

Museum of the History of Science

Annual Report, 1 August 2009 – 31 July 2010

Highlights

Steampunk

The 'Steampunk' exhibition, running through four winter months, was the most successful in terms of attendance and popular enthusiasm ever mounted by the Museum. Attracting over 70,000 visitors, 'the first museum exhibition of Steampunk art' showed work by an international group of 18 artists, selected by guest curator Art Donovan, augmented by relevant objects from the Museum's collection. The accompanying programme of events was almost too successful for the Museum's resources. At times the queue for the exhibition stretched up the stairs, through the entrance gallery, down the outside staircase and round to the Sheldonian Yard.

An Exhibition Transfers to Yale

The Museum's summer exhibition from 2008, 'Compass and Rule: Architecture as Mathematical Practice in England, 1500-1750', was successfully remounted at the Yale Center for British Art, New Haven, U.S.A. This was the first time one of our exhibitions has moved on to another venue and a further step in collections management experience for our staff.

Recognition for our Web Site

A list of the world's top ten museum websites, published by *The Sunday Times* on 7 February, included the Museum of the History of Science alongside the Louvre, Hermitage, V&A, Rijksmuseum, Smithsonian, National Archives (UK) and the Science Museum. MHS was the only university museum in the world on the list.

New Store Space

Our acute storage problems have been relieved by the allocation, at least on a temporary basis, of an additional large room in our off-site store. This we have equipped for storage and cataloguing.

Elliott Collection

The additional storage space has allowed us to bring to the store and to unpack the collection of Elliott Brothers instruments that has been in containerised storage since 2003, when it was transferred to the Museum from the Marconi Corporation. The material has all been catalogued and the 325 new database records, with photographs, are now available on-line. This is a significant addition to our 20th-century collections.

The Royal Society Anniversary

The Museum organised a year-long programme of special events to mark the 350th anniversary of the foundation of the Royal Society. One stimulus for this initiative was the fact that the Museum occupies the only surviving building that originated with the movement to reform natural knowledge on an experimental basis in the seventeenth century.

Infrastructure

Two aspects of the Museum's redevelopment of a decade ago were completed this year. The original access lift from the Sheldonian Yard to the Museum basement level was not a success and, after many frustrations and delays, has been replaced by a completely different model, which is working well. A second new three-bay showcase was fitted in the Beeson Room Gallery by Click/Netherfield in September; this represents the final step in the upgrading of all the Museum's showcases.

Christmas Opening

For the first time the Museum opened on two days between Christmas and New Year; visitor numbers were 1,027 on 29 December and 1,035 on 30th, which is at least twice what we would expect on a normal weekday.

Visitor Numbers

This was another record year for visitors. We reported a one-third increase in 2008-9 from 100,865 to 134,974. In 2009-10 the popularity of the 'Steampunk' exhibition took the total for the year to a remarkable 192,555.

Collections Management and Conservation

Collections Management Overview

The main achievements of the year included the satisfactory resolution (for the time being) of problems for off-site storage following the requirement to move out of both the Examination Schools and Comet Warehouse at the end of 2009. The outcomes were additional space for collections and all off-site collections finally being housed on a single site, with benefits for on-going access and management. There have also

been improvements in storage and display facilities at the Museum, which will be fully exploited in the year ahead.

The other main achievement was the management of a very busy incoming and outgoing loans programme, with some major outgoing overseas loans, including to the USA, having the attendant complexities of export licences and CITES controls. Alongside this there were improvements in the development and use of the EMu database system with foundations laid for more effective future input of data.

In addition to the above, routine work continued: dealing with object enquiries, arranging and managing research visits, moving objects, and assistance with Education sessions. During November the Collections Manager moved to a new desk in the Clarendon Building, with collections equipment and items awaiting accession processing being located, more appropriately, alongside secure collections storage in the Lower Study.

For the year ahead, with a quieter loans programme, key objectives are checking, updating and staff training in the Emergency Plan, completion of the revision of standard paperwork for certain types of loans, regularisation of historic outgoing loans, updating the Documentation Policy and Procedures to incorporate developments with the EMu database and further improvements at the off-site store.

Acquisitions

The number of acquisitions were relatively low, but increased from April due to the availability of additional storage space. This allowed, for example, a transfer from one of the University Science Departments to be properly considered.

Bequests

Collection of 19th- and 20th-century optical and philosophical instruments bequeathed to the Museum the late Dr Brian Gee.

Inventory No. 13178 - Tangent Galvanometer, by F.E. Becker, London, c.1920

Inventory No. 13180 - Shelf for Pneumatic Trough, by Townson and Mercer, London, c.1900

Inventory No. 13177 - Demonstration Condenser, by F.E. Becker & Co, London, c.1920

Inventory No. 13179 - Moving Coil Mirror Galvanometer, by F.E. Becker, London, c.1920

Purchase

A collodion positive in a case signed by Edward Bracher. Bracher was one of the earliest professional photographers in Oxford with premises at 26 High Street from 1852 to 1863.

Recovery following theft

A watch from the Barnet Collection, stolen in 1994, was returned to the Museum following legal negotiations in the Netherlands.

Inventory No. 11845 – Verge watch with enamel landscape decoration by Monnier & Mussard, Geneva, c.1760, Museum of the History of Science Watch Catalogue No. 42.

De-accessions

The Stonesfield turret clock was transferred to the Oxfordshire Museums Service, following the loan of the clock to the Museums Service since the 1970s.

A paper and wood replica nocturnal, a gift from Alan Chapman in 1992 was moved, with his agreement, to the handling collection to enable its use in Education sessions.

Documentation

Standards for the use of specific elements of the database (basic catalogue entries, presentation of accession information, loans records, internal exhibitions) were defined during the year. The ‘Narratives’ section was developed as a place for current and past commentary on specific objects and work began to tidy up accession information, involving checking this against hard copy records. Many database records received systematic general improvement and further images were added. Consistent with building and improving object documentation, online collection access and availability of high resolution images suitable for publication, an (unsuccessful) application was made to the Designation Development Fund for £100,000 for object photography and mounting of images.

Elliot Brothers object collection

Additional space at the off-site store enabled the selection and processing of the Elliott Collection of instruments, initially received and stored in 2003, but not sorted or formally accessioned. Two additional staff were employed and the selection of items to be received into the collection was made with the assistance of the Archivist, following his recent work on the accompanying archive. The objects received into the collection were cleaned, photographed and basic-level database entries created.

Objects moved from the Comet Warehouse and the Examination Schools to the Off-Site Store

All objects were photographed and database entries reviewed and updated.

Work continued to improve information on hazards in the collection. Further low-level radioactive items were identified amongst the Moseley material in connection with the research visit by Dr Todd. Items suspected of containing asbestos were sampled and the presence of asbestos confirmed in all but one instance.

Off-site Storage

The appearance of the report on joint University Museum storage was welcomed. Various options were presented. The Museum supported the need for off-site storage easily accessible from the Museum for all but a small range of items. This is due to

the need for regular access to the stored collections for research visits (frequently involving objects with handling and transport restrictions), for management and care of the collections, selection of material for exhibitions and loans, and on-going documentation.

The crisis over storage space for the Museum, both short-term and longer term, was brought to a head with the need to vacate space at the Examination Schools and Comet Warehouse in late 2009. Urgent negotiation finally resulted in the securing of an additional 141 square metres at the off-site store and a handover took place on 5 April.

The space was improved to a basic level, receiving a general clean, alterations to locks, extension of the existing alarm system, a telephone and computer link, blocking up of windows, removal of a sink area and sealing of drains and water supply, and installation of heavy-duty shelving, polythene sheeting, a photography table and a small work area. External specialist movers were employed to move items out of Comet Warehouse and the Examination Schools due to the health and safety, and collections-care issues.

The additional space enables all off-site stored collections to be housed on the same site for the first time and to a general basic standard of care. With the significant increase in space there is also the opportunity to resume a reasonable level of collecting, to sort and better redistribute objects, and to improve object protection and access for researchers. The new space also offers a significant improvement in health and safety for personnel, with a level floor enabling proper use of trolleys and trucks and adequate circulation space. A small storage area for materials will enable cost-effective bulk-buying of conservation and display materials, not previously possible.

On-site Storage

Purpose-made archival cabinets for print and flat material collections were purchased during the year, enabling documentation and appropriate housing of this material.

A central storage system for the Lower Study was purchased to enable more effective storage of work papers and a central area for inspecting objects stored in adjacent drawers.

Object Display and Movement

A second set of display cases in the Beeson Room, meeting modern specifications for display, materials and security, were installed. The cases allow more varied displays and also the option of localised relative humidity control if required. Fibre optic lighting can be installed in the future if desired and if funding allows.

Objects were moved for the following exhibitions and displays, some involving specialist treatment, due to the presence of hazards, such as mercury: Beeson Room, Steampunk, Magnificent Magnets, New Acquisitions, Spectacles, Mad Tea Party.

Emergency Planning and Response

The current plan for the Museum was further revised during the year in line with University and MLA emergency planning requirements.

A visit was made during the year by officers from the local Fire Station to up-date their records for the Museum. Information on the nature of the building, the collections, numbers of visitors, access and the location of essential services including the water supply were added.

The MLA South East Emergency Response Unit regrettably disbanded in advance of Government cuts during the year. The possibility of the University museums taking on the equipment is being explored, as well as formalising the support of University Museums and Oxfordshire Museums Service in the event of an emergency.

Use of the Collections

The trend towards enquiries by email increased significantly, particularly via the museum@mhs.ox.ac.uk address. Numbers of enquirers using the telephone or coming in person were down on the year before. The relevant figures were: email, 102; telephone, 10; in person, 3.

Researchers

The year saw a steady number of researchers, similar in numbers and range to the previous year. Underlining the need for off-site storage to be within reasonable distance of the main Museum, eight out of the total of ten visits involved items at the off-site store, four of these in combination with archive material and items viewed at the main Museum.

The following object research visits occurred during the year.

Florence Grant, postgraduate research student at King's College London:
Inventory no. 60664 - Hauksbee-type air pump, c. 1740
Inventory no. 77723 - Double-barrelled air pump by Nairne, 1780
Inventory no. 49623 - Compound Microscope, by George Adams, London, c. 1750.

Camilla Murgia, Research Fellow, St John's College:
Inventory No. 37651 - Pointer Collection (*Musaeum Pointerianum*).

Shakya Campbell, Ruskin Masters Student:
General visit to the off-site storage in connection with an assignment.

Katherine Slee, University of Oxford History of Art student:
Inventory No. 39338 - Moon Pastel, by John Russell, English, 1795.

Poppy Cooper, research student:
Heliostats in the collection.

Dr Minh Chung, Head of Bodleian Chinese Studies Library & Korean Collections,
Institute For Chinese Studies:
All Korean items in the collection.

Hamish Ilton, private collector and student at West Dean College:
Turret clocks by Edward Hemins.

Kate Pocklington, Conservator, Natural History Museum:
Inventory No. 37651 - Pointer Collection (*Musaeum Pointerianum*), in preparation for
a report on its preservation.

Dr Neil Todd, University of Manchester:
Material associated with H.G.J. Moseley for a forthcoming exhibition proposal.

Matthew Edwards, Museum Assistant, Derby Museums & Art Gallery:
Inventory No. 20456 - Bent-Tube or Angle Barometer, by Whitehurst, Derby, c. 1750,
prior to conservation of a similar example recently acquired by Derby Museums.

A number of research visits were dealt with directly by Drs Jim Bennett or Stephen
Johnston. (e.g. a comparison of Inventory No. 49687 - Spherical Astrolabe, by Musa,
Eastern Islamic, 1480/81, with pieces owned by a private collector).

Education Sessions

Objects and partial or full invigilation were provided for the following sessions:
Camera Obscura (Chris Parkin - Secondary)
Stereoscopes (Michelle Holloway – Primary)
Sundials (Chris Parkin – Secondary)

Loans

The beginning of the year was a very busy one for short term loans, with the return of
major and important loans installed in Florence during the previous year for the
exhibition 'Galileo: Images of the Universe from Antiquity to the Telescope', other
loans to Madrid and Dresden, and the transfer of our own exhibition 'Compass and
Rule', including significant items from the Museum's collection, to the Yale Center
for British Art. These loans were in addition to the installation or return of several UK
short-term loans, for example to the newly opened Jewish Museum in London. Two
long-term loans were set up during the period, one at the Ashmolean Museum and
another at Chelmsford Museum. Otherwise the number of long-term, renewable loans
in and out remained steady and unchanged.

Work continues to regularise existing long-term loans, with an initial focus on
outgoing loans. As part of this, work began on creating a dedicated agreement for
these long-term loans. Work also began on a standard agreement for incoming loans,
both short and long term. This work is done in close liaison with University Legal
Services. As with the development of the standard Outgoing Loan Agreement,

examples of loan documentation from other University museums and national institutions provides the starting point. There is a general move towards consistency in standards and approach with other University museums. The development of a 'memorandum of understanding' to cover arrangements for inter-departmental University loans was also completed during the year and used by the Museum for the first time for objects lent to the Bodleian Library Aubrey exhibition.

Charging policy was looked at in the light of an increasing number of outgoing loans and also a directive from the Visitors for charges to reflect the real costs incurred, as well as applying discretion where appropriate. A review of approaches by other University Museums and the Bodleian Library was repeated. It was decided to retain a standing charge per object of £30 to cover some administration, packing, photography and condition reporting, and the £30 per object/hr for mounts, but to now also charge for courier time during travel and installation at £150 a day. This was in line with other University departments and the Bodleian Library. Discretion will be applied in the case of small museums with limited budgets. With regard to travelling loans, where the same objects are requested by a number of venues, it was decided to charge subsequent venues courier costs only. Where there are minor changes to the items borrowed, however, the standing charge and any conservation costs will be charged.

Short-term Loans Out

The National Library of Wales, Aberystwyth; 'Edward Lhuyd'; 29 June – 21 August 2009

Inventory No. 51916 - nine groups of specimens including fossils, seeds, Roman tesserae and their associated papers from the Dyer Collection owned by Oriel College. The exhibition marked the tri-centenary of the death of Edward Lhuyd, antiquarian, linguist and former Keeper of the Ashmolean Museum.

Fondazione Palazzo Strozzi, Palazzo Strozzi, Florence; 'Galileo; Images of the Universe from Antiquity to the Telescope', 12 March – 30 August 2009

The loans to this major international exhibition included some of the Museum's most significant treasures as well as important long-term loans from Christ Church and All Souls Colleges. The items listed in the Annual Report for 2008-9 returned to the Museum in September. Two MHS couriers oversaw the return.

Birmingham Museum & Art Gallery; 'Matthew Boulton - selling what all the world desires', 30 May to 27 September 2009

The print mentioned in the Annual Report for 2008-9 was returned in September.

Landesmuseum für Natur und Mensch, Oldenburg, Germany; "Ex oriente lux? Ways to modern natural sciences", 25 October 2009 – 24 January 2010

Inventory No. 31528 - Islamic Lunar Calendar on Parchment, Unsigned, Turkey, 1795-6AD

Inventory No. 43645 - Qibla Indicator and Horizontal Pin-Gnomon Dial, Unsigned, Persian?, 19th Century

Inventory No. 53556 - Astrolabe, Unsigned, North African, 14th century?, without case

Bodleian Libraries; ‘‘My wit was always working’’: John Aubrey and the Development of Experimental Science’, 28 May – 31 October 2010
Inventory No. 18184 - Plane Table and Alidade by John Worgan, London, c. 1696
Inventory No. 31785 - Quadrant, by J. Rowley, English, c. 1700
Inventory No. 40847 - Circular Slide Rule and Horizontal Instrument, by Elias Allen, London, c. 1634
Inventory No. 75945 - Camera Obscura, English, c. 1710

Jewish Museum, London; ‘Illumination: Jewish Treasures from the Vatican and Major British Collections’; 24 June - 10 October 2010
Inventory No. 12765 - Armillary Sphere, Italian, c. 1500

Travelling Loans Out

V&A Museum of Childhood; ‘Space Age; Exploration, design and popular culture’
The items listed in the Annual Report for 2008-9 continued to four further venues in England during 2009-10. The exhibition continues until October 2010.

War and Medicine’, Deutsches Hygiene-Museum, Dresden
4 April – 9 August 2009
Second venue following previous exhibition at the Wellcome Collection, London; the items loaned to the second venue were:
Inventory No. 30316 - Pistol for Penicillin Extraction
Inventory No. 24973 - Penicillin Culture Vessel (Biscuit Tin)
Inventory No. 16920 - Penicillin Specimen
Inventory No. 14439 - Penicillin Specimen (Recovered)
Inventory No. 26401 - Penicillin Specimen (Pyrogen Free)

CaixaForum, Madrid; ‘Palladio 500’, 6 October 2009 – 17 January 2010
Third venue following previous exhibitions at the Centre for the Study of Palladio, Vicenza, and the Royal Academy, London.
A new object was lent to the Madrid venue, replacing the loan of the sensitive drawing set to the previous two venues. This was Inventory No. 34151 - Simple Theodolite and Surveyor's Cross, by Lud. Sem., Italian, 1612, which complemented a text illustrating 17th-century surveying practices.

Yale Center for British Art, Newhaven, USA; ‘Compass & Rule; Architecture as Mathematical Practice’, 18 February – 30 May 2010
In addition to handling the Museum’s own loans, full assistance was given with the transport and installation/deinstallation of loans travelling without a courier from other institutions and from a private lender.
Inventory No. 11173 - Satirical Print "A Scene of a Pantamime Entertainment lately Exhibited", London, 1768
Inventory No. 23312 - Architect's Protractor, Attributed to George Adams, London, 1765
Inventory No. 25362 - Architectonic Sector (Carwitham Pattern), by Thomas Heath, London, c. 1720-30
Inventory No. 35086 - George III Microscope, by George Adams, London, c. 1763

Inventory No. 42223 - Astrolabe, by Thomas Gemini for Queen Elizabeth I, London, 1559
Inventory No. 48252 - Set of Drawing Instruments, by Thomas Heath, London, c. 1740
Inventory No. 49631 - Surveyor's Folding Rule, by Humfrey Cole, London, 1575
Inventory No. 55130 - Altazimuth Theodolite, by Humfrey Cole, London, 1586
Inventory No. 55213 - Architectonic Sector (Revesi Bruti Pattern), attributed to Thomas Heath, London, c. 1740
Inventory No. 86404 - Builder's Level, English, 19th Century

Long-term Loans Out

Newly Installed

Ashmolean Museum Permanent Galleries; 'West meets East' Display

Opened November 2009.

Inventory No. 38892 - Magnetic Compass, by Spencer & Co., London, Early 19th Century

Inventory No. 44152 - Pocket Terrestrial and Celestial Globe, Unsigned, English, c.1775

Inventory No. 49033 - Hispano-Moorish Astrolabe, Unsigned, Spain?, circa 1260

Chelmsford Museum, Oaklands Park, Chelmsford; 'Bright Sparks'

Opened January 2009; for an initial trial year, since exhibition area a 'new build'.

Inventory No. 34130 - Marconiphone Dealer's Sign

Inventory No. 88561 - Marconi Emblem Plaque

Inventory No. 46043 - Marconi Bronze Bust, by Claire Sheridan

Inventory No. 21726 - Replica Righi Oscillator

Inventory No. 27753 - Replica Grasshopper Send-Receive Morse Key, 1970s

Inventory No. 44566 - Replica Morse Key

Further two more sensitive items: Inventory No. 71246 - Morse Tape Inker and

Inventory No. 17841 - Induction Coil, to be lent if conditions satisfactory.

Continued

Long-term loans were continued to the Castle Heritage Centre and Gallery, Bude; Museum of Oxford, Oxfordshire Museums Service; National Maritime Museum, London; Museum of Science & Industry, Manchester; Jenner Museum, Gloucester; Science Museum, London; Hunterian Museum, Royal College of Surgeons, London; Sheldonian Theatre, University of Oxford; Examination Schools, University of Oxford.

Short-term Loans In

*'Compass & Rule: Architecture as Mathematical Practice in Early Modern England',
16 June – 6 September 2009*

A major exhibition at the Museum involving the management of 68 items on loan from the following major UK lenders: All Souls College, Bodleian Library, British Museum, British Library, Emmanuel College (Cambridge), Gainsborough's House Society, Jesus College (Cambridge), London Metropolitan Archive, Museum of Anthropology and Archaeology (University of Cambridge), National Archives, National Museums of Scotland, Royal Institute of British Architects, Royal Collection, Science Museum, Kings College London, Soane Museum, St Paul's Cathedral, Wellcome Trust, Whipple Museum of the History of Science, Winchester College, Worcester College and one private collection. All the items were returned to the lenders except for a rule from the National Museums of Scotland, which was retained (at their request) until its inclusion in the second venue for this exhibition at the Yale Center for British Art and after its return to the UK. It has now been returned to Edinburgh.

Loan for purposes of research of one arm of an English folding carpenter's rule, c. 1660s-1690s recovered from a shipwreck in the English Channel in 2006 by Odyessy Marine.

Long-term Loans In

The number of long-term loans in, partly collections on long-term deposit, partly formal on-going formal loans, from private individuals, University departments and Colleges, and other institutions, continued unchanged.

Temporary Return to Owners

A number of items were returned to the Royal Microscopical Society for a display at the exhibition 'Microscience 2010':

Inventory No. 74317 - Binocular Compound Microscope, by Ross, London, 1888

Inventory No. 37439 - Compound Microscope, by Carl Zeiss, Jena, 1904

Inventory No. 68970 - Compound Microscope, by Zeiss, Jena, 1920)

Inventory No. 35007 - Microscope by Dollond, London

Inventory No. 34696 - Reflecting Microscope, by G.B. Amici, Italy, c. 1820

Inventory No. 44490 - Leeuwenhoek Replica Microscope, by Bausch & Lomb, Rochester, USA, 1933

Inventory No. 13838 - Abbe-Type Apertometer, by C. Zeiss, Jena, c.187

All items were condition checked and packed, and advice was given on suitable display and security at the event.

Permanent Return to Owner

A multiple sandglass and its glazed case, originally lent to the Museum by Dr C.F.C. Beeson c.1967, was returned to his widow, at her request.

Work Placements

Following the success of receiving work placements last year, a further three Year 10 students were accepted from local secondary schools: Cherwell School, the Henry Box School, and King Alfred's School, Wantage. The students shadowed the Collections Manager, received short introductory sessions from other staff and carried out a range of tasks useful to the Museum. These included checking existing education trails, helping to install new shelving, moving and relocating objects and assisting with education sessions.

Conservation

Conservation of 41 objects was completed. These included one long-term project: work to conserve and consolidate a large relief map of Switzerland (inv. 10424), transferred from the School of Geography in 2007. A further three long-term projects are in progress. Conservation work was required for three temporary exhibitions at the Museum and for loans to exhibitions at Cheltenham, the Bodleian Library, the Landesmuseum für Natur und Mensch in Oldenburg, the Yale Center for British Art in New Haven, the Jewish Museum in London and the Ashmolean Museum. The 'bookcase' cases in the basement gallery were cleaned four times, as were objects on open display. Condition audits resulted in 46 being entered into the database; 41 conservation reports with 413 images were also entered. A condition audit was carried out at the store. Individual storage conditions for seven objects were upgraded. For example, the Chinese silk map, inv. 51442, had been damaged through being folded up in storage; after conservation it was properly rolled in acid-free storage materials and stored in a more appropriate box to prevent any further deterioration.

The Conservator attended a course on using hand-held XRF analysis equipment; this course, with a tutor and eight participants, was accommodated at the Museum. Calibration was arranged for seven Hanwell radio telemetry monitors and the system is now running well, controlled from a dedicated hard drive. The Conservator made courier trips to Florence (de-installation of the Galileo exhibition), to New Haven (both installation and de-installation of the 'Compass and Rule' exhibition at Yale), and several trips to the Ashmolean Museum. She also dealt with a number of regional enquiries, consistent with the Museum's role in the South East Regional Hub. Conservation formed a component in a school visit arranged by the Education Service, for 24 children and four adults.

The value of having a Conservator on the staff, available to deal with the diverse matters that arise day by day – some small but requiring training and skill – can be illustrated by the following selection of sundry tasks:

- assessing numerous objects requested for at least four Education sessions for school visits (anaesthetics, floorboard finds, stereoscopes and prisms);
- re-condition checking objects returned from loan out;
- checking condition of returned watches;
- running repairs to Steampunk work of art;
- gallery security during filming;

advice about light levels in the stairwell in regard to the moon pastel and the possibility of higher light levels for visitors;
checking condition of objects requested for researcher visits;
planning a small exhibition on conservation;
asbestos sampling of a number of objects (ensuring the sample taken is not too destructive, etc.);
assessing the condition of a number of RMS loaned microscopes requested for a short display, condition reporting and packing for transportation.

Cataloguing Project for Early Photographs

With the help of Tany Alexander of the Development Office, the Museum has been awarded a grant of £13,000 by the Eric Anker-Peterson Charity, towards the preparation of an on-line catalogue of the collection of early photographs.

The Archivist, in his capacity as curator of the early photographs, has been engaged on this project from September, cataloguing on the Museum's computerised catalogue (Emu). Approximately 2000 photographs have been catalogued, 50 photograph albums, and a number of groups or ensembles (ie where multiple photos are catalogued in one entry). Many of these new catalogue entries are very detailed, and are often supplemented by descriptive, discursive, or historical texts (termed 'narratives' in the database), mostly specially written and, in the case of some of the complex groups such as albums, accompanied by contents lists or indexes. The photographs span the period from 1839 (the year of the invention) to the 1920s, and represent all the main processes and some experimental and unusual processes. Included in the project is the famous archive of Sir John Herschel's photographic experiments, 1839-44, which were an intrinsic part of the invention of photography itself, all 697 separate papers now being individually identified and the core two to three hundred experimental images described in detail, with some key technical and historical aspects of Herschel's work described in accompanying 'narratives'.

Other highlights that it has been possible to bring more fully to public attention include (among much that could be mentioned) a group of calotypes (mostly paper negatives) of about 1850 by a hitherto unknown early photographer, whom we call John Thomson RN (to distinguish him from at least two other early Scottish photographers of the same name); a substantial number of previously uncatalogued photomicrographs; a large collection of early stereoscopic photographs; and individual items associated with such important photographic or scientific names as Michael Faraday, R. L. Maddox and H. P. Robinson.

Famous names and artistic photographs are not however the purpose of the Museum's photographic collection, which has been formed partly to represent the early photographic processes themselves, and partly to document the history of science and scientific instruments. As well as portraits of scientists, there are early photographs of instruments, observatories, and laboratories, and photographs employing photography as a scientific research technique. Herschel's were essentially chemical experiments, while photomicrographs revolutionised microscopical observation, in addition to which there are astronomical photographs and a small number of spectra and X-ray photographs. Photographs occurring within archival collections have been included,

and some additional work on these continued as part of the ordinary duties of Archivist, including special attention to photograph albums and photographs within scrapbooks and similar compilations, and some of the large number of photographs within the Elliott Archive

Library and Archives

Use of the Library

The number of readers using the library this year is 300 – a slight decrease from last year's 359. The numbers of University members, students and external visitors have remained almost constant. The library has received around 150 enquiries via email, telephone, the Museum's web form and in person, compared to about 200 last year. Library users borrowed 93 items from the library collection.

Exhibitions and Events

There have been three new Basement Gallery library and archive exhibitions this year. The first was a continuation of the 'Treasures from the Museum Library' which showcased various items from the collection (arranged by Tony Simcock). The other two exhibitions were arranged as part of the Museum's celebration of the 350th anniversary of the Royal Society: 'Hooke and the Royal Society' (arranged by Gemma Wright) and 'PRS: Two Oxford Presidents of the Royal Society, Hinshelwood and Florey' (arranged by Tony Simcock), which used the full range of the Museum's collections (objects, pictures, books, archives) to illustrate their lives and careers, showing the richness and variety of such resources. It included several important items not previously displayed: Hinshelwood's painting of South Parks Road (transferred to the Museum from the Dyson Perrins Laboratory in 1998) and items of apparatus associated with Florey's important but less well-known (because overshadowed by penicillin) medical research (bequeathed to the Museum by Lady Florey in 1994).

Library material continues to be used for various purposes around the Museum, including education events, exhibitions and for images used in publicity materials. The librarian has also presented some education sessions.

The Museum library was represented at the History Graduate Information Fair, at the History of Science stall. As well as outreach for readers, this also presented an opportunity for the History of Science librarians in Oxford to network and form closer links between the RSL, the Museum, the History Faculty Library and the Wellcome Unit library.

The Collection

The library collection has grown by about 150 items, including journal issues. Several items have been purchased; most have been donated, or received as part of the licence agreement for use of Museum images.

A copy of the rare booklet by Frank Sherwood Taylor, *British Inventions*, was presented as a gift by Anthony Turner, whom we had asked to look out for a copy.

On the archival side, a small group of early 20th-century medical prescriptions and orders, including interesting printed letterheads of pharmaceutical suppliers, was presented by Maidenhead Heritage Centre, from their Dr Shepard Archive.

The librarian has begun an ongoing stock checking project as part of stock tidying and dusting. So far 469 items have been checked and are all on the shelf.

The correction of the facsimile edition of Apian's *Astronomicum Caesarium* has been completed with the aid of Keith Powell. The facsimile is now a correct recreation of the original and can be used in study and teaching. A small exhibition of the work is planned.

Archives

The Society for the History of Alchemy and Chemistry archive – partly deposited on loan by the society and partly derived from within the Museum's own institutional archive – has been catalogued and indexed in some detail, and much interesting information has emerged about the history of the society (founded in 1935) and of the developing subject of history of science generally. Seven extra days' work on this task were funded by a grant from the society (received by the Museum in a previous year).

Work on listing the large Elliott Archive has progressed and continues. The Archivist's resulting familiarity with details of the history of the company has been invaluable to the work of arranging the Elliott Collection of objects on new shelving (after its removal from the Comet Warehouse, see 'Collections Management') and identifying and cataloguing the instruments. The Archivist has been involved in this process, drawing up extensive new lists of the Elliott Collection which have been used as the basis for appraisal and cataloguing, assisting colleagues with this cataloguing, and listing and identifying the previously unlisted objects which came with the collection.

Archive Readers

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

Dana Freiburger (astronomy)

Peter Soar & colleague (microscopical papers and drawings of C. D. Soar)

Giles Hudson (Miss Acland's diary; photographs, etc)
 Colin Harrison (Ruskin daguerreotype)
 Bill Sheehan & colleague (Russell's moon drawings and related material)
 Roger Hutchins (astronomical photographs and drawings)
 Jaroslaw Wlodarczyk (Perigal papers (Gabb))
 Peter Harper (Gowing papers)
 Russell Lord (daguerreotypes)
 John Davis (Ludlam MSS; Prujean material)
 Matthew L. Jones (Charles II's warrant to Sir Samuel Morland)
 Joan Kenworthy (meteorology)
 Margaret Hauser (Frith booklet)
 Karelina Karela (Babbage papers; Dollond papers; R.B.Bate MS)
 Mark Sutton (Stapleton papers)
 Sir John Rowlinson (Gabb MSS)
 Susan Martin (Gowing papers re National Portrait Gallery)
 Ann Spokes Symonds (Herschel photographs; Acland photographs)
 Amy Todman (Russell's moon drawings and related material)
 Katherine Slee (Russell's moon drawings and related material)
 Christopher Taylor (Russell's moon drawings)
 Christopher Stray & colleague (Old Ashmolean Building history; Babbage MS;
 Inwards MS; Long's metabological machine)
 Michael Barritt (instrument makers' catalogues)
 Tom Fairbrother (E.N.Rolfe's Italian sketchbook)
 Clare Morgan (Henry Baker MS)
 Peter Morris (Sherwood Taylor papers)
 Budd La Rue (J.J.Lister papers; Sir Frank Crisp's microscope catalogue)
 Neil Todd (Moseley papers; A.S.Russell papers)
 Norma McGilp (Henry Baker MS)

In addition, the following scholars have been given significant assistance by email or conventional correspondence but without visiting the Museum. The proportion of time spent in assistance of this sort is increasing.

Karen Hellman (Claudet daguerreotype)
 John Davis (Prujean & other instruments)
 Brian Gee (Elliott; Francis Watkins)
 Ron Bristow (Elliott)
 S. J. Edwards (early Egerton photographic catalogue)
 Eddie Mizzi (Elliott sundial)
 Ian Redpath (Herschel's telescope & early photographs of it)
 Ian Chopra (penicillin)
 Peter Morris (Science Museum history; Sherwood Taylor; Stephanos of Alexandria)
 Meegan Kennedy (microscopic writing)
 Martin Gillies (Arnott medical drawings)
 Giles Hudson (Oxford observatories; Oxford photography, etc)
 John Stuart Reid (Margaret Watts-Hughes pamphlet)
 Ron Maddison & others (Grubb telescope)
 Katie Taylor (Evans & other mathematical & dialling MSS)
 Paul Zoller (early Elliott steam indicator)
 Lesley Chamberlain (Old Ashmolean Building history)

Larry Stewart (18th C. scientific auction sale catalogues)
David Thompson (W.E.Miller)
Camilla Murgia (Pointer collection & catalogue)
Ray Williams (Van Voorst, 19th C. scientific publisher)
Michael Hoskin (Caroline Herschel silhouette)
Stuart Talbot (E.Culpeper)
Vittoria Feola (Josten papers; material re Ashmole)
Laetitia Roch (Stapleton papers)
Hilary Leclanche (Rossi MS (Radcliffe))
Alexi Baker (scientific prints)
Alexandra Cooper (Galton papers)
Roy Macleod (Gowing papers)
Bill Sheehan (Herschel & ultra-violet)
Gruffudd Roberts (Lewis Evans)
Lester Smith (lantern slides)
J. R. Moore (Galton papers)
Karen Lonsdale & colleagues (various RMS related enquiries)
Todd Ferry (Old Ashmolean Building history & plans)
Tony Wood (scratch dials)
Barry Pemberton (Gowing papers)
Rhiannon Evans (manuscripts & drawings as experimental records)

In addition the Archivist has been involved with aspects of documentation, in collaboration with the Collections Manager in this respect. Such collaborations have involved listing the Royal Astronomical Society loan items; writing a detailed report for internal use on the Hortsmann Clifford Magnetics collection; cataloguing Sir J. S. Burdon Sanderson's wallet; rearranging computer files for the better storing and classifying of digitised images from library, archive, prints, and photographic material; writing a detailed report for internal and RMS use on the various complex collections of the Royal Microscopical Society held by the Museum; supplying information on Haldane for a project and display by the education officer (Michelle); and supplying information on the history of the Old Ashmolean Building to colleagues and Museum guides. These examples illustrate the value of the archival collections and of expertise and knowledge of them for the general collections work of the Museum.

The Archivist was also involved in the transfer of material from the Examination Schools store to the new off-site storage space, not only archives and photographs but also assisting in the identification of miscellaneous objects, and in collaboration with Nicole Shih cataloguing the framed pictures (of various types) on the computerised catalogue

Public Programme, Exhibitions, Outreach and Education

Exhibitions

The exhibition 'Compass & Rule: architecture as mathematical practice in England, 1500-1750' (mentioned in the previous annual report), closed on 6 September.

The exhibition 'Steampunk', billed as 'The first museum exhibition of Steampunk art' opened on 13 October. Work was loaned by an international group of 18 well-known Steampunk artists, chosen by guest curator and Steampunk lighting designer from New York, Art Donovan. As with 'Compass & Rule' the Beeson Room was taken into the 'Steampunk' exhibition, allowing us to add material from our own collection that illustrated the Victorian and Edwardian inspiration for the Steampunk movement. From the very start it was clear that this would be an outstandingly popular and well-attended exhibition. Original aspects of the Steampunk show included a specially-commissioned comic by the acclaimed designer Sydney Padua, who has a special interest in Victorian science, and a commissioned short documentary film by Suzy Prior. In its first week the film was viewed 7,500 times on YouTube, a figure that had reached 100,000 by the end of the reporting year and continues to rise. Professor Brian Catling of the Ruskin School wrote an essay on the Steampunk movement, which, along with the comic and statements by all the contributing artists, formed a new issue (no. 9) of the Museum's publication Broadsheet. The programme of events was an outstanding success, not least because followers of the Steampunk trend took the exhibition to their hearts and welcomed opportunities to attend and take part. The events are listed elsewhere in the report but notably successful were the 'Makers's Day' (2,113 visitors), the 'Steampunk Live Mannequins' (2,504 visitors) and '10/10 Steam' (2,607 visitors, a record for one day). Publicity was much better than usual, with news items on television and the BBC Website, and a two-page feature in *The Independent on Sunday*. We have had to reprint 'Broadsheet' (normally a fairly slow seller) twice during the exhibition. Steampunk attracted over 70,000 visitors during its 4-month run, in the winter when our attendance figures are usually at their lowest.

I visited your museum on Saturday January 30th for the first time and wanted to give feedback on my visit as I did not see a visitors book.

I really enjoyed my visit. We specifically went on that day to see the Steampunk exhibition. I wanted to come to the Makers Day earlier in the month but the snow made it impossible.

I thought the exhibition was super, all the people going round seemed to be enjoying it, the visitors were animated when going round the exhibition. Also I thought it was a super idea to have some of the museum's exhibits in display cabinets at the end of the tour which fitted in with the Steampunk theme.

We travelled 150 miles round trip to see the exhibition from Leicestershire and it was well worth it. I would probably not visited the Museum of the History of Science without seeing the Steampunk exhibition mentioned on the BBC web site. But the video and write up led me to look at your web site (which I think was excellent) and plan to visit.

... The museum was very crowded with visitors but it was nice to be surrounded by people talking and enjoying themselves in a museum, a positive experience.

Thank you for organising such a fascinating and enthralling event.

A competition for secondary schools led to an exhibition ‘Steampunk: the Next Generation’, in the Entrance Gallery. The brief was to design and make a practical device for today in the spirit of Steampunk. The response was impressive and a reception and award ceremony were held at the Museum on 12 February. The exhibition ran till 11 April.

Other exhibitions in the Entrance Gallery were ‘Marconi Memorabilia’ (20 October to 31 December), to mark the centenary of Marconi’s Nobel Prize, ‘Steampunk in Print’ (2 to 16 January), ‘Recent Acquisitions’ (19 January to 7 February) and ‘Out of the Deep’ (19 January to 7 February, transferring to the Top Gallery to 6 June), a display based on an underwater find of a 17th-century carpenter’s rule, ‘Spectacles’ (20 April to 27 June), and ‘Mad Tea Party’ (6 July to 1 August), an exhibition of curiosities for younger visitors in honour of Alice’s Day.

Small exhibitions in the Basement Gallery were ‘Galileo in Print’ (27 October to 3 January), ‘Robert Hooke and the Royal Society’ (12 January to 18 April) and ‘Two Oxford Presidents of the Royal Society: Hinshelwood and Florey’ (from 4 May).

The summer exhibition on the Special Exhibition Gallery was ‘The Pleasures and Sorrows of Work’, which opened on 14 April. The content was mainly documentary photographs by Richard Baker, taken to accompany Alain de Botton’s book of this title published in 2009. The exhibition was designed to illuminate the intersections of art, nature and industry through the hidden worlds of modern work.

The exhibition ‘Compass & Rule: architecture as mathematical practice in England, 1500-1750’ was successfully remounted at the Yale Center for British Art, from 18 February to 30 May, with additions from the Center’s own collection and some changes required by the fact that not all lenders agreed to the additional loan period. There was a prominent and favourable review in the *New York Times*.

Education Service

The Museum’s education programme has continued to expand and develop over the 2009-10 academic year with a record number of children participating in family events, and a dramatic increase in numbers of secondary schools visitors. The Museum has also participated in the successful Oxford University Museums and Collections partnership bid to the HLF for a grant to run a project involving traineeships in museum education under its ‘Skills for the Future’ programme.

Within the secondary schools’ programme, the Museum, in partnership with the University Museum of Natural History, has been leading the way in developing a model of learning through museums in its Science Learning Project with the Langley Academy in Slough. A pilot project with Year 8 on the theme ‘Time’ combined outreach and museum visits with a student exhibition at the Academy; the project has provided a template for working with other year groups with the aim of embedding museum learning into the Key Stage 3 science curriculum. For the first time, the two museums will be working with Years 7, 8 and 9 in parallel, providing the opportunity to initiate longitudinal evaluation of the longer-term effects of museum learning. This,

in turn, will feed into other work that the Oxford University Museums and Collections are piloting with local secondary schools over the current academic year.

The Museum has continued with its programme of study days at KS3/4 and AS/A2-levels with a successful sixth-form study day on medical imaging in December 2009 to be repeated in 2010, along with 'Small Worlds' in partnership with the OUMNH and Botanic Garden for KS4 in February, 'Atoms, Waves and Electromagnetism' for sixth-formers in July, and a pilot study day 'Science or Non-science' for KS3 in June in partnership with the BSHS's Strolling Players. The sixth-form study days have taken advantage of links with academic departments – in particular, the Physics Department – and have involved postgraduate research students in interaction with sixth-formers, introducing their experience of life in scientific research.

The popular and innovative special exhibition 'Steampunk' provided an opportunity for the education department facilitated by the Joint Museums' Art Education Officer, Adrian Brooks, to mount a competition for secondary schools. There were up to 30 individual entries from local secondary school students, the work being celebrated at a special event and opening of a student exhibition in February 2010.

The primary schools' programme has continued to develop and diversify in response to the new 'creative curriculum', piloting a number of new sessions, including 'Victorian Science' and an innovative workshop on light, involving modelling spectrometers in order to investigate elements and the composition of stars.

The programme has undergone a period of adjustment as a result of the reopening of the Ashmolean Museum and is seeking to coordinate its offer with other local partners, in order to make the best of opportunities offered by the new curriculum.

The Museum has renewed its participation in Brookes' University's 'Cultural Weeks' programme for training BEd students in museum education. Every year, the Museum is involved in initial teacher training programmes, primary and secondary, with upward of 120 student teachers introduced to the museum and methods in museum education.

Within the outreach programme, the workshop 'Science and Islam: Discover the Astrolabe' was delivered to 120 secondary school children over two days at this year's British Festival of Science in Birmingham. With the support of the Community Outreach and Education officer, Flora Bain and recently Susan Griffiths, the Museum has taken part in the V&A's 'Design for Life' project; guided by artist-designer, Heather Barnett, participants from the Banbury Young Homeless Project have created a series of short animation films in association with visits to the Museum. The Museum is seeking to extend this project to other community groups next year.

The Museum has also contributed to wider professional development through presentations at the ASE and BSHS annual conferences, the Midlands Federation of Museums and Galleries, the Oxfordshire County Science Advisor's training day for teachers, and other networks including SLIME, MADNet, and OXEN.

Summary totals for 2006-10:

	Total 2006-7	Total 2007-8	Total 2008-9	Total 2009-10
Years 1-6	999	928	1896	1142
Years 7-11	476	1146	1408	1759
Years 12-13	229	258	293	195
Years 7-13	705	1404	1701	1954
FF 5-16	1097	1855	1,771	2,694
Adults over 16	4975	6465	4,034	5,860

Public Programme

Four quarterly programme leaflets were printed and distributed, and five 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 and occasionally by visiting speakers. One title was added to the series of printed ‘Broadsheets’.

Because of the close connection of the Museum building with the scientific movement of the 17th century, it was decided that we should make a significant contribution to the events marking the 350th anniversary of the foundation of the Royal Society. This owed much to the group of experimental philosophers in Oxford in the 1650s, led by John Wilkins (Warden of Wadham College), while the building which the Museum now occupies, the Old Ashmolean, opened in 1683 as a centre for the new experimental learning in Oxford, with its laboratory, museum, spaces for experimental demonstration and dissection and its accommodation for the Oxford Philosophical Society. It is the only surviving building from the influential movement to reform natural knowledge in the 17th century, which also created the Royal Society. Since we have insufficient material for an exhibition in the Special Exhibition Gallery, smaller displays were accompanied by a programme of events stretching through 2010. A printed programme was published and a number of events fall into this reporting period, notably the first two in a series of public lectures, by Dr William Poole and by Professor Michael Hunter. Both were packed and both can be downloaded as podcasts from the Museum’s website. So far also there have been three Family Friendly afternoons on ‘Making Micrographia’, involving microscopical drawing and printing, and a table talk with the Museum’s fine replica of the Hooke/Boyle air-pump. The Museum’s contribution the Broad Street ‘Festival of Science’ on 6 March also took this theme, with a series of gallery tours on ‘The Old Ashmolean and the Royal Society.’

We had one ‘10/10 Day’ this year – the distinctive event where we open on a Saturday from 10 am to 10 pm for a programme of talks, exhibitions, trails, tours, activities, music and film on a particular theme, which on this occasion was ‘10/10 STEAM’. Instead of the usual series of short talks by different visiting speakers, we invited the influential Victorian author and moralist Samuel Smiles to extract a set of ‘Heroes of Steam’ from his *Lives of the Engineers*, whereupon he choose to present talks on James Watt, Matthew Bolton, George Stephenson, James Brindley, John

Smeaton and Thomas Telford. As is often the case with visits from historical figures, the part of Smiles was played by Bill Moulford. The evening films were 'Night Mail' and 'Brief Encounter'. This 10/10 Day was characterised by local collaborations, with the live music being provided by the City of Oxford Silver Band, an exhibition and demonstration from the City of Oxford Society of Model Engineers, and a hands-on Steampunk Theremin loaned by the Bate Collection.

The Museum took part in the 'Christmas Night Light' event organised by 'Oxford Inspires' on 27 November, by opening until 11 pm with the theme 'Gaslight'. The Museum was packed with visitors to the Steampunk exhibition and, as well as a family trial, there were performances of Victorian and Edwardian parlour songs and a screening of Thorold Dickinson's film 'Gaslight' (the original version of 1940).

A Steampunk film evening followed on 9 December and two outstandingly successful events in January: 'Steampunk Makers' Day', which included including workshops for Steampunk jewellery and for Meccano model making, and 'Steampunk Live Mannequins'. Other elements in the Steampunk programme included a packed curator's talk by Art Donovan, a public lecture on science and technology in fashion by Sue Jenkyn Jones of the London College of Fashion, and a special event offering visitors their personal portraits as 'Steam Silhouettes'.

Several events in the 'Compass & Rule' programme fall into this reporting period: public lectures by Anthony Gerbino and by Stephen Johnston, and an architectural walking tours of relevant buildings in Oxford, given by Dr Johnston. Two public lectures linked to 'The Pleasures and Sorrows of Work' also fall in this reporting year; they were given by the exhibition curator Dr Johnston and the photographer Richard Baker.

The Museum was Oxford's only contributor to the European 'Night of Museums' this year, on Saturday 15 May, 7 - 11pm. A programme of talks, drama and film under the title 'Science and Séance', included talks by Dr Johnston on John Dee and by Dr Bennett on Guglielmo Marconi, as well as film and discussion on Victorian spiritualism, entitled 'The Tables Turned' by the Strolling Players from the British Society for the History of Science.

A new type of event was the first 'MHS Summer Quiz', held on the evening of 13 July. This was an adaptation of the pub quiz format, with questions on science past and present. There was great enthusiasm from the participants, with a team from the Bodleian Library carrying off the first prize in what may become an annual occasion.

Regular tours for visitors, given by volunteers trained by cross-museums education officers, have begun and have been very successful. This is an initiative that it is hoped will be repeated in the other Oxford museums.

The Museum took part in the Oxford Open Doors event co-ordinated by the Oxford Preservation Trust.

An interview with Dr Bennett was broadcast on the 'Today Programme', Radio 4, on 28 December. Dr Bennett was a guest on 'In Our Time' on Radio 4 on 20 May.

Dr Bennett and Dr Johnston spoke on a number of occasions on Radio Oxford to promote events at the Museum. Dr Johnston was interviewed for Oxford Brookes TV in connection with the Steampunk exhibition. Dr Bennett was interviewed for a National Gallery podcast on the use of optical instruments in drawing and painting. The Museum was used for several television programmes during the year.

Oxford University's museums, libraries and archives were awarded the Queen's Anniversary Prize for Higher and Further Education. The Museum was a partner in the submission, which recognises the outstanding achievements in outreach over recent years.

The Vice Lord Lieutenant of Oxfordshire, John Harwood, visited the Museum on 30 March.

Public lectures linked to the special exhibitions were:

18 August
'Compass and Rule Revealed'
Dr Anthony Gerbino

1 September
'Architecture as Instrument'
Dr Stephen Johnston

13 October
'Steampunk Curator's Talk'
Art Donovan

27 October
'Science and Technology in the History of Fashion'
Sue Jenkyn Jones

27 April
'Pleasures and Sorrows: the Curator'
Dr Stephen Johnston

8 June
'Pleasures and Sorrows: the Photographer'
Richard Baker

Other public lectures were:

9 March
'Oxford and the Royal Society in the Seventeenth Century'
Dr William Poole

18 May

'The Great Experiment: the Early Evolution of the Royal Society'

Professor Michael Hunter FBA

Family Friendly Programme

The 'Family Friendly' programme, delivered by our education service with help from volunteers, has continued to offer a wide variety of drop-in sessions and bookable workshops, and numbers this year were boosted by the popularity of the Steampunk exhibition which proved to be of great appeal to younger visitors, stimulated by social networking. The October 'Big Draw', part of the national Campaign for Drawings' annual festival, picked up on the steampunk theme. The Museum's 'family friendly' profile has continued to build amongst the local population, but also engages with visitors from further afield, including day visitors from London, who learn about events via the Museum's website, and tourists.

Family Friendly events, either booked workshops or drop-in sessions, are generally held once a fortnight. A new workshop this year was 'Pinhole Photography', while the successful 'Galileo's Telescope', 'Drawing with Leonardo', 'Tick-Tock Clockwork' and 'Armillary Spheres' were offered again. Perennial favourites among the drop-in sessions, such as 'Send a Message SOS', 'Cabinet of Curiosities' and 'The Mariner's Trail' were augmented by 'Anarchic Architecture', 'Steampunk Big Draw', 'Euclid You Can!', 'Celestial Planispheres', 'Lightning Strikes!', 'Magical Movies' and others involving making telescopes or globes, printing and dissecting eyeballs. Special trails were popular in the Easter holiday and for Alice's Day, the latter linked to the 'Mad Tea Party' exhibition and ending with the discovery of a dormouse borrowed from the Museum of Natural History. Backpacks containing activities for younger children were tried out for the first time.

The Museum again contributed to the 2010 National Science and Engineering Week programme, and to the OUM's annual 'Wow!How?' event delivered largely by the ever-expanding number of volunteers involved in the University Museums' education programme.

Information and Communication Technology

Web Development

This has been the first year in which the museum has been running the WordPress content management system as its gateway for the Web (<http://www.mhs.ox.ac.uk/>). This has simplified day-to-day system administration and proved easier for staff to update. The site has been well received, featuring in a list of the world's top ten museum websites published by *The Sunday Times* on 7 February. We were the only university museum in the world on the list.

It has been especially convenient to incorporate multimedia content, particularly for the Steampunk exhibition and programme of events. This site consists of a mixture of internally and externally hosted materials, reflecting the fact that the exhibition had an external curator. Thus, for instance, a video produced for the Museum was hosted on YouTube, drawing more than 40,000 views in 2 months. A great deal of content across the site and sub-sites is now indexed by Oxford's Google Search Appliance, which lies behind the search box. In addition, the advanced search allows searching across the museums as a whole.

Enhancements were carried out to a couple of existing online exhibitions: the 'Heaven on Earth' site has a new graphical design and new sections, whilst the 'Astrolabes East and West' exhibition has been migrated to simpler hosting arrangements, removing the dependency on Zope.

The number of unique visits to the Museum's website was 541,864 compared with 602,715 from the previous year. The decrease reflects a general focus on consolidation, concentrating mainly on systems and infrastructure with relatively few new exhibition sites. Visual redesign has also been carried on the main site and the new version is due for launch in the autumn.

Collections Management

The EMu collections management software, upgraded to version 4.0.01, has been running as a separate website (<http://emu.mhs.ox.ac.uk>) for several years, which has administrative and visual drawbacks, so work has been started on migrating all of this functionality to WordPress, plus additional functionality that allows more navigation pathways through the collection.

Following a successful pilot, commercial scanning was arranged for 10,000 35mm slides.

Network and Systems Infrastructure

This year, changes in hosting arrangements with NSMS have reached an advanced stage with a detailed plan in progress to move from three fully-managed servers to just one, which will provide the Windows domain controller for staff machines. The EMu systems and almost all the Web services will be moved to virtual hosting on their VM4Rent service, providing considerable savings for the museum.

Wireless, including the Eduroam service, has been installed and is now up and running in the museum. MHS has invested in audio and video recording equipment to support further podcasts.

We have purchased a video camera, a digital audio recorder, and audio editing software for producing multimedia content for the museum website. A media player device is also now available and is increasingly used in exhibitions to play image slide shows as well as video content. It can also be used for audio looping, if required.

The computer networking capability has been extended at the off-site store, so as to allow networking in the new storage area.

A visualiser camera, plus a computer and a large TV screen, have been installed in the Education Room. The visualiser can be used to show documents and objects either on the computer screen or the large TV screen. Visiting speakers can plug their laptops into the setup and use the large screen for visual output.

Teaching, Research and the Discipline

Dr Johnston and Dr Bennett again taught an advanced option in the MSc in the History of Science and contributed lectures to the 'Nature and Art' undergraduate course in the History Faculty. Dr Bennett was an Assessor for the MSc examination. Dr Bennett contributed a lecture and a seminar to the annual Physics Seminar for undergraduates, 19-20 April. Dr Johnston supervised a History of Science graduate dissertation and a History of Art undergraduate object essay

Dr Bennett was external examiner for a PhD at the University of York. Dr Johnston was internal examiner for two Oxford DPhils. He was also an interviewer for two transfer of status interviews, one in History of Science, the other in History of Art.

The Museum continued to provide a venue for the meetings of the Society for the History of Medieval Technology and Science.

The Museum continued to host and administer the much-used and valued 'rete' bulletin board for the instrument history community.

Dr Bennett continued to serve on the Advisory Committee of 'Wellcome Collection', the Trustee Advisory Committee of the Science Museum, the Astronomical Heritage Committee of the Royal Astronomical Society and the Board of Visitors for the Pitt Rivers Museum. He served on the editorial board of the journal *Nuncius*. He continued to chair the two sub-committees of the Committee for Museums and Scientific Collections: the ICT Committee and the Education Heads Committee. He continues to sit on the University Security Committee.

Dr Johnston served on the publication committee of the British Society for the History of Mathematics and on the finance committee of the Society for the History of Alchemy and Chemistry. He continues to serve on the editorial board of *Scientific Instruments and Collections* and the International Advisory Board, Centre for History of Science, Royal Swedish Academy, Stockholm. He was appointed to an interview panel for a post at the British Museum.

The Museum hosted a party for History of Science and Medicine staff, research workers and graduate students on 14 October.

Dr Bennett gave the following lectures and seminars:

1 August

'The art of polishing: practice and prose in 18th-century England', XXIII International Congress of History of Science and Technology, Budapest

29 September

'Portugal and the European Consensus in Eighteenth-Century Astronomy', History of Astronomy in Portugal conference at the Science Museum of the University of Lisbon

1 October

'The Leviathan of Parsonstown', Royal Society, London
(now available as a podcast at: <http://royalsociety.org/Podcasts-of-Library-events/>)

7 October

'Exhibition in Science Museums', Museums Association Annual Conference, London

18 November

'Renaissance Mathematics', University of Padua

19 November

'University Museums', University of Padua

23 November

'The Marconi Collection', Italian Embassy, London

2 March

'Science Anniversaries', Historical Association, Oxford

27 July

'The Old Ashmolean', University of Massachusetts in Oxford

Dr Johnston gave the following lectures and seminars:

22 September

'Do instruments make history?', Artefacts Music workshop, Science Museum, London, 2009

26 January

'Museum Matters: Planning a New Exhibition on Early-Modern Chymistry', Chemical Heritage Foundation, 26 January 2010

26 February

'Early-Modern Drawing', Master class at Yale Center for British Art, New Haven

25 June

'Materiality and Museology in the History of Chemistry', Max Planck Institute for the History of Science, Berlin

Staff Publications

Jim Bennett, 'The Era of Newton, Herschel and Lord Rosse', *Experimental Astronomy*, 25 (2009), 33-42; reprinted in B.R. Brandl, et al, eds, *400 Years of Astronomical Telescopes* (Springer, 2010), pp. 31-40.

Jim Bennett, 'Salomos Tempel und das "Haus Salomos" in der Naturphilosophie des 17. Jahrhunderts', *Dresdener Kunstblätter*, 4 (2009), 260-68; also published as 'Solomon's Temple and Solomon's House in Seventeenth-Century Natural Philosophy', in M. Korey and T. Ketelsen, eds, *Fragments of Memory: the Temple of Solomon in the Dresden Zwinger* (Dresden, 2010), pp. 26-34.

Stephen Johnston, 'Wren, Hooke and graphical practice', *Journal for the History of Astronomy*, 41 (2010), 381-92.

Stephen Johnston, 'A Note on the Wooden Carpenter's Rule from Odyssey Shipwreck Site 35F', *Odyssey Marine Exploration Archaeological Papers*, 10 (2010); available online at http://www.shipwreck.net/pdf/OMEPaper10_000.pdf.

Museum Staff

Museum Staff

Staff in post at the end of 2009-10

Jim Bennett, Director
Stephen Johnston, Assistant Keeper
Margaret Hauser, Museum Administrator
Lucy Blaxland, Collections Manager
Cheryl Wolfe, Conservation Officer
Sarah Callaghan, Photography and Design Technician (maternity leave replacement for Keiko Ikeuchi)
Gemma Wright, Librarian
Owen Shaw, Technician (0.5)
Spiro Vranjes, IT Assistant (0.5)
Anthony Simcock, Archivist (0.4)
Amy Taylor, Clerical Assistant (0.5)
Mariella Guida, Senior Gallery Assistant and Supervisor (0.4)
Anthony Lummis, Gallery Assistant (0.7)
Frances Turner, Gallery Assistant (0.3)
Elizabeth Mongomerie, Gallery Assistant (0.3)
Nick Wicker, Cleaner (0.4)
Christopher Parkin, Education Officer (0.6)
Michelle Holloway, Education Officer (0.4)
Paul Trafford, Web Officer (0.5)

Laura Ashby, Audience Development Officer (0.5)

Casual Staff (Gallery Assistants)

Jeri Bapasola
Margaret Barker
Chris Dadds
Manfred Driver
Peter Ells
Jane Griffin
Vincent Mason
Alex Phipps
Nicole Shih
John Whitehead

Casual Staff (Collections Work)

Dana MacMillan, Museum Assistant, Elliott Project
Nicole Shih, Museum Assistant, Elliott Project
Audrey Vandeputte, 'Al-Mizan' Research Assistant

Museum Visitors

Professor Pietro Corsi, History Faculty (Chair)
Professor Frances Ashcroft, Physiology Anatomy and Genetics Department
Professor Laurence Brockliss, History Faculty
Professor R L Davies, Physics Department
Professor Mark Harrison, Wellcome Unit
Professor Jim Kennedy, University Museum of Natural History
Dr Mike O'Hanlon, Pitt Rivers Museum
Dr Luke Treadwell, Oriental Institute
Professor Harvey Brown, Philosophy Faculty
Dr Robert Anderson, co-opted Visitor
Mr Howard Dawes, co-opted Visitor
One of the Proctors or the Assessor