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2018

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Welcome to ARC Magazine June 2018

Welcome to the June edition of ARC, which is a Science and Archives Issue. Here, we've truly sourced a great range.

This issue is part conference issue - Eleanor Gawne covering her attendance at the annual ARLIS/NA conference in New York, and a marathon Section centrefold on the inaugural STAG Conference in November 17.

Another theme of this issue is a celebration of women in STEM, which ties in with International Women's Day, held in March each year (when these articles were being created and making their way towards the editors' inbox). Sarah Broadhurst writes about the first woman curator of Herpetology at the Zoological Society of London, and Alice White about her work as the Wikimedian in Residence at Wellcome Library, with a focus on targeting under-represented areas of the online encyclopaedia.

Anne Barrett relates that 2018 has been designated the Year of Engineering. Accordingly, Kiara King, Celia Cassingham and Alison Kay provide excellent contributions towards this.

A rich and varied round-up comes in the form of articles about a Milling Revolution; the French Bureau des longitudes; work towards IICSA (the contemporary Independent Inquiry into Child Sexual Abuse), and Medicine and Health in Leeds 1760-1999.



Many thanks to all contributors, and for Anne Barrett's work coordinating the section content for this month.

I hope you enjoy the issue!

Matt Naylor
ARC Editor

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'Front cover: Brunel's SS Great Britain' - Portrait/Landscape view of the SS Great Britain on Bristol's Floating Harbour. Courtesy of the SS Great Britain Trust.

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opening lines



Back in the day, record keepers were predominantly male, and second or third sons with a private income tended to hold the prominent posts. I am very proud of the fact that a distant ancestor of mine, William Petyt, held the title of Keeper of the Records at the Tower of London in the late 17th century; and delighted that his portrait adorns the walls of the Executive Corridor at The National Archives in London.

The privilege of working with records across the spectrum - from their 'birth' to the rare, old, weird, wonderful, and highly sensitive archival pieces - has for many been a compensation for the low pay. But that privilege is a luxury that the majority can no longer afford, and a consequence is that the recordkeeping profession is both losing valuable talent and failing to attract the diversity of applicants we need to reflect accurately the communities we serve. The qualifications, skill sets and expertise that today's rapidly developing world expects of archivists, archive conservators, and records managers far exceed the traditions of basic paper filing, cataloguing, indexing, preserving/conserving and researching.

Last year, the ARA established a Pay Review Group to tackle some of the issues surrounding low pay in our highly-skilled profession head on. A cross section of the sector with a diversity of experience volunteered to drive our work, and we consulted widely for advice and opinions; I have found the dedication and commitment of the Group to achieving the common goal of quantifying what constitutes 'fair pay' overwhelming. As Chair, I am delighted to be able to introduce ARA members to the PRG through this column and share our key findings.

The Group identified sufficient evidence to rebut the antiquated notion that recordkeepers could, or should, be considered as glorified filing clerks. We believe that we have come up with more accurate professional comparators around which to generate data and on which to base compelling arguments for higher salary ranges. It goes without saying that the skill sets and expertise of a modern record keeper are unique. But we are not the only profession with unique skills; it is just that our salaries tend not to have kept pace with those of comparable 'others' in the marketplace.

The Group has also been made acutely aware that there is a great deal of support among colleagues for a pay review; and that the sector on the whole is in assertive mode. We want to bring external recruiters, hiring managers, and employers up to date and educate them on the value and worth of the professionals in our sector; the Hillsborough enquiry is a prime example, but think hard and you will see an example every other week in the media.

Our work environment is also changing. It is no great revelation that permanent jobs in the recordkeeping sector are decreasing and fixed-term positions are increasing. This is also having a demonstrably-negative impact on salaries. Many fixed-term posts are advertised at the ARA's 'newly qualified (NQ) salary recommendation', and some are even advertised below that recommendation. As it is increasingly common for NQs to have multiple fixed-term posts early in their working life, this equates to record keepers remaining on the NQ salary for many years, both vastly unfair and disproportionate with their experience and contribution.

The new salary recommendations we will set out in the next few months will hopefully start our sector on the journey to a fairer pay structure that reflects the invaluable contribution made by recordkeeping professionals. We will design the recommendations with simplicity in mind, so that all organisations employing - or considering employing - recordkeeping staff can use them, whether that organisation is large or small. We also intend the new recommended salary



Professional development news

structure to be a tool that record keepers themselves can use when negotiating pay with employers.

Additionally, the recommendations will not be limited to degree-qualified or professional posts, but will recognise the contribution that paraprofessionals and support staff make to the profession and the need to establish more routes into the sector. In essence, the recommendations will be based on the diversity of competencies, skills, experience and levels of responsibility, rather than job title, industry or sector.

I should add a word of realism: we cannot guarantee that all employers and recruiters will adopt our recommendations immediately and no recommendations can cover comprehensively every member's individual circumstances. We all also work in competitive market-places. But if we are to succeed over time in raising the bar for all, it is incumbent on us all to act as advocates in our own workplaces and when applying for or devising posts.

The publication of the new salary recommendations is on the horizon: we are aiming to get something to the ARA Board in June. Keep an eye out for further information in the coming weeks. In the meantime, the PRG remains keen to engage with members about what they want the new pay recommendations to cover: our work will remain 'in progress' and we will need your input and support for some time to come.

Please email your thoughts to payreviewgroup@archives.org.uk

Andrea Waterhouse
Chair, ARA Pay Review Group

This month's article offers guidance for those members looking to transfer the progress they made under the previous registration scheme to the professional development programme.

Members will recall that during 2016 and 2017, the ARA ran a series of articles in ARC reporting on the development of our new approach to CPD and professional recognition. During this period, we ensured members enrolled on the previous Registration Scheme had time to submit their portfolios for assessment before the scheme formerly closed last year.

At the time not all those enrolled on the registration scheme were actively involved in developing their portfolios. We therefore provided additional time for members to submit, as flexibility should be a key element of any such programme. The ARA's new professional development programme, the route to qualify as a Foundation member, Registered member or Fellow of the ARA, continues with this flexible approach. There are no time limits that members must meet; members should feel able to progress at a speed that recognises their own professional and personal commitments. Members also have the opportunity to use experience gained over a ten year period to demonstrate how they meet the standards required for the three levels of professional recognition; Foundation, Registered and Fellow.

Since the closure of the registration scheme, ARC has continued to

promote the new programme, helping both experienced members and new members think about their own professional development.

Transferring to the new programme

Members who had enrolled on the registration scheme, and who are now thinking of moving to the new programme, must first undertake the self-assessment process using the competency framework. This process is explained in CPD area of the ARA website, and will help members relate their experience with the criteria to qualify as a Registered member. Members have the option of selecting competencies that align with the experience they have already gained, or consider developing other competencies that will support their future career aspirations.

The next stage is to discuss the results of the self-assessment with a mentor. This could be a good time to reconnect with mentors, especially if it has been a while since the last communication. The ARA's updated mentor guidance, available from the website, will be essential reading for both parties.

Members are required to submit a competency portfolio containing eight competencies to qualify as a Registered member.

The competencies must be at a minimum of attainment levels 2-3, with no more than 3 competencies at level 2 and at least 2 competencies from each of the 3 areas.

The success of a submission depends on the strength of the evidence presented in the competency submissions. It is therefore vital that candidates use evidence that clearly demonstrates how they meet the required number of competencies and levels. Evidence already developed for use in the registration scheme's learning outcome forms can be used, but remember to ensure this content clearly demonstrates how the required competency levels have been met.

Further guidance and information is available from the ARA website or by contacting chris.sheridan@archives.org.uk

Programme enrolment

We now have over 40 members enrolled onto the ARA's professional development programme. The following members have recently enrolled:

Foundation: Suzanne Shouesmith, Nicola Lloyd and Rebecca Naylor

Registered: Carly Manson, Louise Piffero, Nicola Hubberstey, Chris Cassells, Julie Melrose and Kim Harsley.

Best wishes to all enrolled members with their progress towards ARA professional recognition.

Chris Sheridan

CPD Programme Manager

Newly registered members of the Archives and Records Association

Following the final assessment round of portfolios submitted to the assessors under the old-style Registration Scheme, the successful candidates are as follows:

Emma Anthony

Archivist, Wandsworth Heritage Service

Charlotte Booth

Heritage Officer, Robert Welch Designs Ltd

Fiona Bourne

Archives Operational Manager, Royal College of Nursing Library & Archive Service

Rebecca Bradley

Records Manager, Leeds City Council

Louise Bruton

Archivist, London Metropolitan Archives

Hannah Dale

Assistant Archivist, Waddesdon Manor Archives

Antoinette Doran

Archivist, The National Archives of Ireland

Megan Dunmall

Archivist and Records Manager, The Honourable Society of Lincoln's Inn

Sarah Gerrard

Records Manager, Hampshire County Council

Emma Hancox

Archivist, Archives and Collections, Library of Birmingham

Stephanie Hines

Archivist, Flintshire County Council

Laura Hobbs

Archivist, Royal Archives, Windsor Castle

Christopher Low

Senior Digital Collections Archivist, Centre for Buckinghamshire Studies

Sarah Joy Maddeaux

Archivist/Project Officer, Essex Record Office

Donna Maguire

Archivist and Records Manager to the Bishops' Conference of Scotland Archive

Ellen Murphy

Senior Archivist, Dublin City Library and Archive

Margherita Orlando

Archivist, Bank of England Archive

Frances Pattman

Archivist, King's College London Archives

Sarah Poutch

Archivist, University College Dublin Archives

Hannah Raeburn

Assistant Archivist, John Lewis Partnership

Rebecca Sheldon

Archivist, Derbyshire Record Office

Lianne Smith

Archives Services Manager, King's College London Archives

Amanda Sweet

Archivist, Anglesey Archives

Gemma Tougher

Information Compliance and Records Management Specialist, DP and FOI Office, University of Glasgow

Clare Walsh

Independent Archive Consultant

Kristina Watson

Archivist, Historic Environment Scotland

Zoë Wilcox

Curator of Contemporary Performance and Creative Arts, The British Library

Louise Williams

Archivist, Lothian Health Services Archive

Karyn Williamson

Company Archivist, Standard Life
Aberdeen plc

Judith Wright

Senior Archivist, Boots UK

Jennifer Zwierink

Archivist, Special Collections, University
of Leeds

**The committee would like to
congratulate the newly registered
members on their success.**

**We would also like to acknowledge the
efforts of the successful candidates'
mentors:**

Moira Rankin
Julie Courteney
Carol Parry
Jeanette Strickland
Mark Dorrington
Orna Somerville
Richard Wiltshire
Sarah Lewin
Alexandra Eveleigh
Liz Newman
Pam Clark
Laura Cotton
Bridget Hanley
Mary McHugh
Carol Quinn
Louise Ray
Eleanor Gawne
Kate Manning
Mike Rogers
Jim Ranahan
Victoria Cranna
Claire Harrington
Victoria Peters
Eleanor Roberts
Andrew Nicholl
Elizabeth Wells
Clare Paterson
Alison Lindsay
Sophie Clapp
Eleanor Roberts

The committee would like to thank them
for the time and support they have given
to their candidates.

For enquiries about the ARA's new
Professional Development Programme,
please contact Chris Sheridan at chris.sheridan@archives.org.uk.

Richard Wragg

Communications Officer, Registration
Sub-committee

The 2018 ARA Conference 29-31 August - Glasgow

Third keynote speaker announced – Martyn Sibley

More on this year's venue: Grand Central Hotel, Glasgow

Support a new professional: contribute to a bursary at our mydonate page
Special tour of Glasgow School of Art temporary repository: spaces limited

Well over 100 people have now already registered for this year's Conference, meaning that we are on course to break last year's record attendance in Manchester. Sign up now and be part of the main gathering of the records profession in the UK and Ireland this year.

We have already announced our first two keynote speakers: Michelle Caswell of the University of California, Los Angeles and Professor Gus John, leading thinkers and advocates for strengthening the voice of the marginalised and victims of injustice.

Third keynote speaker announced

In keeping with this year's theme of 'People Make Records', we are delighted to announce the third Conference keynote speaker, Martyn Sibley.



Martyn is one of the UK's most prominent activists and advocates for the disabled. Describing himself as '*...a regular guy who happens to have a disability called Spinal Muscular Atrophy (SMA)*' - which means that he cannot walk, lift anything heavier than a book or shower himself - Martyn is nonetheless an entrepreneur, an author and generally dedicated to pushing the boundaries wherever and whenever he finds them.

A tireless optimist and positive thinker, Martyn runs Disability Horizons: check out the extraordinary range of activities and issues he addresses at disabilityhorizons.com. He is also the author of the inspiring book, '*Everything is Possible*', which details his global travels to places like Mexico, Catalonia, what he experienced and how he overcame barriers: it is both amusing and revealing in equal measure. He also happens to have a degree in economics and a masters in marketing.

For anyone seeking to better understand and serve the disabled community, which should be all of us, Martyn is a 'must-hear' at this year's Conference,

and we feel fortunate and privileged that he has agreed to join us. He will pepper us with ideas on how to rethink our approach to disability and how we engage disabled people as individuals and as a community, addressing issues such as accessibility, creativity and inclusion. Look out for more details in the next edition of ARC magazine.

Grand Central Hotel, Glasgow

Our venue this year is a living historical archive. The Grand Central Hotel (also known by its original name, the Central Hotel), is slap-bang in the centre of the city and sits just across from the platforms at the main Glasgow Central railway station. (So, if you are coming to Conference by train this year, dispel any notion of a hike to the venue, dragging your bags in the rain, or having to look for a bus or taxi).



In its pre and post-war heyday, the Central was one of Glasgow's most prestigious hotels, hosting residents like Frank Sinatra, Laurel & Hardy (twice) and Winston Churchill. Originally designed by the revivalist Scottish architect Sir Robert Rowand Anderson, in Queen Anne style, the hotel was completed in 1883. It was extended along with the railway station between 1901 and 1906, this time by another of Scotland's most remarkable architects, James Miller, whose legacy to Glasgow's wider architectural heritage is perhaps unmatched.

The Central is perhaps most famous for being the place that received the world's first long-distance television pictures, transmitted from London on 24 May 1927 by the renowned Scottish engineer and father of television, John Logie Baird.

In June 2009, the Principal Hayley Group acquired the Central and refurbished it with great sympathy for its art-deco heritage. It is protected as a category A listed building, and the corridors feature numerous photographs of the hotel's past and its (very many) notable guests.

Bursaries

Thanks to the generosity of ARA members, we have already hit the target for one crowd-funded bursary for a new professional to attend Conference this year. Sincere thanks to

each and every person who made a donation. As announced last time, we are now hoping to offer a second bursary. So, if you were thinking about donating but have not done so yet, now's your chance. As ARC goes to press, we are already around half way to a second bursary. It's simple to donate: just visit our mydonate webpage at: <https://mydonate.bt.com/donation/v4/chooseAmount.html?event=456848> and follow the instructions.

A special side event – Glasgow School of Art Archives and Collections

As mentioned last time, we are working with the internationally-renowned Glasgow School of Art (GSA) Archives and Collections to organise a bespoke tour on the afternoon of 30 August of the school's archives and collections for around two hours. These are currently housed in a temporary facility in the Whisky Bond while the school's renowned Rennie Mackintosh building in central Glasgow is restored following the devastating fire in 2014 that destroyed, among other things, the school's iconic library (though not its archive). To learn more about the collection, visit: <http://www.gsaarchives.net/>



For anyone interested in rescue and recovery of records and the practical challenges of emergency evacuation and service restoration, this is a most valuable opportunity. We will be hosted by GSA's outstanding archives and collections team. Space limitations mean that we can accommodate a maximum of 15 people on this tour. Contact: conference@archives.org.uk to sign up. If you are one of the hundred or so who registered to attend Conference as 'early-birds', you will have priority.

Reminder

Visit <http://conference.archives.org.uk/> for full details of this year's programme, venue, how to register to attend, and much more.

John Chambers

CEO, ARA

Collecting matters

In her keynote paper at the Science and Technology Archives Group (STAG) conference last November, Professor Michele Dougherty spoke about the 635GB of data transmitted from the Cassini mission to Saturn (1997-2017). Both the unprocessed and the validated, calibrated data are being preserved as a permanent research resource.

It is a reminder that although science and technology archives are often identified as being at risk, it could be argued that records of research in these areas are being better kept than ever. The reason for this is Research Data Management (RDM).

Most major funders now require grant-holders to ensure the data supporting their research is preserved and made accessible. Potentially RDM will assist those who are seeking to improve the capture of science and technology archives. Yet currently RDM is rarely explicitly archival.

Retention of material is viewed in terms of its importance for current research use; and guidance encompasses only original research data. In fact, those studying the processes of scientific and technological research know that the fuller contextual information is often needed to analyse the raw (and processed) data properly.

Stanley Milgram is well-known for experiments that appeared to show how easily humans can be directed into becoming torturers. The findings, he suggested, showed that many of us could have become concentration camp guards with few qualms.

However, in 'Fifty Shades of Obey' (New Scientist, 17 March 2018) the psychologist Gina Perry challenges this. Returning to the extensive original records of Milgram's work reveals how far he went to manipulate the results, which actually support a more hopeful picture of humanity.

This is a powerful example of the importance of retaining archives alongside the research data. They provide the tools needed to revisit research, identify flaws in methodology and criticise findings.

Tim Powell

The National Archives (UK)

Report to The ARA - 13th March 2018

The author attended the ARLIS/NA (Art Libraries Society of North America) annual conference in New York City, from 25 February-1 March 2018. The theme of the conference was 'Out of Bounds', and it sought to address topical issues in, and expand the boundaries of, art librarianship.

I had never attended a conference on this scale before (there were approximately 900 delegates, mainly from North America but with several international delegates), and this made the occasion incredibly stimulating. The programme was packed with concurrent sessions as well as workshops, an exhibitors' hall, poster exhibition, special events and receptions. The sessions were aimed at archivists and librarians who manage all kinds of art and design collections, mostly in the higher education sector and in museums. I was particularly interested to learn more about collections development and outreach, so I mainly attended sessions that were relevant to my work. Also, the Architectural Association Library is hosting the ARLIS/UK & Ireland Annual Conference in July 2018 for the first time, and I was intrigued to see what sessions worked; although it was on a much bigger scale than the UK conference!

In the session on 'Reaching out and showing off: exhibitions and collections in academic libraries', it was useful to learn about the plans to build a curatorial fellowship at the Hamon Arts Library in order to increase usage of the library; in another session, Emilee Matthews spoke about several outreach initiatives, including having a Faculty champion and cross-disciplinary working to promote collections. Two other



Bookshelves in Cooper Union Library; ©Katie Blumenkrantz, courtesy of The Cooper Union Library



Leaflets from delegates' conference pack, ARLIS/NA Conference, New York City (25th February - 1st March 2018) © Eleanor Gawne

librarians discussed a pop up library cart that they used to bring collections to users, which they would set up outside classrooms, which helped to increase the library's visibility within the school.

In another session, 'Strategic Library Exhibitions: Engagement, Outreach, and Innovation', speakers discussed planning and producing various kinds of exhibitions - Megan Lotts (Rutgers University) spoke about producing exhibitions on a shoestring, whilst Nancy Hampton (Xavier University Louisiana) spoke about partnering with the History department and holding pop up exhibitions and maker spaces. Another speaker, at the Billy Ireland Cartoon Library, explained how she went about applying an important comic collection to the curriculum in her university in order to encourage stakeholder engagement.

One of the most useful sessions was titled 'Different by design: how art librarians are undertaking user experience'. Five speakers gave presentations on UX (user experience) work designing websites and tools. Phoebe Stein and David Pemberton (SVA Library) spoke about their website and the research methods they used in its design and implementation, including a MAF Interaction design class to inform the design. Another speaker from the Bard Graduate Centre spoke about using open source software to create a customised discovery system.

The session titled 'Thinking outside the (library) box' consisted of a panel of speakers from AfroCROWD, Art+Feminism, Black Lunch Table, Interference Archive, and Radical Reference, who spoke about how librarians and archivists can "de-centre" the institution to create

active sites of resistance and activism. They spoke about how these projects promote access to information, build community partnerships and manage collections. The speakers discussed tactics and strategies to use in local contexts such as hosting other institutions to help build a community, and framing the sessions as information literacy in academic libraries.

One of the most practical sessions was titled 'Big changes, big moves, smaller footprints' where speakers discussed ways to better manage collections using new collection analysis strategies and tools. Jeffrey Carroll (Columbia University) spoke about initiatives for sharing resources, including a consortium for offsite storage, collaborative collecting, access to a closed ILL system and coordinated electronic access. Another speaker gave a presentation on data visualisation as a collections management tool using Tableau software. Steven Kowalik (Hunter College) talked about a large de-acquisition project; he explained that one benefit is increased knowledge about the strengths and weaknesses in the collection, allowing revisions of the acquisition policy.

Another session examined the application, impact and perception of social media in art libraries. Whilst speakers spoke about all kinds of social media, Instagram was considered to be the popular choice because of its interaction with audiences and its visual nature; it was pointed out that what works in one medium may not be suitable for others. Several speakers discussed the importance of tracking and measuring social media and establishing policies and guidelines. Anna Simon (Kohler Art Library) linked her library development plans to a social media policy. Betsey Brand discussed how art



Exhibition of Peter Cooper family papers, Cooper Union Library;
©Katie Blumenkrantz, courtesy of The Cooper Union Library



Foundation Building, Cooper Union, New York City; © David Brady



Convocation at ARLIS/NA Conference, Cathedral of St John the Divine,
New York City, 28th February 2018; © Eleanor Gawne

historians use social media, and the Getty's aim not to use social media to entice people in but rather to tell them about what is digitised. Another speaker discussed alumni as a targeted audience with her #rarebookfriday initiative.

In the session 'A Value Proposition: Understanding Distinctive, Special, and Archival Collections' speakers discussed building and providing access to resources, and perceptions of collection value. Kiana Jones spoke about provenance research in a rare book collection that enables access, assessment and promotes teaching and learning. Lauren Gottleib-Miller (Menil Collection Library) spoke about an underused Black Americana collection with potent objects relevant to contemporary audiences. Mar Gonzalez Palacios (CCA) spoke about the website which blurs lines between what the CCA produces and collects, and the challenges of displaying the hierarchical nature of archives.

In addition to the sessions, the social events and tours gave me a greater understanding of the rich cultural diversity of New York. Meeting and interacting with delegates also gave me the chance to discover best practice and developments in other libraries and archives, and to build relationships with fellow professionals. I was also pleased to attend the ARLIS Architecture Section meeting which focused on information competencies for design students.

I would like to thank the ARA, John Campbell Trust, Samuel H. Kress Foundation, and the AA for their generous support that allowed me to attend the conference.

Eleanor Gawne

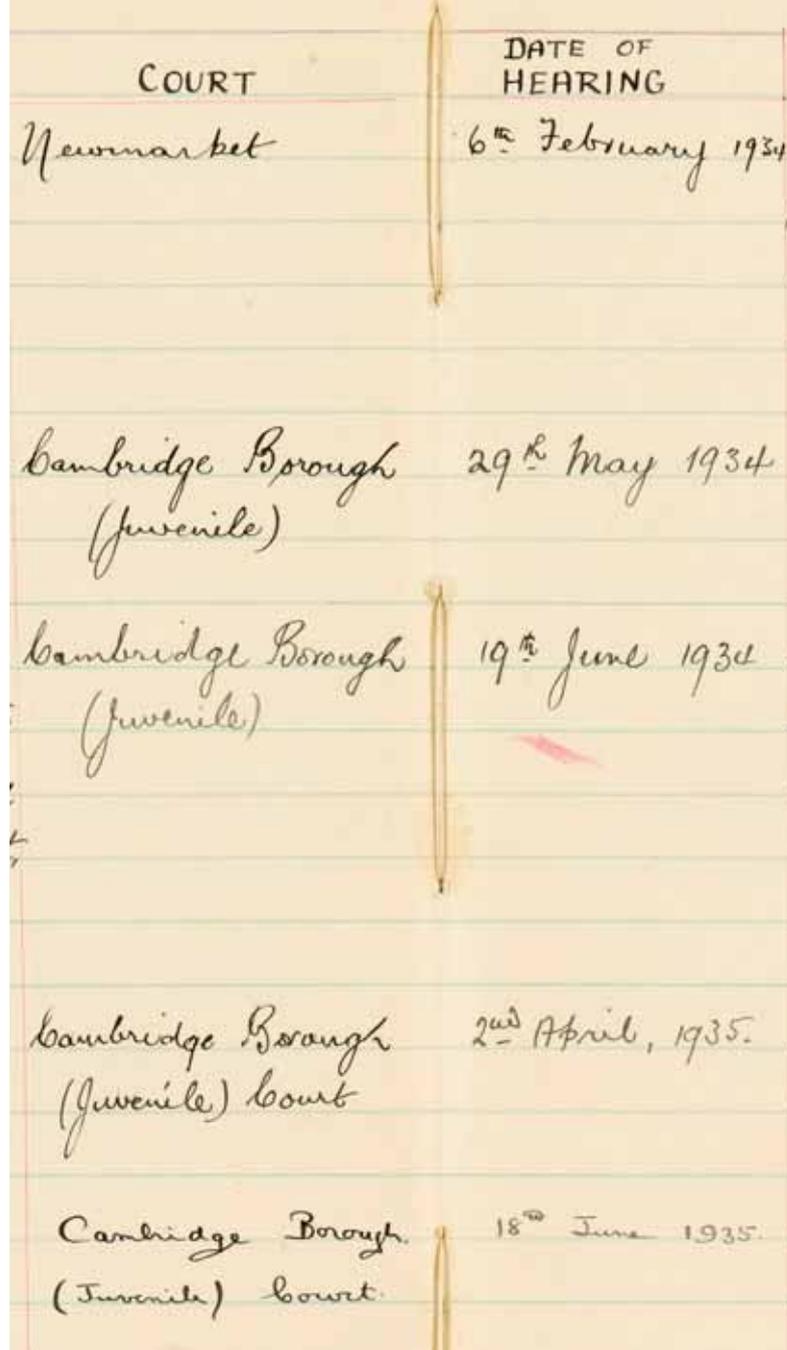
Architectural Association School of Architecture

Sincere thanks to Claire Gunning and Carol Salomon for hosting my visit.

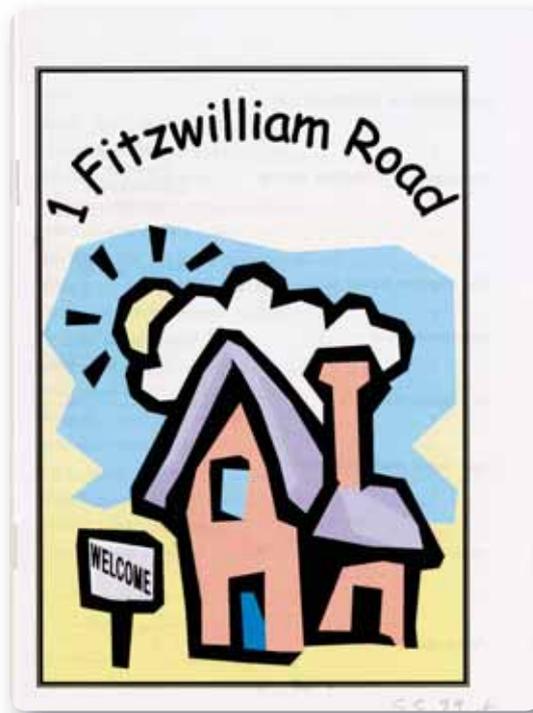
The IICSA Project at Cambridgeshire Archives

The Independent Inquiry into Child Sexual Abuse (IICSA) was announced by Home Secretary Theresa May on 7 July 2014, principally in response to child sexual abuse revelations concerning Jimmy Savile. On 2 July 2015 Justice Lowell Goddard, then Chair of the Inquiry, issued a circular to local authority chief executives relating to the retention of documents and the types of information to be retained. The list of potentially relevant information contained in Appendix A of the circular is extensive and covers most local authority records relating to children in care. It was this circular that instigated the IICSA Project at Cambridgeshire Archives Service (CAS).

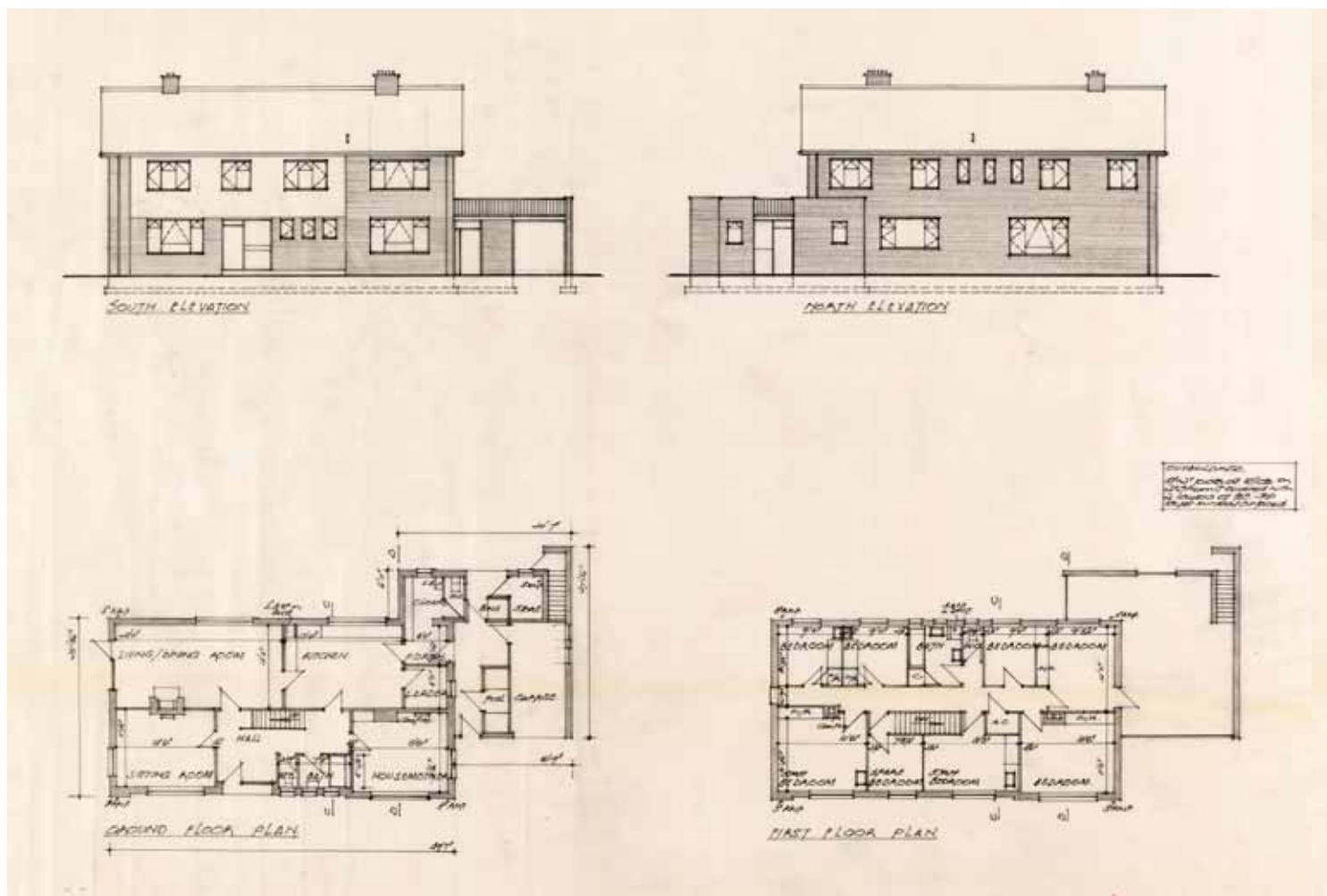
To ensure the Council's compliance with the Inquiry, a programme to systematically survey, appraise and catalogue relevant records held by archives and records management was launched in August 2015. At this time CAS held the minutes of local authority committees responsible for children in care (i.e. public assistance, children and social services), the records of a number of individual homes and some relevant departmental records, primarily deriving from the county clerk's office. Post-



C118/005 - Excerpt from a 1930s Children and Young Persons register.



C118/004 - Leaflet from the children's home at No. 1 Fitzwilliam Road, Cambridge, early 2000s



Architects' Plans/Bundle.S56c - Plan of the No.5 Queen Street Close Children's Home, March, 1966

1974 social services case files, some county clerk file sequences and the records of several recently closed homes were held by records management.

A crucial first step was to determine the scope of the project. Given that most relevant poor law and court records had already been catalogued, the primary area of work would be 20th century local authority records. The Local Government Act 1929 dissolved the Boards of Guardians and passed responsibility for poor relief (including looked-after children) to newly constituted public assistance committees of county boroughs and councils. In 1930 the new system saw the first county-run children's homes and this year was selected as an ideal starting point for the project.

Setting an end date proved more difficult and was dependent on the type of records being catalogued. For meeting minutes, agendas and reports, cataloguing was carried out on Social Services Committee volumes up to the early 2000s. For departmental records, 1974, the year in which the current Cambridgeshire County Council was

established, appeared a natural choice as the vast majority of records created after this point were held by records management.

For the records of individual children's homes, a more proactive approach was adopted. At the commencement of the project, the most recent children's homes records held by archives dated from the late 1990s. With this in mind it was agreed with records management that the records of all defunct homes should be appraised and transferred to archives as part of the project. Records not selected for permanent preservation were returned to records management to be held until the end of the Inquiry or, if longer, the end of their specified retention periods.

The survey of records began with a systematic search of potentially relevant CAS holdings using the Calm accession and catalogue modules, and paper depositor files, and then proceeded to a review of potentially relevant material held on records management systems. One of the most interesting aspects of the survey was the remarkable extent to which county clerk's files formed the

backbone of the departmental record sequences, helping to fill gaps in institutional record series and providing greater context to matters noted in committee minutes. Of the five pre-1974 county councils documented during the project, only one had a substantial series of records created by the children's officer and their staff. For the remaining four authorities, most IICSA relevant files were held by the county clerk including small numbers of case files.

The cataloguing phase of the project initially focused on the records of individual children's homes and related institutions. A new super-collection catalogue was created for this purpose and organised roughly chronologically by the date the home opened. Thirty children's homes (including remand homes, disability units and an approved school) were added to this collection, comprised of over one thousand individual records. Records of relevant committees and departments were catalogued into their respective county council collections, amounting to approximately 950 individual records:

- Cambridgeshire CC 1889-1965;
- Huntingdonshire CC 1889-1965;
- Isle of Ely CC 1889-1956;
- Cambridgeshire and Isle of Ely CC 1965-1974;
- Huntingdon and Peterborough CC 1965-1974;
- Cambridgeshire CC, 1974-current.

Access restrictions were put in place for all records containing sensitive personal information, with access procedures agreed with the Council's information governance team.

The most challenging aspect of the project involved drafting administrative histories for individual children's homes, including homes for which no institutional records are known to survive. Committee minutes and departmental records proved the most useful sources of information though coverage of individual homes varied widely in level of detail and consistency. Remand homes and smaller children's homes proved some of the most difficult institutions to document. For each home, dates of operation, type of home and capacity, administering committee(s), a short history and list of related records were recorded. Even for homes where no institutional records survive an accurate picture of operations and occupants can often be gleaned from departmental and committee series.

The IICSA Project was completed in January 2018. As a result of the project CAS has been able to respond with greater efficiency to both internal and external children in care queries while demonstrating a commitment to the ongoing work of the Inquiry.

Kevin Roberts

Cambridgeshire Archives Service

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Records of a milling revolution

Nathanael Hodge describes the work of the Mills Archive and the changing technological heritage of milling.

The Mills Archive preserves and provides access to information and records about traditional and contemporary mills and milling. It was set up in response to an expressed need to preserve and where possible integrate the various threatened sources of information on the windmills and watermills of the UK and the rest of the world.

Until the 1870s, all bread in Britain was made from flour ground between stones. Sometimes called the 'sudden death' method of milling, grinding grain between millstones results in wholemeal flour - containing a mixture of endosperm, germ and bran, the three components of a grain of wheat.

In the late 19th century, the development of new technologies completely changed the milling industry, enabling both a great increase in the size and efficiency of mills, and leading to the rise of white bread. The invention of central importance was the roller mill. Instead of being ground to flour in one go, the grain would first pass through 'break' rollers, in which it would be broken apart into fragments of varying sizes. Sieves would separate out the smallest fragments, ready for the next stage, while larger fragments (semolina) were sent back to the 'break' rolls to be broken down further. Further sieving, or separation, by passing air currents through falling flour would remove the bran, after which the flour was ground down further through a series of 'reduction' rollers.

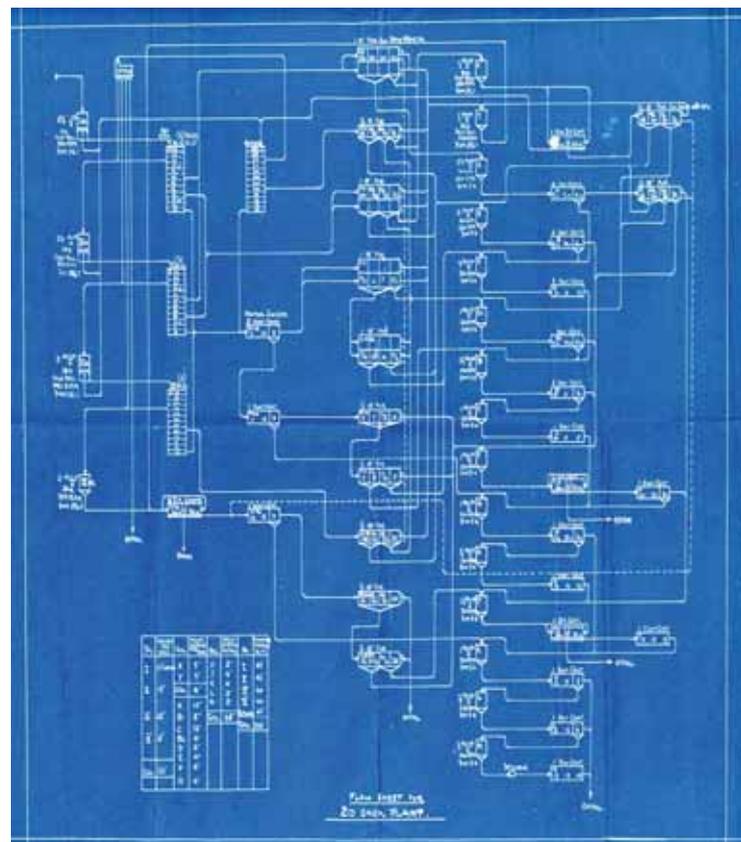


The Sun Flour Mills, Bromley by Bow, c 1910 (CORN-11-01)

Flow sheet for the Sun Flour Mills (CORN-13)

The development and rapid adoption of this new technology took the job of building flour mills away from the traditional millwright, craftsmen working in wood to build structures to harness wind and water power, and gave it to the new milling engineers. Flow charts like the one shown here became essential, each one a map of the precise details of the milling system at a particular mill. This one is from the Sun Flour Mills, Bromley-by-Bow, and dates from around 1900, at which time the mill was producing twenty sacks of flour an hour. The mill was to run until 1965 when it was destroyed in an explosion.

All our flour today is still ground in the same way, although electricity has taken over from steam power, and computer control has reduced the number of workers needed to a fraction of what it was. While little of the original machinery built by the pioneers of this new technology remains, the records, in the form of photos, flow sheets, blueprints and sales catalogues, have in many cases survived, and the Mills Archive is acquiring an increasing number of them to add to our rich collections on traditional wind and water mills.



Nathanael Hodge

ARC Magazine 2018 Science and Archives Issue

2018 has been designated the Year of Engineering, in a governmental push to get more people, and particularly young people, to take up engineering and technical subjects.

This issue celebrates engineering and technical archives in a varied way. There are related articles, including engineers and cake, an article on Bureau des longitudes archives from Paris, and a report on the STAG (Science and Technology Archives Group) inaugural conference. Space also features heavily, with Collecting Space (looking at current space programmes such as the Cassini Mission to Saturn and resulting data) and also science fiction and film-makers' use of archives of science. A select blog discusses the value of blogs and podcasts in promoting archives and their projects, and in capturing data from early career scientists - or persuading them to capture their own!

But not only engineering is celebrated: zoological women and medical archives are, too. A big thank you to all who have contributed articles and for their contagious enthusiasm for science and archives.

Anne Barrett

The French *Bureau des longitudes* and its archives

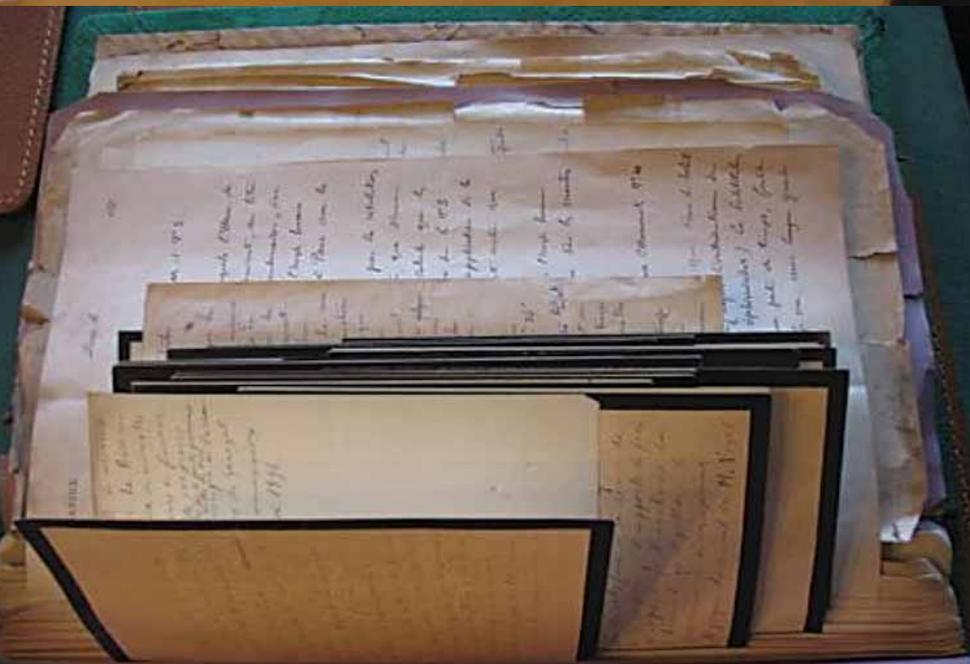
Introduction to the creation and early work of the Bureau des longitudes

Created on the 25th June 1795 by Abbot Henri Jean-Baptiste Grégoire, the French *Bureau des longitudes* could be seen, simply by its name, as a mere copy of the British Board of Longitude whose existence covered the period 1714-1828. However, the regular meetings (two times each *décadi* or the tenth jour of the Revolutionary week, and then each week), the fixed composition of its members and the scientific and technical expertise supplied to the French government, show us that the Bureau des longitudes rather functioned as a “small astronomical academy”.

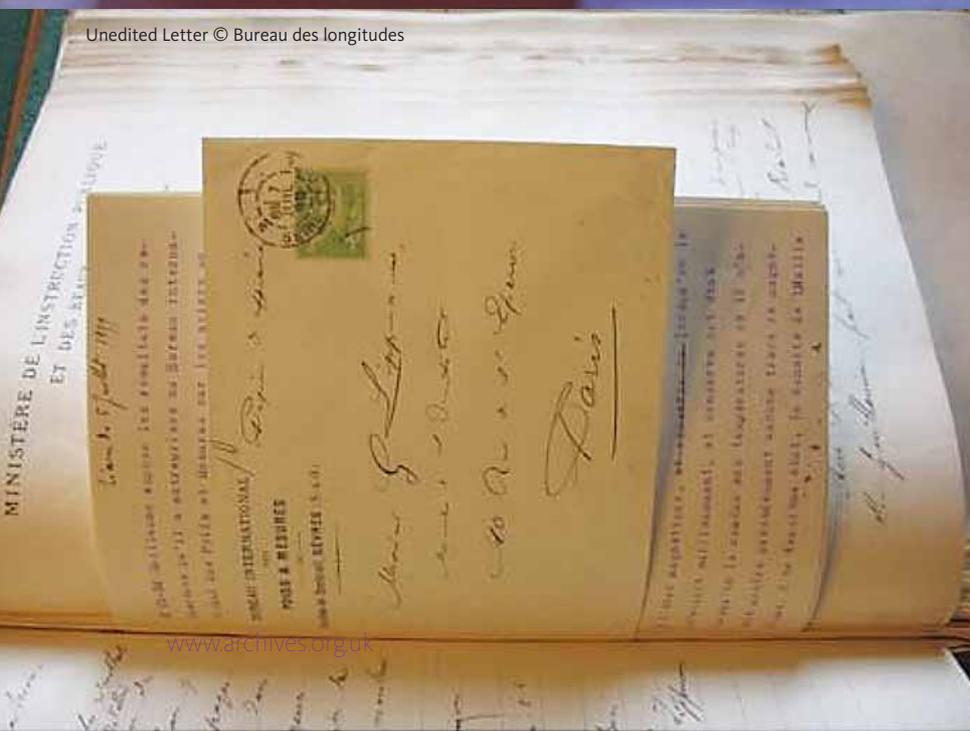
At its creation, the Bureau des longitudes was composed of well-known geometers such as Pierre-Simon Laplace and Joseph-Louis Lagrange; named astronomers such as Jérôme de Lalande, “old navigators” such as Louis Antoine de Bougainville; the geographer Nicolas Buache and the “artist” or precision instrument maker Noël-Simon Caroché. The Bureau was obliged to give public lessons in astronomy and, from 1795 to 1854, it ran the administration of the Parisian Observatory (and of the observatory of the *Ecole militaire*). From 1795, the Bureau was also assigned the publication of the *Connaissance des temps* and of an *Annuaire* to spread the republican calendar and the new system of weight and measurements. The subject of theoretical mathematics and of the development of instrumentation were robust subjects in the Bureau des longitudes and, from 1854, Navy and Artillery officers had reserved places.



Manuscript by F. Arago © Bureau des longitudes



Minutes before digitization © Bureau des longitudes



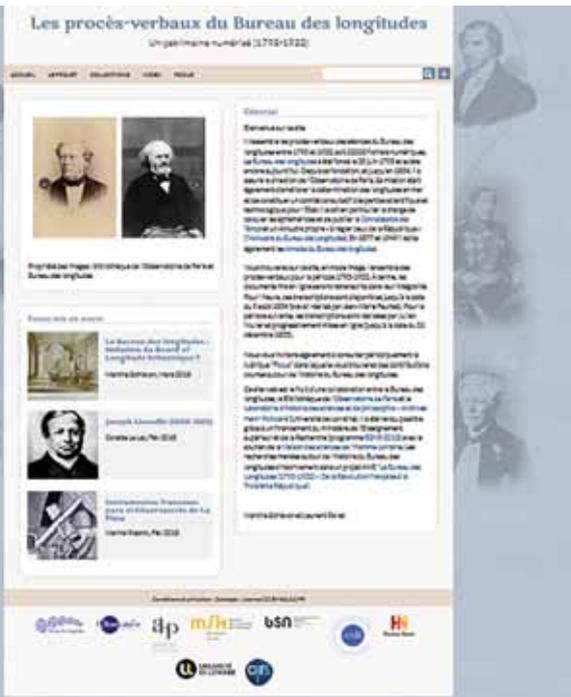
Unedited Letter © Bureau des longitudes



Détermination des longitudes des méridiens fondamentaux-Station de Honolulu, G. Fleuriais, Octobre - Novembre 1868, copyright Martina Schiavon

The Bureau's survival and its archives: the minutes and their history

The Bureau des longitudes still exists, in Paris, at the quai de Conti, in the outbuilding of the *Institut de France*. During its 223 years of existence, it has known many transformations, while maintaining its functions as an internationally-represented significant scientific and technological institution. All Bureau activities can be studied within the minutes (*procès-verbaux*) of its meetings, forming an archival corpus of about 22,000 documents, originally bound into 28 volumes. The minutes contain a large set of interesting manuscripts (typewritten from the early twentieth century) written by the secretaries of the Bureau. Various collaborative projects have been engaged to preserve the minutes of the Bureau and to write a comprehensive history of this small academy in the long term and in an international context. One important question the minutes could answer is



Website: bdl.ahp-numerique.fr/. Copyright Martina Schiavon.

how, starting from a navigational problem, the Bureau came to embrace many branches of science and their application, from astronomy, metrology, geodesy and celestial mechanics to earth sciences and, more recently, space science.

Preservation of the minutes

The first step to preserve the minutes of the Bureau des longitudes started with a *pré-opération LongiNumEt* (November 2012 - November 2013), scientifically supervised by Martina Schiavon. A team from *Maison des Sciences de l’Homme Lorraine*, a collaborative research school, the CNRS and of the *Université de Lorraine*, the *LongiNumEt* project created a network of international researchers whose interests focused on the history of the Bureau in an international context. The *LongiNumEt* team also made a pre-inventory of the minutes between 1795-1932. This helped to successfully apply for a digitisation fund of the Ministry of the *Enseignement supérieur et de la Recherche*: the “*Bibliothèque Scientifique numérique* or *BSN5 2013*”.

Directed by Nicole Capitaine, the **BSN5 2013** (January 2014, 18 months), allowed the digitisation of the whole minutes, from the creation of the Bureau until 1932 - the date when minutes were freely available - and the creation of a dedicated website: *Les procès-verbaux du Bureau des longitudes (1795-1932). Un patrimoine numérisé*: (bdl.ahp-numerique.fr/)

The site is continued by the Bureau, whose members are interested in the preservation, the scientific and historical exploitation and value of their archives.

Co-operation in digitisation

The **BSN5 2013** was made in cooperation with:

- The Parisian Observatory (Library), specialising in the digitisation of astronomical papers, which assured organisation of the different steps of digitisation (restoration of the documents, realization of an enriched proofing file etc.);
- The Archives Henri Poincaré whose mission was the data processing and the on-line edition of the minutes and their validation; and
- The *Maison des Sciences de l’Homme Lorraine*.

At the same time, Martina Schiavon scientifically supervised an *opération BDL/1795-1932* (2014-2016).

International workshop showing past and present achievements

This project made possible the organisation of a one-day international workshop held in Nancy in November 2014, which focused on the activities of precision instrument makers and military and civil officers who were members of the Bureau. The workshop also showed the importance of data collected by the Bureau, which commissioned many voyages and expeditions all over the world, for the historical comprehension of climatic changes and glaciology.

Second grant for a further research project: Le Bureau des longitudes (1795-1932): de la Révolution française à la Troisième République (September 2016 - 2020)

Another achievement of this project was the application for a more important fund, obtained in September 2016: the **ANR BDL 1795-1932, Le Bureau des longitudes (1795-1932): de la Révolution française à la Troisième République (September 2016-2020)**.

Coordinated by Martina Schiavon within a steering committee composed by Nicole Capitaine and Laurent Rollet, the ANR BDL 1795-1932 brings together, in a close partnership with the Bureau des longitudes, an international team of 34 scientists, historians of science and technology, archivists, museum curators and specialists in digitisation. It proposes a long-term study on the history of the Bureau des longitudes in its national and international context, founding its studies on the minutes of its meetings.

Further discovery of archives

On July 2017, Isabelle Maurin-Joffre, director of the *Archives de l’Académie des sciences*, discovered approximately 30 linear metres of the Bureau des longitudes’ papers in a basement of the *Institut de France* (see example on page17): passive and active correspondence, observation logs, inventories of

instruments, calculators' career files, and budget documents composed this incredible treasure. These archives are essential to complete the information contained in the minutes of the Bureau des longitudes; however, they are not yet available to the public, being in pre-inventory under the guide of Nicole Capitaine. Five researchers are carrying out the pre-inventory: Guy Boistel and Colette Le Lay, Martina Schiavon and Laurent Rollet and Julien Muller. The Bureau des Longitudes and its current research teams do not give up its history easily!

Martina Schiavon

Université de Lorraine

martina.schiavon@univ-lorraine.fr

Shipshape and Bristol Fashion

Brunel's SS Great Britain is an independent museum and visitor attraction on the harbourside in Bristol. The site includes the SS Great Britain, Brunel's second ship and the world's first ocean-going iron hulled and screw propelled ship, the Dockyard Museum, which details the working life and salvage of the ship, and (new this March) the Being Brunel Museum, dedicated to the life and works of Isambard Kingdom Brunel. The collections are housed within the Brunel Institute, which helps fulfil the Trust's charitable and educational aims.

The SS Great Britain was launched on the 19 July 1843 and now sits in the same dry dock where she was built, having returned on the 19 July 1970. At

ENVIRONMENTAL MONITOR and LOGGER



The device is a handheld environmental monitor with a large LCD screen showing '229 UV µW/Lumen', '101 mW/M²', and '442 Lux'. It also displays '10:42' and '10-10-2011'. The screen has a yellow background. Below the screen are several buttons labeled 'RH', 'Vis', 'UV', 'T', and 'Set'.

Humidity
Light
Ultra-violet
Temperature
Dewpoint

The new ELSEC type 765 enables the measurement of all the conditions that damage valuable objects.

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'Brunel's SS Great Britain' - Portrait/
Landscape view of the SS Great Britain on Bristol's Floating Harbour.
Courtesy of the SS Great Britain Trust.



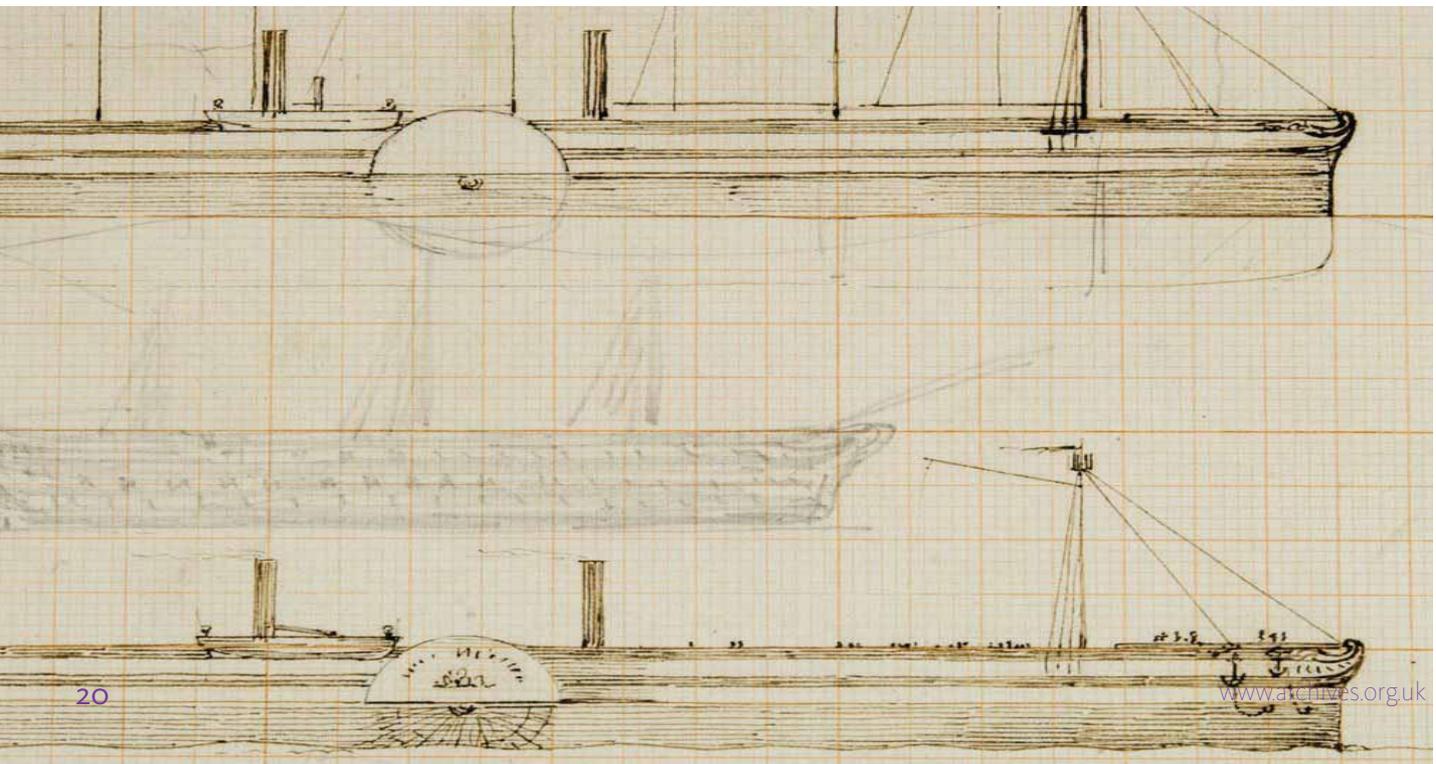
'ssGB_BeingBrunel Interiors_01' - Interior shot of the new Being Brunel Museum. The cases are based on those used in the 1851 Great Exhibition, with Brunel's Head made by Pinewood Studios. Courtesy of the SS Great Britain Trust.

the time of her return, ships were still being built in Bristol, the last (the MV *Miranda Guinness*) launched in 1976. At first she was cared for by enthusiasts who treated her as a 'living ship' – painting, stripping and repainting the hull. This led to damage to her historic hull, as each year more and more was stripped away. In 1996, with a grant from the newly formed Heritage Lottery Fund, the ship entered a new phase of her life as a museum, with the employment of a professional

curator. It is from this time that the collections began to be professionally cared for - the first object to be catalogued was '1996.001 - SS Great Britain'.

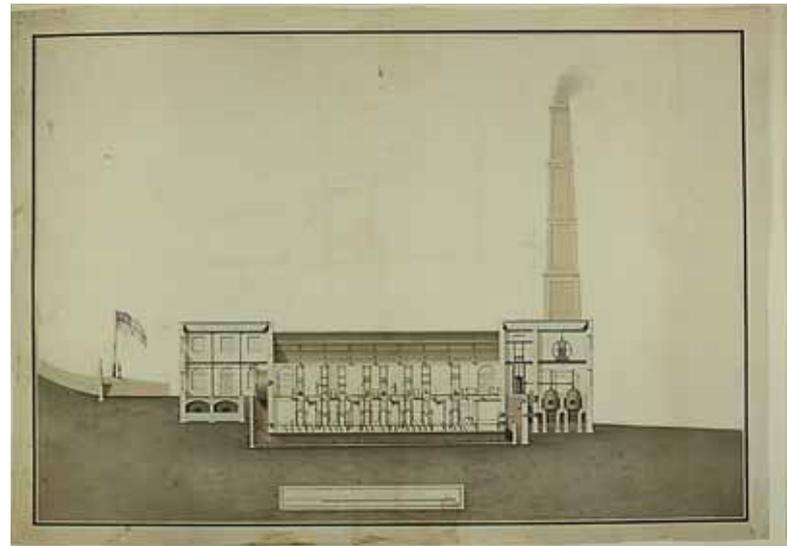
At the time of writing, the collections cared for by the SS Great Britain Trust consist of an estimated 65,000 objects. The collections falls into three broad categories: the history of the SS Great Britain; maritime history; and the life and works of Isambard

DM162.8.1.1. Large Sketchbook 1852-1854, page 18 - Details from Brunel's sketchbook 1852-54, showing sketches of Brunel's third ship, the *ss Great Eastern*, and comparing the size to a Royal Navy 131 gun ship of the line. By Courtesy of the Brunel Institute – a collaboration of the *ss Great Britain Trust* and the University of Bristol.



Kingdom Brunel. Within this there are a number of named collections which have been donated to the Trust - such as the David MacGregor ship plan collection, and the Ewan Corlett archive. The Trust continues to collect via donations and purchases.

Within the collections, which were designated by Arts Council England in 2014 in recognition of their national importance, is the University of Bristol Brunel Collection, on long term loan. The core of this collection was donated to the University by Lady Celia Nobel, Brunel's grand-daughter and biographer, in 1950. The collection includes letterbooks, sketchbooks, calculation books, documents and drawing instruments relating to Isambard Kingdom Brunel and his wider family, as well as the early archive of the Clifton Suspension Bridge Trust. More recently this was complemented by SS Great Britain Trust's acquisition of the Clive Richards Brunel Collection, through the Cultural Gifts Scheme. This collection, amassed over several years by a private collector, includes such star objects as Brunel's month going wall regulator clock, made by Dents of London, and a cigar case which belonged to Brunel (which still holds a half-smoked cigar).



'BRSGB-2017.00027' - Design for a steam-powered sawmill at the Royal Naval Dockyard, Chatham, by Sir Marc Brunel. Courtesy of the SS Great Britain Trust.

The Collections Management System used is Adlib, and while the collection is not yet available online, this is planned for the near future. The material is catalogued down to individual pages, so one of Brunel's sketchbooks will be catalogued as a book, and within this each page will have its own record. Access to the Brunel Institute is free, and is open to the public Tuesdays to Fridays and the first two Saturdays of the month. Anyone can turn up during opening hours and ask to see anything from the collections. No appointment is necessary, and visitors simply need to show a piece of ID which includes their address. Institute staff also run an hour-long, lunchtime open doors activity called 'Archive in Five', where a different object from the collections is researched by volunteers and presented to the public. Last year the Brunel Institute welcomed nearly 14,000 visitors.

As well as the new Being Brunel museum, the Trust recently launched an Arts Council England-funded project to digitise, and make publicly available, the passenger and crew lists of the SS Great Britain – the originals of which are spread across the globe in archives in the UK, Australia and the US. The result of this project is 'Global Stories: the people of the SS Great Britain' an online and onsite database. It has been worked into the visitor experience through the introduction of Boarding Cards, which visitors pick up before going on board the ship, and which can be scanned in the Dockyard Museum to find out more about their chosen passenger or crew member.

www.globalstories.ssgreatbritain.org/

Nick Booth

SS Great Britain Trust

DM1306/2/1/folio 1 - Entry for October 1827 from Brunel's Private Diary - 'The Locked Diary'. By Courtesy of the Brunel Institute - a collaboration of the ss Great Britain Trust and the University of Bristol.

October

1

At last I have begun this my private journal - even now at the sound here I can hardly persuade myself that it is really private but am puzzling myself for proper words thus destroying the very object I have in view viz to record my feelings habits faults wishes hopes and every thing belonging to the present moment. The pleasure I shall derive hereafter in reading and comparing the remarks made at different times will I presume myself be very great I think also with good will much solatly and some good before may be got. - to begin my present intentions are to put down whatever is presented in my mind without order or arrangement. I have had this book 8 or 10 weeks have had many better opportunities why have I not began before? I have postponed it! I am very prone to my indecision

Peter Goodhew writes: this is a nebular known as NGC 6781 a few thousand light years from Earth. It is formed from shells of gas emitted from a dying central star that then glow from the intense ultra violet radiation emitted from the star.



STAG – Science and Technology Archives Group inaugural conference and beyond to blogs and podcasts

STAG has been in existence since 2016, and works closely with the Centre for Scientific Archives. In November 2017 it held its inaugural conference on the archives of space: Collecting Space at the Dana Centre Science Museum in London, hosted by Nick Wyatt, Head of Libraries and Archives, organised collaboratively by STAG.

The conference was an opportunity to discuss the kinds of material to be found in space and astronomical archives and data, also to show the wide range of meaning people apply to both archives and to data. It was also a time to discuss the ephemerality of digital material. As the power to create, transmit and retain data is now in the hands of anyone with access to a smart phone or any of the other myriad methods of presenting information, this also means that more data is available to sift for longevity. An intention was to bring to general notice that there are many records or data creators and keepers not recognised as such in the traditional worlds of archival practice or academic research.

The speakers ranged from current academics in space physics, UFOs and science fiction films, to archivists and curators collecting and showing space archives. These varied speakers provided a huge variety of archival material and scientific data to consider. The booklet produced for the conference included an amateur astronomer's view of data and what he considers to be his archive. Peter Goodhew's images, gathered with a very powerful telescope resource, are put up on Flickr ! to be shared, criticised and provide



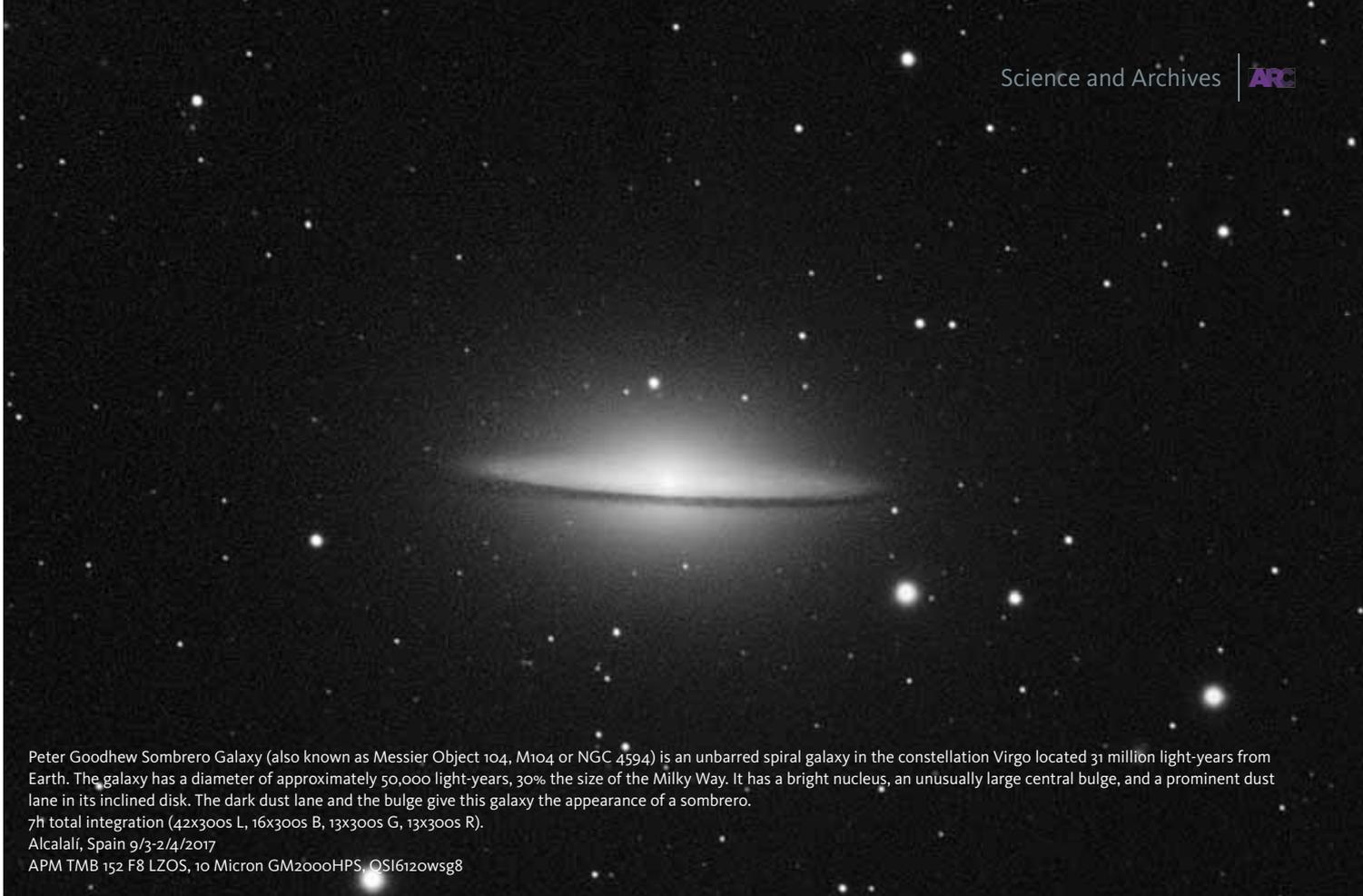
Peter Goodhew Whirlpool Galaxy: a spiral galaxy that is interacting gravitationally with its smaller companion galaxy. They can be seen to be pulling each other apart. It is estimated to be about 23 million light years from earth.

Technical Detail:

22h5m total integration (24x1200s Ha, 56x300s L, 19x900s L, 20x300s B, 20x300s G, 17x300s R). Alcalalí, Spain 24/5-5/6/2017.

APM TMB 152 F8 LZOS, 10 Micron GM2000HPS, QSI6120wsg8

M51 (a.k.a. NGC5194 and NGC5195) was the first spiral structure ever observed by Lord Rosse in 1850 at a time when the true nature of galaxies was unknown. Its undeniable beauty explains its recognition as a true showpiece of the night sky. M51 represents a dramatic demonstration of an interacting pair of galaxies.



Peter Goodhew Sombrero Galaxy (also known as Messier Object 104, M104 or NGC 4594) is an unbarred spiral galaxy in the constellation Virgo located 31 million light-years from Earth. The galaxy has a diameter of approximately 50,000 light-years, 30% the size of the Milky Way. It has a bright nucleus, an unusually large central bulge, and a prominent dust lane in its inclined disk. The dark dust lane and the bulge give this galaxy the appearance of a sombrero.
7h total integration (42x300s L, 16x300s B, 13x300s G, 13x300s R).
Alcalalí, Spain 9/3-2/4/2017
APM TMB 152 F8 LZOS, 10 Micron GM2000HPS, OSI612owsg8

an opportunity for him to take advice, or give it, and improve imaging.

Peter Goodhew Flickr www.flickr.com/photos/55455102@N00/

Anne Barrett writes: Peter's collection is another way of looking at an archive and what the word and content means to people. Data is no longer the preserve of professionals - digital enables the opening-up and sharing of information and we need to be open to those possibilities, and facilitate data gathering, organisation, retention and the subsequent dissemination of knowledge, not only in collecting space but in all data realms. Early career scientists must be made aware that they are responsible for their digital archive, comprising both work and personal material. This will be almost the only way they and their work will be tracked and perceived throughout their careers. Otherwise their record will be lost.

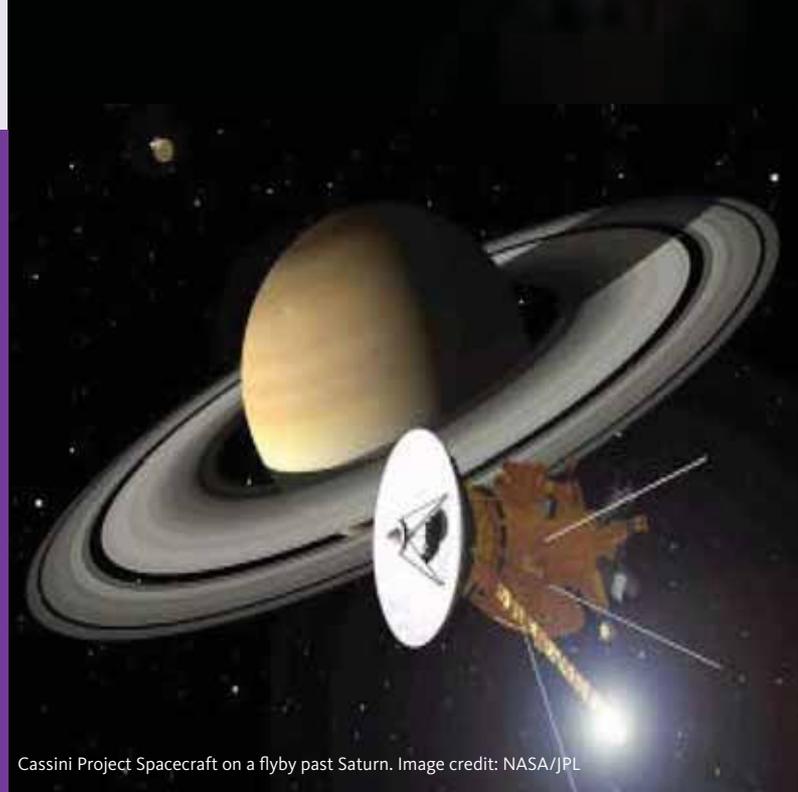
Many archivists who have worked in the sector for a long period have been formulating ideas about access and data management too, and have been discussing them with the scientists they work closely with. Michele Dougherty, keynote speaker at the conference and lead scientist for the magnetometer on the recent Cassini Mission to Saturn, understands the value of data collection, interpretation and retention. She said 'What's exciting about Cassini today, at the end of its mission is its data'.

Whilst the Cassini data will be disseminated via publications in many cases, the data collected will also remain in its raw form. .



Peter Goodhew Dumbell Nebular 1
Like many of Peter's favourite images it is called a planetary nebula. A misnomer due to history as its nothing to do with a planet. It's the debris of an exploding star at the centre of it. It's known as the Dumbell nebular. The outer shell of this image took 25 hours of exposure to make it visible. In most astro images it's not visible at all.

Collecting Space: the inaugural Science and Technology Archives Group Conference



Cassini Project Spacecraft on a flyby past Saturn. Image credit: NASA/JPL

On Friday 17th of November I attended the inaugural STAG Conference held at the fantastic Dana Library and Research Centre. The theme was 'Collecting Space' and brought together a variety of people working in or with science and technology archives relating to the topic of 'Space'. The day consisted of a variety of talks (with topics as varied as the Cassini probe to UFOs), a tour of the Skylark exhibition and a final discussion on the future direction of STAG.

What is STAG? The Science and Technology Archives Group is a recently formed group (September 2016) to celebrate and promote scientific archives and to engage anyone that has an interest in the creation, use and preservation of such archives.

The keynote presentation was by Professor Michele Dougherty, [Imperial College London, lead scientist on the design and implantation of Cassini's magnetometer] who gave us a fascinating insight into the Cassini project, aided by some amazing photos. Her concern regarding archiving data was context. We were told how her raw data could be given to an archive however it would be almost meaningless without the relevant information about context, for example calibration parameters. Without it data could be misinterpreted.

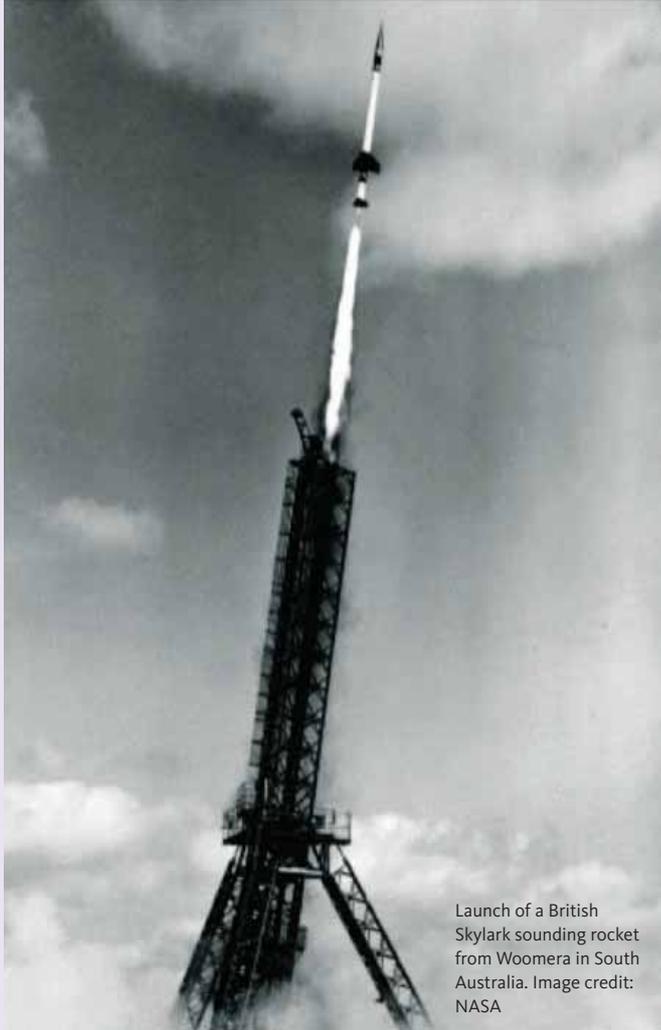
Dr James Peters from the University of Manchester told us of the unique challenges of the Jodrell Bank Observatory Archive, also called the 'sleeping giant'. They have a vast amount of material that has yet to be accessioned but requires highly specialised scientific knowledge to understand it. Highlighting the importance of the relationships between the creator of an archive and the repository. Promoting use of the archive was of particular

concern, which was also shared by Dr Sian Prosser of the Royal Astronomical Society Archives. She spoke of the challenges for current collection development. I'm looking forward to finding out about the events and activities planned for their bi-centenary in 2020.

We also heard from Dr Tom Lean of the Oral History of British Science at the British Library. This was a great example of the vast amount of knowledge and history that is effectively hidden. The success of a project is typically well documented however the stories of the things that went wrong or of the relationships between groups has the potential to be lost. Whilst they may be lacking in scientific research value, they reveal the personal side of the projects and are a reminder of the people and personalities behind world changing projects and discoveries.

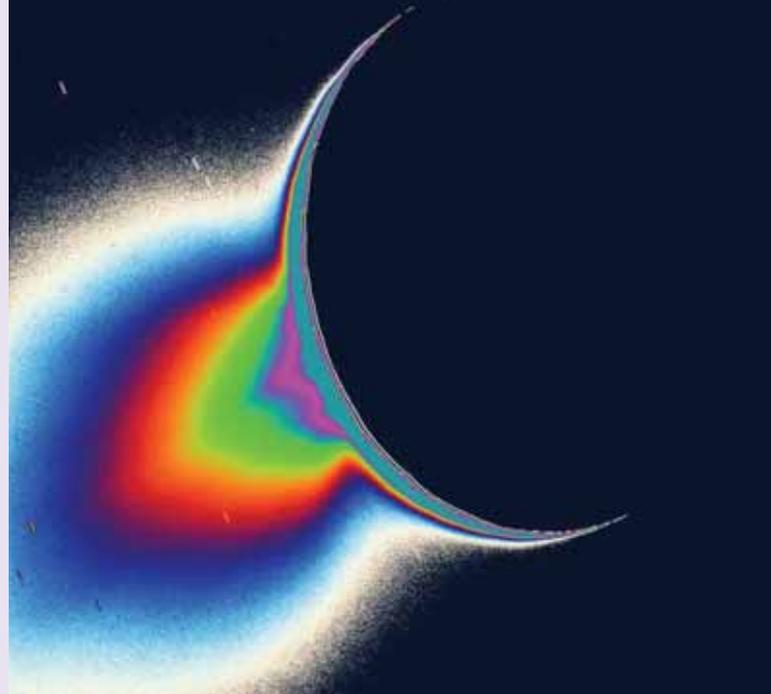
Dr David Clarke spoke about the Ministry of Defence UFO files release programme. I was surprised to hear that as recently as 2009 there was a government funded UFO desk. In 2009 these surviving records were transferred to the National Archives. All files were digitised and made available online. The demand and reach for this content was huge, with millions of views and downloads from over 160 countries. Such an archive, whilst people may dismiss its relevance and use scientifically, provides an amazing window into the psyche of the society at that time.

Dr Amy Chambers spoke about how much scientific research and knowledge can go into producing a film and used Stanley Kubrick's 2001: A Space Odyssey as an example. This was described as a science fiction dream + space documentary. Directors like Kubrick would delve deeply into the subject matter and speak to a whole host of professionals in both academia and industry to get the most



Launch of a British Skylark sounding rocket from Woomera in South Australia. Image credit: NASA

Colour-coded version of an ISS NAC clear-filter image of Enceladus' near surface plumes at the south pole of the moon. Image credit: NASA/JPL-Caltech/SSI



up to date scientific thinking of the time. Even researching concepts that would potentially never make it on screen. This was highlighted as a way of capturing scientific knowledge and the current thoughts about the future of science at that point in history. Today it is no different: *Interstellar*, produced by Christopher Nolan, consulted Professor Kip Thorne and the collaboration produced a publication on gravitational lensing in the journal *Classical and Quantum Gravity*.

It was great to see the Dana Research Library and a small exhibition of some of the space-related material that the Science Museum holds. There was the Apollo 11 flight plan that was signed by all the astronauts that took part and included a letter from Independent Television News, as they used that book to help with the televised broadcast. We also got to see the recently opened Skylark exhibition, celebrating British achievements in space research.

The final part of the conference was an open discussion focusing on the challenges and future of science and technology archives and how these could be addressed.

From my experience of being a chemistry graduate, I can speak first hand of the lack of awareness of science archives. I feel that I was not alone as, during the course of a science degree, especially for research projects, archives are never really needed compared to other disciplines,

as most of the material we needed was found in online journals. Although I completed my degree some time ago, I feel this is still the case today when I speak to friends who study and work in the science sector. It seems that promotion of science and technology archives to scientists (at any stage of their career, but especially at the start) will make them aware of the rich source of material out there that can be of benefit to them, and subsequently they will become more involved and interested in creating and maintaining such archives.

For an archivist with little to no knowledge of this particular area of science, understanding the vastly complex data and material is a potentially impossible job. The nomenclature used in scientific disciplines can be highly specialised and specific and so deciphering the material can be made extremely difficult.

This problem could be resolved in one of two ways. Firstly, the creator of the material or a scientist working in that area can be consulted. Whilst this can be time consuming, it is a necessity as the highly specialised nature of certain topics, can mean there are only a handful of people that can understand the work. Secondly, when the material is created, the creator should be encouraged to explain and store data in a way that will allow future users to understand and contextualise the data better.

As science and technology companies can be highly secretive entities, problems with exploiting sensitive material arise. It was suggested maybe seeking the advice of other specialist archive groups that have dealt with highly sensitive archives.

It appears that there is still a great deal of work to do to promote access, exploitation and awareness of current science and technology archives (for both creators and users). STAG is a fantastic way to get like minds together to discuss and implement solutions. I'm really looking forward to seeing how this develops and hopefully I will be able to contribute to this exciting, worthwhile and necessary future for science and technology archives.

Miten Mistry

Graduate Trainee Digital Archivist

<https://blogs.bodleian.ox.ac.uk/>

David Clarke one of the academic speakers at Collecting Space also produced a blog: drdavidclarke.co.uk/

He begins the blog with this phrase, which reinforces the tenor of the conference:

'The plot of Blade Runner 2049 refers to a 'black out' that plunged the world into darkness for ten days. During this cataclysm many historical records, hard drives and important data that was not written down on paper was destroyed.

Blade Runner may be space-age fiction but the fragility of human records, especially those held in digital format, remains a huge concern for archivists.'

Another of the speakers, Dr Amy Chambers, has produced the following article about film as a primary source that can be used as a means of studying specific historical moments and issues as extrapolated by mainstream movies. Her work examines the intersection of science and cinema with a focus on representing women in STEM, religion and science, Hollywood science fiction (1968-1977), and contemporary medicalised horror.

(Amy Chambers is a senior lecturer in Film Studies at Manchester School of Art, Manchester Metropolitan University.)

Film-makers as archivists of science

Science fiction filmmakers often create their own 'archives' of science-based resources (scientific papers, newspaper cuttings, interviews with scientists/manufacturers) in order to produce an artefact (a film) that in turn produces an archive of materials that should be of interest to a range of scholars at the intersection of science and arts. Filmmakers from across several genres have generated and collated research on emergent/future scientific advancements and procedures. Originally intended to give their movies 'scientific' legitimacy and hopefully critical and financial success, these collections can now be used by historians as unique snapshots of the experiences of non-scientists in researching, understanding, and communicating science through fiction.

Stanley Kubrick and William Friedkin, and their films *2001: A Space Odyssey* (1968) and *The Exorcist* (1973), are key examples for this discussion. Both directors made and retained extensive science-based research notes for their films and were heavily involved in all aspects of the filmmaking process. *2001: A Space Odyssey*, released a year before the moon landing, offers an imagined future of space travel that continues to influence both scientists and media producers today. Kubrick generated huge volumes of meticulously

organised research that was utilised during the production of *2001* (held at University of the Arts London). Kubrick's collection includes personal interviews with key scientific and industry figures (e.g. physicist Jeremy Bernstein, biochemist Isaac Asimov, psychologist B.F. Skinner), which include speculative discussions about the possibility of space travel and extra-terrestrial contact, and promotional materials and internal industry documents predicting technologies for as yet unknown futures (e.g. pods for hypersleep as imagined/designed by engineers at Honeywell).

William Friedkin's *The Exorcist* presents emerging scientific procedures alongside ancient Catholic ritual. These potentially conflicting components were researched to a similar level of intensity despite the fact that the science-based sequences only appear in the film's first quarter. It was the first film to include graphic footage of an arteriogram and to utilise a functional Magnetic Resonance Imaging (fMRI) scanner onscreen. In 1973 the fMRI scanner was an emergent technology and appeared in very few US hospitals – it was intended to give the medical scenes a futuristic edge to heighten the contrast with the ancient ritual. Friedkin created extensive diagrams and notes about the internal workings of the body using scientific papers, and interviews

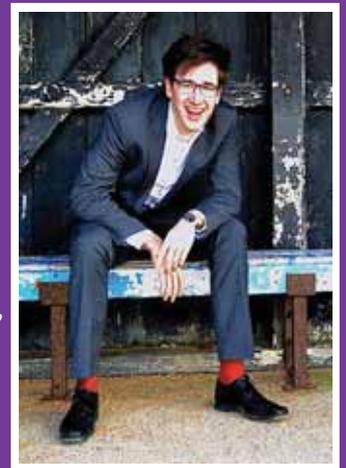
Blogs and podcasts

Blogs are a useful source of information or an alert to projects, as are podcasts. This podcast: 'Scientists not the Science' www.scinotsci.com/ fills some of the gaps that have been recognised by the organisers and attendees at the Collecting Space conference.

'Scientists not the Science' is a podcast independently organised by Dr Stuart Higgins, an early career scientist in biomedical applications at Imperial College. On the site www.scinotsci.com/ Stuart writes: "Scientists not the Science" is a new podcast about the people working in science. In each episode I interview a new guest connected to this world and learn about their experiences and thoughts.'

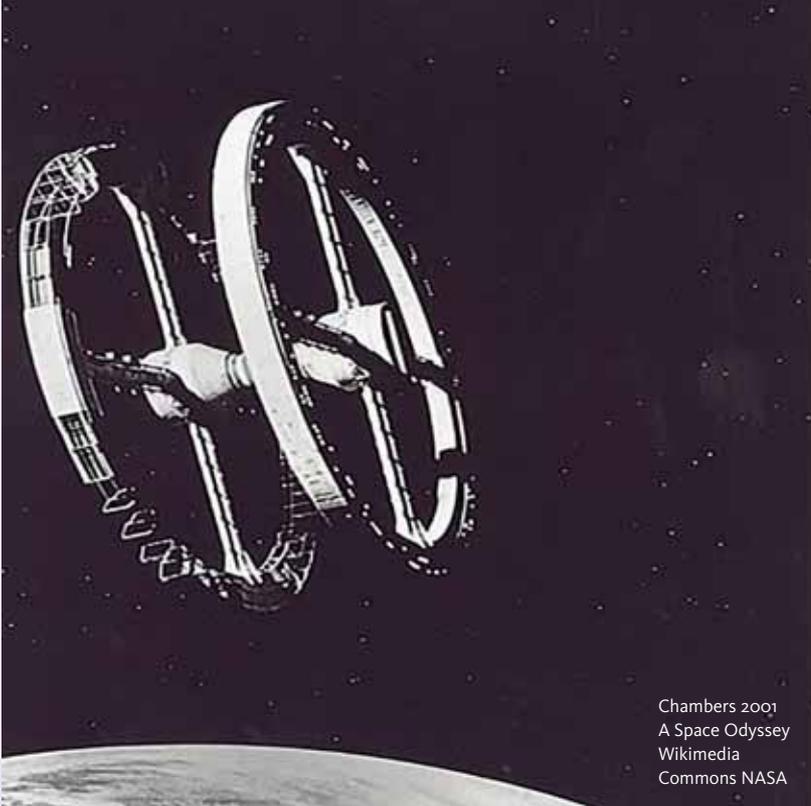
Stuart explores the issues that affect those working in science through a mixture of biographical interviews and discussions.

'Guests include scientists at all career levels, from students just starting out to world-famous scientists. The show also explores themes such as self-identity, confidence and working pressures for people pursuing an academic career, and reflects on this in comparison to other industries.'



This is helpful in understanding scientists' culture, but Stuart has recently been exploring what happens to the artefacts of science after their demise, and has been interviewing archivists about their work, understanding as he does the need for interaction for the archives profession to capture and retain data on the work, methods and lives of scientists.

Anne Barrett



Chambers 2001
A Space Odyssey
Wikimedia
Commons NASA

with engineers and medical practitioners at the forefront of fMRI technology. Friedkin's notes offer a unique snapshot of medical technology and neurobiological research emerging at the time of *The Exorcist's* production and release. Similarly, Kubrick's archive for 2001 sets a benchmark for the type of research required for the production of science fiction film that can claim authenticity and remain scientifically relevant 50 years after its initial release as Kubrick's masterpiece has.

One of the issues with this type of archive is the restrictions in place concerning the reproduction of materials, even for academic publications. Both the Margaret Herrick Library (the Academy of Motion Picture Arts and Sciences Archives), where the 'William Friedkin Papers' are held, and the Stanley Kubrick Archive at the University of Arts London both have extremely strict rules concerning copying materials and gaining rights for reproducing images. In the case of the Kubrick materials the rights for individual items are still held by the individual donors and permission must be granted from a variety of trustees.

For a recent talk that I gave at the inaugural conference of STAG (Science Technology Archive Group) my talk did not have images of items I spoke about due to the issues with securing rights.

Science fiction films should be understood as valuable cultural artefacts that allow historians to analyse specific eras and histories and consider the ways in which ideas about science and society are communicated to audiences. Fictional representations of the future are not about predicting the future but rather anticipating human needs in technology-driven futures and inspiring the work of future scientists. Film-makers leave archives behind them that are potentially useful to a range of scholars. However, access to and rights for sharing these materials can be an issue due to the nature of the (commercial) end product rather than the artefacts themselves. Restricted access constrains the stories that can be told about these archives and the unique stories about science that they hold.

Amy Chambers

Manchester Metropolitan University.

Louise Piffero discusses a medical history in: Medicine and Health in Leeds 1760-1999

Leeds has been a centre for innovation in clinical practice for at least two hundred and fifty years, and the medical archives held by Leeds University Library Special Collections reflect this rich history. The work of many individuals associated with the Leeds School of Medicine and the Leeds General Infirmary has made an impact on medical care both in the UK and internationally.

In May 2018, Special Collections at Leeds University Library celebrated the completion of a major project to catalogue, digitise and preserve our medical collections. This was funded by a Wellcome Trust Research Resources grant and launched in November 2015.

To highlight just a few of the significant stories the archives reveal about many of Leeds's unsung medical pioneers:

- The ground-breaking work of Leslie Pyrah and Frank Parsons to open the first artificial kidney unit in the UK, at the Leeds General Infirmary in 1956
- The influence of nurse Dame Kathleen Raven (1910-1999), who worked to introduce intensive care units into UK hospitals through her role as Chief Nursing Officer (1959-1972)
- How Thomas Scattergood (1826-1900), first Dean of the Yorkshire College of Science Medical Department and forensic toxicologist, tested forensic evidence for numerous criminal cases in the 19th century. His evidence helped to convict Mary Ann Cotton for serial murder in 1873.

Our key goals have been to improve the accessibility of the collections for researchers, and encourage and support new research into these significant, but under-used archives. Just some of our achievements over the last 30 months:

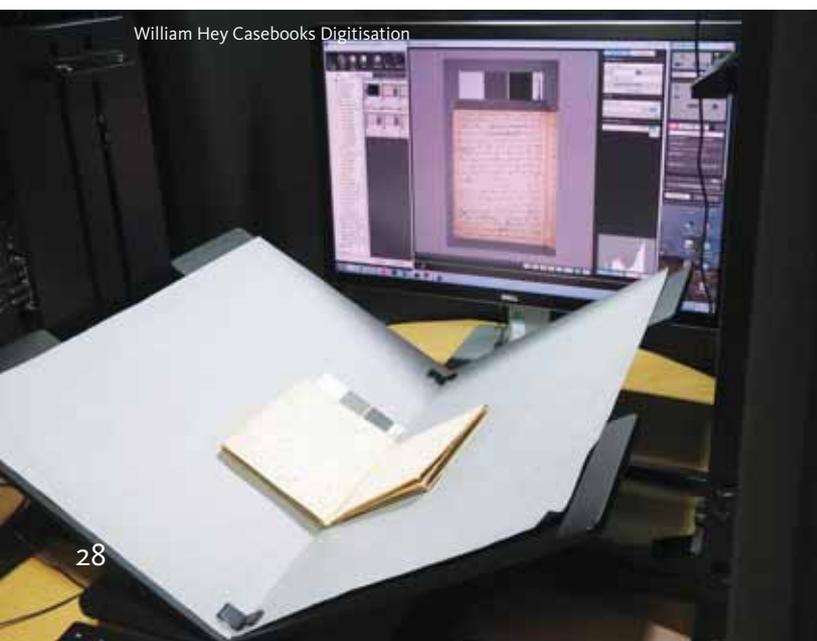
- 12 archive collections catalogued
- 250+ boxes of material repackaged
- 3000+ new catalogue entries on our collections management system, EMu
- 65 individual manuscripts digitised and available online
- Conservation treatment for numerous manuscripts
- 6 student internships hosted

The collections catalogued for the project included:

- Dame Kathleen Raven Archive
- Leslie Pyrah Archive
- Frank Maudsley Parsons Archive
- Leeds General Infirmary Nurse Training Registers
- Leeds School of Medicine Archive
- Records of the Department of Public Health Medicine
- Leeds General Cemetery Company Archive
- Casebooks and papers of a number of surgeons, including: William Hey (1736-1819), Thomas Scattergood (1826-1900), and Berkeley G.A. Moynihan (1865-1936), 1st Baron Moynihan

A major part of the project was to digitise and transcribe the 25 burial registers in the Leeds General Cemetery Company Archive. The registers contain over 97,000

www.archives.org.uk





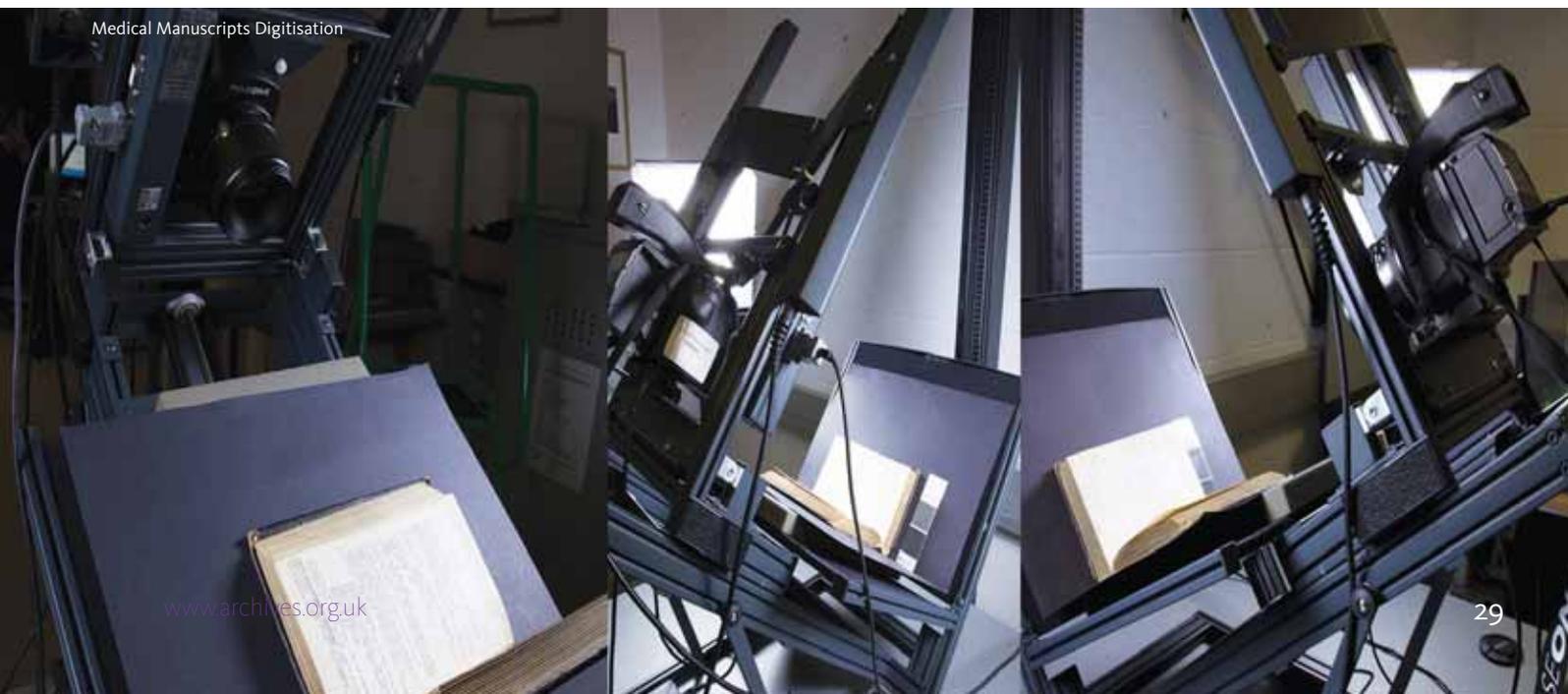
of all the recorded causes of death and occupations and view graphs of key statistics from the data.

As to the burial registers, the cemetery was not directly linked to the Leeds General Infirmary/hospitals. The cemetery was run by a private company – it opened in the 1830s and was in operation until the 1960s. The University of Leeds bought

entries for individuals buried at the cemetery. The resulting data was used to create the free and fully searchable Leeds General Cemetery Burial Registers Index.

The online index can be used to find details of individuals, but there are also options to browse full lists

Medical Manuscripts Digitisation





LGC Burial Register Index Entry Page. Copyright Louise Piffero

the company in the 1950s, and obtained powers to landscape the site in the 1960s (which is when burials ended). Although there was no formal affiliation with the Infirmary, there are a number of entries in the registers which record when an individual died at the hospital. There was a link between the cemetery and the Leeds Maternity Hospital, as the majority of infants who passed away at the hospital were buried at the cemetery. It can be difficult to find out information about burials – even if the registers are transcribed and available to search online, the index entries may not have included information on cause of death.

Even though the project is complete, we are continuing to focus on our medical collections. We will be looking at ways to develop the collections as a digital medical humanities research resource. We're also going to be working with the READ project to pilot transcription of the surgical casebooks of William Hey (1736-1819) using the Transkribus platform. This will allow us to trial automated Handwritten Text Recognition (HTR).

Louise Piffero

Leeds University Special Collections

Visit our website to find out more about the medical archives and Special Collections.

library.leeds.ac.uk/info/1500/special_collections
 Leeds General Cemetery Burial Registers Index: explore.library.leeds.ac.uk/special-collections-explore/Leeds%20General%20Cemetery%20Burial%20Registers%20Index

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Celebrating ten years of Search Engine
 L-R Head Curator Ed Bartholomew, Archivist Alison Kay, Head Baker Michel Logan

Ten years of Search Engine at York Railway Museum

In the Year of Engineering, it is appropriate that York Railway Museum Archives celebrates the tenth anniversary of the opening of its library and archives centre, Search Engine. It has had over 350,000 enquiries during its ten years!

Search Engine has been tremendously successful in opening up and revealing hidden treasures from the collection. From technical drawings being used to restore famous steam locomotives, to researchers looking for accurate period details, to families searching for details of their loved ones, Search Engine has made a real impact on many people's lives.



How best to celebrate, but with a cake?

With over 200 years of railway history in our archives, we couldn't just have any cake! One of the most fascinating and unusual items that we have acquired recently is a household recipe book used in George Stephenson's house to record all sorts of culinary and medicinal recipes. We are trying out some of the recipes in the book to bake our 10th anniversary cake - so truly a cake with historic connections to the 'Father of the Railways'.

Alison Kay

York Railway Museum Archives



The Cumberland cake was baked from an original recipe that appropriately belonged to railway pioneer George Stephenson blog.nrm.org.uk/search-engine-the-first-10-years/

www.nrm.org.uk/aboutus/pressoffice/pressreleases/2018/february/search-engine-anniversary



Celebrating ten years of Search Engine

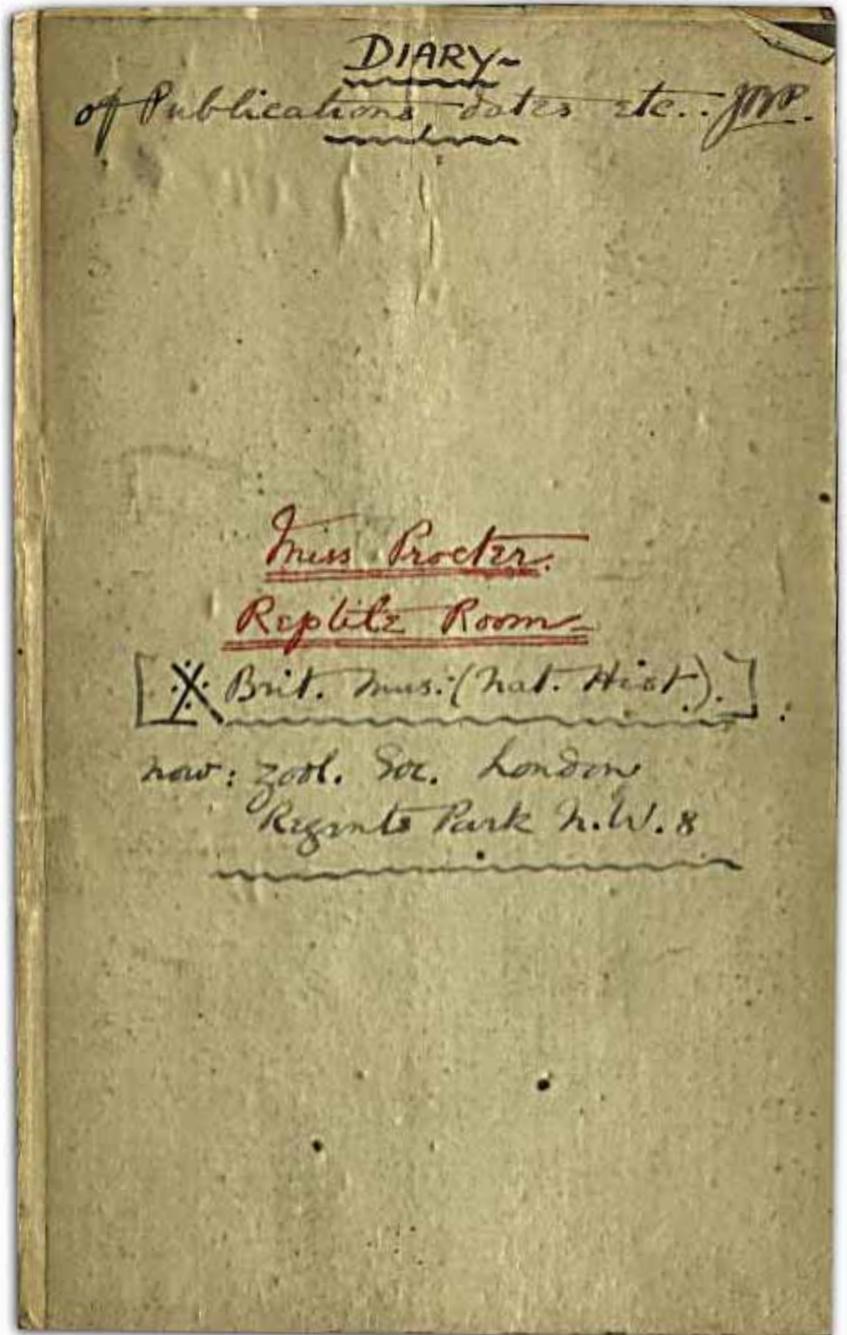
Women in STEM

International Womens' Day is held in March each year, and supporters of STEM do what they can to promote women in those subjects and bring women into them. For example, in London, three STEM organisations, the Institution of Electrical Technologies, The Wellcome and Imperial College held a Women Wikithon, in which the Wellcome's Alice White trained around 30 people (men included) in editing or creating Wikipedia pages on women in STEM.

Continuing the theme, Sarah Broadhurst writes about the first woman curator of amphibians and reptiles – that is Herpetology at the Zoological Society of London.

Women at the Zoological Society of London (ZSL):

Joan Beauchamp Procter was ZSL London's first female curator of Herpetology. Procter was born on the 5th August 1897 to a mother who was an artist and a father who was a stockbroker. Her passion for nature began at a young age: in the ZSL Collection we have a book on reptiles presented to her by her younger sister Chrystobel for her 13th birthday.



She kept many reptiles as pets, and entered into correspondence with George Boulenger who was the Keeper of Reptiles and Fishes at the then British Museum (Natural History). He was so impressed by the skills and knowledge of the young Procter that he invited her to work with him in 1916, and acted as a mentor to her.

A notebook kept by Procter detailing her published works ©ZSL

When George Boulenger retired, Procter took over from him at the British Museum. At 19 she authored her first paper for the Proceedings of the Zoological Society of London, about the Pit Viper, and she was elected as a fellow of ZSL in August 1917. At this time, the lower age limit for fellowship was 18; therefore, Procter would have been one of the youngest.



The Reptile House ©ZSL

Procter was friends with George Boulenger's son Edward, who was at the time Reptile Curator at ZSL London Zoo. Having grown tired of the work at the British Museum, she began to help Edward with tasks at the Zoo. With her artistic flair, and as a keen draughtswoman, she helped with plans for the new aquarium in 1923, and after four months joined the staff as Curator of Reptiles and Amphibians - the first woman to hold this position. She started on a salary of £360 (about £20,000 in today's money). As ZSL Secretary at the time ZSL Peter Chalmers Mitchell notes in his *Centenary History of the Zoological Society of London*:

"...After the year of probation, Miss Procter was appointed as full Curator, she and Mr Boulenger continuing to understudy one another and taking charge of both the aquarium and reptile house during the absence of either of them. She was the author of many scientific memoirs and was well known to experts in the group throughout the world, with the result that through her correspondents she had been able to extend the



Procter in the lab ©ZSL

collection. But in addition to such scientific knowledge of the group, he is devoted to them as living creatures, studies their distastes and tastes in health and in disease, and has added much to the knowledge of their treatment in captivity..."

At the opening of the Aquarium in 1924, Boulenger and Procter were noted to have sourced a great display of fishes and invertebrates for the tanks. But they had difficulty establishing suitable seaweeds in time, so Procter set about making "imitations of the more common species from thin sheets of coloured rubber, with which nearly all the salt water tanks were supplied."

Procter's gifts as a designer continued to be proven in her designs to the reptile house; a project that was very much regarded as hers. The design included 'vita glass' which provided natural ultraviolet light needed by the reptiles, and was a hi-tech concept then. Procter's deep understanding of reptiles helped to produce a design that was, at the time, very forward thinking.



Scrapbook ©ZSL



Scrapbook ©ZSL



Excerpts from Procter's scrapbook ©ZSL

Excerpts from Procter's scrapbook ©ZSL

She contributed to numerous other pieces of rockwork and outdoor enclosures in the gardens, including Monkey Hill (on the site of the old animal hospital), which contained 80 sacred baboons; and helped with the design for the main entrance gate.

Procter's youth and gender made her the subject of unfair scrutiny by the press at the time. She kept a scrap book she titled 'The Great Offensive', pasting in clippings from newspapers all around the world, and noting any inaccuracies in the articles. For so many of the articles, it is her youth and gender they focus on, eschewing talking about her ability and instead focussing on depicting her in often cruel cartoons and pieces.

Procter corresponded widely with fellow reptile experts and enthusiasts around the world - in several languages. The letters written to her that we hold in the archive show that she was well regarded by everyone from professional herpetologists, to neighbours, and school children.

Sadly, Procter suffered from poor health for most of her life, and she went to Whipsnade for convalescence, but died in 1931 aged only 34. Whipsnade commemorated her with the road 'Miss Joan's Ride' which still runs through the site today. In the reptile house at ZSL London Zoo, there is a commemorative bust of her by George Alexander.

She also had two species of reptiles named after her: *Bufo procterae* (snake) and *Testudo procterae* (tortoise)

ZSL Archives

The ZSL Archives sit within the Library of the Zoological Society of London. We have a fascinating collection, dating back to our founding in 1826. We mostly hold records of our Society, including everything from the usual minutes of council meetings to a model of an egg with a map of Whipsnade Zoo painted on it! We also hold some papers of former members of staff, such as Joan Procter, or others connected to the history of Zoology and Conservation, such as Manuscripts of Brian Houghton Hodgson. (Zoologist and Polymath.)

One of the most heavily used parts of our collection is our Daily Occurrences, which we hold for both our London and Whipsnade sites. These run from the opening of the Zoos (1828 and 1931 respectively) up until 2002. The volumes contain daily entries listing the arrivals, departures, births, and deaths of the animals. But they also contain information about visitors, building works, temperatures in the animal houses and sometimes even the weather! One researcher used a volume to check if it had really been raining the day that Bram Stoker's character 'Dracula' came to the 'Zoological Gardens' and scratched a wolf behind the ears, (reader: it had not been raining).

You can find out more on our website www.zsl.org/about-us/zsl-library-collection/the-zsl-archives

Sarah Broadhurst

ZSL

Women in STEM - at The Wellcome

In 2011, I got the first tantalising glimpse of the archive that I would end up following for years. I had just begun my Masters and was forwarded an email with a Word document rumoured to be the handlist for the archive of the Tavistock Institute of Human Relations (TIHR). This social science organisation ran research projects on topics ranging from the adoption of new technologies in industry to supporting refugees, and even how to advertise fish fingers. The vague themes on the list suggested all sorts of exciting possibilities for a budding historian to research.

Just over a year later, as I began my PhD, it seemed my hopes for research would be crushed. As I sat in the TIHR offices and unpacked folder after folder of material unrelated to either the label on the box or the sketchy Word document, I realised with growing disappointment (and panic) that I may not be able to write a thesis based on this jumble.

In a stroke of brilliant luck, the TIHR then recalled their hundreds of archive boxes from storage and employed an archivist to sort through it all, and I volunteered to help. I was there as a coherent order emerged, and was able to track down some intriguing materials. It was a revelation seeing the archiving process in action, too; I came to appreciate the value in sometimes marking a box “D” for destruction, and I wrote a short piece from “The Historian’s perspective” (British Records Association Series 4 No.1, V March 2016) about the experience. Cataloguing was

www.archives.org.uk



White Alice in Training Mode. Image courtesy of Phoebe Harkins



Wikithon Training. Image courtesy of Wellcome

completed at around the same time that I finished my PhD and embarked upon a job-hunt.

When a role as Wikimedian in Residence at Wellcome Library appeared, I jumped at the opportunity to work in a place that housed and digitised so many science and medicine archives. I helped archivists to share some of their extensive expertise by editing Wikipedia entries and they helped me find materials for other people to use as the basis for editing too. We focussed on improving the diversity of the online encyclopaedia, targeting topics like women in science and medicine (only 17% of biographies on Wikipedia are about women) and under-represented areas such as the history of mental health research.

The TIHR Archive moved to Wellcome around the same time that I did, and I took on another part-time role as a research engagement consultant, as these are helping new audiences to find the materials there. Groups such as



Wellcome Collection Reading Room. Image courtesy of Burnsco

business historians might not usually look to Wellcome for their research; the TIHR Archive was a gateway to other relevant materials.

Knowledge from both sides of the archive helped me in these roles, and then to secure a full-time job as web editor, where I continue to work with archivists and researchers as I commission and write articles for www.wellcomecollection.org. Some of my favourite articles have been inspired by quirky content from our archives, such as pressed flowers of varieties once used in obstetrics, slipped inside an old book and bought to greater attention during digitisation.

The wiki-work continues too, from events to add more women from STEM history to Wikipedia, to figuring out how best update and draw upon information on the 97,450 images uploaded by Wellcome to Wikimedia Commons. These pictures reach audiences of around 30 million people per month, and many viewers choose to learn more about the images by clicking through to our online catalogue. Our next challenge is to explore how we can use linked data to make those images even more accessible to even more people.

Eight years after my first efforts to get at an archive, opening up information is still at the centre of my career, and I count myself very lucky!

Alice White

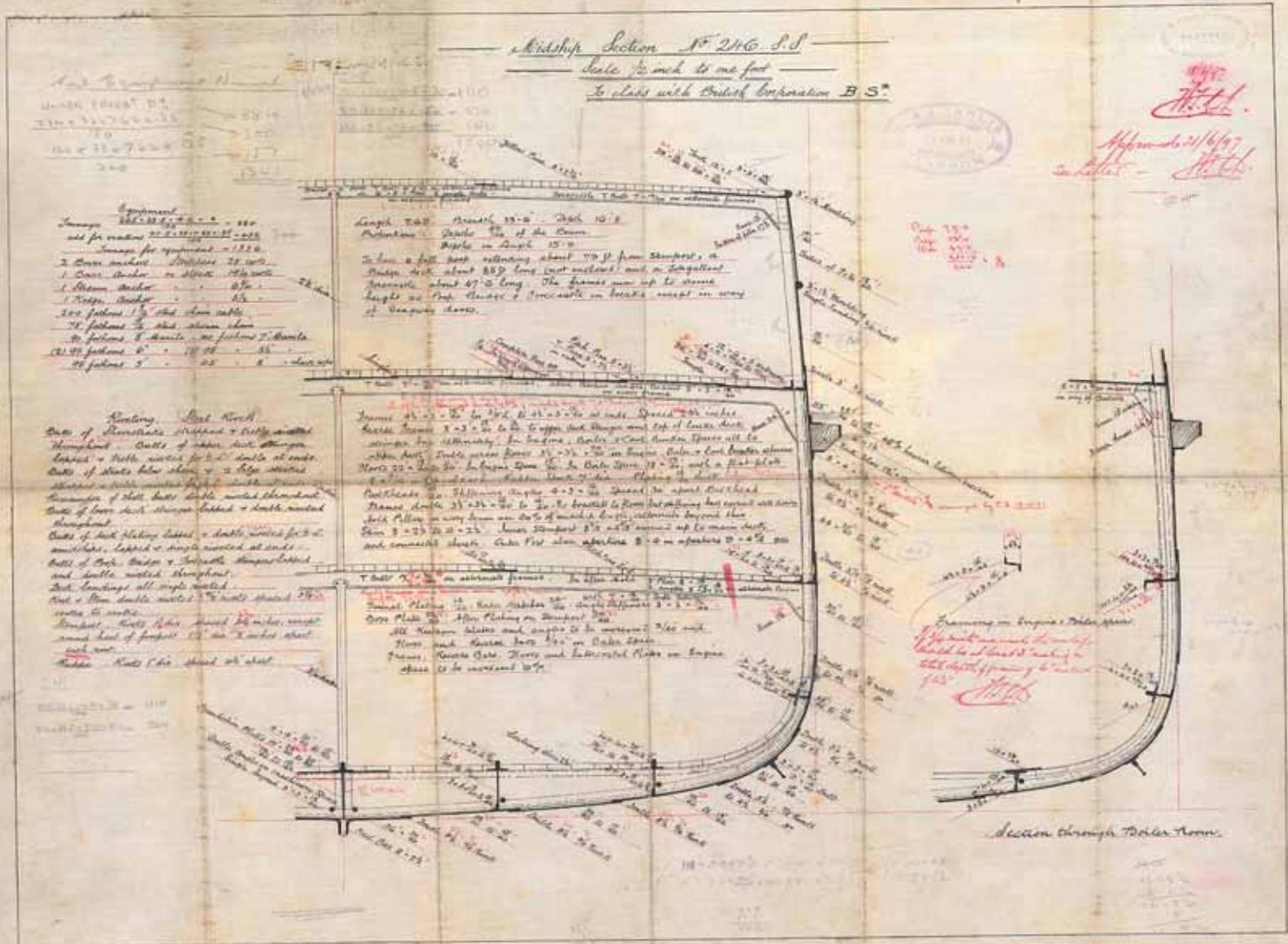
The Wellcome

The Ballast Trust: understanding technical records

Colleagues with a responsibility for scientific or technological records will be familiar with the challenges that managing and processing these collections can present. Have the records survived? Does the archivist have the specialist knowledge needed to understand and process the collection? How can we address the perception that such specialist material is only for specialist audiences and instead widen its use and access?

Shelving and plans in the workroom of Ballast Trust





Midship Section plan for SS Maggie built by A & J Inglis in 1898, part of British Corporation plan collection. The Ballast Trust.

Some of these challenges are what led William Lind to establish the Ballast Trust in 1988. His objectives in doing so were to rescue and preserve business records at risk of disposal, and to provide a sorting and cataloguing service, with special emphasis on technical records, drawings, plans and photographs. Today, thirty years later, the objectives are unchanged, a testament to his insight for the need for a specialist technical archive service.

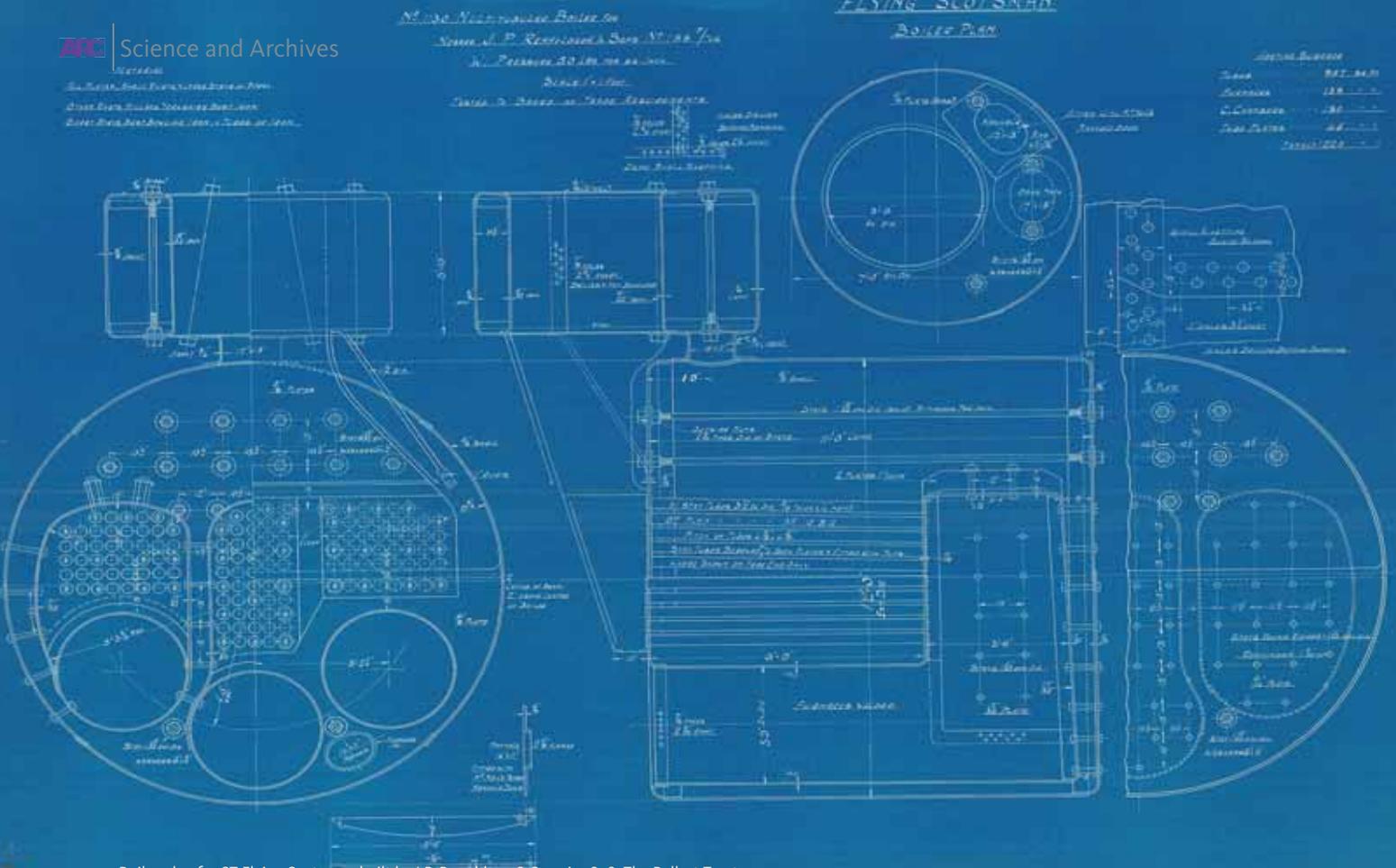
Records to organise a seminar at the National Railway Museum in York on the 18th June. The seminar will explore the theme of technical records, focusing on the plans and drawings held in business archive collections and the approaches that have been used to reveal the potential of these records. In August, I will host a '30 minute makeover' session for technical records at the Archives and Records Association conference in

This year the Ballast Trust celebrates 30 years of service to the archive community and to Scottish industrial and business history. To commemorate this anniversary, the Trustees have commissioned a publication that will cover the history of the Ballast Trust, the significance of technical records, aspects of our working model and the collections we have focused our services on. As well as the publication, a series of events and activities are also planned. We are working in partnership with the ARA Section for Business



Student volunteers in the workroom of Ballast Trust

"FLYING SCOTSMAN"
BOILER PLAN



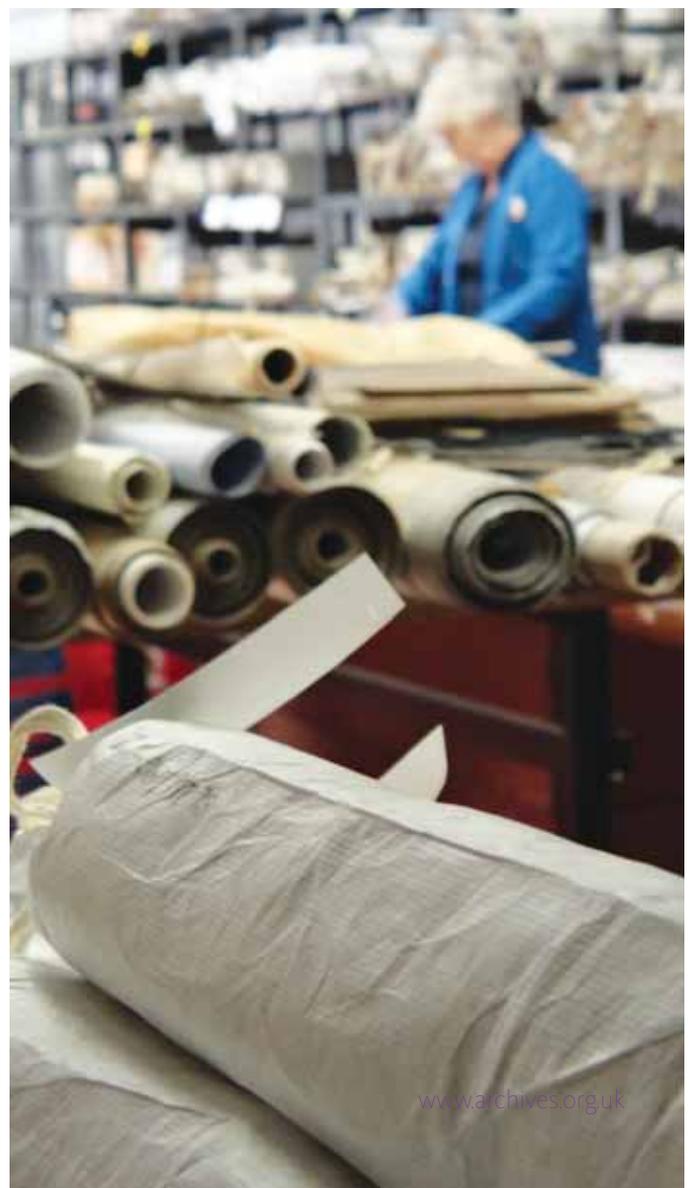
Boiler plan for ST Flying Scotsman built by J.P. Renoldson & Sons in 1898. The Ballast Trust

Glasgow and a social media campaign is underway via our twitter (@BallastTrust).

This commemorative activity is part of the wider advocacy work within the archives sector that the Ballast Trust undertakes to improve the understanding and importance of technical records. Our definition of technical records refers to those plans, drawings and photographs typically found in business archive collections such as those for the construction, engineering, architectural, design and manufacturing industries. These records provide evidence of the creation and development of a product or structure and complement the administrative records for a full understanding of business operations. By encouraging their understanding and celebration we hope to address some of the factors that can deter archivists and users from engaging with technical records. Furthermore, we recognise that many of the challenges we face are also to be found in other types of archive collections.

When I started in my role at the Ballast Trust in 2009, I was delighted to discover the work of the National Cataloguing Unit for the Archives of Contemporary Scientists (work continued today by the Centre for Scientific Archives). The National Cataloguing Unit had been established at the University of Bath in 1987 with a similar purpose but a different focus - to locate,

Delaine Colquhoun rolling plans in the workroom of Ballast Trust



sort, and catalogue the papers of distinguished contemporary British scientists and engineers. I contacted the NCUACS for advice and found much commonality in approaches to dealing with complex and often voluminous records. In that vein, it gives me much pleasure to have had the opportunity to share the work of the Ballast Trust within the Science and Archives issue of ARC and I hope that some of our experience and methods of working might be useful to colleagues outside of the business archive sector.

For example, at the Ballast Trust we understand that our collections are often voluminous, refer to technical subject matters and that therefore their appraisal and description can appear daunting. One way to tackle this is to make use of subject specialists and Bill developed processing techniques that used volunteer knowledge to enhance understanding of technical records. Our volunteers have come from a variety of backgrounds (engineers, draughtsmen, railway enthusiasts, naval captains and shipbuilders) and willingly shared their experience of different industries and subject specialist knowledge to help us understand the subtleties of complicated technical drawings and records.

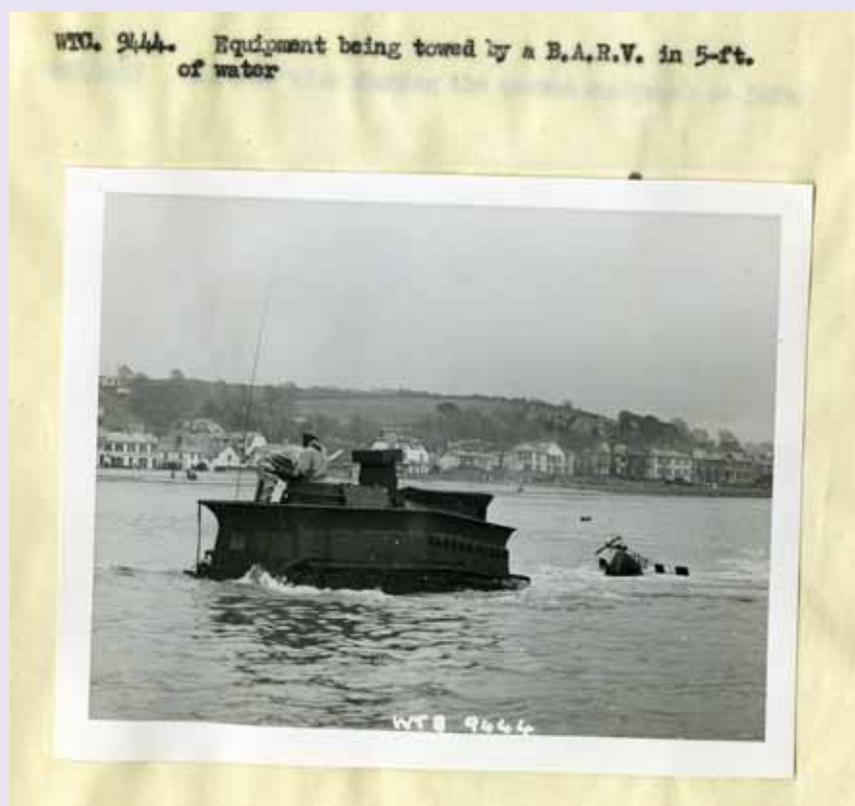
Even without access to a team of knowledgeable volunteers there are some simple principles of approach that can be applied to all types of technical records to aid in their understanding and management. If you would like to know more our general guide to understanding technical records is the best place to start. It was published in 2016 along with some industry specific appraisal examples on our website (www.ballasttrust.org.uk). We are always happy to answer questions about our work and you can follow us on Twitter for more details or come and find me at the conference in Glasgow.

Kiara King
Ballast Trust

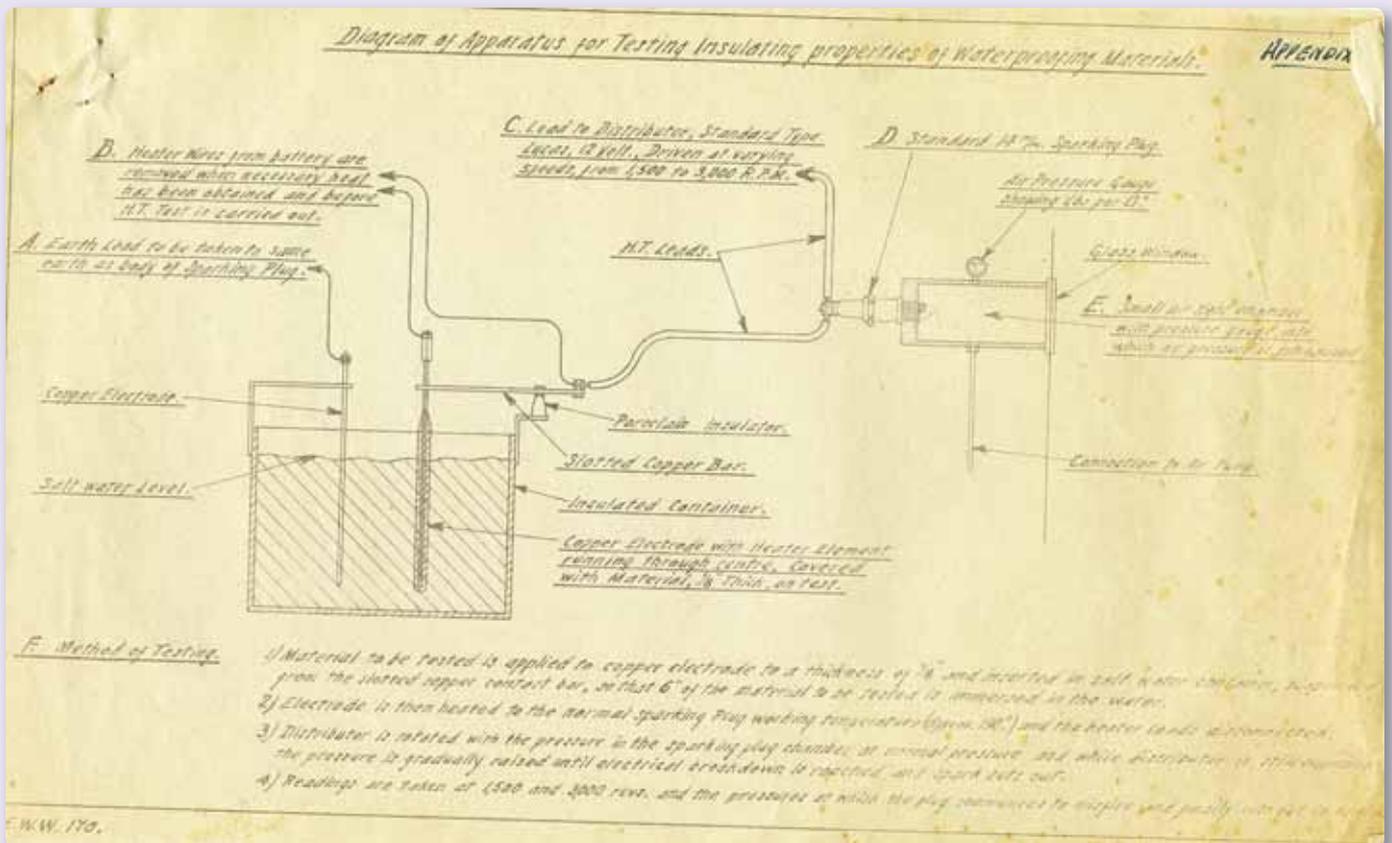
All images courtesy of Ballast Trust

The Museum and Archives of the Corps of Royal Electrical and Mechanical Engineers (REME)

The REME Museum Archives is an integral part of the REME Museum, which preserves and makes the heritage of the Corps of the Royal Electrical and Mechanical Engineers accessible to all. The REME was formed in 1942 to support the increasingly complex electrical and mechanical equipment being deployed on a much larger scale than ever before by the army, in every theatre of the Second World War. Forerunners of the REME included the Royal Army Ordnance Corps: Engineering and relevant sections of the Royal Engineers and Royal Army Service Corps. Since then the functions of the Corps have increased in line with technological progress. Therefore the REME soldier has been required to provide engineering support for every military



REME Equipment towed by BARV in 5 ft water from Activity Report of Wading Trials Branch, MTDE, REME (Maintenance Technique Development Establishment) BARV010 Eo4_0176

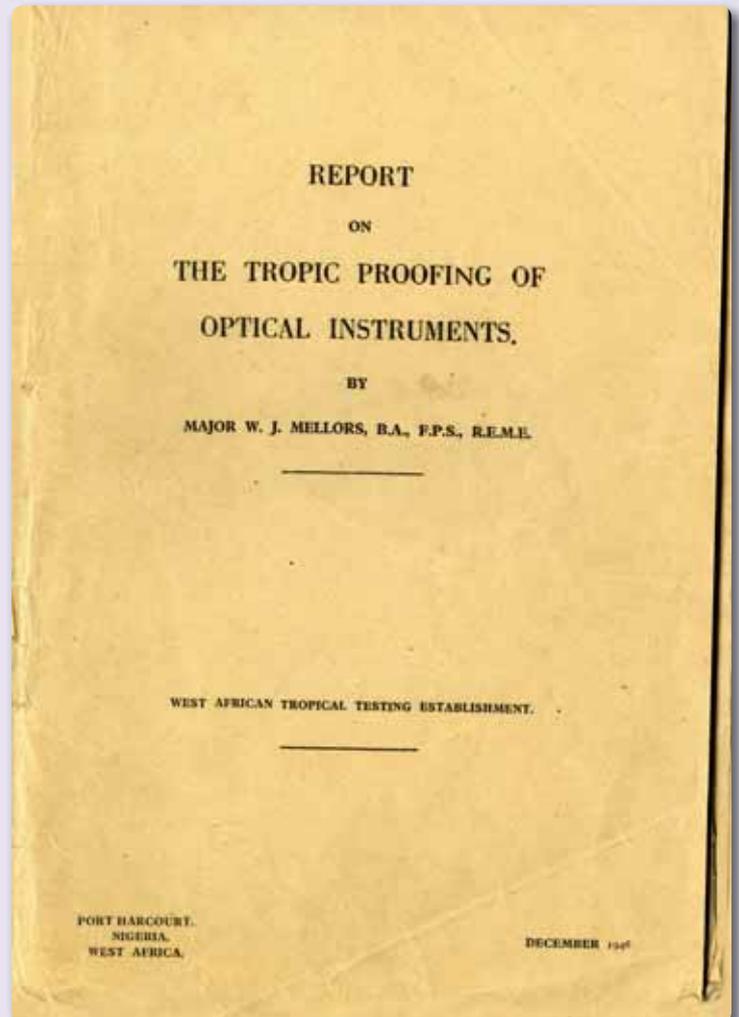


REME Prestik Technique Fording Waterproofing materials diagram 009 Eo4_0176

operation, as technology advances and equipment becomes more complex in a wide range of technological and engineering disciplines.

The REME Museum was formed in 1958, located in Moat House, Arborfield. Archival material was acquired from the very beginnings of the Museum. The Museum moved to its second home in Arborfield in 1985. In October 2015 the Museum, including the archives service, relocated to the former RAF Lyneham in Wiltshire and re-opened to the public on the 6th June 2017. The archives cover a wide range of material relating to the history of the Corps, including: its formation, post-war development and operations; units (REME units are attached to every regiment and corps in the British Army); sport and adventure training and social and regimental activities.

Types of material include official Corps papers, such as minutes and correspondence; war reports; technical reports and manuals. In addition to official and technical material, there are also personal collections of soldiers and officers, such as letters, diaries, memorabilia and photographs. There is also an extensive collection of photographic and pictorial material, such as photographs, albums, cine film, 35mm slides and glass plate negatives, as well as maps, drawings and posters. The archives also look after the publications, including general works on military history and REME



REME Tropical Proofing Report Eo5_0142_18001



Fig 9. Showing Instrument on user Trial in clearing.

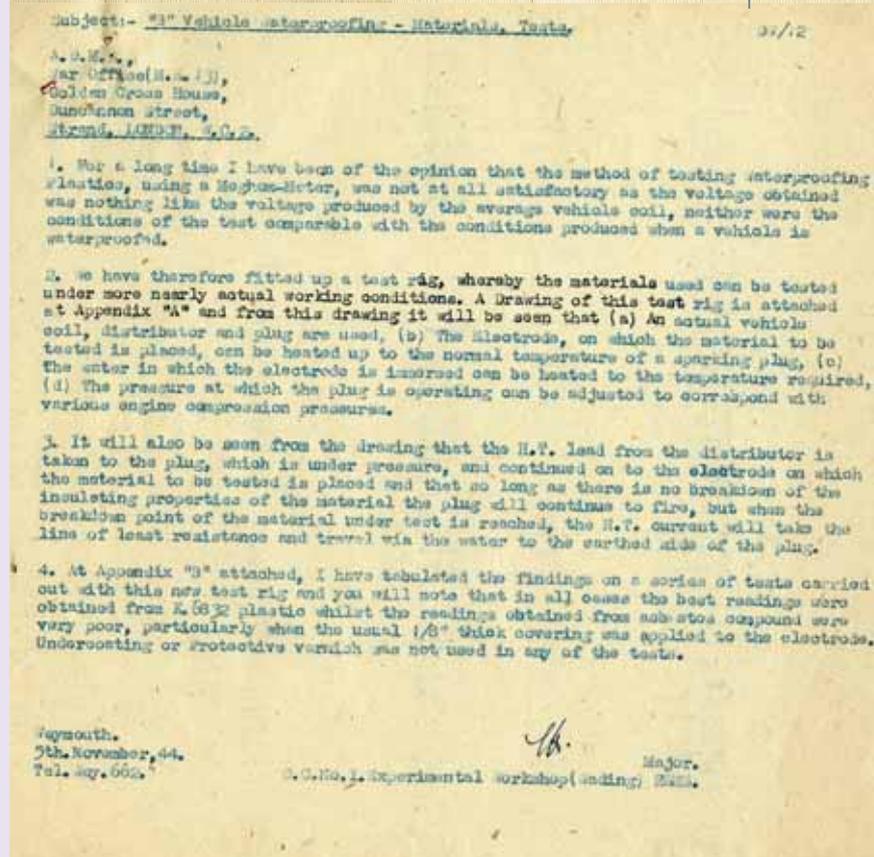
REME Tropical Proofing Report Eo5_0142_18 image2 003

specific publications such as the REME Journal for professional and academic articles.

The stories of REME individuals can also be told from the archives, such as those of Major-General Sir Eric Bertram Rowcroft, the father of REME; Major Ivan Hirst who played a leading role in the re-establishment of Volkswagen after the Second World War and Staff Sgt Desmond 'Roy' Homard who was part of a twelve-man team on the British Trans-Antarctic Expedition in the 1950s.

As a technical corps with specialist personnel covering every branch of electrical and mechanical engineering, the REME have been called upon to play a part in the design, development and experimental work necessitated by the ever-changing requirements of equipment to meet operational needs. The archives reflect these technical, engineering and research activities and the related scientific and technological disciplines that are required for the support of all the vehicles and equipment of the army (from vehicles to helicopters, telecommunications to weapons) as well as the collaborative technical activities of REME in design, development and experimental establishments.

Examples of these include: wading and waterproofing design and trials, in which REME played a major role in the preparation for the D-Day Landings in Normandy; the development of the BARV (Beach Armoured Recovery Vehicle) and the REME Experimental Beach Recovery Section (the BARV was one of the first vehicles which was modified to be REME specific); studies on the climatic effects on equipment such as tropical proofing of optical instruments by the REME Tropic Proofing Experimental Section.



REME Prestik Technique Fording Waterproofing materials page 2008 Eo4_0176 2008 Eo4_0176



REMR BARV The army wading ashore Normandy June 1944 012 E11_0063

To end off on a more personal note - it is worth mentioning certain luminaries who were in the REME, such as Arthur Lowe - Captain Mainwaring of 'Dad's Army' fame, who served as a Radar Technician, and Sir Denis Rooke OM, CBE, FRS, past Chairman of British Gas who served with the REME from 1944-1949 in the UK and India.

Celia Cassingham

REME

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Snippets

Change of organisation name – SAG Scientific Archives Group is now HSRAA

- Scientific Archivists Group Change of name to the Health Sciences Records and Archives Association
- With effect from 1st January 2018, the Scientific Archivists Group (SAG) will change its name to the Health Sciences Records and Archives Association (HSRAA), reflecting more clearly the scope of the group's activities. In alignment with the adoption of a new name, the association is launching a new website (<http://the-hsraa.org>) and new branding.

From the website www.the-hsraa.org is the following:

Who is the Health Sciences Records and Archives Association?

The Health Sciences Records and Archives Association (HSRAA) is a professional association that was established in 1981. We are here primarily for those in the healthcare sciences with responsibility for, or an interest in:

- records management processes;
- the establishment and management of GxP archives;
- the lifecycle management of regulated scientific records.

The ICA SUV, which has always included a science archives committee, has enabled a new scientific archives group to be formed within it: The Committee on the Contemporary Archives of Science and Technology (C-CAST): www.icasuvblog.wordpress.com/2018/03/26/introducing-the-committee-on-the-contemporary-archives-of-science-and-technology-c-cast/

There is to be a second workshop on Science Archives, to be held in Washington DC on the 13th and 14th August 2018. Further information should be forthcoming via listservs.

Update on Jodrell Bank First Light Project: it was awarded further funding for work to conserve and celebrate the heritage of Jodrell Bank and the First Light Project supports the Jodrell Bank Observatory being chosen as the UK's nomination for World Heritage site status in 2019, Heritage Minister Michael Ellis announced in January 2018.

The Observatory, part of the University of Manchester, is home to the Grade I Listed Lovell Telescope and is a site of global importance in the history of radio astronomy.

Founded in 1945, it is the earliest radio astronomy observatory in the world still in existence and pioneered the exploration of the universe using radio waves.

The UK currently has 31 World Heritage Sites, with the Lake District having been inscribed in 2017. In order to be inscribed as a World Heritage Site, nominations must show that they possess Outstanding Universal Value, which transcends borders: www.jodrellbank.net/uk-puts-forward-jodrell-bank-observatory-2019-world-heritage-nomination/

The archives of Aerospace Bristol have just opened to the public. Aerospace Bristol is a brand new industrial museum in Filton, which tells the amazing story of Bristol's world class aerospace industry, and houses Concorde Alpha Foxtrot: the last of the iconic supersonic passenger jets to be built and the last to fly. The archive is housed within the Concorde building in a purpose-built facility. www.aerospacebristol.org/archives/

Calling all colleagues!

ARC is always seeking articles reflecting the issues that matter to you most. We would love to publish pieces that reveal the sector's opinion and showcase successful best practice.

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