

**SCIENCE
MUSEUM
GROUP**

Science Museum Collecting Policy Statement October 2016

Governing Body: Board of Trustees of the Science Museum
Date for Approval: 2016
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1. Introduction

The Science Museum (ScM)'s mission is to make sense of the science which shapes our lives, to help create a scientifically literate society and to inspire the next generation. We are a dynamic and inclusive museum, internationally recognised for our world-class collections and for employing them to engage people in a dialogue about the history, present and future of human ingenuity in the fields of science, technology, medicine, transport and media.

This policy sets out the rationale for future acquisitions to the collections of the Science Museum. It should be considered in conjunction with the SMG Collection Development Strategy, which provides an overview of collecting across the SMG museums. It is intended to guide collecting activity and to shape the collections sustainably¹ and in line with the Museum's vision, strategic objectives and Masterplan.

2. History of the collections

The origins of the Science Museum's collections lie in the Science collections of the South Kensington Museum, founded in 1857, which later developed into the Victoria and Albert and Science Museums, formally separated in 1909. The Patent Office Museum and the Special Loan Collection of Scientific Instruments, both housed on the South Kensington site, were the foundations of the Engineering and Science collections respectively. The Museum became a major repository for the history of medicine with the transfer on permanent loan of the Wellcome Collection in 1976.

There are few relevant subject areas not represented within the Science Museum's 240,000 accessioned objects and 700,000 Library and Archive items. The Museum's collections cover the 18th to the 21st centuries, with areas of significant strength for earlier periods in some subject areas. The existing collections are strong in material from Western societies in general and Britain in particular but also include significant international representation; this global remit will continue to inform collecting as and when appropriate and practicable.

3. Overview of the current collections

3.1 Science

The Science collections are world-leading, with a wide temporal and subject span, including 18th-century mathematical and philosophical instruments, the establishment of scientific disciplines in the 19th century, and 20th-century industrial applications of science. Experimental and industrial apparatus is complemented by globally significant holdings in demonstration and teaching apparatus, and material representing science in popular culture. While some objects are linked to famous figures in the history of science, the particular strength of the Science collections lies in the broad history of instrument-making and use. Meanwhile, the Library and Archive collections provide a 'history of ideas' historiography of science.

¹ Sustainable collections development principles are articulated in the SMG Collection Development Strategy 2015 (Section 8 – Limitations on collecting)

Major British institutions are well represented. The focus is primarily European but with pockets of global and earlier representation, notably in astronomy, alchemy and mathematics. There is weaker coverage of the period from the late 20th century onwards, particularly in representing the working context (physical and procedural) of instruments for both meso- and large-scale science and industry. There is also a need to address emerging disciplines which have not been well served by the existing collections classifications.

3.2 Medicine

The Medical collections of the Science Museum rank among the largest and most significant of their kind in the world. They were founded on the collections of Sir Henry Wellcome and have been held on permanent loan by the Science Museum since 1976. Wellcome collected internationally via a network of agents, and applied an extremely broad definition of medicine. The collections have a wider geographical coverage and an earlier start date (beginning in antiquity and containing significant pre-18th-century material) than the majority of other ScM collections; notably they include important ethnographic holdings. They have been added to significantly by ScM curators since 1976 and now contain around 140,000 objects.

Collection strengths include a number of technical specialisms: for example, the formative years of anaesthesia (1840s–1860s) and diagnostic radiology (1920s–1930s). The Microscopes and Microscopy collection and the Audiology collection are also strong. The Medical collections also represent significant transformative moments in the scientific understanding of the human body: for example, strong Anatomy and Pathology collections, and items relating to the 20th-century rise of molecular biology, medical imaging, neuroscience and genomics. Other significant sub-collections include the Roehampton Collection of prosthetic limbs and medical items collected from the battlefields of the First World War. Beyond specific medical specialisms, the collections speak to significant societal events of the 20th century, such as the rise of the NHS, the thalidomide tragedy and the HIV/AIDS epidemic.

3.3 Technologies and Engineering

The Technologies and Engineering collections are globally significant. Their representation of mechanical engineering reflects Britain's early lead in textile machinery, manufacturing and power generation, the activities which underpinned the Industrial Revolution c. 1760–1820. The water, road and air transport collections comprise complete vessels, many hundreds of vehicles, significant civilian and prototype aircraft, and one of the world's finest collections of aero engines. The Sound collections complement those in the National Media Museum with a collection on the science of acoustics, a sound-reproduction collection focusing on the technology of recording and reproducing sound acoustically and electronically, and a radio-communication collection covering the historical development of wireless telegraphy and of radio and television transmission and reception. The Telecommunications, Computing, Navigation and Timekeeping collections reflect well all the major developments in these fields until the last few years of the 20th century, while the Space Technology collection traces in detail the formative years of British rocketry and satellite technology. Domestic technologies from the 18th, 19th and 20th centuries are well represented, and the Materials collections include large numbers of plastics and modern materials.

3.4 Library and Archives

The coverage of the Science Museum Library and Archives is broad and varied in scope but focuses predominantly on the history and development of the physical sciences and all branches of engineering. There are also significant collections relating to natural history, exploration, the life sciences, medicine and veterinary science.

The printed collections are broadly divided into primary literature (i.e. original scientific and technical books, periodicals, reports, patents and trade literature from all periods of the last five hundred years, including incunables and other rare materials) and secondary literature (i.e. historical, biographical, sociological, explanatory and descriptive treatments of science and technology).

The Archives – of companies and notable individuals – predominantly date from the 19th and 20th centuries, although older archival collections dating back as far as the 16th century are also held, as are special collections, such as manuscripts and diaries.

4. Themes and priorities for future collecting

4.1 Science

Future collecting will continue the Science collections' broad coverage of instrument-making and use, supporting historiographical trends in engaging with the practices and processes of science and a move away from 'great experiments' narratives, although objects with exceptional provenance or associations will continue to be acquired.

The historic collections will be added to via reactive collecting when exceptional items become available, for example, by auction or through approaches from individuals. Targeted acquisitions will focus on the period after the Second World War and will explore networks of instrument manufacture and use, and the different roles and skills of people involved. The Museum curators will work closely with the Library and Archive team to ensure that documentation about, and produced by, instruments, individuals and groups is also acquired.

Key areas for 2016–21 include the integration of climate science representation across the Earth Sciences collections; extending the coverage of recent research in astronomy and physics; and developing a dedicated strategy for the Chemistry collections so that they can be better utilised for research and display. There will also be a strengthening of those collections that have received little curatorial attention in the last ten years: for example, an acquisition project to ensure that the Science Teaching collection reflects recent educational practice.

4.2 Medicine

The scale and breadth of the Medical collections has meant that significant areas remain under-studied and under-documented. The Medicine Galleries project will enable a focus on some of these areas, with particular attention to those that are confirmed as featuring in the galleries. Similarly, the project will enable further collecting, identifying future biomedical trends in both research and practice, and prioritising contemporary collecting that speaks to these themes, particularly with regard to the content structure of the new galleries and/or where material relates to historic items in the collections. Characteristics of the new galleries that will inform this collecting strategy include emphases on patient experiences, on artefacts relating to everyday makers and professional and patient users of medical technology (as opposed to the 'big names') and on collections with relevance to underrepresented museum audiences (e.g. BAME audiences, visitors with physical or sensory disabilities and mental health service users). Examples of such collecting areas include keyhole surgery and robotics, genetic medicine, bariatrics and ageing.

4.3 Technologies and Engineering

Collecting areas for 2016–21 will have a renewed focus on infrastructure and the built environment, including the physical networks that support society (such as mobility, public health, power and communications).

This network approach will allow the Museum to focus collecting efforts not only on the visible 'front-end' artefacts that have commonly been its focus (e.g. vehicles, water meters, electrical turbines, computers, telephones) but also on the structures which connect them together and enable them to be designed, to operate and to undergo maintenance (roads and congestion-charge cameras, water mains and flood-plain modelling software, pylons and superconducting cable test samples, telephone exchanges and phone engineers' diagnostic devices). The Museum will explore ways to represent large-scale civil engineering and building structures as part of this work.

Collecting in the transport fields will include the everyday as well as the exceptional. A traffic-congestion collecting project, emerging from a recently completed major research project, will be established. This will focus on collecting artefacts which show the political nature of urban traffic, such as road-pricing meters (emerging from 1950s neoliberal approaches to marketisation) and pedestrian guardrails (installed in a 1930s culture of social segregation).

The Timekeeping collection will be directed towards representation of the control, recording and standardisation of time, both locally and at distance. The Navigation collection will prioritise navigational developments of the early to middle decades of the 20th century. Recent developments in the fields of sustainable electricity generation will be explored for the Power Supply collections.

In Mechanical Engineering, smart design, manufacturing and construction (including 3D printing and robotics) will be targeted for acquisition. Contemporary examples of printing (both domestic and workplace) will be sought. In the Lighting collection, new forms such as light-emitting diodes will be gathered.

Aerospace collecting will look at the novel materials, techniques and systems informing the futures of flight and space travel. New aero-structures, aerodynamic forms, propulsion and engine types will be sought, while the ergonomic and social aspects of civilian flight will be afforded better representation. The evolving dynamic in space exploration between established and developing national programmes, governmental and commercial initiatives, and human and robotic systems will be represented. New categories of collecting which reflect the relationship of the cultural, the technological and the scientific in humanity's exploration of space will also be considered.

4.4 Library and Archives

Library and Archives collecting will continue to focus on supporting the wide work of the Museum, particularly in relation to gallery, exhibition and event development and the associated curatorial collecting priorities. The Science Museum will build upon its status as the recognised repository for the archives of significant individuals, groups or programmes. It will make additions to the printed and written materials but increasingly also to digitally based records, including oral histories (both audio and video). A new SMG Digital Strategy will guide acquisition both here and in relation to the capture of digital information that is now increasingly and ubiquitously encapsulated in the design, development and operation of technologies.

5. Themes and priorities for rationalisation and disposal

The Science Museum is undertaking collections assessments as part of the Blythe House and Wroughton move project. The Museum will review areas of significant thematic overlap and the potential for duplication with other museums within SMG.

As a priority the Museum will undertake a review of its Air Transport Collection (Aeronautics, Aircraft Propulsion and Farnborough) to make recommendations which maximise the use of the collection and emphasise public display in futures galleries and exhibition.

6. Collecting policies of other museums

This policy should be considered alongside the collecting policy statements of the other SMG museums and the SMG Collection Development Strategy. The Museum will take account of the collecting policies of other museums and other organisations collecting in the same or related areas or subject fields. Specific reference is made to the following:

- International museums with specialist collections in Science, Technology and Medicine, such as the Smithsonian National Air and Space Museum, Washington, DC, the Deutsches Museum, Munich and the Musée des Arts et Métiers, Paris.
- Museums and archives such as the Whipple Museum, Cambridge and the Museum of the History of Science, Oxford, which house exceptional collections of early scientific instruments, and the Thackray Medical Museum, Leeds, which specialises in surgical instruments, pharmacy ceramics and medical trade literature.
- National museums which have particular geographic or thematic collecting remits, such as National Museums Scotland, National Museums Northern Ireland, National Museums of Wales and the National Maritime Museum.
- The British Library collection of Oral History of British Science, a national collection of in-depth, life-story audio interviews with scientists and engineers.
- The National Science and Technology Archives Group, led by the National Archives, which aims to develop co-ordinated collecting of contemporary archives in these and related subjects.

This is an abridged version of the policy. The full policy contains the relevant standard provisions of the Accreditation Collections Development Policy Template (Arts Council England, 2014 edition). The full policy is available on request.

National Railway Museum Collecting Policy Statement October 2016

Governing Body: Board of Trustees of the Science Museum
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1. Introduction

The National Railway Museum (NRM) is the prime showcase for the huge impact that railways – past, present and future – have had and continue to have on Britain and the wider world. The Museum aims to inspire people by shaping collective memories, demonstrating contemporary significance and inspiring the next generation of railway engineers.

This policy sets out the rationale for future acquisitions to the collections of the NRM. It should be considered in conjunction with the SMG Collection Development Strategy, which provides an overview of collecting across the SMG museums. It is intended to guide collecting activity and to shape the collections sustainably² and in line with the Museum's vision, strategic objectives and Masterplan. It further aims to refocus collecting on significant recent and contemporary artefacts and archival material, to allow the Museum to continue to represent the evolution of railways and the impacts that they have had.

2. History of the collection

The NRM's collection (known as 'The National Collection of historical railway relics' or simply 'The National Collection') is Britain's largest single body of historic railway items. It has its origins in the historic objects variously preserved by the Commissioners of Patents and individual railway companies in the mid to late 19th century. Following rail nationalisation in 1948, the British Transport Commission established a preservation policy bringing the collections together under a single owner. Two decades later, the 1968 Transport Act led to the creation of a National Railway Museum, which opened in York in 1975, with a satellite museum opening at Shildon in County Durham in 2004. The collection has subsequently been significantly developed to cover all areas of railway history.

The NRM is also recognised by the National Archives as a place of national deposit of railway-related archives. The considerable archive, rare book and library holdings cover numerous subjects and include records and photographs of the railway industry and preservation movement, technical drawings and the private papers of key figures in railway history. The Museum also holds responsibility for the Railway Industry National Archive (RINA), set up to capture and preserve the records of Britain's railway system following its privatisation in 1994.

3. Overview of the current collection

The National Collection contains more than 2 million objects, ranging from small items such as uniform buttons to large engineering and technology items, including over 250 rail vehicles. There is an extensive and significant body of archive material (including engineering drawings and photographic, film and sound collections) and rare books, and an internationally significant group of artworks, including paintings, prints, silverware and sculptures.

² Sustainable collections development principles are articulated in the SMG Collection Development Strategy 2015 (Section 8 - Limitations on collecting)

The collection reflects the broad technical and commercial interests of the private rail companies from the 19th century until 1948, those of the nationalised British Railways from 1948 until 1994 and the subsequent history of the privatised rail system currently operating in the United Kingdom. As well as rail vehicles, the collection includes material relating to signalling, civil engineering, shipping, docks, warehousing, hotels, catering, road distribution, marketing and publicity. There is also a significant body of material associated with railways beyond the UK, including the only example of a Japanese Shinkansen ('Bullet Train') on public display outside Japan.

Given the challenges of housing larger objects, since opening in 1975 the NRM has adopted an active policy of loaning out parts of the collection. Among these items are a number of static rail vehicles (locomotives, carriages and wagons) lent to a variety of museums. Working NRM vehicles also play an important role in the operation of the UK's heritage railways (many of which are themselves accredited museums). There are around 2500 collection items on loan, the largest single loan being to STEAM: The Museum of the Great Western Railway in Swindon, which holds 1100 NRM objects, including seven rail vehicles. Finally, the NRM collection contains a small number of locomotives that are operational on the British main line, most notably the celebrated London & North Eastern Railway A3 locomotive *Flying Scotsman*, which travels frequently around England, Scotland and Wales.

4. Themes and priorities for future collecting

The NRM already has rich collections of historic material that have developed over the past 150 years, with objects dating from the 18th century to the present.

The Museum's future collecting will focus on significant gaps in the current collections, allowing improved illustration of the key areas in which railways have affected and continue to affect all our lives. This will be done by concentrating on the following areas:

- Building the railways;
- Moving people;
- Moving goods;
- Running/networks (staffing and management of railways; wider railway communities; cultural and social networks).

Acquisitions will also concentrate on items which represent major technological and historical developments, and on significant individuals. In addition, they will target artefacts that tell key stories and themes better than existing objects, and those which characterise the cultural impact of railways.

At the same time, the Museum's collecting must keep pace with the resurgence of the railways. There will therefore be a focus on collecting items relating to the modern and future railway in all its aspects, including subject areas such as franchising, significant rail infrastructure projects (e.g. Crossrail and HS2) and the Digital Railway. This will cover items that are born digital as well as physical artefacts and, where appropriate, carefully selected rail vehicles (where they tell a particularly significant technological, social or economic story). Examples include the High Speed Train (HST) and the Class 142 Pacer, selected for quite different reasons. The highly successful HST has had a major impact on high-speed rail travel in the UK for over forty years. The Class 142, however, is a draughty and uncomfortable unit used largely on provincial services, but it represents the quintessential passenger experience for many rail users and has played an important part in serving rural areas.

The Museum will draw on the work of the Railway Heritage Designation Advisory Board (a body that can seek the designation, preservation and ultimate allocation of railway-related material, including rail vehicles) and on its own contacts within the rail industry to develop the collection so that it fully encompasses the significant current and future developments in railways.

With railways in the UK undergoing a major revival, by refocusing collecting on significant recent and contemporary objects and archival material (including developing RINA), the Museum aims to improve its record of and understanding of railways and the impact that they have had on this country and beyond.

5. Themes and priorities for rationalisation and disposal

The NRM will review its collection in areas where there is a significant overlap of items representing the same themes or stories. There are known to be a large number of duplicate items in the collection, including photographs and posters, and the potential for disposal of such items will be considered.

Given the challenges of space – most notably in ensuring correct levels of collections care – the Museum will continue to review its collection of rail vehicles. It will consider transfer of vehicles that either do not fit with the Museum's current strategies or are not considered significant to the development of railway technology or to the NRM's key themes.

6. Collecting policies of other museums

This policy should be considered alongside the collecting policy statements of the other SMG museums and the SMG Collection Development Strategy. The Museum will take account of the collecting policies of other museums and other organisations collecting in the same or related areas. Specific reference is made to the following:

- International museums with specialist railway collections, particularly in those countries where the early development of railways was led by British engineers, e.g. the DB Museum in Nuremberg (part of the Nuremberg Museum of Transport), Train World in Brussels, Cité du Train in Mulhouse and the Spoorwegmuseum in Utrecht, respectively the national railway museums of Germany, Belgium, France and The Netherlands.
- International museums with specialist railway collections whose national story is reflected in the NRM's own collection, such as the SCMAGLEV and Railway Park³, Nagoya, Japan, and the China Railway Museum in Beijing.
- Museums with a Scottish focus, including National Museums Scotland, Edinburgh, the Riverside Museum (formerly the Glasgow Museum of Transport Museum) and the Museum of Scottish Railways in Bo'ness, West Lothian.
- Museums with a particular regional focus, such as the London Transport Museum, Steam: The Museum of the Great Western Railway in Swindon and the Ulster Folk and Transport Museum in Cultra, Northern Ireland.
- The National Tramway Museum, Crich, Derbyshire, which has a special focus on tram and light rail history.

This is an abridged version of the policy. The full policy contains the relevant standard provisions of the Accreditation Collections Development Policy Template (Arts Council England, 2014 edition). The full policy is available on request.

³ SCMAGLEV is a magnetic levitation railway system

National Media Museum Collecting Policy Statement October 2016

Governing Body: Board of Trustees of the Science Museum
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1. Introduction

The National Media Museum (NMeM)'s mission is to explore the science and culture of image and sound technologies, and their impact on our lives. It is a dynamic and inclusive museum, internationally recognised for its world-class collections and for using them in engaging, meaningful and inspiring ways.

This policy sets out the rationale for future acquisitions to the collections of the National Media Museum. It should be considered in conjunction with the SMG Collection Development Strategy, which provides an overview of collecting across the SMG museums. It is intended to guide collecting activity and to shape the collections sustainably⁴ and in line with the Museum's mission, strategic objectives and Masterplan.

2. History of the collections

The National Media Museum was established in Bradford in 1983 as the National Museum of Photography, Film and Television. The Museum's collections have their origins in the collections of the Science Museum, of which they legally remain a part. They have grown through acquisition of whole archives or bodies of material (such as the Kodak Museum Collection or the Impressions Gallery Archive), as well as by smaller-scale commissioning, purchase and donation.

While the museum was renamed the National Media Museum in 2005, and at the time there were aspirations to extend the scope of the collections significantly into other forms of media, in practice the focus of collecting remained on the core areas of photography, film and television. In 2015 the Museum adopted a new definition of its primary areas of interest: the science, technology and culture of images and sound. In line with this, the collecting policy will be extended to cover sound technologies more comprehensively, beyond the contexts of film and broadcast media.

3. Overview of the current collections

3.1 Photography and Photographic Technology

The Museum holds around 10,000 pieces of photographic technology and more than 3 million photographic images. The collection has been shaped by different collecting practices, as the original Science Museum material has been joined by assemblages of material from other private and institutional archives such as the Kodak Museum, the Impressions Gallery Archive and the Howard and Jane Ricketts Collection.

The collection represents all aspects of photography as a set of technologies and practices for making, sharing and viewing still images. It is not restricted to photography as part of cultural or artistic production, or photography as practised by professional photographers or artists. Rather, it also contains examples of photography as practised by amateurs as well as by professionals across all fields, including photography in medicine, in experimental science, in industrial contexts, for surveying, for surveillance, for military uses and so on.

⁴ Sustainable collections development principles are articulated in the SMG Collection Development Strategy 2015 (Section 8 – Limitations on collecting)

The collection encompasses the evolving technology of photography's many processes and its myriad of formats and applications, including stereoscopic, panoramic and microscopic photography, aerial, high-speed, press, portrait and colour photography. It is strong in early photography and the development of photographic processes. While cameras and photographs form the core of the collection, it also contains a vast range of other apparatus associated with the production, viewing and dissemination of photographs: stereoscopes and print viewers, lenses, shutters, tripods, flash guns and exposure meters, darkroom equipment, and printing and processing apparatus such as enlargers, developing tanks, printing frames and measuring devices. The collection is complemented by an extensive archive of related printed materials, including trade catalogues, advertising and point-of-sale material, service manuals and instruction books.

3.2 Film and Animation

The Cinematography collection was established in 1913 with the acquisition by the Science Museum's Department of Chemistry of six items from the British cinema pioneer Robert W Paul, which included the camera used to film Queen Victoria's Diamond Jubilee in 1897. This was followed by a modest number of acquisitions, many of which, however, were of considerable importance, such as Louis Le Prince's 16-lens and single-lens cameras, the latter used in 1888 to film some of the earliest motion pictures. The acquisition of the Kodak Museum in 1983 and the Buckingham Movie Museum in the 1990s expanded the Cinematography holdings considerably, so that the Museum can confidently claim to have a world-class collection of early cinema and amateur movie objects. It has subsequently been extended by the acquisition of other discrete collections such as the Sarosh Collection and the Ashton & Leakey Collection.

The focus of the Cinematography Collection is the technological development of motion pictures; this includes both professional and amateur practice (live action and animation) and more broader applications of the technology such as medical practice. The collections continue to be assembled to aid the public understanding of the depth and variety of film practice and the outputs from this. The museum also collects samples of film formats as examples of different technologies, but is not a film archive.

The collection is wide-ranging and particularly strong in examples of early film technology: apart from Le Prince's film cameras, it contains an Edison Kinetoscope and Kinetophone. It also incorporates excellent examples of early colour, high-speed and stereoscopic film technologies, along with instruction manuals and booklets. Production and exhibition technologies up to the 1970s are represented, and there are comprehensive examples of amateur film technologies. The collection is strong in pre-cinema optical toys and magic lanterns; it also contains more than 10,000 magic lantern slides, including examples of large-format hand-painted slides used at the Royal Polytechnic Institution. The Kodak Collection includes an invaluable research collection of film samples demonstrating gauges, colour and sound processes. Among other collections which have been incorporated into the Museum are a large number of film posters, among them those printed by W E Berry of Bradford (one of only three film-poster printers in the UK); the Charles Urban Collection (which includes the earliest colour-film footage by Lee & Turner); the Ashton & Leakey Collection of special effects make-up for Hammer Horror films; and numerous artefacts relating to animation practice by Aardman Animation, Bolex Brothers, Lotte Reiniger, Halas & Batchelor, Cosgrove Hall and Run Wrake.

3.3 Television and Broadcast

The National Media Museum has been collecting broadcasting technologies since 1983. In the past the Museum has focused on television objects and content, with the Science Museum retaining its Radio and Communications collections. The Television and Broadcast collections represent the production and transmission of both television and radio, as well as the technologies that receive those broadcasts. In recent years, collecting policy has changed; the NMeM no longer collects moving image or audio material, including television and broadcast content. Instead, the focus is on the industries, technologies and engineering of broadcasting, as well as the cultural and social histories that accompany such objects.

The collection demonstrates the development of the transmission and reception of broadcast image and sound. Objects reflect the changing historical contexts for broadcasting in Britain, from the earliest mechanical experiments to the establishment of the BBC, the breaking of the monopoly and the introduction of commercial broadcasting, the introduction of colour television and 625-line transmission, and the introduction of cable, satellite and digital terrestrial broadcasting. They represent a wealth of functions and formats, from cameras and capture to receiving and recording technologies, as well as applications of broadcast technologies beyond the television and radio industries.

The Museum has objects from the origins of television in Britain, including John Logie Baird's original apparatus and EMI's first electronic studio cameras. Professional studio cameras, including those of the Thames Television collection, sit alongside objects used on location and for outside broadcasts. Recording technologies are also represented, from phonovisions to quadruplex tape to home-recording appliances. The Museum's collection includes roughly one thousand television and radio receivers, spanning the entirety of broadcast history.

While technologies form the bulk of the collection, it also includes several objects and collections from in front of the camera, such as the Associated-Rediffusion clock and the toys from Play School. The collection is complemented by the Library and Archive, which contain paper collections that detail the engineering of television and broadcasting.

3.4 Sound Technologies

Collections at the NMeM have not previously highlighted sound in its own right; this technology has been treated as an adjunct to cinematography and television and there are a relatively small number of objects relating to sound in these specific contexts incorporated within the Television and Cinematography collections. These items include a number of examples of equipment for sound reproduction in cinema, from the Ross Vitaphone sound projector (c. 1928) to a Magna-Tech 35 mm sound film reproducer, previously used in the Museum's own IMAX cinema. However, there are no examples of the specialist amplifiers and loudspeakers which have characterised cinema sound systems, especially from the early 20th century. The development of cinema sound is quite well covered, including samples of various types of soundtrack media, and objects such as light valves and photoelectric cells for optical soundtrack playback.

Within the Broadcast collection there are several mixing desks and associated equipment for both TV and radio recording/broadcast; for example, the BBC Collection contains several consoles by Calrec Audio Ltd, a locally based major innovator in broadcast consoles. The collections also contain a range of microphones, again in the context of broadcasting. Highlights of the existing collections which could form the basis of important narratives in the history of sound technologies include the Neve DSP-1 (the first fully digital mixing console) and the Mellotron, as used by the BBC Radiophonic Workshop and on many progressive recordings in the 1960s and 1970s.

The aim is to build on the current collection of objects relating to cinema and broadcast sound at the NMeM, and also to broaden the collections to include materials relating to sound reproduction independent of film and broadcast, such as live performances, theatre, recording, etc. There are well-defined and complementary sound collections at the Science Museum (in the Radio Broadcast, Sound Recording and Reproduction, and Musical Instruments collections) and sound holdings will be developed in close collaboration with curatorial colleagues at the Science Museum.

4. Themes and priorities for future collecting

4.1 Photography and Photographic Technology

The Museum will continue to collect photographic and imaging technology, and the images made using these technologies. Acquisitions will cover the diverse applications of photography, including medical, forensic, scientific, architectural, industrial, editorial, record and amateur photography. There will be particular focus on strengthening the collections of digital technology, specialised applications, and British photographers, innovators and manufacturers. The extensive Kodak material will be complemented by acquiring selected examples of cameras made by the company between 1990 and 2012.

4.2 Film and Animation

The Museum will collect film and moving image technology, examples of footage, and associated sound technologies, for both live-action and animated film. Collecting will cover the full range of filmmaking practices and applications, including amateur, professional, research, military and medical. It will focus particularly on acquisitions that illustrate the adoption of digital technologies, British practitioners, technical innovators and manufacturers in the film industries.

4.3 Television and Broadcast

The Museum will collect television technology, including equipment used for production, transmission, receiving and recording broadcasts, as well as associated sound technologies. Collecting will cover the full range of television applications, from broadcast entertainment to surveillance and medical uses. The focus will be particularly on acquisitions that illustrate the adoption of digital technologies in television production after 1980; British practitioners, broadcasters, innovators and manufacturers; prototype and experimental equipment; and material that reflects the changing cultures of broadcasting. The Museum will also concentrate on improving the Radio and Audio collections, in line with the curatorial expertise of the Science Museum and the NMeM's new approach to sound technologies.

4.4 Sound Technologies

In addition to sound within the Film and Broadcast collections, the Museum will collect technologies of sound recording, reproduction and live performance, emphasising, but not limited to, 20th-century British audio innovation, representing both makers and consumers. These collections will be developed in close collaboration with curatorial colleagues at the Science Museum to avoid duplication and inefficiency.

Collecting will cover a range of applications, including public address for both speech and music; personal, domestic and professional recording and playback technologies (including home cinema); formats of audio capture and storage; and related print materials, such as technical manuals and ephemera. The focus will be on objects illustrating the emergence of digital sound technologies, in both professional and domestic contexts.

5. Themes and priorities for rationalisation and disposal

The Museum's collections correspond closely with those of other museums within SMG. The Museum will review areas of significant thematic overlap where there is likely to be potential for duplication. These areas include television receivers, domestic appliances and photography.

In 2016 the Museum began the transfer of the Royal Photographic Society Collection to the Victoria and Albert Museum. The NMeM may consider other strategic transfers of collections where they are not consistent with its current mission and better fit within the remit of other collecting organisations.

6. Collecting policies of other museums

This policy should be considered alongside the collecting policy statements of the other SMG museums and the SMG Collection Development Strategy. The Museum will take account of the collecting policies of other museums and other organisations collecting in the same or related areas or subject fields. Specific reference is made to the following:

- National museums, such as Tate and the Victoria and Albert Museum, who specialise in artistic practices in photography.
- The BFI, which acts as the national archive of film and television.
- Museums which have particular geographic collecting remits, such as National Museums Scotland, National Museums Northern Ireland and National Museums of Wales.
- The British Library, which has extensive collections of sound recordings and materials on sound-recording history.

This is an abridged version of the policy. The full policy contains the relevant standard provisions of the Accreditation Collections Development Policy Template (Arts Council England, 2014 edition). The full policy is available on request.

Museum of Science and Industry Collecting Policy Statement October 2016

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1. Introduction

The Museum of Science and Industry (MSI)'s mission is to inspire all its visitors, including future scientists and inventors, with the story of how ideas can change the world, from the Industrial Revolution to today and beyond. Its vision is to be a world-leading, inspirational museum about the potential of science and industry to change people's lives.

This policy sets out the rationale for future acquisitions to the collections of the Museum of Science and Industry. It should be considered alongside the SMG Collection Development Strategy, which provides an overview of collecting across the SMG museums. It is intended to guide collecting activity and to shape the collections sustainably and in line with the Museum's mission, strategic objectives and Masterplan⁵.

2. History of the collections

The collections were formed from 1965, when the Department of the History of Science and Technology at the University of Manchester Institute of Science and Technology (UMIST) began to acquire material. The Museum was established by a joint committee of UMIST, the University of Manchester and Manchester City Council and opened in 1969.

In 1983, the Museum moved to its current premises at the historic Liverpool Road Station, with Greater Manchester Council as its sole funder. In 1985 it added the collection of the adjacent Air and Space Museum, founded by Manchester City Council. It has received national government funding since 1986 and joined the Science Museum Group in 2012.

3. Overview of the current collections

The collections, comprising objects and archive material, reflect Manchester's pre-eminence as the world's first industrial city. They are internationally significant in their representation of the city's role in a worldwide exchange of goods, people and ideas. The collections cover the impact of science and industry on the lives of inventors, designers, workers and consumers. Priority has been given to the acquisition of material that relates to the Greater Manchester area. However, the Museum also holds collections with national scope relating to electricity and gas production and paper-making, as well as regionally significant collections relating to coal-mining and transport.

The collections are divided into two principal areas: industrial heritage, and science and technology.

⁵ Sustainable collections development principles are articulated in the SMG Collection Development Strategy 2015 (Section 8 - Limitations on collecting)

3.1 Industrial Heritage

The backdrop to the Museum's collections is the historic site itself, a rare example of the development of a working station and railway yard over 150 years. It comprises five listed buildings, including the world's oldest surviving passenger railway station and the world's first railway warehouse, both dating from 1830.

The Industrial Heritage collections reflect Manchester's dual role as the centre of the Lancashire textile industry and the mercantile centre for both local and international producers and markets, including outstanding evidence of the manufacture, sale and export of cotton goods.

The wider Manufacturing collections cover the development of precision-engineering and machine tools that laid the foundations for a new age of mass production. They represent Manchester's role as a manufacturing centre and also reflect the development of international export markets during the 19th and 20th centuries. Major archives and products are held from companies such as Beyer, Peacock & Co., Ferranti, Metropolitan-Vickers and Linotype & Machinery Co.

Manchester as a production centre is also reflected in the Museum's Transport collections. Locomotive manufacture and the progression from bicycle to motor manufacturing are represented, as are significant developments in aviation, including the first British aviation company, Avro.

The growth of creative industries in the post-industrial city is represented by groups of material from the animation and television industries and the Factory Communications archive, covering the influential record label and club. Among the broader service industries and city infrastructure themes represented are food and drink, and water supply and sanitation.

3.2 Science and Technology

Several of Manchester's internationally known scientific endeavours and personalities are at the heart of the Science and Technology collection, including instruments and models used by John Dalton and equipment made for James Joule by John Benjamin Dancer. The city's scientific life is more broadly represented through scientific instruments and measuring equipment.

The strong relationship between science and industry is exemplified by material relating to the dye industry, pharmaceuticals and toiletries. The continuing importance of science to the region is reflected in a collection from the Synchrotron Radiation Source molecular research facility and in early samples of graphene, Manchester's latest global scientific export.

Power for the Industrial Revolution is reflected in the Lancashire Coal-mining collection and one of the largest collections of working engines worldwide, with a focus on textile-mill engines used in the regional industry. Objects and archives – including that of the Electricity Council – show the development of electrical production, distribution and consumption. Similar object material covers the gas industry.

Manchester's crucial role in the development of calculating and computing equipment is represented by artefacts ranging from slide rules to contemporary computers. Innovations in the field include Douglas Hartree's differential analyser and Ferranti's early commercial computers.

Communications is a strong theme in the Science and Technology collection. Early photographic material includes microphotography and the first industrial photographic record. The BT Connected Earth Collection comprises a wide range of telecommunications equipment, while the National Paper Museum Collection includes the definitive collection of newspaper printing and typesetting machinery and significant archive material.

4. Themes and priorities for future collecting

4.1 Geographical scope

Future collecting will focus on objects and archives that reflect the people, organisations and communities associated with science, technology and industry in Manchester and its economic, social, industrial and scientific hinterland in south-east Lancashire and north-east Cheshire. Geographic provenance alone will not be sufficient reason to acquire items; they must also meet one of the Museum's collecting themes.

4.2 Chronology

Many of the strengths of the Museum's existing collection lie in early and mid-20th-century material. While the Museum will continue to make acquisitions from this period that support its themes, it will seek to acquire further significant 18th- and 19th-century material, at the same time as focusing proactive efforts on acquisition of material produced after 1970.

4.3 Collecting themes

The interplay of science, industry and society

The Museum will collect objects and archives that illustrate the historical and continuing relationship between the growth of science and the growth of industry. This material will enable the MSI to address ideas and innovation, how and why Manchester developed in the industrial and post-industrial period, the impact that technological developments have had upon society, and the roles of scientists, engineers, workers and consumers.

The first industrial city: challenges and solutions

The Museum will collect material that represents aspects of life in Manchester, the original 'shock city' of the Industrial Revolution. The focus will be on acquiring objects and archives reflecting working life in science, industry and commerce, and the urban environment as it has been shaped and reshaped over time. The MSI will acquire material representing the challenges resulting from rapid urbanisation, such as public health, water supply and sanitation, and the responses to these challenges, such as the provision of utilities.

The connected city

The Museum will collect objects and archives that reflect Manchester's national and global influence as the first industrial city. The collections will represent Manchester as a locus of exchange – of people, ideas, goods and expertise – demonstrating the extent of the city's international trade. As part of the story of the city's connectivity, collecting will focus on material relating to the Museum's historic site, showing the crucial role of the Liverpool and Manchester Railway.

City of ideas

The Museum will make acquisitions that tell the story of Manchester's transition to a post-industrial city. It will collect material that reflects the failure of traditional manufacturing, the impact of economic and social decline and the ensuing efforts towards regeneration. The collections will seek to reflect the rise of high-tech and creative industries from the late 20th century and the pursuit of a knowledge economy, and to represent Manchester's 21st-century concerns, including advanced materials and sustainability.

The consumer city

The Museum will strengthen its collections through a focus on design as a driving force in translating science and research into everyday life. Acquisitions will be made that explore the influence of users and consumers on product design and development, as well as their changing experience of technology.

Urban health

The Museum will expand its remit to cover Manchester's ongoing role in understanding and responding to health and medicine, in particular the relationship between medical sciences and industry. Collecting will focus on material that reflects the impacts on people's health and experience of scientific and technological innovations connected with the local area. The Museum will also seek to examine the role of research, innovation and medical ethics in the field of public health.

5. Themes and priorities for rationalisation and disposal

The MSI's collections correspond closely with those of other museums within SMG. The Museum will review its collections in areas of significant thematic overlap where there is likely to be potential for duplication. These areas include electricity supply, communications, domestic appliances, computing and photography.

The collecting policy of the Museum of Science and Industry took into account the policies of SMG Museums before 2012. Nevertheless, the Museum was not part of the same organisation and the delineation of collecting areas was not clear-cut. A high degree of duplication and rationalisation compared with other SMG museums is expected as the areas of parallel collecting are reviewed.

6. Collecting policies of other museums

This policy should be considered alongside the collecting policy statements of the other SMG museums and the SMG Collection Development Strategy. The Museum will take account of the collecting policies of other museums and other organisations collecting in the same or related areas or subject fields. Specific reference is made to the following:

- The Manchester Partnership (Manchester City Galleries, Manchester Museum and Whitworth Art Gallery).
- Greater Manchester Museums Group.
- Lancashire County Museums, particularly with regard to the Lancashire textile industry.
- Connected Earth partnership museums in relation to communications technologies. ▪ Archives Plus, Manchester.
- The National Science and Technology Archives Group, led by the National Archives, which aims to develop co-ordinated collecting of contemporary archives in these and related subjects.
- National and international museums with specialist collections in engineering, science and technology, such as the National Coal Mining Museum for England, Wakefield, West Yorkshire and Teylers Museum, Haarlem, The Netherlands.

This is an abridged version of the policy. The full policy contains the relevant standard provisions of the Accreditation Collections Development Policy Template (Arts Council England, 2014 edition). The full policy is available on request.

SMG Collection Development Strategy December 2015

1. Context

- 1.1 The museums in the Science Museum Group¹ share a mission to engage people in a dialogue about the history, present and future of human ingenuity in the fields of science, technology, medicine, transport and media.
- 1.2 The National Heritage Act 1983 requires us to: preserve, care for and add to the collections; to exhibit them to the public and make them available for study and research; and to promote the public's enjoyment and understanding of science and technology, and of the development of those subjects.
- 1.3 SMG's strategic priorities set out our vision to be internationally recognised for our creative exploration of how innovation, science, technology, medicine, transport, media, and industry created and sustain modern society. Our SMG Collection ("the Collection") provides a basis with which to achieve several of our strategic aims:
 - Aspire to the highest international museum standards in the care and preservation of collections, scholarship, programming, learning and advocacy for our subject areas;
 - Strengthen our core narratives and deliver dynamic gallery displays and public spaces;
 - Implement clear audience strategies that focus on providing life-enhancing experiences;
 - Extend our reach nationally and internationally.
- 1.4 Whilst each Museum has its own distinct history, identity and ambitions, we recognise the opportunities we have as a Group and our capacity to be greater than the sum of our parts. The strength of the overall Collection is central to realising these opportunities.
- 1.5 SMG holds the English national collections in science, technology, industry, medicine, civil transport, and media. All new collecting is conducted with reference to these often definitive holdings.

2. Vision

- 2.1 The SMG Collection will consistently provide the nation with the world's best material and visual record of science and technology and its impacts, including industry, medicine, transport and the media.

¹ Science Museum, London; Museum of Science & Industry, Manchester; National Media Museum, Bradford; National Railway Museum, York and Shildon

3. Scope and Content

- 3.1 As a national museum group, SMG must hold a collection of national and international significance. The SMG Collection will contain:
- Icons² of continuing scientific, technological and industrial change, with particular emphasis on those developments in which Britain has played a leading role;
 - Objects that represent working lives and the everyday practice³ and products of science, technology and industry, especially in Britain;
 - Artefacts and records representing the impact of science and technology on people and on the planet;
 - Records and archives of individuals and organisations in science and industry.
- 3.2 Material that does not meet any of these criteria will not be acquired for the permanent SMG Collection.

4. Modes of collecting

- 4.1 SMG museums will experiment with and develop creative collecting techniques with the aim of making the Collection more suited to immediate and future use for display, loan and research, including but not limited to:
- Actively consulting with learned bodies, external specialists and stakeholders to gain inspiration for our collecting;
 - Development of relationships with the research and industrial sectors by both curatorial and contemporary science teams in our museums;
 - Representing subjects using other methods, including digital techniques such as 3D scanning, when the acquisition of physical material is not possible or practicable;
 - 'Co-collecting', a participatory form of acquisition that mobilises the expertise of external groups and individuals, increasing the likelihood of acquiring items drawn from a broad sweep of society and culture, and relating to people currently under-represented in our Collection.

5. Collecting Strategy

- 5.1 SMG museums will target areas of known weakness in the Collection ('active collecting') whilst also taking selective advantage of the hundreds of unsolicited offers SMG receives each year ('reactive collecting').
- 5.2 In line with trends in the study of science, technology and medicine and their histories, collecting will move beyond the taxonomic to include also items that acknowledge and represent the contextual.

² Icons are defined as highly significant objects that are either unique (Stephenson's Rocket, for example) or representatives of highly significant classes (Model T Ford, for example).

³ Icon vs everyday is a key distinction, in which icons often stand for inventions and discovery, where everyday items stand for use and impact.

5.3 In making acquisitions to the Collection SMG will:

- Seek to acquire material that will inspire our audiences both now and in the future;
- Give a high priority to acquisitions that support museum Masterplan projects and exhibitions and public programmes;
- Acquire items that have compelling stories, connections with people and strong research or display potential;
- Acquire contextual material in support of specific acquisitions, including two-dimensional and three-dimensional original material and art works;
- Acquire digital material (software, imagery, oral and video histories);
- Represent recent and contemporary developments in our subject areas, scanning the horizons to ensure that the Collection remains relevant for the future as well as today;
- Continue to develop existing comprehensive type collections in a limited number of defined subject areas where such collections have research potential;

5.4 SMG's maintenance of the English national museum collections of technology, industry, medicine, civil transport, and media sits alongside the work of other British organisations: Accredited museums, archives, and other relevant specialist organisations constituted in the public domain such as heritage railways. In making acquisitions SMG will consult with other relevant organisations to avoid excessive duplication and ensure that access to, use, care or context of the material maximises public benefit.

6. Framework for Collecting

6.1 SMG's museums have separate collecting policy statements that are congruent with each other and form a suite of statements which take into account those specific differences in the subjects that SMG represents.

7. Auxiliary material

7.1 Where appropriate, SMG will hold items for purposes including, but not limited to, being demonstrated and handled, or used as props in exhibitions. Such items will be documented and managed in line with minimum SMG collections management procedures, but will not be afforded the same levels of care as the permanent Collection. Such items will ultimately be reviewed and evaluated for retention, and will be either proposed for accession or disposed of when life-expired or surplus to requirements. Currently accessioned items may be proposed for transfer to auxiliary material if they meet suitable criteria.

8. Limitations on collecting

8.1 SMG recognises its responsibility to ensure that conservation, care, documentation arrangements and use of the Collection are sustainable and ethical. It will take into account limitations on collecting imposed by factors such as the size of the purchase fund, staffing, storage and care of collection arrangements. Digital collecting will only take place where skills and resources exist to ensure long term preservation. Due diligence will be exercised by staff when making acquisitions.

9. Disposals

- 9.1 SMG will actively manage its Collection in order to ensure its long-term sustainability, significance and safety. The Group's museums have a long term purpose, and except for sound curatorial (including collections management) reasons, there is a strong presumption against the disposal of any item in the Collection. However, the breadth of the Collection, and the ways in which it has been developed, mean that SMG is currently holding material that is duplicate, unsuitable, or unusable.
- 9.2 Disposals will be guided by the National Heritage Act 1983 (as amended) and the Museums Association's Code of Ethics (as amended). SMG will dispose of material that is unsuitable for retention in the Collection and can be disposed of without detriment to the interests of students or other members of the public⁴.
- 9.3 Material may be unsuitable for retention if:
- It is a *duplicate*⁵ of another accessioned item in the Collection, beyond the number of similar items that would reasonably be of interest and future use;
 - It is more suitable for *transfer* to the collection of another National Museum, other Accredited museum, or other organisation in the public domain that can improve access to, or the use, care or context of the material;
 - It is otherwise *unsuitable* for the Collection, because it falls outside the scope and content of the Collection;
 - It is *useless* for the purposes of the Collection because it is in poor or hazardous condition by reason of damage, physical deterioration, or infestation by destructive organisms. All material that is in such poor condition as to render it unusable will be destroyed to remove the risk of contamination or infestation.
- 9.4 In making disposals SMG will give priority to transferring items, preferably by gift to Accredited museums. It will consider donating items to other public institutions if it is not possible for another museum to accept them. Wherever possible it will not transfer items out of the public domain. Where a home within the public domain cannot be found, objects will be offered for sale on the open market. If a sale cannot be achieved then alternative options will be considered including recycling and destruction.
- 9.5 Disposals will take into account any special conditions agreed at the time of acquisition. The Railway Heritage Designation Advisory Board will be consulted with regard to designated items. Items disposed of will be recorded in appropriate detail.

⁴ National Heritage Act 1983 (as amended) definition

⁵ In the context of SMG's Collection, a *duplicate* is an item that is substantially similar to another accessioned item, ignoring minor differences, e.g. insignificant technical distinctions, or variations in serial number, date or provenance that are not consequential to the purposes the item fulfils in the collection.

10. Financially motivated disposal

- 10.1 SMG recognises that financially motivated disposal risks damaging public confidence in museums and the principle that collections should not normally be regarded as financially negotiable assets.
- 10.2 SMG accepts the principle that sound curatorial reasons for disposal must be established before consideration is given to the disposal of any item in the Collection. SMG will not undertake disposal principally for financial reasons, except in exceptional circumstances, when it can be demonstrated that:
- It will significantly improve the long term public benefit derived from the remaining Collection.
 - It is not to generate short term revenue (for example to meet a budget deficit).
 - It is as a last resort after other sources of funding have been thoroughly explored.
 - Extensive prior consultation with sector bodies has been undertaken.
 - The material under consideration lies outside the museum's established core Collection.
- 10.3 The proceeds of disposal through sale, if this exceptional circumstance arises, will be applied solely and directly for the benefit of the museum's Collection. Money raised will be restricted to the long term sustainability, use and development of the Collection.