editors and Icon Board of Trustees can accept no responsibility for the content expressed in Icon News; it is solely that of individual contributors

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For the December 2020 issue
Friday 2 October

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professional update

From The Chief Executive



Sara Crofts on Icon's response to Covid-19 and the digital future

Two months ago, when I drafted the text for the April edition of Icon News, we had just finished inducting our new batch of trustees and were throwing around lots of ideas for new projects and initiatives. With a new Chair fully up to speed and deeply engaged with our aims we were in a buoyant mood. Brimming with energy, I outlined Icon's

strategic priorities for the 2020-21 financial year:

- Advocacy - *articulating* the value of conservation and *sharing* the impact of our work.
- Excellence - *celebrating* the 20th anniversary of the accreditation framework and *promoting* the new Conservation Register.
- Engagement - *launching* a new e-newsletter for non-members and *encouraging* more people to join Icon as Supporters.

I also talked about our plans to swell our ranks through undertaking a variety of marketing campaigns as part of developing an effective long-term membership growth strategy. Then, relatively suddenly, the arrival of the Coronavirus changed not only our day-to-day lives but also the context in which Icon, and our members, operate. I now find myself writing this column sitting at my dining room table in the third week of lockdown.

Happily, I can report that the Icon staff team made the transition to working at home very smoothly, having had enough time to put our business continuity plan into action. We are thankful that our IT systems are largely cloud-based and that we are well supported by our business consultants and agencies. So, all systems are functioning much as normal.

And, in terms of our response to Coronavirus, I hope that you are already aware of the increase in our policy and advocacy activities in support of the profession and our members (you can read more elsewhere in the magazine), as well as the practical steps that we have taken to support members. These support initiatives include our new online community (Discord) and also promoting new and different forms of CPD. I would also like to commend the excellent way that our Groups and Networks have moved quickly to re-arrange their events and start delivering online CPD opportunities. The webinars have been extremely well-received, with record numbers tuning in for sessions run by the Icon Book and Paper Group. Bravo everyone!

Now that the immediate needs have been addressed our minds turn to the future. It's hard to say how different the heritage sector might look by the time that this edition of Icon News drops through your letter box but, given that we know that many public sector staff are being furloughed; that higher education has become a digital activity; and that freelance members and small business owners are facing challenges as they try to get to grips with accessing Government support, I feel certain that many things will remain uncertain and unsettled. However, I want to offer the firm and steady commitment that Icon will continue its efforts to deliver its charitable objects and to support the conservation profession and our members in these challenging times. With this in mind we have added an extra line to our strategic priorities for 2020-21:

- Coronavirus - *supporting* the conservation profession and *collaborating* with colleagues to mitigate the negative impacts.

At the time of writing we are still gathering members' stories and experiences, building collaborative relationships with other bodies who share our hopes and concerns, and seeking ideas for ways to support cultural heritage conservation in the short, medium and longer-term. I therefore continue to welcome feedback from members – do please get in touch if you have something to suggest (feedback@icon.org.uk).

In common with many other organisations, the arrival of Coronavirus on these shores prompted Icon to embrace digital technologies with a fresh vigour. As mentioned, our data was already securely lodged in the Cloud and we were already running some of our meetings partly or wholly online. We have also just launched the new Conservation Register on a much more responsive and user-friendly platform. This much more engaging resource offers ACRs with upgraded listings the flexibility to regularly refresh their online shop window – and to monitor webpage visitor statistics too. We are also a collaborator in the *Linked Conservation Data* project¹ which is working to improve access to and better dissemination and reuse of conservation documentation records.

However, we know that, broadly speaking, the heritage sector lags behind other fields in terms of its adoption of digital technologies. It is therefore encouraging to see that the National Lottery Heritage Fund has announced a major initiative to drive up digital capabilities across the heritage sector. *Digital Skills for Heritage*² aims to:

- promote digital skills and leadership
- directly support digital skills development

The Heritage Fund also intends to carry out a benchmarking exercise across the sector to measure its digital confidence, in the hope that this will identify examples of inspiring projects that are already underway. To me this offers an excellent opportunity for conservators and heritage scientists to showcase their work and to make sure that our contribution to conserving cultural heritage is seen and celebrated. Do please take part when the call for case studies is published.

The other exciting recent digital development is the launch of

Heritage Digital – a new digital skills training programme that aims to build the capacity of over 2,000 heritage organisations across the UK. Supported by a grant from the Heritage Fund, this new project will be delivered by a consortium led by the Heritage Alliance and including Media Trust, Charity Digital, and Naomi Korn Associates.

The guiding principle is that a more digitally literate sector will be able to reach broader audiences and will engage them more effectively with more inclusive and diverse content. By increasing digital skills and capacity the hope is that we can use digital technologies to improve the sector's efficiency and to increase public support for our work.

If we are better equipped for innovative thinking, then we will be better able to use our resources to champion cultural heritage and communicate its role in changing lives. This looks

like another exciting opportunity for our sector and Icon has already indicated its interest in taking part in the project.

So yes, although this is a time of many challenges and divining the future is even more difficult than ever before, it is good to be reminded of positive news and to look forward with courage and optimism. Reflecting on our profession I find myself thinking that conservators' problem-solving skills; inherent resilience and adaptability; and your passion for what you do will serve us well. On that note I hope that Icon members and your families and friends remain healthy and well until the pandemic runs its course.

Staff and trustees offer you all our very best wishes.

1 www.ligatus.org.uk/lcd/

2 www.heritagefund.org.uk/blogs/digital-skills-heritage-launches-today

POLICY UPDATE

This Spring, Icon's policy activity was abruptly called to focus on researching the repercussions of the Coronavirus on conservation and actively lobbying Government and decision makers for timely and comprehensive support for conservators. Evidence and case studies provided by our members played a vital role in informing our campaigns and proposals so thank you for generously sharing your experiences.

In letters to leaders across the UK governments, we called for urgent support to help the workforce to cope with the sudden financial challenges caused by the pandemic and subsequent social distancing measures that placed jobs, incomes and livelihoods at clear risk. We asked for clarity and continued communications on timescales for implementing social distancing policies to help the sector plan ahead, targeted emergency packages of financial aid and income protection for the sector's many self-employed workers.

We also advocated for support for conservation and collections care as several members drew our attention to the serious impact the Government's necessary social distancing and self-isolation measures were having on cultural institutions that had to close their buildings at short notice. Objects were at increased risk of deterioration and decay as building closures meant that many important day-to-day conservation and collections care tasks were no longer possible.

We consequently called for the continued provision and availability of grants for collections care but also advised Government, funders and sector leaders to encourage institutions to implement interim care measures and to help to disseminate best practice advice. We signposted partners to comprehensive guidance produced by the UK's Heads of Conservation Group and proposed joint advocacy to ensure its messages were heard across the sector.

While Icon's immediate focus was on achieving support for the workforce and objects and collections at risk, we also took the opportunity to highlight our sector's role in helping the UK recover from the crisis. In a letter to the Secretary of State for

Health and Social Care, we described how cultural heritage offers opportunities to participate in activities that can help mitigate and prevent wellbeing challenges, all playing a vital role in the overall health of people and communities.

You can find copies of our letters on the Coronavirus Policy webpage: <https://icon.org.uk/icon-resources/coronavirus-guidance/coronavirus-icon-policy>

We will continue to work with our members and partners across the sector to fully understand the effect of the pandemic on cultural heritage. Please carry on sharing your examples, case studies and experiences with us. Our Labour Market Intelligence research project has been put on hold until the end of the year to prioritise our Coronavirus impacts research. For the most up-to-date information on all these issues visit Icon's website.

Anni Mantyniemi
Policy and Communications
Manager



WHY NOT BECOME A TRUSTEE?

I am writing to ask you to consider serving on Icon's Board of Trustees.

Four and a half years ago, our then Chief Executive Alison Richmond asked me if I would consider putting my hat into the ring to serve on the Board. I did not consider myself 'Board material' but applied and was surprised to find myself elected. Within a few months I was invited to serve on the Finance Committee.

Since serving on the Board I have seen Icon's influence growing on the national stage. There has been no magic

bullet. It has been a case of taking opportunities when they arise, creating our own initiatives when we can and pressing on with day to day activity.

There is, I believe, a sense of optimism on the Board and that is essential because times are challenging. We have a new Chair, James Grierson, and our Chief Executive, Sara Crofts, has just completed her first year in post. Both are striving to see Icon develop and grow and both bring ideas to the table. Profiles of the new trustees were published in the last issue of Icon News; they too bring valued knowledge and skills to the Board.

Through serving on the Board I have met conservators from other disciplines with different career backgrounds and have had the chance to see things from their point of view. I also see matters from the perspective of co-opted trustees, professionals from other disciplines. One aspect I particularly value is the sense of being a part of a bigger picture. The heightened profile of Icon means that we, all conservators, can play a part in shaping the way the nation sees conservation and its conservators.

If this has sparked your curiosity about serving on the Board of Trustees – good. Pick up your hat and put it in the ring! My

experience leads me to say that you will not be disappointed because your eyes will be opened and you will develop as a conservator.

On a personal note, I have wanted to have the opportunity of thanking all of you who voted for me at two elections. I hope you feel I deserved your vote; but if not, then tell me.

Peter Martindale ACR
Icon Trustee



REVIEW OF GROUPS

UPDATE

After nearly two years of meetings and extensive discussions, Frances Graupner, the Chair of the Review of Groups Task and Finish Group (T&FG) made her report to Icon's Board of Trustees in December 2019. As Frances wrote in her February update in Icon News the report was incomplete in the sense that the Task & Finish Group was unable to reach agreed recommendations on certain key issues: financial policy, voting rights and the principles for establishing/dissolving a Group. After some further consideration the Board was able to make clear decisions on financial policy and voting rights at its meeting on 18 March which we can now share with you.

VOTING RIGHTS

The issues

Currently all Icon members can be formal members of two Groups but can choose to receive information about the

activities of as many Groups (and Networks) as they wish. The question was therefore: who is eligible to shape the direction of a Group through exercising their right to vote and by serving on the Group committee?

Group Chairs and Treasurers expressed a variety of views through the T&FG and also at the Group Chairs Forum last September: important considerations such as identity and sense of belonging, as well as understanding the audience for CPD events, were identified. Some people considered that Icon members should be allowed to be a voting member of only one Group; at the other end of the spectrum some suggested that all Icon members should be able to join and vote in as many Groups as they wish.

The Board's decision

Having considered a range of options the Board decided that from 1 April 2020 all Icon members will be asked to self-select two Groups in which they will have full voting rights and be entitled to be elected to the committee, with no differentiation between primary and secondary membership. In addition, all members whose address on the membership database is in Scotland will automatically be a full voting member of the Icon Scotland Group. As now, any Icon member can choose to receive Iconnects from other Groups (and Networks) and members remain able to revisit their choices throughout the year.

FINANCIAL POLICY

The issues

Over the last few years Icon's Finance Committee has become concerned about the developing trends in the end-of-year results for Group expenditure. Recently, the overall deficit has been in the region of £25,000 and is indicative of the financial pressures and rising costs incurred in delivering CPD and other events.

The Task & Finish Group was therefore asked to consider the issue of Group funding. All those involved appreciated the challenging operating conditions, as well as the issue of low sector salaries and so the T&FG wrestled at length with the question of whether Icon should continue to provide funding to Groups from the core budget. When the suggestion that this funding should be phased out was floated at the Group Chairs Forum, Group Chairs and Treasurers made a strong and convincing case in support of retaining core funding for Groups.

Icon's Trustees gave serious consideration to the concerns raised by the Groups and noted the enormous contribution that the Groups make to delivering Icon's Strategy and to supporting members in their professional development by providing CPD and networking opportunities for their colleagues. The Board reaffirmed that Icon's Groups are a fundamental part of the organisation and recognised that the dedication and commitment of Groups committees is key to Icon's success.

The Board's decision

The Board agreed that Icon should continue to provide a modest amount of funding to all Groups. However, given current and future pressures on Icon's overall budget, a



Image: Lorraine Finch

The Weaver's Way with Berney Arms Wind Pump (a scheduled ancient monument). Both the Weaver's Way ancient trade route and wind pump will be lost by 2050 to rising sea levels caused by climate change

compromise is necessary. The Board therefore agreed that from 1 April 2021 all Groups will be allocated up to £1,000 per year to use to support their activities. Groups can also ask the Board to allocate additional funds for specific projects, as we want to support Groups to deliver larger scale events and conferences if they have the ambition and energy to do so. We also want to encourage Groups to suggest ideas for different types of project that help to achieve Icon's strategic objectives.

FINAL PHASE

Reaching a conclusion on these two major topics is an important milestone in the Review of Groups process and we are pleased to report that we are now on course to complete the Review in June 2020. The final pieces of the jigsaw are to develop a policy which sets out a process for setting up a new Group (and changing or winding down an existing Group) and to refresh our approach to Group social media activity. Work on updating our social media policy started at the end of April with a collaborative (virtual) workshop involving Group and Network social media officers.

All of the new policies and resources will be available to Groups via the updated Group Resources section on the Icon website.

THE ICON ENVIRONMENTAL SUSTAINABILITY NETWORK

'The world faces a climate and ecological emergency. The scientific evidence is clear: we are on course for a catastrophic rise in global temperatures, and are destroying natural species, populations and ecosystems at a rate not seen since the great prehistoric extinction events. The 2018 report by the Intergovernmental Panel on Climate Change gives us until 2030 to avert the worst effects of this man-made environmental disaster'.

Heritage Declares (www.heritagedeclares.org)

Check the list of individuals who have signed the *Heritage Declares* declaration of Climate and Ecological Emergency and you will find the names of Icon members. Check out the list of organisations and you will find Icon.

In response to the Climate Emergency a group of concerned Icon Trustees came together with our Chief Executive Sara Crofts to develop an Environmental Sustainability Action Plan for Icon. This plan has three parts:

1. To ensure that Icon, the professional body, acts in an environmentally sustainable manner
2. For Icon to take a leadership role in the wider cultural heritage world to advocate for environmental sustainability and create positive change on the issue
3. To support Icon members in their efforts to work in an environmentally sustainable manner

One step towards supporting and helping members to be environmentally responsible in their work is the creation of the Icon Environmental Sustainability Network, proposed by Trustees Lorraine Finch ACR, Fiona McLees ACR, Pierrette Squires ACR and Jenny Williamson ACR.

The Icon Environmental Sustainability Network has several objectives including:

- Encouraging the take up of positive environmental practices in the conservation profession
- Supporting the global endeavour to halt biodiversity loss and reach net zero by 2030
- Disseminating knowledge and understanding of environmental sustainability

We want this to be a practical Network providing you with solutions, case studies on good environmental practice, crowdsourcing of ideas to solve those knotty environmental questions, 'how to' advice, and a way to share and recycle materials and equipment.

We really need you for the Icon Environmental Sustainability Network to succeed. Our first action for you is to join the Network and to tell us what you want the Icon Environmental Sustainability Network to do. Keep an eye out for our announcements with all the details - coming soon!

Lorraine Finch ACR
Icon Trustee



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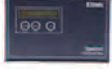
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BRITISH STANDARDS UPDATE

While the flow of new conservation standards continues apace, there has been a breakthrough in their pricing. The news is that fourteen of the more recent standards have been published together as a single book at an affordable price. The German publisher Beuth, has put out *in English* **DIN Handbook 410: Conservation of Cultural Heritage 2**. Priced at a mere 128 Euros for an online version or hard copy, that is less than the price of any single conservation standard available from the BSI shop, even with an Icon membership discount.

So it is a real bargain even if you only want a few of those standards: fourteen standards on nearly four hundred pages. The text is exactly the same as in the individual BSI published documents. Only those who have institutional access to the BSI standards site, normally via a University or other research organisation, will have access to any better value approach.

Among the standards included in this publication are three of the newest ones:

- Conservation process. Decision making, planning and implementation. BS EN 16853:2017.
- Guidelines for improving the energy performance of historic buildings BS EN 16883:2017
- Specifications for location, construction and modification of buildings or rooms intended for the storage or use of heritage collections. BS EN 16893:2018. (This contains the constructional aspects of conservation formerly covered in PD 5454. Together with BS 4971:2017 Conservation and care of archive and library collections, this standard replaces PD 5454, which is withdrawn.)

The other standards included in this bargain offering cover integrated pest management (IPM), transport methods, management of archaeological waterlogged wood, ventilation management, extraction and determination of soluble salts, laser cleaning, characterisation of natural stone, glossary of mortar terms, testing surface treatment products and measurement of moisture content.

These, together with all the earlier conservation standards, continue to be individually available from the BSI Shop (<https://shop.bsigroup.com>), some of them discounted for Icon members. (See the Icon website <https://icon.org.uk/icon-resources/conservation-standards>). The link to the Beuth website for ordering is:

<https://www.beuth.de/de/publikation/din-handbook-410/308401223>

The earlier standards which were compiled in a companion Beuth publication are only in German.

Revised & updated terminology

What is 'conservation'? What do we mean by 'authenticity'? What do we understand when we talk about 'deterioration'? If you have ever found it tricky to define or discuss these terms as well as around a hundred other commonly used conservation words, the news is that the conservation terminology standard, first published in 2011 has been revised and enlarged. It is now out in an impressive trilingual version, English, French and German: BS EN 15898:2019. Conservation of cultural heritage. Main general terms and definitions. It is available from the BSI shop, with a discount for Icon members.

Neither this latest standard nor any to be produced in the next few years is likely to be published collectively in English by Beuth for several years to come, if ever; this may depend on how well this current English language collection sells. So a purchase of these most recent ones directly from the BSI shop will remain the best option for the present, other than via an institutional library. The updated list of all relevant conservation standards is maintained on the Icon website standards page.

Meanwhile, the very popular Code of Practice for Cultural Collections Management PAS 197, used by museums and archives since 2009, is currently being reviewed as a full European standard (EN) and may therefore become a full BSI standard. It is hoped that an early draft will be ready to request approval from the CEN Technical Committee 346 for activation. If this happens it will be worked up further, ahead of a request for a wider public consultation, perhaps next year if all goes well.

The BSI has confirmed that the collaboration with CEN for the production of standards will continue despite Brexit until at least 2023, and almost certainly thereafter.

COMMEMORATION AGREEMENT

Historic England and the Commonwealth War Graves Commission (CWGC) have recently published an agreement which sets out how both organisations will continue to work closely to secure the future of England's commemorative heritage.

Historic sites in England under the CWGC's guardianship range from large memorials to the missing, such as the Tower Hill Memorial in London, down to the many individual memorials in cemeteries and churchyards across the country.

The new Joint Policy Statement establishes a shared understanding of how the sites and buildings in the CWGC's care in England are looked after now and in the future, and establishes a common appreciation of the CWGC's on-going responsibilities. Many of the monuments and memorials have identical features, repeated across the country and only a small proportion of the most architecturally and historically significant memorials in England are listed. But the memorials are all acknowledged as being part of a very significant commemorative and artistic legacy.

CWGC memorials are subject to less change than most listed structures, but some changes may be needed. The new statement outlines the processes which the CWGC adopts and the heritage strategy which guides this work. It makes clear that a conservation approach to commemoration lies at the heart of managing the CWGC's estate. You can find the Joint Policy Statement on: <https://historicengland.org.uk/whats-new/news/he-cwgc-joint-policy-statement/>

AATA ONLINE REDESIGNED

At the beginning of April the Getty Conservation Institute released a redesign of the AATA Online website, which has been an important resource for the conservation field for decades. Managed and published by the Getty since 1983, it is a free research database containing over 150,000 abstracts of literature related to the preservation and conservation of material cultural heritage. The new design has a more intuitive look and feel, offering easier navigation for users as well as its many existing and enhanced features. Contact aata@getty.edu for any questions about the redesign.

NEWS FROM THE GROUPS & NETWORKS

Archaeology Group

The Archaeology Group 2020 AGM will now be held in October. The AGM will still be at the Museum of London Docklands and focus on the new exhibition *Havering Hoard: A Bronze Age Mystery*. During the day there will be the opportunity to visit the exhibition and a talk from the lead Conservator and Curator. Unearthed in Havering, this is the largest ever Bronze Age hoard to be discovered in London and includes axe heads, spearheads, fragments of swords, daggers and knives alongside some other unusual objects

Upgraded to Grade I. Royal Naval Memorial to the Missing, The Hoe, Plymouth, Devon. View from the North



© Historic England

rarely found in the UK. This makes up a total of 453 bronze objects dating between c.900 and c.800 BC which will be on display as part of the exhibition. Further information on the event will be released in due course.

Work on the revised edition of First Aid for Finds continues to progress well. The editor of First Aid for Finds (Sarah Watkins-Kenney, as reported in Icon News issue 87) is editing text in preparation for peer review in the summer. We will have a hard copy first with a view to a digital version in the future; it is planned to have a format that will be practical for work in the field. The aim is to have a draft ready by autumn 2020 and publication in 2021.

Suggestions for future events and workshops are always welcome. Please watch Iconnect, Twitter (@ICONArchaeology) and the website for further announcements including a 2020 Archaeology Group Twitter event!

A review of our most recent event, the *Post-X Metals Conference*, can be seen on page 33 of this issue. Abstracts and speaker biographies from the event can be found on the Icon Archaeology Group website (<https://icon.org.uk/groups/archaeology/past-events>).

We always 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!

Charlotte Wilkinson

Icon AG Communications Rep

Book and Paper Group

I find myself in the odd position of writing an Icon News update for the June issue in April. This is a lead-in time that I have grown used to over the last year or so, as it takes time to get each issue ready. What is strange now is that the world and our lives have changed completely since our last update was written at the very start of 2020, and I expect it to look completely different again in the summer when this issue is out.

These are strange and challenging times. But it's been really heartening to see so many people in the conservation community pulling together to offer help where possible. Whether through organising deliveries of PPE stocks to frontline services or supporting our colleagues by finding ways to work adaptably as we become home schoolers, remote workers, intense hand washers!

Some of you have hopefully already seen the Book & Paper Group Committee's webinar series, which we developed to help people feel connected and learn whilst social distancing or self isolating. We had a wonderful response with over 480 live attendees to our first talk with Andrew Honey! As I write, the recording of his talk which is available on the B&PG webpage has had almost four hundred views in four days.

This overwhelming show of engagement and support has helped us on the committee feel part of a strong community and we hope to continue to provide these as long as there is a need. A huge thank you to all the committee members who worked so hard to get these webinars off the ground so quickly. An especially big shout out goes to our chair Abby Bainbridge and honorary member Fiona McLees who really sparked this idea into reality.

We will endeavour in the coming months to develop other ways to support our professional community and hopefully when the time comes for us to re-emerge from our houses we will all have been able to learn a thing or two at least.

Holly Smith Chair

Book & Paper Group Events and Training Subcommittee

Care of Collections Group

The Care of Collections Group have recently updated their online resources page (icon.org.uk/groups/care-collections/resources) and would like to invite members to suggest resources to be added to this page. Suggestions can be in any format: online, published books, pamphlets etc. The Group would like to build a broad bank of collection care resources for members to share and access. Please send any suggestions to ccg_icon@outlook.com.

Emerging Professionals Network

Call for Projects!

Got an interesting project that you'd like to share? Then please tell us about it!

The EPN would like to share and celebrate the great work carried out by our network members and is looking for contributors. This might be a project you have completed at university, work, or something you have on the go at home.

We recognise that many of you may have had your studies disrupted or find yourselves with a little more time on your hands than usual. So, if you would like to be featured on the Icon website and our Facebook page, please fill out the form that you will find on the Icon website and send it back to us at IconEPN@gmail.com.

Thank you!

The Icon EPN Network Committee

Icon Scotland Group

Training and events

Our last update was written with the expectation that we would be delivering two events in early 2020, a training course on 3D Documentation of Heritage Artefacts: Introduction to Photogrammetry and Icon Conference Highlights, a one-day conference showcasing some of the highlights from the Icon 2019 conference. In fact we were obliged to cancel both of these events in reaction to the coronavirus pandemic, and we will aim to reschedule them later on in the year if possible, along with setting a programme for other events. We are also currently considering the possibility of running some online events.

Other happenings

We have been involved in various lobbying and networking activities during the coronavirus pandemic. For example, we have worked with Icon staff to ensure that the Scottish government understands the importance of the cultural heritage sector in Scotland and appreciates the challenges faced by self-employed conservators and small businesses. We also posted a blog entitled 'Covid-19 General advice from the wider sector and potential funding for small businesses in Scotland and beyond'. And we have participated in discussions amongst members of the Edinburgh Collections

Response Network, which has been a useful source of support and advice for organisations who are concerned about the wellbeing of their collections during this period.

Accreditation grant

We are optimistic that some conservators will have made use of the time at home to work on their accreditation applications (!), and would remind conservators who are based in Scotland and are members of the Icon Scotland Group that we administer a grant to help candidates with fees. Details are on our page on the Icon website.

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.

Photographic Materials Group

As the Group's recent activities have been a little more home-based than usual, we thought we'd report on what we've been up to in isolation.

Ioannis (events)

'This is an unprecedented time for all of us and working from home is a new challenge that we need to adjust to. Being away from our studios and deprived of our conservation tools, and of course our collection items, is not easy. However, there are many ways to make the most of this time. Blog writing is one of them. I'm taking time to write updates about projects and research I have been doing, and also blogging with simple tips, for example on dating family photographs or caring for collections at home. Writing reports, updating records and tidying up files are other ways to keep busy. I also continue research, like literature reviews on areas and subjects I am interested in. Finally, there is an abundance of courses online that I am planning to join, like the AIC photographic chemistry course, or webinars offered by the Image Permanence Institute.'

Vanessa (secretary)

'I have slowly been able to catch up with things from my to-do list; those things that never feel like priorities and might take years to get done! I have also been making a lot of notes to remind my future self of primary and secondary jobs to do in the museum whenever we are able to go back to work. A bit of future planning always feels great! Last January I started the chemistry for conservators correspondence course, and now I have more time to dedicate myself to study, revisiting concepts, consolidating knowledge and having fun with the practical experiments.'

Boyce (editor)

'I'm doing my day job from home but having extra time on my hands is an unusual feeling; I just wish it were under better circumstances. As well as catching up with reading, music and sleep I'm continuing to support the PhMG by editing and

maintaining our blog [<https://iconphmgblog.wordpress.com>].'

Stephanie (communications)

'I've been doing what I can working from home but, as many conservators have no doubt experienced, it's a challenge being away from the studio. I enrolled on the final three stages of the AIC photographic chemistry for preservation course, which really helped to solidify my understanding of basic photographic conservation principles. You can find all six sections of the course on the AIC website. So that I don't forget what a bonefolder feels like I've also been practising a little amateur bookbinding.'

Jacquie (chair)

'My first fortnight away from the Tate has been extremely busy; I've had to support my team, stay in touch with other managers, and begin to plan for what could be a lengthy spell apart from each other and from our collection. Even though this is a strange and worrying time, we're already finding opportunities to research and communicate better and to learn new skills that will benefit everyone when things return to normal. I'm on leave for the next three weeks, so I'll be busy with my printing press during the day and catching the dawn chorus on my morning walk.'

Jordan (treasurer)

'I have been working from home, but with the gallery's usual activities on hold my normal workload has reduced, which has given me the opportunity to concentrate on things that would normally be left on the back-burner. I have written a blog for Icon about rare Iris prints in Tate's collection, brushed up my knowledge of digital printing technologies and preservation, and taken advantage of the Book And Paper Group's webinars. I have also continued working through the AIC photographic chemistry for preservation series.

I now have three weeks' leave, so in this time I plan to put together an online presentation about caring for family photograph collections, since the talk I was giving to the East Surrey Family History Society has been postponed. I am also going to start painting again, which will keep my hands busy and hopefully make up for the absence of practical studio work!'

As always, you can contact the committee via our Group email (phmg@icon.org.uk), twitter (@ICONPhMG) or facebook (<https://www.facebook.com/ICONPhMG/>).

Textiles Group

No doubt the past few months have been tough and challenging in equal measure for all those working in the conservation, museum and heritage sector. The Textiles Group would like to send our best wishes to all our members during these testing times.

Inevitably, due to the Coronavirus outbreak many planned conferences & events have been cancelled or postponed. Please see details of these changes below but be sure to check with the relevant organisation due to ever-changing circumstances.

On a more positive note the Group is looking forward to brighter times and focusing on events still planned for later in the year and further afield for 2021.



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*10% off Icon members code ICN010

Group Events

Textiles Group AGM 2020 :- Unfortunately, the Group's Annual General Meeting due to be held on 27 April 2020 at The British Library in London was postponed until later this year. Our new proposed date is set for mid-September 2020. Please look out for an Iconnect with more details to follow.

Carpet Workshop: - Ksynia Marko and Glyn Charnock are continuing to run their carpet workshop: *Keeping the rug under our feet: Care of Historic Carpets, Rugs & Woven Textile Floor Covering* - 8-9 October 2020, Blickling Hall, Norfolk. Booking opens soon!

Emerging Professionals Event: – Icon Textiles Group are to host a two-day event in Glasgow, set for spring 2021, aimed at emerging professionals in the field of textile conservation. This event *Emerging Professionals: Making a Career in Conservation* will include tours, talks and breakout sessions on numerous topics to help emerging professionals during and after university, from interviews, grants and funding, starting work, internships, contract work, working abroad to publishing and conferences, to name but a few.

If you are interested in contributing to this event by leading a workshop or presenting a paper, please contact Kelly Grimshaw on kellygrimshaw@hotmail.co.uk using 'Icon Emerging Professionals Event' in the email subject line by 6 July 2020. Booking and registration will open Autumn 2020.

Icon Textiles Group Spring Forum 2021:- Textile Conservation: Out in the Open – The Challenges of Displaying & Conserving

Textiles on Open Display. The Group is busy preparing a programme of events for the Spring Forum in 2021 and encourages abstracts for papers concerning the challenges of conserving and displaying textiles on open display. Abstracts on a wide range of issues are welcome, potentially including conservators on public display, contemporary art and installations, events in historic spaces, textiles in historic buildings, mixed media, mounting and mounting materials, museum open display, preventive conservation and IPM, touring exhibitions and loans.

If you are interested in submitting a paper please send an abstract by 1 July 2020 to Hannah Sutherland (h.sutherland@vam.ac.uk), with the subject 'Icon Spring Forum'. The abstract should be in English and of 250-300 words, excluding title and author contact information (name, title, mailing address, email, telephone). The chosen authors will be notified in September 2020 and preprints will be expected by the end of December 2020. Registration and booking details will be posted in the autumn, including details of accompanying tours and workshops.

Other Dates & Amendments

The American Institute for Conservation's (AIC) 48th Annual Meeting, *Conservation: Reactive and Proactive*, Salt Lake City, UT - 19 - 23 May 2020 – **POSTPONED** – **new date**: 31 August -4 September.

The Centre for the History of Retailing & Distribution (CHORD) *Public Textiles and Dress in Museums and Historic Houses: Textiles and Dress for Display and Show*, Wolverhampton University City Campus. - Thursday 11 June 2020 – **POSTPONED** – **new date**: TBC

The Costume Society annual conference: *Clothing on Paper*, 26-28 June 2020, Bristol – **POSTPONED** – **new date**: TBC 2022, Bristol. The Costume Society are working on the 2021 conference *Clothes Maketh The Man*, Manchester – date TBC

19th ICOM-CC Triennial Conference: *Transcending Boundaries: Integrated Approaches to Conservation*, 14-18 September 2020, Beijing, China – **GOING AHEAD**

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 Textiles Group's News Editor: Terri.Dewhurst@nationaltrust.org.uk

Writing for Icon News

Have you recently attended a textile-related workshop, symposium or conference that you think would be of interest to members of the Textile Group? Would you like to write about them for Icon News? Details of how to write for Icon can be found here: <https://icon.org.uk/what-is-conservation/writing-icon> or by contacting Terri Dewhurst.

PRESENTATION SKILLS FOR CONSERVATORS

Christine Braybrook ACR reports on this one-day course which was organised by Icon's Professional Development team and delivered by Rough House Media in London on 3 March

AT THE START

I am sure it is true that the thought of public speaking fills many of us with dread, leaving our knees knocking with nerves. Certainly, my fellow course attendees were in the same boat and the course enabled us all to face our fears, taking the plunge to improve our ability to present, or at least to consider coping mechanisms for the ordeal.

The course was delivered by Sue Carruthers an expert in presentation skill training from Rough House Media – a company which specialises in training presentation skills, from managing media interviews to international conferences. The twelve course attendees were from a variety of conservation backgrounds with a range of experience, from an intern to management, suggesting that fear of public speaking affects all levels of experience.

The course started with a very clear introduction and an opening example was given of George VI and the King's speech; George VI, who notoriously had a stammer, delivered one of the most important talks of all time - no pressure George! Be sure he felt the pressure. *He really felt the pressure.* To overcome these issues, he used coping mechanisms and rehearsed, *over and over again.* This was a brilliant example easing us into presenting, demonstrating that for a successful talk, you must be well prepared.

Sue aimed to demystify presenting, making it accessible with tools and frameworks to aid our approach. The importance of reflection after delivery of a talk was stressed, to enable improvements to be made. By applying this knowledge, we should be well equipped to deliver a confident talk with conviction, precision and dynamism (the all-important rule of 3s)!

INTRODUCTIONS: FEAR AND CONFIDENCE

To ease us in and before our first 'speaking', the obligatory 'who we are and where we come from' round-table introductions happened. Here we were asked to say what we hoped to get from the course. Quickly it became evident that everyone had the familiar concern of nerves and how it had held many of us back professionally, some of whom had turned down opportunities to present their work or chair a conference. It became clear that nerves are real and not everyone is fortunate to be a confident public speaker. Even if they come across this way, they probably are not feeling the same inside. The key here is confidence. How do we come across as confident, and able to really purvey what we want to say when all we really want is the floor to swallow us up!?

OUR TALKS

From the start, the openness between the group placed all on a level playing ground and everyone was incredibly supportive,

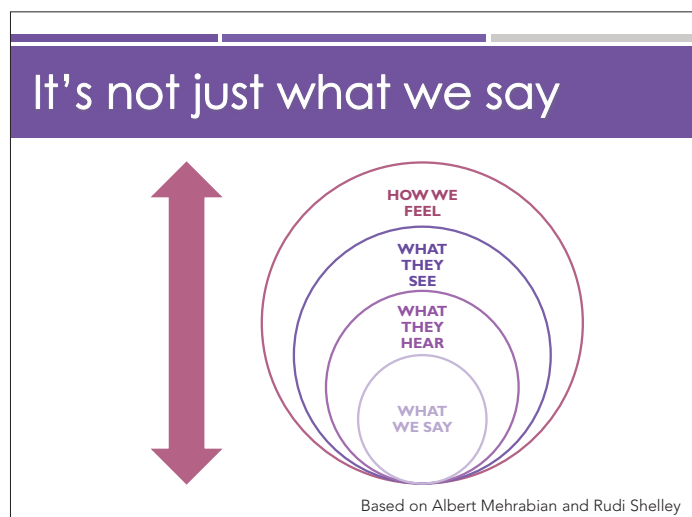
even the nerviest team members became more at ease. In preparation, we had been asked to prepare a short presentation of just one minute, with the brief of discussing a presenter you admire and why. This task forced us all to observe and critique presenters and their individual style of delivery, enabling us to grasp an idea of what may be a good approach. Everyone pushed aside the nerves and pulled out a credible presentation, even if, inside, many were quaking!

Reflecting on our talks, Sue informed us that a 5:1 ratio of positive to negative comments is what sits best in the human brain. Positivity goes a long way to improve confidence, so less of the I can't, and more of the I can! We were all asked to give feedback on everyone's talks, comprising at least three positive comments, and one point for improvement. Notably, everyone presented significantly better compared with how we perceived our own performance. It was a rush of confidence to see and hear the positive comments coming from across the room. As conservators, we can learn from reflection, from our practice and with public speaking alike. Without reflection, improvement can be challenging.

DEFINE YOUR AUDIENCE

'Preparation is key' was the message repeated throughout the day. Do you think Steve Jobs went on stage and 'winged it'? No, he prepared. He knew his presentation like the back of his hand and comes across as both spontaneous and articulate. We also learnt how to pitch a presentation and for this considering your audience is fundamental. Who are your audience and what do you want them to gain from your talk? Once established, your talk can be planned and structured accordingly.

We learnt that the introduction is the most important part to gain audience attentiveness and the conclusion is paramount in rounding up the main topics covered. Then, of course, the middle is the main content, but a clear structure is vital for a successful presentation. Public speaking should engage the audience, so it is important to connect and build relationships from the start. Although central to the talk, the main content is not necessarily the most striking, but a passionate delivery will enable your audience to have an intellectual and emotional response.



PHYSICAL FACTORS

We learnt how to deliver a confident talk and devise strategies for coping with nerves. Nerves can get the better of us when public speaking, causing our voices to speed up, breathing become tight and body language to do all sorts of unusual things! Suggestions were given to combat these through a range of exercises, including focused breathing and mental preparation.

Further recommendations were given on *how* we speak to an audience, with the suggestion to slow down speech and altering cadence and pitch to keep the audience alert, whilst appearing passionate. Body language also requires consideration as this is what the audience will see, so eye contact, posture and hand gestures all add to a dynamic delivery. Again and above all, preparation and rehearsal is vital to a virtuoso performance.

VISUAL AIDS

The importance of visual aids was discussed, including how best to use them to the presenter's benefit to prompt, whilst remaining clear, concise and aiding the audience to retain the information with quicker cognition from images. The course offered insights on managing scripts and handling questions.

IN CONCLUSION

I was not sure what to expect when I signed up to the course but I found it to be an informative and enjoyable day. It taught me how to structure a talk with visual aids, deliver with confidence and manage nerves. I found the leader very approachable and it was enriching having many different

conservation specialists in the room together, giving networking opportunities.

A memorable take-home from the day was the knowledge that even the most confident speakers are nervous and that we can channel those nerves to fortify our presentations for the better. I am sure that all but the most experienced and confident public speakers would benefit from this course. Although public speaking will still be nerve-racking, it will with practice become less of an ordeal, perhaps even enjoyable!

A postscript from Icon's Professional Development team

If you think this course could help you, rest assured that we will be running it again when normal, post-coronavirus service is resumed. Go to the Icon website or look out for our Iconnects

As well as the presentation skills course, we regularly run a range of professional development programmes to support conservators in their ongoing professional development, including health & safety for conservators and writing for academic publications. We are also in the process of developing further programmes which will be announced in due course.

Is there training you would like to see developed? Please email training@icon.org.uk to share ideas or ask any questions.

What they hear



Appointments



David Howell ACR has joined West Dean College of Arts and Conservation as a tutor on the MA Collection Care and Conservation Management part-time course. David brings a wealth of experience in the science and practice of conservation having held roles at Historic Royal Palaces, Bodleian Libraries and University of Oxford. He has written extensively on science conservation topics and has a new publication coming out in July: *Conservation Research in Libraries (Current Topics in Library and Information Practice)* Kindle Edition.

A graduate chemist, David started as a practising textile conservator but quickly began to apply his scientific knowledge to textile conservation science. Over the course of his thirty year career, he has been Head of Preventive Conservation and later Head of Conservation and Collection Care at Bodleian Libraries. Latterly he was Head of Heritage Science carrying out analysis and research on Bodleian's amazing Special Collection Material.

David has teaching experience from the RCA/V&A MA in Conservation. He is also a frequent lecturer, internal and external PhD supervisor, and a PhD assessor at a number of universities.

Awards



Keith Barley ACR, the Managing Director of the Barley Studio team, has received the Master Glazier Certificate Award, given by the Worshipful Company of Glaziers, for his services to the Livery and its craft.

Keith served as Master of the Worshipful Company of Glaziers in 2017-18 and also serves as Chairman of the Glaziers' Awards Interview Panel. The Master Award is a great honour for him, the Barley Studio team and the stained glass craft. The award was presented at the Mansion House by the Lord Mayor of the City of London, Alderman William Russell.

Welcome to these new members

We would like to extend a very warm welcome to all those who joined us in February and March 2020. We hope to see you at an Icon event soon!

Jennet Allen
Student

Sarah Baile
Associate

Fiona Baird
Supporter

Anna Beaumont
Student

Alix Bovey
The Courtauld Institute of Art
Supporter

Anastazia Bromovsky
Student

Rachel Buck
Supporter

Lauren Burleson
Student

Yolanda Bustamante Sampedro
Associate

Gabriella Cortes
Student

Lily Down
Student

Christopher Foster
Student

Emma Grimmer
Associate

Sheli Haerter
Supporter

Brandon Hamer
Associate

Hiroshi Haze
Associate

Priya Kapoor
International Heritage
Conservation
Associate

Csilla Karsay
Pathway

Caitlin Kelly
Student

Madeleine Kennedy
Student

Maria Kinti
Victoria and Albert Museum
Associate

Efthymia Kiskira
Student

Sophie Leader
Student

Eva Lecluyse
Associate

Judith Leigh
University of Cambridge
Associate

Casey Mallinckrodt
Wadsworth Atheneum
Museum of Art
Associate

Sean Martin
Cambridge Horology Services
Associate

Angela McDowell
Student

Emma Nobes
Associate

Nelia Olariu
Student

Hoa Perriguy
Associate

Rebecca Rogers
Associate

Barbara Smith
Dedd Daysies
Associate

John Stewart
Associate

Tegen Symons
Student

Lena Tanniou
Student

Melissa Tedone
Winterthur Museum, Garden &
Library
Associate

Paz Tejada
Student

Sandra Toloczko
Associate

Estefania Trejo
Associate

Peter Walker
Hare & Humphreys
Associate

Katharine Whitman
Art Gallery of Ontario
Associate

THE PERTH MUMMY

Anna Zwagerman, Mark Hall and Will Murray ACR on saving the Perth Museum's Mummy

INTRODUCTION

The city of Perth is undergoing a large-scale cultural transformation and one of the capital projects undertaken is the conversion of an old concert hall in the city centre, known as City Hall, into a new museum. At the moment only 0.05% of the collections at Perth Museum & Art Gallery are on display. The new museum will offer the opportunity to show many more objects, including several star items that have not been exhibited since the 19th century.

ABOUT THE MUMMY

One of these star items is a Mummy and its coffin. In 1896 a businessman from Alloa bought them from the Cairo Museum, and donated them to his local museum. When this museum was closed down in the 1930s the collections were dispersed and Perth Museum was offered and accepted the Mummy and coffin. They were exhibited through into the 1970s, when it became apparent that their condition was too fragile to continue permanent display.

In 2013 the Mummy and coffin were taken to the Royal

Manchester Children's Hospital, where they were X-rayed and CT scanned as part of a Manchester University Bio-bank project. The research revealed that the Perth Mummy was female, approximately thirty-five+ years old when she died, and had poor dental health. The imaging techniques also showed severe internal damage with broken and dislocated bones in her chest and abdomen. This seems likely to have happened during an ancient grave-robbing episode in search of amulets concealed within her bandages.¹ The hieroglyphs on the coffin lid revealed that it was made for a female named Ta-Kr-Hb, who served as a priestess in the Egyptian town of Akhmim.

The Mummy is a strong favourite with local visitors. Despite not having been on permanent display she is regularly asked after, and grandparents are keen to show their grandchildren Perth's famous Egyptian Mummy. An opportunity arose through the City Hall engagement programme to put on a conservation in action exhibition in one of the museum's galleries. This enabled a long-standing plan to conserve the Mummy in public to be put forward as the highlight for display, and the exhibition was built around her treatment.

Undergoing the CT scan



CONSERVATION PLAN

The CT scan showed that the Mummy's chest and pelvis area were completely jumbled. Her back was torn open, and there were bones lying in the bottom of the coffin. At the area around her ankles the wrappings were badly torn. Much of the damage appeared to have occurred in antiquity, when a lift of the body was attempted. This we thought was unsuccessful due to the attachment of the mummy to the coffin base, likely by the resins used in her wrapping process.

A large fragment of timber was detached from the foot of the coffin base, and a long strip of timber was detached on one side. The cartonnage was generally quite damaged, and much of it missing. The coffin lid was heavily soiled, and in many areas the cartonnage was lifting.

Will Murray ACR of the Scottish Conservation Studio proposed the following conservation treatment:

- Photograph and record the current condition
- Surface clean
- Remove, store and/ or reattach loose material
- Loosen the Mummy so that it is no longer attached to the coffin
- Place a support over the top of the Mummy, secure her and rotate the coffin until she is face down. When the Mummy is removed, a certain amount of stabilisation should be possible to her damaged body, wrappings, and coffin, and this will improve access for museum and academic purposes in future
- Return the Mummy to the coffin on a lightweight support board
- Stabilise areas of detached cartonnage and paint and remove soiling from the coffin lid. The thick deposits currently obscure the painted surface below, interfering with our ability to read the hieroglyphics

Will asked Richard and Helena Jaeschke ACR of R&H Jaeschke to support the treatment. Richard and Helena are two expert conservators with nearly forty years' experience in the conservation of ancient Egyptian materials.

RESEARCH

Recent hazard awareness courses have mentioned that mummy wrappings or shrouds can contain asbestos. To make sure that we were not exposing anyone to this hazard, Helena Jaeschke carried out further investigations. She reviewed the literature, and contacted Dr Gillian Vogelsang-Eastwood at the Textile Research Centre in Leiden. Helena's inquiries showed that asbestos has never been identified in ancient Egyptian textiles. It is most likely a myth, started to support marketing asbestos as the new wonder material.²

A thick layer of soil covered parts of the coffin lid, obscuring painted decorations, including sections of hieroglyphs that the museum was keen to reveal in order to discover more about the occupant. It was thought that this soil was deposited during a flood, but to confirm this a sample was sent for analysis to Peter Davidson, Senior Curator of Minerals at National Museums Scotland (NMS). He carried out a visual inspection under magnification, which confirmed that it was a



Flood-washed river sediment on the coffin lid

river-borne fine sand or silt sediment.

CONSERVATION TREATMENT

During the first week of treatment the Mummy and coffin were thoroughly documented and the loose debris around the Mummy's body was removed from the coffin base. She was surrounded by a thick layer of soil, plants and insects, mixed together with fragments of gesso, resin, textile and bone. Will Murray treated the removal of these materials like an archaeological excavation, separating the different constituents into bags for each segment. It soon became apparent that the Mummy's shroud and decorative linen bands were not wrapped around her body, but only covered her front. Her feet were completely detached.

Richard and Helena Jaeschke ACR joined us at the beginning of the second treatment week. After discussion it was decided to lift the loose shroud, and consolidate the resin on the front bandages with Paraloid B72 in acetone. As far as possible the decorative bands were removed and documented, but the shroud, still attached over the head, was put back in place. By careful manipulation Richard found that the Mummy was not



© CPK

The sandwich created to turn the Mummy and coffin base over

The base of the coffin revealed



© CPK

actually attached to the coffin, but was instead stuck down by layers of compacted soil.

To turn the Mummy onto her back, allowing consolidation and repairs to take place to both the Mummy and coffin base, an intricate sandwich was made from Ethafoam blocks, Plastazote, medical cushions used for MRI scans, Tyvek, Corex and ratchet straps. The whole structure was carefully turned over, and the coffin base removed.

The damage to the reverse of the Mummy was more extensive than anticipated. Her back was covered in layers of soil and straw, filling three cavities in the body: the chest, pelvis and lower legs. Removing this material was the next challenge, and there were different perspectives about the degree of cleaning necessary. During the cleaning process most alien material and loose bones were taken out. The decision was made early on to return all human remains to the body, albeit not in their correct anatomical position.

ENGAGEMENT

The most striking aspect of this project is undoubtedly the public engagement element, with conservators working under

the watchful eye of museum visitors. One visitor wrote on the exhibition's blackboard: 'How do you feel about being constantly observed?', to which Helena replied: 'we don't mind at all'. Working in a team the public aspect soon faded into the background, as we focussed on our work and talked amongst ourselves. A very challenging part of the treatment, turning the coffin over, was carried out on a closed day. This was filmed however, as well as other treatment aspects, and the resulting film is shown in the gallery when there is no conservation activity happening. Thus far, the exhibition has been really well received.

PLANNED STABILISATION TREATMENT

The main priority now is the stabilisation of the Mummy and coffin. The cavities in her body will be packed out in an appropriate manner (methods are currently being discussed and trialled). A support structure will then be created for storage and display, ensuring that the Mummy herself does not need to be handled again.

Gaps in the coffin base will be filled with Paraloid B72 and microballoons, gesso returned wherever possible, and the loose sections of wood reattached. Wherever the cartonnage

Removing soil, not yet analysed, from the Mummy's back



© CPK

is stable enough, the coffin lid will be cleaned with 50:50 Acetone and water, in combination with mechanical cleaning. Part of the river soil will be kept in place, because some of the painted areas underneath were found to be very unstable. The loose cartonnage will be consolidated.

NEW DISCOVERIES

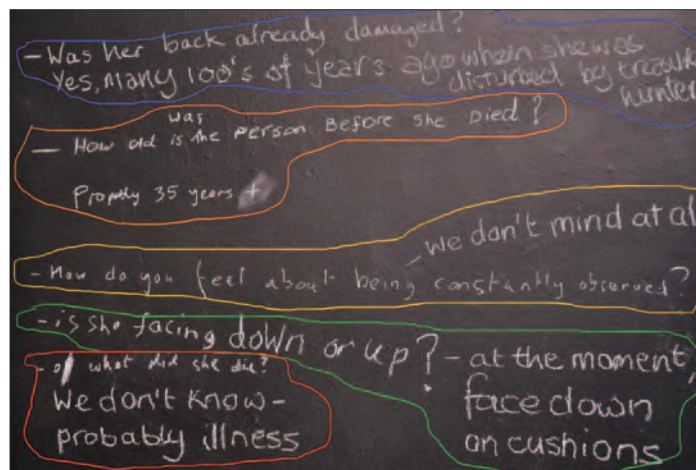
Perhaps the most exciting development is the discovery of painted figures on the internal and external bases of the coffin. Both are representations of the Egyptian goddess Amentet or Imentet, known as 'She of the West' and linked with the journey to the afterlife. The best preserved of these two paintings is on the interior base of the coffin. It shows Amentet in profile, looking right and wearing her typical red dress. Her arms are slightly outstretched. She stands on a platform, indicating that the depiction is of a holy statue or processional figure. There are at least two other Akhmim coffins known with depictions of Amentet.³

The fact that the shroud was only loosely covering the front of the Mummy implies that she was rewrapped and reburied, and therefore might not be original to the coffin. Dr Dan Porter from NMS suggested that the soil and straw we found compacted inside the Mummy's body could be a crude restoration treatment to keep her loose and damaged bones together, and to transport her. The straw and grains still need to be analysed, but they appear to be 19th century rather than ancient.

During the conservation treatment we found many insect exoskeletons in and on all the different constituent materials, including on bones and in the river soil on the coffin lid. These were identified as Smooth Spider Beetle (*Gibbium* sp.), and Hide Beetle (*Dermestes* sp.). *Gibbium* are mostly encountered in warm climates. Larvae feed on woollens, leather and tallow and are sometimes associated with dead animals. Both species have contributed to the instability of Perth Museum's Mummy.

There is still a large amount of research to be done, but we have made exciting new discoveries, and were able to draw tentative conclusions from these.

Visitor comments on the exhibition blackboard and the team replies



The interior of the coffin

About the authors

Anna Zwagerman is Culture Perth and Kinross Conservation Officer
Will Murray ACR is a partner at the Scottish Conservation Studio where he specialises in artefact and preventive conservation www.scottishconservationstudio.co.uk
Mark Hall is the Culture Perth and Kinross Collections Officer

Notes

¹ McKnight, L. M. and Loynes, R. D., *From Egyptian desert to Scottish Highlands – the radiographic study of a twenty-fifth dynasty coffin and Mummy bundle from the Perth Museum and Art Gallery, Scotland*, KNH Centre for Biomedical Egyptology, University of Manchester, Manchester, UK, in: *Papers on Anthropology* XXIII/1, 2014, pp. 108–117

² <https://strangeago.com/2017/07/08/egyptian-mummies-wrapped-asbestos-asbestos-facts/> The Herald. Newspaper. June 21, 1896

³ www.researchnet/publication/310602644_Ernest_Brummer_and_the_Coffin_of_Nefer-renepet_From_Akhmim and www.albanyinstitute.org/details/items/ancient-egyptian-coffin.1254.html

Postscript :

The exhibition was due to run until 19 April but was cut short because of the coronavirus pandemic. Happily, the conservation work on the Mummy and the sarcophagus was almost complete. Culture Perth and Kinross is still crowdfunding for the project on www.justgiving.com/campaign/CPKmummy

The team: (from l to r) Will Murray; Anna Zwagerman; Richard Jaeschke; Mark Hall; Helena Jaeschke



© CPK

SECRETS OF THE (VICTORIA AND ALBERT) MUSEUM

Did you catch this series on BBC2? Charlotte E Wilkinson, Conservator with York Archaeological Trust, reports for Icon News and hopes that another series will be made

In February 2020 the BBC launched a new documentary series *Secrets of the Museum*. Airing weekly this six-part series gave viewers a unique look behind the scenes at the Victoria and Albert Museum in London, focusing on the curators, conservators and technical staff who care for, display and research the Museum's vast collection of objects. Each week the programme follows the journey of a number of different objects across the Museum's collections, from 'Pumpie' the well-loved elephant toy to 'Topsy', a low ride Chevrolet Impala on loan from Los Angeles. The show explores how the objects have gone from the store, to conservation, to display.

The programme is certainly an enjoyable watch. When watching with family members I received comments like 'wow, how interesting' and 'I didn't realise you did stuff like this'. Watching as a conservation professional I was impressed with how the programme managed to focus on both the objects themselves and the people who work with and care for them. What I found particularly striking was the way the programme attempted to give a realistic view of conservators and their work.

Too often in popular culture if a conservator has the luxury of being mentioned it is usually a quick shot of an object being worked on which then in seconds becomes 'clean'. *Secrets of the Museum* showed the process of decision making, teamwork and practical conservation as well as, in some cases, putting a timeframe on how long the treatments would take. This really hits home the amount of detailed and specialist work which is undertaken daily by museum and heritage professionals.

The idea of 'behind the scenes' in museums and other organisations is certainly fashionable at the moment, with other television programmes such as *The Repair Shop* being popular, as is the concept of up-cycling, caring for and repairing your objects. Although with anything like this there is the danger of encouraging people to attempt professional level conservation at home, these programmes are successfully bringing museums and curating/conservation into the public view and making things more accessible, something which is really relevant as I write this during the UK lockdown. People came across as passionate about their work, as I know from my own workplace that we are, and there was an overwhelming sense of privilege to be working on such an amazing and important collection.

Programmes like this help to open people's eyes to what a museum is and why they are relevant and important in today's society, in particular the parts of the programme on the Rapid Response Team who were shown 'tracking down the treasures of tomorrow' and collecting a road sign and the extinction rebellion logo. I hope programmes such as this will continue to encourage people to visit and support museums, as well as potentially inspire the next generation of museum professionals.

More information on the programme and its participants is available on the V&A website (www.vam.ac.uk/info/secrets-of-the-museum) and BBC website (www.bbc.co.uk/programmes/m000f1xt). All the episodes are currently available on iPlayer and are well worth a watch if you haven't already.

Pumpie the Elephant, the well loved toy of the Cattley family, being examined post conservation by (left) Will Newton, Curator, V&A Museum of Childhood; (centre) Emma, a relative of the Cattley family children, the original owners and makers of Pumpie, and (right) Jo Hackett - Textiles & Fashion, Conservation Section Leader, V&A



BATS IN CHURCHES

Rachel Arnold from the Churches Conservation Trust is the Heritage Advisor on the Bats in Churches project, which launched last year to find solutions to the challenges presented by bats roosting in churches

BACKGROUND

While bats are an important part of our biodiversity, their presence can be a concern for anyone who cares for historic churches and their contents. Droppings and urine are a cleaning burden to volunteers and can cause significant damage to historic fabric and furnishings. The presence of a roost can disrupt building works and maintenance plans.

However, like our vulnerable historic artefacts, bats are also under threat. Large-scale losses of their natural habitat has resulted in a dramatic decrease in bat numbers. They have become increasingly reliant on church buildings in which to roost and are now protected by law. Balancing the need for the preservation of bats and of church fabric is a challenge, but one that the Bats in Churches team are tackling.

Staffed by team members from the project partners: the Churches Conservation Trust, Historic England, Natural England, Church of England and Bat Conservation Trust, the Bats in Churches project brings together experts from a variety of fields to find solutions to this unique situation.

THE IMPORTANCE OF CHURCHES

For centuries, churches have been a central point around

which communities, villages and towns have developed. Their importance should not be underestimated, not just for their history, their artefacts and archives but also for their place in people's personal histories and their role in the community. However, their sustainability is at risk as smaller congregations struggle to cope with caring for them and reduced funding means that essential repairs are often put off. The presence of bats can add to this problem by creating a cleaning burden and sometimes, causing irreparable damage to ancient artefacts.

WHY ARE BATS IMPORTANT?

Bats are a fascinating and vital part of the natural environment and are a key indicator species that signals a healthy ecosystem. Bats are a natural pesticide as they forage at night for insects. The common pipistrelle bat can eat as many as 3000 in a night.

Bats are an ancient group of mammals and have been around since the cretaceous period. Originally, their natural landscape would have provided ample shelter, but due to habitat destruction for development and farming, they will have used buildings like churches, barns and houses to roost in for centuries.

Some churches struggle with the mess caused by bats roosting in them. At St Andrew's Old Church, Holcombe, covers are draped over the pews to protect them. This is a common sight in several churches



© Barry Cawston

Changes in rural land use, increased urbanisation, the re-development of old buildings such as barns and other factors like pesticides in farming and wind turbines have put bat populations at risk. In the last hundred years, for example, the lesser-horseshoe bat has reduced in number by 90%. The Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2017 now strictly protects all British bat species, their breeding sites and resting places. Causing damage to a roost site or bat is against the law and punishable by fine or imprisonment. As a nation that wants to protect our environment, we have a responsibility to look after our bats.

WHY BATS USE CHURCHES

The nature of traditional buildings lends itself to the needs of bats. Over many years, worshippers have extended and adapted churches to meet their needs. Inevitable cracks and crevices appear in the stone and wood, which are perfect for bats to crawl into, and they find voids within which to roost. Historic buildings are breathable, maintain a steady temperature and have long open spaces, like a nave roof, which are all things that bats like. Modern buildings are less suited to bats because, being built for human habitation, they have good insulation, few gaps in the walls, good lighting and can be noisy.

The exterior of the church is also very attractive to bats. Churchyards often have lots of wildflowers and grasses. Sometimes, there is an area which has been left to grow wild. This means that the churchyard can be the perfect place for a bat to forage for insects.

THEIR EFFECT ON CHURCHES

Bat droppings are dry, being made up of indigestible insect exoskeletons. They look a lot like mouse droppings, but while

Churches are home to historical artefacts of national significance. This wonderful painted rood screen can be found in All Saints' church, Thornham. It dates from 1488 and represented an impressive survival from before the Reformation



© Bats in Churches – Rachel Arnold



Bat Conservation Trust

Bats are an endangered species, good indicators of a rich ecology and are natural pesticides. This Brown Long Eared bat loves eating butterflies

mouse droppings are very hard, bat droppings crumble into dust under pressure. The content of droppings alone is relatively harmless, but small amounts of nitrogen, fats and oils can cause staining. This staining is worsened when droppings are mixed with water and/or urine deposits, especially on light-coloured, porous materials like marble. Droppings can also adhere strongly to surfaces, which is problematic for vulnerable or friable areas like wall paintings.

Bat urine contains 70% urea, which dries to form ammonia. This strongly alkaline substance is chemically aggressive and causes etching and staining in various materials, especially brasses and woodwork.

Urine deposits are of a higher cause for conservation concern because they cause more damage than droppings on their own and are harder to detect. Bat urine can sit undetected on a historic object for a long period of time and cause visible and chemical long-term damage.

The presence of droppings and urine and the damage caused present an increased need for cleaning. Even when cleaning carefully, with conservation approved materials and approaches, historic fabric is at greater risk. Regular cleaning and intended good maintenance can result in damage, for example, the loss of paintwork and abrasion of metal surfaces.

Droppings also act as a source of nutrition for bacterial and fungal growth which causes decay. Large accumulations of droppings are a welcome area for general dust, dirt and humidity to form. This presents the added problem of sulphuric and nitrile acids which attack surfaces, alongside the presence of the droppings.

WHAT THE BATS IN CHURCHES PROJECT DOES

The development of a new licence by Natural England and funding from the National Lottery Heritage Fund made the Bats in Churches project possible. The Bats in Churches Class Licence (BiCCL) allows highly skilled ecologists, with years of experience working in churches, to trial novel solutions to reduce the damage being caused by bats in churches. By



Bat urine is corrosive to metal and monumental floor brasses are particularly affected. The blue spots are evidence of this damage and is disfiguring in the face of the brass in St George's church, West Grinstead

bringing together church communities, ecologists and heritage professionals, the project is helping to find the most appropriate solution for each project church, and to monitor its success over a five-year period.

One early case study that has had some success already is All Saints' church, Braunston-in-Rutland. This Grade II* church is home to a large maternity roost of Soprano Pipistrelles and was struggling to keep on top of the situation. The fifteenth-century wall paintings, pews, monumental brass and a twelfth-century font were all being damaged, and the strain of cleaning and unpleasant smell had left the Parochial Church Council believing that they would have to close the church.

One of the specially licensed ecologists carried out surveys and concluded that the bats did not need to use the inside of the church at all. Instead they were given access points from the outside of the church straight to their roosts in the rafters and eaves on the south side. The access points on the inside of the church were blocked up in Spring 2019 and the bats no longer fly inside the church causing the mess and disruption that they once did. Surveys show that the colony is still thriving and a churchwarden commented: 'It's been a fantastic outcome for us. The church can now be used as it was originally intended'.

At more than a hundred other churches the project is exploring lots of different techniques for bat mitigation. Some of these include isolating the bats from high risk areas within the churches through roof voids, tower spaces, rafter boxes and external bat boxes. Each church is unique, as are its bats,



At All Saints church, Swanton Morley in Norfolk, the Bats in Churches project have installed bat boxes at eaves level and blocked their entry points into the interior of the church

so the techniques will vary but we are very hopeful that we can help as many churches as possible.

In addition to this, the project is hosting training sessions, workshops and events, and publishing free online resources to download from the website.

At the end of the project, there will be plenty of well-trained professionals who can employ the techniques successfully trialled at the project churches. We hope that the connections made between ecologists, bat groups, architects, diocesan committees, conservators, and church communities will continue and that these groups will come together with a deeper understanding of each other's concerns and the skills needed to protect bats and churches.

HOW TO FOLLOW US AND WHAT NEXT

In a future issue, I will use more case studies to explore what we are doing to protect particular items of historical significance and some of the research we are carrying out, especially into wall paintings. I will talk about our cleaning workshops and give some top tips for people who need to clean a church or any other historic building with resident bats.

To find out more about what we are doing follow us on Twitter @BatsinChurches and Facebook @BatsinChurchesProject and visit our website batsinchurches.org to sign up to our mailing list.

BATS IN CHURCHES

WINNING THE NIGEL WILLIAMS PRIZE

The prize-winning team describes the work which led to their success in 2019

The 2019 Nigel Williams prize was awarded to a team of two conservators, a scientist and a curator from the British Museum, for a new application of laser technology on terracotta objects. The achievements of this project open the doors to new developments in the treatment of ceramic objects affected by old biological infestation and highlight the importance of close collaboration between multiple disciplines in museums.

THE ISSUE

In 2018 Thomas Kiely, the AG Leventis Curator of Ancient Cyprus in the Department of Greece and Rome at the British Museum, was working on the Cyprus Digitisation Project. The aim of the project is to build an online digital database of high-resolution images of Cypriot archaeological objects in the collection to facilitate their study and research worldwide.

While selecting polychrome terracotta and limestone figurines from Cyprus to be digitised, he noticed that many of them were affected by brown/black ingrained spotting over their surfaces. This condition made it very difficult to observe surface details as well as remnants of colour, and was an obvious problem for the digitisation of many examples. At this point, Thomas contacted colleagues in the Conservation Department to discuss the issue affecting the collection.

The extensive staining of the Cypriot figurines in storage had been noted by the Museum's conservators for many years but, as it appeared to be stable, neither its investigation nor its treatment had ever been prioritised. However, the renewed interest in the collection for its digitisation offered the opportunity to the conservators Duygu Camurcuoglu ACR and Miriam Orsini to make a case for finally tackling the issue.

EXAMINING THE PROBLEM

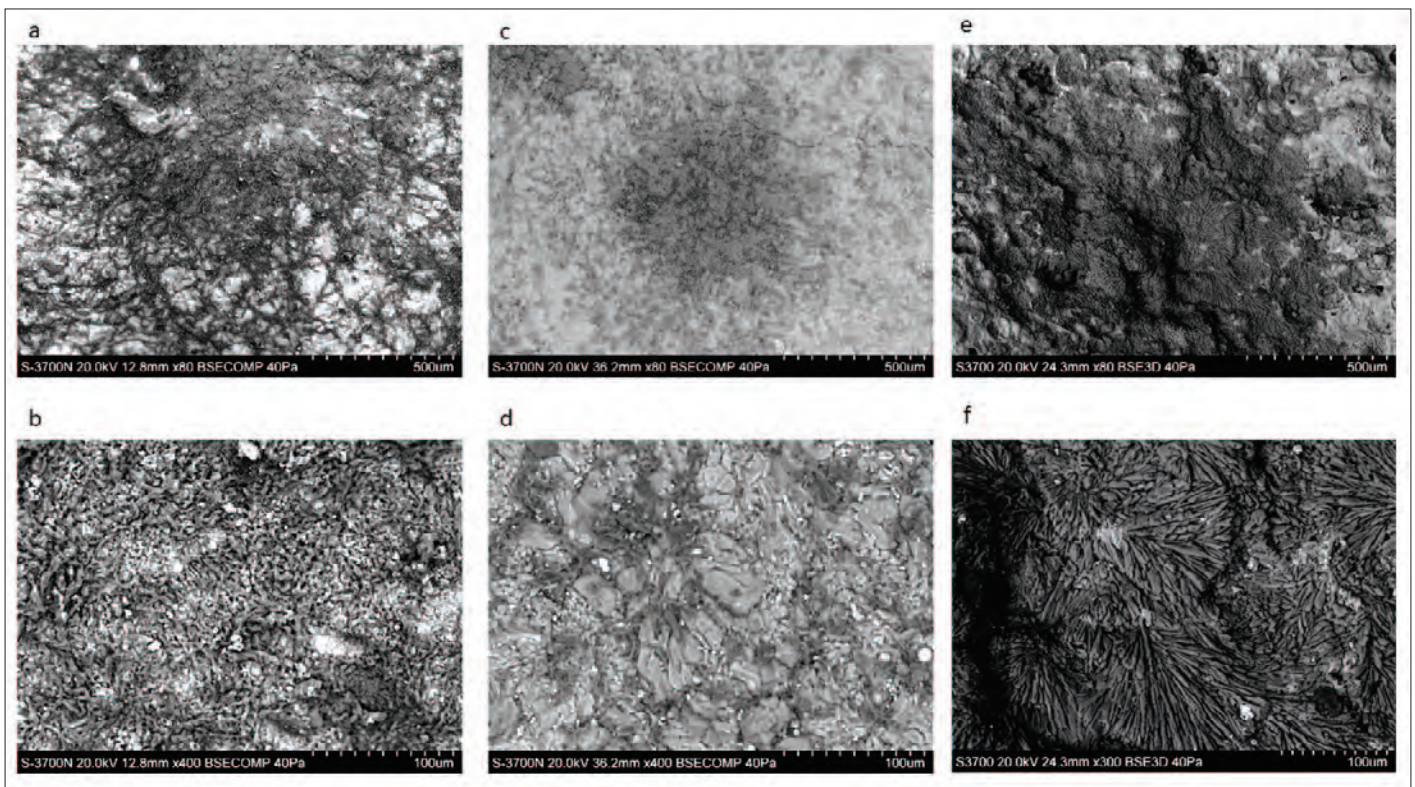
They embarked on a detailed examination of the problem affecting the figurines, making an attempt to understand the cause, nature and extent of the staining and they even noticed that the staining spread across other collections in the Museum. A microscopic and macroscopic investigation of the speckles confirmed the suspicions that it was of biological nature. The staining looked old, as confirmed by the archival images showing that the problem already existed in the 1980s and probably dated back to when the collection was acquired in the late 1800s. The dark speckles were deeply ingrained and stubborn, and the fact that they were also obscuring the pigments, added to the challenges faced in cleaning the objects.



Cypriot terracotta figurine affected by biological staining before and after laser cleaning

At the same time, the heritage scientist Lucia Pereira Pardo, an Andrew Mellon Fellow at the Scientific Research Department, was investigating the applications of a new laser (Er:YAG) for the treatment of challenging conservation problems on a range of materials in the Museum's collection, and closely working with many colleagues in the Conservation department on various laser cleaning projects.

Traditional cleaning methods to remove the speckles on the Cypriot terracotta figurines, such as swabbing with solvents and Agar gel applications, had yielded unsatisfactory results and discussions with Lucia opened up the possibility of exploring an alternative method, which would be time-efficient, controllable and selective, such as laser cleaning. In addition, the successful tests using Er:YAG laser on the limestone figurines showing the same staining, encouraged the team to investigate the effectiveness of this laser on the terracotta figurines.

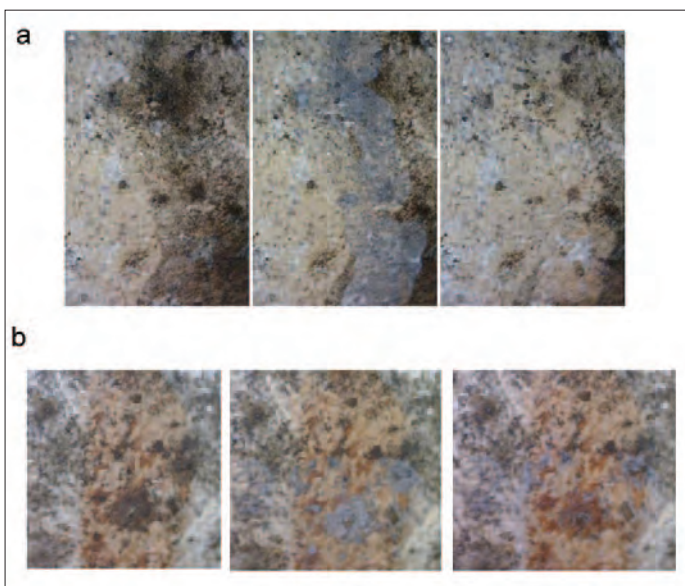


Appearance of biological growth under SEM-EDX

LASERS AND TERRACOTTA

Laser technology has been used in the field of conservation for many years and is particularly well-established in stone conservation. However, its effects on archaeological terracotta, particularly polychrome, had received very little research at the time this project was carried out. The more widespread Q-switched Nd:YAG laser (1064 nm and 532 nm) has been tested on terracottas in various studies and found to result in discolouration on surfaces.

Detail of a figurine's surface before cleaning (left), after laser irradiation (centre) and after gentle swabbing (right) shown on both terracotta (top row) and polychrome surfaces (bottom row)



On the other hand, Er:YAG lasers had not been tested on terracottas in general, but its characteristics seemed particularly well suited for this treatment as Er:YAG lasers emit radiation at 2940 nm, a wavelength readily absorbed by hydroxyl groups (-OH). Biological growth would be sensitive to this type of laser, as confirmed by De Cruz et al. (2009), who successfully removed lichens from limestone using Er:YAG lasers.

WORKING TOGETHER

The multidisciplinary team started working in coordination and in constant communication. Lucia carried out the scientific analysis of the figurines' materials, such as the terracotta fabric, colour palette and surface deposits, and she then investigated the damage thresholds of these materials to the Er:YAG laser, to make sure that the treatment could be done safely.

Through regular discussions, Thomas helped the team to understand the context and relevance of the collection and the desired aesthetic outcome of the conservation treatment. The conservators Duygu and Miriam started testing and evaluating the effectiveness of the Er:YAG laser on the figurines, determining safe and successful parameters for removing the biological staining¹

THE FINDINGS

The team carefully assessed the effects of the laser irradiation on the figurines by means of optical microscopy, colour measurements, and Scanning Electron Microscopy. No surface change was observed under high magnification up to 500x, even on the polychrome areas, showing that the Er:YAG laser successfully removed the speckles and reduced remnants of old biological infestation. Up to date, this is the

first known use of Er:YAG lasers for the cleaning of old biological staining from archaeological terracotta objects.

In addition to revealing previously obscured surface features and painted decoration, the treatment and the project in a wider sense presented the team with an opportunity to study the fabric, manufacturing techniques, use of colour, and the impact of post-depositional conditions on the present state of the objects.

CONCLUSIONS

From the beginning, a collaborative and well-organized way of working was established between the multidisciplinary team members and it is believed that this is why the project became very successful, winning the Nigel Williams Prize 2019 and being referred as a leading example of interdepartmental work between conservators, scientists and curators at the British Museum.

The project was presented to the wider conservation community both at Lacona XII and ICOM-CC/Icon UK Ceramics and Glass working group conferences in 2018/19.

The laser cleaning of the polychrome terracotta figurine collection is underway and will support the digitisation and

display of the objects. The team also reached out to other departments in the Museum to look at other affected collections and highlighted the importance of how the knowledge of past collection care can better inform current practices.

The team are delighted to have received the Nigel Williams Prize 2019 as a result of their work, and are very grateful to the judges and everyone else who supported the project. In particular, Duygu Camurcuoglu and Miriam Orsini are extremely pleased to bring back the award to the Conservation department where Nigel Williams worked as a Ceramics and Glass conservator. This prize is dedicated to the 100 successful years of Conservation and Scientific Research at the British Museum which will be celebrated with various events throughout 2020.

¹ Pereira Pardo L., Camurcuoglu, D., Orsini, M., Kiely, T., Vasiliou, S., Weglowska, K., Korenberg, C. (2019) The Use of an Er:YAG Laser in the Removal of Biological Growth from Polychrome Archaeological Terracotta Figurines from Cyprus. In Mandrus, J., Schussler, V. (eds) Recent Advances in Glass and Ceramics Conservation. Interim Meeting of the ICOM-CC and Icon UK Glass and Ceramics Working Groups, 5-7 September, British Museum, London, 77-86.

The team receiving the prize from Myrtle Bruce-Mytford (Nigel Williams' partner) : (l to r) Thomas Kiely, Miriam Orsini, Lucía Pereira-Pardo, Myrtle Bruce-Mytford, Duygu Camurcuoglu.



BOOKS

HERCULANEUM AND THE HOUSE OF THE BICENTENARY: History and heritage

Sarah Court & Leslie Rainer
 Getty Conservation Institute 2020
 ISBN 978-1-60606-628-7

This new Getty Conservation Institute volume provides an overview of the excavation and conservation history at Herculaneum, followed by a closer look at how this past has led to the current conservation issues on site. This analysis takes place via a more detailed look at the conservation of the House of the Bicentenary, first excavated in the 1930s, closed to the public in 1983 due to conservation and stability issues, and successfully reopened in October 2019. The book is ambitious, covering more than three hundred years of what can only be considered a complicated conservation history. It does this very successfully - upon first reading, one cannot help but be impressed by the accessibility of the text, which is well supported by excellent photographs and illustrations. This success is down to the expertise of the two authors: the first, Sarah Court, is an archaeologist and specialist in heritage management with over ten years of experience at Herculaneum. The other, Leslie Rainer, is a leading wall paintings and architectural surfaces conservator who project-managed the conservation of the House of Bicentenary for the Getty Conservation Institute. The combination of their expertise has resulted in a volume which will be of interest both to the lay reader as well as the conservation professional, though accordingly it is not focused on technical detail.

The volume consists of nine chapters, the first seven of which set the historical scene and provide a background and history of excavation (and occasionally conservation) on the site. There are a great number of unusual historical images, including stills from period films, and the text is lively with a timeline running along the bottom of each page. This allows the reader to easily understand the order of events in the site history and to place them into context. These early chapters work as an effective setup for the more in-depth discussion of the conservation of the House of the Bicentenary. By this time, the reader is able to place the house into the larger story of the site as a whole as well as to appreciate the damage done by earlier excavations and occasionally by previous conservation attempts, particularly those carried out in the mid 19th century.

Additionally, the authors have included concise and accessible descriptions of the basic construction of mosaics, wall paintings, and other architectural features, which adds to the

overall sense that this is a volume intended to educate and provide a solid foundation for those interested in learning about the townscapes of the Roman world. This approach also serves to introduce a number of questions that currently preoccupy conservators but may be new to the lay reader.

The examination by the authors of the result of the earlier excavations, particularly those undertaken by the Bourbons in the 18th century, is particularly effective in this respect. Examples are given of wall paintings which were removed from their context and taken into a museum conservation environment. The authors outline that this has resulted in higher levels of preservation but at the expense of the overall comprehension of the object as part of a larger decorative scheme and the reduction of the visitor's ability to understand the meaning. Emphasis is also put on the damage incurred by lack of

preventive conservation, lack of routine maintenance such as the removal of vegetative growth, and the wear and tear associated with increased visitor access.

This gentle introduction to the ethical framework in which conservators operate and the essential tenets of conservation is well placed. The inclusion of end notes and a suggested further reading list covering both the history and the current research conducted at the site is also welcome.

This volume would be a good addition to a recommended reading list for beginning students of archaeology, conservation, and classical studies yet also presents an interesting read for a professional conservator. In addition to its academic value, this book would also be a welcome companion on a future trip to Herculaneum.

Dr Alaina Schmisser

Rook Heritage Consulting



**MUSEUM LIGHTING: A guide for
Conservators and Curators**

David Saunders

Getty Conservation Institute 2020

ISBN 978-1-60606-637-9

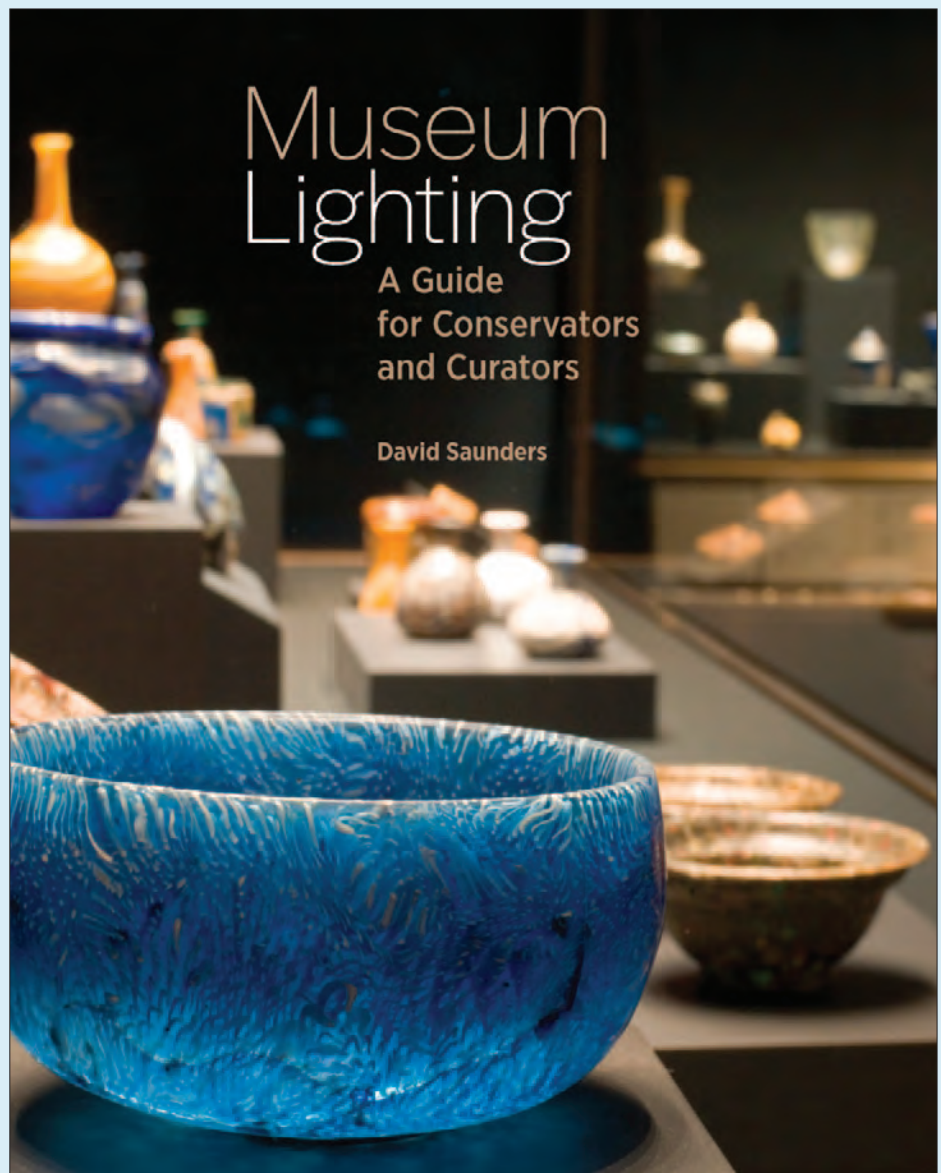
.....
Museum Lighting is arguably the most definitive work on the subject since *The Museum Environment* by Gary Thomson, which was first published in 1978 and revised in 1986. As such it has been eagerly awaited by conservators and curators for several years, with appetites further whetted by David Saunders' Plenderleith lecture to the Icon Scotland Group in late 2019. The good news is that it fully lives up to these expectations!

The first three chapters cover the 'fundamental concepts of light' as it relates to the viewing of objects in museums. The author notes that they 'need not be read from beginning to end', but in fact the explanations of light, colour and how the human eye perceives them are so clear and engaging that it is difficult not to read them all. For example, it is useful to know that discontinuous light sources such as fluorescent lamps and LEDs, which have spectral power distributions with several peaks at different wavelengths, may provide the same light level as other light sources but with less associated energy; and it is particularly interesting to understand how these light sources trick the eye into appearing continuous, by delivering radiation in the parts of the spectrum where the eye has greatest sensitivity.

Chapter 4 explores how light and ultraviolet radiation damage museum collections, explaining mechanisms such as photooxidation, photohydrolysis and cross-linking. It is noteworthy that the breaking of chemical bonds to cause structural damage requires the high energy levels possessed only by ultraviolet radiation, meaning that the exclusion of ultraviolet light should avoid this type of damage altogether, although it is of course impossible to reverse any damage sustained in the past.

The reader is also introduced to the reciprocity principle, which dictates that the behaviour of a material under intense light for a short period is equivalent to its behaviour under the levels of light typically encountered in museums for a longer period, and is crucial to 'considering cumulative exposure as the main indicator of long-term damage'. However, the author cautions that we must not allow other assumptions to follow on from it: double the exposure will not necessarily result in double the damage, for example.

The following chapter expands upon the summary table given in chapter 4 to discuss the effects of light and ultraviolet radiation



Museum Lighting

A Guide
for Conservators
and Curators

David Saunders

on different materials, classes of materials and objects, and includes useful references for those seeking more specific, material by material vulnerabilities. The number of categories chosen by the author strikes a good balance between overgeneralisation and information overload, and there are many fascinating nuggets of information; for example that colour photographs with colour in the name (e.g. Kodacolor and Fujicolor) are high sensitivity, whereas colour photographs with chroma in the name (e.g. Cibachrome and Kodachrome) are generally medium sensitivity.

Chapters 6 to 9 take us through the requirements of light for studying and viewing; the development of museum lighting from the use of daylight and candles through to the pros and cons of various types of electrical lighting and modern demands for environmentally sustainable lighting; and considerations for designing lighting which minimises damage while maximising visibility.

The section on age and the viewer is particularly interesting, beginning with the observation that most experiments investigating the human visual system have been undertaken within universities using

predominantly young participants, and presenting evidence to hypothesize that a person in their 80s would need around one hundred times more light than someone in their 20s to achieve comparative colour discrimination, which is a pretty sobering thought.

The final chapter, on lighting policy and practice, is a godsend for conservators everywhere. Working from the premise that a lighting policy and associated guidance should strike a balance between providing access to collections while minimising deterioration, it introduces the concepts of object lifetimes and lifetime-driven lighting strategies, which use a risk management approach to set parameters for access (time on display), lifetime and visibility.

The reader is guided through the creation of lighting policy, strategy and guidelines; and the importance of the relationships with other museum policies and practices, such as access, display, exhibition, loan and environmental sustainability policies, is stressed.

The book finishes with a section on future trends in lighting and identifies three interrelated areas worth exploring: 'new

technologies, developments in practice and changes in thinking'. It is noted that some changes are difficult to predict, but that sustainability will be an ever-growing priority, and the author concludes with the certainty that 'the fundamental issue of balancing high-quality access to original collections and their future preservation will continue to exercise our minds and activities'.

This is an invaluable reference book, which can be accessed hurriedly by those seeking an answer to a particular question or enjoyed in a more leisurely fashion by enthusiasts of colour theory or lighting design, for example. The volume of information is not overwhelming, but the quality of the research underpinning the content is evident throughout, and the helpful flagging of further reading allows the reader to dig deeper should this be required. It therefore seems highly likely that *Museum Lighting* will stand the test of time every bit as well as *The Museum Environment* did before it.

Isobel Griffin ACR

Head of Conservation
National Galleries of Scotland

ON CANVAS: Preserving the Structure of Paintings

Stephen Hackney

Getty Conservation Institute 2020
ISBN 978-1-60606-626-3

Stephen Hackney's highly respected career at Tate, as a paintings conservator, researcher and teacher, has culminated in this 248 page volume. Its aim is not to be an all-encompassing subject volume and, Hackney admits, the subject of structural conservation of paintings is vast and hugely complex. Instead, the book collates historic research and concepts, enabling present and future conservators to understand how existing treatment principles were developed, as well as describing current practice, including best practice. The book is sectioned into three parts which are sub-sectioned into ten chapters

Part 1, Structure and History, offers an overview of canvas, in addition to its conservation history. Spanning four chapters, the first introduces historic design and manufacture of auxiliary supports as well as the preparation of canvas for painting, and methods of attachment. Artists' material suppliers are explored with the welcome inclusion of the standard size prepared artists' canvas, loom sizes and historic recipes, making this book an excellent reference source.

A chronological overview of the early use of canvas is provided in chapter 2; from

Egyptian mummies through to the twentieth century. Case studies from Tate's collection are drawn upon to detail painting methods and materials, with emphasis on structural integrity. A solemn reminder of the permanent and irreversible impact some historic restoration methods and materials have had is demonstrated, using Rothko as a case study. Textile production is discussed in chapter 3, from producing the plant, to spinning the fibres and weaving the cloth. Identifiable characteristic traits of fibres are defined, as well as the more familiar identification of warp, weft and selvedges.

The final chapter in this Part is committed to the history of lining. A brief clarification of canvas degradation is offered along with a short history of structural conservation, introducing historic concerns regarding lining and the conservator's changing perception with regards to structural intervention. The chapter is divided into three main topics covering lining adhesive developments: glue-paste, wax-resin and synthetic, giving each a brief historic overview and explanation of procedure. The first documented uses of glue-paste are listed, with examples from treatises such as Cennini and De Mayerne. The drawbacks of glue-paste are specified, but perhaps the few highly skilled glue-paste liners still working today should not have gone without mention.

The history of wax-resin as a lining adhesive is well-documented, especially in regard to its pitfalls. In this section, the advantages and drawbacks of the material are discussed, along with equipment developments, such as the vacuum hot table. Hackney also reviews the change in attitudes and a desire to move away from more traditional lining methods with the influential 1974 Greenwich lining conference.

Don your chemistry hat for Part 2, devoting itself to the properties and ageing of canvas. Chapter 5 evaluates the mechanical properties of canvas, ground, and size, introducing associated terminology. A clear commentary is presented of key research from Michalski, Mecklenburg, Tumosa, and Hedley relating to the effects of temperature and relative humidity (RH). RH implications in the museum environment are discussed, including the key point that a painting's response to RH is hard to predict outside of the extremes. However, the benefits of prevention of rapid RH change are clear. Hackney's commentary in this chapter brings clarity to the main aspects covered.

Chapter 6 discusses at a chemical level, the degradation processes causing a canvas to deteriorate. Commented on at length is the interaction process of hydrolysis and oxidation that leaves a canvas weak and embrittled. Free radical forming light

exposure, as well as acid degradation and fungal mould spores are also discussed, offering practical considerations for mitigation. Minimising oxidation by limiting exposure by display, and encasing the object within an oxygen-free environment is reviewed, although this brings separate legitimate concerns regarding pigment stability.

The drying, curing and ageing of oil grounds and paints is the subject of chapter 7. Hackney is quick to mention the insufficient research on long-term aged oil grounds but recent insights have significantly improved understanding of aged oil paints. Hydrolysis, saponification and efflorescence are evaluated with an especially informative discussion of the phenomenon known as fatty acid migration, or efflorescence.

A holistic understanding of the physical deterioration of canvas paintings is offered in chapter 8. Tensile forces in the canvas ultimately lead to crack formation and cupped and flaking paint from the development of shear forces. Crack types are assessed and research reviewed. Mecklenburg's research on impact cracking is notable, observing a material to be more brittle in response to a rapidly applied force. Acrylic paint films are more responsive to temperature change over RH and are liable to crack below their glass transition temperature (T_g) region.

The dominance of graphs and chemistry in Part 2 may put some readers off, but Hackney does his best to intermingle practical instruction throughout. This section may be most useful for the training conservator, needing a thorough introductory grasp of the degradation processes of canvas. Hackney makes a valiant effort to render a dense subject accessible to all.

Part 3 of this book is dedicated to conservation treatments and spans two chapters. The first covers collections care with a focus on preventive conservation. A historical account of museum air-conditioning is given, with the current concern highlighted as sustainability and a move to more energy efficient systems. Many ethical questions are posed, such as, is there an acceptable level of deterioration? Emphasis is paid to preventive measures to reduce risk. Hackney describes procedures at Tate, including wholesale back-boarding and the addition of non-reflective glass, and stresses the importance of preventive measures for contemporary collections.

Conservators can now begin to predict deterioration and when interventive treatment could mitigate the inevitable deterioration process: 'Yet this approach

On Canvas

Preserving the Structure of Paintings

Stephen Hackney

resurrects concepts, such as preventive lining, which in the past became controversial'. Hackney argues that 'decisions are now more firmly based on evidence' and can therefore 'address the long-term needs of a collection'.

The final chapter is concerned with identifying when a structural intervention is required. Hackney rightly considers that 'understanding the principles is not a substitute for experience or skill' and with today's emphasis on minimal intervention, this statement is ominously accurate as, sadly, skills can be lost as conservators retire. The chapter is subdivided into a selection of structural procedures. Full lining is not covered quite as well as the history of lining: perhaps a chapter could have been devoted to today's lining practices?

Hackney explains why minimal structural treatments are often used today, asserting the main purpose as 'not to correct existing damage but to retard physical deterioration processes'. Strip lining, loose lining, panel inserts, and stretcher-bar linings are all considered. Hackney finishes by reiterating why the current approach of a minimal physical intervention is, on the whole, considered best practice, but that paintings

will continue to degrade and therefore preventive measures must be adopted.

This publication is a fitting testimony to Hackney's career, the fruits of his labour and love for all things canvas. *On Canvas* will no doubt form essential reading for the conservation student and is a useful source of reference for the professional too. The book offers a review of current and historic literature and research. It is heavy on citations and references, which is not a criticism, as it enables the reader to easily delve further. It boasts an impressive, comprehensive bibliography and large index, making this an excellent reference text.

Don't expect *On Canvas* to be a book dedicated to structural conservation treatments for paintings on canvas, it is far more than that. This comprehensive book will empower conservators to care for canvas paintings more effectively. What's more, it should not be thought of as only of interest for paintings conservators, it has cross disciplinary interest and may interest textiles, paper, object and preventive conservators alike.

Christine Braybrook ACR

WORKSHOP

WELLBEING

EACF/SHARE

Chelmsford 10 February 2020

In February, I attended the Wellbeing workshop led by **Lorraine Finch ACR** (LF Conservation & Preservation) at Chelmsford City Museum. This was organised by the East Anglian Conservators' Forum/SHARE Conservation Network. As a steering group member for the network, I had my organiser's hat on. But once the technology was sorted out, I could step back and take part.

The world is in a very strange place at the moment and a large proportion of museum staff are working from home. It is vital that we look after our own wellbeing, now more than ever. Making your own wellbeing the highest priority makes you healthier, happier, a better employee, a better manager and a little more prepared to tackle what your personal and professional life throws at you.

Based on what I learned in February, here are some improvements I have been making to improve my own wellbeing:

Time management, single-tasking & productivity:

I have long known that successfully multi-tasking isn't a thing, and single-tasking is the best way to achieve anything. But, I admit, this is not always the way I work day-to-day. I flit between tasks, doing whatever is easiest or quickest to do. By blocking out time in my calendar for work that takes more time and energy investment, I force myself to stop getting distracted by incoming emails. If I do not finish the task by the end of the time slot, then I ensure to book another time slot on a later date to continue. I'm still working on it, but just a few weeks of using this method has improved my productivity and my general feeling of accomplishment at the end of each day.

Sleep:

Hate to brag, but I am a master of sleep. However, there is always room for improvement! I have finally listened to advice and stopped looking at my phone before bed and returned to my growing book queue. The current book is Adam Kay's *This is Going to Hurt*. An enlightening read, especially at a time when the NHS is (even more) stretched beyond capacity, but with enough humour to not sink me into complete despair before sleep.

Nutrition, exercise and movement:

It took me years to realise how much nutrition and exercise affects my mental wellbeing. It makes complete sense now, but I wasn't connecting the dots for a long time. It doesn't stop me from indulging, but it does mean that when I am not feeling 100%,



Image: Helena Rodwell

The Wellbeing group taking a post-lunch walk together in the grounds of the Chelmsford Museum

the first questions I ask myself is 'what have I been eating?' and 'have I been exercising?'

As I'll be working from home for the coming weeks or months, I have made sure that I spent time (in my working day) looking at my environment and ensuring that it isn't going to leave me with aches and pains. The computer screen has already moved about three times in my attempt to get it right and I can now walk the dogs at lunchtime, which forces me to stretch and look at something other than a screen.

Communication:

It is not possible to control how people communicate with you, but you can consider how you communicate with others. Improving your communication skills can maintain good working relationships and minimise distraction to your own wellbeing.

In my bid to become more assertive, I have made a conscious effort to stop starting every sentence with 'sorry'. I have been reasonably successful, but the odd one still slips out.

Equally, at a time when we are forced to socially distance ourselves from others, technology can be an invaluable tool to stay in touch with others and feel less alone. I have already had my first virtual tea break with a colleague!

My advice to you to improve your wellbeing: put yourself at the top of your priority list. The rest of your to-do list can wait twenty minutes while you go for a walk.

A big thank to Lorraine Finch for leading this workshop and to Chelmsford City Museum for hosting (I would highly recommend their brownies!).

Helena Rodwell

Fitzwilliam Museum

EACF/SHARE Conservation Network steering group member

TALK

DEMISTIFYING THE ART MARKET

Icon Paintings Group

London 24 February 2020

The *Demystifying the Art Market* talk at Freemasons' Hall enticed those interested in how the role of conservation interrelates with the roles of public and commercial galleries, auction houses, curators and critics. The topics ranged from analysing the legal and fiscal structures, such as droit de suite, to certain flaws within the international art market.

After tracking one's way through the Freemasons' building to the Robing Room, the party congregated around the table of drinks and catch-ups ensued. When the presentation was set, **Clare Finn ACR** directed the assembly to their seats and introduced the speaker.

Renée Pfister teaches the Business of the Visual Arts as well as Curating and Exhibition Management at City University, whilst also acting as Associate Director for Museums and Galleries at Gander & White. Her experience in the art world spans consultancy, advising and managing a variety of independent museum professionals, auction houses, collectors and educators, to lecturing at the Sotheby's Institute of Art.

She began by discussing the Romans' plunder of Greek cities, returning with stashes of Hellenistic art. This did more than promote warfare and prettify Rome; it launched the western world's craze for collecting. As the rich assortment of Greek masterpieces morphed into the urban scene of Rome, so too did pleasure in

conspicuous consumption. Pfister stressed that all the familiar features of today's market began with the adornment of the townhouses and villas of the Roman upper class: thus passionate collectors, dealers, smugglers, forgers, restorers, appraisers, fads and fashions and inflated prices emanated from the seizure and trade of art over two thousand years ago.

The international art market depends on supply and demand. Pfister elaborated on the three tiers that together inform today's art market: primary, secondary and tertiary. The journey that art makes from creator's table to gallery wall and the creative capital that artisans strive for - from emerging to established and blue chip - create 'the point system that distorts success and value, especially when fashions change'.

The #metoo movement and its influence over gender in art is a perfect example. Pfister stressed that male artists are less likely to sell work relating to feminised subject matter in today's equality-incentivised climate. And the same goes for artists who decide to revise their practice. Beijing-based contemporary artist Guo Hongwei is known for his oil paintings based on old photographs. His recent move to abstraction has proved too drastic a change for art critics and has directly impacted Hongwei's success, 'resulting in him not moving forward as quickly as his contemporaries'. This fed into Pfister's next discussion point: how do commissions and residencies draw attention to name and reputation?

Commercial galleries are run on a class system. Selling work at 'A Class' galleries can place an artist in the best light. With the world becoming increasingly multicultural,

an ever-widening playing field is developing but it is worth noting that the influence of Brexit in galleries across the UK and EU is causing interesting shifts in tradition. Art originating from minority cultures, once considered unpopular, is now being showcased to meet the demands of popular opinion. Exhibiting at public institutions and fairs such as the Frieze Art Fair, TEFAF and London Art Fair can build or ruin reputation. The interrelationships are becoming increasingly opaque to market analysts like Renée Pfister. She cited the case of a well-known collector who had depressed the careers of certain artists by collecting their work and then offloading his holdings in bulk.

Pfister concluded her lecture with her views on the shortcomings of both primary and secondary art markets. The stability and maintenance of price and value is impossible to predict and constantly in flux. The painting *Salvador Mundi* provides an example: how much of this work was actually created by the hand of Leonardo Da Vinci? That question has been in constant debate since the work's discovery in 1958. *Salvador Mundi* presents the ultimate conundrum; it was purchased for £45 and sold almost sixty years later for \$450 million. Yet the true value of the work does not rest in its recently allotted monetary value – for no one is sure which figure is closer to the truth. Legal issues and compliances, such as anti-money laundering regulations, insurance against liabilities, provenance and authentication, copyright and appropriation, droit de suite and moral rights all stem from an uncontrollable market that continuously demands more airtight security measures.

On its conclusion the talk generated enthusiastic debate about the opportunities and limits of art market interactions across the EU and UK in the aftermath of Brexit, and whether art as a commodity for thrill-seekers affects the value of particular works too strongly. Customs and compliance affecting the art market after 30 August will have to deal with new import and export measures and, despite the US having a large role to play, Pfister believes that precedence in the art market will more than likely rest within the EU, possibly Paris.

How conservation fits into it all rests upon maintaining art market authenticity. Whether it is our place to educate people on the importance of keeping works authentic is a question that circulated the floor and continued to rouse debate long after the lecture ended. However, upon one subject we all agreed: in the thrill of the purchase art documentation is often cast aside or forgotten. Encouraging a return to the basics like seeking due diligence,

checking over inventories and cataloguing clearly and concisely is a positive move forwards, especially in the current tempestuous climate that is the international art market.

Alexandra Taylor

Saltmarsh Paintings Conservation

CONFERENCES

MAKE IT FLOAT

EACF/SHARE

Norwich September 2019

This event, organised by EACF (East Anglian Conservators' Forum) and SHARE Conservation Network at Norwich Castle Museum & Art Gallery, looked into how objects ranging from tiny entomology specimens to sixteen tonne aircraft are displayed and mounted to make it appear that they are floating.

Claire Reed of the Southend Museums Service, who kindly organised the event along with **David Harvey** of the Norfolk Museum Services, began the day with a talk entitled 'Bathing Belles, Buckram and Bent Fingers'. This talk looked into mounting historic swimwear for display and the uses of buckram. A *Practical Guide to Mounting Costume* by Lara Flecker of the V&A was used to help create the display for the 'Beauty and the Beach' exhibition, which featured Mavis Plume's extensive collection of swimwear through objects from the 1940s to 1960s. Despite being time-consuming and the risk of buckram-related injury (hence the *bent fingers* in the title), Claire stressed the positives of using this technique, as it is budget friendly and ideal for temporary and touring exhibitions.

The obvious transition from swimwear to blue marlins came next with **Helen Walker** of the Natural History Museum giving a talk on 'Specimens Floating, Hovering and Flying without Strings'. She used three different examples of mounting objects to make them appear to be floating. First was an entomology display featuring a lot of small insects. Following research into how to make it seem as if the insects were flying, a specialised dispenser gun was found and this helped to create a brilliant display, admired by both staff and visitors. A whale stomach was next, with Helen claiming that this was the most troublesome specimen of the three. It was decided to show the stomach's four different chambers so that they would light up in order with the interaction of a visitor.

The final example was the blue marlin. These are some of the heaviest fish in the sea and this 350kg specimen was one of only two ever to be washed up on British

shores. Upon defrosting it (in the Natural History Museum carpark!), it was placed into a tanker of glycerol - the first time that a Blue Marlin has been preserved in this way. Despite it being more buoyant than first anticipated, after adding weights the marlin was displayed in a beautiful manner and does appear to be floating. You can watch how this all unfolded on a video, 'The Art of Preserving a Blue Marlin', on the Natural History Museums YouTube account.

With the last talk before lunch **George Monger**, the founder of EACF, discussed his participation with the Cutty Sark in 'Floating (my) boat- well ship'. This ship is a Grade 1 listed building and it required a lot of work to ensure that it was properly conserved. When George began his role as the mighty-sounding 'Principal Conservation Consultant', the deck was leaking, water was present, and there was a lot of active corrosion, which had led to some rivets being blown off. Working closely alongside the University of Portsmouth, a conservation plan was devised. One key proposal was that the ship should be supported equally, as it would be if it were in water. But it was decided that the possibility of re-floating the vessel would cause more harm and would have required a large maintenance project.

After lunch **Shelly Seston** and **Simon Prentice** of the British Museum shared a discussion on 'Creating a mount-making house-style and supporting training course at The British Museum'. Previously the BM's eight departments/subjects each had their own mount-making teams and you could often find a display with numerous styles of mounting. This has now changed with a standardised mount-making procedure. Alongside this, the British Museum now leads two-day mount-making training courses for internal staff. These two changes have had a major impact: there is now a larger skill set within the BM; external companies are less likely to be used; the safety and quality of displays have improved and a recognisable, professional house-style ensures a cohesiveness among displays.

With over 89 tonnes of aircraft hanging in the Imperial War Museum Duxford, **Jon White** knows his stuff on hanging large objects. Jon told the audience that, surprisingly, there exists no legislation on the topic. He, along with others from the sector, are proposing that universal museum-wide legislation should be created, by people within the sector rather than government, to ensure that safety is paramount. Jon stressed the need to keep documentation on everything related to the hanging of a large object, just in case it were to fall, as well as the need to perform regular checks and to use experts to assist with any hanging. Alongside this, Jon gave

the audience many other useful tips on how to hang large objects.

To end the event, **David Harvey** of Norfolk Museums Service discussed when hanging objects can go wrong. 'Trials with a contemporary art mobile - The Grand Release' focused on an art piece that was commissioned in 2013 to celebrate the many displays and galleries in Norwich Castle Museum & Art Gallery. The piece was suspended from the ceiling of the Rotunda of the Castle Museum in 2014. As a Grade 1 listed building no holes could be drilled to aid suspension. Lots of thought went into working out how to suspend the piece, but the effects on the suspension over time were not considered. Gradually, the wiring began to fray and in 2018, the piece had its 'grand release', and it fell to the ground; luckily, no one was hurt. The piece is due to hang once again from the ceiling of the Rotunda, but with further consideration, so that it will remain suspended this time around.

George Baines

Teaching Museum Trainee
Norfolk Museums Service

POST-X METALS

Icon Archaeology & Metals Groups London 24 February 2020

The Icon Archaeology Group and Icon Metals Group held this one-day conference at the Museum of London Resource Centre in Hackney, east London. An excellent event enjoyed by all who attended, *Post-X Metals* explored the post-excavation conservation, investigation, storage and archiving of archaeological metal objects, with a particular focus on recent Cardiff University research into the use of desiccated microclimates to store iron and copper alloys. The event was sold out with attendees from the UK, Netherlands, Germany, Italy and the US among others.

The day was split into three sessions. Each session covered a different aspect of post-excavation work and involved a number of twenty minute presentations. Session 1 covered *X-raying and Analysis*. **Karla Graham ACR** and **Claire Tsang** (Historic England) kicked off the day with a fascinating talk on establishing standards for the digital radiography of archaeological materials, followed by **Tonny Beentjes et al.** (University of Amsterdam) who presented on X-radiography and tomography, the ongoing quest for the ideal imaging technique for archaeological metal.

Session 2 moved onto *Treatments* and first up we had **Eleonora Piccirillo** who gave an interesting presentation on her work on the conservation of a copper-alloy bathtub from the Stabian thermal baths in Pompeii. **Lucie**



Enjoying a tour of the Museum of London Archaeological Archive, led by Dan Nesbitt (Curatorial Assistant, Museum of London Archaeological Archive).

Altenburg (MOLA) then presented on the conservation of a recently excavated anti-resurrections infant coffin from Euston and how they approached and undertook the work on such an unusual object.

The final session looked at the *Long-term Stability and Storage of Archaeological Metal Objects*. **Penny Hill** (St Fagans National Museum of History) gave a fascinating talk on the work she has been undertaking on the assessment of past treatments of terrestrial archaeological ironwork, followed by **Charlotte Tomlin** (Spencer & Fry) who presented on the repackaging of a collection of metal finds from Wharram Percy and working with volunteers. Moving onto a significantly larger object **Nicola Grahamslaw** (SS Great Britain Trust) discussed her work at the SS Great Britain and the challenges of working with and trying to desiccate such a large object. Lastly **David Watkinson** and **Nicola Emmerson** (Cardiff University) presented their new research in the use of desiccated microclimates to store archaeological metals which included a display of the collection of boxes they have been testing.

Each session was followed by round up questions which provoked some lively and interesting discussion. Finally there was the opportunity to have a guided tour of the Museum of London Archaeological Archive, which is the largest such archive in the world. It was fascinating to see the vast scale of the collection and hear about how it is managed and cared for.

We would like to send a big thank you to all the wonderful speakers, everyone who attended and to Icon Archaeology Group committee member **Luisa Duarte** for organising the event. We hope you enjoyed the day as much as we did! Please follow #ICONPostX on Twitter to see our live Tweets from the day and all the photographs. Abstracts and speaker biographies from the event are available on the Icon Archaeology Group website (<https://icon.org.uk/groups/archaeology/past-events>).

Charlotte Wilkinson

Icon AG Communications Rep

From l.: Helen Ganiaris, Luisa Duarte (Icon Archaeology Group) and Anna Beaumont (Durham University) ready to welcome the conference attendees.





The Treatment Roundtable in session

THE TREATMENT ROUNDTABLE

Barbara Borghese, Senior Conservation Manager at The National Archives, describes a collective decision-making tool in treatment practice

BACKGROUND

Conservators in treatment practice, whether in a commercial enterprise or within an institutional environment, are constantly making decisions that will have an impact on the preservation of the collections in their care. These decisions are based on a variety of factors including personal skills, knowledge and experience, standards and guidelines both practical and ethical, organisational strategies and business plans, client's briefings and so on. Whatever the circumstances, there is a great weight on the shoulders of the practitioner to identify treatment solutions which take all of these factors into account.

The ability of a conservator to assess risks and tailor the treatment decision-making process to different circumstances can be developed and refined over time. How much of that acquired competence is shared with peers and developed further varies enormously from situation to situation. Sector specific publications, professional events, workshops and networking are all valid tools to share project outcomes, update a conservator's knowledge and refine the decision-making process.

THE TREATMENT ROUNDTABLE

The National Archives (TNA), as a leader in the UK archives sector and a member of the Independent Research Organisation Consortium (IROC) is committed to enhance conservation and preservation knowledge and support the development of professional conservation practice. It is within this framework that the Treatment Roundtable (TR) was conceived.

The Collection Care Department at TNA operates under a progressive agenda that places emphasis on innovation, experimentation and research. Following previous research into risk and value assessment undertaken at TNA, as well as considering the invaluable work by many other institutions to develop assessment methodologies and concepts, we incorporate risk and value assessment in our decision-making processes and prioritisation of projects.

In our view, a pre-requisite for a successful risk assessment is the incorporation of the intangible values associated with the object or collection, leading to a full risk and value assessment that will drive the conservator's treatment decisions. By working collaboratively among the team and with the conservation community, we are hoping to foster an open-minded attitude to decisions in conservation practice that removes the formalised approaches to some treatments, favouring instead an inquisitive, risk-informed and contextualised methodology.

The TR is the result of our current departmental strategy and was established at the end of 2019. It now runs in the form of a bi-monthly gathering hosting both TNA's conservators as well as invited external guests. With a team of conservators who routinely face challenging treatments and research questions, extending and exploring all benefits and opportunities of a collaborative approach to problem-solving was something that the Collection Care Department believed strongly in and a challenge that was taken on with enthusiasm.

The TR provides an opportunity to discuss objects requiring conservation and share the decision-making process with a diverse community of peers at different stages of their career. It is intended as a place where treatments, treatment approaches and the ethical discourse are debated, dissected, analysed, questioned and challenged. It is meant to give an opportunity to talk about new treatments and test their applicability from theory to practice. The TR is a space where skill development needs can be married with skill development opportunities, resulting in personal and professional growth. The forum can foster a much needed dialogue with conservation science, specifically analysing the impact that research is having on conservation practice and whether conservation research can be better informed to meet the priorities of the field.

VALUE ASSESSMENT

The concept of incorporating a Value Assessment as the foundation of the treatment decision-making tree, and of placing it at the core of any risk assessment, will underpin much of the discussions arising at the TR. This will achieve the primary goal of providing every conservation treatment project with a clear structure in order to prioritise and determine the level of investment in time and resources. The conservator will have a tool to aid in identifying research potential and how much collaboration within and outside the department is desirable. In addition, engagement opportunities can be recognised at the onset, to allow better planning.

The Value Assessment exercise will take into consideration tangible as well as intangible values. Tangible values include informational and material values whereas intangible values consider the cultural context, engagement possibilities and impact. A desired primary outcome is to train the conservator's mind-set to place equal value on both tangible and intangible elements in a project, so as to create risk assessments which are grounded in context. As a result, treatment decisions will balance risks against opportunities, moving beyond the object/collection as the sole focus of the intervention.

CASE STUDIES

Two very different projects were discussed during the first session of the TR, however both were framed within the methodology discussed above. A folded letter (HCA 32-1832-

73) written in iron gall ink with pages stuck onto each other and a potentially problematic loan request of two parchment objects were presented.

Prize Papers Project

The letter, dated 1748, is part of a collection containing the few surviving written examples of an Armenian dialect of this period and forms part of the 'Prize Papers Project'. The letter has research potential as a physical item and for conservation practice and as part of the whole collection to which it belongs. As part of our work for the Prize Papers Project, we record and preserve the materiality of the objects, while also working on enabling access to the information with the help of imaging technologies and our conservation scientists.

Once we identified the value of the object (tangible and intangible), we collectively performed a risk assessment exercise where the importance of merging treatment practice and research soon became apparent. The lively conversation that followed helped us to identify the major risks of a full interventive treatment measured against results of access provided by imaging technology. The latter emerged as our favoured approach. However, the more interventive treatment was followed up later on other letters of the same collection. For this project we would perform Multispectral imaging (MSI) with a Microbox X150 system, including a full-frame 150-megapixel colour camera (CMOS), two broadband LED illumination units (UV, VIS, IR) and software filter for multispectral analysis (instead of mechanical lens filters). The MSI techniques we later used included: visible reflected, visible transmitted (combined in a phase shift image) and UV luminescence.

Armenian letter HCA32-1832-73, recto before conservation.



The loan request

The second case study discussed was a loan request received from The Box in Plymouth, to mark the 400th anniversary of the Mayflower sailing from Plymouth to America, and consisting of two parchment pamphlets (E190/1016/16 and E190/1029/19).

The objects had severe distortions and tears preventing them from being safely exhibited and handled, therefore requiring treatment before travelling. The decision-making process focused on a general reflection on tailoring treatment decisions to specific aims, in this case a loan request.

Again we started with a Value Assessment, considering the 'added value' which a loan request might provide. By opening up access to TNA's collection through loans, we fulfil several aims identified by the Collection Care Department's key values and purposes which alone might off-set some of the risks involved in loaning vulnerable objects.

Some intangible risks which we also considered in our risk assessment included:

- Missed opportunities for engagement
- Reputational risks, as this object was in such poor condition that sending it in its current state or after minimal intervention would possibly damage TNA's reputation
- Time: a full treatment might require too long to be completed on time

Based on previous experience and research*, TNA's conservators would favour a low risk approach to treating distortions by 'dry conditioning'. Essentially the object is weighted down in position using boards or magnets and allowed to get into shape with time, relying on the humidity present in the environment. This approach is not sufficient when lack of time is a factor. We decided to allow twenty four hours to observe if a minimal approach might work and proceed to introduce controlled humidification as a next step. Ink migration could be monitored during treatment using bathophenanthroline indicator strips. Tears and losses would be repaired.

LOOKING AHEAD

To make sure that our approach has an impact reaching wider than the confines of our department, we will continue to experiment with different ways of sharing the outcomes of the TR. In future sessions we will invite conservators from other institutions or working independently in private practice as well as educators and researchers. We will use established as well as innovative channels to connect with other conservators-practitioners. We will invite comments and feedback from participants to inform themes and issues to bring to the table in future sessions.

If you want to know more about the work of the Collection Care department at the National Archive visit <https://www.nationalarchives.gov.uk/about/our-role/collection-care/>



Conservator Emilie Cloos introducing the Mayflower documents E190/1016/16 and E190/1029/19 to the Roundtable

* Bell, N., Larsen, R., Patten, K. et al. Assessing the condition of the Domesday Books from the visual to the molecular. *Herit Sci* 6, 50 (2018). <https://doi.org/10.1186/s40494-018-0215-0>



Work at Icon goes on despite the lockdown.
Icon's Membership Officer Isabelle Pintado posts another
batch of membership renewals in the postbox just outside her home

“Using CXD’s Ecophant™ recycled conservation grade archival boxes means we can make a sustainable green choice and make our money go further without losing quality.”

Sharon Connell, Conservator, Leeds University Library



Contemporary thinking and practice in conservation, and changing standards in the sector leaves the conservator with the challenge of balancing the needs of the object, cost and concerns for the environment.

Did you know green EcopHant™ millboard is made from the recycled waste from our grey Premier Duo™ boxboard? The image above shows the combining and use of both box styles.

As we move towards a more passive environmental management of our museum and archive storage, let us help you create the right solution.

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