



Evaluation Report

YH-11-05316

**Museum of the History of Science,
University of Oxford**



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1. Grant details

a) Principal applicant/ grant holder details:

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b) Funding:

HLF *Your Heritage* grant awarded: £15,100

2. Project details

a) Project:

Start date:	April 2012
End date:	July 2013

b) Project aims:

- To engage school and community groups with the collections of the partner museums using globes and a special exhibition at the Museum of the History of Science as a focus for exploring their diversity
- To create opportunities for diverse audiences to identify links between the museums' collections and their own heritage, and to celebrate diversity through participative workshops and events
- To create new opportunities for experienced community volunteers and education trainees currently involved in the HLF-funded 'Skills for the Future' programme to participate in extended delivery of a museum learning project
- To create new opportunities for partnership between the university museums and other museums in Oxford
- To support the interpretation of the special exhibition programme at the Museum of the History of Science
- To create new workshops and resources, inspired by the special exhibition and project work, which will provide a lasting legacy of the exhibition and support on going development of the education programme to include a web-based resources and record of the project

c) Project summary

From May to September 2012, The Museum of the History of Science (MHS) held a special exhibition entitled *The Renaissance in Astronomy: books, globes and instruments of the 16th century*, which will feature astronomy, geography and cosmography in 16th-Century Europe. Exhibits included early examples of printed globes including loans from the National Maritime Museum. The exhibition coincided with the 500th anniversary of birth of Gerard Mercator.



Schoener globe, Museum of History of Science

The exhibition and the anniversary provided an opportunity for an education-led project in which schools, community volunteers and the general public were involve in collections-based learning through the formal curriculum (geography, mathematics, science, humanities) and informal learning.

The project focused on the theme of globes using the exhibition, early construction of globes, and the history of globes to draw in a number of partners including local primary and secondary schools, the university museums and collections, county partners, and community groups including a group of community volunteers.

The main activities revolved around a number of large globes located in the partner museums which provided the focus for project work related to the individual collections and the interests of local communities. The construction of the globes was based on early methods of pasting printed gores on to a spherical base. The activities focused on the materials and processes of construction, and aimed at fostering a sense of participation and engagement with the collections. Constructed from a polystyrene base, the globes provided a 'blank canvas' for recording information, investigation, and expressing visitors' responses to the collections and the outcomes of globe workshops.

Themes for project work included mapping visitors' origins, object stories, collecting and representing stories and data from around the globe based on a chosen theme (e.g. sustainability, populations, cultural diversity), or artwork inspired by the globes. The emphasis was on drawing together human stories, origins, a sense of participating in a global community, and diversity expressed through the collections.

The large globes produced as a result of workshops with schools and the general public came together for a final exhibition at the Museum during the first two weeks of October 2013.

3. Key outcomes - metrics

a) Key outcomes for the target number of activities, events and/ or resources we aimed to deliver:

- **Langley Academy:** To engage 45 Year 8 pupils in 2 workshops at The Museum of the History of Science (MHS) and 2 workshops at another partner museum
- **Schools:** To engage up to 180 secondary school students in workshops across the partner museums
- **Community groups:** To engage at least 2 community groups
- **Community volunteers:** To involve 15-20 trained volunteers in facilitating activities and events for the public
- **Trainees:** To involve the University museums' 4 HLF Skills for the Future trainees in managing and delivering activities
- **Family workshops:** 2 family globe-making workshops for children at MHS
- **Adult workshops:** 2 adult globe-making workshops at MHS
- **Public events:** To deliver a programme of public events across the partner museums
- **Exhibition:** To stage an exhibition of globes from the partner museums

b) Actual activities, events and/ or resources delivered:

- **Langley Academy:** Engaged 20 Year 8 pupils in 1 workshops at the Museum of the History of Science and 1 outreach workshop at the Academy
- **Schools:** Engaged 270 secondary school students from 10 secondary schools in workshops across the partner museums
- **Community groups:** Engaged at 1 group of 10 adults with learning difficulties (ALD) at MHS and one community group at the Museum of Oxford
- **Community volunteers:** Involved 26 community volunteers in facilitating activities and events for the public giving over 200 hours of volunteer time
- **Trainees:** Involved 4 HLF 'Skills for the Future' trainees in managing and delivering activities across the partner museums with at least 3 taking significant levels of responsibility.
- **Family workshops:** 2 family globe-making workshops for children delivered at MHS
- **Adult workshops:** 2 adult globe-making workshops delivered at MHS
- **Public events:** Delivered a programme of 20 public events across the partner museums engaging approximately 1,100 children and 1,300 adults.

- **Exhibition:** Held an exhibition of globes from the partner museums at MHS in October 2012

c) Comments on key outcome metrics:

The project exceeded delivery targets in several areas, notably the number of public events delivered across the partner museums and the number of community volunteers involved in preparation behind the scenes and delivery of events.

The project fell short of the workshop targets it set with regard to the Langley Academy largely because of difficulties resulting from staff changes at the Academy (the key geography teacher left for a new post) and because of changes in curriculum planning. However, some outcome was achieved through after school club activities at the Academy and a separate visit to the Museum.

4. Key outcomes – Community Volunteers

a) Metrics

Our target was to involve 15-20 community volunteers. Up to 26 volunteers were involved in the project giving over 200 hours of volunteer time.

The number of hours worked by individual volunteers varied enormously with some involved in just one or two events, but a number of volunteers sustained their involvement through teamwork attached to particular globes in one or other of the museums.

b) Experiences of the community volunteers

Feedback forms were collected from as many of the volunteers as possible. 12 forms out of the 26 were returned. We were particularly interested to find out about the motivation of volunteers taking part and the effects of offering an opportunity for long-term engagement in a project as opposed to one-off events.

Range of volunteers:

Almost all the volunteers involved were women. Some were students or people in the early stages of a career; others were older including some in retirement.

Motivation for taking part:

The feedback suggested that taking part in a larger project that 'spanned various museums' and offered the opportunity to 'build up some knowledge about a specific exhibition' was a significant factor.

One volunteer said: 'I wanted to get involved in a longer term project and see it develop and change'.

Others commented on the 'enjoyment of volunteering' and participating in family events, and in one case the opportunity to be involved in an 'artistic' project.

Expectations:

All the feedback forms received indicated that the project had met the volunteers' expectations.

Several responses commented on the enjoyment of interacting with staff and visitors:

'I was particularly interested in meeting the volunteers, staff, and visitors'.

'I enjoyed talking with the fantastically well-informed and charming staff in all three museums'.

'So many of the children and their accompanying adults were really enthusiastic about finding and locating objects and materials on the globes'.

Several responses indicated an enjoyment of learning about the themes or collections through volunteering:

'I learnt a huge amount about navigational instruments at the Museum of the History of Science and enjoyed engaging the public at the handling table'.



Volunteer at Museum of Natural History

Working in a long-term project:

Several responses commented on the opportunity for long-term involvement – see above and other comments below:

'I liked the degree of continuity – seeing the globes transformed'.

'The globe became "our" globe and there was a sense of achievement'.

'With a longer-term project there is the scope to learn more about aspects of the museums' collections'.

'It was satisfying to see a project through to its conclusion and to be involved in all aspects – painting globes, object handling tables, helping with artwork, being asked by staff for ideas'.

Other comments:

The volunteers had a lot to say about their experiences of visitors at events:

'So many of the children and their accompanying adults were really enthusiastic about finding and locating objects and materials on the globes'.

'Although the project mainly aimed at children I was interested to see how often rather sheepish adults who were visiting without children were keen to engage, particularly with object handling'.

'There was a great deal of interest and enthusiasm, whether on a level of seeing and feeling the globes spin, or the more complex level...'.

c) Impacts – Community volunteers

Please comment on the impacts of the project on the participating volunteers.

The feedback received from volunteers as evidenced above indicated that, particularly for those involved in a sustained involvement in the project that they benefitted from a significantly enhanced opportunity to learn about the collections.

There was also evidence of developing skills in public engagement; that they learned more from the variety of activities, and that they gained a significant amount of knowledge and experience of visitors' responses that they were keen to share.

d) Additional information/ method of data collection

Feedback forms were collected at the end of the project from as many of the volunteers as possible. 12 forms out of the 26 were returned. Unfortunately, some of the volunteers who participated at earlier stages of the project had moved on by the time the questionnaire was administered.

The feedback form aimed at qualitative information: We were particularly interested to find out about the motivation of volunteers taking part and the effects of offering an opportunity for long-term engagement in a project as opposed to one-off events.

5. Key outcomes – schools, public and community groups

Feedback questionnaires were administered to a sample of the school groups attending workshop sessions at the museums, and to children and adults participating in the globe-making workshops.

a) Metrics

- **Schools:** Engaged 270 secondary school students from 10 secondary schools in workshops across the partner museums
- **Community groups:** Engaged at 1 group of 10 adults with learning difficulties (ALD) at MHS and one community group at the Museum of Oxford
- **Family workshops:** 2 family globe-making workshops for children delivered at MHS
- **Adult workshops:** 2 adult globe-making workshops delivered at MHS
- **Trainees:** Involved 4 HLF 'Skills for the Future' trainees in managing and delivering activities across the partner museums with at least 3 taking significant levels of responsibility.
- **Public events:** Delivered a programme of 20 public events across the partner museums engaging approximately 1,100 children and 1,300 adults.

b) Experiences

Schools:

The schools' workshops at the Museum of the History of Science involved an introduction to the special exhibition followed by activities around the theme of navigation with an opportunity for object handling, and making a model globe.

The students involved were all from secondary schools, and mostly from Key Stage 3, years 7-9.

The teachers rated the schools' event at 4/5 overall, and 4/5 for 'enjoyable' and 'worthwhile'.

The sessions were scored 5/5 for 'appropriate length' and 'well organised'.



Sibford School, Museum of History of Science

The sessions were scored an average of 3/5 for relevance to 'our unit of work'. However, there were comments indicating that this was okay in the sense of providing general curriculum enrichment or during activities week. Other comments from teachers referred positively to the activities and questioning – the trail and the globe-making in particular – but there were some comments about there being too much information with the introduction to the special exhibition.

Almost all the feedback from the pupils involved was positive with 90 % of responses indicating that they felt 'happy' and/or 'interested'. There were lots of comments about enjoyment of the globe-making activity and the object handling:

'I enjoyed making the globes and doing the trail'.

'I enjoyed looking at the nautical equipment'.

'I really enjoyed learning about the globes and navigation because I knew barely anything about the subject'.

'I enjoyed looking at the amazing artefacts'.

'It was really interesting, especially how the globes were made'.

'It was very fun, I learnt about so many different things and enjoyed the group activities'.

'It was more helpful because they actually had objects to show us not like school'.

'I enjoyed the board game and it was different from school because we learnt by seeing and creating instead of writing'.

There were a lot of general comments about having learnt something:

'I enjoyed learning about the navigators from the past and learned about navigating equipment'.

'I learnt a lot about globes and how they work'.

Globe-making workshops for the public (children and adults):

Feedback comments were collected at the adult globe-making workshops and from parents at the family (childrens') workshops. However, due to pressure on time in these workshops (most of which over-ran), the opportunity to gain feedback from all participants and children in particular was lost.

Here are some of the comments from (mostly) adults:

'Fantastic learning experience; would have liked to learn more



Globe making workshop, Museum of History of Science

about technical aspects of the globe e.g. elliptical line, meridian, etc.. but Chris [workshop facilitator] very patient and knowledgeable' [Ling, 32]
'Great. I have learned a lot on the practical side!' [James, 66]
'I really enjoyed the session today – I learned a lot of interesting new things about globes and mapping, while globe-making challenged both my dexterity and PVA skills!' [
'Fantastic workshop – interesting and informative. Staff very knowledgeable and interactivity was fun! Would definitely recommend to others'.
'A really instructive and interesting look into the art of globe making. I am thrilled to walk away with a lovely artifact too'.
'Really interesting workshop – made me appreciate the painstaking work that people put into globe-making in the past' [Keith, 28]
'Thoroughly enjoyed it – interesting, educational and engaging! Thanks for a fun Saturday morning! Would definitely come back for another workshop'. [Amanda, 25]
'Wonderful practical activity to help appreciate the craftsmanship of the early globe makers. Very interesting historical context tied to the exhibition. Resources well prepared and sufficient to achieve a good model. Lovely to be able to work in the museum itself' [Karen, 50]

c) Impacts

Schools:

The responses from feedback forms indicated that the pupils had had an enjoyable learning experience in the museum-based workshops. They also evidence the motivational value of learning through active participation such as object handling and the globe-making activities. This is reflected in the comments of both teachers and pupils.

Globe-making workshops for the public (children and adults):

Responses from the feedback forms indicated that the practical workshops were very well received. There was plenty of evidence that the participants had enjoyed the activity with many commenting that they would recommend to others or return for other workshops.

There was also evidence that participants had learned something, particularly about the craft of globe-making within an historical context.

6. Other outcomes and impacts

HLF 'Skills for the Future' trainees and other museum staff:

The first cohort under the HLF-funded 'Skills for the Future' project across the university museums and collections involved four trainee education officers. Three of these trainees became involved at a significant level in delivering The Renaissance Globe Project and it provided a unique opportunity to develop project management skills including the training and supervision of volunteers during events.

Two of these trainees were involved in helping to manage the globe teams at different museums, and one was involved in recruiting and supporting the community volunteers during her placement at the University's Museums' Volunteers Service.

One of the trainees, Lea Kloepinger, commented:

'I felt that being able to work with volunteers in a longer-term project was very satisfying and it was great to see their commitment to and enjoyment during the project and gave me the possibility to expand my volunteer management skills.'

The Globe Project was a great way for me to work on multimedia skills, project management and volunteer management.

I enhanced my multimedia skills by creating a time lapse film which is now on the project website and am confident I will use this skill in my professional future. It was also important for me to be in charge of a project and to be able to see it through from end to end successfully. I felt the project enhanced the traineeship by offering me the unique opportunity to take on a lot of responsibility. I was in charge of the whole project, from developing activities, creative aspects and writing interpretational texts.

It was an amazing project to be part of and offered an important opportunity for the University Museums to work in partnership. I particularly enjoyed working with the Museum of Oxford and can see scope for similar projects in the future.

This aside, I feel that the globes themselves worked extremely well as a creative vehicle to explore the collections.'

Another trainee, Scott Billings, used the project as a springboard for his special project which involved engaging a group of teenagers in making short stop-frame animation films inspired by early voyages of exploration.

Other museum staff involved in the project also found it a useful experience. Rowan Guthrie, Family Learning Officer at the Ashmolean

Museum was in charge of coordinating the Ashmolean's globe team, and she commented:

'The project met my expectations. The highlight was seeing how family members old and young responded to the globe model. They enjoyed exploring it, turning it to find countries they had visited or where they had been born. Families were impressed by the globe and wanted to contribute to it. It was easier therefore to engage them in the activities, such as searching the museum for materials of visiting the handling table to discuss and explore objects made of different materials.'

Globe exhibition:

After the summer period of globe events, the finished globes were brought together for exhibition in the top gallery of the Museum of the History of Science. Initially for a period of four weeks, the exhibition was extended by another two weeks at the request of the museum's director, Jim Bennett.



Exhibition opening evening, Museum of History of Science

Well over 1,000 visitors saw the exhibition, and front of house staff commented that there was a great deal of interest in the globe exhibits which often had a gathering of visitors around them.

The exhibition also provided a nice focus for bringing together volunteers and staff who had been involved in the project and sharing the experience.

Learning resources:

As a result of the project, a new workshop has been created which is now one of the sessions offered as part of the education programme. The project also provided the opportunity to develop the interpretation of navigational instruments in the Museum's collection and to trial an object handling activity which is now a regular part of the education and family activities programmes.

Under the project website, new pages have been created to facilitate access to information about globes in the collection, to provide downloadable resources for making a globe model, and to link with the online version of the special exhibition.

As part of this extension to the project, additional photography of the Museum's collection of globes was carried out by the Museum's photographer and collections manager. This work has been extremely useful in increasing the photographic resources available to the general public via the Museum's online database, thus providing a permanent legacy of the project.

Two video learning resources have also been made as part of the project:

- 1) A video about the Schoener globe – the earliest extant printed celestial globe in the world – which has now found its home at the Museum. This video was made by Chris Parkin and Scott Billings, and was intended as a pilot classroom resource for A-level students.
- 2) A second video was made by film maker Nicola Armitage along with an Arts Award student, giving an introduction to the Renaissance craft of globe-making and a step-by-step guide to making a model.

Arts Award:

An unexpected outcome of the project was the involvement of a school student (16) who has chosen to pursue his silver Arts Award project at the Museum. As part of his portfolio development he did the camera work and contributed to the editing of a film about globe-making which is now featured on the website.

7. Shared learning

a) Elements of the project that did not work so well:

There were three main aspects of the project which could have gone better and were identified in feedback from staff and volunteers:

- 1) A greater lead-in time was needed to help with the forward planning of family activities (this generally requires 6 months planning ahead to be included in the University Museums' family leaflet) and to plan ahead for schools' involvement. The production of a separate programme flier helped to overcome this problem, but there were difficulties with standing commitments to other competing pre-planned programmes and events.
- 2) The extent to which the community volunteers involved in the globe teams of the individual museums varied. At the Museum of Oxford, there were limited opportunities to provide continuity of experience due to their small size. At the Ashmolean Museum and the Museum of Natural History, there were members of staff or a trainee dedicated to the management of volunteer-led opportunities and this, along with volunteers with specific interests in these collections, made for deeper involvement from construction to public events. At the Museum of the History of Science, the experience of working with the globe team of volunteers was a little more

fragmented perhaps, in part, due to lack of familiarity with the museum amongst volunteers.

3) Feedback from teachers accompanying the school groups suggested that the formal educational sessions would have benefitted from setting clearer learning objectives.

In general, it was hoped that the project would have acquired a little more momentum as a shared experience amongst the group of volunteers, and this could have been enhanced by, for example, a blog or Facebook page or more opportunities to get together informally in between events.

b) Partnerships and collaborations:

A significant feature of the project was a working partnership between three of the university museums (The Ashmolean, The Museum of the History of Science, and The Museum of Natural History) and The Museum of Oxford from the county service. This was a fruitful collaboration, providing another dimension to the university museums' already close working partnership in education, but it was also good to be forging a closer collaboration with the Museum of Oxford with whom there had been fewer links in the past. These partnerships will continue in the future. The other significant and successful element of the project was the extent to which community volunteers were involved across the university museums.

8. Additional information

a) Dissemination

The project is described on the Museum's website under education (<http://www.mhs.ox.ac.uk/education/special-projects/globes/>) which includes learning resources and descriptions of the main events.

GEM Conference: The project was cited as a case study in the 2013 GEM annual conference in a breakout session on co-curation and co-creation with community volunteers.

b) Further work

The globes which were worked on at each museum have been retained by the Museum of the History of Science with the possibility that they may be reused as a resource for similar projects in the future by other museums or schools. These might also be recorded on the Museum's website.

9. Media coverage

a) Media coverage generated by project:

National press	
Regional press	1 Oxford Mail
Local press	
Online	
Radio	1 BBC Radio Oxford interview
TV	
Specialist media (e.g. <i>Times Educational Supplement, GEM</i>)	1 GEM Case Study submitted
Other	

b) Comments on media coverage:

The project would have benefited from additional media coverage, but this was difficult to pursue due to lack of the staff time and the constraints of a small organization.

10. Summary comments

Overall, The Renaissance Globe Project was considered to be a successful project with ambitious scope. It was a memorable experience for those involved and has left an active legacy within the education programme of the Museum of the History of Science.

The Museum of the History of Science and its partners are grateful for the support they received from the HLF in the form of a Your Heritage grant which enabled the project to take place.