

Introduction



I'm very pleased to present this Research, Public History and Science Outreach Report for 2024, which lays out in more detail exciting and important work done by staff, volunteers and Trustees of the Brunel Museum, as well as by external colleagues and other partners.

2024 was an outstanding year, one in which our Trustees, staff, and volunteers worked hard to share their latest research, to excite new and returning audiences with stories of the Thames

Tunnel and the Brunel family, and to engage with communities ranging from the very local to the international. This report makes visible the varied research projects currently ongoing in the Museum, and shows that even a museum as small as ours can make a big impact in delivering publicly-accessible programmes and events focussed on history and STEM.

2025 will be the 200th anniversary of work beginning on the Thames Tunnel project. In this bicentenary year, a number of brilliant initiatives will see the Museum contribute to engaging new audiences and deepening research partnerships. Work continues apace to prepare for the National Lottery Heritage Fund *Brunel Museum Reinvented Project*, which will redesign the Museum's galleries with a focus on making the displays and programming even more family-friendly and interactive. As shown by this report, the *Reinvented Project* has already offered opportunities to engage in sustained research and to develop new science outreach programmes in collaboration with partners.

We're also excited to host the inaugural season of the *Brunel Museum Research Forum*, a seminar series showcasing research from external specialists and the Museum's staff and volunteers. We'll also welcome a number of students, from secondary to postgraduate levels, for projects and placements at the Museum as part of their personal, academic, and professional development.

In the meantime, we were very pleased to announce that tickets for our local communities will cost just £2 in 2025, giving more people access to the knowledge and skills produced by work discussed in this report.

Katherine McAlpine
Director

HOW TO BUILD A

RACING CAR



Fran Scott performing *How to Build a Racing Car* for National Playday at the Museum, August 2024.

Museum Trustees, Staff and Volunteers

Fran Scott (Trustee)



In August, Fran's book, *How to Build a Rocket* (London: Walker Books, 2024) was published, following on from her previous book, *How to Build a Racing Car* (London: Walker Books, 2023). That month, Fran performed a live stage show at the Museum, also entitled *How to Build a Racing Car*, as part of National Play Day.

Across 2024, Fran engaged in a number of different science outreach activities, from filming programmes for the BBC on sustainable technology, to hosting podcasts on sustainability in the automobile industry and giving keynote speeches at the Association of University Engineers Annual Conference and at the Silesian Science Festival in Poland. Excitingly, Fran was also nominated as an Engineering Role Model for National Engineering Day 2024, and secured funding from the ERA Foundation for the first ever multi-presenter Engineering YouTube channel to be hosted only by women.

Katherine McAlpine (Director)

Across the year, Katherine advocated publicly for the Museum, its stories, programmes, and mission in various ways. Notably, in February, Katherine was interviewed by Tim Dunn on *Secrets of the London Underground* about the construction of the Thames Tunnel. The episode was shown in August; many visitors later mentioned that the programme had inspired their visit the Museum.

In August, Katherine chaired the launch of Sacha Coward's book, *Queer as Folklore* (London: Unbound, 2024), at Royal Museums Greenwich. In October, Katherine spoke on a panel at Tate+Co's 'In the City' debate series on the topic of 'Culture in the City'. In November, Katherine spoke about the successes of the Museum's *Mud, Flood, and Fire* schools programme at the Association for Leading Visitor Attractions Heads of Learning Conference.



Emily Boldry (Community Curator)



Emily focused in 2024 on curating the new permanent galleries for the *Brunel Museum Reinvented Project* to rethink the Museum's stories and how it tells them. This has included running a co-curation project involving contemporary construction workers and tunnellers in interpreting primary sources related to the historic Thames Tunnel workers. Other sessions with Museum volunteers re-examined the biographies of the Brunel family.

In summer 2024, Emily ran *Underground Voices: The Thames Tunnel Reimagined*, an arts exhibition project involving young people aged 9-16 who engaged with and responded to stories of the Thames Tunnel in creative ways, making artwork for a temporary exhibition. The first installation of artworks emerging from this project are slated for summer 2025.

In October and November, Emily led a group of 18 children aged from 6-12 years old to explore and respond to stories of the Thames Tunnel workers, helping them produce a range of creative films as part of *Kids in Museums Takeover Day*. As well as engaging them with their local heritage, participants learnt a range of new skills – and saw their films shared with the world on social media.

In 2025, Emily will be working on a number of outreach and co-curation programmes, including a project to produce a video alongside 6 young filmmakers from Southwark College, exploring Women in STEM to be shown in the new permanent gallery. She is also in the early stages of planning a placement opportunity for undergraduate engineering students.



Gabriella Codastefano (Learning Producer)

In 2024, Gabriella developed and delivered a number of STEM programmes for local families and schools, with the generous support of various funders.



Her outreach work with schools included *Sophia's Story*, a KS3 workshop tackling gender stereotypes in STEM learning, funded by Esmée Fairbairn. This was delivered in addition to two work experience programmes, *Climbing the Ladder*, in collaboration with BOSCO College; and *First Steps to Work*, a placement programme aimed at secondary school students. Two students, Jake and Ismael, carried out a

collections-based work experience programme as part of *First Steps to Work*, working with Gabriella and Jack to study our collection of Thames Tunnel medals. They produced [a video about them](#), an audio stop guide, and [a blog about their experiences](#).



Gabriella also continued to lead the Museum's outreach with local families, offering free and engaging sessions. The *Tunnellers' Club* took place weekly in summer 2024, with a series of free STEM activities for children aged 5-11. Making use of our Tunnel Shaft roof garden, the *Wild Things* free gardening club, delivered in collaboration with Global Generation, was also very popular.

Jack Hayes (Collections Access Coordinator)

In January and February, Jack spent a period of time working with Marc Brunel's diaries held at the Institution of Civil Engineers. Reflections on this work, and new findings emerging from it, were included in [the ICE Archive's Digging Deeper](#) newsletter.



Following the award of a Jonathan Ruffer Curatorial Grant from Art Fund, in May Jack travelled to access 65 French-language letters by Marc Brunel which he identified in a French archive. He has since been transcribing, translating, and editing the letters for future publication. In November, Jack was awarded a Fellowship of the Institute of Historical Research, which he will use to pursue this project.

Other research projects have produced new, detailed catalogue essays for objects in the Museum's collection, such as a [German lithographic print of the Thames Tunnel](#), produced by a lithographer who, like the Brunels, engineered new solutions to old problems.

Research carried out by Jack between February-April on a pair of shoe buckles in the Museum's collection which emphasized the socio-political history of these small items of dress led in July to the award of the Costume Society's Daphne Bullard Grant to fund conservation work. [The buckles then underwent conservation in September by metals conservator Joanne Whalley](#). This conservation work highlighted the buckles' histories of use, including repeated repairs and previous use of soap to clean them.

Across 2024, Jack gathered primary source material in several archives to inform the Museum's interpretation. Research drawing on some of these records was published via the Museum's blog. This included a piece on the [five Meilan sisters, financial brokers from Rotherhithe who invested in the Tunnel in 1824](#), drawing on material in the Parliamentary Archives. The diaries and papers of Gilbert Blount, now held at Brunel University, also

uncovered [exciting new information about daily working life on the project](#) from the perspective of someone other than one of the well-known engineers. His current research project focusses on the relationship of the Brunels to the painter John Martin (1789-1854), an engineer in his own right.

In the latter part of 2024, Jack convened the inaugural series of the *Brunel Museum Research Forum*, which will take place in spring 2025.

[Andrea Vasel \(Volunteer\)](#)

Andrea is currently working on an historical novel which sees Emma Brunel, sister of Isambard Kingdom Brunel, become a Regency sleuth. Writing the novel has led to a sustained period of historical research into this largely unknown woman. Andrea has been able to uncover new information about Emma Brunel's life – including through visits to her tomb and memorial in Devon, and through the use of records at Southampton Archives and Southampton University – which will inform both her novel and the Museum's interpretation.

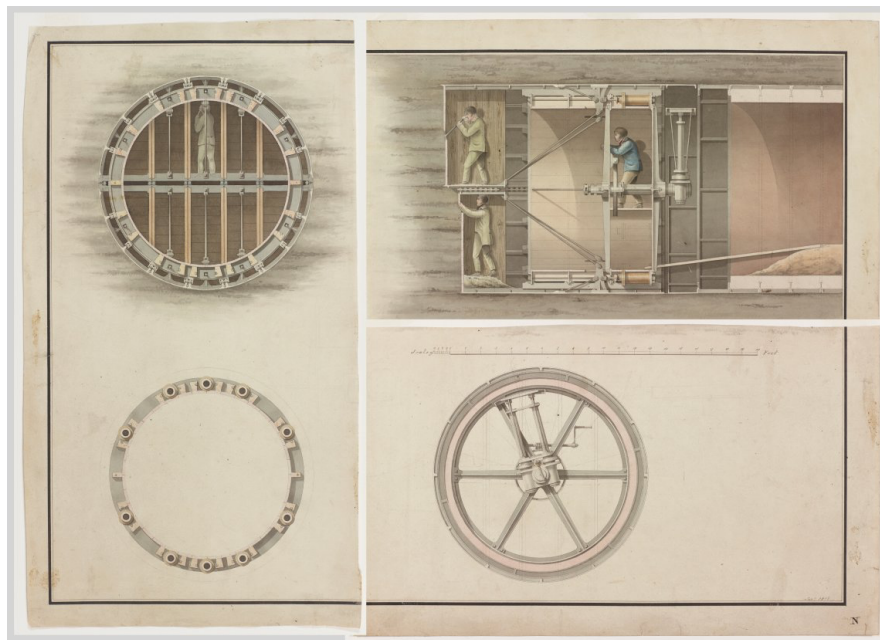
In May, Andrea also wrote [a piece about Emma Brunel for the Museum's blog in celebration of International Women's Day 2024](#). In June, Andrea received a Southwark Star award, in recognition of her work as an ambassador of the Museum's public-facing activities and of her work on Emma Brunel.

In October, Andrea wrote an article about Emma Brunel for the East London History Society; this will appear in early 2025, when Andrea will also give a talk to their members outlining her research findings.



Arran Saunders (Volunteer)

Arran's research has concentrated on detailed examination of the Thames Tunnel designs acquired by the Museum in 2017. Arran has catalogued the collection, providing new dating and likely attributions for individual images. His work led notably to the reconstitution of sheets which arrived in the Museum's collection in fragments.



Arran will present his work at the Brunel Museum Research Forum in spring 2025, with a public-facing discussion of the project published on our website. Many of his research findings are already available via the Museum's [online catalogue](#).

Gill Howard (Volunteer)

In March, Gill gave a talk to the Institute of Physics entitled 'The Eighth Wonder of the World'. Gill also wrote an introductory biography of William Gravatt, sometime resident engineer of the Thames Tunnel, for future publication on the Museum's website.

In spring 2025, she will give a talk at the Brunel Museum Research Forum, entitled '*Fancy Articles and Multifarious Trumpery* from a Private Collection'.



Helen Bannigan (Volunteer)

In September, Helen gave a talk to visitors at London Transport Museum's Depot Open Day, introducing their visitors to the stories of the Thames Tunnel – and to the Museum, its history, and its wider plans for physical and curatorial renovation.

Mark Kleinman (Volunteer)

In August, Mark began research into Marc Brunel's period living in America, and especially his activities whilst in New York between 1796-99. Mark's research interrogates claims that Brunel was 'chief engineer' of New York City, and [considers in closer detail the question of Brunel's relationship to founding father of the United States of America, Alexander Hamilton \(1757-1804\)](#). Working with collections at the Library of Congress in Washington D.C. and at the British Library, Mark's research has drawn a network of individuals who facilitated Brunel's work in the US and his arrival in Britain. Importantly, Mark's work has emphasized the centrality of Brunel's patent for a copying-machine in his relationships with US politicians, countering claims that Brunel's primary purpose in travelling to Britain was to work for the Royal Navy.

For 2025, Mark is undertaking archival work across The National Archives, The London Archives, Transport for London's Corporate Archive and the London Transport Museum, examining the Thames Tunnel's conversion for rail use by the East London Railway Company (ELRC) in the 1860s and its later operational history. This builds on his interest in Edward Watkin (1819-1901), a railway entrepreneur who attempted to build a tunnel beneath the English Channel, and who gained control of the ELRC in the 1870s. He will present initial findings at the Brunel Museum Research Forum in a talk entitled 'The Afterlife of the Thames Tunnel: The East London Railway Company'.

Peter Jones (Volunteer)

In January, Peter submitted for publication an article entitled 'The 8th Wonder of the World and William Morris?'. Peter also continued research into Thames Tunnel Company shareholders, highlighting their lives and sources of money. This led both to a tea tasting for staff and volunteers hosted by Twinings – a company and family who were important early investors in the Tunnel – and to an increased research focus on the Tunnel's investors, which will be a key question for 2025.

In April, Peter gave a talk to the London and Middlesex Archaeological Society, entitled 'The Thames Tunnel'. The talk was recorded and made available [online](#).

Keith Turpin (Volunteer)



In September, Keith gave a talk to visitors at London Transport Museum's Depot Open Day, exploring the history of the Thames Tunnel and its relevance to the wider story of the development of London's transport.



Gill Howard leading a STEM workshop for local children, April 2024.

Collaborative Work

Association of Independent Museums Conference

At AIM's annual conference in June, [Katherine and Emily](#) ran a session entitled 'How museums are using AIM/Art Fund's emotions research to build and strengthen their communities'. Focussed on research conducted by the Association of Independent Museums into key emotions elicited in museum visitors, the session discussed how different museums have implemented the research, including how whole departments or workforces can leverage emotions; how to facilitate conversations around the research; and key learnings about what does and does not work when translating theory into practice.

'Building Bridges' at Elsecar Heritage Centre, South Yorkshire



In August, [Jack and Katherine](#) were interviewed on camera about Marc Brunel and the two bridges he designed which were built at Milton Ironworks in South Yorkshire and installed on La Réunion in the early 1820s. Filmed by [Wayne Sables](#), the footage was used in Barnsley Museums' National Lottery Heritage Fund *Building Bridges* project which included production of the video and associated research; STEM workshops for local communities; and an archaeological dig at the site of the former ironworks. The video was screened on 30 October, projected onto Elsecar Heritage Centre. Plans are underway to show the film at the Brunel Museum in 2025.

Treasures of the Brunel Museum's Collections

Across the summer, [Jack, Helen, and Mallory](#) appeared in videos highlighting key objects in the Museum's collection.



Filmed by marketing intern [Emma Searle](#), the videos each enabled the wider public to discover in-depth information about individual objects. [Jack's video concentrated on Marc Brunel's shoe buckles](#); [Helen's on the series of Thames Tunnel ceramics](#); and [Mallory's on French and English-language guidebooks to the Tunnel](#).

Thames Tunnel Video Series



2024 saw the beginning of a series of videos, each made in collaboration another institution, to highlight material and social histories of the Thames Tunnel project. In July, [Katherine, Jack, and Emma](#) travelled to [Brickworks Museum](#) in Southampton, where they worked with Director [Carolyn Haynes](#) to explore the production of bricks in the early 1800s, and their importance to the Thames Tunnel.

In October, [Katherine](#) and [Jack](#) travelled to the [National Coal Mining Museum](#) in Wakefield, where they shot footage for another video exploring the role of miners, alongside NCMM staff and volunteers.

Other videos in this series are currently being planned with further partners.

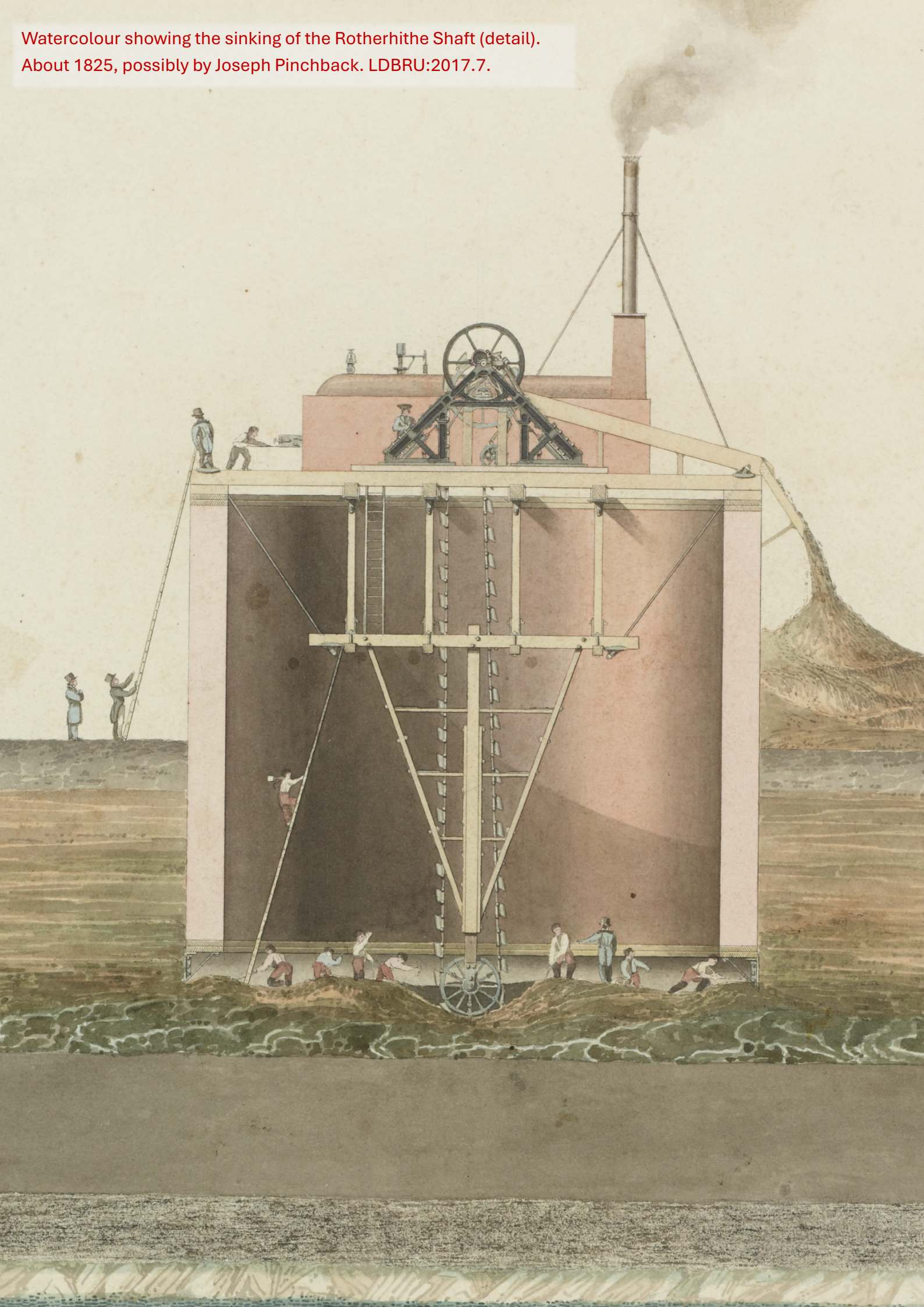
Tunnellers' Tales



Working alongside designer [Lydia Reed](#) and consultant [Holiday Donaldson](#), in summer 2024 the Museum designed a new 'Museum in a box' activity, *Tunnellers' Tales*. Drawing on archival research and the Museum's collections, the activity gives participants the opportunity to put themselves in the shoes (quite literally!) of the workers who built the Thames Tunnel 200 years ago, as well as the engineers who planned the project, and contemporary construction workers. Running during half-term and led by volunteers, *Tunnellers' Tales* brings to life more varied stories, and ones that are difficult to tell through static collections objects alone.

The project's initial impact, and its basis in research, was explored in [a blog for the Costume Society](#) written by [Jack](#).

Watercolour showing the sinking of the Rotherhithe Shaft (detail).
About 1825, possibly by Joseph Pinchback. LDBRU:2017.7.



External Research

In 2024, external researchers made use of the Museum's collections and conducted research on behalf of, or about, the Museum and its collections. The Museum also hosted research-led events.

National Brunel Network Meeting

In March, the annual meeting of the National Brunel Network was held at the Museum. Chaired by [Tim Bryan](#) (Director, The Brunel Institute/SS Great Britain Trust), the meeting brought together people working on the Brunels from across the UK. A keynote talk was given by photographic historian [Rose Teanby](#), entitled 'Brunel's Photographer: The Life and Legacy of Robert Howlett'.

Rose Teanby

Independent Photographic Historian

After discussions between the Museum and a private collector related to a silhouette made at the Thames Tunnel, [Rose](#) worked with [Jack](#) to investigate the story of Mary Catlin (1809-c. 1870s), who worked at the Tunnel from the early 1840s, first as a silhouette portraitist, and then later as a photographer. Rose's research has highlighted in particular Catlin's pioneering use of artificial photographic lighting. This work, which will feed into interpretation in the new permanent gallery, will also feature in a forthcoming journal article by Rose on early women photographers in *History of Photography*.

Benjamin Antupit, Natalie Carrington, Connor Quinn, and Sage Ugras BSc Students, Worcester Polytechnic Institute, USA

The team of four students – [Benjamin](#), [Natalie](#), [Connor](#), and [Sage](#) – from Worcester Polytechnic Institute in Massachusetts spent two months at the Museum in March and April working with Jack. They conducted a number of site visits and meetings to assess the feasibility and potentials of various forms of audio guide. They then used this research to inform the development of an audio guide for the Museum, before producing and installing it in the gallery.

Whilst at the Museum, the team also developed audience tracking software to show how visitors move through the Museum and interact with exhibits. Their findings were presented in a report entitled 'Audio Guide Development and Visitor Research at the Brunel Museum', [available online](#).



[Freya Connor](#)
[MSc Student, King's College London](#)

Freya completed her MSc in Climate Change Science and Policy at King's College London, with a thesis entitled *Escaping the heat: how, and to what extent, community resilience is constructed through the provision of cool spaces during heatwaves*. The thesis examines the Mayor of London's Cool Spaces programme, in which the Museum participates. She interviewed [Jack](#) about the scheme's successes and drawbacks; the support the Museum received to implement it; the role of museums in their local community; and the role museums can play in climate justice.

[Peter Angove](#)
[BA Student, Queen Mary's University London](#)

Peter carried out an internship at the Brunel Museum in Autumn 2023 as part of his BA in History at QMUL. As part of his work on public history and heritage, Peter wrote up [a short introductory biography of Marc Brunel](#) which was then adapted in 2024 for use on the Museum's website. Peter's work, which is freely available, gives an overview of the central figure at the heart of the Thames Tunnel – one far less known than his son, Isambard.



Examination of shoe buckles once owned by Marc Brunel (LDBRU:2007.4) during conservation work funded by the Costume Society's Daphne Bullard Grant, September 2024.



External Assistance

As ever, the Museum's research, public history, and science outreach activities were often assisted or made possible by those based in other institutions.

The Museum would like to thank colleagues at the following institutions who facilitated our work in 2024:

| | |
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| Archives Départementales de l'Eure, Évreux | Museum of the Home, London |
| Archives Nationales, Paris | Museum of the Order of St. John, London |
| Ashmolean Museum, Oxford | National Art Library, London |
| Birkbeck University, London | National Coal Mining Museum, Wakefield |
| Bizzie Bodies, Rotherhithe | National Library of Scotland, Edinburgh |
| Black Country Living Museum, Dudley | Natural History Museum, London |
| Bridging the Tamar, Plymouth | New-York Historical Society, New York |
| Brickworks Museum, Southampton | Northampton Museums |
| British Library, London | Queen Mary University, London |
| Brunel Institute, Bristol | Sir John Soane's Museum, London |
| Brunel University, London | Southampton Archives |
| Calderdale Museums, Halifax | Southwark College, London |
| Cité de l'Architecture et du Patrimoine, Paris | SS Great Britain Trust, Bristol |
| Clifton Suspension Bridge Trust, Bristol | The Fan Museum, London |
| Cornish Mining World Heritage Site, Cornwall | The Foundling Museum, London |
| Crossness Engines Trust, London | The London Archives, London |
| Crystal Palace Foundation, London | The London Mithraeum |
| De Montfort University, Leicester | The Migration Museum, London |
| Dutch Church, London | The National Archives, London |
| Elsecar Heritage Centre, Barnsley | The Parliamentary Archives, London |
| Guildhall Library, London | The Postal Museum, London |
| Institution of Civil Engineers, London | The Royal Armouries, London/Leeds |
| Library of Congress, Washington, D.C. | Time and Talents, Rotherhithe |
| London Bubble, Rotherhithe | University College London |
| London Museum | University of Southampton |
| London Transport Museum | University of York |
| Musée National de l'Éducation, Rouen | Victoria and Albert Museum, London |
| The Wellcome Collection, London | |

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Art Fund_

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