



Science and
Heritage
Programme

**AHRC Impact Fellowship: Public Benefit,
Cultural & Economic Impact & Growth
Prospects of Heritage Science Research**

Workshop 2: Heritage Consultation Workshop Heritage Science Markets, 25.06.15

Summary

A series of questions were posed to enable the roundtable discussion from which emerged three key themes;

1. The role of heritage science in promoting engagement with heritage in all its forms:

- a. Should heritage science be explicitly identified for its contribution to public engagement or should heritage in general engage with the public, with heritage science being a part of this process? Does anything make heritage science stand out for its potential to engage the public with heritage and/or science?
- b. What do we stand to lose or gain by more openly acknowledging heritage science as enabling public engagement to happen much more effectively?

Commentary:

- Heritage science has excellent potential to link with the public and to enhance their understanding of, and engagement with, heritage.
- Interactive technologies [such as sound technology, gaming and virtual reality] are excellent for integrating and promoting an engaging approach to understanding and communicating heritage to diverse audiences including the media.
- The relevance of the underpinning science in museums and heritage sites is not always clear. In order to engage the public it is necessary to connect first to an audience and then to connect them with the data or science. In other words, metaphors that reflect people's lives need to be developed first; these metaphors can then be used effectively to connect people's experiences to heritage science. It is not enough for heritage scientists to find a common language with the public. There have been research into and applications of multi-sensory experiences and immersive museums, but there is greater potential to explore this within heritage science with for example, *explore.soane.com*
- The key question is how heritage science research can be contextualised, explained and transmitted to a wider public, rather than whether it should stand apart from heritage itself. Maybe heritage science is not yet mature enough as a field thus the science behind the context is not always visible. When the public connect advances in object care or interpretation to the underpinning science, then the context is easier to understand. Is it the case that we currently need to promote the science first?
- One way to make heritage science more visible is to provide information that feeds into the National Curriculum. Heritage science is cross-curricular and relevant to key stages in the National Curriculum. It has huge potential in this area as evidenced in the report commissioned by Historic England on '*Heritage Science Resources for the National Curriculum in England: A Review of Science Programmes of Study for Key Stages 3, 4 and 5*' (2016).

2. Understanding and management of heritage:

- a. What is the role of heritage science in understanding and managing heritage?
- b. Is there a role for heritage science in exploring how our understanding of conservation and management dovetails with public perception?

Commentary:

- Conservators are expected to push the boundaries of collection management in ways that would not have been envisaged 30 years ago. Therefore understanding what the real risks are to the collections is paramount. If science can underpin understanding and interpret it to people who are not scientists, we can then harness public interest to create a research resource that can be utilised to protect heritage in the future.
- Heritage is irreplaceable, so it is important to be more reticent about what curators and conservators can or cannot do until the underpinning science provides data for evidence.
- In terms of the impact of heritage science, there are different levels of public awareness. The basic premise of appropriate environmental conditions, i.e. lighting, RH and temperature, along with the science behind packing, transport and micro climates for temporary or long-term display, tend not to be explained to the public, but other areas of heritage science such as imaging or conservation treatments are more public. Despite the different degrees of visibility, heritage science is nevertheless interwoven throughout all areas of heritage.
- The value of heritage science is in underpinning the management of environmental conditions, particularly for an understanding of degradation rates. All research is related to the rate of change relative to function and longevity of objects. By examining the rate of change, management over a more clearly defined life span is facilitated, which enables informed decisions. In other areas of research such as medicine, research underpins progress, but unlike other areas heritage science research lacks wider recognition.

3. The relationship between industry and heritage science

- a. Analysis, modelling and digitisation are core activities of heritage science research. Is it easy to work with industry in these particular areas?
- b. Should more comprehensive discussions with industry take place at the design stage of a project to iron-out issues related to approaches, expectations, time-scales, intellectual property and commercialisation?
- c. Are we adequately communicating what heritage science is capable of delivering to the wide spectrum of potential industries that we work with?
- d. Are there any system blockages that can affect the relationship between research and industry and is this something that we can remedy?

Commentary:

- The heritage sector needs to get better at promoting ideas and working with industry partners. This may improve as the field matures. It probably is easier to engage with industry in core areas of heritage science, but the heritage sector often speaks to itself and can find it difficult to move from research results to making an impact on what people are doing. Additional funding to promote impacts would be helpful.

- There are fundamental disarticulations between research and industry priorities but these are not unique to heritage, they exist elsewhere. University/industry relationships are much better managed in the USA and Europe than they are in Britain because universities are more heavily funded and commerce is accepted.
- Industry works very much at a demand and supply level and research involvement is an optional extra for many companies. The high level of investment from industry partners (usually 50% of total cost) required by funders is a barrier to working with UK universities and many industries would prefer to do their own R&D instead. The issue of Intellectual Property can be overlooked at the start of a project and become a barrier in later stages of research. Research does not always lead to commercial applications and it is often only after several years and with established relationships that market products are developed.
- Creative industries are more focussed on utilising data created or collected from existing or previous research rather than on co-creating data as this delivers a faster turnaround than collaborating with new research. Where primary research data already exists and can be re-purposed, collaboration with industry could work better because the time cycles of delivery would be a closer match.
- Early access to research for industry partners can be beneficial and does not necessarily require commitment to a full length project.
- It is important to create at the start of a research project, an environment where industry placements can take place and which involves industry in the supervision of PhD students. This would enable making a career in a company a familiar experience for PhD students who might otherwise think that a career in industry may not be an option.

Institutions represented at Workshop

Birkbeck College, University of London
 Cardiff University
 English Heritage
 Historic England
 Historic Royal Palaces
 Historic Scotland
 Home Office Centre for Applied Science and Technology (CAST)
 Institute of Conservation (Icon)
 Institute of Historic Building Conservation (IHBC)
 National Gallery London
 National Trust
 Natural History Museum
 Tate
 Transmedia Storyteller
 The National Archives
 University College London
 University of Huddersfield
 University of Leicester
 University of Oxford