

Case for Support – Museums and the Public History of Science, Technology, Engineering and Medicine: Prospects and Issues

Highlight notices

In relation to the 'Science in Culture' theme, this proposal addresses how lay people – museum visitors – integrate science and technology within their overall worldview via history, and it picks up how the representation of scientific ideas specifically in museum contexts can respond to that lay understanding. It aims to understand museum visitors in the spirit of the 'Connected Communities' theme, analysing the findings of museum participation and co-creation experiments, and the potential for enhanced relationships between lay groups and research in history of science. The 'Care for the Future' theme aims to improve the way historical knowledge and experience informs future policy, linking that to enhanced stewardship of cultural heritage for the benefit of future generations. This project analysing the public history of science similarly seeks to develop enhanced museum policies for the presentation of the material heritage of science.

Rationale and research context

The popularity of historical leisure pursuits today is significant. Surveys show that more than 50% British adults express interest in learning about family history. Television history programmes often have two million viewers, and historical magazines have monthly circulations of 80,000 (see De Groot 2009). This research network will explore the potential of this phenomenon for museums of science and technology to produce new kinds of historical exhibitions and events that display and interpret their historical collections more effectively. Our working hypothesis is based on a lay expertise model; by engaging with the ways in which audience groups already understand the past, we believe that it should be possible to create displays that are more engaging for them. A family historian might, for example, be more interested in the 'ordinary' working tools of their ancestors than in the grand narratives of science; or a local historian might be able to illuminate the locally distinct meanings of objects. It is also possible that more effective engagement in the *past* of science and technology might build confidence in their understanding of science more generally. Simultaneously, the project will look at the potential of these museums for successful knowledge exchange from universities, especially in the discipline of the history of science.

Approach

The proposed Research Network will bring together humanities scholars with staff from the key UK science and technology museums to debate intellectual and practical questions about public engagement with the history of science. The project will bring together people who, although they work in related fields, rarely all speak to each other:

- Curators, audience researchers and learning department staff from science museums who work to create effective displays, events, websites and publications on the history of science.
- The broader community of practitioners of public history in printed, online and broadcast media, and scholars who study this phenomenon.
- Historians of science who study the history of relations between science and the public in the past, and the media of communication used in various historical contexts.

Three workshops will be held to discuss the issues and to develop a collaborative research agenda to inform practice for the next decade. Venues have been chosen for their relevance: IPUP at York University explores how the past is used by individuals and communities to create identities. The Division of HPS at the University of Leeds, one of the oldest in the country, has established research interests in the public culture of science. The Science Museum is the UK's premier technology museum, with well established links to the university sector.

- Workshop 1 (York, Institute for the Public Understanding of the Past): How are changes in society and culture affecting science museums' use of material and visual collections and how may engagement with public history enable new approaches?
- Workshop 2 (Leeds, Division of History and Philosophy of Science): How can university humanities scholars, especially in history of science, technology and medicine, engage most effectively with museums and their collections, and thereby gain impact for research? What are the potential benefits to museum audiences? How can the diversity of academic approaches to audiences and consumers enrich practice in museums?
- Workshop 3 (Science Museum, London): Is science a special case in museology? Can universities and enthusiasts work together with museum staff to produce new, higher, levels of engagement with the history of science, technology and medicine?

Research context

The Science Museum established its Public History of Science, Technology, Engineering and Medicine (PHoSTEM) project in 2010 to explore the opportunities provided to the enhancement of museum practice by exploring visitors' existing historical understanding and enthusiasms. The project draws on ideas about cultural consumption developed by Michel de Certeau (1984), which have been extrapolated into the museum context by the Principal Investigator (see Boon 2011a; see also the interactive experience model of Dierking and Falk 1992). De Certeau proposes that cultural consumption is about appropriation, in which consumers 'make something similar' to what they are, rather than 'becoming similar to' what is presented to them. Or, to take the museum context, visitors' existing knowledge and preoccupations may well have a stronger influence on the meanings that they construct from displays than intended 'messages' embedded by museum staff. In our project, this is the conceptual basis for conducting and understanding particular kinds of participation activity in museums. Participation – including co-curation – is a current growth point in museums as they seek to respond to broader cultural change and to become more welcoming to diverse communities (see Simon 2010; Lynch & Alberti 2010 for an account of a difficult instance). In our experiment, it is applied specifically to explore historical understanding.

Timeliness

At a time when digital media have increasing cultural presence, questions are begged about the comprehensibility and value of museums' collections of physical objects. For science museums in particular, collections may be becoming more remote from audience experience as visitors increasingly lack the familiarity with machines that was commonplace in the 19thc world that produced the great museums, or even 30 years ago when many people worked in manufacturing. Museums are also modifying how they operate because of changes in today's society and culture, including reduced deference to authority, increased informality of - especially online - communication, and greater expectation of participation in cultural production. A core concern of this network will be how science museums can draw on the opportunities provided by the popularity of history in general to respond to the palpable crisis in curatorial practice threatened by this changing status of material and mechanical culture and broader changes in society.

Interactions

The project is designed to develop fruitful and novel interaction because, as we argue, at the first level it brings together several different tribes of academics and museum professionals. At the second level, these very discussions are designed to promote more, and novel, interactions with museum visitors. The evidence of the Science Museum's International Workshop '[Co-Curation and the Public History of Science & Technology](#)' (October 2010; see Boon 2011b) is that there is a clear, but relatively unexplored, kinship between public history and co-curation and other kinds of participation. In broad definition, the term 'public history' can be used to refer to the ways in which lay people pursue historical activities for fun, whether that be family and local history, collecting,

consuming historical magazines and television programmes, or indeed museum visiting (see Jordanova 2006). Co-curation, and other similar techniques gathered together under the umbrella of 'participation',¹ describes a range of practices in which lay people work to develop displays and programmes within museums. By bringing together the proposed heterogeneous professional groups in discussion of the potential of these approaches, the project promotes the crossing of boundaries between different professions, and between professional groups and lay people.

Audiences for the project

The main focus of the project is science and technology museum visitors. Museum professionals and academics in museology will be interested to compare experiences of working with amateur historians and enthusiast groups. Public history practitioners will have the chance to network with others working in related fields. University researchers in the history of science, technology and medicine will value the discussions as a means to create greater impact for their research findings. All will have the opportunity to reconsider their practice and build new partnerships.

Aims and objectives

The initial aim is to establish a long term network of academics and museum staff concerned to develop more effective and engaging museum experiences for the lay public in the history of science, technology and medicine.

The second aim is to promote experimental collaborations with lay groups in the development of new kinds of displays, resources, and events in science museums, more effectively to convey the history of science to visitors in ways that they find congenial and engaging.

We also plan to develop the literature on these concerns to provoke development of good practice in museums, public history, and knowledge exchange from universities into the public sphere.

Specific outcomes by the end of the project

- Three workshops bringing together the core network, supplemented by extra speakers on specific subjects around the three sub-themes described above.
- The communications outputs listed below under 'dissemination'.
- We will have developed at least one cross-institutional project partnership to pursue one or more of the themes of the network.

Timetable of Activities

- Workshop 1 (York) 7 Dec 2012: Cultural change, material culture and public history
- Workshop 2 (Leeds) 18 Jan 2013: University engagement with museums and audiences
- Workshop 3 (London): 12 April 2013: Is science a special case in museology?
- Writing-up: throughout, but especially May-July 2013.

Potential key speakers in addition to the Investigators

- Workshop 1: Professor Ludmilla Jordanova, KCL: Expertise in historiography, public history, history of science and visual culture; Dr Jerome De Groot, University of Manchester: author of *Consuming History* (2009); John Lynch (formerly Head of Science, BBC TV).
- Workshop 2: Professor Graeme Gooday, University of Leeds: Expertise in the public culture of science and in building university-museum links; Professor Iwan Morus, University of Aberystwyth: Expertise in the public culture of 19thc science and computer replication of historical experiments.
- Workshop 3: Nigel Llewellyn, Head of Research, Tate Gallery: expertise in university-museum

¹ Nina Simon (2010) proposes a terminology scale for increasing levels of participation: Contribution, Collaboration, Co-creation (and arguably Co-curation as the ultimate form of participation).

relations in art history; Professor Simon Schaffer, University of Cambridge: expertise in the history of science and its public culture; Professor Jim Secord, University of Cambridge: expertise in the public culture of science.

Management and co-ordination

The project will be run from the Research & Public History Department at the Science Museum by the Principal investigator and his staff, notably Merel van der Vaart, Associate Curator of Public History. Oversight will be provided via the Museum's existing research advisory committee. The Museum and the two universities will each be responsible for the practical arrangements for the workshop held at their respective sites. Dr Boon, and Professors Weinstein and Gooday will work together to finalise the speakers, invited attendees and activities for the three workshops. Each stands for one or more constituencies and will be responsible for the participation of members of their subject areas(s):

- Tim Boon, Principal Investigator (museums, public culture of science); responsible for overall delivery of the project
- Helen Weinstein, Co-Investigator (public engagement in history, especially via broadcasting); co-responsible for project delivery and for links to the broader constituency of university and popular history
- Graeme Gooday, representing Project Partner, University of Leeds (history of science and its public culture; building university-museum links)

Dissemination

For our broader philosophy of dissemination, see 'Pathways to Impact'.

- In addition to presentations at the Workshops, we will publicise the work in relevant history, museology and history of science conferences.
- We will hold a public event at the Science Museum that will comprise a public workshop incorporating a panel discussion on the project's main findings.
- We will report our activities and conclusions via relevant blogs, including the Science Museum's *Stories from the Stores* collections blog, and History Workshop online.
- At least one substantial article summarising key themes from the workshops; target journals include *Rethinking History*, *History Workshop*, *Museum Management and Curatorship*.
- Journalistic pieces for publications such as the British Society for the History of Science's *Viewpoint* magazine.

References cited

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