

AN EARLY 19TH-CENTURY TILE KILN, WITH EARLY POST-MEDIEVAL OCCUPATION AND MEDIEVAL ACTIVITY AT THE FORMER QUEEN'S HEAD PUBLIC HOUSE, MARROWBROOK LANE, FARNBOROUGH

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ABSTRACT

An excavation, prior to re-development of the site, identified medieval activity along with early post-medieval features containing pottery production waste and the remnants of a kiln. The site lies in a part of Hampshire which, along with adjacent areas of Surrey, is noted for the production of 'Border Ware' pottery in post-medieval times. However, although pottery was undoubtedly produced at or near the site in both the 16th and 18th/19th centuries, the kiln structure, archaeomagnetically dated to the early 19th century, was almost certainly primarily for the production of brick or tile.

INTRODUCTION

Archaeological excavation was carried out between 20th July and 5th August 2009 by Thames Valley Archaeological Services Ltd at the former Queen's Head public house, Marrowbrook Lane, Farnborough, Hampshire (SU 86195554) (Fig. 1). The site is in the hamlet of Cove, recorded in Domesday Book but now absorbed into Farnborough, and at the time of the work was open scrubland following the demolition of the former public house. It is bounded by Marrowbrook Lane to the south, with housing to the east and west and a builders' merchant to the north. The underlying geology consists of Barton Sands (BGS 1976), which was observed across the excavation area and the site lies at a height of c.68m above Ordnance Datum.

Archaeological background

The archaeological potential of the site was highlighted in a desk-based assessment

(Hopkins 2009). In general, archaeological finds and deposits are rare in the area. However, the significant exception is the presence of late medieval and post-medieval pottery production at several sites in Cove, including a dump of pottery wasters indicating a late 17th-century kiln at Romaine Close (SU 863562) and more wasters again suggesting a 17th-century kiln at the Alma public house (SU 859555). Physical remains of a kiln (probably dating from the 19th or even 20th century) were excavated at Arrow Road (SU 857547). Nineteenth-century maps show several kilns all very close to the site, including two on adjacent plots of land. One of these, immediately north of the site, was excavated in 1981, when the floor of the kiln and large quantities of pottery were recorded (AHBR reference 28629), while a 1973 excavation at the other, immediately to the west, revealed a ditch containing kiln waste (AHBR ref. 28630). Not much further afield, there have been excavations of a medieval kiln at Ship Lane (SU 876563), a 17th-century kiln at Chingford Avenue (SU 876562) and a remarkable group of pottery that can only have come from a 17th-century production site at Sandy Lane (SU846569) (Haslam 1975), while 19th-century maps show brickworks and potteries (active or recently disused) all around. The proliferation of known kiln sites, and the almost certain identification of sites of others from their waste, may, however, have led to a tendency for every stray find of medieval or later pottery from Cove to be interpreted as another kiln site, which need not always be the case. Pottery production sites are an important area for archaeological study, not only for the nature of trade and economic patterns but also as an important tool for the dating of other

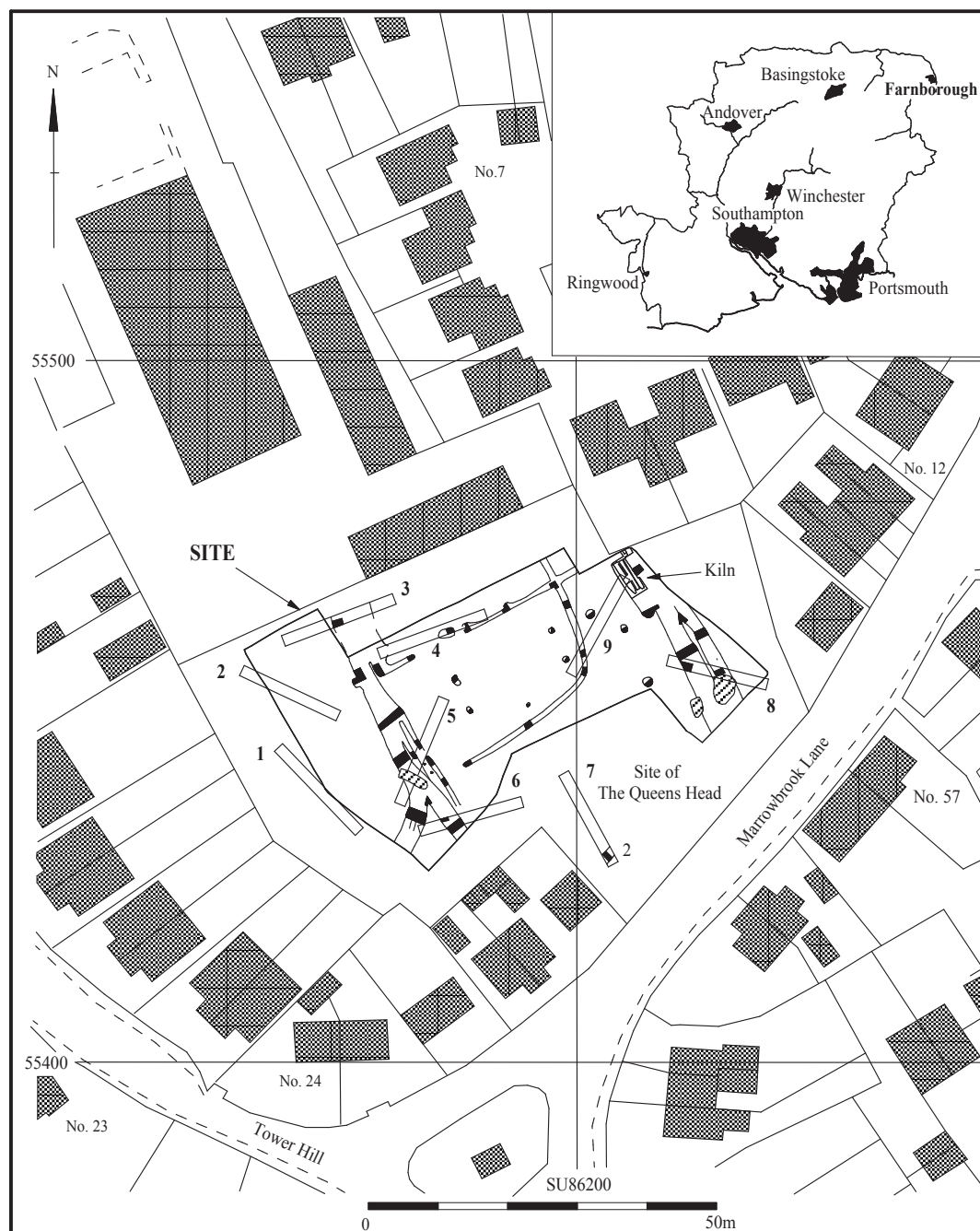


Fig. 1 Queen's Head, Farnborough: location of site, showing excavation area and evaluation trenches (numbered)

sites. The 'Border Ware' industry of north-east Hampshire/north-west Surrey was one of the most important early post-medieval pottery industries in the south of England, providing London with much of its pottery from the later 16th to early 18th centuries, as well as supplying other major towns such as Reading and Oxford (Pearce 1988).

Test pitting carried out on the site, following demolition of the public house, by the North East Hampshire Historical and Archaeological Society, recovered a moderate volume of late medieval/early post-medieval pottery. Ten test pits were dug around the northern and western boundaries of the site but went no deeper than the topsoil and did not reveal any cut features or structural evidence (D. Woollhead pers. comm.). Evaluation trenching (Taylor 2009) revealed a number of deposits including rubbish pits and boundary features which produced a moderately large volume of early post-medieval pottery including kiln waste.

Following these initial phases of work, a recording action was designed to answer a series of research questions about the site, in essence to understand the nature and date of its use(s).

THE EXCAVATION

The excavation took place in areas of the site that were to be affected by the development with only the gardens of the proposed housing and the areas truncated by the former public house and its cellars not investigated (Fig. 1). A kiln, eleven linear features, eleven pits and three postholes were identified and dated to between the late 14th and early 19th century (Fig. 2).

The kiln

Cut 1002 (Fig. 3) was the pit cut for the setting of a brick-built kiln and its flues, in the north-eastern corner of the site, cut into ditch 1001 (Fig. 3). The structure comprised two flues leading up to a back wall. These were a maximum of four courses high. The centre of the structure showed evidence of having been

truncated by root action, leaving only a stain of where the walls had sat and the scorching from within the flues. The pit itself (147 and 200) (Fig. 3) measured between 0.40m and 0.50m deep with near-vertical sides onto an uneven base. A central depression was evident in cut 147. At the mouth of each flue a large amount of scorching was evident on the clayey sand natural geology. The pit contained 25 pieces of late 18th-century pottery and 13 pieces of brick and tile. This pit was presumably set in front of the flues in order to allow access to the latter to stoke the kiln with fuel. The cuts for the flues (146 and 149) measured 0.90m wide and from the top of the surviving courses of brickwork were 0.31m deep (Figs 8 & 9). The interior surface of the brickwork of the flues showed evidence of scorching, which in some cases had led to vitrification. Scorching was also evident on the surface of the back wall of the structure (204, 284) from heat rising up the inside of the kiln. Between the two flues a fill (282) of orange silty clayey sand directly overlay natural geology. This contained four pieces of brick showing evidence of scorching, most likely collapsed from upper courses of brickwork. On the base of each flue was a layer of dark grey/black baked sand (280 and 281), presumably the original natural level scorched from the firing of the kiln. Samples from this context (280) and from the bricks of this flue were taken for archaeomagnetic dating, which produced a date of the last firing of the kiln of between AD1820–50 (see below). Brick samples from the flue walls were also taken with some other pieces of tile that were used to fill in holes within the structure of the wall itself (Milbank, below).

Ditches and gullies (Fig. 2)

Potentially the earliest of the boundary features on the site, ditch 1009 (Figs 5 & 6) curved on the same alignment as later taken by 1008, which cut it. It was also cut by ditch 1010 but its relationship with ditches 135 and 136 was uncertain. It measured 0.97m wide and between 0.14m and 0.27m deep. No dating evidence was recovered from 1009 but it may be medieval (and this would account for the medieval pottery in 1009). Pit 101 contained

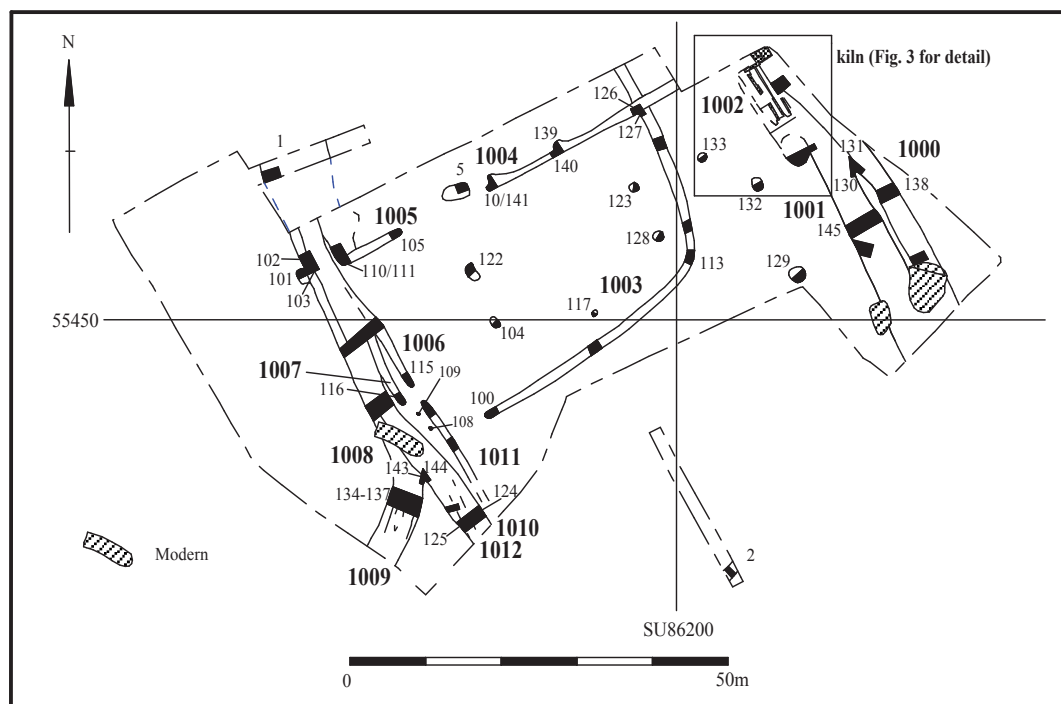


Fig. 2 Overall plan of excavation area showing all features

only 14th-century pottery and could be contemporary with this ditch.

There then followed a sequence of boundary cutting and recutting in the late 16th or early 17th century. Gully 1006 (Fig. 5) was aligned NNW-SSE and terminated at its southern end. This feature continues, after a gap of 2.3m, as 1011. It was between 0.65m and 0.84m wide and 0.16m deep, and contained three pieces of medieval pottery, two pieces of mid 16th-to 17th-century pottery and one piece of tile. Its continuation, gully 1011 (Fig. 6) continued outside the excavation area. It was between 0.60m and 0.81m wide and up to 0.15m deep, and contained three pieces of mid 16th-century pottery. Post hole 109 contained a single sherd of 16th-century pottery.

Also likely to be early in the sequence, perhaps a replacement for 1006, ditch 1007 was aligned NNW-SSE and terminated at its southern end. It was cut by ditch 1008 (Fig. 5). Three slots were dug across it measuring no

more than 0.69m wide and between 0.17m and 0.92m deep. Ditch 1007 contained 37 pieces of pottery, of which 32 were medieval but the latest (much larger) sherds were of mid 16th-century pottery. It would seem likely that this ditch was cut into medieval features which have not survived, perhaps equivalent to ditch 1009.

Ditch 1008 (Fig. 5) was aligned SSW-NNE and curving NNW-SSE. It cut ditches 1007 and 1009. Five slots across it showed it was between 0.72–0.86m wide and 0.39–0.48m deep. Ditch 1008 contained 17 pieces of late 16th-century pottery, and seven sherds of residual medieval pottery.

Ditch 1010 (Fig. 6) was aligned NNW-SSE and continued southwards outside the excavation area. It cut ditch 1009 and was in turn cut by ditch 1012. Three slots were excavated, measuring 0.82m wide and between 0.22m and 0.36m deep, and contained 17 pieces of mid 16th-century pottery.

In addition, a ditch (2) was located in the eval-

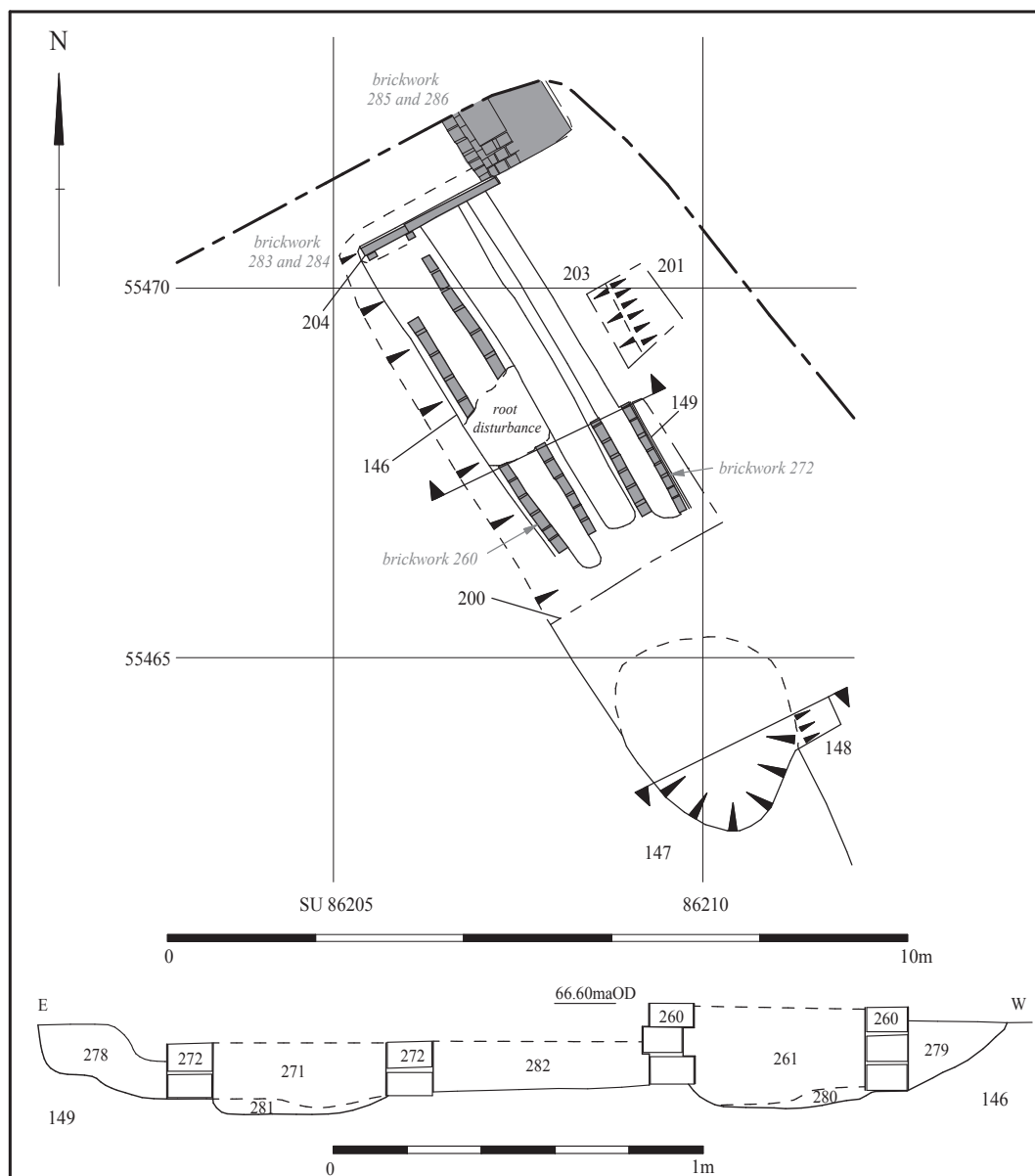


Fig. 3 Plan and section of Kiln 1002

uation, in an area not subsequently examined. It was aligned NE–SW, parallel to Marrowbrook Lane. It was 1.60m wide and 0.42m deep. Its grey/brown sandy silt fill contained nine pieces of late 16th century (or later) pottery.

Ditch 1012 (Fig. 6) was aligned NNW-SSE,

continued outside the excavation area southwards and cut ditch 1010. Two slots were dug across it measuring between 1.83m and 2.39m wide and between 0.34m and 0.64m deep. Eight pieces of mid 14th-century pottery must be considered as residual material due to its

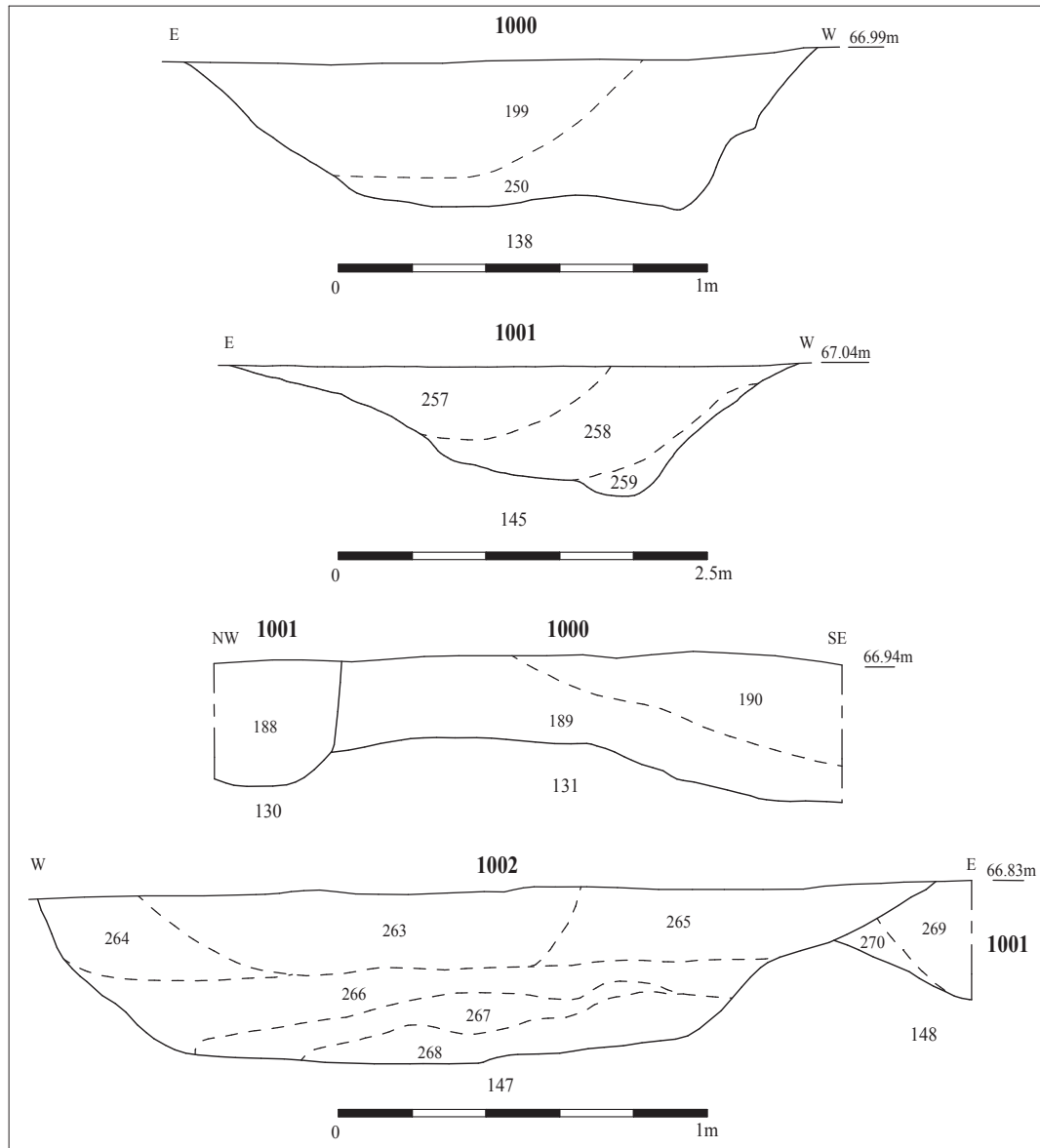


Fig. 4 Sections (1)

stratigraphic relationship with ditch 1010. It is unlikely that such a substantial ditch could have been open in the 18th-century phase, when finds were plentiful on the site, and not receive any 18th-century finds, so it more plausibly belongs to the 16th-century phase.

After this 16th- to 17th-century phase, further definition of these boundaries (and others) took place in the late 18th century. Ditch 1003 terminated at its south-western end and curved in a north-westerly direction outside the excavation area. It was cut by

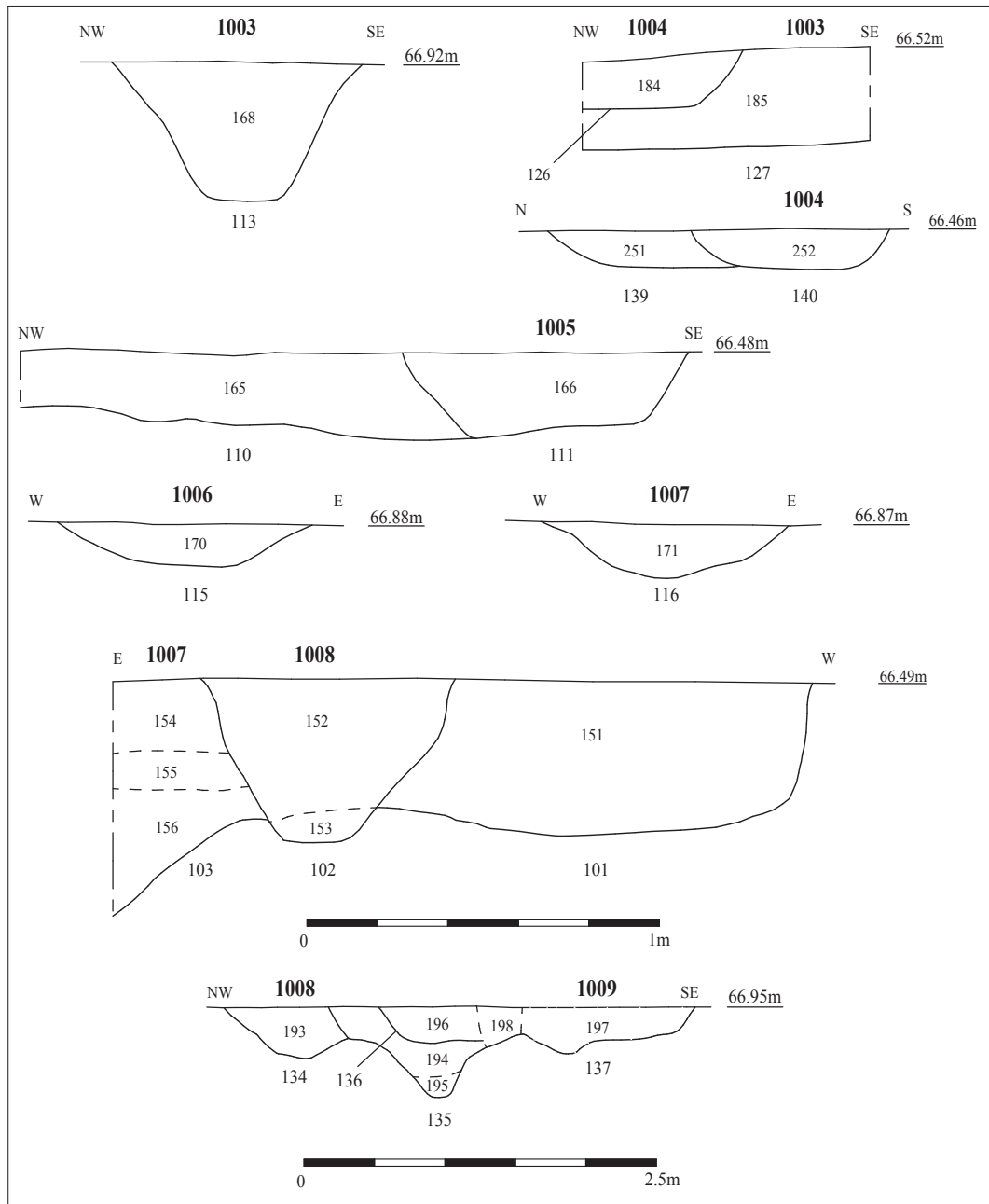


Fig. 5 Sections (2)

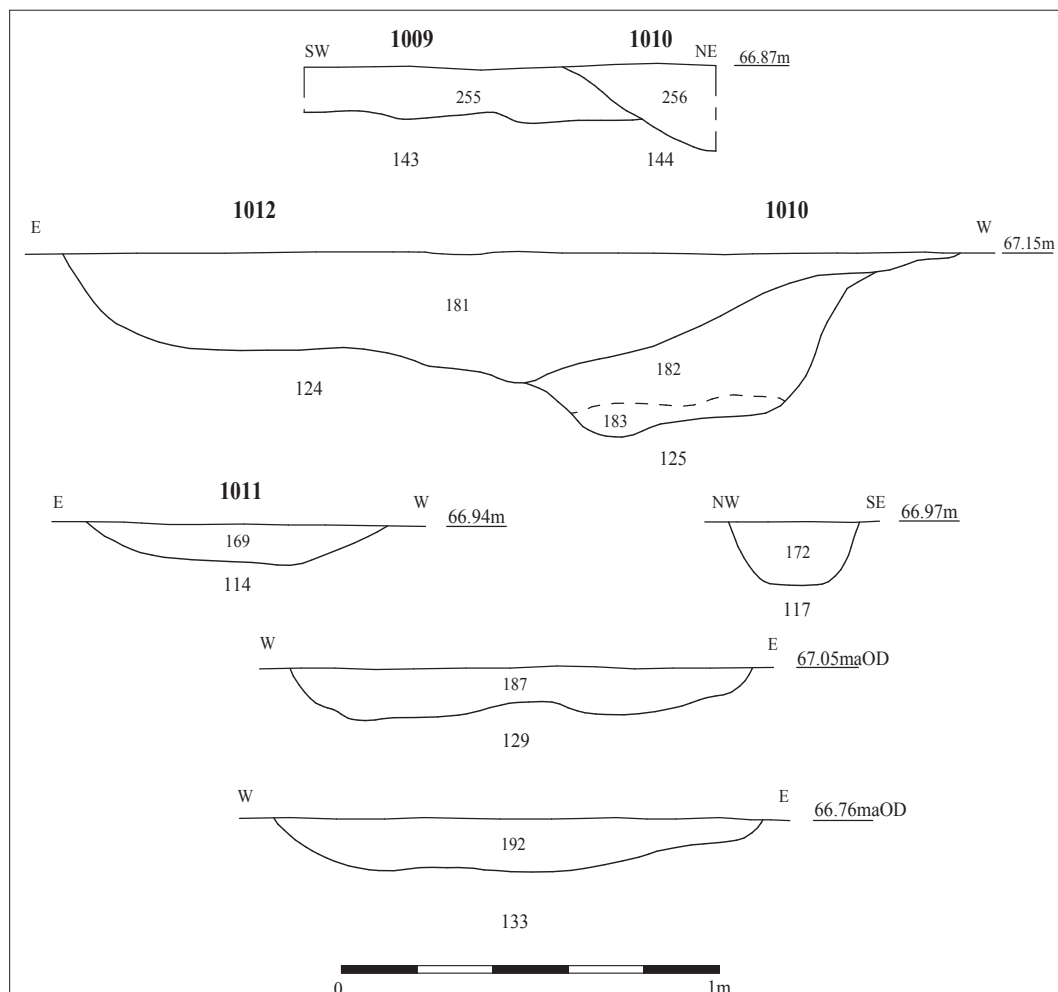


Fig. 6 Sections (3)

ditch 1004 (Fig. 5). Six slots dug across it showed it was between 0.67m and 0.88m wide and 0.13–0.39m deep. Its fills contained a dozen sherds of middle or late 16th-century pottery; but two slots each contained one piece of late 18th-century pottery, which are considered to date the filling of this ditch, although it is conceivable it was dug in the late 16th century.

Ditch 1000 was aligned NNW-SSE and was cut by ditch 1001 (Fig. 4). Three slots showed it to be 1.70m wide and 0.40–0.45m deep. Its fills contained ten pieces of 16th- to 17th-century

pottery, fourteen pieces of late 18th-century pottery and two pieces of tile.

Ditch 1001 was aligned NNW-SSE and cut ditch 1000 (Fig. 4) and was cut by the pit containing the kiln structure, 1002. Five slots showed it was 3.30m wide and between 0.70–0.96m deep. Seven pieces of mid-to-late 16th-century pottery must be considered residual, given the stratigraphic relationship with ditch 1000, and the ditch can have been both dug and filled no earlier than the late 18th century.

Ditch 1004 was aligned WSW–ENE, termi-



Fig. 7 Flues 260 and 272 looking north, horizontal scales 2m, 0.5m, 0.3m, vertical 0.1m



Fig. 8 General view of kiln remains, looking north-east

Table 1 Dimensions of dated pits

<i>Cut</i>	<i>Length or diameter (m)</i>	<i>Breadth (m)</i>	<i>Depth (m)</i>	<i>Date (century AD)</i>	<i> Finds (giving no. of sherds for pottery)</i>
101	0.70	1.24	0.45	mid 14th	Pottery (5)
129	1.26	0.62	0.13	mid 16th?	Pottery (1)
133	1.33	–	0.15	mid 16th	Pottery (7)
5	0.92	0.94	0.56	16th to 17th	Pottery (24)
110	0.93	1.28	0.26	18th	Pottery (94), brick/tile, clay pipe, glass
117	0.32	–	0.17	late 18th	Pottery (4), clay pipe
139	0.47	–	0.07	late 18th	Pottery (3)

nated at its western end and continued outside the excavation area. It cut ditch 1003 and pit 139 (Fig. 5). Three slots were dug across it measuring between 0.50–0.80m wide and just 0.12–0.18m deep. Slot 10, from the evaluation, initially thought to be a pit, is now known to be part of the terminal end of this feature. Its fills contained 69 pieces of late 18th-century pottery and 36 pieces of green wine-bottle glass, to which can be added the one sherd of 16th- to 17th-century pottery and five residual medieval sherds.

Cut 1005 was small stretch of gully that seems to be a continuation of 1004. This terminated at both ends and cut pit 110 (Fig. 5). Two slots showed it measuring 0.47m and 0.83m wide and respectively 0.07m and 0.25m deep. Slot 111 contained one large sherd of mid 16th-century pottery and four pieces of tile, but this gully cannot be earlier than 18th-century pit 110, and if it is a continuation of 1004, it will be late 18th century at earliest.

Pits and postholes

Table 1 gives dimensions for the datable pits and post holes; the remaining features on the site (pits 104, 122, 123, 128, 132, 133) cannot be dated and are not discussed. Pit 110 contained 26 post-medieval and 68 medieval sherds but is considered reliably dated by the later material which also included a clay tobacco pipe stem, wine bottle glass and brick/tile.

FINDS

Pottery by Paul Blinkhorn

The pottery assemblage from the excavation comprised 329 sherds with a total weight of 10376g to add to the 90 sherds (1857g) from the evaluation (Table 2). The estimated vessel equivalent (EVE), by summation of surviving rimsherd circumference was 5.80. It comprised a range of medieval and post-medieval wares which suggest that there were three phases of activity at the site between the late 13th and early 19th centuries. The condition of some of the pottery, along with the presence of kiln furniture, indicates that there were two phases of Border Ware production in the immediate vicinity of the excavation, one probably in the late 16th to early 18th century, and the other in the early 19th century. In the case of the latest phase, it seems that both pottery- and tile-making were taking place, in a brick-built kiln of which only the underground flues remained.

The terminology used is that defined by the Medieval Pottery Research Group's *Guide to the Classification of Medieval Ceramic Forms* (MPRG 1998) and the analysis has been to the standards laid out in the *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics* (MPRG 2001). Statistical analyses were carried out to the minimum standards suggested by Orton (1998–9, 135–7).

Table 2 Catalogue of Pottery (number of sherds and weight in g)

Group	Cut	Deposit	CBW		TUDG		BORD		BORDY		BORDG		RBORB		RBOR	
			No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt
		Spoil					2	20								
1008	1	52					5	113							12	529
	2	53					2	41					2	13	5	152
1010	4	55	14	218	1	11	3	59								
	5	57					1	53							23	415
1003	6	58					7	70							1	11
1001	7	59					1	9								
1001	7	60					1	1							2	60
1000	8	61			1	4	1	10					1	13	4	32
	10	68													1	23
		261					2	73	17	40	5	55			2	86
		282							1	12	2	15			4	1312
		286														
1003	100	150							1	1						
	101	151	5	47												
1008	102	152	3	40												
1008	106	159	4	16												
1012	107	161	8	39												
	109	164									1	17				
	110	165	68	1620							4	48			22	494
1005	111	116					1	41								
1003	112	167	1	13											1	20
1003	113	168					1	6								
1006	115	170													2	84
1007	116	171	1	5			1	1								
	117	172									3	7			1	8
1006	118	173	3	11												
1007	119	174	31	581			1	51	3	59						
1003	121	177							1	27						
1004	126	184													52	1430
1003	127	185									1	8				
	129	187							1	12						
1000	131	189													2	27
	133	192	1	4					4	24	2	21				
	135	194	1	134												
1000	138	199													3	174
1000	138	199									3	115				
	139	251					1	6	1	4					1	110
1004	140	252							1	5	3	19			4	126
1004	141	253	1	24					4	9					9	166
1011	142	254							3	12						
1001	145	257							1	274	2	16				
1002	147	263							1	12	1	31			4	49
1002	147	266													1	244
1002	147	268													3	91
1002	200	273													15	2383
1002	244	280	1	2			1	1							2	14
		Total	142	2754	2	15	31	555	39	491	27	352	3	26	176	8040

Fabrics

The fabric codes are those of the Museum of London post-Roman type-series (e.g. Vince 1985), as follows:

CBW: Coarse Border Ware, 1270–1500 (Pearce & Vince 1988, 52). 142 sherds, 2754g, EVE = 1.53.

TUDG: 'Tudor green' Ware, 1380–1550 (Pearce & Vince 1988, 79). 2 sherds, 15g.

BORD: Border Ware, 1550–1700 (Pearce 1992, 4). 31 sherds, 555g.

BORDG: Green-glazed Border Ware, 1550–1700. 27 sherds, 352g, EVE = 0.26

BORDY: Yellow-glazed Border Ware, 1550–1700. 39 sherds, 491g, EVE = 0.90.

RBOR: Red Border Ware, 1580–1800 (Pearce 1992). 176 sherds, 8040g. EVE = 3.21.

RBORB: Brown-glazed Red Border Ware, 1580–1800 (Pearce 1992). 3 sherds, 26g.

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 2. The range of fabric types is typical of sites in the area.

Archaeological evidence for pottery production in the Farnborough area

The assemblage provides fairly compelling evidence for pottery production in the immediate vicinity of this site, particularly in the early 19th century, but also at some point between the late 16th to early 18th century. There is manufacturing waste typical of both the Red and White Border Ware industries, and kiln furniture from the former, with the later phase of production appearing to comprise entirely Red Border Ware.

The Border Ware industry is one of the most important early post-medieval pottery industries in the south of England, and was providing London with most of its pottery in the later 16th–early 18th centuries (Pearce 1988). It is also known from other major towns in the Thames Valley, such as Reading and Oxford, and many in Surrey. Production of Red Border Ware appears far less well-understood than that of the White Ware, especially with regard to the archaeological examination of the manufactories of the 18th and 19th centuries. A full review of all the Border Ware production sites is beyond the scope of this report, but some of the more relevant sites are given consideration

in order to enhance the understanding of this site.

A 19th-century pottery kiln was excavated at Chingford Avenue in Farnborough in 1976 (AHBR 13772), c.2km to the north-east of this site, but this does not appear to have been published. A number of kilns producing White and Red Border Wares are known from the surrounding area, such as Ash, some 5km to the south (Pearce 1988, fig. 1), and Cove, 2km to the west (Haslam 1975). At Cove, no kiln structure was noted, but a large assemblage of 17th-century Border Ware pottery, particularly decorated mugs, was noted, with around six times the amount of White Ware present when compared to the Red Ware (Haslam 1975, 167). Red and White Wares appear to have been fired in the same batch (Haslam 1975, 170). The Cove site also produced Brown-glazed wares, on both Red and White fabrics, which are virtually absent (just three sherds) from the present site. Mugs made up around a quarter of the manufacturing waste, although they are of a quite different type from the near-complete White Ware vessel from this site (Fig. 9: 1).

The manufactory at Ash also showed evidence of both Red and White Border Ware production, with the former representing around 13.5% of the pottery from the site, the latter 55% (Holling 1969, 21). Nearly one-third of the Red Ware production comprised large storage jars and straight-sided bowls with rolled rims (similar to much of the Red Border Ware from the current site), which the excavator considered to be almost certainly later than the 17th century, and were not represented as wasters (Holling 1969, 23). In addition, one complete and one fragmented ring prop were noted (Holling 1969, fig. 7: K1 and K2), of apparently identical form to those noted here (below). Others have been noted at Cove (Holling 1969, 21), although they appear to have been used in the area from the 15th century onwards (Brears 1971, 133). At the Ash site, there were also fragments of roof tile with thick brown glaze which were thought to have been used as kiln spacers, as several similar fragments were noted at the current site. Holling (1969) also quoted a source which indicated that there were large numbers of potters working in the

area in the early 19th century, the probable date of the Red Ware production at this site, with at least thirteen kilns in Cove alone.

The pottery

The range of ware types present shows that there were three separate phases of activity at the site, one in the medieval period, the others post-medieval.

Medieval

The medieval assemblage consisted entirely of Coarse Border Ware, a typical product of the Surrey Whiteware industry of the period. None of this material showed any evidence of being kiln waste, but there appears to have been a 14th-century Surrey Whiteware manufactory at nearby Cove (Holling 1969, 22). The pottery from this site appears entirely domestic, cooking pottery typical of the mid-14th century onwards, such as skillets, cooking pots and perhaps dripping dishes and cisterns or storage jars (many similar examples in Pearce & Vince 1988), with a large proportion of the material thickly sooted on the outer surface, showing it had been placed on a fire at some point, probably for cookery. The rim assemblage comprised jars (EVE = 0.83; 54.2% of the CBW assemblage), jugs (EVE = 0.29; 19.0%) and skillets (EVE = 0.41; 26.8%). A partially complete and very large base from a probable storage jar or cistern was also present, along with two skillet or dripping dish handles, one hollow and cylindrical, the other flat.

The chronology is supported, and refined, by the rim-forms. The majority of the jars and bowls had flat-topped rims, which is typical of the mid-late 14th-century phase of the industry (Pearce & Vince 1988, 85). Just a single bifid rim was noted, a form common from the early 15th century onwards and this, coupled with the lack of 'Tudor Green' forms (just two sherds from the evaluation), which have broadly the same chronology as the bifid rims, indicates that the medieval activity at the site was probably very short lived, and dates to the second half of the 14th century.

Post-Medieval

The post-medieval assemblage comprised entirely Border Ware, in both the yellow and

green-glazed whiteware variants, and orange-glazed red ware. All the different types included at least some sherds which showed evidence of being kiln waste, and some items of kiln furniture were present.

A variety of vessel forms was noted. The yellow-glazed whiteware assemblage included a largely complete, straight-sided mug (Fig. 9: 1). The vessel has a scar on the opposite side of the pot to the existing handle terminal and in the same position, which suggests very strongly that it was a two-handled vessel of the type colloquially known as a 'loving-cup'. Mugs were a major product of the 17th-century Border Ware kiln at nearby Cove (Haslam 1975, fig. 7), and some of Haslam's Type 3 mugs from that site had two or three handles (Haslam 1975, 176). The vessel from this site has just a passing similarity in form to Haslam's type 3 mugs, and lacks the decoration noted on most of the vessels of that type from Cove, most of which were brown-glazed. The vessel here has no direct parallels in Pearce's (1988) summary of the industry.

There were only five other whiteware rim sherds. Three were from closed forms such as jars or chamber-pots; one was from a plate or dish, and the other from a skillet or pipkin with a hollow handle. A small fragment from a colander was present (from the evaluation), along with two base-sherds from footed vessels such as cauldrons or pipkins, and four hollow handles, again from pipkins or similar. These are all common Border Ware types, and thus the whiteware production could conceivably date to any time within the lifespan of the industry.

By far the most common pottery type was Red Border Ware, with a large proportion of the assemblage having evidence of being wasters. Some large and presumably primary sherds of this material occurred in the backfill of the flues, indicating that it is contemporary, and thus dates to the late 18th or early 19th century. In a number of cases, when whiteware sherds occurred in the same contexts as the redwares, they were very abraded, indicating that they were far older.

The Red Border Ware assemblage was dominated by large bowls (Fig. 9: 3–6 and 8), which comprised 69.2% of the ware rim assem-

blage (EVE = 2.22). Such vessels were amongst the products of the 19th-century Farnham kilns, and were known by the potters as 'Milk Pans' (Brears 1971, 69). A number of the bowls here survived to a full profile. The rest of the rim assemblage is made up of jar forms. One of the jars has a scar from where a horizontal handle had detached, and a detached handle of that type from a different vessel was also present. Smaller, more rounded jar types also occurred here. The large jars are very similar to those from the 19th-century Farnham kilns which were known as 'Bread Pots', and others, similar to the smaller examples from here, were called 'Paint Pots' (Brears 1971). There is a complete lack of the strap handles usually seen on paint-pots, but one vessel does have a scar low on the body which is typical of the positioning for chamber-pot handles, and the vessel appears of the correct form. A fragment of another, similar vessel also occurred, but lacked any evidence of a handle. A fragment from the centre of a lid also occurred, possibly of the type made at Farnham to cover the bread-pots (Brears 1971).

Kiln furniture, in the form of two spacer rings, was also present here (one from the evaluation). As noted above, Border Ware ring-props are known from the kilns at Ash and Cove, and a number of White Border Ware vessels from London have scars in the glaze showing that ring-props were used in stacking (e.g., Pearce 1988, fig. 55). They appear to have been first used by the 15th-century 'Tudor Green' potters of Surrey, and are still in use today (Brears 1971, 132–3).

The range of rim forms is very limited, with most of the 'Bread Pots' having simple upright forms with rounded beads (Fig. 9: 7). The probable 'Paint Pot' had a single simple everted form (Fig. 9: 9). The bowls basically have two forms, the main type being everted and rounded with a sharply squared lid-seat (EVE = 1.45; 65.3% of the Red Border Ware bowl assemblage), the other, similar to the jars, with a rounded triangular bead (EVE = 0.72; 32.4%). Large waster sherds with both categories of rim form occurred in the backfill of the brick flue (282), and a bowl with the 'stepped' lid-seated form occurred in the same context as one of the ring-spacers (165), although

earlier, residual medieval and post-medieval whitewares were also present. The ring-spacer in question had splashes of yellow glaze, and may be from the earlier phase of post-medieval pottery production. The only other vessel type noted was from a small 'dog dish' with a simple upright rim (Fig. 9: 2).

It would appear therefore that the products of this kiln are typical of the regional industry of the period. It is of note that many of the Farnham potteries of the period, located c. 10km to the south of this site, were small, family-run affairs, producing a limited range of vessels, with some potters also farming (Brears 1971, 57). This pottery seems likely to have been of a similar scale, with a similar output.

The kiln structure

The two parallel brick-built flues produced a number of large sherds of Red Border Ware pottery waste from their fills, and were heavily vitrified on the inner surface. They appear to be the only surviving evidence of a kiln, with the rest of the structure having been removed, probably due to the ground surface being removed at some point. Their structure appears fairly typical of the 19th-century pottery industry of the area, and there was likely to have been a bottle kiln above them during their working life. Generally, earlier pottery kilns are round or oval, with radial or opposed flues. The Donyatt potteries in Somerset included a single brick-built flue of similar construction to the example from this site, but produced a archaeomagnetic date of c. 1750 for the last firing (Coleman-Smith and Pearson 1988, 61). The kiln was badly damaged, but appears to have been oval, with two opposed flues. A rectangular, brick-built 17th-century kiln producing largely Red Earthenware at Loughton in Essex (Hurst 1970, 182), is an exception rather than the rule at that time.

Parallel flues were much more typical of brick and tile kilns before the late 18th–19th centuries. They most likely ran underneath the firing chamber, which, in this case, has been removed. Brick- and clay-pipe kilns of such design, the former known as 'Scotch' kilns, became common in the 18th century, and some were still in operation in the second half of the 20th century (Crossley 1990, 283;

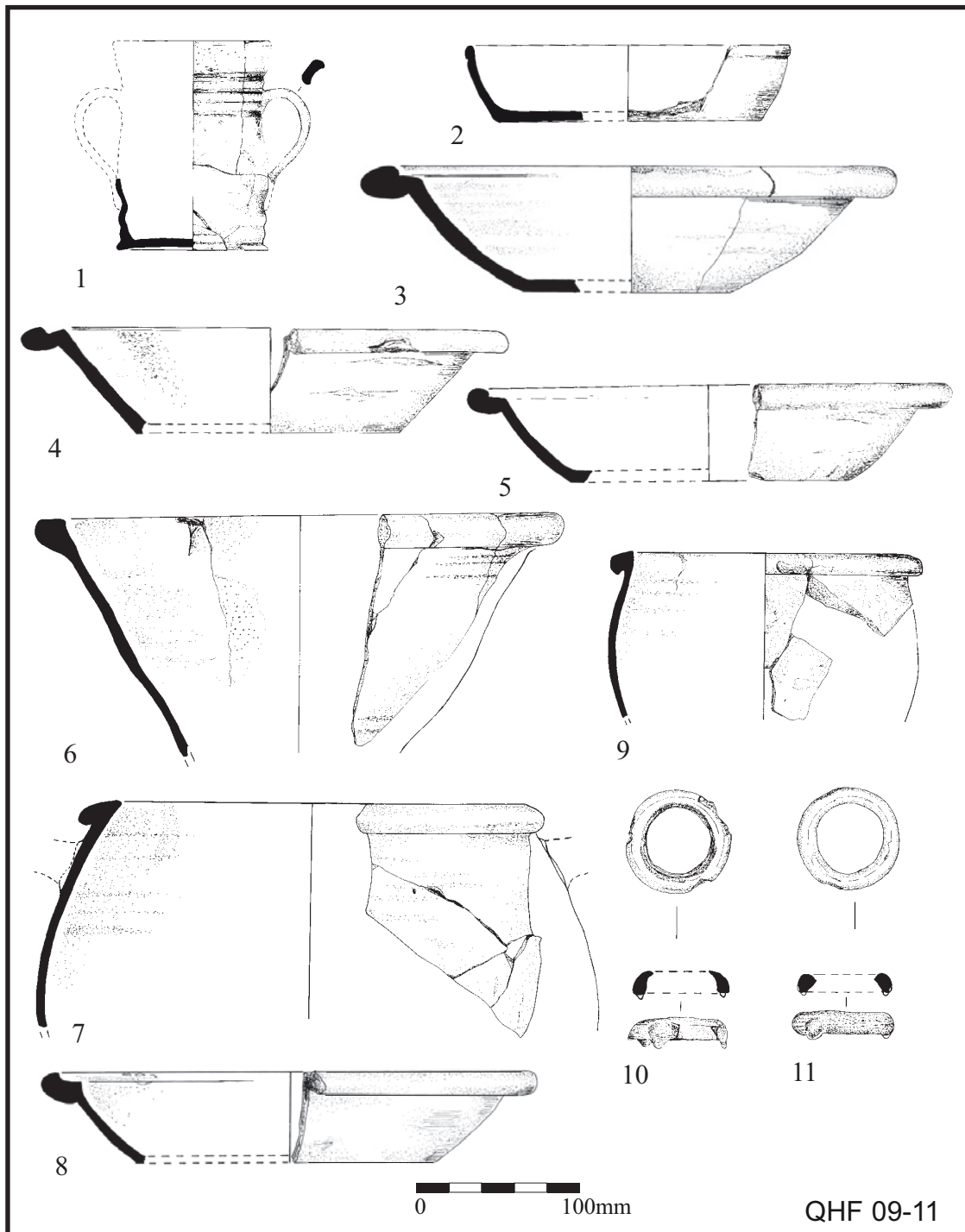


Fig. 9 Pottery (see text for details)

286). A late 17th- to early 18th-century tile kiln at Danbury in Essex (Drury 1975) had two parallel brick-built flues which are very similar to the examples from this site, and would have had a firing chamber above. That kiln did not produce any evidence of pottery manufacture, however; just a single sherd of pottery occurred in the backfills of the flue, along with a small assemblage of other domestic refuse. A circular bottle kiln, built in the late 18th or early 19th century at Elstead in Surrey, had seven parallel brick-built flues running at right angles to the main fire-box, underneath the firing chamber (Brears 1971, 149). Another bottle kiln from Farnham, built in 1873, had two parallel brick-built flues on either side (Brears 1971, 149–51).

Given the large quantity of tile from the stoke-pit, it is entirely possible that the structure was primarily a tile-kiln, with pottery-making a secondary consideration. Certainly, the fabric of the tiles is virtually identical to that of the pottery, indicating that they were made of the same clay. There is documentary evidence that many brick and tile-makers were also making pottery, as well as using their kilns for other processes. For example, the will of Samuel Moody, an Essex tile- and brick-maker who died in 1708, had an inventory which included 'two hollow ware moulds', and the inventory and the evidence from the Danbury kiln shows that lime-burning, for mortar-making, was another part of the repertoire (Drury 1975, 207–9). This seems to have been a fairly widespread practice by the 19th century, with kiln-owners making anything that could turn a profit. It seems likely therefore that the kiln from this site, given its early 19th-century date, operated in a similar fashion. It appears most likely that it was originally perhaps a twin-flue brick-built kiln, with the firing-chamber set above the two surviving flues, and was used for making both tile and pottery, with the latter comprising a limited range of utilitarian vessels in the form of Milk Pans, Bread Pots and Paint Pots.

Illustrated pottery

Fig. 9: 1. Ditch 1001, slot 145, fill 257, fabric BORDY. Large fragment of a mug. White fabric with glossy, yellow glaze with sparse orange-brown

streaking and the occasional green fleck on both surfaces. Bottom of base unglazed. Scar on opposite side to existing handle suggests that there was another which is now missing.

Fig. 9: 2: Ditch 1004, slot 140, fill 252, fabric RBOR. Full profile of shallow 'dog dish'. Brick red fabric with paler surfaces.

Fig. 9: 3: Kiln 1002, cut 200, fill 273, fabric RBOR. Full profile of large bowl, brick-red fabric with glossy orange glaze on the inner surface.

Fig. 9: 4: Kiln 1002, cut 200, fill 273, fabric RBOR. Full profile of large bowl, brick-red fabric with glossy orange glaze with unvitirified areas on the inner surface.

Fig. 9: 5: Kiln 1002, cut 200, fill 273, fabric RBOR. Full profile of large bowl, brick-red fabric with unvitirified glaze on the inner surface.

Fig. 9: 6: Kiln 1002, cut 200, fill 273, fabric RBOR. Rim of large bowl, brick-red fabric with glossy orange glaze with unvitirified areas on the inner surface.

Fig. 9: 7: Kiln 1002, cut 200, fill 273, fabric RBOR. Rim of large 'Bread Pot' with handle scar on the outer surface. Brick-red fabric with glossy orange glaze on the inner surface.

Fig. 9: 8: Kiln 1002, cut 147, fill 266, fabric RBOR. Full profile of large bowl, brick-red fabric with glossy orange glaze on the inner surface.

Fig. 9: 9: Ditch 1004, slot 126, fill 184, fabric RBOR. Two non-joining fragments from a possible paint-pot. Brick-red fabric with glossy orange glaze on both surfaces.

Fig. 9: 10: Pit 110, fill 165, fabric RBOR. Spacer-ring from kiln. Orange-pink fabric, splashes of yellow glaze.

Fig. 9: 11: Pit 5, fill 57, fabric RBOR. Spacer-ring from kiln. Orange fabric, near-uniform coating of orange glaze on the same side as the points.

Ceramic building material by Danielle Milbank

A total of 8677g of ceramic building material (44 fragments, excluding very small pieces) was recovered during the excavation (Table 3). Ten of the pieces are complete bricks, or larger brick fragments where at least the full thickness was present, and the remainder comprised tile, and small (c.10–20mm) fragments that were not diagnostic. The ceramic building materials are summarized in Table 3. All fragments with notable characteristics were retained, in addition to a representative sample of the brick and tile recovered.

Ceramic building material was recorded

Table 3 Catalogue of Brick and Tile

<i>Group</i>	<i>Cut</i>	<i>Deposit</i>	<i>No</i>	<i>Wt (g)</i>	<i>Comment</i>
	110	165	8	2017	very thin brick t=40mm. Flanged tile t=24mm, flange height 60mm
1005	111	166	4	481	one grey vitrified tile piece
1006	115	170	1	136	tile
1000	138	199	2	774	1 tile, 1 Brick t=50mm, w=108mm, green vitrified on one side
1002		260	2	803	tile with 2 holes close to edge, green glaze, fired clay on one side, brick t=62mm, w=106 l=220mm. Orange red, striations from wire on upper surface. Retained.
1002		261		229	Scorched and slightly vitrified brick, t=77mm. 6 thickly vitrified (green) R
1002		262		369	mortar
1002	147	268	2	107	burnt brick light green vitrified
1002		271	10	1536	brick t=60mm, thickly vitrified green, brick t=62mm, thin grey vitrified. Tile t=10mm, green vitrified top, sides and bottom, with later of fired-on clay. 2 peg hole frags. Blackened brick t=62mm w=106mm l=225mm. Orange red, striations from wire on upper surface. Retained.
1002	200	273	11	1037	brick t=62mm, w=106mm
1002		280		280	briquette
1002		281		419	briquette
1002		282	4	489	burnt brick with mortar and green vitrified
1002		283	2	3800	1 brick t=60mm, w=100mm l=220mm, two sides vitrified, 10mm thick fired on brick. Blackened, striations from wire on upper surface. Retained.

most frequently in larger quantities in deposits within kiln 1002 and comprised bricks from the structure and fragments of both brick and tile contained in the infilling deposits of the flues. Small quantities of tile were recovered from ditches 1005 and 1006.

Tiles

The tile fabric was examined at ×10 magnification and was uniformly sandy, with frequent small well-sorted quartz sand inclusions. The colour varied from slightly orange red to darker

red, with occasional examples of a grey core. The fragments were generally fairly hard and well-fired, with one exception which appeared to have warped on one edge and separated into layers, suggesting that it was a waster which would not have been used. Most frequently the fragments had a rough underside, indicating that they were made using a sanded mould.

Peg Tiles

The majority of the tile fragments recovered were flat, with no notable marks or features.

Many of these are likely to be peg tiles, with the pierced part no longer present. No complete tiles were present, and the typical thickness was 10mm. This type of tile was produced from the 13th to 19th century, and is not closely datable.

Peg holes were present on just three pieces. One example from deposit 271 was intact across its width, and was 161mm wide and 11mm thick. It was vitrified at the top end, where two peg holes were present, and a layer of well fired clay (a slightly sandier, coarser fabric than the tile itself) was present on the upper face, where it had been used as part of the flue construction.

Bricks

The brick fabric at x10 magnification was very consistent and homogenous, with very fine, well-sorted sandy inclusions. Larger inclusions (1mm–2mm) were very occasionally present. The fabric was hard and well-fired, and in some cases was cracked where scorched. The colour ranged from bright orange red to dark red, and dark grey, red and black where scorched. They were all unfrosted, with smooth upper surfaces with slight wire striations, and rough sides and undersides indicating a sandy mould. Vitrification (in most cases thick and pale green grey) was present on surfaces which would have been subject to intense heat inside the kiln.

The brick fragments ranged from 50mm to 77mm thick, though the majority were 60–62mm thick, and were 106–108mm wide where the width could be established.

The complete bricks recovered from the excavation were from the flue (260), the infilling deposit (271) and the back wall of the kiln (283). The bricks from flue 260 and deposit 271 measured 60mm thick, 106mm wide and 220mm long, and those from 283 (the back wall) were 60mm thick, 100–107mm wide and 220–225mm long. The dimensions, and the sharp edges, are typical of bricks from the late 18th and early 19th centuries and were produced by mechanized methods, as Harley (1974) type 5.1.

The large quantity of tile (especially the presence of the waster sherd and several less definite wasters) when considered alongside the similar fabric of the pottery found in the

infilling deposits of the kiln flues suggests that at least some of the tile encountered in the excavation was produced on the site. The kiln was built of bricks whose dimensions and finish indicate a date of late 18th to early 19th century, and show no signs of re-use.

Other finds by Andy Taylor

Two pieces of clay tobacco pipe stem were recovered from the excavation. The piece from posthole 117 was from the end of the stem with the beginnings of the bowl attached.

Two contexts produced glass assemblages, both coming from broken wine bottles of cylindrical form and thus probably of late 18th-century date. Pit 110 produced four pieces, including a bottle neck in a dark green colour and ditch 1004, 36 pieces also of dark green glass.

One piece of iron nail stem was recovered from deposit 261 (the fill of flue one).

Environmental samples by Roz McKenna

Nine samples from a series of deposits were subjected to standard water flotation techniques. Palaeoenvironmental material in the samples was minimal, and of very poor quality. Nothing of interpretable value can be gained from the majority of the samples. There were just one possible barley (*Hordeum* spp.) and one 'indeterminate cereal' grain in sample 2.

ARCHAEOMAGNETIC DATING by Geoquest Associates

A total of 22 samples of burnt brick and silty sand was taken from context 280 for archaeomagnetic dating. Specimens were orientated *in situ* using the button method, combined with spirit levels and a north-seeking gyro compass. Demagnetization tests showed that the magnetization in the material is highly stable and the set of archaeomagnetic vectors were found to be exceptionally well grouped. The mean archaeomagnetic vector in the context was compared with the UK Master Curve to suggest that the last firing of the kiln occurred in the date range AD1820–1850. A full report is in the archive.

CONCLUSION

The excavation at the former Queen's Head Public House revealed a number of archaeological deposits, mostly consisting of boundary ditches, with a few small pits and, more notably, a late 18th- or early 19th-century tile kiln. Three main phases of activity can be discerned.

The earliest activity represented on the site is of medieval date. This period is mainly represented by residual pottery but one pit produced five sherds of exclusively medieval pottery and might be of that date. A curving length of gully produced no datable finds but pre-dates the earliest dated ditches and, very tentatively, might be a medieval precursor for an early post-medieval ditch on the same alignment: the earlier post-medieval ditches here did contain medieval pottery which may have come from this earlier ditch. None of the medieval pottery suggests other than domestic waste disposal.

Early post-medieval activity (16th century) is more prevalent with a series of intercutting boundary features to the west of the site, and a posthole and a small number of pits dispersed across the site. The boundary features can be considered, in effect to be defining and redefining on two or three occasions, a single boundary on a NW–SE alignment. A section of ditch which curves to the south-west seems to indicate a change to the boundaries over time perhaps with an earlier enclosure being extended or removed; too little of the ground plan was recorded to explore this topic further. The pottery associated with this phase includes wasters and kiln furniture and it is clear that the site lies close to a manufacturing site though no kiln structures of this period were recorded here.

None of these boundary features, (nor indeed those of later date on the site) correspond with any features on the earliest detailed cartographic sources available, namely the tithe map (1844) and First Edition Ordnance Survey (1871) suggesting that there was a significant remodelling of the whole environs of the site in the middle of the 19th century.

The final phase belongs to the late 18th and early 19th centuries. The focus of the cut features of this date lies towards the east and

some remodelling and redefining of boundaries took place within this phase. The easternmost boundaries are aligned NW–SE, parallel to the 16th-century boundaries to the west. It is noticed that one curving gully belonging to the later phase (1003) terminates before its junction with the earlier western boundary. Perhaps this reflects the continued use of this previously defined boundary, but then only by the presence of an above-ground feature such as a hedge. Alternatively, it is possible the earlier features have been misdated based on their pottery, and were in fact contemporary with these 18th- or 19th-century boundaries (which also contained earlier pottery). Given the quantity of medieval pottery (60+ sherds) also in these ditches, it is possible the boundary they marked had even earlier origins.

The kiln in the north-eastern corner of the site is most likely to be a brick or tile kiln whose last firing can be dated to the second quarter of the 19th century, and it was set into the top of ditches that had been filled in the late 18th century. It was itself built of late 18th-century bricks and could conceivably have been in use for a generation or more, although it could equally have had a short life. The 1844 Tithe map shows no trace of the structure on the site at this time, nor was it present on the First Edition Ordnance Survey map of 1871. Both of these maps show and/or name kilns in the immediate vicinity of the site so it is safe to conclude that it had fallen from use before 1844.

The suggestion of this structure being a brick or tile kiln comes from vitrification evident on the internal surfaces of the bricks in the flues as well as on pieces of tile from the internal fills. Although present, pottery wasters and kiln furniture are not noted in sufficient numbers for this to be a dedicated pottery kiln, although pottery production clearly was taking place in the area. It is possible the same kiln was used for both purposes. Many of the brick kilns from the Staffordshire Potteries had a system of heating flues beneath the ground floor (Baker 1991), and the flues identified here are most likely examples of this, although on a much smaller scale. It is possible that a bottle or beehive structure may have been present over the surviving flues. As the Farnborough example

was directly cut into the clayey sand natural and no evidence of further structure was noted it is also possible that this represents a rectangular kiln structure. A rectangular structure would be an exception to the usual circular structures associated with the production of brick and tile, although a similar example is known from Loughton in Essex (Hurst 1970), albeit from a medieval production site. A better-preserved but closely comparable double-flue construction excavated at Dogmersfield Park, Odiham was archaeomagnetically dated to roughly a century earlier than the Farnborough example (Wright 2010, *et al.* 2010).

The size of the structure would suggest a relatively small production site as opposed to the tens of thousands of bricks produced in many brick production centres (Hammond 1981). A significant quantity of brickwork was evident during stripping of the excavation site in this area, but whether this had come from such a structure or represented demolition rubble from the former pub and its ancillary buildings shown on the early maps was not determined. As observed earlier, a similar example excavated at the Donyatt potteries in Somerset had a single brick built flue, archaeo-

magnetically dated *c.*100 years earlier than the Farnborough example (Coleman-Smith and Pearson 1988).

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