

Institution: University of Southampton		
Unit of Assessment: 15 Archaeology		
Title of case study: 15-01 The Maritime Dimension of Imperial Rome: shaping cultural heritage policy, raising public awareness and building tourism capacity		
Period when the underpinning research was undertaken: 2000 – 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Simon Keay Graeme Earl	Role(s) (e.g. job title): Professor of Archaeology Professor of Digital Humanities	Period(s) employed by submitting HEI: April 1997 – August 2020 July 2005 – September 2017
Period when the claimed impact occurred: July 2014 – December 2020		
Is this case study continued from a case study submitted in 2014? N		
<p>1. Summary of the impact</p> <p>Research at the University of Southampton has transformed and enriched our understanding of <i>Portus</i>, the maritime port of Imperial Rome, and by implication, Imperial Rome itself. Since 2014 the research has prompted the Italian Government to recognise the value of <i>Portus</i> as a key cultural heritage and tourism asset, and invest in its decision to make it an integral part of one of its largest and most-visited archaeological parks, <i>Parco Archeologico di Ostia Antica</i>. It has also precipitated the development of a tourism capacity-building strategy by a range of private and public bodies. An extensive campaign of public engagement has promoted awareness of the maritime dimension of Imperial Rome in around 120 countries globally, drawing the public into a closer engagement with the site. Lastly, the work at <i>Portus</i> has acted as a catalyst in the emergence of digital media companies that are developing different forms of public engagement with archaeology.</p>		
<p>2. Underpinning research</p> <p>The archaeological site of <i>Portus</i> lies 25km southwest of Rome, next to Fiumicino International Airport. The research by Professor Simon Keay and his team has been one of the most important British projects in Roman archaeology in the 21st century (R. Ling, <i>Ant Journal</i> 2014: 365). Since 1998, it has received £3.2 million in funding. This has come from the AHRC, with the project featuring in its 10th Anniversary publication (<i>10 Years of the AHRC</i> 2015) and being publicly cited by the Head of the AHRC as being an exemplar used to persuade the UK Government to keep funding Arts and Humanities. There has also been financial support from the ERC Advanced Grant project on Rome's Mediterranean ports (2014-2019).</p> <p><i>Portus</i> is key to understanding Rome's relationship to its empire. It was the principal point of entry for ships supplying Imperial Rome with foodstuffs, material and manpower from the mid-1st to mid-6th centuries AD. With many imposing structures still standing, the site encompasses 5.8km² and ranks as one of the most important archaeological sites in the Mediterranean.</p> <p>Although the site has been known since at least the 12th century, research has been episodic and piecemeal. Initial Southampton work involved a geophysical survey (1998-2005) of the whole site [3.1], revealing many large buried warehouses, quays, canals and temples. Subsequent excavations funded to c. £1.6 million by the AHRC (2007-2012) and other funding sources (2013-2015), have uncovered the <i>Palazzo Imperiale</i> (an imperial maritime villa), associated ship sheds at the 32-hectare Trajanic basin at the heart of the port, and related infrastructure [3.2, 3.5]. Geophysical survey of the <i>Isola Sacra</i> to the south has revealed a canal that connected <i>Portus</i> to the river port of Ostia, as well as evidence that Ostia extended north of the Tiber in the direction of <i>Portus</i> [3.2]. Finds research has begun to reveal details of the population that frequented <i>Portus</i> [3.3] and the range of goods that moved through it [3.4]. The first volume on the excavation results is in production by CUP for publication in 2021, while the <i>Isola Sacra</i> volume was published by the McDonald Institute (Cambridge) in 2020 [3.2]. The high academic quality of the work was a key factor in Keay winning over £1.6 million from the ERC for studying the broader maritime context of <i>Portus</i> through a programme of interdisciplinary archaeological and historical research into 32 Mediterranean Roman ports (2014-2019). It</p>		

involved active fieldwork at eight ports in Italy, Spain, Tunisia, France and Turkey, as well as the great 200-hectare Claudian basin at Portus and its role within the port. The research at Portus has involved cutting-edge interdisciplinary techniques from archaeology, computer-science [3.6], geomorphology and human anthropology. It has helped refocus academic enquiry upon the role of ports in the economy and commerce of the Roman Mediterranean and has precipitated a sharp increase in other projects focused upon Roman ports over the past eight years. The work has been undertaken in close collaboration with the British Academy funded British School at Rome (BSR), the University of Cambridge and the *Soprintendenza Archeologica* for Rome (now the *Parco Archeologico di Ostia Antica*), and funded by the Arts and Humanities Research Council, the ERC, the British School at Rome, the University of Southampton, the *Soprintendenza Archeologica* for Rome and Microsoft UK.

3. References to the research

3.1 Keay, S., Millett, M., Paroli, L. and Strutt, K. (2005) *Portus. An Archaeological Survey of the Port of Imperial Rome. Archaeological Monographs of the British School at Rome* 15. London, BSR. Available on request.

3.2 Keay, S., Millett, M., Strutt, K. and Germoni, P. (2020) *The Isola Sacra Survey. Ostia, Portus and the port system of Imperial Rome*. McDonald Institute Archaeological Monograph. Cambridge. Listed in REF2

3.3 O'Connell, T., Ballantyne, R., Hamilton-Dyer, S., Oxford, S., Pantano, W., Millett, M. and Keay, S. (2019) Living and Dying at the Portus Romae. *Antiquity* 93.369: 719-34.
<https://doi.org/10.15184/aqy.2019.64>

3.4 Keay, S. (ed.) (2012), *Rome, Portus and the Mediterranean. Archaeological Monograph of the British School at Rome* 21. London, BSR. Available on request.

3.5 Keay, S. (2018), The Role played by the Portus Augusti in Flows of Commerce between Rome and its Mediterranean Ports, in B. Woytek (ed.) (2019) *Infrastructure and Distribution in Ancient Economies. The Flow of Money, Goods and Services. International Congress 28-31 October 2014*. Austrian Academy of Sciences. Institute for the Study of Ancient Culture. Division Documenta Antiqua: 147-92. Listed in REF2

3.6 Earl, G., Beale, G. and Keay, S. (2011) Archaeological Computing on the Portus Project. In S. Keay & L. Paroli (eds), *Portus and its Hinterland. Archaeological Monographs of the British School at Rome* 18: 101-25. Available on request.

Grants Received

AHRC (2006-2011): £589,635

AHRC (2011-2014): £645,344

ERC (2014-2019): £2,316,710

4. Details of the impact

4.1 Impact on legislation and practice in the management of cultural heritage in Italy

Following extensive international press coverage of Portus Project discoveries, the Italian Minister of Culture visited the Portus Project excavations on 2 July 2014, using the occasion to make a public declaration about the site's national importance: "There is no place in the world of this beauty and archaeological importance close to an international airport. We will work on a valorisation project (for the site) because the potential is enormous." [5.1] The Mayor of Fiumicino also expressed his public support for the project [5.1]. These statements, as well as actions by the *Comitato Promotore SAIFO*, a local pressure group established in 2014 in light of the growing local public awareness of the value of the site created by Portus Project work, ensured that Portus formed part of a new heritage management plan that was part of the broader reorganisation of the national *Ministero per i Beni Culturali e Turismo* (MiBACT), announced on 18 July that year. By 2017, Portus had ceased to be a largely forgotten site with no infrastructure that was administered remotely by the *Soprintendenza Archeologica* for Rome. Rather, it had become one of three major sites administered directly by the local *Parco Archeologico di Ostia Antica* (POA), one of the largest archaeological parks in the world covering around 130 hectares, including *Ostia Antica* and the *Isola Sacra*, and the work of the

Portus Project had been the key initial catalyst in this transformation. The brief of its Director includes enhancing research and developing an outreach strategy for all three sites, advised by the *Comitato Scientifico Internazionale* (CSI). This has resulted in new foreign teams working at Portus, and the agreement (*Protocollo di Intesa*) of common procedures for field recording, archiving of records, digital reconstructions and public engagement. In February 2018 POA was awarded EUR 32 million for the *Grande Progetto Ostia Antica*, a five-year programme of research, management, valorisation and outreach by the Italian State Interministerial Committee for Economic Planning. Up to EUR 8 million of this has been specifically assigned to Portus. In the context of this, Portus Project digital data (2007-2015) including plans, elevations, sections and geophysical files have been transferred to the POA. They will form the basis for the on-site valorisation work and future recording for 2020-2023 and are thus important elements in the new Geographical Information System (*GISmondì*) and on-site visitor panels for Portus [5.3]. More than EUR 40,000 has already been spent on immediate conservation of the *Palazzo Imperiale*, while a further circa EUR 2 million has been allocated for broader restoration and presentation work, thereby ensuring its long-term conservation and public accessibility. Keay has direct involvement in this process as the MiBACT-appointed member of the CSI of the POA [5.2], one of only two non-Italians to hold such a position on State-run Italian archaeological parks. The Portus project results will be key in the Director of the POA's campaign for the park to become a World Heritage site. The Portus team's survey work in the Isola Sacra has also helped the POA guarantee the protection of sites threatened by illegal development (Via di Ponte Matidia 29 and 33A). The major challenge of fostering interconnections between the archaeological sites across the park has been the subject of a study by architects at the Università di Roma La Sapienza, which draws heavily on Portus Project results [5.4]. The significance of the long-standing collaboration between the UK and Italy over Portus also attracted attention in UK official circles, with two visits to the site by then HM Ambassador to Italy, Christopher Prentice, in 2015.

4.2 Impact on the development of tourism capacity-building close to Rome

Visitor numbers to Portus stood at c. 7000 in 2013-2014, rose to 25,755 in 2017 and 21,469 in 2018 as a result of the the *Navigare il Territorio* initiative, and ultimately the publicity stemming from Portus Project work, after which they have fallen back to 12,425, probably due to the pandemic. These fell well short of the c. 300,000 who visit neighbouring Ostia each year, since Portus has lacked the necessary infrastructure to absorb them until recently. The objective of the State authorities and the local **Comune** (Municipality) of Fiumicino has been to boost visitor numbers and thus capture the potential of the 35 million visitors who pass the site on their way between Fiumicino Airport and Rome each year. Lazio MP Emiliano Minnucci referred to the work of the Portus project whilst requesting more support for local efforts to make the site more easily visitable by local groups and tourists from the Cultural Ministry in November 2014 [5.5]. An early initiative was to use the site for summer concerts, and more recently for art exhibitions by the *Comune*, who were very positive about the significance of the Portus project's work. The Portus team also contributed to the collaborative *Navigare il Territorio* project of programmes, such as creative workshops, tours, team competitions and events for mothers and babies organised by the *Aeroporti di Roma*, the *Fondazione Benetton* and the *Comune* [5.6].

In 2019, government resources of EUR 1,105,000 were provided by the POA to build a small visitor centre/ticket office on the site featuring project work in the exhibition space; construction work is underway and was projected to have been completed in June 2020 before the Covid pandemic struck. A further EUR 2 million is being spent on re-presenting and re-opening the *Museo delle Nave* (Museum of the Ships) near Fiumicino Airport [5.7]. Keay was charged by the POA to work with the Director of the building project to ensure its delivery, also projected for June 2020 before the pandemic, as well as jointly keeping sight of its scientific content with a distinguished colleague at the Université Aix-Marseille. The museum exhibits ships found at the site in the 1950s, and the Portus model and other project work will feature prominently on explanatory panels in it. Both buildings will play key roles in the development of other on-site educational programmes and digitally-based public engagement activities currently in the process of development [5.7]. Research that aligned with the objectives of the *Museo delle Nave* into shipping at Portus was undertaken by a privately-sponsored postdoctoral research fellow at the BSR (October 2017-July 2018), who subsequently continued as Assistant Director of Archaeology until Summer 2020. The most recent developments have been the commitment of

the *Comune* to provide an extensive parking area near the site, discussions about reopening the *Porto di Traiano* stop on the Fiumicino to Rome railway line and providing shuttle buses between the airport, Portus, the Isola Sacra and Ostia [5.7].

4.3 Promoting awareness of the maritime dimension of Imperial Rome to public audiences across the world

Portus Project results have stimulated local interest and engagement by the *Comune*. The *Navigare il Territorio* initiative to engage local schoolchildren and their families has stimulated further interest in the site since 2015, and it is now regularly visited by groups of up to 500 children from local *scuole medie* (middle school, ages 11-14). Further, the comic book "*Portus - Storia di un porto, storia di una città - Tiberio e la perla dei mari*" and the English version "*Portus - Tiberius and the Pearl of the Seas*" were published by Altrove Editrice in association with the *Assessorato politiche giovanile* of the *Comune*. It was presented at the 20th international comic festival Romics at Nuovo Parco di Leonardo near Rome in 2016, while 5000 copies of the Italian text were printed and distributed to pupils of quarto and quinto (ages 10-11) primarily in the Fiumicino/Rome area. Copies remain on sale at the POA. Key reached audiences throughout Italy by participating in the documentary *Ostia – sulle sponde della historia* produced by Sky Arte in 2019 on behalf of the MiBACT and the POA and screened by *RAI Uno*, the flagship television channel of the national state broadcaster, on 4 January 2020. The documentary included Portus Project results in its argument about the national and global importance of Portus and Ostia. Project results also featured prominently in three major recent international exhibitions in Rome, *Per Nutrire il impero* at the Ara Pacis (2013), *Traiano. Costruire l'Impero creare Europa* at the *Mercati Traianei* (2017) and *Roma Universalis* at the Colosseum (2019), with the latter having an estimated 1 million visitors during the exhibition [5.9].

The research has also received much international press attention, reaching audiences across the globe through exposure on TV documentaries. Most recently, project work has also featured in a BBC2 documentary, *The Ancient City*, while the computer graphic model of the port produced by the project with Artas Media featured in the episode *Rise of the Roman empire* in the series *Drain the Oceans* produced by Malinson Sadler Productions for the National Geographic, both in the US (October 2019) and the UK (January 2020). Although viewing figures are unavailable, the programme was very well received; the series will be shown on Disney+ after its purchase of National Geographic films, ensuring its future high visibility [5.10]. Also, an important panel displaying an image from the Portus computer graphic model currently figures prominently in the exhibition *Ostia portti roman* at Tampere in Finland [5.11]. More broadly, the Portus team ran a FutureLearn MOOC between 2013 and 2018 that has attracted over 30,000 attendees, with 60% of the learners drawn from outside the UK, across more than 178 countries [5.12]. These include 22% from Italy, USA, Australia and Canada, as well as substantial numbers in countries such as Brazil, Russia, India and China. Of the c. 30,000 members of the public who enrolled on the course approximately 16,400 learners were active participants, collectively posting around 75,000 individual comments. The course ran in English but included transcripts of all videos in Italian and some in French and Japanese. Some attendees of the MOOC course also participated in excavations led by the Portus Field School in 2015 and 2018, further demonstrating the impact of Portus and the maritime dimension of Imperial Rome upon them [5.12].

4.4 Industrial Impact

Since 2014, two digital cultural heritage businesses have benefitted from a deep involvement with our activities. *Artas Media* reconstructs and disseminates digital heritage content. It was established in 2012 by an ex-Southampton post-graduate Grant Cox, who was trained at Portus and has created the many computer graphic simulations of the Portus Project. His company has undertaken contract work for computer graphic models for a range of heritage bodies including the British Museum, the Brighton Museum, as well as Damian Hirst (*Wreck of the Unbelievable*), the BBC and at Catalhöyük (Turkey). *Archaeovision* undertakes photographic, photogrammetric, web-mapping and 3D reconstruction services on archaeological sites. Their clients include Salisbury Cathedral, East Anglian Archaeology, Historic England, the *École française d'Extrême*

Orient and the Art Museum of Estonia. Its staff (Pagi, Miles and Copeland) acquired vital experience at Portus.

5. Sources to corroborate the impact

5.1 Dario Franceschini, Minister for Culture, and Esterino Montino, the Mayor of Fiumicino at Portus on 2 July 2014 as published in La Repubblica on 3 July 2014:

<http://www.patrimoniosos.it/rsol.php?op=getarticle&id=111258> (summary translation supplied)

5.2 Ostia Antica Website <https://www.ostiaantica.beniculturali.it/en/the-park/governance>.

5.3 Letter from Dottssa Mariarosaria Barbera, Director of the Parco Archeologico di Ostia Antica, Autumn 2019.

5.4 Impact on Possible Rural Planning Strategies in the Rome littoral area: A. Bruschi et al. (2015) Strategia del sistema archeologico paesaggistico della linea di costa Roma imperiale, in A. Bruschi (ed.), *Portus, Ostia Antica, Via Severiana. Il Sistema archeologico paesaggistico della linea di costa Roma imperiale*: 166-41 (Rome).

5.5 Statement in Italian parliament on 28 November 2014: Interrogazione a riposte scritta 4/07060 presentata da Minnucci Emiliano (Partito Democratico) 28/11/2014

http://dati.camera.it/ocd/aic.rdf/aic4_07060_17

5.6 Local Efforts to increase visits to the site: Comune di Fiumicino

https://www.comune.fiumicino.rm.it/index.php?option=com_k2&view=item&id=950:arteporto-oltremare-40-artisti-in-mostra-ai-porti-di-claudio-e-traiano&Itemid=245&lang=it and Navigare il Territorio <http://www.adr.it/navigare-il-territorio> (summary translations available)

5.7 Report on the development of the site: Recorded talks by Dottssa Mariarosaria Barbera; Press release about the reopening of the il Museo delle Navi; Article on plans to improve transport.

5.8 Report on public engagement with schools, children and families: Navigare il Territorio Project Website: <http://www.navigareilterritorio.it/en/the-project/>; article in *il Faro Online* (10 May 2018); article *AGR online* (4 October 2016); correspondence with Councillor Paolo Calicchio, Comune Fiumicino.

5.9 Estimate of Colosseum figures provided by Director of the *Roma Universalis* exhibition

5.10 Testimony from Director of the programme *Drain the Oceans: Rise of Rome*.

5.11 <http://vapriikki.fi/en/navyttelyt/ostia-the-gate-to-rome>

5.12 MOOC data