

# Museum of the History of Science

Annual Report, 1 August 2011 – 31 July 2012

## Highlights

### Exhibitions

Two notable exhibitions were mounted in the Special Exhibition Gallery this year – one original in concept, the other traditional but populated by an outstanding collection of objects. Stephen Johnston curated ‘Time Machines: an exhibition from medieval to modern’, which was narrated by the fictional Nicholas of Oxford from Chaucer’s ‘The Miller’s Tale’. Panels and labels were written from his point of view: sometimes he was impressed by developments in time regulation since his period, but not always.

‘The Renaissance in Astronomy: books, globes and instruments of the 16th century’ was curated by Jim Bennett. A collaboration with the Royal Astronomical Society brought to the display an outstanding collection of books to add to the Museum’s instruments, along with the earliest surviving printed celestial globe. Further loans added a pair of Mercator globes and Mercator’s own copy of *De Revolutionibus*. This was probably the finest exhibition on 16th-century astronomy ever mounted in Britain.

Further details on both exhibitions are given in the report.

### Visitor Numbers

The number of visitors exceeded 200,000 for the first time in the history of the Museum: 203,539 people came through the doors in 2011-12.

### Outstanding Acquisitions

Two very special objects were added to the collection. One comes from the Royal Astronomical Society on long-term loan: a celestial globe of c.1534 by Johann Schöner of Nuremberg, one of the leading astronomers of his time. In remarkably fine condition, this is one of the great globes of the world – one of only two surviving examples of the earliest extant printed globe of the heavens.

Through the presentation by Howard Dawes of an Elizabethan instrument, the Museum has made the most significant, permanent addition to the collection for many years. The instrument is a pocket sundial by the English maker Augustine Ryther,

dated 1585. To acquire an Elizabethan instrument is a very notable event and its gift is a signal act of generosity. This is only the third instrument by Ryther to come to light and it is the earliest. It is also noteworthy that the identity of the first owner is recorded on the instrument: Sir George St Paul of Snarford in Lincolnshire. It will go on display in the period of the next annual report, when there will also be a study afternoon to mark the occasion

## **Public Programme, Exhibitions, Outreach and Education**

### **Exhibitions**

The exhibition ‘Eccentricity: unexpected objects and irregular behaviour’ (mentioned in the previous annual report), closed on 16 October. From 1 August, running alongside ‘Eccentricity’, was ‘The Fourth Plinth’ in the Entrance Gallery, with members of the public invited to submit unusual and eccentric objects, each displayed for a few days and archived on the Museum’s website ([www.mhs.ox.ac.uk/eccentricity-fourth-plinth/](http://www.mhs.ox.ac.uk/eccentricity-fourth-plinth/)). Eighteen successive displays concluded with a terracotta figure from the ‘Field’ series by Anthony Gormley. A professionally-made video on YouTube promoted the main exhibition and invited contributions to ‘The Fourth Plinth’. The Archivist, Tony Simcock, who curated the main exhibition with the Director, maintained a regular blog and a drawing competition for children, ‘Eccentric Inventors’, attracted 127 entries ([www.mhs.ox.ac.uk/exhibits/eccentricity/inventors-competition/](http://www.mhs.ox.ac.uk/exhibits/eccentricity/inventors-competition/)). Three related public lectures, a quiz and a concluding ‘Eccentricity Debate’ with Bill Heine and friends fall into the period of this report.

The major exhibition for the winter months was ‘Time Machines: an exhibition from medieval to modern’ – an original view of the history of time-telling narrated by the fictional Nicholas of Oxford from Chaucer’s ‘The Miller’s Tale’. It occupied the Special Exhibition Gallery from 15 November to 15 April and was accompanied by a full programme of lectures and other public events. Volunteer-led handling sessions were one novel feature of the exhibition.

This exhibition was followed in the Special Exhibition Gallery by ‘The Renaissance in Astronomy: books, globes and instruments of the 16th century’, opened by Professor Roger Davies, President of the Royal Astronomical Society, on 10 May. A collaboration with the Society, it marked the 500th anniversary of the birth of Gerard Mercator. The focus on Mercator evoked a culture where intellectual achievement combined with craft, and innovative astronomy and cartography was disseminated through objects made in specialist workshops and print-shops. Among the contributions of the RAS Library were the first printed edition of *Almagest*, the magnificent *Astronomicum Caesareum* of Peter Apian and the first edition of *De Revolutionibus* by Copernicus. A second copy – owned by Mercator himself – was loaned by Glasgow University Library and the Royal Museums Greenwich lent their pair of Mercator globes, the only one in the country. Generous support came from the Barbara Whatmore Charitable Trust and from Trevor Philip and Sons Ltd towards the cost of these significant loans. There was a programme of events, a web version of the

exhibition [www.mhs.ox.ac.uk/exhibits/the-renaissance-in-astronomy/](http://www.mhs.ox.ac.uk/exhibits/the-renaissance-in-astronomy/), and an issue in the Museum's *Broadsheet* series. An original animation of an armillary sphere was presented in the gallery and on the web.

A collaboration with Oxford Brookes University and the Pitt Rivers Museum brought work by Foundation Art & Design students from Brookes to an exhibition ('Necessity is the Mother of Invention') in the Entrance Gallery from 3 February to 17 March, with scheduled occasions when the students demonstrated their work to visitors.

The 'Renaissance Globe Project' has had a significant impact on visitors to the galleries, as well as to special events, and will culminate in an exhibition in the coming year. It is organised by Lead Education Officer Christopher Parkin, and is described under 'Education Service'.

Four of the six exhibitions in the Entrance Gallery were: 'All in the Mind: Experimental Psychology in Oxford' (2 August to 9 October), in association with the Department of Experimental Psychology; 'Proteins Revealed: Oxford's Protein X-Ray Crystallography Then and Now' (11 October to 22 January), a collaboration with the Structural Genomics Consortium, telling the story of the attempt to unveil molecular structures, beginning with the work of Dorothy Hodgkin; 'Perspective: an English View' (24 January to 1 April), a private collection of instruments from the 17th and 18th centuries for drawing in perspective; and 'Wireless Wares' (3 to 21 April), a display of Marconi memorabilia, to be auctioned on Marconi Day, 21 April.

These were followed by two exhibitions with strong educational agendas. 'Traces' (from 24 April to 24 June) revived the former tradition of an annual exhibition by graduate students, in this case mounted by four students on the MSc course in History of Science, Medicine and Technology, guided by Dr Johnston. An extensive blog (<http://blogs.mhs.ox.ac.uk/traces/>) records the development of the exhibition, and the discoveries and discussions involved in creating it.

Finally, a radical experiment by our Primary Education Officer, Michelle Holloway, led to an exhibition on the history of medicine curated by year-2 children from St Philip and St James' Primary School. Most of the staff of the Museum were involved in introducing the children to all the roles they performed in creating an exhibition. With guidance, the children selected and grouped the objects, wrote the labels, designed the panels and arranged the display. They also decided on the title: 'The Amazing Things that People Did for Medicine and Other Stuff!' (from 26 June).

The return of the portrait of Johannes Hevelius from a special exhibition in Gdansk was an opportunity to display it on an easel in the Top Gallery, where it could be seen much more easily than in its usual position in the stairwell, and to create a small display to mark the 400th anniversary of Hevelius's birth. This was accompanied by two gallery talks – one on Johannes and one on his wife, Elisabetha – and a public lecture by Dr Inga Elmquist Söderlund, 'A Portrait of Hevelius: the Astronomer and his Artists.'

The Library and Archives showcases in the Basement Gallery displayed a collection of the Museum's extensive stereoscopic photographs, 'Beginnings of 3D' (from 1 April).

The 'Steampunk' exhibition continues to attract interest four years after it opened: the Director was interviewed by Dr Jeanette Atkinson of the School of Museum Studies, University of Leicester, for a book on Steampunk.

## **Education Service**

The Museum's education programme has gone from strength to strength with a new record high for numbers of school visitors totalling 5,424, a 30% increase on the previous year's figures with an almost equal share between primary and secondary schools. The programme has continued to diversify with a range of activities including workshops for schools, teacher training, a family activities programme, new grant-funded project work, and some outreach. Particular highlights have been the completion of the Storytelling Project with East Oxford Primary School funded by the D'Oyly Carte Charitable Trust, a project based around the creation of an exhibition on the history of medicine with St Philip and St James' Church of England Voluntary Aided Primary School and The Renaissance Globe Project which has been funded by a £15,000 grant from the HLF's 'Your Heritage' programme. The inclusion of special projects has anticipated the new agenda for the continuation of the Renaissance-funded programme in Oxford under Arts Council England (ACE), with its regard for innovation, partnership, and community engagement.

Much of the Museum's education work continues to be with schools. The primary schools' programme has continued to provide bespoke and set sessions. The 12 set sessions now on offer include the old favourites 'Tudor Ships', 'Shadows and Sundials', 'Space Explorers' and 'The Real Stuff', as well as more recent arrivals such as 'Stars and Stripes', 'Drawing with Leonardo', 'Morse and Marconi', and a new session on the History of Medicine, 'Seven Big Ideas'.

Michelle Holloway returned from maternity leave in August 2011, but Larissa Colyer, who had been covering, continued to take the lead on a Storytelling project with East Oxford Primary School which began in the summer of 2011 with funding from the D'Oyly Carte Charitable Trust. Michelle and Larissa worked together to coordinate visits from the school to the Museum, as well as contributions from a professional storyteller, supporting teachers and pupils in the second phase of the project, which used museum objects as the inspiration for non-fiction and fiction writing. This project culminated in an event at the Museum for pupils at Key Stage 2 and their parents, and the resulting stories by the children were made available to the public.

During the course of the year, 60 Year 2 children from St Philip and St James' Church of England Voluntary Aided Primary School made a series of visits to the Museum as part of an extended project on the history of medicine. The project began with the "Seven Big Ideas" session and developed through a series of meetings of small "expert" groups of pupils with 8 members of staff. The outcome was a small exhibition in the Entrance Gallery entitled 'The Amazing Things that People did for Medicine and Other Stuff!' for which the children were the curators. The exhibition opened with a private view for parents, attended by over 60 parents, governors, and other guests.

The Museum has continued to deliver introductory sessions for students in initial teacher training with 169 trainee primary school teachers benefitting from introductory sessions at the Museum as part of the Oxford-Brookes Partnership. The scheme includes a museum placement scheme for BEd degree student teachers linked with local primary schools.

As well as further development and diversification of the programme of taught sessions to schools, the education team have maintained and extended the scope of partnership within the University and beyond. Within the secondary schools' programme, partnership with the University's Physics Department has continued with the delivery of study days for sixth form students on medical imaging, and for pupils at Key Stages 3 and 4 on astronomy. A study day for Key Stage 3 pupils entitled 'Medicine and Materials' was also piloted successfully in June in partnership with the Department of Chemistry and the University's Botanic Garden.

The Museum has sustained its strong relationship with the Langley Academy, and this has been the fourth successive year in which the Museum has delivered an integrated programme of science-related workshops throughout Key Stage 3 in partnership with the University Museum of Natural History. This year the programme also included work with the mathematics department on a topic exploring practical geometry and the art of navigation.

Partnership across the university museums and collections has continued with the delivery of cross-curricular 'Museum Discovery Days' for whole year groups from two local secondary schools, The Cherwell and The Marlborough Schools.

In previous years the Museum has not been a regular destination for art students despite the efforts of the joint museums' secondary schools' art education officer, Adrian Brooks. But this year, along with the Pitt Rivers, the Museum worked with art students from the Brookes Foundation course in Art and Design to provide stimulus for a project on the theme of 'necessity, the mother of invention'. The resulting work was exhibited at both museums and there was a joint preview evening which attracted a considerable gathering of students, staff, parents and friends.

In another pilot project, sixth form art students at two local secondary schools were invited to take part in stop-frame animation film workshops facilitated by artist film maker, Emma Dougherty of StopMoGo. The films were inspired by instruments from the Museum's collection and famous episodes from the history of science. Working in this way gave students with interests in both art and science an unusual opportunity to explore cross-curricular themes and acquire new technical skills.

Families have continued to enjoy a varied programme of events at the Museum. A particular highlight in March was 'About time!', an all-day programme of activities linked with the special exhibition, *Time Machines*, which included trails, model-making, a restorer at work on a clock from the Museum's collection, demonstrations of kinetic sculptures by Brookes art students, and the construction in Lego of an extraordinary weight-driven time-piece.

In May 2012, the launch of the HLF-funded 'Renaissance Globe Project', a partnership project led by the Museum of the History of Science, created new

opportunities for families to engage with collections through the construction of a series of large globes based at the four partner Museums; the Ashmolean, Museum of the History of Science, The University Museum of Natural History, and the Museum of Oxford. In addition to drop-in activities, a series of globe model-making workshops have created the opportunity for children and adults to learn about the Renaissance craft of globe making. A number of secondary schools have also been involved in the project with workshops and globe activities based at the Museum.

When time allows and opportunities arise, the education team may choose to deliver outreach events beyond the Museum, and this year lecture-demonstrations were delivered at Bath's U3A (University of the Third Age), and at the 'Talking Science' series at the STFC facility at Rutherford Appleton.

The Museum has continued to participate in the HLF-funded 'Skills for the Future' programme, a partnership programme between the University museums and collections, and we have welcomed the contributions of Lea Kloeppinger and Scott Billings from the current cohort of trainee education officers who have had 6 month placements at the Museum. As well as mentoring the trainees, the Museum's education officers have contributed to a programme of monthly training days which have also been open to other museum professionals from the region.

The use of volunteers to support school sessions in addition to family events has increased dramatically this year, and this service has proved invaluable in allowing an even richer experience for children. The Museum's education programme has continued to draw on the support of the cross-museum's Volunteers Service, and the joint museums' Art education officer and to participate in the OUMC community outreach programme.

The future of the education programme under ACE looks promising, and the Museum's education department is keen to contribute to the leadership programme represented by the new sector-facing Oxford Aspire initiative. But increasing demands on time of an ever-growing programme of delivery is presenting awkward dilemmas which may result in uncomfortable compromises unless increased provision can be made to support the expansion of the programme with additional resources.

### **Education service statistics**

#### **Schools: Number of pupils involved in taught sessions**

Primary: 2585 (compared with 1596 in 2010-11, and 900 in 2009-10)

Secondary: 2839 (compared with 2614 in 2010-11, and 2085 in 2009-10)

TOTAL = 5424 (compared with 4210 in 2010-11, and 2985 in 2009-10)

#### **Family Friendly**

Number of children involved in family events: 1984

#### **Teachers**

Number of trainee teachers involved in training sessions: 169 (primary)

## Public Programme

Four quarterly programme leaflets were printed and distributed, and four further leaflets announced events linked to special exhibitions. In addition to more unusual events, a programme of frequent gallery talks, exhibition talks and ‘table talks’ was offered throughout the year by the curatorial staff. Volunteer-led weekly tours, offering an introduction to the Museum, continued throughout the year and their frequency was expanded – they are now offered on Saturdays as well as Thursdays. One title was added to the series of printed ‘Broadsheets’. Full programmes of public events were mounted for the two major exhibitions, ‘Time Machines’ and ‘The Renaissance in Astronomy’, dealt with under ‘Exhibitions’.

The now-established Summer Quiz, on 5 August, took the theme of eccentricity from what was then the current exhibition, and was very well attended and enjoyed. As it happened the quiz for 2012 falls into the same reporting year, having taken place on 6 July. Less successful as regards numbers of participants, the theme was ‘stellar’, but without giving an unfair advantage to astronomers.

The general theme for Oxford’s annual ‘Christmas Night Light’, held this year on 2 December, was the 12 days of Christmas. The Museum offered an evening of puzzles, trails, talks and film all concerned with the number 12 – from signs of the zodiac and months of the year to hurricanes, inches and old pennies. We were open from 7 to 10 pm.

The Museum again opened for two days between Christmas and New Year’s Day – there were 1,934 visitors. We had 2,325 visitors on Good Friday and 2,260 on the following Saturday.

An all-day programme of events, linked to the ‘Time Machines’ exhibition, took place on Saturday 17 March, under the title ‘About Time!’, with a great variety of activities throughout the day. This was planned and organised by our Lead Education Officer as a ‘Family Friendly’ day: there are further details under ‘Education Service’.

The celebration of the international ‘Marconi Day’, in collaboration with the Oxford and District Amateur Radio Society, has become an annual event, with the Society operating a radio station throughout the day to make as many distant contacts as possible, in the tradition of Marconi Day. This year the event was held on Saturday 21 April and had a *Titanic* theme, to mark the centenary of the disaster and to emphasise the important part played by the wireless telegraph. The Museum contributed its popular family activity, ‘Send a Message SOS’, a talk by Brian Hawes on ‘Wireless at the time of the *Titanic*’, the one-man play ‘Who was Guglielmo Marconi?’ and an auction of ‘Wireless Wares’, with Marconi mementos for sale.

*I was in the audience during The Marconi Day and I really enjoyed your play on Marconi 1,2,3. Of course I voted the Italian one! Just to say: well done! Interesting idea!*

On 2 May a meeting comprising two research papers was held in the Basement Gallery on the topic of ‘Chemistry in 17th-Century Oxford’: Dr Marcos Martinon-Torres spoke about the archaeological finds of chemical vessels made at the Museum

in c.1998 and Dr Anna Marie Roos on Plot's experiments with 'philosophical wine'. Both papers concerned chemical work done in the very room where the meeting was held. The event was open to the general public.

The annual Douglas Byrne Marconi Lecture was given in the Museum on 11 May by Dr Efstathios Arapostathis of the University of Athens, this year's holder of the Douglas Byrne Marconi Fellowship, administered in collaboration with the Bodleian Library.

This year's 'Night of Museums' took place on 18 May, when the Museum was open from 7 to 11 pm. There were tours of the new exhibition 'The Renaissance in Astronomy' and, in keeping with the exhibition's emphasis on the importance of craft in 16th-century astronomy, the basement gallery became 'The Astronomical Workshop'. A printer (Richard Lawrence), an instrument-maker (Michael Wright) and a globe-maker (Sylvia Sumira) were at work throughout the evening, and visitors were invited to observe and participate. A co-ordinated programme for the evening was produced for the University's four museums.

The annual Harriot Lecture in Oriel College was organised as part of the programme for the Museum's exhibition, 'The Renaissance in Astronomy', when Professor Lesley Cormack spoke on the first English globes, made by Emery Molyneux in 1592.

The month of June saw two television celebrities speaking at the Museum – on 12th Nicholas Crane spoke about his biography of Gerard Mercator in our 'Between the Lines' series. On 27th Jim Al-Khalili talked about his new book, *Paradox* (this was organised in collaboration with Waterstone's Bookshop). Both events were completely filled.

In a collaboration with the Turrill Sculpture Park in Summertown, Oxford, the Director, having opened an exhibition of monumental dials there the previous day, offered a 'family friendly' session in the Summertown Library on 2 June.

While workshops and drop-in sessions for families, with the activities suitable for children, were held, as usual, throughout the year, a workshop on globe-making for adults was a resounding success on 21 July, with every place filled.

Dr Bennett was a guest on Radio 4, 'In Our Time' on 17 November and on 29 March. He was interviewed by Peter Snow for a Radio 4 programme on Marconi and the *Titanic*. Sir Terry Wogan visited the Museum on 7 November and talked to Dr Bennett about the Marconi Collection; this was broadcast on BBC 2. Dr Bennett also appeared on a BBC 4 programme on women in the Restoration and was interviewed at length by a reporter from the Canadian Broadcasting Corporation on the 'Renaissance in Astronomy' exhibition. Dr Johnston was interviewed on Radio Oxford in connection with the 'Time Machines' exhibition. The Museum also featured on BBC TV Oxford, 17 August, after being listed in the top 20 tourist attractions in SE England. BBC 4 visited to record part of a programme on the history of electricity with Professor Jim Al-Khalili.



On 12 July *The Independent* included the Museum in their list of ‘The 10 Best Family Science Events’: ‘This summer, get your children excited about life, the universe and everything with these scientific voyages of discovery ... 5. Museum of the History of Science, Oxford. One for older kids, this Oxford museum houses a pretty much unrivalled collection of early scientific instruments.’ The Museum was awarded TripAdvisor’s Certificate of Excellence for 2012, based on visitors’ ratings.

*Public lectures linked to the special exhibitions were:*

23 August

‘From Alligator Wrestling to Fossil Skeletons: Scientific Eccentricity in the Early 19th Century’

Dr Vicky Carroll (William Morris Gallery and Vestry House Museum, Walthamstow)

27 September

‘Simon Forman: Astrology, Medicine and Quackery in Elizabethan England’

Dr Lauren Kassell (University of Cambridge)

11 October

‘The Eccentric Turner’

Michael Wright (Imperial College, London)

15 November

‘The Beginning of Time’

Professor Pedro Ferreira (University of Oxford)

24 January

‘Ultrafast Physics: Past, Present, Future’

Professor Ian Walmsley (University of Oxford)

7 February

‘Selling Time: Science, Commerce and Dirty Tricks in the Distribution of Greenwich Mean Time’

David Rooney (Science Museum, London)

6 March

‘Decimalising Time: Calendar and Clocks in the French Revolution’

Dr Matthew Shaw (British Library)

31 May

‘“The whole earth, a present for a Prince”: Molyneux’s English Globes and the Creation of a Global Vision’

Professor Lesley Cormack (University of Alberta)

12 June

‘Mercator: the Man who Mapped the Planet’

Nicholas Crane

Most of these lectures are available on the Museum's website – they can be listened to or downloaded as podcasts.

*Other public lectures were:*

25 October

'A Portrait of Hevelius: the Astronomer and his Artists'

Dr Inga Elmqvist (Observatory Museum, Stockholm)

21 April

'Wireless at the time of the *Titanic*'

Brian Hawes (University of Oxford)

2 May

'Doctor Plot's Pots: an Archaeological Insight into the Ashmolean *Officina Chymica*'

Dr Marcos Martinon-Torres (University College, London)

2 May

'The Learned Dr Plot (1640-96), Philosophical Wine and the Oxford Philosophical Society.'

Dr Anna Marie Roos (University of Oxford)

11 May

'Owning and Disowning Wireless: Inventions, Experts and the Law Courts, 1890-1930'

Dr Efstathios Arapostathis (University of Athens)

27 June

'Paradox'

Professor Jim Al-Khalili (University of Surrey)

## **Collections Management and Conservation**

### **Acquisitions**

During the year the Museum acquired the following items:

#### *Gifts*

A music page-turner presented by Dr Robert Anderson, following its inclusion in the 'Eccentricity' exhibition

A converted pocket watch voltmeter by Brayley

A portable horizontal dial by Augustine Ryther, dated 1585, presented by Mr Howard Dawes

Album of Photographs by Sarah Angelina Acland, 1930, presented by Professor Robert Fox

A watchmaker's depthing tool in a fitted box presented by Mr Alan Todd

Three further microscopes presented by the Royal Microscopical Society to add to the RMS-MHS collection of 20th-century microscopes.

Nine mathematical instruments for drawing and surveying were presented by Mr John Bateman from his collection.

#### *Purchases*

Eight prints on the subject of climate and weather were purchased from Sanders of Oxford for the forthcoming 'Atmospheres' exhibition:

Woodbridge, W.C. *Isothermal Chart; or View of the Climates & Productions of the Earth.*

Emslie, John *Distribution of the Currents of Air and Variable Winds Over the World.*

Dower, I *Meteorological Map of the World showing the distribution of the temperature of the air.*

Johnston, Alexander Keith *Hyetographic or Rain Map of Europe with an enlarged Rain Map of the British Isles*

Johnston, Alexander Keith *Hyetographic or Rain Map of The World, with a Special Map of the Temperature and Rain Fall in India*

Johnston, Alexander Keith *Distribution of Heat Over the Globe*

Johnston, Alexander Keith *Map of the Lines of Equal Polarization in the Atmosphere Constructed by Sir David Brewster*

Johnston, Alexander Keith *Terrestrial Magnetism*

A print of the Exterior of the Old Ashmolean Museum, Broad Street, by Henry Taunt, was purchased, also from Sanders of Oxford.

#### *Transfer*

Picosecond tape measure and a box of Lab Snacks (empty) from the Ultrafast Physics Group, following their loan to the 'Time Machines' exhibition.

#### *Recovery following theft*

One of the watches stolen from the Museum in 1994 was returned following its recent emergence onto the London antiques market. The watch is a pocket chronometer (no. 872) by Thomas Earnshaw, 1807-1811.

## **Management and Care of the Collections**

### **Documentation – key projects**

Identification, provenance checks, and detailed documentation of oil paintings were carried out in the collections as part of the University's commitment to the Public Catalogue Foundation project. Status verification, updating of documentation and arrangements for photography of the Orrery collection, on loan from Christ Church, Oxford, was undertaken by the Collections Manager.

### **In storage – at the Museum**

A refurbishment of the Library and Archive Rooms had temporary consequences for the collections, including the movement of the cabinets for printed material.

Collections care and management of library collections in the reading room and in storage have fallen to the Collections Manager for the time being, following the loss of the Librarian's post. This has involved tidying the library areas and replacing

books. Planning for improved protection and training of staff in understanding of book structures and appropriate handling are under way. Improvements have been introduced in the storage of prints and other flat material.

### **In storage – off-site**

Investigation and successful mitigation of high humidity problems at the Osney Store took place during the year, involving the purchase and subsequent installation of dehumidification equipment. The cleaning programme at Osney Store in collections areas and common areas used by both PRM and MHS staff was maintained.

Additional furniture and equipment for collections at the Osney Store was purchased, including sorting tables, a cabinet for storage of chemical substances and emergency response equipment. Water ingress in the 'Riverside' room, Osney, was investigated and resolved, working closely with Estates. The Museum managed the general service visits to the Osney Store, as regards CCTV, alarm systems, lifting equipment and fire equipment

### **Emergency Planning and Response**

A comprehensive set of equipment for emergency response was purchased for the Osney Store site and based there. There are on-going problems with water ingress to the Library and Archive Room and remedial work was undertaken, managed by Estates, during the year.

### **Use of the Collections**

#### **Enquiries**

The majority of enquiries were by email with use of the museum@mhs.ox.ac.uk address predominating. This enabled enquiries requiring curatorial input to be sent directly to the curatorial staff rather than being processed initially by the Collections Manager, so improving efficiency. In general the numbers of enquiries increased following greater use of the website and Museum database.

Email - 71

Telephone – 10

In person – 8

#### **Researchers**

The year saw a steady number of researchers, similar in numbers and range to the previous year. Two PhDs students required a series of visits using both library and object collections.

The following object research visits occurred during the year:

Maria Lookman, – D Phil student, Ruskin School of Art, University of Oxford – study of drawing instruments - 5 visits

Dawn Correia – PhD student, University of Lincoln – study of kaleidoscopes – 2 visits

Elena Sorzano – PhD-student, Centre d'Història de la Ciència, University of Barcelona - items relating to 18th Century science

Joe McNeil & Professor Woods – designer and client – armillary spheres

John Davis – private researcher – early dials

Denis Radage – private researcher – Gretton watches

Jed Foland - D Phil student – use and photography through early microscopes – follow-up visit

Hannah Wills – History undergraduate, University of Oxford – pocket globes

Stuart Talbot – private researcher – material relating to Ahrens

### **Education sessions**

Objects, books and partial or full invigilation by the Collections Manager were provided for the following sessions:

Sound (Primary)

Stereoscopes (Primary)

Renaissance Books (Secondary)

### **Filming/photography:**

Assistance was needed with the filming of Hooke's *Micrographia* from the Museum's collections and with material lent by the English Faculty for a programme on Margaret Cavendish; this was part of the BBC Four 'Restoration Women' series.

On-going programmes of routine photography of objects in the collection were undertaken in order to improve database entries, focussing in particular on large objects in store and on display, including the lodestone and large telescopes.

### **Internal Exhibitions:**

Assistance with the moving and installation/deinstallation of objects, the preparation of framed prints (when required), and the mounting of supporting information on the online database, was provided for the following internal exhibitions:

'Eccentricity: Unexpected Objects and Irregular Behaviour (10/05/2011 - 16/10/2011)

'Experimental Psychology in Oxford' (2/08/2011 – 9/10/2011)

'Traces' (24/4/2012 – 24/6/2012)

'Amazing Things for Medicine and Other Stuff!' (26/6/2012 – 2/9/2012)

### **Loans**

The year was a reasonably busy one in terms of outgoing and incoming short-term loans, including the loan of two important items to two venues in the USA, loans to several UK national museums and the management of significant incoming loans to 'The Renaissance in Astronomy'. These included items from a non-museum institution which required significant assistance at each stage of the process. The period also saw the successful conclusion of negotiations with the same organisation for the long term loan of an historic globe, which was included in the exhibition.

### **Short-term loans**

#### *Outgoing*

The following loans were deinstalled and returned to the Museum during the period:

Compton Verney, Warwickshire, 'Capability Brown and the Landscapes of Middle England', 25 June - 2 October 2011

Inv 40612 - Surveyor's Y-Level, by Adams, London, Late 18th Century

Inv 64523 - Simple Theodolite, by Addison Smith, London, Later 18th Century, with mahogany box.

Purton Historical Society, Purton Museum, Purton, near Swindon, Maskelyne Bicentenary Exhibition, 1 June - 22 September 2011

Inv 38636 – Sextant, by Gilbert, Wright & Hooke, London, 1794-1801

Inv 44156 – Two-day Marine Chronometer, by Dobbie McInnes Ltd, Glasgow, c.1900, without wooden case

Inv 48062 – Plain Altazimuth Theodolite, by Thomas Jones, London, 1816-1850

The following loans were negotiated and installed during the period:

British Museum, Great Russell Street, London, ‘The Hajj: Journey to the Heart of Islam’, 26 January – 19 April 2012

Inv 50853 - Astrolabe with Universal Lamina, by `Ali ibn Ibrahim al-Harrar, Taza, Morocco, 1327/8

Bodleian Library Proscholium display, ‘*Titanic* Calling – Wireless Communications during the Great Disaster’, 14 April-13 May 2012

Inv 72842 - ship's bridge telephone, early 20th cent.

Inv 25812 - ship's wireless spark-gap 1905.

National Maritime Museum, Park Row, Greenwich, London, ‘Royal River: Power, Pageantry and the Thames’, 27 April – 9 September 2012

Inv 10700 - Compound Microscope by A. Ross. London. c. 1853

Inv 35086 - George III Microscope, by George Adams, London, c. 1763

The Science Museum, Exhibition Road, London, ‘Alan Turing’s Life and Legacy’ 20 June 2012 - 20 June 2013

Inv 18230 - Logic Machine, by W. Stanley Jevons, Manchester, 1869

Oversight of the transport of loans from the Ashmolean Museum was provided on two separate occasions.

### **Travelling loans**

#### *Outgoing*

‘Prints and the Pursuit of Knowledge in Early Modern Europe’

Inv 49296 - Paper Astrolabe, by Georg Hartmann, Nuremberg, 1542

Inv 54054 - Polyhedral Dial, by Nicolaus Kratzer?, English, 1518-30

Venue 1: 6 September - 11 December 2011, Harvard Art Museums; Arthur M. Sackler Museum, Cambridge, Massachusetts

Venue 2: 17 January - 8 April 2012, Mary and Leigh Block Museum of the Art, Northwestern University, Evanston, Illinois

### **Long-term loans**

#### *Outgoing*

*Continuation of the following long term loans:*

The Castle Heritage Centre and Gallery, Bude, Gurney Gallery display  
Inv 17012 - Goldsworthy Gurney's oxy-hydrogen blowpipe, by Newman, London,  
c.1830

Museum of Oxford, Oxfordshire Museums Service  
9 items relating to the history of the city of Oxford

National Maritime Museum, London  
Inventory No. 74296 – Observing stool, c.1800, Unsigned  
Inventory No. 49294 – Observing chair, c. 1780, Unsigned  
Inventory No. 16244 – Y bearings for a transit instrument, Unsigned

Museum of Science & Industry, Manchester  
Inventory No. 43695 - Qibla Indicator, 18th or 19th Century  
Inventory No. 40716 - Celestial Globe, Unsigned, Indo-Persian, Undated  
Inventory No. 42486 - Pillar Clock, Maker Unknown, Japan, 19th Century

Jenner Museum, Gloucester  
Inventory No. 17096 - Chair and cushion associated with Dr Edward Jenner, Early  
19th Century

Science Museum, London  
30 items from the Marconi Collection

Hunterian Museum, Royal College of Surgeons, London  
Inventory No. 93847 - Anatomical Preparation of Testis and Epididymis Injected with  
Mercury  
Inventory No. 88532 - Anatomical Dry Preparation of a Hand  
Inventory No. 79029 - Anatomical Preparation of Penis Dry Mounted and Injected  
Red and Brown

Sheldonian Theatre, University of Oxford  
Inventory No. 24719 - Model of the Sheldonian Theatre, Oxford

Examination Schools, University of Oxford  
Inventory No. 46135 - Portrait of Mrs Dorothy Graham, by Sir Peter Lely, c.1690

**Short-term loans**

*Incoming*

Full negotiations, transport arrangements, loan contracts, book cradles design and construction and installation were provided for the following internal exhibition, involving significant incoming loans from University of Glasgow Library, the National Maritime Museum and the Royal Astronomical Society: 'The Renaissance in Astronomy; books, globes and instruments of the 16th Century'; 11 May - 9 September 2012.

Additional assistance with due diligence checks, condition reporting and packing was provided for the Royal Astronomical Society.

Insurance cover and appropriate paperwork (receipts, loan agreements), and in one instance transport, were provided for the following 'art' or non-museum objects included in smaller-scale Entrance Gallery exhibitions or in the larger-scale exhibitions:

An individual terracotta figure from the 'Field' series by Antony Gormley, 1993, part of the 'Eccentricity: Unexpected Objects and Irregular Behaviour - Fourth Plinth project', 12 -16 October 2011

A model of the Diamond Light beam line and a 3D structure model of protein from Diamond Light Source Ltd. Harwell, and material relating to the analysis of crystals, including a robotic arm from the Structural Genomics Consortium, University of Oxford, included in the exhibition 'Structure Revealed: Protein X-Ray Crystallography in Oxford', 11 October 2011 - 22 January 2012

A MicroSPIDER and SPIDER apparatus for measurement of ultrashort pulses from Atomic and Laser Physics, Department of Physics, University of Oxford, for inclusion in the exhibition 'Time Machines', 15 November 2011 - 15 April 2012

Seven 18th-century drawing instruments and an accompanying printed volume lent by Mr Howard Dawes for the exhibition 'Perspective: an English view'; 22 January - 1 April 2012

## **Long-term Loans**

### *Incoming*

From Royal Astronomical Society, Burlington House, Piccadilly, London

For 5 years commencing 18 December 2011.

Celestial Table Globe, by Johannes Schöner, Germany, c.1534, with associated plumb line and compass, RAS No. 118

A number of established long-term loans-in, partly collections on long-term deposit, partly on-going formal loans, from private individuals, University Departments, Colleges and other institutions continued unchanged. Please refer to 2003 survey for details.

## **Conservation**

In-house conservation was provided for 32 objects. The Conservator also continued with two, longer-term conservation projects during this period. She assessed all objects within two rooms in the Osney store to find those affected by mould growth due to adverse conditions experienced there over the winter period. These poor conditions have been remedied and the Conservator has since treated 43 objects with mould growth.



This conservation total includes the work on objects for six loans out, condition reporting and packing for transit, and receipt back to the Museum. These loans went to: Harvard Art Museums (2 objects); Purton Museum, Wilts (3 objects); British Museum (1 object); Science Museum (1 object); National Maritime Museum (2 objects); Tate, Liverpool (1 object).

The Conservator undertook a small conservation project for Joshua Chalif (John Radcliffe Hospital) - cleaning 24 medium-format medical glass slides in preparation for scanning by the Museum's Photographer.

Following interviews and discussion with an internship candidate, Alice Haigh (MA student studying Preventive Conservation) came for the first of two, three-week stints, in mid-November, then returned in February for the final three weeks. She conducted research into the best possible storage for our Anaesthetics Collection, including problematic rubber and plastic components, with a small budget in mind. She has helped with general preventive conservation in the Museum, and carried out conservation work on some small objects. She produced a very thorough, well thought out and useful report on the storage conditions and requirements for our Anaesthetics Collection. This informed discussion in the Museum on possible storage cabinet requirements to re-house the Anaesthetics Collection.

The prints plan chests/cabinets were moved from the Archive room, in readiness for the work to begin on re-building the external walls to the Library and Archive room, and external drainage work. The Conservator set up independent environmental monitoring for this period of buildings work which stretched from September to early January. Environmental monitoring was maintained throughout the period and the book collection properly protected. Once all work was completed and the room cleaned, the plan chests were moved back into the Archive room.

Ruth Bubb (free-lance paintings conservator) was contacted to assess the work required to have a small oil painting conserved for a future exhibition on Chemistry. The report she drew up was used to complete an application for the Woodmansterne Art Conservation Award 2012, to have the required conservation work carried out on this painting 'The Chemical Laboratory', an early 17th-century oil-on-canvas workmounted on cardboard, in readiness for exhibition in 2014. The application was successful and the conservation work will be carried out by Ruth Bubb.

The Hevelius portrait was returned from loan (Gdansk) and temporarily displayed in the Top Gallery on an easel until it could be re-hung in the stair well. Work was required to ensure that a modified easel was robust enough to hold the weight of the framed and glazed oil painting, before it was re-hung by Dana Josephson (Bodleian Library) and Oxford Exhibitions Services.

The Conservator assessed the suitability of requested objects for use in Education sessions, including a herbarium book and spectacles made from different materials. The latter were then re-housed in clear polycarbonate boxes for the purpose.

### **Conservation Work for Exhibitions**

Objects were also conserved for the following exhibitions over this period.

Five exhibits in the middle gallery: ‘All in the mind? Experimental psychology in Oxford’, ‘Structure Revealed’, ‘Perspective: an English view’, ‘Traces’ and ‘The amazing things that people did for medicine and other stuff!’ (primary school exhibition).

Two exhibits in the special exhibition gallery: ‘Time Machines’ and ‘Renaissance in Astronomy’.

One exhibit in the Library/Archive cases: ‘Beginnings of 3D: Early Stereoscope Photographs’.

The Conservator made several visits to the Royal Astronomical Society at Burlington House, Piccadilly, to condition report and take images of 10 volumes to be included in the ‘Renaissance in Astronomy’ exhibition, and returned to pack and transport these volumes from the RAS to MHS, with the Collections Manager. The Conservator also visited the Royal Astronomical Society (with the Assistant Keeper) to condition check and pack a Schöner globe and bring it back to MHS for display in ‘Renaissance in Astronomy’, and thereafter for long-term loan.

A similar procedure was carried out by the Conservator and Assistant Keeper, to collect a small number of 18th- and 19th-century perspective drawing instruments from a private lender for the exhibition ‘Perspective: an English View’ in the Entrance Gallery.

The Conservator installed the Anthony Gormley terracotta figure, on very short term loan for the ‘Fourth Plinth’ (part of the Eccentricity exhibition), with the Technician, meeting the Artist’s requirements for security and stability. She also liaised with the technicians from Constantine, regarding the requirements to construct suitable crates for the transportation of the George III silver microscope and a Ross Microscope, for loan to the National Maritime Museum.

Two Marconi objects were installed at the Bodleian for a short display about the *Titanic*.

The usual preparations of the special exhibition gallery cases – cleaning the interiors, conditioning cases, and installing monitors and other environment equipment were carried out to meet lenders requirements.

## **Environmental**

The environmental conditions at the store have become stagnant since Engineering moved out of the main body of the building. This has resulted in increased relative humidity levels and mould growth started to occur on some collection objects. Two further de-humidifiers were purchased for our stores and, with four humidifiers installed, the environment has now been brought within acceptable parameters.

The Conservator attended a two-day conference at the British Museum, ‘Pest Odyssey 2011: Ten Years Later’. She produced pest-identification laminated sheets for both

the store and museum, so that other members of staff can use them to identify any possible pests they may find. The Museum de-humidifiers were serviced and one was repaired.

### **Other Activities**

The Collections Manager received refresher training in management of radioactive materials, and attended update and analysis meetings for the revised Accreditation Programme and its implications, as well as UK Registrars Group meeting on international loans and their management.

The Conservator undertook the usual cleaning of objects on open display in the museum (twice during this period). She drew up revised object handling guidelines for education volunteers and gave several talks on the handling of objects to volunteers interested in education sessions and collections work.

### **Library and Archives**

The Museum has been without a Librarian for much of the year and has not been able to provide a full service to readers. This is on account of the cut in HEFCE core funding reported last year. We expect to be able to restore the librarian post, part-time, late in 2012.

### **Archives**

Dr Stephen Farrell presented an interesting letter from A. E. Gunther containing personal reminiscences (AEG was the son of the founding curator RTG). Mr Paul Taylor, who lives in the house of the late John Millburn, gave some additional engineering drawings by Millburn found in the attic. Irwin Zaid, President of the Oxford University Scientific Club, gave 2 photographs and some related papers of its predecessor, the Oxford University Junior Scientific Club

A photographic acquisition of great significance, which has not yet been formally transferred to the Museum, was offered in January 2012 by Michael G. Jacob, a well-known collector of early photographs and an authority on daguerreotypes and the techniques used in colouring them. The parts of his collection that are to come to the Museum include the unique collection of coloured daguerreotypes and ambrotypes, selected over many years of collecting to illustrate the various colouring techniques and used as the basis of his published study of the subject. Mike Jacob has made it clear that his valuable gift not only recognises the importance of the Museum's collection of early photographs, but also expresses his gratitude for the service and help he has received from the Museum's staff on his various research visits

The Archivist organised the exhibition 'Beginnings of 3D: Early Stereoscopic Photographs', in the Basement Gallery from April to September 2012. It illustrated the Victorian passion for stereoscopic photographs by many examples from the museum's large collection, along with a selection of early viewers.

## **Archive Readers and Visitors**

The following scholars have visited the Museum or Museum Library to study manuscripts, archives, photographs, or other material dealt with by the Archivist:

Jennifer Howard (Anna Atkins cyanotypes)  
Janine Freeston (early colour photographs)  
F. P. Lock (Gibbon MSS)  
Serena Marnier (Druce MSS)  
Jenny Moody (material relating to Joseph Harris)  
Giles Hudson (Acland & other photographs)  
Alice Godwin (lantern slides)  
Timothy McEvoy (Allen & Hanbury MSS)  
Karl Harrison (various laboratory notebooks)  
Diana Hitchins (Radcliffe Observatory MSS, & material relating to John Bird)  
Kristen Frederick-Frost (Moseley MSS)  
Kathleen Davis (Dollond MSS)  
Tim Marshall (papers relating to clock collection)  
Budd La Rue (Crisp catalogue, Clay papers)  
Daisy Joo (Hartwell House commonplace books)  
Clifford Cunningham (Duke of Marlborough's astronomical MSS)

The following scholars, additional to the many routine enquirers, have been rendered significant assistance by e-mail or conventional correspondence:

Jason Bate (RMS archive, early scientific photography)  
Ray Attwood (architecture of OAB)  
Jeannette Springorum (Josten)  
Peter B. Paisley (microscope slides)  
John Davis (sundials)  
James Albinson (Oxford astrographic telescope)  
David Walker (microscope slides)  
David Williams (RMS archive)  
Julian Munby (Pointer collection)  
Simon Vilette (early handmill)  
Alice Stevenson (Science News Service)  
Stuart Talbot (Ahrens, Swift microscope makers)  
Ron Bristow (Elliott archive)  
Robert Trickett (Elliott early aircraft instruments)  
Ronald Smeltzer (Olley's early photomicrographs)

The library reading room was closed, due to building repairs, for four months, during which most research visits were impossible.

## **Information and Communication Technology**

### **Web Developments and Projects**

Search engine optimisation (SEO) has been carried out to improve online access to our collections: this ensures that object pages are indexed, appear high up in search results, and that the summaries displayed are suitably descriptive.

Further refinements of EMu online have improved the system performance; many of the object records link directly to the Photographic Services order page and pre-populate the form with object details. Several orders are being received each month.

The Eccentricity exhibition was further extended online with an Alice in Wonderland scrap book (with an animated page flipping interface) and several galleries of entries in a children's Drawing Competition.

A project has started to translate the Museum Guide and Plan into different languages with the first drafts for German and Traditional Chinese.

Podcasts have been added to the site (several available from iTunes): Hevelius 400th anniversary of his birth, Ultra Fast Optics; Ellen Willmott; Simon Forman; Alligator Wrestling; Owning and Disowning Wireless; Decimalising Time: Calendar and Clocks in the French Revolution; Selling Time: Science, Commerce and Dirty Tricks in the Distribution of Greenwich Mean Time.

A mini site has been developed and launched online for 'The Renaissance in Astronomy' special exhibition with the RAS to mark the 500th anniversary of the birth of Gerard Mercator.

A new WordPress multisite instance has been set up as a dedicated blog server. The first blog ([blogs.mhs.ox.ac.uk/traces](http://blogs.mhs.ox.ac.uk/traces)) is for 'Traces', featuring an exhibition curated by students on the M.Sc. in the History of Science, Medicine and Technology.

A multimedia section has been added to showcase particularly instructional materials conveyed through audio, video, and animations.

The collections section of the site now incorporates EMu GIS data in its search results and object record by displaying a map of object locations.

Following attendance of two staff at a one-day Culture24 workshop on Google Analytics, the first 'campaign' is being initiated for 'The Renaissance in Astronomy' exhibition.

The site's own search facility has been replaced by Google Custom Search after various problems were experienced with the Oxford GSA indexing. The new configuration provides access to over 130,000 pages compared with 5,000 previously.

## **Collections Management**

A showcase of the MHS online collections was presented at the first KE EMu World User Group meeting in October. This consisted of a demonstration of the collections area in the site, and queries of the live EMu database with results displayed within WordPress.

The EMu system has been upgraded to 4.0.03, which provides more support for internationalisation and includes longitude and latitude fields – to be used in the GIS pages.

Further additions and refinements have been made to the EMu database to support the exhibitions, including ‘Time Machines’ and ‘The Renaissance in Astronomy’.

### **Network and Systems Infrastructure**

Further tests were carried out on QR codes – as phone signals are unreliable, an initial feasibility study has been carried out into the provision of walled garden public Wi-Fi. This has been in consultation with IT officers from other museums. The need for this has grown as many of the current wand-type audio guides are not working.

The installation of new FroDo services has enabled the MHS network to be extended into the office in the Clarendon building, thereby removing dependence on the Bodleian network. This arrangement has thus made it easier to move and reconnect MHS machines.

## **Teaching, Research and the Discipline**

Dr Johnston and Dr Bennett offered two advanced options in the MSc/MPhil course in History of Science, Medicine and Technology; one option was originally scheduled but a second was added in response to student interest. They also acted as assessors for the examination. They contributed lectures to the ‘Nature and Art in the Renaissance’ undergraduate course in the History Faculty. They each supervised a History of Science MSc dissertation. Dr Bennett supervised a History of Art undergraduate object essay.

Dr Johnston supervised a History of Science graduate dissertation in Part II Chemistry Part II. He was an examiner for the History Faculty Special Subject ‘The Scientific Movement in the Seventeenth Century’, and contributed a lecture to the History Faculty Open Day in September. He contributed to the Courtauld Institute Masters course, 26 October.

Dr Bennett was external examiner for three PhD theses: at King’s College, London, the University of Cambridge, and Queen Mary, University of London

Dr Johnston was external examiner for a diploma dissertation in computer graphics of the Hochschule für Technik und Wirtschaft, Dresden.

Dr Bennett supervised two DPhil students, one of whom submitted successfully.

Dr Johnston joined the AHRC-sponsored research project on ‘Astrolabes in Medieval Jewish Culture’ (2011-2014) as Co-Investigator, in collaboration with the Warburg

Institute. MHS have agreed with the Warburg Institute to be a partner in this project, taking the place of the British Museum, who have had to withdraw since losing a member of staff who was Co-Investigator (the role now to be assumed by Dr Johnston).

The Museum continued to provide a venue for the meetings of the Society for the History of Medieval Technology and Science. The Scientific Instrument Society were given an after-hours guided tour of the 'Renaissance in Astronomy' exhibition in support of their Annual General Meeting.

The Museum continued to administer the popular 'rete' bulletin board for the instrument history community. The Museum again joined with the Bodleian Library in administering the Douglas Byrne Marconi Fellowship jointly with the Bodleian Library (who handle the finances). The second post-holder was Dr Efstathios Arapostathis of the University of Athens.

Dr Inga Elmqvist Söderlund, Director of the Observatory Museum in Stockholm, has been an academic visitor at the Museum, supported by a post-doctoral research fellowship from the Swedish Research Council. As well as conducting her research, she has been involved in various aspects of the life of the Museum.

Falk Schieber, a graduate student of the Hochschule für Technik und Wirtschaft, Dresden, has been visiting the Museum for the year, writing a dissertation and preparing a computer animation of the armillary sphere.

Dr Bennett was appointed to the Board of the Nobel Museum in Stockholm. He was elected to the Scientific Committee of the Universeum: European Academic Network Heritage. He continued to serve on the Advisory Committee of Wellcome Collection, the Astronomical Heritage Committee of the Royal Astronomical Society, the Council of the Hakluyt Society, the board of the History of Physics section of the European Physical Society, the advisory board of the journal *Nuncius* and the Board of Visitors for the Pitt Rivers Museum and the University Security Committee.

Dr Johnston served on the publication committee of the British Society for the History of Mathematics. He continues to serve on the editorial board of *Scientific Instruments and Collections*.

Dr Bennett chaired the 'Royal Society' session at the Cultures of Knowledge conference in Oxford on 7 September. He was co-organiser of a session on 'Making Science Public in 18th Century Europe – the Role of Cabinets of Experimental Philosophy', on 21 September, at the 30th Symposium of the Scientific Instrument Commission in Kassel. He also contributed a paper and is co-editing a volume of papers from the session.

Dr Bennett chaired the final panel discussion at an international meeting on 13 October at the British Museum, on the subject of the disputed status of a pendulum clock bearing the names of Jan van Call and Christian Huygens, organised by the British Museum and the Science Museum.

Dr Bennett was a co-organiser of a one-day specialist discussion meeting at the Royal Astronomical Society on the history of astronomical imaging, 13 January.

Dr Johnston was the local organiser for a meeting of the Science, Technology and Industry Subject Specialist Network, 'Science and Industry Collections at the Crossroads', Oxford, 27-28 March. The meeting was supported by Arts Council England.

Dr Johnston was session commentator and round-table discussant for 'Early Modern Merchants as Collectors', Ashmolean Museum, Oxford, 15-16 June

The Mayor of Leiden and the Director of the City Museum visited on 12 November. The Director and three senior staff of Tartu University Museums visited on 1 March; they wanted to learn about our programme of work and events and they met a number of staff members.

The Museum hosted a party for History of Science and Medicine staff, research workers and graduate students on 20 October.

*Dr Bennett gave the following lectures and seminars:*

9 August

'The Old Ashmolean in the 17th and 21st Centuries'  
University of Massachusetts Summer Seminar, Oxford

21 September

'The Lost Cabinet of Experimental Philosophy of the University of Oxford'  
Symposium of the Scientific Instrument Commission, Kassel

15 October

'"The Rev. Mr. Nevil Maskelyne, F.R.S. and Myself": the Mathematical Career of Maskelyne's Sometime Assistant, Robert Waddington'  
Maskelyne Symposium, National Maritime Museum

27 October

'Scientific Instruments'  
History of Science, Medicine and Technology seminar, History Faculty, Oxford

28 February

'The Astrolabe'  
British Horological Institute, Oxford

25 April

'A Sundial in Oxford and the Art of the Italian Renaissance'  
Wadham College Art Week, Oxford

14 June

'Learning Lessons: The Experience of Public Engagement'  
Keynote address, XIII Universeum Network Meeting, Trondheim



*Dr Johnston gave the following lectures and seminars:*

19 September

‘High-Concept Curatorship: History and Fiction in an Instrument Exhibition’  
Symposium of the Scientific Instrument Commission, Kassel

29 September

‘Thomas Digges: from the New Star to the Infinite Universe’  
Celestial Novelties, Museo Galileo, Florence

10 March

‘Confessions of a Mathematical Practitioner: Richard Norwood’s Spiritual Autobiography’, EMPHASIS seminar, London

12 April

‘The Transits of Venus in the 18th Century: from London Pubs to Pacific Observations’  
Worcester Astronomical Society,

*Dr Elmqvist Söderlund gave the following paper:*

11 May

‘Is this orrery a piece of sculpture?’  
Courtauld Institute of Art

#### *Staff Publications*

Jim Bennett, ‘Early Modern Mathematical Instruments’, *Isis*, 102 (2011), 697-705

Jim Bennett, ‘The Art of Polishing: practice and prose in eighteenth-century telescope making’, in Alison Morrison-Low *et al*, eds, *From Earth-Bound to Satellite: Telescopes, Skills and Networks* (Leiden: Brill, 2012), 103-121

Jim Bennett, ‘Cosmography and the meaning of sundials’, in Mario Biagioli and Jessica Riskin, eds, *Nature Engaged Science in Practice from the Renaissance to the Present* (New York: Palgrave Macmillan, 2012), 249-262,

Stephen Johnston, ‘Fortification and mathematics in early-modern England: notes towards a cultural history’, in Bettina Marten, Ulrich Reinisch and Michael Korey, eds, *Festungsbau: Geometrie – Technologie – Sublimierung* (Berlin: Lukas, 2012), 236-251

## **Museum Staff**

### **Museum Staff**

Staff in post at the end of 2011-12

Jim Bennett, Director  
Stephen Johnston, Assistant Keeper  
Deborah Woodhouse, 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)  
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)  
Nicholas Wicker, Janitor (0.4)  
Christopher Parkin, Education Officer (0.6)  
Michelle Holloway, Education Officer (0.4)  
Laura Ashby, Audience Development Officer (0.5)  
Jane Dilkes, Web Officer (0.5)  
Nicole Shih, Clerical Assistant (0.4)  
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)**

Margaret Barker  
Chris Dadds

### **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 Harvey Brown, Philosophy Faculty  
Professor Roger Davies, Physics Department  
Mr Howard Dawes, co-opted Visitor  
Professor Mark Harrison, Wellcome Unit

Dr Mike O'Hanlon, Pitt Rivers Museum  
Dr Luke Treadwell, Oriental Institute  
Professor Ian Walmsley, Pro-Vice-Chancellor, Research and ASUC  
One of the Proctors or the Assessor