



**Report on a Watching Brief on Water Main Repairs at
Fishbourne Roman Palace, Fishbourne, West Sussex**

January 2011

NON-TECHNICAL SUMMARY

This document sets out the results from an archaeological watching brief carried out by the Sussex Archaeological Society & West Sussex Archaeology Ltd. on behalf of Portsmouth Water at Fishbourne Roman Palace, Fishbourne, West Sussex. The watching brief was carried out in September 2010 during repairs to the water main. The results included the re-discovery of a tile culvert, first noted by Cunliffe in the 1960's excavations, and the discovery of a previously unknown ditch, which pre-dates the culvert, adjacent to the north-west corner of the north wing.

BACKGROUND

Topographical Background

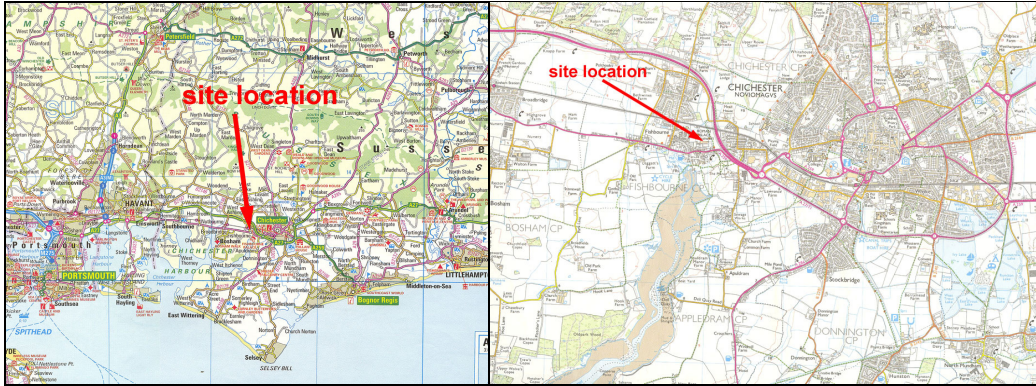


Figure 1 Site location. © Crown copyright. All rights reserved. License number: AL100036068

1. The water main runs outside and parallel to the north wing of Fishbourne Roman Palace, a scheduled ancient monument (SAM No. WS233). The Palace itself lies within the village of Fishbourne, c. 1km to the west of Chichester, in West Sussex (see Fig.1). The site lies at 6m aOD and is centred at OS grid reference SU8395 0480. The underlying geology of the site is the clay of the Lambeth Beds.

Project Background

1. In early September 2010 flooding within the north wing of Fishbourne Roman Palace alerted staff to the presence of a leak in the water main which runs along the outside of the cover building. The nature of this emergency, and the fact that the leak was noted over a weekend, meant that repairs had to be started immediately without an archaeologist on site. Three trenches were excavated in order to locate the source of the leak. The first two, Trenches A & B, were monitored and recorded by Gordon Hayden and Ian Robertson of the Sussex Archaeological Society over the weekend of the 4th & 5th September. Trench C was monitored and recorded by George Anelay of West Sussex Archaeology Ltd. on the 8th & 9th September. West Sussex Archaeology Ltd. (WSA) was then appointed by Portsmouth Water to produce a report on all three trenches.
2. The site archive is held by Fishbourne Roman Palace.

Historical Background

1. Roman occupation at the Palace site began with timber buildings which were superseded by the Neronian 'proto-palace,' This Roman-style building is thought to date to the early AD 60s. The construction of the great Flavian palace is dated to between AD 75 and AD 80.
2. The Palace faced south to the harbour across an artificially created terrace containing a landscaped private garden, which ran c.90m south from the palace building. A quay wall built of stone blocks and timber retained the south edge of the terrace.

RESULTS

Trench A

1. Trench A was excavated and back-filled before there was an opportunity to record any archaeological deposits, although it was noted that it was mainly filled with the re-deposited clay of the water main trench. A small spread of burnt clay and charcoal, 0.08m thick and 0.29m in extent, was seen in the south-west corner of the trench at a depth of 0.82m from present ground level. The trench was 1.42m deep. The re-deposited clay within the water main trench contained the following unstratified artefacts (all were discarded, save for those in bold):

| Material | Count | Weight |
|--|-----------------------------|--------|
| Oyster | 17 | 0.325 |
| Creamy-yellow limestone | 1 | 3.5 |
| Upper Greensand stone | 18 | 6.925 |
| Mixen stone | 1 | 0.75 |
| White Mortar | 9 (sample retained) | 1.45 |
| Opus Signinum | 5 (sample retained) | 0.4 |
| Post-medieval clay pipe | 1 | 0.01 |
| Comb-impressed box-flue tile | 2 | 0.35 |
| Brick tesserae | 3 | 0.1 |
| White stone tessera | 1 | 0.01 |
| Animal Bone | 1 | 0.015 |
| Roman brick (40mm thick) | 5 | 4.0 |
| Roman brick (60mm thick) | 1 | 1.2 |
| <i>Mammata</i> tile (38-40mm thick) | 2 | 6.05 |
| <i>Imbrex</i> | 15 | 2.65 |
| <i>Tegulae</i> (18 – 24mm thick) (1x Warry Type 26 cutaway) | 59 | 16.63 |
| Amphora (Fishbourne type 153) | 3 | 0.25 |
| Samian (Dragendorff 37) | 6 | 0.1 |
| Roman pot | 5 | 0.1 |
| Modern pot | 2 (1x flower pot discarded) | 0.025 |

Trench B

1. Trench B was again mainly filled with the re-deposited clay of the water main trench. A tile culvert, noted in the 1960's excavations, was recorded in the southern face of the trench. This sat upon a layer of clay and mortar (105) of uneven depth, below which was the undisturbed clays of the Lambeth Beds (106). At the base of the trench, 1.34m below the modern turf, underlying natural gravels were seen. The layers (101-104) above the culvert are probably backfill from the 1960's excavations.

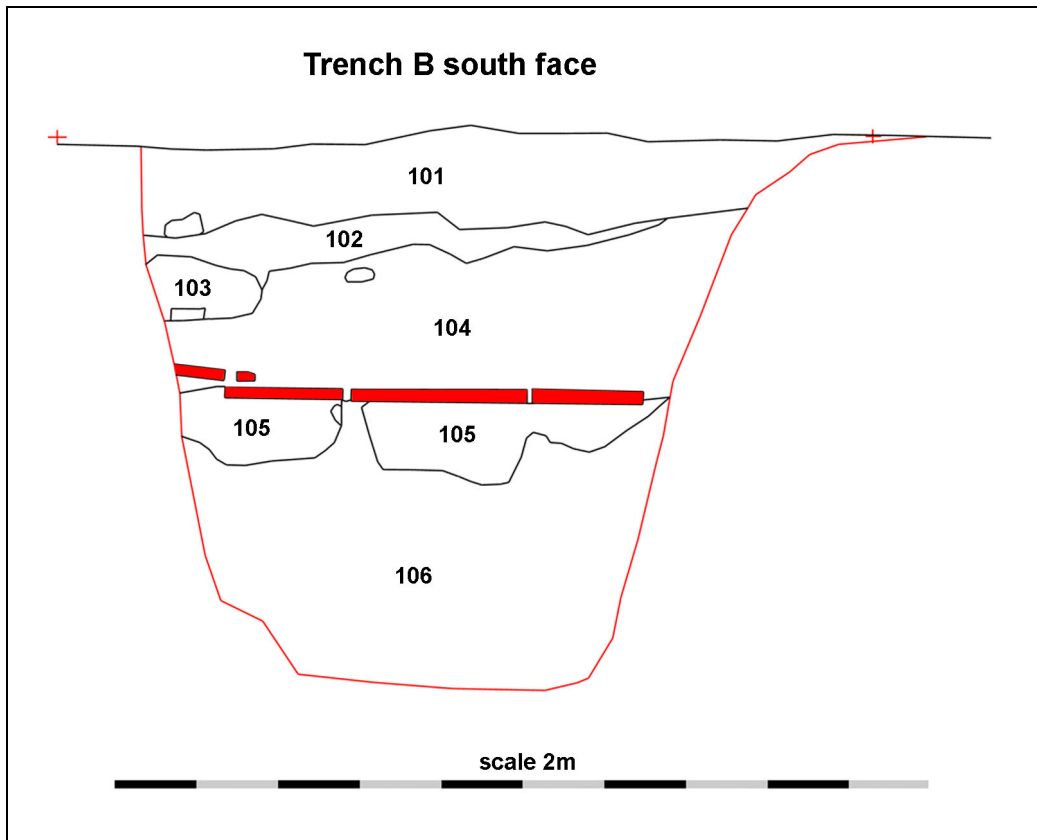


Figure 2 Trench B section.

2. Layer (105) contained the following artefacts (all were discarded):

| Material | Count | Weight |
|-----------------------|--------------|---------------|
| Oyster | 1 | 0.1 |
| Unid tile | 1 | 0.005 |
| Upper Greensand stone | 1 | 0.3 |
| Charcoal | 1 | 0.002 |

WEST SUSSEX ARCHÆOLOGY

The re-deposited clay within the water main trench contained the following unstratified artefacts (all were discarded, save for those in bold):

| Material | Count | Weight |
|---|-------|--------|
| <i>Opus spicatum</i> | 2 | 0.3 |
| Comb-impressed box-flue | 3 | 0.425 |
| White stone <i>tesserae</i> | 2 | 0.025 |
| Opus sectile (grey marble) | 1 | 0.08 |
| Chalk | 1 | 0.2 |
| Oyster | 31 | 0.8 |
| Red-painted plaster | 3 | 0.05 |
| White mortar (sample retained) | 3 | 0.125 |
| <i>Opus signinum</i> (sample retained) | 8 | 0.675 |
| Animal bone | 10 | 0.125 |
| Samian ware | 2 | 0.01 |
| Roman pot | 22 | 0.6 |
| Post-medieval pot | 1 | 0.025g |
| <i>Mammata</i> tile (30-40mm thick) | 2 | 1.6 |
| Roman brick (30–40mm thick) (1 x 26.5cm full width) | 14 | 16.2 |
| Upper Greensand stone | 28 | 11.25 |
| Creamy-yellow limestone | 3 | 1.05 |
| <i>Imbrex</i> | 37 | 5.9 |
| <i>Tegulae</i> (17- 30cm) (6x Warry Type 26 cutaways) | 109 | 39.85 |

Trench C

1. Trench C was excavated in two stages with a 1.6m wide trench being first excavated 1m from the north wall of the Palace cover building and then subsequently extended south and east. The northern part of the trench was initially believed to be on the line of the water main, and this assumption was strengthened by the disturbed nature of the deposits encountered. However these deposits proved to be a result of the 1960's excavations, not the laying of the water main, and once undisturbed archaeological layers were encountered the trench was extended closer to the Palace wall. The water main was found in the extended trench only 0.25m from the foundations of the cover building.
2. The tile culvert identified in Trench B was again located in Trench C, running 0.9m to the north of, and parallel to, the cover building. It had historically been badly damaged where it was visible within Trench C, but originally was composed of tegulae set upon a bed of opus signinum. Unlike in Trench B the bedding of the culvert was not placed directly above the undisturbed Lambeth Beds clay, but instead appeared to overlie earlier archaeological deposits.
3. The limited extent of the excavated area makes it difficult to identify the nature of the archaeological deposits below the tile culvert. In the north

face of the water main trench four alternating layers of clay and silt deposits (3, 4, 5 & 6) lay under the culvert and above a smooth grey clay/silt (7) under which was the undisturbed Lambeth Beds clay at a depth of 1.25m. These layers could be seen in the eastern face of the initial trench, with the alternating clay and silt layers sloping to the south. These alternating layers filled a feature which had been cut through two clay layers (8 & 9) to the north, which themselves overlay the smooth grey/clay silt seen in the water main trench again overlying the undisturbed Lambeth clays.

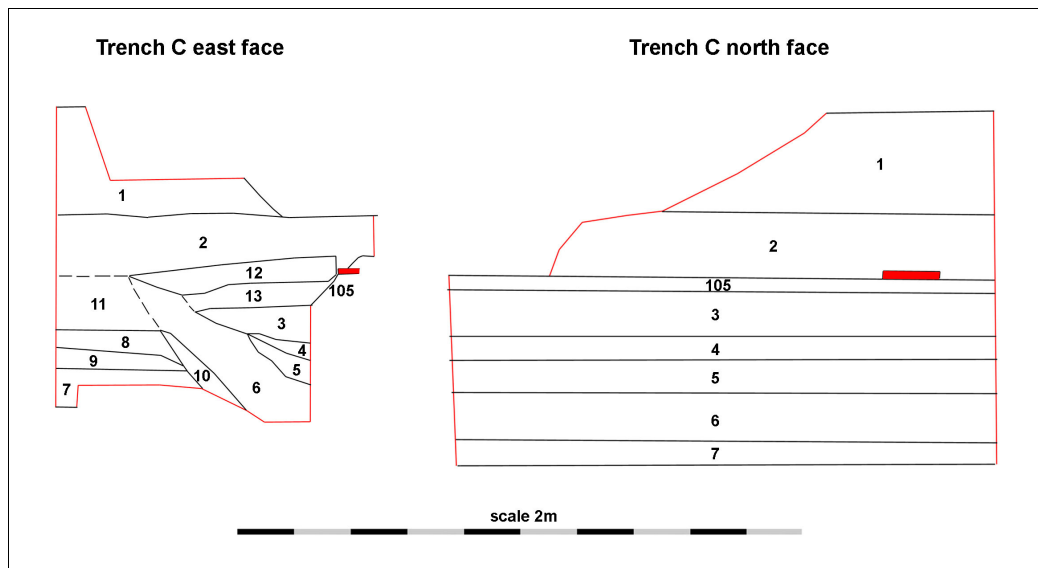


Figure 3 Trench C sections.

4. The form of the alternating layers suggests that they fill a ditch running east-west on a similar alignment to the later tile culvert. This earlier ditch was not found in Trench B beneath the culvert, suggesting it either terminates before this or follows a different course as it runs eastwards. Beneath this ditch the underlying clay appears to slope to the south (dropping 0.25m over 1.2m), overlain by what appears to an earlier topsoil (7) and two re-deposited clay layers (8 & 9), which have been removed where the later ditch has been cut.
5. One sherd of diagnostic pottery was recovered and retained from the lowest layer (6) within the east-west ditch. This was part of a rim from a Rowlands Castle grey-ware beaded rim jar. All other artefacts were unstratified and re-buried within the trench.

INTERPRETATION

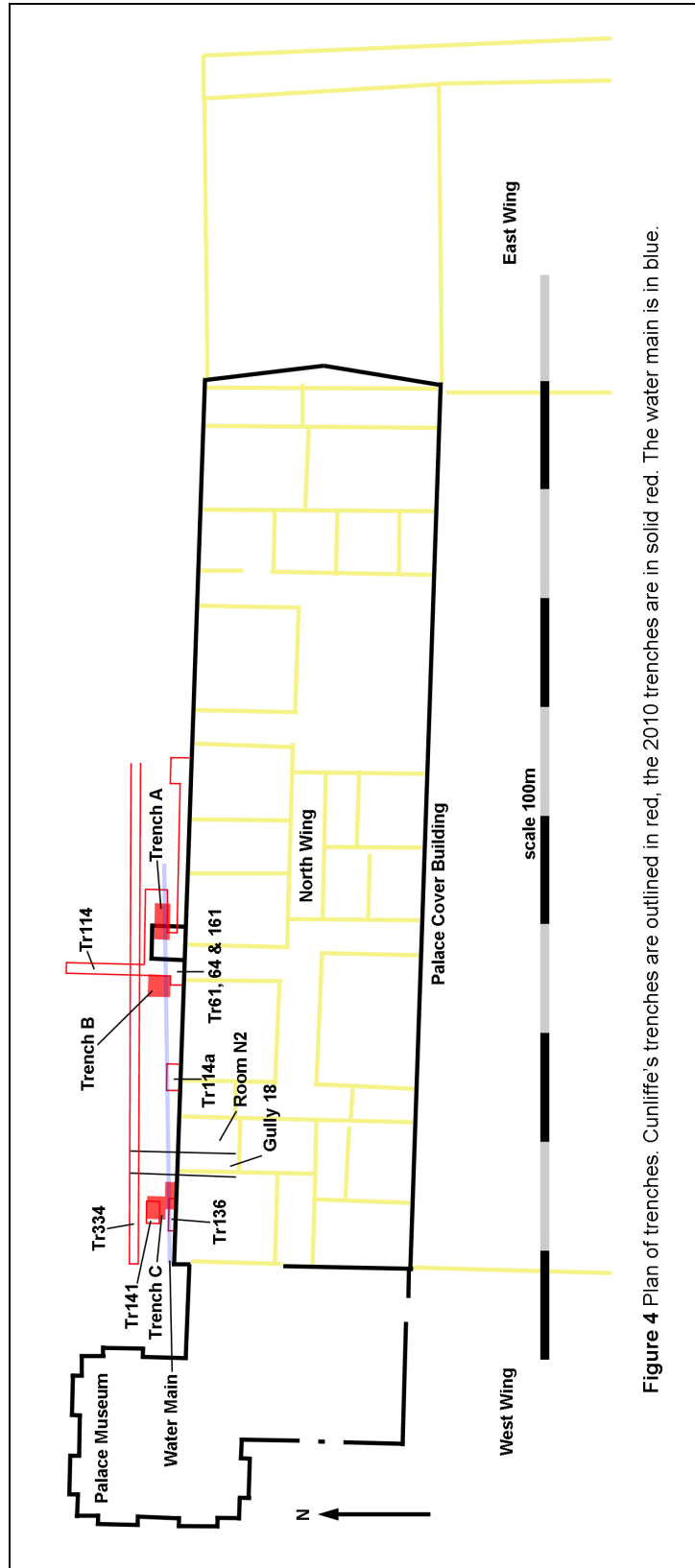


Figure 4 Plan of trenches. Cunliffe's trenches are outlined in red, the 2010 trenches are in solid red. The water main is in blue.

WEST SUSSEX ARCHÆOLOGY

1. Trench A was placed within Cunliffe's Trenches 64 & 161 which exposed the footings of a building attached to the north of the north wing. The footings were only one course deep, and therefore quite ephemeral, which may explain why no trace of them was noted within Trench A.
2. The culvert found in Trenches B & C was first discovered during the 1960's excavations in Trenches 136, 114a, 61 & 64. It was found to run close to the north wing of the Palace before turning north in Trenches 61 & 64 and disappearing part way along Trench 114. The interpretation given for this was that it carried water from a tower sited to the north-east of the Palace and took the form of an above ground aqueduct before entering the earth near to the point where it was discovered in Trench 114 (Cunliffe 1971 p.129). It was described as being "built of a base of flanged roof tiles with the sides constructed of broken roof tiles set in yellow clay, with traces of pink mortar rendering still surviving. Much of the structure had been destroyed when the trench for the water main was dug in 1960, but substantial parts survived for study." (Ibid.) It is now apparent that the water main trench crosses the culvert between Trench C and Cunliffe's Trench 114a, and therefore much of its structure between these points will have been destroyed.



Figure 5 The tile culvert in Cunliffe's Trench 64, looking north-west, the scale is 1 foot. (FRP photo ref: FB61-23-14).

3. There are a number of ditches/gullies to the north-west of the north wing which were partially excavated in the 1960's which may be related to that found in Trench C. It is possible that a number of them, including

that in Trench C, empty into a larger north-south gully (Gully 18) revealed in section under the floor of room N2 in the north wing in Trench 113 and found to continue into Trench 334 to the north, where it was 2.15m wide. The gully in Trench 113 was 2.2m deep from the 1960's ground surface. The gully was filled with deliberately deposited clay and sandy gravel 0.5m deep upon which lay a thin lens of occupation rubbish containing a sherd of Claudio-Neronian Samian (Cunliffe 197 p.52). The layers above had been truncated by the construction of the north wing and therefore the gully clearly pre-dates the Palace. The single sherd of Rowlands Castle jar found within the ditch in Trench C would be consistent with a pre-Flavian date.

4. The northern part of Trench C lay partially within Cunliffe's Trench 141. This trench had exposed the edge of the tile culvert, as was again done in Trench C, and two further layers of clay (7) & soil (8) to the north. The limited size of Trench 141 resulted in the erroneous identification of layer (8) as a rubbish pit, whereas it is clear from Trench C that both layers are in fact linked to the east-west ditch.

CONCLUSION

1. The principal results of this watching brief at Fishbourne Roman Palace have been to confirm the presence of the tile culvert running along the north wall of the north wing and to discover a previously unknown ditch running east- west below it. This latter may form part of a system of gullies and ditches to the north-west of the Palace which Cunliffe identified as pre-dating the Flavian Palace (Cunliffe 1971, p.52).
2. Future work associated with the water main is likely to impact upon further archaeological remains lying to the north of the Palace. Care should therefore be taken to avoid disturbing these remains as far as it is practicable and to make a full record of any structures or deposits revealed.

BIBLIOGRAPHY

Cunliffe, B. W. 1971 Excavations at Fishbourne, 1961-1969. Vol.I. The Site. London: Report of the Research Committee of the Society of Antiquaries of London. No. XXVI.