

ANNUAL REVIEW 2019–20

96 years of the History of Science Museum

In 1683 the building on Broad Street, Oxford, which is now the History of Science Museum, opened as the home of a new institution, the Ashmolean Museum. Created to house the collection of Elias Ashmole, it was much more than just a display of objects. It became the centre of Oxford science in the late 1600s, with teaching in the entrance gallery and a chemical laboratory and anatomical theatre in the basement. By the time the Ashmolean Museum was built, experimental science was already flourishing in Oxford: in particular, Robert Boyle and Robert Hooke carried out their famous research on the air pump in a house on the High Street. Boyle and Hooke were leading lights in the early days of the Royal Society of London, founded in 1660.

instruments from Europe and the Islamic range of objects are manuscripts and early printed books, early photographs, portraits of scientists and scientific prints.

The History

Science Museum

remains relevant,

outward-looking

and sustainable

for the future."

must ensure it

Front cover image: Sir Martin Wood viewing the HSM display celebrating 60 years of Oxford Instruments, the company he founded with his wife, Lady Audrey Wood

122210-10

the state

Ittmu

Alton

2

A new museum was founded in the same building in 1924. 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 collection of historic scientific instruments to the University in 1924. Gunther campaigned for them to be displayed in the building then known as 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

world and an exceptionally rich set of microscopes. Complementing the wide

From the Director

Telling the stories of science in Oxford past and present is one of the pillars of *Vision 2024*, the ambitious strategy for our centenary. And rarely was science in Oxford more on people's mind globally than this year; rarely has there been such public interest in engaging with the world-changing research at our University; and rarely has there been such a fortuitous alignment with the stories we want to tell – onsite, offsite and online.

cover of this report.

Twelve months later we are focussing on science in Oxford as it happens with our *Collecting Covid-19* initiative an initiative supported by a network of researchers across the University who see HSM as *their* museum, as a place where our University's extraordinary response to a world crisis and the manifold stories that jointly make up this response will in due course be told for future generations.

These past twelve months have arguably been the most challenging for our Museum in its history. They have also provided a multitude of opportunities that we had never dreamt of. We developed new and agile working practices, embraced digital media whose name we had not even heard of a couple of months earlier, created innovative displays online for lockdown(s) and onsite for reopening, reached audiences globally who were previously not even aware of our existence - and managed to keep all team members safe and supported throughout.

You are on mute! must have been one of the of the most frequently uttered sentences at the end of 2019/20. We may occasionally fail to switch the mic on in a meeting, but we have most definitely not been mute these past twelve months. Rather, the voice of HSM has been heard loudly and clearly: it has extended further and reached more people than ever before. Rarely has there been such

a fortuitous alignment with the stories we want to tell – onsite, off-site and online."

THANK YOU to our fantastic audiences and wonderful supporters who came along with us on the occasionally bumpy ride. THANK YOU also to our wonderful colleagues across our division Gardens, Libraries and Museums (GLAM). And THANK YOU to the incredible team that I have the privilege to lead, and especially my colleagues on our Executive Team who have rolled up sleeves, pulled out all the stops, and were there with me when the going got tough. What an amazing year this has been!

Dr Silke Ackermann FSA Director

Image: John Cairns 🕨



From the Pro-Vice-Chancellor

On March 14 2020 we were forced to close the physical door of the History of Science Museum to visitors as the UK went into lockdown in response to the pandemic, Covid-19. In the months that have followed there has been a roller coaster journey that includes periods of uncertainty greater than any of us could have imagined a year ago. It is remarkable then that this annual report of HSM is still a story of positivity and success. It is to the credit of the Director and her team that as the physical door closed the digital door was opened and the numbers of virtual visitors to the museum and its collections soared.

This increase in online engagement and reach was driven through an array of new initiatives including virtual tours, online events and themed days, exhibitions revisited, and family fun activities. It has been wonderful to enjoy the collections from our own armchair and to see that many of those armchairs are in different parts of the globe and new audiences are now aware of the Museum who might otherwise never have been able to engage or visit.

Although closed throughout the summer, Museum staff worked hard to prepare for reopening in the autumn and the launch of a special exhibition Precious and Rare: Islamic Metalwork from The Courtauld. Government guidance around social distancing and this Museum and the other institutions. capacities required a complete rethink of visitor flow through the Museum and how the beautiful objects of this special exhibition would be physically displayed. I congratulate Museum staff on their positive and creative response to this and so many other challenges. Their hard work, resilience, and ingenuity have moved the Museum to a new position offering an impressive blend of the digital and physical and thereby making the most of both worlds.

There are a number of "firsts" for the museum reported this year, some of which are a reflection of the agility of the staff to adapt to the new circumstances and others that might be considered at other times *business* as usual and in that regard are perhaps more remarkable that they have been achieved this year. Amongst these is the first Curator of the Collection from the Islamic World. Thanks to the generosity of the John Ellerman Foundation, the Museum was able to appoint Dr Federica Gigante as the first post-holder to focus on the Museum's unique collection of early mathematical and astronomical instruments from the Islamic World.

The HSM successes described here are the foreground for what is a less visible backdrop of collaboration and support across the GLAM institutions this year. This speaks further to the abilities and resilience of the staff of Colleagues have stepped forward to help each other and to support activities that they would normally not be involved with, that may be in a different institution, sometimes taking on new roles and learning new skills and in doing so creating a palpable community spirit from which we have all benefited.

My congratulations and thanks to Silke, as Director, and her team for all they have achieved this year.

Professor Anne Trefethen FBCS FREng

Pro-Vice-Chancellor for People and Gardens, Libraries and Museums (GLAM)

This increase in online engagement and reach was driven through an array of new initiatives including virtual tours, online events, themed days, exhibitions revisited, and family fun activities."

Image: John Cairns 🕨

Headlines 2019/20

First Curator of the Collection from the Islamic World

Thanks to the generosity of the John Ellerman Foundation, the Museum was able to appoint Dr Federica Gigante to a two-year role researching the outstanding strengths of the Museum's Collection from the Islamic World and developing wider engagement with it.

Breaking Visitor Giving Records

Our Front of House team have rebroken HSM's visitor giving record! They eclipsed last year's per visitor donations by 31%. This exemplifies the Museum's exceptional evolution in developing and encouraging visitor giving; in just seven months the team comfortably exceeded the entire annual total raised two years ago.

Completion of Archives into EMu project

Despite significant COVID disruption, the Museum successfully completed its strand of the major GLAM Digital project to update and enhance **Collections Management Systems** across the museums. Delivered on time and on budget it brings the last significant element of the Museum's collections into modern digital management.

founders and Oxford Instruments plc.



▲ Specially commissioned Oxford Instruments Lego Laboratory. Image courtesy of Oxford Instruments plc

First Dedicated Fundraiser

Lynda Knill joined as Senior Development Manager in Michaelmas term to work closely with the Director in developing the Museum's Vision 2024 fundraising campaign. This new role will help secure the significant philanthropic support required to transform the History of Science Museum and ensure it continues to thrive and can go on serving its audiences into its second century.

Alice in Typhoidland

An innovative exhibition, using fiction, games, video as well as original objects to span the past and present of typhoid. Created in partnership with the Oxford Martin School and with the Bodleian's Weston Library.



Image: Alice in Typhoidland display



Facts and Figures

Staff and Volunteers

(Tour guides, Welcome **Hosts, Collections Move** projects, school and public events)

26

(58)

staff in total equalling 15.8 FTE on 31 July 2020 (including part time and short-term contracted)



Research, Teaching and Collections

masters teaching modules drawing on collections



research enquiries (the rate of enquiries was similar to those achieved last year before the **Museum was impacted by COVID-19**)

database records created for 2,186 manuscripts

displays

Visitor Giving and Commercial Income

£28,900 £6.1 88

average per visitor (increase on LY by 31% per visitor)

audio tours delivered in 7 languages

average spend per visitor (up on LY by 23% per visitor)



with overall profit of £7,271



Learning and Engagement

Despite the impact of COVID-19, the Museum's learning programme showed impressive growth with a 63% increase in the overall number of facilitated sessions and a 69% growth in the number of school-age students in facilitated sessions:



utreach to schools

1047 students in facilitated secondary school and post 16 sessions

content views & retweets)

adults at family 850 autres at land, sessions independently and with children and training in facilitated sessions







facilitated secondary school and post-16 sessions delivered including

school age students (5 - 18) in facilitated

children (0 - 16) participating in family activities in the museum students in facilitated primary school sessions

activities created in family events in family events

6



facilitated primary school sessions

391%

ngagements (Likes and video plavs)



HSM website: 8% increase 153,412 visitors for the yea 151,000 8% increase 194,050

6% increase

27%

average dwell time

RESEARCH, TEACHING AND COLLECTIONS

Collections



Thanks to the generosity of the John Ellerman Foundation, the Museum was able to appoint Dr Federica Gigante as our first Curator of the Collection from the Islamic World. This is a new two-year position which combines innovative forms of community engagement with classic values of collections and research excellence. The successful application was achieved with the help of the University's Development Office, the Multaka project, the Museum's Visitors and support from the Oxford Gardens, Libraries and Museums **Divisional Office. Dr Gigante arrived** at the Museum just two weeks before lockdown, so her programme of collections familiarisation had to be adapted to remote working. She has taken a leading role in the curation of the Oxford "Cultures in Conversation" leg of "Precious and Rare", the Courtauld travelling exhibition of Islamic metalwork.



In Tederica Gigante (Images: Ian Wallman)

New Displays

People I Science I Business: Oxford Instruments

A display in the Basement Gallery to celebrate 60 years of Oxford Instruments, the University's first science spin-out company. Founded by a husband-andwife team (a 'company of two') in their garden shed, the company grew from an early focus on powerful magnets to take the lead in the development of superconducting magnets for the groundbreaking technology of MRI. Oxford Instruments is still headquartered locally but is now a global business providing high technology products and services to industry and science across the world.

Centred on generous loans from the private collection of the founders Sir Martin and Lady Audrey Wood, as well as the Bodleian Library, the display came right up to the present with the support of Oxford Instruments plc – who provided additional funding and loans, including a Lego model laboratory, which was particularly popular with younger visitors and those young at heart.

It was a great privilege to be able to welcome Sir Martin and Lady Audrey Wood to open the exhibition on 29 October 2019, along with members of their family. Former employees and representatives from the company were also present and participated in the public programme accompanying the display to give perspective on the past, present and future of Oxford Instruments. Sir Martin Wood with his first superconducting magnet, in Oxford's Clarendon Laboratory in 1962. (Image courtesy: Lady Audrey Wood) >

UXFURD INSTRUMENTS NOW

Sir Martin and Lady Audrey Wood with Dr Silke Ackermann at the private view V



Together with the Weston Library across the road, the Museum collaborated on the Alice in Typhoidland project led from the University's Oxford Martin School. Using the familiar Through the Looking Glass figure of Alice, the project investigated the past and present of typhoid. The historical dimension began with Alice Liddell, the real-life inspiration for the fictional Alice, whose Oxford family both suffered from and contributed solutions to the problem of typhoid. The contemporary starting point was the Oxford development of a new typhoid vaccine for parts of the world where it is still endemic, and which can be administered to young children as

well as adults. The displays in the Museum and the Weston Library were designed to be complementary. While we gave particular prominence to vaccination, we also showed some of the public health measures required to tackle typhoid. Curators Dr Samantha Vanderslott and Dr Claas Kirchhelle not only arranged for loans from the Oxford Vaccine Group but sourced unsuspected material from the Museum's reserve collections, for example test apparatus from the

Alice in Typhoidland



Oxford Sewage Works which – rather remarkably – had already been identified as a key site for the exhibition story.

Thanks to the generous support of one of our Director's Circle members and Maxson Network Limited we were able to source a new doublesided touchscreen which provided both a video introduction to the display and a combination of digital games and audience surveys on the reverse. The project's extensive media commissioning also resulted in 3 screens embedded in the display and a projection onto the basement gallery ceiling. The footage of Oxford volunteer students drinking typhoid "shots" to infect themselves as part of the local challenge study of the new conjugate vaccine was particularly arresting and gave real poignancy to the display.

This successful project, designed and built by Museum staff, again highlights our ability to showcase both past and present, and provide publicly accessible engagement with the work of modern Oxford science.

RESEARCH. TEACHING AND COLLECTIONS



Netsuke

14

As the Museum prepares for full-scale redevelopment, we are experimenting with small-scale interventions to pilot approaches and themes. The removal of archaeological material discovered on site at the turn of the millennium to its official repository at the Ashmolean Museum provided a basement showcase for an individual display. Our designer Keiko Ikeuchi took the initiative to highlight a relatively little-known part of the collection, interpreting a selection of our Japanese netsuke.

These toggles often take the form of carved wooden or ivory figures and are used on the sash of a kimono to suspend an inro (a portable container) The Museum has more than a hundred netsuke from the larger Hermann Gunther collection, selected for their relevance to medicine and hygiene. The preparation for the display offered an opportunity for new object photography and images of netsuke became some of the first items to be trialled in the new ResourceSpace Digital Asset Management System.

When complete this will be the first time in Oxford that a cross-museums initiative brings the collections to wider prominence and enables interdisciplinary research and teaching

Collections Projects

Collections staff have contributed intensively to the specification of the new Collections Teaching and Research Centre (CTRC), planned as part of Oxford's newest college, named in recognition of a landmark gift from the Reuben Foundation. The integration of a city-centre location for collections with a new graduate college represents a genuinely novel institution. Collections Manager Lucy Blaxland has been especially involved in detailed consultations as the project advanced through RIBA stages 3 and 4. Ensuring appropriate facilities and operating procedures is vital to realising the project's potential, and the future home of a large part of the Museum's reserve collection. When complete this will be the first time in Oxford that a cross-museums initiative brings the collections to wider prominence and enables interdisciplinary research and teaching.

The successful completion of the OPS project last year - the move of collections out of the Old Power Station in Osney - has been followed by a process of consolidation of

Image courtesy of fimtstudie architect for the CTRC project

documentation, ensuring that records are checked and available within the collections database EMu and images prepared for ingestion to the ResourceSpace DAMS.

The breadth of the Museum's collections gives them relevance outside the history of science. Its holdings of paintings were previously photographed for inclusion in the Your Paintings website created by the Public Catalogue Foundation and the BBC. The success of that project has led to a successor where all sculpture in public collections is being documented and combined with the existing paintings now on the Art UK website. The Museum's sculpture – including portrait busts and anatomical figures - was identified and retrieved for new photography. We now have 63 items available on the artuk.org website.

Acquisitions

The Museum received major donations this year, but their formal accessioning was delayed until 2020-21 by the circumstances of COVID-19. One example is particularly striking and reveals the unforeseen impacts of the pandemic.

Professor Frank Manasek offered us his collection of astronomical prints. Well-known to the Museum, he had not only made previous generous donations but had studied for a Master's degree with us - an energetically academic start to his retirement from a professorship at the



Dartmouth Medical School in New Hampshire.

His collection is particularly strong in 20th-century planispheres – the modern descendants of the astrolabes that the Museum is so known for - but it includes 17th-century comet prints, 19th-century broadsheets advertising lectures and even 20th-century astronomical cigarette cards. Strongly complementing our existing printholdings, we were happy to accept this gift and it was duly despatched to us.

Numbering some 70 items, we were lucky to have assistance from a History of Art undergraduate to receive and enumerate the collection.

Image courtesy: Frank Manasek

Second-vear student Deniz De Barros spent half a day a week with us over 2 terms, checking the items against Professor Manasek's own listing and, with the help of collections training. recording the conditions of individual items.

At the end of the process three items were discovered to be missing. One was quickly identified as a 'ghost' that was not part of the group. The other two had escaped the despatch process and we were told that they would be sent once the

donor had retrieved them. The good news that they were on their way came just before lockdown, but it took a full six months before they eventually arrived at the Museum - to much relief, but too late to make up the complete group for formal accessioning.



△ Portrait of Lewis Evans

One notable acquisition that was fully registered this year is the portrait of Lewis Evans that has long been on display in the Entrance Gallery. This oil painting of the Museum's founding donor had previously been on longterm loan from the Ashmolean, but has now been generously presented by Ursula Evans, a descendant of the family.

RESEARCH, TEACHING AND COLLECTIONS

Conservation

Library and Archives

Following the completion of the move of the museum's reserve collection last year, conservation work recommenced on care of collections. While many of these were small-scale objects, collaboration with technician Owen Shaw allowed improvements to the Northumberland armillary sphere in the Top Gallery (a result of a very old repair causing rotation issues) and the pendulum bob of the Fromanteel clock in the Entrance Gallery.

Remote working during lockdown provided an opportunity for additional training and continued professional development on topics from control of insect pests to understanding plastics degradation in museums.

16

Prior to full lockdown, a combined effort with the Ashmolean conservation department was undertaken to amass and then deliver all unused PPE (for example, nitrile gloves) for use by the emergency services during the early stages of the pandemic, when NHS supplies were particularly scarce.

Research Facilitator Dr Lee Macdonald continued to run the Library and Archives and act as a first point of contact for research enquiries. During the year 1 August 2019 to 31 July 2020, he processed a total of 162 research enquiries, of which 56 resulted in a research visit. The effect of the COVID-19 pandemic on research enquiries can be seen by comparing with last year's total of 250 enquiries. The particular effect on summer enquiries is clear from the figures for each year up to March, which are much more broadly comparable: 130 for 2019-20 and 149 for 2018-19.

The Library hosted an academic intern during September 2019, when University of Chicago graduate student Amy Coombs worked with us to examine printed texts and manuscripts under the theme of 'Plants under the Microscope'.

Remote working during lockdown provided an opportunity for additional training and continued professional development."

▲ Northumberland Armillary Sphere

Digital Projects

The large-scale GLAM Digital Strategy project to upgrade collections and digital asset management systems across the museums achieved significant milestones in the Museum. Through staff workshops, the ResourceSpace DAMS – also being adopted at the Ashmolean and Pitt Rivers Museums – was specified and configured for use in the Museum, and the ingestion process to migrate images from legacy systems begun.

With the technical support of the Gardens and Museums IT team, the collections database Axiell EMu was moved to the Amazon Web Services cloud platform. In addition to this new infrastructure, the database itself was upgraded through a carefully choreographed sequence, delivering a significant interface enhancement and important new functionality. That upgrade in turn enabled the delivery of the project to transfer our manuscript catalogues to EMu. It will allow, for the



Fromanteel Clock

first time, details of our catalogued manuscripts to be searched online when the new version of Collections Online is developed next year.

The manuscript work was carried out by Dr Macdonald and was able to continue uninterrupted during lockdown through remote working. The final part of the project did however require access to the building since it involved recording the shelf locations of all the manuscript material. As Dr Macdonald was leaving to take up a two-year research fellowship with Royal Museums Greenwich at the end of July the timing of this access was particularly critical. With the help of colleagues in the Museum and from elsewhere in GLAM, COVID-secure protocols were drawn up to allow work on-site whilst the Museum was still formally closed and all the manuscript locations were successfully gathered, just in time.



RESEARCH, TEACHING AND COLLECTIONS

Research and Teaching

Research

The Museum's first doctoral student under the GLAM Collaborative Doctoral Partnership Programme has begun her research on "Science in the service of religion? A museum study". Jointly supervised by the Director Dr Silke Ackermann and Professor Michael Reiss (University College London), Mathilde Daussy-Renaudin has had to adapt to pandemic conditions in her investigation of the Museum collection. No longer able to visit the Museum from March she nevertheless partnered with new curator Dr Federica Gigante in joint remote working on the Islamic World collection. Mathilde has also contributed significantly to the life of the museum, presenting to Museum staff based on her French museum experience and taking part in planning towards Vision 2024.

The GLAM CDP programme is supported by the Arts and Humanities Research Council.



18

Arts and Humanities Research Council

Teaching

HSM staff continue to actively deliver teaching for the History Faculty, particularly at postgraduate level through Masters courses in the History of Science, Medicine and Technology. The Option Paper within the MSc curriculum on "Astrology in the Medieval and Early Modern World" ranges across both Europe and the Islamic world and makes extensive use of artefacts at HSM.

In addition to the history of astrology course, jointly taught by Drs Ackermann and Johnston, Dr Johnston contributed to the teaching of "Methods and Themes in the History of Science" at postgraduate level. For undergraduates he provided the majority of lectures in the History Faculty Prelims paper on "Nature and Art in the Renaissance". Normally given in the Museum these had to be recorded and delivered online after the onset of the pandemic. He supported teaching for science and history of art undergraduates through guided visits to the Museum and acted as examiner for the MSc in History of Science, Technology and Medicine.

Dr Macdonald taught the MSc Option Paper on "Science and Practice: Instruments, Collections and Museums, 1700-1900" supported by the Museum's collections, enabling students to learn about the history of science through direct engagement with objects. He also gave tutorials in the History and Philosophy of Science Supplementary Subject for science undergraduates. These tutorials took place in the HSM Library and Dr Macdonald used a small selection of our pre-1900 scientific books as props to support his teaching.

Publications

Staff members' publications included:

Lee T. Macdonald, 'Proposals to Move the Royal Observatory, Greenwich, 1836–1944', *Journal for the History of Astronomy*, 51 (2020), 272-304.

Federica Gigante, "Medici Patronage and Exotic Collectibles in the Seventeenth Century: the Cospi Collection" in Francesco Freddolini and Marco Musillo (eds), *Art, Mobility, and Exchange in Early Modern Tuscany and Eurasia* (New York and Abingdon, 2020).

Honorary Research Fellow Dr Elizabeth Bruton published: (with Russell G. Egdell) "Henry Moseley, X-Ray Spectroscopy and the Periodic Table", in *Philosophical Transactions* of the Royal Society A, 378 (2020).

"'Uncertain at present for women but may increase': opportunities for women in wireless telegraphy during World War One", in Elizabeth Bruton and Mar Hicks (eds), *A History of Women in British Telecommunications*, special issue of *Information & Culture: A Journal of History*, 55 (2020).

"Valentine from A Telegraph Clerk ♂ to a Telegraph Clerk ♀ by James Clerk Maxwell: The material culture and standards of early electrical telegraphy", *Science Museum Group Journal*, 12 (2019).

National and International Impact

Loans

As with many other aspects of Museum operations, loans were disrupted in the latter part of the year. Work to prepare four navigational items for "Mayflower 400: Legend and Legacy in Plymouth" went on right up to lockdown but their departure had to be delayed. In the event, the opening of this major exhibition organised by the Museum, Galleries and Archives service of Plymouth City Council was deferred and the objects remained onsite in Oxford until the autumn of 2020.

Even when loans made it out to borrowers, flexibility was required to manage rapidly changing conditions. The Chelmsford City Museum celebrated a century of broadcasting with the exhibition "On Air: Chelmsford's Global Experiment" to which we lent an Aircraft Wireless Telephone Transmitter and a Telephone Arc Transmitter, Lockdown required an extension of the loan period as it would have breached COVID-secure guidance to bring these items back as intended. Our own plans to mark the centenary of the first public entertainment broadcast in June 1920 by the singer Dame Nellie Melba - whose signed microphone we have in the Marconi Collection -

had to be rendered entirely online.

▲ Image: John Cairns

HISTORY OF SCIENCE MUSEUM ANNUAL REVIEW 2019-20

Advisory Bodies

The Director, Dr Silke Ackermann, served as a member of the Research Advisory Board of the Deutsches Museum, the Staatliche Kunstsammlungen Dresden, and the Centre for History of Science at the Royal Swedish Academy of Sciences Stockholm. She also acts as External Advisor for Eton College Collections Committee on outreach and access.

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

The Research Facilitator, Dr Lee Macdonald, served on two Royal Astronomical Society committees: Chair of the Library Committee, and member of the Astronomical Heritage Committee, the latter responsible for the Society's historic astronomical artefacts (some of which are on longterm loan to the Museum) and the history of astronomy

Rete

generally.

The Museum continues to administer Rete, the international mailing list on the history of scientific instruments. The membership of the list grew again this year, up by 8% to 754 subscribers. Rete reaches at least 43 countries and its genuinely global coverage – as diverse as Brazil, Malaysia, Ukraine and Qatar underlines the Museum's role in serving and connecting a worldwide community of individual researchers, academics and museum professionals. The mailing list is also used as the principal means of communication by the Scientific Instrument Commission of the International Union of History and Philosophy of Science.

PUBLIC ENGAGEMENT AND PROGRAMMING

Multaka-Oxford

The award winning Multaka-Oxford project, generously funded by The Barakat Trust and individual donors, continues to create volunteer opportunities that use the History of Science Museum and its collections.

In the past year a new internal staff role of Community Ambassador was introduced to develop even more inclusive approaches to projects. The Community Ambassador focuses on bringing more perspectives to project teams. This moves projects forward. It brings in different, community centred experience and knowledge and widens networks. The role advocates for more voices and perspectives within the Museum and advocates for the Museum within the communities it serves.



▲ Image: Phillip Nash

The 39 Multaka volunteers are from all corners of the globe and have contributed their skills, knowledge, perspectives, and experience to the

Museum and its visitors. Between December and March five trained volunteers delivered ten tours to 67 visitors. The tours were delivered in English and each tour guide chose a theme and objects around the Museum attended. I truly looked at to share stories and experience from their own heritage, encouraging visitors to join in and be an integral part of the tour.

My name is Jenan. I am from Damascus,

Svria... I chose the Midwife netsuke object to talk about. I wanted to let visitors know about our Arabic and Muslim traditions when a child is born, for example: Al Athan (a prayer into both ears). It was a wonderful moment when I told the visitors about my brother's story when my mother delivered him with help from the Qabila (Midwife). We were around her and prayed for her and the baby. I felt that visitors were happy and excited."

Multaka volunteer

It was one of the best museum tours l've ever the objects in a whole new way. I also enjoyed being able to think about my own Brazilian culture. I learnt how to look at an object and that the text on the label complemented the stories but wasn't the only truth."

HSM visitor

In November 2019 a team of Multaka volunteers co-produced an evening event which formed part of the Oxford citywide 'Christmas Light Night' festival. The Multaka team worked alongside Museum staff to plan and deliver an evening of talks, short films, music, poetry, family activities, displays and storytelling. This was a huge success and the Museum welcomed 1,139 visitors through its doors in just 3 hours. Visitors were enchanted by the evening's theme of 'light' and enjoyed a wide range of activities including

Images: Phillip Nash 🔺 🕨

listening to the Zimbabwean Mbira player Kennedy Chinyere to understand the role of the moon in Zimbabwean culture, watching a short 1902 film on 'A Trip to the Moon' by Georges Méliès, seeing a display of photography of Syrian artist Akram Sweidan, and making their own lunar dials.

20



In January 2020, Multaka volunteers enjoyed a trip to the British Museum. This excursion was organised by the Museum's Director, Dr Silke Ackermann, and was funded by the HSM's allocation of the Collections Trust Award money, which the History of Science Museum and Pitt Rivers Museum won jointly in 2019 for Multaka-Oxford, with additional funding supplied by HSM. At the British Museum, Multaka volunteers were hosted by Dr Venetia Porter (Assistant Keeper, Islamic and contemporary Middle East art), the lead curator of the new Albukhary Foundation Gallery of the Islamic World who conducted a tour of the Islamic gallery where the volunteers spontaneously sang an Arabic song of love which had inspired one of the contemporary pieces:



▲ Multaka trip to British Museum

During March the project team ran scheduled weekend family events as part of the Spring Equinox programme however, in light of the pandemic and the Museum's forced closure, these plans were swiftly moved online. Multaka volunteers and staff created short videos and instructions for families to enjoy activities at home. We also commissioned storyteller Peter Chand to tell spring stories relating

to Hindu religion and culture. These videos were enjoyed by 291 viewers.

During the period of the Museum's enforced closure. Multaka volunteers continued their innovative work and supported the development of themes and interpretation for a brand-new exhibition featuring Islamic metalwork which is scheduled to launch in the autumn of 2020. Volunteers worked

'...Your love has taught me, my lady, the worst habits. It has taught me to read my coffee cups thousands of times a night. To experiment with alchemy, to visit fortune tellers. It has taught me to leave my house to comb the sidewalks...'

▲ Excerpt from the poem Madrasat AI Hob by Nizar Qabbani ▼

علمنی حبك سيدتی .. أسوأ عادات علمنى أفتح فنجانى في الليلة الآف المرات واجرب طب العطارين .. وأطرق باب العرافات علمنى أخرج من بيتى .. لأمشط أرصفة الطرقات



▲ Image: Phillip Nash

with curator Dr Federica Gigante and the HSM Learning team. Their contributions will be seen online and in the Museum in the autumn of 2020.

In June 2020, Multaka-Oxford won the **Diversity Participation category of the** Vice-Chancellor's Diversity Awards. The award recognises work to increase the participation of under-represented groups or to extend the reach of the University's work to new audiences.

Exceptional work is heing undertaken at all levels of the University in this area and countless colleagues devote time and energy to initiatives which promote equality and diversity – often on top of their usual

responsibilities. The awards recognise and celebrate these pioneering initiatives and the people behind them."

Professor Louise Richardson. Vice-Chancellor

Throughout the last 12 months there have been many opportunities to engage with Multaka volunteers at different conferences including the Museum iD conference and Platform festival. There have also been opportunities to share best practice with the National Trust, University of Westminster, National Science and Media Museum, Hamburg Museum, and Central St Martins School of Fashion and Design. Through this wider engagement we are able to demonstrate and celebrate the excellent work we are doing through Multaka tours and the volunteering programme.

The Multaka-Oxford team are:

Abdullah, Afraa, Antionette, Basma, Chaitanya, Chris, Dhamyaa, Dilber, Dot, Duncan, Eniko, Evi, Eva, Farida, Francesca, Ghazala, Ghufran, Hadia, Hiba, Jenan, Jiemin, Jo, Jonathan, Khadeje, Lily, Lynn, Maggie, Mariam, Marriam, Marwa, Matti, Michael, Mohamed, Mohammad, Nav, Nawar, Nicola, Niran, Nivin, Nuha, Rachel, Rachida, Rana, Rawan, Rita, Roushin, Sanda, Safaa, Sally, Sarah, Shaimaa, Silvia, Thabo, Thandi, Tom, Trish, Ursula, Wesal



HISTORY OF SCIENCE MUSEUM ANNUAL REVIEW 2019-20

Image: Phillip Nash

PUBLIC ENGAGEMENT AND PROGRAMMING

Events

This year saw a number of diverse and wide-ranging events as the Museum sought to draw in new audiences. Firstly, audiences were taken to an undercover world with Science Museum Curator Dr Elizabeth Bruton's talk, 'Top Secret: From ciphers to cyber security', exploring over a century's worth of communications intelligence. Based on the Top Secret exhibition at the Science Museum London, Dr Bruton uncovered the remarkable world of codebreaking, ciphers and secret communications through the lens of a century of GCHQ, the UK's Intelligence, Security and Cyber agency.

In December 2019 the Museum broke new ground by transforming the Basement Gallery into a comedy club! The 'Women and Science Comedy Evening' held on the 4th December with our partners, Jericho Comedy, was sold out with audience members travelling from as far as London in order to attend. The largely student audience was treated to fantastic performances from five female comedians - all science araduates.

The event came about at the suggestion of one of the Oxford University Astrophysicists who contributed to our series of blogs written to encourage girls to consider science as a career. It was also scheduled to coincide with our 'Women and Science' display and the series of events across Oxford

celebrating the centenary of the first women in Britain Thursday being given the vote.

In the New Year. our Director. Dr Silke Ackermann and Deputy Director, Dr Stephen Johnston delivered a crowdpleasing lecture, 'From Astrolabes to Alethiometers - Instruments on TV'. They asked whether space, life and death can truly be captured in the palm of your hand? Offering an intriguing insight into the real objects behind the stories.

On 12 March 2020 we had scheduled a talk to complement our display 'Alice in Typhoidland' with one of the Curators, Dr Claas Kirchhelle. The lecture was due to cover the extraordinary efforts to eliminate typhoid fever from a rapidly expanding Victorian city. We then found ourselves in the unenviable position of history repeating itself! And we were forced to postpone such an apt and important lecture due to the outbreak of COVID-19.

From ciphers to cyber security 28 November 2019 Based of COMEDY NIGHT Wednesday 4 December 2019

Highlight Tours

Before closing due to COVID-19 we held 119 Highlight Tours with 1155 people attending these. These tours simply wouldn't be possible without our brilliant volunteers who bring the Museum and our Collection to life for visitors. Ken Taylor, one of our longstanding volunteer guides, shared his thoughts on the Highlight Tours:

> The part I like best about giving the tours is when the visitors tell

me they have learned something they didn't know previously. Sometimes it's just their facial expressions; often they ask questions which encourages me to do more research myself. I would say many of the visitors get a surprise out of the tour. The HSM isn't as well known as the other museums but has a fascinating history and contains objects relating to people who are well known, such as Marconi, Einstein and the penicillin team.

Sometimes members of the public just come in out of the rain not knowing what they have walked into. Then I like to make it as interesting as possible by telling them in advance what they are going to see - they usually stay to the end."

Quote from Robert Pinches:

and why they chose to the visitors learn more about the Museum, its history and the objects and will get more enthusiastic about valued and go away time."

particularly enjoy hearing about the visitors' own experiences with science visit the Museum. I hope science in general. I hope they feel welcomed and having enjoyed their visit. Hopefully, they will come back again and explore the museum in their own

PUBLIC ENGAGEMENT AND PROGRAMMING

Learning 2019-20

Despite the interventions of the pandemic lockdown, the Museum's learning programme has continued to build momentum this year. Comparing the September to end of February period with that of the previous year, there was a 63% increase in the number of facilitated sessions delivered, which included a 90% increase in the number of primary school sessions, a 45% increase in the number of secondary sessions, and a 69% increase in the total number of school-age students.

The range of the programme has included 5 academic study days for GCSE and A-level students delivered in partnership with other departments within the University, an exciting maths project working with a group of students with special educational needs as part of the GLAM flagship Iffley Academy programme, and the beginnings of a new digital project developing resources to support families at home at the start of the COVID-19 lockdown.

The workshop was pitched perfectly for the children's age range and linked beautifully to the Early Years Foundation Stage Curriculum." [teacher]

The redevelopment of the primary schools' programme has continued with almost double the number of sessions delivered in the same period up to the end of February, all sessions being rated 'good' or 'excellent' by teachers with 79% being rated 'excellent'. New sessions have been created including Astronomy from Maya to Today supporting the curriculum's requirement for knowledge of least one ancient non-European culture, and one on calculation piloted with St. Barnabus' School as part of the Maths in Museums project.

Who would have thought that a session learning about the history of calculating could be so utterly fascinating? This was absolutely one of the best trips we have ever been on." [Year 5 teacher]

The primary programme has continued to work with Oxford for Oxford within the University's Widening Participation programme working with children from some of the most socially and economically deprived parts of the city. Feedback from teachers was very positive:

A really great day, very much enjoyed by children and staff...children have already been asking when they can go on another trip: this was an opportunity for them to explore Oxford as many of them said they do not **go.**" [Teaching Assistant from Wood Farm Primary School, Expert Explainer Project]

Although we had to cut the programme of facilitated sessions short because of the COVID-19 outbreak, we managed to deliver two timely sessions to accompany the Alice in Typhoidland exhibition. Children relished the opportunity to discuss the history of vaccination and disease control in the context of the current international pandemic.

The Museum has continued to offer a wide range of facilitated sessions for the secondary and post-16 sectors and to develop the programme of themed study days which, in addition to curriculum enrichment, provide valuable opportunities for students to engage with academics and researchers from the University.

▲ Images: Ian Wallman ►

elen engaged the children – all children – from the outset and the time flew by. The pitch was at a perfect level for the children to understand: challenging, engaging and fun." This year saw repeats of the highly successful Key Stage 4 (GCSE) and 5 (A-level) study days on Frankenstein and the gothic novel delivered in partnership with the Bodleian Library. They included repeat performances of the new play The Two Body Problem commissioned last year by the Museum to celebrate the bicentenary anniversary of the publication of Mary Shelley's novel. We also experimented with a Key Stage 3 study day on contemporary themes linked with the Renaissance and delivered two successful study days – Key Stages 4 and 5 again - on the history of typhoid and vaccination linked with the Oxford Martin School's public engagement project and the exhibition Alice in Typhoidland. The events were attended by 82 students from local schools and further afield and supported an invaluable and timely opportunity for students to meet researchers from

Oxford's Jenner Institute, a world-

renowned centre of research on

vaccination.

Varied, inspiring & stimulating. The structure was well thought

out and organised. Students were engaged and interested, with lots of opportunities for discussion and interaction with experts."

Beyond the mainstream, three distinctive projects stand out from this year's programming:

 The Museum continued its partnership with the City of Oxford College supporting young people between the ages of 16-18 studying creative art and design subjects to engage with maths and science through the college's MARS (maths, art, religion and science) curriculum initiative. This included the delivery of a series of 8 practical workshops involving science and art such

I think it [the project] gave them a much deeper understanding of what goes into planning and creating a museum display – it was very well planned and run."

[Teacher and Director of the Rumble Museum]

as the printing workshop Making Micrographia, the workshop Secret Knowledge about the invention of linear perspective in art, and The Moving Image designing and building devices to display early Victorian moving images;

- The Museum made a unique contribution to GLAM's flagship lffley Academy project working with young people with special educational needs which took the form of a pilot maths project on the theme of maritime exploration resulting in a delightful exhibition of quadrants and diptych dials made by the students at the Academy;
- A term's extra-curricular project with a group of students from Cheney School associated with the school's Rumble Museum which received accreditation last autumn resulted in the inauguration of the Museum's two new community display cases with a small exhibition of mathematical calculating instruments. After an introductory 'behind-the-scenes' visit to the Museum in which the students met with members of staff to find out more about their roles, they organized themselves in groups to develop their own interpretation supported by visits from a learning officer to the school.

An excellent experience, very unique and opened my eyes to prevention of diseases." [A-level student]

Oxford . accine

Typhoid Camical Trial

areas areas

Cont state

PUBLIC ENGAGEMENT AND PROGRAMMING

I really enjoyed seeing the final end product and how everyone's contribution helped to finish it." [Year 9 student, Cheney School1

After six months of more intensive

work, the development phase of the Maths in the Museum project was near completion by mid-March when lockdown intervened. This project, funded partly by individual donors and partly by the University's Van Houten Fund, has resulted in a suite of 5 new facilitated workshops focusing on the maths curriculum ranging from Early Years to Key Stage 3 highlighting stories and links with the Museum's extraordinary collection of mathematical instruments. The acquisition of historical and contemporary handling objects has, for example, helped to bring to life The Measurers, a sixteenth-century painting in the collection, and the theme of calculation linked to the story of Charles Babbage and Ada Lovelace. Over the course of the

project, 173 primary school children and 221 secondary school children have engaged with the project over a total of 16 sessions including pilots. Unfortunately, further bookings had to at the Museum within a programme be cancelled as a result of lockdown, but we anticipate that the workshops will resume momentum as soon as possible through a combination of outreach work and digital engagement. cross-GLAM Volunteering Team in The project also supported work with Iffley Academy for children with special educational needs, enabled the Museum to support outreach work Museum's learning programme has in east Oxford through the annual Oxford Maths Festival, and engaged with nearly 600 children and 2,000 adults through three iterations of the successful Lovelace's Labyrinth family event. A particular feature of the project has been the partnership with the Maths Institute and lecturers from the Computing Department of Royal Holloway University who have been generous in giving their time and expertise in contributing to the interpretation of the Babbage story.

Family audiences have continued to enjoy a full range of activities at the Museum this year. In addition to the Lovelace's Labyrinth maths themed

events, events have included a celebration of the Chinese New Year making Chinese fire-clocks, and the magical Christmas Lights Festival curated by the Multaka project team.

The Museum continues to benefit from the ongoing support of the promoting volunteering opportunities at the Museum along with the Community Engagement team. The benefitted from the contributions of an extraordinarily committed and diverse team of volunteers who have participated in both schools and public events.

They enjoyed the variety of activities and were all really engaged. It challenged them to think about measurement and solving real problems." [Year 9 teacher]

great opportunity to find out how calculation was done in the past; they especially enjoyed using the Lightning Calculators and having the opportunity to explore objects in hands-on activities." [Year 9 teacher]

OPERATIONS AND PLANNING

Income

11 · · · · ·	0544.000	
University funding	£511,200	
Research England	£135,000	
Arts Council England	£152,600	
Furlough income	£37,200	
Donations:		
Visitor Giving	£28,900	
Other Donations	£78,400	

The Museum receives the largest share of its income from the University of Oxford with supplementary funding from Arts Council England and Research England, all of which support the delivery of the Museum's core activities and roles.

Trust & Investment Income:Museum Trust Fund
drawdown£27,800Van Houten Trust£1,700Trading income£80,500Other income£17,700TOTAL INCOME£1,071,000

Throughout 2019-20, the Museum worked tirelessly to generate more of its own income and reduce the reliance on its trust funds with an enhanced programme of trading activity including event and venue hire, filming, audioguides and group bookings.

The COVID-19 pandemic, which resulted in the closure of the Museum, inevitably led to a significant loss in trading activity and income. However, prior to closure, income was building as forecast and the Museum's commercial activities were on course to meet ambitious targets. For instance, Event & Venue Hire activities were on track to make £83,000 of revenue compared to c.£20,000 income achieved in the previous year.

Expenditure

32

Payroll	£781,000
Consumables / Supplies	£13,700
Premises & Equipment Costs	£61,300
Staff Related Costs	£14,400
Publicity Related Costs	£9,600
Professional Fees	£8,700

The Museum expenditure grew in line with its increased income. The financial year was concluded with an approved financial deficit of £38,000 due to the closure of the museum to the public following the COVID-19 Other Costs£7,900(Professional Fees &
Health and Safety)£45,200Cost of Trading Activity
(Goods/Services)£45,200University Recharges£29,900Capital & Infrastructure
Costs£128,900TOTAL EXPENDITURE£1,100,600

pandemic. The Museum continues to grow its staff resource in order to meet the demands of delivery and operating. Payroll in 2019-20 was a significant amount of the operating costs within the Museum (71%). Capital and Infrastructure costs have been reduced once again (12%) thanks to a re-evaluation of space charges. The Museum continues to pay recharge fees for several central University services; however, these have greatly reduced compared to 2018-19. We continue to operate with a strict equipment and consumables budget. Thanks to additional funding from IT services, the Museum has been able to upgrade a number of security systems in line with divisional requirements.

Visitor Giving and Commercial Activity

The Museum welcomed **82,027** daytime visitors between 1 August 2019 and the lockdown closure on 14 March 2020. Our visitors each made an average donation of **34 pence**, surpassing last year's record-breaking per visitor level by **31%**. This increase generated **£28.9k** of visitor giving income in seven months of operation. This exemplifies the Museum's exceptional evolution in developing and encouraging visitor giving; in just seven months the Front of House team comfortably exceeded the entire annual total raised two years ago in 2017-18, **£27.2k**.

Visitor Giving

The Museum has once again achieved the highest donations per visitor across the Gardens, Libraries and Museums (GLAM) Division in 2019-20. The Front of House team continues to develop new and exciting ways of ensuring that we proactively encourage every visitor, every time, to support and enjoy the Museum.

We have continued to grow two channels of donations which were newly introduced in 2018-19. The 'at-till-ask', in which every customer in the shop is presented with an opportunity to support the Museum by donating at their time of purchase, has generated £3k of income. This represents an increase of 19% month-on-month from last year. Our contactless donation terminal has seen contributions double, achieving £4k in visitor giving income. Our team have used the lockdown stoppage as an opportunity to train and embed new ways of engaging our visitors with our collections. Phoebe Homer led an excellent and innovative initiative to apply storytelling skills to help our team bring our collection to life and tell our hidden stories.

At the heart of our visitor giving success is the culture of engagement within our Front of House team, volunteer Visitor Hosts, and volunteer Highlights Tour Guides. Their warmth of welcome has become a point of distinction in the HSM visitor journey and forms the foundation for on-site visitor engagement and

> VERY GOOD 82.6%



Donations Per Visitor 2019-20 **34p**

²⁰¹⁸⁻¹⁹ 26p

giving. Our visitor surveys have recorded an unprecedented 96.3% of visitors rating the warmth of welcome as 'very good' or 'good'. We are proud to be represented by our Front of House team, volunteer Visitor Hosts, and Highlights Tour Guides, who are such exemplary ambassadors for the Museum.

Our team has welcomed new starters throughout the year. Becca Brown, Chris Bentley, Karen Humphrey and Phoebe Clothier have joined us in our Front of House team, and Izzy Treyvaud, Chris Humphrey and Phoebe Homer have joined our team of Supervisors.

Quality of Visitor Welcome



OPERATIONS AND PLANNING

The Museum's retail business has continued to grow, and in 2019-20 the shop saw an average spend per visitor of **48p**. This represents an increase of 23% and contributed to an overall growth in retail turnover of **11%** in each of the trading quarters prior to lockdown. The retail shop had a final operating profit in 2019-20 of £7,300.

Retail

During 2019-20 we have innovated and adapted our retail offering in order to ensure that performance continues to move from strength to strength. A new range of HSM-branded merchandise has been introduced, and product lifecycle management has been improved. Our online sales offer has been revised and developed; we have focused on our strongest ranges and stories and have integrated our online commercial offer within our social media content.

	2018-19
Spend Per Visitor	39p
Average Transaction Value	£9.31
Average Margin	51.3%
Customer Conversion	4.2%
Total No. Transactions	6646
Total Retail Turnover	£61,900
Retail Profit	£14,000
	Average Transaction Value Average Margin Customer Conversion Total No. Transactions Total Retail Turnover

*Museum closed to public from 14 March 2020.



Events & Venue Hire

The Museum's bold plans to increase turnover from venue hire activities to c.£80,000 in 2019-20 were progressing well up until the forced closure of the Museum in March 2019 due to the COVID-19 pandemic. The number of venue hire bookings between September 2019 and February 2020 totalled twelve with a further four under negotiation. The turnover from the twelve events totalled nearly £34,000, a tremendous 70% increase on the full year of event bookings in 2018-19. Regrettably, the impact of the pandemic curtailed our exciting plans for 2019-20, however the successes of the first half of the year along with our new ideas for catered events (such as offering tasting menus for special occasions) have demonstrated that there is great potential for further growth.

Group Bookings

The newly implemented reservation charge and timed admission for selfguided groups worked well at the Museum helping to ensure a more manageable flow of visitors through the Museum's galleries and a more eniovable experience for all our visitors. Income generated from group bookings between August 2019 and February 2020 amounted to £2,174 proving the new £50 charge per group to be an important income stream to support the Museum's offer.

Audio Guides & Other Income

Our audio guide allows visitors to explore and unlock the secrets of the Museum, and to create their own adventure through our collection.

Our multi-language offer and tailored content allows us greater reach to

connect with our visitors. In the seven months prior to lockdown, we delivered almost 2,000 audio guide tours in 7 languages, together with our 'family friendly' content specially designed for our vounger visitors.

The audio guides are part of a wider commercial strategy to support the Museum's long term financial sustainability and commercial growth plans. Audio quide hire has contributed over £4,000 to our trading turnover this year, with average monthly income increasing by 40%.



Museum Staff and Volunteers



Directorate

36

Dr Silke Ackermann, Museum Director Danielle Battigelli, Executive Assistant (to February 2020) Fiona Belardo, Acting Head of **Operations and Planning (from February** 2020 to May 2020) Suzy Gooch, Personal Assistant to the Director (from March 2020) Dr Stephen Johnston, Head of Research, Teaching and Collections Rhiannon Jones, Head of Public Engagement and Programmes (from December 2019) Lynda Knill, Senior Development Manager (from October 2019) Cai Marshall, Operations and Commercial Manager (from July 2020) Kingston Myles, Head of Operations and Planning (to February 2020) Liam Nash. Administration and Finance Manager (from July 2020) Andrea Ruddock, Marketing and Communications Officer (from April 2020)

Research. Teaching and Collections

Dr Federica Gigante, Curator of the Collection from the Islamic World (from March 2020) Lucy Blaxland, Collections Manager Melanie Howard, Collections Assistant (from January 2020)



Rana Ibrahim, Collections Project Officer (Multaka-Oxford Project) Dr Lee Macdonald, Research Facilitator Dr Paul Trafford, Digital Projects Officer Cheryl Wolfe, Conservator

Public Engagement and Programmes

Emily Agar, Marketing and Communications Officer (to February 2020)

Keiko Ikeuchi, Photographer/Designer Chris Parkin, Lead Learning Officer Helen Pooley, Learning Officer Owen Shaw, Technician

Operations and Planning

Asima Qayyum, Administrative Assistant (to September 2019) Chris Bentley, Gallery Assistant (from April 2020) Rebecca Brown, Gallery Assistant (from April 2020) Marie Chapman, Gallery Assistant Phoebe Clothier, Gallery Assistant (to March 2020) Manfred Driver, Gallery Assistant Peter Ells, Gallery Assistant Samantha Evans, Event Sales and Booking Officer (to September 2019) Suzy Gooch, Event Sales Coordinator (from October 2019 to March 2020) Phoebe Homer, Front of House Supervisor (from April 2020) Chris Humphrey, Front of House Supervisor

Karen Humphrey, Gallery Assistant (from August 2019) Rana Ibrahim, Gallery Assistant Anthony Lummis, Gallery Assistant (to September 2019) Cai Marshall, Front of House Manager (to July 2020) Liam Nash, Administrative Assistant (from September 2019 to July 2020) Silvia Pinna, Gallery Assistant Izzy Treyvaud, Front of House

Supervisor (from November 2019) Nick Wicker, Caretaker (to November 2019)

Shared Services within **GLAM** (Gardens, Libraries and Museums)

Anjanesh Babu, Gardens & Museums IT Nicola Bird, Outreach Diana Boxall, GLAM Finance Nicole Cunningham, GLAM Finance Antony Green, Development Rachel Harrison, Community **Engagement and Volunteer Officer** (Multaka-Oxford Project) (to July 2020) Catherine House, Development Hayleigh Jutson, Volunteering Miranda Millward, Arts Engagement Officer

Caroline Moreau, Volunteering Carl Parker, Gardens & Museums IT Joy Todd, Volunteering Spiro Vranjes, Gardens & Museums IT

Honorary Research Fellow

Dr Elizabeth Bruton

Volunteer Tour Guides

Tom Blaney Chaitanya Chintaluri Lucv Gasson Mary Hale Robert Pinches Ken Taylor John Ward 6 others who preferred not to be named

Volunteer Visitor Hosts

Judith Williams 4 others who preferred not to be named

Public Engagement Volunteers

The Museum is hugely grateful to the many volunteers who helped to run activities and events for families and the public throughout the year, and without whom it would not be possible to engage with so many people.

Board of Visitors



University of Oxford



Professor Anne Trefethen, Pro-Vice-**Chancellor People and** GLAM. Professor of Scientific Computing and Fellow of St Cross 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 and Co-Director of the Oxford Centre for Global History and Fellow of Wolfson College, University of Oxford



General Editor of the Newton Project

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

Kevin Rodd, Divisional Secretary for Gardens, Libraries and Museums (GLAM, in Professor Anne Trefethen's absence)

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

Professor Robert Iliffe. Professor of the History of Science and Fellow of Linacre College, University of Oxford.



Henry Kim, Director and CEO at the Aga Khan Museum Toronto



Professor Zoltán Molnár. Professor of **Developmental** Neurobiology (Medical Sciences Division) and

Fellow of St John's College, University of Oxford



Professor Mark Pollard. Edward Hall Professor of Archaeological Science (Social Sciences Division), Vice-Principal

and Fellow of Linacre College. member of the Oxford Martin School Management Committee, University of Oxford



Professor Sally Shuttleworth, Professor of English Literature (Humanities Division), Fellow of St Anne's

College, University of Oxford



Tony Spence. Head of Collection Services. British Museum



Professor John Wheater, 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



Vision 2024: Shining a light on the heritage of Science

As is the case with all cultural institutions, the COVID-19 pandemic has had an enormous impact on the History of Science Museum, affecting all aspects of its activity, as well as disrupting its visitors and staff.

These unprecedented circumstances have compelled the Museum to innovate rapidly and find new methods of working in order to continue to fulfil its mission. Despite the unforeseen limitations on its ability to welcome visitors to the historic building over the discussions on a project to collect past few months, the Museum team has grasped opportunities rapidly and creatively, demonstrating an ability to reach out more widely than ever before by adapting its offer to include digital learning and events and online exhibitions.

Such dynamic responses highlight the History of Science Museum's potential for progressive change, which is the very essence of Vision 2024, the ambitious strategy for the transformation of the Museum in time for the celebration of its first centenary. develop inspiring plans for its Broad The experience gained during the recent crisis increased the Museum's resilience and demonstrated that by adapting it can go on serving its communities for generations to come.



John Leighfield CBE Chair of Director's Circle **Distinguished Friend** of Oxford

The pandemic has not only accelerated the Museum's drive to remain outwardlooking, it has also brought sharply into focus the relevance of 'science' to society and our ways of living. Now, more than ever before the stories and perspectives, which its world-class collection can bring to life, show how humankind has sought to solve problems which are shared across time and between cultures.

The Museum has already begun the artefacts of Oxford's response to the COVID-19 pandemic with faculty colleagues across the University. As the institution best-placed to tell the stories of Oxford science history past and present, it is able to highlight the impact of contemporary science on every-day lives and global health.

We look forward to the Museum's continued evolution during the year ahead, drawing on the lessons we have learnt from this challenging year to help reimagine the future, and to Street home, underpinned by the superb support of its generous supporters and partners.

Roger Davies Chair of Visitors, Philip Wetton Professor of Astrophysics

Thank you for your support in 2019-20

We are enormously grateful to all our donors, friends and volunteers who have supported the History of Science Museum over the last 12 months. We would like to acknowledge in particular:

The John Ellerman Foundation, whose generous support has enabled the appointment of our first Curator of the Collection from the Islamic World. Further funding is now being sought in order to continue this important post beyond its current two-year fixed term to ensure the Museum can expand and sustain its fresh curatorial approach to exhibition and display schemes focused on intercultural dialogue.

2019-20 also saw donor contributions and in-kind loans and collaboration from Oxford Instruments and from Sir Martin and Lady Wood, to make possible the Museum's display, People I Science I Business, which celebrated 60 years since the founding of the company. The display portrayed this important story of the enormous impact of ground-breaking Oxfordbased science in the real world.

Donors who have generously supported the Multaka project over the past year, to enable the bringing of people together and the enriching of lives through engagement with the Museum's collections: Dr Laura Fan and Claire Barnes, and The Barakat Trust.

Generous support from one of the Museum's Director's Circle group and Maxson Network Limited provided new digital display screen technology. Deployed as part of the Alice in *Typhoidland* exhibition this enabled us to engage our audiences with fresh digital content and test their responses to the exhibits in-situ.

These initiatives demonstrate just how essential the donations and support received from individuals, and expand in new directions.

Our deep gratitude goes to the above donors, and to the following supporters of the Museum:

ACE (Arts Council England), the Evans Collection Fund, the AE Gunther Fund, the Millburn Bequest, Oxford University's Van Houten Fund, Research England, and all our anonymous donors.

museum of the future

To find out more about how you, or your organisation, can become involved in supporting the Museum, and helping it fulfil its potential through Vision 2024, please contact:

Dr Silke Ackermann FSA Director t: +44 [0]1865 277 281 e: silke.ackermann@hsm.ox.ac.uk

trusts and charitable foundations and other organisations is to enabling the Museum to deliver its wide variety of projects and activities, and to explore





Arts and Humanities Research Council





John Ellerman Foundation

Be part of making the History of Science Museum a

Lvnda Knill Senior Development Manager t: +44 [0]7894 838737 e: lynda.knill@devoff.ox.ac.uk



BROAD STREET, OXFORD OX1 3AZ WWW.HSM.OX.AC.UK



All photos not otherwise credited are HSM copyright

As part of our environmental policy this brochure has been printed on 100% recycled FSC Certified paper and uses vegetable-based inks to lessen the impact on the environment.