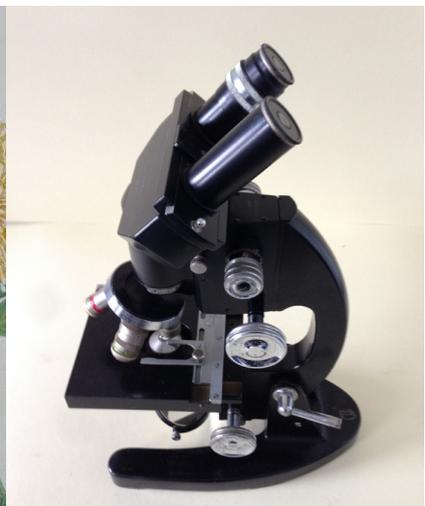




PRISM Fund Annual Report 2014/15



Cover Images (L-R):
Spider Phaeton carriage. Photo: Staffordshire County Museum.
One of the Company School botanical drawings. Photo: Royal Albert Memorial Museum. Microscope
from the Francis Crick Institute's collection of medical research objects. Photo: Francis Crick Institute.

Introduction

The PRISM Fund (for the PReservation of Industrial and Scientific Material) supports the acquisition and conservation of heritage objects from the fields of science, technology, industry and medicine. It was established in 1973 in response to the growing public concern that technological change was resulting in the loss of much of Britain's industrial heritage. Since 1973 PRISM has helped hundreds of non-national museums and preservation groups in England and Wales acquire or conserve thousands of objects of industrial or scientific importance.

The Fund aims to support the variety of organisations entrusted with the care of our industrial and scientific heritage, forging links and encouraging best practice.

The Fund was managed by the National Museum of Science & Industry (NMSI) on behalf of the Museums, Libraries and Archives Council (MLA) until 31 March 2003, before being managed solely by MLA. Management of the Fund transferred to Arts Council England in October 2011 at the request of the government. Arts Council continues to take expert advice from the staff of the NMSI as well as from other national museums.

There has been no significant change to the scope of the Fund since its inception except for its extension to include conservation projects in the early 1990s.

Summary of PRISM Fund grants awarded

There were 22 grants awarded during 2014/15 worth £203,243. Comparable figures for 2013/14 were 19 grants worth £228,445. The average size of a grant was £9361 which is £2662 less than last year's average of £12,023.

This year 20 institutions across England and Wales, from fully Accredited museums to small preservation societies, have benefited from PRISM funding. As well as bringing important objects into public collections, the PRISM fund is contributing to their ongoing care. Conservation grants represent 89 per cent of the number of this year's awards (63 per cent in 2013/14), accounting for 89 per cent of the total expenditure (62 per cent in 2013/14).

All of the objects funded by PRISM through 2014/15 have a unique or important place within Britain's rich past, and help to connect the public with the country's scientific, industrial or technological heritage.

Acknowledgements

Thanks are due to the many curators at national museums and other professionals who have provided expert assessments of the applications. Without their contribution of time and expertise the PRISM Fund would not be possible.

Paula Brikci
January 2016

Table 1 Summary of PRISM Fund awards by category

PRISM Category	2014/15		2013/14	
	Number	Amount (£)	Number	Amount (£)
Agriculture	0	0	0	0
Archives	2	0	2	£40,000
Aviation	2	£14,692	0	0
Buildings	0	0	0	0
Engineering	0	0	0	0
Geology	1	£5,559	0	0
Horology	1	£6,000	0	0
Industry	2	£10,575	3	£36,795
Medicine	3	£27,340	1	£20,000
Miscellaneous	1	£4,971	0	0
Natural History	5	£48,741	2	£9,950
Photography	0	0	0	0
Rail	3	£45,257	6	£56,619
Road Transport	2	£29,458	3	£36,081
Scientific Instruments	0	0	1	£9,000
Water	1	£650	1	£20,000
TOTAL	22	£203,243	19	£228,445

Table 2 Summary of PRISM Fund awards by type

PRISM Grant Type	2014/15		2013/14	
	Number	Amount (£)	Number	Amount (£)
Acquisition	5	£23,495	7	£86,650
Conservation	17	£179,748	12	£141,795
TOTAL	22	£203,243	19	£228,445

Details of PRISM Grants Awarded

£17,440 to Staffordshire County Museum for the conservation of the Spider Phaeton carriage.

This carriage is one of the finest carriages in the collection from the Earl of Shrewsbury's Estate at Ingestre and is a rare example of its type. It retains old if not original paintwork, livery, leather, rubber mat and upholstery. It is a substantial example designed to be driven with coach horses rather than light park horses with which this type of carriage was often used.

It has an unusual forecarriage with a swingle tree mounted on the wheel irons, and no futchells, sprinter bar or provision for shafts. It is possible that this carriage was built for the Earl of Shrewsbury's planned racing match with Lord Lonsdale in 1891, which did not take place.



The conserved Spider Phaeton carriage.
Photo: Staffordshire County Museum.

£20,000 to South Tynedale Railway Preservation Society to restore the boiler of Hunslet 1859.

Hunslet 1859 is a powerful, British built narrow gauge steam locomotive. It hauled sugar cane trains on the Umtwalume Valley Estate sugar estates in South Africa, until the 1980s. When the plantation switched to diesel locomotives 1859's boiler was still in good condition so it was used as a stationary steam boiler for sugar cane processing at the mill, before being mounted on a plinth at Mount Edgecombe in 1991, and rescued in 1997. Now 1859 is being restored to burn biomass as it did in South Africa. It will become a key feature at the STR, engaging visitors with the potential and benefits of using carbon neutral biomass fuels.



The restored boiler in the workshop.
Photo: South Tynedale Railway Preservation Society.

£20,000 to Mid Hants Railway Preservation Society for the restoration of a rare wooden framed railway carriage.

This carriage was designed by Oliver Bulleid, chief mechanical engineer of the Southern Railway (SR) from 1937 until 1948. When the SR needed new steam hauled carriages towards the end of WWII, he designed a modern and sleek wooden framed design with a steel body. This reflected the shortage of steel in wartime and the immediate post war years, plus the ready availability of woodworking skills.

Of the 811 examples of Bulleid-designed carriages built between 1944 and 1951, there are only 15 that remain in existence. S1456 is unique in being the only one still fitted with steel side sheets, known as 'valances'.



Completed wheel sets alongside the restored carriage.
Photo: Mid Hants Railway Preservation Society.



New storage for the collection.
Photo: Manchester Museum.

£14,634 to Manchester Museum to improve collections care for the insect collection.

The Museum's collection of British butterflies and moths is of great national significance. The collection, and associated data, can be used to conduct assessments of distribution trends, habitat preferences and conservation priorities. Two parts of the collections are of particular historical and cultural value: the J. Sidebotham collection of British Lepidoptera as an example of Victorian private entomological collections; and the collection of micro-Lepidoptera by the late Lord Walsingham, representing almost every species of British micro-Lepidoptera recorded by 1927. This latter collection includes the celebrated Manchester Moth, *Euclemensia woodiella*, of which only three specimens survived and exist today.

£15,107 to Bristol Museum & Art Gallery to conserve Dr Broughton's Herbarium.

Gathered during an early period of botanic study, this collection is considered by plant scientists and historians in the UK, Jamaica and USA as an important resource for broadening understanding of the development of plant species in Jamaica and Bristol. It includes the type specimen for a species of 'sensitive' plant, *Cassia broughtonii* - named by later scientists after Broughton, and the type variety of *Portlandia grandiflora* L. var. *parviflora*. In Bristol Broughton discovered a number of species locally, some of which are now extremely rare. Historic herbaria are critical resources for understanding the historic development of scientific ideas, human influences on the natural world through time, and for increasing scientific knowledge of botanic species.



Example of a conserved type specimen.
Photo: Bristol Museum & Art Gallery.

£14,692 in total to the Helicopter Museum for the acquisition and restoration of a Fairey Ultralight Helicopter.

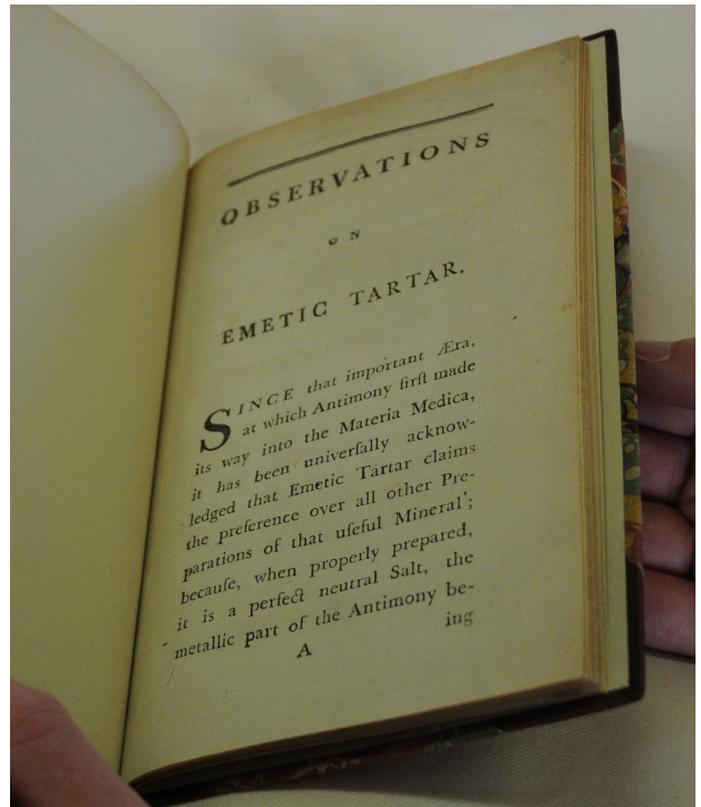
The Fairey UltraLight was a unique British helicopter development, to meet a 1950s British Army requirement for a simple helicopter to carry out artillery spotting and casualty evacuation. The aircraft also had to have an exceptional vertical climb performance and be easily transported on a standard Army three-ton truck.

The Fairey design was innovative, based on work begun in Austria in 1940 to develop rotor tip-mounted pressure jets, powered by compressed air fed from the engine mixed with fuel ignited in the tip jets to drive the rotor. This was a popular concept in the 1940s-1950s, offering a simple option to more conventional drive systems.



The Conserved helicopter.
Photo: The Helicopter Museum.

£5,400 to the Jenner Trust to acquire Jenner's *Observations on Emetic Tartar*. Printed in the Autumn of 1783, *Observations on Emetic Tartar* describes Dr Edward Jenner's method of obtaining pure emetic tartar crystals. Jenner was dissatisfied with the preparations of some medicines in common use, and sought to prepare an emetic that would be 'regular in strength and uniform in operation'. The book was printed by J. Bence of Wotton-under-Edge, and it is the only first edition of this publication to have been located.



Jenner's *Observations on Emetic Tartar*.
Photo: The Jenner Trust.



The box wagon wheels in the process of being conserved and restored.
Photo: Chiltern Open Air Museum

£5,257 to Chiltern Open Air Museum for the restoration of South Midlands box wagon wheels.

Chiltern Open Air Museum's box wagon wheels were built using techniques and a style consistent with pre-industrial revolution fabrication, but also demonstrate an early incorporation of industrial revolution materials such as iron axles. They thus tell the story of the close of an era of farming, where horse-drawn wagons were superseded by new technologies. The wheels were given to the museum by a local donor, who used them on his land until he ceased farming in the 1970s.

£4,118 to the North East Bus Preservation Society to conserve Northern General Bus 604.

This bus was the first 'modern' single-deck bus, with all space devoted to seating and passenger movement created by placing the engine under the floor.

The bus was initially built with three axles to achieve the then legal maximum dimensions. In 1941 NGT applied to the Ministry of War Transport to convert no.604 to two axles. The Ministry allowed it but had to issue a 'Statutory Instrument' to legalise its operation outside the then legal limits. In 1950, pressure from the industry to allow larger public service vehicles led to a visit by the Ministry of Transport to NGT to review the performance of no. 604 in service. This was satisfactory and the legislative limits changed to allow larger buses that year.



A view of the back end of the restored and repainted bus.

Photo: North East Bus Preservation Society.



One of the Company School botanical drawings, before (top) and after (bottom) conservation.

Photo: Royal Albert Memorial Museum.

£8,455 to the Royal Albert Memorial Museum for the conservation of Company School botanical drawings.

These extremely rare drawings are of both high quality and of historical and scientific significance. By Indian artists, they were commissioned by the East India Company, probably under the supervision of the Calcutta Botanic Garden. In the late 18th and early 19th century the Company set out to record the complete flora of India for the advancement of botanical science and for commercial exploitation (primarily food crops and medicines). The RAMM set of drawings relate to several printed publications of the era of William Roxburgh and Sir Joseph Banks, including *Plants of the Coast of Coromandel* and *Flora Indica*.

As far as is known, the RAMM is the only non-national UK collection to hold original drawings from this group.

£3,924 to Birmingham Museums Trust to conserve an Ichthyosaurus skull.

This specimen was excavated by Birmingham Museum and Art Gallery staff on the 4th November 1955 from Fell Mill Farm at Shifton-on-Stour, Warwickshire. It was preserved in the Blue Lias Geological Formation, making it around 195 million years old, and is identified as *Ichthyosaurus communis*.

The specimen is a particularly large and rare example of a three-dimensionally preserved ichthyosaurus skull. The size and preservation make it a spectacular display specimen, which gives visitors the opportunity to easily visualise this animal during life. The rare three-dimensional preservation of the skull and braincase provides important information on the anatomy of ichthyosaurs.



Conservation of the Ichthyosaurus skull. Photo: Birmingham Museums Trust.

£2,520 to the British Optical Association Museum to acquire two historic Dollond trade cards.

Peter Dollond (1731-1820) is one of the most important optical manufacturers this country has produced. He was Optician to King George III and Master of the Worshipful Company of Spectacle Makers three times in three separate decades. He was founder of what is still known today as Dollond & Aitchison.

The earlier of these two items relates to the firm of P & J Dollond who improved upon the manufacture of the refracting telescope. The slightly later item relates to the successor firm of P & G. Dollond, from the period after 1805 when Peter Dollond was in partnership with his nephew George. Documents like these make the line of succession clear as well as allowing a definitive statement as to what products were manufactured and sold at particular periods in the company's development.



One of the historic trade cards. Photo: British Optical Association Museum.



Black Forest organ clock, clock face
Photo: Nuneaton Museum and Art Gallery

£6,000 to Nuneaton and Bedworth Borough Council to conserve a Black Forest organ clock.

Musical clocks play an important role in the technical advancement and social history around clocks and clock manufacturing throughout Europe in the 16th-19th Centuries. In addition to telling the time, musical clocks played tunes to dance to on special occasions and would be found in taverns and large homes. From the late 18th Century, Black Forest clock makers located in Britain used organ clocks such as this one as marketing tools.

Nuneaton Museum's research in consultation with horological museums and collections suggests that this is the only working Black Forest organ clock in public collections in Britain.

£4,971 to Norfolk Museums Service to restore a Victorian laundry.

The laundry at Gressenhall Farm and Workhouse combines a well-preserved past together with a strong example of the evolution of technologies over time. The laundry was in continuous use from 1846 until 1976 and, as an institutional laundry for the workhouse and then county care home for the elderly, it processed large amounts of washing. In the 1950s the laundry was adapted from steam power to run using electricity, and elements of both of these power supplies survive: for example the rare, Victorian overhead ventilation fan and line shaft. The two washing machines date to the 1950s.



The laundry at Gressenhall Farm and Workhouse.
Photo: Norfolk Museums Service.



Photograph showing the replaced gunwhale.
Photo: Birmingham Museums Trust.

£650 to Birmingham Museums Trust to repair the narrow boat, *Peacock*.

The Peacock is an important example of an early motorised commercial narrow boat. Built by Fellows, Morton and Clayton of Birmingham in 1915, the vessel has been described as 'being in the most original condition of any of the FM&C boats; never converted or altered, [and having] most of the original fittings' (National Historic Ships Register database). Her engine dates from the 1920s and is a 15HP Bolinder. Between 1915 and 1948, Peacock was used as a commercial cargo vessel in FM&C's northern fleet. Upon Nationalisation in 1948, she was sold to a private individual who used her as a towing vessel until the late eighties. Peacock is a particularly good example of Birmingham manufacture and offers a tangible connection to the City's rich industrial heritage.

£19,420 to the Francis Crick Institute to undertake *Tools of the Trade*, medical research object conservation.

This collection of medical research objects from the National Institute for Medical Research comprises of the tools of key figures and developments within British biomedical science. It showcases the important links between instrumentation, experimentation and discovery in scientific research. Examples include a microscope owned and used by Nobel prize winner, Peter Medawar, Frank Hawking's (father of Stephen) Electrophoresis equipment, an infusion pump and an early Ribosome Model signed by Peter Medawar and Francis Crick. The Ribosome model was built in the 1960s and displayed at a number of scientific conferences. It was seen as a useful guide for visualising this complex cell structure.



One of the medical research objects after conservation.
Photo: Francis Crick Institute.



The conserved map in situ with part of the roller blind showing. Watercolour on paper.

Photo: York Museums Trust.

£5,559 to York Museums Trust to undertake *The Story of the Rocks* - conservation of William Smith's Map of the Geology of England and Wales.

First published in 1815, William Smith's (1769-1839) famous map of the geology of England and Wales pioneered the use of fossils to identify and trace layers of rock across large distances – a technique still used today. His map is incredibly accurate, and as the first of its type in the world, was the basis for all geological mapping to the present day. He is known as the 'father of English geology' for this reason.

This edition of the map (published 1818-19) was likely to have been used by Yorkshire Philosophical Society, who went on to establish the Yorkshire Museum in 1830.

£16,050 to the Marine Biological Association to rehouse the object collection.

The MBA Object Collection contains objects and instruments relating to the history of the marine biological sciences in Britain since the late-nineteenth century. It represents a unique assemblage of material which records the history of marine biology and its techniques, including scientific instruments, microscopes, underwater cameras and precision instruments. The collection also includes a number of items which are rare, unique, or have been customized; these are instruments to meet specific challenges of working in the marine environment. Eminent scientists associated with the MBA Object Collection include Dr Irene Manton, Dr Mary Parke, F. S. Russell, E. T. Browne and Eric Denton.



An object from the Marine Biological Association collection, rehousing in conservation-grade storage container. Photo: Marine Biological Association



Bristol K series double deck bus built 1949 with Gardner Engine and Eastern Coachworks body.
Photo: Lincolnshire Vintage Vehicle Society Ltd.

£2,925 to Heckington Windmill for the acquisition of a Ruston 2XHR engine.

Heckington Windmill was built in 1830 and finished commercial production in 1946. The Heckington Windmill Trust care for and maintain and this Grade One Listed, 8 sailed windmill and the mill has been fully operational and open to the public for the last 30 years. With the acquisition of this Ruston engine, the mill will be able to run independently from wind power as well as demonstrate the original hurst frame and engine set up of the windmill, dating back to the early 20th century. Ruston engines were manufactured locally to the windmill in Lincolnshire, and this engine is a major component of the The Heckington Windmill Trust's regeneration project.



The Ruston 2XHR engine.
Photo: Heckington Windmill.

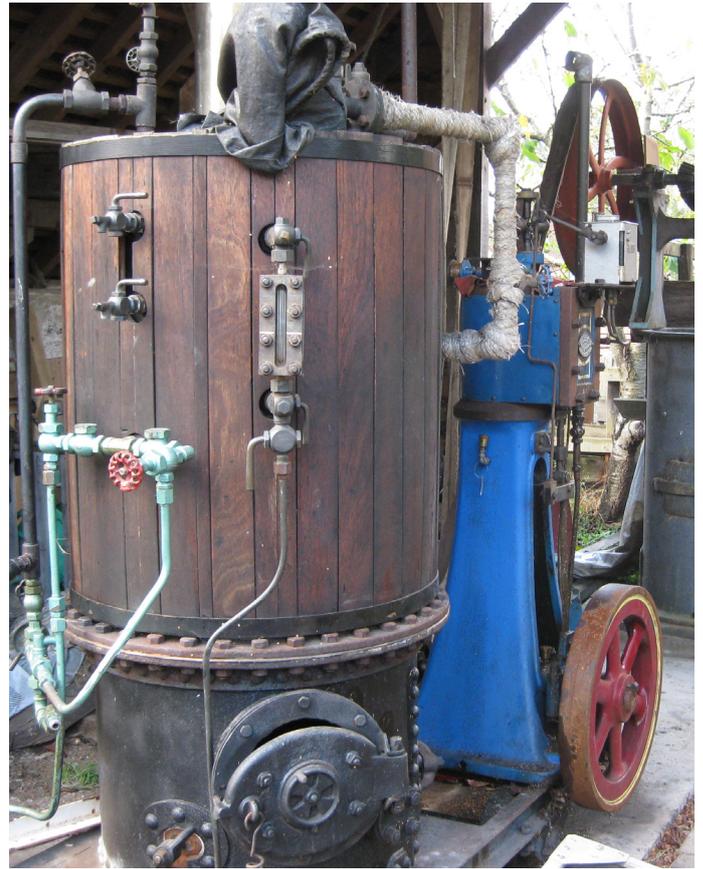
£7,900 to Lincolnshire Vintage Vehicle Society Ltd to restore the first bus to circumnavigate the globe.

In 1967 a group of 7 students in Southend decided to undertake a marathon journey; to circumnavigate the globe in a converted bus. The journey took 36 months, taking in Europe, Asia, Australia, New Zealand and the United States. The students donated the vehicle to LVVS in 1972, making it significant as one of the earliest commercial road vehicles to be preserved by a volunteer group.

The bus is also unusual from a technical viewpoint, with an 'low roof design, that allowed the vehicle to pass under low bridges, as well as through the jungles and mountains of the South East Asia.

£7,650 to Hampshire Buildings Preservation Trust to acquire a steam engine, boiler and pugmill.

Bursledon Brickworks was established in 1897 and was a pioneer in the industrialised process of brickmaking. At the height of production, Bursledon produced 20 million bricks per year. The Brickworks are listed grade II* and are the only surviving steam powered brickworks remaining in the UK. It is believed the pugmill was originally horse driven but later converted to be driven by a portable steam engine. The steam engine, boiler and pugmill demonstrate the early mechanisation of brickmaking in the mixing (pugging) of clay in a small brickyard. Prior to the introduction of pugmills clay was trodden either by men or animals.



Bursledon Brickworks's steam engine, boiler and pugmill.

Photo: Hampshire Buildings Preservation Trust.

