

THE ROMAN PORTS PROJECT

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THE PORTUS PROJECT (COMUNE DI FIUMICINO, PROVINCIA DI ROMA, REGIONE LAZIO)

The Portus Project (www.portusproject.org) is an initiative directed by Simon Keay (University of Southampton and British School at Rome) which aims to understand better the development of the port and its broader relationship to the Mediterranean. It involves close collaboration between the British School at Rome, the University of Southampton, the Soprintendenza Speciale per il Colosseo, il Museo Nazionale Romano e l'Area Archeologica di Roma (SS-Col), the Universities of Cambridge, Lyon and Aix-en-Provence, and the Parsifal Cooperativa di Archeologia (Rome).

EXCAVATIONS AT PORTUS

Palazzo Imperiale

Fieldwork in summer 2015 saw a continuation of the work on the *Palazzo Imperiale*, which began in 2012 and continued during 2013 and 2014. This is a 3.4 ha structure that is located upon an isthmus at the centre of the port, affording its occupants very clear views over the Trajanic and Claudian basins. It was established under Emperor Trajan and was abandoned at some time during the Byzantine period. This eighth season was focused upon the range of rooms along the northern side of the complex, from the *Castellum Aquae* in the east (Building 1), westwards. Our fieldwork, part of a joint strategy of excavation and restoration, the latter being coordinated by the SS-Col, is investigating a zone (Area K) that lies on the western side of the early twentieth-century path that bisects the complex from north to south. This is a challenging part of the site, since it involves excavation of a partially standing structure, with archaeological remains on two storeys.

Building 3

This rectangular *opus testaceum* room, initially uncovered in 2009 (Area D), was situated on either side of the twentieth-century path that bisects the complex. The excavations (Area K) in 2012, 2013 and 2014 revealed the full eastward extent of its walls, its internal layout around a central peristyle and *opus spicatum* flooring, and also paid particular attention to the southeastern sector of the room, revealing the stumps of the square pilasters that carried the vaults of the first-floor room above and confirming its rectangular peristyle-like structure.

The 2015 work continued to try to resolve the sequence of activities in the western part of Building 3, in an area on the northern side of the piers that defined the northern side of the peristyle, i.e. the doorway that provided access into the western corridor (Building 8.3) of Building 8 and the modern (twentieth-century) path to the east. Careful excavation of a small lead-smelting furnace robbed in the later sixth-century (Period 6C) and an earlier repair trench (Period 4) cut into the Trajanic (Period 2) *opus spicatum* floor not only enabled us to understand better the later history of this part of the *Palazzo Imperiale*, but also shed light on the position of the Claudian (Period 1) quay that preceded the construction of the Trajanic building. The rear face of the quay was discovered immediately below the Period 2 *opus spicatum* floor on the north side of the cut of the trench close to the modern path (Fig. 1). This can be related to the stretch of Claudian quay discovered on the eastern side of the modern path. Overall it



Fig. 1. Portus. Detail showing the curved rear face of the Period 2 Claudian quay (centre) in the trench cut through the Period 2 Trajanic *opus spicatum* floor in Building 3 of the *Palazzo Imperiale*.

suggests that the alignment of the northern side of the *Palazzo Imperiale* followed the Claudian quay much more closely than was previously thought, and this has important implications for our understanding of the originality of the Trajanic building.

Excavation in 2015 also continued on the southern stretch of the ground floor of the north–south corridor with sloping concrete floor (Room 8.3) that separated the rooms of Building 8 from Building 3 to the east. In particular, the fill of the small square structure of late third-century AD date (Period 4) without an entrance, which was built directly onto the surface of the corridor and abutted the east wall of Building 3, was removed in an attempt to learn more about its function. It would appear that it was backfilled with ceramics and other rubbish at some time in the fourth- to early fifth-century AD (Period 5). One key find was an imperial lead stamp of late second-century AD date of the kind used on marble blocks imported from Imperial quarries, and which were a frequent find on blocks from the *statio marmorum* on the north side of the Isola Sacra. This is the first time that one

has been found in a non-quarry or marble-yard context, and is good evidence for the kinds of administrative activities that would have taken place in the *Palazzo Imperiale*.

The south side of the Palazzo Imperiale

Excavation continued on the south side of Room 8.13 (Area E), a corridor that was originally identified on the basis of the results of the 1998–2004 geophysical survey, and excavations in 2009 and 2014. The work revealed the full extent of the fourth- to earlier fifth-century AD (Period 5) black and white geometric mosaic uncovered in 2014. It was composed of large tesserae, was badly conserved and was cut by two intersecting narrow trenches that ran from north to south and east to west to form a cross-shaped plan; the former presumably served as a slot for a wooden partition in the late fifth-century AD (Period 6A), while the latter was subsequently created in an attempt to remove lead piping. A small sondage in the northeastern corner of the room revealed the Period 2 white mortar floor and two steps at the angle of the doorway from corridor 8.13 into the north–south corridor 8.3 (Fig. 2). This discovery provides us with key information about how the inhabitants of the *Palazzo Imperiale* were able to move between the internal spaces and the Open Area to the south of the complex.

The seafront

Work continued on the north side of Building 3 (Area K), the seafront of the *Palazzo Imperiale*. Removal of the rubble deriving from the collapse of the northern façade of the complex and underlying sand revealed a very rich organic layer filled with sea-shells, which represents the final infilling of this sector of the Claudian basin. The concrete platform uncovered in 2014 was also investigated, by removing the uppermost level and revealing similar organic deposits.

Building 5 (Navalia)

Building 5 lies immediately to the south of the excavated part of the *Palazzo Imperiale*, and formed part of the same original architectural concept. Fieldwork undertaken in 2011 and 2012 (Keay *et al.*, 2012) revealed that it was a vast, single building measuring 240 × 58 m, organized into a series of regularly spaced parallel spaces oriented from north to south. Each of these was in turn subdivided in a consistent sequence: a passage 4 m wide, three narrow bays each *c.* 11 m wide, a passage 4 m wide, and a wide bay *c.* 19 m wide. All of these building sections opened on to a quayside bordering the Claudian basin to the north and on to a quayside bordering the Trajanic hexagonal basin to the south. Previous fieldwork revealed that the building was established under Trajan (Period 2), when it seems to have had some kind of ship repair or construction function, and that in the later second century AD some sections of it were subdivided into a large rooms oriented from west to east (Period 3) that continued to be in use until at least the later fifth century AD.

The 2015 excavations continued in Sondage 2, which ran from west to east across the narrow bay B5.2/NB4. The aim was to continue efforts begun in 2014 to uncover the full sequence of deposits down to foundation levels in order to reveal the character of the original Period 2 Trajanic flooring, and thereby to understand better the function of the bay. The excavations revealed further evidence for the deposits underlying the later second-century AD (Period 3) rammed *cocciopesto* floor. It is now clear that the Period 2 Trajanic flooring was composed of sand dumped across the full width of B5.2/NB4, while the



Fig. 2. Portus. View of the Period 5 black and white geometric mosaic floor in the corridor (8.13) of the *Palazzo Imperiale*.

activity associated with this primary phase (Period 2A) was a series of stake-holes on the eastern and western sides of the bay, as well as a series of stake supports and abrasions running down the middle. As we found in 2014, bronze and iron tacks abounded in the fill of these features and on the floor surface. Once the Period 2 sand was removed, excavation uncovered an underlying white mortar levelling surface that was perforated by a slot and stake-hole; these were related to the initial construction of the walls and piers of B5.2/NB4.

PORTUSLIMEN. THE ROMAN MEDITERRANEAN PORTS PROJECT (RoMP)

This project focuses on the organization and scale of pan-Mediterranean commerce during the first three centuries AD (www.portuslimen.org). It applies techniques that have been

developed in archaeology, ancient history, geomorphological studies and computing to 32 ports across the Mediterranean, ranging in scale from Portus, to regional entrepôts and down to smaller ports. Central to the project is a programme of geophysical survey and geo-archaeological investigation at seven sites.

In 2015–16 the BSR/APSS geophysics team returned to western Turkey to survey two small Hellenistic ports that served Pergamon: Pitane and Kane. The geophysical work forms part of the ongoing research by the DAI Istanbul, directed by Dr Felix Pirson, Director of the DAI. Pitane occupies a rocky promontory on the southern side of the Kane peninsula, the natural topography of which offers at least two sheltered harbours or anchorages. The settlement at Pitane was well known for its production of Çandarlı Ware (Eastern Sigillata C), which was exported all over the Mediterranean during the second and third centuries AD. The gradiometer survey of the promontory hoped to identify the pottery production areas, in particularly the kilns. While the results of the surface collection showed a high proportion of kiln-related material and Çandarlı Ware sherds, the gradiometer survey did not identify the production sites, although one kiln may be visible. A small gradiometer survey was undertaken at Kane, building on the previous year's results. On the steep slope of the outcrop to the south of Kane, some large hewn blocks of stone had been observed on the ground surface and were presumed to be evidence of the town wall. The geophysical survey enabled the mapping of a short stretch of the course of the buried city wall. This has helped to confirm the extent of the ancient settlement to the south, and together with the geo-archaeological survey undertaken by the University of Cologne as part of the project suggests that the Kane peninsula may have originally been an offshore island. These results, and the discovery of a quay in an underwater survey by the University of Kiel on the southwestern side of the peninsula, have significant implications for our understanding of the character of the port.

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The Portus Limen Project, which runs between 2014 and 2019, is funded by the ERC. It represents a key collaboration between the University of Southampton, the BSR, the Université la Lumière Lyon 2, the Deutsches Archäologisches Institut (Istanbul), the Österreichisches Archäologisches Institut, the Soprintendenza Speciale per il Colosseo, il Museo Nazionale Romano e l'Area Archeologica di Roma, the Soprintendenza Archeologica di Napoli, the Institut Català d'Arqueologia Clàssica, the Universidad de Cádiz, the University of Oxford and the University of Cologne, among others.

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THE LATERAN PROJECT: INTERIM REPORT FOR THE 2015–16 SEASON (ROME)

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The Lateran Project analyses the ancient and late antique topography of Rome in a 9,000 m² area focussed on the Papal Archbasilica of San Giovanni and the adjoining Lateran Baptistery. It aims to undertake a complete building survey of the structures exposed within the *scavi* underneath the Archbasilica and Baptistery, and to place these structures within a detailed study of the evolving topography of Rome. Key to the project is a comprehensive programme of laser scanning complemented by an extensive ground-penetrating radar survey.

Work in 2015 focused primarily on cross-checking scan data from the *scavi*,¹ developing the project database and experimenting with visualization as an instrument for advancing the project team's understanding of the overall complex. In 2016, the project team members continued the scanning survey with a FARO Focus3D laser scanner, though now with a new 5 m high extendable tripod, and advanced database development and visualization work. They also extended the survey above ground into the Archbasilica itself. An important breakthrough also came with the recovery and analysis of unpublished documentation from Josi's excavations of 1934, 1935 and 1938.

Work undertaken in the two seasons confirms that there are four major phases of building works visible beneath the current floors of the Archbasilica:

- Residential properties constructed at an unknown date and occupied to the early second century AD
- Residential properties remodelled *c.* AD 123–41 and occupied to *c.* AD 193
- The Castra Nova (the cavalry barracks of the *equites singulares*) and the so-called 'trapezoidal house' (built AD 193–6, occupied to *c.* AD 312)
- The Constantinian Basilica (building commencing *c.* AD 313).

The particular issues of dating the phases of buildings under the Baptistery, which include a major bath complex contemporary with the Castra Nova and possibly traces of a *domus*, alongside the late antique Oratory of Santa Croce, the probable Nymphaeum of

¹ In 2015, the particular challenge here was in establishing the precise spatial relationship of scans within the *scavi* area with those of archaeological interest in the utilities passageways around the Lateran. A small secondary survey was undertaken to confirm earlier measurements.