

Annual Review 2022-23

**HISTORY
OF SCIENCE
MUSEUM**





THE HISTORY OF SCIENCE MUSEUM MUST ENSURE IT REMAINS RELEVANT, OUTWARD-LOOKING AND SUSTAINABLE FOR THE FUTURE.

- > RESEARCH, TEACHING & COLLECTIONS
- > PUBLIC ENGAGEMENT AND PROGRAMMES
- > OPERATIONS AND PLANNING

Cover image:
Visitors of all ages joined volunteers for a weekend exploring stories in the Museum and seeing our amazing objects in action.



99 Years of the History of Science Museum (HSM)

The building which the HSM occupies, known as the 'Old Ashmolean', opened in 1683 as a centre for the new experimental learning in Oxford, with a laboratory, spaces for experimental demonstration and dissection, display space for Elias Ashmole's collection, and accommodation for the Oxford Philosophical Society. It is the only surviving building from the influential movement to reform natural knowledge in the 17th century, which also created the Royal Society in London in 1660. Two of the leading lights of the early days of the Society, Robert Boyle and Robert Hooke, had carried out their famous research on the air pump in a house on Oxford's High Street.

It was thus a logical step that in 1924 the Museum of the History of Science was founded in the 'Old Ashmolean' building. Like Noah's Ark, it was intended as a place of safety, preserving objects from the threat of destruction. Robert Gunther and Lewis Evans together were the driving force behind the new museum. Evans donated his extraordinary collection of historic scientific instruments to the University in 1924 and Gunther campaigned for them to be displayed in the 'Old Ashmolean'. A well-connected individual with an encyclopaedic knowledge of the history of science, Gunther rescued many historic scientific artefacts and transferred them to the Museum. Lewis Evans's collection provided the nucleus around which the Museum grew. Subsequent acquisitions have come especially from Oxford colleges and departments as well as major donors such as J A Billmeir (1957), C F C Beeson (1966), the Royal Microscopical Society (1968) and the Marconi Corporation (2004). The Museum now holds an unrivalled collection of early astronomical and mathematical instruments from Europe and the Islamic world and an exceptionally rich set of microscopes. Complementing the wide range of objects are manuscripts and early printed books, early photographs, portraits of scientists and scientific prints.

From the Director

We are looking back with pride on a year of great achievements, of change and perseverance, of excitement and opportunities.

Retirement and career changes led to the formation of a new Executive Team, who – together with extraordinarily dynamic colleagues across all sections – drove a number of bold initiatives that created a wonderful buzz onsite, offsite, and online.

We made big strides towards bringing to fruition Vision 2024, our ambitious strategy for complete transformation to celebrate the Museum's centenary. We installed a number of hugely popular displays in our mission to trial innovative and bold initiatives to better understand our audiences and their needs and expectations. We formed a range of exciting research and outreach partnerships in the UK and abroad – and we continued to ask uncomfortable questions of our own objects with the aim to reveal the many hitherto untold histories of our collection, and especially that of our founder, Lewis Evans.

It gives me enormous pleasure to thank all those individuals whose extraordinary commitment to our Museum made all those, and many more, successes possible: my colleagues in the Museum, across our division Gardens, Libraries and Museums (GLAM), and across the University.

The generosity of our supporters has once again been humbling and encouraging, and has enabled us to fulfil so many of our aims this past year.

THANK YOU!

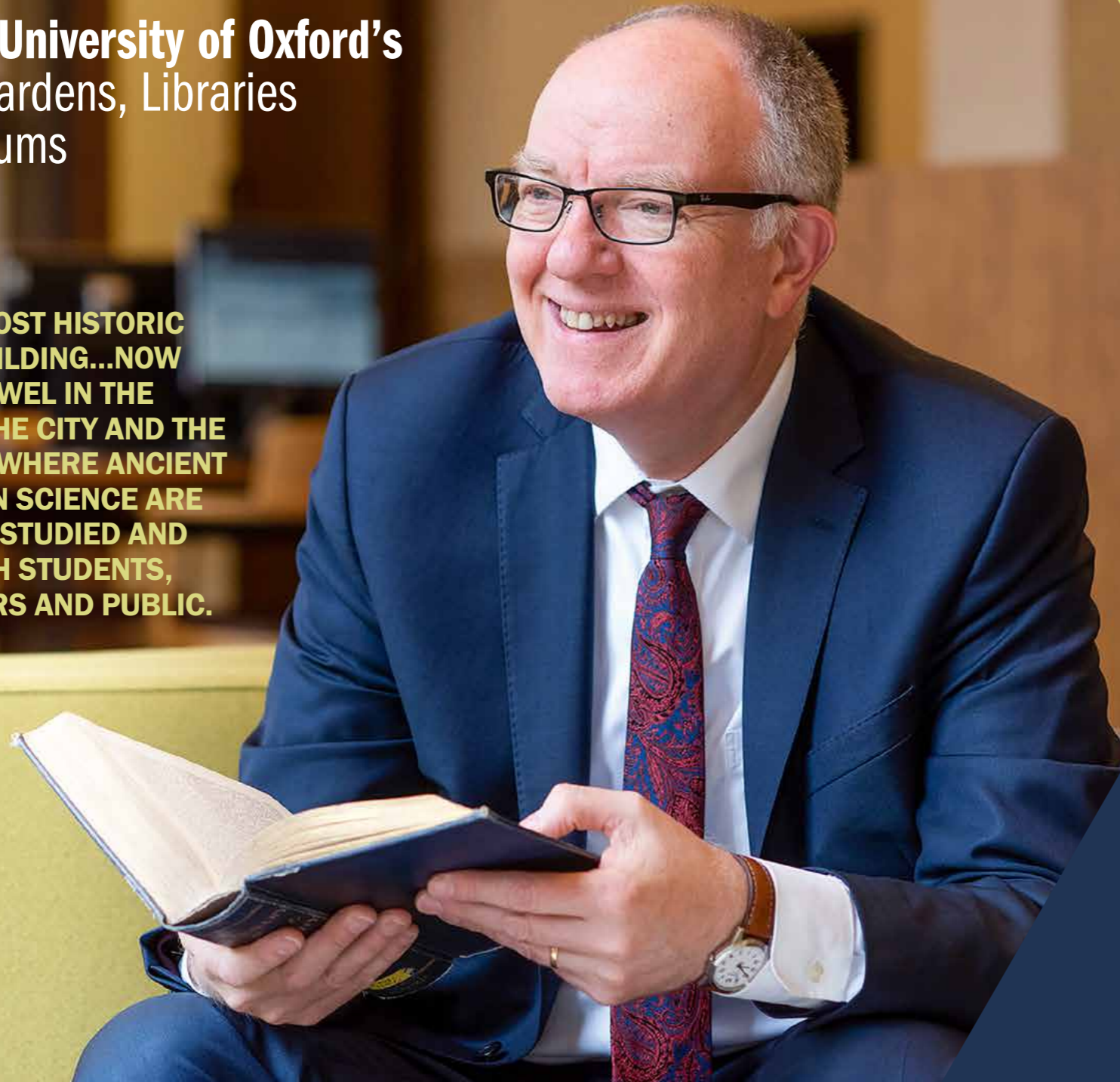
Dr Silke Ackermann FSA
Director

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From the University of Oxford's Head of Gardens, Libraries and Museums



OXFORD'S MOST HISTORIC MUSEUM BUILDING...NOW HOUSES A JEWEL IN THE CROWN OF THE CITY AND THE UNIVERSITY, WHERE ANCIENT AND MODERN SCIENCE ARE PRESERVED, STUDIED AND SHARED WITH STUDENTS, RESEARCHERS AND PUBLIC.



Oxford's most historic museum building, which was completed in the 1680s, now houses a jewel in the crown of the city and the University, where ancient and modern science are preserved, studied and shared with students, researchers and public. In 2024 the History of Science Museum, the current occupant of the nation's oldest purpose-built museum building, will celebrate its centenary.

During the past year the Museum has been astonishingly busy, with its small but dedicated staff welcoming over 168k visitors to enjoy its permanent collections, and its important changing exhibitions, especially the acclaimed 'Collecting COVID' displays, a public-facing output of the joint project run with the Bodleian Libraries to collect, through artefacts and documents, the evidence of Oxford's outstanding contribution to the global pandemic.

Whilst welcoming the public to enjoy its collections, major research initiatives have also been pursued with great vigour by its staff, ranging from its 'Diffused Museum' initiative, to the 'Troubling Standards' project being taken forward with colleagues in Birmingham and South Asia, and a project funded by the University's John Fell Fund to deepen our understanding of the Museum's founding collections, which were brought together and given to the University of Oxford a century ago.

The Museum has also shown in the past year how it is truly a global institution. Its collections are of preeminent importance for the study of the history of Islamic science and its relationship with European scientific, intellectual and religious thought, and it has built on these rich materials to provide a strong presence for the Museum at the 2023 Islamic Art Biennale at Jeddah, Saudi Arabia.

After such a busy and productive year, I would like to express my congratulations and thanks to Dr Ackermann and her staff at the Museum, and commend this Annual Report to all its visitors.

Richard Ovenden
Bodley's Librarian and Head of Gardens,
Libraries, and Museums
University of Oxford



Headlines 2022-23

Islamic Art Biennale

The stunning Shah Abbas II astrolabe from the Museum's collection featured prominently in an awe-inspiring display at the Islamic Art Biennale 2023 held in the iconic old Hajj Terminal of King Abdulaziz International Airport in Jeddah. Director, Dr Silke Ackermann helped to train 120 young guides, women and men, who shared their knowledge of the astrolabe with more than 600,000 Biennale visitors from all over the world.



Alice Celebrates Eid

The Museum marked the Muslim festival of Eid al-Adha and Oxford's annual Alice's Day together in July. Families enthusiastically engaged with a wide range of activities outside and inside the Museum: a multi-cultural tea party, face painting, and henna tattoos on Broad Street, and an Alice-themed family trail, craft activities, and opportunities to discover Islamic objects inside the Museum.



Lyra's Worlds

Celebrating Philip Pullman's *His Dark Materials* and fittingly located in the museum that inspired the author's creation of Lyra's alethiometer, this intriguing display features props and costumes from the BBC HBO production under a canopy of stars and Dust.



Launch of the Alwaleed Cultural Network (ACN)

This distinguished global networking platform established by the Alwaleed Philanthropies (supporters of the second phase of MultakaOxford) promotes tolerance and cross-cultural understanding. The inaugural meeting on 8 December 2022 in Riyadh (Saudi Arabia) was attended by the Director Dr Silke Ackermann, Project Manager Nicola Bird, and former Multaka volunteer Mohammad Al Awad. The event provided a deeply meaningful opportunity for all current members to be physically in one room together, bringing to life the significance, power, and opportunities of working together transcending borders and differences.



COVID: Stories from a Segregated Society

This thought-provoking and deliberately challenging exhibition explores how communities came together through COVID and why researchers at Oxford University and around the world are working to understand the long-term impacts of the virus.

Troubling Standards, The Social History of Measuring in South East Asia

In July the Museum hosted a workshop to explore modes of control exercised through instrument use and the standardisation of weights and measures working with the Birmingham Museums Trust and colleagues from India. The Museum's collection of weights and surveying instruments provide an exceptional opportunity to collaboratively investigate the social history during the colonial period in India.



Recovered visitor numbers and record-breaking shop sales

The Museum's award-winning Front of House team welcomed over 168,000 visitors which exceeds pre-COVID levels by 7%. Visitors went on to purchase gifts and souvenirs in the Museum's shop which achieved excellent sales of over £87,000.

Facts and Figures

Offered engaging museum experiences ...

77 volunteers supported regular public engagement roles

2,693 students aged 5-18 years took part in **114 teaching sessions**, in person and online

7,578 newsletters were opened **3,616 times** by **967 subscribers** (83 new this year)

Our team ...

30 people make up the Museum team including part-time and project staff, totalling 17.2 FTE (fulltime equivalent).

1,086 hours were donated by 93 volunteers, including MultakaOxford, across the full spectrum of our activities.

180 student teachers took part in training in the Museum

689 adults brought **1,644 children** (0-16) to enjoy family activities in the Museum

237 students in Higher Education and training took part in facilitated sessions

168,011 public visitors came to the Museum – a **phenomenal 7% increase on pre-COVID visitor numbers** (2018-19)

122,477 visitors experienced our stories and services online across **303,067 website pages**

And our visitors gave back ...

£87,000 spent in the shop – a **45% increase on last year**

£44,500 donated by visitors – a **34% increase on 2021-22**

29,963 social media followers liked, shared, and commented on our stories **13,844** times

News

Sir Martin Wood Curator of Oxford Science

The Museum is delighted to have received a donation from Lady Audrey Wood OBE in memory of her late husband, Sir Martin Wood.

This generous gift will enable the Museum to establish a new three-year post, the *'Sir Martin Wood Curator of Oxford Science'* that will play a key role in its mission to share the stories of Oxford science and add significantly to the capabilities for engaging academic colleagues across the University. The creation of this new curatorial position enables the HSM to expand further on recent collaborative work such as the *Collecting COVID* project with the Bodleian Libraries.

The HSM collaborated with Sir Martin and Lady Audrey Wood on its 2019 exhibition *'People – Science – Business'*, celebrating 60 years of Oxford Instruments, the global company the Woods founded together in their garden shed.

The Museum is enormously grateful to Lady Wood for her generous gift and is much looking forward to celebrating Sir Martin's huge contribution to scientific discovery and innovation once the new post is appointed.

Sir Martin Wood photographed at the History of Science Museum in October 2019

Staff Changes

Following a year-long sabbatical in 2022, Head of Research Teaching and Collections (RTC) Dr Stephen Johnston decided to focus on his research and to reduce work at the Museum to one day per week. Stephen's outstanding sabbatical cover as Head of RTC, Dr Anne Tiballi, returned to her substantive position at Penn Museum in Philadelphia (US) at the end of 2022. Dr JC Niala was warmly welcomed as new Head of RTC in December 2022. JC's passion for collections-based research has ignited collaborative efforts concerning South Asian collections. The work in this area with colleagues from India and Birmingham Museums Trust promises to unearth valuable insights enhancing the Museum's decolonial and global perspective.

In November 2022 the RTC team was joined by Ms Sarah Chard-Cooper as Collections Research Access Manager, and Dr Sumner Braund joined as the John Fell Research Fellow at the HSM. In May 2023 colleagues bid farewell to Dr Federica Gigantes, John Ellerman Curator of the Collection from the Islamic World. Federica's valuable work contributed to a

range of core curatorial activities including the enrichment of information on the Museum's world-class collection and widened accessibility through the development of an online database. The Museum is enormously grateful to the Trustees of the John Ellerman Foundation for their support of this position.



Dr JC Niala

Collections

Acquisitions

The Museum has gratefully received five artefacts from Emilie Savage-Smith, Professor Emerita of the History of Islamic Science at Oxford's Faculty of Asian and Middle Eastern Studies:

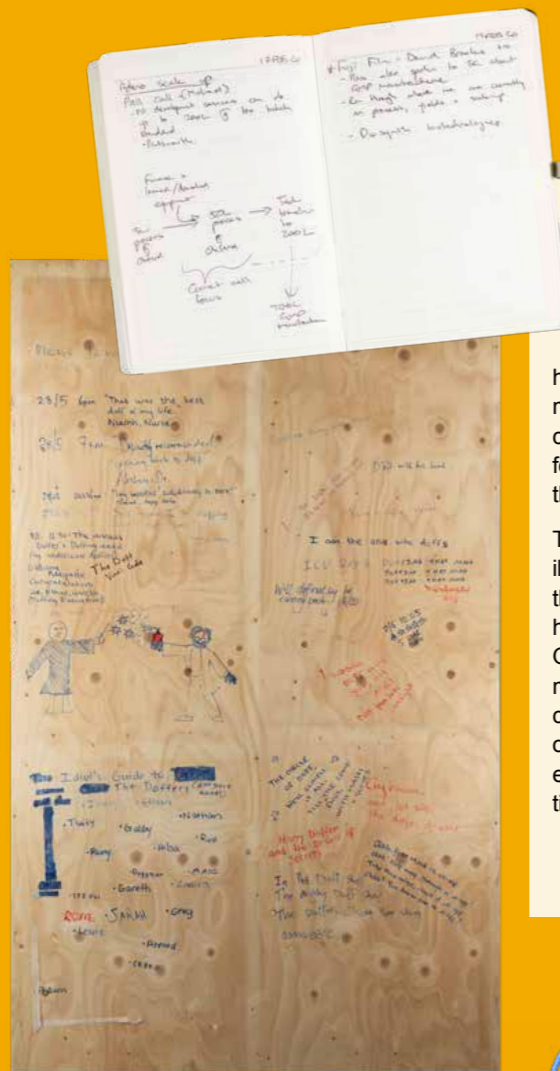
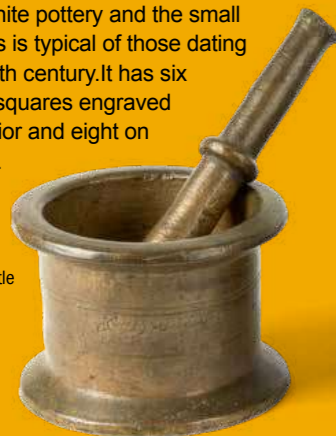
Islamic mortar and pestle, c. 17th-18th century, formerly part of the personal collection of R.E.W Maddison, father of former Director of the HSM, Francis Maddison;

Safavid Talismanic bowl, Iran, early 16th century;

Three contemporary talismanic bowls and a mortar & pestle acquired at souvenir markets in Egypt, Syria etc.

Islamic Talismanic bowls were produced from at least the 12th century. They were likely used to maintain wellbeing, cure illness and relieve the pain of childbirth by drinking water that had touched Qur'anic texts. The example donated by Professor Savage-Smith has a body form influenced by the profile of Chinese blue and white pottery and the small central boss is typical of those dating from the 15th century. It has six 4x4 magic squares engraved on the interior and eight on the exterior.

The 17th-18th century Islamic mortar and pestle (inv. 18625) and the Safavid Talismanic bowl (inv. 18626).



Left: Scientist's notebook containing sketches and notes from the development of the Oxford AstraZeneca COVID vaccine.

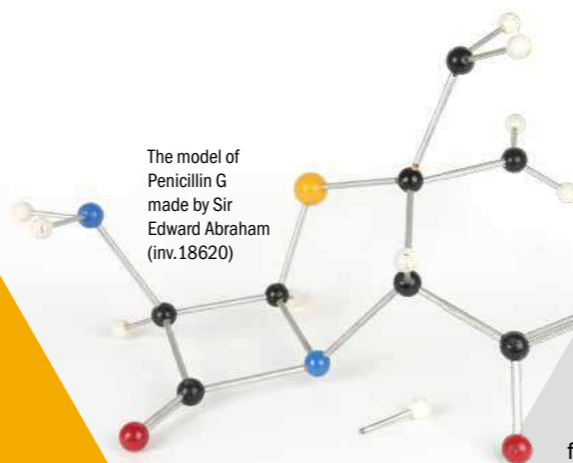
This year the Collecting COVID project has acquired 46 new objects which are accessible in the Museum's searchable Collections Online database. 18 objects have been on display in the museum and 25 have detailed context available online in the form of personal narratives from the donors.

The stories told by these objects illustrate the breadth of impact that the COVID-19 Pandemic had, both on the University of Oxford as an institution and its members as individuals. They capture for the future the spirit of outstanding work and personal endeavour during such difficult times.



Prototype ventilator developed for the UK Government's 'Ventilator Challenge'.

A panel from a temporary 'doffing' shed, used by medical staff at the John Radcliffe Hospital to remove their PPE. The panel features graffiti made by medical student volunteers who assisted in this process.



The model of Penicillin G made by Sir Edward Abraham (inv.18620)

The Museum was delighted to receive a number of items via the Dunn School of Pathology, including two related to the development of penicillin, a story featured in a display in our Basement Gallery: a model of the chemical structure of Penicillin G made by Sir Edward Abraham and a microdialysis set invented and made by Norman Heatley OBE. The latter has come to us via the Dunn School from the Heatley family and the model via William James, Professor of Virology at the Dunn School. Heatley and Abraham were part of the original multi-disciplinary research team who were the first to produce sufficient pure penicillin to be able to conduct research trials to prove the efficacy of the drug. Norman Heatley was known for his inventiveness and ability to design equipment, made from what he could scrounge in a time of post-war shortage. Edward Abraham proposed the structure of Penicillin G which was later proven by Dorothy Hodgkin using X-ray Crystallography.

Also acquired from the Dunn School via Professor William James:

A model of cephalosporin made by Edward Abraham, this was the second-generation antibiotic and Abraham isolated it and inferred its structure by chemical methods;

A model of T bacteriophage, made in-house and used for teaching, it is a type of virus that infects bacteria;

A Singer micromanipulator, used to reduce actuation. Made by the Singer Instrument Company and designed by Robert Barer (Oxford Dept Human Anatomy) with Singer in the 1940s.

The University of Oxford proudly counts 56 Nobel prize winners in its ranks, and the Museum was delighted to be offered some equipment used by one of them, Professor Rodney Porter, who was jointly awarded, with Gerald Edelman, the Nobel prize for Medicine in 1972 for their work on the chemical structure of antibodies. Bob Sim, a leading research scientist, worked with Porter at the MRC Immunochemistry Unit, where the team further developed knowledge of antibodies. In late 2022 Edith Sim, Professor Emerita of Pharmacology at the University of Oxford and wife of the late Bob Sim generously donated a number of pieces of equipment used by Rodney Porter and Bob and Edith Sim in their research. Edith also kindly consented to being interviewed, during which she explained what the equipment was used for and was able to talk about what Rodney Porter was like and the work that they did. The objects donated (INV. 18632-18644) are: Polarimeter, fractionating machine, fraction collector, large bottle which contained horse serum from which the antibodies were made, anhydron sprayers and 7 bottles containing various proteins.



The microdialysis set designed and made by Norman Heatley (inv. 18645)

Research and Teaching

Between September 2022 and the start of August 2023 the Museum received 199 research enquiries, taking over 200 hours of staff time to respond to and including 74 site visits. 83% of the enquiries were asking about items held in our collections and the remaining 17% about items the enquirer owns. 36% of enquirers were conducting private research, 21% were University faculty and 18% were post graduate students. 17% originated from within the University and 43% were international.

Museum staff continued to host University of Oxford courses such as Nature and Art and Global innovations through both gallery tours, discussions and object handling sessions. The Museum also hosted international students such as those from Middlebury College, USA to support their Museum Studies programme.

Inclusivity and community engagement remain an important part of research carried out at the Museum and continues in the South Asian collection metrology project. Centring community participatory research, the Museum hosted a well-received workshop titled 'Troubling Standards: a social history of measurement in South Asia,' not only facilitating meaningful dialogue but also created a resourceful booklet, empowering museums and communities alike to conduct research on collections effectively. As well as positive community feedback, the workshop was also appreciated within the museum sector with an attendee saying:

“
SOME OF THE DISCUSSIONS THAT WE HAD GOT ME THINKING ABOUT MY OWN MUSEUM PRACTICES. YESTERDAY I HAD A MEETING WITH MY COLLEAGUES TO DISCUSS THE NEW EDUCATIONAL ACTIVITY ON THE MUSEUM'S COLLECTIONS... I WAS REALLY PROUD TO SHARE SOME OF THE POINTS WE DISCUSSED AROUND LANGUAGE AND ABSENCE.



Scientific Instrument Commission Conference in Athens (Greece) in September 2022

The Director Dr Silke Ackermann, together with colleagues from India and Germany, co-organised the Commission's first ever dedicated session on decolonising scientific instruments and instrument studies that was enthusiastically welcomed by participants who requested a continuation the next annual conference.

Right top: Global Conference of Research Museums delegates.

Right bottom: Delegates at the Scientific Instruments Conference 2022.



Global Summit of Research Museums II

In October 2022 Dr Silke Ackermann participated both at the Artefacts Conference and the second Global Summit of Research Museums in Munich. The gathering of representatives of research museums from around the world enabled thought-provoking discussions on how to learn from each other and developing solutions facing our sector together.



CT Scan

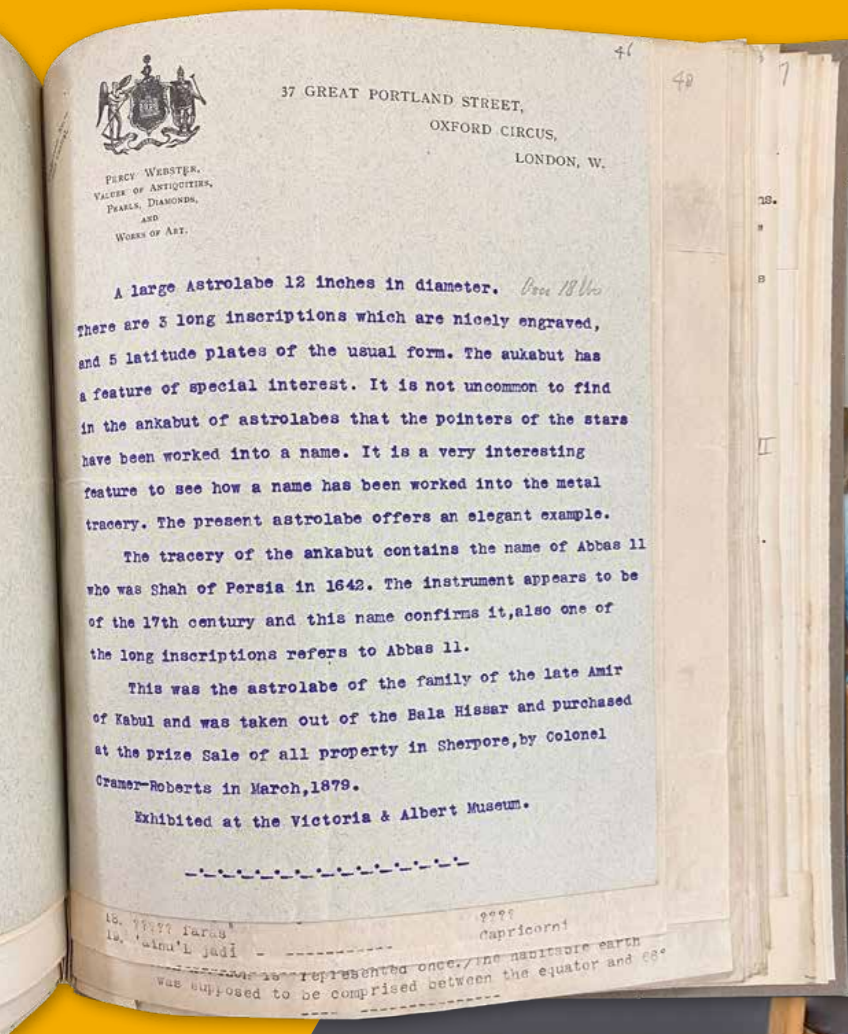
In August 2022 the Museum had a special enquiry which provided an opportunity to see inside an object in the collections for the first time. Hyeok Hweon Kang, Assistant Professor in the Department of East Asian Languages and Cultures at Washington University in St. Louis contacted the Museum about his book 'The Artisanal Heart of Korea: Vernacular Engineering in the Global Material Age, 1563–1878'. Hyeok Hweon Kang asked to have two of the Korean scaph sundials (inv.47409 and inv.46343) CT scanned to find out more about how they were made. Partnering with Paul Wilson and Warwick University the scanning took place in March and April '23. Many hidden features of the ivory dial were revealed, including wrongly drilled, and subsequently infilled, holes and clear details about the welding and screws.



Major projects

Below: Part of a letter to Lewis Evans from Percy Webster, antiques dealer based in London, regarding the sale of an astrolabe dedicated to Shah Abbas II. Letter sent 8 November 1921. The astrolabe is now in the Lewis Evans Collection at HSM Inv. No. 45747.

Right: Dr Braund supporting a Multaka Research Group workshop on conducting research in HSM's collection.



A card from Evans' personal card catalogue, describing an astrolabe made in 1224 in Seville and sold to Lewis Evans by E. B. Knobel in 1911. This astrolabe is now in the Lewis Evans Collection at HSM Inv. No. 50934.

Finding and Founding

The Finding and Founding Research Project, supported by the John Fell Fund investigates the provenance of our founding collection. In 1924, Lewis Evans donated his impressive collection of historical scientific instruments to the University of Oxford. This donation prompted the founding of the History of Science Museum. Evans' collection was significant for a number of reasons, notably for the group of rare and historically significant instruments from the Islamic world that formed a part of it. In what circumstances did Evans acquire these instruments? From whom did he purchase them and how did these instruments reach the European art market? What was the role of other contemporary collectors, dealers, and scholars in his collecting?

The astrolabes and celestial globes from the Islamic world in the Evans Collection are wide ranging in their geographic and chronological scope, from tenth-century Isfahan (HSM Inv. No. 33767) to thirteenth-century Seville (HSM Inv. No. 50934) to seventeenth-century Lahore (HSM Inv. No. 43704). Lewis Evans purchased these instruments from antiques shops, auctions, sales rooms, and collectors across Europe, from London to Munich to Florence. The routes that the instruments took to the nineteenth- and early-twentieth-century European art market are distinctive and variable; however, in almost all cases, they appeared in this art market as a result



of European colonialism. In one case, an instrument was sold in Europe by an officer who had purchased it a prize sale following the sack of a palace. In other cases, instruments were sold, collected, and re-sold in a winding a chain of exchange that crossed empires.

Dr Sumner Braund is investigating the provenance of these instruments using a wide range of archives, from HSM's own Evans manuscript archive to national (e.g. British Library, National Archives, National Art Library) and international (e.g. Bibliothèque nationale de France, Library of Congress, USA) archives. Dr Braund is documenting the instruments' provenance for our internal records, digitises the Evans correspondence in our archive for the Digital Asset Management System, and creates a searchable inventory of the Evans card catalogue. She brings the project's findings to our visitors and volunteers through MultakaOxford workshops, work experience activities for Year 10 and 12 students, and contributions to the International Educator Development Group: Teaching the Transatlantic Slave Trade. For our digital visitors, Dr Braund has created a regular blog series on HSM's website and a series of short videos on our social media accounts.

Asbestos Project

The asbestos project at the Museum marked a crucial phase in ensuring the safety of both researchers and the public while exploring the institution's significant history of medicine and history of technology collections. As part of a comprehensive initiative, a meticulous process to identify and assess potential risks was undertaken with support from specialised asbestos contractors well-versed in handling historic artefacts. Their expertise proved instrumental in pinpointing items that required attention, enabling the museum to proactively address any hazards. In addition, the institution organised tailored training sessions across the Gardens, Libraries and Museums division (GLAM) to educate staff on the safe handling of historic objects potentially containing asbestos.

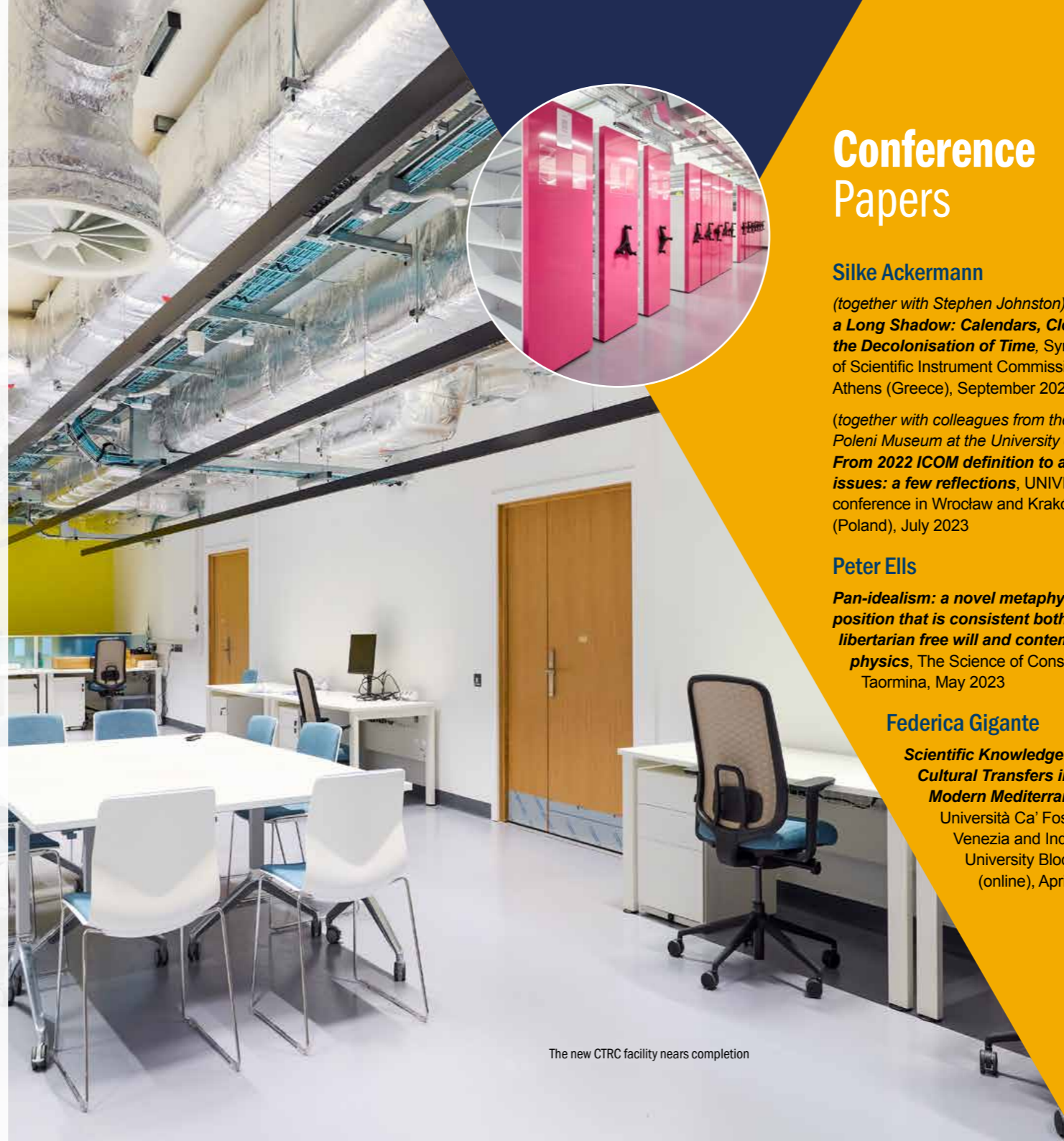
Conservation



The Museum has been preparing for the re-location of the conservation studio and movement and housing of collections to the new Collections, Teaching and Research Centre (CTRC). This major capital project is nearing completion and will provide collections storage across all four University museums as well as exciting opportunities for students and researchers to access the specialist expertise of curators, conservators, and collections. In preparation for the move, HSM has conducted an audit of objects on display and undertaken a strategic thinning of objects. Work has also commenced on long-term collections care projects that are currently in the studio space to enable a swift move to the new conservation studio when it opens. One such

object is the Bust of Rigaud (Inv. No. 10857) which was found in the old museums' store in a severely damaged and heavily soiled condition. Very careful consideration, research, and procedural testing was undertaken prior to starting the conservation work. All pieces of the object were surface cleaned of the accumulated dirt and debris, then a mock assembly was completed to establish how much was missing and to determine the order of repair required. Re-assembly was undertaken as much as possible with large losses being backed prior to filling with a plaster-based material. This was then pigmented to blend with the original finish, but still showing that it has been repaired.

Long term collections care undertaken on the Bust of Rigaud



The new CTRC facility nears completion

Conference Papers

Silke Ackermann

(together with Stephen Johnston) *Casting a Long Shadow: Calendars, Clocks and the Decolonisation of Time*, Symposium of Scientific Instrument Commission, Athens (Greece), September 2022

(together with colleagues from the Giovanni Poleni Museum at the University of Padua) *From 2022 ICOM definition to actual issues: a few reflections*, UNIVERSEUM conference in Wrocław and Kraków (Poland), July 2023

Peter Ells

Pan-idealism: a novel metaphysical position that is consistent both with libertarian free will and contemporary physics, The Science of Consciousness, Taormina, May 2023

Federica Gigante

Scientific Knowledge and Cultural Transfers in the Early Modern Mediterranean, Università Ca' Foscari Venezia and Indiana University Bloomington (online), April 2023

Finding and Founding: Decolonising Astronomical Instruments from the Islamic World at the History of Science Museum in Oxford, Symposium of the Scientific Instrument Commission, Athens (Greece), September 2022

Roman Coins as Ottoman Weights, International Numismatics Congress, Warsaw (Poland), September 2022

Stephen Johnston

Astrolabes and Astrology: Instrumental Transformations in 16th-Century Europe, Symposium of the Scientific Instrument Commission, Athens (Greece), September 2022

(with Silke Ackermann), *Casting a Long Shadow: Calendars, Clocks and the Decolonisation of Time*, Scientific Instrument Commission Conference in Athens (Greece), September 2022

Between diagram and device: motion, structure and materiality in astrological astrolabes, EIDA (an Agence Nationale de la Recherche project) launch meeting, Paris (France), March 2023

Hands-On Horoscopes: Astrolabes and the Material Culture of Renaissance Astrology, Scientiae conference, Prague (Czech Republic), June 2023

Astronomy as material culture: representing, using and making the sphere and astrolabe, Cultural Astronomies in Medieval and Early Modern Europe, Warsaw (Poland), July 2023

Publications

Silke Ackermann

In the Eye of the Beholder: Decolonising the History of Science Museum at Oxford University in Laura Brown, Widad Nahabi, Nicole Gesché-Koning et.al. (eds), *University Museums and Collections: Challenges of the past, responsibilities for today. Proceedings of the 22nd UNIVERSEUM Annual Conference Belgium 3-8 July 2022* (Brussels: Réseau des Musées de l'ULB, 2023). URL: <https://musees.ulb.be/fr/publications/university-museums-and-collections-challenges-of-the-past-responsibilities-for-today>

Elizabeth Bruton (Honorary Research Fellow)

(with Graeme Gooday and Anne Locker) *Women Engineers in the Field of Radio Telegraphy* in Wills, Hannah, Sadie Harrison, Erika Lynn Jones, Rebecca Martin, and Farrah Lawrence-Mackey (eds), *Women in the History of Science: A sourcebook* (London: UCL Press, 2023). URL: <https://www.uclpress.co.uk/products/211143>

Peter Ells

Mind, Quantum, and Free Will, Iff Books, Dec 2022

Stephen Johnston

The Many Faces of Time – Polyhedral Dials in the Renaissance (The Andrew Somerville Memorial Lecture), *British Sundial Society Bulletin* Volume 35(ii) June 2023, pp.22-3

Miranda Millward

(with Tom Proctor-Legg) *Cultural Spaces as Generators of Social Change*, Museums ID magazine, May 2023

National and International Impact

Loans

Loans from the Museum this year have been broad in scope both thematically and geographically. The Museum lent to the Middle East for the first time, the Shah Abbas astrolabe (Inv 45747) travelling to the Islamic Arts Biennale in Jeddah, Kingdom of Saudi Arabia in January 2023. Alongside contemporary art and significant collections from other parts of the Islamic World, the designers created a unique and spectacular display placing the seven separate parts in individual cabinets, allowing much closer engagement with this impressive and important astrolabe. The Museum was well supported by specialist agents and sector colleagues in the complexities of lending beyond the UK, Europe and North America. Due to the success of the Biennale, the loan was extended for a further month until late May. At closure it had been attended by over 600,000 visitors, 32,000 of these through associated public engagement events and sessions.

Closer to home, the Museum undertook three loans, two to the Bodleian Libraries and one to the Science Museum, London. For the Bodleian Libraries exhibition, 'Imaging AI', the Museum lent the Logic Machine by W. Stanley Jevons, Manchester, 1869 (Inv 18230); a forerunner of the computer. For a major exhibition on the development of photography,

'A New Power: Photography and Britain 1800-1850', the Museum lent Sir John Herschel's Experimental Photogenic Drawing of his father's telescope at Slough, taken in 1839 (Inv 11879), daguerreotypes by John Ruskin and Antoine Claudet (Inv 73580 and Inv 30015), as well as other key examples from our strong holdings on early photographic processes.

In November the Science Museum, London, received the Holten 2010 Safe - Class II MSC Biological Safety Cabinet by Thermofisher Scientific (Inv 18543), a piece of equipment vital in the Oxford development of the AstraZeneca/Oxford COVID-19 Vaccine, for their exhibition 'Injecting Hope' which tours until January 2024.

The Museum also continued its longer-term lending commitments to the Ashmolean Museum, Science Museum in London, Chelmsford City Museum and a number of other museums and organisations across the UK. These include the three early anatomical preparations at the newly refurbished Hunterian Museum, Royal College of Surgeons, London (Inv 79029, Inv 88532, Inv 93847).



Daguerreotype of Michael Faraday



Logic Machine

Advisory Bodies

The Director, Dr Silke Ackermann, served on the Research Advisory Board of the Deutsches Museum Munich (Germany), and as External Advisor for Eton College Collections Committee on outreach and access.

The Head of Research, Teaching and Collections to December 2022, Dr Stephen Johnston, served on the Thomas Harriot Committee.

The Head of Research, Teaching and Collections from January 2023, Dr JC Niala, served on the Museum of Oxford Development Trust Board.

Rete

The Museum continues to administer Rete, the international mailing list on the history of scientific instruments. The membership of the list was stable this year, with a substantial increase to 865 subscribers. Rete's coverage is genuinely global, reaching countries in Europe, the Americas, Asia and Africa. Through the mailing list the Museum not only serves and connects a worldwide community of individual researchers, academics and museum professionals, but also provides the principal means of communication for the Scientific Instrument Commission of the International Union of History and Philosophy of Science.

Placing People at the Heart

Connecting Communities

The History of Science Museum (HSM) has a strong track record of working with Oxford's diverse communities and over the past year the Public Engagement team, together with cross-departmental colleagues, has been working harder than ever to reach out to communities in some of the most deprived areas of Oxford, as well as continuing to build on established local partnerships through MultakaOxford. This important work is made possible with the support and commitment of valued volunteers and Volunteer Service colleagues. In the last year alone, they have been involved in creating a VR celestial globe interactive, welcoming visitor to the Museum, and supporting family fun weekends.

Turning the Museum INSIDE OUT

During 2022, the Public Engagement team continued to embed HSM's transformative plan – Vision 2024 – across all areas of the Museum's programming. At the heart of Vision 2024 is the creation of a meeting place for people, science, art and belief. Building on the excellent work demonstrated through partnership activity with MultakaOxford, Iffley Academy and African Families in the UK, the team have been working hard to ensure that these pockets of great activity shape an institutional framework which will inform the Museum's major capital work.

The Museum has been focussed on empowering local communities to become an equal partner in decision-making, and having active agency to drive change within the Museum. The award-winning MultakaOxford is a great example of how HSM has developed "Power to the People" and how shifting the focus to lived experience and knowledge outside the confines of the Museum has had a transformative impact on museum practice.



Reaching out

Community Collaboration and Collecting COVID Project

A key strand of the Collecting COVID Project is linking research with public engagement, enabling audiences to further engage with the stories of science in Oxford, and specifically the role that Oxford University has played in the pandemic. The HSM has developed two signature exhibitions over the past year. The first exhibition 'What If You Were Asked to Save the World?', highlighted the role of vaccine scientists and the pressures they faced as they raced to produce a vaccine. School engagement sessions were developed to complement the exhibition on the theme of 'What Does a Scientist Look Like?', aimed at challenging stereotypes and raising aspirations amongst children that anyone can become a scientist.

The second exhibition 'Do You Feel Forgotten? COVID: Stories from a Segregated Society', that opened in June 2022, highlights the role of community and focusses on those most isolated in society and the inequalities they faced as a result of the pandemic. Featuring personal stories from the perspective of both vulnerable people and researchers, the exhibition showcases some of the work of Oxford University in combating inequality and developing a positive legacy for COVID-19. The interest in this exhibition has been immense and the Museum is currently exploring the possibility of a range of national and international iterations of the exhibition in the near future.

Lennard Lee, Cancer doctor and Clinical Advisor to the Government on Life Sciences said of the exhibition:

"It was displayed in the most moving, visceral and impactful manner. Through visual, digital, auditory, written and sound strategies/tools, I could experience their collective issue, see their difficulties and experience their hurt. It genuinely moved me."



Lyra's Worlds

The international best-selling trilogy His Dark Materials, by Oxford-based author Philip Pullman, was the subject of an immersive exhibition at HSM this year. In the Museum that inspired the alethiometer, Lyra's Worlds brings together props and costumes for the BBC HBO adaptation of the same name with related objects from the Museum's collections. Under a canopy of stars and dust, visitors are invited to ask questions of the universe about what makes us human and connects us all. The exhibition has formed part of the Museum's ongoing series of experimental displays and an opportunity to extend its reach beyond visitors with a science capital to a younger, broader audience with an interest in literature and, more specifically, fantasy fiction.

This display, in partnership with Bad Wolf, is part of a wider museum offer across Oxford. Alongside the Pitts Rivers Museum and The Story Museum, visitors are invited on a journey, following in the footsteps of Lyra Belacqua the story's main protagonist, across the multiverse with treasures on display from each of the books.



Einstein's Blackboard: Expanding Universe; Expanding Minds

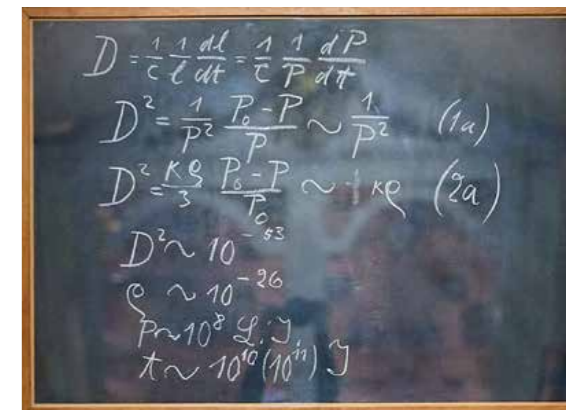
One of our most frequently asked visitor question is "Where's Einstein's Blackboard?"

It is certainly fascinating to see Einstein's handwriting – and imagine the chalk scratch as it describes the universe in 7 elegant equations. But we wanted to share more of the story behind the beauty of the physics. What was Einstein thinking in May 1931 when he wrote on this Blackboard for his Oxford lecture? And why does it still matter to us today?

We turned to a world-leading expert on Einstein at Oxford University's Astrophysics Department: Professor Pedro Ferreira. He was keen to be involved and brought into the discussions his colleague Dr Cormac O'Raiheartaigh (Southeast Technological University, Waterford, Ireland), author of a journal article revealing new insights about our Blackboard.

In August 2022, our collaboration produced a new interpretation. Today the Blackboard is accompanied by a panel explaining what Einstein's equations say about the universe. In front of the display stands a lectern folder with the science – and human – stories behind the Blackboard, plus articles and papers about Einstein's Oxford lectures.

More than just a glimpse into the mind of a genius, the Blackboard reveals an intriguing snapshot of a key moment in our understanding of the cosmos. To share this with as many people as possible, we also created a digital story. Online visitors anywhere in the world can now take their time exploring the Blackboard line by line – and discover more posts and articles about Einstein.



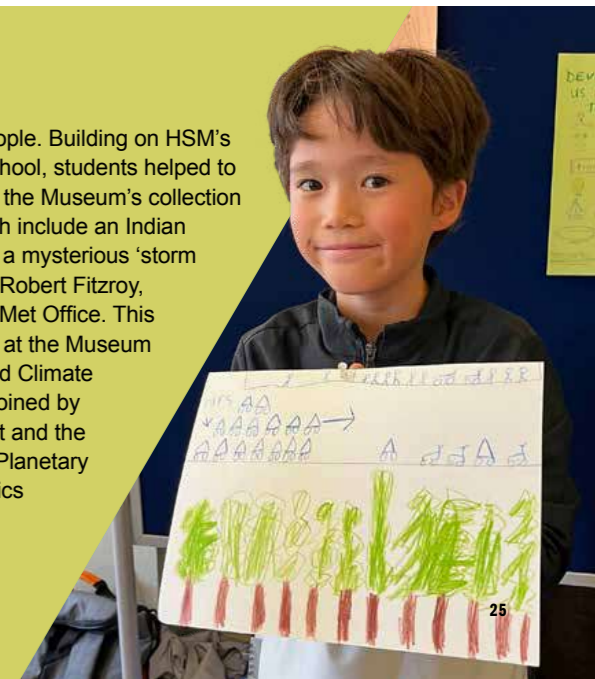
The story of Einstein's Blackboard is also a timely reminder that true scientific genius does not lie in always being 'right'. Rather, it means being led by the data – and having the courage to change your mind.

Tackling Current Debates through Museum of Climate Hope

As part of the Museum's mission to engage audiences with Oxford science and contemporary science-related issues, HSM collaborated with partners across the Gardens, Libraries, and Museums division (GLAM) on the *Museum of Climate Hope* project. This innovative trail and digital learning experience across Oxford's gardens, libraries and museums, is aimed at supporting climate educators, school and families, engaging them further in understanding climate science and the impact climate change has on people and the natural world.

The project was initiated by a small group of researchers from the University's Environmental Change Institute in response to high levels of "climate

anxiety" amongst young people. Building on HSM's partnership with Cheney School, students helped to select relevant objects from the Museum's collection for the online resource which include an Indian 'Bhugola' or 'Earth-ball' and a mysterious 'storm glass' promoted by Admiral Robert Fitzroy, 19th century founder of the Met Office. This project led to a public event at the Museum in August 'Ships, Storms and Climate Change' in which we were joined by researchers from the project and the Atmospheric, Oceanic and Planetary Sciences group in the Physics Department.



Inclusive Practice with Iffley Academy

The ongoing partnership with Iffley Academy, a secondary Special Educational Needs School in Oxford, has also continued to be incredibly fruitful. Sixth form students shared their vision for the 'new' museum as part of a 6-week consultation for the Vision 2024 strategy. This work is the subject of a case study which will be appearing in the forthcoming Group for Education in Museums (GEM) Journal. Miranda Millward, Arts Engagement Officer at GLAM, also delivered a series of conference talks and articles with Tom Procter Legg, Head Teacher at Iffley Academy, referencing the *Curious about Calculation* exhibition at the school – a co-curated project between HSM and Iffley Academy students.

Local Communities

In addition to the Museum's regular family learning programme, the Museum revived its object-led contribution to the annual Maths Festival engaging with a diverse audience in East Oxford's Templar Square shopping centre.



A Sense of Belonging

Building Bridges through MultakaOxford

During year two of its five-year funding cycle, MultakaOxford ('Multaka' is Arabic for 'meeting point') has created a number of new 'meeting points', continuing its work towards embedding intercultural dialogue and exchange into museum practice, and bringing the HSM collections to the heart of events, research, tours and training.

Over the year, the Museum has firmly established itself as an institution that supports people to come together, share and develop skills and experience.

It has also been recognised for its proactive role in promoting positive cross-cultural understanding and supporting a sense of belonging for local communities in Oxford.



Two key events have highlighted the Museum's commitment to creating 'meeting points' for local families and communities, co-created and delivered with the MultakaOxford Volunteers. In November 2022, the HSM brought people together under the stars, warmly welcoming the public into the Museum with a bonfire and carols outside, inviting the public to make a wish on a star and rejoicing in the 100th celebration of 'Carole of the Bells' by Ukrainian composer Mykola Leontovch. Community Choir Ukrainian Bells formed for the special 'Light Night' Celebration and delighted visitors with a beautiful intergenerational performance with Ukrainian bandura duo Dvi Doli. Visitors got to enjoy global poetry, performances by a talented harpist and mbira player, spotlight talks, and leave messages of hope displayed on stars.

The second event of the year was a celebration of Oxford 2023: its literary heritage and diverse religious heritage. 'Alice celebrates Eid' brought together the Lewis Carroll classic protagonist with the Eid al Adha, celebrations that fell on the same day. A vibrant and joyful coming together of Oxford, visitors enjoyed a spectacular tea party with cakes decorated with Eid symbols, henna tattoos and face painting, spotlight talks, dressing up and family trails and activities.

Multaka volunteer-led tours (English, Ukrainian and Polish) also started at HSM with guide Mariia taking visitors on a personalised tour reflecting on how the existential questions we ask about our place in the universe has led to challenging theology, creating scientific instruments and beautiful art.

HSM collections have been used as part of outreach sessions with new satellite groups in Banbury and Didcot. Local volunteers created stalls and activities to share with their neighbours at Banbury Town Mayor Day, OXON Playday and a community Eid celebration in Didcot Civic Hall. These sessions, sharing cultural knowledge with neighbours, has been a highlight for volunteers who live outside Oxford.

Multaka has been welcoming young people from the Sudanese Saturday school who have been exploring the Museum's collections and contributing to a global representation of art, science and belief. Working with local poet and artist Rawz, the young people gave insights into their perspectives on the stories of the history of science and the impact of the colonial lens they have on young people today.

HSM has led the way in volunteer-led research in supporting multiple perspectives into the Museum's understanding of objects and the different stories they can tell, volunteers have enjoyed being trained in developing research skills by HSM PhD facilitators and exploring objects to develop the global and human stories within the collection.

Finally, staff and volunteers have been presenting all over the UK and Europe, sharing best practice, in how museums can act as a meeting point for communities which brings people, science, and art together.



A Sense of Belonging

Reframing the Story: The Chardin Portrait – Taking a Step Forward

As part of the HSM's ongoing commitment to challenging pre-existing value systems and readdress whose stories (and histories) are told or fail to be told, the Museum has been working with local artist Rawz to create a response to the Chardin portrait, a painting which depicts two figures, a seated Chardin and a young black boy standing at his side, shackled and with a tear on his cheek.

Rawz was commissioned to create an artistic response to 'THE WALL' as it has become known. When receiving the commission, Rawz' first instinct was (in his own words) **'to change the story of Boy. I would keep the frame... but make Boy an important part of the new image it contained. I wanted to remove the metal collar from his neck and wipe the tear from his cheek. I wanted to make him smile, and change his world. He would no longer hold a map for a white man to point at, he would hold a statement proclaiming his own power.'**

His resulting piece is a digital collage, using the existing frame, filling it with images of Black Scientists and Black children, alongside a poem entitled 'We are Scientists'. He uses the images to highlight the importance of imagery in the stories we tell ourselves in order to understand the world around us. He also uses them to show how they define the roles that we give ourselves and others in our own biographies. His intention was to use the frame as a

metaphor for these stories, and how we are 'framed' can dictate our futures.

As part of the commission, Rawz worked with MultakaOxford and the Sudanese Arabic Saturday School to help him 'reframe the image'. The aim of these workshops was to share digital art skills, which have informed Rawz' own practice, include contributions from the young people attending the workshops, whilst also increasing awareness and understanding of the project amongst younger members of the community.

Rawz and the HSM look forward to presenting the completed commission to audiences over the next few months and continuing the debate of how we reframe the stories we tell, especially of those either misrepresented or erased by history.

Inclusion for ALL

The HSM continues to support individuals who, for one reason or another, experience difficulties in accessing the Museum's collections, such as adults with learning difficulties (ALD), people who are blind and partially sighted, or whose experience of visiting the Museum may be enhanced by a socially supportive network including older people. At a time when programmes for these community groups are becoming increasingly difficult to access, the Museum's sessions continue to be in high demand as these audiences gather confidence to return to the Museum. Supported by the GLAM Engagement team and Volunteer service,

the Public Engagement team provide bespoke, facilitated workshops, including behind the scenes exhibition tours and meet the curator sessions.

Science Together – African Families in the UK

For the second year running, the HSM has supported the Mathematical, Physical, and Life Sciences Division (MPLS) project 'Science Together', which aims to foster mutually beneficial working relationships between Oxford research scientists and community-based charities. Through pilot projects, community groups set the agenda and scientists then lend their research skills to develop skills. HSM facilitated a project linking scientists with the East Oxford based charity African Families in the UK (AFiUK) supporting young people of African heritage to access educational opportunities and positive role models. Posing themselves the question 'What is your science?', the group of 20 young people enjoyed a series of workshops meeting scientists at diverse institutions from the Museum to Diamond Light.

Inspiring Young Minds

Learning Outside the Classroom

During 2022, the schools programme saw a resurgence in visitor figures, bouncing back to pre-COVID levels across both Primary and Secondary age-groups.

A key aspiration of HSM's schools' strategy is supporting schools raise pupils' aspirations. 156 children from three local schools in areas of high social and economic deprivation took part in the What Does a Scientist Look Like? project this year. Together with partners at the Bodleian Library and The Oxford Vaccine Group, a two-part workshop was delivered for each class. These gave children the opportunity to engage with HSM's historical collections as well as COVID collections and contemporary scientists, including discussions with HSM's Collecting COVID curator and an online Q and A session with Oxford University scientists.



WE HAD A GREAT TRIP AND WE WERE VERY GRATEFUL FOR THE OPPORTUNITY. MANY OF THE CHILDREN ARE BEGINNING TO TALK ESPECIALLY ABOUT THE DIFFERENT AREAS AND 'OLOGIES' OF SCIENCE AND SCIENTISTS AND SOME OF THEM ARE BEGINNING TO SHOW INTEREST IN SPECIFIC AREAS.

Year 5 Teacher, Rose Hill Primary



'What does a scientist look like? A Barbie doll made in the likeness of Dame Sarah Gilbert'



IT WAS REALLY INTERESTING AND HAS OPENED MY EYES TO ANOTHER FIELD OF SCIENCE THAT I HAVEN'T REALLY THOUGHT ABOUT.

Student, KS5 Vaccines study day

EXCELLENT ACADEMIC ENRICHMENT, ESPECIALLY AS IT HIGHLIGHTED THE MULTI-DISCIPLINARY NATURE OF RESEARCH.

Teacher, KS5 Vaccines study day

GREAT OPPORTUNITY FOR YOUNG WOMEN TO SEE MORE PEOPLE LIKE THEM DOING SCIENCE AND REALLY ENGAGING.

Teacher, Women in Astronomy study day

THEY THOROUGHLY ENJOYED THE VARIETY OF ACTIVITIES AND GAINED A GREATER AWARENESS OF IMPORTANCE OF MATHS IN SCIENTIFIC DISCOVERIES.

Teacher, Year 9 Ingenious Geometers workshop

THIS SESSION WENT A LONG WAY TOWARDS GIVING OUR STUDENTS AN INSIGHT INTO THE IMPORTANCE AND EXTENT OF THE ISLAMIC WORLD, BOTH IN ANCIENT TIMES AND TODAY.

Teacher, Year 9 workshop on 'Science and the Islamic World'



Exceeding Expectation

Remarkably, secondary schools' engagement achieved 111% of the last full pre-COVID year 2019-20, the strongest recovery of all the GLAM institutions. The programme delivers a diverse range of facilitated workshops to local schools and from further afield – Birmingham, London, and Bristol.

In addition to the continued rollout of the Museum's hybrid offer following the Virtual Classroom's project, this year's HSM-led programme of GCSE and A-level academic enrichment study days, run in collaboration with University of Oxford departments, included a new programme focussing on Developing

Vaccines. Supported by researchers from Oxford's Jenner Institute and Oxford Vaccine Group, this event included some incredibly moving accounts of researchers' involvement in developing the COVID vaccine during the first lockdown. Further study days included revivals of the previously successful Revisiting Frankenstein for students of literature, and the Women in Astronomy programme promoting opportunities for girls in science run in collaboration with the Physics Department. These oversubscribed events offer students a rich cultural infusion of historical perspectives from the Museum with object and display-based learning alongside the opportunity to meet and hear about cutting-edge research from academics and researchers.

The Museum welcomed 237 students in higher education and training to facilitated sessions and 180 student teachers took part in training at the Museum through the Cherwell Schools Centred Initial Teacher Training programme and the PGCE programmes at Oxford (secondary science) and Oxford Brookes (primary) Universities.

Access All Ages

The Museum's collections appeal to all ages and this was beautifully illustrated by the under 5s Sensory Science Stories sessions this year. In these sold-out sessions, children were able to find out about basic science concepts linked to light and colour through an interactive session, based on the fictional story of 'Wow Said the Owl'.

Fruitful Partnerships

Work with The Langley Academy, the only museum learning school in the country, continues to thrive. After the successful piloting of a virtual learning offer during lockdown, the Academy extended its request and the Museum delivered a series of 21 virtual classroom workshops reaching all 540 students at Key Stage 3, covering topics from Observing the Universe to Disease and Vaccination. Recognising the need for additional in-person contact, the Learning team followed up with a day of outreach sessions focussed on object handling. As well as being in an ethnically diverse area targeted under the government's levelling up agenda, such a comprehensive offer underlines the value of museums in supporting a diverse cultural entitlement for all young people.

The Museum continues to develop its work with Cheney School, Oxford supporting their cross-curricular approach to object-based learning around the school's Rumble Museum. In September, the Learning team offered a stimulus 'behind the scenes' visit to a group of year 9 students as they embarked on a museum project during which they met various members of staff and found out more about the Museum's vision. The Museum has plans to support the school in developing its object displays as part of HSM INSDE OUT and continues to contribute collections focussed workshops at the Rumble Museum's sixth-form conference.



Embedding Research in Public Engagement

The Public Engagement team continue to embed research within all aspect of the Museum's public programme, working with research partners from the University and beyond. One particularly fruitful partnership has been with The Rutherford Appleton Laboratory (RAL), based in Didcot, which carries out world-class science research and technology development at the nearby Harwell Campus.

Working with research and outreach staff from the department, the team created a set of Light and Space family backpacks for use within the Museum. These backpacks contain objects which link objects in the HSM collection with contemporary science research being conducted at RAL.

This partnership has led to further joint enterprises, including an HSM stall at RAL's space science festival and a Women in Science family event at HSM which brought together space scientists from RAL Space with Oxford University researchers from the departments of Physics and Biochemistry.



We are set to continue our collaboration over the coming year with recent news of a successful £10k funding bid from the Public Engagement with Science and Technology Facilities Council to create new SEND (Special Educational Needs)-friendly backpacks with RAL Space and Iffley Academy.

The team have also been working with community volunteer researchers from MultakaOxford to explore different aspect of HSM's collections, using materials such as mahogany as a starting point for individuals to develop their own enquiries and responses to objects. Their outputs will be shared through presentations to the wider HSM team, social media posts and also recorded on the collections database. The team will be sharing this work and further research into the relationship between slavery and mahogany in the HSM collection at the 2023 Scientific Instrument Commission Conference in Palermo.



New Staff

In August 2022 Lisa Mitchell joined the HSM team as Head of Public Engagement and Programmes. Lisa has a wealth of experience from the museum sector and her guiding principles are to consult, collaborate, and co-curate in order to ensure the HSM programmes provide meaningful engagement with a long-term, transformational impact.

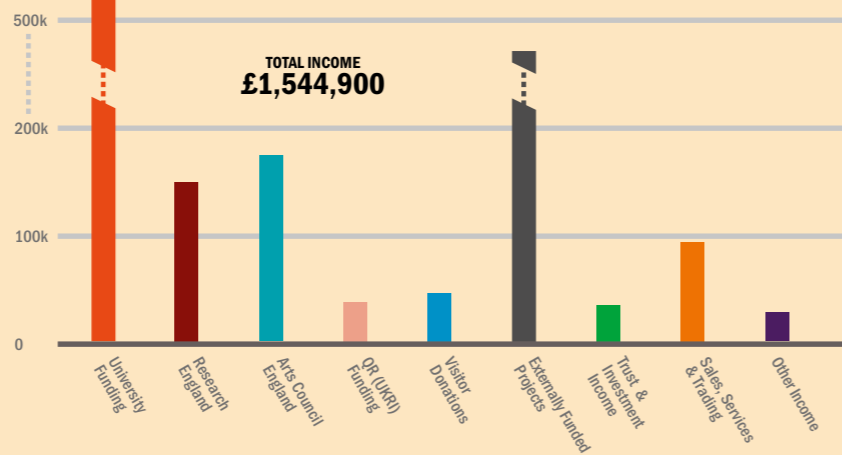
Income

2022-2023 was the year the Museum bounced back from the COVID-19 Pandemic with a significant increase in visitor numbers which exceeded pre-COVID levels at 168,011. Thanks to our award-winning Front of House Team, donations and spend remained high with our shop experiencing an excellent year with sales achieving £81,281. The increase in donations and spend improved the Museum's financial sustainability and allowed for reduced usage of Trust Fund income.

The Museum received the majority of its funding from the University of Oxford with additional income from Arts Council England and Research England, all

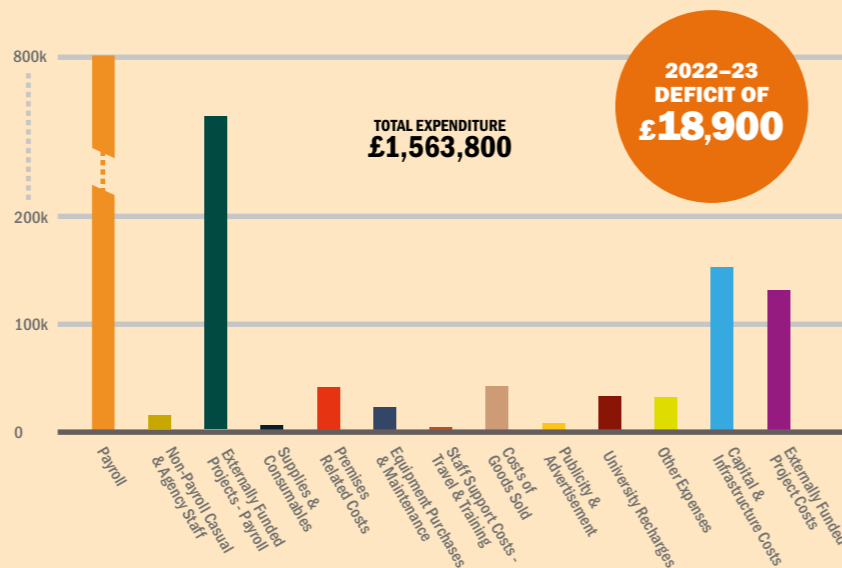
of which supported the delivery of the Museum's core activities and roles. In addition, philanthropic donations contributed to a number of key projects

and support of staff roles during the year. The HSM was also awarded £36,500 from UKRI for quality-related (QR) research funding.



Expenditure

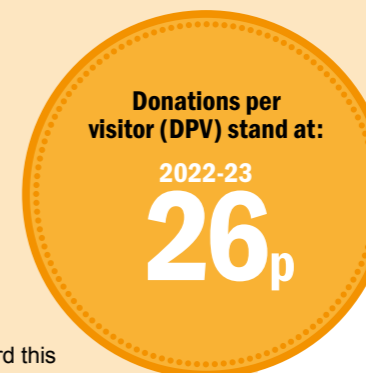
The financial year concluded with an agreed deficit of £18.9k, which was an improvement on the budget forecast. The deficit was due to various factors beyond the Museum's control including a one-off pay increase awarded by the University, energy costs, and inflationary factors. The impact of these increased costs were lessened thanks to a strong performance in sales and donations linked to increased visitor numbers and specific Front of House initiatives to build income. Savings were also achieved through payroll changes, a reduction in recharges, and an overall reduction in spending. Additional funding from donors enabled experimentation and delivery of new displays both physically and digitally.



Front of House, Visitor Giving & Commercial Activity

In 2022 the Front of House team were the inaugural winners of the Museums + Heritage Award for Visitor Welcome. The team are exceptionally proud of this award and continue to enhance the visitor experience. For instance, working with our Welcome Volunteers, guests are introduced to the treasures within the building helping to ensure that time spent at HSM is memorable and special.

Front of House Supervisors have worked extremely hard this year to optimise the at-till donation ask, resulting in donations of over £4,500. If scaled within the Gardens, Libraries and Museums division (GLAM), this represents a significant opportunity to enhance visitor experience, engagement, and visitor giving, and this approach has been offered to other sites as part of sharing best-practice.



VISITOR DONATIONS HAVE INCREASED BY 34% COMPARED WITH 2021-22, RISING FROM £33,100 TO £44,500.

Quality of Visitor Welcome

“STAFF [WERE] VERY HELPFUL AND WELCOMING

YOUR STAFF WERE EXCEPTIONALLY NICE

THE STAFF ON THE DOOR WERE SUPER FRIENDLY AND HELPFUL

Retail

Sales volume has **INCREASED BY 45%** compared with 2021-22.

This growth has been achieved through the **HARD WORK AND DEDICATION** of our Front of House team.

Through their efforts overall turnover **HAS SURPASSED £85,000** for the first time.

The trading context has thrown up a number of challenges this year. International supply chains remain unsettled, supplier costs have risen substantially, and the cost of living looms larger for visitors. The Museum continues to adapt the retail offer and purchasing strategy in order to mitigate these risks. In addition, stock ranges have been adapted to appeal to previously underserved segments of the Museum's audience.

2022-23	Onsite Retail	2021-22
£0.52	Spend Per Visitor	£0.67
£13.41	Average Transaction Value	£11.67
6,719	Total No. Transactions	5,139
£87,205	Turnover	£60,000

Museum Staff

Executive Team

Dr Silke Ackermann FSA,
Director

Suzy Gooch
Executive Assistant to the Director

Dr Stephen Johnston
Head of Research, Teaching and Collections (*on sabbatical in 2022, Senior Research Curator part-time from January 2023*)

Cai Marshall
Operations and Commercial Manager

Lisa Mitchell
Head of Public Engagement and Programmes (*from August 2022*)

Liam Nash
Administration and Finance Manager

Dr JC Niala
Head of Research, Teaching and Collections (*from January 2023*)

Andrea Ruddock
Marketing and Communications Manager

Dr Anne Tiballi
Head of Research, Teaching and Collections (*sabbatical cover for Dr Johnston in 2022*)

Research, Teaching and Collections

Lucy Blaxland
Collections Manager

Dr Sumner Braund
Research Fellow, Finding and Founding Project (*from October 2022*)

Sarah Chard-Cooper
Collections Manager (*from November 2022*)

Dr Tina Eyre
Curator, Collecting COVID Project

Dr Federica Gigante
Curator of the Collection from the Islamic World (*to May 2023*)

Anna Grybenyuk
DAMS Manager (*from November 2022, shared post with Pitt Rivers Museum*)

Dr Stephen Johnston
Senior Research Curator part-time (*from January 2023*)

Łukasz Kowalski
CMS Manager (*from February 2022, shared post with the Natural History Museum*)

Cheryl Wolfe
Conservator

Public Engagement and Programmes

Chris Parkin
Learning Producer

Helen Pooley
Learning Producer

Owen Shaw
Display Technician

MultakaOxford

Nuha Abdo
Learning & Outreach facilitator (*from September 2022*)

Nicola Bird
Project Manager

Siemma Fazal
Learning & Outreach facilitator (*to March 2023*)

Hadi al Nuri
Community Connector (*from January 2023*)

Helen Pooley
Learning & Outreach facilitator (*from March 2023*)

Operations

Chris Bentley
Front of House Supervisor

Rebecca Brown
Front of House Supervisor

Phoebe Clothier
Gallery Assistant

Manfred Driver
Gallery Assistant

Peter Ells
Gallery Assistant

Chris Humphrey
Front of House Supervisor

Karen Humphrey
Gallery Assistant

Rana Ibrahim
Gallery Assistant

Silvia Pinna
Front of House Supervisor & Gallery Assistant

Izzy Treyvaud
Front of House Supervisor

Honorary Research Fellows

Dr Elizabeth Bruton

Students working closely with the History of Science Museum

Collaborative Doctoral Award student

Mathilde Daussy-Renaudin

GLAM (Gardens, Libraries and Museums) Front of House Pool, Shared Services within GLAM, the GLAM Divisional Office, GLAM Volunteer Services, and Central University teams

We warmly thank all colleagues for their unstinting support throughout the year and for generously sharing their great knowledge and expertise; your contributions are greatly appreciated.

Board of Visitors

Professor Roger Davies (Chair)
Philip Wetton Professor of Astrophysics and Fellow of Christ Church College, University of Oxford

Dr Erica Charters
Associate Professor of Global History and the History of Medicine (Faculty of History), Director of the Oxford Centre for the History of Science, Medicine and Technology (2018–2022), and Co-Director of the Oxford Centre for Global History and Fellow of Wolfson College, University of Oxford

Professor Shadreck Chirikure
Edward Hall Professor of Archaeological Science, Director of RLAHA, British Academy Global Professor (*from Michaelmas Term 2022*)

Professor Nandini Das
Tutorial Fellow in English, Exeter College, University of Oxford (*from Michaelmas Term 2022*)

Imam Monawar Hussain MBE DL FRSA
3rd Chairman and Founder, The Oxford Foundation; Imam of Eton College

Ms Olivia Holder
Museum Community Connector, University of Oxford and Marshall Scholar at the Faculty of History, University of Oxford

Dr Catherine M Jackson
Associate Professor of the History of Science, Faculty of History, University of Oxford (*from Hilary Term 2023 acting for Professor Robert Iliffe*)

Mr Henry Kim
Associate Vice Provost and Director of the Michael C. Carlos Museum at Emory University, Atlanta, USA

Professor Sir Andrew Pollard
Director of the Oxford Vaccine Group in the Department of Paediatrics at the University of Oxford and a consultant paediatrician at Oxford Children's Hospital and Fellow of St Cross College, University of Oxford (*from Michaelmas Term 2022*)

Richard Ovenden
Head of Garden's Libraries, & Museums and Bodley's Librarian, University of Oxford

Dr Venetia Porter
Assistant Keeper, Islamic and contemporary Middle East art, the British Museum

Professor John Wheeler
Professor of Physics (*Mathematical, Physical and Life Sciences Division*), Fellow of University College, University of Oxford

One of the Proctors or the Assessor of the University of Oxford

Thank you for your support in 2022-23

The History of Science Museum is hugely grateful to all its donors, friends, volunteers, and visitors who continue to support the Museum in so many ways. Philanthropic donations and partnerships have been vital for many of the projects delivered in the past year and will be critical to the HSM's future. We would like to thank all of our donors (including those who prefer to remain anonymous) for their generous support in 2022-23, in particular:

ACE (Arts Council England)

Alwaleed Philanthropies, whose five-year support of the MultakaOxford project continues to advance the Museum's work with communities and cross-cultural understanding, delivering impactful mutual learning and connections for all who are involved.

Art Fund, which supported the Museum's learning programme during the pandemic enabling the development of a Virtual Classrooms offer, and whose grant contributed to funding of objects for handling during education sessions.

E P A Cephalosporin Fund, which through its generosity has made possible the next phase development of the Museum's *Vision 2024* transformation project, and also the joint Collecting COVID initiative delivered in collaboration with the Bodleian Libraries.

Daniel Crouch

The John Ellerman Foundation, whose further support enabled the Museum's Curator of the Collection from the Islamic World to play a key role in delivery of several work strands around these important collections.

Ian M Foulerton Charitable Trust, whose grant will support collections conservation.

Maxson Network Ltd. whose ongoing support has helped the Museum explore the latest display screen technologies for visitor engagement and understanding.

Lady Audrey Wood, whose generous support in memory of her late husband is enabling the Museum to create the new post to be known as the 'Sir Martin Wood Curator of Oxford Science' so that it can expand its collections and connections further across the academic departments of the University.

Thank you again to all who have supported the History of Science Museum's work over the last year.

Be part of making the History of Science Museum a museum for the future

To find out more about how you, or your organisation, can become involved in supporting the History of Science Museum, and Vision 2024 to help the Museum fulfil its potential, please contact:

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History of Science Museum
t: +44 [0]7894 838737
e: lynda.knill@devoff.ox.ac.uk



Art Fund_



John Ellerman
Foundation



PERIODIC TABLE OF
THE ELEMENTS (M.T. at E)

THE VARIOUS STATES OF MATTER

UNKNOWN

EQUINE

RADIOACTIVE ELEMENTS



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