

## Impact case study (REF3b)

<b>Institution:</b> University of Southampton
<b>Unit of Assessment:</b> 17A Archaeology
<b>Title of case study:</b> 17A-02 The Portus Project: Bringing the Roman Empire Back to Life
<p><b>1. Summary of the impact</b></p> <p>A University of Southampton study of Portus, the maritime port of Imperial Rome, has had a significant influence on how the State authorities in Rome manage archaeological sites. Its findings show that commercial activity at the port was far greater than previously understood, enabling academics to reappraise the site's significance and increase public awareness of it around the world through extensive media coverage. It has benefitted UK researchers by acting as a laboratory for new computer-based applications and providing a context for international industrial collaboration. The AHRC has also used the research in case studies to strengthen its funding case to the UK government.</p>
<p><b>2. Underpinning research</b></p> <p>A three-phase programme of archaeological research, led by the University of Southampton, is the first sustained study of Portus, the port of Imperial Rome. As both a major maritime hub in the Mediterranean and an ideological statement designed to underline Roman supremacy, Portus is key to understanding Rome and its relationship to its Empire.</p> <p>The first phase (1998-2004) formed part of the AHRC-funded <i>Roman Towns in the Middle and Lower Tiber Valley Project</i>, directed by Professor Simon Keay, Professor of Roman Archaeology, 1985-) with University of Cambridge's Professor Martin Millett as co-investigator. It involved the systematic mapping of 220 hectares of the ancient port and surrounding hinterland, using geophysical and surface survey techniques. It raised questions about the chronology and function of buildings at the heart of the port, and settlement on the Isola Sacra [3.3], an artificial island constructed between the Tiber, Portus, Ostia and the Tyrrhenian Sea.</p> <p>These questions, and the extent of the port's commercial connections, were addressed by the AHRC-funded <i>Portus Project</i> (2006-2011) [3.1]. It was directed by Keay, with Dr Graeme Earl, Senior Lecturer in Archaeological Computing 2005-) and Millett, in partnership with the British School at Rome (BSR) and the Superintendancy for Rome's Archaeological Heritage (SSBAR), and in collaboration with UK and European higher education and research institutions. The study explored Portus' role within the commercial life of the Roman Mediterranean, specifically its development over the first six centuries AD and its impact on the broader Mediterranean. An integrated programme of large-scale excavations and high-resolution geophysical surveys [3.5] was carried out at the centre of the port. The team prepared initial computer graphic simulations of the excavated buildings and completed preliminary work on the finds [3.4].</p> <p>The third phase <i>Portus in the Roman Mediterranean</i> (2011-2014), attracting a further £800,000 AHRC funding [3.2], was again directed by Keay, with the same co-investigators and collaborators. It combined further survey and excavation [3.7] with post-excavation analysis and simulations of key buildings to gauge the extent of imperial investment in port infrastructure in Rome under emperors in the 2nd Century AD. Results show that Portus was at the centre of a network of at least four Italian ports serving Rome, and that commerce between Rome and the rest of the Mediterranean was far more complex and on a far greater scale than previously thought [3.6]. It points to a much larger volume of commerce moving across the Roman Mediterranean during the first four centuries AD, commanding a rethinking of the relationship between Rome and its Mediterranean empire.</p> <p>The Southampton-led integrated approach to excavation, survey and computer visualization has major implications as to how the layout and archaeological potential of a major Classical site can be mapped in a relatively short space of time; the potential of such techniques to simulate innovation [3.8]; and demonstrates how a historically key site can be presented to the public</p>

through mobile electronic media, (such as geographically sensitive tablets and smartphones which guide users around the site) that could be applied elsewhere, thereby fostering a wider public interest in Classical heritage more generally.

### 3. References to the research

#### Principal Grants

- 3.1. S. Keay, *Portus Project*, AHRC (2006-2011), c. £750K  
 3.2. S. Keay, *Portus in the Roman Mediterranean Project*, AHRC (2011-2014): c. £800K

#### Selected Outputs

- 3.3. S. Keay, M. Millett, L. Paroli and K. Strutt.(2005) *Portus. An Archaeological Survey of the Port of Imperial Rome. British School at Rome Archaeological Monographs* 15. London (peer reviewed)
- 3.4. S. Keay & L. Paroli (2011) (eds) *Portus and its Hinterland. Recent Archaeological Research. Archaeological Monographs of the British School at Rome* 18. London (peer reviewed).
- 3.5. S. Keay, G. Earl et al. (2013) Challenges of Port landscapes. Integrating Geophysics, Open Area Excavation and Computer Graphic Visualization at Portus and the Isola Sacra. In, Johnson, P. and Millett, M. (eds) *Archaeological Survey and the City. University of Cambridge Museum of Classical Archaeology Monograph no. 2*: 303-57. Oxford.
- 3.6. S. Keay (ed.) *Rome, Portus and the Mediterranean. Archaeological Monographs of the British School at Rome* 21. London (peer reviewed).
- 3.7. S. Keay, G. Earl, F. Felici et al. (2012) Interim report on an enigmatic new building at Portus. *Journal of Roman Archaeology* 25: 486-512 (peer reviewed).
- 3.8. S. Keay and G. Earl (2013) Portali di archeologia 1: Progetto Porto e le sue connessioni. In M. Serlorenzi and I. Jovine (ed.) *SITAR Sistema Informativo Territoriale Archeologico di Roma. Potenziale Archeologico, pianificazione territoriale e rappresentazione pubblica dei dati. Atti del II Convegno Roma Palazzo Massimo 9 novembre 2011*. Rome: 131-43.

### 4. Details of the impact

Prior to the beginning of the Portus Project, the site was known only to archaeological authorities and a small group of academics. Research led by the University of Southampton has introduced new global audiences to the heritage site, raising public awareness of Classical history in general.

Project website [www.portusproject.org](http://www.portusproject.org) receives c. 1,000 unique visitors monthly. From 2009 there has been an increase in visits to the site from Italian schoolchildren and staff, and students from Rome-based foreign academies and European and US universities. The University of North Carolina at Chapel Hill made a visit to Portus the centrepiece of a course funded by the National Endowment for the Humanities (2012). A press strategy based around two five-month campaigns in 2009 and 2011 was key, culminating in international press conferences at Portus and extensive coverage across international broadcast and print media, including all UK and Italian broadsheets, BBC, CNN, The Economist and specialist magazines like Current World Archaeology (<http://www.portusproject.org/online-presence/>).

In December 2012, BBC1 screened a major documentary (co-financed by Discovery US) *Rome's Lost Empire*, with Southampton's excavation, geophysics and CGI-modelling work featuring prominently. It reached an audience of 4.23 million in the UK. Director Jeff Wilkinson [5.4] wrote: "The important discoveries (Professor Keay and his team) have made at Portus played a key role in generating the excellent viewer figures for the programme, and therefore in benefitting the BBC." The BBC is planning another similar programme. It was also screened by France 5, attracting 1.1million viewers, and in the EU and US in early 2013. Between 2010 and 2012 Keay was

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approached by several European TV companies, including RAI1 (the flagship station of Italy's national public service broadcaster), RAI3, Discovery and RTE, and his insights were used in narrative programmes about Portus and the Roman world. The Portus Project was selected as the pilot study for the EU-funded Heritage Portal website [www.heritageportal.eu](http://www.heritageportal.eu), a free online resource that disseminates good practice to cultural heritage practitioners.

Portus' popularity as a tourist destination has risen. Some specialist UK tourist companies, notably Swan Hellenic Cruises (2010, 2013), have placed Portus on their itineraries, thereby deriving economic benefit from this work. In 2013 the International Airport of Fiumicino and SSBAR began a collaboration to open up the site to the large numbers of travellers passing through, while the Autorità del Litorale Romano, Fiumicino Airport, Comune and the SSBSAR are planning to open the site to passing cruise and air passengers and local school children in the next couple of years.

The SSBAR has benefitted from the researchers' experience in integrating a research project within the management framework of a high-profile site, new methodologies and presentation of results [5.5], with the Director General of Antiquities citing it as having "... had considerable scientific impact ... reinforcing the documentation that illustrates the importance of the site and also serves to inform its management" [5.1, 5.2]. The SSBAR provided £170,000 in 2011 for further excavation by the Portus research team, with c. £80,000 in 2012 and 2013. In 2013 it commissioned the development of an official website for the Portus site that will be linked to a website which showcases the ancient river port of Rome. In 2011, Keay addressed a conference [3.8] of leading archaeological heritage practitioners in Rome in order to share strategies in computerised on-site recording, data archiving, retrieval and linkages that could be applied to other heritage sites.

The AHRC has been another major beneficiary. Following media coverage in 2011, Keay was asked to address the AHRC Council to support its efforts to convince the UK government of the merits of continuing to fund large multi-year projects like the Portus Project. It was used as an AHRC impact case study (2012), a Knowledge Exchange Partnership case study (2012) and was cited by CEO Rick Rylance (2013) in a video to launch the AHRC's research strategy for 2013-2018. Rylance said: "The great Portus Project ... reveals the potential of collaborative organisation across nations and across different sorts of disciplines..." [5.3].

Further research has been supported through grants totalling over £1million from the EPSRC, AHRC, JISC and Microsoft Research in IT-based areas involving Earl. Building on initiatives based around the achievements and experiences of Portus, or employing it as a key component, these projects have been used to demonstrate the potential of multidisciplinary research to bridge humanities and computing. An initial collaboration with Microsoft Research in High Performance Computing has led to a further four ongoing collaborations at Portus, each of which is focused on the development of new hardware and software tools that can be applied further afield.

**5. Sources to corroborate the impact**

**5.1. Italian Ministry of Culture.** Professor Stefano de Caro (Director General of Antiquities of the Ministry of Culture which manages SSBAR for the period 2007-2011). Currently Head of ICCROM.

**5.2. Superintendent for the Archaeological Heritage of Rome (SSBAR), Italian Ministry of Culture** Dottssa Mariarosaria Barbera (Soprintendente, SSBAR 2012 - )

**5.3. The Arts and Humanities Research Council – Principal Funder of the Research**

CEO of the AHRC/RCUK, Professor Rylance in launching the AHRC's new Strategy, 'The Human World: The Arts and Humanities in our Time' (2013-2018), in setting out the AHRC's distinctive role in the UK's system of support for research and how it intends to meet the challenges of a rapidly changing research environment. The Portus Project "...has uncovered evidence about the kind of trade and trade routes that took place.....because it reveals the potential of collaborative organization across nations and across different sorts of disciplines." <http://www.ahrc.ac.uk/News->

[and-Events/Watch-and-Listen/Pages/AHRC-Strategy-2013-2018.aspx](#)

**5.4. The BBC.** Jeff Wilkinson, the Director of the BBC1 Programme, *Rome's Lost Empire*, writes of the benefits to the BBC of having worked with the Portus Project in the making of the Programme: "It was a privilege to work with Professor Keay and his team in the making of the BBC blockbuster 'Rome's Lost Empire'. The important discoveries they have made at Portus played a key role in generating the excellent viewer figures for the programme, and therefore in benefitting the BBC," and the BBC is planning another programme on a similar theme in the near future. The programme was screened in the UK on 28th December 2012, attracting 4.23 million viewers with a share of 14.4% of the total audience and an appreciation score of 83: the timeslot average audience was 5.72 million with a share of 14.9% (all are consolidated figures); there were also 231,661 Iplayer requests – at 35 days. The programme was also aired in France on France 5 as *Les Derniers Tresors de Rome* on 28<sup>th</sup> December 2012, attracted 1.1 million viewers and a 4.1% share, to outperform the channel's slot average by 131%. The programme will be aired in the US on the Science Channel in autumn 2013 as "The Roman Empire: What Lies Beneath" in the US late 2013.

**5.5.** [www.portusproject.org](http://www.portusproject.org): The press activity on this site receives approximately 1000 unique visitors per month, with a peak of 4000 in December 2012, of which 40% were from the UK, 10% from the US, 8% from Italy, and the c. 40% from the rest of the world.

**5.6. AHRC 1** ([www.ahrc.ac.uk/News-and-Events/Image-Gallery/Pages/Portus-Project.aspx](http://www.ahrc.ac.uk/News-and-Events/Image-Gallery/Pages/Portus-Project.aspx))

**5.7. AHRC 2** ([www.ahrc.ac.uk/Funded-Research/Case-studies/Pages/PuttingPortusonthemap.aspx](http://www.ahrc.ac.uk/Funded-Research/Case-studies/Pages/PuttingPortusonthemap.aspx) )

**5.8. Microsoft Research.** Professor Tony Hey, the Director of Microsoft Research.