

◆ Further investigations east of Fishbourne Roman Palace

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Excavations in 2014 along the route of a new waterpipe to the north and east of Fishbourne Roman Palace revealed a variety of features, many of which could be correlated with earlier discoveries. Of particular interest, however, were those previously identified as the pre-conquest ditch and aqueduct, as well as a sequence of possible road metallings. Among the finds is a small group of Arretine ware and two further pellets of blue frit, a synthetic pigment used in Roman wall plaster and paintings.

INTRODUCTION

Excavations by Wessex Archaeology took place in 2014 on land less than 100m to the north and east of Fishbourne Roman Palace. The work was restricted to a narrow water pipeline easement, approximately 750m in length, which for just over 200m extended between areas investigated at various times between 1983 and 2002, these areas lying to the east of the diverted stream on the east side of the palace (Cunliffe *et al.* 1996; Manley and Rudkin 2005a, 2005b, 2006) (Fig. 1).

The Fishbourne Roman Palace complex consists of the scheduled monument itself (SM 1005829), the open grassed areas to its north and east and as yet undefined areas of activity which extend at least 500m eastward beyond the A27 and southward towards the Fishbourne Channel. The generally accepted picture of site development is as a military supply base from AD 43, developing into the ‘protopalace’ by AD 80 (Period 1), two phases of the palace (Periods 2 and 3), followed by the palace’s final use and abandonment (AD 200+, Period 4) (Cunliffe 1971). Each of these periods or phases has been sub-divided as more investigations have been undertaken and detail recovered.

As well as these distinctively Roman phases, most investigations have recovered residual prehistoric material and recent excavations, undertaken by the Sussex Archaeological Society, have confirmed the first unambiguous evidence for significant activity in the Late Iron Age (Manley and Rudkin 2005a). Pottery from a substantial possible enclosure ditch comprised a mixture of imported and local ceramics dating from around 10 BC to AD 25 (Lyne 2005). This feature was on an east-west

alignment and appeared to form a continuation of a ditch revealed in the A27 excavations (Cunliffe *et al.* 1996) (Fig. 1).

Also of relevance here are the Roman discoveries made east of the stream (Manley and Rudkin 2005b; 2006) and in the A27 excavations (Cunliffe *et al.* 1996), a short distance to the west and immediately to the east of the investigations described below. These earlier excavations revealed, *inter alia*, building 3, a possible *principia* and its compound belonging to the early military base, along with the remains of at least three other stone buildings and two timber buildings; a group of intercutting ditches and gullies, perhaps a complex of enclosures, the largest of the ditches believed to have been an aqueduct; an extensive Romano-British settlement, now largely under and beyond the A27, and at least one road (Fig. 1).

Although the route of the replacement mains water supply lay beyond the boundary of the scheduled monument, within existing roads and verges in the west and open fields in the east, it was known that the works would intersect with several of the linear features identified in the 1983–2002 excavations. Of particular interest here were the ditch of pre-conquest date, the aqueduct, at least one possible road (including the principal route leading to the palace entrance) and, to a lesser degree, the complex of enclosure ditches and gullies (Fig. 1).

Given this potential, the stripping of topsoil and subsoil for the pipe trench easement within the open fields at the eastern end of the route was brought forward within the overall programme, allowing appropriate excavation and recording of archaeological features while minimising the risk

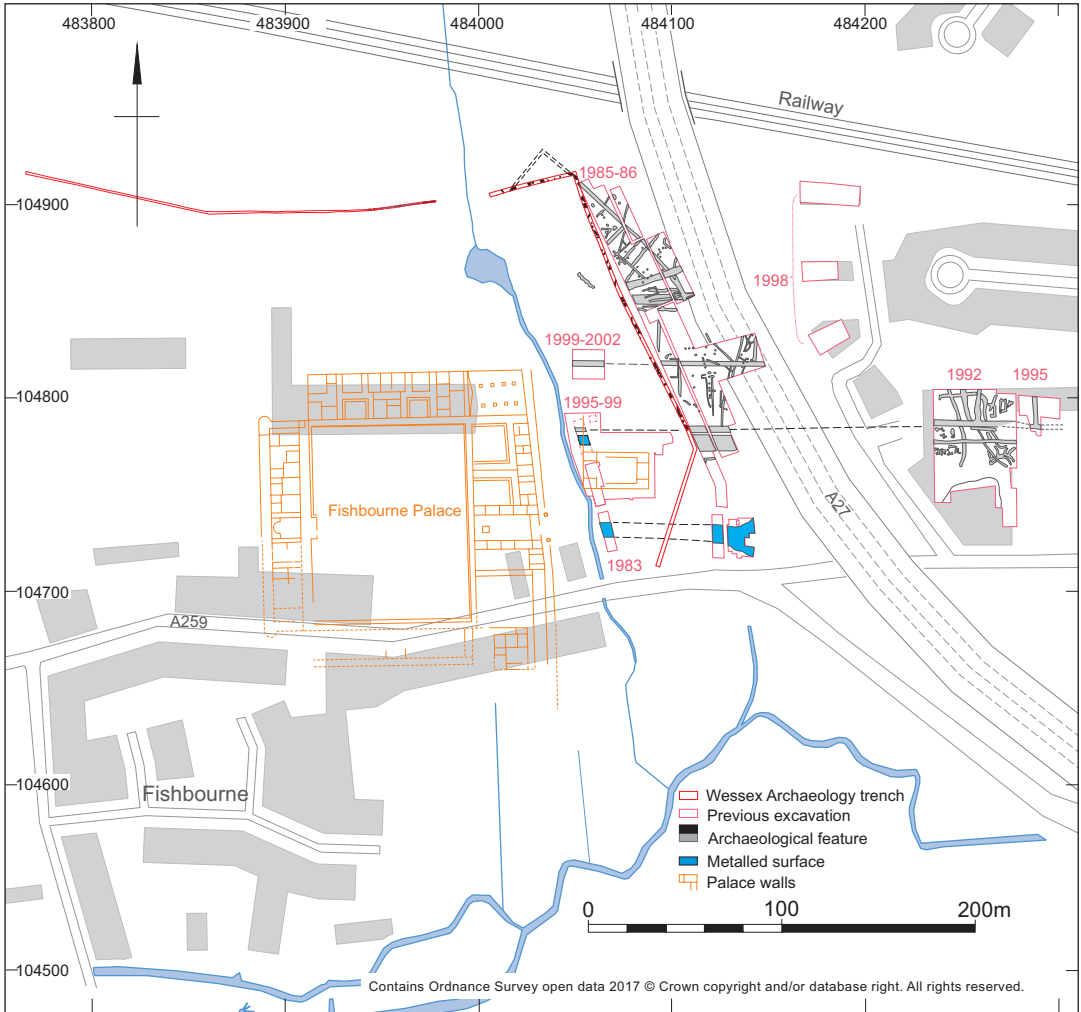


Fig. 1. Location plan showing earlier excavations.

of delay or disruption to the construction work (Wessex Archaeology 2014). The pipeline easement stripped to the east of the stream was 1.8m wide, and here it overlapped in part with the 1985–6 excavation area; to the west it was only 0.6m wide, restricted to the width of the pipe trench (Fig. 1). Between these, the pipe was bored beneath the course of the existing stream.

THE EXCAVATIONS

Previous investigations had recorded 0.3m of topsoil to the east of the stream, overlying a silty, clay

subsoil of similar thickness, which in turn sealed the natural clays and gravels. However, this sequence had been completely truncated in the southern part of the pipeline easement in this area, south of ditch 142 (the aqueduct), where 0.6–0.75m of made ground lay directly above the natural clay. This made ground is most likely to have been deposited as part of the construction of the A27 embankment, which now forms the eastern boundary of the site in this area. A comparison of levels indicates that up to 0.6m of archaeological deposits were removed during road construction following the 1985–86 archaeological investigations.

Excavation of the pipeline easement revealed parts of 30 ditches and gullies, most of them shallow, 11 small or medium-sized pits and six post-holes (full details in archive) (Fig. 2). As well as these features, there was at least one swathe of metallurgy, in the narrow section of trench west of the stream, although this gravel did not correspond with any of the metallised surfaces previously recorded, all of which appear to have been truncated.

However, many of the features recorded do correspond in plan to those revealed in the A27 excavations (Cunliffe *et al.* 1996), including (as they were then or subsequently designated) ditch 11 (the pre-conquest ditch), ditch 4 (the aqueduct), and ditches 9, 10 and 14 and their associated gullies comprising the northern enclosure system, originally part of what was interpreted as the 'eastern garden' (Cunliffe *et al.* 1996, Fig. 2.13) (Fig. 2). No features relating to building 3 or its compound were revealed.

THE PRE-CONQUEST DITCH

The 2014 trench exposed previously recorded features just west of where, in 1985–86, ditch 5 (= 2014 ditch 143) was shown to cut ditch 11, the latter interpreted as an aqueduct (Cunliffe *et al.* 1996, 42–3). However, subsequent work led to the re-interpretation of this feature as a pre-conquest ditch, largely on the basis that it contained a relatively large and significant assemblage of Late Iron Age pottery dated between around 10 BC to AD 25 (Manley and Rudkin 2005a), with another feature (ditch 4) then designated as the aqueduct (see below; Manley and Rudkin 2005a, Fig. 3; 2005b).

Two features were revealed in 2014, the latest being ditch 131 (= ditch 8) which crossed the trench approximately north to south and, cut by it, ditch 133 which crossed the trench on the predicted east–west alignment of the pre-conquest ditch (ditch 11) (Fig. 2).

Ditch 131 was approximately 1.35m wide, 0.5m deep and had a U-shaped profile (Fig. 2). It was filled with a single deposit of mid-grey clay which contained pottery of the late 1st to early 2nd century, some unworked lumps of stone and occasional fragments of ceramic building material.

Ditch 133 was estimated to be approximately 2m wide and 0.6m deep, with a steep-sided, stepped profile on the south side; the north side had

largely been removed by ditch 131 within the area investigated (Fig. 2). The lowest fill on the north side was 134, a greyish-orange clay, overlain by 132, a dark grey clay, neither producing any finds. It is possible that these two fills were contained within a separate flat-bottomed cut, and that layer 130 above them filled a later, more V-shaped cut, but the evidence is equivocal.

Layer 130, an orange-brown clay, produced a moderate assemblage (48 sherds) of early Flavian pottery but no pre-conquest finds, providing a date in the second half of the 1st century AD, at least for the infilling of this element of the ditch. As in the more recent excavations (Manley and Rudkin 2005a), no evidence of brushwood or traces of timber were noted, although fill 130 was noticeably darker, and no ceramic drain pipe was present, as had been found in 1985–86 (Cunliffe *et al.* 1996, 42). Possibly this debris had been redeposited in a later pit.

Overall, allowing for the loss of up to 0.6m of deposits due to truncation, the surviving lower profile of ditch 133 is broadly similar to that recorded in the earlier excavations to the east and west (Cunliffe *et al.* 1996, Figs 2.29–30, sections 11–13; Manley and Rudkin 2005a, Fig. 5). In the latter, the pre-conquest ditch can be seen to narrow eastwards in the published photographs, from approximately 4m to 3m, (Manley and Rudkin 2005a, Figs 6 and 7), and was 1.2m deep, similar to the dimensions recorded in 1985–86.

THE AQUEDUCT

Ditch 4 was identified in trial excavations to the west in 1983, then to the east in the A27 excavations, and subsequently during excavations at Westward House in 1992 (Kenny 1992, 34; Manley and Rudkin 2005a, Fig. 3) (Fig. 2). A double fence marked the line of the main east–west aqueduct, which may have contained a wooden pipe; the north–south feeder contained a ceramic pipe (Kenny 1992, pl. vi). The excavations north of building 3 (Manley and Rudkin 2005b) showed that it was later than the compound attached to that building and thus dated to Period 2, when it may have formed part of the palace's water supply, finally falling out of use in perhaps the late 3rd or 4th century. The feature was typically 2.5m wide by 1m deep and contained a moderately complex sequence of fills, with a clear recut (Cunliffe *et al.* 1996, 29–35, Fig. 2.29, section 6).

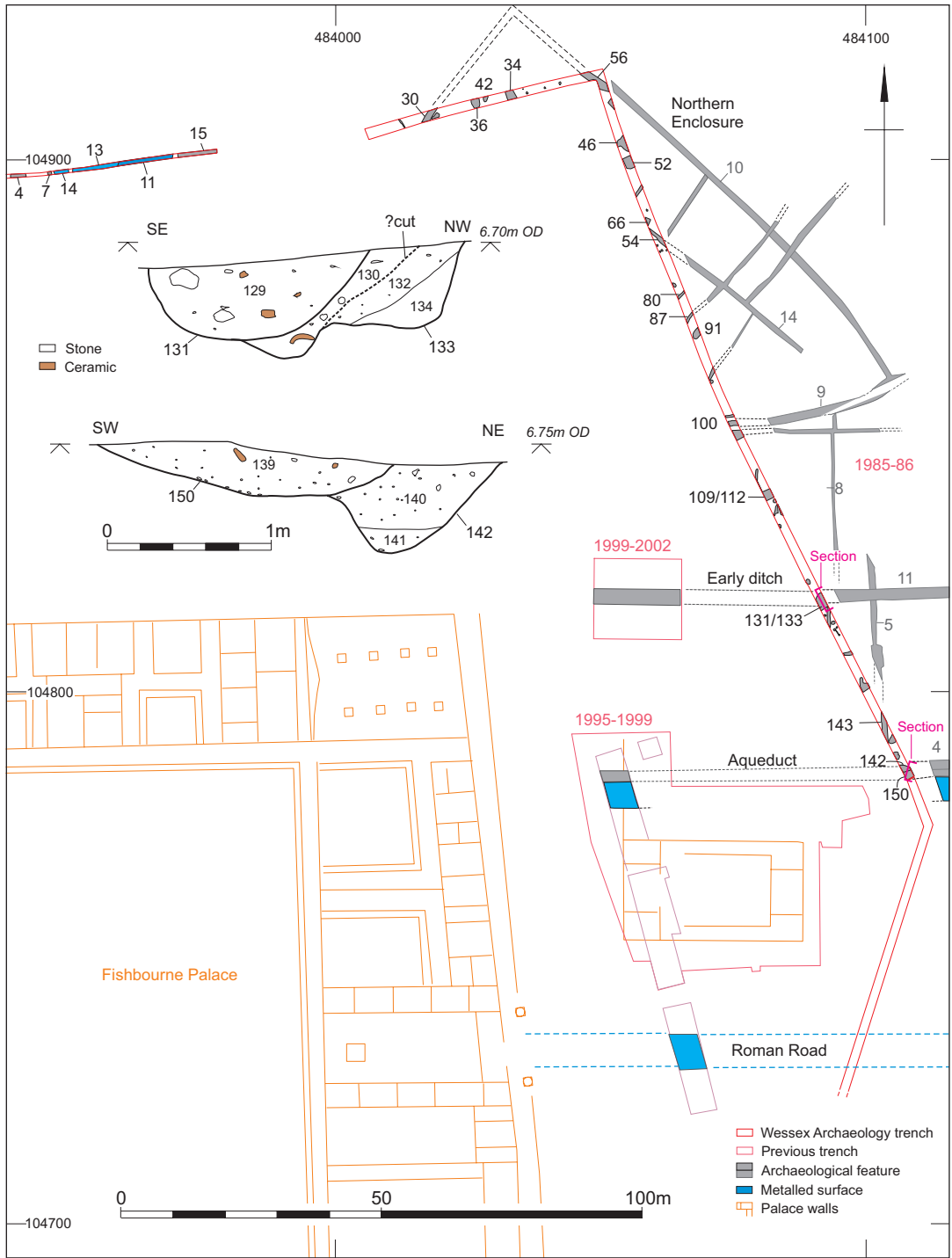


Fig. 2. Detailed plan and sections.

A linear recut feature (142) on the predicted alignment of ditch 4 was exposed in the 2014 trench (Fig. 2). Ditch 142 had been truncated but survived to a width of 1.2m and a depth of 0.55m. The bottom fill of light, greyish-brown clay (141) was sealed by mid-grey clay (140) which contained 11 sherds of pottery, including some 1st-century material, the remainder undiagnostic.

Ditch 142 was recut by broader, shallower ditch 150, 1.8m wide and 0.3m deep, filled with dark grey clay and containing 2nd–3rd-century pottery. Overall, the surviving sequence of cuts, their profiles and fills were very similar to those recorded in 1985–86, allowing for truncation (Fig. 2). There was no evidence from the 2014 work to confirm or otherwise the interpretation of this feature as an aqueduct.

THE NORTHERN ENCLOSURE

Identified during the A27 investigations, what has been designated here as the ‘northern enclosure’ extended approximately north-west to south-east and was broadly rectilinear (Cunliffe *et al.* 1996, 45–50). Ditch 10 defined the north-eastern side and ditch 9 its southern end. Ditch 14 lay 10–12m south-west of ditch 10 and formed the spine of a lattice of shallower gullies running across the enclosure. Ditch 10 was identified as a Period 2 feature, though the extent of ditch 9 was almost wholly masked by a later gravel surface, possibly a path or road. Neither ditch was fully sectioned, nor were their relationships to the lattice of associated gullies or spinal ditch completely understood.

The 2014 works were able to identify ditch 56 (= 10), ditch 100 (= 9), ditch 54 (= 14) and a series of features within the enclosure, most of which corresponded to gullies identified in 1985–86 (Fig. 2). Ditch 30, 30m west of ditch 56, was at right angles to it and may represent the northern extent of the enclosure.

Ditch 56 was 1.9m wide and 0.85m deep, had initially filled, fairly gradually, with moderately clean silty clays which contained no finds (layers 57 and 58), then stabilised (layer 59), after which a thin soil horizon began to form (layer 60). This soil was subsequently buried by a layer of silty clay (61), itself sealed by a deposit of clay loam (62), both the latter fills containing relatively large quantities of pottery. Dating suggests the ditch was dug in the mid-1st century but had become infilled by the end of that century.

Only the base of ditch 100 survived, represented by a flat-based cut 0.6m wide and 0.15m deep; it produced no finds. Ditch 54 was a steep sided cut, 0.5m wide, with a stepped base 0.08–0.32m deep, filled with a uniform, relatively clean, silty clay (55). Ditch 30 at the north end was 1.2m wide, 0.5m deep, and contained a single secondary fill, sealed by a dump of soil relatively rich in pottery (32), itself lying beneath a layer of gravel. This sequence possibly reflects deliberate backfilling, which took place at some point in the late 1st–early 2nd century.

Other, shallow ditches and gullies within the enclosure included 80, 87 and 91, all of which appear to relate to the lattice of features previously recorded. A rather larger ditch, 34, to the north and apparently aligned north–south, and a possible terminal (52) of a ditch extending west may both be unrelated to the enclosure, but their chronological relationship to it could not be established.

Similarly, a few circular or sub-circular pits including 36, 42, 46, 52 and 66, three of them 1.5–2m in diameter and at least 1m deep, lay within the area of the enclosure, towards the projected northern corner, although they may not have been contemporary with it. Pottery indicates a broad date of the 1st–2nd century, or possibly later, for their infilling, with all the pits containing some domestic debris, although their original function, other than simply rubbish pits, is unclear.

METALLINGS AND OTHER FEATURES

As noted above, none of the metalled surfaces previously recorded had survived truncation during the construction of the A27, including the road to the palace entrance itself. However, several metallings were present further to the north, in the section west of the stream, but as the pipe trench here was only 0.6m wide it was difficult to establish their orientation and function (Fig. 2). However, a combination of road surface(s) and path is a possible interpretation.

Two compact gravel surfaces (11 and 13), separated by a make-up layer (12), were approximately 10m and 15m wide respectively. They were offset by 4.5m to each other, with gravel surface 13, the earliest, lying further to the east and laid directly on the natural (Fig. 2). The gravel surfaces were between 0.1m and 0.35m thick, with the upper surface (11) generally thicker, and both

had cambered edges. Another metallised surface (14), 3.5m wide and 0.3m thick, lay along the west side of 11, and overlay natural.

These layers produced 3.4kg of Roman tile, but no pottery. Immediately to the west of metallised surface 14, possibly a path, was ditch 7, measuring 0.7m wide and 0.3m deep and aligned approximately north–south.

A further ditch (4) lay a short distance to the west of ditch 7, on an apparently similar north–south alignment. It is possible that this was part of the course of the stream prior to its diversion to the east when the palace was built (Fig. 2). Ditch 4 was 2.7m wide and 0.5m deep, with steep sides and a flat bottom, and was filled with homogeneous grey clay with orange mottling and some manganese staining, indicating periodically waterlogged conditions. There were frequent small to medium sized flints, some ceramic building material, a small amount of fragmentary burnt animal bone, and 69 sherds of pottery. This included three of the five sherds of Arretine ware recovered during the 2014 excavation, along with two sherds of south Gaulish samian, a Les-Martres-de-Veyre dish of early 2nd-century date, a cut-down Dressel 20 amphora rim and undiagnostic coarsewares.

THE FINDS

by Grace Jones, with R. H. Seager Smith

POTTERY

The pottery derived from 63 contexts across 44 features, 14 of which contained more than 30 sherds. It is in moderate condition with a mean sherd weight (MSW) of 17.3g. The assemblage has been quantified by fabric or ware group within each context (count and weight) and this information is summarised in Table 1. Cunliffe's 1971 typology was used to classify the vessel forms, supplemented by other nationally recognised schemes where necessary (Table 2), and comment was made on salient features including decoration, evidence of use, and instances of refitting or re-use.

Imported finewares

Arretine ware and samian (identification and comment by J. M. Mills, Joanna Bird and Philip Kenrick)

The assemblage includes five sherds of Arretine-type ware, representing five vessels imported from Italy and/or southern Gaul during the Augustan–Tiberian period. All were residual in post-conquest features.

Sherds from three separate vessels (14g) from ditch 4 are in a pale fabric that may equate to Dannell's group (c), with a 'smooth and glossy' light brown slip, defined as 'proto-South Gaulish' (Dannell 1971, 260). Two (Fig. 3.1 and 3.2) appear

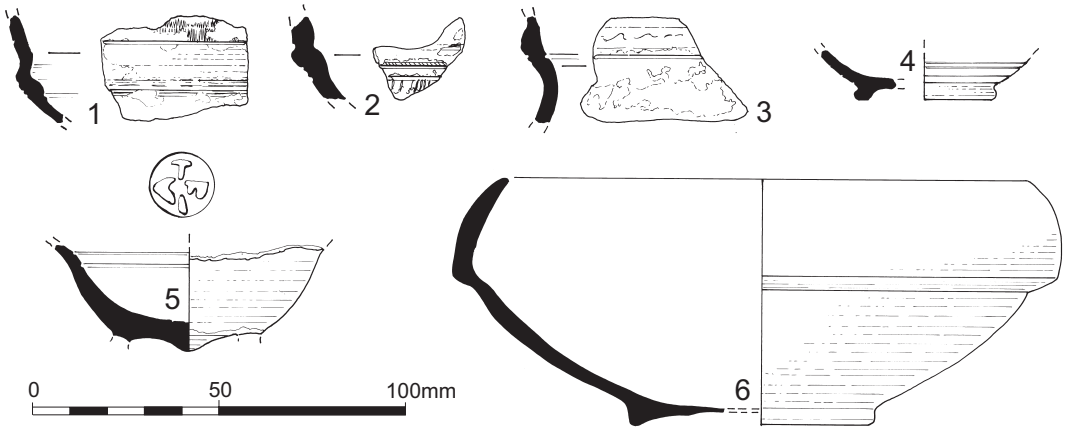


Fig. 3. Pottery illustrations. **1.** Arretine ware type, pale fabric ('proto-South Gaulish'), variant of Ritterling 5 cup form, context 5, ditch 4. **2.** Arretine ware type, pale fabric ('proto-South Gaulish'), variant of Ritterling 5 cup form, context 5, ditch 4. **3.** Arretine ware type, pale fabric ('proto-South Gaulish'), Conspectus form 15.1 cup, context 5, ditch 4. **4.** Arretine ware type, pale fabric ('proto-South Gaulish'), foot-ring base of a cup, context 96, ditch 98. **5.** Arretine ware, hemispherical cup base with foot removed, broken just above an internal moulding. Highly abraded, but with a circular potter's stamp internally, context 37, pit 36. **6.** Cup or small bowl with simple, pointed rim and strongly curved profile above and below a vestigial external cordon, Rowlands Castle greyware with oxidised surfaces, context 130, ditch 133.

Table 1. Quantification of pottery by ware group

Ware group	Ware	Number	Weight (g)
Imported wares		95	1298
	Arretine ware	5	42
	Central Gaulish samian (Les Martres)	2	20
	Central Gaulish colour-coated ware	4	3
	N Gaul whiteware	10	176
	South Gaulish samian	72	1011
	Terra Nigra	2	46
Amphorae		63	5700
	Dressel 20	28	2348
	Pelichet 47	11	1546
	CAM 186	12	804
	Koan 3488	2	189
	Dressel 2-4	1	178
	Amphorae (unsourced)	9	635
British finewares		50	377
	British colour coated ware (unspecified)	2	8
	Fine, micaceous greyware	31	111
	Oxidised, micaceous ware	7	49
	Mica-dusted ware	10	209
Oxidised wares		208	1871
	Oxidised ware	147	1401
	Whiteware	61	470
Reduced wares		1429	22648
	Arun ware	11	95
	Flint-tempered	17	440
	Greyware	113	1316
	Grog-tempered ware	15	385
	Rowlands Castle greyware	997	17,886
	Sandy	276	2526
Total		1845	31,894

to derive from Conspectus form 22 cups (Ettlinger *et al.* 1990, 90–91) and the third (Fig. 3.3) may be from the bell-shaped cup Conspectus form 15.1 (*ibid.* 78–79), although the angle is difficult to establish and it could even be the rim of a decorated chalice (Philip Kenrick pers. comm.).

The foot-ring base of a fourth cup, also in a pale fabric, came from ditch 98 (Fig. 3.4), whilst

the base of the fifth cup with a pinkish cast to its fabric was recovered from pit 36 (Fig. 3.5). The latter belonged to a hemispherical form, broken just above an internal moulding, possibly Conspectus form 31 (Ettlinger *et al.* 1990, 106–7), a precursor of Dragendorff form 27, made in Pisa by the Ateius workshop during the Augustan to early Tiberian period (around 10 BC–AD 25), although other

Table 2. Quantification of vessel forms by ware group.

Form (after Cunliffe 1971) unless otherwise specified	Ware group							Total
	Imported finewares	British finewares	Oxidised wares	Rowlands Castle greyware	Misc. sandy wares	Greywares, unsorted	Grog-tempered	
Platters and dishes								
CAM 5/GB 6, platter with overhanging rim	1							1
CAM 2 (GB1), platter with thick, short straight wall	1							1
15: copy of straight-walled platter (CAM 2)				1				1
19: copy of curved-wall platter with flat base (CAM 17)				1		1		2
22: straight-walled platter/dish				1				1
28: shallow platter with foot-ring base				1				1
200: straight-sided dish with plain rim					2			2
203: straight-sided dish with pulled-out rim					1			1
204: straight-sided dish with out-beaded rim				1				1
Drag. 15/17 or 18	3							2
Drag. 15/17R or 18R	3							3
Drag. 18	16							16
Drag. 18R	2							2
Drag. 18/31	1							1
Marsh (1978) type 24		1						1
Beakers and cups								
59: butt-beaker (CAM 113)			2					2
61: butt-beaker (CAM 112)			1					1
64: butt-beaker copy, body divided by grooves or cordons				1				1
66: beaker with simple outbent rim		2						2
67: small beaker with simple beaded rim		1						1
69: carinated beaker		1						1
76: beaker decorated with applied dots and strips		1						1
78: ovoid beaker with high neck				1				1
267: poppyhead beaker		1						1
Everted rim beaker		1	1					2
Drag. 27	8							8
Drag. 33	1							1
Drag. 35	1							1
Bowls/dishes								
81: carinated bowl with double beaded rim				2	2		1	5
82: carinated bowl with simple rim					1			1
83/84: carinated bowl with everted rim				2	1			3

Form (after Cunliffe 1971) unless otherwise specified	Ware group							Total
	Imported finewares	British finewares	Oxidised wares	Rowlands Castle greyware	Misc. sandy wares	Greywares, unsorted	Grog-tempered	
88: hemispherical bowl with horizontal reeded flange					1			1
100/101: dish with thickened or projecting rim				1				1
182: shouldered bowl with out-turned lip		1						1
183: bowl with well-defined shoulder and flaring rim				1			1	2
Marsh (1978) type 14				1				1
Drag. ?16	1							1
Curle 11	1							1
Drag. 29	8							8
Drag. 30	1							1
Drag. 36	1							1
Drag. 37	1							1
Jugs/flagon								
109: flagon with multiple-ringed neck			3					3
113: flagon with double-beaded out-sloping rim			1					1
133: jug				1				1
Jars								
181: necked jar with rounded but well-defined shoulder				13	2			15
161: jar with simple out-curved rim				8	4	2		14
170: small globular jar with simple rim				3				3
166: jar with simple beaded rim				2	2			4
340: necked jar				1				1
328: everted rim jar				1				1
341: jar with out-turned rim				1				1
339: bead-rimmed jar				1				1
313: 'batch-marked' jar				1				1
162: storage jar with ovoid body				4				4
167: jar with internally grooved bead rim				1				1
Jar rim fragment				13	3	1		17
Lids								
188: lid with shaped lip				1				1
193: lid with flat base				9	9	1		19
Total	50	9	8	74	28	5	2	176

producers are also known. Although damaged, this vessel has a circular potter's stamp internally. Joanna Bird has suggested the stamp may be OCK type 270.66 or 67, a stamp of Ateius that may originate from Arezzo, Pisa or Lyon, around 15 BC–AD 30 (Oxé *et al.* 2000, 270).

The sherds add to a collection of Arretine ware recovered from the palace and surrounding area. The significance of these early finewares has been discussed by Cunliffe (2005, 4–5), Manley and Rudkin (2005a, 56–8) and Rigby (1996, 117).

Sherds from approximately 48 samian vessels from producers in Southern Gaul were identified by rim, base or diagnostic body sherds (all are Dragendorff forms unless otherwise stated), representing a range of plates (forms 15/17 or 18, 15/17R or 18R, 18, 18R), cups (forms 27, 35), bowls and dishes (forms 16, 29, 30, 36, 37). Of these, 21 date to the pre-Flavian period, five are of Flavian date and 22 date more broadly to the mid- to late 1st century.

Overall, the form 18 plates are the most common (at least 16 vessels) and include seven pre-Flavian examples (from shallow cut 46 and ditch 56, and the modern overburden) while two are of Flavian date, including a complete profile from ditch 133. Bases from two form 18R vessels came from ditch 56 and pit 36; in the case of the latter, the rouletting is absent and the reasonably well-preserved condition of the vessel suggests it had not been applied by the potter in the first place.

The foot-ring bases of three 15/17R or 18R and three 15/17 or 18 plates were also recorded. One of the latter types, from gully 112, is hard-fired and possibly deliberately knapped, or trimmed, to remove the broken vessel wall, perhaps to facilitate re-use as a small dish or lid. An unworn, very hard-fired base sherd, probably from a form 16 dish, was also found in ditch 56. Although two examples are already known from the palace (Dannell 1971, 265, Fig. 123, 36 and 37), this form is uncommon in Britain and is of pre-Flavian date.

Of the eight form 27 cups, seven came from ditch 56, while the eighth vessel, with a flat-topped rim, came from pit 66. Two were originally stamped but both stamps are now illegible. A single form 35 cup, a Flavian introduction, was recovered from the modern overburden and probably dates to around AD 70–85.

Among the bowls, a large, thick base, probably from a Curle 11, came from ditch 56, while a rim from a form 36 dish came from gully 112. Decorated

bowls are dominated by form 29 vessels (nine vessels), with single examples of form 30 (gully 112) and form 37 (split across gullies 109 and 112). The form 29 bowls are mostly pre-Flavian in date and include one probably made in the same mould as one found in Colchester (Dannell 1999, 15, Fig. 2.4, 27, AD 50–65). It was from ditch 56, along with a second form 29, stamped [N or]N. A well-carinated form 29, with scroll decoration in both upper and lower panels, is also of pre-Flavian date (ditch 80). The lobed leaf in the lower panel may be the same as that used by Murranus and associated potters (Dannell 1999, 31, Fig. 2.34, 481, AD 50–65).

The latest samian present was produced at Les Martres-de-Veyre. One of the two sherds is a dish form 18/31 from ditch 4, the other, a body sherd from a form 33 cup, came from the subsoil; both date to the first quarter of the 2nd century.

Amphorae

The amphorae (*see* Table 1) represent several sources and products. The most common is Dressel 20, from the Roman province of Baetica in southern Spain. This form was common in Britain from the late 1st century to the early 3rd century and was used to transport olive oil (Peacock and Williams 1991, 136, class 25). The use of fish-based produce from southern Spain is indicated by sherds from a CAM 186A from ditch 30 (Peacock and Williams 1991, class 17, late 1st century BC to the early 2nd century AD).

Sherds from Pélichet 47/Gauloise 4 wine amphora from southern France were also recovered, including a base from ditch 131. This form had a long currency, from the later 1st century through to the 3rd century (Peacock and Williams 1991, 142–3, class 27). The consumption of wine was also indicated by the presence of Dressel 2–4 body sherds (Davies *et al.* 1994, 23, Koan-3488 fabric). Four fabrics were unsourced. The amphorae assemblage from this phase of work is small in comparison with the previous stages (960 sherds from the 1983 and 1985–86 excavations, 969 sherds from the 1995–1999 excavations, and 529 sherds from the 2002 excavations), although the range of types is comparable to those previously identified (Williams 1996; 2005; 2006).

Other imported wares

Several other vessels had been imported from northern and central Gaul. These comprise two *Terra*

Nigra platters (Cunliffe 1971, type 5/CAM 2B (ditch 56), a form that went out of manufacture by the early Claudian period; GB 6/CAM 5 (unstratified), a form that went out of production by AD 65 (Stead and Rigby 1989, 123)); four small, abraded body sherds of Central Gaulish colour-coated ware (white fabric) produced around 60/70–120 (ditch 56) and ten sherds of North Gaulish whiteware, used for flagon (ditch 98 and gully 109) and mortaria forms (pit 66 and gully 112).

British finewares

The British finewares include several drinking vessels in a fine, micaceous, grey fabric. Where identifiable, these derived from beakers of 1st-century date, including one with an out-bent rim (Cunliffe 1971, type 66) from ditch 46 and a carinated beaker (type 69) from gully 109. Two poppyhead beakers may be slightly later in date (type 267), from gully 109 and the subsoil. Micadusted ware was identified in two features: a flat base from a CAM 16 style platter came from ditch 131, while a very thin-walled platter (Marsh 1978, type 24, mid- to late 1st century AD) was recovered from ditch 133. A lid (Cunliffe 1971, type 194) in an unsourced British colour-coated fabric came from pit 42. Lids in a red, micaceous fabric, occasionally with internal colour-coat, have previously been recorded from Period 1 contexts (Cunliffe 1971, 216).

Oxidised wares

The oxidised wares comprise several beaker and flagon forms dating to the 1st to early 2nd century. The beakers include three butt-beakers from ditches 52 and 80 (types 59 and 61). Ring-necked flagons were recorded from pit 66 and ditches 34 and 131 (type 109). A pulley-wheel flagon with a three-ribbed handle (type 113) in a soft, abraded, orange fabric, came from ditch 30.

Reduced coarsewares

The reduced coarsewares are dominated by sandy greywares, predominantly from the Rowlands Castle kilns, although other, unsourced, sandy wares are also present, as well as a small quantity of Arun Ware (Lyne 2003). The fabrics range from fine to coarse-grained in texture. The range of forms (Table 2) is comparable to that identified by Cunliffe (1971) and the typology and dating from the previous excavations have been adhered to here.

The most commonly occurring types are necked jars with rounded but well-defined shoulders, jars with simple outcurved or beaded rims, jars with internally grooved bead rims (types 161–2, 166, 170 and 181) and carinated bowls (types 81–84). Lids are also frequently encountered (types 188 and 193). These forms were also common in Cunliffe's 1971 assemblage, occurring frequently in Period 1 contexts, with some continuing well into the 2nd century. Vessels imported from the Continent were also imitated by native potters, notably at the Rowlands Castle kilns, as part of the process of Romanisation and the adoption of new styles of food preparation and consumption. Amongst the forms copied were platters and dishes, with four examples recorded in the Rowlands Castle greyware fabric (types 15 [CAM 2], 19 [CAM 17], 22 and 28), and beakers (type 64).

The bowl forms predominantly date from the mid- to late 1st century, with types 82 and 182 restricted to Cunliffe's Period 1 (AD 43–75), but types 81 and 183 possibly extending into the 2nd century. Also present was a thin-walled cup, or small bowl, in Rowlands Castle greyware with oxidised surfaces, a simple, pointed rim and a strongly curved profile above and below a vestigial external cordon (ditch 133) (Fig. 3.6). Although the rim is more inturned, the form of this vessel is probably based on that of the mid-1st century samian form 24/25 cups; it is not included in the type series presented by Dicks (2009), but similar vessels are known among the products of several other later 1st- to early-2nd-century industries in southern Britain (e.g. Marsh 1978, 148–50, Fig. 6.9, type 14; Wessex Archaeology 1988, Fig. 1, 2).

The jars include the complete profile of a very globular, narrow-necked jar with a slightly stepped out-bent rim, (ditch 56). The form is not directly paralleled in the published literature but is most similar to type 133. A single 'batch-marked' everted rim jar (type 313) came from ditch 142. The date range of the 'batch-marked' jars is 2nd to 3rd century, or possibly slightly earlier (Dicks 2009, 61).

Re-use of vessels

Part of a cut-down Dressel 20 amphora, trimmed around the neck and very well filed, was recovered from ditch 4. This indicates the recycling of a container for a different use. Examples of the trimming and re-use of Dressel 20 have been recorded at a number of other sites in Britain during

the second half of the 1st century through to the 3rd century, J. Peña (2007, 165, after Callender 1965, 25–30), noting examples where such vessels were used as ossuaries, including Maidstone, Ospringe, London, Baldock, Colchester Sheepen, Lincoln and York. The base of a sandy ware vessel from pit 36 has been trimmed, as has the aforementioned samian plate.

Key groups

The largest group of pottery came from ditch 56 (526 sherds, 10,156g), part of the northern enclosure, accounting for just over one quarter (29%) of the assemblage by number and a third (32%) by weight. The material derived from five fills, although the earliest (context 58) contained only two sherds and the bulk of the material came from layers 61 and 62, both producing a fairly similar range of fabrics and forms. Joining sherds from a samian form 29 bowl were found in contexts 59 and 61. The pottery assemblage is indicative of a mid-1st-century date for the digging of the ditch, with final infilling around the end of the 1st century.

Ditch 30, also part of the northern enclosure, produced 301 sherds (5,681g), with all but 12 sherds coming from context 32. The imported finewares are limited to a sherd from a pre-Flavian southern Gaulish form 29 bowl, although fragments from a CAM 186A amphora suggest a slightly later date. The oxidised wares include a pulley-wheel flagon and a small, fine-walled beaker, while the coarsewares comprise a range of jars, bowls and lids. A date in the late 1st century to early 2nd century would be appropriate for the filling of this ditch. The only other feature to contain more than 100 sherds of pottery was ditch 46 (109 sherds, 926g). The range of fabrics and forms indicate a date in the late 1st to early 2nd century for the infilling of this ditch.

Intercutting ditches 131 (50 sherds, 2,253g) and 133 (48 sherds, 984g) were located on the line of the Late Iron Age ditch identified in the 1999 and 2002 excavations (Manley and Rudkin 2005a; 2006). Of the two ditches, east to west aligned ditch 133 was the earlier. No pottery was recovered from the lowest two fills, although the upper fill 130 produced 48 sherds (984g) of early Flavian pottery. Continental imports comprise approximately half of a Southern Gaulish samian form 18 plate and body sherds from Dressel 20, Dressel 2–4 and Pélisset 47/Gauloise 4 amphora; the latter do not appear in pre-Boudiccan levels in Britain (Williams 1996, 138, after Peacock 1978).

The British fineware component comprises a mica-dusted platter (Marsh 1978, type 24) and the local coarsewares include a carinated bowl (type 81) and cup or small bowl with a vestigial external cordon. This feature was cut by ditch 131, a group of late 1st- to early 2nd-century pottery (50 sherds, 2253g) being recovered from its single fill. This assemblage includes Southern Gaulish samian, the complete base from a Pélisset 47/Gauloise 4 amphora and a Dressel 2–4 sherd. Other vessels include a CAM 16-style platter in a mica-dusted fabric, a ring-necked flagon, two coarseware jars and four lids. The character of the pottery assemblage from the earlier-excavated Late Iron Age ditch, dated from around 10 BC to AD 25 (Lyne 2005), was entirely different, with a high proportion of continental fineware imports (39% by sherd count), particularly *Terra Rubra*, whilst the coarseware component was dominated by the handmade sandy wares of the local Southern Atrebatian group. The range of fabric and forms from ditches 131 and 133 indicate a date in the Flavian period and, therefore, suggest that ditch 133 may not be the same as the earlier feature previously identified.

CERAMIC BUILDING MATERIAL

A total of 534 fragments of ceramic building material, weighing 82.9kg, was recovered from 64 contexts across the site. Of these, 141 pieces (62kg) were retained, and the remainder, all small, undiagnostic fragments, were discarded. The assemblage is small in comparison to that from the previous excavations but includes the same range of tile and brick types.

Five different fabrics were noted. However, most of the assemblage was either in a reddish-orange sandy fabric, often hard-fired (fabric 1, 37.2kg), or a softer orange fabric with rounded, buff-coloured, argillaceous inclusions and iron oxides (fabric 2, 22.2kg). The other fabrics account for less than 1kg of the assemblage and include an orange fabric with buff marls (fabric 3), a soft, soapy, yellowish-brown fabric (fabric 4) and an orange/buff fabric (fabric 5).

Roofing

Ceramic roof tiles comprise 34 fragments (12.1kg) of *tegulae* and 25 fragments (3.9kg) from the covering *imbrices*. Fabrics 1, 2 and 3 were used to make these tiles. The *tegulae* are between 21mm and 38mm thick and the flange heights range from 48mm to 63mm. Cut-aways, from the top and bottom of the

flange, were noted on nine tiles, with variations on at least three styles of cut-aways at the bottom, classified as Warry (2006) types A26 and A29, dated AD 40–120, and type B6, dated AD 100–180. Knife marks were also noted on one *tegula*. The *imbrices* are 13–23mm thick.

Cavity walling

Fifteen fragments (3kg) originated from the *tubulus* (box-tiles) that were used to circulate hot air behind the walls. These had been made from four different fabrics and were 10–28mm thick. Diagonal combed keying (on two tile fragments), wavy combing (three), scored diagonal lines (one) and scoring in a lattice pattern (one) was recorded. Part of the vent was noted on three tiles, although the shape (rectangular) was clear on only one.

Although very fragmentary and abraded, five pieces are from a probable double box-tile, in fabric 2. Further examples of this type of tile were recorded from the previous excavations (Cunliffe 1971, 45–47; Black 1996, 156).

Flooring and bonding

Fragments from six *tegulae mammatae* were recovered, the *mammae* set towards the corner of the brick. The base diameter of the *mammae* is variable, as is the thickness of the brick to which they were attached. The largest (9.2kg, 290mm wide and 75mm thick) is thicker than the published dimensions of this class of brick previously found at Fishbourne (Cunliffe 1971, 43; Rudkin 1996, 233); the *mammae* diameter is 45 × 50mm. The others ranged from 30–43mm thick, with *mammae* of 36 × 39mm, 50 × 52mm and 51 × 53mm. Cunliffe (1971, 43) suggested that this lump of clay pressed into the brick was intended to allow the circulation of hot air during firing, however Brodribb (1987, 62) suggests it is more likely that they were used to help bond the brick into flooring or courses.

One example of an *opus spicatum* brick was recovered from context 129 (ditch 131), and presumably came from a herringbone floor. At 157 × 60 × 32mm it is slightly larger than other examples from the site (Cunliffe 1971, 44), and was made in fabric 2, fired to a pinkish-orange colour. Mortar with frequent inclusions of crushed ceramic building material (up to 7mm across) covers one, slightly angled, edge, indicating its use in a floor. Unlike those from 80 Fishbourne Road

(Cunliffe *et al.* 1996, 235), this brick had been laid on its side.

Water pipes

Four fragments from at least one water pipe were recovered. They are 47mm thick, with a presumed diameter of 170mm. Part of the connecting socket was visible on one fragment (cf. Cunliffe 1971, 47). Water pipe fragments were also identified in the earlier assemblages (e.g. Cunliffe *et al.* 1996, 235).

Other types

The remainder of the assemblage comprises plain, flat fragments, 15–55mm thick, accounting for 33% by weight of the retained material. Some, particularly the thinner pieces, may be unkeyed box-tile fragments, whilst others may have come from *tegulae*. Thicker pieces are probably brick fragments, typically used in bonding courses for building or as the floor, or *pilae*, of hypocausts. One piece measures 180mm wide and is therefore likely to be from a *bessales*, predominantly used for hypocaust *pilae*.

Stamps and other marks

A flat fragment (33mm thick) from pit 36 incorporated part of a presumed maker's stamp [\ / \ /], however the orientation of the piece is uncertain and both ends are incomplete. Other marks include the paw prints of a small domestic cat and a larger dog, a hobnailed shoe and part of a finger smeared signature.

OTHER FINDS

Fired clay

The small quantity of material includes three pieces in a buff/orange coloured fabric that are of circular cross section, 23mm in diameter. They probably derived from a ceramic gridiron or trivet, an uncommon but not unparalleled type of object that may have been used in domestic activities, such as cooking, or been associated with industries such as pottery and salt production. A summary of known examples has been published by Seager Smith *et al.* (2011, 67–8, Fig. 42, 227).

Glass

Among the 17 fragments of Roman vessel glass are four colourless fragments from shallow cut 46, including a convex cup, with vertical or slightly

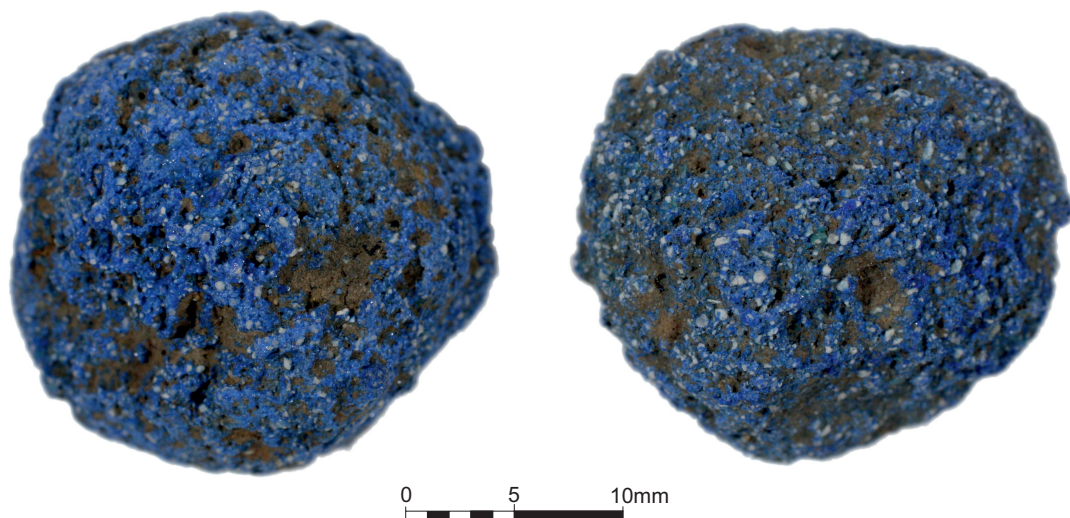


Fig. 4. Blue frit pellets.

inturned rim, 70mm in diameter, its edge cracked-off and ground smooth and with a groove below the rim (Price and Cottam 1998, 71), a bowl or cup with its edge cracked-off and ground smooth (140mm diameter, matt surfaces) and a possible foot-ring with trailed decoration. A small colourless fragment from ditch 56 had applied trail decoration. All other pieces are undiagnostic, mostly blue/green in colour, with one glossy and one matt surface. There are also two fragments of pale blue/green window glass, one with a rounded edge.

Blue frit pellets

Two pellets of blue frit were recovered from the late 1st- to early-2nd-century shallow cut 46 (Fig. 4). One measured 20.7 × 22.4 × 14.7mm and weighed 4.8g, the other was 22 × 19.8 × 15.8mm and weighed 4.1g.

They are similar in appearance to 12 pellets previously found at Fishbourne, identified as a synthetic pigment used in Roman wall plaster and paintings (Clegg 2014). Clegg describes these pellets as being a result of ‘mixing finely ground silica, copper filings, and the flowers of soda’, and crystallising in an oven (Clegg 2005, 78). The resultant pellets were ground prior to use. Compositional analysis of all 12 from the previous

excavation indicated that ten were of local origin but two may represent Italian imports (Clegg 2014).

Metalwork

Three Roman copper alloy coins were recovered. Two were corroded and could not be identified to period, although their general form and size indicates that they are *asses* or *dupondii* of the early Roman period. These are likely to have been struck in the 1st or 2nd centuries but, because there appears to have been no formal mechanism for removing them, they may have remained in circulation into the 3rd century. The third coin is a small *quinarius* struck by the rebel British emperor Allectus in 293–296. Although some damage to the edge of the flan has rendered the mint mark illegible, it is likely to have been struck either in London or in the mint at Colchester.

The other copper alloy objects include part of a brooch spring, a possible stud head and a handle from a tumbler slide lock key, with perforated, rounded head, 31mm wide, similar to an object excavated in 2002 (Dungworth 2006, Fig. 56).

The iron assemblage comprises 12 flat headed nails (33–105mm in length) and seven rod/shank fragments. Limited metalworking evidence was provided by an abraded but dense piece of smithing

slag (440g) and seven more vesicular fragments (504g).

Stone and flint

There are two prehistoric flint flakes, while part of a greensand rotary quern probably originated in the Lodsworth quarries of West Sussex (Peacock 1987).

Animal bone

Just 127 fragments (including conjoins) were recovered, only 28% of which are identifiable to species and skeletal element. The assemblage is dominated by bones from livestock species which together account for 89% NISP (number of identified specimens).

Cattle, sheep/goat and pig are present in near equal numbers, but the assemblage is too small for this to be a reliable indication of relative importance. However, highly Romanised sites such as this generally include high numbers of cattle and pig bones (Dobney 2001; King 1978; 1984; 1999).

No small mammal, bird or fish bones came from the soil samples, which contained only very sparse charred plant remains. Oyster shells were present in just four features, in small numbers and in poor condition.

DISCUSSION

Based on what had been found in earlier excavations, the long, narrow strip excavated in 2014 revealed many expected features. However, truncation towards the southern end of the pipeline route, resulting from construction of the A27, meant that survival of features on the projected line of two of the key targets, the pre-conquest ditch and the aqueduct, was reduced, and the principal road and other metallated surfaces, along with any related stratigraphy, had been completely removed. Only those features relating to the northern enclosure produced reasonably clear and unambiguous evidence, while some other features of interest were encountered to the west of this.

THE PRE-CONQUEST DITCH

The earliest of the two features on the projected line of the pre-conquest, Late Iron Age ditch could not easily be demonstrated to be that feature, although, allowing for truncation, ditch 133 had a broadly similar profile to the sections previously excavated (Cunliffe *et al.* 1996, Figs 2.29–30, sections 11–13;

Manley and Rudkin 2005a, Fig. 5). With a mid-1st-century date for infilling, however, it appears more likely to have belonged to the Roman phases of the complex, with a pottery assemblage that does not bear any comparison with the noteworthy (and so far unique) group of pre-conquest finds excavated to the west in 1999–2002 (Lyne 2005). Furthermore, the pottery from what is considered to be the same ditch (11) excavated to the east in 1985–86 is not specifically mentioned in the publication (Cunliffe *et al.* 1996, 42), suggesting that it too, like the 2014 material, was not deemed remarkable in terms of its date and composition.

This presents a conundrum that is not easily resolved, unless it is argued that the earliest two fills in ditch 133, which contained no finds, belonged to the early, pre-conquest ditch, which was then largely recut, once in the pre-Flavian or early Flavian period (a single fill surviving), then subsequently (as ditch 131) later in the 1st or early 2nd century. The absence of finds in the earliest two fills may not be atypical, for the distribution of finds in the 16m length of ditch excavated in 1999 and 2002 shows very few in the western five metres and a concentration to the east (Manley and Rudkin 2005a, fig. 4).

THE AQUEDUCT

Ditch 142, together with its recut, ditch 150, bore a fairly close resemblance in profile and fill sequence to ditch 4 previously revealed, particularly allowing for the 0.6m truncation in the area (Cunliffe *et al.* 1996, Figs 2.29, section 6; see also Manley and Rudkin 2005b). Furthermore, the 1st-century pottery from the upper fill of ditch 142 and the slightly larger assemblage of 2nd–3rd-century pottery from the recut does not contradict the Period 2 (pre-AD 100) date previously ascribed to the initial digging of this ditch. However, as remarked above, there is nothing from the 2014 work that would in itself confirm this feature as an aqueduct.

THE NORTHERN ENCLOSURE

Sections of ditches 56 and 30 provide a slightly clearer idea of the nature and phasing of what has been designated the northern enclosure, the northern corner of which, it is suggested, lay a short distance to the north of the pipe trench. Both ditches show evidence of having initially silted up comparatively slowly, while the secondary fills can be confidently dated to the late 1st and early

2nd centuries, the pottery probably deriving from the palace proper in Periods 2 and early Period 3. This suggests that the enclosure may have been constructed during the pre-Flavian, proto-palace period or earlier, and was probably agricultural in nature, its curving layout perhaps reflecting the earlier course of the stream to the west.

Little more can be added to what has already been recorded within the interior (Cunliffe *et al.* 1996, 48–50), except to note that at least some of the small number of pits in this area may have been contemporary with the enclosure.

OTHER FEATURES

Of most interest is the sequence of metallings revealed in the section of pipe trench to the north of the palace. Despite the limited area available for investigation, their nature suggests that the two broadest metallings may represent two successive road surfaces, perhaps approaching from the north, with an associated path to the west. These metallings lay to the east of what is interpreted as the early course of the stream before it was diverted to the east when the Flavian palace was built, in around 75–80; although undated, it is possible that the metallings, too, are of earlier, pre-Flavian date.

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The archive is currently held at Wessex Archaeology's offices in Salisbury, Wiltshire, and will be deposited in due course at Fishbourne Roman Palace under accession code 2014.4.

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