

THREE ROMAN POTTERY KILNS FROM OSBORNE FARM, KINGSLEY, BORDON, HAMPSHIRE

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ABSTRACT

A series of archaeological investigations were carried out by West Sussex Archaeology Ltd., on behalf of Country Market, at Osborne Farm in advance of the construction of a new garden centre between February and November 2011. Three Romano-British pottery kilns, belonging to the Alice Holt industry, were excavated, together with a pit containing an Iron Age saddle quern, an earlier prehistoric/Romano-British field boundary and a post-medieval trackway. The pottery kilns were all of the single chambered twin flue variety, typical of the Alice Holt industry. The associated pottery assemblage was of later Roman date probably within the period AD 270–330.

INTRODUCTION

Plans to re-develop the site of a garden centre at Osborne Farm, which had been destroyed by fire, resulted in a programme of archaeological work carried out by West Sussex Archaeology Ltd. This work was undertaken between February and November 2011 (West Sussex Archaeology 2011a; 2011b; 2012). The site archive will be deposited with Hampshire County Council's Museum Service (Accession No.: A2011.27), with the exception of a selection of the pottery and the saddle quern, which are to be retained by the landowner.

Osborne Farm lies adjacent to the A325 between Bordon and Farnham, 1.5 km to the E. of the village of Kingsley, in Hampshire (see Fig. 1). The site lies at c. 75 m aOD and is centred at OS grid reference SU 802386. It sits upon the south face of an east-west running ridge, with the underlying geology of the site being Lower Greensand.

Fieldwalking in the 1970s by Lyne and

Jefferies located seven possible kilns (MF 1–7 in Fig. 1) within what they termed the “Malthouse Farm Group” (Lyne & Jefferies 1979, 9–10). All would appear to date to the later Roman period. In addition two more spreads of Roman pottery were located by Lyne and Jefferies, but not deemed as kiln sites in the report (MF 8 & 9 in Fig. 1).

THE EXCAVATED EVIDENCE

When first visited the site presented a fairly level surface created following the demolition of the buildings that had existed on the site prior to the fire. However, the subsequent excavations revealed that the underlying natural sand on the site slopes significantly from NW to SE. Above this sand was an historic ploughsoil, which varied in depth from 0.3–0.4 m, with, to the south, an increasing thickness of modern overburden overlying this in turn. In the northern third of the site modern terracing had removed the historic ploughsoil and the upper part of the natural sand. In the light of this, the excavation strategy focused on the removal of the historic ploughsoil in the central third of the site and for trenching to be pushed into the southern third to determine whether archaeological deposits were likely to occur there (see Fig. 2). The results from the latter indicated that modern terracing had again truncated the ploughsoil, except to the east and west.

Saddle quern pit (Fig. 2)

At the north end of the excavated trench a shallow pit was revealed, which was almost entirely filled with a saddle quern. The pit was oval in shape, 0.95 m N-S, 0.6 m E-W and 0.29 m

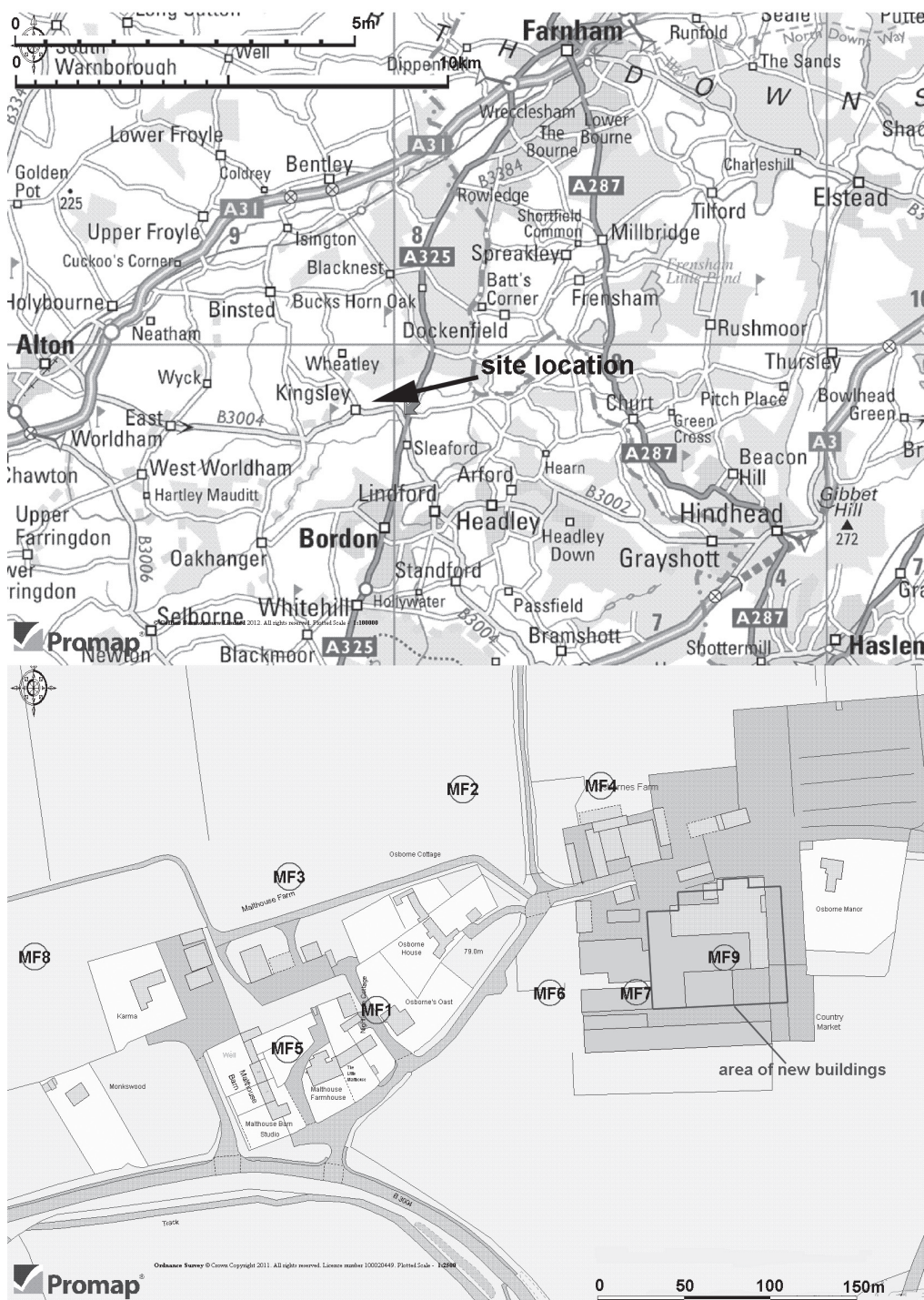


Fig 1 Site location & plan of the kilns located by Lyne & Jefferies . © Crown copyright. All rights reserved. License number: AL100036068.

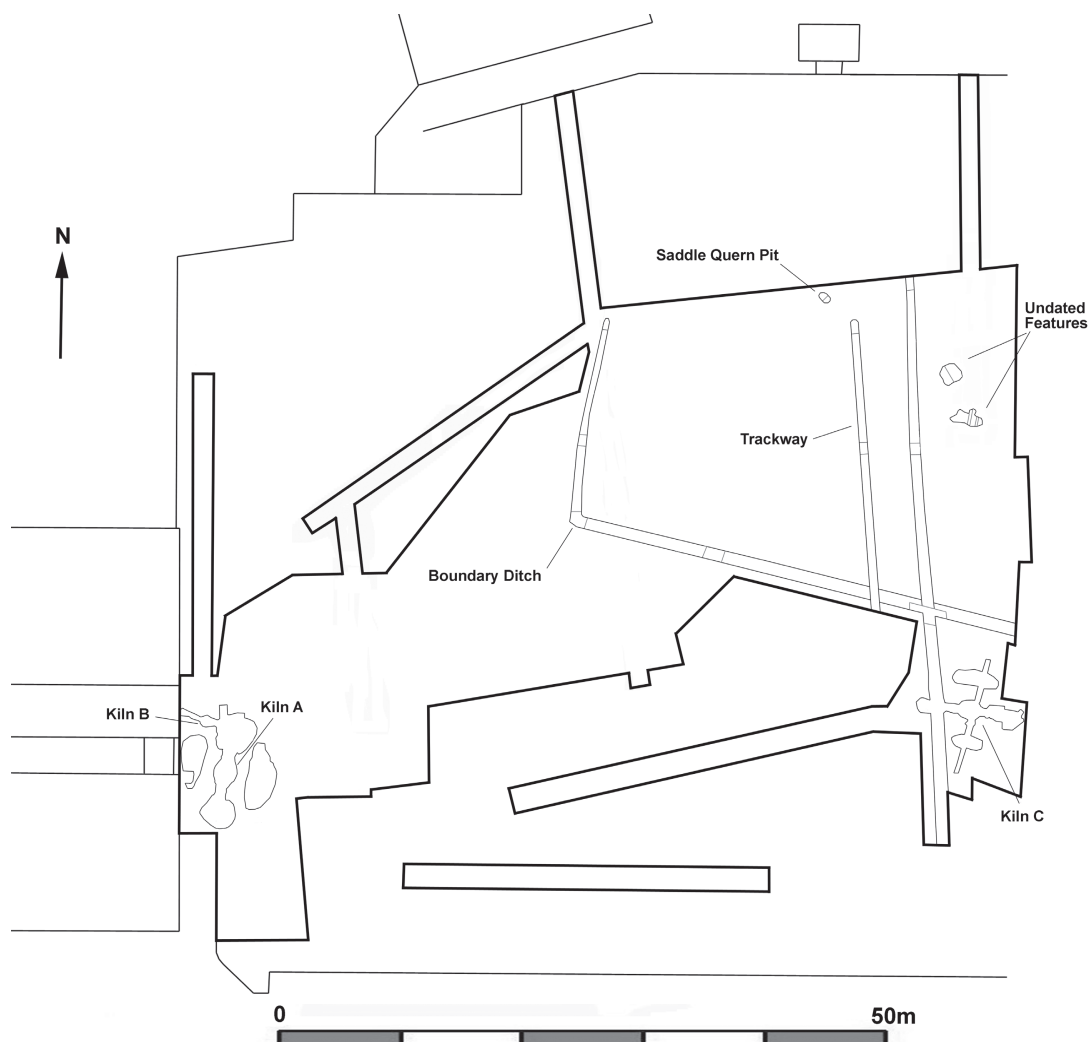


Fig 2 Plan of the excavated area showing all features.

deep. Aside from the saddle quern, it was filled with red/brown silty sand. It is probable that the pit was originally considerably deeper, but that the truncation of soil layers at this end of the site has reduced it to its present depth. Indeed the base of the bedstone (lower stone) actually projected into what remained of the modern ploughsoil above. Within the pit the rubber stone was found lying adjacent to the bedstone, both with their rubbing surfaces facing downwards. The bedstone is of

Lodsworth Stone from the Lower Greensand, it is 0.57 m long, 0.35 m wide and 0.21 m deep. The rubber stone is also Lower Greensand, but from a source closer to the site, it is 0.325m long, 0.2m wide and 0.08m deep. A single sherd of probable Late Bronze Age/ Early Iron Age pottery was found below the quern within the fill, indicating that it is placed within the pit not earlier than the Late Bronze Age. The careful placement of rubber stone and bedstone within the pit suggests that it was a

deliberate deposit. It would also appear from the very slight curvature of the bedstone that it had been little used.

Boundary ditch (Fig. 2)

The eastern half of the excavations was crossed by a ditch, running N-S and then turning to run E-W. At its north end it had been completely removed by the later erosion of soil down the slope, but as it ran down hill to the south an increasing depth of it had survived. At its most complete, to the south-west, it was 1 m wide and 0.5 m deep. Beyond this to the east it got gradually smaller, again probably as a result of erosion. It was filled with red/brown silty sand, similar to the surviving ploughsoil above, within which were occasional lens of pure sand, presumably eroded from the ditch sides. Sparse fragments of ironstone were noted within it, together with pottery dating to the pre-Roman or early Roman period. The date of the pottery within the ditch suggests it precedes the kilns and is likely to be early Roman. It probably functioned as a field boundary ditch associated with a settlement outside the limits of this excavation.

Kiln A (Figs 3–5)

Adjacent to the western baulk of the excavations two kilns were revealed, one of modest proportions and orientated E-W (Kiln B), the other considerably larger and orientated N-S (Kiln A). They appeared to share one of their stoke-pits. Flanking the larger kiln were two oval pits, one on each side. These kilns are likely to be that identified by Lyne as MF7.

Kiln A was single chambered with two opposing flues and orientated N-S. The whole structure measured c. 4.4 m along the flues and 1.95 m externally across the chamber. Internally the chamber was oval, 1.35 m across from east to west and 1.9 m north to south. The southern flue was 1.35 m long, 0.9 m wide externally and 0.35 m wide internally. The northern flue was 1.25 m long, 1.15 m wide externally and 0.45 m wide internally. The side walls of flues and chamber survived to c. 0.3 m high from the kiln floor.

The walls of the kiln were constructed of Upper Greensand blocks set in clay which originally had been yellow, but had been fired to a

red or dark grey colour. The Upper Greensand blocks were not dressed, but had been set roughly in the clay, with both stone and clay pressed up against the sides of the hole, which must originally have been dug out of the natural Lower Greensand. The walls of Kiln A were of uneven thickness, but ranged between 0.2–0.4 m.

The floors of the chamber and flues were made of clay, fired hard to a dark grey colour. The floors of the flues were raised slightly above the central chamber, that of the S. flue by 0.02 m and the north flue 0.04 m. This is probably due to at least one extra layer of clay, possibly two within the north flue. An exploratory hole dug through the chamber floor revealed that below the extant floor was an earlier one, separated by a layer of sand. There would appear to be two actions represented, the difference in flue floor height is probably a result of patching, but the earlier floor below the chamber suggests that at some stage the whole floor was renewed. The surviving floor clearly demonstrated the need for such repairs, since it was fractured and uneven.

The entrances to each flue are likely to have been framed by larger Upper Greensand blocks. At three of the four entrance jambs larger blocks were still in place, while at the north-eastern jamb a large block was found nearby at the base of the stoke-pit, presumably having been dislodged. Both flue entrances were slightly staggered, with the east side of the southern flue [24] being longer by 0.25 m and the west side of the northern flue [14] by c. 0.15 m (it was not possible to measure this precisely due to the dislodged block). Whether this was intentional, or whether it occurred due to different rates of repair, it is not possible to determine. However, the fact that this was not found at Kiln C suggests the latter. The thicker side walls of the northern flue [14] suggest that it has been repaired more frequently than the southern flue.

At either end of the kiln, beginning at the entrances to the flues, were stoke-pits. The southern [8] was 2.95 m E-W, 2.5 m N-S and 0.72 m deep. The northern [5] was 3.5 m E-W, 2.6 m N-S and 0.87 m deep. Both were filled with the same two layers. At the base was a dirty orange/yellow sand, (68) and (69), overlying

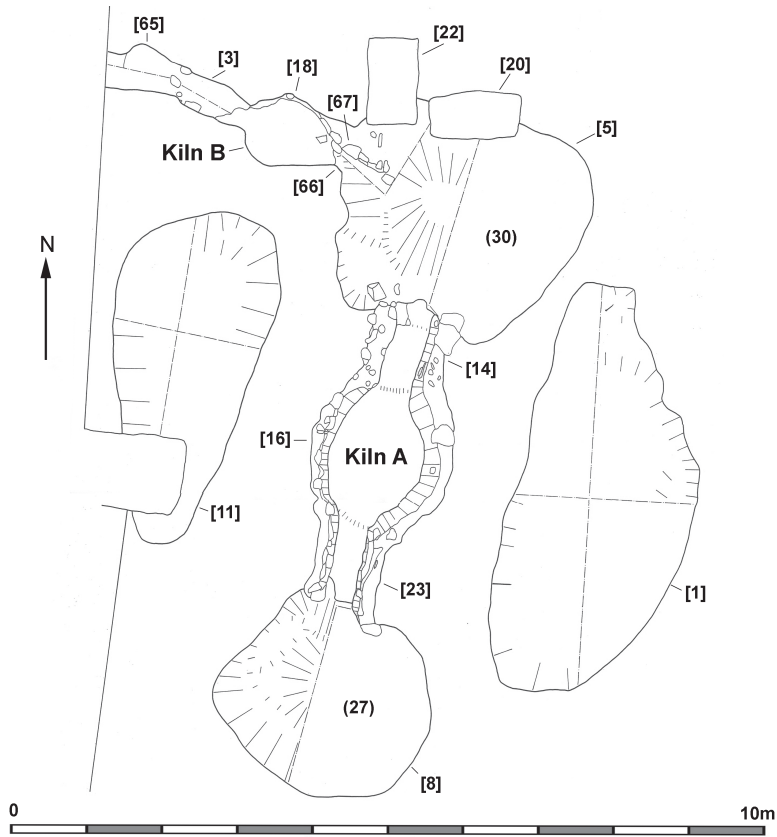


Fig 3 Plan of Kilns A and B.



Fig 5 Kilns A and B, looking north. Scale 2m.

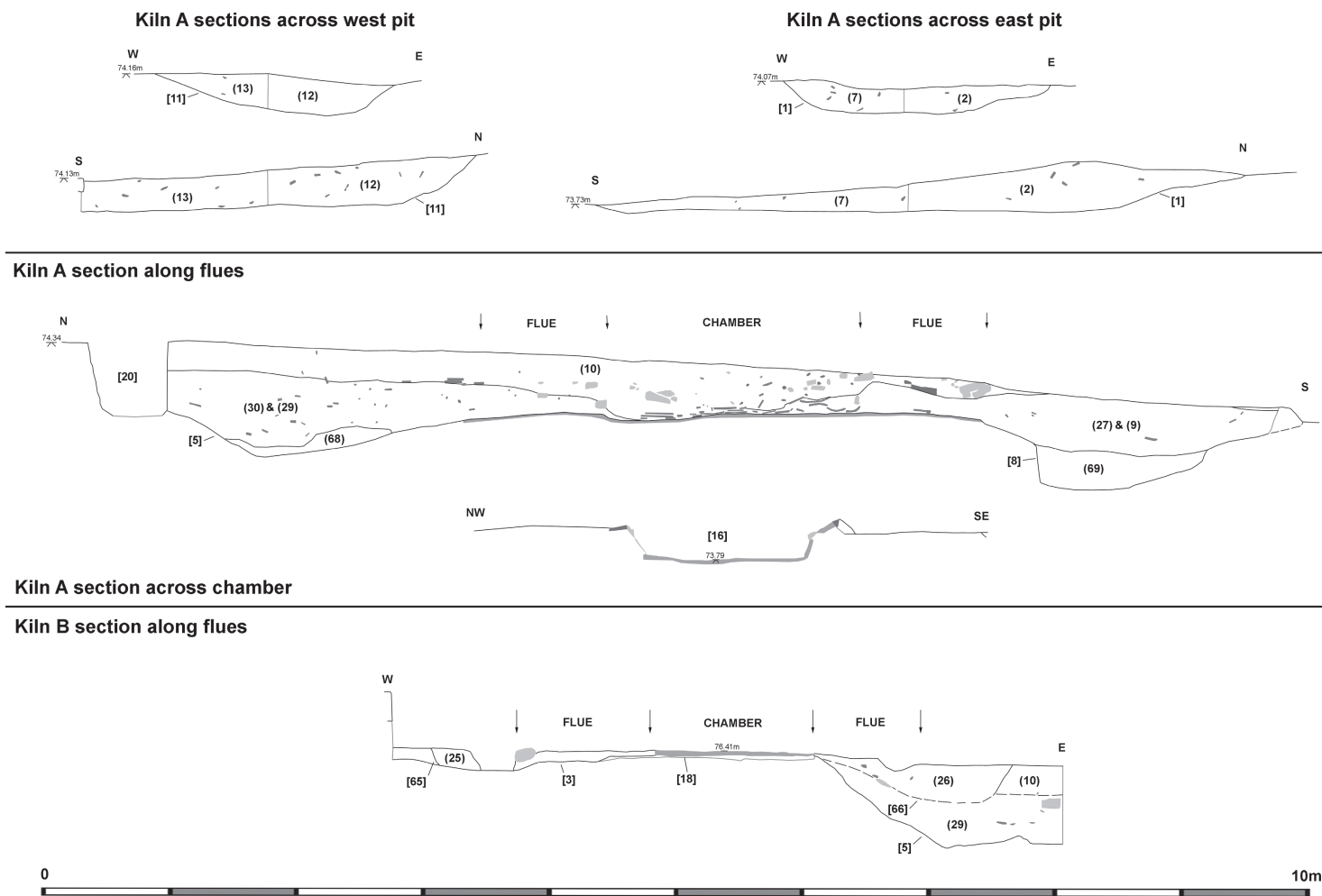


Fig 4 Kilns A and B, sections.

the natural sand, likely to have been formed from sand washed off the sides of the pit when empty. The southern pit [8] had twice the depth (0.3 m) of this deposit, probably due to being down-slope and more prone to water-logging (a fact noted during excavation when it rained). The bulk of the fill was a dark-brown/black sooty sand (29), (30), (9) and (27) with frequent pottery sherds and occasional fragments of red fired clay, 0.42 m deep in the southern stoke-pit and 0.72 m deep in the northern. This would seem to have been created during the last firing and left *in situ* on abandonment. It may well be a mixture of the remains of the last fire in the stoke-pits, the sand used to cover the kilns and possibly some of the kiln's superstructure.

The dark-brown/black sooty sand filling the stoke-pits was also found to extend up the flues, but stop just within the kiln chamber. Overlying this layer, and filling the chamber itself, was a lighter brown sand (10), again with frequent pottery sherds, but with more red fired clay and occasional Upper Greensand blocks. Below this within the kiln chamber and sitting upon its floor were a significant number of large sherds from Alice Holt storage jars, possibly having been re-used as part of the kiln's superstructure. The sequence these layers suggest is that after the last firing the kiln was broken open, with debris pushed into the stoke-pits, it was emptied of its contents, save the large storage jar fragments, and then abandoned. Subsequently the kiln chamber and any depression left over the flues and stoke-pits, was filled with a much more silty sand (10). This latter action may have been gradual or taken place some time after the kiln became disused.

To the east and west of Kiln A were large roughly oval-shaped shallow pits, dug into the natural sand, with neither having a particularly even base or outline. The pit to the west [11] was 4.5 m N-S, 2.2 m E-W and 0.34 m deep, while that to the east [1] was 5.5 m N-S, 2.5 m E-W and 0.38 m deep. Both pits were filled with a similar dark brown/black sooty sand (2), (7), (12) and (13) to that found in the stoke-pits, again with frequent pottery sherds.

Two rectangular pits, [20] and [22], found dug into the northern edge of the northern stoke-pit were said to be modern pig burials

according to the landowner. This was confirmed by the excavation of the eastern pit [20], at the base of which was found the skeleton of a pig.

Kiln B (Figs 3–5)

To the west of the northern stoke-pit of Kiln A, and cut into its upper fill, was a second, but much smaller, single chambered kiln with two opposing flues, orientated E-W. The preservation of this kiln was considerably worse than Kiln A, mainly because it was higher up the slope and had been dug into the sand to a much lesser degree. The surviving structure measured c. 3.3 m along the flues and approximately 1.05 m externally across the chamber (the southern wall of the chamber had been destroyed, so this measurement was achieved by doubling the distance from the northern wall to the centre of the chamber). Internally the chamber was oval, 1.25 m E-W and approximately 0.96 m from north to south. The flues had been badly damaged, but enough survived to be able to measure their length, the western flue being 1.2 m long and the eastern 0.9 m, and the external width of the western, which was 0.45 m. Where the side walls of flues and chamber survived it was only to a maximum of 0.05 m from the kiln floor and had clearly been badly truncated by later agricultural and construction activity.

Despite the destruction of the bulk of the kiln, it was possible to observe that its walls were constructed in the same manner as Kiln A, using undressed Upper Greensand blocks set in clay. However, insufficient remained to be able to characterise them in any greater detail, although it was noted that the surviving walls of Kiln B were much thinner than those of Kiln A, ranging from 0.10–0.15 m. The floor of the chamber and flues was again made of clay, fired hard to a dark grey colour. A section was cut through the chamber floor, which revealed only one floor level, which had been extensively patched at least once.

At either end of the kiln, beginning at the entrances to the flues, were stoke-pits. The western [65] was 0.65 m E-W, 0.6 m N-S and 0.3 m deep. The eastern stoke-pit [66] was not noted in plan, but was recorded in section as being 0.75 m E-W and 0.3 m deep. Both were filled with a dark-brown/black sooty sand,

(25) and (26), with frequent pottery sherds. The eastern stoke-pit had been dug through the lighter brown sand (10) which formed the upper fill of the northern stoke-pit [5] of Kiln A. This suggests that there had either been a significant break in time between the two being used, or that the hollow of Kiln A was deliberately levelled after its last firing. There were no flanking oval pits associated with Kiln B. This may have been because they used sand from the western of Kiln A's pits [11], a possibility which could be supported by the greater width of this pit at its northern end.

Kiln C (Figs 6–8)

Adjacent to the eastern baulk of the excavations, a third kiln was revealed, of a similar size to the larger Kiln A, and located 62 m away from it. Flanking the kiln were again two oval pits, one on each side. This kiln is likely to be that identified by Lyne as pottery spread MF9.

Kiln C was another single chambered example with a double-flue, orientated E-W. The whole structure measured c. 4.45 m along the flues and 1.8 m externally across the chamber. Internally the chamber was oval, 1.4 m across from north to south and 1.9 m east to west. The western flue was 1.5 m long, 0.85 m wide externally and 0.42 m wide internally. The eastern flue was 0.95 m long, 0.85 m wide externally and 0.38 m wide internally. The side walls of flues and chamber survived to c.03 m high from the kiln floor.

The walls of the kiln were constructed in exactly the same manner as those of Kiln A, but were noticeably thinner, ranging from 0.10–0.25 m. As has been suggested above, this probably indicates that Kiln C was less used, a supposition also supported by the smaller size of the stoke-pits.

The floor of the chamber and flues was again made of clay, fired hard to a dark grey colour. The height of the floors increased towards the east, with the western flue floor 0.04 m below the chamber floor and the eastern flue a further 0.06 m higher again. Later disturbance had created a small pit just within the chamber which allowed for an examination of the kiln's floor layers. The eastern flue floor was composed of four layers of clay, whereas the chamber itself was of only two. The drop down

to the western flue might suggest that this was composed of only one layer. It would appear from this that the eastern flue required more frequent patching than elsewhere in the kiln, however, unlike Kiln A there was no evidence for any sand layer between the layers of clay floor, possibly indicating that a complete rebuild of the floor was not needed.

The entrances to either flue, as with those of Kiln A, would appear to have been framed by larger Upper Greensand blocks than used elsewhere. Those at the western entrance, and the south side of the eastern flue, were still in place, but the north side of the eastern flue entrance had been damaged by modern disturbance. Unlike Kiln A, the jambs to both flue entrances seem to have been flush with each other, probably another indication of the need for fewer repairs to Kiln C.

At either end of the kiln, beginning at the entrances to the flues, were stoke-pits. The western [35] was 2.35 m E-W, 1.35 m N-S and 0.4 m deep, and the eastern [37] was 2.7 m E-W, 1.2 m N-S and 0.2 m deep. Both were filled with the same layer, a dark-brown/black sooty sand, (36) and (38), with frequent pottery sherds. This would seem to have been created during the last firing and left in situ on abandonment.

The fill of the flues and chamber had been badly disturbed by modern activity. Only the western half of the chamber and the western flue contained its original fill; dark brown/black sooty sand, (40) and (42). Overlying this layer, but only within the western stoke-pit, was the layer of lighter brown sand (70) found above Kiln A. It is possible that it extended over the whole kiln area but has been removed by modern truncation.

To the east and west of Kiln C were large, roughly oval-shaped, shallow pits, dug into the natural sand, with neither having a particularly even base or outline. The pit to the south [31] was 2.9 m E-W, 1.2 m N-S and 0.2 m deep, while that to the north [33] was 4.2 m E-W, 1.45 m N-S and 0.15 m deep. Both pits were filled with similar dark brown/black sooty sand, (32) and (34), to that found in the stoke-pits, again with frequent pottery sherds. In this area of the site there must have been a greater depth of historic soil over the natural sand, since here

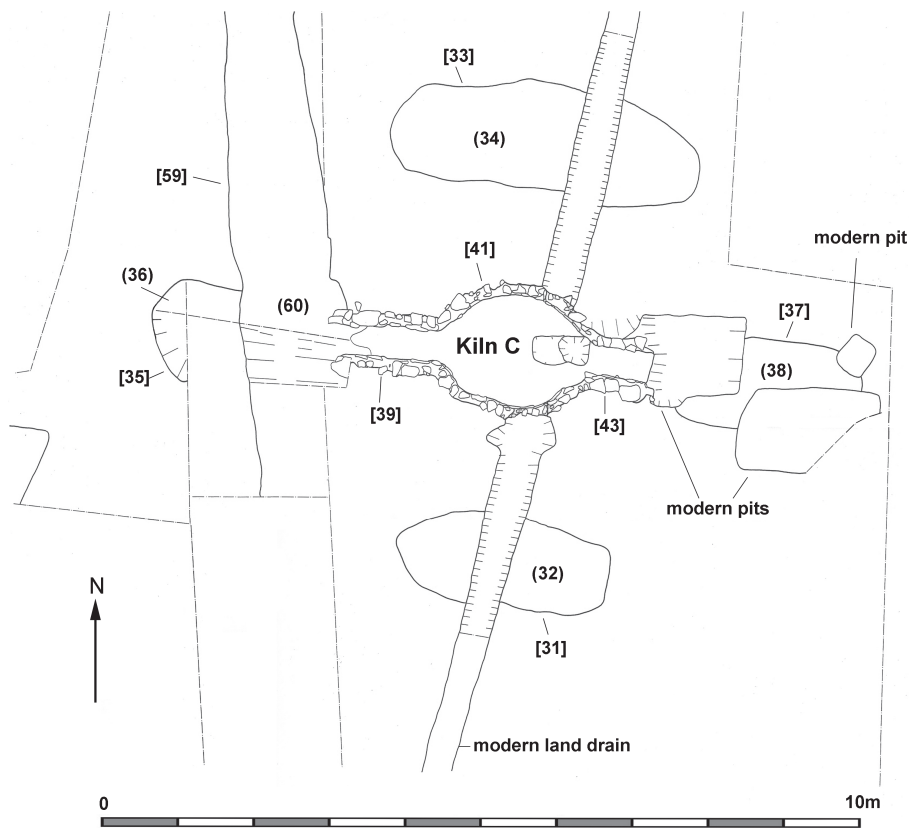


Fig 6 Plan of Kiln C.

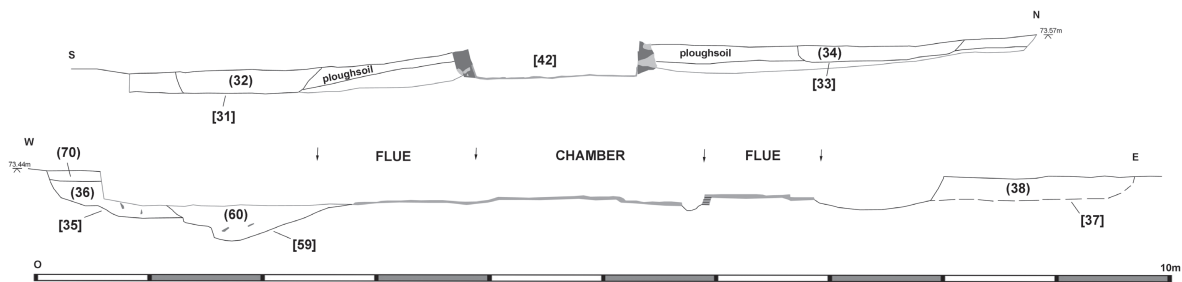


Fig 7 Kiln C, sections.



Fig 8 Kiln C, looking east. Scale 2m.

the flanking pits were seen cutting an historic ploughsoil, rather than just the sand. This extra depth has clearly protected them from later plough-damage, hence the survival of their sides to a greater height. However, this just highlights the much smaller dimensions of these pits compared with those associated with Kiln A, again suggesting that this kiln was less used. It also suggests that the pits function was related to kiln use and not to kiln size, since both kilns were of very similar dimensions. It is perhaps significant that in both kilns one pit was significantly larger than the other.

Several later disturbances had affected Kiln C. The western stoke-pit [35] had been cut through by one of the ditches of a trackway [59]. The eastern stoke-pit [37] had been similarly damaged by three modern pits associated with the recently demolished garden centre. It was interesting to note that the fill of the chamber itself had been partially removed, extending west from the nearest of these modern pits, and had been replaced with modern rubble, suggesting

that some level of unofficial exploration of the kiln may have occurred when the garden centre was built. The kiln chamber itself had been cut through by a modern land drain, running approximately N-S with the slope, and installed when the land was still a ploughed field.

The area around Kilns A, B and C was carefully trowelled to look for evidence of associated structures, in particular the remains of post or stake-holes. None was found, although it was noted that the very mottled nature of the sand, with frequent root disturbance, may have concealed any traces of stake-holes.

Trackway (Fig. 2)

Near to the eastern edge of the excavations two parallel ditches were found, running N-S for the length of the trench. Two sections were excavated across the western and four across the eastern. The western ditch at its north end had disappeared as a result of erosion, but as it ran down hill an increasing depth of it survived. At its most complete it was 0.8 m wide and 0.14

m deep. It was filled with dark red/brown silty sand, identical to the surviving ploughsoil above. The eastern ditch was better preserved, surviving at its most intact to a width of 1.65 m and a depth of 0.31 m. It was filled with the same dark red/brown silty sand as the western ditch. Pottery recovered from both dated to AD 240+. The similar profiles, alignment and fills of these two ditches suggest that they are contemporary, most probably forming the side ditches to a trackway. In date it is clearly later than the boundary ditch and eastern kiln, since it cuts across both. It is possible that it runs to a well, said by the landowner to have been in the field to the south, although no evidence for such a well or the trackway is visible on the early Ordnance Survey editions.

Undated features (Fig. 2)

Adjacent to the eastern baulk of the excavated trench were two pits. Pit 1 was an irregular circle, c. 1.55 m in diameter and 0.34 m deep in the centre. It was filled with light grey brown silty sand, lighter than elsewhere on the site, with occasional ironstone, Upper Greensand and unworked flint. Two sherds of probable Late Bronze Age/Early Iron Age pottery were recovered from its fill. The nature of the pottery, together with the leached out appearance of its fill, suggests this pit pre-dates the kilns and may be contemporary with the Saddle Quern pit. Pit 2 was 1.4 m wide and 2.6 m long, but only 0.03–0.11 m deep. It was filled with grey brown silty sand, similar to the ploughsoil above. Very occasional pieces of Upper Greensand and ironstone were found within its fill, together with 15 sherds of late Roman pottery, which suggests that this feature is either contemporary with, or later than, the kilns. The exact date and purpose of both pits is unclear, the irregular appearance of pit 2 suggests it may be from root disturbance, but pit 1 has a more definite profile and may be man-made.

THE POTTERY

Introduction and methodology

The excavations at Osborne Farm resulted in the recovery of 5157 sherds of pottery weighing

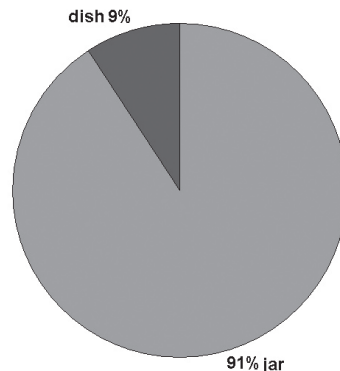


Fig 9 Incidence of forms associated with Kiln B (expressed as % EVE).

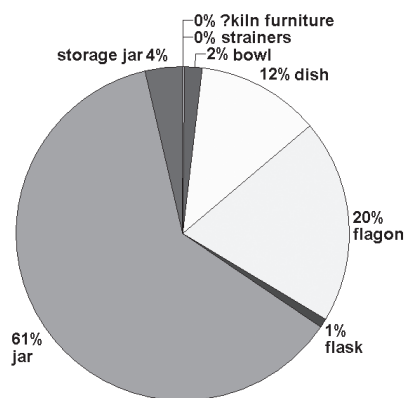


Fig 10 Incidence of forms associated with Kiln A (expressed as % EVE).

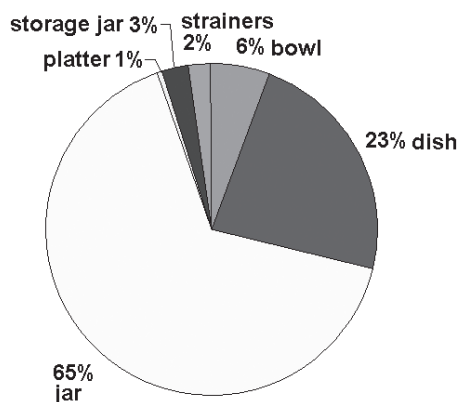


Fig 11 Incidence of forms associated with Kiln C (expressed as % EVE).

198 kg to which can be added 33 sherds (1689 g) found in the preceding evaluation. Most of the pottery is of later Roman date and came from fills within three kiln structures and associated flanking pits with just a few sherds from other features investigated on the site. Sherds from these other features include five pieces of later prehistoric date. The pottery was sorted in to fabrics and quantified by sherd count, weight. Most of the vessels correspond with the type series published by Lyne and Jefferies (1979) (L&J) and this has been used to code the forms (numbers in brackets following a form). There are a few variants which are described individually. The diameters of the vessels were recorded along with the percentage of rim present for the estimation of vessel equivalents (EVE). Known traded wares are coded using the National Roman fabric reference collection codes (Tomber & Dore 1998). As this is a pottery production site there are a number of variants within the allocated fabric code some of which may reflect firing mishaps. Note was also made of surface finishes and decoration where present. The data has been entered onto an MS Excel spreadsheet, a copy of which is deposited with the site archive.

The condition of the material was extremely variable. Much of the pottery from Kiln A was

in an under-fired state and thus quite friable; many of the sherds broke during excavation. There were a few complete or semi-complete vessels and most sherds were in fresh condition with sharp, non-abraded edges. Surprisingly few sherds showed signs of warping, blistering or spalling, although it was noticeable that there is a higher incidence of particularly well-fired wares associated with Kiln C. The overall average sherd size of 38.5 g is considerably greater than would be typical of domestic occupation deposit. However, it should be noted that there is probably a slight bias in terms of the material retained as the sooty soils contained a large number of very small fractured sherds which were not sieved out. In the following report the material from the kilns is described first by fabric and form followed by a brief comment on the material from the other features excavated.

Fabrics (Table 1)

The assemblage from Osborne Farm has been divided into five wares on the basis of fabric. A further distinction has been made between wheel-made grey sherds and handmade sherds in the same ware all of which come from large storage jars or similar vessels.

ALH RE: The most common fabric is the

Table 1 Quantified summary of Roman pottery.

	<i>Fabric code</i>	<i>Description</i>	<i>No</i>	<i>No%</i>	<i>Wt</i>	<i>Wt%</i>	<i>EVE</i>	<i>EVE%</i>
Kiln wares	ALH RE	Alice Holt reduced ware (wheelmade)	3776	73.4	106859	54.0	9666	78.0
	ALH SJ	Alice Holt storage jar (handmade)	682	13.3	69624	35.2	432	3.5
	ALH BW	Alice Holt black sandy ware	570	11.1	18208	9.2	2082	16.8
	ALH OX	Alice Holt oxidised ware	49	1.0	934	0.5	39	0.3
	ALH REF	Alice Holt finer grey micaceous ware	23	0.4	1350	0.7	73	0.6
	OVW WH	Overwey-type	47	0.9	1027	0.5	98	0.8
<i>sub-total</i>			<i>5147</i>	<i>100.0</i>	<i>198002</i>	<i>100.0</i>	<i>12390</i>	<i>100.0</i>
Other wares	NFO CC	New Forest colour-coated ware	1		1		0	
	OXF RS	Oxfordshire colour-coated ware	2		3		0	
	GY3	coarse grey sandy ware	5		114		0	
	OX3	fine oxidised ware	2		6		0	
<i>sub-total</i>			<i>10</i>		<i>124</i>		<i>0</i>	
<i>TOTAL</i>			<i>5157</i>		<i>198126</i>		<i>12390</i>	

standard grey sandy ware normally associated with the Alice-Holt industry as defined in the National fabric collection (Tomber and Dore 1998, 138). This accounts for 86.7% of the pottery recovered of which 73.4% are wheel-made vessels and 13.3% handmade vessels (ALH SJ). There is a slightly variation in the quantities and grades of sand used and colour varies from pale to silvery to darker grey but generally the sherds form quite a coherent group which is typical of the more standardised later phases of the industry. The fabric is generally quite hard and the surface rough or smooth depending on surface finish. The under-fired vessels frequently show a pale reddish-brown core and tend to be softer and more friable.

ALH BW: This group includes all the black sandy wares which generally contain well-sorted, fine sub-angular quartz sand with white mica. The mica is more evident than on the grey wares often creating a sparkling effect on the surfaces of the vessels. This group accounts for 11.1% of the pottery recovered from the kilns by sherd count.

ALH OX: Within this group are the oxidised variant of the grey wares. The fabrics are sandy with some mica and occasional clay pellet. As this group forms only 1% of the total assemblage it is more likely that these are firing mishaps rather than a deliberate intention to produce oxidised wares.

ALH RE F: A small group of slightly medium-finer grey sandy wares with noticeably much more micaceous clay.

OVW WH: Overwey-type. This is a hard ware with a hackley fracture and a granular texture. The fabric corresponds with that defined in the National fabric collection as Overwey ware (*ibid.* 146), known to be produced at the kilns at nearby Overwey, Tilford (Clark 1949) and often referred to as 'Portchester D ware'. The standard type is typically cream or buff in colour but also includes a range of other colours. Most of the sherds here are grey, off-white or orange. Although a small group, accounting for just under 1% by count, it appears to have been made at these kilns.

Forms (Tables 2, 3)

The repertoire of forms from the Osborne Farm kilns is moderately limited, and most

fall into the corpus of types defined by Lyne and Jefferies (1979). Overall jars form 65.5% of the assemblage by EVE followed by vessels for dispensing liquids (flasks, flagons) at 17.5%, dishes at 13.1%, bowls at 3.4% and strainers at 0.3%. The most significant absence from the published corpus of later wares is deep decorated bowls and flat and triangular-rimmed bowls. There is only a single lid.

Jars: Jars account for 65.5% of the total assemblage by EVE (Table 2). Most, 59.7%, appear to belong to L&J Class 3 although it is sometimes difficult with broken sherds to determine whether some of the jars were cordoned thus placing them in Class 1. Cordons on detached bodysherds were present but extremely rare suggesting Class 1 vessels were also rare. There are at least six examples of cordons with impressed decoration which are probably from cordoned, necked jars Class 1A. In total four Class 1.3 jars were recorded from rim fragments including one with a somewhat flattened cordon (Fig. 12.10). Two of the examples are oxidised, one with a partial black slip; the other with a partial white slip. One is in the finer black fabric variant and one is in the standard grey ware also with a partial white slip. All the examples were associated with Kiln A. Four medium-sized, wheel-made jars and one handmade storage jar (see below) were classified as L&J Class 1A on the basis of rim morphology (Figs. 12.11, 13.34), two vessels have a white slip and none are decorated. Of the four examples, one is similar to L&J form 1A12 and three to form 1A16 and all came from Kiln A.

Eight rims belonging to flat-rimmed jars (Class 3A) were recorded from Kiln A.

All are in the standard grey fabric apart from one black ware and none are slipped or decorated.

The everted or cavetto rimmed jar (Class 3B) is particularly common in the assemblage, accounting for 31.1% of the recorded EVE's (Figs 12.1–2, 12–17; 16. 7880). Many of the forms appear to be imitating black-burnished ware jars and it is likely that some of the lattice decorated sherds belong to this vessel class. Of the 280 rims recorded 90% are in standard grey ware (ALH RE), 8.6% in black ware (ALH BW) and 0.4% in finer grey ware (AH RE F). Of these vessels 33% had a partial slip, mainly

Table 2 Incidence of forms by kiln (expressed as % EVE) with dates after Lyne and Jefferies 1979.

<i>Form</i>	<i>Description</i>	<i>L&J Class</i>	<i>Kiln A</i>	<i>%</i>	<i>Kiln B</i>	<i>%</i>	<i>Kiln C</i>	<i>%</i>	<i>Other</i>	<i>Total</i>	<i>Date</i>
jar	cordoned? Everted rim	1.33	48	0.5	0	0.0	0	0.0	0	48	270-350
jar	cordoned, necked	1A	141	1.5	0	0.0	0	0.0	0	148	220-270
flask	flasks	1B	82	0.9	0	0.0	0	0.0	0	82	270-330
storage jar	large storage jar	1C	131	1.4	0	0.0	35	2.5	112	278	350-420
jar	flat-rimmed	3A	87	0.9	0	0.0	0	0.0	0	87	150-270
jar	everted, cavetto rim	3B	2912	30.4	112	38.4	579	41.7	258	3861	270-420
jar	expanded/ hooked rim	3C	2698	28.2	153	52.4	335	24.1	283	3469	270-420
jar	other	3	22	0.2	0	0.0	0	0.0	0	22	
storage jar	beaded rims	4	168	1.8	0	0.0	0	0.0	7	175	350-420
bowl	beaded flanged rim	5B	163	1.7	0	0.0	82	5.9	174	419	270-420
strainers	strainers	5C	6	0.1	0	0.0	32	2.3	0	38	150-270/270+
dish	straight-sided	6A	925	9.7	27	9.2	318	22.9	86	1356	330-420
dish	flat, triangular rimmed	6B	17	0.2	0	0.0	0	0.0	0	17	150-220
dish	beaded, flanged	6C	186	1.9	0	0.0	0	0.0	58	244	330-420
dish	flat-topped dish or lid		7	0.1	0	0.0	0	0.0	0	7	
flagon	handled flagons	8	1903	19.9	0	0.0	0	0.0	190	2093	200/70-420
storage jar	cabre-rimmed	10	52	0.5	0	0.0	0	0.0	0	52	270-420
?kiln furniture			28	0.3	0	0.0	0	0.0	0	28	
platter			0	0.0	0	0.0	7	0.5	0	7	
bowl			0	0.0	0	0.0	0	0.0	7	0	
<i>TOTAL</i>			<i>9576</i>	<i>100.0</i>	<i>292</i>	<i>100.0</i>	<i>1388</i>	<i>100.0</i>	<i>1175</i>	<i>12431</i>	

Table 3 Incidence of decorated wares by fabric.

<i>Fabric</i>	<i>ALH RE</i>	<i>ALH SJ</i>	<i>ALH BW</i>	<i>ALH REF</i>	<i>ALH OX</i>
<i>Decoration</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
burnished lines: horizontal and/ or vertical	54	13	23	1	0
burnished wavy line(s)	40	17	0	0	0
burnished lattice	37	7	19	0	0
burnished crosses	0	3	0	0	0
burnished line scrolls	12	0	19	1	0
diagonal lines	2	1	0	0	0
chevrons	2	0	0	0	0
combed various	32	93	4	0	7
finger scored wavy line	0	1	0	0	0
tooled wavy line	2	6	1	0	2
impressed comb	2	0	0	0	0
impressed cordon	5	1	0	0	0
impressed ovals	2	0	0	0	0
combed and burnished lines	0	3	0	0	0
burnished wavy line/ impressed	2	0	0	0	0
notched rim	2	0	1	0	0
<i>Sub total</i>	<i>194</i>	<i>145</i>	<i>67</i>	<i>2</i>	<i>9</i>
burnished zones	5	0	27	0	0
white slip	609	185	3	0	15
black slip bands	39	6	0	0	3
grey slip	9	0	0	0	0
<i>Sub total</i>	<i>662</i>	<i>191</i>	<i>30</i>	<i>0</i>	<i>18</i>

white, but five examples had a grey slip and eight a black slip. The diameter ranged from small jars at 60–70 mm up to larger jars with a maximum of 220 mm; the highest incidence falls between the 140–160 mm ranges. Vessels of this type were found in association with all three kilns.

Vessels allocated to Class 3C are perhaps the most diverse including triangular and hook-rimmed jars but also other expanded rim or pendant forms (Fig. 12.3–6; 18–24; 13. 25–33; 16.81–4). This group accounts for 27.9% of

the assemblage by EVE and similarly features in all three kiln groups. Most examples, 87.3%, are in ALH RE with 9% in ALH BW and 3.7% in Overwey-type ware. Only 3.3% have a slip, mainly white with a single example with a black slip. Three jars have notching on the rim (Fig. 13.31–3) and one ALH RE vessel has a finely ridged surface. Most vessels have a diameter within the 140–160 mm range but there are single examples of 260 and 300 mm and smaller jars between 80–100 mm.

Other jars include one beaded rim example

similar to L&J Class 4.2 from a non-kiln contexts and probably of earlier Roman date and one example similar to Class 4.45 from one of the flanking pits to Kiln A which may have been a surface find and not contemporary with the rest of the fill.

Storage Jars: Storage jars make up 4% of the jar category by EVE and include examples of L&J Classes 1A, 1C, 4 and 10. A large handmade storage jar with a double groove on the rim surface, a white slip and impressed decoration on an applied slightly raised band appears to be a variant of those classified by L&J as Class 1A (Fig. 13.36). This vessel is unique in this assemblage. There are 26 examples of L&J type IC embracing IC4, 1C5 and 1C6 with 23 examples of the latter with an internal groove (Fig. 13.35, 37). White slip featured on 16 of these rims and one was burnished. The diameters range from 240 mm up to 400 mm. One vessel came from Kiln C; seventeen from Kiln A, whilst the remainder came from other contexts or were unstratified.

Seven examples of L&J Class 4 storage jars were recorded, all from Kiln A. This includes one example comparable in rim shape to L&J Class 4.36 with a white slip and combed decoration (Fig. 13.38); two with more upright beads similar to Class 4.44 (Fig. 13.39) and four with slightly flattened beads as Class 4.45.

There are seven rim fragments present from large cable-rimmed vessels (L&J) Class 10; one from Kiln B (Fig. 12.7), five from Kiln A and one unstratified find. Diameters range from 320–400 mm. It has been suggested by Clark & Nichols (1960) that these vessels, often with finger grooving on the interior and small perforations through the rim or body, may have been inverted functioned as bee-hives. One vessel is decorated with a burnished wavy line.

Of the 682 sherds of storage jar recorded, 27% have a white slip and less than 1% a black slip. A variety of decorative techniques were used and 21.6% of the sherds show some form of decoration usually combed designs or tooled wavy lines. The combed-line designs include wavy lines, crosses, herring-bone, curvilinear designs and lattice. One sherd from Kiln A has internal over-lapping circles 45 mm diameter on the internal wall. A sherd featuring similar impressions came from the evaluation.

Flasks (Lyne & Jefferies 1979, Class 1B): Just three examples of probable flasks as Class 1B were identified, all from Kiln A and all in standard ALH RE (Fig. 15.63–5). This was clearly not a major component of the output here.

Flagons (*ibid.* Class 8): These handled flagons are well-represented in the assemblage accounting for 16.8% of the whole assemblage by EVE. Most of the 37 examples conform to Class 8.10 with one example of Class 8.14 with a more pendant rim and two others as slight variants (Fig. 15.66–72; 16.92–3). Most are decorated with vertical radiating burnished lines on the neck and fifteen examples are slipped, fourteen white and one black. One vessel has been burnished. Five vessels are in the finer, black micaceous ware; the rest are in standard ALH RE. Vessels were recovered from Kilns A and C with one almost complete but with firing cracks from Kiln A (Fig. 15.72).

Bowls (*ibid.* Class 5B): Beaded, flanged rim, conical bowls, contributed 3.4% of the assemblage by rim eve (Fig. 14.40–5; 16. 85). Based on rim morphology there are examples of sub-types 5B3 (x1); 5B6 (x25); 5B8 (x6); 5B9 (x3) and 5B10 (x2). The vessels occur in standard grey ware (ALH RE) (59%) and the finer black ware (41%). Eight examples have an internal white slip which extends over the rim and one has a grey slip. Four vessels are decorated with an internal burnished line lattice bisected by horizontal burnished lines (Fig. 14.40–1; 16.85). A hybrid form between a bowl 5B and a 6C dish came from Kiln A (Fig. 14.46).

Strainers (*ibid.* Class 5C): Only four examples of this vessel form were recognised by rim form and only one perforated flat base sherd noted. Two vessels (Fig. 14.47–8) in ALH BW and ALHRE came from Kiln A and two vessels, one ALH RE (5C1) (Fig. 16.86) and one ALH BW (5C3) (Fig. 16.87) came from Kiln C.

Dishes (*ibid.* Class 6) (Table 4): Straight and convex-sided dishes form one of the larger groups recovered from the site with 155 rims across types 6A and 6C. The commonest example are dishes Class 6A which feature in all the kiln groups with at least nine sub-types (Fig. 12.8–9; 14.49–58; 16.88). Within this group the most frequent are those as Class 6A8–10, convex sided dishes with an external

Table 4 Incidence of sub-types of Class 6 straight and convex sided dishes by fabric and by kiln.

	<i>Kiln A</i>				<i>Kiln B</i>		<i>Kiln C</i>		<i>other</i>		
<i>Fabrics</i>	<i>ALH RE</i>	<i>ALH BW</i>	<i>ALH REF</i>	<i>ALH OX</i>	<i>ALH RE</i>	<i>ALH BW</i>	<i>ALH RE</i>	<i>ALH BW</i>	<i>ALH RE</i>	<i>ALH BW</i>	
<i>Forms</i>											<i>Total</i>
6A	1	1	1	0	0	0	0	0	0	0	3
6A2-3	1	1	0	0	0	0	0	0	0	0	2
6A3	1	0	0	0	0	0	0	0	0	0	1
6A4	1	0	0	1	0	0	0	0	0	0	2
6A5	0	0	0	0	0	0	1	0	0	0	1
6A8	0	0	0	0	1	4	0	0	0	0	5
6A9	0	0	0	0	0	0	0	0	2	1	3
6A10	25	37	1	0	2	0	13	9	5	3	95
6A8-10	4	4	0	0	0	0	0	0	0	0	7
6A12	3	0	0	0	0	0	0	0	0	0	3
6C	2	1	1	0	0	0	0	0	0	0	4
6C1	11	9	0	0	0	0	0	0	7	0	26
6C2	1	1	0	0	0	0	0	0	0	0	2
<i>TOTAL</i>	<i>50</i>	<i>54</i>	<i>3</i>	<i>1</i>	<i>3</i>	<i>4</i>	<i>14</i>	<i>9</i>	<i>14</i>	<i>4</i>	<i>154</i>

groove, which account for 66% of the group. The dishes feature in both standard ALH RE and in ALH BW with single examples in the finer grey and oxidised wares. At least 26% show internal burnished line scrolling on the inner wall and a further 5% have an interior burnished finish and 4% external burnish. In addition one vessel is decorated with diagonal burnished lines. In total 13% are slipped mainly on the interior surface, ten with a white slip and three with a black slip. A large number of detached bases with internal burnished line decoration also probably belong to this group. Most examples have burnished lines set in radially in blocks or quadrants (Fig. 16.89–90) but there is also one base with ‘S’ lines (Fig. 15.60) and one with burnished line scrolling on the underside imitating BB1 dishes.

The other variants of the form are less common and, apart from 6A12, are not decorated although two are white-slipped (6A3; 6A4) and one is burnished (6A9). There are

five examples of form 6A8 with a slightly more pointed lip exclusively associated with Kiln B. There is a single example of form 6A5 with a straighter wall exclusively from Kiln C and three of 6A9 with a higher groove from non-kiln associated finds. The remaining variants (6A2–3 and 6A12) all came from Kiln A. Of the three examples of 6A12, one is internally burnished; one has burnished vertical lines and one is plain.

Class 6C with beaded and squat flanged dishes is represented by 32 examples, all from Kiln A or non-kiln contexts. Most of these are grey wares with 29% black wares. Four have an internal white slip; four a black slip and two are burnished. Most fall into variant 6C1 with two examples of a 6C2 (Fig. 14.59; 00.61)

Lid (Fig. 16. 91): There is a single small rim sherd which may be from a lid from Kiln C. Lids do not appear to have been one of the main forms fired at these kilns.

Unclassified Dish (Fig. 15.62): A single shallow dish from Kiln A has a slightly expanded rim

and flat top. It has a white external slip and appears to be a one-off.

Other Large Vessels: within the assemblage there are four extremely large vessels which do not conform to the known corpus of wares (Fig. 15.74–7). At least one is quite crudely finished at the rim (Fig. 16.77) and it is possible that these containers were not vessels as such but a form of saggar used in the kiln although none appear to be excessively fired. An alternative suggestion may be that they were containers for raw materials used by the potter or for mixing ingredients. One vessel has a cut vertical edge from the rim made before firing which may be some form of spout for pouring off liquid and could have perhaps been used for making slips. In addition there is a base sherd with a large central hole (Fig. 15.73) made before firing which may have been part of the potter's equipment or used as part of the kiln furniture.

Distribution

As seen from Tables 2 and 5; Figs 9–11, the largest and most diverse assemblage of pottery came from Kiln A and the associated flanking pits, followed by Kiln C and then the smaller Kiln B with just 127 sherds. This can be seen in part as a consequence of the degree of preservation and size of the respective structures but may also reflect the degree of use.

Kiln B was very small in size and appears to be stratigraphically later than Kiln A. It was poorly

preserved and the pottery recovered from it came from the two stoke-pits and the eastern flue. It should be noted that the eastern flue and stoke-pit were cut into the northern stoke-pit of Kiln A so there could be some potential for the redeposition of material from the latter into the former. The sooty fills were almost indistinguishable. The flue produced 23 sherds and pit [66] 82 sherds. The kiln chamber and western flue had negligible surviving deposits and no pottery as recovered from these. Some 22 sherds came from the western stoke-pit [65]. These include a cabled rim (Class 10) and two bodysherds from a storage jar(s) (Fig. 12.7); two jars Class 3b; one with a black slip (Fig. 12.2) and one jar Class 3C (Fig. 12.6). Of the 22 sherds two were ALH BW; the rest ALH RE. It would seem unlikely that storage jars were fired in this kiln given its small size so it must be presumed that these sherds have been backfilled perhaps from the waste from Kiln A or had been used as part of the kiln structure. The pottery from flue [67] includes three flared rim jars (Class 3C); one dish (6A3) (Fig. 12.9) and two dishes (6A10). There are also three storage jar bodysherds, one with combed decoration. Four vessels have white slip. Most of the wares are ALH RE with three examples of ALH BW and one of ALH OX. The featured sherds from the eastern stoke-pit [66] are from jars, with nine examples of flared rim Class 3B (Fig. 12.1) and seven examples of Class 3C (Fig. 12.3–5). In addition there are two small

Table 5 Distribution of pottery across the individual features.

	No	No %	Wt	Wt %	EVE	EVE %
Kiln B	127	2.5	4432	2.2	333	2.7
W flanking pit Kiln A	878	17.0	19185	9.6	1409	11.4
E flanking pit Kiln A	379	7.3	9704	4.9	848	6.8
Kiln A structure	2640	51.1	124632	62.5	7418	59.8
N flanking pit Kiln C	96	1.9	2806	1.4	163	1.3
S flanking pit Kiln C	35	0.7	816	0.4	38	0.3
Kiln C structure	588	11.4	22675	11.4	1402	11.3
Other	189	3.7	5053	2.5	291	2.3
Unstratified collection	237	4.6	10025	5.0	508	4.1
<i>TOTAL</i>	<i>5169</i>	<i>100.0</i>	<i>199328</i>	<i>100.0</i>	<i>12410</i>	<i>100.0</i>

handles from flagons and 14 bodysherds from storage jars, two with combed arc decoration. Given the shallow nature of Kiln B it is thus difficult to know whether these wares can be considered to be products fired in the kiln, part of the kiln structure or are just part of a general backfill. Lyne and Jefferies (1979, 48) date the 6A3 dish to the period AD 180–279 and dishes 6A10 to AD 330–420 (see Table 2). The storage jars have a relatively long period of production and the Class 3 jars equally were produced throughout the later Roman period. There were no Overwey-type sherds associated with this kiln.

The largest assemblage by far came from Kiln A with 2640 sherds (Figs 12–16). In addition, the western flanking pit [11] produced a further 878 sherds and the eastern pit [1] 379 sherds. Nearly all the main defined forms are represented. The pottery from fills within the kiln structure and two stoke pits has an average sherd size of 47.2 g compared with 21.8 g from the western pit and 25.6 g from the eastern pit. The fills within the kiln chamber [16] (17) and (28) produced 1022 sherds, 22.5 EVE's, 46,421 g in weight. The fabrics/ wares comprise 75% ALH RE; 11.5% storage jars; 1.8% ALH BW and 1% collectively for ALH OX, ALH REF and OVW WH-type. Class 3 jars account for 52.5% of the group by EVE followed by flagons (Class 8) at 24%; dishes (Class 6A) at 11%; storage jars (Classes 1A, 1C, 4) 9% and bowls (Class 5) at 3%. Twenty-four per cent of the sherds had a slip, mainly white, with just four examples with a black slip and 13% were decorated. There were five intact flagon rims and necks, all underfired, present in a row in the south-east part of the chamber which could suggest some of assemblage represents an *in-situ* failed firing. The northern flue [14] produced 73 sherds, 0.6 EVE. Rims include two storage jars (Class 1C and 10); three jars (3B), one bowl (5B and two dishes (6C). There were no flagons or dishes Class 6A present. The southern flue [23] contained just 49 sherds with one storage jar rim; four jars (3B), three jars (3C) and one dish (6A). The southern stoke-pit [8] produced 505 sherds of pottery of which 66.7% are ALH RE; 12% ALH BW and 18.6% storage jar. A particularly diverse range of forms are present with storage jars (1C; 4 and 10); jars (3A-C),

flask (1B), flagons (8), bowls (5B) and dishes (6A, 6C). There are also large vessels (Fig. 15.74–5) which may be possible kiln furniture or mixing vessels. Just under 10% of the sherds were slipped and 5.5% were decorated. The north stoke-pit [5] produced a larger assemblage of 970 sherds of which 64.5% were ALH RE, 14.3% ALH SJ; 8.7% ALH BW and 12.5% other grey ware, oxidised ware and Overwey-type ware. The vessels broadly replicate those from the south stoke-pit and are dominated by jars (3B-C) at 55% EVE, followed by flagons (8) at 23.9% and dishes at 11.3%. There is another vessel which possibly acted as kiln furniture (Fig. 16.77). Of note is that the only three jars from the site with notched rims came from this context. Slipped wares account for 8.7% by sherd count and decorated wares for 5.2%.

Pits [1] and [11] produced 878 sherds and 379 sherds respectively with broadly the same proportions of wares and forms seen from the kiln assemblages. Of note is slightly higher incidences of Overwey-type sherds from both pits but these still only form 1.5% of the total by sherd count of [1] and 3.7% of the group from [11].

Kiln C produced 588 sherds weighing 22,675 g and with 14.02 EVE's from the kiln structure with a further 96 sherds from the northern flanking pit and 35 from the southern pit (Fig. 16.78–93). The kiln chamber contained little in-situ material and only six unfeathered sherds were recovered from this. Similarly just two sherds came from the western flue [39], both from storage jars. The eastern flue [43] was more productive with 175 sherds of which 78% were ALH RE by sherd count; 12% ALH BW; 8.6% storage jars and a single oxidised sherd. Rims include a single storage jar (1C6); twelve flared rim jars (3B); two hooked rim jars (3C); one flanged bowl (5B6) and four dishes (6A10). The bodysherds include some from flagon. Approximately 5% were white slipped and 5% decorated in some way.

The western stoke-pit [35] produced an assemblage of 125 sherds, 4344 g., 4.41 EVE again dominated by ALH RE (87.2%). A similar range of forms are present with examples of Classes 3B (Fig. 16.78), 3C, 5B, 6A and 8 (Fig. 16.92). Several of the grey wares have a finely ridged finish similar to that found on

the harder Overwey jars with a semi-complete example present (Fig. 16.84). Also present is a four-rib strap handle from a larger vessel. The eastern stoke-pit [37] produced 280 sherds, 9618 g, 6.73 EVE. The group includes five Overwey type sherds. The form range is identical to the western stoke pit and flues with the addition of examples of a dish 6A5 and a strainer (5C1) (Fig. 16.86). Jars (3B) (Fig. 16.79–80) and dishes (6A10) (Fig. 16.88, 90) are dominant accounting for 42.8% and 30.9% of the rims respectively. Other vessels include jars (3C) (Fig. 16.81–2) and flanged rim bowls (Fig. 16.85). The two flanking pits produced far less material than those associated with Kiln A with 96 sherds from the northern pit [33] (Fig. 16. 83, 87, 91–2) and 35 sherds from the southern pit [31]. Of note from the former was another strainer (5C) (Fig. 16.87) and a single rim probably from a lid (Fig. 16.91).

Chronology

In terms of site chronology it is difficult to see any differences between the assemblage from Kiln A and the smaller one from Kiln B despite the fact that Kiln B appears stratigraphically later. Both assemblages are dominated by jars, 90.8% of the assemblage from Kiln B and 60.6% from Kiln A EVE. The remaining 9.2% from Kiln B are all dishes. The second commonest form from Kiln A are flagons (19.9%) followed by dishes (11.9%). The remaining 7.6% are storage jars, bowls flask and strainer. Similarly the range of vessels found in association with Kiln C suggests this is also broadly contemporary with the other kilns.

On the basis of the broad dating provided by Lyne and Jefferies (1979) (cf. Table 2) all the kilns appears to have been in use some point in the period AD 270–420. The presence of a few vessels considered to have ceased production around 270; for example, jars 1A and 3A and dishes 6B could suggest the kilns were in operation from around c AD 270 when these vessels were disappearing from the repertoire. It should be noted that overall such vessels contribute just 2% EVE to the overall assemblage and could be residual material from other off-site activity or occupation. At the other end of the scale there are a few vessels present which are suggested to date from around AD

330 / 350 and these include the large storage jars (1C and 4) and the dishes Classes 6A and 6C. Dishes Class 6A are particularly common and form 9.2% of the products from Kiln B by EVE; 9.7% from Kiln A and 22.9% from Kiln C. The Overwey-type fabric considered to date from around 320 at Neatham (Millett 1979, 125) and Portchester (Fulford 1975, fabric D) became more popular later in the 4th century. It generally forms between 5–10% of late 4th-century deposits in London, Surrey and West Kent (Tyers 1999, 194). Whilst not prolific at Osborne Farm at just under 1% of the assemblage, it was present in most of the larger groups. This would suggest that the kilns were in operation around the mid 4th century but its rarity could suggest either it was not a significant ware made at these kilns or it had fewer failures and thus most of the vessels left the site. Alternatively the kilns could have been falling out of use shortly at around AD 330, thus missing the *floruit* of this ware. There appears to be little independent dating evidence from this or other production sites to determine whether the same pattern of vessels found from the later 3rd century would be expected to continue throughout the 4th into the 5th century.

The Alice Holt / Farnham pottery industry is an extensive one dating from at least the early-mid 1st century AD through to the early 5th century. Despite the fact that a large number of kilns or waste heaps have been documented there have been few excavations undertaken in recent times where it has been possible to undertake a quantified assessment of the products associated with any one kiln or refine the broad-brush chronology. Many of the sites have been known for some time and can be found summarised in Lowther (1939); Millett (1979, 135) and Lyne and Jefferies (1979, 5–9). To these can be added more recent work undertaken along the A325 (Cotswold Archaeology Trust 2003; Birbeck *et al.* 2008) and at Groom's Farm (Wessex Archaeology 2010) and Rookery Farm (Wessex Archaeology 2008).

Many of the sites documented appear to be active in the later Roman period and this includes Site 507 found in 1930 and located to the east of Farnham and south of Hale (Lowther 1939, 222, kiln no. 1) which was

making flanged bowls (Class 5) and everted flared rim jars (as 3B), strainers (5C) and large jars (1A). Of similar date is Snailslynch (*ibid.* 222, kiln no 2) whose products included large jars (1A), flared, everted rim jars (3B), plain-walled dishes (6A) and flanged, beaded rim bowls (5) but also flat and reeded-rim jars (3A) not present in quantity from Osborne Farm. Also late is a kiln at 'Over Compton' (*ibid.* kiln no 3) which produced flanged bowls (5) and a jar waster (as 3C) with a rilled surface finish as typical of the Overwey jars and a notched rim. The assemblage from the Overwey kilns at Tilford (Clark 1950) is also very similar to the range from Osborne Farm. Although the output from the Overwey kilns was dominated by the hard, light grey cooking pits with a finely ridged finish, other wares were also made (*ibid.* figs 7–9) which encapsulate most of those documented from Osborne Farm. Whilst there is no quantification to determine the relative proportions of the different vessels, Clarke (1950, 50) notes that dishes, (as Class 6A), were very common in kilns I and II. This is the type-site for the production of Overwey ware and was thus clearly in operation in the second half of the 4th century. A kiln and associated waster dump excavated at Baigents Bridge in 1971 is dated 350–420 but is unpublished and the associated forms not known.

A spread of potter wasters found in 1926 at Malthouse Farm, Kingsley (Lowther 1939, kiln no 10; figs 107–8), corresponding with the location of the Osborne Farm excavation, comprised mainly grey wares and large number of pieces slipped mainly white, occasionally black. Forms include jars (1A, 3B), cable-rimmed storage jar (10), handled flagons (8), dishes (6A) and flanged bowls (5) reflecting those found in the excavated assemblage.

Of the more recent kiln excavations, a badly damaged kiln, underlying a waster dump (Lyne and Jefferies 1979, dump AH61), was investigated between Frith End and Bucks Horn Oak during road improvements on the A325. The kiln was dated archaeomagnetically to AD 220–80 (Birbeck *et al.* 2008). Unfortunately there were no directly associated finds from the structure but the pottery from the waster heap was of late Roman date (broadly AD 270–420). It is not possible to relate the table of pottery forms (*ibid.*

Table 1) to the stratigraphic text from the report to know to which waster heaps the data refer, to make comparison with Osborne Farm. Excavations at Groom's Farm (Cooke & Powell 2012; 2014; Wessex Archaeology 2010) and Rookery Farm (Wessex Archaeology 2008) indicate that both these pottery production sites also date to the later Roman period.

The proliferation of kilns dating from c AD 270 corresponds well with the evidence from London which shows a great influx of vessels from the Alice Holt Farnham potteries from around this time. Just over half the pottery from excavations at Dowgate Hill dated AD 270–350/60, for example, comprised Alice Holt Farnham ware with examples of everted rim jars (3B), a reeded rim jar, plain dishes (6A1–4) and flanged rim conical bowls (5) (Symonds & Tomber 1991, 73–7). A later group from Billingsgate House dated c AD 350–400 also had cavetto-rimmed jars (3B), a cable-rim storage jar (10), plain rimmed dishes (6A1–4), a beaded rim bowl with scroll decoration on the interior (6A10) and flanged rim conical bowls (5) (*ibid.* 77–80). It is clear that many of the products found at the Osborne Farm site and others, are in circulation from around AD 270 into the second half of the 4th century and possibly beyond; thus providing a more refined chronology may not be feasible at present.

Non-kiln features

The other features encountered on the site produced a total 52 sherds weighing 2186 g, 1.26 EVE's. Pits [46] and [62] both produced handmade flint-tempered bodysherds; one from the former; two from the latter. Such wares are quite difficult to date but flint-tempered ware is common in the area in the later Bronze Age/early Iron Age. The only other pit encountered [63] (64) produced 15 sherds, all late Roman products and undoubtedly from the kilns. Forms present include two examples of storage jars (Class 1C6) and an everted rim jar (3B). The remaining 35 sherds, all Roman in date came from the boundary ditch [49] (50) / [51] (52) and the trackway ditches [53] (54), [55] (56) and [57] (58). The earliest appears to be from [49] with a black, sandy ware, beaded rim jar (Class 4.2) typical of the early Roman period accompanied by a single grey ware

(ALH RE) and a tiny sandy ware also probably early or pre-Roman. Ditches [51] and [57], with just two unfeatured sherds apiece, cannot be dated other than Roman or later. Ditches [53] and [55] both appear to be late Roman dating to after c AD 240. Ditch [53] is the only one on the site with non-local wares containing sherds of Oxfordshire colour-coated ware (Tomber and Dore 1998, OXF RS) and New Forest ware (*ibid.* NFO CC). These were found alongside five sherds of ALH RE including the rim of a Class 3B jar. Ditch [55] produced nine sherds all typical of the products from the kilns with examples of jars (Class 3B and 3C) and a dish (6A10).

Catalogue of illustrated sherds

Figure 12: nos 1–9 Kiln B; nos 10–24 Kiln A

1. Flared rim jar. Class 3B. Fabric: ALH BW. Kiln B, E stoke-pit [66] (26).
2. Flared rim jar. Class 3B. Fabric: ALH RE. Kiln B, W stoke-pit [65] (25).
3. Everted rim jar. Class 3C. Fabric: OVYWH-type. Grey in colour. Kiln B, E stoke-pit [66] (26).
4. Everted rim jar. Class 3C. Fabric: ALH RE. White slip on exterior and interior rim and traces of a zone of probable burnished line lattice on the body. Kiln B, E stoke-pit [66] (26).
5. Expanded rim jar. Class 3C. Fabric: ALH RE. Kiln B, E stoke-pit [66] (26).
6. Everted rim jar. Class 3C. Fabric: ALH RE. Kiln B, W stoke-pit [65] (25).
7. Cabled-rim storage jar. Class 10. Fabric: ALH SJ. Kiln B, W stoke-pit [65] (25).
8. Plain walled dish. Class 6A3. Fabric: ALH RE. Over-fired. Thin white slip on the interior and exterior. Kiln B, E flue [67] (19).
9. Convex-sided dish. Class 6A. Fabric: ALH RE. White slip on upper external rim. Kiln B, E flue [67] (19).
10. Flat squat-rimmed jar with a flattened cordon. Class 1.33. Fabric: ALH RE. Black slip on the exterior and rim interior. Kiln A, W pit [11] (12).
11. Narrow necked jar with a bifid rim grooved on the upper surface. Class 1A. Fabric: ALH RE. White slip on the rim. Kiln A, N stoke-pit [5] (30).
12. Everted rim jar. Class 3B. Fabric: ALH RE. Decorated with a burnished line lattice and burnished on the upper exterior. Kiln A, chamber [16] (28).
13. Flared rim jar copying a BB1 form. Class 3B. Fabric: ALH RE. Burnished upper exterior and decorated with a burnished line lattice. Kiln A, S stoke-pit, [8] (27).
14. Flared rim jar. Class 3B. Fabric: ALH RE, White slip on the upper body and rim interior. Kiln A, chamber [16] (17).
15. Small everted rim jar. Class 3B. Fabric: ALH RE. Black slip on rim and upper body; burnished on the top and base areas. Kiln A, S stoke-pit, [8] (27).
16. Small everted rim jar. Class 3B. Fabric: ALH RE. Burnished on the upper and lower parts. Kiln A, N stoke-pit [5] (30).
17. Everted rim jar with a single girth groove. Class 3B. Fabric: ALH RE. White slip on upper body and on the rim interior. Kiln A, S stoke-pit, [8] (9).
18. Everted rim jar with a single girth groove. Class 3C2. Fabric: ALH BW. Burnished on the upper half. Kiln A, N stoke-pit [5] (30).
19. Necked jar with ridged body. Form: 3C3. Fabric: OVY-WH-type. Kiln A, S stoke-pit, [8] (27).
20. Necked jar with slightly thickened rim. Class 3C3. Fabric: under-fired ALH RE. Kiln A, S stoke-pit, [8] (9).
21. Small necked globular jar. Class 3B. Fabric: ALH RE. Single girth grooves at neck and mid girth. Decorated with black slip on upper half, greyish white in the rim interior. Kiln A, S stoke-pit, [8] (27).
22. Small jar. Class 3B. Fabric: Under-fired ALH RE. Band of white slip above a single girth groove. Kiln A, S stoke-pit, [8] (9).
23. Jar with a thickened rim. Class 3C. Fabric: ALH RE. White slip on exterior and upper part of interior rim. Kiln A, chamber [16] (17).
24. Jar with a thickened rim. Class 3C. Fabric: ALH RE. White slip on exterior and upper part of interior rim. Kiln A, N stoke-pit [5] (30).

Figure 13: nos 25–39, Kiln A

25. Everted rim jar with n undercut rim. Class 3C. Fabric: ALH RE. Kiln A, N stoke-pit [5] (29).
26. Large wide-mouthed jar with a pendant rim. Class 3C. Fabric: ALH RE. Kiln A, Chamber [16] (17).
27. Small jar with an everted pendant rim. Class 3C. Fabric: ALH RE (under-fired). Traces of a thin white slip on the interior rim face. Kiln A, N stoke-pit [5] (30).
28. Flared, undercut rim jar. As Class 3C. Fabric: GY2. Kiln A, N stoke-pit [5] (29).
29. Everted, bifid rim jar. Class 3C. Fabric: ALH OX. Kiln A, N stoke-pit [5] (29).

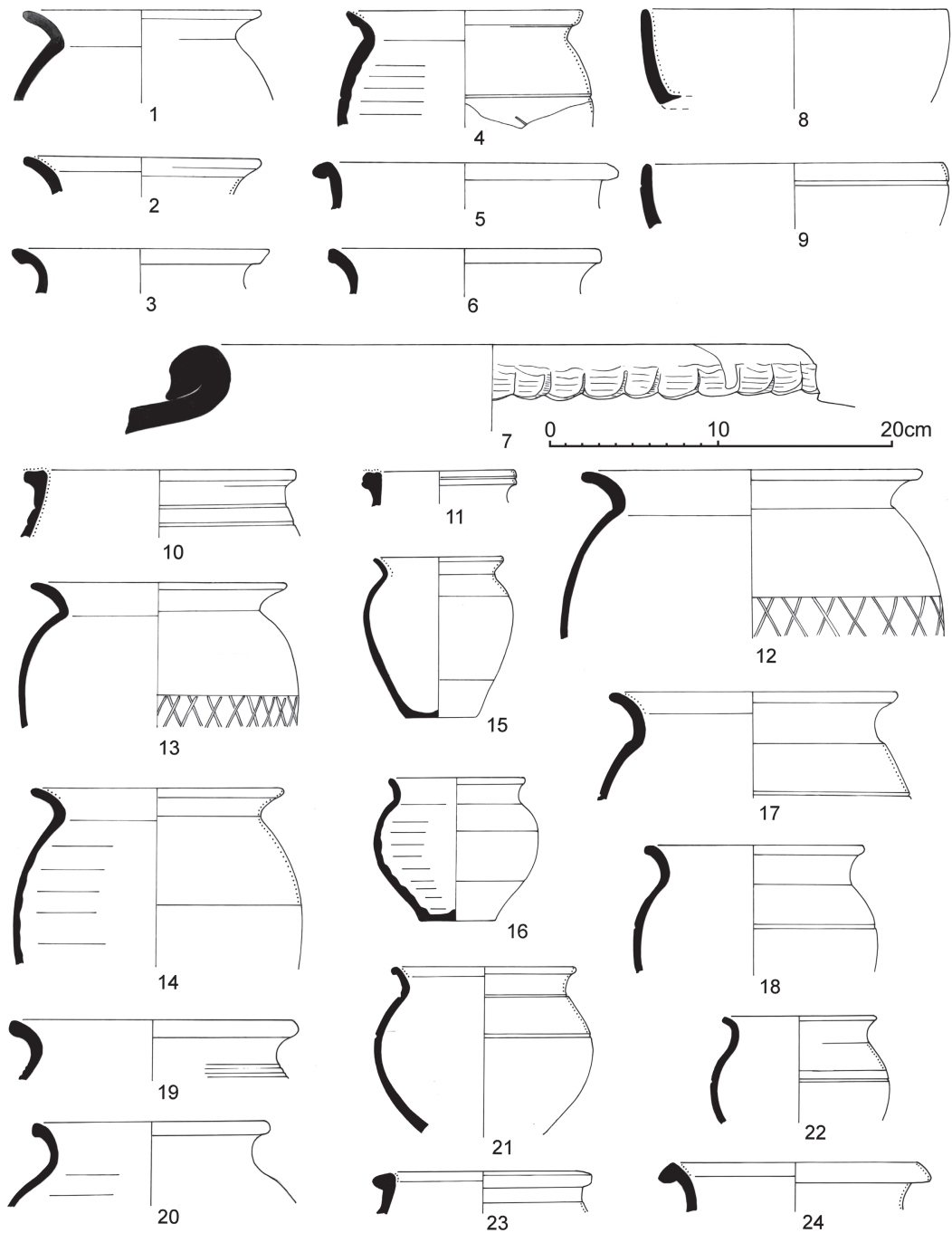


Fig 12 Pottery Nos 1-9 Kiln B; nos 10-24 Kiln A.

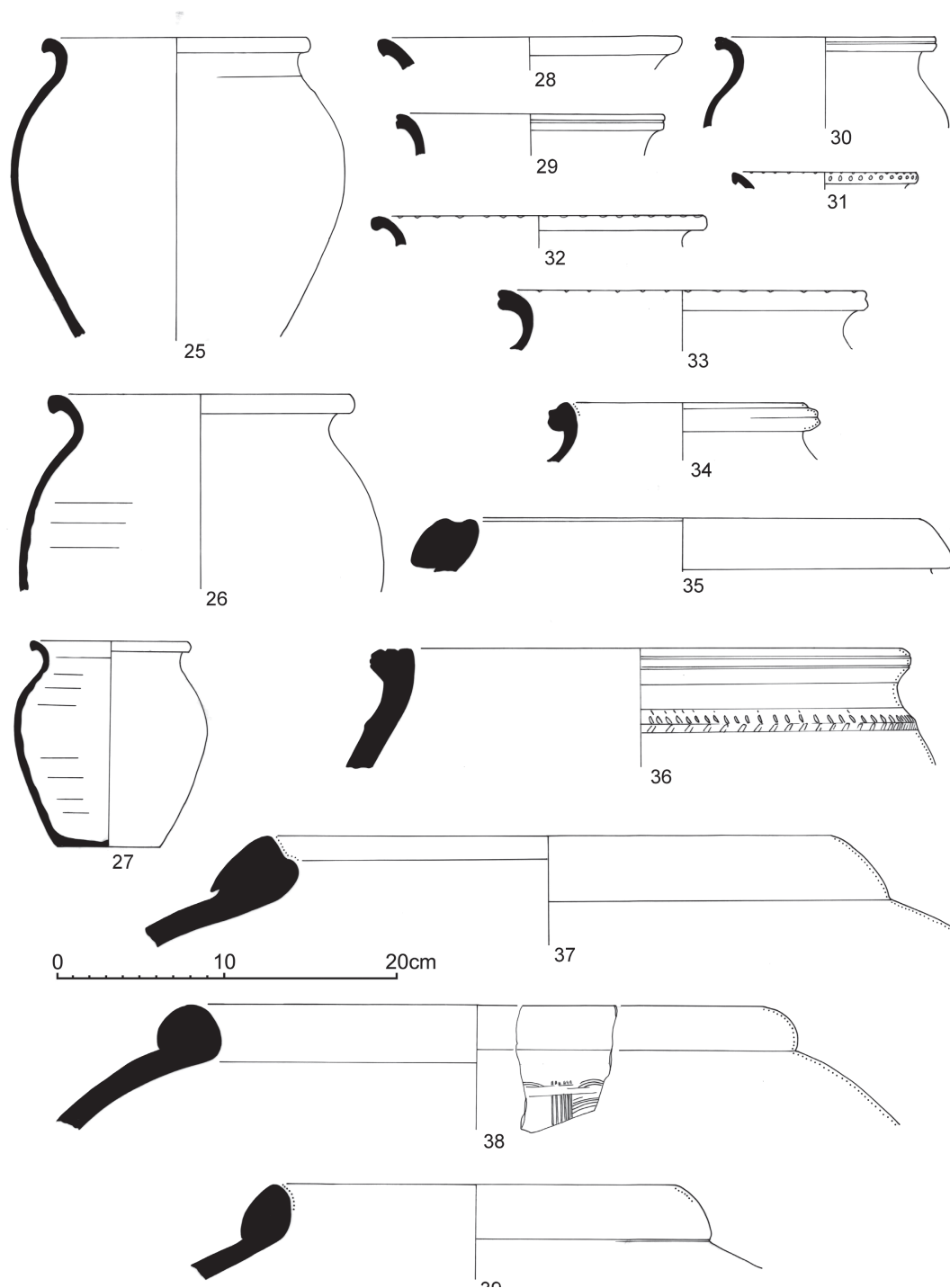


Fig 13 Pottery Nos 25–39, Kiln A.

30. Everted, bifid rim jar. Class 3C. Fabric: ALH BW. Kiln A, S stoke-pit [8] (27).
31. Narrow mouthed jar with a pendant, notched rim. Class 3C. Fabric: ALH BW. Kiln A, N stoke-pit [5] (30).
32. Everted pendant rim jar with a notched rim. Class 3C. Fabric: ALH RE. Kiln A, N stoke-pit [5] (30).
33. Everted rim jar with a bifid, notched rim. Class 3C. Fabric: ALH RE. Kiln A, N stoke-pit [5] (29).
34. Jar with an expanded moulded rim. Class 1A16. Fabric: ALH RE. White slip on interior and exterior of rim. Kiln A, chamber [16] (28).
35. Storage jar with a grooved upper rim. Class 1C5. Fabric: ALH RE/SJ. Burnished on the rim exterior. Kiln A, N stoke-pit [5] (29).
36. Storage jar. Class 1A variant. Fabric: ALH RE/SJ. White slip on exterior above and below applied, decorated band. Kiln A, E pit [1] (2).
37. Storage jar. Class 1C6. Fabric: ALH RE/SJ. White slipped exterior. Kiln A, chamber [16] (28).
38. Storage jar. Class 4.36. Fabric: ALH RE/SJ. White slipped exterior with combed decoration. Kiln A, chamber [16] (28).
39. Storage jar. Class 4.44. Fabric: ALH RE/SJ. White slip on the tip of the rim. Kiln A, S stoke-pit [8] (27).
47. Strainer. Class 5C2. Fabric: ALH BW. Kiln A, chamber [16] (17).
48. Strainer. Class 5C3. Fabric: ALH RE. Kiln A, E pit [1] (2).
49. Straight-sided dish. Class 6A12. Fabric ALH RE. White-slipped interior with vertical burnished line decoration. Kiln A, N stoke-pit [8] (27).
50. Straight-sided dish. Class 6A12. Fabric: ALH RE. Kiln A, N stoke-pit [5] (10).
51. Straight-sided dish. Class 6A12 variant. Fabric: ALH BW. Kiln A, N stoke-pit [5] (10).
52. Curved wall dish. Class 6A8–10. Fabric: ALH RE. Internal burnished line scroll decoration. Kiln A, N stoke-pit [5] (10).
53. Curved wall dish. Class 6A8–10 variant. Fabric: ALH BW. Internal burnished line scroll decoration. Burnished exterior below the groove. Kiln A, N stoke-pit [5] (29).
54. Curved wall dish. Class 6A10. Fabric: ALH BW. Internal burnished line scroll decoration. Burnished exterior. Kiln A, chamber [16] (17).
55. Curved wall dish. Class 6A8–10. Fabric: ALH RE. Internal burnished line scroll decoration and radiating lines on the interior of the base. Kiln A, N stoke-pit [5] (29).
56. Small curved wall dish. Class 6A8–10 variant. Fabric: ALH BW. Burnished decoration on interior of base. Kiln A, N stoke-pit [5] (30).
57. Curved wall dish with a double external groove. Class 6A8–10. Fabric: ALH RE. White slip on the interior and upper exterior surface. Kiln A, W pit [11] (12).
58. Curved wall dish. Class 6A8–10. Fabric: ALH RE. Internal burnished line scroll decoration. Kiln A, N stoke-pit [5] (30).
59. Beaded rim dish. Class 6C2. Fabric: ALH RE. Kiln A, E pit [1] (2).

Figure 14: nos 40–59 Kiln A

40. Flanged rim conical bowl. Class 5B. Fabric: ALH RE. Thin white slip on rim and interior. Burnished line decoration on the interior. Kiln A, chamber [16] (17).
41. Flanged rim conical bowl. Class 5B. Fabric: ALH BW. Thin interior white slip with an internal burnished line lattice. Kiln A, S stoke-pit [8] (27).
42. Flanged rim conical bowl. Class 5B. Fabric: ALH BW. Burnished exterior. Kiln A, S stoke-pit [8] (9).
43. Conical bowl with a stubby flange. Class 5B. Fabric: ALH RE. White slip on the interior and outer rim. Kiln A, chamber [16] (28).
44. Flanged rim conical bowl. Class 5B. Fabric: ALH BW. Slightly sooted under the flange. Kiln A, N stoke-pit [5] (30).
45. Flanged rim conical bowl. Class 5B. Fabric: ALH RE. White-slipped interior with burnished line decoration. Kiln A, N stoke-pit [5] (10).
46. Conical bowl with a stubby flange. Bowl as Class 5; rim as dish Class 6C. Fabric: ALH RE.

Figure 15: nos 60–76 Kiln A

60. Base from a dish, probably a Class 6A. Fabric: ALH RE. White slipped surface with burnished line decoration. Kiln A, N stoke-pit [5] (29).
61. Dish. Class 6C2. Fabric: ALH BW. Internally burnished. Kiln A, pit [1] (2).
62. Curved wall dish with a slightly expanded, flat-topped rim. Unclassified. Fabric: ALH BW under-fired with a brown core. White-slipped exterior. Kiln A, N stoke-pit [5] (30).
63. Flask. Class 1B. Fabric: ALH BW. Kiln A, S stoke-pit [8] (9).

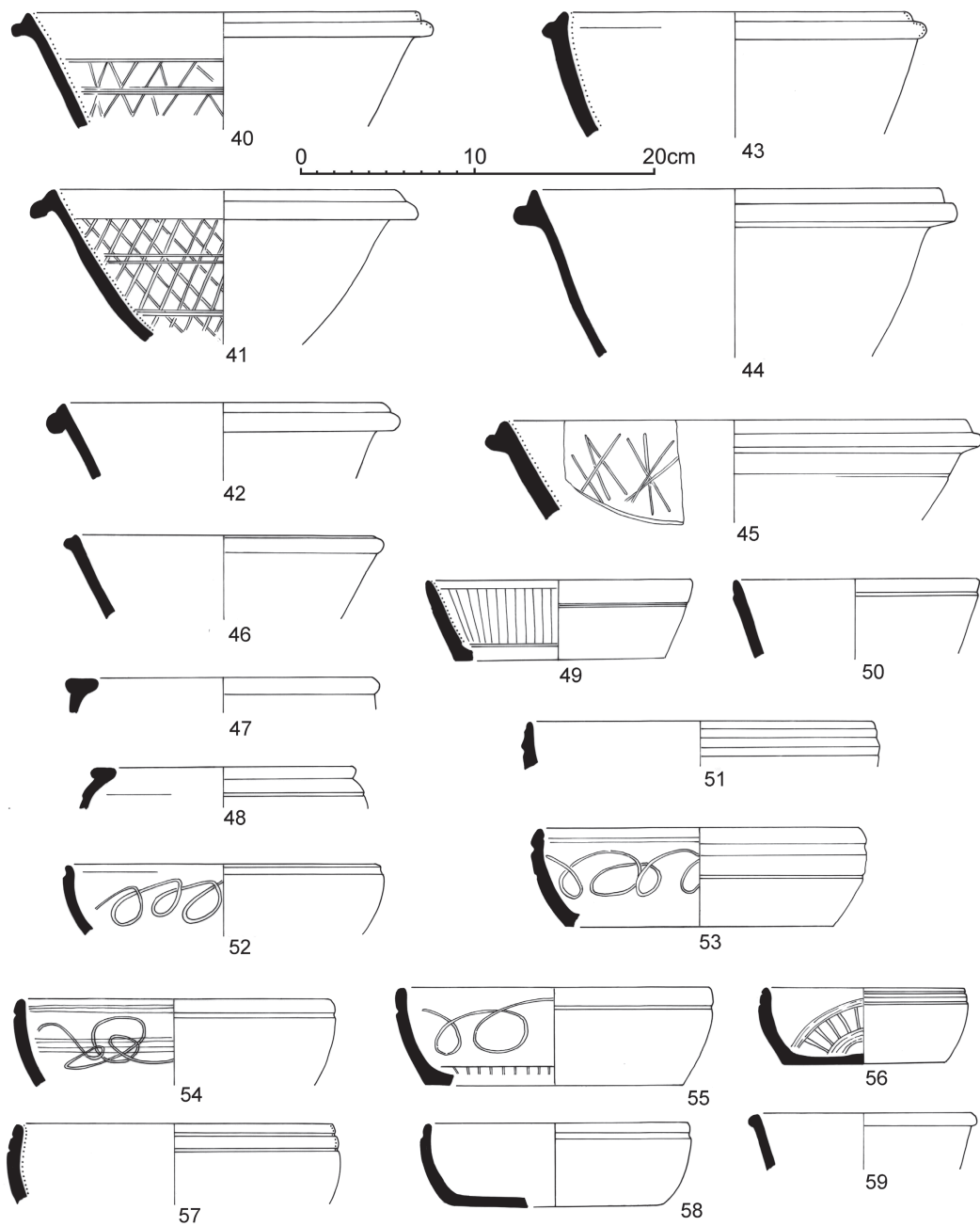


Fig 14 Pottery Nos 40–59 Kiln A.

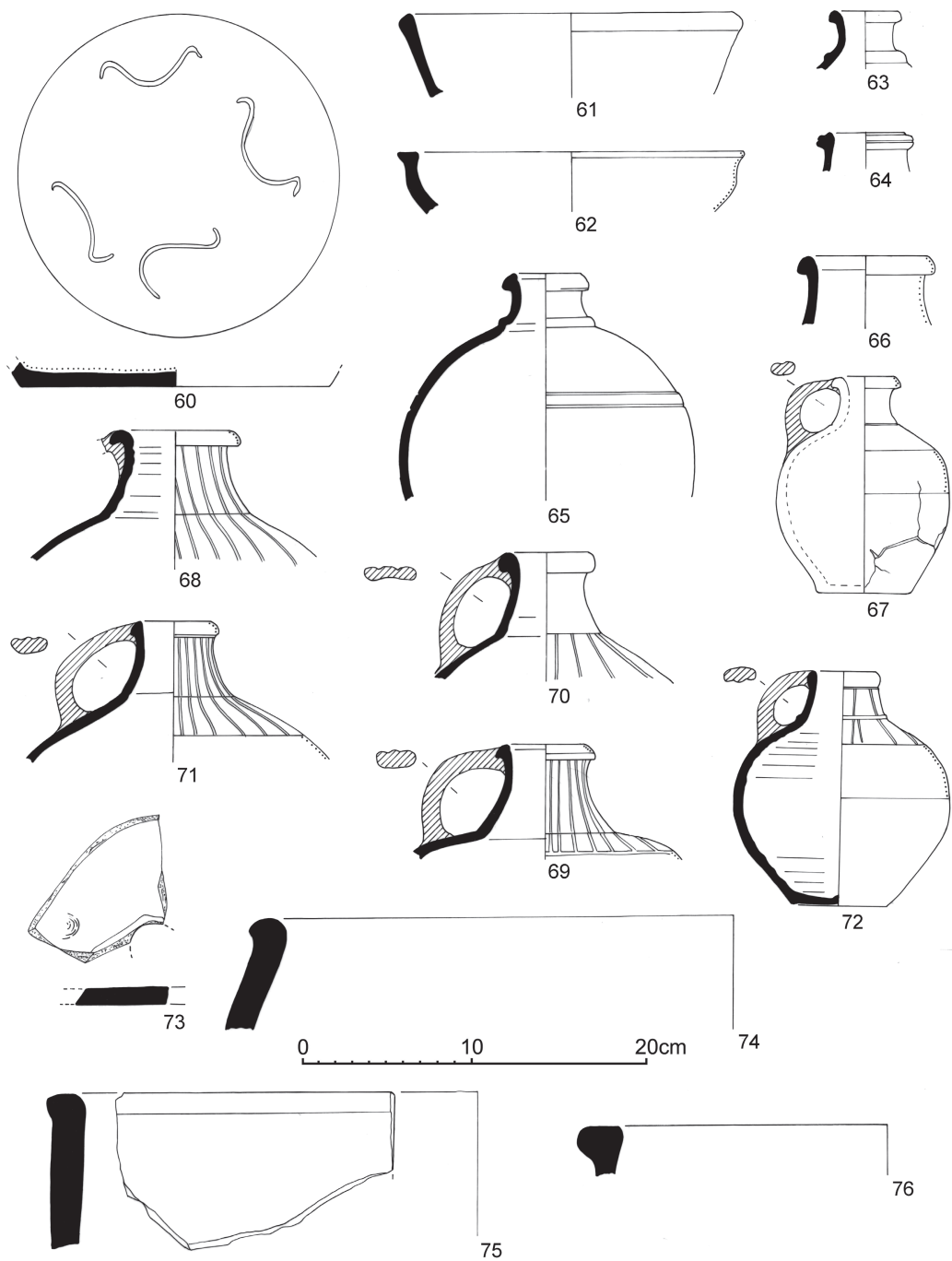


Fig 15 Pottery Nos 60–76 Kiln A.

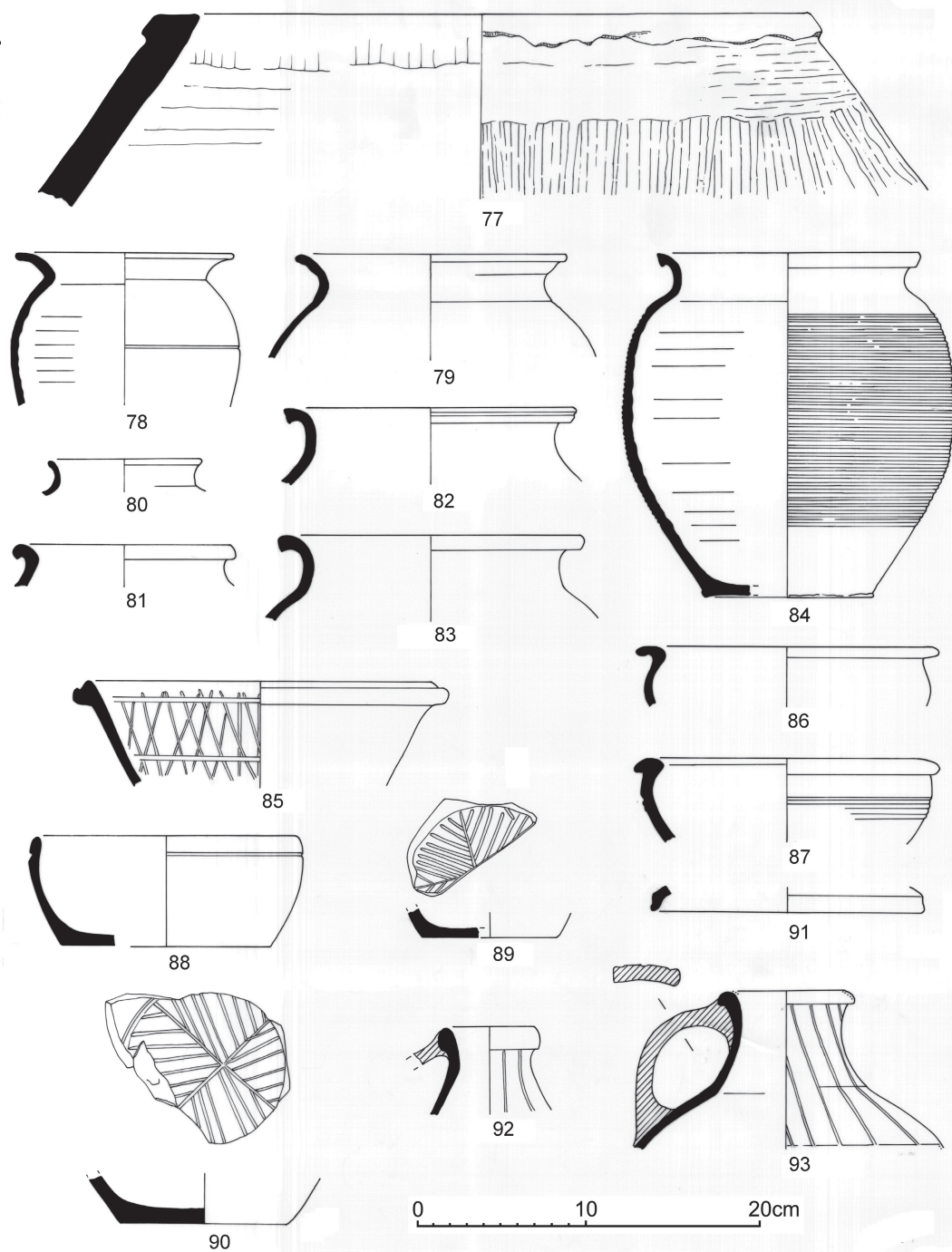


Fig 16 Pottery Nos 77 Kiln A; nos 78–93 Kiln C.

64. Flask. Class 1B. Fabric: ALH RE. Kiln A, N stoke-pit [5] (29).
65. Flask. Class 1B. Fabric: ALH BW. Burnished on the upper half. Kiln A, S stoke-pit [8] (9).
66. Flagon. Class 8.10. Fabric: ALH RE. White slipped exterior and interior rim. Kiln A, S stoke-pit [8] (9).
67. Complete but cracked flagon. Class 8.10. Fabric: ALH RE. White slipped band on body and on rim. Kiln A, N stoke-pit [5] (30).
68. Large flagon. Class 8.10. Fabric: ALH RE (under-fired). Greyish slip on upper rim surface. Neck and upper body decorated with vertical burnished lines. Kiln A, N stoke-pit [5] (30).
69. Handled flagon. Class 8.10. Fabric: ALH RE. White slip on rim and body below vertical burnished line decoration. Kiln A, N stoke-pit [5] (29).
70. Handled flagon. Class 8.14. Fabric: ALH RE. Decorated with burnished radiating lines from based of neck. Kiln A, chamber [16] (28).
71. Handled flagon. Class 8.10. Fabric: ALH RE. White slipped band on body and on rim; burnished line decoration in rim. Kiln A, S stoke-pit [8] (9).
72. Complete handled flagon. Class 8.10. Fabric: ALH RE. Sooted on one side and under-fired. Decorated with a band of white slip on the body and slightly irregular burnished lines on the rim and shoulder. The handle appears to have been attached back-to-front with the ribbed face on the interior. Kiln A, N stoke-pit [5] (29).
73. Base fragment from a large handmade vessel with a large central hole made before firing. Fabric: ALH RE. Kiln A, E pit [1] (7).
74. Large handmade closed vessel with a rounded slightly expanded rim. Fabric: ALH RE. Kiln A, S stoke-pit [8] (9).
75. Large handmade vessel with a rounded slightly expanded rim. One edge has been cut vertically from the rim before firing. Fabric: ALH RE. Kiln A, S stoke-pit [8] (27).
76. Large handmade vessel with an expanded rim. Fabric: ALH RE. Unstratified from area of Kiln A.
very roughly finished. Fabric: ALH RE. Kiln A, N stoke-pit [5] (29).
78. Flared rim jar. Class 3B. Fabric: ALH RE. Kiln C, W stoke-pit [35] (36).
79. Flared rim jar. Class 3B. Fabric: ALH RE (under-fired). Traces of a grey slip on the neck and rim interior. Kiln C, E stoke-pit [37] (38).
80. Small everted rim jar. Class 3B. Slightly traces of an external black slip. Fabric: ALH RE. Kiln C, E stoke-pit [37] (38).
81. Jar with slightly hooked rim. Class 3C. Fabric: ALH RE. Kiln C, E stoke-pit [37] (38).
82. Pendant rimmed jar. Class 3C. Fabric: ALH RE. Kiln C, E stoke-pit [37] (38).
83. Jar with slightly hooked rim. Class 3C. Fabric: ALH RE. Kiln C, N pit [33] (34).
84. Triangular-rimmed jar with a finely ridged exterior. Class 3C. Fabric: OVW WH type, grey in colour. Kiln C, W stoke-pit [35] (36).
85. Flanged rim conical bowl. Class 5B. Fabric: ALH RE (under-fired). Burnished line decoration on the interior. Kiln C, E stoke-pit [37] (38).
86. Strainer. Class 5C1. Fabric: ALH RE. Kiln C, E stoke-pit [37] (38).
87. Strainer. Class 5C3. Fabric: ALH BW. Burnished rim. Kiln C, N pit [33] (34).
88. Curved wall dish, Class 6A. Fabric: ALH RE (under-fired). Probably originally decorated with a burnished line squiggle on the interior but surface abraded. Kiln C, E stoke-pit [37] (38).
89. Base from a small dish decorated with burnished line decoration. Fabric: ALH BW. Kiln C, E stoke-pit [37] (38).
90. Base from a small dish decorated with burnished line decoration. Fabric: ALH BW. Kiln C, E stoke-pit [37] (38).
91. Small rim, probably from a lid. Class 7. Fabric: ALH BW. Kiln C, N pit [33] (34).
92. Flagon. Class 8.10. Fabric: ALH RE. Decorated with vertical burnished lines on the neck. Kiln C, N pit [33] (34).
93. Large flagon with a wide strap handle. Class 8.10/14. Fabric: ALH RE. Decorated with slightly diagonal burnish lines on the neck and upper body. White slip on the rim and below the burnished lines. Kiln C, W stoke-pit [35] (36).

Figure 16: no. 77 Kiln A; nos 78–93 Kiln C

77. Large handmade vessel with an expanded rim, flat topped rim. The interior rim and exterior have been roughly knife-trimmed and the body below the rim vertically smoothed. The rim is

DISCUSSION

By far the most significant archaeological features found upon the site were the three

Romano-British pottery kilns and it is to them that the bulk of the discussion will relate. However the presence of two pits containing Late Bronze Age/Early Iron Age artefacts and the early Roman boundary ditch suggests that earlier occupation lies in the vicinity. Such earlier activity was probably located to the north and east of the site, since it is in that part of the excavated trenches that these features lay. Indeed it was in this area that in the 1970s the construction of a new approach road to Osborne Farm occasioned the discovery of Roman pottery and other artefacts (Schadla-Hall pers. comm.).

The three excavated kilns were all of the single chambered twin flue variety, as described by Swan (Swan 1984, 117), and typical of the Alice Holt industry. The best excavated examples are still those at Overwey, 9.5km to the north-east, where Clark found three almost identical kilns to those at Osborne Farm (Clark 1950). A further three, again very similar in style and placement, have more recently been excavated at Rookery Farm, 2.5km to the south-west of Osborne Farm (Wessex Archaeology 2008), but are yet to be published.

The form of these kilns is now fairly well established, with the lower parts of the kiln being permanent, composed as they were of stone and clay, while the upper parts were temporary, probably made up of wood, turfs, sand, potsherds and anything else that came to hand. There is little or no evidence for in-built kiln furniture or a fixed raised floor, instead it would seem that either moveable furniture was used or none at all. A few sherds of pottery from Osborne Farm may be from saggars, but it is quite possible that the pots were merely stacked on each other and set directly on the kiln floor. The differing levels of wear and repair observed on the excavated kilns suggest use over an extended period, although it is impossible to determine if this represents the work of months, years or decades. The latter would seem more likely if the span of the forms manufactured at Osborne Farm covers over 100 years. As discussed above there would appear to be little to choose between the kilns in terms of their dates of usage, with overall the period AD 270–330 being the most likely timeframe for pottery production.

The relationship between the three kilns on the site, and the similar groupings found at Overwey and Rookery Farm, is of note. Several points in common emerge from a study of these sites: the pairing of a large with a small kiln; the wide spacing between kilns; the placing of the kilns at 90° angles to each other and the presence of oval-shaped flanking pits.

The pairing of a large and small kiln was seen on all three sites, but on each it was for only one of the pair of larger kilns found. At Osborne Farm the smaller kiln was seen to be later than the larger, whereas at Rookery Farm it was earlier. However this only relates to the last firing of the kilns, and it would seem much more likely that both kilns were operating contemporaneously for at least some of their lifespan and utilising the same location.

The similar spacing of the kilns is also notable, with a distance of about 60 m recorded on all three sites between the larger kilns. This cannot be a requirement for the functioning of the kilns, since there are plenty of examples of kilns operating in far closer confines. It may instead be linked to plot boundaries and/or to the space needed for each kiln's fuel to be grown. Although the charcoal evidence at Osborne Farm would argue against this latter explanation, suggesting as it did the use of larger trees than managed coppicing (West Sussex Archaeology 2012, 43–4). Instead it may be that the plots were used for agricultural purposes, a possibility given some limited support by the presence of a single barley grain in a sample from the southern stoke-pit of Kiln A.

The 90° angle difference in orientation between the pairings of large kilns would seem to be a deliberate action. The obvious explanation for this would be a link with wind direction, either different kilns were used depending on the wind, or different pots were fired by different kilns in response to the effect of the prevailing wind on kiln temperature. This all suggests a common ownership of each group of kilns, otherwise a choice would not have been possible. At Osborne Farm and Overwey one of the two larger kilns had much thicker walls, suggesting that it had been repaired more frequently and used more often. This might suggest that one orientation was favoured over

another, but for reasons no longer clear. There was also some evidence for differing rates of repair on each opposing flue, which could suggest that on occasion only one was actually fired-up.

The oval-shaped flanking pits were also a common feature between the sites, and therefore their presence is not a peculiarity of an individual kiln, but a requirement for all. The most obvious explanation is that these were used as a source of sand for the covering of the kilns, but it is also possible that the sand from them was used to create wind-breaks to help control the wind's strength and direction. At Osborne Farm, where a total of nine possible kiln sites were identified by Lyne in the 1970s (Lyne & Jefferies 1979, 9–10), there appears to have been a substantial pottery industry in its own right. The spread of the kilns, which is fairly even, suggests a central trackway running east-west between a northern and southern line. The roughly equal spacing points to a standard plot size within which each kiln was situated. These plots would be far too large for just the kiln, but may encompass the undertaking of some other activity within them, such as agriculture, as mooted above. If the suggestion of a trackway is an accurate one, then presumably it is most likely that any buildings within each plot would have fronted onto it. This might explain the lack of any structures in the vicinity of the kilns themselves at Osborne Farm, and apparently Rookery Farm also. Although at

the former later truncation of deposits may have removed any traces of them.

The structured layout at Osborne Farm, if it is proved to be real by further investigation, points to some form of overall direction to the development of the kilns. Whether this was provided by a single owner or the close co-ordination of a group of potters, it is impossible to say. It is attractive to imagine a small industry, run by one enterprising individual, who rents out individual kiln plots, complete with access to fuel, to seasonally active potters. The package may also have included the availability of a clay source, the Gault deposits being c.500 m to the north of the site. This interpretation may be supported by the apparent difference in wood fuel use between the kilns, with one tenant using a different source from the other (West Sussex Archaeology 2012, 44).

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