FORUM

The challenges and opportunities for mega-infrastructure projects and archaeology: Response to the Respondents

J. J. Carver*

When I was asked to provide a lead paper for this forum the title seemed so wide-ranging that it took a little while to decide how to approach it. After due consideration I decided to focus on what I feel is the key to better integration of archaeology into large scale projects. Simply put, the theme is perhaps analogous to earlier developments in archaeology. Archaeologists have long adopted technological solutions from other disciplines to find, record, and analyse deposits, and they have sought out social and anthropological theories to interpret their results. I am stressing here that in order to integrate archaeology successfully into complex mega-projects and to allow the discipline to grow in this environment, we should adopt and adapt again. In this case, by using the business tools, protocols, and language of the construction industry to ensure that archaeology is properly understood, planned for, and resourced within the context of a major infrastructure project. The key questions, it seems to me, are: Can archaeology come to be viewed as a valuable benefit by the infrastructure sector rather than a hindrance to development? Can we improve the way that we plan for and manage the unpre-

dicted and unpredictable events that have so often accompanied these types of projects?

From the wide range of respondents to the forum, it seems there is positive evidence to suggest that the archaeological community can drive forward ways of working to achieve benefits for projects, the communities involved, and for archaeological research. I think that by looking closely at the content put forward by each respondent, archaeologists should be able to highlight particular examples relevant to their own projects and develop some world-class archaeology programmes. With apologies to the respondants for any misrepresentaiton on my part, I have highlighted below some of the key factors in each paper which, when combined, provide an exceptional set of signposts for the management of archaeology in mega-projects.

John Barrett reminds us that it is not just a case of reporting on the physical remains but the process of expressing the often-contested and overlapping historical narratives of a place and bringing those narratives alongside contemporary lives, perhaps through use of digital media, that presents the greatest opportunity. Ensuring that the outcomes of archaeological research have a genuine future value should be the fundamental objective of any project. Archaeological research should not only be completed on time and within budget but should produce an invaluable legacy for those commu-

* Project Archaeologist for the London Crossrail Project and Managing Director, 4AD Consultants Ltd., United Kingdom
jaycarver@crossrail.co.uk

nities that have invested in these projects, and hence achieve a sustainable position.

Edward Harris asks us to ensure that the destruction of archaeological deposits be accompanied by a system of recording that reflects the potential to accurately recreate the historical narrative. He also suggests that the larger project is an ideal context in which to seek out innovation in recording practices and link these to standards and a broader understanding of the ethical issues involved.

Sophie Jackson also identifies that mega-projects should be driving forward innovation and adds that there is the potential to provide a more flexible arrangement for developing staff apprenticeships and training if it can be written into the project design from an early stage. Jackson also calls for a more proactive approach to sharing experience and best practice amongst archaeologists involved in infrastructure projects.

Meredith Linn stresses that communication and education about archaeology to students of urban design and other non-archaeologists is a hugely important investment. This approach, which can include both theory and practical fieldwork, can generate future advocates for archaeology at all levels.

Pilar Luna Erreguerena in describing several fascinating projects centred on marine archaeology, shows how direct investment in awareness-building with local communities has achieved sustainable outcomes: education, employment, and future guardianship of sensitive sites. Innovative road shows, exhibitions, and displays have been used to achieve an archaeological consciousness amongst both authorities and the general public.

Amanda Sutphin recommends that media strategy should be developed early on for prominent projects as the combined impact of public support and project support through the archaeology stories providing a counterbalance to the inevitable disruption and inconvenience associated with construction.

Mehmet Özdoğan provides an important insight into how site designation, or the lack of it, has failed to address the potential for unregistered sites and monuments, which has left sites of international importance vulnerable. Several recent infrastructure projects in Turkey have been able to achieve spectacular results, but only with great frustration until international media attention and the groundswell of public opinion succeeded in supporting archaeologists to find ways forward. The author tells us that some of the major discoveries were predictable. Can these case studies become the impetus for developing risk-based approaches to future projects?

Joseph Schuldenrein makes the extremely useful point that unanticipated changes in construction design can have the same impact on carefully-designed archaeological programmes as an unexpected archaeological find. He raises two other important points to which I will respond here; firstly, the role of deposit modelling and hard-to-reach areas. Crossrail has used extensive borehole data to model locations that contained very deep sequences to ensure that the specification for works was directed at the right levels below ground. I think the point I was making was that having established those constraints and assessed the potential for unknown discoveries, the decision whether or not to evaluate those areas (with the attendant high costs and temporary works) was examined against the programme's critical path. That is where the location in question had a direct link to the critical start and completion dates for different contracts. A simple example would be the location where a tunnel boring machine is to be launched: damages payable to the tunnelling contractor, if delayed, would run into a many figure sum per day and therefore early intervention for archaeology would be advised. Secondly, the difficulties of the terminology; I have provided a number of references that describe the Crossrail Project archaeology programme and the construction terminology used in more detail and hope that these may assist

readers to investigate some of the terms and concepts further. It is worth noting that there is a generic language within large infrastructure projects that is important for archaeologists to become familiar with.

Natalie Vinton provides the timely reminder that compromise is always a part of negotiation. As archaeologists are constantly negotiating a position for the past in construction projects, she points out the important role that early site evaluations play in providing positive information on those exchanges. Taking the opportunity to combine our survey methods with other disciplines and adopting the language of other disciplines (such as contamination studies) are also emphasised. Finally, on-site interpretation that is developed with appropriate community involvement and input allows us to achieve a long-lasting legacy for the places we work, which can help fully justify the time, effort, and expenses invested.