

# Connectivity – in the Roman Mediterranean, and in archaeological research

*Simon Keay discusses the implications of Brexit for major collaborative archaeology*



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## Roman Mediterranean ports

One of the questions that has long fascinated me is how to explain the scale and extent of Roman commerce across the Mediterranean during the first two centuries AD. This is a big issue that has a particular resonance for the fractured Mediterranean of today. It helps us to understand how Rome was able to sustain its dominance over the peoples surrounding the whole of the Mediterranean basin for a period of c. 450 years. One of the keys to answering this question is a better understanding of the many ports that thronged the shores of the Mediterranean, the networks of connectivity between them, and the ways in which Rome refocused them upon its own priorities and interests.

My research interest over the last 12 years has been primarily upon Portus, the maritime port of Imperial Rome, funded by the Arts and Humanities Research Council, and undertaken in

collaboration with the Archaeological Superintendancy (*Soprintendenze*) for Rome, the British School at Rome and a range of partners in the UK and beyond. More recently, however, I have broadened the scale of my enquiry to encompass the ports of the Roman Mediterranean in an ambitious project funded by the European Research Council (ERC).<sup>1</sup> This is an interdisciplinary initiative that has been funded to the tune of €2.5 million over a five year period (2014–2019). Only the ERC offers funding at the level and of the kind that makes possible projects of this scale and ambition.

The Roman ports project has involved active fieldwork at seven ports of different size and location across the Mediterranean (Turkey, Tunisia, Italy, Spain, Greece and France), in collaboration with research institutions across the European Union and beyond.<sup>2</sup> It has also funded analyses of archaeological, geo-archaeological, textual and epigraphic evidence, and is drawing upon key advances in archaeological computing, to focus upon the functions, capacities and connections between Mediterranean ports, and their relationships to Rome. Fieldwork highlights include discovering the mole of the harbour

1. Project number 339123, co-directed by Pascal Arnaud of the Université Lumière Lyon 2.

2. Including the German Archaeological Institute (Istanbul), the Austrian Archaeological Institute, the Centre Nationale des Recherches Scientifiques, the Universities of Cologne and Cádiz, the Institut Català d'Arqueologia Clàssica, the Soprintendenza Speciale per il Colosseo, Museo Nazionale Romano and Area Archeologica di Roma, and the Soprintendenza Archeologia Belle Arti e Paesaggio per l'Area Metropolitana di Napoli.

basin established by Claudius at Portus, the monumental harbour façade and outer harbour at Ephesus, discovering the harbour sediments of Puteoli (Pozzuoli) at a depth of c. 21 metres below modern sea level, and the boundaries of the harbour of ancient Tarraco (Tarragona).

We are transforming our understanding of the capacities and duration of the harbours of Ephesus, Puteoli, Tarraco and Narbo (Narbonne), by adapting and developing a 'Palaeoenvironmental Age Depth Model' for ports which makes it possible gauge and compare the harbour potential of buried harbours within set chronological parameters, and by re-assessing ancient references to many Mediterranean ports and the organisation of commercial activities within them. We are also gaining a better understanding of the key roles played by city authorities in their management, and learning that Imperial involvement in their development and maintenance was the exception and not the rule. Other project work is showing that Roman ports were not simply functional units, but that their layouts also encode key clues about cultural, religious and ideological practices of communities on the liminal boundary of land and sea, and that this was implicit in how the Romans chose to represent them in images and reliefs. But perhaps our greatest knowledge advance has been to move on from the view that ports should be viewed as discrete and self-evident nodes. While they were indeed places at which navigational and commercial facilities, commercial infrastructure, political authority and religious sanction intersected, they cannot be properly isolated from the many smaller anchorages, road-stations, coastal baths, maritime *villae* and beaches peppering the shores of the Mediterranean; their activities were fundamental to their commercial success. In short, we are arguing for a more deconstructed view of ports that plays well to the diffuse geographical realities of the micro-regions of the Mediterranean.

The ongoing success of the research has relied upon a core team of British academic staff and postdoctoral fellows and PhD students from Spain and France based at Southampton, working in close collaboration with a French co-director and geo-archaeologist at Lyon, together with talented colleagues with different archaeological, scientific and historical skills from elsewhere in the UK, Italy, France, Spain, Germany and Austria, as well as co-operation with authorities in Turkey and Tunisia. This broad range of active pan-European and interdisciplinary collaboration has generated the synergies necessary to answer the questions that the project has posed, promoted valuable knowledge between project partners, and enriched the experiences of the project postdoctoral fellows and PhD students.

### Engagement of UK universities with the ERC

UK-based academic archaeologists have been very successful in winning ERC grant competitions since their

inception in 2007; this needs to be seen against the broader background, with the UK winning €2.4 billion – c. 22 per cent of all ERC funding from 2007 to 2015. Most archaeology grants have been won by Oxford (9), followed by Cambridge (7), University College London (5), York (4), Exeter (2), Warwick (2), and one each for Belfast, Bradford, Bristol, Cardiff, East Anglia, Edinburgh, Kent, Leicester, Manchester, Reading, Sheffield and Southampton (see Table 1). The ERC offers awards at three levels. The Starter Grants have a maximum value of €1.5 million for up to 5 years, and are for excellent young academics who are between 2 and 7 years on from the award of their doctorate, and at a stage in their careers when they are starting their own independent research team or programme. The Consolidator Grants, which are up to €2 million over 5 years, have been awarded to excellent young academics between 7 and 12 years after completion of their doctorate, while they are still consolidating their own research team or programme. Lastly, there are the Advanced Grants, which are awarded to excellent senior academics – up to a total of €2.5 million per project over 5 years. All of these blue skies awards have allowed academics to develop methodologically innovative and interdisciplinary projects that address the larger questions that simply cannot be addressed by grants from Research Councils UK (RCUK) funding schemes, whose maximum value is c. €1 million, which makes it challenging to sustain large-scale fieldwork projects or laboratory analysis. Similarly, the Natural Environment Research Council's funding for science-based archaeology has been relatively small-scale, leaving a gap for funding large-scale projects here too. Constraints such as these have helped make ERC grants very attractive.

These projects have addressed thematic archaeological questions, and are helping to advance the boundaries of understanding in ways that are beyond the scope of standard UK research grants. European and world prehistory has been particularly well-served. For example, an Advanced Grant project based at Cambridge is focusing upon the significance of East Africa in the evolution of human diversity. It is building upon recent genetic and DNA studies about the distribution of African humans out of Africa and their evolutionary development, and is undertaking an extensive programme of fieldwork at early human sites in East Africa in order to increase the fossil record, and to better understand changes in human behaviour in the area leading to the dispersals. There have also been a number of projects that have focused upon later, historical periods. For example, a Starting Grant at the University of East Anglia has funded excavations and surveys undertaken in conjunction with analyses of the historical evidence in the Dallols area of Nigeria between 1200 and 1850. The aim has been to study cultural affiliations in an area rich in population movements, in



A view from the theatre of Ephesus down the main street towards the site of the inner harbour, where geophysical survey has been undertaken by the 'Rome's Mediterranean Ports' (Portuslimen) project in collaboration with the Austrian Archaeological Institute.

order to understand whether 'empire' is a useful concept for our understanding of its political structure.

My own experience tells me that the experience of holding an ERC grant will have a profound impact upon the institutions where the projects have been focused, leading to the development of new areas of specialisation, new interdisciplinary directions, and enhanced connections with European and world colleagues.

### The future post-Brexit

The ERC was a part of the EU's 'Framework Programme 7' from 2007 to 2013, and since then has formed part of the 'Excellent Science' pillar of the Horizon 2020 programme. These grants awarded to UK researchers are a litmus test of the great success that UK-based archaeologists have had in winning a range of research funds from the EU in recent years. They are also an index of what will be lost if the UK withdraws from the scheme,

both in terms of archaeology as a discipline and the universities where the departments are based. It will be all the greater if we also bear in mind the other schemes within the 'Excellent Science' pillar in which archaeologists have performed well,<sup>3</sup> including the Marie Skłodowska-Curie Actions. Nor should one forget their successes in other relevant Horizon 2020 sections, such as 'Societal Challenges', 'Spreading Excellence and Widening Participation', 'Science with and for Society' and the cross-cutting activities, or indeed the other funding programmes outside the Framework Programme. Unfortunately, there are no easily obtainable figures for these.

While the success of archaeologists in EU funding competitions is to be celebrated, there is also a darker side. Archaeology departments at UK higher education institutions have demonstrated a growing dependency upon EU funding since 2007, and since 2013–14 have received more from this source than from UK government

3. UK researchers in general have won some £1.3 billion, c. 20.5 per cent of all funds from this pillar.



sources, including RCUK sources.<sup>4</sup> In the context of the uncertainties in the UK funding landscape that will follow the next Comprehensive Spending Review, the loss of funding from the ERC coupled with access to the Framework 9 research programme that will replace Horizon 2020 in 2021 will inflict serious damage upon archaeological research in the UK.

This will make it much harder for UK archaeologists to tackle the big questions, work with European colleagues, and develop the kinds of ties and synergies that have been enriching our research base over the last few years. And this will make it harder for us to participate in global scientific networks, since we will be increasingly seen as the poor partner, with a narrow national remit. Even if the UK decides to continue to contribute to the ERC post-Brexit, or is successful in benefiting from it by means of some kind of associated arrangement, its success may be stymied by the UK Government's myopic proposals for reducing immigration from the EU, cutting off UK projects from valuable synergies from EU academics. That in turn will make the UK less attractive to researchers from other parts of the world, and weaken the excellence of UK research generally.

### Why this matters

The devaluation of UK archaeological research internationally in this way, and the shortfall in its funding, comes at a difficult time for archaeology in the UK.<sup>5</sup> While archaeologists are very successful in winning UK research funds as well as those from the EU, and are thus very valuable to the deans of the universities in which they are situated, student recruitment at undergraduate level has been through a lean period, putting departments under considerable pressure, and raising questions about viability in some cases. This has been exacerbated by an increasingly large number of providers and a dwindling pool of students. All of this means that fewer archaeologists are graduating at a time when their future contribution to major infrastructure projects, such as HS2, and work in the heritage industry has much to offer to the cultural life and prosperity of the UK.

Against this background, the likely loss of European funding will further imperil the future health of archaeology in the UK. One can only hope that the Government will see the sense in continuing to pay into the ERC scheme, so that UK archaeologists can continue to collaborate with EU colleagues by means of the ERC within Framework 9, and to permit researchers and post-

graduate students from the EU to continue to come and work with us in the UK. Much has been made of the £100 million Rutherford Fund announced by the Government in July 2017 to attract highly skilled early career and senior researchers to the UK post-Brexit from the developed and emerging research powerhouses such as Brazil and India. But there seems to be little sense in this if free movement is not permitted, and collaboration with the colleagues who have helped make the ERC projects as world-leaders in terms of vision, synergies and distinctiveness is shut out.

On 6 September 2017, the UK Government published a position paper on continued research co-operation post-Brexit<sup>6</sup> in which it recognises that 'it is crucial that we maintain collaboration with our European partners after we leave', and that it is prepared to negotiate continued membership of the EU research funding bodies, and keen to participate in Framework 9.<sup>7</sup> Whether this actually happens remains to be seen, but for the sake of future UK science and research more generally, one sincerely hopes that it does. ■

### European Research Council grants awarded to UK universities since 2007

| University  | Advanced Grants<br>(£2.5m) | Consolidator Grants<br>(£2m) | Starter Grants<br>(£1.5m) | Total |
|-------------|----------------------------|------------------------------|---------------------------|-------|
| Oxford      | 4                          | 1                            | 4                         | 9     |
| Cambridge   | 4                          | 2                            | 1                         | 7     |
| UCL         | 2                          | 1                            | 2                         | 5     |
| York        | 3                          |                              | 1                         | 4     |
| Exeter      | 1                          | 1                            |                           | 2     |
| Warwick     | 1                          |                              | 1                         | 2     |
| Belfast     | 1                          |                              |                           | 1     |
| Bradford    | 1                          |                              |                           | 1     |
| Bristol     | 1                          |                              |                           | 1     |
| Cardiff     | 1                          |                              |                           | 1     |
| Edinburgh   | 1                          |                              |                           | 1     |
| Leicester   | 1                          |                              |                           | 1     |
| Manchester  | 1                          |                              |                           | 1     |
| Sheffield   | 1                          |                              |                           | 1     |
| Southampton | 1                          |                              |                           | 1     |
| East Anglia |                            |                              | 1                         | 1     |
| Kent        |                            |                              | 1                         | 1     |
| Reading     |                            |                              | 1                         | 1     |

Source: European Research Council.

4. *The role of EU funding in UK research and innovation* (Technopolis, May 2017). This report was commissioned by the Academy of Medical Sciences, the British Academy, the Royal Academy of Engineering and the Royal Society.

5. This is discussed in *Reflections on Archaeology* (British Academy, March 2017), pp. 6–7, 42–3.

6. 'Collaboration on science and innovation: a future partnership paper' (HM Government, September 2017).

7. 'Science paper sets out UK plan to remain in EU projects', *Financial Times* (4 September 2017).