

Archaeological investigations on the A27 Polegate Bypass, East Sussex

by Simon Stevens

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The remains of a medieval farmstead were excavated following the identification of an area of archaeological interest during a large-scale evaluation of the route of the proposed bypass. A range of features including enclosure ditches, pits and post-holes were recorded. Finds included medieval pottery, animal bone, tile, brick, burnt clay, metalwork, ironworking slag, geological material and glass. Study of the pottery suggests that the site was occupied from the late twelfth/early thirteenth century to the mid-fourteenth century, although a few finds indicate some later activity.

A watching brief was maintained during groundworks for the bypass. Two post-medieval kilns were recorded (reported elsewhere). No further medieval sites were identified.

INTRODUCTION

The small town of Polegate, East Sussex is located approximately 6 km to the north-west of Eastbourne at the junction of the A27 and A22 (NGR TQ 5800 0500). The long-awaited bypass scheme for the town consisted of a dual carriageway 2.5 km long around the northern side of Polegate to connect the western end of the A27 Pevensey Bypass, the A22 New Route extension at Dittons and the A22 at Cophall (Fig. 1). This route followed a slight ridge located between the Willingdon Levels to the south and the Glyndleigh Levels to the north. Prior to the construction of the bypass much of this area was agricultural land (Fig. 1).

This report presents the results of an archaeological excavation close to the western end of the scheme (Fig. 1) and the results of a watching brief undertaken during groundworks for the entire length of the new road. However, it excludes details of an excavation of two post-medieval kilns to the south of Otham Court, which will form the basis of a separate report (Stevens forthcoming).

ARCHAEOLOGICAL BACKGROUND

Given previous discoveries in the area, including significant prehistoric remains known from the Willingdon Levels to the south (references in Greatorex 1999), an archaeological desk-based assessment for the Polegate Bypass scheme was

produced by Archaeology South-East (then trading as South Eastern Archaeological Services: Gardiner 1991). This was followed by a programme of test-pitting, field-walking and geophysical survey undertaken in 1993, which identified five areas of potential archaeological interest (Place 1994).

In 1996 the development scheme was revived and a large-scale trial trenching programme was initiated based on the results of the work carried out in 1993. This work was undertaken in late 1999 and resulted in the discovery of archaeological features dated to the thirteenth and fourteenth centuries in trenches to the west of Bay Tree Lane (Greatorex 1999). Following the appointment of Place Archaeological Consultants Ltd (working on behalf of Miller Civil Engineering, now part of the Morgan Estates Group) to oversee the archaeological work on the scheme, an area to the west of Bay Tree Lane (Figs 1 & 2) was stripped under archaeological supervision and subjected to detailed archaeological excavation during September 2000.

THE EXCAVATION (Fig. 2)

INTRODUCTION

The modern topsoil, context [1], and a layer at the interface of the topsoil and the underlying 'natural' clay [2], were mechanically removed from the excavation area and the underlying Weald Clay was recorded at heights of between c. 8.70 m OD and c. 11.20 m OD. Various plough-truncated

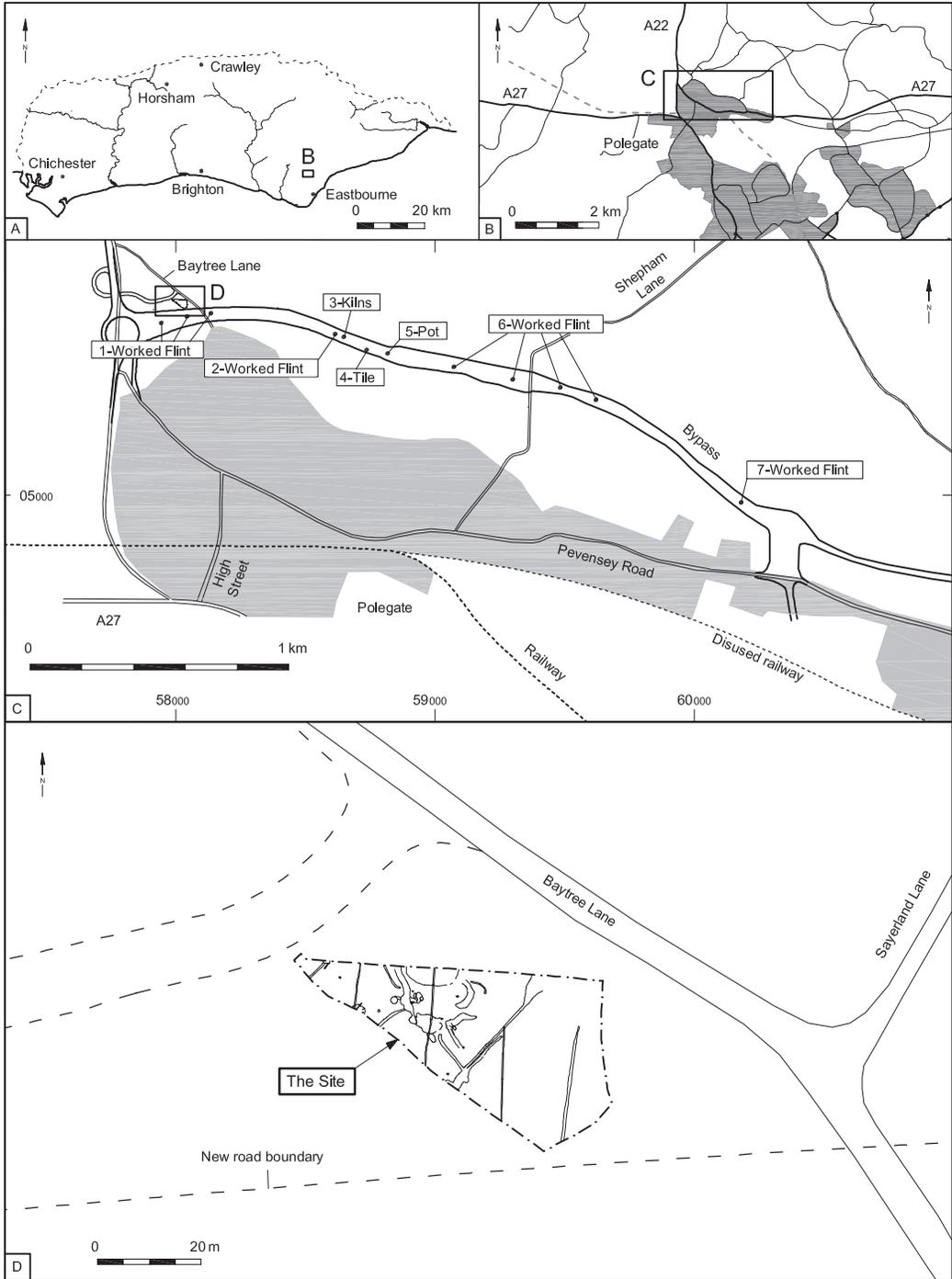


Fig. 1. Site location plan (also showing location of watching brief finds).

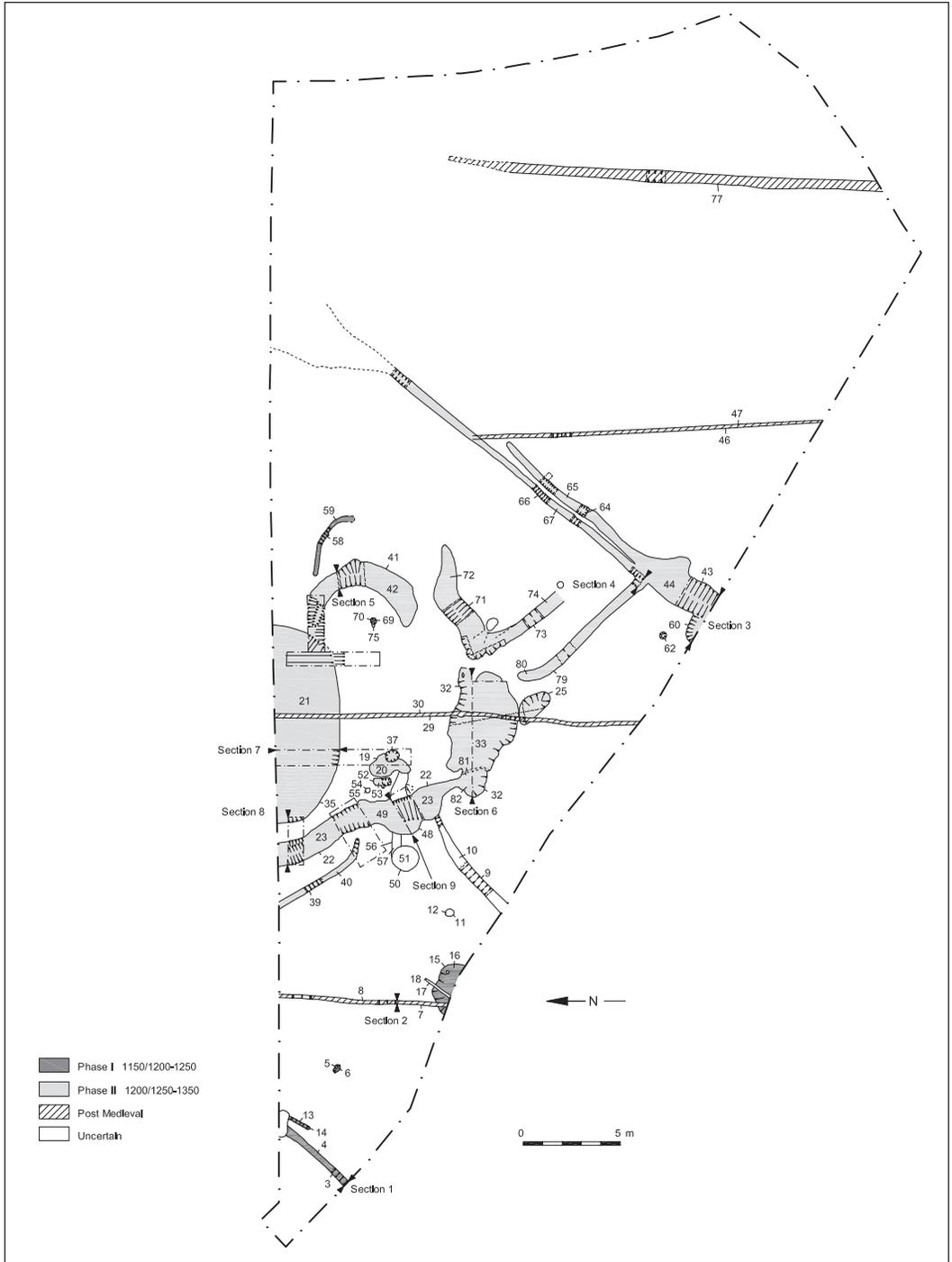


Fig. 2. Phased site plan.

archaeological features of medieval date were identified cut into the clay. The site contained evidence for at least one ditched enclosure with associated pits and post-holes representing the remains of a medieval farmstead (Fig. 2). The difficulty of closely dating pottery of this period in the area has only allowed very broad phasing to be established, though it is probable most activity on the site occurred during a short period of little more than 100–125 years.

PHASE 1: 1150/1200–1250

A small number of features, located at the western end and towards the centre of the site, were assigned to this earliest phase on the basis of the recovered pottery.

Two shallow gullies producing small assemblages of twelfth- to thirteenth-century material, [3] and [13], ran parallel to each other at the western end (Fig. 2 & Fig. 3, Sect.1). Nearby a shallow oval ‘scoop’ [5] was excavated which contained a single fill with a concentration of oak charcoal and a sherd of twelfth- to mid-thirteenth-century pottery (Fig. 2).

Further to the southeast, ‘scoop’ [15], which ran under the southern baulk also contained a small quantity of twelfth- to mid-thirteenth-century pottery. It was truncated by a narrow gully [7], which, although containing pottery of twelfth- to thirteenth-century date in the fill [8], is more likely to be post-medieval in date. The profile (Fig. 3, Sect. 2) and orientation, parallel to gullies [46], from which post-medieval pottery and clay pipe were recovered, [77], which contained brick rubble, and [29], suggests that gully [7] was a post-medieval field drain containing residual medieval pottery. Feature [15] was also truncated by an undated gully [17].

Further to the east there was a small pit [69], which contained a twelfth- to early-thirteenth-century vessel, which had been placed upside-down, [70]. The contents of the vessel were retained for environmental analysis and were found to contain charred wheat and barley. The pit truncated an earlier post-hole [75] which yielded charcoal, but no firm dating evidence. Nearby was a short stretch of curving ditch [58], which produced two sherds of twelfth- to early-thirteenth-century pottery.

In general, the amount of pottery assigned to this phase was extremely limited (even the apparently large assemblage of 175 sherds from [70] came mostly from a single vessel). This is

problematic and it is possible that some, most, or even all of these features could be placed towards the end of the suggested date range, and might therefore represent the earliest activity on the site during the first half of the thirteenth century.

PHASE 2: 1200/1250–1350

The majority of excavated features have been assigned to this phase; some produced large groups of pottery and other artefacts. Enclosure ditches and associated pits were concentrated in the central portion of the site but the main focus of activity was to the north, closer to Bay Tree Lane.

There was clear evidence for land enclosure, with a number of ditch lengths forming a reasonably coherent pattern set at 90° to Bay Tree Lane. To the east, flat-bottomed enclosure ditches [64] and [66], ran parallel across the site and merged to the south to form one wider ditch, [43] (Fig. 3, Sect. 3). Pottery of thirteenth- to fourteenth-century date was recovered from each of the three fills ([65], [45/67] and [44] respectively). Ditch [43] was truncated by a later, but broadly contemporary pit, [60] which produced pottery of thirteenth-century date from fill [61] and from the interface with the ditch ([61/44]).

Further to the north, another flat-bottomed ditch [79] joined ditch [66] at a right angle. Although the relationship was not clear it appeared that ditch [66] truncated ditch [79] (Fig. 3, Sect. 4). A small assemblage of thirteenth- to fourteenth-century material was recovered from fill [80], suggesting that all of these ditches were broadly contemporary in date. Pottery of a similar date was also recovered from [39], a length of ditch to the northwest which might form a continuation of ditch [79].

To the north of ditch [79] two shallow, irregular linear features, [71] and [73], which met at a rough right angle were identified, although their exact relationship was not ascertained. Fill [72] of feature [71] contained mid-thirteenth- to mid-fourteenth-century pottery and charred cereal remains. A significant assemblage of pottery dating from the period 1200–1325 was recovered from feature [73] (fill [74]) suggesting that the features were broadly contemporary.

Another irregular feature [41] lay to the north; it was roughly crescent-shaped and contained an assemblage of mid-thirteenth- to fourteenth-century material as well as charred cereal grains and charcoal (Fig. 3, Sect. 5).

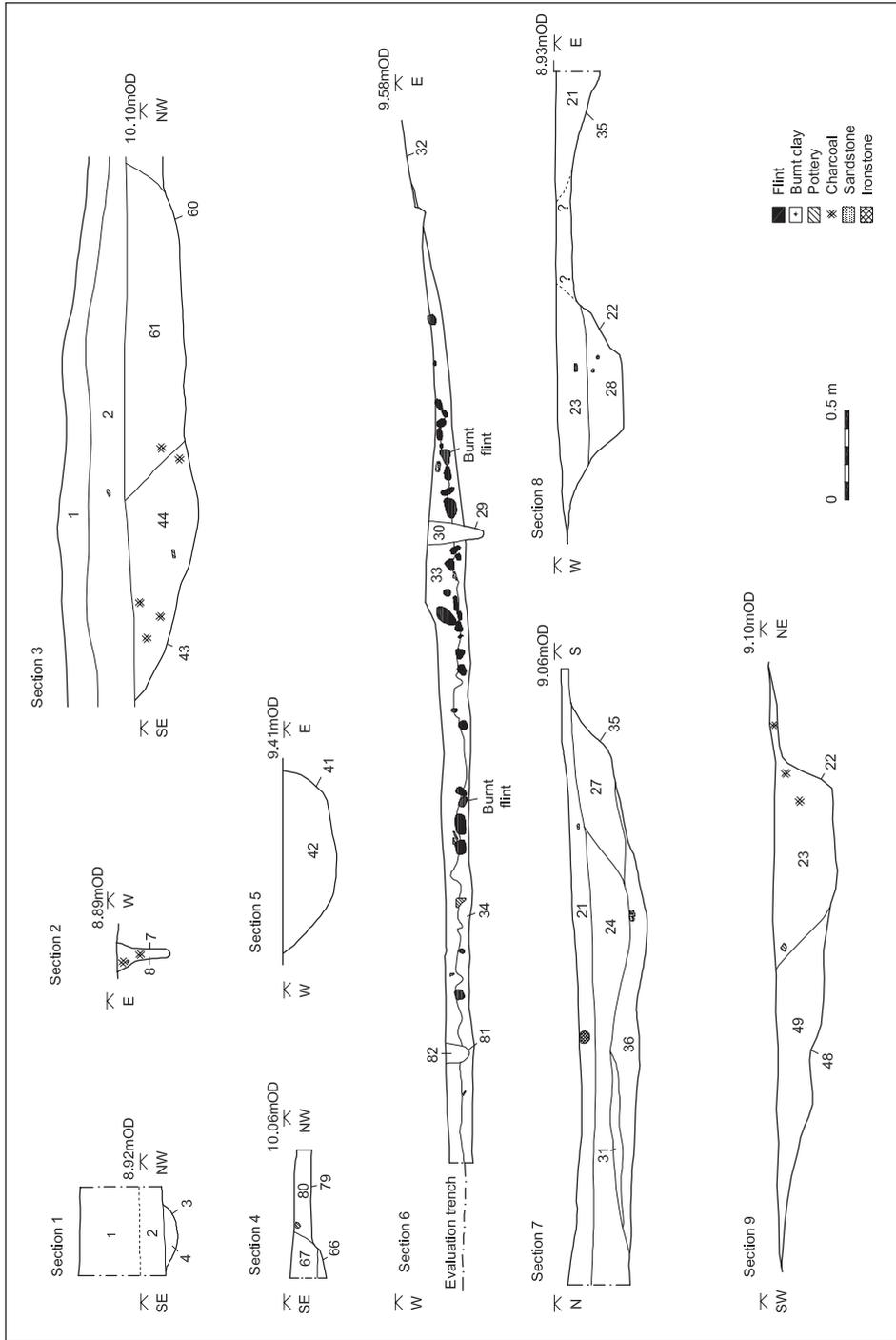


Fig. 3. Selected sections.

In the area between ditches [39] and [79] a complex of shallow pits and ‘scoops’ was recorded. The largest was feature [32], possibly a hollow, which measured 6.2 m from east to west and 3.4 m from north to south, but was shallow with a maximum depth of only 200 mm (Fig. 3, Sect. 6). An assemblage of thirteenth- to early-fourteenth-century artefacts was recovered from the uppermost fill [33]. The lower fill [34] contained a high concentration of flint nodules and a significant assemblage of mid-thirteenth- to fourteenth-century material, including the largest pottery group recovered from the site. This feature was truncated by the post-medieval field drain [29] (Fig. 3, Sect. 6) and gully [81], from which no datable evidence was recovered and its extent was never fully established.

Nearby, but with no clear relationship to feature [32], was a smaller ‘scoop’ [25], with material dated to the mid-thirteenth- to fourteenth-century from fill [26]. Another ‘scoop’ [52], located towards the centre of the excavated area was also assigned to this phase and contained thirteenth-century material.

The largest feature containing pottery dated to this phase was pit [35] which lay partially under the northern baulk (Fig. 3, Sect. 7). The upper fill [21] contained pottery with a broad date range (1175–1400), though pottery from the lower fills ([24], [27], [31] and [36]) was of thirteenth- and fourteenth-century date.

Ditch [22], an irregular, flat-bottomed ditch, contained twelfth- to mid-thirteenth-century pottery in the lower fill [28] and a significant quantity of thirteenth-century pottery in the upper fill [23] (Fig. 3, Sect. 8). The ditch truncated an earlier feature, [48] which also produced a significant assemblage of material dated to the period 1225/50 and 1325 (Fig. 3, Sect. 9).

Slightly to the north, was a large, shallow pit [19] with a depth of only 50 mm. The fill [20] contained large flint nodules and late-twelfth- to mid-thirteenth-century pottery. This pit appeared to truncate a small pit or post-hole [37] which contained thirteenth- to fourteenth-century pottery and charred cereal grains.

DATING UNCERTAIN

In addition to the features which truncated medieval deposits and have been mentioned above, there were other undated features at the site. Post-

hole [11] close to the southern baulk, contained a charcoal-rich fill [12] composed almost entirely of charcoal originating as bark, rather than wood, an unusual situation (*see below*).

Other undated features were less noteworthy. Pit [50], located towards the centre of the site, and an adjacent feature [56] were not excavated. Post-holes [54] and [62] were excavated but produced no datable material. A stretch of gully [9] is most probably part of the medieval enclosure/field system although no datable material was recovered from it.

In the absence of features from other periods (with the exception of the post-medieval field drains) it seems reasonable to presume that these features were all broadly medieval in date.

THE WATCHING BRIEF

Archaeological monitoring was undertaken between October 2000 and May 2001. With the exception of the post-medieval kilns (Fig. 1C) which needed additional work (Stevens forthcoming), no features of archaeological interest were located during the monitoring. It should be noted that the conditions for locating archaeological features ranged from good to poor depending on both the methods used during topsoil stripping and weather conditions. However, it is felt that if significant archaeological remains had been present they would have been identified and the largely negative results are a true indication of the archaeological resource along the route. Despite an absence of features a small assemblage of artefacts was collected from the interface between the topsoil and natural clay (Table 1 and location shown on Fig. 1C).

Table 1. Quantification of finds from the watching brief.

No.	Pottery	W. Flint	Tile
1	1/10 g	2/38 g	-
1	-	1/89 g	-
1	-	2/83 g	-
2	-	1/181 g	-
3	Post-medieval kilns		
4	-	-	11/552 g
5	13/98 g	-	-
6	-	1/10 g	-
6	-	2/34 g	-
6	-	6/45 g	-
6	-	2/162 g	-
7	-	1/6 g	-

THE FINDS

THE POTTERY by Luke Barber**Introduction**

The excavations and subsequent watching brief along the new road route produced a relatively small assemblage of pottery: 1643 sherds weighing 12,403 g from 45 individually numbered contexts. The bulk of this material (1629 sherds weighing 12,295 g) was recovered from 43 contexts during the excavation of the medieval farmstead.

The material spans the late twelfth to eighteenth centuries though by far the majority is of early/mid-thirteenth- to early/mid-fourteenth-century date. The post-medieval sherds are almost exclusively from the field drains or were unstratified during the watching brief. Details of the post-medieval material are housed with the archive and the current report concentrates on the assemblage from the medieval farmstead.

The condition of the assemblage is generally poor. Sherd size is usually small (i.e. up to 40 mm across) and all but the harder-fired late medieval and post-medieval sherds have suffered badly in the acidic ground conditions. As such, it is difficult to assess the degree of reworking of most of the sherds, though their small size suggests at least some degree of re-deposition. The vast majority of the assemblage from the site comes from cut features though, with the exception of pit [32] (fill [34]) (see below), individual assemblages tended to be small. Some of the contexts contain small amounts of intrusive or residual material and few totally secure contexts are present.

The main aims of the pottery analysis were to characterize the assemblage, help with the dating and phasing of the excavated deposits where possible, and establish the range of fabric and form types. The latter is considered of importance due to the lack of published groups from this area of East Sussex: most work in the past having concentrated on the towns of Lewes and Pevensey.

All the studied pottery was divided into fabric groups based on a visual examination, using a hand-lens where necessary, of tempering, inclusions and manufacturing technique. Context groups were then spot-dated. Only one large assemblage was deemed appropriate to quantify fully by sherd count and weight by fabric (see below), though several other smaller assemblages were also studied to provide some comparative data. Quantification based on Estimated Vessel Equivalents (EVEs) was not considered appropriate owing to the small size of the assemblages.

The fabric groups

Fabric 1a: Common to abundant white, grey and black flint to 2 mm

Rare dull red iron oxide inclusions to 1 mm. Usually oxidized, but some lightly reduced. Medium-fired. Undecorated cooking-pots and tubular-handled skillets. Local fabric, almost certainly from the Abbots Wood kiln/s (Barton 1979). Of probable later-twelfth- to thirteenth-century date.

Cat. Nos: 1, 6, 8, 9, 10, 11, 12, 13 and 14.

Fabric 1b: Moderate to common white, grey and black flint to 2 mm

As 1a but lower fired with less flint. Always reduced to dark grey/black. Undecorated cooking-pots present. Local fabric

(possibly Abbots Wood) of probable mid/late twelfth- to later-thirteenth-century date.

Cat. Nos: none.

Fabric 1c: Common to abundant white, grey, black and red flint to 3 mm

As 1b but lower fired with far more flint. Always reduced to dark grey/black. Undecorated cooking-pots present. Local fabric of probable twelfth- to early-thirteenth-century date.

Cat. Nos: none.

Fabric 2: Common to abundant medium sand with rare white and grey flint to 1 mm

Rare dull red iron oxide inclusions to 2 mm. Usually oxidized. Medium fired. Cooking-pots and bowls present, occasionally with stabbing and incised line decoration on rims. Local fabric of probable mid-thirteenth- to fourteenth-century date.

Cat. Nos: 7 and 15.

Fabric 3a: Sparse to moderate white, grey and black flint to 1 mm

Sparse dull red iron oxide inclusions to 2 mm. Usually oxidized, but some lightly reduced. Low- to medium-fired. Cooking-pots, bowls and sometimes in a slightly finer fabric, jugs too. Decoration is rare and usually occurs on jugs. It consists of sparse thin glazes (though most jugs are unglazed) and some thumbbed bases. Occasionally, cooking-pots have some glaze on the interior base and there is at least one storage jar with applied thumbbed strips. The most common fabric on the site. Local fabric, probably an overlapping development from F1a (Abbots Wood probably). Of probable early-thirteenth- to fourteenth-century date.

Cat. Nos: 2, 3, 4, 16, 17, 18, 19, 20 and 21.

Fabric 3b: Sparse to moderate fine sand with rare white, grey and black flint to 1 mm

Sparse dull red iron oxide inclusions to 1 mm. Usually oxidized, but some lightly reduced. Slightly higher fired than F2 and F3a, to which this fabric is undoubtedly related. Probably a chronological progression. Cooking-pots, bowls and jugs are present. No decoration was noted. Local fabric, probably of late-thirteenth- to fourteenth-century date.

Cat. Nos: 5 and 22.

Fabric 3c: Sparse to moderate white, grey and black flint to 1 mm - High-fired

Basically the same fabric as F3a but somewhat better-formed vessels fired to a notably higher temperature. Usually dark blue/grey, often with brick-red margin. Cooking-pots and jugs/pitchers noted, the latter with strap handles. Local fabric, probably an overlapping development from F3a. Of probable fourteenth-century date.

Cat. No: 23.

Fabric 4: Moderate medium sand

Occasional dull red iron oxides to 1.5 mm. Usually oxidized, but some lightly reduced. Medium-fired. Cooking-pots, bowls and sometimes in a slightly finer fabric, jugs too. Decoration is rare and usually occurs on jugs. It consists of sparse thin glazes (though most jugs are unglazed) and some thumbbed bases. Occasionally cooking-pots have some glaze on the interior base. Local fabric, of probable mid-thirteenth- to fourteenth-century date.

Cat. Nos: none.

Fabric 5: Silty/fine sand and sparse to moderate iron oxides to 2 mm

Some sherds have the odd inclusion of white flint or mica to 1 mm. Usually oxidized, but some lightly reduced. Generally a low- to medium-fired fabric, often notably powdery to the touch. Cooking-pots, bowls and sometimes jugs too. Decoration is rare and usually occurs on jugs. It consists of sparse thin glazes and incised wavy lines. Local fabric, probably an overlapping development from F1a. Of probable early-thirteenth- to fourteenth-century date.

Cat. No: 24.

Fabric 6: Moderate fine sand

Oxidized. Medium- to well-fired. Cooking-pots, bowls, but mainly jugs. Decoration is rare and usually occurs on jugs. It consists of even thick glazes, occasionally with stamped floral bosses. Probably includes some Ringmer or possibly Rye products. Of probable mid-thirteenth- to fourteenth-century date.

Cat. No: 25.

Fabric 7: Sparse fine to coarse sand, high-fired

Sparse dull red/grey iron oxide inclusions to 1 mm. Usually oxidized, but often with a reduced surface. Notably well-/high-fired. Undecorated cooking-pots and pitchers are present. Probably a local fabric, spanning the mid-fourteenth- to mid-fifteenth centuries.

Cat. No: 26.

The pottery assemblages

The assemblage from the site generally only consists of very small groups. Most of these produced too few sherds to be dated closely or help with refining the chronological sequence of the fabrics. Even producing a relative chronology for individual context groups has been difficult owing to the uncertainty about the degree of intrusiveness or residuality in most contexts containing reasonably sized assemblages. A selection of the more interesting groups is given below.

Table 2. Ditch [73], Fill [74] Pottery quantification.

Fabric	No. of sherds	%	Weight (g)	%
1a	9	6.2	128	18.0
1b	83	57.2	298	41.9
3a	46	31.7	220	30.9
3b	1	0.7	10	1.4
3c	1	0.7	3	0.4
5	5	3.4	52	7.3
Total	145	99.9	711	99.9

Table 3. Pit [48], Fill [49] Pottery quantification.

Fabric	No. of sherds	%	Weight (g)	%
1a	4	10.3	164	47.1
1b	2	5.1	10	2.9
2	6	15.4	60	17.2
3a	24	61.5	108	31.0
5	3	7.7	6	1.7
Total	39	100	348	99.9

Ditch [73], Fill [74]

The fabric ratios in this group are heavily distorted by the presence of many sherds from a single F1b cooking-pot. The group is dated to between 1200 and 1325

Catalogue (Fig. 4)

1. Cooking-pot with out-turned rim. Mid-grey core, dull orange surfaces. Fabric 1a.
2. Bowl with squared rim. Light to mid-grey throughout. Fabric 3a.
3. Bowl? With thickened rim. Mid-grey core, dull orange surfaces. Fabric 3a.
4. Cooking-pot with out-turned squared rim. Mid-grey core with dull brown to grey surfaces. Fabric 3a.
5. Cooking-pot with triangular rim. Mid-grey core with dull orange/light grey surfaces. Fabric 3b.

Pit [48], Fill [49]

This small group would appear to date between 1225/50 and 1325. Unfortunately, the fabric ratios by sherd count and weight are not reliable owing to the small size of the assemblage and the presence of several large F1a sherds. As well as the two catalogued sherds there is a single rod handle from a jug in F1a.

Catalogue (Fig.4)

6. Bowl with beaded rim. Light grey core, dull orange to dark brown patchy surfaces. Fabric 1a.
7. Cooking-pot with squared hollowed rim. Light grey core with dull brown to brown/grey patchy surfaces. Fabric 2.

Pit [32] Fill [34] (lower fill)

This context yielded by far the largest group from the site (see Table 4). Despite this, most sherds are small (average sherd weight 9 g).

The group is dominated by Fabric 3a though F1a, 4 and 5 are also well represented. Although F1a is thought to be earlier than F3a, the degree to which the two shared the market is uncertain as the degree of residuality in this group is impossible to assess with certainty. The rim forms of the

Table 4. Pit [32], Fill [34] Pottery quantification.

Fabric	No. of sherds	%	Weight (g)	%
1a	60	10.5	788	15.2
1b	19	3.3	146	2.8
2	32	5.6	236	4.6
3a	266	46.3	2242	43.3
3b	12	2.1	138	2.7
3c	5	0.9	56	1.1
4	63	11.0	462	8.9
5	108	18.8	1014	19.6
6	8	1.4	78	1.5
7	1	0.2	20	0.4
Total	574	100.1	5180	100.1

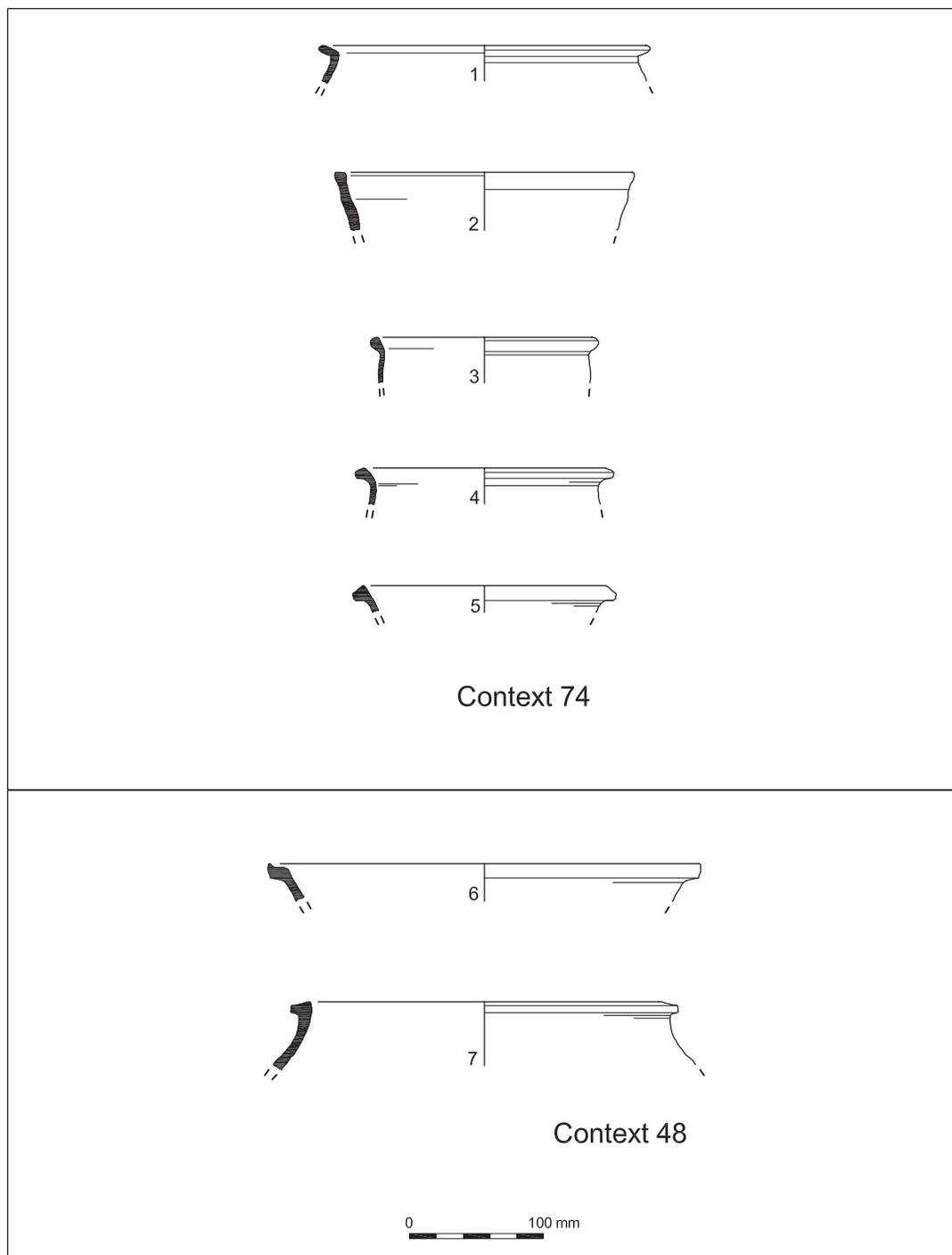


Fig. 4. Pottery (Contexts 74 and 48).

F1a and F3a vessels are often very similar suggesting a good degree of overlap and, considering the backward nature of the ceramics in the area at this time (*see below*), may both have been available throughout the thirteenth and into the fourteenth centuries. The F7 sherd is almost certainly intrusive and the low level of F6 sherds shows how few better-made wares from Rye/Ringmer made it to the site. The group is dominated by cooking-pots, though bowls and jugs are also quite well represented. A single storage jar and skillet are also present. The group would appear to date to between 1225/50–1350.

Catalogue (Fig. 5)

8. Cooking-pot or bowl with slightly triangular rim. Light grey core and dull orange-brown surfaces. Fabric 1a.

9. Unglazed jug with heavily thumbled strap handle and simple square rim. Some light stabbing on the handle. Mid-grey core, dull orange surfaces. Fabric 1a.

10. Heavy cooking-pot with square rim and slight internal bead. Traces of two 1.5-mm diameter ?suspension holes drilled through body prior to firing. Light grey core, dull orange surfaces. External sooting. Fabric 1a.

11. Cooking-pot with concave rim. Light grey core, dull orange surfaces. Sooting on exterior. Fabric 1a.

12. Cooking-pot with squared rim with internal bead. Light grey core, dull orange surfaces. Fabric 1a.

13. Bowl with triangular rim with internal bead. Light grey core, light grey to dull orange surfaces. Fabric 1a.

14. Skillet with hollow tubular handle, with aperture going right through into interior of vessel. Dark grey core, red brown surfaces. Fabric 1a.

15. Cooking-pot with squared rim with slight bead. Dull red/orange throughout. Fabric 2.

16. Cooking-pot with out-turned squared rim. Mid-grey core, dull orange surfaces. Fabric 3a (quite 'flinty'—approaching F1a).

17. Bowl with triangular rim. Light grey core, buff to orange surfaces. External sooting. Fabric 3a (quite 'flinty'—approaching F1a).

18. Bowl with wide triangular rim with internal bead. Light grey core, dull orange surfaces. Iron-stained exterior. Fabric 3a.

19. Unglazed jug with simple rim and slight cordon. Light grey core, dull orange external and light grey internal surfaces. Fabric 3a.

20. Unglazed jug with heavily stabbed strap handle and simple squared rim. Dark grey core, brick-orange margins and mid-grey surfaces. Fabric 3a.

21. Unglazed jug with thick stabbed strap handle, simple rim with internal bead and thumbled base. Mid-grey throughout with a few dull orange patches on interior. Fabric 3a.

22. Bowl (?) with elongated out-turned rim. Light grey core, dull orange-brown surfaces. Sooting/iron staining externally. Fabric 3b.

23. Pitcher/storage jar with squared rim and traces of vertical applied thumbled strips. Mid-blue/grey core, brick red margins and blue/grey surfaces. Highly fired. Fabric 3c.

24. Bowl with horizontal rim with bead. Mid-orange core and brick-red surfaces. Fabric 5. A similar bowl is known from Pevensey (Lyne 1999, 112, no. 72).

Pit [35], Fill [24]

This small group is interesting in that it is probably the latest excavated at the site. However, the group contains a very high residual element which overall dominates. It is highly unlikely that F3a would have continued in use for long after the middle of the 14th century, though the general problems of the middle part of the century may have seen old vessels kept in use for longer, particularly in this area. Although too few sherds are present to be certain, the F7 sherds would suggest a 1350–1450/75 date range.

Catalogue (Fig. 5)

25. Pitcher/jug with triangular rim. Unglazed. Dull orange throughout. Fabric 6.

26. Pitcher/jug with thickened rim. Dull orange core, mid-grey surfaces. Hard-fired. Fabric 7.

Discussion

The medieval ceramics of this area are not well understood as most work in the past has concentrated, albeit disjointedly, on the assemblages from towns such as Lewes, Battle and Pevensey. The rural areas between have produced precious few assemblages, and those that are known are frequently from insecure contexts. This area of East Sussex is therefore lagging behind in an understanding of the development of different fabrics and forms within a chronological framework.

As a result of this the close dating of individual features is difficult. There is only one context which can confidently be placed into the twelfth century, context [70] with F1c sherds. Although many of the F1a and F1b sherds could also have their origins in the twelfth century, the late use of flint-tempering, and 'backward' nature of the local ceramics (Barton 1979, 152) indicates that these sherds could equally be placed within the thirteenth century. As such, the crudity of many of the

Table 5. Pit [35], Fill [24] Pottery quantification.

Fabric	No. of sherds	%	Weight (g)	%
1a	3	6.7	18	5.0
3a	13	28.9	64	17.6
3b	3	6.7	22	6.1
3c	2	4.4	6	1.7
4	3	6.7	32	8.8
5	13	28.9	170	46.8
6	5	11.1	25	6.9
7	3	6.7	26	7.2
Total	45	100.1	363	100.1

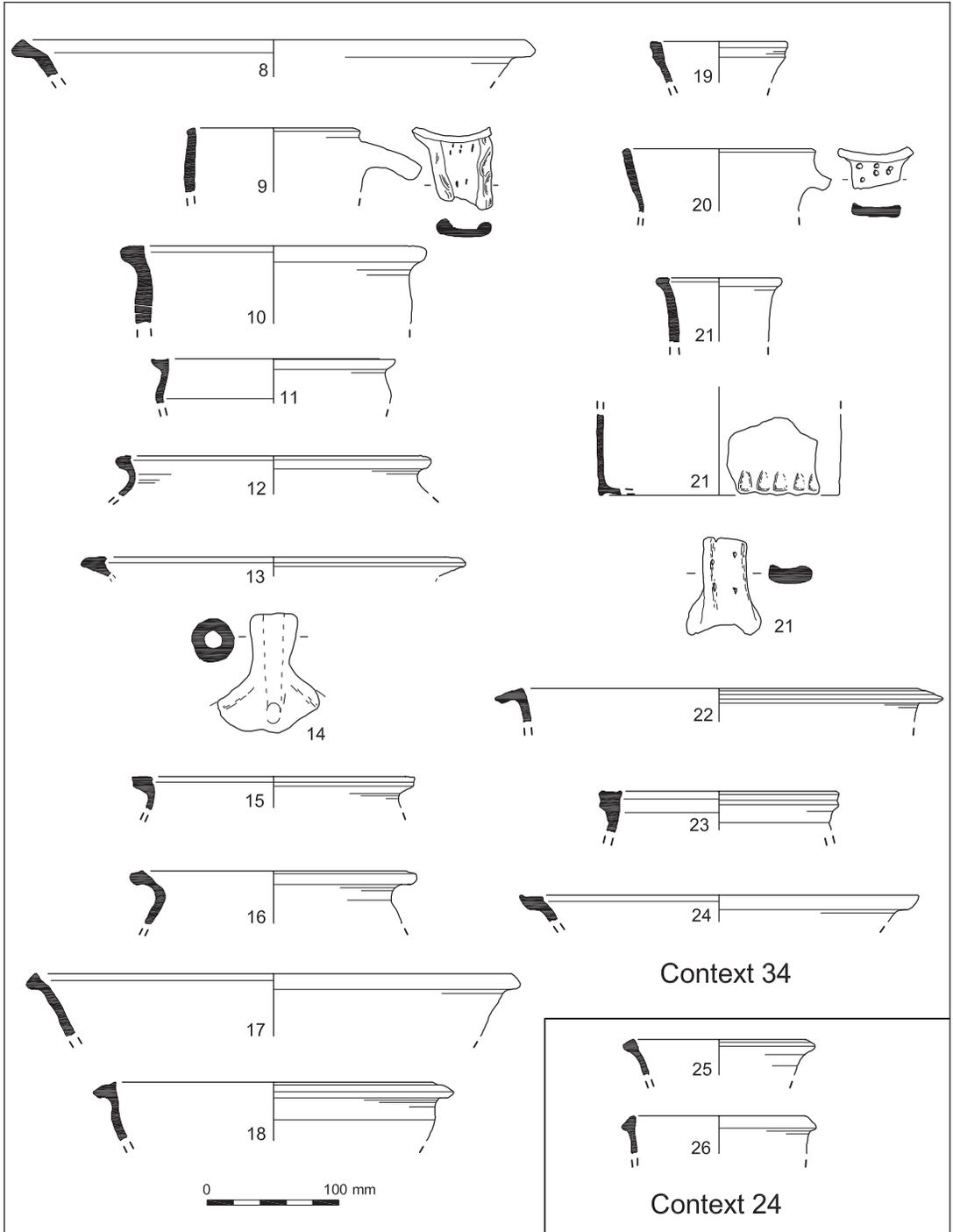


Fig. 5. Pottery (Contexts 34 and 24).

Context 23

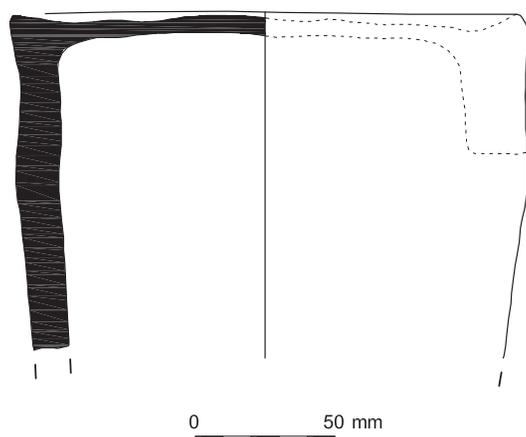


Fig. 6. Chimney pot.

vessels and coarseness of their fabrics is not an indicator of an early date — indeed most of the rim forms from the site are of later-thirteenth- to mid-fourteenth-century types. As such it would appear that although there may have been some limited, probably later-, twelfth-century activity the site was not permanently occupied until the thirteenth century.

The longevity of the crude local ceramics, as already noted in assemblages from Hailsham, and indeed the nearest kilns at Abbots Wood (Barton 1979), has not enabled a refinement of the fabric dating at the present site. Better stratigraphic relationships will be needed as well as contexts free of residual/intrusive material. Even then Barton (1979) has noted 'backward trends' in pottery manufacture locally, suggesting refinement may not actually be possible. At present, the rim forms give the best indicator of date. Most are quite well-developed, despite the crude fabrics, suggesting that the local potters were copying better-quality vessels from sources further afield. The pottery from the site would suggest the main occupation was between 1225/50 and 1325/50.

During this main period of occupation the pottery was undoubtedly acquired from local kilns, both those at Abbots Wood and others as yet undiscovered. It is quite probable that most of the flint-tempered vessels, including the 'finer' F3a, were from this source. The vessels acquired were certainly basic, whether cooking-pots or jugs, with no, or very minimal decoration. The negligible quantities of better-made wares from sources such as Rye and Ringmer could be due both to the site's poor status and relative 'land-locked' isolation with regard to trade. This would certainly explain the total absence of any truly foreign imported material.

There are very few later-fourteenth- to fifteenth-century sherds from the site, suggesting those represented are no longer the result of permanent occupation. As such the site was probably abandoned in the middle of the fourteenth century.

CERAMIC BUILDING MATERIAL by Luke Barber

The excavations along the bypass produced a small assemblage of ceramic building material: 116 pieces, weighing 2360 g from 14 different contexts. Of this total, 11 pieces (552 g), including

several overfired examples came from the watching brief (Chainage 3850, Fig. 1C:4). The remainder of the assemblage came from the excavation of the medieval farmstead. The material has been fully listed in the archive.

Only 14 pieces of brick (298 g) were located. All of these appear to be of early post-medieval date with all but two coming from fill [21] in feature [35]. It is possible most, if not all of this material is intrusive, although it may indicate that the final fill of this feature formed quite late (the fill below contained pottery of the fifteenth century).

The vast majority of the small assemblage comes from ceramic peg-tiles in one of three silty or fine sandy fabrics. Where present, peg-holes tend to be square rather than round. No large groups are present — the largest consisting of 50 pieces also comes from feature [35], fill [21]. As such, the vast majority of the roof tile from the site comes from a feature which either contains intrusive material (post-medieval brick) or possibly more likely, is of a later date than most of the others excavated on site. This perhaps suggests that roof tile was not present on the site in any quantity until this late period.

The presence of six floor-tile fragments is interesting. Four of these are in a coarse flint-tempered fabric which almost certainly originated from the Abbot's Wood kilns. They appear in thirteenth- to mid-fourteenth-century contexts ([20] and [34]) but appear out of place at the site and were probably derived from another nearby site of higher status. This suggestion is confirmed by the presence of two further tile fragments in fine sand-tempered fabrics, one of which from [34] is from a 24 mm tile decorated with a printed white slip design under a thin green glaze. This latter piece has clearly come from a building of some substance, perhaps the Otham Court complex to the east or from a nearby ecclesiastical building.

Four fragments (752 g) from one quite crude handmade 'chimney pot' were recovered from [23] (Fig. 6). The pot, which is relatively well-fired, is quite heavily tempered with flint and is similar to the more flinty pottery sherds in F3a. It has a mid-grey core with light grey interior and dull orange exterior surfaces. The wall thickness varies considerably and there are no signs of a central hole, stabbing or sooting on the piece. It is quite possible this item was also brought to the farmstead from another site.

THE METALWORK by Luke Barber

The excavation uncovered a very small assemblage of metalwork: 17 pieces from nine contexts. With the exception of one intrusive 18th-century copper-alloy clog fastener in [21] all of the material consists of ironwork. A full list is housed with the archive. The iron is generally in poor condition, presumably due to the acidic nature of the subsoil and this is probably at least in part the reason for the lack of metalwork at the site as a whole.

The ironwork consists of general purpose nails in the main, though a scoop/strip fragment and farrier's nail were recovered from [21], part of a horseshoe from [34] and a strip/binding from [42]. Although the lack of metalwork may in part be due to the subsoil, the presence of some material suggests this is not the only reason for the small metalwork assemblage. It is probable that little ironwork was used at the site, presumably any building construction relied on timber jointing. Agricultural tools would almost certainly have been present and their total absence from the assemblage suggests that the site practised a fairly strict recycling routine.

THE SLAG by Luke Barber

The excavation produced 19 pieces of slag, weighing 659 g, from 10 individually numbered contexts. The material has been fully listed on Metallurgical Remains forms for the archive. The majority of pieces consist of fuel ash slag (13 pieces weighing 83 g from seven contexts). This type of slag, although indicative of high temperatures, is not diagnostic of process. Although it may relate to metalworking, some could equally relate to lime-burning or even domestic hearths and ovens. In addition, one piece of hearth lining was recovered from feature [8]. Five pieces of iron slag, weighing 528 g, were also recovered (contexts [34], [42] and [72]). Although not particularly diagnostic, these pieces are likely to be from smithing rather than smelting. Low levels of secondary iron smithing are often found on rural medieval sites, often relating to repairs to tools and equestrian objects, and its presence at the current site is not unexpected. The quantity of slag is low throughout the full life-span of the site suggesting it was never an important part of the everyday activities. No obvious spatial concentration is apparent at the site to suggest where the activity was undertaken.

THE FLINTWORK by Chris Butler

A small assemblage of 26 pieces of worked flint was recovered during the fieldwork at both the medieval farmstead and elsewhere along the route (Table 6). The raw material is a mixture of different flint types comprising mostly black and grey un-patinated flint, some of which is iron-stained, and also includes one piece of beach pebble flint and two pieces of Bullhead flint.

The pieces in the assemblage are all debitage, and comprise predominantly large and irregular hard hammer-struck flakes, with no evidence of platform preparation. Two of these flakes have small areas of retouch. A single small two-platform flake core was found, and one of the flakes had been removed from a core that had been re-used as a hammerstone. All of these pieces are typical of flintwork from the Later Neolithic or more likely the Bronze Age.

Both a single soft hammer-struck blade and a fragment from a soft hammer-struck flake or blade have evidence of platform preparation, and whilst the blade has a little retouch on one edge, the fragment has abrasion on one edge that may result from utilization. Interestingly, both of these pieces are made on Bullhead flint, which derives from the Thames Basin and has a distinctive thin orange layer below a greenish-black cortex. These two pieces are either Mesolithic or Early Neolithic in date.

THE GEOLOGICAL MATERIAL by Luke Barber

The excavations produced 38 pieces of stone (excluding flint), weighing just over 4 kg, from nine individually

Table 6. Quantification of worked flint.

Hard hammer-struck flakes	15
Soft hammer-struck blade	1
Soft hammer-struck flake/blade fragment	1
Fragments	7
Shattered piece	1
Two platform flake core	1
Total	26

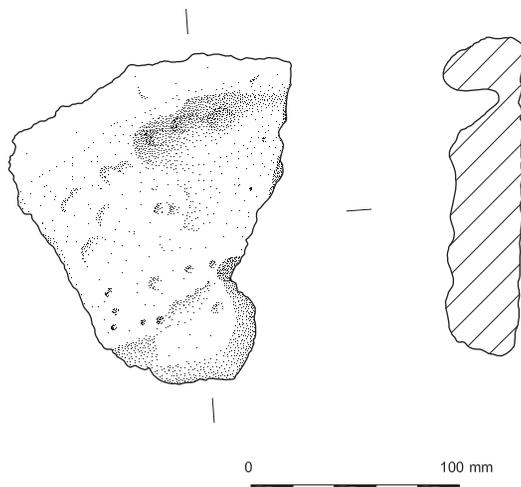


Fig. 7. Quernstone.

numbered contexts. The material, which is fully listed in the archive, is represented by seven different stone types. The majority of the assemblage consists of fragments of German lava (19 pieces weighing 1872 g). Although all of this material derives from rotary querns, only one diagnostic piece is present. This consists of part of an upper stone 38mm thick with a diameter of approximately 360 mm (Fig 7, [24]). Part of a rectangular slot 25 mm deep is present in the upper surface to take the wooden handle. The base of the slot is uneven, suggesting it was created by initially drilling three holes which were then joined up by chiselling out the baulks between the holes.

Three quern fragments are present in Lower Greensand. These are too small to calculate an accurate diameter from them, however, two thicknesses (25 and 28 mm) are present. These pieces are from three different querns. The only other piece of worked stone consists of a single piece of Horsham stone slate from fill [21]. This is out of place on the current site and is likely to have originated from a building of some standing in the area.

The other stone consists of unworked pieces which are all available quite close to the site and may have been brought in unintentionally. These include four pieces of Upper Greensand and three varieties of Wealden silt and sandstones.

The only stone brought intentionally to the site appears to have been used for querns, the presence of which clearly demonstrates the processing of arable crops on the site. The lava querns were probably purchased at the markets at Lewes or Pevensey where they would have been readily available due to water-borne trade. The source of the Lower Greensand querns is less certain. Lower Greensand outcrops very close to the site, whether a quernstone quarry was situated in the vicinity, or further westward is presently uncertain.

THE ANIMAL BONE by Lucy Sibun

Seventeen fragments of bone weighing 124 g were recovered from six contexts: [21], [24], [31], [33], [44] and [72]. The bone is poorly preserved due to the acidic nature of the soil and as a result only 14 of the fragments were identifiable. The identified assemblage comprises cattle longbone fragments

and molar fragments of both cattle and sheep. A cattle vertebra with evidence of carnivorous gnawing is present in context [24]. Fragments of cattle bone were identified in contexts [21] and [31] and these included a rib fragment showing evidence of butchery.

THE PLANT REMAINS by Lisa Gray

Sample sizes ranged from 2.5 to 24 litres; all were processed using bucket flotation. A 500-micron mesh was used to collect the flots and a 1-mm mesh was used to collect the residue. The flots were dried and after assessment four were selected for analysis. Table 7 contains full stratigraphic and processing information for the selected samples.

At analysis stage, each flot was scanned under a stereomicroscope with magnification of x10 to x40. Charred remains, apart from wood fragments, were counted and uncharred remains were estimated (see Table 8). Cereal identifications, where possible, were made using Charles

(1984) and Hillman (Hillman *et al.* 1996). Nomenclature for plant taxa has been taken from Stace (1997).

Preservation was by charring. Plant remains were generally intact though poorly preserved. Some identification to species was possible.

Each sample contained abundant quantities of charred wood (see below) and uncharred, probably modern root/rhizome fragments. Each also contained grain. Most of these grains were poorly preserved. This and the absence of chaff render it difficult to make any confident identifications to species, but it can be said that wheat (*Triticum* spp.) was dominant.

?Bread wheat (cf *Triticum aestivum* L.) was observed in each sample with the better-preserved examples in pit [69] and post-hole [38]. Most ?bread wheat grains were observed in ditch [41] and pit/gully [72]. Barley (*Hordeum* spp.) was observed in small quantities in pit [69] and ditch [41]. These grains were too poorly preserved to reveal if they were hulled or naked barley. They did not appear to have been malted. Two oat (*Avena* sp.) grains were present in ditch [41] but the grain alone cannot confirm whether it was wild or cultivated oat.

Charred seeds were also present consisting of fat hen (*Chenopodium album* L.) ?red goosefoot (*Chenopodium cf. rubrum* L.) and ?curled dock (*Rumex cf. crispus*).

Table 7. Stratigraphic details of examined plant remains.

Sample no.	Context	Context type	Sample size (l)	Date range	Flot size (ml)
4	38	post-hole 37	16	1200–1325	15
9	42	curving ditch 41	24	1200–1325	80
10	70	pit 69	6	1125–1225	10
11	72	gully 71	24	1225–1325/50	75

Table 8. Quantification of plant remains.

Species	Common name	Plant part	Habitat/ use codes	[70] pit 69	[38] p-h 37	[42] ditch 41	[72] gully 71
Charred remains							
Indeterminate		wood		++++	++++	++++	++++
<i>Triticum cf. aestivum</i>	Bread/Club wheat	grain	FI	2	5	15	12
<i>Triticum</i> sp.	Wheat	grain	F1	0	+	0	0
<i>Hordeum</i> sp.	Barley	grain	FI	3	0	1	0
<i>Chenopodium album</i> L.	Fat Hen	whole seed	ABFH	0	2	1	1
<i>Chenopodium cf. rubrum</i> L.	Red goosefoot	whole seed	AB	6	0	0	0
<i>Rumex crispus</i> L.	Curled dock		BC	0	1	1	0
<i>Rumex cf. crispus</i> L.	Curled dock		BC	0	0	1	0
<i>Avena</i> sp.	oat	grain	AFI	0	0	1	0
Uncharred remains							
indet. root/rhizome fragments				++++	++++	++++	++++
Habitat/use code	Description						
A	weeds of cultivated land						
B	ruderals, weeds of waste places and disturbed ground						
C	plants of woods, scrub and hedgerow						
D	open environments (fairly undisturbed)						
E	plants of damp/wet environments						
F	edible plants						
G	medicinal and poisonous plants						
H	commercial/industrial use						
I	cultivated plants						

Table 9. Quantification of charcoal (no. of frags). Key: h = heartwood; s = sapwood (diameter unknown).

Context	Sample	Description and date	<i>Betula</i>	<i>Prunus</i>	<i>Quercus</i>	Salicaceae	<i>Ulex/Cytisus</i>	Bark
6	1	Fill of pit/ scoop 5; 1200–1300	-	-	42h	-	-	8
12	3	Fill of shallowpit/ scoop 11; -	-	-	-	-	-	115
42	9	Fill of curving ditch 41; 1200–1325	-	3	4h, 2s,	4	3	1
76	13	Fill of post-hole 75; -	4	1	1h	-	-	-

There is little variation between the earliest, twelfth- to early thirteenth-century sample from [70], and the later thirteenth- to early-fourteenth-century ones. The main difference is the tentative identification of seeds of red-goosefoot in the early sample along with those of fat hen. Both of these plants inhabit similar environments: manured, nutrient-rich ground (Grime *et al.* 1987, 188 & 190). Red-goosefoot is described as being ‘common beside eutrophic lakes and ponds’ (Grime *et al.* 1987, 190).

The plant remains alone do not offer evidence of marked ecological or economic change from the twelfth to the fourteenth centuries.

The remaining three samples were taken from different features. Sample <4>, the fill of post-hole [37], was further west than the ditch and gully samples <9> and <11>. These produced most grains but they were also larger samples so the quantity is probably due to sample size rather than to feature use.

Each of the cereals surviving in these samples represented types grown in medieval Britain. The dominance of bread wheat (*Triticum aestivum* L.) is typical (Astill 1988, 109–10). Barley (*Hordeum* spp.) was also common and used as fodder or malted to make ale. It is possible that these plant macrofossils are the remains of cereal processing and cultivation that took place at this site. Ethnographic studies of non-industrial farming communities suggest that grain and small seed assemblages like those recovered here come from the fine sieving stage of crop-processing when the grain store is sieved or sorted by hand to remove contaminants (Hillman 1981; Jones 1984).

THE CHARCOAL by Rowena Gale

Introduction

Environmental samples collected from thirteenth- to early/mid-fourteenth-century features at the farmstead produced (mainly) small amounts of charcoal. Four were selected for analysis as follows: [6] Fill of a shallow pit/scoop [5] (flot), dated 1200–1300; [12] Fill of shallow pit/scoop [11] (flot), undated; [42] Fill of ditch [41] (hand selected), dated 1200–1325; [76] Fill of post-hole [75] (flot), undated.

Methods

Bulk soil samples were processed by bucket flotation and sieved through 500-micron and 1-mm meshes. The charcoal was poorly preserved. Standard methods were used to prepare

the samples (Gale & Cutler 2000). The anatomical structures were examined using incident light on a Nikon Labophot-2 compound microscope at magnifications up to x400. The taxa identified were matched to prepared reference slides of modern wood. When possible, the maturity of the wood was assessed (*i.e.* heartwood/ sapwood).

Results

Context details and the taxa identified are presented in Table 9. The taxa included: birch (*Betula* sp.), blackthorn (*Prunus spinosa*), oak (*Quercus* sp.), willow (*Salix* sp.) and/or poplar (*Populus* sp.), and gorse (*Ulex* sp.) and/or broom (*Cytisus scoparius*).

Discussion

The site is located on Wealden clay with areas of chalk and lower greensand close-by. The taxa identified included oak (probably mostly from large wood) birch and willow or poplar, and shrubby species including blackthorn and gorse or broom. These species are typical of woodland communities on slightly acidic — neutral or leached soils and probably formed fairly open oak/ birch woodland, with areas marginal woodland and scrub.

The origin of the charcoal is unknown, but in view of the proximity of the farmstead to three of the contexts ([6], [42] and [76]), domestic fuel debris seems a strong possibility. The charcoal was too fragmented to assess origins from coppiced/ managed woodland.

Charcoal from the undated pit/scoop [11] is more intriguing. The large quantity of charcoal in this sample consisted entirely of (unidentified) bark, with some fragments measuring up to 12 mm in thickness, which implies the use of poles or branches of some maturity. The absence of wood in this context suggests that the bark was de-rinded prior to burning, but the exclusive use of bark as firewood would be unusual since it spits and sparks while burning (Percy 1864) and thus makes poor fuel. However, in a peasant economy, the secondary use of poor-quality waste materials, such as bark from tanning, was probably commonplace. Had this material resulted from particular aspects of woodworking or timber conversion, for example, as waste from tapering the bases of poles or posts, a proportion of wood chippings would be anticipated in the debris, but there was no evidence of such in the sample.

DISCUSSION

The excavated area at the western end of the Polegate bypass yielded heavily truncated features interpreted as the remains of a medieval farmstead.

Dating of the pottery, although not without its problems, suggests activity at the site began in the late twelfth or very early thirteenth century, and continued until the mid-fourteenth century. Although a little later pottery and ceramic building

material is present, this is probably from later agricultural work. Residual flint artefacts from the site (and the watching brief) suggest limited prehistoric activity in the general area.

The system of ditches was laid out at right angles to Bay Tree Lane, although the date for this is uncertain. Ditch [3], assigned to Phase 1, might suggest a mid/late twelfth- or early-thirteenth-century origin, although the evidence is limited. The initial layout formed an enclosure some 34 m wide and in excess of 28 m long (ditches [3] and [65]/[67]). Although the excavated area was not large enough to be sure, the fields surrounding the enclosure appear to have been considerably larger (there is no parallel ditch to the east of ditch [65] for at least 24 metres).

The excavated features suggests that the enclosure was subdivided into at least three smaller areas by ditches [39], [79] and [9]. Whether these were created at the same time as the outer ditches or were added later is uncertain. Whatever the case, the rear area of the overall enclosure appears to have been divided into two smaller 'paddocks', one 15 m wide, the other 17 m wide. Both these 'paddocks' appear to have had access to the northern part of the main enclosure via two wide accesses formed by ditches [39] and [79] terminating, and curving northwards. The irregular shallow features in and around these access points may be the result of trample and wear from livestock: the flint fill [34] in hollow [32] may be an attempt to firm up the surface in this area. Such hollows would provide an obvious place to discard domestic refuse as not only would they provide convenient pits, but the refuse would help fill in the unwanted hollow and firm up the surface. Ditch [22] may represent an attempt to close the western access point.

The northern subdivision of the enclosure contained pit [35], which, judging from its size, could easily represent a pond. The curious arrangement of ditches to the southeast (ditches [41], [71] and [73]) may represent an attempt to stop livestock access into the northern subdivision while still allowing them access to the pond. This whole area was obviously subjected to the disposal of domestic waste suggesting that the associated building lay close-by. It is considered probable that this was to the north of the excavated area, closer to Bay Tree Lane. Now demolished post-medieval buildings are known to have fronted onto the lane in the eighteenth century (Gardiner 1991). Whether

the domestic dwelling was situated in the same subdivision as the possible pond, or in a further subdivision outside the excavated area is uncertain. There is still the possibility that structures existed within the excavated area but that the associated evidence had been totally removed by later ploughing after the abandonment of the site. This may have occurred from an early period; the fifteenth- to sixteenth-century infilling of the possible pond, the last vestige of the medieval farmstead, may have been in preparation for arable cultivation.

Although all of the finds assemblages were limited in size, the nature of the artefacts, and to an extent the animal bone, suggest the remains represent a farmstead spanning the late twelfth/early thirteenth to mid-fourteenth centuries. The finds demonstrate the presence of a mixed agricultural economy. Cereals were clearly being processed at the site, though whether they were grown on the clay or greensand is uncertain. The range of cereals is fairly typical to those known to have been grown in the Weald (Gardiner 1996).

There are only a handful of comparable sites in the Weald, most with clear evidence of buildings such as Muddleswood near Hurstpierpoint, a farmstead occupied during the twelfth and thirteenth centuries (Butler 1994). Closer to the site, fieldwalking and sample excavation at *Ivenden*, Mayfield produced material interpreted as the remains of a farmstead occupied c. 1150 to c. 1300 (Gardiner 1998). Small-scale excavations at Park Farm, Salehurst uncovered the remains of a substantial aisled hall built in the thirteenth century and extended in the fourteenth century (Gardiner *et al.* 1991) which may be of higher status than the current farmstead. Evidence of a twelfth- to thirteenth-century farmstead, with associated rectangular ditched enclosures was recorded at America Wood, Ashington (Priestley-Bell 1994) and is probably a closer parallel to the current site.

Further evidence of medieval activity and land division is known to the south of the site in the Eastbourne area. A recent evaluation in King's Drive uncovered ditches containing pottery dating from the twelfth to the fourteenth centuries (Stevens 2004) and pottery of a similar date is known from investigations carried out in nearby Decoy Drive in the 1980s (East Sussex County Sites and Monuments Record ES6907).

The farmstead at Polegate lay within the medieval Wealden landscape studied by Gardiner

(1996). The economy was firmly based in pastoral and arable agriculture with some other peripheral activities such as pottery manufacture, as at the local unexcavated centre at Abbots Wood (Barton 1979). Nearby markets at Hailsham or Willingdon, both granted market rights during the lifespan of the farmstead (Bleach & Gardiner 1999, 43) offering outlets for produce and purchase of the locally-produced pottery, within short cross-country distance of the land-locked farmstead. Recent archaeological work has uncovered evidence of medieval activity in both areas (*see above*, Gaimster & Bradley 2002, 159). Markets located at Pevensey and Lewes offered the opportunity for acquisition of more 'exotic' goods, such as pottery from Rye or Ringmer and the imported quernstones, though on the whole non-local goods appear to have been used only when their functional properties outstripped those available locally.

In conclusion, the excavation did go some way to address Gardiner's (1998, 108) assertion, that

'future excavations should seek to examine the farm as a complete working space, comprising the house, other buildings, animal enclosures and areas of rubbish disposal'. It was unfortunate that associated structures were not located and that no other medieval features were identified in the vicinity of the site, or elsewhere on the route during the subsequent watching brief. However, the identification and excavation of a medieval farmstead at Polegate adds an important and much-needed site to the short list of those so far examined in the Weald.

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