# Museum of the History of Science

Annual Report, 1 August 2013 – 31 July 2014

# 1. Highlights

## New Director

Dr Silke Ackermann joined the Museum on 1 March 2014. Originally a medievalist, her doctoral research at the University of Frankfurt was on astronomy and astrology in the 13th century. She was a curator at the British Museum from 1996 to 2012 and came to Oxford from a professorship at the University of Applied Sciences, Baltic College, Schwerin, Germany, where she also served as president.

## Exhibitions

Two major new exhibitions juxtaposed the strengths of the Museum's historical collection with contemporary science. *Crystals: Beauty, Science, Structure* was prompted by the centenary of x-ray crystallography but ranged widely from Renaissance ideas about the power of crystals through to the science which underlies the jet engines of a superjumbo airliner. *Geek is Good* developed the Museum's reputation for adventurous exhibition-making, bringing in new audiences for a playful reinterpretation of its medieval astrolabes and now-obsolete slide rules as ingenious gadgets to rival modern smartphones. As has become traditional, both exhibitions had extensive and successful public programmes of events.

## Projects

The Museum was awarded a grant of £40,000 from the DCMS Wolfson Museums and Galleries Improvement Fund towards the refurbishment of the Special Exhibition Gallery. *Wall to Wall History* will provide new showcases, lighting, electrical supply, screens and wall surfaces. A long-contemplated programme of repair and improvement to the front staircase and the underground rooms on Broad Street was successfully carried out.

## Education

The success of the 'Objects of Invention' project supported by the Royal Academy of Engineering's *Ingenious* programme, was recognised by the NCCPE Engage Competition 2014, where it was a finalist.

## Accreditation

The Museum received an inspection visit as part of its Arts Council England Accreditation review and was successfully reaccredited.

#### Visitor Numbers

The total number of visitors for 2013-14 was 170,291, a fall of 8% from the previous year. The numbers of our online visitors continued to rise: 716,891 distinct hosts were logged, an increase of 17.5% on 2012-13, again underlining the significance of digital access.

# 2. Exhibitions and Public Programme

#### **Exhibitions**

The *Natural Histories* exhibition which opened on 14 May 2013 continued until 29 September. Much of its accompanying programme of lectures, talks and activities took place in the period of this report. Just as the exhibition drew heavily on the temporarily inaccessible collections of the Museum of Natural History (MNH), so the events in the public programme frequently featured staff members from MNH. Their capital project therefore had the unexpected benefit of a mutual sharing of expertise and experience between the museums. There was also a significant impact beyond Oxford. During the course of the exhibition, and thanks to the collaborative opportunities created by the ASPIRE partnership, it was agreed that the exhibition would travel to the Banbury Museum. It was displayed there from 30 November 2013 to 22 February 2014. While this element of touring created additional collections management and loan work, the exhibition therefore reached a significantly larger and more diverse audience than in its Oxford incarnation alone.

The first major new exhibition of the year was *Crystals: Beauty, Science, Structure*, which ran in the Special Exhibitions Gallery from 7 November 2013 to 30 March 2014. This exhibition was developed with particular assistance from Professor Mike Glazer of Oxford's Department of Physics and featured significant loans from his own collection, as well as from Diamond Light Source, MRC Cambridge and the Royal Institution. Continuing the collaboration initiated by *Natural Histories*, the Museum of Natural History was again generous with loans and participation in the public programme. The exhibition was particularly intended as a celebration of the centenary of x-ray crystallography, and centred around precious manuscripts from the Nobel Prize-winning work of the Braggs, father and son. It nevertheless ranged all the way from Renaissance beliefs about crystals to contemporary science and technology in the crystalline form of a Rolls-Royce jet engine turbine blade. Amongst extraordinary loans such as pieces from the original Crick and Watson DNA model, the richness of the MHS collection was highlighted through books, crystal models and major artefacts including unique survivals from Dorothy Hodgkin's work on the structure of penicillin.

The exhibition was timed to coincide with the centenary of the Braggs' first determinations of crystal structures by x-ray crystallography (2013) and the International Year of Crystallography (2014). This meant we could benefit from concurrent initiatives: the Royal

Institution had created their own animated film on the history of crystallography which was uncannily appropriate for our own exhibition, and which we were permitted to display in the exhibition's entrance. The range of national and international celebrations provided new opportunities to promote the exhibition's public programme. Most prominently, we staged a series of lectures on historical and contemporary crystallography by prominent scientists: Professor Mike Glazer (Oxford), Professor Elspeth Garman (Oxford) and Professor Brian Sutton (King's College, London).

In addition to other talks, there was also a rare opportunity to watch a screening of Georgina Ferry's play *Hidden Glory: Dorothy Hodgkin in her own words*, with the author introducing and discussing the work. Family audiences were also addressed through events such as "Diamond Day" on 8 February when researchers from the Diamond Light Source were on hand to reveal crystallography and its contemporary uses from drug-discovery to archaeology. Our contribution to the now traditional city-wide celebration of Christmas Light Night (22 November) was *Let It Snow!* Crystalline in theme, it was achieved with late-night assistance from colleagues in chemical crystallography and elsewhere in the university.

A final dimension to the exhibition was an artistic counterpoint, Crystal Symmetries, created by glass artist Shelley James, working in partnership with crystallographer Brian Sutton. From 1 October to 8 December she had an exhibition of glass and prints in the Entrance Gallery and from 11 March to 1 June she created a glass and light installation in the Basement Gallery. Both artist and crystallographer generously contributed public workshops and drop-in sessions to our programme.

The second of our main exhibitions in the year was more light-hearted in tone: *Geek is Good* opened on 15 May both as a playful look at current conceptions of the geek – social misfit or 21st-century icon of cool? – and also as a way of connecting with the love of ingenuity and gadgetry so evident in much of the MHS collection. Deliberately inverting historical convention, it began in the present and worked its way back in time. The contemporary dimension focused particularly on the Raspberry Pi, a British-designed and -built credit card-sized DIY computer whose sales passed the two million mark during the exhibition run. Connecting up with Oxford Hackspace enabled the creation of a Raspberry Pi photo gallery interactive to engage visitors at the opening of the exhibition. This was balanced by a popular video booth at the exhibition exit, on which visitors could record their own geek confessions. The best of these went up online on the exhibition's website.

The exhibition was principally intended to showcase the MHS collection, and featured material from calculators and slide rules back through telescopes and microscopes, all the way to medieval astrolabes and the question "Was Chaucer a Geek?". But we did bring in some loans, and employed novel techniques to source material that has not yet fully passed into the historical record. Using social media we were able to locate and borrow Oxfordshire-owned examples of the BBC Micro and contemporary Sinclair computers from the early 1980s. These were available for use in the gallery and became a potent vehicle for nostalgic reminiscence and earnest cross-generational instruction.

The public programme accompanying the exhibition brought the geek theme to regular events such as our contribution to Museums at Night (16 May). Throughout the exhibition's run there were volunteer-led handling sessions every Sunday, allowing visitors to enjoy playing with ingenious historical devices themselves. Most novel was our hosting of an Oxford Geek Night in the Museum. This loose group regularly gathers in a Jericho pub for an evening of corporate-sponsored social networking, and for inspiring and intriguing presentations. This was their first venture into a museum space and brought a new audience to the museum, with a distinctive appreciation of the qualities of our collection.

The programme of smaller exhibitions and installations in the Museum continued apace. In the Entrance Gallery, *What's New?* a display of recent accessions, continued until 22 September. It was followed by *Crystal Symmetries, Story Makers* and then *In Print*, all of which are reported on elsewhere. As in previous years, a selection of work from Brookes University Arts Foundation students was displayed both at MHS and the Pitt Rivers Museum. Our selection was on show from 28 February to 30 March in the Entrance Gallery.

In the Basement, the library and archival display of *The Book of Natural History* continued in parallel with *Natural Histories*, and was followed by *Comets, Meteors and Fireballs*, inspired by the acquisition of a new 19th-century cometary print. A new longer-term installation was the Coin Orrery placed in the basement stairwell. This is a unique donations box, inspired by historical orreries on display and actuated by visitors' money. The conception, design, and mechanical construction was by Michael Wright, the lighting and electronics by Alex Allmont and the display was created by our own technician Owen Shaw. It has so far been taking about £300 per month.

Artist Shelley James' two displays of glass and crystalline symmetry have already been mentioned. Later in the year, the Art@MHS programme continued with two further installations. Sophy Rickett's *Objects in the Field* was an intervention on the Main Staircase and in the Top Gallery from 3 June to 17 August 2014. Initially conceived during her time as Artist Associate at the Institute of Astronomy at the University of Cambridge, *Objects in the Field* reflected on this photographic artist's encounter with astrophysicist Dr Roderick Willstrop. The installation at MHS included large-scale images, film and a display of material from Willstrop's novel telescope and observations of the 1980s. The artist was in conversation with photography writer Paul Tebbs at a public event on 12 July.

Inspired by 19th-century harmonographs and a hint of steampunk, Anita Chowdry's *The Iron Genie* is both an extraordinary machine and a sculptural installation. Its ability to generate beautiful curves by the combined motion of pendulums was regularly demonstrated in the Top Gallery after it opened on 8 July, both by a student volunteer who undertook historical research on the 19th-century originals, and by the artist herself.

Finally, there was a sound installation in the Museum from 22 November to 12 January. *Parallel Universe* could be heard at listening stations in each main gallery throughout the building. It featured recordings of the winning ten poems from a competition on the subject of 'Science and Medicine' organised by the Radcliffe Science Library.

## Public Programme

Four quarterly programme leaflets were printed and distributed, using the now-established format and featuring a full range of family-friendly events, 'table talks' and gallery tours, including the successful volunteer-led twice-weekly tours. Many of the special events were closely connected with the exhibition programme and have already been discussed above.

The successful collaboration with Oxford Neurosciences was continued this year during international Brain Awareness Week (10-17 March). Professor Dorothy Bishop (Oxford) gave a public lecture on the myths and reality of the left and right brain, while a band of neuroscientists and student volunteers presented daily activities under the heading of *Unlocking the Brain*. Under the auspices of the British Neuroscience Association, Professor Gero Miesenboeck (Oxford) subsequently lectured to a full house on "Optogenetics: A Neuroscientist's Adventures in Mind Control" (2 April).

Fresh from his receipt of a national Sonic Art award for his installation *The Ethometric Museum*, which had premiered at the Museum, sound artist Ray Lee returned on 19 March to discuss and demonstrate his unique approach to sound and the crafting of novel instruments. A quite different musical event was a concert on the theme of Light by Opus Anglicanum. A group of five singers and a narrator, they performed classical music, specially-commissioned pieces and readings in the sympathetic acoustic of the Top Gallery on 8 March.

Regular features of the annual programme were maintained, such as Marconi Day on 26 April, when Oxford & District Amateur Radio Society set up radio station GB4MHS to celebrate the birth of Guglielmo Marconi. We again contributed to Oxford's Open Doors events in September.

# 3. Projects

The Museum was awarded a grant of £40,000 from the DCMS Wolfson Museums and Galleries Improvement Fund towards the refurbishment of the Special Exhibitions Gallery. While planning has begun, *Wall to Wall History* will deliver its new showcases, track lighting, electrical supply, screens and wall surfaces in the reporting year 2014-15. The successful bid was developed with considerable support from Heidi Kurtz in the Development Office.

After much discussion, planning and delay, the long-awaited project to prevent water ingress into the area under the Broad Street cobbles was finally carried out by the University's Estates Department. This involved lifting and lining the masonry of the Museum's main public staircase as well as re-sealing and making good the underground Archive Room, Education Room and Library Reading Room. The impact on the operation of the Museum was very considerable.

Behind the scenes, the stock of the Library and Archive was packed up and moved to a temporary new home in the old library space of Plant Sciences in the Science Area. Recruiting and managing a team of book packers became one of the first tasks for our new librarian Jennifer Howard. The greater space in the temporary location provided an opportunity to review and box many of the vulnerable antiquarian books in the collection, with support from the Millburn Trust Fund.

For the public, the project provided an equally dramatic transformation. While the main staircase to the Museum was undergoing its essential refurbishment, the Museum was open as normal, but access was via a temporary footbridge from Broad Street, which certainly provided a new perspective on the building. The difficulties of maintaining the Museum's operations behind a large scaffolding structure were well-managed and any risks addressed and mitigated. The hoardings around the front of the building provided an opportunity for some friendly rivalry with the Bodleian Library's attractive hoardings design, behind which the new Weston Library was taking shape. It is pleasing to report that the remedial work was successful and the Library and Archive were safely returned to Broad Street.

The delays to the building project complicated the delivery of Making Prints Public, the Designation Development Fund project supported by a grant of £49,988 from Arts Council England awarded in 2012-13. The project's aim of improving access to the Museum's collection of prints through cataloguing and digitisation required access to a working library space, which was not initially available. The project was therefore reconfigured with two concurrent researchers over a shorter period than the original plan of a single postholder for longer: fortunately this was almost certainly a better and more productive arrangement. Naomi Sackett and Nessa Malone made an excellent team from August 2013 to March 2014 and looked after a notable improvement in the quality of our physical storage as well as the enhancement of our collections documentation and the creation of high-resolution scans, all available online through the Museum's collections database. They carried out the project plan, blogging about their work and discoveries, and also took the initiative in delivering beyond the original confines of the scheme – taking to Twitter to publicise and engage and suggesting the possibility of an exhibition of some of the finest and most curious of our prints and broadsides. They curated and installed the resulting display in the Entrance Gallery as In Print, which ran from 11 February and brought the project to a much larger audience than initially envisaged.

During the year, the AHRC project *Innovating in Combat: Telecommunications in World War I* was successfully concluded. Led by the University of Leeds, Dr Johnston was Co-Investigator. Amongst the direct outcomes for the Museum was a public lecture on 'Patriotism and Profit during World War One' given by Professor Graeme Gooday and Dr Elizabeth Bruton (23 January). Less direct but equally important, participation in the project enabled planning to begin for a Heritage Lottery Fund application for a project on a World War One theme, to be submitted in 2014-15.

Another AHRC project for which Dr Johnston was Co-Investigator concluded this year. Led by the Warburg Institute, *Astrolabes in Medieval Jewish Culture* ended with a conference at the

Warburg at which Dr Johnston spoke and from which there will be a published volume, as well as the project monograph on Hebrew texts and instruments.

# 4. Education and Outreach

Now into the second year of the current Arts Council England (ACE) funding cycle, the Museum's education programme has made significant adjustments to its agenda. Specifically, the introduction by Aspire of the Innovation Fund has provided the opportunity to apply for additional funds to pursue projects over and above the core work of delivery. In addition, the response by the University Museums' Lead Education Committee to ACE's interest in promoting the Arts Award was to appoint a part-time Arts Award coordinator to lead on the introduction of training and delivery of Arts Award gualifications across the museums. In part to share the load of managing joint museums' posts, the Museum offered to host and line-manage the newly appointed Arts Award Coordinator, Miranda Millward. Over the course of the following year, the Museum's education officers received training to become Arts Award Advisors for four out of the five levels up to silver, and have begun to look at ways of delivering the award through individual projects. One such project has been the development of a Discover Award in the family events programme supported by a bespoke booklet designed specifically for the Oxford University Museums. A successful pilot project in February this year has led to a roll-out of the programme in the autumn of 2014. Together with some reorientation required towards the introduction of the revised national curriculum for primary schools, these and other adjustments have led to slower delivery to core schools' audiences than in previous years. Nevertheless, there have been several highlights in the year's programme including the Story Maker's project in partnership with Fusion Arts, and the history of medicine project, Yellow Magic, which was funded by an Innovation Award.

The Museum was delighted to be chosen as the partner organization for this year's *Story Makers* project. *Story Makers* is a Fusion Arts project (2010-14) led by Arts Psychotherapist Helen Edwards, and funded by Children in Need, that is designed to support developing speech and language in 7-11 year olds with communication needs, through engagement in the arts. The project works with selected groups of children from various Primary Schools in Oxford and also *Echoes*, an older adults group run by Artscape. Led by Michelle Holloway, the Museum delivered a number of workshops to Oxford primary schools and hosted a delightful exhibition of the children's work in the Entrance Gallery from 10 December to 2 February.

Two other interesting additions to the primary schools' programme this year have been piloting in partnership with the other University Museums a project delivering a 'cultural entitlement' programme of museum workshops to schools belonging to the Blackbird Academy Trust. This project represents a strategic initiative by the Oxford University Museums to benefit students from disadvantaged backgrounds providing them with opportunities to experience the rich cultural offer provided by the University museums.

This year the secondary schools' programme has continued to consolidate the programme of facilitated workshops across the curriculum. Highlights of this programme include an ongoing relationship with the history department at Cheney School, who for the third year running returned with their sixth form students studying a unit of the Renaissance for the 'Renaissance Books' seminar featuring a fabulous selection of books from the Museum's archive illustrating Renaissance themes. The students' feedback emphasises the value of this kind of close encounter with historical material, which makes a strong impact, creating new insights and understandings.

The partnership with the Langley Academy, the only school in the country to put learning from museums at the heart of the curriculum, has also continued. Working with the science and mathematics departments, the whole of Years 7 and 9, 180 students in each year, visited the Museum for facilitated sessions linked with the curriculum.

The Museum continues to contribute to the University's Widening Participation programme by hosting academic workshops for groups of students in Years 10, 11 and 12 visiting colleges to discover more about university study. It has also continued its programme of study days at Key Stages 3 and 4 with the Astronomy study day in partnership with the Physics Department and 'Medicine and Materials' study days in partnership with the Chemistry Department and the University's Botanic Garden. In January, a new Key Stage 4 study day was successfully piloted linking science and art. The programme, involving the Museum in partnership with the Chemistry Department, the Ashmolean, and the Ruskin School of Fine Art, looked at the consideration of space and perspective in art and chemistry.

In partnership with Oxford Brookes University, the Oxford University Museums have continued to provide placement programmes for BEd students and, this year, experimented with a new project to provide the primary school PGCE students experience in delivering the Arts and Humanities through heritage venues. The latter was a two-week project delivered in partnership with a number of other regional heritage venues in which the students were involved in an 'immersive' project inspired by the collections, culminating with a presentation and celebration event at the Museum of Natural History.

With support from an Innovation Award from Aspire, the Museum's programme of special projects continued this year with *Yellow Magic* (a reference to the crude form of penicillin), a pilot project in the field of history of medicine. The project included a family day in September 2013 which provided the opportunity for students from the University's Wellcome Unit for the History of Medicine to participate in the interpretation of medical themes relating to the collection including a performance of Dr Florey and Dr Chain providing a live interpretation of the Oxford story of the development of penicillin. The project continued with development of the secondary schools' workshop on penicillin and a study day for sixth form students in March 2014 on crystallography and, in particular, its role in medical research. This, and a family 'Crystals' day, were very successful events which took place in association with the special exhibition on Crystals to mark the International Year of Crystallography. The University's departments of

Physics, Chemistry and Biochemistry were all involved providing speakers and hands-on activities based at the Museum.

One of the aims of the project as a whole was to lay the groundwork for a future exhibition and programme of schools and public engagement on the subject of penicillin and antibiotics, which is currently in prospect for 2016.

The Museum has begun to establish something of a track record of public engagement through special projects now, and in June 2014 we welcomed the news that the previous year's project *Objects of Invention* supported by the Royal Academy of Engineering reached the final of the National Coordinating Centre for Public Engagement's annual competition *Engage*, being one of three projects selected under the STEM (science, technology, engineering and mathematics) category. The competition aims to celebrate the best in public engagement which draws on university research.

The Museum's education programme works closely with the Joint Museums' service including the Community Education and Outreach Service and the Volunteers' Service, both steered by the Lead Education Committee. In September 2013, the University museums' collaborative education programme was expanded to include a new programme focussing on the Arts Award, a nationally recognised qualification for developing arts leadership skills in young people. This year, Miranda Millward, the new Arts Award Coordinator based at the Museum of History of Science, has supported the development of Arts Award projects across the museums. At the Museum of the History of Science, we have participated in the new family activities 'Discover' Arts Award project and supported an individual in pursuing a Silver Award film project. Two new projects are in the pipeline: one working with a primary school art club, and the other working with a group of teenage parents at a community centre in east Oxford.

The Volunteers Service continues to play a very significant part in the delivery of the Museum's education programme, and in 2014 they helped to support one of the HLF Skills for the Future education trainees on placement at the Museum, Liz Danner, in establishing her special project which focussed on object handling. Entitled 'Let's Get Geeky', this project ran alongside the special exhibition 'Geek is Good'. The project provided volunteers training in object handling and managed a successful programme of Sunday afternoon events for visitors to the Museum. It has provided a template for similar projects in the future.

Finally, in keeping with the Arts Council's agenda to see innovation and leadership from its Major Partner Museums, the Museum's education officers have continued to play an active role in museum conferences. In January, Christopher Parkin spoke at the Association for Science Education's (ASE) annual conference on the subject of 'Science in Cultural Contexts', highlighting the use of museums to enrich students' perception of science as a culturally embedded enterprise. Following this, Christopher was invited to deliver a seminar at King's College, London, for the Science and Technology Education Group (STEG), which was attended by postgraduate students and museum staff. In June, the Museum contributed two workshop sessions to the annual conference of the British Interactive Group (BIG), which was

hosted this year by Oxford University Museums. Events at the Museum of the History of Science included workshops and drop-in sessions for the public in the first ever inflatable explorer dome to be accommodated (just) the basement gallery of the Museum!

#### Audience numbers:

Number of students in facilitated primary school sessions:	1,530
Number of students in facilitated secondary school sessions:	1,735
Total number of school students in facilitated sessions:	3,265
Number of children participating in family activities at the Museum:	2,150
Number of adults independently and with children in family events:	2,922
Number of student teachers (PGCE) in sessions at the Museum:	265

# 5. Collections

## **Object Collections**

During the year the Museum accessioned the following items:

Inventory No. 10161, "GEC Weltron Type 2007 Stereophonic Record Player and Radio, by GEC Weltron, Japan, 1970" [2013-26], GEC Weltron

Inventory No. 10354, "'London' Metallurgical Microscope, by Beck, London, c.1960" [2013-17], Beck

Inventory No. 10715, "Phase-Contrast Model M15c Binocular Microscope, by Vickers Instruments, York, c.1980" [2013-16], Vickers Instruments

Inventory No. 10721, "Photomicrographic Camera Attachment, by Beck, London, 20th Century" [2013-18], Beck

Inventory No. 10722, "Reflecting Objective, by Beck, London, ?c.1957" [2013-19], Beck Inventory No. 10723, "Reflecting Objective, by Beck, London, ?c.1957" [2013-19], Beck Inventory No. 10836, "Cambridge Regulator with Meter Measuring Heat, Associated with Neurophysiology Experiments, by Cambridge Instrument Company Ltd., Cambridge and London, Probably 1920s" [2013-27/part], Cambridge Instrument Company Ltd

Inventory No. 10839, "Milli-Voltmeter, by Cambridge & Paul Instrument Co. Ltd., Cambridge and London, Early 1920s" [2013-27/part], Cambridge and Paul Instrument Company Ltd Inventory No. 10848, "Control Panel of Electrocardiograph for Neurophysiology Experiments, by Cambridge & Paul Instrument Co. Ltd., Cambridge and London, Early 1920s" [2013-27/part], Cambridge and Paul Instrument Co. Ltd., Cambridge and London, Early 1920s" [2013-27/part], Cambridge and Paul Instrument Company Ltd

Inventory No. 11041, "Torsion Wire Interrupter, for Neurophysiology Experiments, Probably by C. J. O'Neill, Oxford, to the Design of Sir Charles Sherrington, Early 1920s" [2013-27/part], Sherrington, Sir Charles Scott, O'Neill, C. J.

Inventory No. 11042, "Torsion Wire Interrupter, for Neurophysiology Experiments, Probably by C. J. O'Neill, Oxford, to the Design of Sir Charles Sherrington, Early 1920s" [2013-27/part], Sherrington, Sir Charles Scott, O'Neill, C. J.

Inventory No. 11230, "Excavation Finds: Stoneware Bottle, English, ?18th Century" [2013-7] Inventory No. 13392, "Twelve-Inch Ruler, Made for Hunt & Broadhurst, Oxford, 1940s" [2013-33], Hunt & Broadhurst Ltd

Inventory No. 13428, "Sector, by John Cail, Newcastle-upon-Tyne, Early 19th Century" [2013-3], Cail, John

Inventory No. 13492, "Photograph (?Albumen Print or Early Gelatine Print) of the North Front of the Old Ashmolean Building, by Henry Taunt, Oxford, c.1890 (Taken c.1870)" [2013-13], Taunt, Henry William

Inventory No. 13496, "'Betaplate' Liquid Scintillation Counter, by Wallac, Turku, Finland, 1987" [2013-4/1], Wallac

Inventory No. 13497, "'Betaplate' Cell Harvester, by Wallac, Turku, Finland, c.1987" [2013-4/4], Wallac

Inventory No. 13510, "250 Dinar Bank Note Issued by the Central Bank of Iraq, Depicting an Astrolabe, 2003" [2013-31], Central Bank of Iraq

Inventory No. 13515, "Painting (Watercolour on Paper) of Donati's Comet, by Edward Backhouse, October 11, 1858" [2013-5], Backhouse, Edward

Inventory No. 13516, "Stereoscopic Photograph (Albumen Prints) of the Moon, by Kilburn Brothers, Littleton, NH, USA, 1860s" [2013-6/1], Kilburn Brothers

Inventory No. 13517, "Stereoscopic Photograph (Albumen Prints, Translucent Tissue Type) of a Posed Genre or Story Scene, Probably 1860s" [2013-6/2]

Inventory No. 13518, "Stereoscopic Photograph (Albumen Prints) of an Ice Formation or Frozen Cascade, Probably 1860s or 1870s" [2013-6/3]

Inventory No. 13519, "Budin's Obstetric Craniometer Calipers, by Collin, French, Late 19th Century" [2013-34/part], Collin, Budin, Pierre-Constant

Inventory No. 13520, "Gunner's Calipers, English, Late 17th Century" [2013-34/part] Inventory No. 13521, "Sector, by Edward Fage, London, 1669" [2013-34/part], Fage, Edward, Hatton, Thomas

Inventory No. 13522, "Perrin and Mascart's Ophthalmic Optometer, by Collin & Cie, Paris, c.1880" [2013-34/part], Collin & Cie

Inventory No. 13523, "Prints (Engraving, Mounted) Set of Five Planetary "Vues D'Optique", Published by Georg Balthasar Probst, Augsburg, Late 18th Century" [2013-34/part], Probst, Georg Balthasar

Inventory No. 13524, "Set of Crystal Models, by V. Fric, Prague, Late 19th Century" [2013-34/part], Fric, Vपंav

Inventory No. 13530, "Kymograph for Neurophysiology Experiments, Probably by C. F. Palmer, London, Retailed or Repaired by A. Kershaw, Leeds, Early 20th Century" [2013-27/part] Inventory No. 13534, "Kymograph Drum for Neurophysiology Experiments, Probably by C. F. Palmer, London, Early 20th Century" [2013-27/part]

Inventory No. 13538, "Unidentified Mechanical Instrument or Component for Neurophysiology Experiments, by Bausch & Lomb Optical Company, Rochester, NY, USA, ?1920s" [2013-27/part], Bausch and Lomb

Inventory No. 13539, "Unidentified Instrument or Component (Small Wheel on Heavy Bar), Associated with Neurophysiology Experiments, Probably 1920s" [2013-27/part] Inventory No. 13540, "Unidentified Instrument or Component (Plate with Eye-Holes on Stand), Associated with Neurophysiology Experiments, Probably 1920s" [2013-27/part] Inventory No. 13541, "Unidentified Instrument or Component (Box with Eye-Holes on Complex Stand or Mount), Associated with Neurophysiology Experiments, Probably 1920s" [2013-27/part] 27/part]

Inventory No. 13542, "Large Tuning Fork on Complex Stand or Mount, Associated with Neurophysiology Experiments, Probably 1920s" [2013-27/part]

Inventory No. 13543, "Large Lens in Metal Mount, Associated with Neurophysiology Experiments, ?Probably 1920s" [2013-27/part]

Inventory No. 13544, "Unidentified Component or Fragment (Card with Circular Aperture), Associated with Neurophysiology Experiments, Early 20th Century" [2013-27/part]

Inventory No. 13545, "Unidentified Component or Fragment (Piece of Wood), Associated with Neurophysiology Experiments, Early 20th Century" [2013-27/part]

Inventory No. 13546, "Unidentified Instrument or Component (Electrical Coil and Connectors on Stand), Associated with Neurophysiology Experiments, by Cambridge Instrument Company,

Cambridge and London, Probably 1920s" [2013-27/part], Cambridge Instrument Inventory No. 13547, "Galvanometer in Mountable Glazed Box, Associated with

Neurophysiology Experiments, Probably 1920s" [2013-27/part]

Inventory No. 13548, "Electrical Shunt, by Pye, Cambridge, 1920s" [2013-27/part]

Inventory No. 13549, "Electrical Shunt, by Pye, Cambridge, 1920s" [2013-27/part]

Inventory No. 13550, "Electrical Shunt, Attributed to Pye, Cambridge, 1920s" [2013-27/part]

Inventory No. 14500, "Map of Gloucestershire by Christopher Saxton, Engraved by Augustine Ryther, English, 1577" [2013-35], Ryther, Augustine, Saxton, Christopher

Inventory No. 28851, "Excavation Finds: Retort, English or Northern Europe, ?18th Century" [2013-7]

Inventory No. 30624, "Irwin Oscillograph, by Robert W. Paul, London, c.1919" [2013-27], Robert W. Paul

Inventory No. 31104, "Manganin Coils Dial Bridge, by W.G. Pye & Company, Cambridge, Probably 1920s" [2013-27/part], W.G. Pye & Co.

Inventory No. 32035, "Excavation Finds: Trepanned Human Skull, 17th/18th Century" [2013-7] Inventory No. 32039, "Unidentified Mechanical Instrument or Component for Neurophysiology Experiments, Early 20th Century" [2013-27]

Inventory No. 32726, "Excavation Finds: Manatee Bone or 'Hand of a Mermaid', 17th/18th Century" [2013-7]

Inventory No. 34091, "Excavation Finds: Open Crucible with Pouring Lip, English or Northern Europe, ?18th Century" [2013-7]

Inventory No. 35483, "Elephant Tooth, from the Tradescant Collection" [2013-15/part] Inventory No. 40406, "Excavation Finds: Racoon Bones, 17th/18th Century" [2013-7]

Inventory No. 43995, "Excavation Finds: Open Crucible, English or Northern Europe, ?18th

Century" [2013-7]

Inventory No. 44115, "Excavation Finds: Crucible, 'Hessian' Type, English or Northern Europe, ?18th Century" [2013-7]

Inventory No. 45494, "Excavation Finds: Crucible Fragments with Cobalt Residue, English or Northern Europe, ?18th Century" [2013-7]

Inventory No. 46346, "Excavation Finds: Crucible, 'Hessian' Type, English or Northern Europe, ?18th Century" [2013-7]

Inventory No. 46792, "Excavation Finds: Closed Crucible, English or Northern Europe, ?18th Century" [2013-7]

Inventory No. 47571, "Turned and Perforated Ivory Dodecahedron, from the Tradescant Collection, ?17th Century" [2013-14/part]

Inventory No. 53614, "String Carrier for a String Galvanometer, by Cambridge Instrument Company, Cambridge, Probably 1920s" [2013-27], Cambridge Instrument Company Ltd Inventory No. 55299, "Cylindrical Reflecting Vertical Galvanometer, by H. Tinsley & Company, London, c.1925" [2013-27], H. Tinsley & Co. Ltd.

Inventory No. 59248, "Carved Alabaster Relief Panel of Head of Christ and Saint John the Baptist, ?16th or 17th Century" [2013-14/part]

Inventory No. 59269, "Carbon Arc (Model EGM2) for Neurophysiology Experiments, by Cambridge Instrument Company, London & Cambridge, Probably 1920s" [2013-27], Cambridge Instrument Company Ltd

Inventory No. 61466, "Excavation Finds: Open Crucible, English or Northern Europe, ?18th Century" [2013-7]

Inventory No. 63733, "Excavation Finds: Pelvis, Upper and Lower Leg Assembly, 17th/18th Century" [2013-7]

Inventory No. 65637, "Red Cornelian or Agate Knife Handle, from the Tradescant Collection, Early 17th Century" [2013-14/part]

Inventory No. 67671, "Twenty-Four Photographs (Modern Gelatine Prints) of the Old Ashmolean Building, Oxford, by Country Life, Taken 1925" [2013-10]

Inventory No. 72064, "46 Photographs of Oxford and of Picturesque Towns and Villages in the Region, 1920s or 1930s" [2013-20]

Inventory No. 72410, "Capacitor, by W.G. Pye & Company, Cambridge, Probably 1920s" [2013-27/part], W.G.Pye & Co.

Inventory No. 74333, "Excavation Finds: Crucible, 'Hessian' Type, English or Northern Europe, ?18th Century" [2013-7]

Inventory No. 74683, "Cylindrical Reflecting Vertical Galvanometer, by Cambridge & Paul Instrument Company, Cambridge and London, Early 1920s" [2013-27/part], Cambridge and Paul Instrument Company Ltd

Inventory No. 74793, "Falling-Plate Camera, for Neurophysiology Experiments, Early 1920s" [2013-27/part]

Inventory No. 76445, "Excavation Finds: Open Crucible with Pouring Lip, English or Northern Europe, ?18th Century" [2013-7]

Inventory No. 76912, "Horns of Capra Sibirica, from the Tradescant Collection" [2013-15/part] Inventory No. 81892, "Falling-Plate Camera, for Neurophysiology Experiments, by Cambridge and Paul Instrument Company Ltd., London and Cambridge, Early 1920s" [2013-27/part], Cambridge and Paul Instrument Company Ltd

Inventory No. 82365, "Excavation Finds: Dog Teeth, 17th/18th Century" [2013-7] Inventory No. 82584, "Snout of Sawfish, from the Tradescant Collection" [2013-15/part] Inventory No. 82625, "Crocodile Hide Specimen, from the Tradescant Collection" [2013-15/part] Inventory No. 84252, "Excavation Finds: Copper Alloy Vial, English or Northern Europe, ?18th Century" [2013-7] Inventory No. 84363, "Excavation Finds: Crucible Fragments, with Maker's Stamp, English or Northern Europe, ?18th Century" [2013-7] Inventory No. 84498, "Turtle Head, Probably from the Tradescant Collection" [2013-15/part] Inventory No. 85308, "Excavation Finds: Open Crucible, English or Northern Europe, ?18th Century" [2013-7] Inventory No. 86010, "Photograph (Daguerreotype) of a Man, by Richard Beard (Beard's Photographic Institutions), London, 1840s" [2013-21], Beard, Richard Inventory No. 86051, "Excavation Finds: Dog Skull, 17th/18th Century" [2013-7] Inventory No. 86068, "Excavation Finds: Articulated Human Skull, 17th/18th Century" [2013-7] Inventory No. 90957, "Powder Horn Made of Antler, from the Tradescant Collection, ?16th or 17th Century" [2013-14/part] Inventory No. 96250, "Excavation Finds: Dog Spine, 17th/18th Century" [2013-7] Inventory No. 98656, "Excavation Finds: Open Crucible with Pouring Lip, English or Northern Europe, ?18th Century" [2013-7] Inventory No. 14543, "Quadratum or Astrolabe-Quadrant on a Square Board, by Peter Drinkwater, Shipston-on-Stour, 1982" [2014-2/part], Drinkwater, Peter Innocentius Inventory No. 14544, "Vertical Sundial Comparing a Simple Scratch Dial to a Differently Calculated Scale, by Peter Drinkwater, Shipston-on-Stour, Late 20th Century" [2014-2/part], Drinkwater, Peter Innocentius Inventory No. 14542, "Astrolabe, by Peter Drinkwater, Shipston-on-Stour, 1982" [2014-2/part], Drinkwater, Peter Innocentius Inventory No. 14545, "Stone Sundial, Designed by Peter Drinkwater, Probably Made by John Stevens, c.1986-88" [2014-2/part], Drinkwater, Peter Innocentius Inventory No. 14547, "Framed Design for 'Cut Cube Sundial', by Peter Drinkwater, Shipston-on-Stour, 1986" [2014-2/part], Drinkwater, Peter Innocentius Inventory No. 14548, "Framed Design for a Horizontal Sundial Based on the Analemma of Vitruvius, by Peter Drinkwater, Shipston-on-Stour, 1993" [2014-2/part], Drinkwater, Peter Innocentius Inventory No. 14549, "Small Photograph Album Belonging to Peter Drinkwater, 1988" [2014-2/part], Drinkwater, Peter Innocentius Inventory No. 14587, "Watercolour Portrait of John Whalley, Surveyor, English, c. 1846" [2014-4/part] Inventory No. 14590, "Refracting Telescope, by Gilbert & Co., London, c. 1800" [2014-4/part], Gilbert & Co. Inventory No. 14591, "Portable Compound Microscope, English, Later 19th Century" [2014-4/part] Inventory No. 14588, "Horizontal Sundial and Dial Construction Declinatory, by Nicolas Bion, Paris, c. 1700" [2014-4/part], Bion, Nicolas Inventory No. 14541, "Stereoscopic Microscope, by Reichert, Austria, Late 20th Century" [2014-1], Reichert

Inventory No. 14643, "Print (Engraving) of Sir Charles Wheatstone, by C. Cook from a Photograph by Kilburn, 1860/61" [2014-5/part] Inventory No. 14626, "Print (Engraving) of Philip Melanchthon, by William Holl After the Portrait by Durer, 1860/61" [2014-5/part]

Use of the collections continued through enquiries – increasingly by email to <u>museum@mhs.ox.ac.uk</u>. Support was given to research visits, for filming and photography requests, internal exhibitions (particularly the provision of book cradles and preparation of frames for prints) and for education sessions, which required objects, books and partial or full invigilation by the Collections Manager.

#### Loans

The following short-term loans were negotiated and installed during the period:

#### **Science Museum**

'Alan Turing's Life and Legacy' was extended to 21 October 2013. Inv. 18230 Stanley Jevons Logic Machine

#### Hertford Museum, Hertford

Exhibition as part of 'World of Wallace' project to mark centenary of the death of Alfred Russel Wallace.

October 2013 – end of February 2014 Inv 84707 - Botanic Microscope – formerly owned by Alfred Russel Wallace The exhibition subsequently toured to the Banbury Museum.

## Helen Martin Studio of the Arts Centre, University of Warwick 28th Meeting of the European Crystallographic Association

'The Two Braggs' exhibition 25-29 August 2013 Inv 17631 - Model of the Structure of Penicillin, by Dorothy Hodgkin, Oxford, c.1945

#### **Bodleian Libraries**

'Oxford Medical Firsts' 22 November 2013 – 18 May 2014 Inv 10554 – Prototype Oxford Vaporizer Inv 10374 – Macintosh Laryngoscope

#### **Banbury Museum**

Touring version of 'Natural Histories' 30 November 2013 - 22 February 2014 Inv 13479 - Floorboard Finds: Fragments of Pill-Boxes H/LHU [1983-105] – Edward Lhuyd, *Lithophylacii Britannici ichnographia* (London, 1699) MS Gunther 53 - *The Vegetable System of Linnaeus Illustrated by Figures of Plants*, vol. 2; a manuscript compilation by Richard Pulteney *P/DAR* [1987-36] - The Origin of Species by Means of Natural Selection, or, The Preservation of Favoured Races in the Struggle for Life, Charles Darwin, 1861, 3rd edition

#### **English Heritage**

Stonehenge Visitor Centre inaugural exhibition 16 December 2013 – 16 September 2014 Inv 35252 - Simple Theodolite, by Thomas Wright, English, Early 18th Century Inv 18184 - Plane Table by John Worgan, London, c. 1696

#### **Museum of London**

Radio Times 90th Anniversary Exhibition 2 August – 3 November Inv 58602 - Marconiphone Two-Valve Receiver Type V2A, by Marconiphone

Company, English, c. 1924 Inv 58056 - Marconiphone Universal Baby Crystal Receiver, by Marconiphone Company, English, c. 1924

#### Historic Royal Palaces: Kew Palace

'Georgians 2014' 28 March – 28 September 2014 Inv 35086 - George III Microscope, by George Adams, London, c. 1763

# Microscience Microscopy Congress 2014 to coincide with the 175 Anniversary of the Royal Microscopical Society (RMS), Manchester Central, 1 - 3 July 2014

RMS Loan items

- 1 Culpeper type (in 'metronome' box) Nos. 2-18.
- 2 British compound tripod foot. Nos 30-45.
- 3 British 'drum' Nos. 70-76.
- 4 British compound with Wenham binocular. Nos. 88, 89, 96, 100.
- 5 McArthur. (ist metal). No. 108.
- 6 Ross Radial. No. 157.
- 7 Swift petrological No. 173.
- 8 Zeiss jughandle Nos. 224, 227 (or RMS/MHS 20525 No21) .
- 9 Amici reflecting mic. No. 256.
- 10 Dissecting simple mic. Nos. 295-298, 302-304.
- 11Set of limit gauges. No. 440.
- MHS Accessioned items of RMS provenance (the 'RMS/MHS Collection').
- 12 Baker Patholette, Inv 10350, No.4
- 13 CTS Phase contrast, Inv 51753, No.6
- 14 Watson Bactil, Inv 75564, No28
- 15 Vickers M70, Inv 10709, No33
- 16 Smith-Baker Interference mic., Inv 13433, No41.

Significant resource was required to support the incoming short-term loans for *Geek is Good* and particularly *Crystals*, but artist installations also required the same consideration and negotiation of transport, insurance and loan contracts.

## Conservation

A new programme to improve the storage of glassware has begun in store. Material is being rehoused into boxes with soft packing to alleviate overcrowding on shelves, and to prevent accidental breakages.

Thirty three of the Museum's objects were conserved for internal reasons such as photography and research.

Support for outgoing loans has continued which includes the conservation of objects, detailed condition reports and packing for transit: 9 loans, 26 objects. Similar tasks are required to support the Museum's own exhibition programme, which also needs the cleaning and preparation of showcases in the Special Exhibitions Gallery.

Routine conservation work has been enhanced by the reintroduction of a Gallery Maintenance day on the first Monday of each month. Likewise a regular "store day" has enabled the planning and implementation of relocation and rationalisation of material off-site.

Conservation reports were previously created as standalone Word documents; these have now been uploaded onto the EMu database and attached to the relevant object records.

A first phase of upgrades to the Hanwell environmental monitoring system was specified and purchased, with the remainder to be acquired next year. Regular procedures were continued: servicing of humidifiers; insect pest monitoring throughout the museum every three months, including pheromone lures; continuation of mould checks at our stores, every four months, and treating any affected objects found.

Other conservation activities included attending a metals conservation conference at the Wallace Collection and an assessment of a research proposal to open early Palladium and Platinotype photographic papers for analysis.

## Library and Archives

The temporary relocation of the Library to Plant Sciences between August 2013 and February 2014 enabled a limited public and research service to continue, supported by the recruitment of a new part-time and fixed-term Librarian, Jennifer Howard. However, access to archival and photographic material was restricted during this period, resulting in fewer research visits serviced by the Archivist.

Acquisitions for the Library and Archives included:

- Modern books relating to sundials, and a small number of archival and pictorial items from Christopher St J. H. Daniel, the well-known sundial designer
- Chemistry lecture notes of the 1960s by an alumnus of Queen's College were passed on to the Museum by the college archivist
- Additions were received from Mrs Hall to the existing Dollond archive
- Elizabethan map of Gloucestershire engraved by Augustine Ryther, donated by Howard Dawes
- A small group of sundial-related archives was included with the Drinkwater Bequest

Some unwanted archival and photographic items de-selected from the Elliott Archive were passed to Michael Hughes of the Bodleian Library for incorporation into the Marconi Archive.

The three Royal Charters of the Royal Microscopical Society were returned to the Society for a period in 2014 in connection with the commemoration of their 175th anniversary, and are now back in the RMS Archive in the Museum.

The Archivist responded to some 50 substantial research and collection-related enquiries, nearly all via email from all over the world. Among research visits on manuscript, archival, or photographic collections curated by the Archivist were:

- Anna Svensson (Swedish academic) on the Oglander Collection and related papers, as well as a Botanic Garden MS
- Timothy McCann on an Edward Heron-Allen MS
- Kevin Smith on John Russell moon-globe gores
- Jessica Morley (graduate student, Cambridge) on Lewis Evans and Gunther papers, plus Whipple correspondence
- Paula Sewell on Miss Willmott photos
- Inga Söderlund (Sweden) on 18th-century physics and natural philosophy MS material
- Tony Hadland on books re W. F. Stanley
- Elizabeth Bruton (Leeds postdoctoral) on Moseley papers
- Yuval Goran (Israel) on John Millburn papers
- Beverley F. Ronalds on Radcliffe MSS and photographs
- Ella Raff (Cambridge undergraduate) on MS geometric curve & harmonograph materials
- Mark Davies on ballooning prints and material re James Sadler
- Robert McDonald (independent scholar from Australia) on Elliott archive & photos

# 6. Information and Communication Technology

Digital delivery continues to grow in scale and significance. Not only did the total number of distinct hosts served by the Museum's website increase by 17.5% but more dramatic was the rise in data downloaded: up 52% to 1.6TB.

Changes to IT infrastructure and web design have continued through the year. The Museum's main domain controller is now co-located in the University's new data storage centre and new

virtualisations have been created for the EMu server and website production server. For cost reasons, Amazon Web Services is now used to provide an occasional test web server. New exhibition mini-sites continued to be added online, including *Geek is Good* and *In Print*, benefitting from the flexible customisation and theming possible with our WordPress installation.

The collaboration with the Dresden Hochschule für Technik und Wirtschaft has continued, with Martin Wolff delivering an animation of the complex x-ray spectra apparatus of Henry Moseley.

# 7. Teaching, Research and the Discipline

Teaching continued to be offered within the History Faculty at both graduate and undergraduate level. Dr Johnston offered two advanced options in the MSc/MPhil course in History of Science, Medicine and Technology, the second in collaboration with Dr Elizabeth Bruton. He also contributed lectures to the 'Nature and Art in the Renaissance' undergraduate optional subject. He led visits to the Museum for course work within the University from science undergraduates studying the history of science and first year historians of art. Teaching visits to the Museum came from a number of British universities such as Oxford Brookes, the University of Wolverhampton, Birmingham University and the University of Buckingham.

Dr Johnston successfully concluded his roles as co-investigator on both the AHRC 'Hebrew Astrolabes' project and the AHRC 'Innovating in Combat' project led by Professor Graeme Gooday at the University of Leeds. He also continued membership of the British Society for the History of Mathematics publication committee and the editorial board of the Brill series *Scientific Instruments and Collections*.

The Museum's collaboration with the Hochschule für Technik und Wirtschaft, Dresden was continued through the creation of a computer animation of Henry Moseley's x-ray spectra apparatus by student Martin Wolff. This was featured in the professional journal *Museum Practice*.

Dr Ackermann gave the following paper:

"Have you got a quid?" - Museums as development tools in urban culture', international conference: 'Taste after Bourdieu', Chelsea Art Institute, 14 May 2014

Dr Johnston was invited to deliver the following lectures and seminars:

'Between the Academy and the Public: Exhibiting Science and Islam at a University Museum', Historical Perspectives on Science and Islam, Norsk Teknisk Museum, Oslo, 10 October 2013

'Centenary Virtues: Exhibiting Anniversaries in Oxford', Swedish Academy of Sciences, Stockholm, 6 December 2013

'Punks, Geeks and Others: Audience and Engagement in Public Programming', Instruments and Institutes: Preserving and Promoting the History of Science, University of Aberdeen, 23-24 June 2014

He also gave other lectures, conference and seminar papers:

'Construction and Use: A Museum Perspective on Astrolabe Writing', Astrolabes in Medieval Cultures, Warburg Institute, London, 24 - 25 April 2014

'Crystals, Geeks and Astrolabes', Diamond Light Source, 19 May 2014

'Machining psychological discipline', Image and Object: Discipline, History of Art, Oxford, 23 May 2014

'Making Machinery Count', Counting and Calculation, British Society for the History of Mathematics, Oxford, 21-22 June 2014

'Whatever the Weather: Sun, Seasons and the Astrolabe', Understandings and Forecasts of the Weather in Medieval England, University of Reading, 2 July 2014

# 8. Museum Staff

Staff in post at the end of 2013-14

Dr Silke Ackermann, Director Dr Stephen Johnston, Assistant Keeper Christina Lee. Museum Administrator Lucy Blaxland, Collections Manager Cheryl Wolfe, Conservation Officer Keiko Ikeuchi, Photography and Design Technician Owen Shaw, Technician (0.5) Spiro Vranjes, IT Assistant (0.5) Anthony Simcock, Archivist (0.4) Jennifer Howard, Librarian (0.5) Christopher Parkin, Education Officer (0.6) Michelle Holloway, Education Officer (0.4) Dr Paul Trafford, Web Officer (0.5) Scott Billings, Public Engagement Officer (0.5) Nicholas Wicker, Janitor (0.4) Mariella Guida, Senior Gallery Assistant and Supervisor (0.4) Anthony Lummis, Gallery Assistant (0.7) Frances Turner, Gallery Assistant (0.3) Elizabeth Montgomerie, Gallery Assistant (0.3)

Robert Ellis, Gallery Assistant (0.4) Manfred Driver, Gallery Assistant (0.4) Gavino Pinna, Gallery Assistant (0.5) Jude Owens, Gallery Assistant (0.1) Silvia Pinna, Gallery Assistant (0.1)

Casual Staff (Gallery Assistants) Chris Dadds Robert Thomson James Harrison

Museum Visitors Professor Pietro Corsi, History Faculty (Chair)

Dr Robert Anderson, co-opted Visitor Professor Frances Ashcroft, Physiology Anatomy and Genetics Department Professor Laurence Brockliss, History Faculty Professor Roger Davies, Physics Department Professor Mark Harrison, Wellcome Unit Dr Mike O'Hanlon, Pitt Rivers Museum Dr Oliver Pooley, Philosophy Faculty Dr Paul Smith, Museum of Natural History Dr Luke Treadwell, Oriental Institute Professor Ian Walmsley, Pro-Vice-Chancellor, Research and ASUC One of the Proctors or the Assessor