



MUSEUM *of the*
HISTORY *of*
SCIENCE

ANNUAL REPORT

1 AUGUST 2008 – 31 JULY 2009

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HIGHLIGHTS



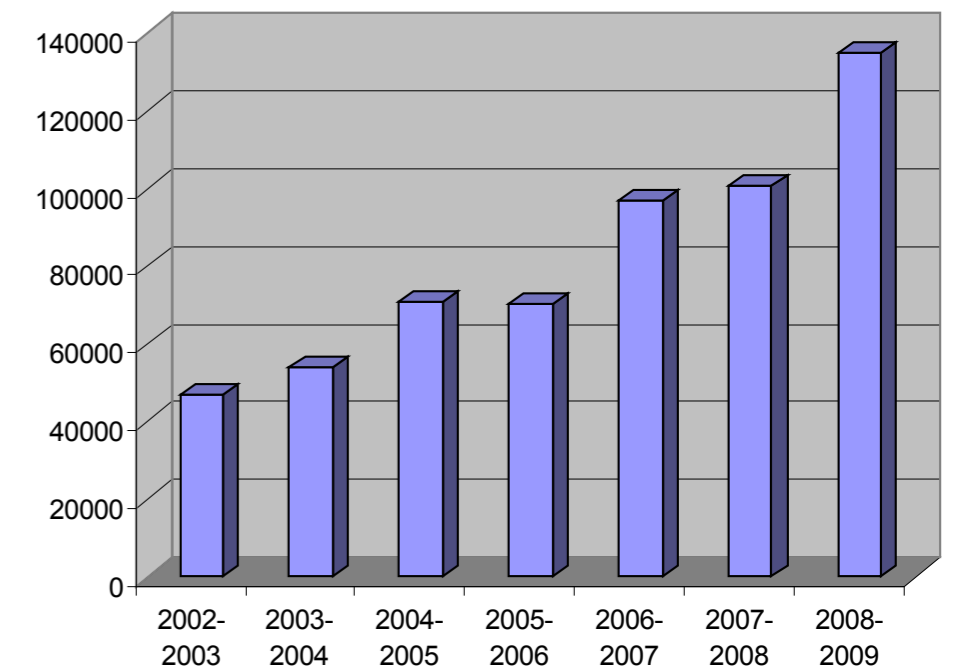
Visitor Numbers

Visitor numbers have continued to grow, rising by one third to 134,974, compared with the previous year's record figure of 100,865. On one Saturday in July there were 2,414 visitors with 623 on the following Sunday, taking us to over 3,000 for the weekend.

"RECORD FIGURES"

Increasing visitor figures:

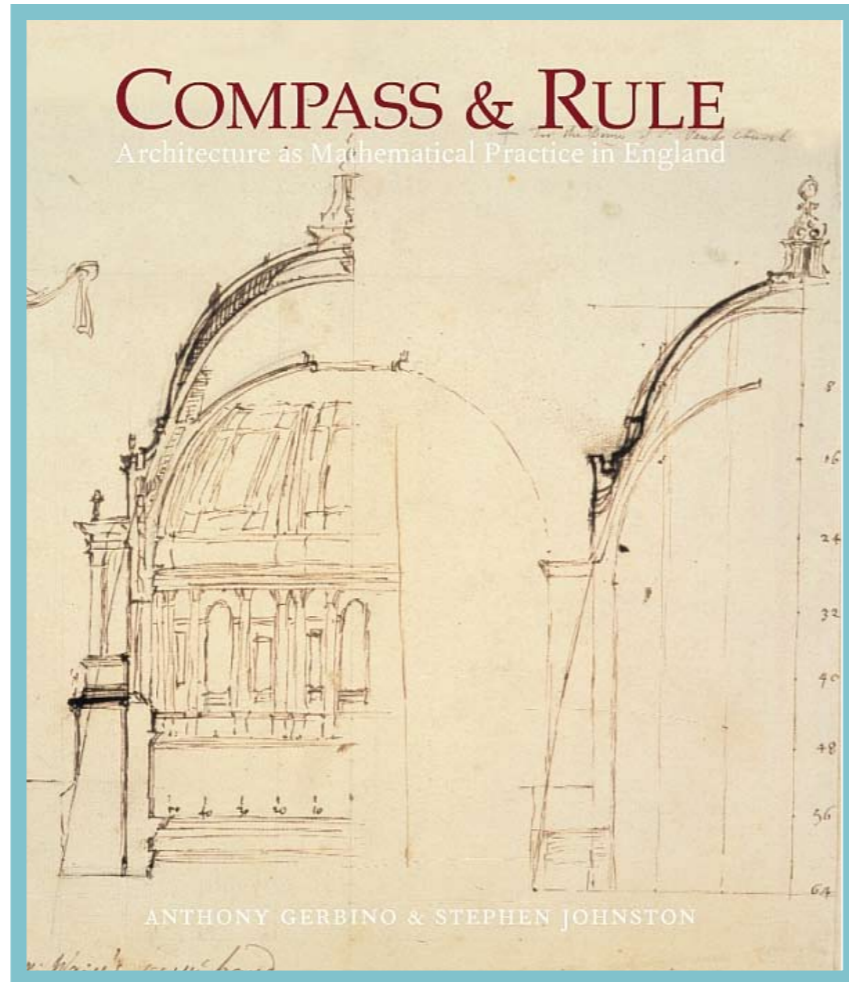
2008-9: 134,974
2007-8: 100,865
2006-7: 97,066
2005-6: 70,131
2004-5: 70,791
2003-4: 53,796
2002-3: 46,838



Compass & Rule

The exhibition **'Compass & Rule: architecture as mathematical practice in England, 1500-1750'** was our most ambitious undertaking in scholarly exhibitions to date. Aside from the Museum's own material, there were 68 objects borrowed from 23 lenders, included the British Museum, the British Library, the Royal Collection, the National Archives, Sir John Soane's Museum, the Science Museum, National Museums Scotland, and colleges and museums in Oxford and Cambridge.

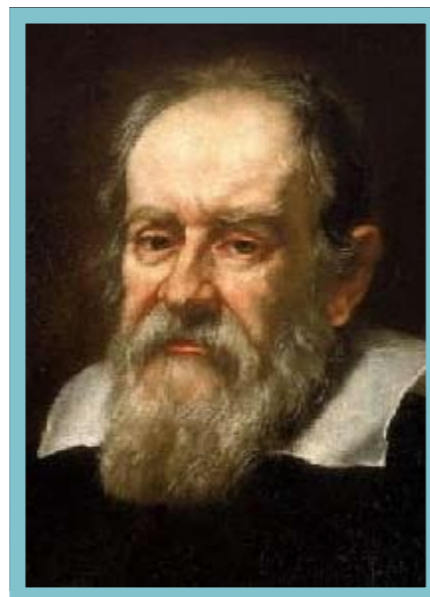
An illustrated catalogue by Anthony Gerbino and Stephen Johnston was published by Yale University Press. Among many achievements for the collections staff in the context of this exhibition, we managed to meet all the stringent conditions for the Government Indemnity scheme to cover the loans. This was our first such agreement.



Galileo in Florence

A large and important collection of instruments was loaned to the Palazzo Strozzi in Florence for the exhibition 'Galileo: Images of the Universe from Antiquity to the Telescope', marking the 400th anniversary of Galileo's use of the telescope to study the heavens.

The loans included some of our most famous instruments and **Broadsheet no. 8, 'Oxford in Florence'**, was published to cover their absence. So this year saw our most ambitious and challenging work in dealing with both loans-in (see 'Compass & Rule' above) and loans-out.



SIS Exhibition

For the first time the Museum collaborated with the Scientific Instrument Society to bring a large group of privately-owned instruments into the public galleries. Displayed in three showcases in the Entrance Gallery and distributed throughout our permanent displays, the aim was to demonstrate the complementary contributions to the discipline made by museums and private collectors. This was a modification of an arrangement already undertaken twice with the Antiquarian Horological Society.



“THE MUSEUM COLLABORATED WITH THE SCIENTIFIC INSTRUMENT SOCIETY TO BRING A LARGE GROUP OF PRIVATELY-OWNED INSTRUMENTS INTO THE PUBLIC GALLERIES.”



'Telescopes Now'

A series of four public lectures on recent astronomy was held throughout February. Each Tuesday evening lecture was given by a distinguished astronomer engaged in the design, development and management of major instruments. The idea was to take a modern look, 400 years after Galileo, at the practical, political, technical, financial and organisational challenges that face telescope builders today. Treating so recent a topic was novel for the Museum, as was the fact that all the lectures were recorded and are available as podcasts on the Museum's website.

Collections on display, in store and online

We have installed a large new showcase in the Small Basement Gallery (the first since the major redevelopment of c.2000), fitted extensive, high-quality storage units in the lower study, and extended our collections management system to serve the online collections database accessible through our website.



Collections Management Overview

The most significant achievement of the year was a major loan exhibition of a scale and importance not previously handled by the Museum.

'Compass & Rule: Architecture as Mathematical Practice in England, 1500-1750' represented a significant shift in exhibitions management for the Museum, requiring it to raise its standards of security, environmental control, display and object management in order to borrow items from the national collections, and to be granted indemnity underwritten by the Government for other loans.

Additional staff were taken on for part of the planning and installation period. Two of these, a previous Collections Manager and a Collections Assistant, were essential to the success of the exhibition. Good decisions also made in the choice of the transport agent and an outside mount-making firm were important. The exhibition however dominated collections management activities to a significant level.

Managed alongside 'Compass & Rule' were several other important projects: a major outgoing loan of some of the most important items in the Museum's collections and important pieces from Oxford college loan collections, to an exhibition in Florence celebrating Galileo's use of the telescope; completion of basic collections documentation, cleaning and relocation at the Osney Store begun the previous year; an audit of the collections in store and on display; and a collections move, at very short notice, from the attic store at the Examination Schools after more than 40 years' use of this space for the storage of collections and other Museum material. In addition to the above a further eight outgoing loans within the UK and Europe were serviced, including two short-term loans with more than one venue, and the preparation of two long-term loans to refurbished venues involving detailed negotiation and assessment. In addition to these were four new incoming loans, some straightforward, others more complex, for example one involving forty-eight incoming objects from twelve separate private lenders.

With the loan programme dominating activity from November (aside from the Examination Schools move), effort was pulled away from all but essential work in other areas of collections management. Fortunately acquisitions were limited during the period, due to the restrictions in storage space, but in other areas work had to stop temporarily, for example collections work at the Store, or changes made to manage the work in other ways, such as the forwarding of all offers and all but the simplest enquiries



"SIXTY-EIGHT INCOMING OBJECTS FROM TWENTY-THREE MAJOR UK LENDERS"

Compass & Rule Exhibition

to the Museum's curatorial staff. Ordinarily some initial offer discussions and simpler research enquiries are carried out by the Collections Manager. Research visits normally dealt with by the Collections Manager were however handled in the usual way along with four filming and photography projects.

Work put on hold during this busy period (updating and upgrading documentation, protection of specific collections in storage, improved hazard management, revision of documentation procedures and loan documentation, regularisation of long-term and historic loans and training in emergency procedures) is planned to resume in 2010, when all outgoing loans have returned and 'Compass & Rule' has moved to its second venue, the Yale Center for British Art in the USA.

Acquisitions



Acquisitions were very few and consisted of small objects, reflecting the severe limitations on storage space. They included a purchase for an internal exhibition, three donations and the accession of part of the Museum fabric to ensure long-term preservation. Two offers received from within the University from the Department of Biochemistry and the Nuffield would have been given more consideration had storage space allowed. Other offers, which did not fit the Museum's Acquisitions and Collecting Policy, were rejected.

A number of non-collection items were acquired by the Museum's Education Officers for the education handling collection. These included two chronometers from Dr E. Wagner.

Donations

Inventory No. 11693 Microchip Mounted on Plastic Card, by ITT, 1980
Inventory No. 11834 Wood Case Apothecary Jar by Brady, English, 19th Century
Inventory No. 11835 Wood Case Apothecary Jar, London, England, 19th Century

Purchases

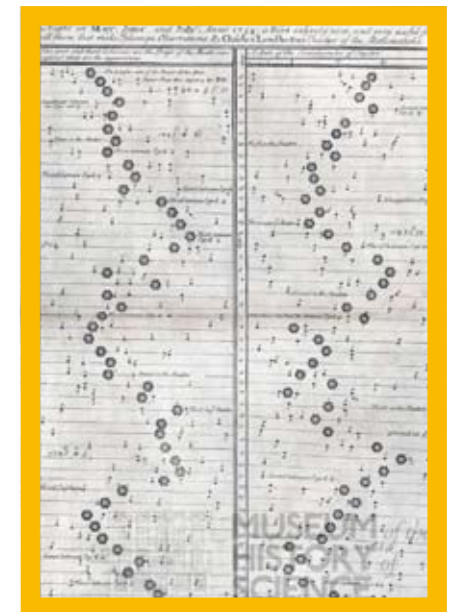
Inventory No. 11523 Broadside Print of the Daily Positions of the Satellites of Jupiter, by Charles Leadbetter, London, 1734

De-accessions

There was one de-accession during the period; the removal and destruction of Inv 78452 - Bottle containing 'Pikrinsauere' (picric acid), German, 20th Century. The bottle contained approximately 5g of picric acid powder, which due to its unstable and highly explosive nature, was too dangerous to retain. The bottle had no known provenance, apart from its Leipzig stamp.

Transfer within the Museum

Inventory No. 11696 Key to the East Door of the Museum of the History of Science, 17th Century, Oxford



Object Display and Movement

The provision for items on display was significantly improved with the removal of sub-standard showcases in the Beeson Room and the installation of one (of two planned) new display cases. These meet museum standards for materials and lighting, and incorporate drawers for gel to enable modification of the internal environment if required. It was regretted that it was not possible to install fibre optic lighting, compatible in terms of conservation and collections care, and desirable from the point of view of display design, due to cost. It is hoped that this can be fitted at some point in the future.

The systematic move of small, high-value items from Osney Store to the Museum began following the installation of new secure, museum-quality drawers and cupboards in the Lower Study.

The clearing of the Beeson Room prior to the installation of new display cases involved the move of a large range of items. Where possible these were displayed elsewhere, but other items, including a number of barometers containing mercury, were moved to the Osney Store. Consultation took place with the Science Museum and the Safety Office concerning the best approach to the move and it was carried out successfully.

Exhibitions requiring significant input from the Collections Manager and the Conservator were 'Heaven on Earth' (arrangements for and invigilation of digital imaging of the 105 prints and paper covers by external contractor, Capita; mounting and framing, and subsequent removal, of 22 prints for the exhibition) and 'The English Telescope' (packing and movement of objects at installation and deinstallation, their relocation on the database and recording of object labels).

Documentation

The Acquisitions and Collecting Policy was revised in April to comply with a new MLA directive, and to incorporate University policy on the treatment of human remains, and University safety policy on the management of hazardous materials.

In compliance with safety policy on handling hazardous materials, invigilators were instructed no longer to accept items directly from members of the public as potential offers or for advice, but to ask people to contact collections or curatorial staff, who would then make appropriate arrangements. The revised practice will enable prior vetting of objects for hazardous or problematic material (mercury, asbestos, radioactive materials, human remains), so protecting Museum staff and the building in a mechanism for controlling the acquisition of items containing these materials.

A review of documentation objectives to 2010 drawn up at Accreditation in 2005 was also carried out during the year in response to an MLA request. This confirmed that developments were on track with a significant number of objectives achieved. Important among these were the introduction of the new electronic database, EMu, and the systematic entry of the remaining 10–15% of the collections identified as not yet inventoried in 2005. Collections work at the Osney Store was a key contributor to this achievement, many items being entered into the database for the first time. Significant areas however still remain to be tackled, including the regularisation of historic incoming and outgoing loans. Other outstanding work includes the upgrading and correction of basic database entries and the addition of object images. The introduction of the new electronic database also means that some standard documentation procedures required by Accreditation need up-dating with reference to EMu.

Growing confidence in the use of the database and an increasing appreciation of the possibilities it offers for the storage and recording of information were seen during the year. Work by staff was supported by regular user meetings to discuss problems and to establish standard procedures. In the area of collections management some work was carried out with the Web Officer to establish standard procedures for entering key information and relocating items. Problem areas arising from the original migration of the data from the old system were also identified, in particular data relating to loans and accessions. The loans information was checked and regularised, but the mismatch of some accession information remains to be resolved.

Work on the recording of current and past loans on EMu was begun and included establishing a standard for future entries in order to maintain consistency of information.

A significant achievement during the year was the completion of the revised Outgoing Loan Agreement for short-term outgoing loans, following detailed and extensive discussions with University Legal Services as well as a review of practice in other departments within the University and at national museums. The agreement raises the standards of provision (security, insurance, transport, environment) for objects away from the Museum in line with those of other major institutions and clarifies the legal position of the Museum of the History of Science in future agreements as a part of the University of Oxford. Similar work now needs to be completed on other loan documentation.

The Museum Collections Manager also contributed, when commitments allowed, to discussions towards a 'memorandum of understanding' for loans between University Departments.

Storage

The main achievements of the year were the completion of stage one of improvements in documentation and care of collections in storage at the Osney Store. The method of employing temporary staff with collections experience, working under the Collections Manager, proved successful. Sarah Beattie and Wen-Ching Shih continued on the project from the previous year working on systematic sorting, cleaning, basic level inventorying, more appropriate rearrangement of items on the shelves and relocation of objects in the database. Many items were inventoried and identified for the first time. A map of the store area was created to assist with the locating of items.

Wen-Ching Shih continued until October completing a full shelf-by-shelf audit of all collections at the store. The intention is to repeat this on a regular basis for items in storage and on display in order to check on individual items and to ensure the accuracy of database records, particularly with regard to object location.

Further work to install polythene sheeting and ultraviolet filters to lighting took place as part of a work placement for two Year-10 pupils from local schools. The polythene will provide some protection from future dust accumulation and the ultraviolet filters will protect the collections from the adverse effects of ultraviolet rays. During the year an area was also identified and fitted out for the storage of framed prints and paintings. The picric acid identified as a hazard by the Safety Office was disposed of on 19 November.

The year also included the requirement to move out of the attic space in the Examination Schools, a major task requested by the University at very short notice during a period of full work schedules. The work involved with moving was significant and seemed a retrograde step in terms of the University's commitment to desperately needed space for the housing of collections off-display. In terms of documentation and collections care the move was however positive in forcing the completion of

essential sorting, identification, basic cleaning and inventorying of material begun the previous year, as well as the disposal of non-collection display cases and equipment. External specialist movers were brought in to deal with the health and safety and handling issues. An alternative, much smaller, storage space was provided at the Examination Schools for the period of a year only. Some material was moved here, with other smaller items moving directly to the Osney Store.

Unresolved decisions at University level on the long-term provision for stored collections continued to frustrate during the year in terms of Museum collecting, day-to-day management and the ability of the Museum to make significant improvements in standards of care. Unsatisfactory storage for parts of the collection continued in a much reduced temporary space at the Comet Warehouse, where items were at significant risk from flooding or water ingress. The provision of additional, good quality accessible space, ideally on a single site for the storage and consultation of collections off display remains of the highest priority.

Discussion took place over the optimum use of the Director's Office and the Lower Study in terms of museum activity and collections storage. A decision was made to concentrate high quality storage in the Lower Study, whilst preserving the

Director's Office as a more suitable place for official visits, fundraising and meetings.

As part of this strategy, book shelving in the Lower Study was removed and sold, and a second set of museum-quality drawers and cupboards installed for the storage of small, high value items. Items were moved from the Director's Office and from Osney into the new storage. In addition a selection of key paintings was brought out of storage and installed in the Director's Office. These included a portrait of Galileo, and paintings of the Dodo and of Tycho Brahe.

Other work included the addition of a small group of uninventoried items housed in the Director's Office to the database, and the removal of a small number of items containing low levels of thorium to the Radioactive Materials Cupboard. The audit carried out at the Osney Store was also extended to all items in storage and on display at the Museum, and problem areas, such as absent or inaccurate labelling, were listed for further attention.

An audit of records and management systems for radioactive items was carried out by the Environment Agency and confirmed as satisfactory.

Emergency Planning and Response

The Museum applied for and was granted use of the MLA South East Emergency Response Unit in the event of an emergency involving the collections, so providing additional support and reassurance to existing emergency response arrangements.

The Collections Manager continued as a member of the South East Emergency Response Unit on-call team, but was not called out during this period.

The Museum received a visit from Green Watch fire team in line with their new brief to support the protection of heritage collections.



Researchers

The Museum received a steady flow of researchers requiring to see items from the collections. Numbers were slightly lower than last year. Research visits took place as appropriate to the objects in the Museum itself, at the Store or in the Library.

Tony Norridge, private collector
Inv 55339 – Clock by George Wentworth, c. 1735 – 2 visits

Professor Martin Kemp, Department of Art History, University of Oxford
Study and photography of a crystal sphere, part of the Tradescant Collection and on loan from the Ashmolean Museum

Gordon Bussey and Axel Engstfeld of Engstfeld Films, Germany
Exploratory visit in connection with possible filming of items from the Marconi Collection

Neil Handley, Curator of the British Optical Association Museum, College of Optometrists
Part of the spectacles collection and penicillin material

Budd de La Rue, private collector & Jeroen Meeusen, University of Ghent
Inv 41632 – Drum Microscope, by Trécourt & Oberhauser, Paris, 1830
Inv 76605 – Compound Microscope, Revolving Drum, by Trécourt et Georges Oberhauser, Paris
Inv 51388 – Early French Achromatic Microscope by V. Chevalier, Paris, c. 1835

Raphael Zarka, exhibiting artist and Allia Ali, Exhibitions Officer at Modern Art Oxford
Inv 79701 – Portrait of Abraham Sharp by G. Vertue, 1744 and other physical science material in connection with a possible loan request to Modern Art Oxford

George Huxtable, private collector
Inv 26619 – Hooke-Type Marine Barometer, by John Patrick?, English, c. 1710
Inv 40847 – Circular Slide Rule and Horizontal Instrument, by Elias Allen, London, c. 1634

Michael Nauenberg, Professor Emeritus of Physics, University of California at Santa Cruz and John L. Heilbron, Professor of History and Vice Chancellor, Emeritus, University of California, Berkeley
Inv 66493 – Replica of the Hooke-Boyle Air Pump, English, c. 1925

Harry Webster, private collector
Inv 42866 – Turret Clock from Wadham College, Oxford, c. 1670 – 2 visits

Martin Loach (assisted by the Archivist)
Electric clocks

An additional number of research visits were dealt with directly by Dr Jim Bennett and Stephen Johnston.

Filming and photography



Filming at the Museum during the year included BBC Scotland filming for two episodes of their series on the development of microscopy 'The Cell'. One episode at the Museum concerned Joseph Jackson Lister and required assistance with initial research and the provision of objects. A further episode involved the reconstruction of an early experiment involving live mice.

The 400th anniversary of the astronomical use of the telescope prompted a visit by Spanish television to film and interview at the Museum. This required handling of some early telescopes and the Galileo replica.

Dorling Kindersley, the publishers, visited for two days to identify and photograph objects for a planned publication on iconic scientific objects.

George McGavin, the entomologist, was photographed with his favourite object, the Fitzroy barometer for a feature in the *Oxford Times*.

Loans



The year was exceptionally busy with short-term loans, both incoming and outgoing. The loan programme dominated work in collections management from November onwards. Requests were agreed and loans managed to venues in all parts of the UK and also parts of Europe. These included the rare decision to lend both the spherical astrolabe and the geared astrolabe, two of the Museum's most important treasures, to an exhibition in Florence to mark the 400th anniversary of the use of the telescope by Galileo, and participation in two travelling loans with venues in the UK and Europe. The number of long-term, outgoing, renewable loans increased in number with loans to Chelmsford and to the permanent displays at the newly refurbished Ashmolean Museum.

Regarding incoming loans at the Museum on a long-term basis, apart from the return of items of the Tradescant Collection on loan from the Ashmolean since November 2005, there were no changes. Short-term incoming loans on the other hand dominated the year with the exhibition 'Compass & Rule' involving 68 incoming objects from 23 different major lenders. A further four temporary exhibitions during the year involved incoming objects.

Short-term loans out

**Fruitmarket Gallery, Edinburgh 23 October - 11 January 2009****Early micrographic images, albums & lantern slides from the photographic collections**

W.H. Olley, *The Wonders of the Microscope*, 1861
 J. Redmayne, Microphotographs, c. 1870s/80s
 Three lantern slides by E. Willmott, c.1900
 Two cabinet cards by Underhill, c.1880
 Five albumen prints by Woodward, c. 1880

Modern Art Oxford, 31 January - 29 March 2009**'Raphael Zarka, Geometry Improved'**

Inv 79701 - Portrait of Abraham Sharp, by G. Vertue, 1744

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

Inv 11538 - Satirical coloured print 'Scientific Researches! - New Discoveries in Pneumatics! - or - an Experimental Lecture on the Powers of Air', by James Gillray, London, 1802

**The National Library of Wales, Aberystwyth, 29 June - 21 August 2009****'Edward Lhuyd'**

Selection of fossils, seeds and Roman tesserae from inv 51916 - Dyer Collection, on loan from Oriel College

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

Inv 19978 - Copernican Planetarium, attributed to John Rowley, English, c. 1700
 Inv 39896 - Grand Orrery, by Heath & Wing, London, c. 1758-1773
 Inv 48213 - Astrolabe with Geared Calendar, by Muhammad ibn Abi Bakr, 1221/2
 Inv 48472 - Horizontal Pin-Gnomon Sundial & Qibla Indicator, Persian, 18th Century?
 Inv 49687 - Spherical Astrolabe, by Musa, Eastern Islamic, 1480/81
 Inv 51358 - Vertical Disc Dial, Unsigned, Roman, c. 250 A.D.?
 Inv 57517 - Armillary Sphere, by Dominicus Sanctes Sanctini, Italian, c. 1675
 Inv 57605 - Armillary Orrery, by Richard Glynn, London, c. 1710-30
 Inv 68353 - Ptolemaic Planetarium, attributed to John Rowley, English, c. 1700
 Inv 11665 - Uncut Printed Gores (Nos. 4 & 5) of the Moon by John Russell, 1797
 Inv 11665 - Uncut Printed Polar Caps (Nos.13 & 14) of the Moon by John Russell, 1797



Travelling loans out

'Space Age: exploration, design and popular culture'

A total of nine venues in England to 18 October 2010. During the period the exhibition travelled to venues in Sheffield, Edinburgh, Truro and Plymouth.

Inv 40743 Celestial Planisphere by Wauthier, London, Early 19th Century
 Inv 43370 Orrery, English, Early 19th Century,
 Inv 21434 Gregorian Reflecting Telescope, by John Cuthbert, London, c. 1830

'War and Medicine/Krieg und Medizin'

Wellcome Collection, London, 21 November 2008 - 15 February 2009
Deutsches Hygiene-Museum, Dresden, 4 April - 9 August 2009

Inv 30316 - Pistol for Penicillin Extraction
 Inv 18651 - Penicillin Culture Vessel (Enamel Bed Pan)*
 Inv 19146 - Penicillin Culture Vessel (Porcelain)*
 Inv 24973 - Penicillin Culture Vessel (Biscuit Tin)
 Inv 16920 - Penicillin Specimen
 Inv 14439 - Penicillin Specimen (Recovered)
 Inv 26401 - Penicillin Specimen (Pyrogen Free)
 * Wellcome exhibition only

'Andrea Palladio 500'

Centro Internazionale di Studi di Architettura Andrea Palladio, Vicenza, 20 September 2008 - 6 January 2009

Royal Academy, London, 31 January - 13 April 2009

Inv 52444 Set of drawing instruments, Italian, c. 1540

New renewable loans out

Ashmolean Museum Permanent Galleries

Inv 44152 Pocket Terrestrial and Celestial Globe, Unsigned, English, c.1775
 Inv 38892 Magnetic Compass, by Spencer & Co., London, Early 19th Century
 Inv 49033 Hispano-Moorish Astrolabe, Unsigned, Spain?, circa 1260
 Installed September 2009

'Bright Sparks'

Chelmsford Museum, Oaklands Park
 Opening November/December 2009
 Eight items from the Marconi collection.

Short term loans in

'Heaven and Earth: Missionaries and the Mathematical Arts in 17th-Century Beijing'

24 May - 7 September 2008
 Two volumes from Trinity College, Oxford: Jean-Baptiste Du Halde, *Description ... de l'empire de la Chine et de la Tartarie chinoise*, 1735, and Athanasius Kircher, *China monumentis qua sacris qua profanis illustrata*, 1667
 Original printing block and block-printed Chinese book from David Helliwell, Curator of Chinese Books, Bodleian Library.

Scientific Instrument Society 25th Anniversary exhibition, 19 August - 26 October 2008

Over 50 objects from 20 private lenders.

'The Double Horizontal Dial, Then and Now', 13 January - 10 March 2009

A Glynn sundial and a new sundial by Joanna Migdal from St Hugh's College, Oxford.

'Curved Glass', 17 March - 17 May 2009

Nine blown glass sculptures by artist and sculptor Nick Turvey.

'Compass & Rule: Architecture as Mathematical Practice in Early Modern England'

16 June - 6 September 2009
 68 items from 23 major UK lenders, including the Royal Collection, the Royal Institute of British Architects, the British Museum, British Library, Science Museum, National Archives, National Museums Scotland, and University and College collections in Oxford and Cambridge.

Long-term loans in

Items from the Tradescant Collection on loan from the Ashmolean Museum since November 2005 were returned in March 2009.

Temporary displays

Oxford University Library Services,
Bodleian Library

Launch of Marconi archive online
catalogue, evening event on 7
November 2008

Two items were lent for inclusion in the
display:

Inv 86390 1901 Transatlantic
Receiver, by Collier-Marr Company,
Manchester, 1901

Inv 96661 Marconi's Coherer Receiver,
by Guglielmo Marconi, English, 1896

Work placements from local secondary schools

Two Year-10 pupils were accepted for
a week to nine days during July 2009,
Davey Kneavsy from King Alfred's
School, Wantage, and Joshua Benfield
from The Henry Box School, Witney.
Both received tours of the Museum,
attended and assisted with education
sessions and carried out tasks for other
staff, in addition to completing the
installation of polythene to protect
objects from dust at the Osney Store.
The work placements were evaluated
and judged successful. They established
contact with the schools, provided
the pupils with an insight into museum
work and the world of work, and
completed an overdue and important
improvement to collections care at the
Osney Store. Work with other staff
included drawing up a trail for foreign
language students and providing
feedback about the Museum website.

Other visits

Michael Wright, Imperial College, to
assess and report on two lathes in the
collection:

Inv 74186 - Lathe with Accessories,
by Holtzapffel & Co., London, c. 1874
Inv 25195 - Rose Turning Lathe

William Brown, MLA Security Adviser
and Darrell Moss, University Security
Services, concerning the upgrading of
security at the Museum in preparation
for a Government Indemnity Scheme
application for loans to the 'Compass &
Rule' exhibition.

Mark Norman, Head of Conservation
and Geraldine Glynn, Registrar,
Ashmolean Museum, for general advice
on improving the environment at the
Museum, partly in preparation for the
'Compass & Rule' exhibition

Training received

The Collections Manager and relevant
colleagues received training by the
Safety Office in the handling and
management of radioactive materials,
with additional elements for the
Collections Manager as the Museum
Radiation Protection Supervisor.

The Collections Manager also took a
course offered by the University in
time management.

Conservation

Conservation of 53 objects was
completed, of which 19 were for loan
out, 3 are in progress and one was
conserved externally. The 'bookcase'
cases in the basement gallery were
cleaned 4 times, as were objects on
open display. Condition audits resulted
in 43 being entered into the database;
conservation reports with 413 images
were entered. Small-scale infestation
of clothes moths was dealt with and
lure traps set, while infested objects
were treated at the OUNHM freezer
facility. Two second-hand humidifiers
were purchased from the Pitt Rivers
Museum and one new de-humidifier
bought. The Hanwell monitoring at
the Museum and in the store was
maintained and some problems solved.
The Conservator made 3 courier
trips (to Liverpool, Aberystwyth and
Florence). Discussion with a Momart
technician of the packing of the
Florence loan took all of a day. While
dealing also with a number of individual
enquiries, she received a visit from 8
students and a tutor from the West
Dean Horological conservation course.



LIBRARY AND ARCHIVES

Library and Archives

The number of readers using the
library has increased to 359 this year,
from 328 last year. The number of
OU members visiting has remained
almost constant; the increase is from
Museum staff use and external visitors.
The library has dealt with almost 200
enquiries via email, telephone and
from readers in-person, an increase
of 22 from last year. The number of
items borrowed from the library has
increased from 55 last year to 128 this
year.

The two exhibition cases in the
Basement Gallery continued to be
used for displaying library and archive
material. This year has seen the
continuation of the Elliott display, plus
'Treasures from the Museum Library'
(a changing display of eye-catching
material) and 'An Unbirthday Present
for Alice' (an exhibition to coincide with
'Alice Day', built around the Museum's
original photograph by Lewis Carroll
of Annie Rogers and Mary Jackson as
Queen Eleanor and the Fair Rosamund,
1863). All 3 exhibitions were arranged
by Tony Simcock. Library material has
also been used in special exhibitions
in the Museum, both for research and
display.

Library materials remain popular with
the education department, including
with staff based at other museums.
The Librarian held sessions about library
books as part of a primary school
History of Medicine visit. The Merton
History of the Book group visited the
Museum for a presentation by the
Librarian and the Archivist. This event
was a success and increased awareness
of the Museum and the Library.

The collection has grown slowly this
year, with fewer than 70 accessions.
The majority of books have been
donated, with a few key titles

purchased. In January, the Museum
had to relocate its Exam Schools
storage to a smaller room. Library
material that had been stored here had
already been sorted and so could be
moved to more suitable storage. This
was accomplished without problems,
although the material for the stack has
still to be shelved once space has been
rationalized.

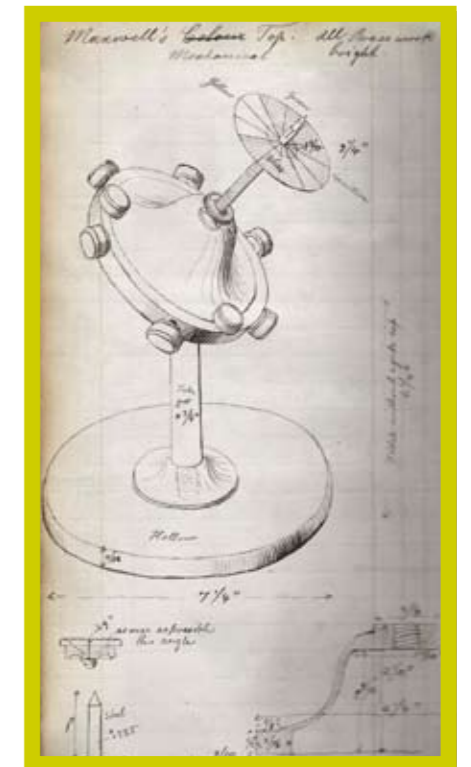
The Librarian has begun a project to
modify the library's facsimile copy of
Apian's *Astronomicum Caesareum*.
This book contains volvelles which,
before modification, are incorrectly
constructed. Using instructions from
Owen Gingerich and the help of Keith
Powell (a regular reader who has
studied the work), work has begun
to correct the volvelles. The project
will be documented for a page on the
Museum website.

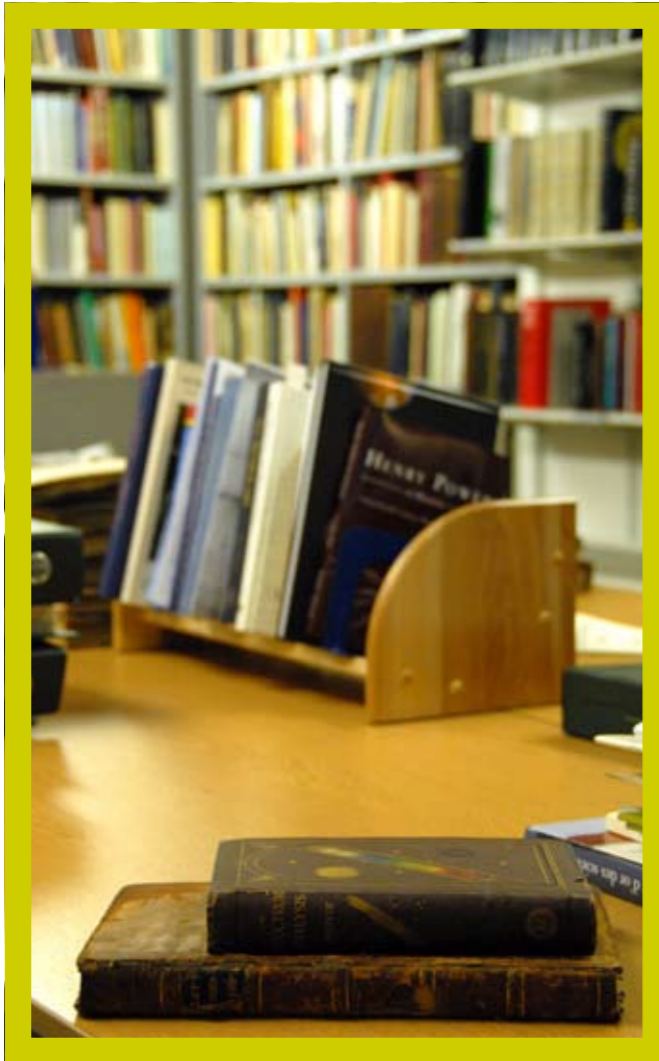
On the archives side, cataloguing of
the Elliott Archive has commenced
and continued as time has allowed,
with reasonable progress and on the
way the identification and listing of
some interesting items, such as original
technical drawings of his inventions
by the famous electrical inventor S.
G. Brown. Progress was also made on
cataloguing and sorting lantern slides
and other glass photos, adding them
to the inventory and reorganising
the shelving of them at the store.
In the course of this work, the
Archivist identified a set of previously
unrecognised or uncatalogued
glass negatives of the De La Rue
telescope at the Oxford University
Observatory; no photographs of
this important telescope *in situ* in
Oxford were previously known to
exist. The microscopical manuscripts
and drawings of C.D. Soar were
recatalogued.

Sorting and listing of the J.R. Millburn
bequest (archives, ephemera and
printed material, etc) continued.

The Archivist visited the solicitors in
Aylesbury and brought back additional
material (archival, plus a model
demonstrating Keplerian elliptical
motion) while also returning some
inappropriate items that had been
de-selected. Additions to the SHAC
archive were made by Dr W. H. Brock;
Dr J. H. Jones gave some photographs
of Oxford chemists; Sir John Rowlinson
gave an association copy of a book of
tables and a MS relevant to Oxford
chemistry.

Publications appearing during the year
that have benefited conspicuously
from material in the Museum's library
and manuscript collection include
articles by David Le Conte on De
La Rue, Alastair Howatson's history
of the Oxford Engineering Science
Department, John Jones's history of
the Dyson Perrins Laboratory, and a
multi-authored volume on chemistry in
Oxford. Photocopies of the Museum's
several important letters of G. B. Amici,
were supplied to Dr Alberto Meschiari
in Italy for his collected correspondence
of Amici.





Readers consulting manuscript, archival, or photographic material and assisted by the Archivist have included:

Andrea Bracher (Herschel photographs)
 Caroline Fuchs (autochrome photographs)
 Thad Parsons III (Museum archives, Sherwood Taylor manuscripts, etc)
 Budd LaRue (J.J. Lister manuscripts)
 Margaret Olszewski (MS Gunther 64, re Oxford Botanic Garden)
 John Steele (Richard Dunthorne letters)
 Nick Hankins (Moseley manuscripts)
 Brian Gee (Dollond manuscripts, Elliott archive, etc)
 Alexi Baker (Millburn archive, newspapers & ephemera, etc)
 Giles Hudson (photographs)
 Vanda Morton (papers re Nevil Story-Maskelyne)
 Roger Hutchins (newly discovered photographs of De La Rue telescope)
 Andrew E. Herschberger (early photographs)
 Matthew Simpson (MS Gunther 65, re Oxford science)
 Edward Fenton (Gibson's medical diary)
 S. J. Edwards (early photographs of scientific subjects)

PUBLIC PROGRAMME, EXHIBITIONS, OUTREACH AND EDUCATION

Exhibitions

The exhibition **'Heaven on Earth: missionaries and the mathematical arts in 17th-century Beijing'** (mentioned in the previous annual report), closed on 7 September. The Museum's complete set of 105 prints from Ferdinand Verbiest's *Xinzhì Yixiangtu* has been made available on the website as a permanent benefit from this exhibition.

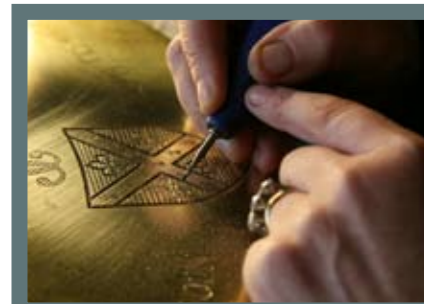
The exhibition **'SIS 25'**, marking the 25th anniversary of the Scientific Instrument Society and curated by Dr Johnston and Peter Delehar, ran from 19 August to 26 October. In an original collaboration with the Society, the Museum displayed over 50 historical instruments, ephemera and books from 20 private collections, aiming to recognise the complementary work of museums and collectors: museums cannot accept everything they are offered, so collectors play an important role in preserving the material culture of science. Some of the borrowed instruments were displayed in three showcases in the Museum's entrance gallery, but many were added to the permanent display throughout the Museum, where they were placed to show relationships with the objects belonging to the Museum. A comprehensive on-line version of the exhibition is a permanent addition to the Museum's website.

The exhibition, **'The English Telescope from Newton to Herschel'**, curated by Dr Bennett, ran from 16 October to 19 April. It marked the 400th anniversaries of the first unequivocal documentary record of a telescope and the first known use of the instrument to observe the heavens, the latter being the occasion of the International Year of Astronomy in 2009. The extensive programme of events linked to this exhibition was part of the International Year. The exhibition was an opportunity to demonstrate the strengths of the Museum's own collection, which are concentrated in the 18th century, and to display many instruments together that are usually scattered through the galleries or in store. Broadsheet no. 7, 'The English Telescope from Newton to Herschel', was published to accompany this exhibition.



The exhibition **'Compass & Rule: architecture as mathematical practice in England, 1500-1750'** opened on 16 June, and an illustrated catalogue was published by Yale University Press. The exhibition occupied more gallery space than previous temporary exhibitions, extending beyond the Special Exhibition Gallery into the Beeson Room, where the old wall cases were removed and a new 3-bay showcase installed.

See pages 4 and 6 (above) for further details.



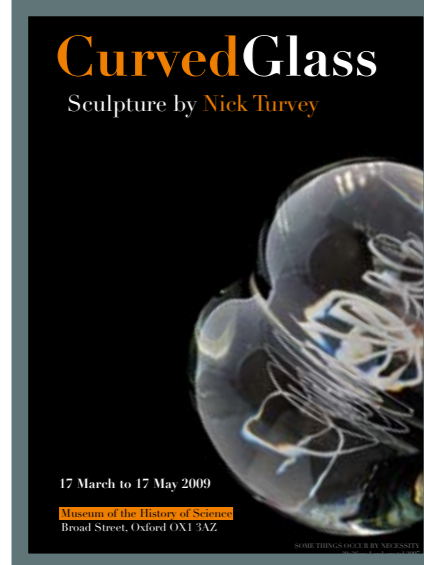
An exhibition of GCSE artwork by pupils of Larkmead School, made in response to the Museum's displays and entitled **'Journeys and Explorations'**, opened on 7 November.

The exhibition **'The Double Horizontal Dial: Then and Now'** opened in the Entrance Gallery on 13 January. It featured the first such dial to have been hand engraved since the eighteenth century, an instrument by the dialist Joanna Migdal for St Hugh's College, presented in the context of relevant instruments and literature from the period of its invention and popularity.

The exhibition **'Curved Glass'**, of sculpture made in Murano by Nick Turvey, opened on 17 March.

An exhibition, **'Magnificent Magnets'** opened in the Entrance Gallery on 29 June. It was unusual in that the objects were selected from the reserve collection by a class of local primary school pupils, who wrote and prepared both the labels and the graphic panels. This was an initiative by our primary schools education officer.

An exhibition in the basement gallery of material from the library and archives, **'Treasures from the Museum Library'**, was mounted in January.



Education Service

In this, the fifth year of the Education Programme at Museum we have seen a continued increase in the number of visits from schools and colleges, but particularly in the primary sector (38% increase on the previous year). There was a 26% increase in the number of school and college pupils visiting, with just over 4,000 pupils involved, almost all of whom were in taught sessions. Numbers of visitors to 'Family Friendly' events has remained healthy, but has suffered a slight decrease, perhaps as a result of the reopening of the Pitt Rivers Museum.



Primary Schools' Programme

In addition to offering a choice of five regular sessions for schools, the Museum has also worked on a number of other initiatives. PGCE students from Brookes University were visitors again this year as part of their annual Community Weeks. Sessions were offered as part of the Oxford Physics Department Children's University project, and this partnership is expected to continue for the 2010 event. This year saw the creation of a session at the Oxford University Botanic Garden designed to complement the popular Tudor Ships session at the Museum, so as to offer an integrated day visit for schools.



A number of bespoke sessions were created this year, not only for the Physics Department's event, but also for teachers who wished to take advantage of the collection and education service at the Museum to enrich their classroom teaching. A particularly successful example of this was a special project for a year class at North Hinksey primary, who were working on the topic of the History of Medicine. They not only explored the galleries through a variety of hands-on activities, but also had the opportunity to look at a collection of *materia medica* not normally on display as well as visit the Museum library and work with the Librarian to do some of their own research and to view a number of early medical texts and drawings.

Finally, two year-3 classes from SS Mary and John Primary School in Oxford worked with their teachers and the education officer to curate a special exhibition which they entitled "Magnificent Magnets", which has been on display in the Entrance Gallery of the Museum for the duration of the summer. The children first visited the Museum to launch their project, to meet some members of staff, and to consider what work goes on behind the scenes in order to create an exhibition. They studied magnetism as part of their classroom work over the term, and then chose objects and created labels for the exhibition. The project culminated in a private view to open the exhibit, to which parents and Museum staff were invited. This was a new venture for the Museum, aimed at giving pupils insight into the work that goes on behind an exhibition and how objects are interpreted.

“BOTH STUDY DAYS WERE FULLY BOOKED WITH 75 STUDENTS ENJOYING A DIVERSE PROGRAMME OF TALKS AND ACTIVITIES.”

Secondary Schools’ Programme

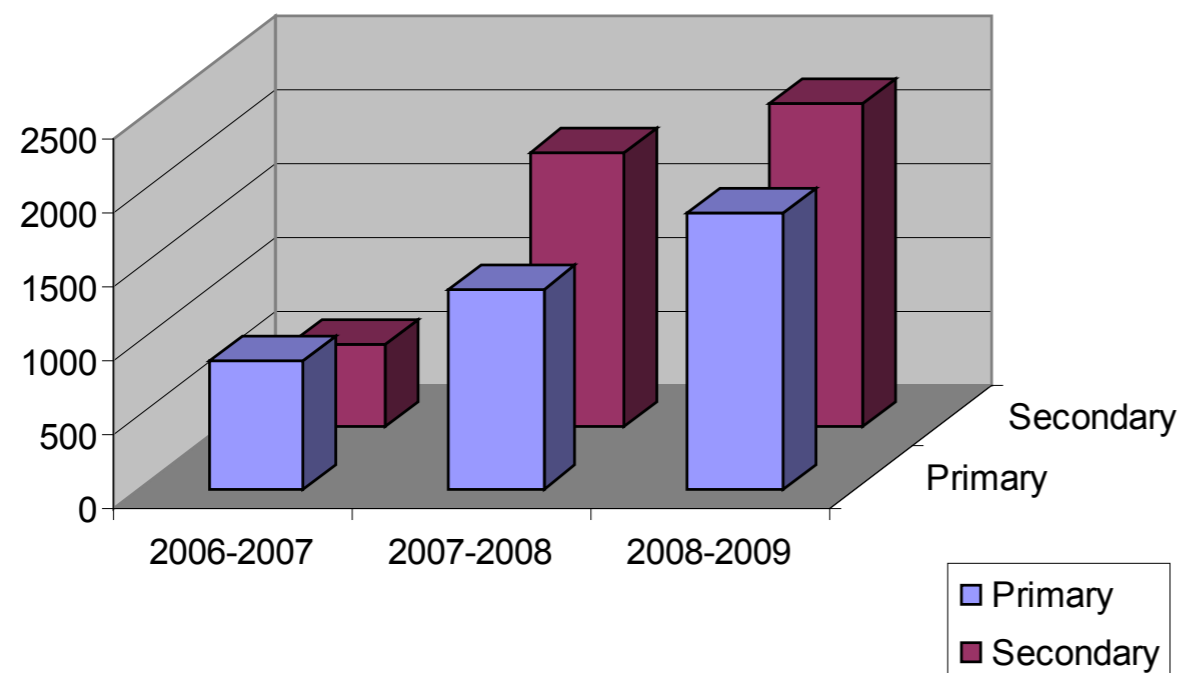
The Museum has continued to achieve an increase in secondary school bookings and to maintain a diverse range of workshops in its programme. Taught sessions have continued with interest in ‘Observing the Universe’, ‘Penicillin the wonder drug’ and ‘Surgery and Anatomy in the Seventeenth Century’ supporting the Schools’ History Project unit on ‘Medicine through Time’.

Last year’s KS4 study day, ‘Small Worlds’, was repeated in February in collaboration with the Oxford University Museum of Natural History and the Botanic Garden. To mark the International Year of Astronomy 2009, a study day on Astronomy was offered for KS3 & 4 in June. Both study days were fully booked with 75 students enjoying a diverse programme of talks and activities.

In addition to regular work with school groups, about ninety A-level Physics students from schools in the Oxford area attended this year’s sixth form study day in March on ‘Einstein and Astrophysics’, addressing special topics in several of the A-level Physics syllabuses, organised by the Museum’s Secondary Education Officer in conjunction with the Physics Department.

Study days have now become a well-established part of the Museum’s secondary programme and provide an excellent opportunity for students to gain access to the expertise of university academics and to explore cross-curricula connections linked with the Museum’s collection.

Education delivery



Sharing Expertise

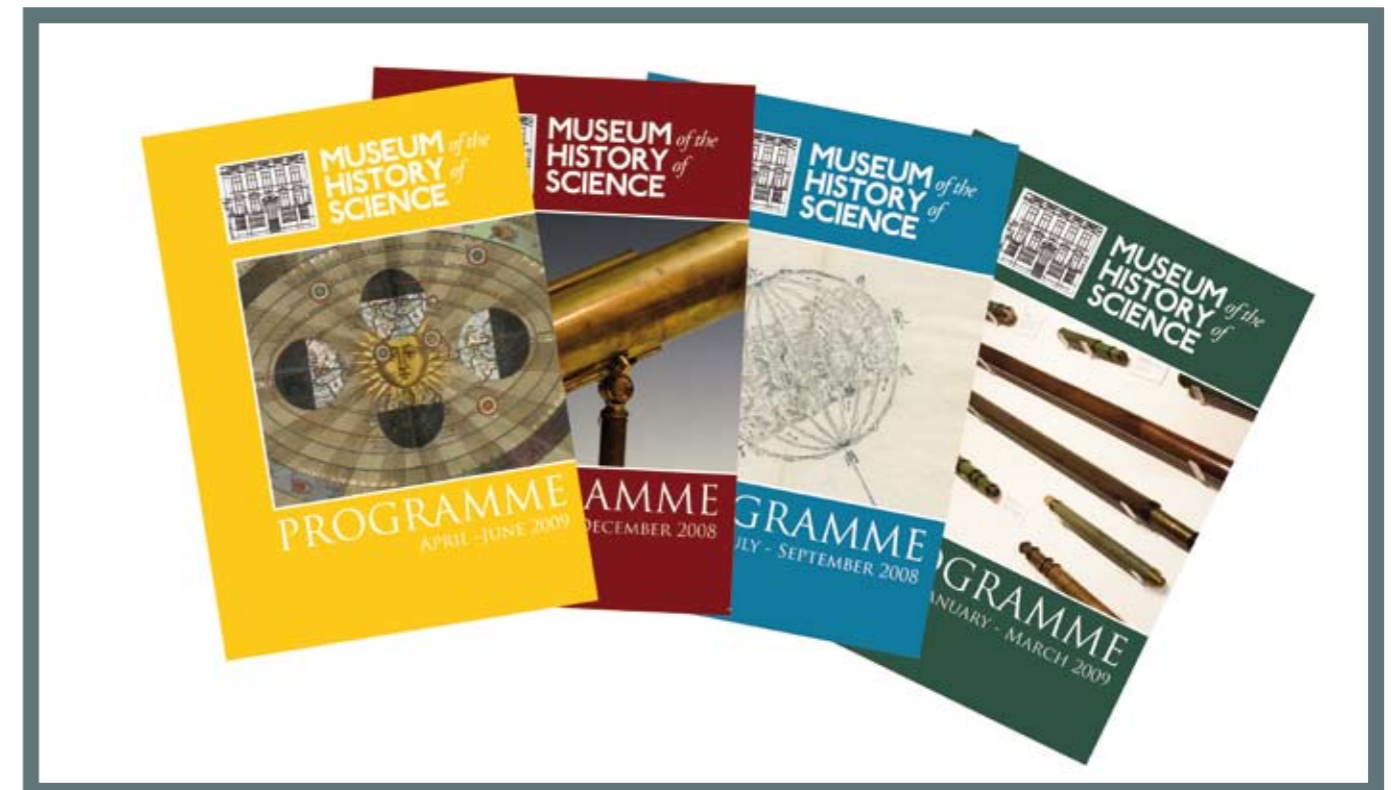
This year the Museum’s education department has continued to seek opportunities to share its expertise and promote its programme within the professional arena.

In addition to participating in the Oxford University Museums’ volunteer training programme as usual, the Museum has continued to take an active part in SLIME (Science Links in Museum Education) and this year contributed to the first annual conference for museum educators of the newly-established Museum Art and Design Network (MADNet) which was held at the Pitt Rivers Museum in July.

A number of presentations have also been made at conferences including the Association for Science Education’s annual conference for science teachers at which Museum shared an exhibition stand with the Oxfordshire LEA’s Science Advisory team and the OUMNH. Working with representatives from the Museum Boerhaave and the Museum of History of Science in Florence, a combined presentation about the use of history of science in museums to teach secondary-age students about science was given at the European ‘Ecsite’ conference in Milan. As well as forging new connections with other museum education staff, such events create opportunities to address special issues concerning the place of history of science in education. An on-going contribution has also been made to the BSHS committee for Outreach and Education.

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. Two titles were added to the series of printed ‘Broadsheets’.



10/10 Days



Two of our distinctive '10/10 Days' were held during the year. The first, on Saturday 1 November, was linked to the telescope exhibition and took the theme '10/10 TELE'. It explored technologies of distance with a programme of events on subjects that share the Greek prefix 'tele', meaning 'far off', such as television, telephone, telegraph, telepathy and teleportation. Talks, trails, demonstrations, family friendly events and film filled the day, alongside a continuous telepathy experiment, and there was an evening recital of music by Telemann.

The talks for '10/10 TELE' were:

- Dr Jim Bennett, 'How the telescope got its name'
- Dr Willem Hackmann, 'Cable telegraphy'
- Michael Hughes, 'Wireless telegraphy: a look into the Marconi Archive'
- Professor Ian Walmsley, 'Teleportation'
- Pedro Raposo, 'The Fender Telecaster' (live Telecaster riffs supplied by Daniel Hart)
- Professor Robert Fox, 'The Telephone'
- Thad Parsons, 'Telephoto Lenses and Sports Photography'
- Dr Stephen Johnston, 'Very useful for all those that make Telescope Observations'

'10/10 CIRCLE' was held on 18 July, linked to the 'Compass & Rule' exhibition, with the familiar mix of tours, trails, talks and family activities, as well as music and film. One of the novelties was a demonstration by the English Tiddlywinks Association.

The talks for '10/10 CIRCLE' were:

- Dr Benjamin Wardaugh, 'Squaring the circle'
- John Liffen, 'Trevethick's circular railway: a new view'
- Chris Redgate, 'Circular breathing'
- Dr Will Poole, 'Stone circles: Inigo Jones, John Aubrey and the origins of Stonehenge'
- Dr Eleanor Robson, 'Cuneiform circles'
- Colin Norris, 'Rings of light: synchrotron research at Diamond'
- Catherine Oakes, 'Iconography of the halo'

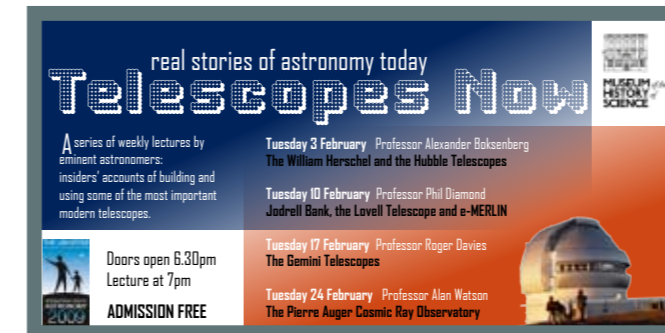
The Museum took part in the 'Winter Light' event organised by 'Oxford Inspires' on 28 November by opening until 11 pm for a series of activities and talks for children and adults. The Museum's theme was 'Starlight', with a programme of astronomical talks, tours and family activities related to light from the night sky.

A mirror-making demonstration took place through the afternoon of 31 January, with Terry Pearce showing how to hand-work mirrors for reflecting telescopes. That evening there was an observing session just outside the east door, managed and equipped by the Hanwell Community Observatory, and a talk by Christopher Taylor. Over 1,100 people attended through the day – a very high figure for a date in January.



"1,100 PEOPLE ATTENDED THROUGH THE DAY"

Special lecture series in February



'Telescopes Now: real stories of astronomy today'

Part of the programme for the International Year of Astronomy, supported by a grant awarded through the Royal Astronomical Society.

3 February

'The William Herschel and Hubble Telescopes'

Professor Alexander Boksenberg
Honorary Professor of Experimental Astronomy, University of Cambridge, former Director of the Royal Greenwich Observatory

10 February

'The Lovell Telescope and e-MERLIN'

Professor Phil Diamond
Professor in the School of Physics and Astronomy at the University of Manchester and Director of the Jodrell Bank Centre for Astrophysics

17 February

'The Gemini Telescopes'

Professor Roger Davies
Philip Wetton Professor of Astrophysics and Chairman of Physics, University of Oxford

24 February

'The Pierre Auger Observatory'

Professor Alan Watson
Emeritus and Research Professor of Physics, University of Leeds

Night of Museums

The Museum's contribution to the annual 'Night of Museums' on 16 May was a programme of talks and performances under the general title 'Death and Dissection'. A courtroom drama with the title 'The Business of Bodies' was presented by the Strolling Players of the British Society for the History of Science, as well as dramatised readings from the novel by Iain Pears, 'An Instance of the Fingerpost'. Attendance was exceptionally high.

The talks for the 'Night of Museums' were:

- Dr Stephen Johnston, 'Dissection at the Ashmolean'
- Dr Elizabeth Hurren, 'Whose body is it anyway?'
- Dr Jim Bennett, "'A Wonder of Wonders": the story of Anne Greene'





Starry Messengers

A day on astronomy for adults and children was held on Saturday 4 April, with a programme of talks, demonstrations, storytelling, music, games and trails, as well as solar observing from the Sheldonian Yard.

Marking International Year of Astronomy 2009, this family theme day was supported by the Institute of Physics and organised in conjunction with the special exhibition on the early history of the telescope. A popular contribution to the programme came from a group of amateur astronomers from the local Abingdon Astronomy Society who set up telescopes for solar observation.

The talks given on the day were:

Dr Jim Bennett, 'Who or what was the Starry Messenger in 1609?'

Dr Richard Dunn, 'The Optic Engine Laid Bare'

Christopher Taylor, 'Celestial Objects for Common Telescopes'



Family Friendly Programme

The Museum's Family Friendly programme has continued in its established pattern every other Saturday with activities alternating between taught, structured workshops and less formal 'drop-in' activities. Successful workshops have included the popular 'Galileo's Telescope' and 'Make a Model Orrery'. This year a new architectural workshop on 'Crazy Columns and Dodgy Domes' was offered in conjunction with the special exhibition 'Compass and Rule'. The workshops are regularly booked up in advance and maintain a unique position in the overall University Museums' Family Friendly programme, providing an 'in-depth' educational experience, often combined with a modelling

project, suitable for older children.

'Terrific Telescopes and Sneaky Spyglasses' was a popular drop-in session introduced during the February school half-term to celebrate the four hundredth anniversary of the telescope, and 'Lightning Strikes' attracted significant numbers featuring a series of eighteenth-century style electrical demonstrations highlighting the story of Benjamin Franklin's investigation into the nature of lightning. A new drop-in session, 'Eyeballs and Other Things', was offered in conjunction with the Night of Museums programme, 'Death and Dissection'.

The Museum once again contributed to the national 'Big Draw' festival in October, and during the National Science and Engineering Week in March the Museum contributed to the activities in this year's 'Wow How' science event based at the University Museum of Natural History. As ever, crucial to the success of these events has been the support of the university museums' volunteer programme.

Public Lectures

Public lectures linked to the special exhibitions were:

2 September

'Wise Men from the West or Pirate Spies? The Jesuits seen from Ming China'

Professor Craig Clunas

11 October

'Private Passions'

A series of talks linked to 'SIS 25' with members of the Scientific Instrument Society

2 December

'The Invention of the Telescope'

Dr Sven Dupré, University of Ghent

20 January

'Longitude revisited: James Short and John Harrison'

Dr Jim Bennett

31 January

'Celestial Objects for Common Telescopes'

Christopher Taylor

21 July

'Wren and drawing'

Dr Anthony Geraghty

Other public lectures were:

19 August

'Astronomy and Controversy: the Oxford Observatories 1772-1939'

Dr Roger Hutchins

31 March

The 'Between the Lines' lecture by Professor Marcus du Sautoy, scheduled for 31 March, had to be cancelled, as the speaker was ill.

9 June

The 'Between the Lines' series continued with a public lecture on 9 June by Rebecca Abrams on her book *Touching Distance*, the story of Alec Gordon, a physician in Aberdeen c.1800 and his struggle to deal with an outbreak of childbed fever. Dr Johnston led a **walking tour** through Oxford on 22 July to illustrate themes from the 'Compass & Rule' exhibition with reference to local buildings.

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 contributed two table talks by Dr Johnston to the University's Alumni Weekend in September. In the same month Dr Bennett led a visit organised by the Tourist Office on 'Hidden Oxford'.

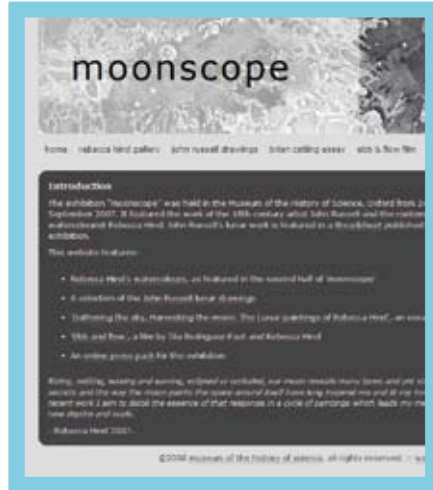
Dr Johnston was invited to give a public exhibition tour at Modern Art Oxford for Raphaël Zarka, 'Geometry Improved' on 28 March. Dr Bennett chaired a session on 'Science and History in Fiction' at the Oxford Literary Festival on 2 April.

The Museum was used for several television programmes during the year, including 'The One Show' on BBC One for a feature on Marconi. The Director and the Assistant Keeper spoke on a number of occasions on Radio Oxford to promote events at the Museum. The Museum figured prominently in an edition of the magazine 'Oxfordshire: Limited Edition'.



The annual (and final) party for Ashmole's birthday on 23 May included a performance of the Museum's own theatrical event, 'Who was Guglielmo Marconi?', to mark the centenary of Marconi's Nobel Prize.

Web development



A significant upgrade in our web provision was the introduction of the EMu online database (the web version of our EMu collections management system) at <http://emu.mhs.ox.ac.uk/>. This went live in late summer 2008, giving on-line access to our collections database, with immediate updating when additions and changes are made by the collections staff.

A final decision has been made on the introduction of a Content Management System (CMS) to use for web development. The original choice was Drupal, but, following a period of evaluation and testing, it was later found that WordPress was better suited to the CMS needs of the museum. One benefit of this is that Museum staff can, without any knowledge of HTML or other web coding, edit or update web pages with text and images.

A larger than usual number of online exhibitions was added to the website, maintaining the Museum's strong and distinctive contribution in this area. New websites were launched for the following exhibitions:

'Moonscope':
<http://www.mhs.ox.ac.uk/moonscope/>

'SIS 25':
<http://www.mhs.ox.ac.uk/sis25/>

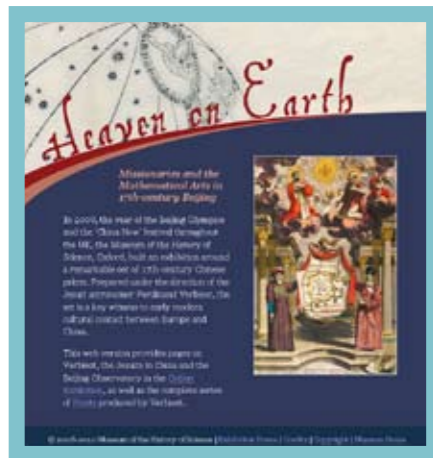
'Heaven on Earth':
<http://www.mhs.ox.ac.uk/heaven/>



A new departure was the recording and web delivery of the 'Telescopes Now' series of lectures. Audio recordings of the four lectures are now available from the Museum's website and offered also as podcasts via the University of Oxford's iTunes/podcasts area.

<http://www.mhs.ox.ac.uk/exhibits/lectures/>

The number of unique visits to the website (not simply page visits) over the year was 602,715, compared with the previous year's figure of 461,948.



Information technology

The website and web development generally have been moved to a new, virtually hosted webserver. The website, other files, databases, other settings and data were all transferred and successfully implemented. Hardware and operating system requirements for EMu have been established and implemented. A wireless survey of the Museum site was undertaken by a team from OUCS. Outstanding issues with the Hanwell environmental monitoring system have been resolved.

Dr Johnston and Dr Bennett 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 Johnston and Dr Bennett attended the annual symposium of the Scientific Instrument Commission, held in Lisbon, 15-21 September; they both presented papers and Dr Johnston devised and led a pre-conference workshop.

The Museum hosted a one-day workshop for the AHRC-funded research project 'Global Arts' based at the University of Warwick, on 17 October; Dr Johnston presented a paper.

Dr Bennett was external examiner for PhDs at Cambridge University and London University.

Dr Bennett and Dr Johnston presented papers at the IUHPS congress in Budapest in July.

Dr Johnston was a session chair for 'Technologies for Cultural Heritage: Leonardo and Beyond', organized by the Italian Embassy in London and Italian Studies at Oxford (ISO), Oxford, 1-2 October 2008

Dr Bennett chaired a session in the 'Unreasonable Effectiveness' History of Mathematics conference at All Souls College, 16 December.

The Museum continued to host the meetings and the website of the Society for the History of Medieval Technology and Science, and the websites of the Scientific Instrument Commission of the International Union of the History

and Philosophy of Science and of the journal 'Rittenhouse'. It also hosts and administers the much-used and valued 'rete' bulletin board for the instrument history community.

Dr Bennett has joined the Advisory Committee of 'Wellcome Collection', London. He continued to serve on the Science Museum Advisory Committee, the Astronomical Heritage Committee of the Royal Astronomical Society, and the Board of Visitors for the Pitt Rivers Museum. He was a member of the International Scientific Committee for the exhibition 'Galileo: Images of the universe from Antiquity to the telescope' at the Palazzo Strozzi in Florence. He served on the editorial board of the journal *Nuncius*. He continued to chair 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 committee of the Scientific Instrument Society and the editorial board of *Scientific Instruments and Collections*. He joined the International Advisory Board, Centre for History of Science, Royal Swedish Academy, Stockholm.

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

In December the Museum accommodated an extended visit by staff from the Museu Interativo de Astronomia (MASTR) of Brazil.

Dr Bennett provided an extended interview for the MLA evaluation review of Renaissance in October.

Dr Bennett gave the following lectures and seminars:

17 September 2008

'Direct and reverse engraving: Can we link the working communities in the past and connect the scholarly communities today?', Scientific Instrument Commission XXVII, Lisbon

29 September

'The Reflector from Herschel to Rosse', European Space and Technology Centre, Leiden

29 October

'The instruments of Renaissance Science', Society for Renaissance Studies national 'roadshow' lecture series, University of Warwick

21 November

'Sundials and the rise and decline of cosmography in the long sixteenth century', the Sixteenth Annual Invitation Lecture of the Scientific Instrument Society, London

27 November

'Mathematics and the Medici: Instruments from Late Renaissance Florence and a British Connection', the annual Gresham College Lecture of the British Society for the History of Mathematics, London

15 December

Contribution to the 'Exhibitions' session of the 'Material Worlds' conference for Professor Susan Pearce, Department of Museum Studies, University of Leicester

8 January

'Kepler', Anglo-German Club, Abingdon

11 February 2009

'What is the (Museum of the) History of Science for?', Oxford University Scientific Society

23 February

'IYA 2009: what was really important about 1609?', Oxford University Astronomical Society

7 March

'The knowledge of doing', Max Planck Institute for the History of Science, Berlin

18 April

'The Manuscripts of Nathaniel Pigott', History of Astronomy Society meeting, Institute of Astronomy, Cambridge

27 April

'Expanding our audience: instruments and outreach', Royal Society, London

14 May

'MacCullagh's Ireland: the institutional and cultural space for geometry and physics', Royal Irish Academy, Dublin

5 July

Commentator for the 'Visual and Material Knowledge' panel at the BSHS annual conference, Leicester

8 July

'The Regiomontanus dial', AHRC Astronomical Diagrams conference, Cambridge

Dr Johnston gave the following lectures and seminars:

5 August 2008

'Los Instrumentos Científicos como Testigo de la Ciencia Moderna: Scientific instruments as a witness of modern science', Ciencia y Público. Estrategias de Difusión y Conservación de Patrimonio Científico, Curso de Verano, Universidad Complutense, San Lorenzo de El Escorial

16 September

'Christ Church Library: Mathematical instruments and architectural space in 18th-century Oxford', Scientific Instrument Commission XXVII, Lisbon

3 October

'Mathematics, authority and practice: fortification in comparative perspective', Festung im Fokus: Mathematische Methoden in der *Architectura militaris* des 16. und 17. Jahrhunderts und ihre Sublimierung in der *Architectura civilis*, Dresden

17 October

'Heaven on Earth: exhibiting east and west within the history of science', 6th AHRC workshop Global Arts: East meets West, Oxford

12 December

'From Gatekeeper to Impresario: Reflections on the Role of the Curator, 1985-2010', The Future of Scientific Heritage, Jubilee Symposium of the Center for History of Science, Royal Swedish Academy, Stockholm

18 December

'Thomas Digges and magnetism', Thomas Harriot seminar, Durham University

28 July 2009

'Trading up: instruments and architecture in early-modern England', XXIII International Congress of History of Science and Technology, Budapest

10 July

'Wren, Hooke and graphical practice', AHRC Astronomical Diagrams conference, Cambridge

Staff Publications

Jim Bennett, 'A role for collections in the research agenda of the history of science?', in G. Cavalli-Björkman and S. Lindqvist, eds, *Research and Museums* (Stockholm: Nationalmuseum, 2008), 193-209

Jim Bennett, 'The astronomical instruments of the Renaissance', in P. Galluzzi, ed, *Galileo. Images of the universe from antiquity to the telescope* (Florence: Gunti, 2009), 218-25

Jim Bennett, 'Sundials and the rise and decline of cosmography in the long sixteenth century', *Bulletin of the Scientific Instrument Society*, no. 101, June 2009, 4-9.

Stephen Johnston, *Compass and Rule: Architecture as Mathematical Practice in England, 1500-1750*, with Anthony Gerbino (New Haven and London: Yale University Press, 2009)

Stephen Johnston, *European Collections of Scientific Instruments, 1550-1750*, edited with Giorgio Strano, Mara Miniati and Alison Morrison-Low (Leiden and Boston: Brill, 2009)

MUSEUM STAFF

Museum Staff

Staff in post at the end of 2008-9

Jim Bennett

Director

Stephen Johnston

Assistant Keeper

Margaret Hauser

Museum Administrator

Lucy Blaxland

Collections Manager

Cheryl Wolfe

Conservation Officer

Richard Rowley

Photography and Design Technician
(Maternity Leave Cover)

Keiko Ikeuchi

Photography and Design Technician

Owen Shaw

Technician (0.5)

Spiro Vranjes

IT Assistant (0.5)

Gemma Wright

Librarian

Anthony Simcock

Archivist (0.4)

Amy Taylor

Clerical Assistant (0.5)

Mariella Guida

Senior Gallery Assistant and Supervisor

Anthony Lummis

Gallery Assistant

Frances Turner

Gallery Assistant

Louise Hamilton

Gallery Assistant

Nick Wicker

Cleaner

Anthony Gerbino

Project Researcher

Christopher Parkin

Education Officer (0.6)

Michelle Holloway

Education Officer (0.4)

Elizabeth Bruton

Web Officer (0.5)

Laura Ashby

Audience Development Officer (0.5)

Casual Gallery Assistants

Carly Banner

Margaret Barker

Chris Dadds

Sarah Debenham

Manfred Driver

Peter Ells

Jane Griffin

Linda Harmer

Linda Parker

Vincent Mason

Thad Parsons

Alejandro Ratazzi

Malini Roy

Makiko Tsunoda

John Whitehead

Museum Visitors

Professor Pietro Corsi

History Faculty (Chair)

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

Mr Ashok Handa

Nuffield Department of Surgery

Professor Harvey Brown

Philosophy Faculty

Dr Laurence Goldman

History Faculty

Professor Christopher Minkowski

Oriental Institute

Dr Robert Anderson

co-opted Visitor

Mr Howard Dawes

co-opted Visitor

One of the Proctors or the Assessor



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