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# THE ROMAN POTTERY MANUFACTURING SITE IN HIGHGATE WOOD: EXCAVATIONS 1966-78

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A E BROWN  
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Cover image: George Demetriou, a participant in the Horniman Museum kiln experiment in 1971, finishing off a necked jar. (Photographer: Bernard Brandham, Horniman Museum Photographer).



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Part I.

## The Excavations





# 1. Introduction

Highgate Wood is a wooded park owned by the Corporation of the City of London in the parish of Hornsey, now part of the London Borough of Haringey. The Roman pottery manufacturing site there was discovered by one of the writers (AEB) during an archaeological survey of the public open spaces of the area. The primary objective of the survey was the recovery of prehistoric flintwork, which was at that time abundantly visible in bare patches on the ground surface, but the finding in July 1962 of an abraded sherd of samian Drag 37 was followed up later that year and in 1963 by the discovery of quantities of small fragments of Romano British buff and grey ware (Brown 1962, 1963). In the summer of 1966 a small trial trench designed if possible to establish the nature of the Roman site was excavated by the writers, with the kind permission of the Park Superintendant of the Corporation of London; enough was found to show that the site had been concerned with pottery manufacture. For eight years after that annual excavations of five to six weeks duration were carried out on the site, with a short final season in 1978; several interim reports have been published (Brown & Sheldon 1968b, 1969a and b, 1970, 1971, 1974; Anon 1968). The site was excavated entirely with volunteer help; from 1968 to 1972 work was combined with adult education classes on practical archaeology organised by the City Literary Institute and the Department of Extra Mural Studies of the University of London (Brown & Sheldon 1968a, 1969c). During the 1971 season an experiment in the manufacture of pottery on the site and its firing in replica kilns was carried out by teachers of pottery employed by the then Inner London Education Authority (Experiment 1972, 1973); the archaeological aim of the experiment was to establish some general ideas about the practical aspects of pottery manufacture on a site such as this, which could be used in its overall interpretation once the excavation was over. A similar exercise in the reconstruction of a Roman pottery kiln took place in the Wood in July 2010 under the auspices of Bruce Castle Museum, London Borough of Haringey, and MLA Renaissance London (Peacey & Hurst 2012).

## 1.1. The Site

**Figs. 1 and 2**

The site lies on the top and both sides of a small knoll at the northern end of Highgate Wood; its highest point is at c. 102.7m OD (centre at NGR TQ 28308900). Its northern edge is bounded by the cutting belonging to the branch railway to Alexandra Palace, opened in 1873 but now abandoned; it is not known whether Roman material was discovered when the cutting was excavated. The knoll formed part of a ridge, running north-south, which is the watershed which separates the catchment areas of the River Brent to the west from the River Lea to the east. Highgate Wood and the western part of Queen's Wood lie on a thin deposit of the Claygate Beds, a more sandy material than the underlying London Clay, very suitable for the manufacture of pottery and London Stock bricks (Collins & Hacker 2012; Hacker, Scaife & French 2014; Clements 2015). This particular geological formation was of key importance from the potting point of view, and if further sites are to be found they can be expected to lie on it; but since the Geological Survey does not mark deposits less than a metre thick on its maps, its actual distribution is not easily determinable.

There are also thin spreads of superficial flinty gravel and occasional thicker deposits of sandy gravel. These gravel deposits are of glacial origin and may belong to the Dollis Hill Terrace gravels, which lie 500m to the north, or form part of a more generalised spread of clays, sands and gravels which was the result of slope degeneration in periglacial conditions during the Pleistocene.

A small stream, mostly dry now, arising 100m to the south-west of the site from the junction of the relatively permeable Claygate Beds and the impermeable London Clay, ran towards the western edge of the wood (Fig. 44). The potters could have obtained water from this, or, more probably, collected rainwater in the ditches which formed such a prominent feature of the excavated site and from which clay for potting could have been obtained.

The topsoil consisted of a yellowish/brown earth, the result of the weathering of the superficial Claygate Beds. Its pH (an average of 4.2 was recorded) indicated a high degree of acidity; very little bone material survived.

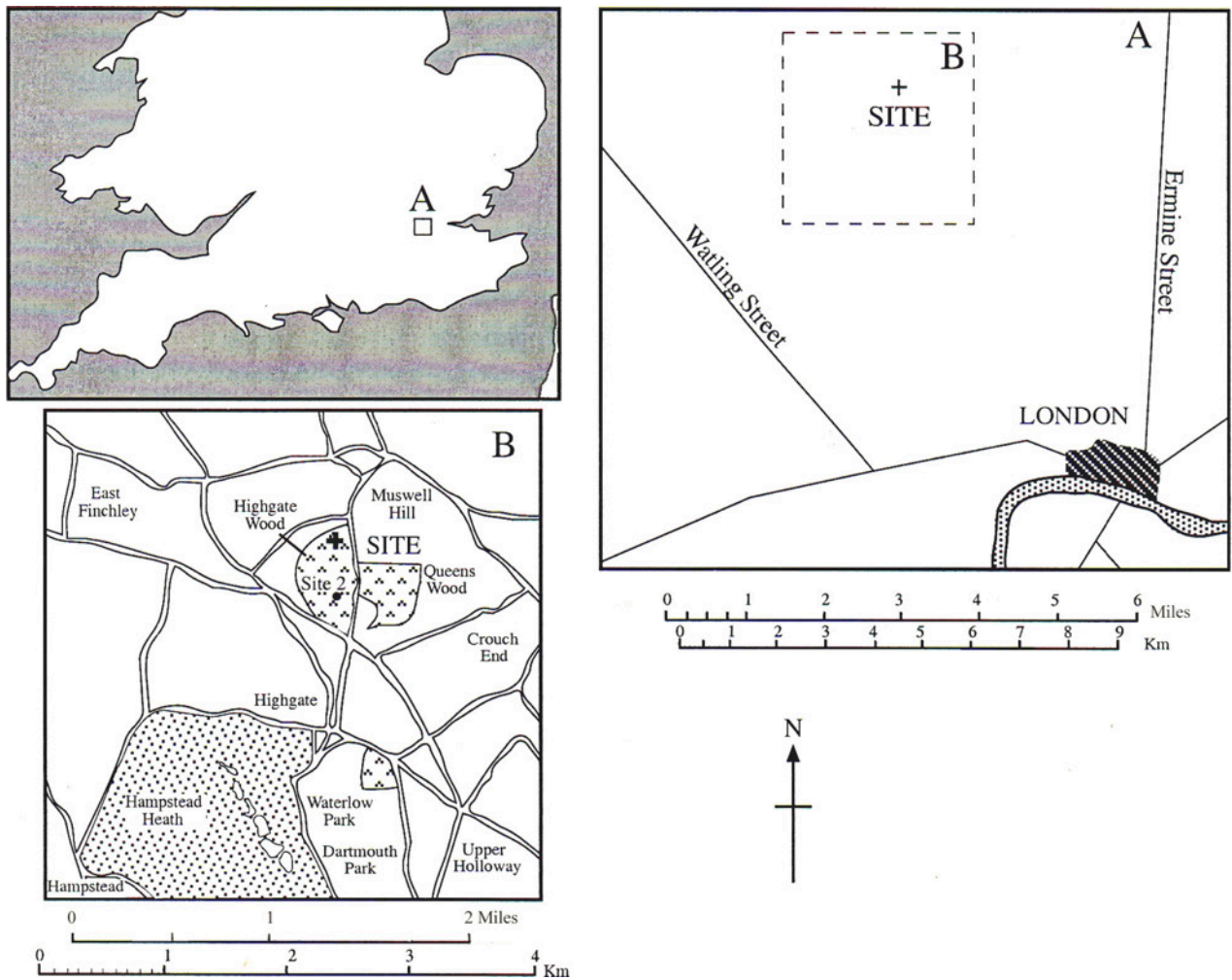


Fig. 1. Highgate Wood: Location

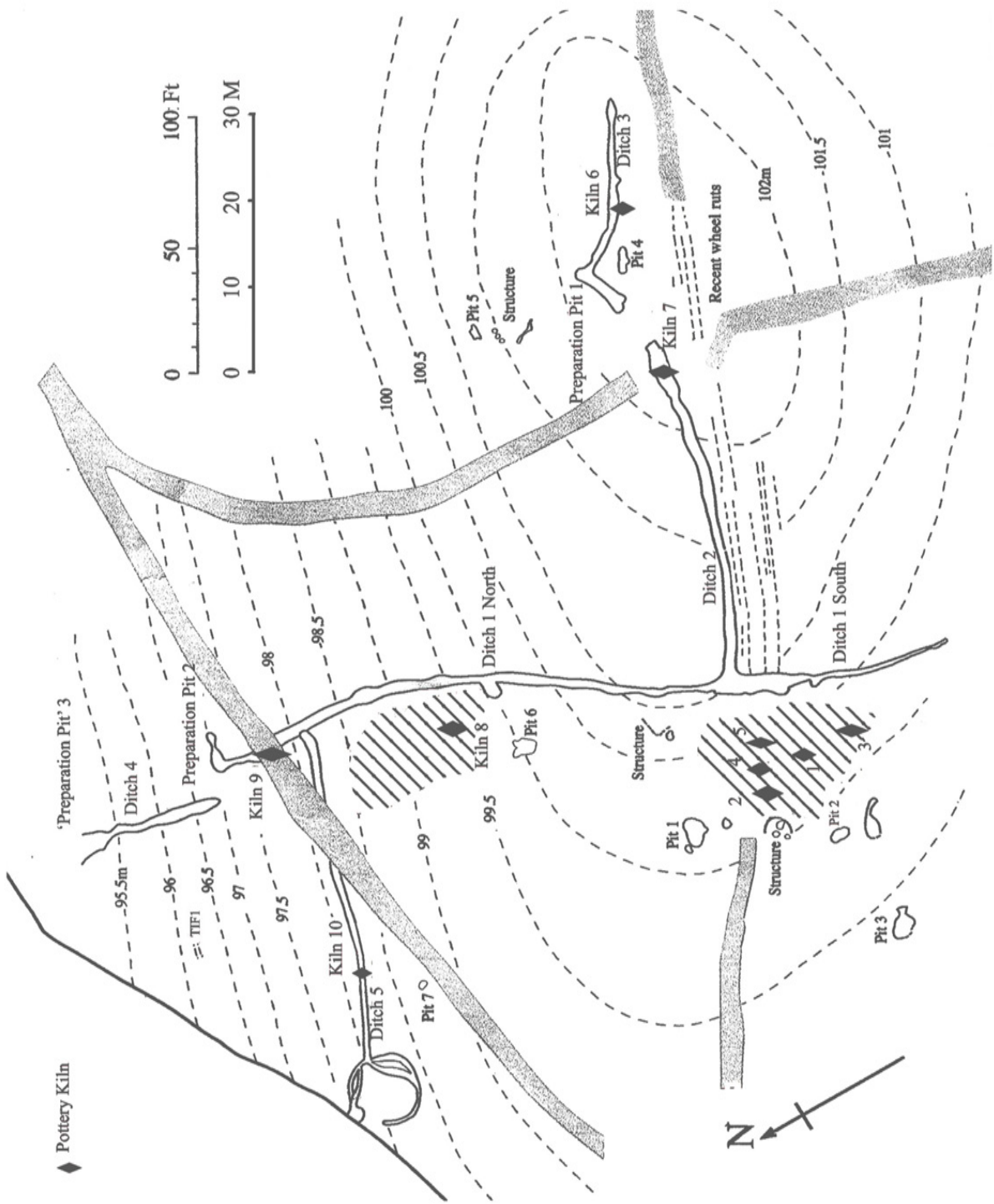


Fig. 2. Highgate Wood: Site Plan



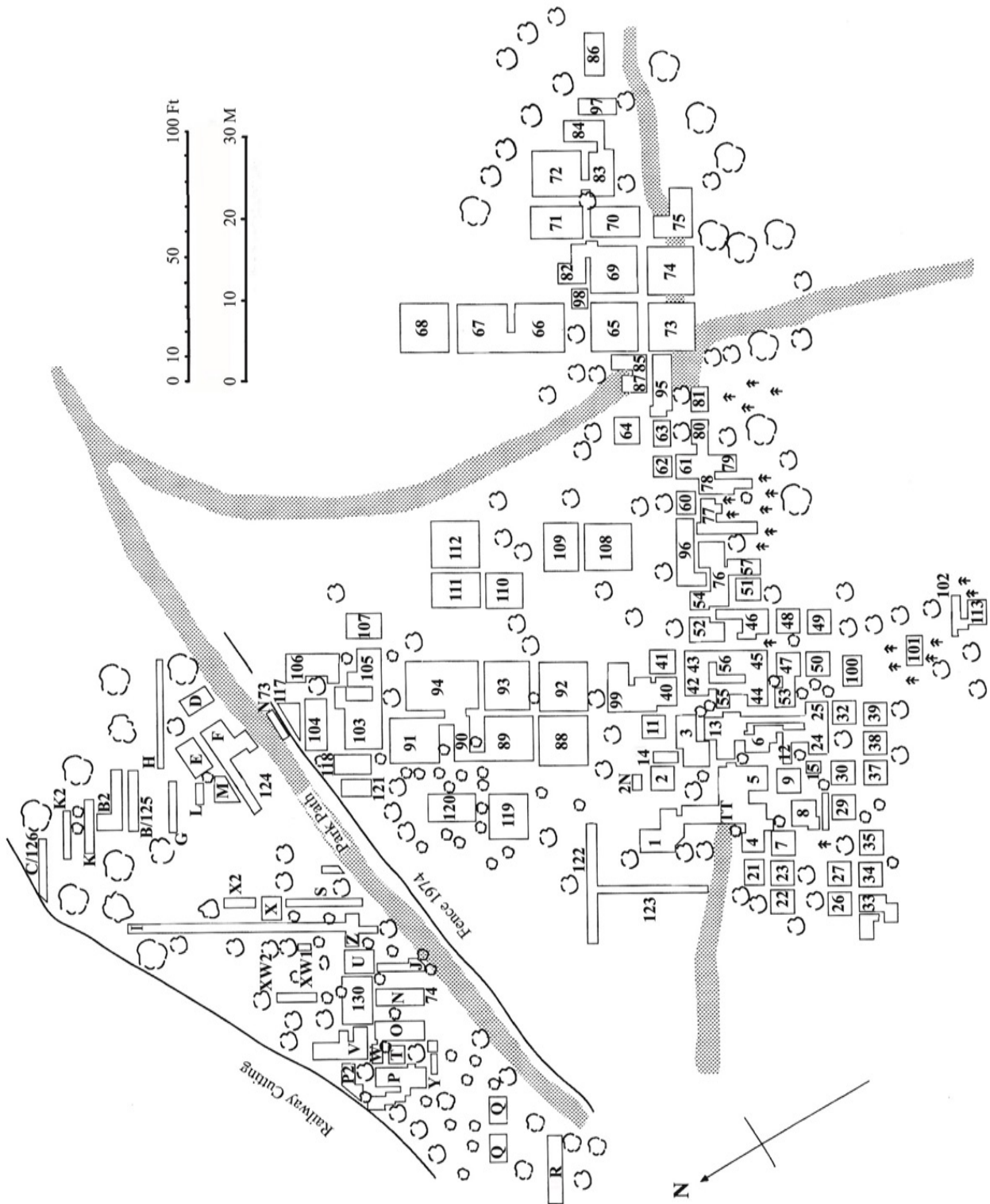


Fig. 3. Highgate Wood: Trench numbering

## 2. The Excavation

The excavated site covered some 1.1ha. Because of the existence of trees and the nature of Highgate Wood as a public park, the site was excavated by means of relatively small trenches separated by baulks (Fig. 3). The recording system used consisted of a simple numerical sequence of layers and features relating to each individual trench. Small finds and certain pottery types, notably those imported to the site, were recorded separately (prefixed RP and SF in the [pottery catalogues](#), and other [finds reports](#)).

The account of the pottery found on the site, pp.107–265, has been set out for ease of reference in exactly the same way as the excavation report given here.

The finds and site records have been deposited in the London Archaeological Archive and Research Centre, Museum of London. Kiln 2, the latest in date of the pottery kilns uncovered, was lifted from the site in 1968 and placed on display at the Horniman Museum, Forest Hill (Butterworth 1969). It has since been transferred to Bruce Castle Museum, but is not currently on display. Plans are being made to move it to an extended Visitor Centre in Highgate Wood itself.

### 2.1. Phase 1 (First half of 1st century AD)

Fig. 4

*Dating.* The grog tempered Highgate B pottery is in forms which were common in south-east England in the first half of the 1st century AD, and this fabric had a significant future before it in the early Roman period, as will be seen below. By way of contrast, the chaff and grog tempered Highgate A pottery scarcely figures in early Roman deposits in London. This is therefore a group which could belong to the immediate pre-conquest period, or just after: first half of 1st century to just beyond AD 50 (Thompson 1982; Tyers 1996; Davies *et al* 1994, 74).

(i). *Circular Structure* (Fig. 5 and Fig. 6). The principal feature of this phase was a circular structure c. 8m in diameter with an entrance opening towards the north-west. It was defined by a ditch, the width of which varied from 0.5m on the western side to 0.7m in places on the east. The ditch was shallow (0.6m) on the west but deeper (1.1m) on the east. The nature of the walling is unknown. The bottom fill of the ditch was mainly a grayish/yellow clay, which yielded a fragment of a sandstone quern from the southern side of the entrance and from the south-eastern sector a possible clay loom weight and a pair of bronze tweezers. The pottery from the ditch consists mainly of bead rim jars in the vegetable tempered Highgate A fabric and cordoned necked jars in the grog tempered Highgate B fabric (see p.108).

(ii). *Pit 5, Trench 67* (Fig. 6). This pit was an irregular parallelogram, 2m by 1.2m, shallow on its western side (0.4m) and deepening to 1m on its eastern side, where the bottom was flat for c. 0.7m. In this area the base of the pit was covered in places with a thin layer of charcoal, with on top a hard packed layer consisting of lumps of red baked clay, charcoal and yellow clay; this in turn was covered with layers of clean yellow clay and a thick layer of yellow clay mixed with reddish burnt clay and charcoal; there was a heavier concentration of burnt clay and charcoal in the eastern portion of this fill. There were patches of red burnt clay along the sides of the pit. In the shallower western part were a number of stones and some concentrations of burnt clay with soft earth inside them. The pottery included sherds in Highgate A fabric

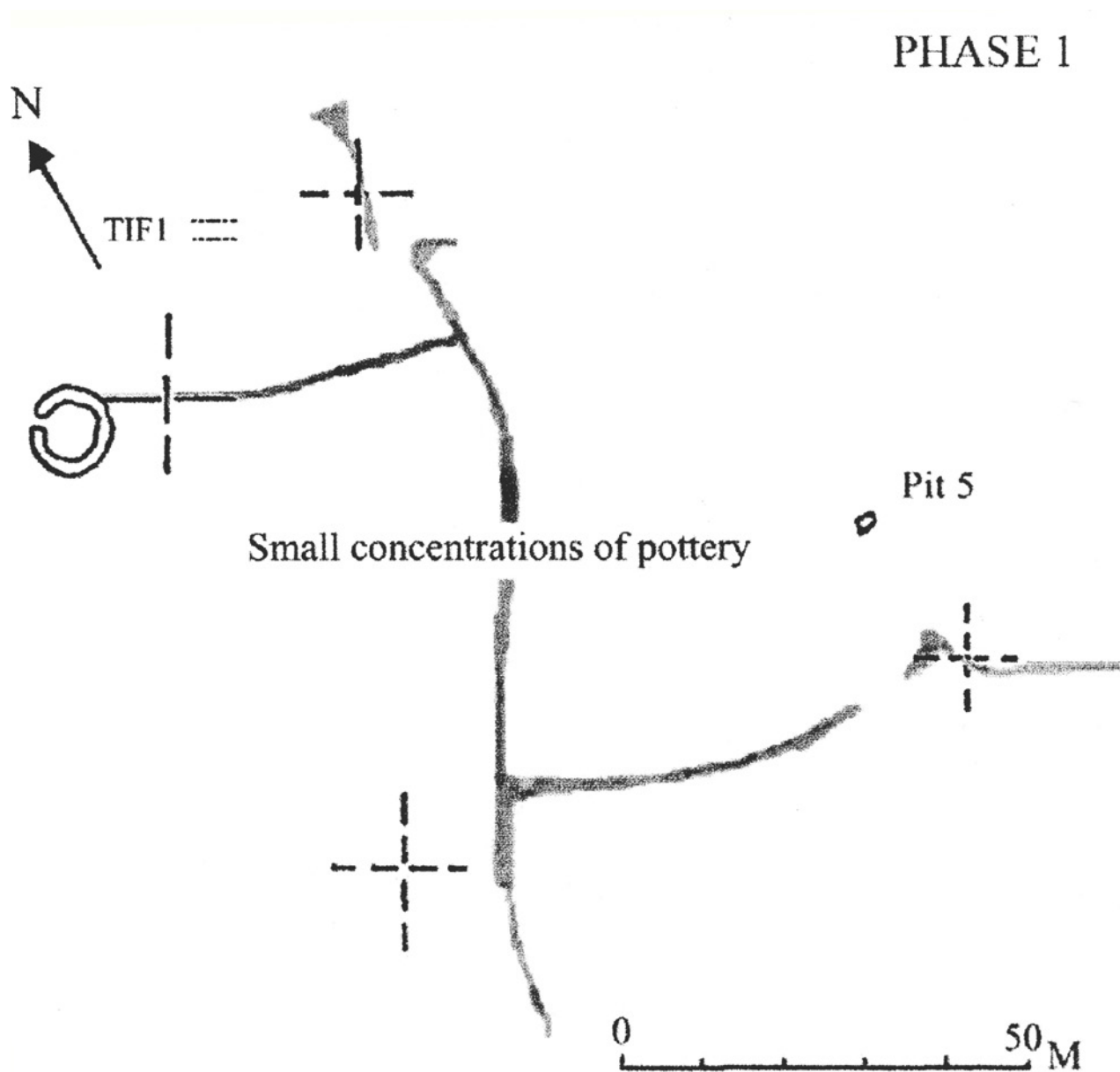


Fig. 4. Highgate Wood: Phase 1

and a few other early pieces (see p.113). These came from the lower layers. There was also a quern fragment of local sandstone.

The fill, with evidence for intense burning overlying charcoal, is similar to that seen in experimental pit firings, and the stones, on which pots could have been placed, have parallels in ethnographical studies of pit fired pottery (Gibson 1985, Rye 1981, 98). That the pit was used for the firing of pottery should be seriously considered. The loom weight-like object from the Circular Structure might also be taken to support the notion of pottery making here (see the Baked Clay report p.330). The hard packed nature of the fill of the pit indicates that after going out of use it had been deliberately filled in with some care; the B type pottery from these upper layers included a hooked rim bowl and a lid.

(iii). *Trench I F1* (Fig. 2 – Fig. 4). A very shallow gulley 0.45m across and 0.15m deep at the northern end of Trench I, running east-west, with a filling of orange/grey clay with flecks of charcoal. It produced two pieces of A pottery and one of B (see p.114), as well as a fragment of gritty baked clay. It might belong to

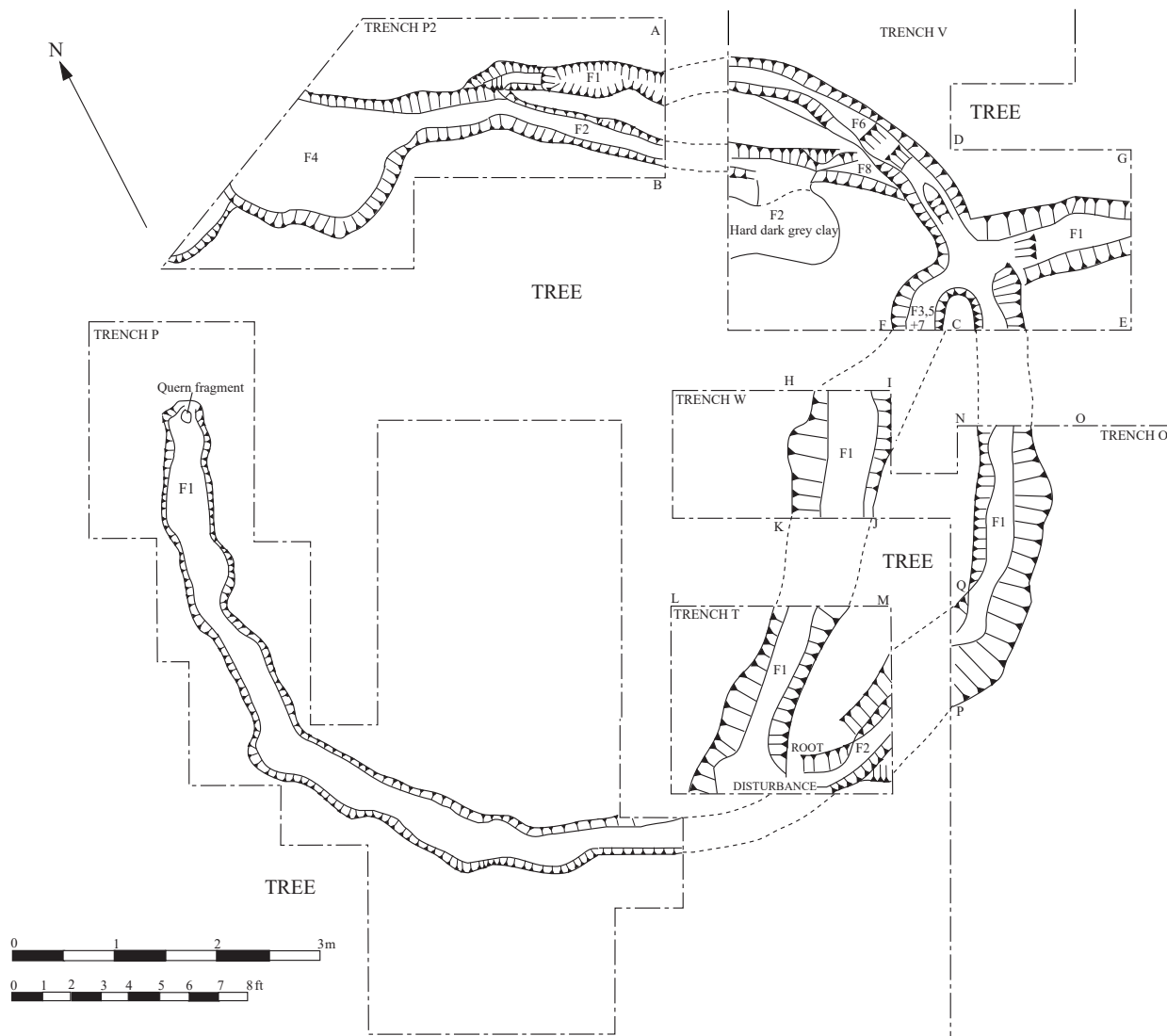


Fig. 5. Highgate Wood: Circular Feature, NW area of site

this phase, and hint at the destruction of archaeological features when the railway was put through.

There were very small concentrations of A and early B pottery in various places (Fig. 4), almost always mixed with later types, but no further features can be placed in this phase. The locations were: the north-west of the site, incorporated in later features in the area of the Circular Ditch and the western part of Ditch 5; the general area of Ditch 4; the western end of Ditch 3, and the Southern Kiln Dump.

## 2.2. Phase 2 (Mid- to end of 1st century AD)

A phase characterised by the manufacture at Highgate of mainly jars and bowls in a hand formed grog tempered fabric. The archaeological features attributable to the phase consist principally of ditches dug to receive single chambered twin flued kilns, which initially were essentially structureless, sooty material and waster pottery being simply raked back into the ditch after firing had taken place. There were also other ditches running down the slope and terminating in levigation pits set at right angles to them. The sequence set out below is based on the analysis of the pottery associated with these features and the general probability that features were combined in a way which would make for efficient working.

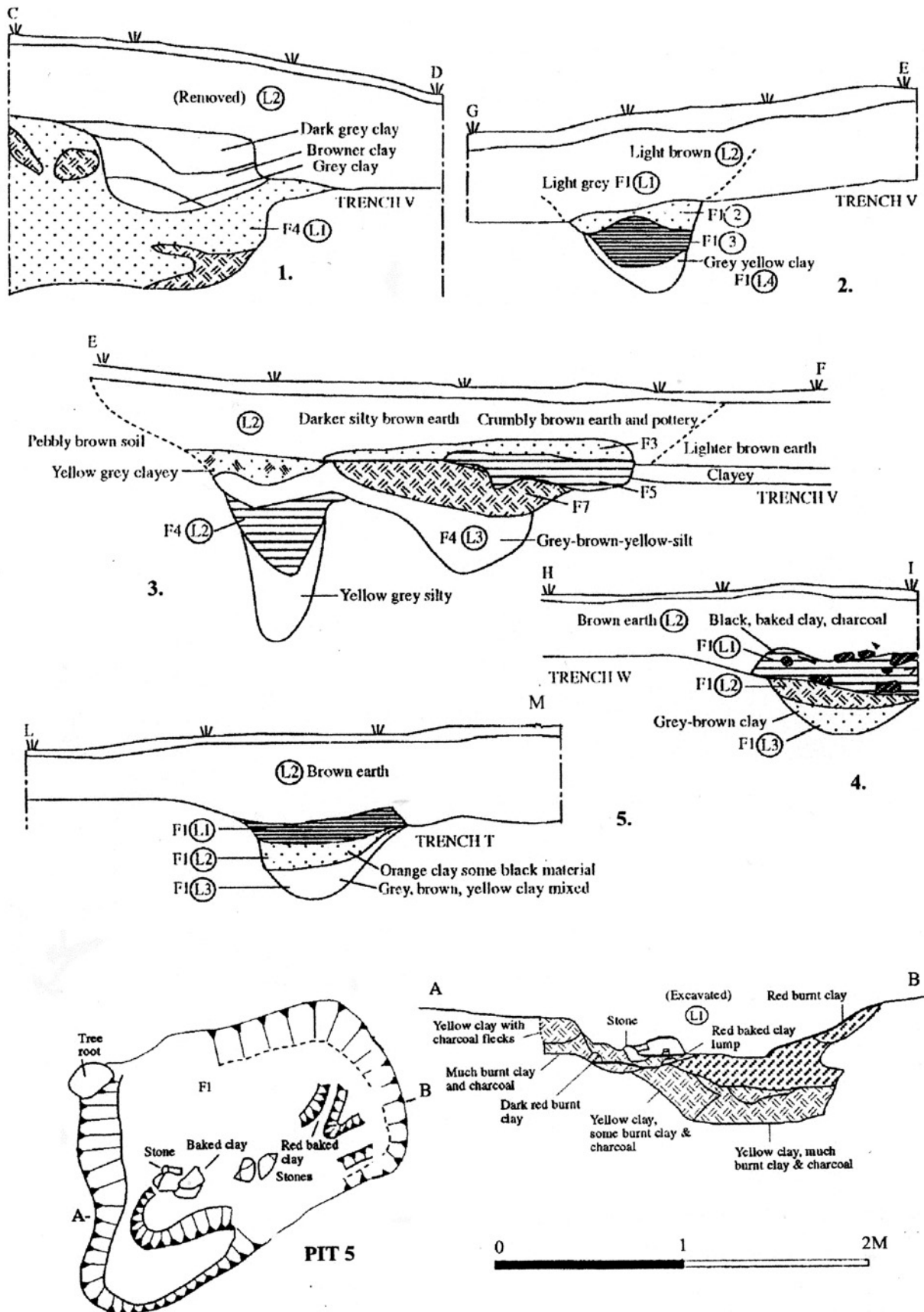


Fig. 6. Highgate Wood: Pit 5, and Sections, Circular Feature

*Dating.* Highgate Wood B was current in the London area from c. AD 40 to the end of the 1st century, subsequently declining rapidly in popularity. It was the commonest type of coarse ware in use in London before the Boudiccan rebellion (MOLA List 2015, 201; Davies *et al* 1994, 74–82). Highgate Wood was not the only place where it was made, as is indicated by the presence of B ware vessels decorated in ways not seen at the kiln site.

At the site, the jars, bowls and lids are typical of the Neronian-Flavian period in the City; the red slipped ware has the same chronological range. The end of the phase was marked by an attempt to move towards the manufacture of Highgate C pottery with the hybrid B/C pottery, dated in London to the period AD 65–85, followed by the continued manufacture of B ware with an admixture of C type pottery towards the end of the 1st century.

### 2.2.1. Phase 2 (1)

Fig. 7

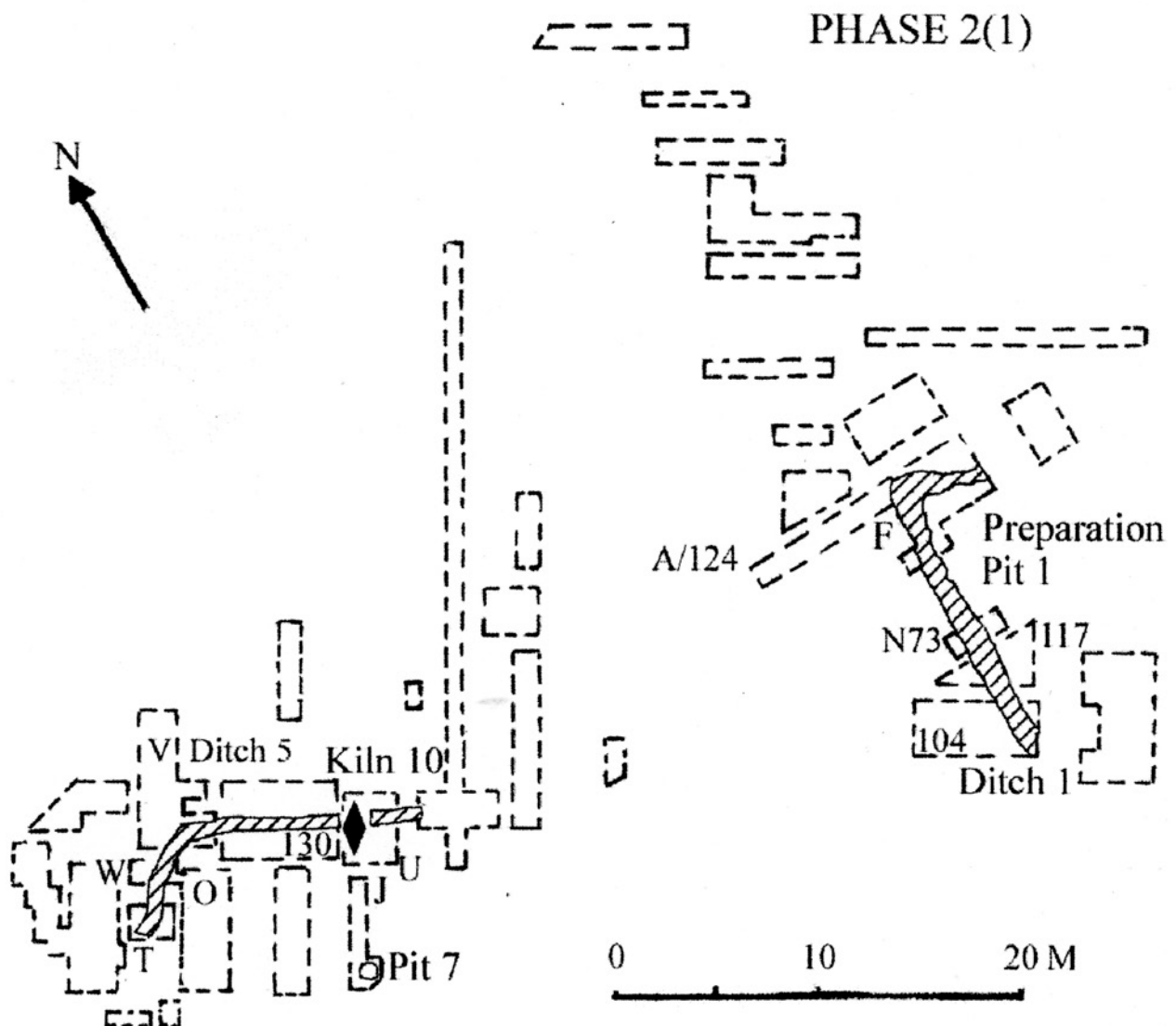


Fig. 7. Highgate Wood: Phase 2 (1)



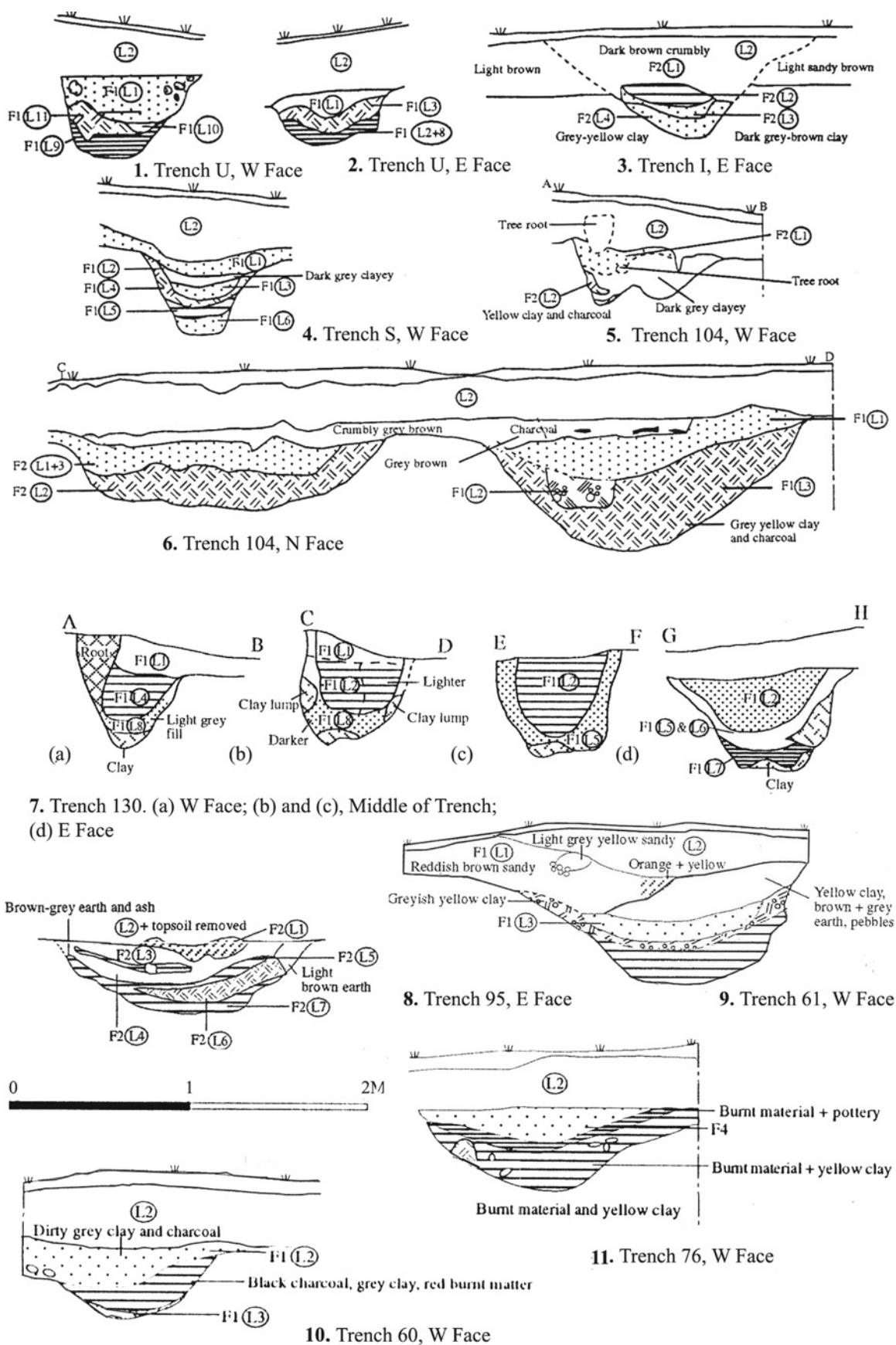


Fig. 8. Highgate Wood: Sections, Ditch 5 and Ditch 2

(i). *Reuse of Phase 1 Circular Structure?* A ditch 5.5m long was excavated within the Circular Structure, running north-east/south-west and so arranged that its northern end coincided with the beginning of Ditch 5 (Fig. 5 and Fig. 6, 1; 3(F4, L3); 4 and 5(F1, L3). The ditch was round bottomed, 1m wide and had a depth ranging from 0.78m in the north to 0.56–69m in the south. Its fill consisted of grey/brown yellow clay, with some charcoal flecks in the bottom. There were some lumps of burnt clay and a significant quantity of bead rim jars and bowls in B fabric; also a Gloucester region mortarium, AD 50–90 (see p.115). This feature could have been created to hold water, and its existence suggests the reuse of the site of the Phase 1 structure for a potter's workshop. If so, then it was the Phase 1 structure which fixed the location of the set of features which marked the start of pottery manufacture in Phase 2.

(ii). *Ditch 5 and Kiln 10.* This ditch, 0.6m wide and 0.6m deep, U-shaped in section, ran eastwards from the circular ditch. The basal fill in Trench V and the western half of Trench 130 (Trench V, F1, L4 (Fig. 6, 2), and Trench 130, F1, L8 (Fig. 8,7 (a) and (b))) was a grey silt containing little pottery, but what there was consisted of fragments of Highgate A and B wares. In the eastern half of Trench 130 the bottom fill of Ditch 5 consisted of two elements — a layer of dark grey charcoaly earth containing a little mainly B pottery, and below that at the eastern end of the trench a small area of black material, also with B pottery, resembling the sooty rakings of a kiln (Fig. 8, 7 (c) and (d) (F1, Ls 5,6 and 7)). The stratigraphy in the adjacent Trench U is complicated but dominated by a layer of sticky clayey black fill, ashy, with red burnt flecks in it (Fig. 8,1 and 2 (F1, Ls 2, 8 and 9)). At various points within this layer, and nowhere continuous, were thin bands of grey ashy clay and brown clay. This dark layer of kiln rakings produced a very substantial quantity of Highgate B pottery, mainly bead rim jars, which are the earliest in the B series (see p.116).

Sections across Ditch 5 in Trench 130 indicate that it had been recut at least once (Fig. 8, 7 (b)-(d)). They show quite clearly that in this part of the ditch the recut did not remove the earlier ditch fill entirely and explains why the deposits in it came to contain pottery of this early, HWB, phase.

(iii). *Northern part of Ditch 1 and Clay Preparation Pit 2* (Fig. 7). These two features together formed a classic example of a levigation pit for the purification of clay in preparation for its use in potting. Clay mixed with water was allowed to run down the ditch until it encountered an obstruction which checked the heavier unwanted material; the finer solution was allowed to continue to flow into a pit at 90 degrees to the line of the ditch.

(a). *The feeder ditch* for the levigation pit originated in Trench 104, at a point where Ditch 1 changed direction by swinging slightly to the west. It had a length of 13m. Its width varied from 1.5 to 2m and its depth was c. 1m. Clearly it had undergone several changes of use, but where the untouched bottom levels survived, as in Trenches 104 and 73N (Fig. 8, 6 (F1, L3), and Fig. 22, 3 and 4 (F1, L3)), they either produced nothing, as was to be expected, or in the case of the bottom of the ditch in Trench 117 (Fig. 22, 1 and 2 (F1, L4)), a few sherds of B pottery (see p.119).

(b). *Clay Preparation Pit 2.* Preparation Pit 2, the levigation pit itself, was at least 5m long, just under 1m wide, and 1.2m deep (*ie* deeper than Ditch 1; plan, Fig. 23). It contained at the bottom relatively clean layers of orange and green clay, with above a layer of grey clay containing some charcoal in places (Fig. 22, 9 and 10). There were scarcely any finds, just a few pieces of HWB pottery (see p.120).

(iv). *Pit 7, Trench J* (Fig. 7 and Fig. 38). This small pit, 0.95m in diameter and 0.08m deep, contained a fill of dark grey ashy material and brown clay which produced a group of bead rim jars very similar to those from Trench U. There were two pieces of a finer B type pottery with a red slip, one of which was a clear imitation of a samian cup Drag 27 (see p.121). The pit could have been used for cooking.



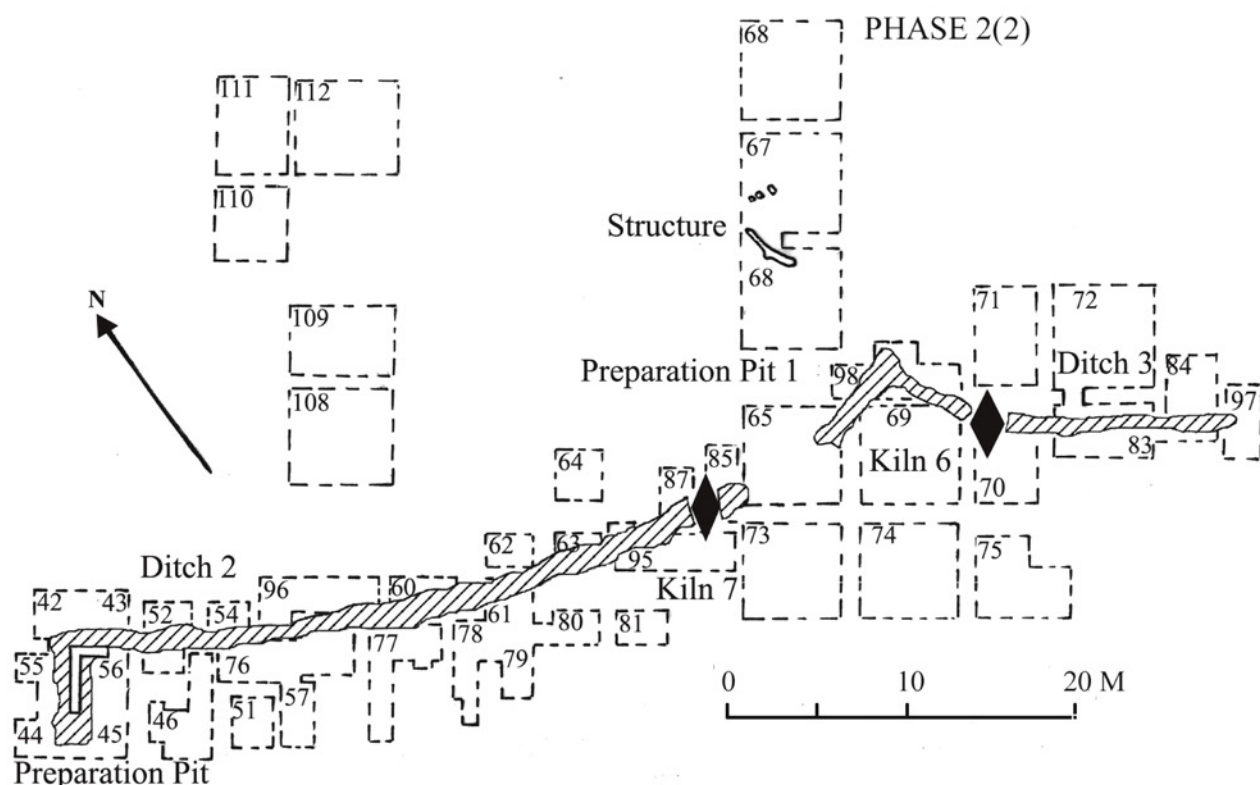


Fig. 9. Highgate Wood: Phase 2 (2)

### 2.2.2. Phase 2 (2)

Fig. 9

Pottery production now moved to the top of the hill. The earliest kiln here was probably Kiln 7 and the levigation pit for it, Preparation Pit 1, with Ditch 3 acting as its feeder. Kiln 7 was in due course abandoned, and the ditch dug originally for it extended to the west to serve a new levigation pit. The kiln which went with this was Kiln 6, which was placed in the now redundant but convenient Ditch 3, just to the east of Preparation Pit 1. The pottery which characterises this sub-phase exhibits no change in its fabric, but new forms, such as the hooked rim bowl, make their appearance, as does incised wavy line decoration.

(i). *Kiln 7* (Figs. 10 to 12). This kiln had no real structure, consisting simply of a manipulation of the sides and bottom of the short ditch in which it was set to achieve the desired shape and size. On the bottom of the kiln a layer of grey clay accumulated, reddish brown where it had been in contact with heat (Fig. 11, Sections A-B, C-D (F1, L6)). From the northern side of the chamber some red burnt clay slipped down on top of this. The original floor was abandoned. In order to replace it the southern side of the ditch was cut back to compensate for the collapse, giving the chamber a stepped profile. This was covered with a layer of yellow clay 0.10m thick. This new, Phase 2, floor had another layer of reddish brown clay on top of it where it had been in contact with heat; but this floor was in turn replaced by another layer of yellow clay, thinner this time, 0.03m thick. Once more there had been slippage of red burnt clay from the northern side of the ditch and again the southern side had been cut back. This third floor was covered with a layer of soft grey earth and red burnt clay (ie slippage from the sides of the chamber) and by a layer of black ash (Fig. 11, F1, L2). All these changes had the effect of raising the floor of the chamber by 0.25m, but its width had been kept throughout at about 0.75m and its length at 1m. Layers of grey/yellow clay and reddish burnt clay lay on top of this, representing the final collapse inwards of the kiln sides. Both flue areas were filled with a thick layer

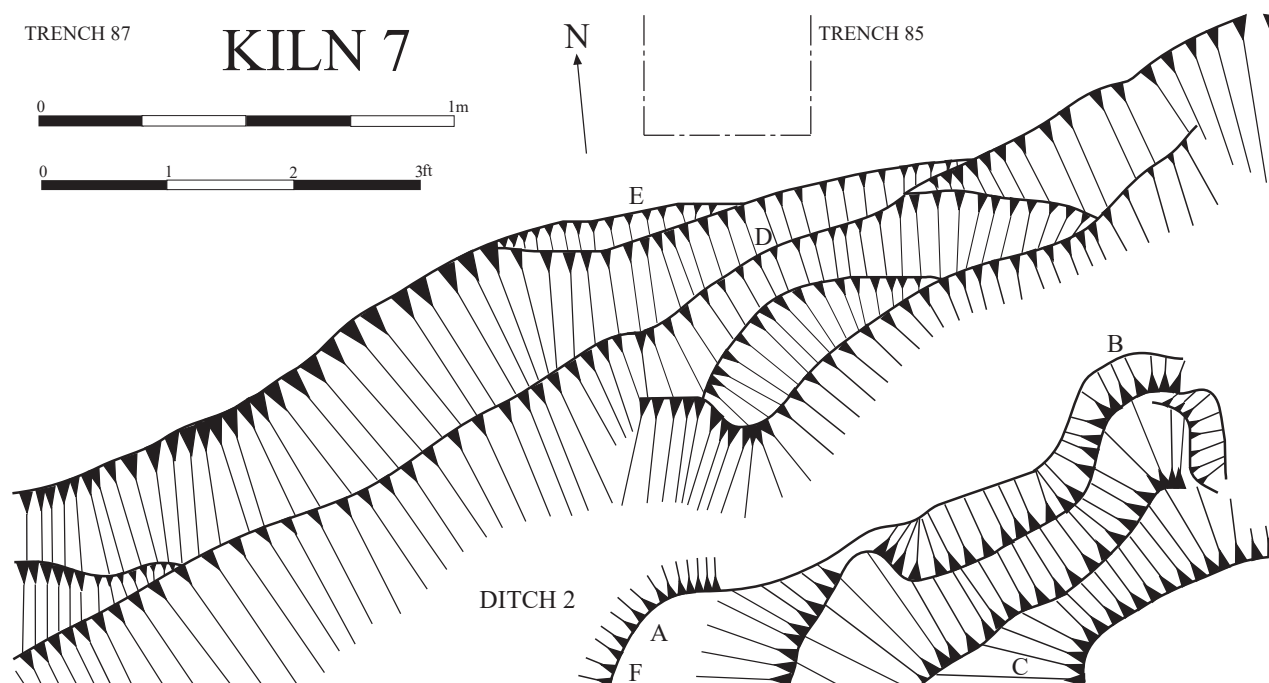


Fig. 10. Highgate Wood: Kiln 7

of black ash. The material from these layers, and that from the chamber itself, is dominated by hooked rim bowls, bead rim jars and necked jars in Highgate B fabric. There were some sherds of samian going down to the early 2nd century AD and pieces of flagons in Verulamium Region White Ware (see p.122).

(ii). *Ditch 2*. West of the kiln as far as Trench 61 Ditch 2 contained sequences of black ashy layers separated by bands of yellow and grey clay (Fig. 8, 8), the result of raking out the kiln and of material coming in from the sides of the ditch. The pottery from these deposits is similar to that from Kiln 7. West of Trench 61 the nature of the ditch fill changes, and most of the archaeological material belongs to a later phase (see p.126).

(iii). *Ditch 3*. The ditch ran for 22m westwards down a gentle slope into Preparation Pit 1. It was 1.5m across, 0.85m deep, and had a rounded profile. The only layers in the bottom of the ditch which predated those associated with Kiln 6 consisted of a grey clay containing some charcoal flecks and a little B pottery (see p.132; Fig. 13, 1, 2, 4).

(iv). *Preparation Pit 1*, the levigation pit, was roughly rectangular, 6.75 x 1.3m, and 1.4m deep at its junction with the much shallower Ditch 3 in Trench 82, but it became much less deep (0.5m) at its southern end in Trench 65 (Fig. 13, 3 and 5). Its basal fill was a fine light grey clay; this contained a piece of a Dressel 20 amphora. On top of that were various layers of grey/brown and darker grey clay, with a thin lens of sand (Fig. 13, 4, 6). Most of the pottery from the pit consists of hooked rim bowls with wavy line decoration in Highgate B fabric, but there are several pieces which belong to Phase 1 as well as much later, Phase 4, fragments. Some of these sherds probably found their way into the pit through the action of roots, for which there was good evidence in Trench 65, but they presumably reflect activity in the general vicinity of Ditch 3 during both the earlier and later phases (see p.133).

The gradual accumulation of material in Kiln 7 and its associated ditch meant that a new kiln had to be constructed.

(v). *Kiln 6* (Figs. 14 and 15). This kiln had been set directly in Ditch 3 only 7m to the east of Preparation Pit 1; its position indicates that it post — dated the main period of use of the pit. It was of single chambered

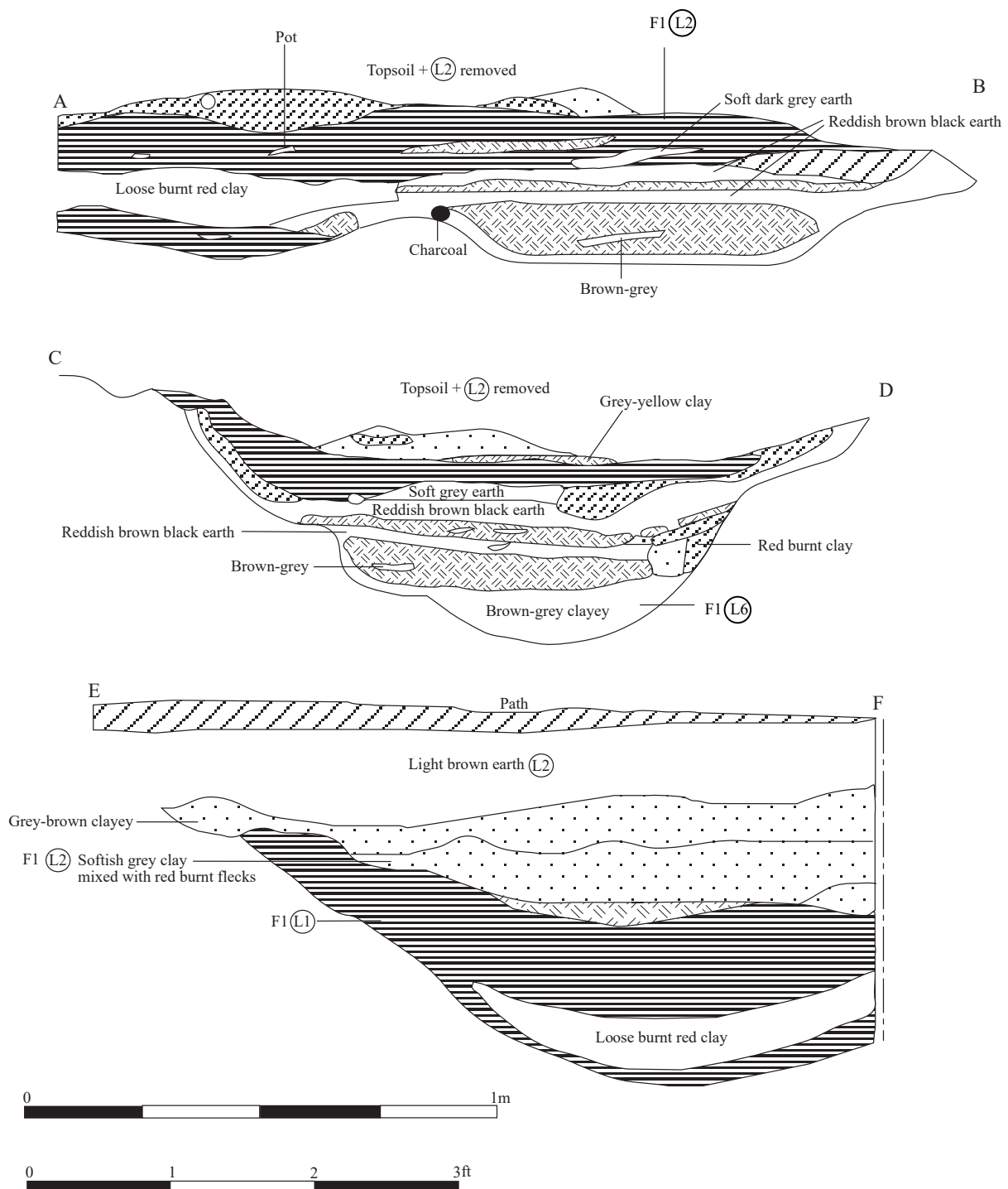


Fig. 11. Highgate Wood: Kiln 7, sections

double flued form, but unlike Kiln 7 and Kiln 10 had been given an elaborate internal structure. It went through at least four phases. The kiln chamber wall was represented in Phase 1 by a line of clay 0.02m thick burnt red, purple and black and visible only on the north-western side of the chamber. A small portion of the contemporary kiln floor – a layer of black burning – lay to the south of this. The wall of the chamber in Phase 2 was visible as a line of black burnt clay 0.02m thick which appeared to the south of Kiln Wall 1 on the north-western side of the chamber, and both north and south of the eastern flue opening. The third and



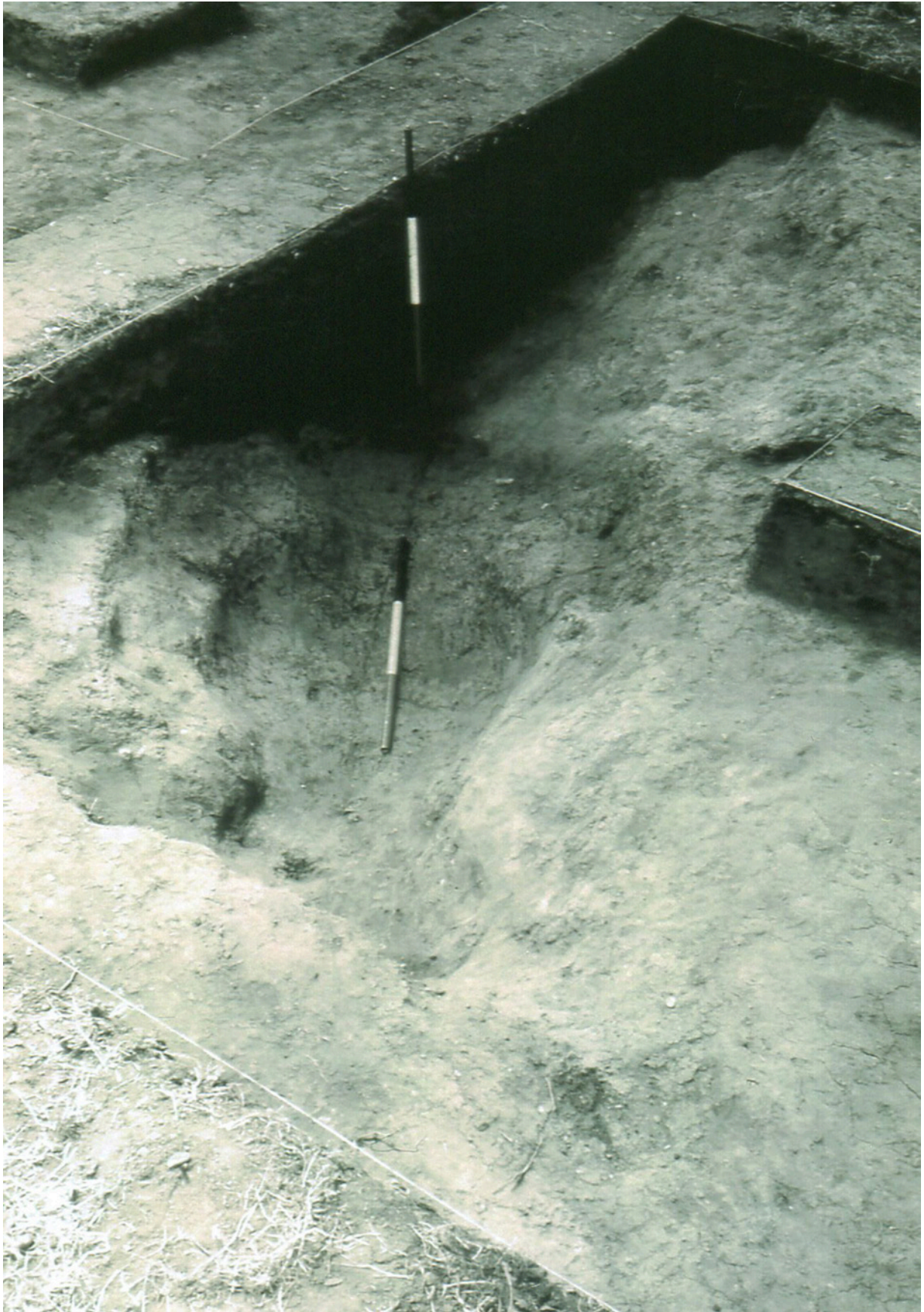


Fig. 12. Highgate Wood: Kiln 7. looking west. Scale in feet

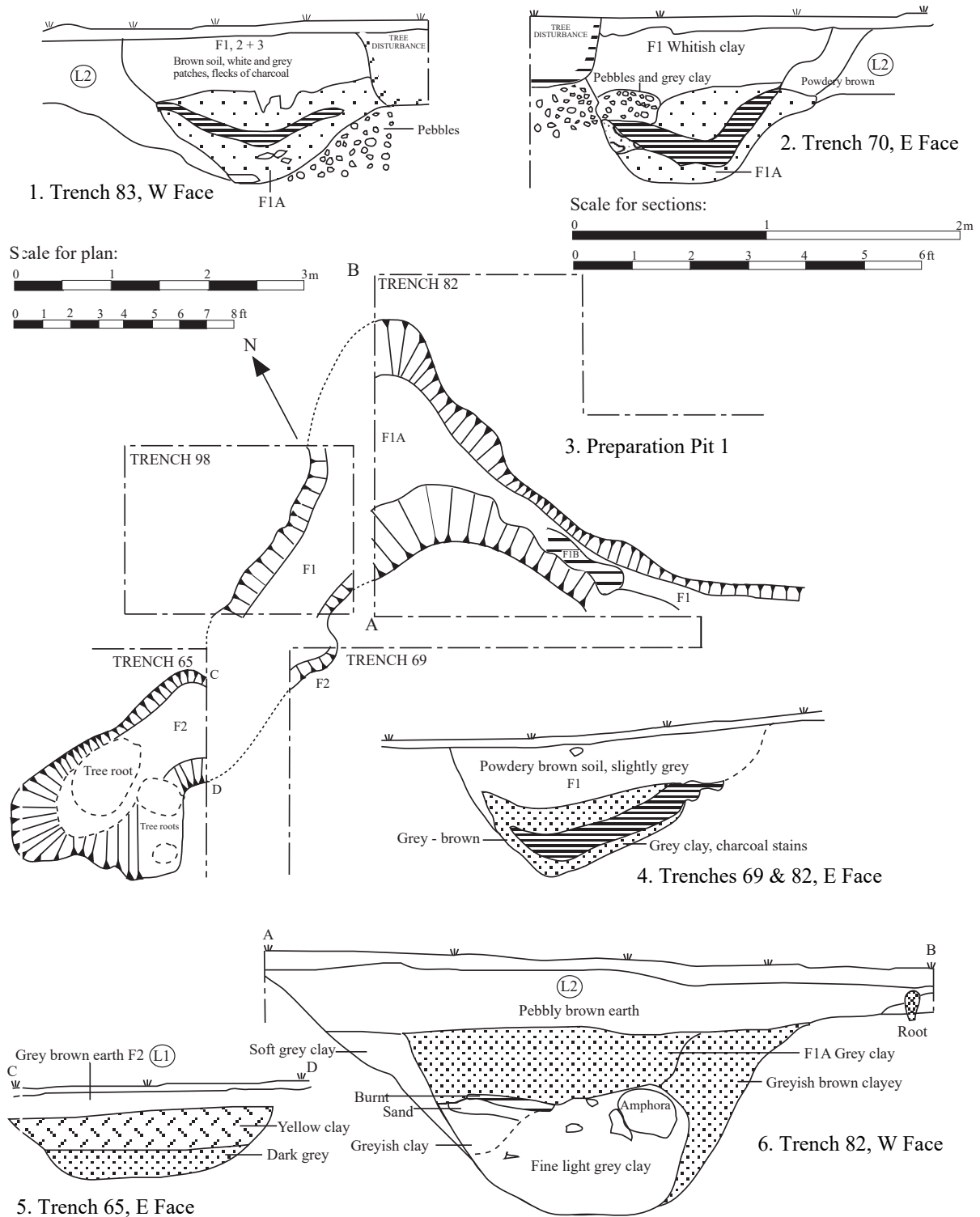


Fig. 13. Highgate Wood: Preparation Pit 1 and Ditch 3

final kiln chamber wall consisted of a band of purplish baked clay 0.05m thick pushed up against the remains of Wall 2 on the northern side, but which had removed all traces of the earlier phases along the south. It had as a backing along the north a thick layer of pinky yellow clay which covered the stubs of Walls 1 and 2 (Section A-B, Fig. 14). This gave an oval kiln chamber in Phase 3 1.2m by 0.8m. The floor of the chamber in the final phase was covered by a layer of black burnt material 0.05m thick which lay on top of the curving

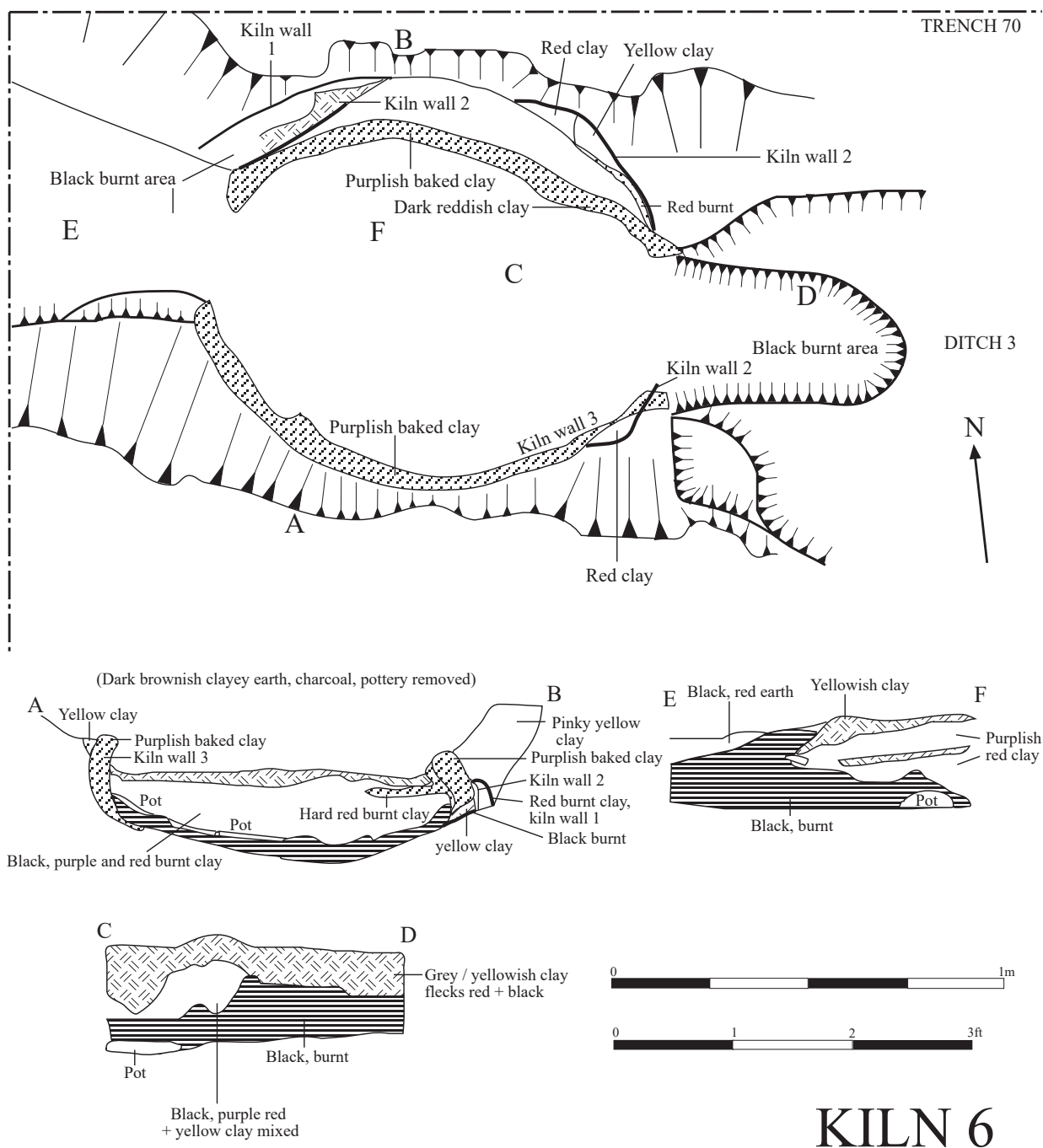


Fig. 14. Highgate Wood: Kiln 6

lower edge of Kiln Wall 3. This was in turn covered by a thick layer of mixed black, purple, red and yellow clay. Both Sections A-B and E-F show a thin layer of hard red burnt clay in the middle of this layer which seems to have become detached from the kiln wall; the way in which part of it could still be seen attached to the kiln wall in the northern portion of Section A-B suggests a relining, making four phases for the kiln in all. Ultimately the fill of the chamber was covered by a layer of yellowish clay which varied in thickness from 0.02 to 0.15m and which doubtless represented the final inward collapse of the kiln structure.

The pottery from the kiln chamber consisted in the main of hooked rim bowls with wavy line decoration in Highgate B fabric similar to the material from Preparation Pit 1. There were also pieces of early 2nd century





Fig. 15. Highgate Wood: Kiln 6, looking west. Scale in inches

Central Gaulish samian ware (see p.136).

(vi). *Material from Ditch 3 associated with the operation of Kiln 6.* F1 in Trench 69 (Fig. 13, 1, 2, 4), a grey/brown layer with dark grey material below it, produced a small group of pottery consisting of bowls with incised and grooved decoration in HWB fabric and a few sherds of Verulamium Region White Ware (see p.140).

(vii). *Ditch 2 and associated levigation pit,* going with operation of Kiln 6 (Fig. 9). Ditch 2 ran down the slope for 26m from Trench 61; the pit at right angles to it was represented by the outline visible in Trenches 42–45 and 55–56 (Fig. 17). The ditch was 1.74m wide and 1m deep and had a rounded profile; because of later activity the only deposit attributable to its original period was a layer of clean cream coloured clay at the bottom in Trench 43 (Fig. 18, 7). Its length might suggest that this ditch could have had a water holding function in addition to feeding the levigation pit.

The pit had been cut about by an extension to the north in Trench 42, and also by an extension southwards from Trenches 44 and 45, both later developments, but its overall probable original dimensions of 2 by 7m are similar to those of Preparation Pit 1. Section A-B across Trench 42 (Fig. 18, 7) shows that its depth at its junction with Ditch 2 was 1.4m, greater than the ditch and much the same as that of Preparation Pit 1. The layer at the bottom of it at this point – clean orange clay-resembled the layers of uncontaminated clay found at the bottom of both Preparation Pits 1 and 2. South of the point of intersection the pit was shallower, 0.7m deep (Fig. 18, 6) and the variations in its depth provide another comparison with Preparation Pit 1 (for pottery, see p.141).

(viii). *Possible structure to the north of Ditch 3* (Fig. 9 and Fig. 39,1). In Trench 67, 1.5m to the south-east of Pit 5, was a row of irregular patches of reddened clay with charcoal staining in the middle of them, 0.22–0.28m across and 0.04m thick, running north-east/south west. In Trench 66, at right angles to the alignment of these features, was a band of yellow clay and charcoal 0.46m wide and 3.5m long containing a series of circular areas at the most 0.08m deep and consisting of red burnt and yellow clay. Some kind of two sided, open fronted, wooden structure might be indicated. Its closeness to Kilns 6 and 7 suggests that it was contemporary with them. There were small quantities of Highgate B and C pottery from the area of the feature, sherds of Verulamium Region White Ware, a piece of 1st century South Gaulish samian and a lump of copper (see p.142).

### 2.2.3. Phase 2 (3)

A development in this phase is the appearance of a pottery fabric (Highgate Wood B/C) which contains a mixture of grog and sand, a move foreshadowing the wholly sand tempered wares of Phase 3, but there are no significant changes in the forms of the pottery made. However, there were major alterations in the type of kiln and we now get largely above ground single chambered kilns with raised floors. Instead of quite elaborate levigation pits a rather simpler arrangement was used for the preparation of clay for working. Now a clay and water mix was placed at the upper end of a sloping pit or ditch and the unwanted particles and bits of vegetation as well as surplus water floated off over a (probably wooden) obstruction, leaving the potting clay behind and the formation of a shallow delta at the lower end of the ditch. B-type pottery continued in production as the preponderant fabric type, initially not all that successfully with the new type of kiln and clay preparation system it would seem.

For a discussion of the structure of these kilns, see the Baked Clay report (pp.323–325).

There was no samian or other dating agent found at the site for this particular phase, but MOLA 2015 has AD 65–85 for this episode.



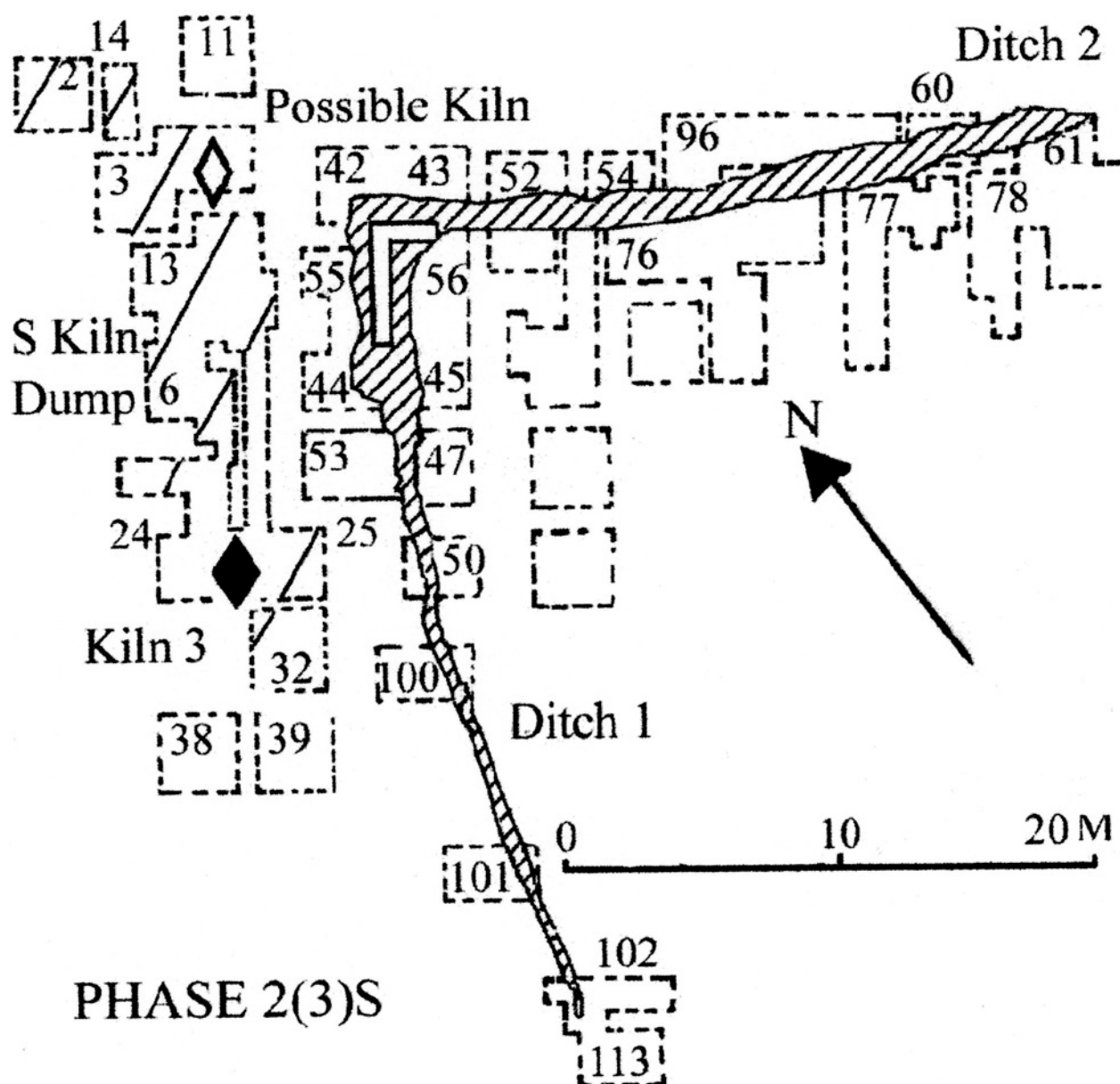


Fig. 16. Highgate Wood: Phase 2 (3) South

#### 2.2.4. Phase 2 (3) South

Fig. 16

It was probably the existence of the redundant levigation pit at the end of Ditch 2 and its potential continued usefulness as a pit for clay preparation which led to the construction of Kiln 3 at this particular location.

(i). *Ditch 2, Phase 2 (3) and after.* After the abandonment of Kiln 6 the former feeder ditch for its levigation pit could have been used to store water for potting in this phase. Eventually it underwent a change of use away from pottery manufacture altogether.

The upper levels in the vicinity of Kiln 7 remained open during Phase 3 to receive small quantities of pottery of Highgate C type and some kiln furniture (Trench 95, F2, L1 (Fig. 8, 8)). The fill of the ditch west of this, from Trench 61 to Trench 43, is however different in character from those parts associated with the operation of Kiln 7. Instead of a series of alternating layers of kiln rakings and yellow clay, there were much thicker

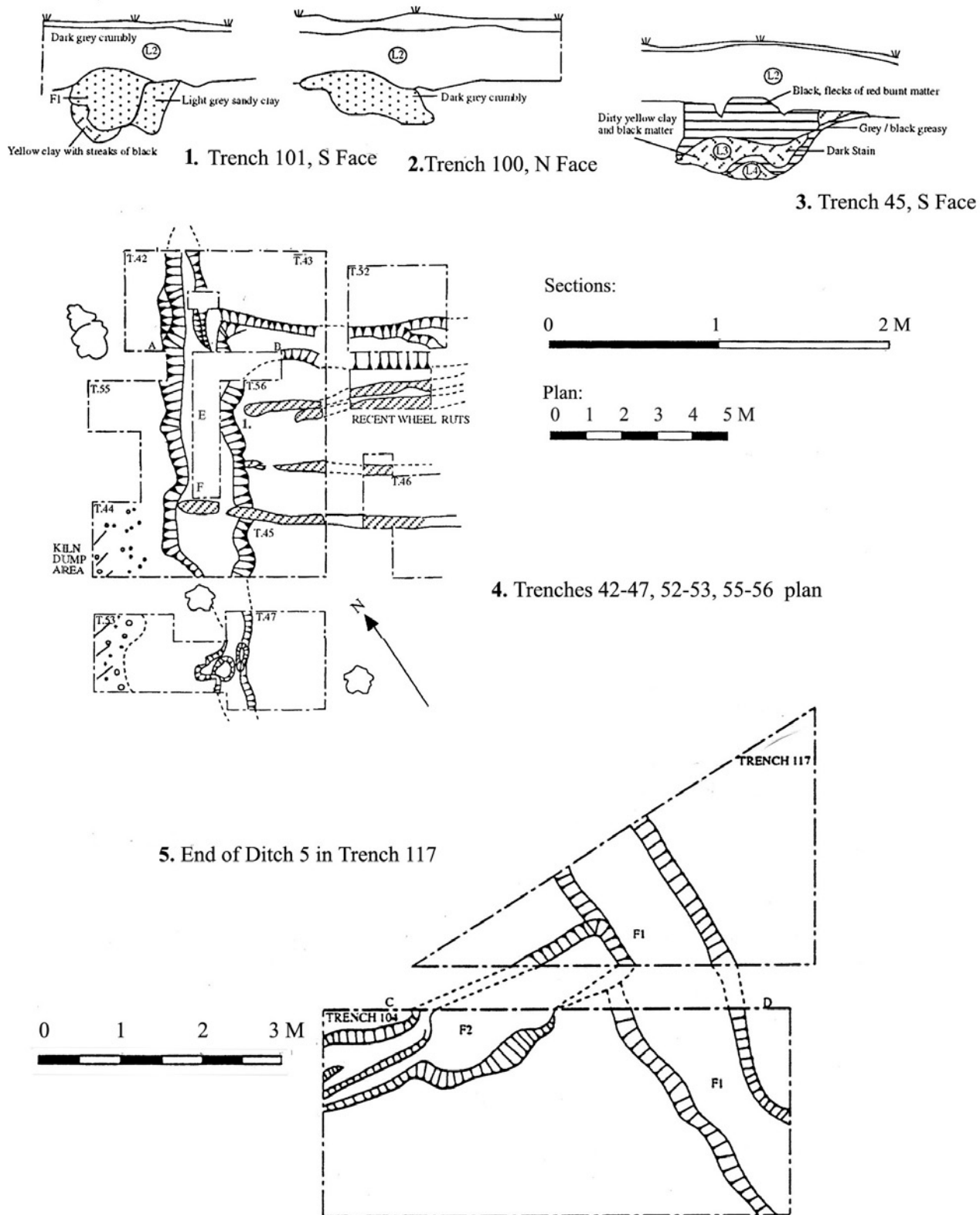


Fig. 17. Highgate Wood: Sections, Ditch 1(South) and termination, Ditch 5

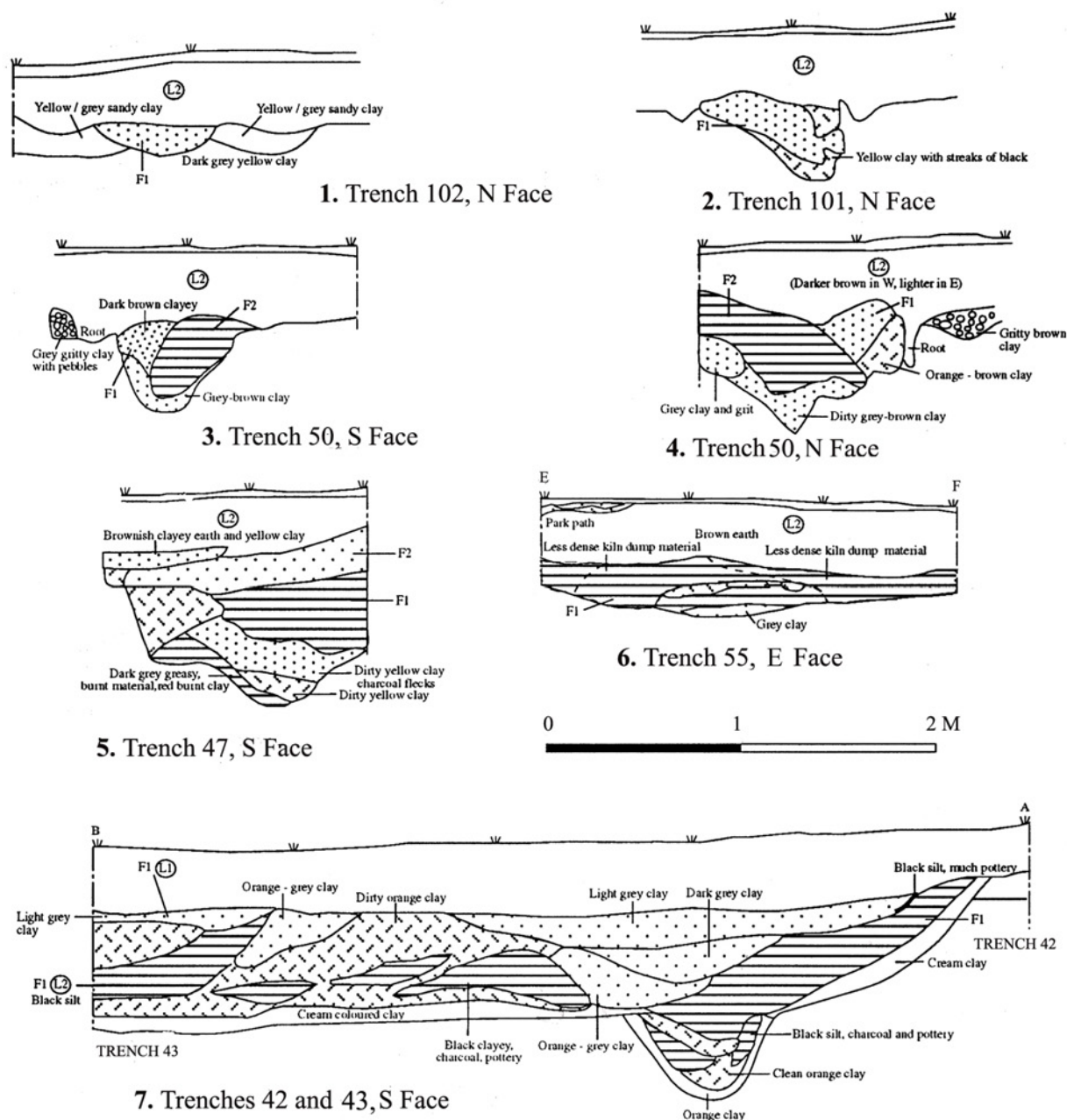


Fig. 18. Highgate Wood: Sections, Ditch 1 South

layers of grey and grayish/brown clay, with some deposits of darker grey clayey earth. The bottom layers of Trenches 52 and 60 consisted of thin accumulations of grey and yellow clay (Fig. 8, 10 (F1, L3)). There is no generally consistent pattern in the sequences, which to judge from the finds seem to have developed over a period of time, but it is sometimes possible to see how the darker layers containing burnt material found their way into the ditch from the northern side (Fig. 8, 9–11). The longitudinal section (Fig. 18, 7) shows that the layers are not continuous but seem to represent single, separate acts of dumping mixed with the results of silting.

The ditch fill contains a great deal of pottery of Highgate B type right through to C type ware characteristic of the final phases of production. There is a substantial quantity of non-local pottery; samian going down to the mid second century, sherds of Verulamium Region White Ware, including a counterstamp of Moricamulus on a mortarium rim (AD 70–110), a rouletted flask of London Ware and two pieces of a ring and dot beaker.

The pieces of fired clay included a large ring shaped spacer, a flat ring and a perforated sheet; also a clay weight and fragments of tile. There were pieces of glass vessels, some iron nails, two bronze brooches (one an Aucissa type, the other represented only by a pin) and a quern. There were also fragments of a human skull, probably of a juvenile (see p.143)..

These finds suggest domestic occupation. The trenches to the north of this part of Ditch 2 (Trenches 108–112), the direction from which dumping took place, produced very little Roman pottery but the fact that what there was consisted mainly of non-local wares (samian, Verulamium Region White Ware and a Colchester mortarium) and that four quern fragments were found in Trench 110 might be significant.

There were well defined patches of reddish burnt clay and charcoal in Trenches 60 and 61 which might have been hearths.

(ii). *Former levigation pit at western end of Ditch 2 ie Trenches 42, 44, 45, 55, 56 (Fig. 17).* This clearly went out of use as a levigation pit during this phase. There were no thick layers of clean light grey clay left behind, unlike the situation with Preparation Pits 1 and 2. Instead, section E-F along the eastern side of Trench 55 (Fig. 18, 6) shows that at the bottom of the pit (F1) was a layer 0.3m thick of dark grey/brown clayey earth containing HWB and C pottery, which would have come in from the western, kiln dump, side. Above that was a thicker layer of brown earth. similar to that encountered at a later date in parts of the northern arm of Ditch 1. As with Ditch 1, this could have been the result of the reuse of the pit for the preparation of clay for potting.

The northern part of the former levigation pit had a different history. In Trench 42, section A-B across Trenches 42 and 43 (Fig. 18, 7) shows how a mass of black or dark brown fine crumbly earth had come in from the west, with some lumps of yellow clay, and how similar material had found its way in from the western end of Ditch 2; other elements in the ditch fill backed up against this and were therefore later in the sequence. There might be a suggestion here that the dumping had been initially a deliberate attempt to keep separate the water being held in Ditch 2 from the new preparation pit. The dark material would in time have come close to filling the pit entirely at this point.

The Highgate pottery in it and from the subsequent recuts runs down to the end of Phase 3. There were also fragments of samian of early 2nd century date and pieces of Verulamium Region and Central Gaulish White Ware; also a mortarium in an oxidized fabric of AD 150–200. There was a bronze and enamel chatelaine, pieces of a hobnailed boot, several glass fragments, including a jug with ribbed or trail decoration, and pieces of fired clay. Clearly items of ordinary domestic use had been thrown in as well as kiln derived material (see p.151).

(iii). *Ditch 1, southern portion.* A narrow ditch 0.75m wide and 0.75m deep emerged in Trenches 44–5 from the southern side of the former levigation pit, which at this point had been c. 2m across (Fig. 17, 4 and Fig. 26). In Trench 47 were two hollows which could have held some kind of wooden structure to retain water, to be released as required into the ditch. From this point the ditch ran for 24m to end in Trenches 102 and 113 as a shallow spread of yellow/grey sandy clay, with faint traces of a deeper channel of grey clay in the middle (Fig. 18, 1 and 2 (F1)). The bottom of the ditch contained dirty yellow and grey/brown clay with on top of that some dark grey greasy material with red burnt flecks (Fig. 17, 1–3 and Fig. 18, 3–5). Most of the pottery from the ditch belonged to Phase 3 and had fallen in from the Southern Kiln Dump, but there was a small quantity of HWB ware (see p.154).

(iv). *Kiln 3 (Figs. 19 and 20).* The remains of this not particularly substantial kiln lay under, and surrounded by, dump material. The oven had a diameter of just over 1m. It contained a mass of burnt clay, kiln furniture and pottery fragments in a black greasy deposit. Its walls were constructed of segments of clay surviving to between 0.23 and 0.31 m in height; these had been set in position in a firm but still fairly liquid state. This was shown by finger smoothing marks which went round the walls across the segments. The walls were

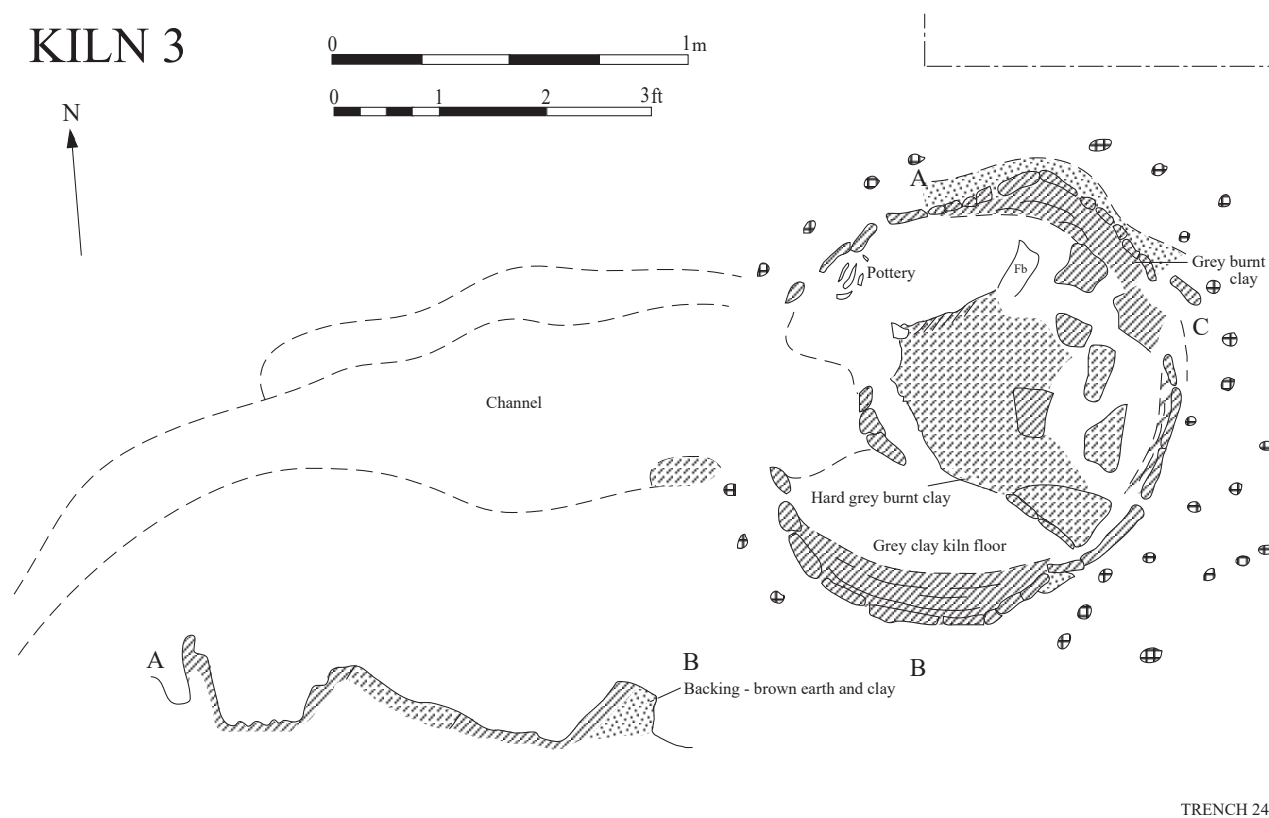


Fig. 19. Highgate Wood: Kiln 3

hard and dark on the inside surface, softer and redder on the outside. They were cut into the natural clay quite markedly on the northern side, but less on the southern, where they were heavily backed and leant outwards. This aspect of their construction conformed with the requirements of the ground surface, which sloped away towards the south. An irregular lumpy area (C on Fig. 19) forming the back portion of the wall opposite the flue entrance was noticed. On excavation this was shown to have been a false wall which could have blocked an opening left at the early stages of firing to allow a through draught to build up, and then closed up with clay. The central pedestal survived to some 0.15m at its highest point. In section, the upper portion was grey clay covering redder, softer clay with a few pebbles. Below this was a more solid core composed of reused slabs of fashioned clay and two pieces of tile. Wings came out from the sides of the pedestal, resting on the floor and pointing to the back of the kiln. These were composed of firebars and fashioned clay plates; they were moulded into position.

Although the flue entrance, which was 0.38m wide, was clearly defined, no positive indication of its structure remained. There was a dark area containing burnt matter stretching away from the entrance some 1m to the south-west. In addition, there was a gulley cut into the clay to the north of the flue entrance and curving away to the south-west; this presumably had a drainage function.

What were possibly stakeholes were visible cut into the natural clay around the kiln; there were indications of one row in the north and south and possibly three in the east. No convincing pattern was noticed but it is possible that they were holes for stakes used as a framework for the structure of the kiln (p.325).

The evidence for successive phases of this kiln is only tentative. In the east of the kiln the reddish clay of the furnace floor overlay a small area containing burnt matter, which might indicate an earlier phase, but the oven wall underneath the floor at this point was softish and red and did not appear to have been exposed to much direct heat.

The pottery from the Kiln consisted of hooked rim bowls, lids and necked and bead rim jars in HWB/C and





Fig. 20. Highgate Wood: Kiln 3, looking north. Scale in inches

poor quality HWB wares (see p.155).

(v). *Another kiln in the area of the Southern Kiln Dump?* (Fig. 26). There was a semi circular setting of baked clay against the southern edge of Trench 3, which could have been the remains of a flimsy above ground kiln similar to Kiln 3. It would have been about 1m across.

There were concentrations of HWB pottery from Trenches 3, 13 and 14 in the Southern Kiln Dump for which Kiln 3 and any others like it would have been responsible.

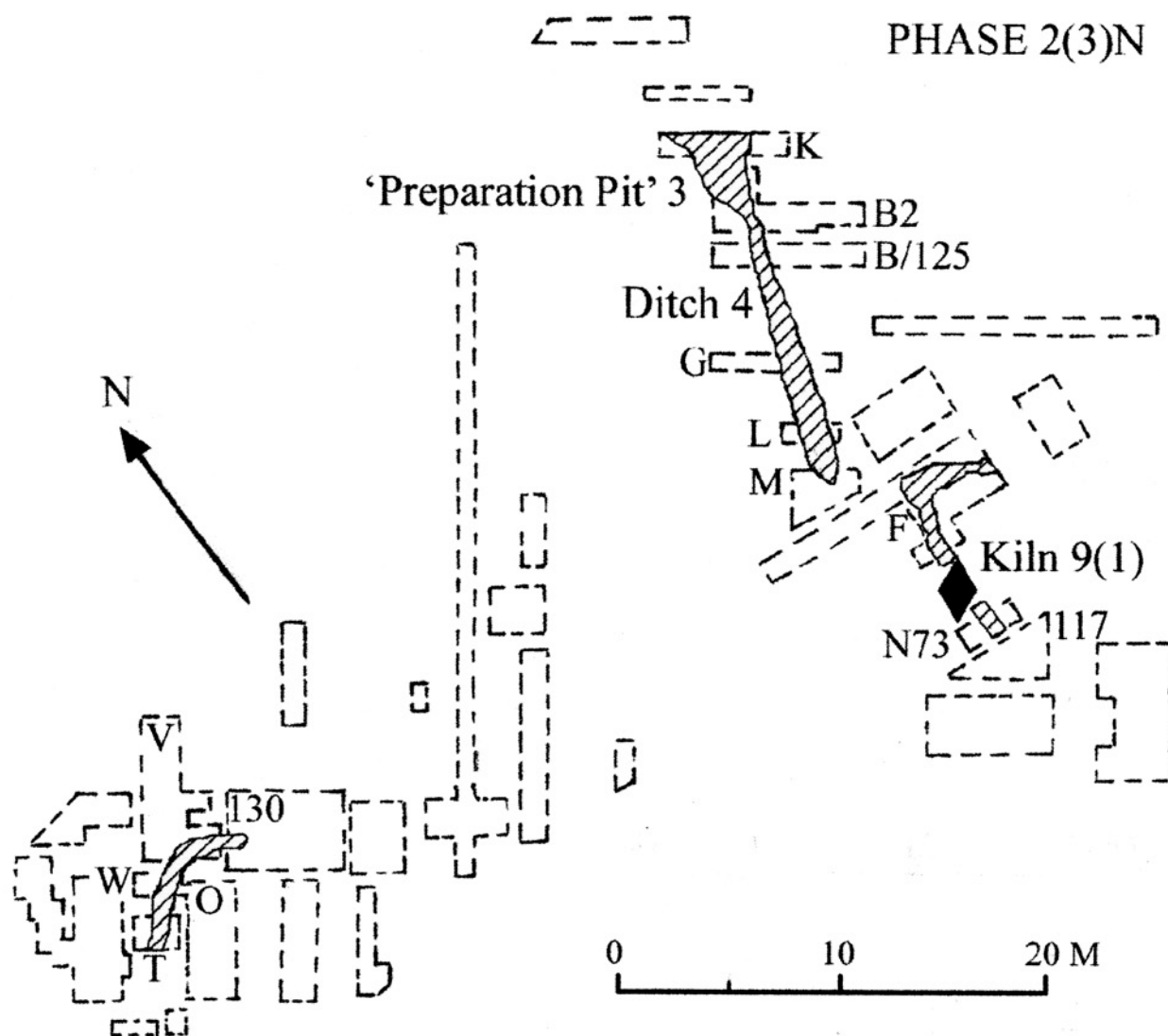


Fig. 21. Highgate Wood: Phase 2 (3) North

### 2.2.5. Phase 2 (3) North

Fig. 21

Presumably the former levigation pit and the ditch running from it had ceased to function satisfactorily, because attention shifted to the northern part of the site and to the reuse of features brought initially into being in Phases 1 and 2.

(i). *?Reuse of North-South Ditch within Circular Structure of Phase 1* (Fig. 5). The bottom fill of this ditch was covered with a layer of yellow clay, suggesting that it had been brought into use again to hold water for potting purposes (Fig. 6, 3 (F7); 4 and 5 (F1, L2)). The small amount of pottery found consisted of hooked rim bowls and bead rim jars in HWB and HWB/C wares (see p.158).

(ii). *First Phase of Kiln 9*. A kiln was placed in the former feeder ditch for Preparation Pit 2 at a point 3.5m south of the pit. It could not be excavated since it lay beneath a park path, which was 6m wide and so afforded sufficient space, but its base and sides — a layer of red/brown burnt clay 0.05–0.06m thick — could

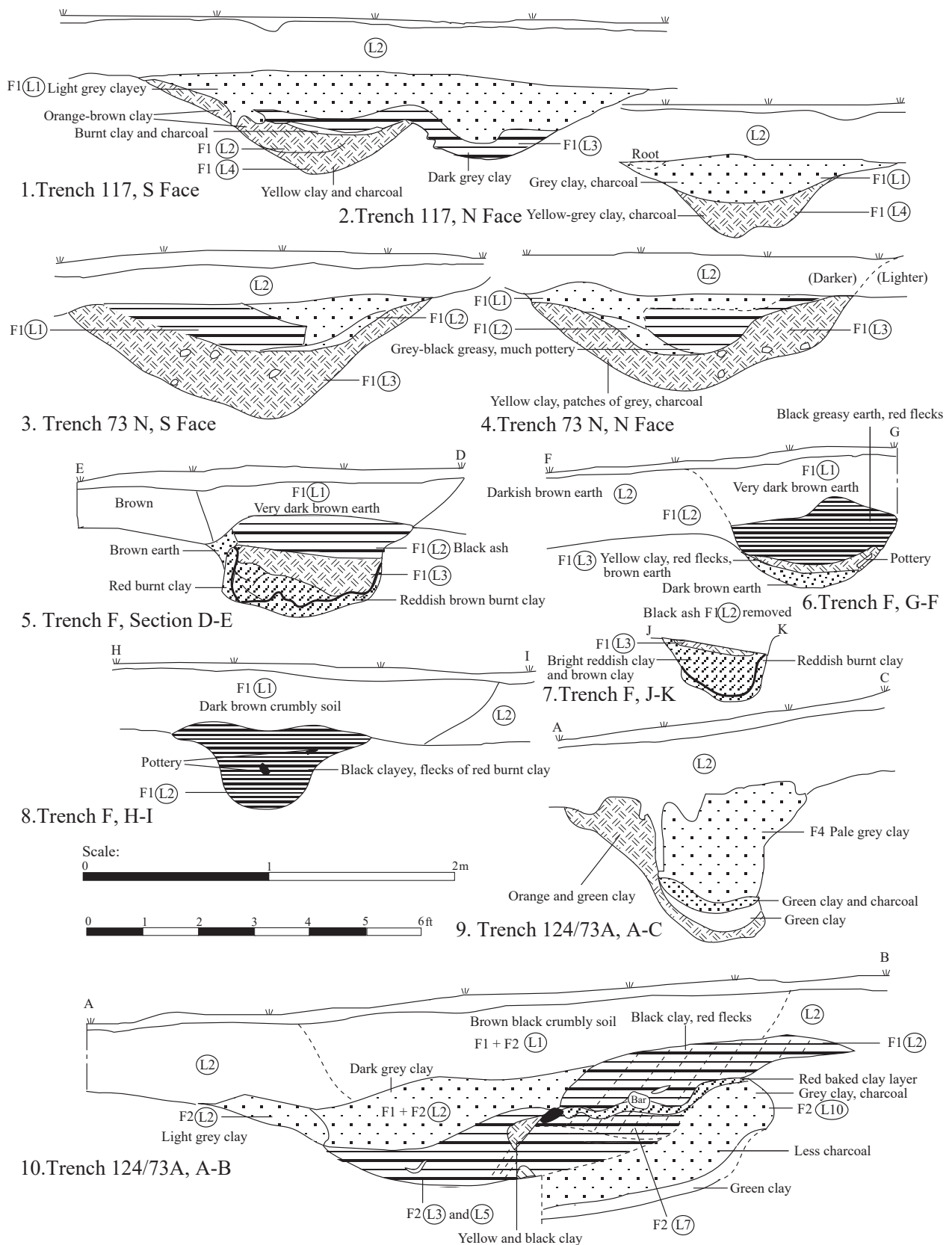


Fig. 22. Highgate Wood: Sections, Kiln 9 and Preparation Pit 2



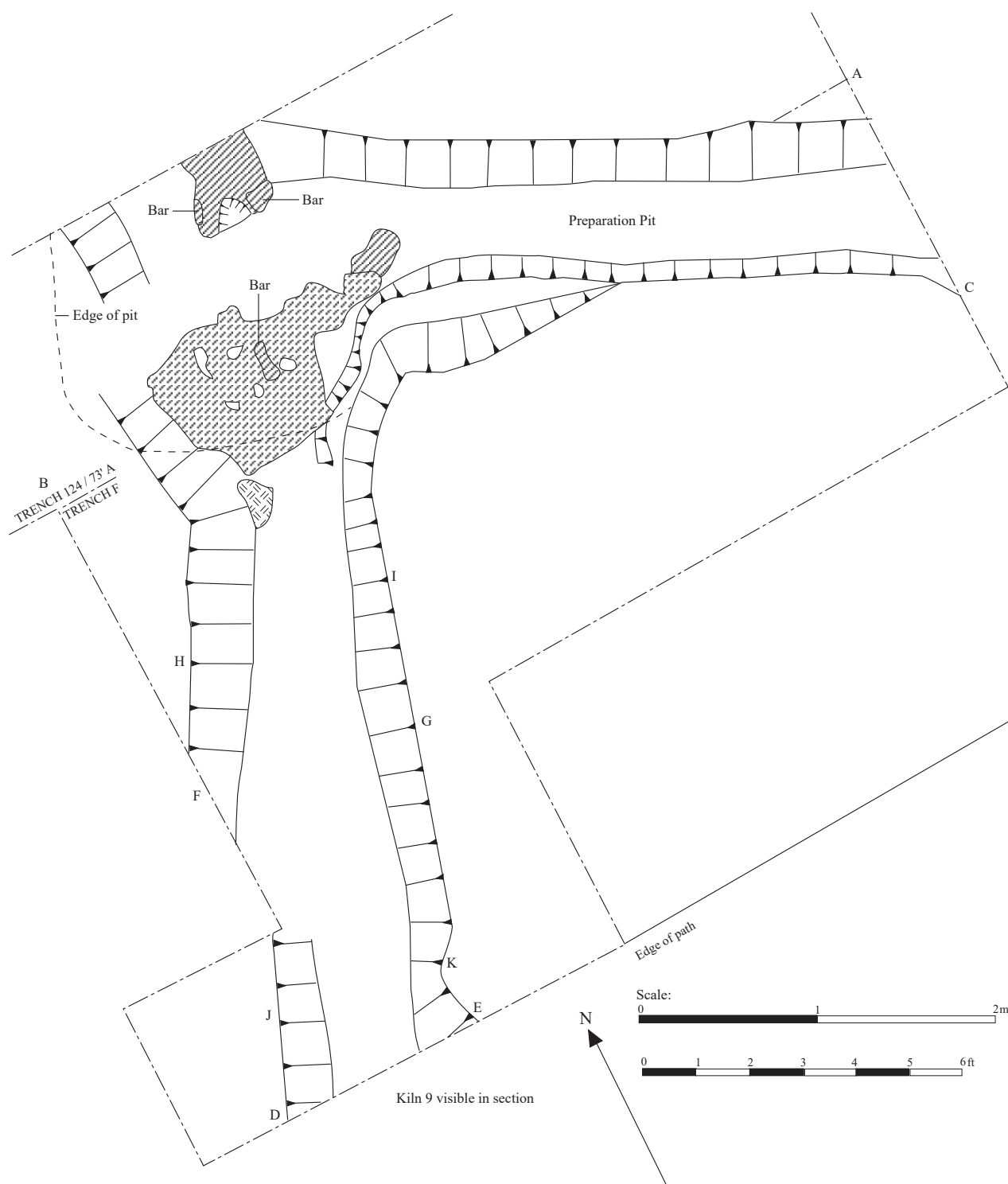


Fig. 23. Highgate Wood: Preparation Pit 2 and Ditch 1 North of Kiln 9

be seen against the southern edge of Trench F (Fig. 22, 5) and extended some 0.45m to the north of this, appearing in Trench F, section J-K (Fig. 22, 7). The material from within the kiln — reddish brown clay and dark brown earth (Fig. 22, 5,6,7) consisted largely of grog tempered B ware but also some pottery in the new grog and sand tempered fabric B/C as well as C type ware (necked jars, bead rim jars and hooked rim bowls; see p.159). A thick layer of black burnt material covering the clean grey clay of Preparation Pit 2 could also represent rakings from this kiln (Fig. 22, 10 (F2, L7)); it contained similar pottery to that encountered in Kiln

9. On top of this, and in turn covered by material from the second phase of Kiln 9, was a thin layer (F2, L6, red baked clay layer) consisting mainly of small pieces of reddened clay mixed with some black clay, containing a fragment of a very large firebar. There was a similar layer, with firebars (Trench A F3), on the northern edge of Trench A (Fig. 23). These layers could have been the remains of a turf covering for the kiln which to judge from the firebars would have been a single chambered updraught one.

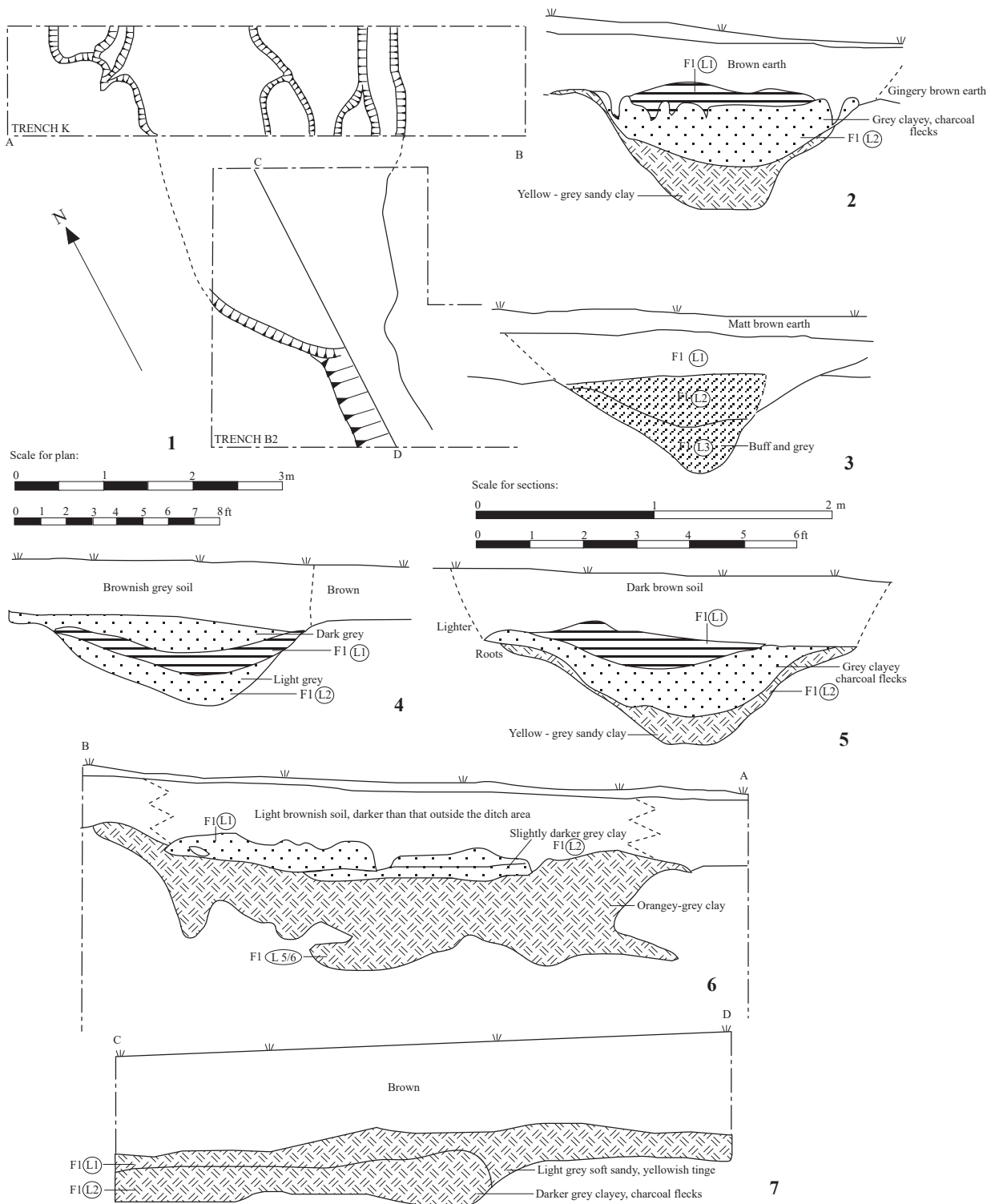


Fig. 24. Highgate Wood: Ditch 4 and Preparation Pit 3

(iii) and (iv). *Ditch 4 and Preparation Pit 3* (Fig. 24). This ditch and pit combination could have been the clay preparation features associated with Kiln 9, and were similar to the arrangement brought into being for Kiln 3.

(iii). *Ditch 4* began only 3m from the northern end of Ditch 1 and is broadly on the same alignment, in rather the same way as Ditch 3 relates to Ditch 2. It was 2m wide and 1m deep. The primary fill of the ditch - light grey yellowish clay — contained small quantities of A and B pottery, some C ware and fired clay (see p.162). It ran down the slope for 15m into

(iv). *Preparation Pit 3*. This had no resemblance to the preparation pits of Phase 2 (2). It was very shallow and had an indefinite edge on its northern, downslope, side. It contained relatively clean layers of yellowish grey clay with a thin layer of darker grey clay on top, the whole resembling a trampled version of the spread at the southern end of Ditch 1.

### 2.3. Phase 3 (c. AD 100 to 160)

Most of the pottery found at Highgate belongs to this phase. The fabric (Highgate C) is wheel thrown, generally a reduced grey, and sandy, the sand probably in most cases not a deliberate addition but incorporated naturally in the potting clay (petrographic analysis, p.297). Clay was now prepared for potting quite simply in convenient stretches of ditch.

*Dating*. Highgate Wood C occurs in small quantities in pre-Boudiccan sites in London at Regis House, One Poultry, 36 Poultry, and below the post-Boudiccan fort at Plantation Place (information from Fiona Seeley). It continues to appear in small quantities, increasing during the Flavian period, becoming of much greater significance thereafter as the largest fabric type for grey ware in London until the early Antonine period, when it yields ground to Black Burnished pottery. The overall range given in the MOLA list is AD 70–160 (MOLA 2015; Davies *et al* 1994 point out that Highgate C was still in use during the period AD 160–180).

At the site itself, deposits belonging to the earliest of the sub-phases have pieces of 1st century samian, but also some 2nd century Central Gaulish fragments as well as a Flavian/Trajanic beaker with hairpin decoration and stamped mortaria of late 1st/early 2nd century date. This would fit with a late Flavian/Trajanic date range for this episode. The later deposits, mainly from the southern waster and rubbish heap, have abundant fragments of early and mid-2nd century samian, with one piece of Hadrianic/Antonine date. There are many stamped mortaria which could belong to the early-middle 2nd century bracket and two in a red fabric which could extend into the later decades of the 2nd century.

A relative Highgate C pottery sequence within Phase Three has been put together based upon changes in the decoration of the ware (the introduction of white slip), and the incorporation in stages into the Highgate repertoire of pot forms derived from the black burnished pottery coming into London from Dorset in the early years of Hadrian's reign. The details are given on p.99. This is the sequence incorporated in the following description.

#### 2.3.1. Phase 3 (1)

##### Fig. 25

Pottery production went on in the same places as before. The transitional grog and sand tempered fabric, HWB/C, is still being made, but plain unslipped HWC (grey sandy) is also present and becoming dominant. Hooked rim bowls, necked jars, bead rim jars, lids.

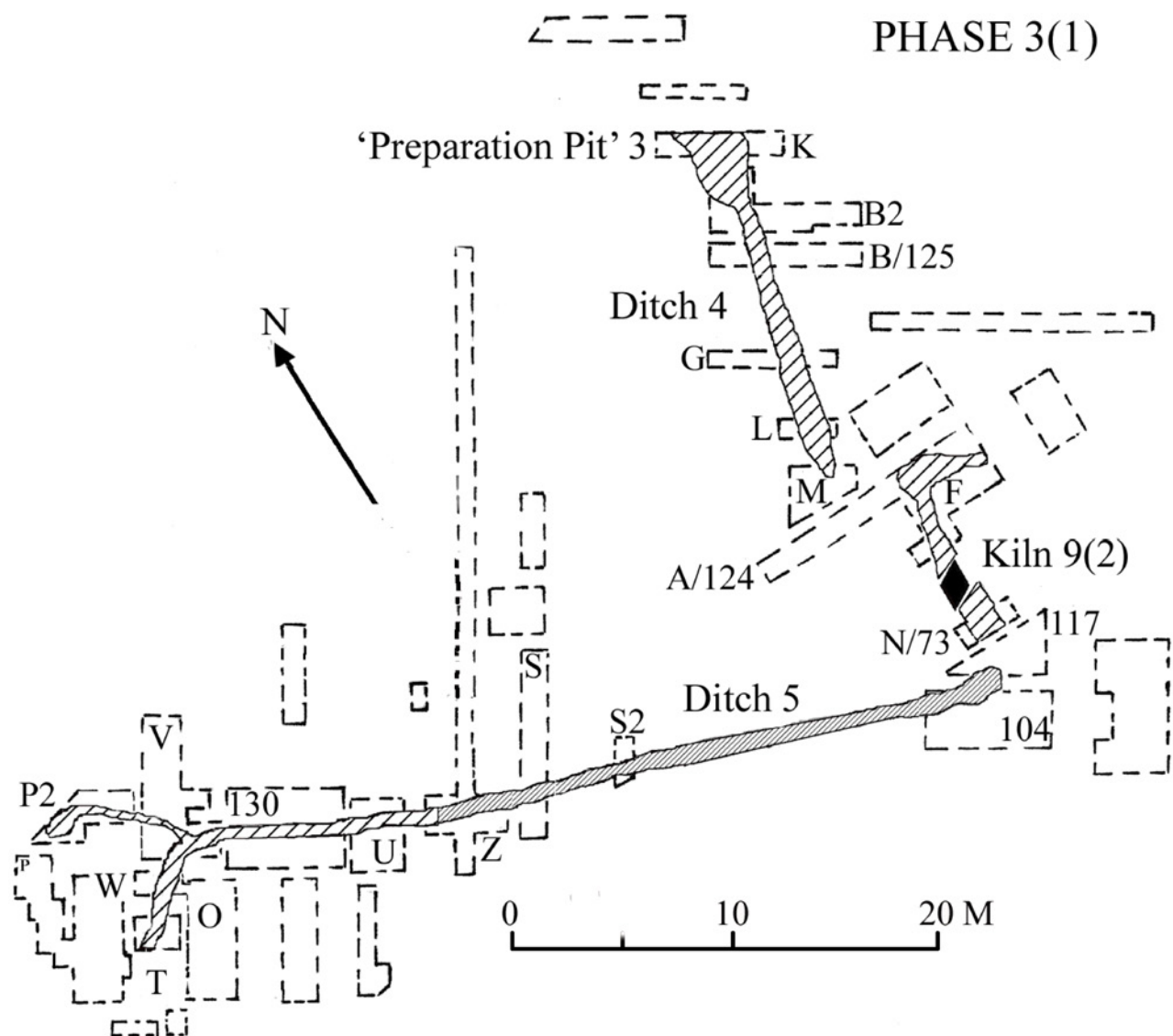


Fig. 25. Highgate Wood: Phase 3(1)

(i). *Kiln 9, Second Phase.* The material derived from the initial phase of Kiln 9 was sealed off by a layer of yellow clay. This was visible above the reddish brown burnt clay at various points in Trench F (Fig. 22, 5, 6, 7; F1, L3; and Fig. 23), as far as 1.75m from the southern edge of the trench. This would indicate an attempt to reuse the site of the pre existing kiln. A series of layers consisting mainly of black greasy or brownish/ grey earth, the debris of kiln firings, overlay the yellow clay and the rakings from the first phase. These layers were particularly thick in what had been Preparation Pit 2 (Fig. 22, 10 (F1, F2, Ls 1-5)), but grew thinner the further south (uphill) they were encountered (Fig. 22, 5, 6 and 8 (F1, Ls 1 and 2)). A layer belonging to this series (grey/black greasy with much pottery, F1, L1) appears in Trench 73 N, to the south of the park path (Fig. 22, 3 and 4), but southwards no further than that. All these layers contained fragments of grogged Highgate B and B/C ware, but also sizeable quantities of plain grey sandy C(1) pottery, representing bowls, including hooked rim ones, bead rim and necked jars. Pottery foreign to the site included early/middle 2nd century Central Gaulish samian, fragments of mortaria from the Verulamium region, among them a piece with the stamp of Matugenus (AD 80-125), and a piece of Central Gaulish colour coated ware with hairpin decoration (see p.163).

Firebars were again prominent finds and so as before the kiln would have been of the updraught type.

Other evidence for potting in this part of the site is as follows:

(ii). *Secondary fill, Ditch 4, and Preparation Pit 3* (Fig. 24). The dark ashy secondary fill of the ditch had mainly grogged B sherds, but also some B/C pieces, a few C sherds, a fragment of a Dressel 20 amphora, a firebar and a couple of pieces of fired clay. Material from Preparation Pit 3 itself consisted of pieces of B, B/C and C pottery, Red and White Slipped Ware (source(s) as yet unknown), and Verulamium Region White Ware, along with lumps of fired clay (see p.172).

(iii). *Reuse of area inside Circular Structure of Phase 1* (Figs. 5 to 7). There were two elements:

(a). A small ditch 0.33m wide and 0.5m deep along the north-eastern part of this area, was dug now, with an expansion at its western end which could possibly have held a water butt (Fig. 5). The ditch produced small quantities of A, B, B/C pottery and some plain C pottery (see p.173). An area of thin hard dark grey clay was attached to its southern side; there were no finds (Fig. 5, Trench V, F2). This might have been the base for a potter's wheel.

(b). The south-eastern ditch, renewed for holding water during the first phase of Kiln 9, was abandoned now and became filled with black greasy clay, yellow/orange clay, charcoal, and pottery *ie* the debris of pottery firing (Fig. 6, 3 (F3, F5); 4 and 5 (F1 L1)). The abundant pottery from it – hooked rim bowls, bead rim jars and some lids – was a mixture of B, B/C and plain C wares, with 1st century South Gaulish samian (see p.174), but also pieces of firebars and perforated baked clay plates which could have come from Kiln 9.

(iv). *Ditch 5* (Fig. 25)

(a). The layers at the western end of this, Trench V, F1, Ls 1, 2 and 3 (Fig. 6, 2), Trench 130, F1, L4 (Fig. 8, 7(a)) were mainly dark grey and black with some grey/brown material, with patches of fire reddened clay and charcoal, reflecting the pottery production nearby. They rested on material from Phase 2 (Kiln 10). The pottery, mainly plain hooked rim bowls, was HWB with some HWC and also HWB/C (see p.179).

(b). But at 1.25m from the western edge of Trench 130 there is quite clear evidence of a recut of the ditch which resulted in the removal of much but not all of the Phase 2 layers (Fig. 8, 7(b)-(d), F1, L2). In Trench U a layer of yellow clay had been deposited over the surviving traces of Kiln 10 (Fig. 8, 1 and 2 (F1 Ls 3, 11)). This recut would have been intended to hold water for potting, replacing the filled in north-east/south-west ditch inside the Circular Ditch of Phase 1. Eventually it was filled in with black, grey and brown charcoal layers, beginning at the western end, where the pottery consisted of necked jars and hooked rim bowls in HWB, but also some softer red/brown fired HWC pieces with a sand tempering which might represent a stage beyond this in the evolution of Highgate C ware. Towards the east of the trench the pottery consisted largely of bowls in unslipped HWC ware (see p.184).

(c). *Eastern portion of Ditch 5*. In Trench S Ditch 5 is 1.0m wide and 0.75m deep. There is a slight change in alignment about here, which might suggest that this part of Ditch 5 represented an extension, probably again to hold water, a replacement for the by now filled in Trench 130. The ditch does not possess sufficient fall for it to be considered an adequate clay purification feature. The basal layer was a stiff grayish/yellow clay, with above it dark grey clay with much burnt material (Fig. 8, 4 (Ls 5 and 6)). The pottery from these, HWB and HWC, would fall within this phase (see p.185).

The ditch ran into a slight expansion which looked like a pit (Fig. 17, 5), but this was probably no more than a ditch termination cut into the by now largely silted up feeder ditch for Preparation Pit 1. The pottery from the lower levels of this (Trench 104, F2, L2; Fig. 8, 6) and Trench 117, F1 L3 (Fig. 22, 1) consisted of HWB and HWC, and is also consistent with this phase. There was also late 1st century South Gaulish samian and a piece of Central Gaulish colour coated ware with hairpin decoration, which would be Flavian or Trajanic.

(d). *Latest levels, Ditch 5, eastern portion.* Finally, the eastern part of this ditch, from Trench S through to Trench 104, showed renewed activity at a relatively high level at a later stage within Phase 3(1) (Fig. 8, 3 (F2, L2); 4 (F1, Ls 1–3). In Trench S the lowest element in this group was a thin layer of yellow clay (F1, L4), which sealed the dark grey clayey deposit of the earlier phase and again suggests a water holding function. These layers correspond both in level and in content with the upper fill of the ditch termination in Trench 104 (Fig. 8, 5 and 6 (F2, Ls 1 and 3)). All of them produce white slipped Highgate C pottery belonging to the next phases in the HWC sequence, including necked jars and hooked rim bowls as well as pie dishes and everted rim jars derived from the black burnished tradition. This represents material filling the ditch up once its original, water holding, function, was over. There were also fragments of Verulamium Region White Ware, including mortaria with stamps of Doccas (AD 70–110) and Moricamulus (AD 85–100), and a fragment of a Central Gaulish colour coated beaker (see p.186).

The filling up of Ditches 4 and 5 brought about a move back to the highest part of the ridge, where there it was possible to have a clear run for the excavation of another ditch for the preparation of clay.

### 2.3.2. Phases 3 (2) – (4)

Figs. 26 and 27

(i). *Reuse of former levigation pit at western end of Ditch 2* (Fig. 18 and Fig. 26). The section A-B in Fig. 18, 7 shows how the almost entirely filled in northern end of the levigation pit had been recut on two occasions (dark grey and orange/grey clay). The ditch which resulted from this ran northwards through Trench 42, getting narrower, from about 1m down to 0.9m and in Trench 40 narrower still, just 0.8 (Fig. 28, 1; and Fig. 29). Its northward progress was stopped by a block of only partly excavated clay. On this were two post holes, probably corresponding to the two phases seen in the ditch (Fig. 29, 1). The northward course of the ditch was then resumed; in Trench 99 it was 1.3m wide and 1m deep.

This would indicate that the function of the former levigation pit of Phase 2 (2) had changed again, this time to become a reservoir for the preparation of potting clay in Ditch 1, and that a system had been set in place to control the water derived from it; the post holes could have supported planks, which would have been removed when water was needed in Ditch 1 for clay preparation. The whole arrangement was very similar in plan and in the apparent method of operation to the system at the southern end of the levigation pit in Phase 2 (3) South (for pottery, see p.190).

(ii). *Ditch 1, northern portion.* This ran down the slope for 45m. Its width averaged out at 1.7m, and its depth ranged from 1.0 to 1.3m. Its basic fill was a clean powdery brown/grey clay. There were suggestions of localised recutting, possibly as many as four times in Trench 92 (Fig. 28, 2 and 7), where F1 L3 was early in the Phase 3 sequence, but there are some uncertainties because of evidence of disturbance by tree roots elsewhere in the trench and in Trenches 99 and 93 on either side of it (Fig. 29, 3, 5, 8). In Trench 93 the ditch seems to have become blocked by dark grey clay coming in from the kiln dump to the west (Fig. 28, 3 (F3, L3, early Phase 3)) and instead of a recut it was expanded on its western side to run into a pit like feature 1.7m across which could have been used for clay preparation. This had grey silty and orange clay at the bottom. Above this was a layer of stiffish light brown clay containing flecks of brownish sandy material, which also covered the fill of Ditch 1, by now almost silted up entirely. All this was in turn overlain by a layer of soft pale grey clay with brown stains (Fig. 28, 4 (F1, Ls 1–6)). Further north, in Trench 94, material from the kiln dump had got into the ditch before clay preparation took place and a channel had to be dug through the dump fill to enable this to proceed (Fig. 28, 6, 8). The layers from these parts of the ditch contained a great deal of Highgate pottery of Phase 3 (4) as well as a Red and White Slipped mortar of the period AD 100–130 and a Verulamium Region mortar of c. AD 120 or later (see p.191). There is considerable variation in the sections across this ditch and its history was not uniform along its length.



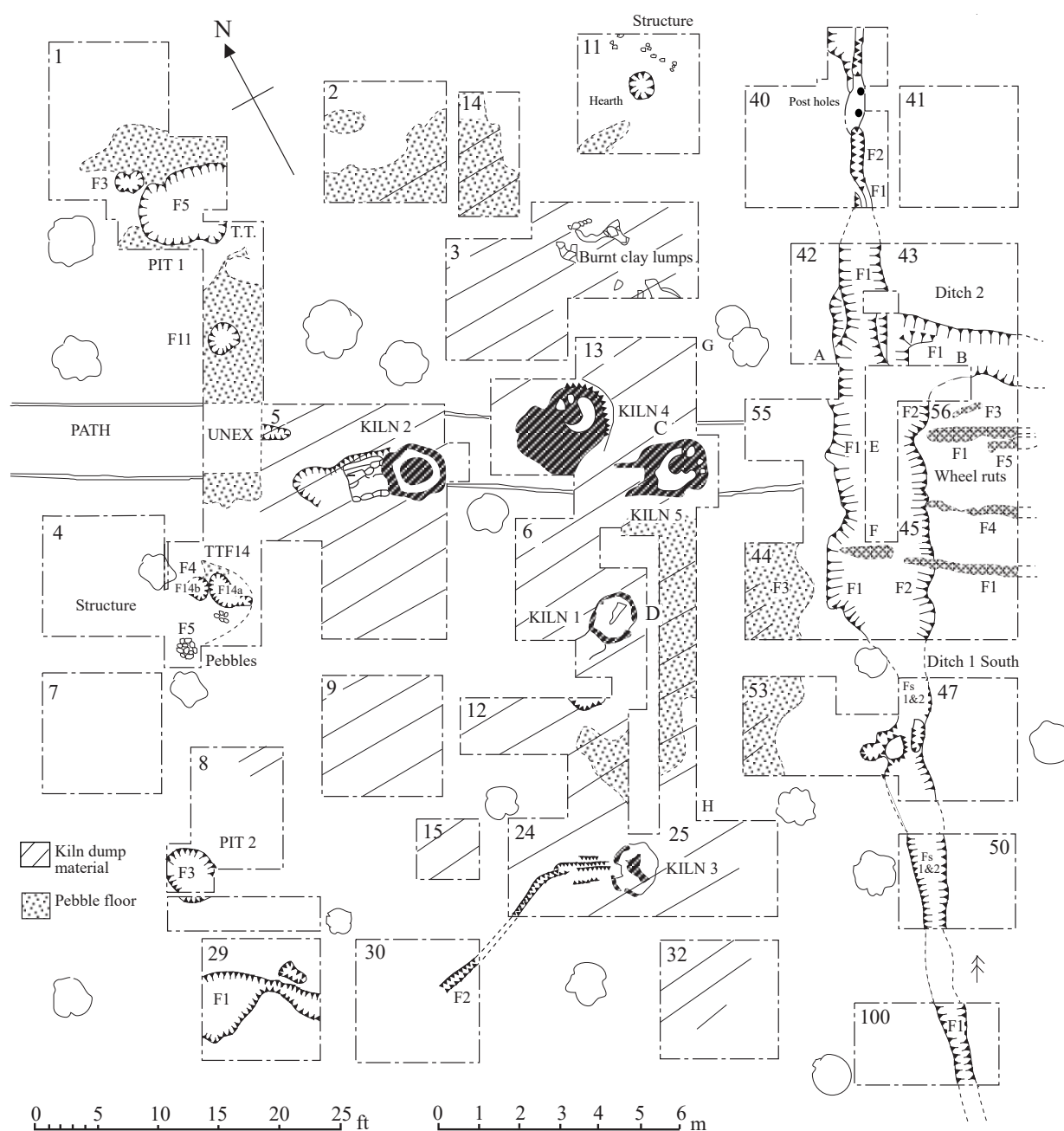


Fig. 26. Highgate Wood: Southern Kiln Dump

(iii). *The pottery dumps*

(a). *The Southern Kiln Dump* (Fig. 26). In Trenches 2, 3, 5, 6, 13, 24, 25 and 32 was a mass of hard and somewhat compacted black earth with fragments of charcoal, flecks of reddish burnt clay and in places lumps of yellow clay, 0.5m thick at its deepest above the natural clay in Trench 3. This constituted the core of the dump. The analysis of the considerable quantity of pottery fragments from these layers shows a certain amount of B type ware, but an overwhelming preponderance of necked jars, hooked rim bowls and everted rim beakers as well as quantities of everted rim jars and pie dishes, which attest activity from Phase 3(2) onwards but particularly in Phase 3(4). The samian, of which there was a considerable quantity, ranged in date from the pre-Flavian to the Hadrianic/Antonine and included the latest piece from the site,

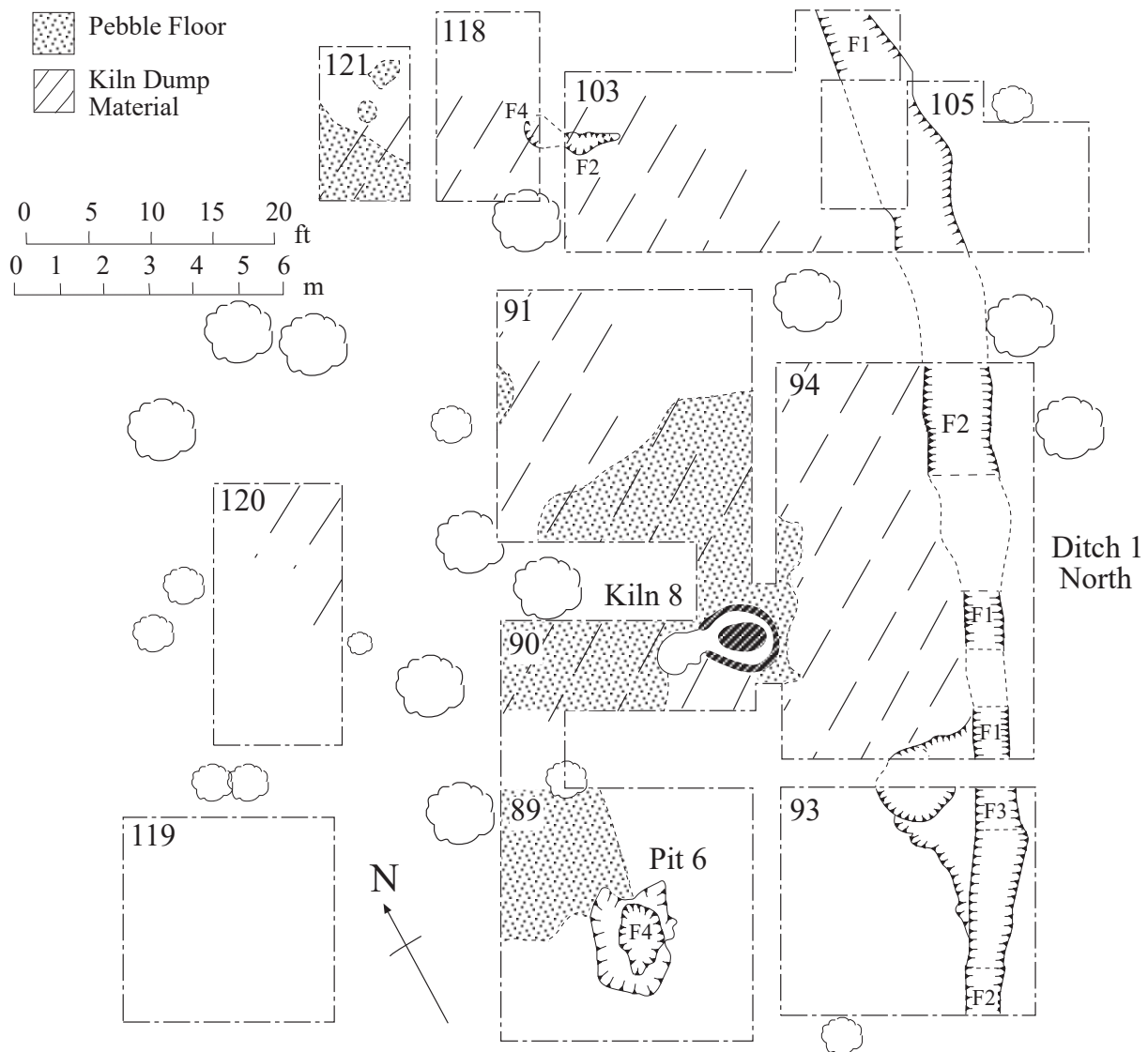


Fig. 27. Highgate Wood: Northern Kiln Dump

a Central Gaulish Drag 37, Hadrianic-Antonine. There were many pieces of Verulamium Region White Ware, especially flagons, including also a mortar dated AD 120–150 and another stamped by Matugenus, AD 80–125 (see p.195). There were pieces of glass, which included fragments of a bowl and an unguent bottle, a Mayen quernstone, several nails and an iron blade. There was a 1st century Nauheim derivative brooch. There were many pieces of fired clay, including firebars, plate-like pieces, a cylinder and a ring. The kiln dump material sometimes covered a thin layer of a yellowish light grey mortary substance mixed with pebbles, which might have formed a rough working floor or a surface for the stacking of unfired pottery, the sand acting as a parting agent in preventing the pots sticking to the underlying clay. This extended beyond the dump along the north-west.

(b). From the soft dark earth and light brown clay around the core of the dump came not only a range of Highgate pottery, mostly HWC with some HWB, but also Flavian to Antonine samian, Verulamium mortars in the range AD 90–145 (including a piece with the stamp of Arentus, c. AD 120–145; for pottery, see p.204). There were three brooches, a circular iron brooch, a bronze one and a Colchester type brooch of AD 50–70.



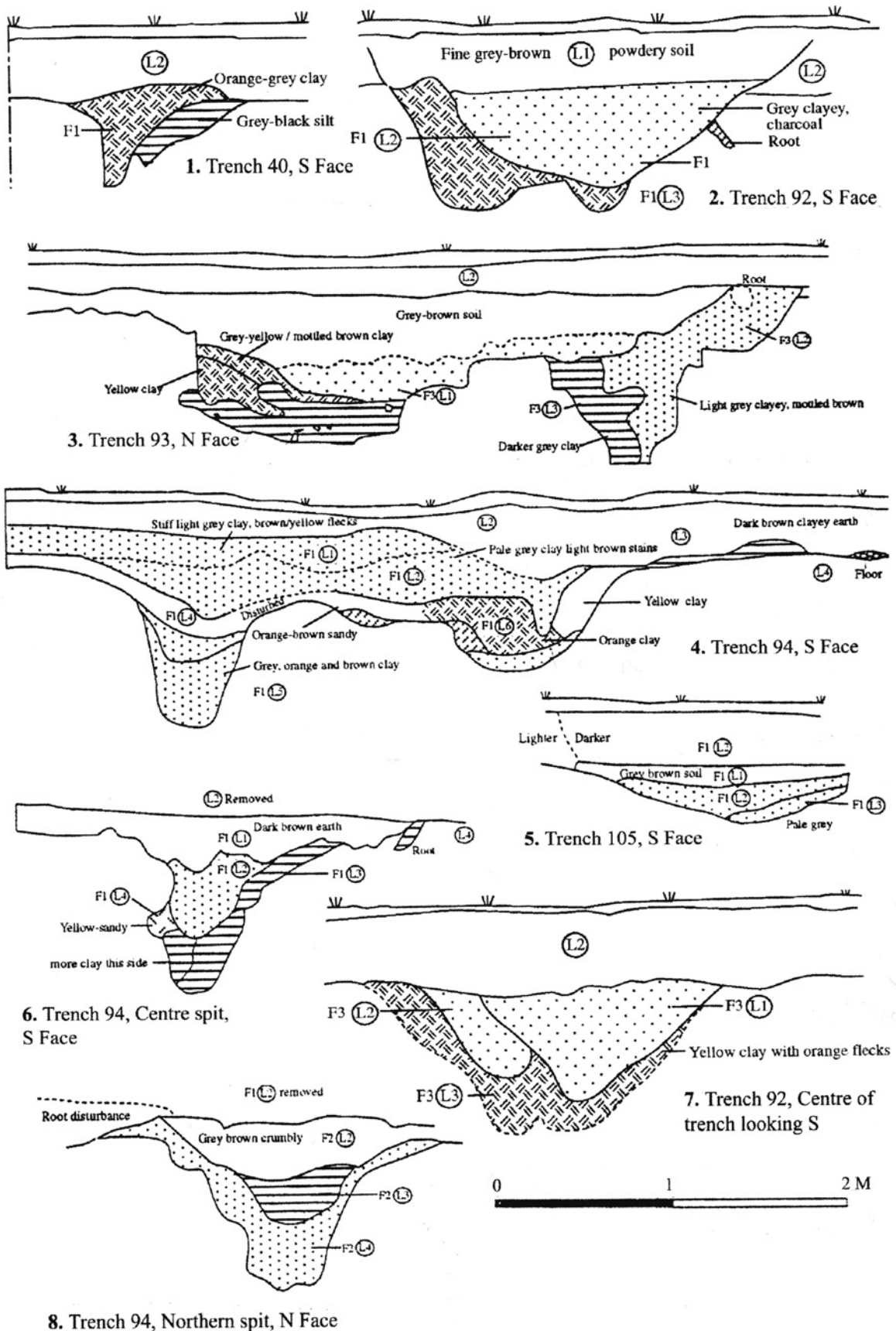


Fig. 28. Highgate Wood: Sections, Ditch 1 North

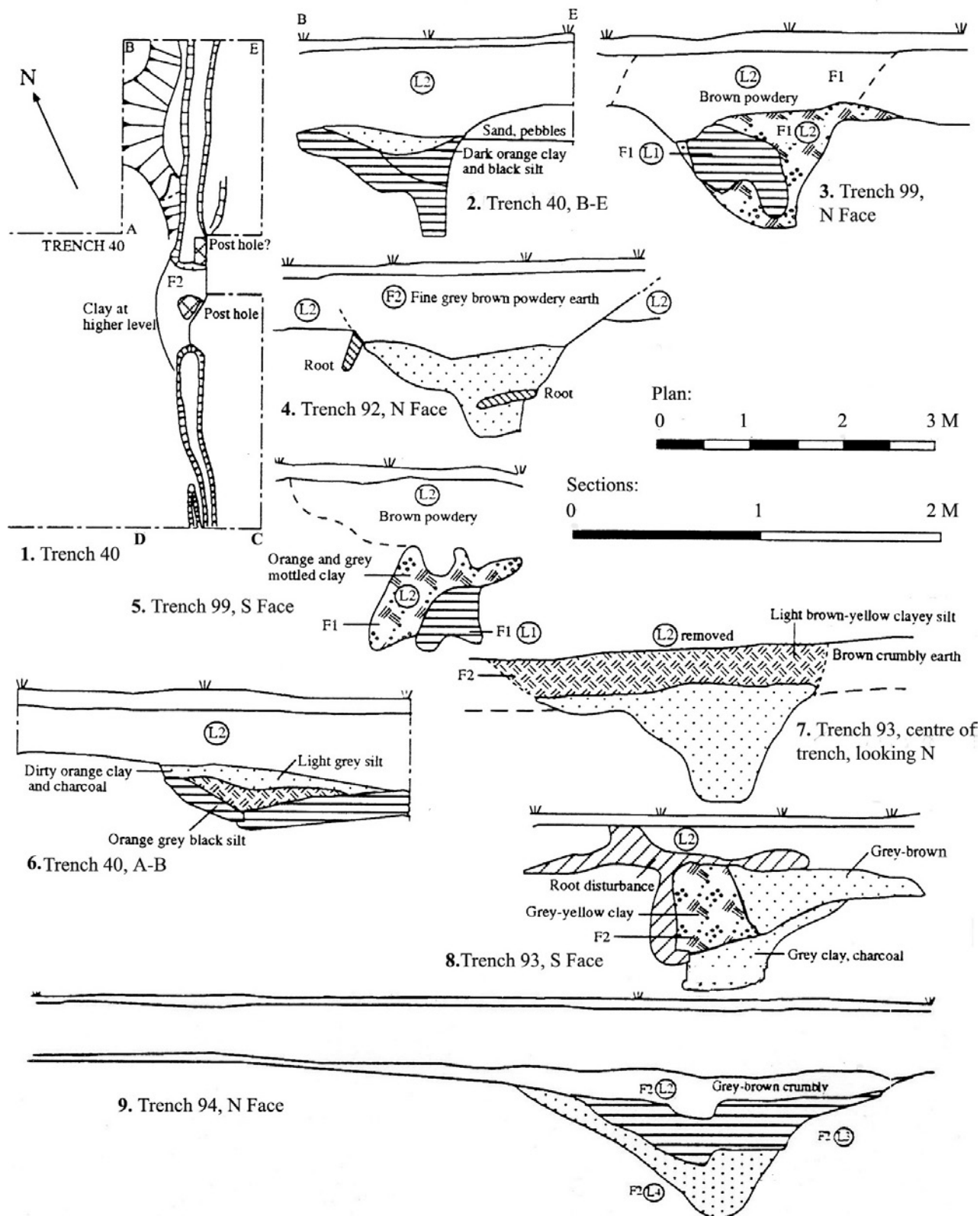


Fig. 29. Highgate Wood: Sections, Ditch 1 North

Also found were pieces of glass jugs and bowls, handles and unguent bottles as well as a cruciform lead object, two hones, a bronze disc, a quern, a bead with zig-zag decoration and iron nails; also pieces of baked clay. The entire dump covered an area of 250 square metres.

(c). Material derived from the Southern Dump — dark grey/brown clay with brown earth above it — found its way from the west into the southern arm of Ditch 1. These layers contained a few fragments of Highgate A pottery and several B fragments but many pieces of C and C+ ware, several mortars from the Verulamium region, the latest of which was stamped by Marinus (c. AD 80–125), with some possibly later pieces; other pieces of Verulamium Region White Ware and samian going down to the early years of the 2nd century (see p.217). There were also many pieces of fired clay including a firebar and rings of clay and two tile fragments. A particularly interesting deposit in the north-west corner of Trench 47(F1) consisted of fragments of the base of a vessel which had been carefully propped up underneath and around the exterior by other pottery fragments and pebbles to ensure that it remained upright. Animal bones were also present and a cooking place is suggested.

(d). *The Northern Kiln Dump* (Fig. 27). This occupied an area of c. 165 square metres. It consisted of a layer up to 0.4m thick of blackish/dark brown ashy earth containing patches of yellow clay and small bits of charcoal, overlying in places an area of greyish/white mortary earth and pebbles similar to that seen in the Southern Kiln Dump. The pottery from the relatively undisturbed core of the dump (in Trenches 91 and 94) in addition to necked jars and hooked rim bowls contained significant quantities of everted rim beakers as well as jars and pie dishes copying the forms of black burnished ware, thus placing the bulk of its accumulation in Phases 3(3) and (4). There were several pieces of Verulamium Region White Ware including mortars dated AD 60–90 and 65–100 and samian going down to the early 2nd century (see p.222). There was a fragment of a glass jug or bowl and part of an iron blade as well as pieces of baked clay, including rings, plate fragments, and shapeless lumps.

(e). Material from the more peripheral trenches (Trenches 89, 90, 91, 94, 103, 118, 120 and 121), from less securely stratified layers, consisted mainly of HWC, with some HWC+ and HWB, as well as samian of 1st to early 2nd century date, Verulamium mortars in the range AD 66/100–80/120, Red and White Slipped ware mortars in the bracket AD 140/180–150/200 (see p.227), several shaped clay rings and other pieces of baked clay, fragments of glass jars or bowls, glass beads and two querns. There was also a dolphin brooch of the period AD 40–70, probably an heirloom and out of fashion when lost.

#### (iv). *The kilns*

(a). *Kiln 5* (Figs. 30 and 31). The highest surviving point of this kiln was only 0.076m below the base of the modern path. The oval oven was 1.5m across from east to west and 1.1m from north to south. The flue walls were 0.8m long, giving an overall length of approximately 2.3m. The oval pedestal was 0.25–0.28m high, with a length of 0.76m and a centre breadth of 0.38m. The top of it had a weathered and lumpy appearance. In the north-east of the oven three clay supports had remained *in situ*; these were slabs of smoothed grey clay fixed to the walls and to the top of the pedestal. There was some 0.15m clearance between the floor of the oven and the bottom of the supports. The northern wall of the oven, which was in a better state of preservation than the southern, was composed of a single mass moulding of clay, about 0.30m high and 0.10m wide, cut into the natural clay and supported externally by a bank of clean brown earth. The southern wall consisted of individual segmented slabs of baked clay, similar to Kilns 1 and 3. The excavation showed that the northern wall leant inwards from the top and had been supported inside the kiln by two vessels jammed up against it.

The flue walls were made up of a mixture of baked clay slabs, lumps of yellow clay, earth and firebars. On top of these walls was a flue cover of red baked clay. Where this survived, the floor of the flue was slightly hollowed into the natural clay; above it was a thin deposit of black ash, 0.04m thick. This underlay a solid and deliberate fill of earth, pottery, and lumps of hardened clay 0.13m thick, which extended under the cover

# KILN 5

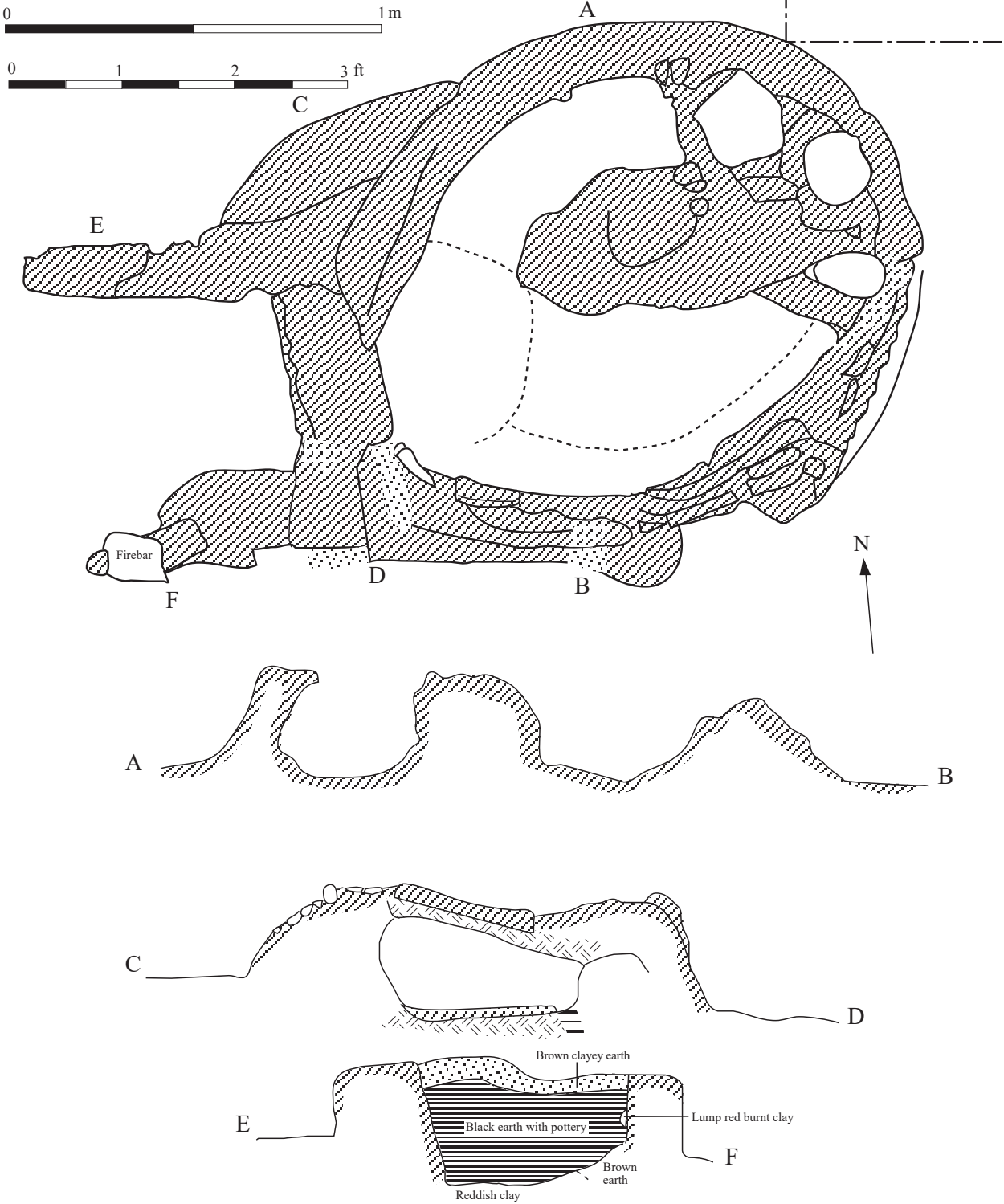


Fig. 30. Highgate Wood: Kiln 5

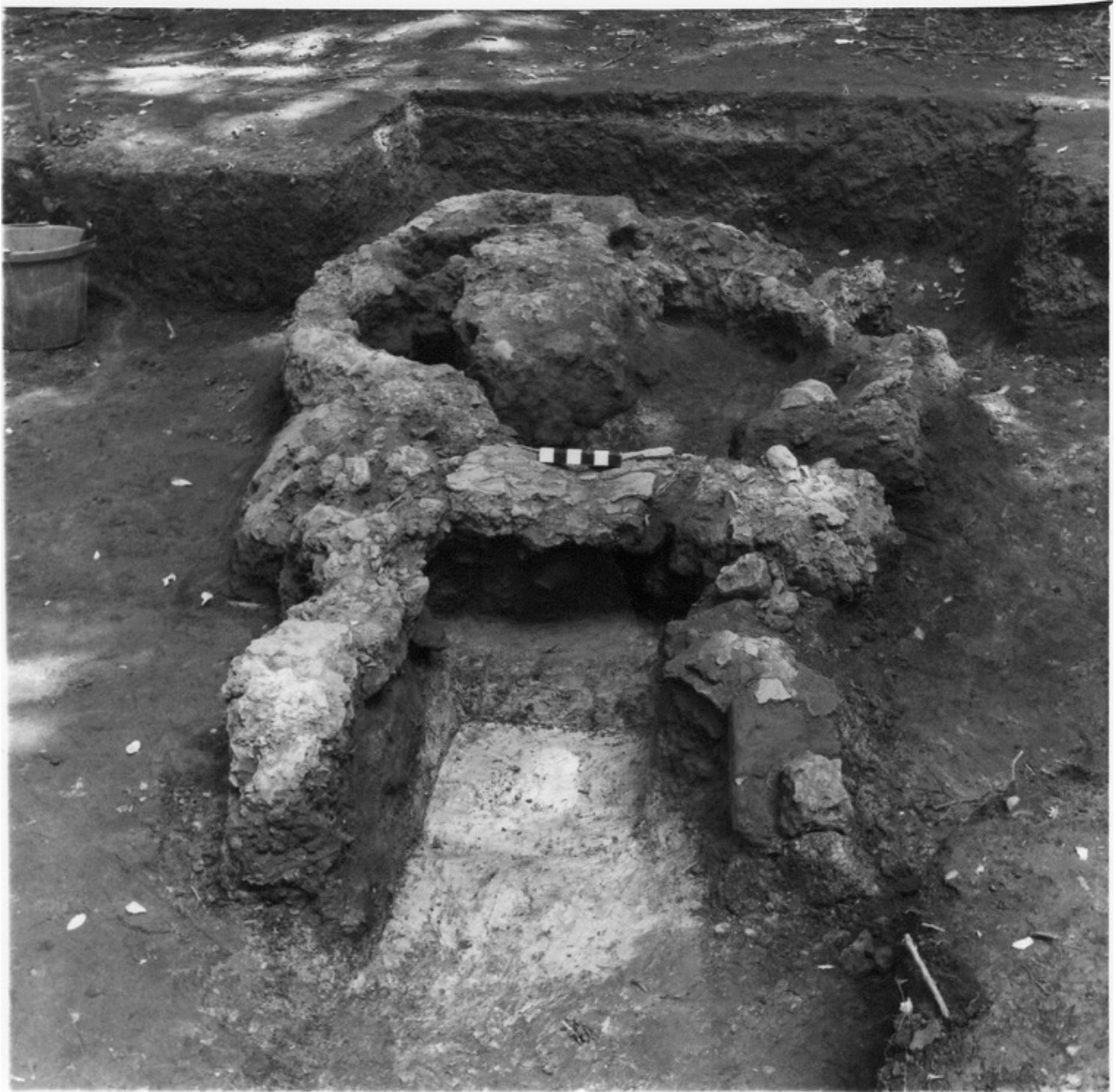


Fig. 31. Highgate Wood: Kiln 5, looking east. Scale in inches

into the entrance of the oven. This fill also included a poppy beaker filled with earth. All this could represent the remains of the flue blocking. The oven itself contained a mixture of earth, baked clay and pottery. This material might have been related to the last firing of the kiln, but alternatively could have been tipped into the disused chamber subsequently.

The pottery consisted of necked jars, hooked rim bowls, and everted rim beakers in HWC (Phase 3 (2); see p.229).

(b). *Kiln 1* (Figs. 32 and 33). The remains of this kiln were overlaid by rubbish dump material. They consisted of the oven walls and the pedestal. The oven was oval, with an internal width of just over 1m from north-west to south-east and 1.2m from south-west to north-east. The wall did however have a straighter appearance at the flue entrance. The oven was much obscured by the collapse of its walling, which covered an infilling of more fragmented burnt clay, earth and broken pottery. There was some burnt matter, including charcoal, in the area close to the flue. The infilling was on average some 0.10m deep and rested on the floor



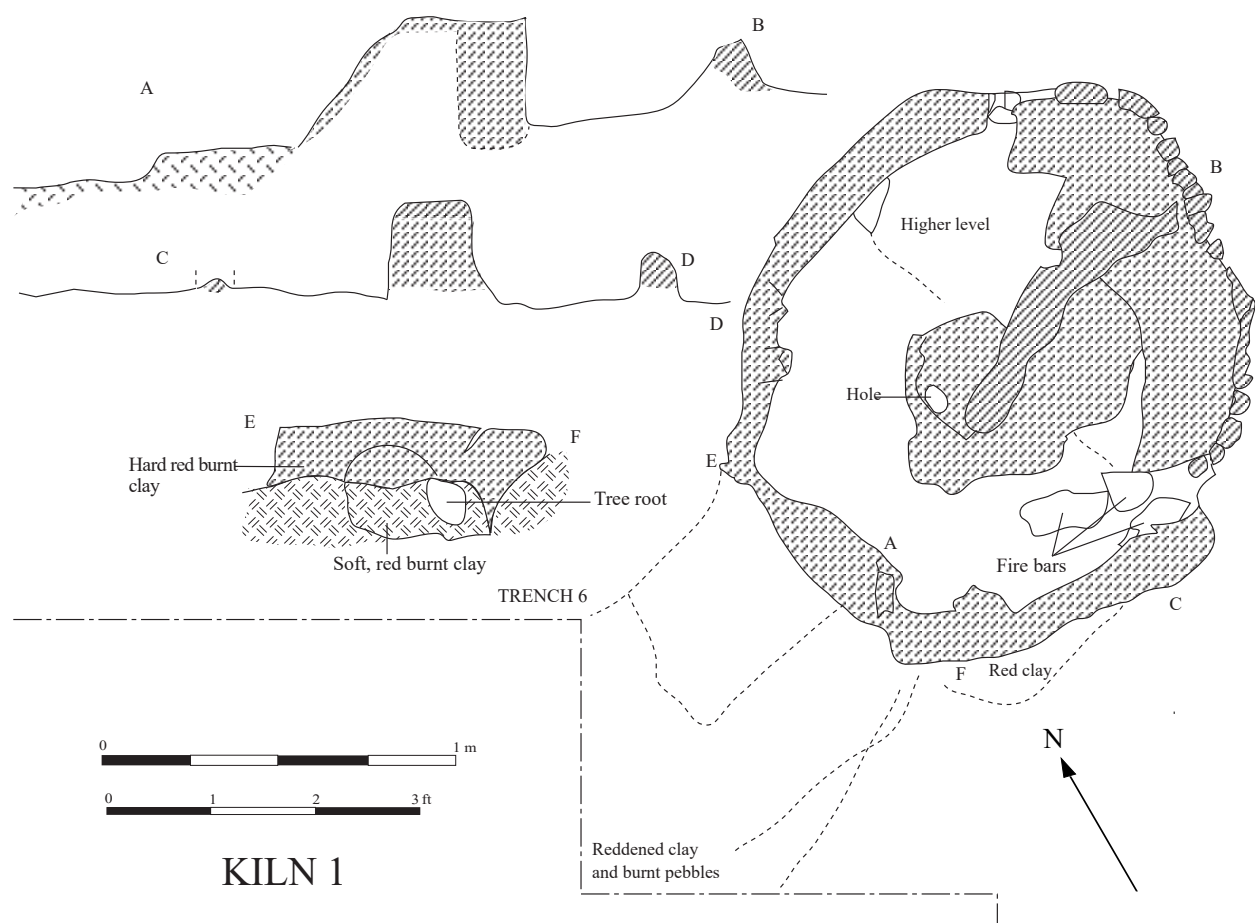


Fig. 32. Highgate Wood: Kiln 1

of the oven. The oven walling was composed in part of teeth-like segments and in part of larger sections of burnt clay. The walls remained to an average height of 0.15m above the level of the floor; the thickness of the wall was between 0.05–0.075 m.

The pedestal was of the tongue type and was a hard burnt grey on the top and reddish in the centre. Although the floor of the kiln followed the natural slope downwards towards the south, the top of the pedestal was on the horizontal plane, and therefore rising in relation to the front of the kiln. The floor of the oven was composed of burnt clay with pebbles which overlaid the natural yellow clay. A thin layer of black burnt material lying on the floor did not extend to the back of the kiln. Apart from the effects produced by burning, the texture of the floor inside the kiln appeared to be identical with the natural outside.

The flue had collapsed and was covered with lumps of red to yellow clay. It was about 0.6m long and the same width. A section through it showed a red baked hard clay layer which presumably had been the original wall and cover, overlying a darker area.

No proof was obtained of any reconstruction of this kiln but indirect evidence existed in the lack of symmetry of its parts. Firstly, the pedestal was not quite on the same alignment as the entrance of the flue to the oven. Secondly, the flue did not enter the kiln on a straight line. These observations might indicate alterations to the kiln at various points during its working life.

The pottery, a small group, belonged to Phase 3 (3) and included everted rim jars and some HWC+ (see p.232).





Fig. 33. Highgate Wood: Kiln 1, looking north-east. Scale in inches

(c). *Kiln 8* (Figs. 34 and 35). This was of updraught type, constructed of fired clay and lying on the subsoil surface with its stoking area to the south-west. The overall length of the kiln, including the stoking area, was 2.5m; the furnace was 1.5m long and 1.25m across at its widest point. The oval pedestal was 0.80m long and 0.60m wide, surviving to a height of 0.20 m. Attached to the inside face of the furnace wall were five small buttresses of fired clay, which presumably acted as firebar supports. The kiln was covered with dark brown earth, which contained a great deal of pottery, with a particular concentration between the pedestal and the eastern wall of the kiln. Between the pedestal and the southern wall were lumps of baked clay and kiln furniture.

The pedestal showed two phases of use. In its original state it had been smaller, and on the north, west and south the earlier red baked clay surfaces had been overlain with a layer of grey burnt clay. In places this phase two pedestal had been patched with slabs of clay. Also, along the northern side of the oven wall lumps of clay had been built up against the inside surface to act as a relining.

## KILN 8

TRENCH 90

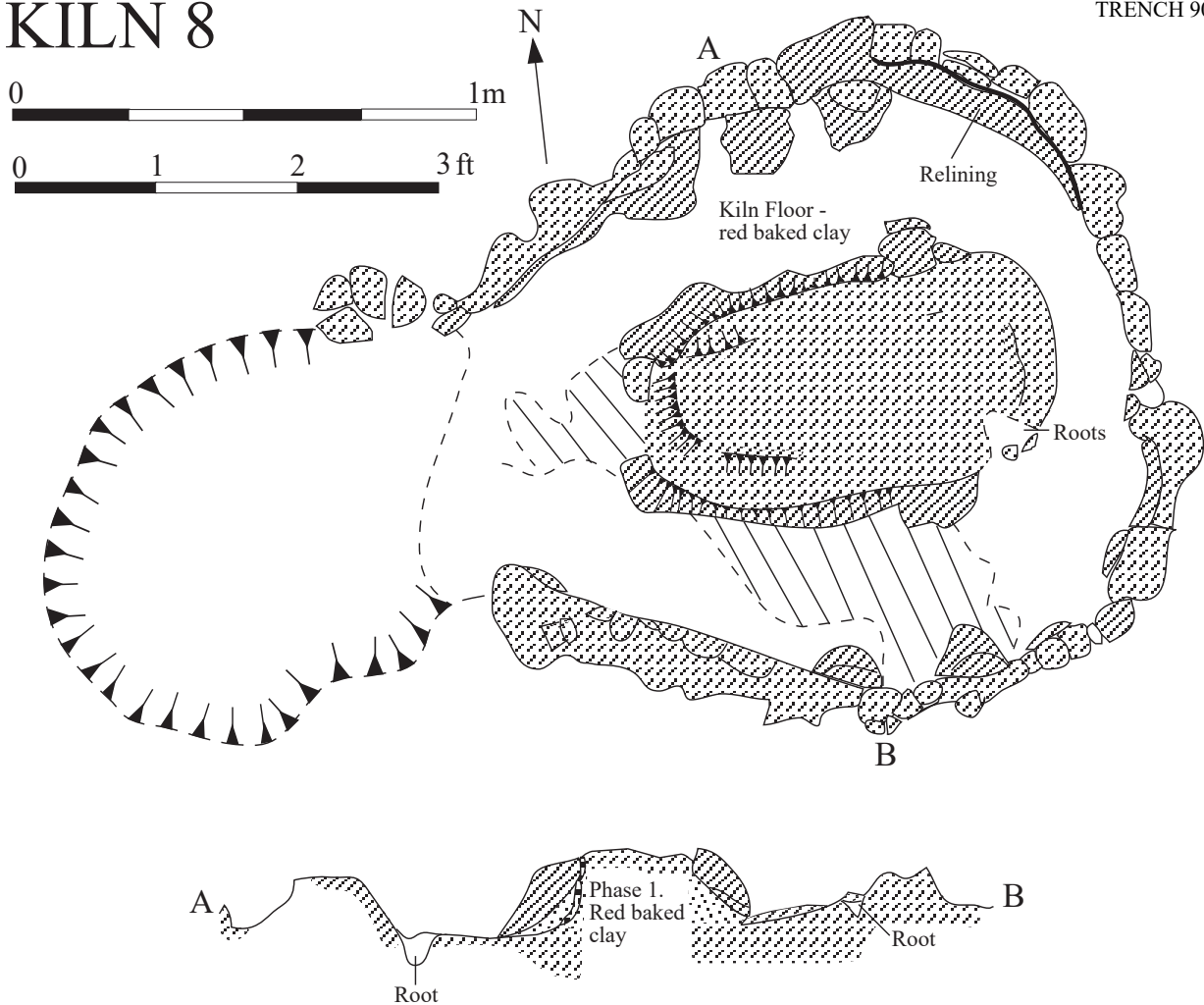


Fig. 34. Highgate Wood: Kiln 8

The pottery consisted of necked jars, everted rim beakers and hooked rim bowls in HWC, Phase 3(3) (see p.233).

(d). *Kiln 4* (Figs. 36 and 37). The position of this kiln, across the flue of Kiln 5, shows that it was the later of the two; section A-B across the flue indicates that kiln dump material 0.05m thick underlay the northern side of the flue. It was generally well preserved, having been covered by kiln dump material, except where a park path had cut off a portion of the furnace wall. Its overall length was 2.5m.

The flue was 1.06m long, and its overall width, including the mass of hard yellow clay which acted as a buttress on the northern side, was 1.75m. There had been two phases of construction. The flue walls had been relined once, with the linings (of reddish/brown clay, section A-B) separated by a band of hard, light yellow clay. It had also received two floors, represented by layers of ashy black and brown earth and charcoal separated by a layer of clean yellow clay which began about half way along the length of the flue (section C-D). That the initial 0.35m of the flue's length was an addition was suggested by its surface appearance and by the fact that only the phase two lining was present along it. The internal width of the flue in the kiln's last phase was about 0.61m. Substantial portions of the flue roof were still intact in places 0.10m thick,



Fig. 35. Highgate Wood: Kiln 8, looking south. Scale in feet

formed of yellow clay burnt reddish brown on the underside where it had been in contact with heat. It had been pierced with roots in many places, and some pieces had collapsed, allowing through the dark earth and smallish pieces of pottery which largely filled the flue (section C-D).

The internal diameter of the furnace was 0.90m and the thickness of the furnace wall 0.20m. The lining, of hard grey clay with a thin zone of red burnt clay behind it, was 0.05m thick. Seven firebars c. 0.07m square in section remained in position radiating from a central pedestal and set into the furnace wall by means of neatly made recesses. Empty recesses and fallen firebars showed that the original number forming the oven floor had been ten. The upper surfaces of both firebars and pedestal had been daubed over with clay, but in places this had been eroded away. The clearance between the furnace floor (of hard grey burnt clay) and the bottom of the firebars was 0.12m on the northern side and 0.10m on the southern side. On the south side of the furnace and level with the flue arch was a vent hole 0.10m across filled with black burnt material. The furnace belonged to phase two of the kiln's life, when it had been largely rebuilt. The pedestal had been built on top of the black material of the phase one flue floor, and immediately outside the circumference of the furnace wall on the north-east was a strip of reddish brown sandy clay 0.10m wide which defined the outline of an earlier version of the furnace. After going out of use the furnace filled up with brownish grey earth and pieces of burnt clay.

The blocking pushed up the flue to produce a reducing atmosphere in the oven after the last firing was in position at the east end of the flue and ran right up to the pedestal. It was a mixture of dark earth, yellow and red clay, and sandy brown material. The bright red clay of the flue arch had collapsed on top of this, but had been originally supported by a well formed cylinder of grey baked clay with a disc of baked clay on top of it, which sat in a specially made flat bottomed clay bowl. This arrangement had been knocked over by the insertion of the blocking and was found pushed up against the pedestal (Baked Clay Report, p.328).



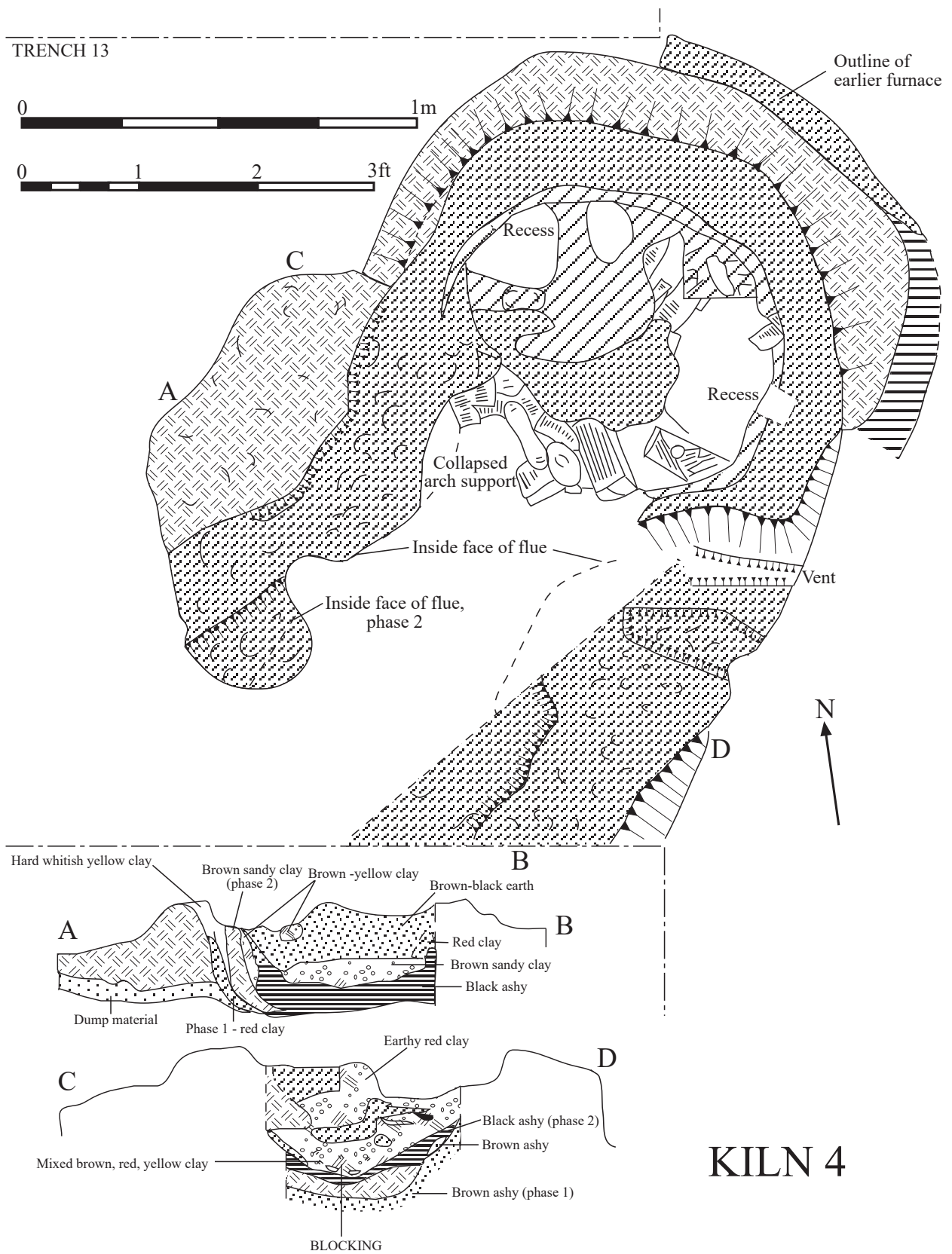


Fig. 36. Highgate Wood: Kiln 4



Fig. 37. Highgate Wood: Kiln 4, looking north-east. Scale in inches

The pottery from the stokehole area, flue, flue blocking and furnace of the kiln included everted rim jars, necked jars, everted rim beakers and a small number of pie dishes in Highgate C ware; Phase 3(4) (see p.235). This solidly constructed kiln would have been responsible for much of the pottery produced in the later phases of the Highgate industry.

The possibility exists of a second kiln in the north-west quarter of the Northern Dump, where a group of trees prevented excavation (Fig. 27). Its existence would explain the significant quantity of Highgate 3(4) pottery found here.

(v). *Pits, Southern Kiln Dump* (Fig. 38) Three pits were excavated in the vicinity of the Southern Kiln Dump. They lay in a north-south line west of the kilns. Their fills were similar, with sequences of yellow and grey clay. This may suggest their probable use as containers for water during the actual pottery manufacturing process and indicate a zone in which the workshops were.

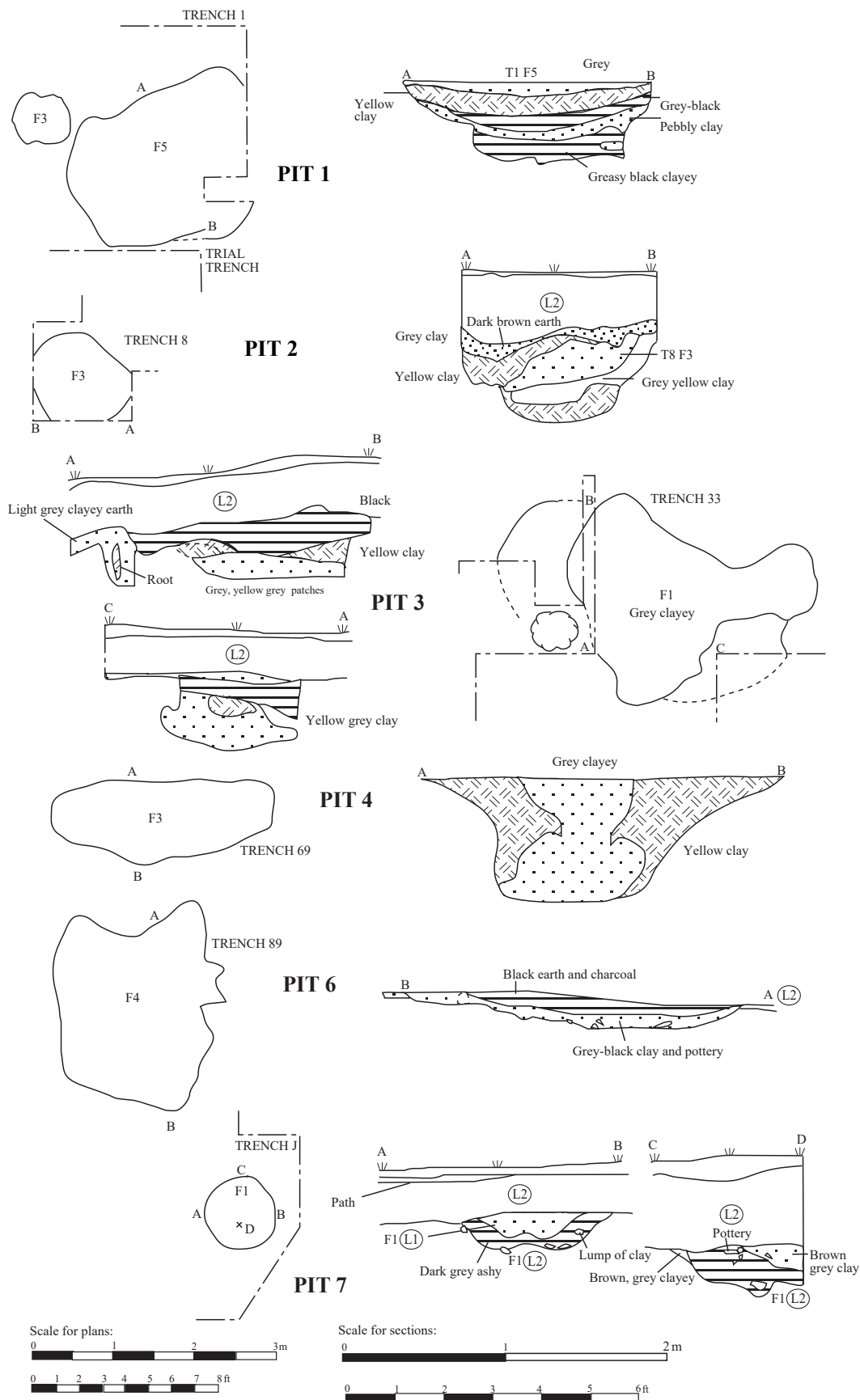


Fig. 38. Highgate Wood: Pits



(a). *Pit 2* (Trench 8, Fig. 26). This small pit was 1.25m across and 0.90m deep. Its bottom was covered with a layer of yellow clay, with over that layers of grey/yellow clay with on top of them a layer of dark brown earth. The pottery consists of white slipped Highgate C ware (hooked rim bowls, necked jars and everted rim beakers) but with no forms showing the influence of black burnished pottery; it is assigned to Phase 3(2) (see p.237). There were fragments of an iron blade and two lead strips.

(b). *Pit 1* (Trench 1, Fig. 26). An oval pit 1.8m by 2.5m and 0.75m deep. It was filled with two layers of grey/black material similar to kiln rakings separated by two layers of yellow clay with a layer of grey clayey earth on top. There was a shallow depression (Trench 1, F3) 0.37m deep to the north-west of it, filled with hard clayey brown earth, with many pebbles and flecks of charcoal. The pottery consisted of white slipped Highgate C ware including black burnished derivatives such as everted rim jars and pie dishes, placing the group in Phase 3(4). There was a rare example of a pedestal foot and a jar with pie crust decoration. The large group of samian went down to c. AD 125 and there were pieces of imported colour coated beakers (see p.238).

(c). *Pit 3* (Trench 33, Fig. 2). An irregular pit interfered with by tree roots but c. 3m by 2.5m and 0.75m deep. It had grey earth at the bottom, with layers of yellow clay (possibly slippage from the sides) and then dark grey earth containing pottery and charcoal (*ie* kiln debris) on top of this. The pottery included some black burnished derived bowls and everted rim jars as well as necked jars and hooked rim bowls of standard Highgate C white slipped types, and so falls into Phase 3(4). The large number of samian sherds went down to the early 2nd century. There were many sherds of flagons in Verulamium Region White Ware, a ring and dot beaker, fragments of an iron blade and a blob of melted lead (see p.240).

(vi). *Other features in the area of the Southern Kiln Dump* (Fig. 39)

(a). *Hearth and possible building, Trench 11, north of the Southern Kiln Dump* (Fig. 26 and Fig. 39, 4). The hearth was circular, 0.60m in diameter and 0.46m deep. The base of the hearth was closely packed with pebbles. The base of a pot (Highgate B fabric) stood in the hearth, which was filled with grey greasy earth, pebbles and flecks of charcoal, with some unidentifiable bone fragments (see p.244). To the north were two alignments of stone settings and pockets of darkish earth 0.08–0.12m in diameter and 0.09m deep, meeting at right angles. If these slight remains do indeed represent a rectangular structure of some sort, then the one side whose length we possess was some 1.8m long.

(b). *Hearth, Trial Trench* (Fig. 26, F11). This was c. 0.9m in diameter and c. 0.7m deep. It was filled with grey/black earth containing a little charcoal and a few Highgate C pottery fragments (see p.245).

(c). *Semi circular structure and associated features, Trial Trench* (Fig. 26 and Fig. 39, 3). A semicircular patch of dark earth 2.1m across which contained two shallow depressions; one, TT F14A, was 1.1m across at its widest point and filled with greyish clay, many small pieces of charcoal and pieces of pottery. To the west was TT F14B/T4 F4, another, smaller depression, 0.71m deep and 0.51m across, filled with black greasy material and charcoal. To the south of these features was an arrangement of pieces of burnt clay 0.3m across, hollow in the middle and probably the packing for a post, maybe even the support for a potter's wheel.

To the south-west was T4 F5, a circular pit 0.76m across and 0.6m deep, containing at the bottom a thin layer of a white mortar substance; above that, a layer consisting of a mixture of this material and yellow clay. On top of that again was a heap of largish water worn pebbles with some pieces of tile, a firebar fragment, and a few sherds of Highgate C pottery, as well as fragments of a flagon in Red and White Slipped Ware (see p.246). Below the inverted base of this were some small unidentifiable fragments of bone. The whole had the appearance of a ritual deposit (see p.279 for comments on ritual activity associated with pottery manufacture).

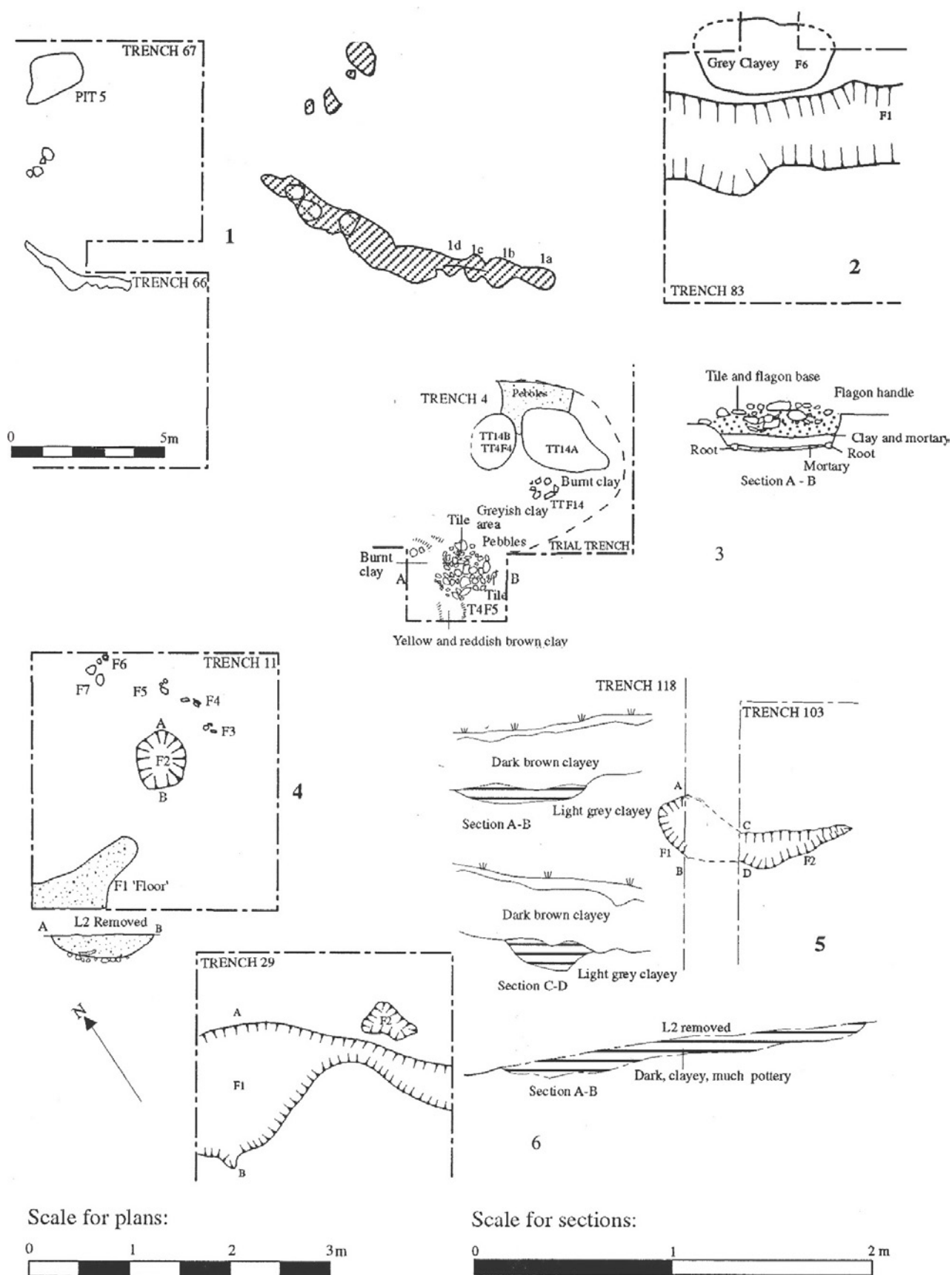


Fig. 39. Highgate Wood: Miscellaneous features

(d). *Shallow depression, Trench 29* (Fig. 26 and Fig. 39, 6). An irregular depression, wider (2.1m) at the west than in the east, running the whole length of the trench; only 0.3m deep. It was filled with grey gritty clay and yellow clay. There was a much smaller but equally shallow depression (F2) to the north. They have points of resemblance to the simpler versions of the pottery driers identified at the Churchill Hospital site at Oxford (Young 2000, Fig 5, 4 and 6). The pottery from this feature consisted of Central and South Gaulish samian, two pieces of Verulamium Region White Ware, sherds of Highgate A, B and C ware (down to Phase 3(3)); there was also a glass stirring rod and a fragment of a jug or bowl of glass with ribbed or trailed decoration (see p.247).

(vii). *Other features, Northern Kiln Dump*

(a). *Pit 6* (Fig. 27 and Fig. 38). This lay at the southern extremity of the pebble floor, Trench 89. It was irregular in shape, c. 2m across and only 0.5m deep. Its basal fill consisted of a sticky black clay, with a layer of black dump material and charcoal on top of that. The material from it included lattice decorated everted rim jars and bowls, a Colchester brooch of the late 1st century and a pair of bronze tweezers (see p.249). The pottery suggests that the pit was open during Phase 3(4). It was too shallow to be regarded as a clay extraction pit and presumably had some function in the clay preparation process.

(b). *Elongated feature in Trenches 103 and 118* (Fig. 27 and Fig. 39,5) at the northern end of the dump might be compared with it — this was 2.5m long and 0.9m across at its widest, tapering down to a point. It had been cut into the natural clay to a depth of only 0.5m and had a fill of light grey clay (for pottery, see p.251).

These features have points of resemblance with the shallow depression in Trench 29 described above (vi (d)) and also with the twin depressions in the semicircular structure in the Trial Trench, vi(c).

## 2.4. Phase 4

A ceramic phase characterised by the appearance of everted rim jars, pie dishes and beakers of developed form, unlike the pottery of the preceding phase. Features assignable to this phase have yielded samian of early to mid-2nd century date, as well as mid-2nd century mortaria and two mortar fragments which could fall within the range AD 150–200.

(i). *Kiln 2* (Figs. 40 and 41). This kiln was largely covered by the park path and its top lay from 0.10–0.22m below the modern ground surface. The overall length of the furnace and flue was 2.6m; the furnace had an external diameter of about 1.5m; the length of the flue was 1.09m with an external width of 1.06m.

The furnace wall, 0.1–0.17m thick, was composed of reddish burnt clay, smooth on the top. The kiln lay across the top of the hill and to counteract this a few centimetres of the clay subsoil had been removed on the north side; on the south the furnace was built on dark earth containing pottery and pebbles *ie* pre-existing kiln dump material. Except on the north-west, where there was a vent hole 0.10m across containing flecks of reddish burnt matter, dark earth had been banked up around the outside of the furnace to act as a support. A series of holes in the top of the furnace could have held light wooden supports for the superstructure.

The top of the furnace wall and pedestal had a weathered appearance, suggesting that when the kiln had gone out of use it had simply been abandoned and not covered with the debris of more potting. The furnace chamber was filled with soft dark grey earth. Below this was a layer of black earth, with many flecks of reddish burnt matter, pottery fragments (including some large pieces), pieces of red and grey burnt clay (including firebar fragments and pieces of grey kiln walling with firebar impressions), densely packed in places. This represented the final disintegration of the kiln structure after abandonment, with some accumulation

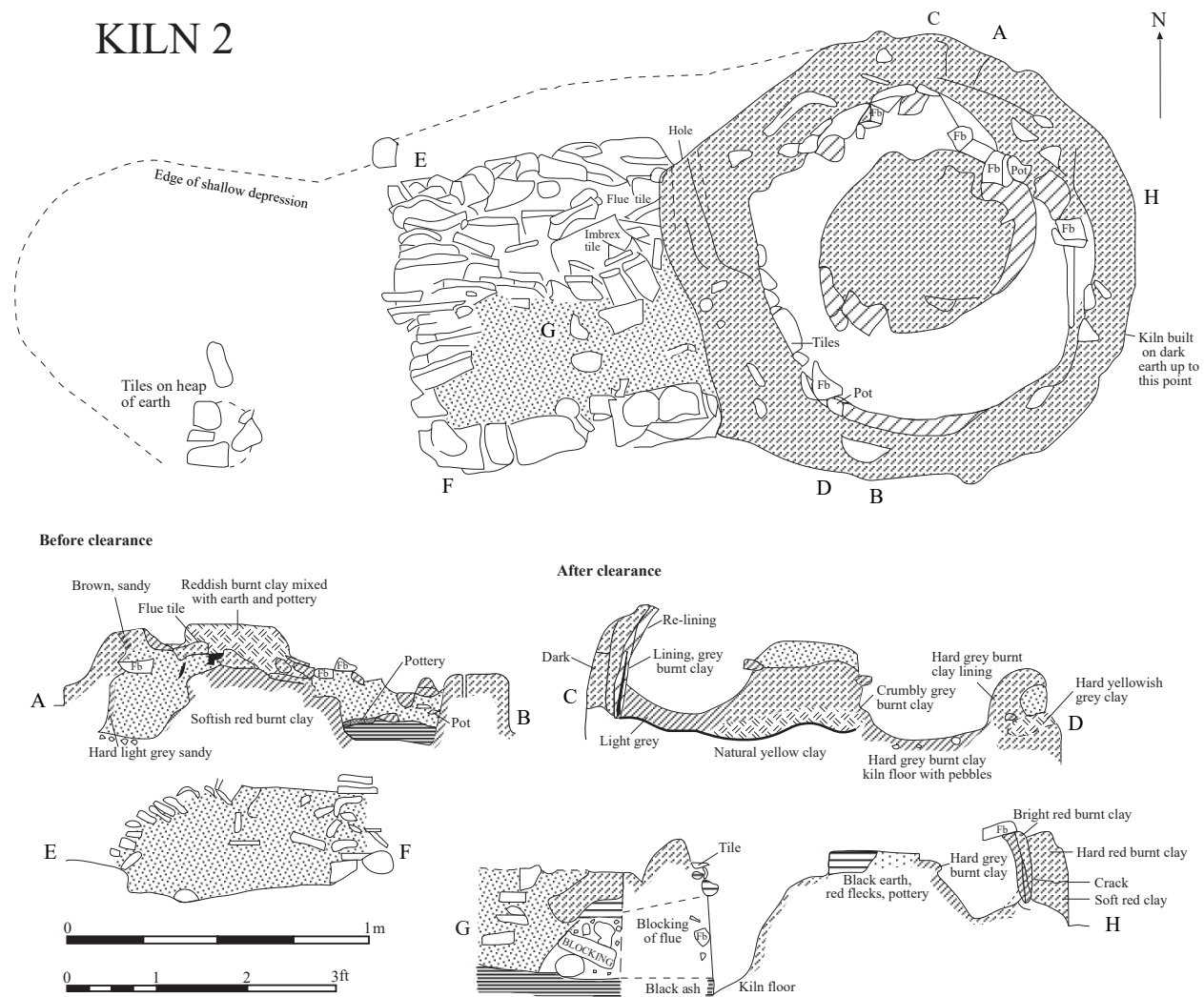


Fig. 40. Highgate Wood: Kiln 2

from the surrounding areas of rubbish. Below this, on the floor of the furnace chamber, was a layer of black greasy earth. The floor of the furnace was of hard grey clay 0.01–0.02m thick, grading to red and then to yellow clay.

The furnace lining of hard grey fired clay 0.05m thick was generally well preserved and in places the marks left by the potter in smoothing the inside surface remained. On the north and east sides was evidence of a single relining (sections C-D, G-H).

The oval pedestal, 0.6m across at the base from north to south and 0.74m from east to west, was 0.35m high. It was composed of a mass of clay, burnt on the outside to a hard grey, merging on the inside to reddish brown and yellow. Smoothing marks could be plainly seen on the outside in places where it was well preserved. Its outer surface had been eroded on the west, opposite the flue arch. A section (C-D) showed a thin layer of black burnt material running beneath it, showing that the furnace had been fired before the pedestal had been added to it. In one place on the northern side of the pedestal a piece of tegula had been placed to act as a support for a firebar.

On top of the eroded original upper surface of the pedestal was a layer 0.15m thick of nodular reddish burnt clay mixed with black earth. This represented a heightening of the pedestal in a second phase of use.

The stub of one firebar remained in position on the east side of the furnace, where it had been let into the



Fig. 41. Highgate Wood: Kiln 2, looking east. Scale in feet

highest surviving portion of the lining. The lining clay (in its second phase) had been moulded around the base of the firebar to hold it in position. This firebar corresponded to the higher, secondary upper surface of the pedestal. One or two other places which had the moulded clay seatings of firebars could be seen along the northern circumference, some of them at a lower level, corresponding with the earlier phase of the pedestal. During the excavation of the furnace some pieces of clay with carefully curved surfaces were found which would also have belonged to firebar supports. Some pieces of baked clay and tile had been set into the clay of the flue arch and would have acted as firebar supports on the western side. Along the southern side of the furnace no such supports were seen and instead a different method may have been used. South of the flue arch was a pot filled with dark earth and attached to the side of the furnace; perhaps the bars on this side rested on stacks of pottery and baked clay.

The flue was crudely arched in brick, without mortar. The bricks were much broken, obviously reused, and consisted mainly of standard building types with a few roofing and flue tiles in a fabric known in the London



region in the period AD 50–160 (Report by I M Betts of MOLA, September, 2011). The floor of the flue had been excavated a few centimetres only into the natural clay and the height of the flue at its best preserved point above this was 0.35m. Along the north side of the flue large lumps of hard fired red clay had been set into the soil to act as a foundation, and on the south side a line of firebars had been used in the same way.

The excavation of the flue showed that the original blocking of the flue arch was still in position. This consisted of pieces of grey and brown burnt clay, brown and grey earth, pieces of yellow clay and some firebar fragments. After the abandonment of the kiln, dark matter from the neighbouring ash and pottery dumps began to find its way into the flue; the central portion of the flue collapsed inwards, and the fallen bricks were covered by a further accumulation of dark dump material with a few small sherds. Some lumps of reddish burnt clay represented slippage into the collapsed flue of material from the furnace wall.

The pottery from the furnace and flue of the kiln is the definitive group of Phase 4 material from the site (see p.252). Phase 4 material also came from Ditch 2 (Trenches 43 and 96) and the southern part of Ditch 1 (Trenches 47 and 50).

(ii). *Late activity in and around Ditch 3*

(a). The uppermost layers in Trench 83 (Fig. 13, 1) consisted of a brown soil with white and grey patches containing flecks of charcoal. This produced Highgate C vessels of late type including pie dishes with lattice decoration. The pieces of samian included a Central Gaulish piece belonging to the mid-2nd century and a mortarium in a fine Verulamium Region fabric dated AD 150–200 as well as several sherds of flagons in Verulamium Region coarse white slipped ware (see p.256). There were three iron nails. This layer could well be the result of the preparation of clay in a partially silted up ditch. To this phase of activity can be related the 2nd century finds from Preparation Pit 1 and its vicinity — it may be that the clean grey clay of Trench 82 F1A (Fig. 13, 6) was the result of clay preparation at a relatively late date in an existing hollow.

(b). Probably also relevant is Trench 83 F6 (Fig. 39, 2), an oval patch of grey clay 1.5 by 0.9m but only 0.003m thick, similar in its appearance and siting near a ditch to the thin clay feature noted within the Phase 1 Circular Structure during Phase 3(1). There were a few pieces of HWC pottery and the rim of a mortarium in a red fabric dated AD 150–200 (see p.258).

(c). *Pit 4* (Fig. 38). An oval pit 3m by 0.9m and 0.9m deep south of Ditch 3, Trench 69, Fig. 2). It was filled with grey clay. The pottery from this consisted of everted rim jars, necked jars and pie dishes in HWC of Phase 3(4). The samian falls within the Flavian-Trajanic bracket. The Verulamium Region mortar recovered was of the period AD 90–130 and a white slipped example dated to AD 110–140 (see p.259). There was a quern and several iron nails. Probably dug to get clay — the sides had collapsed inwards once this had been removed.



Part II.

Highgate Wood, wider aspects



### 3. Evidence for other pottery making sites in or near Highgate Wood

1. In 1962 Mr F B Ryan, then of Leigh on Sea, Essex, found a number of small sherds of grey Romano- British pottery in reddish soil in the area of TQ 28348845. These finds were given to the then London Museum. They included pieces of a necked jar and of poppy head beakers. A visit to the area by members of the excavation team in April 1968 produced more pottery from the region of TQ 28408850.

This material has been examined by P A Tyers, who has commented as follows:

The fabric is largely standard grey HWC, with a few sherds of the coarser HWC+, and is not distinguishable from the pottery from the main site, at least within the limits of examination under a binocular microscope at x30 magnification. The forms include necked jars, poppy-head beakers, lids and bowls, all standard Highgate types. There is one pie dish with a burnished lattice, and several sherds with combed decoration. These suggest a date contemporary with late Phase III or IV at the main site (*ie* Hadrianic-Antonine). The group also includes a fragment of Roman ceramic building material, perhaps an imbrex, and a large fragment of grey fired clay, smoothed on one face with prominent finger marks. Such a piece could be matched among the fired clay fragments from any of the later kilns and dumps at the main site, and perhaps derives from a kiln in the immediate vicinity.

There is therefore the strong probability of a second kiln site in Highgate Wood in the general area of these grid references (Site 2: Fig. 42).

2. The agistment (pasturage) of the Little Park had been one of the units of the Bishop of London's estates in north London put out to lease since the mid 15th century. It was customarily held with the tolls levied at the Gatehouse in Highgate. In the Parliamentary Survey 1641–7 the holding is described as 'The herbage pannage and agistment of the Little Park and all that messuage or private house and toll of High Gate for all manner of cattle and carriages therethrough passing'. With this went four closes 'parcel of the Little Park' viz Bushy Plaines, Bottom Meadow, Gardeners Close and the Pitts, in all 54 acres.<sup>1</sup>

In the 18th century the leases continue but at least from the the middle years of the century the way in which the pasture closes is described changes. They are now said to be Boltons 47 acres, Gillows 32 acres, and a very small field known as Baizes Field.<sup>2</sup> The first two fields seem to be known by the names of their sub-lessees; Francis Gillow was the owner of various public houses in Highgate as well of a brewery there in the mid 18th century (Richardson 1983, 154–5).

But in 1807 these arrangements changed and the lease of the Gatehouse with its brewhouse and tolls was separated from that of the pasture closes, and continued as a separate series until 1890. The herbage and pannage of the closes were leased to John Addison of Homerton in Hackney, who had succeeded to the ownership of the brewery in Highgate in 1800 (VCH 1980, 142). Now they are described in a different way:

Several pieces or parcels of Meadow or Pasture Ground in the Little Park of Hornsey.

<sup>1</sup> *Parliamentary Survey 1641–7*. London Metropolitan Archives DL/D/F/005/MS10464A

<sup>2</sup> *Copy of Lease Abstract Book completed 1758*. LMA DL/D/G/005/MS12034; *Lease Abstract Book 1770–87*. LMA DL/D/G/011/MS10240; *Lease Abstract Book 1770–80*. LMA DL/D/G/009/MS10238; *Estate Book giving Abstracts of Leases and Particulars of Renewals 1771–1813*. LMA DL/D/G/014/MS10242

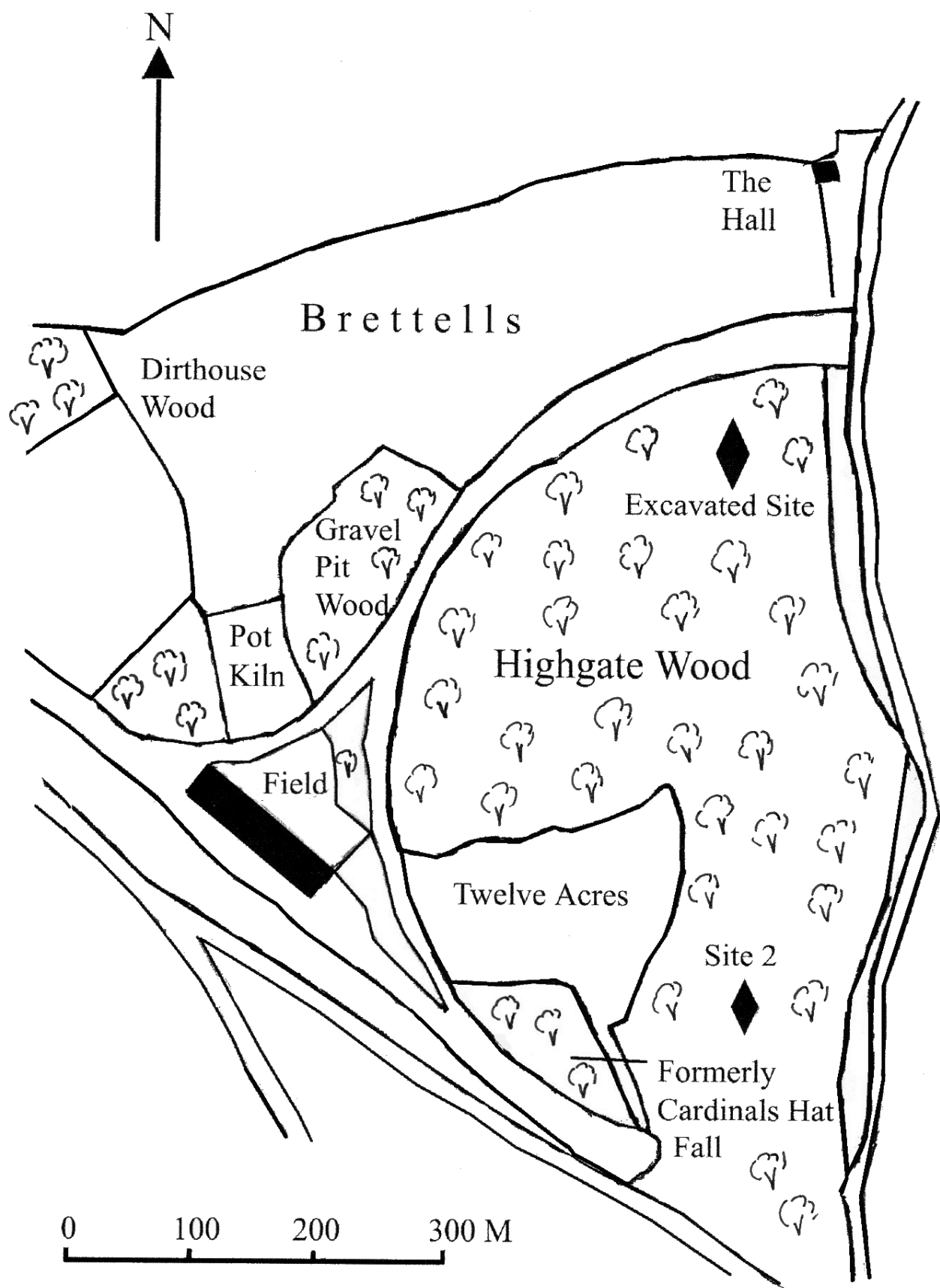


Fig. 42. Roman pottery sites, Highgate Wood

The Brettell

10 acres 9 perches

Middle Brettells

14 acres 20 perches

Close called Nearer Brettell

11 acres 32 perches

One other Close Piece or Parcel of land called Pot Kiln Close

6 acres 29 perches

One other Close called Twelve Acres

9 acres 3 roods 27 perches

One other Close or Parcel of land called the Quag

1 rood 28 perches

Altogether 53 acres, 3 roods, 25 perches<sup>3</sup>

The name Brettells refers to a family which occupied The Hall in the later 18th century, another example of a name change reflecting a change in a tenancy (Gay 1999, 27–8). The interesting name Pot Kiln Close will in all probability not have been particularly old in 1807.

In a lease of 1835 the various closes are numbered, the numbers corresponding with those on the enclosure map of 1815.<sup>4</sup> This enables the location of Pot Kiln Close to be fixed exactly (Fig. 42).

The name does not of itself prove anything, but its presence in an area where Roman kilns are known could be significant. The name is a very precise one; there are no records of medieval or post-medieval kilns here, although brick making is attested (VCH 1980, 155). The area has been very disturbed by activities associated with the railway and not much archaeology can be expected to remain.

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<sup>3</sup>*Register of Leases 1821–8 and 1837–49.* LMA DL/D/G/001/MS10234/010,012; *Surveys and Valuations of the Manors of Hornsey and Finchley 1810–56.* LMA DL/D/F/023/MS 12418; *Hornsey Manor: Leases and Papers relating to lands in Highgate in the Parish of Hornsey, Middlesex.* LMA DL/D/L/201/MS12375

<sup>4</sup>*Register of Conveyances 1859–67.* LMA DL/D/G/021/MS10236; *Enclosure Map of Hornsey 1815.* LMA MR/DE/HOR/3

## 4. Highgate Wood before and after the Roman potters

The Roman kiln site was a striking illustration of a particular episode in the exploitation of woodland in north London during the early centuries of the first millennium. But the excavation also produced evidence for human activity for periods both before and after this, down to quite recent times. There were earthworks in the wood which were noted while the excavations were taking place. This final section is an attempt to bring this evidence together, along with that afforded by historical documents, to illustrate the exploitation of the woodland of north London up to the present day, thereby placing the Roman pottery site some kind of overall historical perspective.

### 4.1. The archaeology of north London: prehistory and the Roman period and the context of the Highgate Wood site

The claylands of north London have never produced a great deal of archaeological material and the contrast between the relative barrenness of the London Clay zone and its environs and the abundance of evidence for activity on the gravels of the Thames and its tributaries is a marked feature of all distribution maps of the area. This is clearly shown by the maps of prehistoric sites given in *The Archaeology of Greater London* survey published in 2000 (Museum of London). But this does not mean to say that the very substantial tract of land under discussion was totally neglected in prehistory and there is material from it which deserves comment. Almost all excavations from the area produce worked flints from the Mesolithic onwards, as at Highgate Wood. There were flints ranging in date from the Mesolithic to the Bronze Age forthcoming from the excavations at Brockley Hill; there was also a fragment of a Neolithic stone axe and a Bronze Age bucket urn (Suggett 1953, 1956; Castle 1973, 1974). There are Mesolithic flints from Pinner and Mesolithic and Neolithic ones from Ruislip (Bedford and Bowlt 1977; Currie 1987). There are undifferentiated worked flints from Barnet and Crawley Road, Haringey, and flints were found as surface finds during the survey which led to the discovery of the Highgate Wood site in Waterlow Park and Cherry Tree Wood. Of some interest in the list of local finds is the number of axes of some sort or another. A polished flint axe has been found at Hampstead Garden Suburb. A late Bronze Age hoard of five socketed axes comes from Park Royal; there was a spearhead, with flints and pottery, from an oak/hornbeam wood on London Clay at Ruislip (Cotton 1986). A palstave has been found at Eastcote (Cotton and Merriman 1991). A reasonable interpretation of these sporadic finds is that they represent the exploitation of woodland on the London Clay, ranging from hunting, through the grazing of domestic animals of all kinds to the management of the woods for timber and fuel. To this can be added the manufacture of pottery, if our interpretation of Phase 1 at Highgate is the correct one.

For the Roman period the map published by Wheeler in 1928 shows hardly anything on the London Clay zone bounded by Ermine Street on the east and the valley of the Colne on the west. This map showed only structural remains; another, drawn up by one of the present authors (HLS) and Laura Schaaf fifty years later incorporates a wider range of material, but still has very little belonging to the Roman period in this region (Sheldon & Schaaf 1978). This observation is confirmed by the latest, Museum of London, distribution map. There are very few finds which indicate occupation sites of any kind — just a building with flint and tile walls at Ruislip, and a well, a wall and a rubbish pit from Barnet; a very detailed survey of Roman material in London Borough of Harrow (Thompson 2008) was able to produce very little definite evidence apart from



the pottery kilns at Brockley Hill and other relatively humble sites along or close to Watling Street. Small scale excavations at Hendon in Thirleby Road and Church Terrace have produced pits and deposits with 3rd and 4th century pottery and coins as well as *tegulae*. Also at Hendon, the site of the school at Golders Rise has yielded Roman material including tiles (Maloney & Holroyd 2009, 45). From the vicinity of the Highgate pottery site itself come late coin hoards from Cranley Gardens and Shepherds Hill (Neuburg 1972). There are isolated finds of late coins and pottery from Alexandra Park, Woodside Avenue and Barrenger Road. Such single finds are quite common in north London. The Greater London Sites and Monuments Record has upwards of fifty finds of coins and pottery from the back gardens of the London Clay zone, although some of these will be collectors' items. Clearly there are more sites to be discovered – it is noticeable that a high proportion of the pottery finds are of the more easily recognisable mortars or samian ware and the less distinctive types could pass unnoticed – and the pit found at Highgate in 1971 when the excavations were in progress is an example of the kind of small scale observation which can be anticipated at any time in the future (Barrett *et al* 1972).

#### 4.2. The nature of the early woodland and changes in its composition

Today Highgate Wood consists in the main of oak and hornbeam, with some birch, holly and service. The numerous additional species visible now are the result of various planting policies operated by the Corporation of the City of London, particularly since the later 1960s. It is unlikely that oak and hornbeam formed the original tree composition of the wood, however. Information about this has to be sought from waterlogged deposits containing pollen grains and other vegetable matter, which preserve a record of the changing nature of the local vegetation through time. This can also provide essential information about the nature of human activity in the area only hinted at by the catalogue of archaeological material given above.

In Queen's Wood, only 600m to the south-east of the kiln site, investigations have been carried out over a period of nine years in two places in a deep cut valley representing a portion of the Queen's Wood Stream. Geoarchaeological cores have been taken of the organic rich fluvial and colluvial deposits within this, to a depth of 3m in one of the locations. Material from underneath a wood bank in the Wood, and of another in Coldfall Wood, has also been subjected to pollen and micromorphological soil analysis. However, whereas it was possible to obtain good results from the upper half of the cores, and document the environment in the medieval and post-medieval periods, as will be explained later, in the lower portion preservation of the pollen was poor (Hacker, Scaife & French 2014).

To appreciate the possibilities of this kind of work for the prehistoric and Roman periods, the results from excavations in more favourable conditions for preservation have to be looked at. At West Heath, Hampstead, sediments from an area of bog next to an excavated Mesolithic site produced pollen and the macroscopic remains of plants and insects which showed that the original woodland cover of this portion of what later became Hampstead Heath was lime (50%), followed by oak (30%), elm (15%) and smaller quantities of birch, ivy and pine. The local geology consisted of Bagshot Sands and Claygate Beds. Later developments involved the disturbance of the forest by early Neolithic agricultural activity evidenced by cereal pollen and the use of fire, then the elm decline (c.3000 BC, quite possibly the result of disease), and the development of grassland and, given soil degradation, ultimately heathland. These processes were the consequence of forest clearance and grazing. There was some tree regeneration from (probably) the Iron Age but in the medieval period the tree population was reduced further, a process arrested by the deliberate planting of exotic ornamental species in the post-medieval period (Collins & Lorimer 1989; Grieg 1989, 1992).

Comparable pollen analytical work from a valley bog in Epping Forest produced similar results in that as at Hampstead the initial tree cover consisted of a mixture of lime, oak, hazel, pine, elm, alder and beech, with lime and oak the dominant species (Baker *et al* 1978). The geology, Claygate Beds, was similar to the Hampstead site. The disappearance of lime as the principal component of the woodland came much later,

however, on C14 evidence in the early Roman period. It was replaced by a mixture of beech, oak, hazel and hornbeam, along with grasses and bracken, indicative quite possibly of wood pasture (Grant 2002; Grant & Dark 2006).

These examples show how complex the sequences in the development of woodland were and how much they varied. At both locations human activity had been instrumental in effecting change. This could also have been true of Highgate; the excavation produced remarkable evidence for this in the form of Mesolithic-Late Neolithic/Bronze Age flintwork and coarse pottery of Middle Bronze to Early Iron Age date, but we are unable to say what effect on the woodland this activity actually had and the sequence here would not necessarily have been quite the same as those at Hampstead or Epping Forest.

The charcoal samples analysed from the site show the presence of the kind of trees which in general characterise the wood as it is now, with oak, hornbeam and hawthorn as the most favoured tree species used (excavations at the pottery manufacturing site at Brockley Hill in 2000 showed that oak was by far the dominant species used for fuel (Smith *et al* 2008)). There were also examples of hazel, ash, holly and willow. But these identifications carry no statistical weight in fixing the true nature of the woodland, let alone the rest of the vegetation cover.

The pottery site would have been in a relatively open piece of land. There were a few grass seed and leaf impressions on pieces of baked clay which might be indicative, but the best evidence comes from the plan of the site itself. The potters seem to have had no difficulty in setting out their ditches where they wanted to, extending them and laying out others on alignments already fixed by earlier ditches, quite unimpeded by trees. The ditches held water, resulting in the growth of the bog bean plant and of sedge.

#### 4.3. The Roman pottery site

The end of the excavations was followed by an appreciation of the general significance of the site (Brown & Sheldon 1974). Then it was considered that the site had been responsible for the manufacture of pottery for just over a century. Ten kilns had been definitely identified. The kiln experiment permitted the suggestion that these represented only about twenty five weeks of activity with a modest level of output and for only one kiln to have been in use at a time. The site had functioned only intermittently therefore, operated by a semi-itinerant group of people and there would have been other pottery manufacturing sites elsewhere as yet undiscovered to account for the quantities of Highgate-type pottery found in London. It is probable that one such site has in fact been identified, with the possibility of a second. There might be parallels here with other Roman dispersed pottery industries in woodland environments such as the New Forest or Alice Holt.

It is now possible to appreciate what each phase consisted of archaeologically — a kiln, a storage ditch for water, and some system for the preparation of clay. Suggestions can be made as to why the site developed in the way it did, since the siting of kilns, the extension and excavation of ditches and their improvement and modification for water holding purposes, followed each other in an intelligible way from phase to phase. The Highgate potters showed considerable adaptability in responding to the market, with the introduction of more Romanised types of pottery, and changing ideas about the way to make it. The ditch kilns of Phase 2 could be considered as an increasingly complicated development of the Iron Age pit firing technique of Phase 1. The semi-sunken open-topped kilns of subsequent phases represented a break with this tradition, but experimentation continued and the new kilns did not always follow a standard uniform plan and could vary in shape and method of floor support. The clay preparation process changed, subsequently undergoing some simplification.

There is evidence for everyday domestic activity in the form of rubbish of all kinds thrown into disused ditches or on to the waster heaps. The presence of women can be presumed (a spindle whorl, toilet set) and of children (a skull thrown into a ditch), so it seems likely that we are looking at a family group. The

grain impressions on baked clay might have been the result of the purchase of foodstuffs, but alternatively could have been the product of farming activity undertaken elsewhere by the same people. The samian ware and other types of non-local pottery could be taken to indicate a certain degree of material prosperity, as could also the fragments of glass, but these almost certainly had been collected for sale to the glasshouses in London.

Finds of particular interest in throwing light on the activities in the wood would be the numerous hones for sharpening wood management tools (p.360), the fragment of a saw (p.352), a terret ring from a cart (p.349), a chunk of clay which preserved the shape of the presumably leather bucket which contained it, and a ball of the white clay used to make slip during Phase Three (p.331).

The absence of structural remains need not be surprising given that wooden framed buildings were quite common in the south-east of Roman Britain, and leave no archaeological trace (Goodburn 1991; Bird 2000, 159). As it is we have evidence for possible plank floors and many iron nails, 45–65 mm long, which could have held cladding. These would have been rectangular or square structures, of Roman type. Fairly light and presumably portable sheds can be envisaged for drying pots and wood as well as for storage and general living purposes in the summer months, when pottery making took place. It is entirely possible that the physical appearance of the site during the kiln experiment of 1971 was a good deal closer to the reality of Roman Highgate Wood than we thought at the time.

The structures which could be recognized related to the manufacture of pottery. There were four very slight semicircular or straight-sided open-fronted structures which could have been used for the actual throwing of pots — plenty of light would have been available and during the experiment the potters preferred to do their throwing in the open for this reason.

Because the site has been extensively excavated, we can reasonably assume that a high proportion of the waster pottery has been recovered. This can be measured to provide some indication of the amount of pottery this represented. Using figures for waster rates derived from the kiln experiments and modern potting, some ideas about the output of the site as a whole can be put forward. To this can be added some reasonable assumptions about the size of the kiln loads and the frequency and timing of the firing season. Taking into account the chronological span of the site, and concentrating on Phase 3, the principal potting episode, then statistical techniques have been used to refine ideas about the number of firing seasons contained in a fifty year period. The result, a 95% degree of confidence that there were 4–40 seasons, might be considered too wide a range to be useful, but it does confirm the ideas we had originally that it was unlikely that the site was used to manufacture pottery every year (Tyers 1997; Orton 1970, 1975, 1993, 2002; 2002–3).

Whether the necessity of finding sufficient fuel to maintain the industry was a factor in encouraging the potters to move about has to be considered. While the excavation was taking place the notion was developed of the possibility of a linkage between episodes of pottery making and any coppicing cycle which might have been in operation locally, a topic which has now received some attention in the literature generally (Swan 1984, 7: very briefly in Young 2000, 10 and Fulford 1975, 8, and more fully in Lyne & Jefferies 1979, 13). The evidence of excavated wooden buildings in London has shown just how skilfully woods were managed and how important wood derived from cyclical coppicing was for construction purposes (Goodburn 1991; Brigham *et al* 1995). It might be appropriate to point out that two of the Highgate kilns, 2 and 3, may well have made use of coppice poles in their structure. Coppicing also provided fuel in the form of faggots, consisting of brushwood or spray too small to be used for any other purposes (Rackham 1980 142–3). The Highgate potters could have purchased what they needed from the owners of the Wood, quite possibly the municipal authorities of Londinium. This interpretation could be applied very comfortably to Phase 2 at Highgate, in which a sequence of four kilns with their clay preparation arrangements has been established. It would not be difficult to see these kilns as fitting into a system in which a coppicing cycle of say ten years or so was in operation, with kilns elsewhere during the intervening period. As has been pointed out, the existence of other kilns making Highgate B ware in the London area can be inferred.

But it is harder to see how this particular interpretation would work for Highgate Phase 3. Here we have five (or six) kilns brought into being during a period of some sixty years. This looks like the same ratio of kilns to years as was the case in Phase 2. A sequence can be established based on changes in the type of pottery made and is indeed in part visible in some details of the kilns themselves — Kiln 4 cuts across the flue of Kiln 5, and both Kilns 2 and 4 sit on top of already accumulated kiln dump material. The quantity of waster fragments left behind during this Phase, which was the principal potting phase at Highgate, indicates that far more pottery was being made per kiln than during Phase 2; for this latter Phase, and adding in the B ware found on the dumps, we get a modest figure of 5.8 kg (20.7 eve) per kiln. For Phase 3, the comparable figure for five kilns, making allowance for the C type pottery thrown away in Ditch Two, is 31 kg (139 eve). For six kilns it would be 26 kg (116 eve). If these figures do indeed indicate a greatly increased production rate, and not difficulties in the management of the kilns, then some explanation ought to be attempted.

During the more recent pottery experiments a firing using dry material picked up in the wood, fallen branches and the like, required 63.25 kg of wood to completely reduce the load (Peacey & Hurst 2012). This is a modest amount and seems to have been the consequence of the careful management by the Highgate experimenters of the flow of air into the kiln. This can be contrasted with the quantity of wood used in the kiln experiments at Boston and Barton on Humber in the 1960s and 70s (Bryant 1973). Most of these firings used up 4 1/2 – 5 1/4 cwt of fuel, say 229–279 kg apiece and represent much heavier demands on the output of the coppiced zone. Clearly more experimental work could be done at Highgate, but perhaps the Roman potters here were managing their kilns more effectively as time went on. Certainly the later kilns were of more robust construction, as evidenced by the thick walls of Kilns 4 and 2, which had been given the unusual addition of a tiled flue.

Another possibility might be provided by the evidence from the excavation of 2nd century white ware kilns in the Walbrook valley, where the wood used for firing was cordwood *ie* the surplus wood taken from the tops of felled *timber* trees, rather than the result of coppicing (Seeley & Drummond-Murray 2005, 138). This could have happened at Highgate; the owners of the wood might have taken the decision to engage in a process of tree felling, giving the potters the opportunity of purchasing the waste wood from the tops of the trees. This need not have taken place at the same time as the traditional coppicing cycle, thus extending access to the woodland and so increasing the number of potting seasons. The sale of wood like this from Sowood and Finchley Commons was a regular feature in the documentation of the Bishop of London's estates in the 18th and 19th centuries<sup>1</sup> and of course the lop and top of felled trees was one of the perquisites of the Bishop of London's woodward, as will be explained later. Hones formed a significant proportion of the small finds at Highgate, the stratified ones mostly attributable to Phase 3, and the potters may themselves have been responsible for many of the forestry operations associated with their activities.

Nevertheless there is evidence for the continuation of the system of spaced episodes of pottery production after the end of Phase 3(4). The site found in the south of Highgate Wood (p. 57) produced as surface finds pottery which could stylistically be placed between Phases 3 and 4, filling a gap in the sequence identified on the excavated site. The distinctive pottery from the last phase of Kiln 2 as far as we know represents the end of pottery production here.

The sherds of late Roman red slipped ware and of a flanged bowl in Black Burnished 1 ware from the general area of the Southern Kiln Dump indicate continued interest in the area in the late 3rd to mid 4th centuries.

#### 4.4. From the Anglo-Saxon period

The importance of woodland in the economy and topography of Anglo-Saxon Middlesex is abundantly demonstrated by the number of place names which contain elements implying the existence of woods. They

<sup>1</sup> Register of Leases 1737–8: 1754; 1769; 1788. LMA DL/D/G/001/MS 10234/003;004;005;009

occur in a broad belt on the claylands in the north of the county. Finchley (Finch's *leah* or clearing), Enfield (Eana's open land (in a wooded environment)), Barnet (a place cleared by burning) and Cricklewood (the curved wood) are examples. Hornsey or Haringey, the parish in which Highgate Wood is situated, means the enclosure in the grey wood, or alternatively, the enclosure belonging to someone called Haering (Gover *et al* 1942; Bailey 1989; Mills 1991). The significance of woodland is again brought out by the Domesday entries for the county (VCH 1969, 119–129). Here the size of the manorial woodland is measured in round figures by the number of pigs it can support, an indication of its use as wood pasture. The figures for the county as a whole are large – the woods are said in total to be sufficient to support 29,935 pigs. Hornsey then was a component part of the Bishop of London's manor of Stepney, and seems to have been added to the land of the original 7th century foundation grant in the 10th century (Taylor 2004); the demesne manor had wood for 500 pigs. The wood now known as Highgate Wood must have been included in this figure. Finchley, which adjoins Hornsey on the west/north-west and which also belonged to the Bishop, had even more, wood for 1000 pigs.

A great deal of the landscape history of this part of north London revolves around the removal of woodland for agriculture or grazing (VCH 1980, 101–117). The map of Hornsey (Fig. 43) shows in a generalised way the appearance of the parish in the 17th century (based on Marcham 1929 with additions). The three main settlements, Muswell Hill, Crouch End, and Hornsey, where the church and rectory were, are all known from medieval sources; the last two are on lower ground, as was the bishop's demesne farm of Rowledge, a compact block of land containing fishponds. The name Stroud Green means marshy ground covered with brushwood, an indication of some of the problems of settlement in this London Clay area in the lower lying parts of the parish. Woodland survived here in the form of Hornsey Wood (now Finsbury Park) until 1869, but all the other woods known from historical sources were, and still are, on the higher ground in the west of the parish. But field names recoverable from court rolls and other sources show that wooded areas used to cover a much larger area. The field name Reading occurs twice on Fig. 43; it is derived from the Old English word *ryding*, signifying a clearing. It is known that there was a coppice in the area known as Rowledge, 40 acres in 1647;<sup>2</sup> it ceases to be mentioned in records after the mid 17th century. The piece of land known as Ushers is described in late 17th century court rolls as woodland and pasture and contained *inter alia* a close called Scutts Close alias Stockt Ground, a clear reference to the grubbing up of trees (Marcham 1929, 242). In the 15th century some of the tenants were calling themselves *atte Frith*, a minor place name element meaning scrubby land on the edge of woodland (Gelling 1984, 191). Outside the parish of Hornsey, it is known that Caen Wood in St Pancras and the eastern part of Hampstead Heath carried far more extensive areas of tree cover than they do now (Farmer 1984, 37–41).

The three late Saxon and medieval hones found during the excavation indicate woodland management.

But better evidence for this comes from the geoarchaeological cores from Queen's Wood (p.63). The earliest pollen deposits to provide useful information indicate a managed woodland (coppice with standards) of oak and hazel, of relatively open aspect. A C14 date of 1164–1220 cal AD was obtained from a twig derived from the lower part of the deposit sampled (SUERC - 49790(849.29); Hacker *et al* 2014, 24). Other tree species were also present, lime/linden, ash, and holly, and also hornbeam, but not particularly significant and not necessarily from local trees. There was plenty of pollen to indicate the presence of pasture land in the area, with attendant species such as dandelion and ribwort plantain. Cereal pollen, including oat, as well as weeds of cultivation such as blue cornflower, show arable land nearby. Some local heathland was indicated by the pollen of ling and heather.

In due course this pattern came to be replaced by another, in which the woodland declines, with oak the dominant species still, but much reduced; hazel suffers a massive reduction. This could well be the consequence of prolonged grazing preventing the regrowth of woodland. There is an expansion in the pollen of cereals, and also of grass, not necessarily signifying more pasture, but that the decline of the woodland made it easier for the grass pollen to enter the area. This phase seems to have terminated somewhere around the

<sup>2</sup>Parliamentary Survey 1641–7. LMA DL/D/F/005/MS10464A

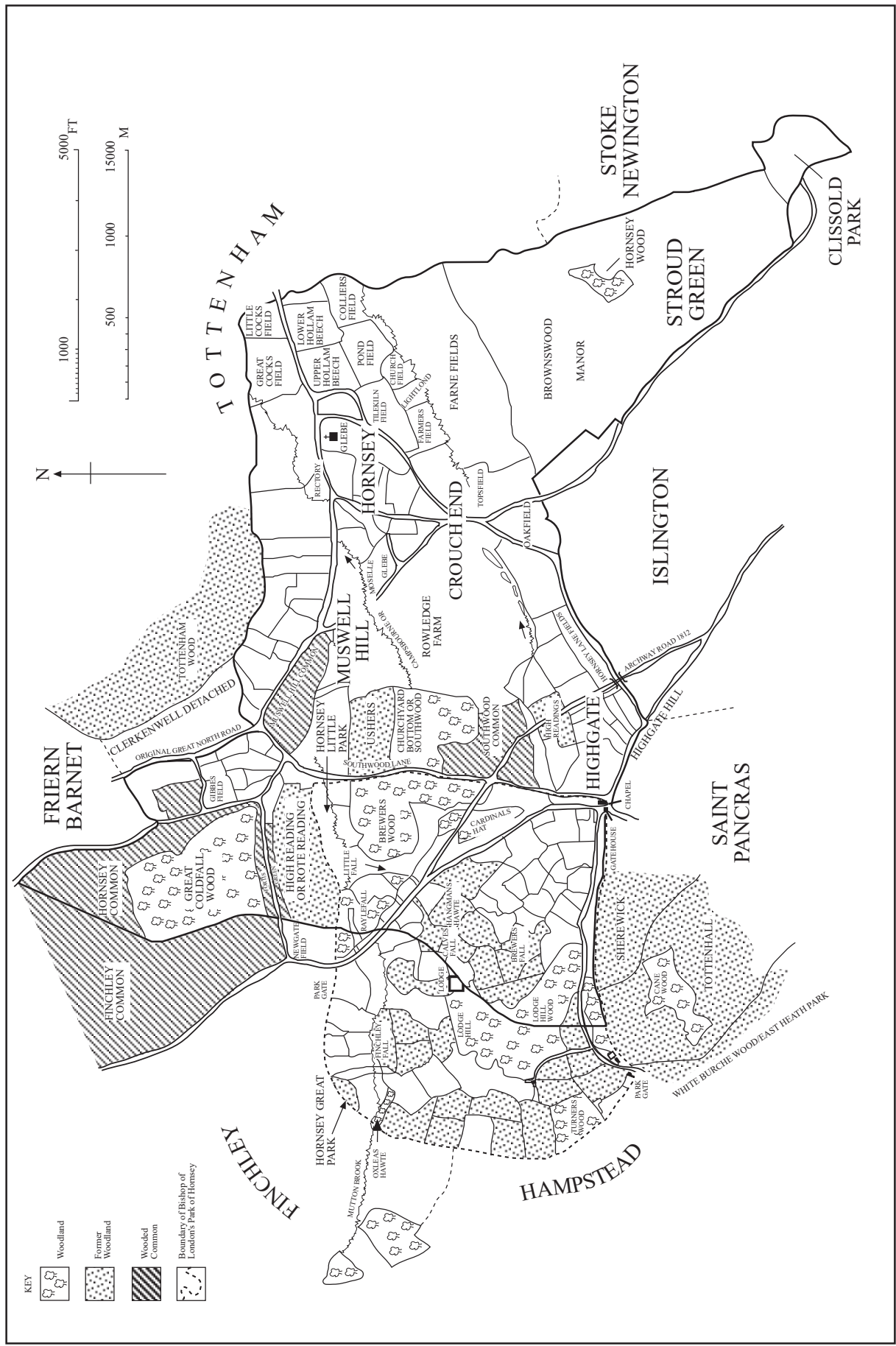


Fig. 43. Hornsey in the 17th century (Source: Marcham 1929, with additions)



end of the 16th century on the evidence of a C14 date, 1576–1642 cal AD, from another twig, this time from the base of the next material in the succession, a grey-brown humic silt, which replaces the alluvial/fluvial silt hitherto examined (SUERC - 49789(312.26); Hacker *et al* 2014, 24).

#### 4.5. The bishop's deer park

One of the reasons why Highgate Wood survives today is that it formed in the Middle Ages a part of the deer park owned by the Bishop of London. Although bisected now by the parish boundary between Hornsey and Finchley, it was known originally as the bishop's park of Haringey — the parish boundary was not fixed until 1816 (Marsh 1985). The park boundary was traceable as a continuous hedge line on the older Ordnance Survey maps. It is first mentioned in 1227. The fence is first specifically referred to in a document of 1303. The park was huge, covering an area of 363ha (898ac). It was a very visible indicator of the bishop's status and gave him exclusive rights to its resources — it could be used for activities connected with the chase (perhaps not all that much since canon law forbade members of the clergy from hunting) and deer and horses were kept in it (there are references to the poaching of deer in 1318/19 and 1354 and ten colts were pastured there in 1318); pigs could be maintained inside it — 1000 are mentioned in 1359 and the bishop could derive a rent from the pannage; the timber it contained could be used for such building purposes as the repair of St Pauls and the coppiced underwood could provide fuel, which if not required by the bishop himself could be sold; there was a warren and possibly fishponds. A parker is heard of for the first time in 1263; this job went to important officials, but presumably the real work was carried out by a deputy (VCH 1980, 153–4; Stokes 1984; Madge 1938). There was a moated lodge in the middle of the park which the Bishop could use from time to time; seven visits are recorded between 1306 and 1335, which is the year of the last document dated there. By 1441 when two priests engaged in treasonable necromancy with Eleanor Cobham, duchess of Gloucester, the lodge was ruinous. In 1576 its site on Lodge Hill was overgrown with trees; it has been remarked upon by topographical writers ever since (Norden 1593; Lysons 1795).

But by the early 14th century the park had been divided into two. This was the result of the replacement of the original Great North Road, which ran through Crouch End and Muswell Hill, by another, which ran up Highgate Hill and through the bishop's park, with a gate at both ends (Fig. 43). The first reference to the charging of tolls by the bishop comes in 1318; they were leased out by 1438. The road was called the Bishop's Highway in 1558. The larger portion of the park, the Great Park, lay to the west of the road, leaving the Little Park, which contained Highgate Wood, to the east; both parks had ditches around them (VCH 1980, 140–2; Marcham 1929, 207–9). The agistment (pasturage of the closes within them) was farmed out c.1390. By 1509 the two parks had separate leases; that of the Little Park included the tolls of the gate at Highgate (VCH 1980, 140–141).

#### 4.6. The bishop's woods

The bishop kept the management of the Highgate and Finchley woods (650 acres) under the direct control of his own officers until 1645, when the underwood (coppiced woodland) was leased to John Smith of Highgate.<sup>3</sup> The management of the timber remained with the bishop as before. These woods were not the only ones he owned — he had woods in Essex and Hertfordshire — and other estates in north Middlesex contained woodland, but in general the income from them was a modest component of his total incomings, and the contribution of the Hornsey woods fluctuated. In the second half of the 18th century for example the reserved rents (the annual rents paid by the lessees of episcopal property including woodland) averaged around £800–£900 with the occasional year bringing in £1000 or so; to these figures can be added the quit rents (small fixed annual payments) of £330–340. The directly managed woods produced £120–180 a year. The contribution of

<sup>3</sup>*Hornsey and Finchley manors, leases and papers relating to woodlands 1645–1842*. LMA DL/ D/L/ 221/MS12395

Highgate and Finchley varied, from £83 (68% of the woodland income) in 1749 and £68 (83%) in 1750 down to £11 (17%) in 1750 to zero in 1763. It picked up somewhat in the later 18th and early 19th centuries, but yielded nothing from 1839.<sup>4</sup> A set of accounts produced for Bishop Charles James Blomfield (1844–50) has the total diocesan income as £14,000–£24,000, mostly from rents and fines from the renewals of leases, with the directly managed woods £230 at most, and nothing from Highgate and Finchley.<sup>5</sup>

From 1645 on the leases provide an indication of how the bishop's woods were to be managed. They were divided into some 33 units known as 'falls' (some of these units, known as 'hawtes,' were very small). These units were first mentioned in 1577 (VCH 1980, 153); two of them, Great Colefall on Finchley Common and Sow Wood in Hornsey (Queen's Wood now) were outside the confines of the parks. It is possible that these blocks of woodland were brought into being in the late 16th century — the C14 date mentioned earlier corresponds with a change in the management of Queen's Wood involving a recovery in the oak, the start of the importance of hornbeam, and an increase in some other species, notably ash and beech. There were external influences at work here — in 1543 a Bill for the Preservation of Woods went through Parliament in response to government concerns about shortages of timber; all managed woodland was to be enclosed for a period of seven years after coppicing to protect new growth from grazing animals (Rackham 1980, 147–8).

The falls were arranged in eight groups and the underwood felled on an eight year cycle prescribed in the lease. The lessor had certain safeguards — he retained the timber trees and had a right of entry to permit the removal of the felled timber; he had the right to appoint a woodward to oversee the management of the woods in his interest; he retained the agistment of the parks. The lessee paid an annual rent of £120; also twenty shillings for every acre overcut outside the falls prescribed for any particular year, and £5 for every acre grubbed up. From 1708 the lessee had to leave standing 'three hundred of the better sort of wavers or storers of oak for every acre', that is, trees which could reasonably be expected to become good timber. Leases like this, with basically the same reserved rent, the same fines for transgressions and an eight year cycle were still being issued by the episcopal officers in the 1840s; the way in which certain falls were described contained references to people who had held the woodwardship in the 17th century.<sup>6</sup>

Apart from the sale of timber the only opportunity the bishopric had to extract more money from the woods was to increase the sum paid by the lessee when changes were made to the existing lease, for example when a new life was added to replace someone who had died (from 1709 leases were held for the longest liver of three lives), or when a new lease altogether was issued. A formula was used for the Hornsey woods based on a valuation of the woodland for one year. As the Receiver General remarked in 1759, what prevented an increase in the valuation was the existence of the woodward, a patent officer appointed for life.<sup>7</sup> This officer received an annual salary of £3-6-8 but in addition had various perquisites including poundage for impounded cattle, eight loads of wood (or 16 old trees) for firewood, earnest money on the sale of all wood, the tops of trees, but most importantly the bark of all felled trees, a valuable product which went neither to the lessee nor the bishop.<sup>8</sup> A provision was introduced into the leases in 1708 to the effect that barkable trees were not to be cut down outside 1 April–30 June, 'when the bark should peelee well and runn.'<sup>9</sup>

The ostensible idea behind the leasing of the woods in 1645 was a desire to improve their preservation: the lease was drawn up 'taking into consideration the great wast and spoile committed and made in the woods...by rude and unruly persons. and for the better preservation of the same woods and underwoods for the tyme to come'. But if this had been the intention, then lax management then and in subsequent years undermined it; a survey made for Parliament in 1647 after the seizure of the bishop's estates in preparation for their sale to Sir John Wollaston recorded that John Smith 'contrary to the covenants of the lease' felled 18

<sup>4</sup> *Receivers audit account books of quit rents and felled timber, 1749–74 and 1775–1823.* LMA DL/D/D/013/MS25759; LMA DL/D/016/MS19579/001-9

<sup>5</sup> *Account books of income and expenditure of Charles James Blomfield, bishop.* LMA DL/A/J/006/MS10246A/001-2

<sup>6</sup> *Registers of leases 1660–1861.* LMA DL/D/G/001/MS10234/01-15

<sup>7</sup> *Receivers estate remembrancer c. 1760–80.* LMA DL/D/G/007/MS10244

<sup>8</sup> *Lease abstract book 1770–80; and Register of leases 1770–1783.* LMA DL/D/G/009/MS10238; DL/D/G/001/MS10234/006

<sup>9</sup> *Register of leases 1660–1710.* LMA DL/D/G/001/MS10234/001

acres of woodland worth £180-15-5.<sup>10</sup> About 1726 John Sherwood, one of the current lessees, ‘grubbed and stocked up 400 acres of the said wood’ and with the connivance of the bishop’s Deputy Receiver sold timber worth ‘many hundreds of pounds’ without accounting to the bishop or paying him anything for it, dividing the proceeds with his accomplice. Shortly afterwards a humble petition was submitted by John Horton and the same John Sherwood relating to an incident in 1727 when they said that it was their custom to make small coal (charcoal) ‘of the spray or smallest wood not otherwise vendible’. But an accident happened and between 20–40 acres of underwood was ‘burned and scorched with fire’ to such an extent that it could not be restored. In 1734 Sherwood renewed the lease, but with the connivance of the Deputy Receiver the obligation to leave 300 young trees on every acre was left out.<sup>11</sup> A survey carried out on behalf of the Earl of Mansfield, the last of the lessees of the woods, in 1819 when an exchange of land with the see was in prospect concluded that ‘it cannot be an object for the Earl to retain’ (the woods) with the exception of certain woods near Caen Wood House which were important for its setting. The remaining woods at a considerable distance from the house had been subject to great depredations and could be given up. Alternatives would be to grub them up or turn them into nurseries for timber.<sup>12</sup>

Given all this, it is not surprising that the amount of woodland diminished. A survey for the Earl of Mansfield, recording the state of things in 1759, gave the total area of woodland under the lease as 381 acres (but with 17 acres in addition as droveways). Another, taken in 1793, gave the figure as 397 acres and listed the falls which had been grubbed up and when this had been done ‘long since,’ ‘in 1789,’ ‘more than 40 years.’ An eight year cycle was still in being, but different from the one set out in the leases.<sup>13</sup>

When a new or revised lease was prepared the Bishop’s Receiver could refer to a file containing background material. The sheet relating to the lease granted to William Abbott, lessee from 1746, contains a box with a list of personal names with against each of them the name of a fall, its size and the rent paid for it. These will be the sub-tenants of the principal lessee. Beneath the list the Receiver noted ‘The above lands I take it were formerly woodland & grubd from time to time.’<sup>14</sup> Similar lists appear in subsequent documents and a significant feature of them is that the four falls into which Highgate Wood was divided never appear among them. These falls, along with Coldfall and Sow Wood (Queen’s Wood) remained woodland always. The Mansfield documents mentioned above enable some suggestions to be made about the location of the Highgate Wood falls. Little Cole Fall (13 acres) adjoined Col Brettell’s land — it is known from other sources that he leased the land immediately outside the wood on the north. Linsfords Fall the Little Park (23 acres, in two portions) was next Sow Wood Lane, now Muswell Hill Road, and Decayed Fall (11 acres) was south of this. Osborne’s Fall (26 acres, also in two sections) will therefore have been the unlocated fall in the west of the Wood. The name Cole Fall (as also in Coldfall Wood) reflects the manufacture of charcoal, a significant part of the woodland economy at the time.

The earthen banks which defined these woodland subdivisions still in large part remain as do the banks around both Sow Wood and Colefall Wood (Fig. 44). In their present state they are 0.5–1m high, 3–4m wide, with ditches 0.5–1m across. A trench across the northernmost of them in 1972 showed it to have been of clay, 4m wide and 0.6m high with on the southern side a ditch 1.8 m wide and 0.6m deep, which had been recut once; this had silted up with orange/yellow clay, with on top of that a grey/yellow silt (Fig. 45). This bank was continued to the west by a stream. The Highgate banks were surmounted by hedges, traces of which remain in places (Hammerson 2007); in 1791 a document setting out the condition of the Mansfield estate on the termination of the existing tenancy remarks that the Highgate falls ‘were now in one without divisionary fences,’ a move which would indicate that it was the Wood as a whole which was significant rather than the

<sup>10</sup>*Parliamentary Survey 1641–7*. As Note 2

<sup>11</sup>*Estate book giving abstracts of leases and particulars of renewals c.1771–1813*. LMA DL/D/G/014/MS10242

<sup>12</sup>*Register of surveys and valuation of estates in Middlesex, 1809–35*. LMA DL/D/F/009/MS12035

<sup>13</sup>*Leases of properties on Lord Mansfield’s estate*. National Register of Archives for Scotland 776 Bundle 1320 (Earl of Mansfield’s Collection kept at Scone Palace)

<sup>14</sup>*Receivers estate remembrancer c.1760–80*. As Note 7

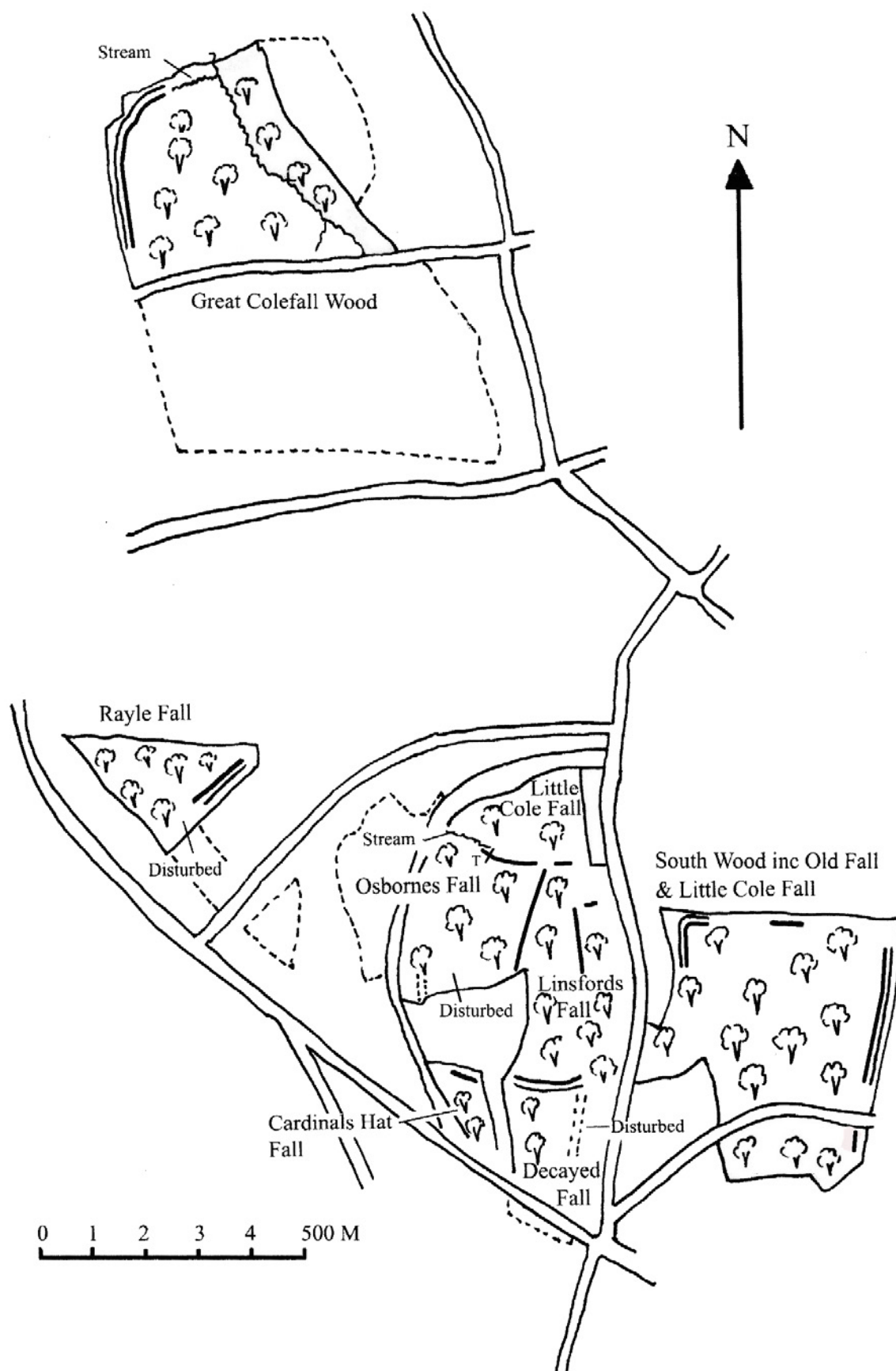


Fig. 44. Wood banks and falls, North London. T: site of excavation through wood bank, Highgate Wood. Woods now destroyed shown with dashed lines

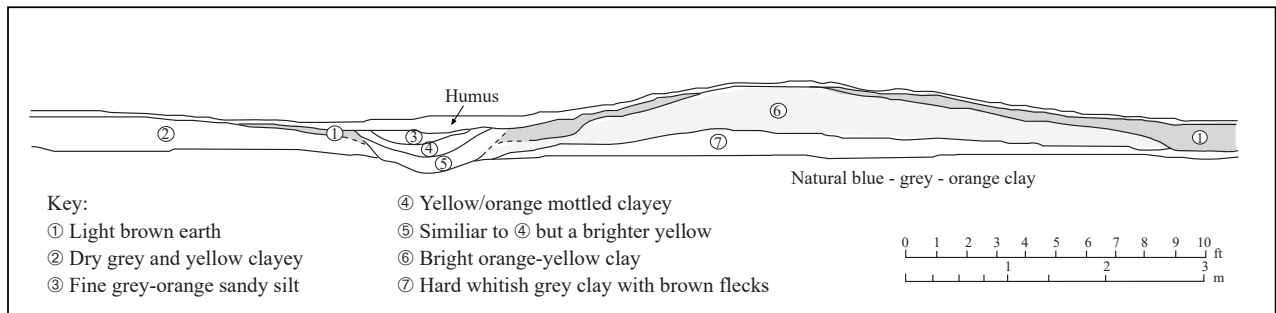


Fig. 45. Highgate Wood: Section through wood bank

constituent fall.<sup>15</sup> It was called Brewhouse Wood (68 acres 1 rood 6 perches) in the Hornsey Enclosure Map of 1815 but Brewers Wood in a Land Tax Redemption of 1826.<sup>16</sup> These names are interchanged in various legal documents between 1819 and 1842, but Brewhouse Wood appears still on *Stanford's Library Map of London and its Environs* published in 1862. The name is said to relate to the ownership of the Wood by someone associated with the brewery at Highgate (Richardson 1983, 154–5), but a sub-lessee rather than an owner is indicated, possibly Francis Gillow or his successor John Addison, who owned the brewery in Highgate between 1800 and 1808 and leased the pasture land within the Little Park which enclosed Highgate Wood on three sides (Fig. 46).

#### 4.7. Extraction of gravel

There are many references in documents relating to the bishop's woods to the removal of gravel and disturbed ground can be found in Highgate Wood which probably indicates places from which it has been removed (Fig. 44). In 1820 an additional reservation in favour of the Bishop was introduced into the lease document — he was to retain the right to all mines, quarries, gravel, sand, clay and pits of stone.<sup>17</sup> In the early 19th century gravel digging was focused on Coldfall Wood, where it was considered much was to be found and very little anywhere else; prices were high — 5 shillings for a load of 27 bushels.<sup>18</sup> In 1817 serious consideration was given to taking legal action against the Earl of Mansfield for neglect of his duties as lessee:

‘the Bishop is desirous to call the attention of those who act for the Earl of Mansfield in the care of these woods on his behalf to the state of the hedges, ditches, fences and gates of the Coldfall Wood...(they) lie in so entirely defective state that the wood has been and is used for the depasturing of cattle of all persons. Persons have actually received money for the assumed privilege of allowing those depredations... a person in the name of William Mynn, undertenant of the Earl of Mansfield, has taken upon himself for a long time yearly to sell large quantities of gravel dug from the soil of the said wood.’

However nothing seems to have been done, perhaps because these things were happening because ‘the patent woodward and other patent officers, being appointed for their lives, and acting in a great measure independent and without the control of the Bishop for the time being’ (have been responsible).<sup>19</sup>

A set of detailed accounts survive for 1811–1817 which set out the quantities of ballast (screened gravel) removed from Coldfall Wood; 5012 loads during the whole period. In 1819 841 loads of ballast, rough gravel (not screened) and hoggin (mixture of sand and gravel) were sold. In 1821, however, a new pit makes an appearance in the accounts, in Osbornes Fall, and the subsequent accounts presumably represent what has

<sup>15</sup> *Leases of properties on Lord Mansfield's estate*. As Note 13

<sup>16</sup> *Enclosure map 1815 and Leases relating to woodland*. LMA MR/DE/HOR/3; DL/D /L /221/MS12395

<sup>17</sup> *Register of leases 1821–1828*. LMA DL/D/G/001/MS10234/010

<sup>18</sup> *Correspondence and miscellaneous papers relating to the management of timber and gravel 1817–37*. LMA DL/D/H/002/MS12799

<sup>19</sup> *Surveys and valuations of the manors of Hornsey and Finchley 1810–56*. LMA DL/D/F/023/MS12418





Fig. 46. Highgate Wood and neighbouring woods, as shown in a lease of 1820; actually a copy of the Enclosure Map of 1815 (with acknowledgements to the City of London, London Metropolitan Archives, Diocese of London Deposit)

been removed from that source; 631 loads of the various types of gravel in 1822, 853 in 1823 and 520 in 1825. Gravel continued to be removed after that date, but the accounts fade away c.1827-8 and there are no further details.<sup>20</sup> It would have been this pit which brought about a change in the name of the wood. It was Gravel Pit Wood on Ordnance Survey maps of 1863 and 1865. In 1823 there are references to the maintenance 'of the road in the wood.' Twenty-two trees were faggotted up for the repair of the road to the Gravel Pit; £5 worth of hoggin was authorised for repairs; £2-15 was spent on linking ruts and letting water off the road and £1-5 for 'forming the road.'<sup>21</sup>

It may well be that the road in question is represented now by the prominent earthwork banks to be seen running north-west / south-east to the south of the Roman pottery site (MOLAS 1998; Figs. 47 and 48). Two phases seem to be present, in both cases consisting of a cartway 3-4m wide formed by levelling the slope and casting the spoil to form a bank along the southern edge. The original track (1 on Fig. 48(a)) seems to have run into drainage difficulties, but a very short length of it appears on early 20th century Ordnance maps (F on Fig. 48(c)). The replacement (2 on Fig. 48(a)) can be seen on maps which predate the creation of the railway as never having run outside the confines of the wood on the west (B). When this map was drawn it did not run eastwards beyond D, unlike the earthworks of the original track — perhaps this area was too marshy for it to be useful here. Its replacement was a track which ran from B to C, where it left the Wood opposite the site of the house known as Woodlands. In due course this exit was blocked by the kitchen gardens and associated cottage going with the house, and people left the wood by means of the Onslow and

<sup>20</sup> Correspondence...relating to the management of timber and gravel 1817-37. As Note 18

<sup>21</sup> Minutes relating to renewal of leases and other matters 1822-56. LMA DL/G/015/MS10245





Fig. 47. Phase 2 of cartway through Highgate Wood, looking west towards abandoned railway

Cranley gates, as they do now.

This track ran through the Roman pottery site. There its ruts were found, 1.4–1.5m (4ft 6in–5ft) apart and in places 0.3m deep; they produced two pieces of 19th century transfer printed ware and two (probably 19th century) clay pipe fragments. There was a thin scatter of late post medieval objects, mostly from the east-west axis of the knoll on which the site lies: two 18th century clay pipe fragments, a mid-18th century bronze buckle, a key, a coin of George III (1817), a coin of Victoria (1866–1886) and a 19th century slate pencil. (From an earlier phase came some sherds of a green glazed Border Ware/Tudor Green jug from the topsoil of the Northern Kiln Dump). There were also three gun flints, in all probability the result of the shooting of game. The sporting rights over the bishop's woods (the royalties — fishing in ponds, fowling and hawking) had been leased out in return for three brace of partridges and two brace of pheasants until 1814.<sup>22</sup>

#### 4.8. To the present day

The major phase in the suburban development of the parish of Hornsey took place between 1870 and 1914, as the large estates in a generally woodland setting were sold off to developers. The railway line to Alexandra Palace was constructed in 1872, cutting Gravel Pit Wood in two (Jackson 1978, 113), the smaller western portion retained the name, while the much larger eastern part became known as Highgate Wood (a small

<sup>22</sup> *Hornsey and Finchley manors, leases of the royalties of fishing, fowling, hawking and hunting 1660/3–1822*. LMA DL/L/220/MS12394

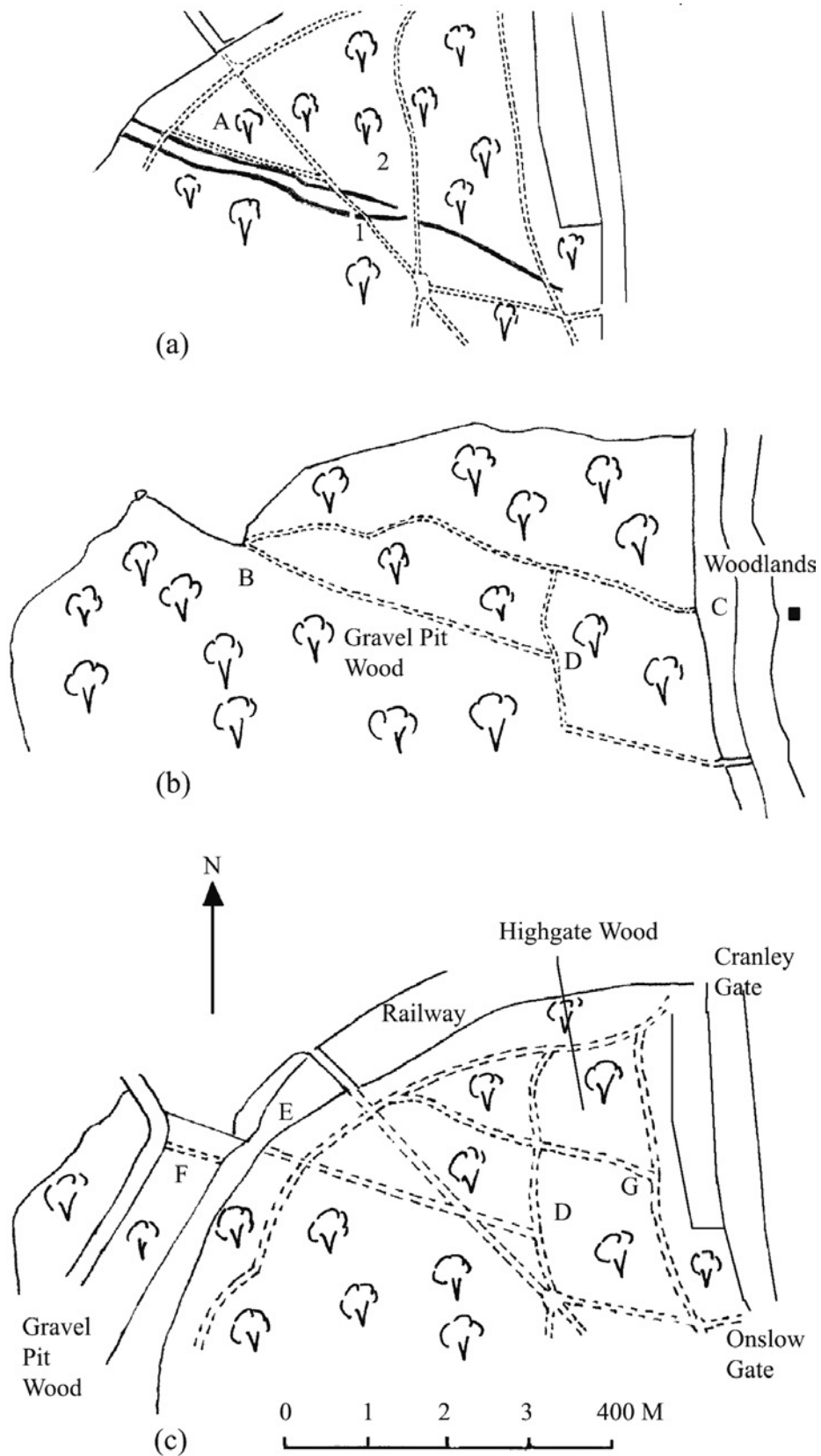


Fig. 48. Highgate Wood: Cartway in north of wood. (a). Earthworks (Source: surveys during excavation and MOLAS (1998); (b). Based on Ordnance Survey 25 inch sheet, Middlesex XII, 1876; (c). Based on Ordnance Survey 25 inch sheet Middlesex XII, 1913–14



portion of the original wood, 4  $\frac{3}{4}$  acres, had already been cut off by the Archway Road in 1812).<sup>23</sup> The Church Commissioners, to whom the episcopal estates had been made over in 1868, clearly had the intention to build on both Highgate and Church Bottom Woods (Southwood had been replaced by this name in the 19th century); roads were planned for the latter in 1885. The woods had by now ceased to be managed and were used by local people for recreational purposes and by sportsmen, hence a proportion of the late finds from the site. Eventually the Commissioners presented Highgate Wood to the Corporation of the City of London in 1885, probably judging that the presence of a properly managed public open space would increase the value of their existing properties in the area.

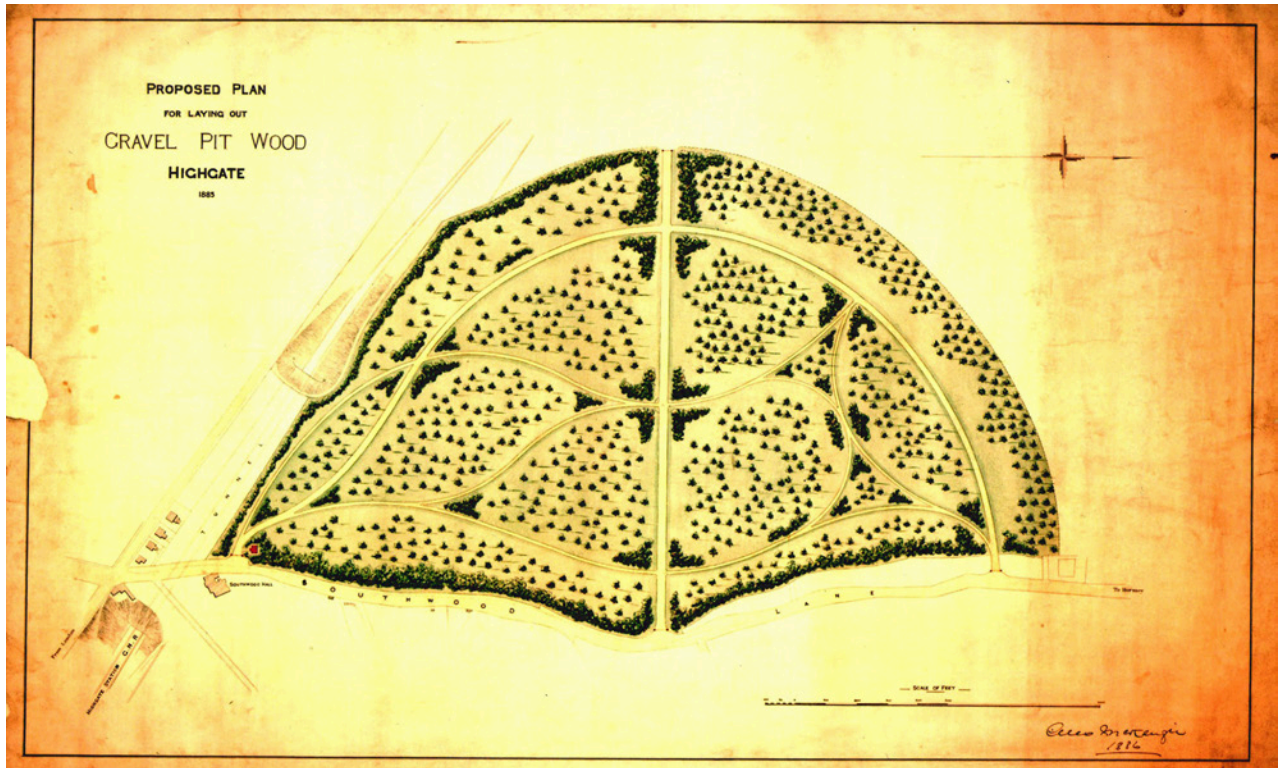


Fig. 49. Proposed layout by Alexander McKenzie for Highgate Wood in 1885 (with acknowledgements to the City of London, London Metropolitan Archives)

Highgate Wood was formally opened as a public park in 1886. A letter to the Chairman of the Coal, Corn and Finance Committee of the City of London in the May of 1886 gives some indication of the state of affairs under the Church Commissioners: it complained about the use of the wood by prostitutes, thieves, gamblers and prize fighters.<sup>24</sup> The Corporation had an ambitious scheme for a wide axial path running east-west with curving paths symmetrically arranged on both sides of it and shrubs in organised plantations at the intersections, drawn up by Alexander McKenzie, one of the leading landscape designers of his day – he was responsible for setting out the park around the Alexandra Palace in 1863 – but this was not implemented (Fig. 49).<sup>25</sup> The open area in the south-west of the wood was left as it was and grazed by sheep; gravel and asphalt paths were laid out which often followed the existing ones – the east-west path running through the excavated site was one such, and traces of the metalling were found in Trench 55 (Fig. 18). Highgate Wood was clearly a success, as early photographs show (Schwitzer & Gay 1995,10); the cable tramway which had been taken up Highgate Hill in 1884 improved access. Churchyard Bottom Wood was saved by its purchase from the Church Commissioners by Hornsey Urban District in 1898, when it was renamed Queen's Wood in honour of Victoria's Diamond Jubilee (Whitehead 1995, 182).

<sup>23</sup> *Earl of Mansfield v Highgate Archway Co. Bill and Answer 1831*. National Archives C13/967/15

<sup>24</sup> *Highgate Wood, miscellaneous correspondence and rough papers*. LMA COL/CCC/CCF/04/008

<sup>25</sup> *Coloured plan of proposed layout of Gravel Pit Wood, 1885*. LMA COL/PL/02/A/004/e

#### 4.9. Envoi

This account has concentrated on the pottery kilns which operated in Highgate Wood in the late 1st and early 2nd centuries AD. But the work has shown human interest in the wood spanning a much longer period than this, from the late Mesolithic of c.7000 BC up to the present day; the Roman potters represent simply one episode in a long sequence of activity. The really significant thing is that Highgate Wood still exists, a remarkable survival of woodland which has remained a feature of the landscape for several thousand years.

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Part III.

## The Pottery



## 5. The pottery from Highgate Wood

P A TYERS

### 5.1. A history of the study of Highgate Wood pottery

The interim reports on the Highgate excavations published in *The London Archaeologist* in the late 1960s and early 1970s included summaries of the pottery recovered during the previous seasons' excavations. These drew on analyses of the pottery carried out as part of adult evening classes in Practical Archaeology at the City Literary Institute, supervised by H L Sheldon (Orton *et al* 1970 & 1971). The reports on this work included detailed typological analyses, numerous illustrations and statistical data on the forms and decorative elements, and though not formally published they were duplicated and widely distributed among students of Roman ceramics in the London area and beyond.

These data from Highgate also contributed significantly to the debates on pottery quantification, with papers by Orton (Orton 1970 & 1974) employing sophisticated statistical methods, and time on a mainframe computer, to investigate the relationship between the rim and base sherds, and suggest reconstructions of the vessel forms based on the very fragmentary waster material. This work contributed to the development of the 'vessels equivalent' measure, widely used in Britain during the subsequent decades (Orton 1975 & 1993).

From the earliest interims an attempt was made to look for Highgate vessels in London and elsewhere, but it is notable that in the first report the only parallels referred to were from pre-war publications, such as Wheeler's *Roman London* volume of 1928 (Brown & Sheldon 1969, 44, fn.13). The chronology of the production was imperfectly understood, with a handful of *sigillata* sherds of the mid-1st to early-2nd c. AD as the only non-local pottery reported from the kiln site. Pottery reports published in the early 1970s, such as that on Aldgate and Bush Lane House, City of London and Toppings and Sun Wharves, Southwark,

identified, somewhat tentatively, Highgate Wood as the source of a few vessels (Chapman & Johnson 1973, 39; Sheldon 1974, 62). Highgate was described as a minor supplier of pottery in the London area, and the dating of the production remained unclear, with the reports of the kiln site and the reports on pottery from domestic sites looking to each other for chronological support.

The final *London Archaeologist* report on Highgate, published in 1974 — *Highgate Wood: The pottery and its production* — laid out a basic framework for the complete sequence on the site, defining the four main phases of activity and the three main fabrics (Brown & Sheldon 1974). The chronology of the Highgate production was refined by relating the sequence of production to dated assemblages from Southwark, which were then being studied in preparation for the first *Southwark Excavations* volume (Bird *et al* 1978). The Southwark typology of early Roman wares included in that publication covered most of the common Highgate types, and summarised the status and significance of Highgate as a supplier to Southwark (Marsh & Tyers 1978, 535), comparing it with other important regional industries such as the Verulamium region group, the kilns in the Alice Holt-Farnham area and the fine-ware industries operating in the City itself.

Pottery reports from the Department of Urban Archaeology (DUA) of the Museum of London in 1979 and 1980 quantified the Highgate-type fabrics from domestic assemblages in the City (Green 1979 & 1980). This approach was developed further with later reports from the DUA and its successors. Several proto-'grey-literature' reports on the typology and occurrence of the major Highgate fabrics in dated assemblages, using (at that time) novel computer technologies, were produced in 1983 (Davies 1983; Davies & Tyers 1983a & 1983b) and these incorporated results from an earlier undergraduate thesis on the Highgate production (Tyers 1977). A decade later these reports, in turn, were incorporated into a major monograph, *A Dated Corpus of early Roman pottery from the City*

of London, which presented a detailed breakdown of the typology (using the Southwark type-series), chronology and quantification of Highgate-type wares in a series of dated assemblages (Davies *et al* 1994). These data demonstrated that the Highgate industry was a significant supplier to London from the mid-first through to the mid-second century AD, responsible for between 30% and 50% of the coarse reduced ware assemblage (Davies *et al* 1994, 74, fig.60). Subsequent work has tended to take the *Corpus* analyses as a starting point for comparisons with Highgate material.

It is clear from this brief historical overview that a knowledge of Highgate pottery is now thoroughly embedded in the study of early Roman pottery in the London area, although (at the time of writing) it is over 40 years since the last publication of any pottery from the kiln site itself.

The detailed chronology of the pottery production at Highgate Wood relies, as with most kiln sites, on the recognition of its products in dated assemblages on domestic sites, and this is as much the case with Highgate now as it was in 1974 at the time of the summary in *The pottery and its production*. Against this background the approach of this final report on the pottery has been to take a step back from any extended discussions of Highgate material on domestic sites and concentrate on presenting the material from the kiln site itself. This will provide firmer foundations for any future discussions of Highgate Wood products, their dating and distribution, and any wider questions on the nature and status of the industry. Earlier discussions of these topics (eg Tyers 1981) are now of historical interest only.

## 5.2. Non-local pottery at Highgate

Alongside the wasters from the Highgate kilns, the assemblage from the site includes a small proportion of material from other sources, both Romano-British and continental. This can be of value from two points of view. Firstly some of these vessels can be dated, and thus assist in the construction of a general chronological framework for the activity on the site. Secondly, the range of types and wares is some indication of the external connections and social status of the potters who were using the site, and the range of activities that were being carried

on there.

The non-local assemblage, although small, is very diverse. It includes specimens of many of the commoner coarse and fine wares known to have been circulating in the London region during the first and second centuries AD, and one or two more unusual, and perhaps rather unexpected, pieces.

The chronological distribution of the dated sigillata and mortaria is shown in Fig. 50.

### 5.2.1. Terra sigillata

The sigillata from the site is not in good condition. The usual high gloss and hard firing of these wares can, in the worst cases, be reduced here to a soft and friable paste with sparse flecks of dull slip. Many of the sherds are small, with badly eroded surfaces. A consequence of this deterioration is some difficulty with identifications. There are almost 600 records of sigillata from the site. This cannot be considered as a vessel count as no attempt has been made to group sherds together across contexts, and indeed this would be a largely futile exercise given their poor and fragmentary condition. Some 60% of the sherds are identified as South Gaulish, with the remainder Central Gaulish, except for one East Gaulish piece.

Half the group are featureless sherds, not assigned to any form, while the others have been identified, with varying degrees of certainty. All the major first and second century sigillata forms are represented and there is nothing unexpected in the form list, which is headed by Drag. 18, 18/31, 27, 33, 30 and 37. The chronological distribution (Fig. 50) shows a peak in the Flavian-Trajanic period but a rapid decline from the Hadrianic period. The latest piece (the East Gaulish sherd) is broadly dated to the mid- or late-second century AD. This pattern is mirrored by the four identifiable stamps and twenty-five decorated pieces, identified by Brenda Dickinson and Joanna Bird respectively. The latest decorated pieces are dated AD 130-150 and Hadrianic-Antonine.

### 5.2.2. Verulamium-region white wares

The only non-local coarse ware found in any quantity on the site is the granular white ware of the Verulamium-region potteries (VRW). Up to eighty



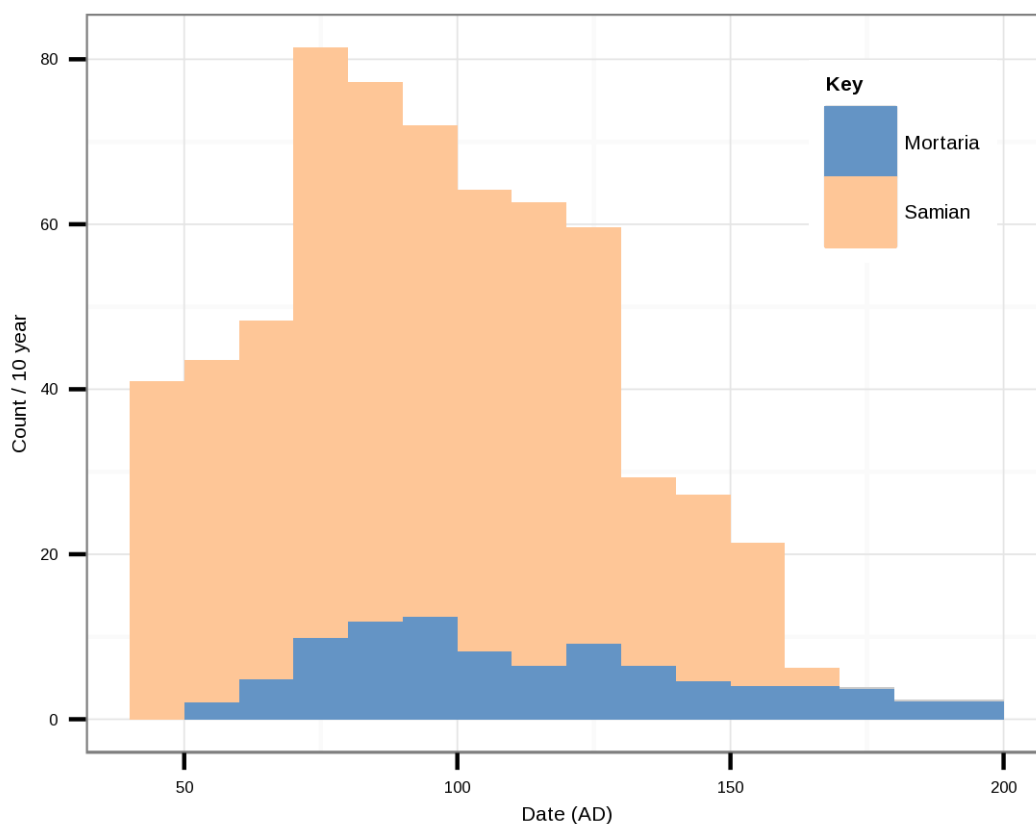


Fig. 50. Highgate Wood: chronological distribution of terra sigillata and mortaria

different mortaria may be represented, including fragments of thirteen mortarium stamps, identified by Mrs K F Hartley. Most of these date within the period c. AD 55 to 125, the latest being a stamp of Arentus, dated c. AD 120-145. The forms of most of the unstamped mortaria can also be dated to the Flavian-Trajanic period, but with a number of vessels broadly dated to the period AD 150-200 (chronological distribution on Fig. 50).

The remainder of the assemblage includes many of the common VRW forms, particularly ring-necked flagons with a trumpet-shaped mouth (*Southwark* form IB2), which is the typical Flavian-Trajanic type (Marsh & Tyers 1978, 548-550). There is one example of a collared flagon (IA) which is generally a pre-Flavian type, and a few of the more developed, flaring, ring-necked flagons (IB3, IB5), which are likely to be Trajanic or Hadrianic.

### 5.2.3. Other wares

The other wares recovered from the excavations are summarized in Table 1. These include a few mortaria (additional to those from the Verulamium-region industry described above), a range of imported and local fine wares, imported amphoras and local or regional Romano-British coarse wares. All of these can be matched in London, from where they were likely to have been acquired.

### 5.2.4. Conclusions

The assemblages of sigillata, Verulamium-region and the minor wares found at Highgate seem to confirm the broad chronological spread of activity on the site. There are several vessels which are probably Neronian, but the Flavian and Trajanic periods are marked by the importation of many mortaria, flagons and fine ware cups and plates to the site. Activity apparently continues through into the Hadrianic and early-

Antonine periods, but there are no vessels that need be dated far beyond the middle of the second century AD. The exceptions are two late Roman sherds — a stamped red-slipped sherd and a BB1 flanged bowl — both from the topsoil at the top of the site which date to the later third or fourth century and are unrelated to the phase of pottery production.

Table 1. Summary of non-local pottery

Fabric	Description	Date	Ref. <sup>1</sup>
Gloucester region mortaria	One unstamped vessel resembling the work of A. Terrentius Ripanus, who operated from the Gloucester region (p.272). A rare type in the London area.	c AD 60-90	67 GLMO
Rhône valley mortaria	Sherds from two vessels, both very abraded with very poorly preserved surfaces, but showing the characteristic tempering (p.272). This fabric is present in groups in London of late-Neronian and Flavian date.	c AD 50-80	70 RVMO
Colchester mortaria	A single abraded sherd from a Colchester mortarium (p.272).	c AD 140-170	
Central Gaulish colour-coated wares	Sherds from several vessels in the both the white and yellow fabrics of the Central Gaulish fine-ware industry. Apparently all are from beakers, including specimens with the characteristic barbotine hairpin decoration and others with rough-cast decoration.	Flavian-Trajanic	128-30 CGWH CGOF
Colchester colour-coated wares	Sherds from two vessels, probably both beakers, one with rough-cast decoration.	Hadrianic-Antonine.	122 COLC
Cologne-type colour-coated wares	Sherds from a number of vessels, probably all beakers, one with rough-cast decoration.	Flavian-Antonine.	130-1 KOLN
London ware	Sherds of a flask with rouletted decoration on the shoulder, similar to Marsh (1978) type 51.	Flavian-Hadrianic.	151 LOND
London-area marbled wares	Sherds from several vessels including a small campanulate cup (Marsh 1978, type 12), another small cup and a bowl.		122 LOMA
London-area mica-dusted wares	A single sherd, perhaps from a plate or dish.		136 LOMI
London-area eggshell wares	Sherds from two vessels, one probably a bowl similar to Marsh (1978) type 11.		146 LOEG
London-Essex stamped ware	One sherd of London-Essex stamped ware, illustrated by Rodwell (1978), and assigned to his group 2C. The ware probably originates in the Much Hadham region, and is present in London.	Flavian-Trajanic.	151 LEST
Ring-and-dot beakers	Sherds from several of these very distinctive vessels (Southwark form IIIB1), perhaps originating in the Verulamium region.	Flavian-Trajanic.	142 RDBK

<sup>1</sup>Page reference and fabric code in Davies *et al* 1994*Continued on next page*

Table 1 – *Continued from previous page*

Fabric	Description	Date	Ref.
Hoo-type ware	A single sherd in this fine-textured red fabric with a white slip produced in North Kent, probably from a flagon, the most characteristic product of this industry. The sequence from London demonstrates some modest circulation of this ware during the 1st century AD.	First century, largely Neronian and Flavian.	38-40 HOO
Sugar Loaf Court ware	A single sherd from a collared flagon (Southwark form IA) in a granular orange ware which was probably produced within the confines of the early Roman settlement of London during the Neronian period. The ware is particularly characteristic of pre-Flavian assemblages in the City.	First century, largely pre-Flavian.	29-33 SLOW
Dressel 20 amphoras	There are sherds (often small and abraded) from several specimens of these common Baetican olive-oil amphoras scattered in contexts across the site. There is a particular cluster of large fragments, totalling perhaps a third of a vessel (c 9kg) from T82F1, in vicinity of Kiln 6.	First and second century AD.	
Iberian salazon amphoras	A few sherds only, in poor condition.	First and early second century AD.	
Alice Holt/Surrey grey ware	There are probable sherds in the granular grey wares of the Alice Holt kilns from T91 and T130.	First and second century AD.	97 AHSU
Black-burnished 1	There are two sherds in the granular black-burnished fabric of south-east Dorset (BB1). The first is from T29F1 and is a shallow dish with a short flat flange. Despite its rather poor condition, traces of a burnished lattice may be seen on the outer surface.	Hadrianic-Antonine.	107-10 BB1
	The second vessel is the rim of the classic flanged-bowl and comes from the topsoil in T99. The form develops in the early third century, but both the ware and typology of our specimen indicate a later date, perhaps late-third to mid-fourth century, and therefore well after pottery production ceases.	Late 3rd to mid-4th century AD?	

<sup>1</sup>Page reference and fabric code in Davies *et al* 1994*Continued on next page*

Table 1 – Continued from previous page

Fabric	Description	Date	Ref.
Late Roman red-slipped ware	One abraded sherd of a late Roman red-slipped ware, perhaps Much Hadham ware (C. Going, pers comm) with traces of stamped rosette decoration, was unstratified in the area of the Trial Trench. This sherd, with the flanged-rim bowl in BB1 described above, is one of the few indicators of any later Roman interest in the site.	Late 3rd or early-4th century AD?	
Fine grey ware	A base sherd in a non-local grey micaceous ware with a potter's stamp (p. 276).	Later 1st century AD.	
<i>Terre sigillée claire B</i>	A large pale-coloured sherd with moulded decoration was recovered from T32F1, a context near Kiln 3 on the southern dump. Though in poor condition enough of the decoration is preserved to show that the scene portrayed the third labour of Hercules – the capture of the Ceryneian hind. The vessel can be identified as an example of <i>terre sigillée claire B</i> , a class of Roman fine ware produced in the Rhône valley from the mid-2nd century AD and only rarely distributed into northern Gaul, the Rhineland and beyond (see p.277).	Mid-2nd to late-3rd century AD.	

### 5.3. The Highgate products

#### 5.3.1. The general condition of the assemblage

Kiln sites are notorious for the enormous quantities of pottery they yield during excavation, and the consequent logistical problems in the processing and study, both on site at the time of recovery and during subsequent analyses. Highgate is no exception to this, and combined with these enormous quantities there is the very repetitive and fragmentary nature of kiln waste, which poses its own special problems.

We can also expect a wider range of material to be found on the kiln site than on sites where the products of the kiln were ultimately used. For the fabrics this includes not only under- and over-fired pieces but perhaps also experimental combinations or mixtures that were never intended for use or sale, and would have never left the site. There would also have been some forms that were made exclusively for the use of the potters, either as tools in the pottery production process or for their everyday purposes. But we might also expect experimental or test pieces, perhaps even a whole batch of material, that for one reason or another never left the confines of the site.

In the particular case of Highgate we also have the added problem of the adverse soil conditions. Some of the non-local wares brought onto the site and recovered from the ditches and waster heaps have suffered very badly. South Gaulish samian, usually a hard and rather brittle ware, is here reduced — in the worst case — to soft powdery substance, devoid of both slip and surface. Verulamium-region white wares, such as mortaria, which are usually well preserved, are here rather powdery to the touch with a tendency to laminate, particularly at the surfaces.

Undoubtedly the Highgate vessels in the same contexts would have undergone some similar degradation over the centuries, and this must be taken into account when assessing the possible final appearance of its products, rather than their present condition.

#### 5.3.2. The fabrics

The 1974 interim report introduced a three-way division of the Highgate fabrics, based on their principal fillers of grass or straw (fabric A), grog (B) and sand

(C). This classification formed the basis of the subsequent discussions of the Highgate material and, with some refinements and extensions, is followed here. Simple abbreviations — HWA, HWB and HWC — are employed in this report as shorthand for these fabric groups.

The description of the fabrics at a kiln site poses a number of difficulties that are not encountered with the assemblages from domestic sites. Firstly there is the presence of wasters, particularly under- and over-fired pieces. The textures and colours of these will diverge from those of the successful products of the kilns which are found on domestic sites. Secondly, even taking into account of the presence of these wasters, there is evidently a wider range of fabrics at the kiln site than is common on the domestic sites (Monaghan 1985). This section describes the fabrics as they were recovered at the kiln site.<sup>1</sup>

**HWA: vesicular wares** HWA is a fairly hard but brittle fabric with an open vesicular texture, typically a dark grey-brown throughout but some specimens have lighter orange surfaces (Fig. 51). Examination both ‘in the hand’ and in thin-section<sup>2</sup> suggests that the abundant pores in the matrix and marks in the surface are caused by some burnt out vegetable material, perhaps grass or straw, in the original clay mix. Some surface marks show faint linear striations, as on grass stems or leaves. All vessels in this ware seem to be hand-formed, but are evenly finished near the rim and base. For the petrology and chemical analysis of HWA see p.295 and pp.314–317.

**HWB: grog-tempered wares** The typical HWB (Fig. 52–Fig. 53) fabric has a lumpy texture, with an irregular fracture. In some examples the ware is hard and may be rather brittle, but many specimens from the site are soft and ‘soapy’ to the touch. The colour of the surfaces and margins varies from light to dark or grey-brown (Munsell 2.5Y 6/0–4/0; 5/0–4/0)

<sup>1</sup>This compilation of these fabric descriptions has benefited from extensive discussions with Tony MacKenna, who produced numerous thin-sections of Highgate material during the 1970s. Dr Alan Vince also commented on Highgate thin-sections during the preparatory work on the early Roman pottery corpus at the DUA in the early 1980s and some of his observations are incorporated here. It is a matter of great regret that his death in 2009 has denied us the opportunity to incorporate his unrivalled knowledge of London’s ceramic petrology into this publication.

<sup>2</sup>Analysis by S A MacKenna.



and is frequently uneven and patchy and the core is often a lighter grey (2.5Y 6/0). The principal filler is grog, which varies considerably in colour (buff, orange, grey, red or brown), size (A/SA, typically 0.2-2.0mm, but sometimes larger) and abundance; also burnt organic material or 'charcoal' (flat or angular in shape, <1mm) and occasional large quartz inclusions (SA, 1-2mm). The matrix includes fine silty quartz and some white mica (<0.1mm), which is most prominent on burnished or wiped surfaces. For the petrology and chemical analysis of HWB see p.296 and pp.314-317.

The surfaces of many vessels in this ware are smoothed, trimmed or burnished, particularly in horizontal zones near the rim or base. Some vessels have prominent vertical finger-marks on the inner surface (particularly towards the base or near the shoulder) and are essentially hand-formed, but other forms, such as the bowls with their evenly moulded rims, were doubtless finished on a pot-support or some other device capable of rotary motion.

**HWBR: red-slipped grog-tempered ware** A rare but distinct sub-group of HWB has a burnished red slip over a red-brown or orange surface. The slip may extend over both the inner and outer faces of the vessel. The matrix and tempering of this ware seems to be otherwise identical to the mainstream HWB, but perhaps towards the finer end of the range.

**HWC: grey sand-tempered wares** HWC (Fig. 54) is a hard, fine-textured ware with a finely irregular fracture tempered with abundant, densely packed and well-sorted colourless quartz (SA, usually 0.1-0.15mm, but occasionally up to 0.25mm), sparse black ironstone (SA, <0.1mm) and some white mica (0.1-0.25mm). The mica is most prominent at the surfaces, especially where they have been burnished or smoothed. The sand forms approximately 30% of the fabric by volume, and lends a slight roughness to the surfaces where they are not smoothed, particularly on the interior.

At the kiln site, HWC varies in colour from pale grey through to a dark red-brown, but the majority of the material — and doubtless the colour that was being aimed at in many cases — is a dull, medium dark-grey (N5-6). Many vessels show prominent wheel-marks on the inner face, and a white or light-grey (2.5YR 8/0-

7/0) iron-free slip is common on the upper parts of necked jars, beakers and some of the other enclosed forms. Analysis of the slip suggests that it was not local, but was imported onto the site.<sup>3</sup> Burnishing and trimming is common on these vessels, including burnishing over the slip, and on the better preserved specimens this can take on a silvery sheen. For the petrology and chemical analysis of HWC see p.297 and pp.314-317.

**HWB/C: transitional grog-and-sand tempered ware** Fabrics that can be considered as transitional between HWB and HWC are present in some groups on the site. These wares contains a significant proportion of grog, but are harder and coarser textured than standard HWB, with more sand visible in the matrix. A wide range of colours is apparent, with grey perhaps predominating. For the petrology of HWB/C see p.296.

**HWC+: grey sand-tempered ware with additional large rounded sand filler** A distinct variant of HWC with the addition of moderate quantities of larger rounded quartz sand (up to 0.5mm). Most specimens of this ware are both slipped and burnished (Fig. 55). For the petrology of HWC+ see p.297.

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<sup>3</sup>Analysis by S A MacKenna.



A



B



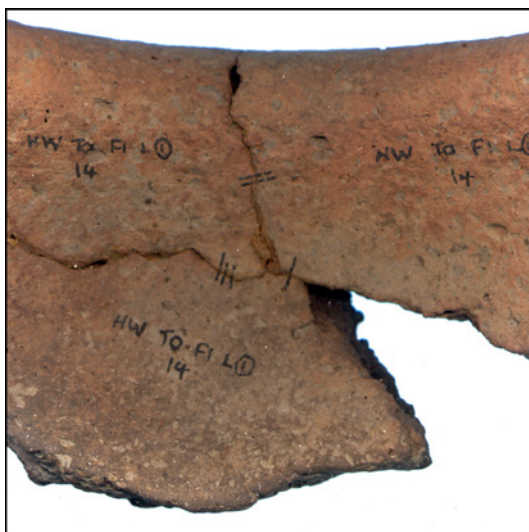
C



D



E



F

Fig. 51. HWA fabric: phase 1 [1:1]





A



B



C



D



E



F

Fig. 52. HWB fabric: phase 1 [1:1]



A



B



C



D



E



F

Fig. 53. HWB fabric: phase 2 [1:1]



A



B



C



D



E



F

Fig. 54. HWC fabric [1:1]





A



B

Fig. 55. HWC+ fabric [1:1]



### 5.3.3. The sequence of production

Table 2 summarizes the distribution of analysed pottery across the contexts at Highgate. In total some 1200kg of pottery has been examined and quantified, of which c. 990kg is from the sequence of phased deposits described above, a further c.110kg from other contexts, and c. 180kg from the upper levels in the excavated trenches.<sup>4</sup> Over half (c. 530kg) of the pottery from the phased sequence is from the area of the two waster dumps, and the adjacent kilns and pits. The pottery production at Highgate covers a period of at least a century, or, expressed another way, perhaps four or five generations of potters.

### 5.3.4. Phase 1 (Fig. 56)

The earliest pottery from Highgate Wood comes principally from the lower fills of the circular ditch at the north-west corner of the site. The group (about 9kg in total) can be divided into three parts:

1. Simple bead-rim jars in a coarse vesicular ware (HWA; Fig. 56, 1–3).
2. Cordoned necked-jars and carinated cups in soapy-textured, orange or brown grog-tempered fabrics (HWB; Fig. 56, 4–7). These fall into the broad ‘Belgic’ style of the later Iron Age in south-east England and similar forms can be paralleled widely across Kent, Essex and Hertfordshire (Thompson 1982). Most of these jars have a flat base, but there is also one example of a substantial quoit-shaped pedestal base (Fig. 56, 23). This is both rather fragmentary and abraded but was undoubtedly intended to be a finely made and substantial vessel. The assemblage also includes a few rather coarser grog-tempered sherds with uneven horizontal combing on the body (Fig. 56, 10).
3. A collection of barrel-shaped beakers and smaller jars, some represented by sherds only, in finer, thinner variants of the standard grog-tempered ware and, in a few cases

finer-textured fabrics with a higher proportion of sand filler (Fig. 56, 13–18, 20, 21, 24). A wide range of forms and decorative techniques is evident in this small group, including several butt-beakers, both plain and decorated with fine vertical combing, burnished lines, comb impressions in a herringbone pattern or a lightly incised lattice (Fig. 56, 11, 12, 15, 18). The large beaker (Fig. 56, 24) has a particularly hard, fine-textured fabric and an orange surface rather than the more normal ‘soapy’ texture.

### 5.3.5. Phase 2: the grog-tempered wares (Fig. 57)

The Phase 2 production is dominated by bead-rim jars, hooked-rim bowls (some with tripod feet) with smaller numbers of necked jars, storage jars, beakers, plates and cups, some of which have a red-slipped surface. The key groups are:

- The group from Ditch 5 and Kiln 10, is almost entirely in HWB and the marked by a particularly high proportion of bead-rim jars (Fig. 57, 1–13).
- Kilns 6 and 7, is also largely HWB, but the assemblage contains a large number of distinctive hooked-rim bowls, many decorated with horizontal zones of incised wavy lines on the body (Fig. 57, 14–25).
- The groups from Kiln 3 and 9 are dominated by simple bead-rim jars and bowls in HWB and HWB/C variants (Fig. 58, 1–10).

### 5.3.6. Phases 3 and 4: the sand-tempered grey wares (Figs. 58 and 59)

Following the activity associated with the linear ditches, the focus of activity shifts to the above-ground kilns. These are in two groups.

The smaller northern group is composed of a single kiln (8) surrounded by a waster heap. A large pit to the south-west of the kiln can be considered with this group. The southern group is more complex, with four kilns surrounded by a large waster heap and a series of pits.

<sup>4</sup>The pottery from the topsoil and the levels immediately below this — above the highest identifiable archaeological features — was labelled L1 and L2 during excavation. After sorting to remove non-local wares, particularly *sigillata* and mortaria, most of this material was discarded on site.

Phase	Highgate wares		Other wares					
	eve	kg	VRW kg	Amphoras kg	Samian n	Mortaria n	Other local n	Other imported n
1-i	9.260	9.846	.	.	.	.	.	.
1-ii	0.400	0.500	.	.	.	.	.	.
1-iii	0.020	0.032	.	.	.	.	.	.
2-1-i	1.400	0.866	.	.	.	2	.	.
2-1-ii	9.600	6.567	0.350	.	.	.	.	.
2-1-iii-a	0.200	0.050	.	.	.	.	.	.
2-1-iii-b	.	0.300	.	.	.	.	.	.
2-1-iv	1.510	1.145	0.032	.	.	.	.	.
2-2-i	7.440	12.968	0.163	.	8	.	.	.
2-2-ii	2.440	19.016	0.934	.	1	.	1	.
2-2-iii	.	3.100	.	.	.	.	.	.
2-2-iv	2.900	12.900	0.110	8.700	9	2	1	.
2-2-v	13.980	14.220	0.030	.	2	.	.	.
2-2-vi	2.950	3.590	0.050	.	.	.	.	.
2-2-vii	.	0.245	.	.	.	.	.	.
2-2-viii	.	0.060	.	.	1	.	.	.
2-3-S-i	7.800	77.284	2.294	.	19	.	10	1
2-3-S-ii	3.450	44.701	0.430	.	9	1	3	.
2-3-S-iii	.	6.550	0.071	.	2	.	.	.
2-3-S-iv	14.280	8.850	.	.	.	.	.	.
2-3-N-i	4.590	1.750	0.020	.	.	.	.	.
2-3-N-ii	3.750	6.520	.	.	.	.	.	.
2-3-N-iii	0.690	0.515	.	.	.	.	.	.
3-1-i	21.600	37.667	0.388	.	2	.	.	.
3-1-ii	3.120	5.913	0.035	0.010	5	.	4	.
3-1-iii-a	0.500	0.429	0.008	.	1	.	1	.
3-1-iii-b	6.840	14.465	0.002	.	2	.	.	.
3-1-iv-a	6.320	7.278	0.047	.	2	.	.	.
3-1-iv-b	14.140	14.449	0.591	.	3	.	6	.
3-1-iv-c	0.300	2.000	.	.	1	.	.	.
3-1-iv-d	6.42	16.651	2.872	.	6	.	.	.
3-2_4-i	.	0.502	0.007	.	2	.	1	.
3-2_4-ii	54.72	69.222	2.885	.	15	2	1	.
3-2_4-iii-a	273.77	144.135	0.882	0.023	38	1	7	1
3-2_4-iii-b	157.48	127.765	0.991	.	37	2	7	1
3-2_4-iii-c	5.04	34.358	0.802	.	10	.	3	.
3-2_4-iii-d	100.50	38.522	1.134	.	14	.	2	.
3-2_4-iii-e	0.30	21.635	1.078	.	25	2	3	.
3-2_4-iv-a	41.68	24.757	.	.	2	.	.	.
3-2_4-iv-b	3.10	0.870	.	.	.	.	1	.
3-2_4-iv-c	10.52	7.738	0.073	.	.	.	.	.
3-2_4-iv-d	12.88	12.885	.	.	.	.	.	.
3-2_4-v-a	3.85	5.793	0.033	.	2	.	.	.
3-2_4-v-b	16.38	11.786	.	.	8	.	.	2
3-2_4-v-c	39.28	18.074	0.290	.	15	.	1	.
3-2_4-vi-a	0.20	0.050	.	.	1	.	.	.
3-2_4-vi-b	.	0.400	.	.	.	.	.	.
3-2_4-vi-c	1.12	1.828	.	.	.	.	1	.
3-2_4-vi-d	8.30	5.605	0.333	.	4	.	2	1
3-2_4-vii-a	11.32	13.449	0.503	.	5	.	.	.
3-2_4-vii-b	.	0.140	.	.	.	.	.	.
4-i	18.90	5.775	0.039	.	1	.	.	.
4-ii-a	0.60	14.600	0.116	.	2	.	4	.
4-ii-b	.	0.500	.	.	.	1	.	.
4-ii-c	3.36	2.510	0.218	.	6	1	.	.
Total phased contexts	909.20	893.325	17.811	8.733	260	14	59	6
Unphased contexts	76.04	110.069	1.554	.	56	.	5	1
Topsoil contexts	324.88	178.839	5.172	1.196	278	10	31	6
Total	1310.12	1182.233	24.537	9.929	594	24	95	13

Table 2. Summary of Highgate pottery by phase

In the 1974 interim report (Brown & Sheldon 1974) the distinction between Phases 3 and 4, was largely based around the analysis of the assemblage from kiln 2, which is the only kiln on the site with a tile-built flue and apparently the focus of the latest production. Phase 4 was defined by the appearance of new forms which were modelled on the black-burnished style, that is, everted-rim jars and beaded-rim dishes and bowls with their characteristic burnished lattice decoration.

While the assemblage from kiln 2 remains apart from the bulk of the material in the surrounding dump because of its more developed character, it is apparent from subsequent more detailed study of the material that jars and bowls in the black-burnished style form a small element in most contexts. There are indeed very few assemblages of 'Phase 3' grey wares from the waster dumps, kilns and associated features where some element of the black-burnished influence is not present. A question which must be posed, however, is how much of this is a product of later activity, which has resulted in material from an earlier (pre-'black-burnished') production becoming mixed with later vessels.

It is convenient to retain Phase 4 in its historical role as a label for the kiln 2 group, and as a marker for the end of the Highgate production. However Phase 3 can be sub-divided between those few groups where there is no trace of influence from the black-burnished forms and those groups that do include examples of these forms. The decision as to whether some poor abraded (and possibly under-fired) sherd is a 'true' everted-rim jar or some anomalous variant of an everted-rim beaker, or a particular bowl rim betrays the influence of the black-burnished pie-dish is not always easy, but inevitable with an assemblage of this size and character.

The overall Highgate grey-ware assemblage is dominated by three forms: necked jars (at c. 42%; Fig. 58, 11, 12; Fig. 59, 10–14), hooked-rim bowls and their accompanying lids (c. 22% and 13%; Fig. 58, 16–21; Fig. 59, 20–24, 26, 27) and everted-rim beakers, including the barbotine decorated poppy-head beaker (c. 12%; Fig. 58, 14, 15; Fig. 59, 7–9). Of the remainder, bead-rim jars are present (Fig. 59, 1, 2), but less common than in the Phase 2 assemblage (c. 7%). In combination, the two forms in the black-burnished repertoire (Fig. 59, 4–6, 15–19) are present in similar numbers (c. 8%). The remainder is composed of a

wide range of rarer forms, described in more detail in the main catalogue.

The chronological implications of the distribution of the two black-burnished forms through the assemblage can now be considered. The only substantial groups that lack these two forms are those from kiln 9 (phase 2), kiln 5 and pit 2. These assemblages are small but illustrate the character of the Highgate potters' output towards the beginning of the period of grey ware production. All the other groups from the dumps and kilns include everted-rim jars, varying in proportion from from c. 1% to 30% of the assemblage. The kilns 1 and 8 groups include examples of the everted-rim jar, but not its usual companion, the pie-dish. This absence may be significant — particularly so in the case of the substantial assemblage from kiln 8 — and is perhaps further evidence of chronological divisions within the grey ware assemblages.

So the probable sequence within these groups is as follows:

- *No black-burnished types*
  - kiln 9 (phase 2)
  - S: kiln 5, pit 2
- *Everted-rim jars only*
  - N: kiln 8
  - S: kiln 1
- *Everted-rim jars and pie-dishes*
  - N: pit 6
  - S: kiln 4, pit 1, pit 3
  - S: kiln 2 (phase 4)

(Key: N=northern dump, S=southern dump)

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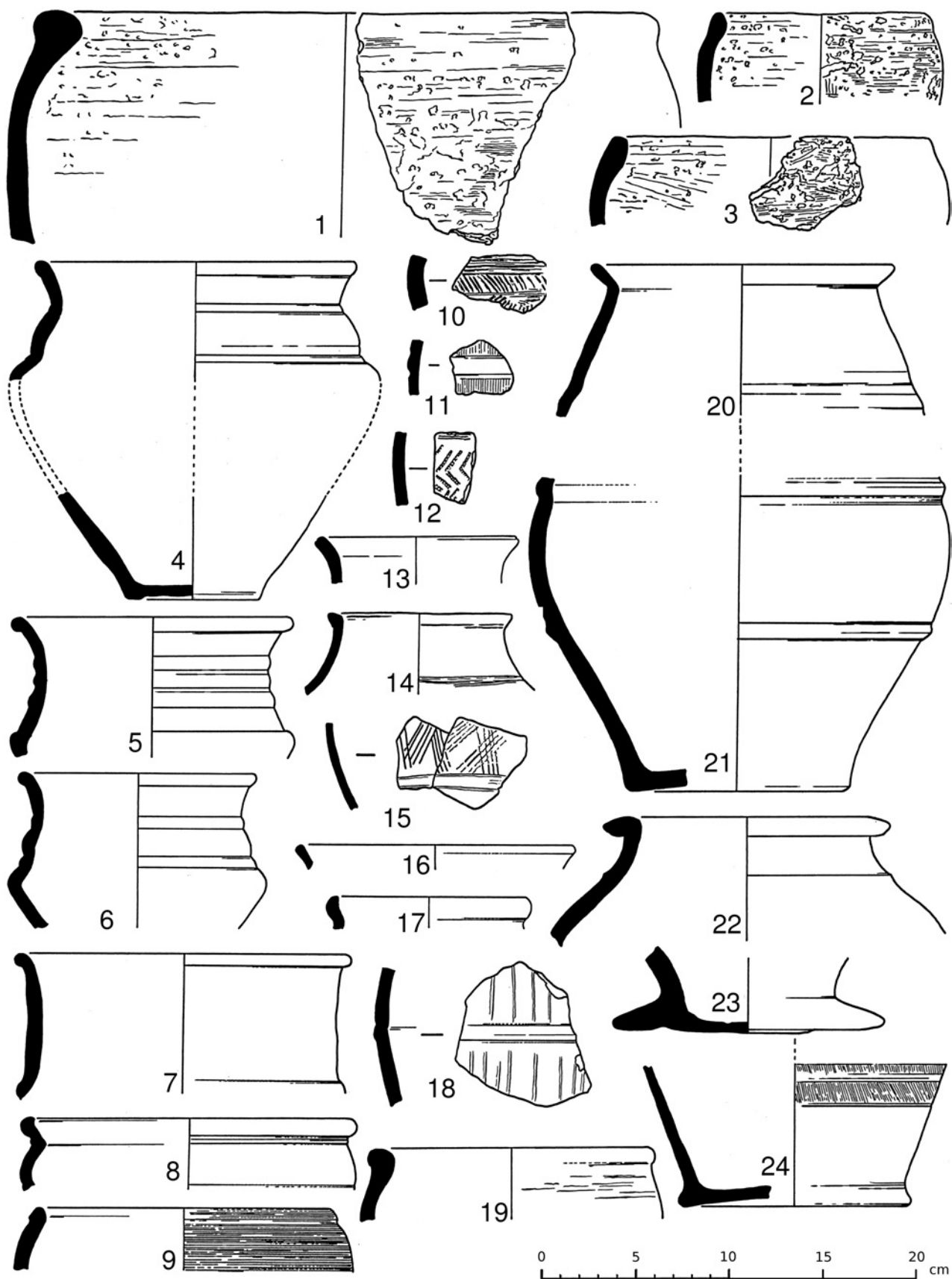


Fig. 56. Highgate Wood: selected pottery from Phase 1



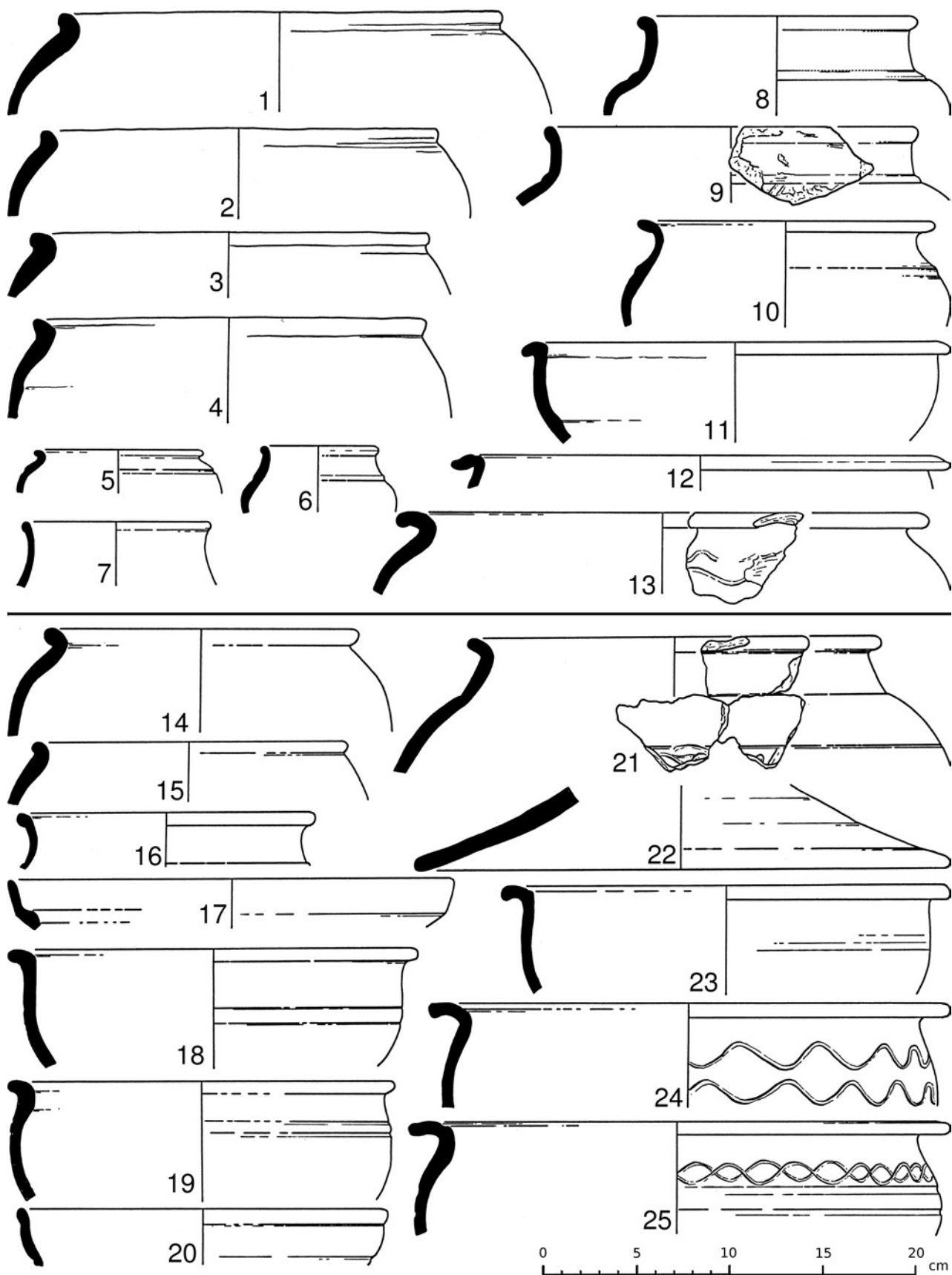


Fig. 57. Highgate Wood: selected pottery from Phase 2

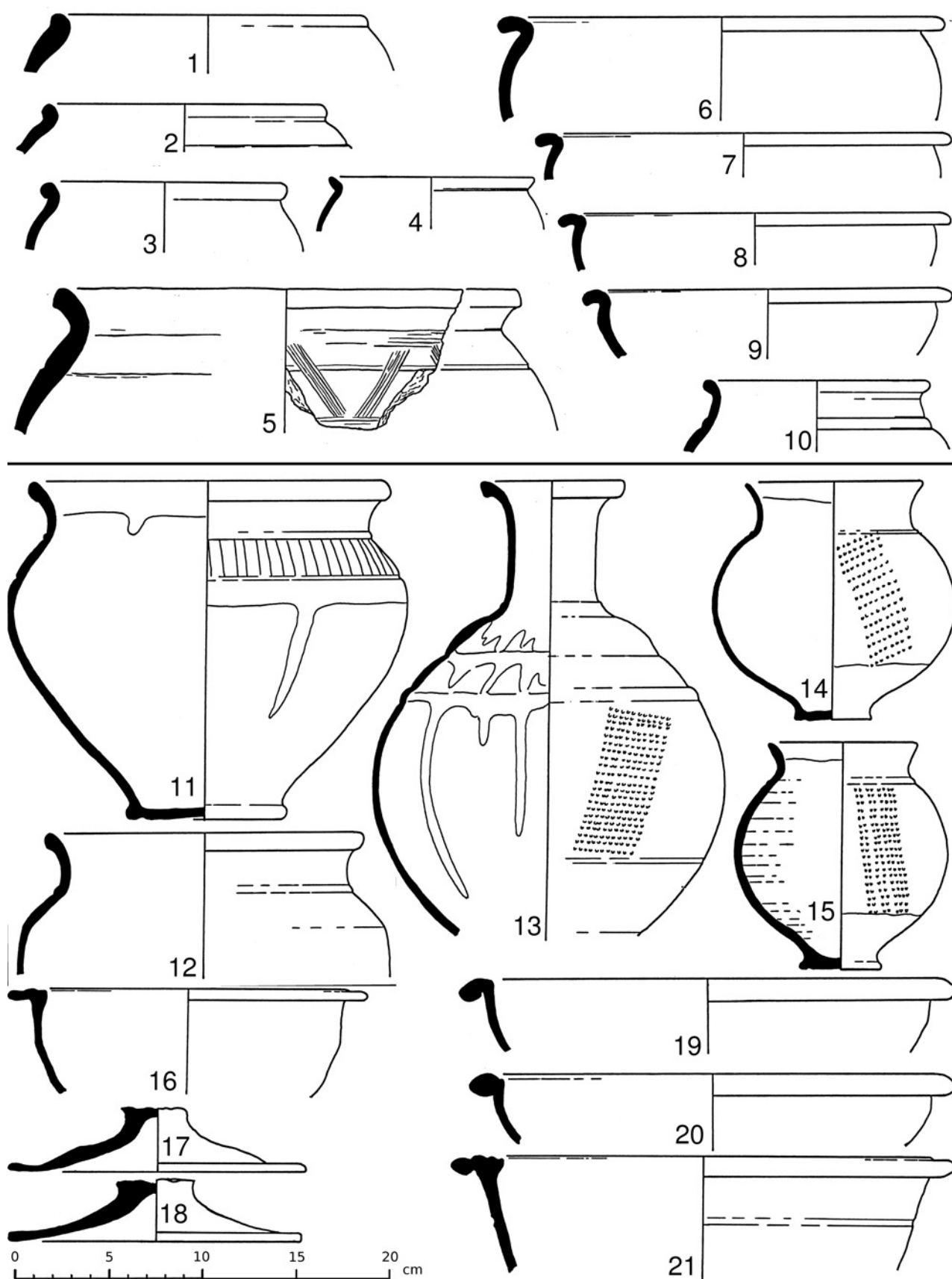


Fig. 58. Highgate Wood: selected pottery from Phase 3

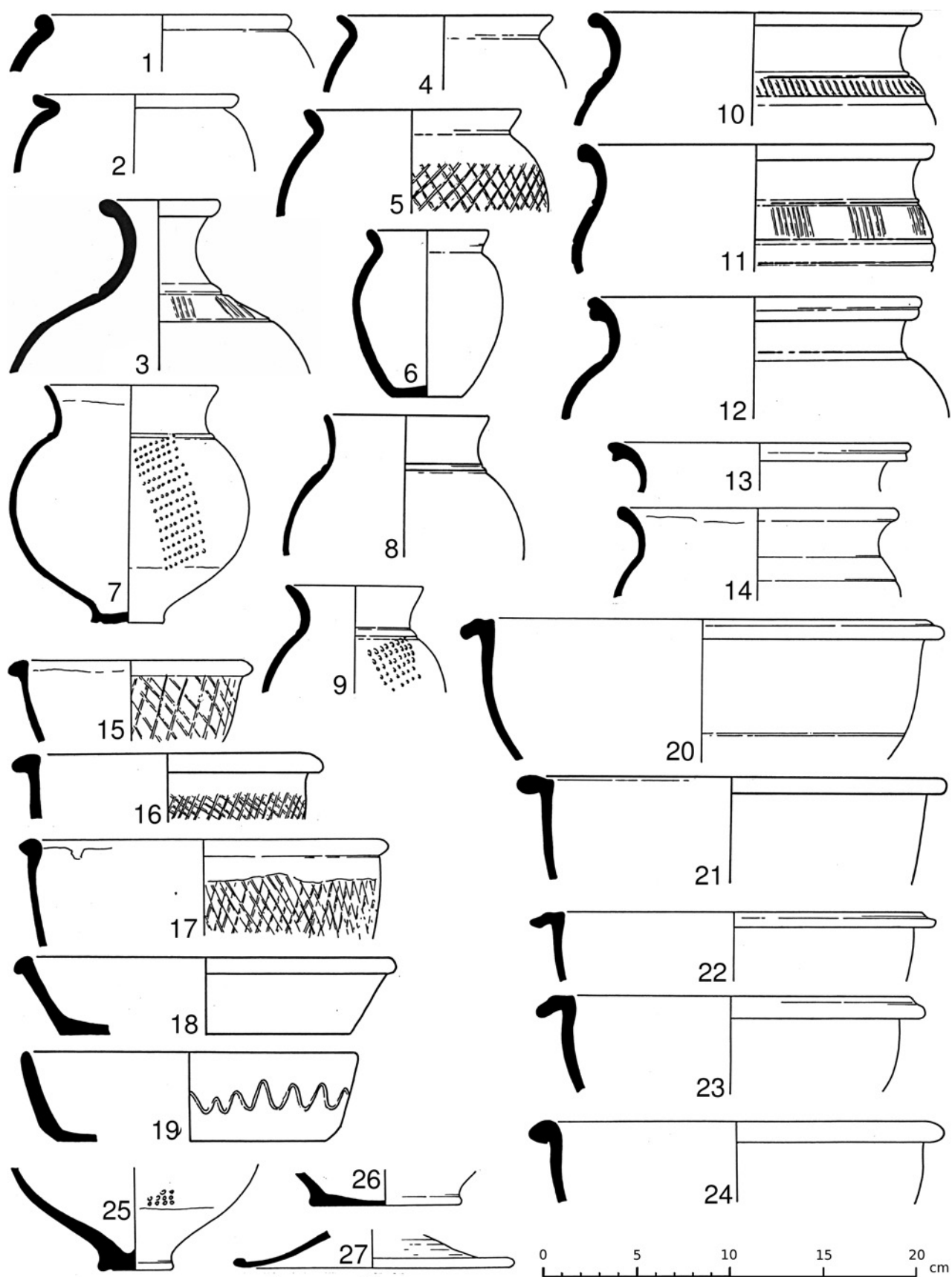


Fig. 59. Highgate Wood: selected pottery from Phase 4

## 6. Analysis of the excavated pottery

### Abbreviations in the catalogue

**AHSU** Alice Holt grey ware  
**AMPH** Amphorae  
**BB1** Black-burnished 1  
**CC** Unassigned colour-coated ware  
**CGOF CGWH** Central Gaulish fine wares (buff or white fabrics)  
**COLC** Colchester colour-coated  
**COMO** Colchester mortaria  
**GLMO** Gloucester-region mortaria  
**HOO** Hoo white-slipped ware  
**HWA HWB HWC HWC+** Highgate fabrics  
**KOLN** Cologne slipped ware  
**LOEG LOMA LOMI LOND** London eggshell/ marbled/ mica-dusted/ black ware  
**LONST** Stamped London ware  
**MHAD** Much Hadham red-slipped ware  
**MICA** Unassigned mica-dusted ware  
**OXID** unassigned oxidized ware  
**RDBK** Ring-and-dot beaker  
**RVMO** Rhône Valley mortaria  
**RWS** Unassigned white-slipped red wares  
**SAM-SG SAM-CG SAM-EG** South/Central/East Gaulish samian  
**SLOW** Sugar Loaf Court ware  
**VCWS** Verulamium-region coarse white-slipped ware  
**VRW** Verulamium-region white ware

For details of these wares see Davies *et al* 1994: *A Dated Corpus of Early Roman Pottery from the City of London*. See also summary on p.89.

Cu = Curle form

De = Déchelette form

Dr = Dragendorff form

Ritt = Ritterling form

I, II, III *etc* = *Southwark* form codes (Marsh & Tyers 1978 'The Roman Pottery from Southwark' in *Southwark Excavations 1972-74*, 530-601).

### Reference numbers

The reference numbers in the catalogue reflect those on the original paper illustrations, the envelopes or bags containing the sherds, or, on occasion, the numbering on the sherds themselves.

**H1-H631** vessels illustrated and catalogued before 1974

**M1-M494** vessels illustrated by S A MacKenna, principally from the northern and southern dumps  
**X901-X2138** additional items catalogued in the 1990s and later

**GM1-GM549** non-local wares (*terra sigillata*, VRW *etc*) catalogued by G D Marsh in mid-1970s

**yy/SFnnn** Small Finds (with year code)

**yy/RPnnn** Recorded Pottery (with year code)

### Acknowledgements

A number of the illustrations presented here originate in the reports produced from the late 1960s during evening classes at the City Literary Institute supervised by H L Sheldon, and subsequently recycled through the *London Archaeologist* interim reports, and other publications.

The bulk of the phase 3 and 4 material was quantified by Val Shelton-Bunn, and completed by Tony MacKenna. The data was initially recorded using a data input format devised by Clive Orton.

The identifications of the *terra sigillata* and mortaria are by Joanna Bird and Kay Hartley. The other non-local wares were initially catalogued by Geoff Marsh. The identification of many of these fabrics was confirmed by direct comparison with material in the DUA fabric type series by Barbara Davies, who also drew many of these vessels. Final illustrations, digitisation and layout are by Paul Tyers.

# 6.1. Phase 1 i : Circular Structure

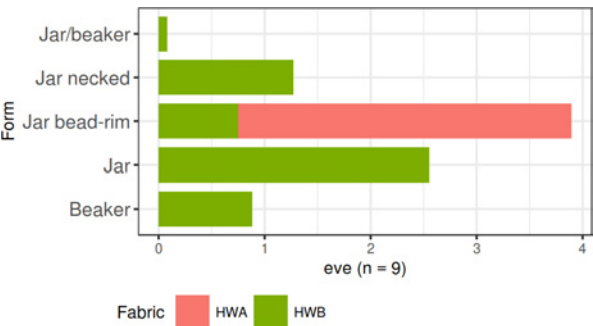
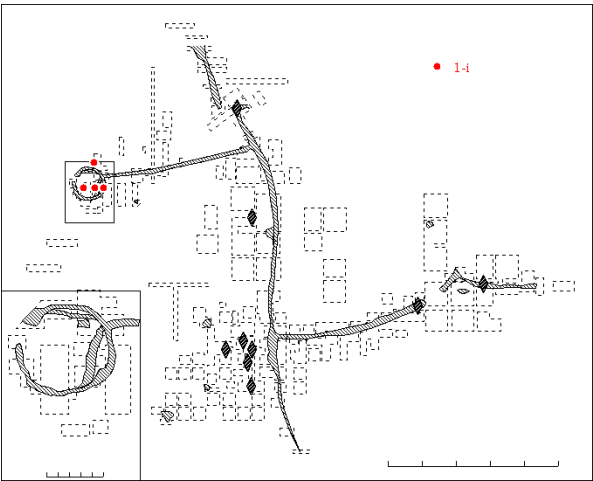
Excavation report See p.8.

**Local pottery** These are the only contexts from the site where Phase 1 material is found in any quantity, without any later types. The levels seem largely uncontaminated<sup>1</sup>, although they are cut by deposits containing a large assemblages of later material (phases 2-2, 3-1-iii and 3-1-iv). There are many sherd links between contexts in this group, in particular between contexts in TO and TP. There is no evidence of any variation within the group and it should be considered as a single assemblage.

The group contains approximately equal quantities of cordoned necked jars in a grog-tempered ware 1-14 and bead-rim jars in the coarser HWA 48-68. The remainder are various forms of beaker or jar in finer textured grog-tempered or sandier wares.

**Other objects** The group also include a pair of copper tweezers, and a large fragment of a quern upper-stone in the local Eocene iron-pan sandstone was recovered from the butt end of the circular ditch.

CONTEXT	REF.	REPORT	DESCRIPTION
TOF1L2	74/SF19	Metal no. 27	Tweezers
TPF1L1	74/SF38	Metal no. 47	Iron object
TPF1L1	74/SF38	Stone no. 6	Quern (Sandstone)
TTF2L2	74/RP19	Prehistoric pottery no. 21	Prehistoric pottery



FABRIC	EVE	WEIGHT (G)
HW	0.33	307
HWA	3.23	3551
HWB	5.54	5776
Total	9.10	9634

<sup>1</sup>TVF4L1 and TVF6L1 are assigned to this phase, but the pottery recorded from these context are small group of mostly HWC sherds (<40g) and are not part of phase 1. There are additional HWC sherds from TOF1L3, TP2F3 and TVF6L2 (the latter also includes a sherd of a HWC+ jar with burnished lattice decoration) and there are VRW sherds from TOF1L1 and TVF6L2.

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1	60	TOF1/TOL2	HWB	H1	
2	60	TOF1L2	HWB	H2	
3	60	TOF1L1	HWB	H3	
4	60	TOF1L1	HWB	H4	
5	60	TOF1L1	HWB	H5	
6	60	TOF1L1	HWB	H6	
7	60	TOF1L1	HWB	H7	
8	60	TPF1L1	HWB	H8	
9	60	TTF2L2	HWB	H9	
10	60	TPF1L1	HWB	H10	
11	60	TP2F1	HWB	H11	
12	60	TVF6L2	HWB	H12	
13	60	TVF6L2	HWB	H13	
14	60	TVF6L2	HWB	H14	
15	60	TOF1L1	HWB	H15	
16	60	TVF6L2	HWB	H16	
17	60	TPF1L2	HWB	H19	
18	60	TVF6L2	HWB	H17	
19	60	TTF2L1	HWB	H18	
20	60	TVF6L2	HWB	H20	
21	61	TOF1L1	HWB	H21	
22	61	TVF6L2	HWB	H22	
23	61	TOF1L1	HWB	H28	
24	61	TOF1L1	HWB	H31	
25	61	TOF1L1	HWB	H29	
26	61	TOF1L1	HWB	H30	
27	61	TOF1L1	HWB	H32	
28	61	TVF4L2/ TVF1L4	HWB/C	H23	
29	61	TTF2L2	HWB/C	H24	
30	61	TTF2L1	HWB	H25	
31	61	TTF2L2	HWB	H26	
32	61	TTF2L1/ TTF2L2	HWB	H27	
33	61	TPF1L1	HWB	H39	
34	61	TPF1L1	HWB	H40	
35	61	TOF1L2	HWB	H33	
36	61	TOF1L1	HWB	H34	
37	61	TOF1L1	HWB	H35	
38	61	TOF1L2	HWB	H36	
39	61	TTF2L2	HWB	H37	
40	61	TOF1L1	HWB	H38	
41	61	TOF1L2	HWB	H41	
42	61	TOF1L1	HWB	H42	
43	61	TTF2L1	HWB	H43	
44	61	TOF1L1	HWB	H44	
45	61	TOF1L1	HWB	H45	
46	61	TTF2L2		H46	
47	61	TVF4L2	HWB	H47	
48	62	TPF1L1	HWA	H49	
49	62	TOF1L2	HWA	H48	
50	62	TPF1L1	HWA	H50	
51	62	TOF1L1	HWA	H51	
52	62	TOF1L1	HWA	H52	
53	62	TOF1L1	HWA	H53	
54	62	TOF1L1	HWA	H64	
55	62	TOF1L1	HWA	H55	
56	62	TOF1L2	HWA	H54	
57	62	TOF1L1	HWA	H62	
58	62	TVF4L2	HWA/B	H59	
59	62	TOF1L1	HWA	H57	

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
60	62	TTF2L1	HWA	H56	
61	62	TOF1L1	HWA	H63	
62	62	TOF1L2	HWA	H60	
63	62	TOF1L2	HWA	H61	
64	62	TPF1L1	HWA	H66	
65	62	TPF1L1	HWA	H58	
66	62	TPF1L1	HWA	H67	
67	62	TOF1L1	HWA	H68	
68	62	TVF6L2	HWA	H65	



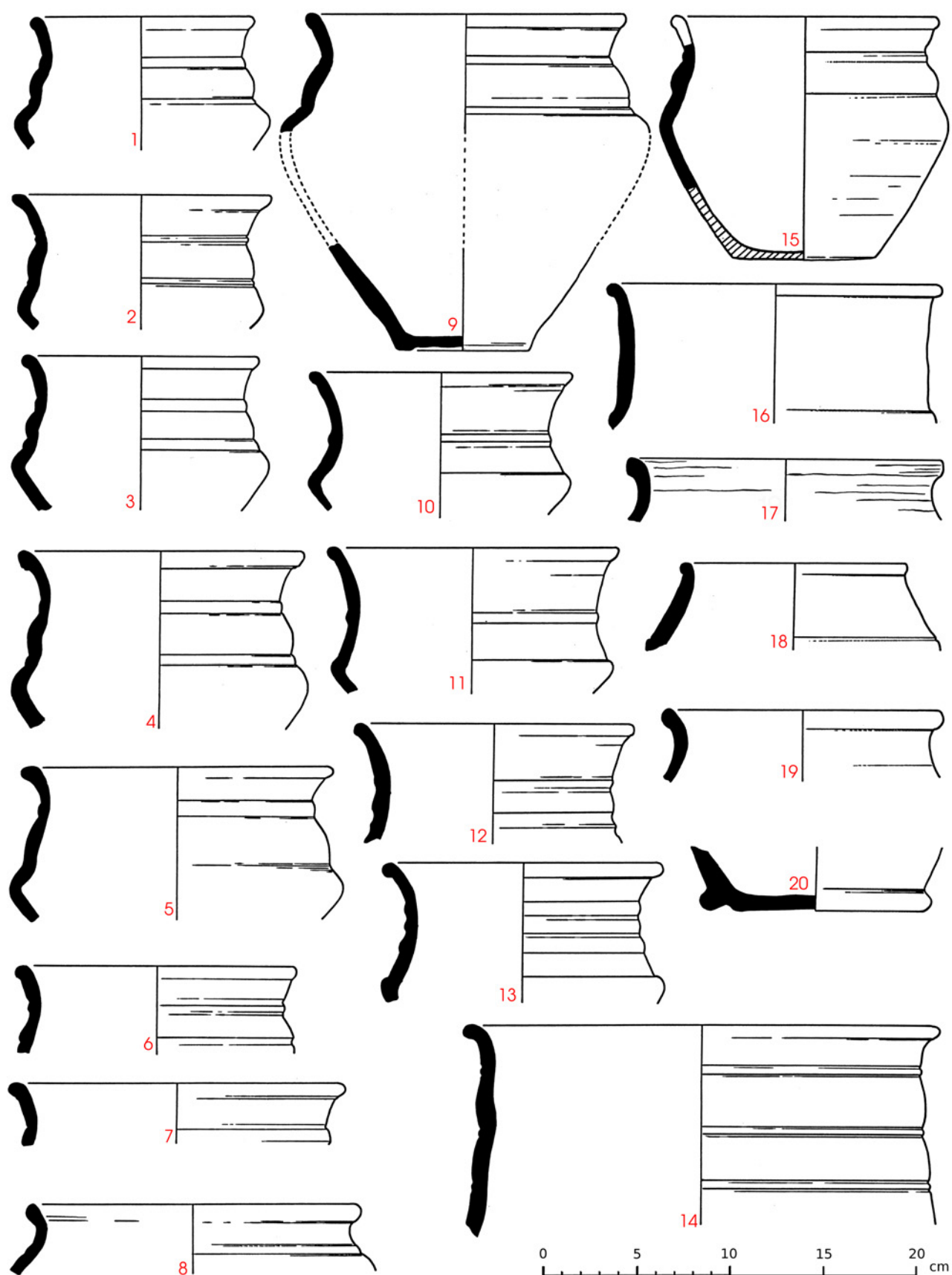


Fig. 60. Highgate Wood: 1 i: local pottery [1:3]

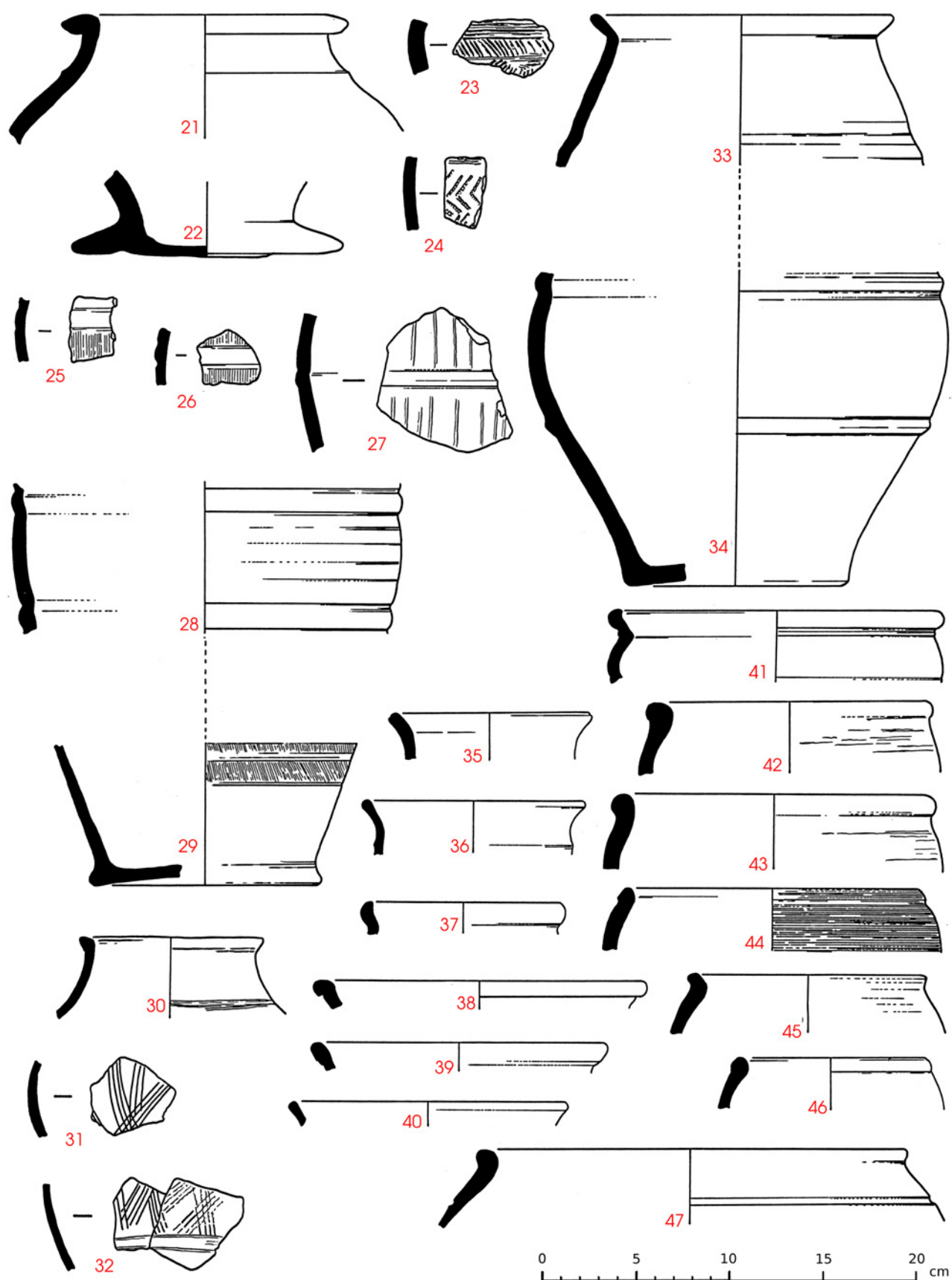


Fig. 61. Highgate Wood: 1 i: local pottery [1:3]

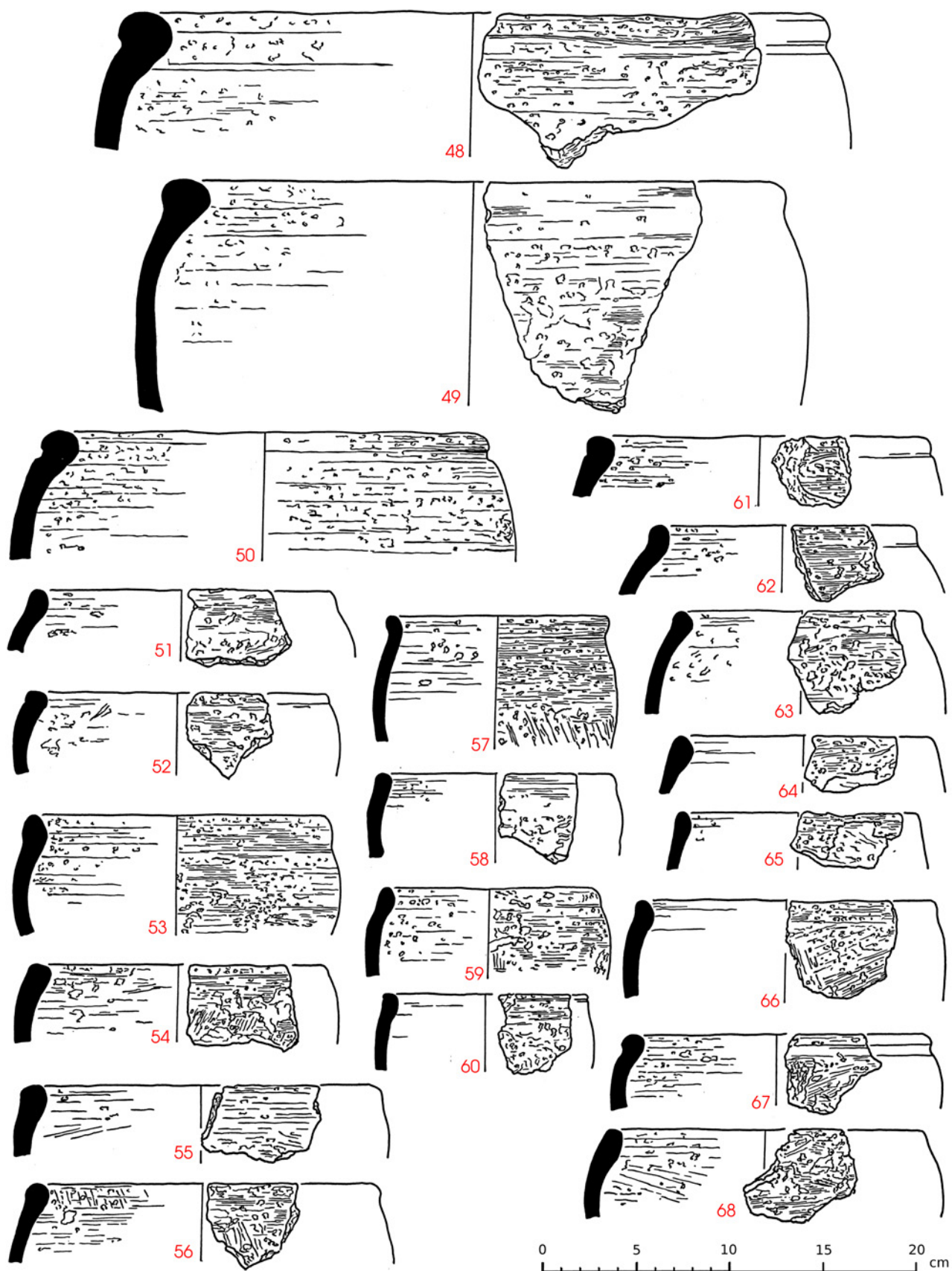


Fig. 62. Highgate Wood: 1 i: local pottery [1:3]

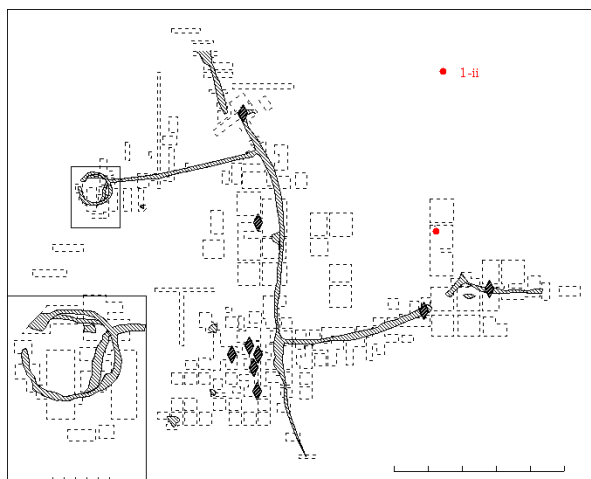
## 6.2. Phase 1 ii : Pit 5

**Excavation report** See p.8.

**Local pottery** A very small group, containing only a handful of sherds, but with rather unusual characteristics. The vessels include a HWA bead-rim jar **70**, a HWB jar **71** and a bead-rim jar in a rather unusual gritty black ware **69**. In addition there are examples of normal HWB forms of phase 2, including a hooked-rim bowl and a lid **72-73**.

There are further HWA **74-75** and HWB vessels of phase 1 from the overlying topsoil context (T67L2) which may be related to this feature.

**Other objects** A fragment of a quern upperstone in a local sandstone, from T67F1L1.



No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
<b>69</b>	63	T67F1		H495	
<b>70</b>	63	T67F1	HWA	X923	
<b>71</b>	63	T67F1	HWB	X926	non local?
<b>72</b>	63	T67F1	HWC	X925	
<b>73</b>	63	T67F1	HWB	X924	
<b>74</b>	63	T67L2	HWB	X1280	phase 1
<b>75</b>	63	T67L2	HWA	X1281	phase 1

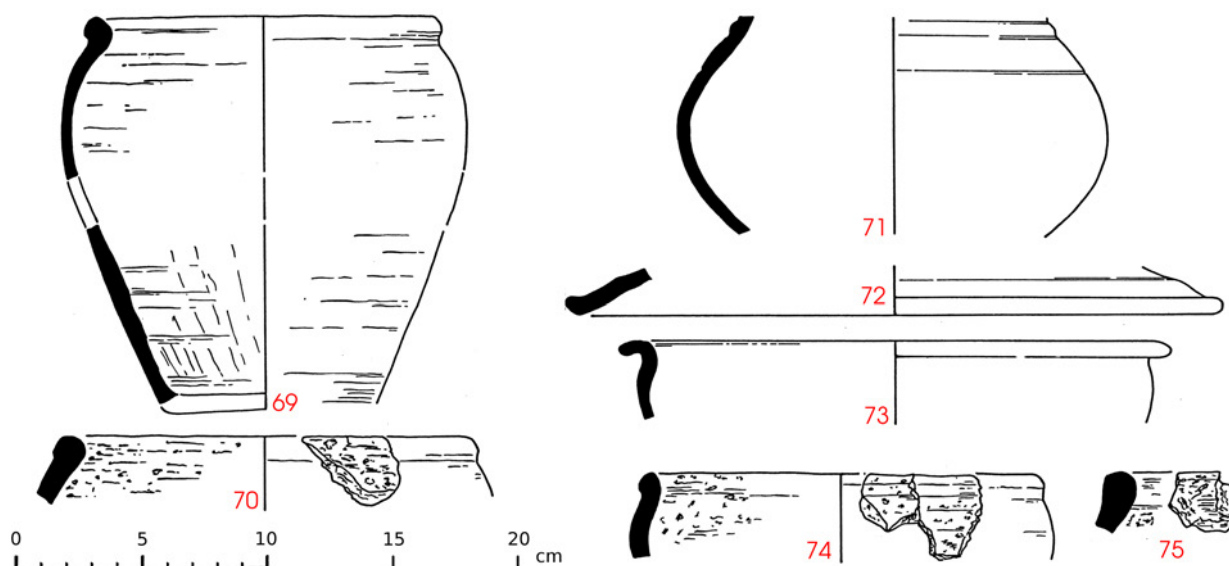
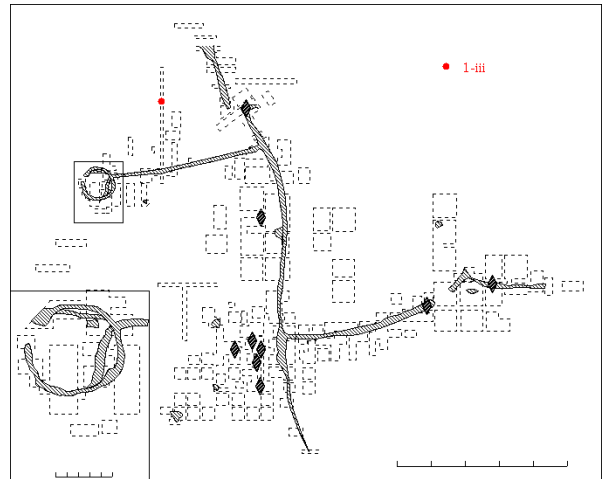


Fig. 63. Highgate Wood: 1 ii: local pottery [1:3]

### 6.3. Phase 1 iii : Trench I F1

**Excavation report** See p.9.

**Local pottery** A very small group comprising a rim sherd of a bead-rim jar in HWA and a sherd of HWB.  
*Not illustrated.*



#### 6.4. Phase 2 (1) i : ‘Structure’ inside Circular Structure of Phase 1, basal layer

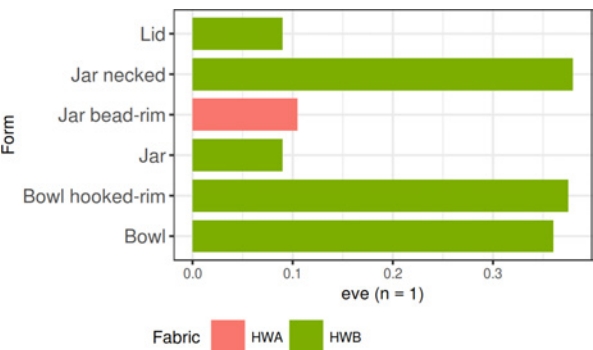
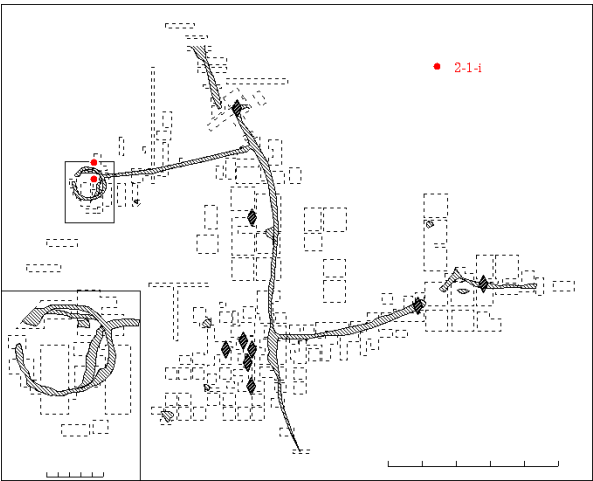
**Excavation report** See p.12.

**Local pottery** A small group of HWA bead-rim jars and bowls. The group also includes a base and rim of a bead-rim jars in HWA, probably of phase 1.

**Non-local pottery** A rim sherd of a Gloucester region mortarium (dated AD 50-90).

CONTEXT	FABRIC	FORM	REF.	COMMENT
TWF1L3	GLMO	mortarium	GM545B	79 AD 50-90?

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
76	64	TWF1L3	HWA	H187	
77	64	TWF1L3	HWA	H183	
78	64	TWF1L3	HWA	H224	
79	65	TWF1L3	GLMO	GM545B	AD 50-90?



FABRIC	EVE	WEIGHT (G)
HW	.	120
HWA	0.10	59
HWA	1.29	687
Total	1.40	866

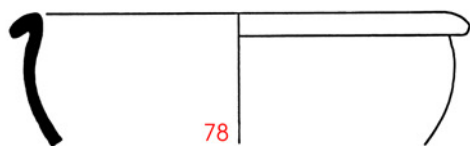
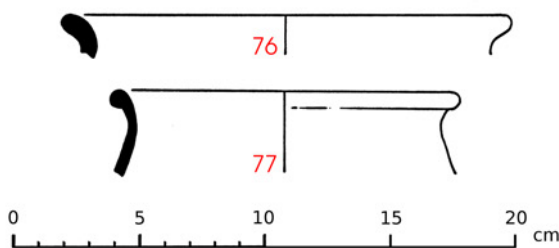


Fig. 64. Highgate Wood: 2 (1) i: local pottery [1:3]

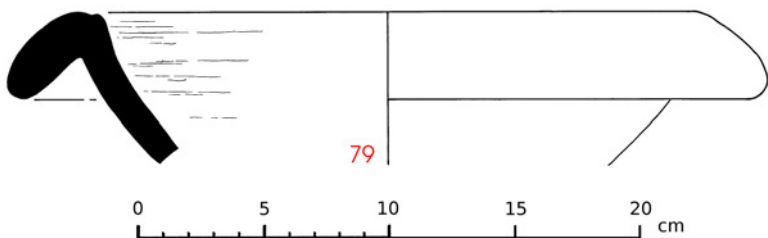


Fig. 65. Highgate Wood: 2 (1) i: non-local pottery  
[1:3]



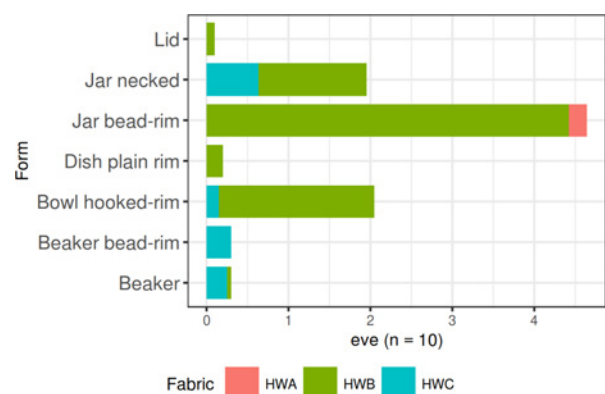
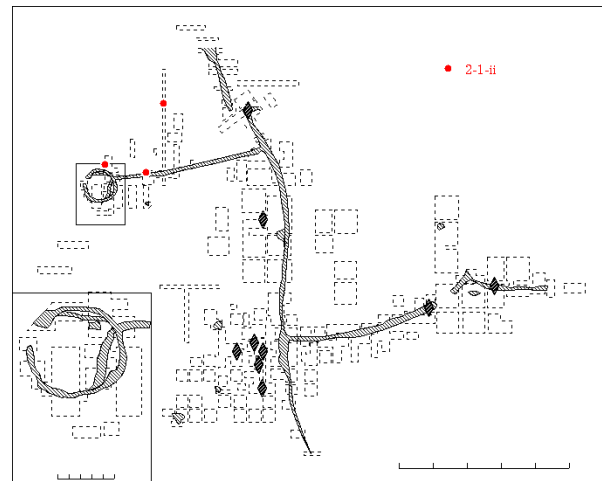
## 6.5. Phase 2 (1) ii : Ditch 5

**Excavation report** See p.14.

**Local pottery** This is a substantial group, mostly of HWB. The forms are dominated by bead-rim jars (c. 58%), with fewer bowls (c. 26%) and a small number necked jars and beakers 106-111. One jar has traces of a white slip and burnished decoration on the shoulder 106. The group also includes sherds of HWA of phase 1.

**Non-local pottery** The rim of a ring-necked flagon in VRW 138.

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
80	66	TUF1L2	HWB	H69	
81	66	TUF1L2	HWB	H70	
82	66	TUF1L2	HWB	H71	
83	66	TUF1L2	HWB	H72	
84	66	TUF1L2	HWB	H73	
85	66	TUF1L2	HWB	H74	
86	66	TUF1L2	HWB	H75	
87	66	TUF1L2	HWB	H76	
88	66	TUF1L2	HWB	H78	
89	66	TUF1L2	HWB	H77	
90	66	TUF1L2	HWB	H79	
91	66	TUF1L2	HWB	H80	
92	66	TUF1L2	HWB	H81	
93	66	TUF1L2	HWB	H82	
94	66	TUF1L2	HWB	H83	
95	66	TUF1L2	HWB	H84	
96	66	TUF1L2	HWB	H85	
97	66	TUF1L2	HWB	H86	
98	66	TUF1L2	HWB	H87	
99	66	TUF1L2	HWB	H88	
100	66	TUF1L2	HWB	H89	
101	66	TUF1L2	HWB	H90	
102	66	TUF1L2	HWB	H91	
103	66	TUF1L2	HWB	H92	
104	66	TUF1L2	HWB	H93	
105	67	TUF1L2	HWB	H96	
106	67	TUF1L2	HWC	H97	
107	67	TUF1L2	HWB	H95	
108	67	TUF1L2	HWB	X1128	
109	67	TUF1L2	HWB	H94	
110	67	TUF1L2	HWB	H99	carinated? Beaker
111	67	TUF1L2	HWC	H98	
112	67	TUF1L2	HWB	H100	
113	67	TUF1L2	HWB	H103	
114	67	TUF1L2	HWC	H105	
115	67	TUF1L2	HWB	H108	
116	67	TUF1L2	HWB	H101	
117	67	TUF1L2	HWB	H107	
118	67	TUF1L2	HWB	H106	
119	67	TUF1L2	HWB	H104	
120	67	TUF1L2	HWB	H102	
121	67	TUF1L2	HWB	X1131B	



FABRIC	EVE	WEIGHT (g)
HW	0.05	3502
HWA	0.22	41
HWB	8.34	2492
HWC	0.98	532
Total	9.60	6567

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
122	67	TUF1L2	HWB	X1132	
123	67	TUF1L2	HWB	X1133	
124	67	TUF1L2	HWB	H109	
125	67	TUF1L2	HWB	X1134	
126	67	TUF1L2	HWB	X1135	
127	67	TUF1L2	HWB	X1136	
128	67	TUF1L2	HWB/C	X1137	
129	67	TUF1L2	HWB	X1138	
130	67	TUF1L2	HWB	X1127	
131	67	TUF1L2	HWB	X1130	
132	67	TUF1L2	HWB	X1139	
133	67	TUF1L2	HWB	X1140	
134	67	TUF1L2	HWB	X1142	
135	67	TUF1L2	HWB	X1143	
136	67	TUF1L2	HWB	X1141	
137	67	TUF1L2	HWB	X1137A	jar?
138	68	TUF1L2	VRW	X2016	1B

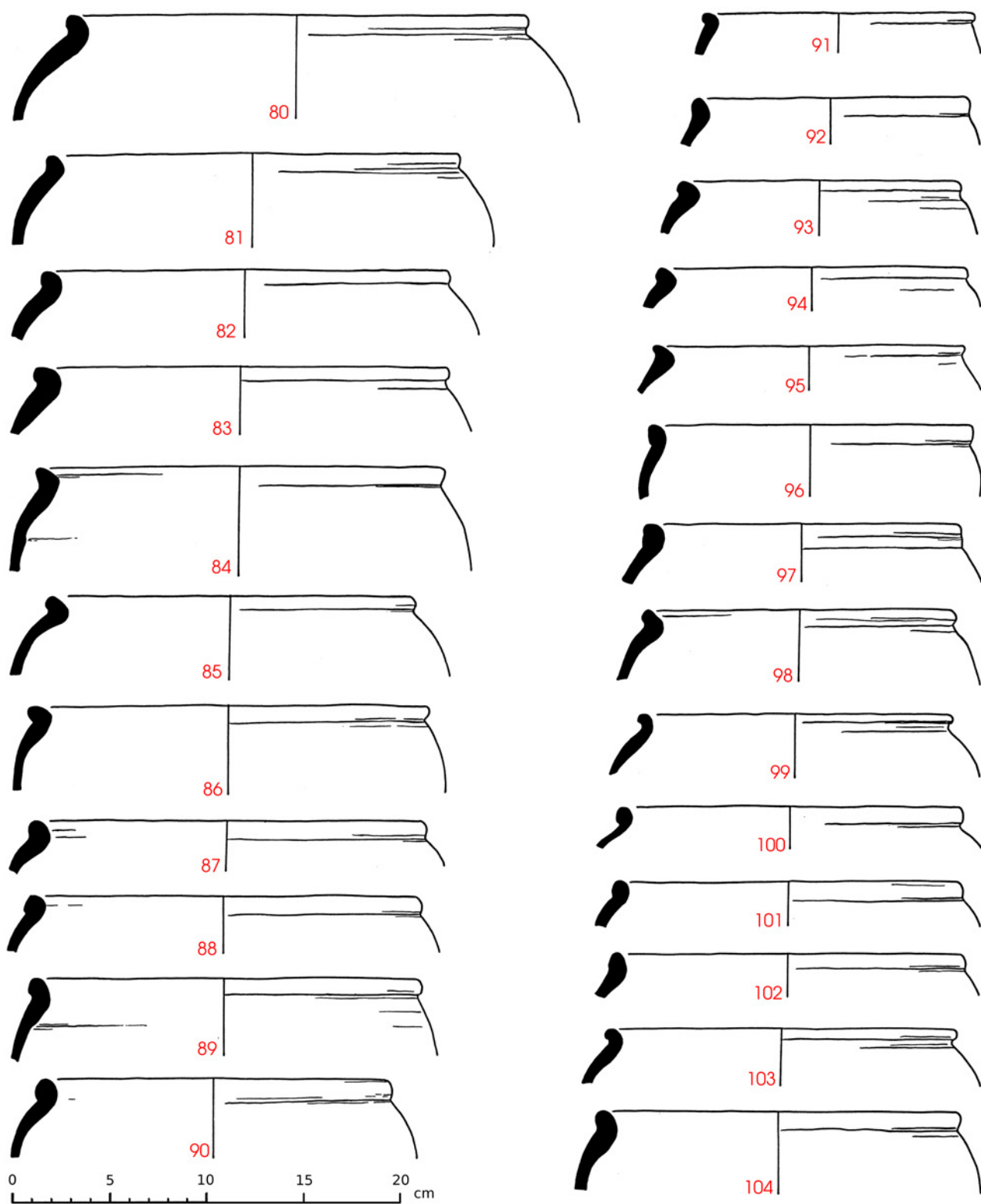


Fig. 66. Highgate Wood: 2 (1) ii: local pottery [1:3]

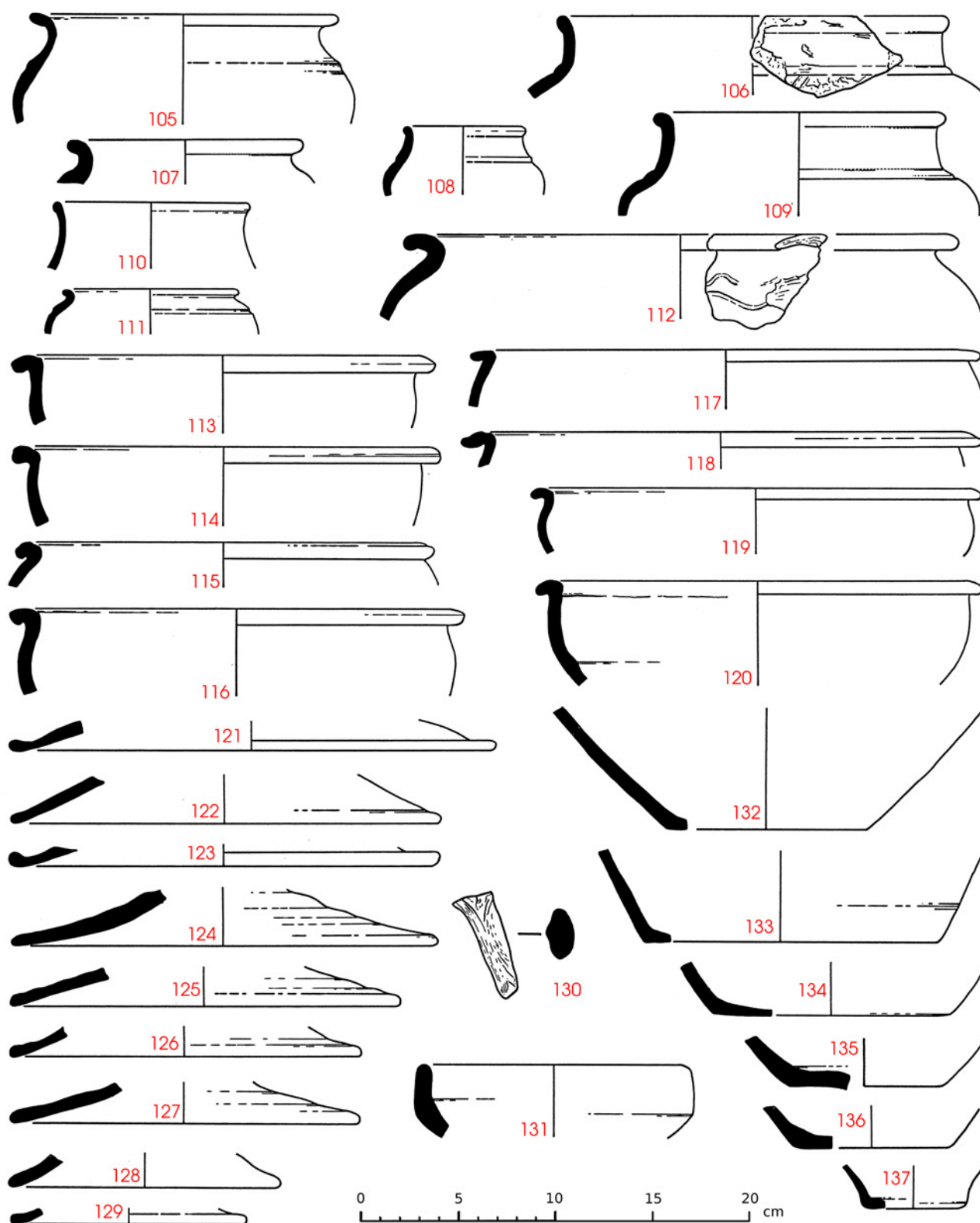


Fig. 67. Highgate Wood: 2 (1) ii: local pottery [1:3]

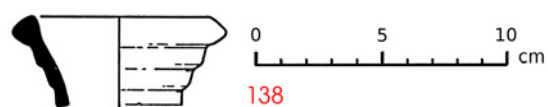


Fig. 68. Highgate Wood: 2 (1) ii: non-local pottery [1:3]

## 6.6. Phase 2 (1) iii (a) : Basal layers of ditch

**Excavation report** See p.14.

**Local pottery** A very small group of HWB (< 50g) including a sherd of a shallow dish and a base sherd.  
*Not illustrated.*

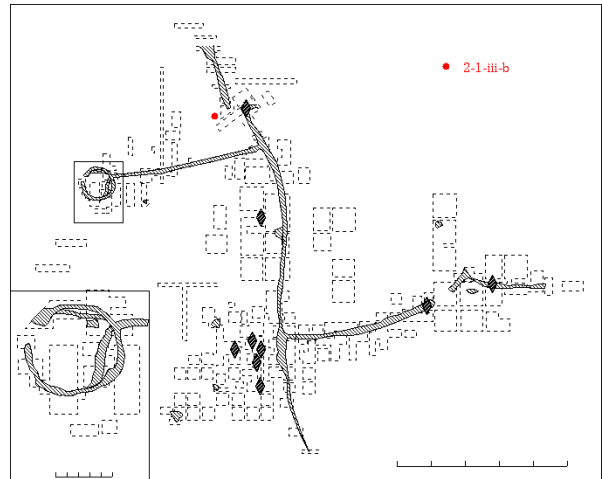


## 6.7. Phase 2 (1) iii (b) : Preparation Pit 2

Excavation report See p.14.

**Local pottery** A small group (< 300g) of HWB sherds.

*Not illustrated.*



6.8. Phase 2 (1) iv : Pit 7

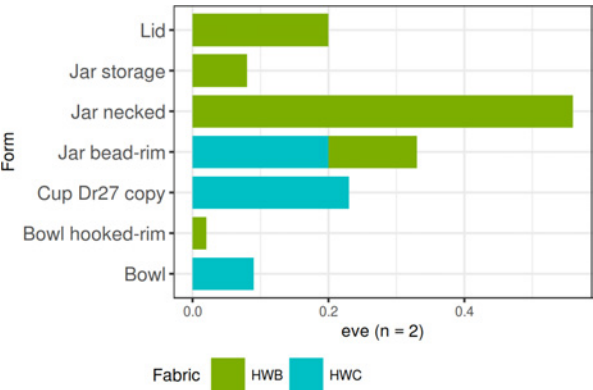
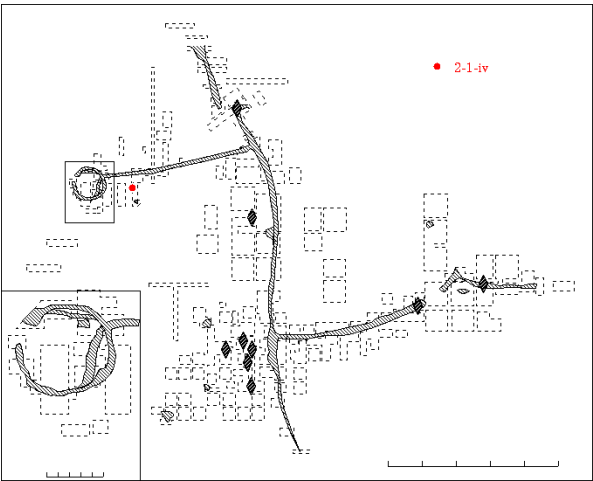
Excavation report See p.14.

**Local pottery** A small HWB assemblage, including two vessels in the red-surfaced HWBR variant - a particularly fine copy of a samian campanulate cup, Drag.27 145, and a sherd of a shallow dish, perhaps imitating a Drag.18 144.

**Non-local pottery** A small sherd of VRW.

CONTEXT	FABRIC	FORM	REF.	COMMENT
TJF1L1	VRW			
TJF1L2	VRW			

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
139	69	TJF1L2	HWB	H110	
140	69	TJF1L2	HWB/C	H111	
141	69	TJF1L2	HWB	H112	
142	69	TJF1L1/ TJF1L2	HWB	H113	
143	69	TJF1L2	HWB/C	H114	
144	69	TJF1L2	HWBR	GM470	red surface
145	69	TJF1L2/ TJF1L3	HWC	H115	cf. Dr27 cup



FABRIC	EVE	WEIGHT (G)
HWB	1.14	1020
HWC	0.36	125
Total	1.51	1145

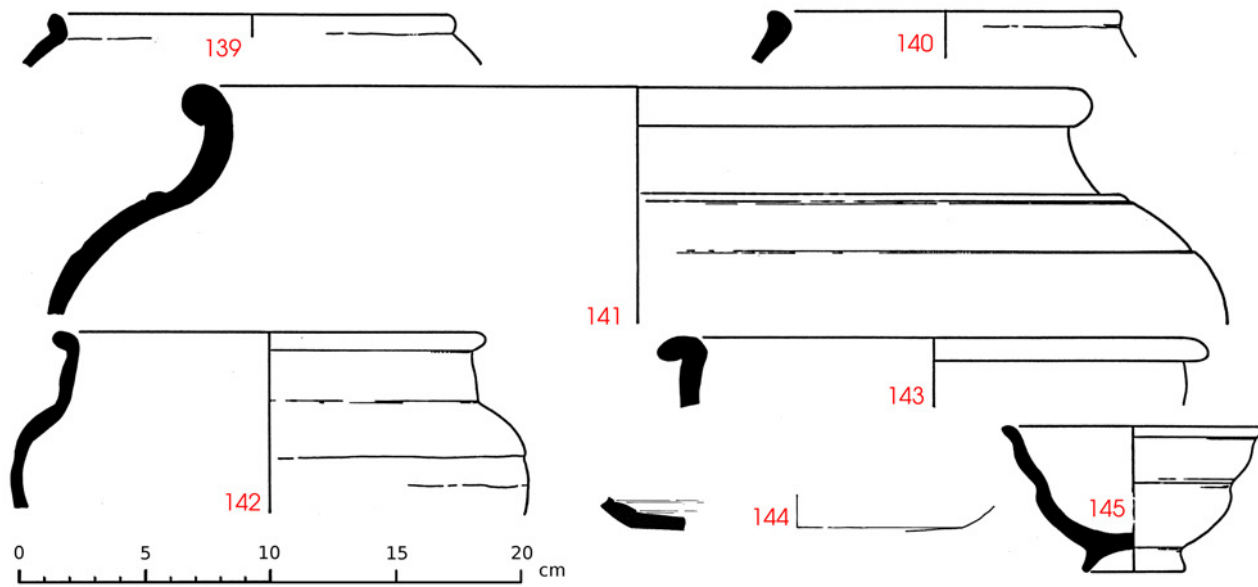


Fig. 69. Highgate Wood: 2 (1) iv: local pottery [1:3]



## 6.9. Phase 2 (2) i : Kiln 7

**Excavation report** See p.15.

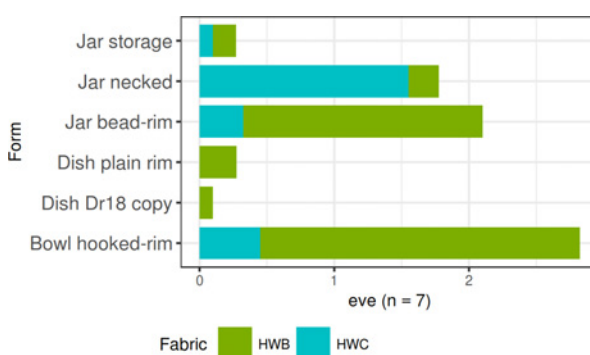
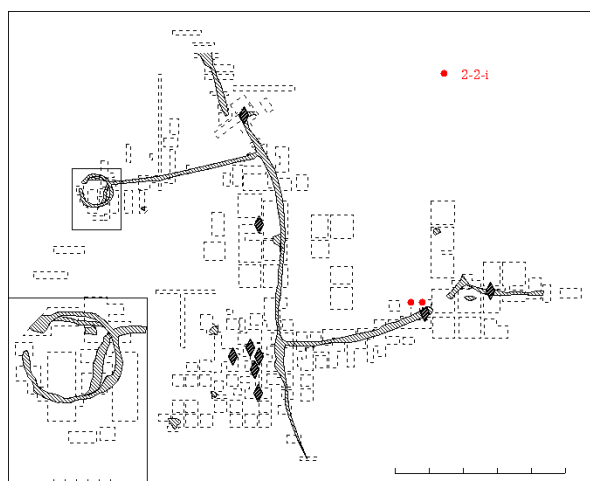
**Local pottery** A substantial group, largely of HWB, and dominated by hooked-rim bowls, bead-rim jars and necked jars. The bowls include both of the variants similar to the assemblage from kiln 6 including a large specimen decorated with incised wavy-line decoration on the body.

The group also includes a large shallow vessel with a broad, hooked flange attached to the outer wall 174. There are keying marks along the wall where the flange is attached. This vessel is discussed in Chapter 12 (p.287).

**Non-local pottery** The group includes fragments of a number of samian vessels, ranging from pre-Flavian through to the early second century in date, and a few sherd of VRW flagons.

CONTEXT	FABRIC	FORM	REF.	COMMENT
T87F1	SAM-CG	Dr18/31	71/RP2	Early-2nd c.
T85F1L1	SAM-SG		71/RP149	
T87SEF1L2	SAM-SG		71/RP56	1st c.
T87SEF1L2	SAM-SG	Cu11	71/RP60	Flavian-Trajanic
T85F1	SAM-SG	Dr24/25	70/RP78	Pre-Flavian
T87F1L1	SAM-SG	Dr27	71/RP8	Flavian-Trajanic
T87SEF1L1	SAM-SG	Dr27	71/RP80	burnt
T87SEF1L2	SAM-SG	Dr27	71/RP57	Flavian
T87F1L1	VRW			
T87F1L1	VRW	IA	X1274	v. abraded
T85F1	VRW	IB	GM411	

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
146	70	T85F1	HWB	H496	
147	70	T85F4L2	HWB	H502	
148	70	T85F1	HWB	H498	
149	70	T85F4L2	HWB	H497	
150	70	T85F4L2	HWB	H499	
151	70	T85F4L1	HWB	H503	
152	70	T85F4L2	HWB/C	H501	
153	70	T85F4L3	HWB	H500	
154	70	T85F4L4	HWB	H508	
155	70	T85F1	HWB	H506	
156	70	T85F4L2	HWB	H507	
157	70	T85F1	HWB	H511	
158	70	T85F1	HWB	H509	
159	70	T85F4L6	HWB	X974	
160	70	T85F1	HWB	H504	
161	70	T85F4L2	HWB	H505	
162	70	T85F4L2	HWB	H515	
163	70	T85F1	HWB	H513	
164	70	T85F1	HWB	H510	
165	70	T85F1	HWB	H514	
166	70	T85F1	HWB	H512	



FABRIC	EVE	WEIGHT (G)
HW	.	10880
HWB	5.12	1708
HWC	2.32	380
Total	7.44	12968

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
167	70	T85F1	HWB	H521	
168	70	T85F1	HWB	H522	
169	71	T85F1	HWB	H518	cf. Dr15/17 dish
170	71	T85F4L2	HWB	H519	cf. Dr18 dish
171	71	T85F1	HWB	H520	
172	71	T85F1	HWB	H517	dish
173	71	T85F4L3	HWB	H516	dish
174	71	T85F1/	HWB	H523	
		T85F4L2			
175	71	T85F1L2	HWB	GM423	collared lid
176	72	T87F1L1	HWB	H524	
177	72	T87F1L1	HWB	H526	
178	72	T87F1L1	HWB	H527	
179	72	T87F1L1	HWB	H525	
180	72	T87F1L1	HWB	H528	
181	72	T87F1L1	HWB	71/SF14	foot
182	72	T87F1L2	HWB	H531	
183	72	T87F1L2	HWC	H529	
184	72	T87F1L2	HWC	H530	
185	72	T87F1L2	HWC	H536	
186	72	T87F1L2	HWB	H534	
187	72	T87F1L2	HWC	H533	
188	72	T87F1L2	HWC	H532	
189	72	T87F1L2	HWC	H535	

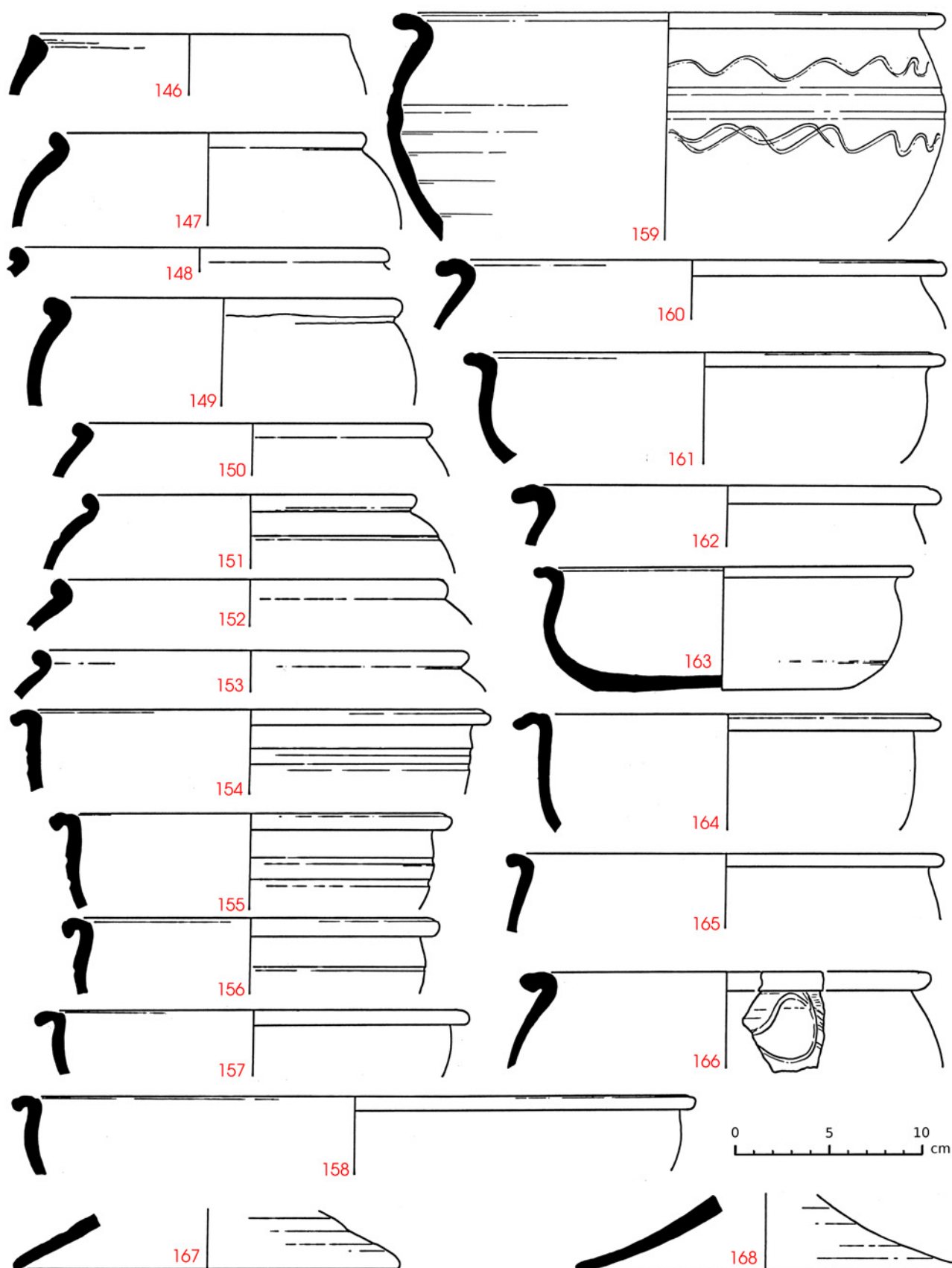


Fig. 70. Highgate Wood: 2 (2) i: local pottery [1:3]

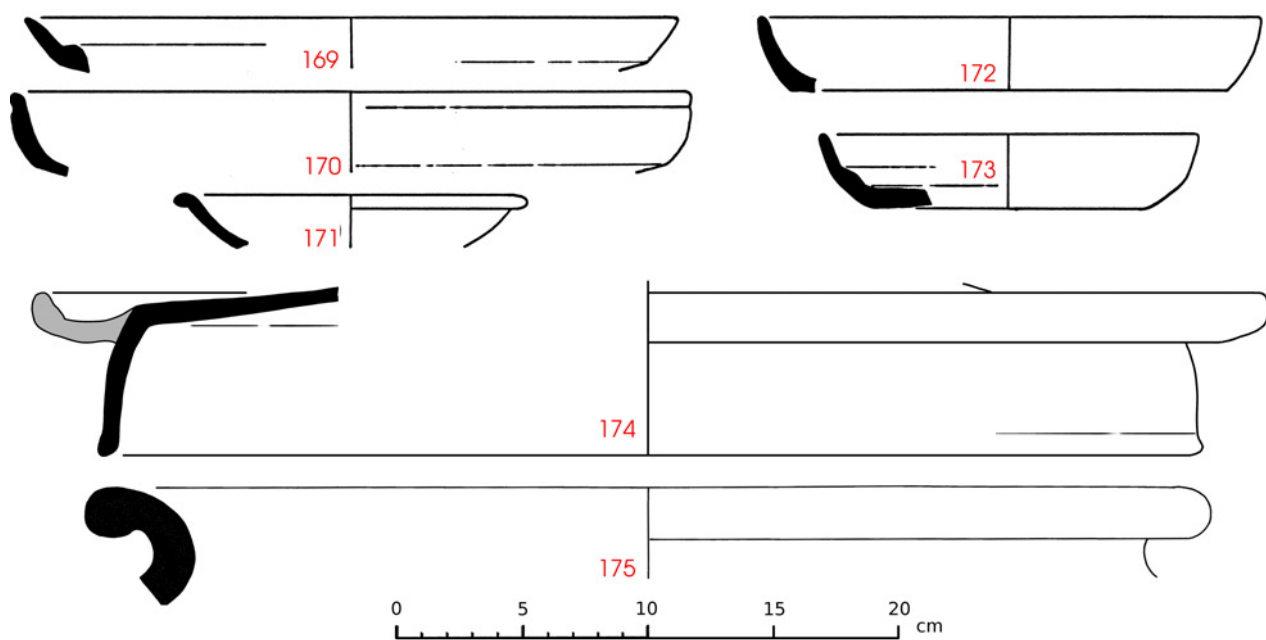


Fig. 71. Highgate Wood: 2 (2) i: local pottery [1:3]

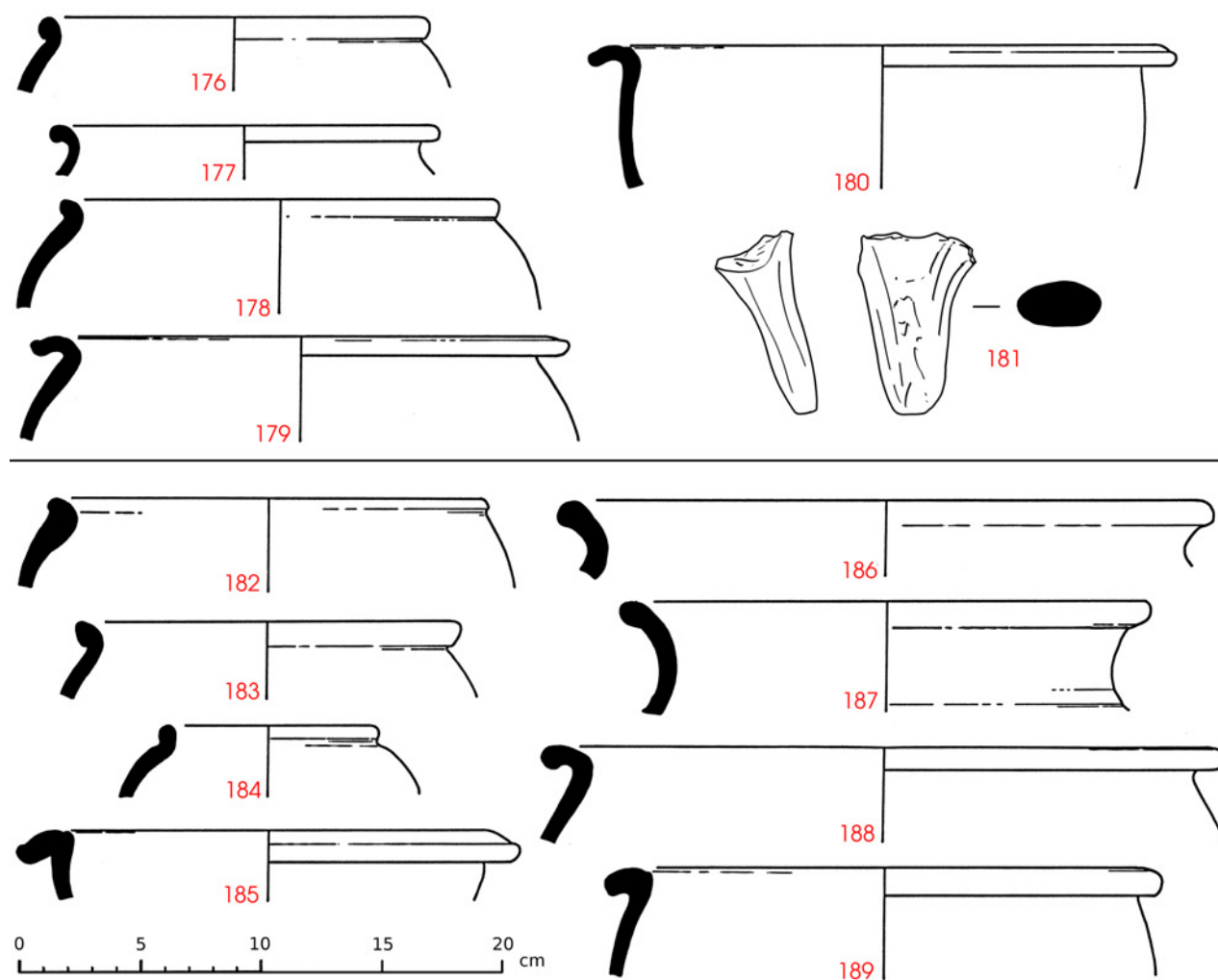


Fig. 72. Highgate Wood: 2 (2) i: local pottery [1:3]

## 6.10. Phase 2 (2) ii : Layers in Ditch 2 associated with the operation of Kiln 7

**Excavation report** See p.16.

**Local pottery** The small groups from the top of the feature are predominantly HWC and include bead-rim jars, necked jars and bowls, but these are all rather fragmentary. The material from the lower levels largely HWB and the forms are dominated by hooked-rim bowls and bead-rim jars.<sup>2</sup>

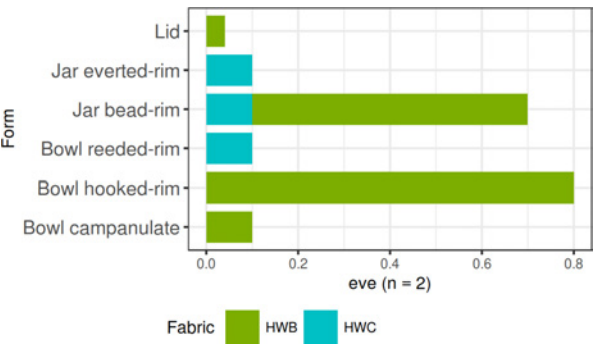
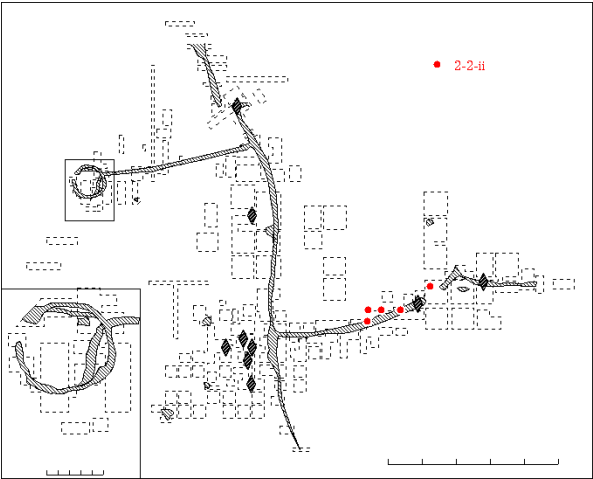
**Non-local pottery** The group includes a large sherd of VRW mortarium with a counterstamp of Oastrius (245 AD 55-80), sherds of several other VRW vessels (flagons and bowls), a ring-and-dot beaker (form IIIB1) and Central Gaulish sigillata (form Curle 11).

**Other objects** The group includes fragments of two hone stones.

CONTEXT	REF.	REPORT	DESCRIPTION
T61F1L6	69/SF208	Metal no. 123	Iron object
T95F3L1		Stone no. 12	Hone (Roman)

CONTEXT	FABRIC	FORM	REF.	COMMENT
T63F1	RDBK	IIIB1	GM335	
T65F1	SAM-CG	Cu11	70/RP2	Early-2nd c.
T63F1	VRW		H591	244
T63F1	VRW			
T63F1	VRW	I	GM363	
T95F2	VRW	I		
T95F2L3	VRW	I	GM420	242
T95F2L5	VRW	I		
T95F2	VRW	IB	X2004	243
T95F2	VRW	IVA		
T61F1L6	VRW	mortarium	GM545A	245 LUGUD AD 55-80 Oastrius counterstamp



FABRIC	EVE	WEIGHT (G)
HW	.	18225
HWB	2.14	541
HWC	0.30	250
Total	2.44	19016

<sup>2</sup>Some of the material, such as the everted-rim jar 211 from T63F1, may be intrusive in this phase.

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
190	73	T61F1L7	HWB	H564	
191	73	T61F1L7	HWB	H566	
192	73	T61F1L7	HWB	H565	
193	73	T61F1L7	HWB	H568	
194	73	T61F1L7	HWB/C	H571	
195	73	T61F1L7	HWB	H567	
196	73	T61F1L7	HWB	H569	
197	73	T61F1L7	HWB	H570	
198	73	T61F1L7	HWB	H572	
199	73	T61F1L6	HWB	69/SF211	foot
200	73	T61F1L6	HWB	H573	
201	73	T61F1L6	HWC	H578	dish
202	73	T61F1L6	HWB	H574	
203	73	T61F1L6	HWB	H575	
204	73	T61F1L6	HWB	H576	
205	73	T61F1L6	HWB	H577	
206	74	T63F1	HWB	H586	
207	74	T63F1	HWB	H583	
208	74	T63F1	HWB	H582	
209	74	T63F1	HWB	H585	
210	74	T63F1	HWB	H588	
211	74	T63F1	HWC	H587	everted rim jar
212	74	T63F1	HWB	H589	
213	74	T63F1	HWC	H584	
214	74	T63F1	HWB	H590	campanulate cup?
215	75	T95F2L7	HWB	H537	
216	75	T95F2L7	HWB	H538	
217	75	T95F2L5	HWB	H539	
218	75	T95F2L5	HWB/C	H540	
219	75	T95F2L5	HWB	H542	
220	75	T95F2L5	HWB	H543	
221	75	T95F2L5	HWB	H544	
222	75	T95F2L5	HWB	H541	
223	75	T95F2L5	HWB	H545	dish
224	75	T95F2L4	HWB	H546	
225	75	T95F2L4	HWB	H547	
226	75	T95F2L4	HWC	H549	
227	75	T95F2L4	HWB	H550	
228	75	T95F2L4	HWB	H551	
229	75	T95F2L4	HWB/C	H553	
230	75	T95F2L4	HWB	H554	
231	75	T95F2L4	HWB	H552	
232	75	T95F2L4	HWC	H548	
233	75	T95F2L4	HWB	H555	
234	75	T95F2L3	HWB	H557	
235	75	T95F2L3	HWB	H556	
236	75	T95F2L3	HWB	H559	
237	75	T95F2L3	HWB/C	H560	
238	75	T95F2L3	HWB	H558	
239	75	T95F2L3	HWB	H563	
240	75	T95F2L3	HWB	H561	part of no.174?
241	75	T95F2L3	HWB	H562	
242	76	T95F2L3	VRW	GM420	I
243	76	T95F2	VRW	X2004	IB
244	76	T63F1	VRW	H591	
245	76	T61F1L6	VRW	GM545A	AD 50-80

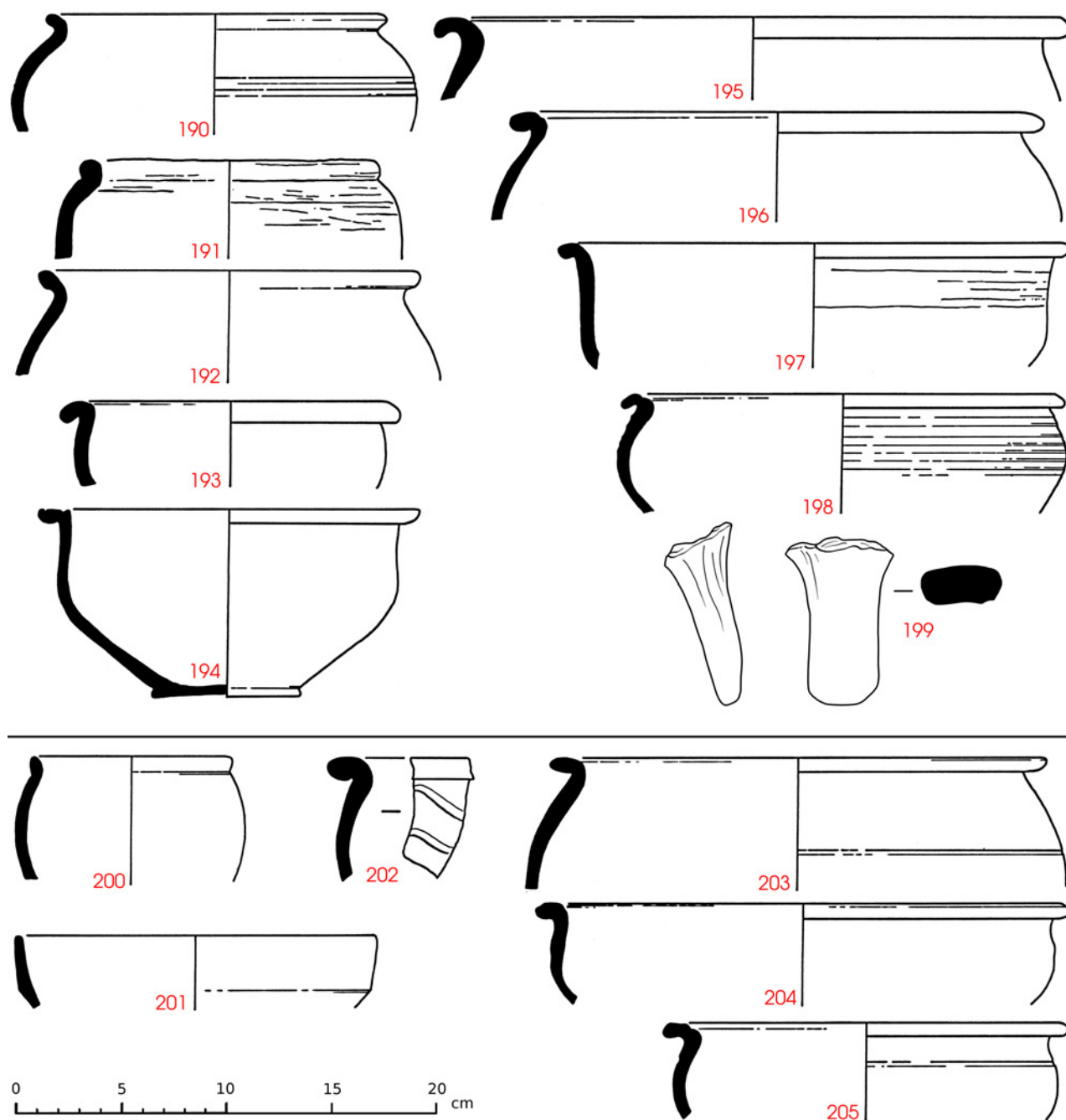


Fig. 73. Highgate Wood: 2 (2) ii: local pottery [1:3]



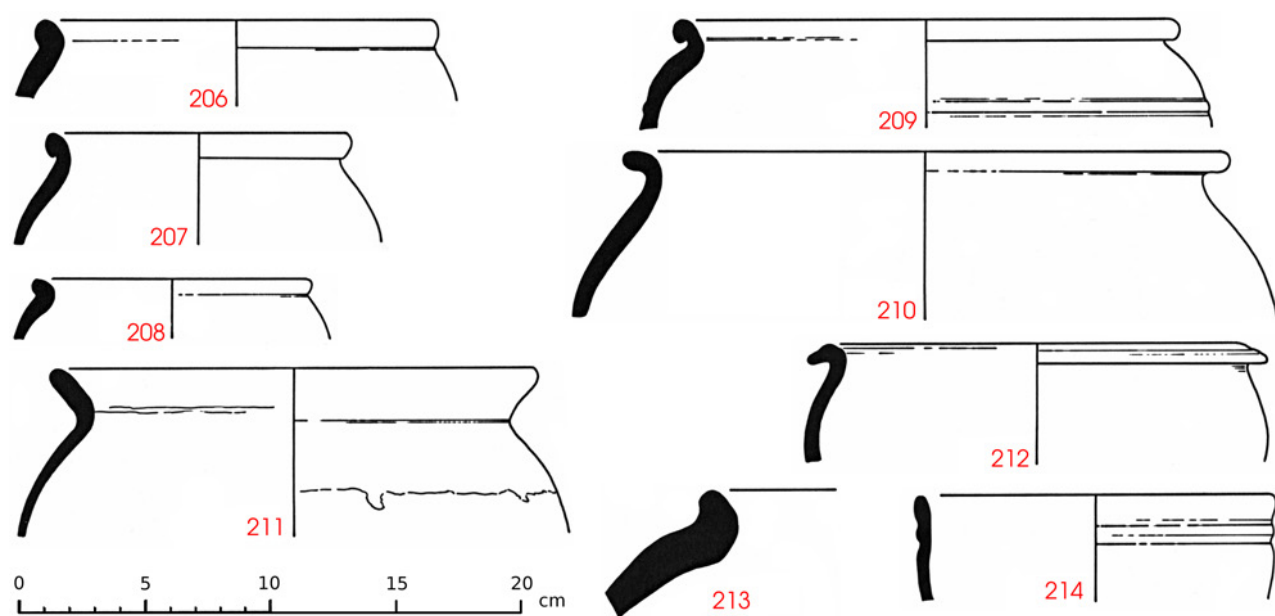


Fig. 74. Highgate Wood: 2 (2) ii: local pottery [1:3]

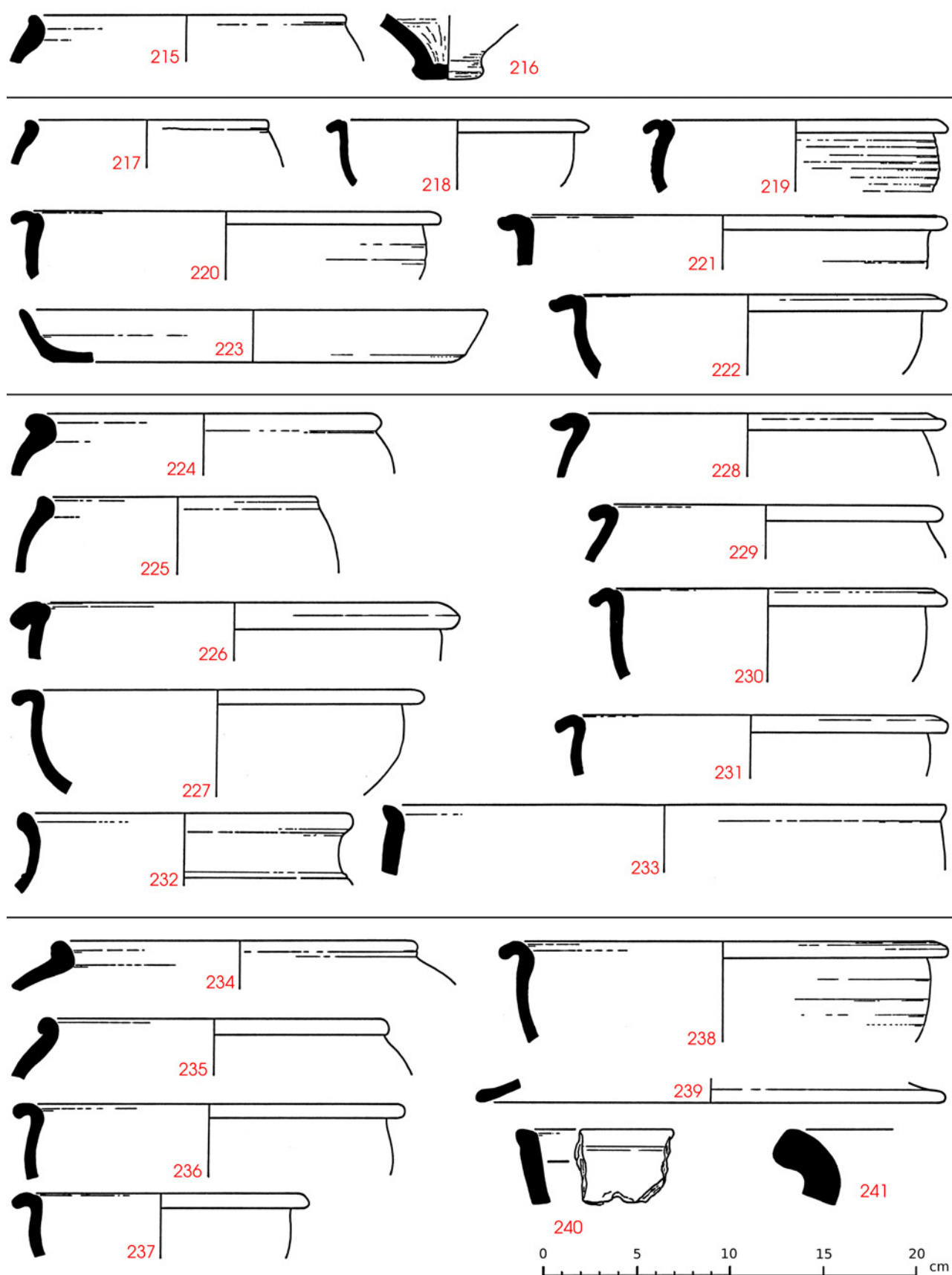


Fig. 75. Highgate Wood: 2 (2) ii: local pottery [1:3]

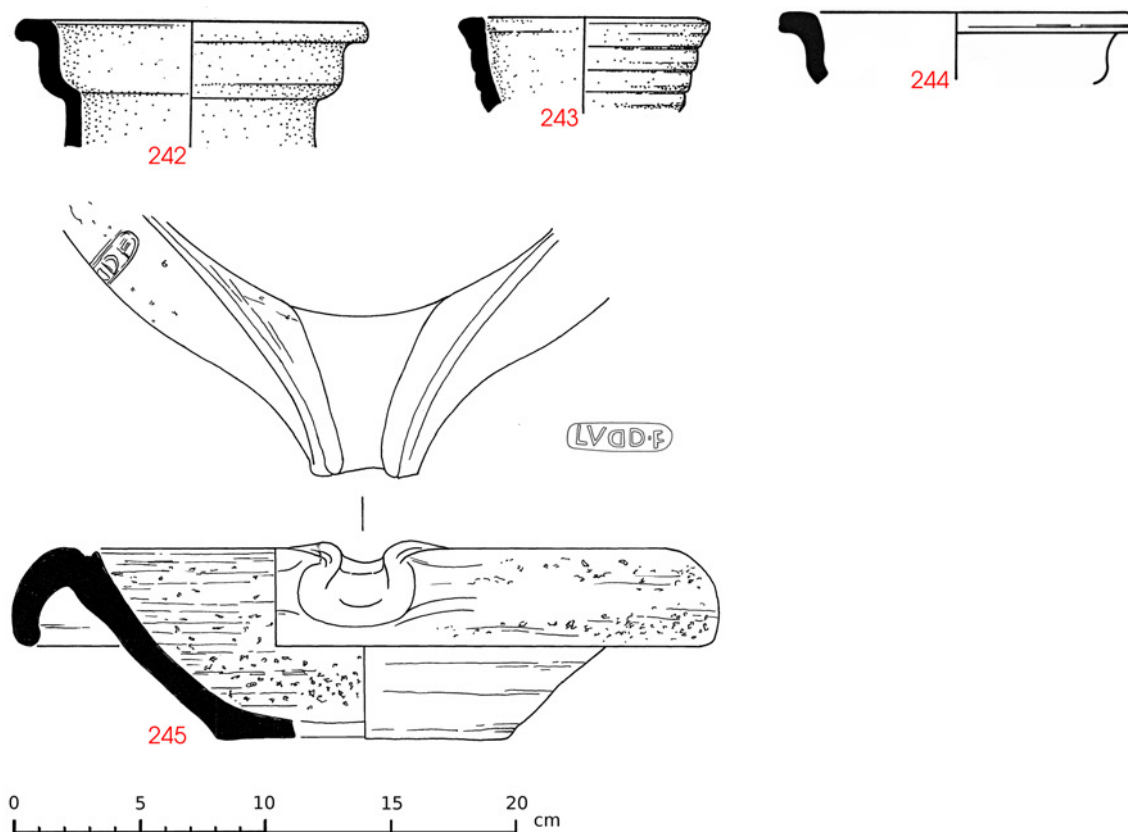


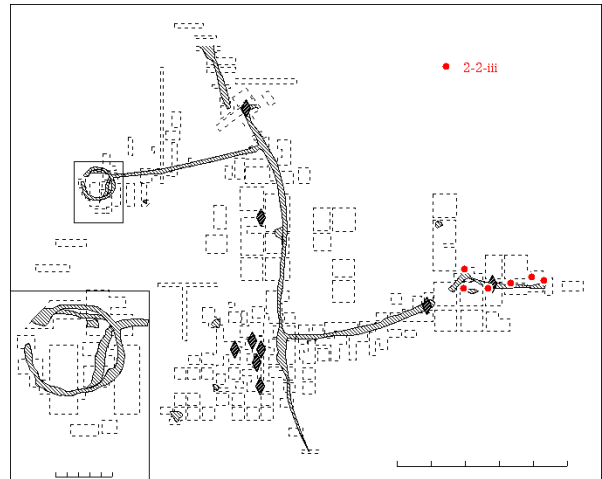
Fig. 76. Highgate Wood: 2 (2) ii: non-local pottery [1:3]

## 6.11. Phase 2 (2) iii : Ditch 3, basal layers

**Excavation report** See p.16.

**Local pottery** A group of sherds, principally HWB.  
*Not illustrated.*

CONTEXT	REF.	REPORT	DESCRIPTION
T84F1	70/SF100	Metal no. 129	Iron object
T84F1	70/SF104	Metal no. 130	Iron object



## 6.12. Phase 2 (2) iv : Clay Preparation Pit

1

Excavation report See p.16.

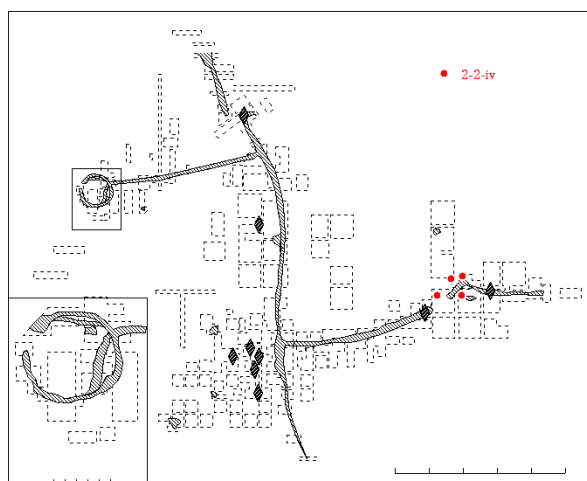
**Local pottery** A large group, but apparently very mixed in date. Some of the vessels are certainly Phase 1, notably sherds from bead-rim jars in HWA 249. The majority of the group is in HWB, and includes a number of fine examples of hooked-rim bowls with incised wavy-line decoration, as found in the vicinity of kiln 6 261-265. A raised footring in red-slipped HWBR may be the base of the campanulate cup 271. There is one butt-beaker in HWB 257 an unusual type, which could be considered as a Phase 1 rather than a Phase 2 type. In addition to these there are standard white-slipped HWC types and a number of pie-dishes 266-270. Despite this diversity of phase, there does not seem to be any clear stratigraphy within the feature.

**Non-local pottery** The group also includes a number of large sherds from a Dressel 20 amphora (c. 8.7kg), over 1kg of tile, several samian sherds, one decorated, dated to the early second century and sherds of a mortaria in a red ware with a white or cream slip, dated AD 110-140 274.

CONTEXT	REF.	REPORT	DESCRIPTION
T82F1a	70/SF74	Metal no. 125	Iron object
T98F1	71/SF219	Stone no. 13	Quern (Sandstone)

CONTEXT	FABRIC	FORM	REF.	COMMENT
T82F1	AMPH	Dressel 20		
T82F1A	AMPH	Dressel 20		
T65F2	RWS	I	GM406	273 cf BHWS/silty
T82F1	RWS	mortarium	GM544	274 AD 110-140
T82F1A	RWS	mortarium	GM543	274 AD 110-140
T82F1B	SAM-CG		70/RP57	Early-2nd c.
T82F1	SAM-CG	Dr18/31	70/RP46	Early-2nd c.
T82F1	SAM-CG	Dr18/31	70/RP56	Early-2nd c., fragmentary edge of stamp, not identifiable
T82F1	SAM-CG	Dr18/31	70/RP54	Early-2nd c.
T82F1B	SAM-CG	Dr18/31	70/RP59	Early-2nd c.
T82F1A	SAM-CG	Dr37	70/RP62	Decorated no.21, AD 100-125
T82F1A	SAM-SG		70/RP93	1st c.
T82NF1B	SAM-SG		70/RP95	1st c.
T65F2	SAM-SG	cup	70/RP12	1st c.
T65F2	VRW	mortarium	GM403	AD 55-90 burnt
T82NF1	VRW	mortarium	70/RP90	OASTRIUS AD 55-80 v.worn



No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
246	77	T82F1A	HWA	H451	
247	77	T82F1	HWA	H452	
248	77	T82F1A	HWA	H453	
249	77	T82F1A	HWA	H454	phase 1
250	77	T82F1A	HWB	H455	
251	77	T82F1A	HWB	H461	
252	77	T82F1A	HWC	H460	
253	77	T82F1	HWB/C	H459	
254	77	T82F1A	HWB	H456	
255	77	T82F1A	HWC	H458	
256	77	T82F1A	HWC	H457	
257	77	T82F1A	HWB	H462	phase 1? Butt-beaker
258	77	T82F1A	HWB	H464	
259	77	T82F1	HWB	H470	
260	77	T82F1A	HWB	H463	
261	77	T82F1A	HWB	H465	
262	77	T82F1A	HWB	H466	
263	77	T82F1B	HWB	H467	
264	77	T82F1A	HWB	H468	
265	77	T82F1A	HWB	H469	
266	77	T82F1A	HWC	H471	BB2 pie dish
267	77	T82F1B	HWC	H473	BB2 pie dish
268	77	T82F1A	HWC	H475	
269	77	T82F1A	HWC	H472	
270	77	T82F1	HWC	H474	
271	77	T82F1	HWB	H477	pedestal base
272	77	T82F1A	HWC	H476	
273	78	T65F2	RWS	GM406	1 cf. BHWS/silty
274	78	T82F1	RWS	GM544	AD 110-140
274	78	T82F1A	RWS	GM543	AD 110-140

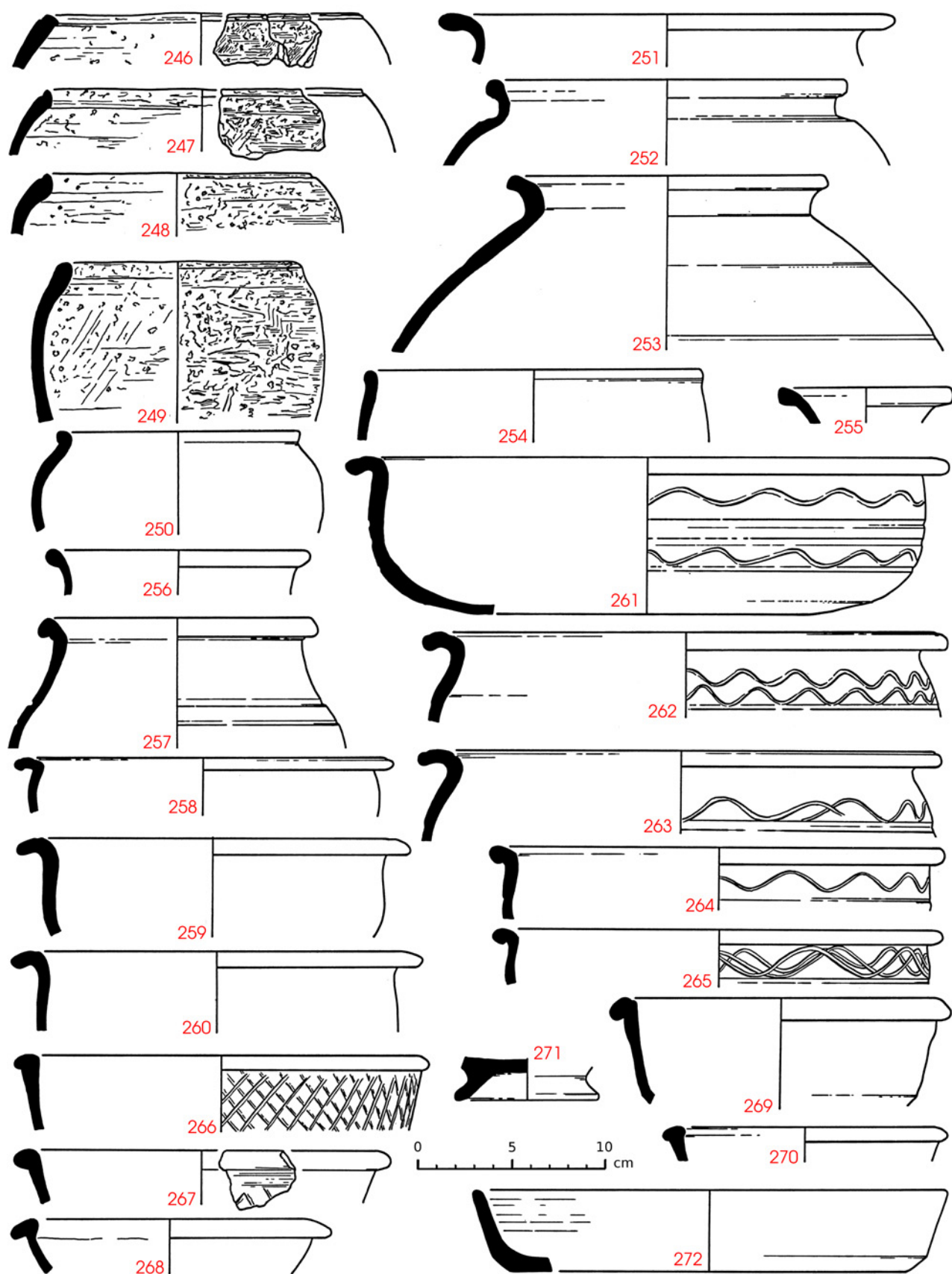


Fig. 77. Highgate Wood: 2 (2) iv: local pottery [1:3]



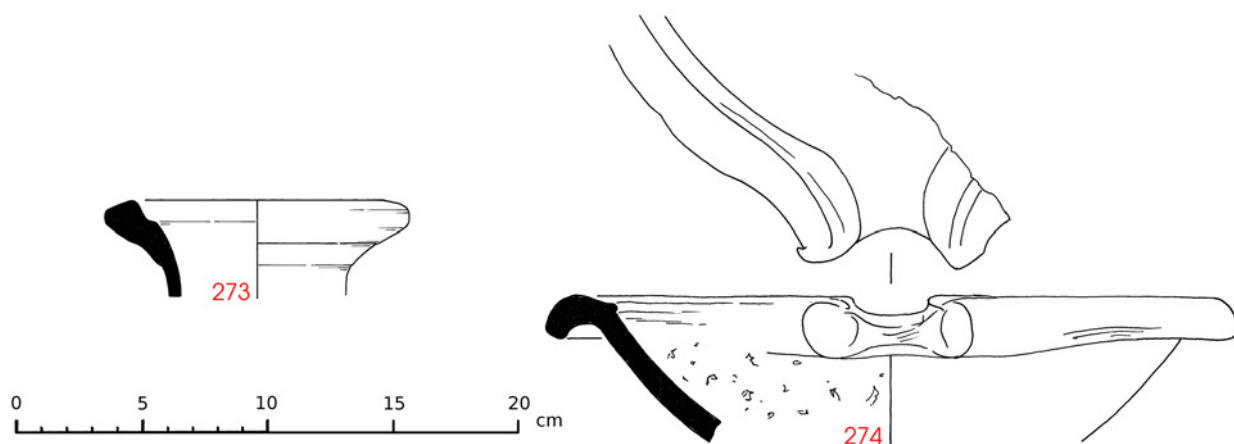


Fig. 78. Highgate Wood: 2 (2) iv: non-local pottery [1:3]

### 6.13. Phase 2 (2) v : Kiln 6

**Excavation report** See p.16.

**Local pottery** The substantial group of HWB from this group is dominated by hooked-rim bowls, of which there are two distinct varieties. The first has a strongly hooked rim, a rounded body, usually a pair of horizontal grooves near the girth, with incised wavy lines above and below 287-293, 300-304. The second is usually of smaller diameter, has a pair of horizontal grooves on the upper body, and the rim is folded out and thickened, with a single groove or slight angle on the inner lip 294-299, 307-313.

The sherd 317 with traces of keying marks is likely to be part of the large flanged vessel from phase 2-2-i (174), though it does not join. See also Chapter 12 (p.287).

**Non-local pottery** A few sherds of Central Gaulish samian (early 2<sup>nd</sup> cent. AD) and a VRW sherd.

CONTEXT	REF.	REPORT	DESCRIPTION
T70F1	70/SF21	Metal no. 124	Iron object

CONTEXT	FABRIC	FORM	REF.	COMMENT
T70F1	GREY			
T70F1	SAM-CG		70/RP5	2nd c.
T70F1	SAM-CG	Dr18/31	70/RP4	Early-2nd c.
T70F1	VRW	I		
T70F1	VRW	IJ?	X2042	325



FABRIC	EVE	WEIGHT (G)
HW	.	9999
HWB	7.67	3710
HWC	6.30	510
Total	13.97	14219

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
275	79	T70F1	HWB	H415	
276	79	T70F1	HWB	H418	
277	79	T70F1	HWB	H417	
278	79	T70F1	HWB	H416	
279	79	T70F1	HWB	X2017	
280	79	T70F1	HWB	X2018	
281	79	T70F1	HWB	X2019	
282	79	T70F1	HWB	X2020	
283	79	T70F1	HWB	X2021	
284	79	T70F1	HWB	X2022	
285	79	T70F1	HWB	X2023	
286	79	T70F1	HWB	X2024	
287	79	T70F1	HWB	H429	
288	79	T70F1	HWB	X2025	
289	79	T70F1	HWB	H423	
290	79	T70F1	HWB	H425	
291	79	T70F1	HWB	H424	
292	79	T70F1	HWB	X2026	
293	79	T70F1	HWB	H422	
294	79	T70F1	HWB	H437	
295	79	T70F1	HWB	X2027	
296	79	T70F1	HWB	X2028	
297	79	T70F1	HWB	H435	
298	79	T70F1	HWB	H436	
299	79	T70F1	HWB	H434	
300	80	T70F1	HWB	X2029	
301	80	T70F1	HWB	H421	
302	80	T70F1	HWB	X2030	
303	80	T70F1	HWB	H420	
304	80	T70F1	HWB	H419	
305	80	T70F1	HWB	H427	
306	80	T70F1	HWC	H428	
307	80	T70F1	HWB	X2031	
308	80	T70F1	HWB	H433	
309	80	T70F1	HWB	H432	
310	80	T70F1	HWB	H426	
311	80	T70F1	HWB	X2032	
312	80	T70F1	HWB	H431	
313	80	T70F1	HWB	H430	
314	80	T70F1	HWB	H439	
315	80	T70F1	HWB	X2033	
316	80	T70F1	HWC	H438	
317	80	T70F1	HWB	X2034	
318	80	T70F1	HWB	X2035	cf. Dr18 dish
319	80	T70F1	HWB	X2036	campanulate bowl
320	80	T70F1	HWB	X2037	
321	80	T70F1	HWB	X2038	
322	80	T70F1	HWB	X2039	
323	80	T70F1	HWB	X2040	
324	80	T70F1	HWB	X2041	
325	81	T70F1	VRW	X2042	IJ?

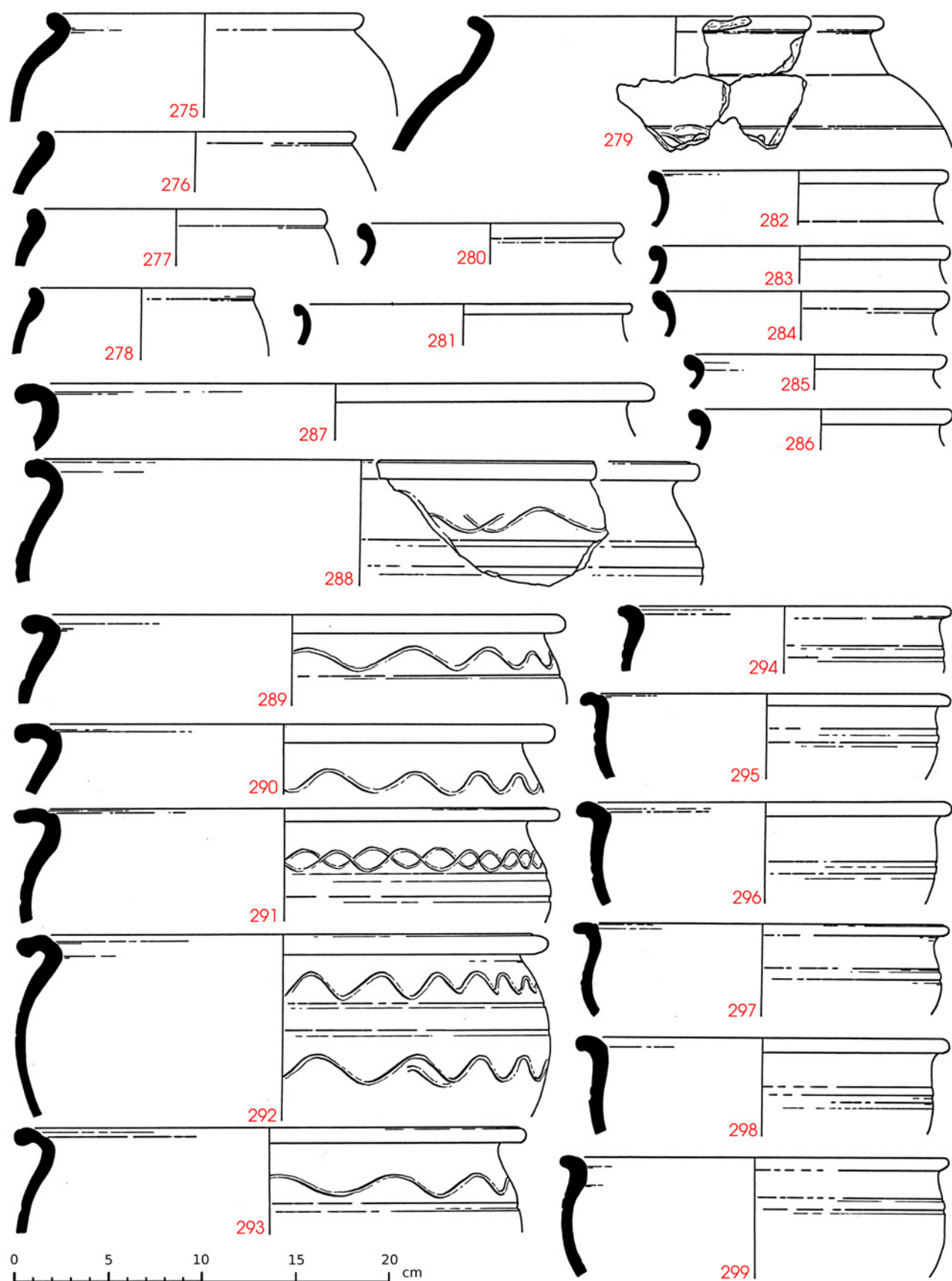


Fig. 79. Highgate Wood: 2 (2) v: local pottery [1:3]

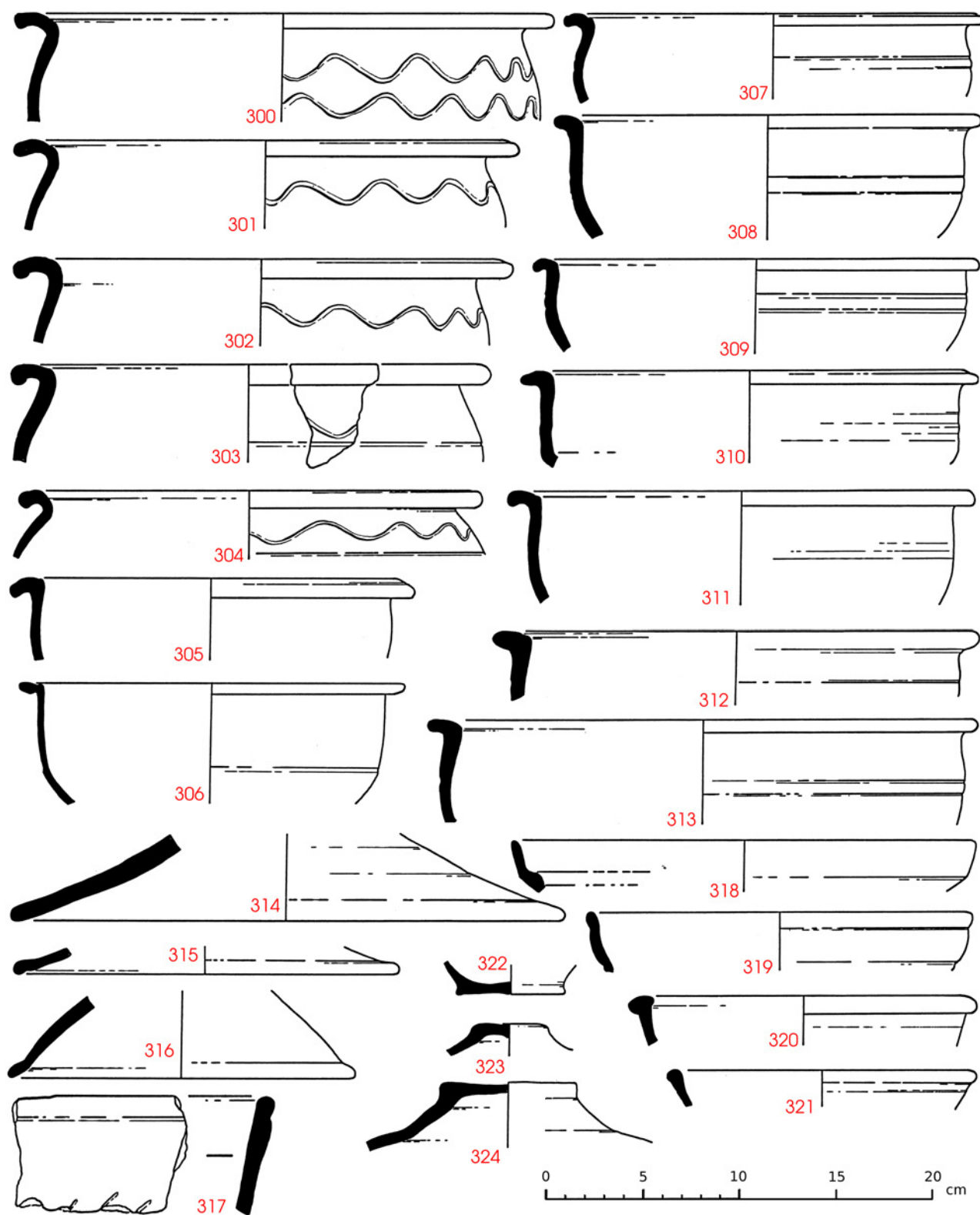


Fig. 80. Highgate Wood: 2 (2) v: local pottery [1:3]

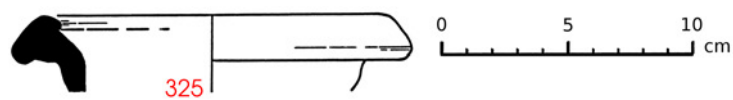


Fig. 81. Highgate Wood: 2 (2) v: non-local pottery [1:3]

# 6.14. Phase 2 (2) vi : Contexts in Ditch 3 associated with operation of Kiln 6

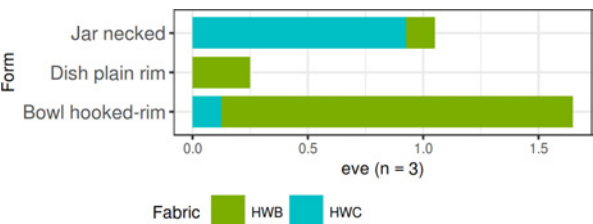
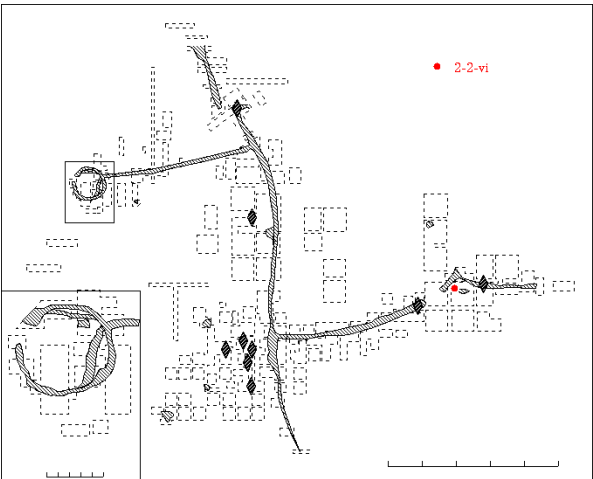
Excavation report See p.22.

**Local pottery** A small group of HWB, including a number of bowls with incised decoration 329-334 similar to those in the adjacent Kiln 6 (phase 2-2-v).

**Non-local pottery** A few sherds of VRW.

CONTEXT	FABRIC	FORM	REF.	COMMENT
T69F1	VRW			

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
326	82	T69F1	HWB	H442	
327	82	T69F1	HWB	H441	
328	82	T69F1	HWC	H440	
329	82	T69F1	HWB	H443	
330	82	T69F1	HWB	H444	
331	82	T69F1	HWB	H445	
332	82	T69F1	HWB	H446	
333	82	T69F1	HWB	H447	
334	82	T69F1	HWB	H448	
335	82	T69F1	HWB	H449	dish



FABRIC	EVE	WEIGHT (G)
HW	.	2870
HWB	2.02	660
HWC	0.92	60
Total	2.95	3590

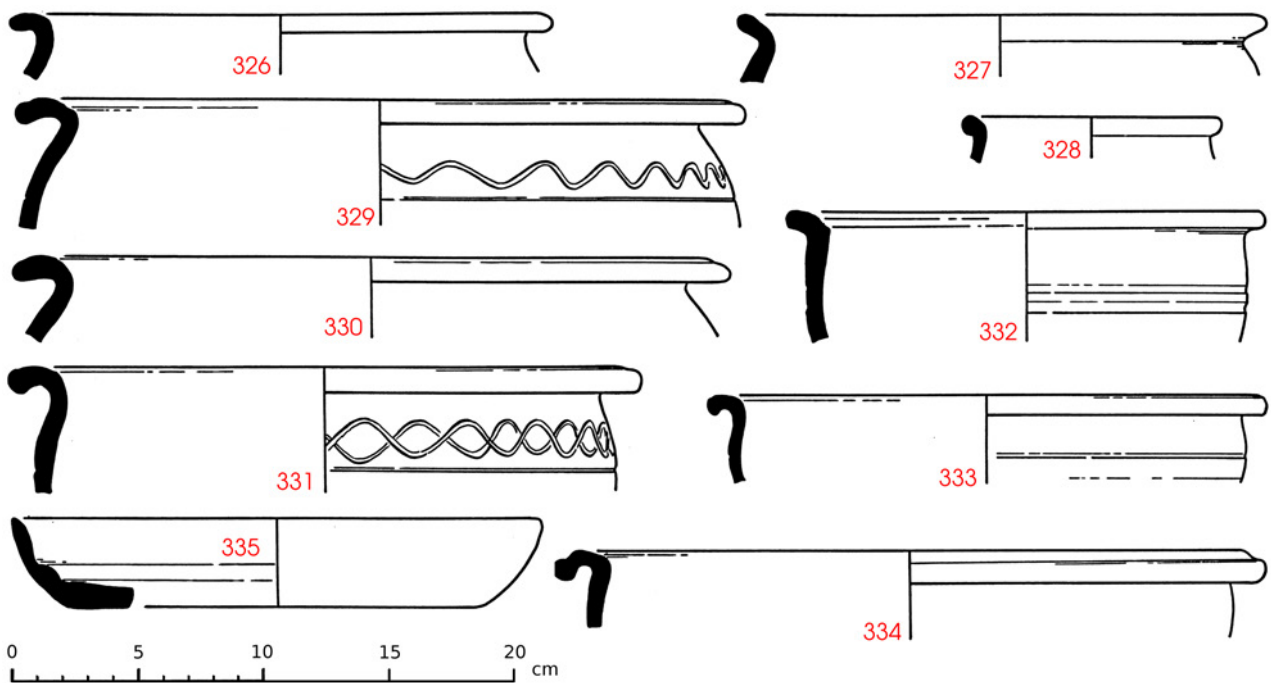


Fig. 82. Highgate Wood: 2 (2) vi: local pottery [1:3]

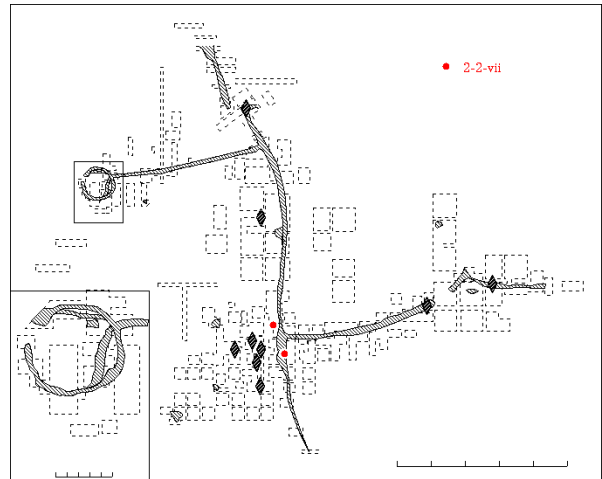


### 6.15. Phase 2 (2) vii : Basal layers, Ditch 2 west of Trench 61

Excavation report See p.22.

**Local pottery** A small group (< 250g) including  
sherds of both HWB and HWC.

*Not illustrated.*



## 6.16. Phase 2 (2) viii : Structure north of Ditch 3 ,Trenches 66 and 67

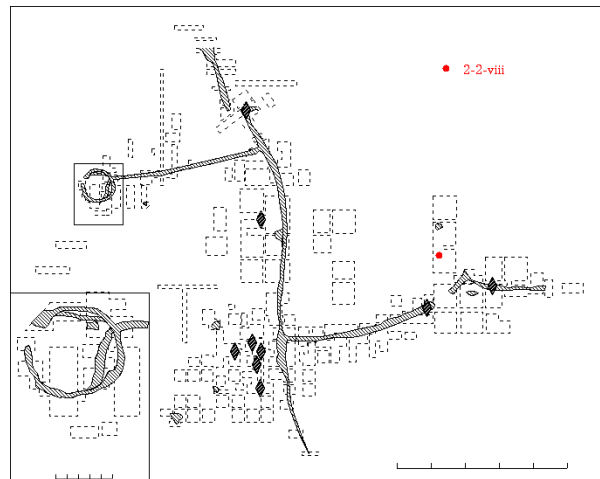
**Excavation report** See p.22.

**Local pottery** A small group (< 60g) of HWB and HWC sherds.

*Not illustrated.*

**Non-local pottery** A single sherd of South Gaulish sigillata.

CONTEXT	FABRIC	FORM	REF.	COMMENT
T66F1	SAM-SG		70/RP21	1st c.



### 6.17. Phase 2 (3 South) i : Ditch 2, West of Trench 61

Excavation report See p.23.

**Local pottery** A substantial group of material, which is predominantly HWC, but also some HWB forms (including specimens of the red-surfaced wares 427, 429). This is a mixed group, including later elements such as black-burnished derived pie-dishes and jars 355, 409, 437-8. The more unusual items include a handle from a dish or bowl 380. The HWB material includes a foot from a tripod bowl 376<sup>3</sup>.

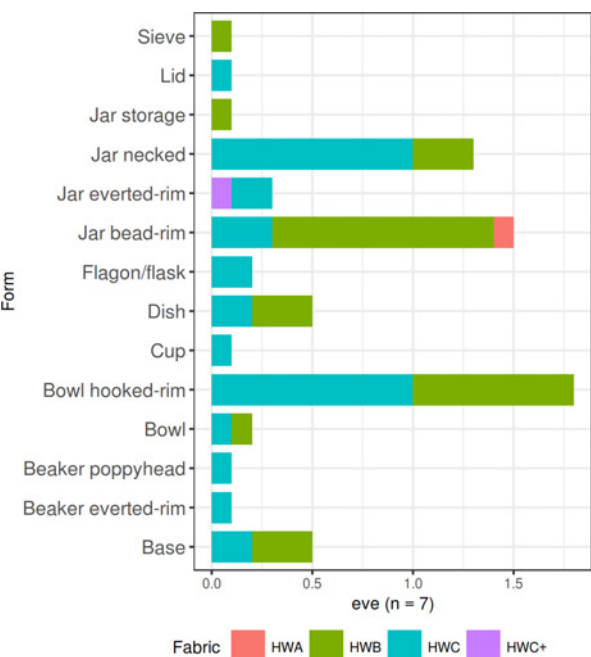
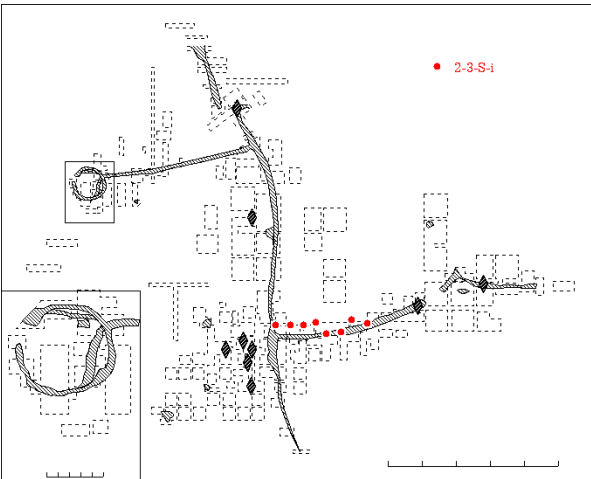
**Non-local pottery** There is a particularly wide range, and large number, of non-local sherds in this group.

The VRW includes a mortarium with a counterstamp of Moricamulus (443 AD 70-110), a second mortarium fragment (dated AD 50-80), and sherds of several flagons and a bowl. The samian ware includes South Gaulish Drag. 15/17, 18, 27 and 30 (1<sup>st</sup> century) and Central Gaulish Drag. 18/31 (early 2<sup>nd</sup> century).

Other non-local fabrics represented include London ware, Hoo ware, ring-and-dot beakers and imported Central Gaulish colour-coated ware.

**Other objects** The group includes fragments of four copper brooches, a pin and a mount (?), several iron nails, several fragments of Roman glass including an unguent-bottle, a small collection of animal bone, five fragments of a human skull and a large group of Roman tile.

The wide range of non-Highgate vessels and other non-ceramic material suggests the presence of domestic refuse dumped in the ditch.



FABRIC	EVE	WEIGHT (G)
HW	0.10	67159
HWA	0.10	.
HWB	3.70	3349
HWC	3.80	6465
HWC+	0.10	310
Total	7.80	77283

<sup>3</sup>Item 376 is also illustrated in the report on baked clay by A E Brown, where it is interpreted as a foot intended for attachment to the body of a vessel, but used as an aid to stacking pottery in the kiln (Report on Baked Clay Objects, p.330, Section 15.8, no. 11, and Fig. 205, no.11).

CONTEXT	REF.	REPORT	DESCRIPTION	CONTEXT	FABRIC	FORM	REF.	COMMENT
T43F1		Biological remains no. 1	Human bone fragments	T43F1	CGOF	beaker	GM290	roughcast
T43F1	69/SF190	Glass no. 33	Fragment from the neck and body of unguent-bottle	T60F1L2	GREY		GM376	fine combed dec; non-local?
				T60F1L2	GREY	flask?	GM384	wavy combed decoration; non local?
T43F1	69/SF178	Metal no. 17	Fragment (pin?)					
T43F1	69/SF160	Metal no. 121	Iron object	T43F1	HOO		GM332	
T52F1	69/SF131	Metal no. 120	Iron object	T43F1	LOND	flask	GM308	
T52F1	69/SF174	Metal no. 122	Iron object	T52F1	LOND	flask?	GM328	shoulder from flask
T60F1	69/SF180	Glass no. 24	Open-folded base of jug or bowl	T60F1L2	RDBK	III or I	GM371	
T60F1	69/SF218	Metal no. 12	Brooch	T43F1	RDBK	IIIB1	GM339	
T61F1	69/SF173	Metal no. 1	Brooch	T43F1	RDBK	IIIB1	GM307	
T61F1L1	69/SF186	Metal no. 18	Fragment of key or mount	T60F1L2	RDBK	IIIB1	GM267	
T76F4	70/SF97	Metal no. 10	Brooch	T60F1	SAM-CG	Dr18/31	69/RP191	Early-mid 2nd c.
T76F4	70/SF70	Metal no. 13	Brooch	T76F4	SAM-CG	Dr18/31	70/RP60	Early-mid 2nd c.
T96F1	71/SF89	Metal no. 131	Iron object	T60F1	SAM-SG		69/RP168	1st c.
				T60F1L2	SAM-SG		69/RP219	
				T60F1L2	SAM-SG		69/RP215	
				T76F4	SAM-SG		70/RP58	1st c.
				T76F4	SAM-SG		70/RP35	1st c.
				T76F4L2	SAM-SG	Dr15/17	70/RP71	Pre- or early Flavian
				T76F4L2	SAM-SG	Dr15/17	70/RP73	Pre-Flavian
				T43F1	SAM-SG	Dr18	69/RP138	Flavian
				T60F1L2	SAM-SG	Dr18	69/RP219	Pre- or early Flavian, burnt
				T60F1L2	SAM-SG	Dr18	69/RP225	Flavian
				T60F1L2	SAM-SG	Dr18	69/RP220	Flavian
				T96F1	SAM-SG	Dr18	71/RP71	1st c.
				T76F4	SAM-SG	Dr27	70/RP82	Flavian
				T43F1	SAM-SG	Dr30	69/RP131	Pre- or early Flavian, edge of ovolo?
				T43F1	SAM-SG	Dr30	69/RP143	Pre- or early Flavian
				T43F1	SAM-SG	Dr30	69/RP184	Decorated no.3, AD 70-85
				T52F1	SAND	jar	X1277	
				T52F1	VRW		GM296	
				T76F4	VRW			
				T76F4L2	VRW			
				T52F1	VRW	bowl	GM293	442
				T43F1	VRW	I	GM333	
				T52F1	VRW	I	GM326	
				T52F1	VRW	I		
				T54F1	VRW	I	GM302	441
				T54F1	VRW	I	GM323	
				T77F1	VRW	I		
				T60F1L2	VRW	IB	GM361	440
				T52F1	VRW	II?	GM358	
				T77F1	VRW	mortarium		
				T77F1	VRW	mortarium	GM527	AD 55-80 spout
				T96F1	VRW	mortarium	GM522	443 MORICA-MULUS AD 70-110

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT	No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
336	83	T43F1	HWC	H632		395	87	T76F4	HWB	H621	
337	83	T43F1	HWC	H633		396	87	T76F4	HWB/C	H622	
338	83	T43F1	HWC	H634		397	87	T76F4L2	HWC	H623	
339	83	T43F1	HWC	H636		398	87	T76F4L2	HWC	H625	
340	83	T43F1	HWC	H635		399	87	T76F4L2	HWC	H626	
341	83	T43F1	HWC	H640		400	87	T76F4L2	HWC	H627	
342	83	T43F1	HWB	H644		401	87	T76F4L2	HWC	H624	
343	83	T43F1	HWB	H639		402	87	T76F4L2	HWC	H631	
344	83	T43F1	HWC	H641		403	87	T76F4L2	HWC	H629	
345	83	T43F1	HWC	H642		404	87	T76F4L2	HWC	H630	
346	83	T43F1	HWB	H638		405	87	T76F4L2	HWC	H628	
347	83	T43F1	HWB	H651		406	88	T96F1	HWB	X985	
348	83	T43F1	HWB	H650		407	88	T96F1	HWB	X984	
349	83	T43F1	HWB	H645		408	88	T96F1	HWC	X988	
350	83	T43F1	HWB	H649		409	88	T96F1	HWC	X989	
351	83	T43F1	HWB	H648		410	88	T96F1	HWC	X997	
352	83	T43F1	HWB	H643		411	88	T96F1	HWC	X994	
353	83	T43F1	HWB	H647		412	88	T96F1	HWB	X993	
354	83	T43F1	HWB	H646		413	88	T96F1	HWB/C	X1001	
355	84	T43F1	HWC	H653	plain pie dish?	414	88	T96F1	HWB	X986	
356	84	T43F1	HWC	H637		415	88	T96F1	HWB	X976	
357	84	T43F1	HWC	H654		416	88	T96F1	HWB	X977	
358	84	T43F1	HWB	H655		417	88	T96F1	HWC	X978	
359	84	T43F1	HWC	H652		418	88	T96F1	HWC	X979	
360	84	T43F1	HWC	H656		419	88	T96F1	HWB	X995	large bowl
361	85	T60F1L3	HWB	H592		420	88	T96F1	HWC	X992	
362	85	T60F1L2	HWB	H593		421	88	T96F1	HWC	X982	
363	85	T60F1L2	HWB	H594		422	88	T96F1	HWC	X987	
364	85	T60F1L3	HWB	H595		423	88	T96F1	HWB	X996	
365	85	T60F1L2	HWC	H599		424	88	T96F1	HWC	X991	cf. Dr27 cup
366	85	T60F1L2	HWC	H598		425	88	T96F1	HWB	X980	
367	85	T60F1L2	HWB	H600		426	88	T96F1	HWB	X1000	
368	85	T60F1L2/ T60F1L3	HWC	H596		427	88	T96F1	HWBR	X999	red surface cup?
369	85	T60F1L3	HWC	H597		428	88	T96F1	HWC	X983	
370	85	T60F1L2	HWB	H605		429	88	T96F1	HWBR	X990	red surface cf. Dr15/17
371	85	T60F1L2	HWC	H606		430	88	T96F1	HWC	X981	
372	85	T60F1L2	HWC	H601		431	88	T96F1	HWB	X998	
373	85	T60F1L2	HWB	H604		432	88	T96F1	HWB	X975	
374	85	T60F1L2	HWB	H602		433	88	T96SWF1	HWA	X1003	not phase 1
375	85	T60F1L2	HWB	H603		434	88	T96SWF1	HWB	X1005	slightly vesicular
376	85	T60F2	HWB	69/SF215	foot	435	88	T96SWF1	HWC	X1004	
377	86	T61F1L5	HWC	H579		436	88	T96SWF1	HWB	X1008	
378	86	T61F1L5	HWC	H580		437	88	T96SWF1	HWC	X1006	beaker?
379	86	T61F1L3	HWC	H581		438	88	T96SWF1	HWC+	X1007	
380	86	T52F1	HWB	69/SF162	cylindrical handle	439	88	T96SWF1	HWC	X1002	dish?
380	86	T54F1	HWB	69/SF172	cylindrical handle	440	89	T60F1L2	VRW	GM361	IB
381	87	T76F4	HWC	H607		441	89	T54F1	VRW	GM302	I
382	87	T76F4	HWB	H608		442	89	T52F1	VRW	GM293	bowl
383	87	T76F4	HWB	H610		443	89	T96F1	VRW	GM522	AD 70-110
384	87	T76F4	HWC	H611							
385	87	T76F4	HWB	H609							
386	87	T76F4	HWB	H618							
387	87	T76F4	HWC	H615							
388	87	T76F4	HWC	H616							
389	87	T76F4	HWB	H613							
390	87	T76F4	HWB	H612							
391	87	T76F4	HWB	H614							
392	87	T76F4	HWC	H619							
393	87	T76F4	HWB	H617							
394	87	T76F4	HWB	H620							

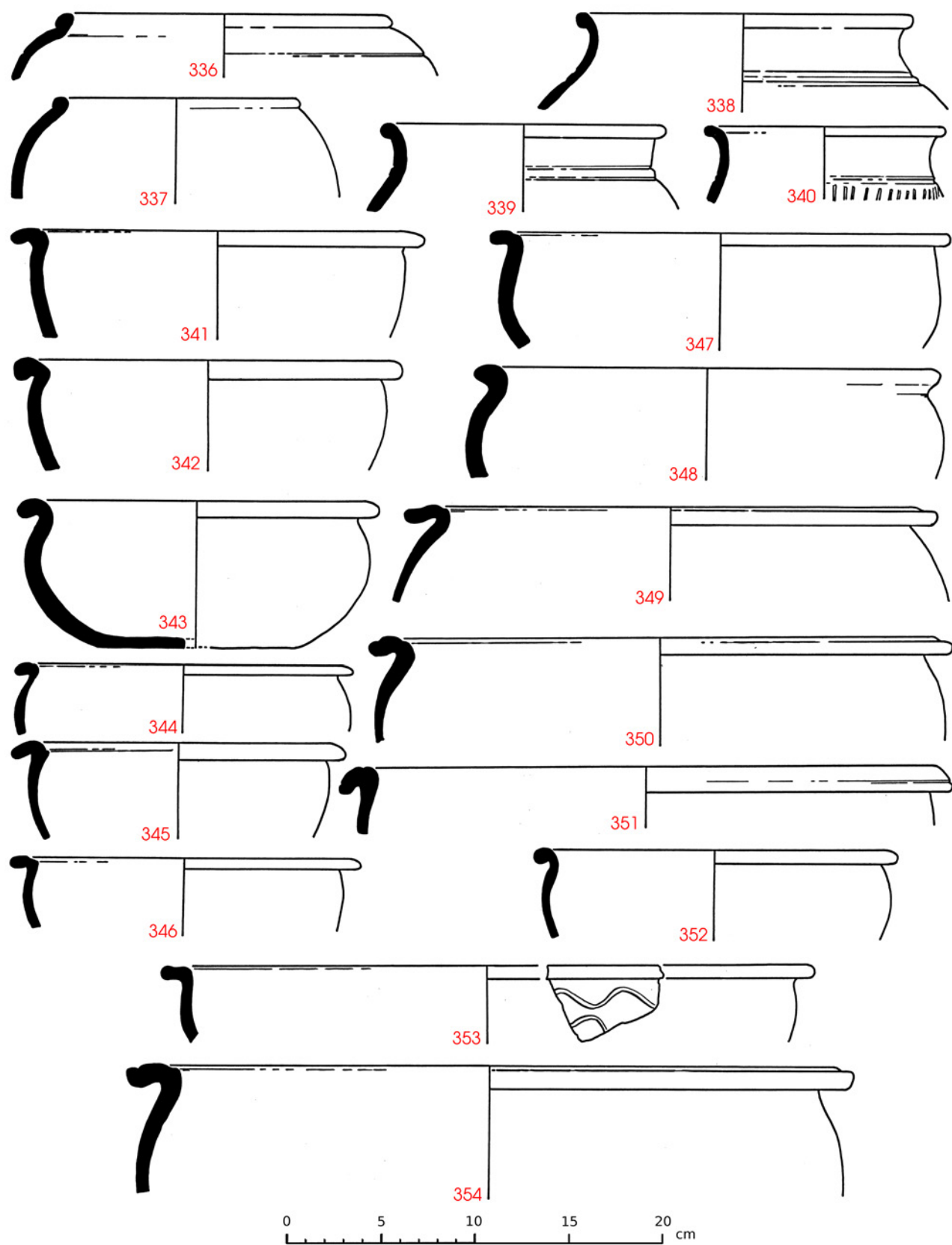


Fig. 83. Highgate Wood: 2 (3 South) i: local pottery [1:3]



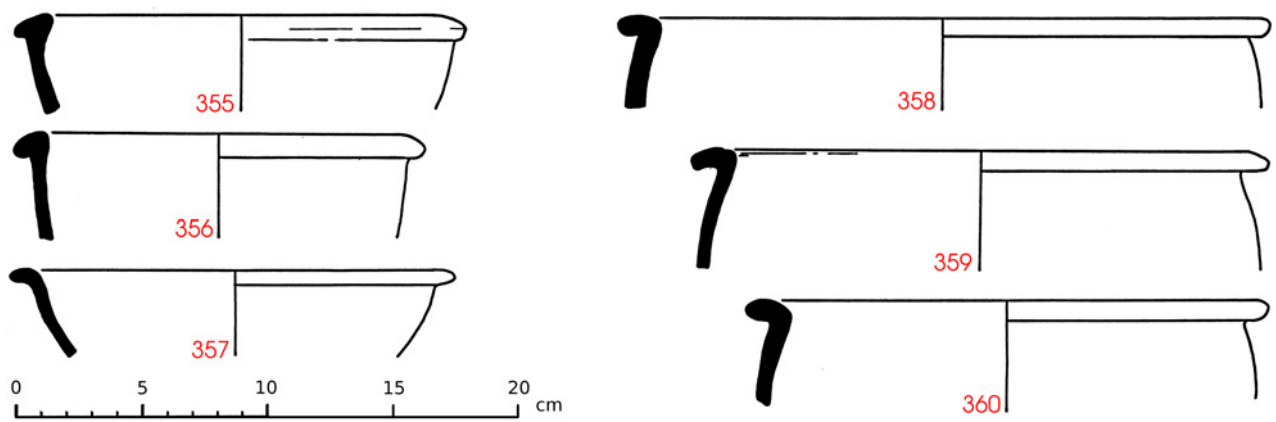


Fig. 84. Highgate Wood: 2 (3 South) i: local pottery [1:3]

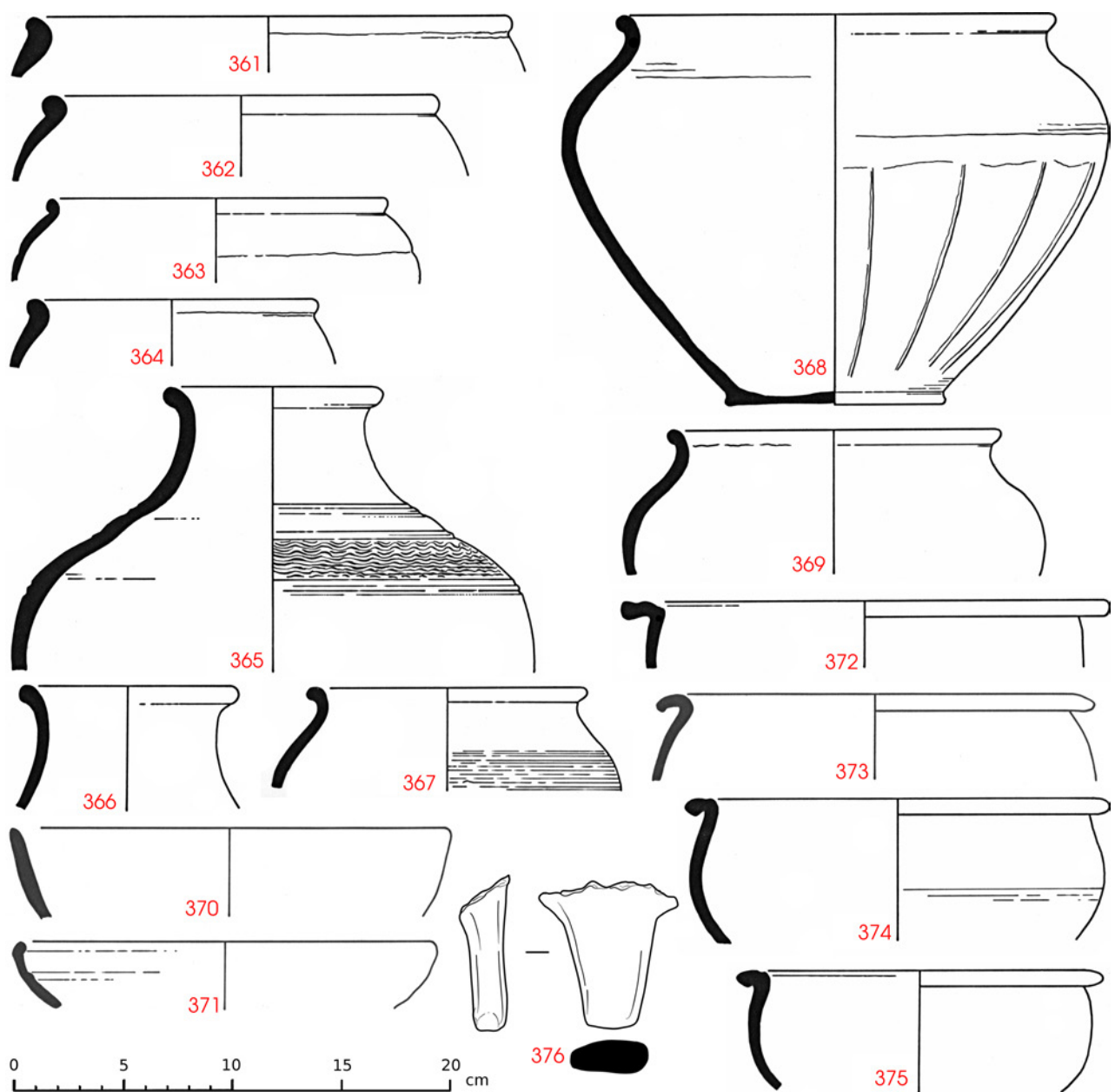


Fig. 85. Highgate Wood: 2 (3 South) i: local pottery [1:3]



Fig. 86. Highgate Wood: 2 (3 South) i: local pottery [1:3]

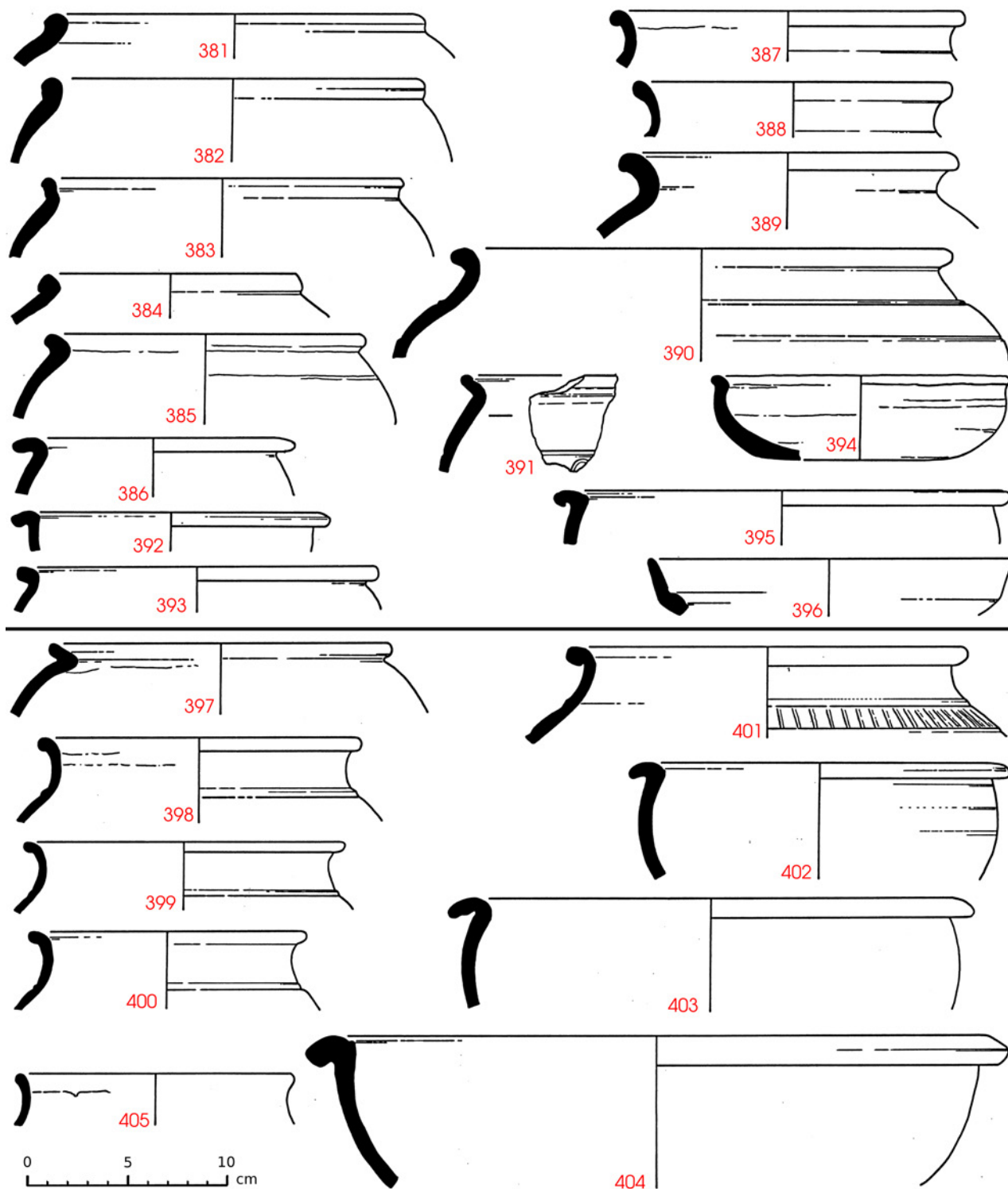


Fig. 87. Highgate Wood: 2 (3 South) i: local pottery [1:3]

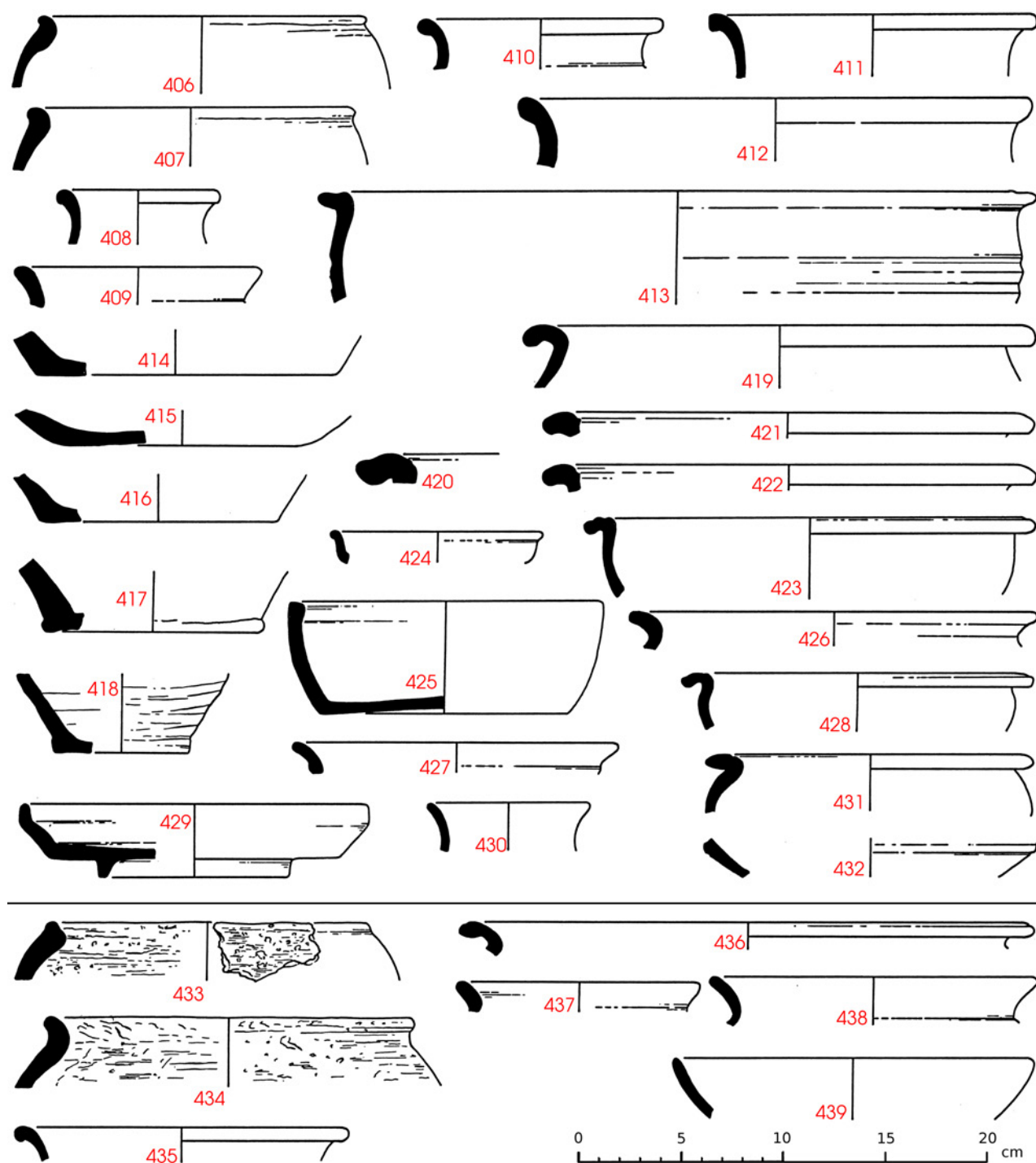


Fig. 88. Highgate Wood: 2 (3 South) i: local pottery [1:3]

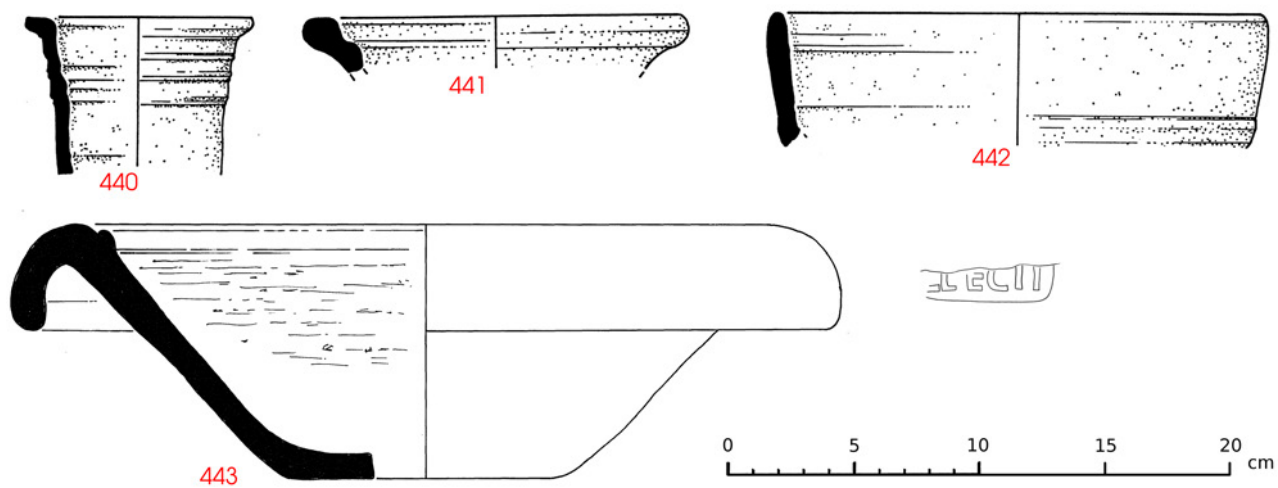


Fig. 89. Highgate Wood: 2 (3 South) i: non-local pottery [1:3]

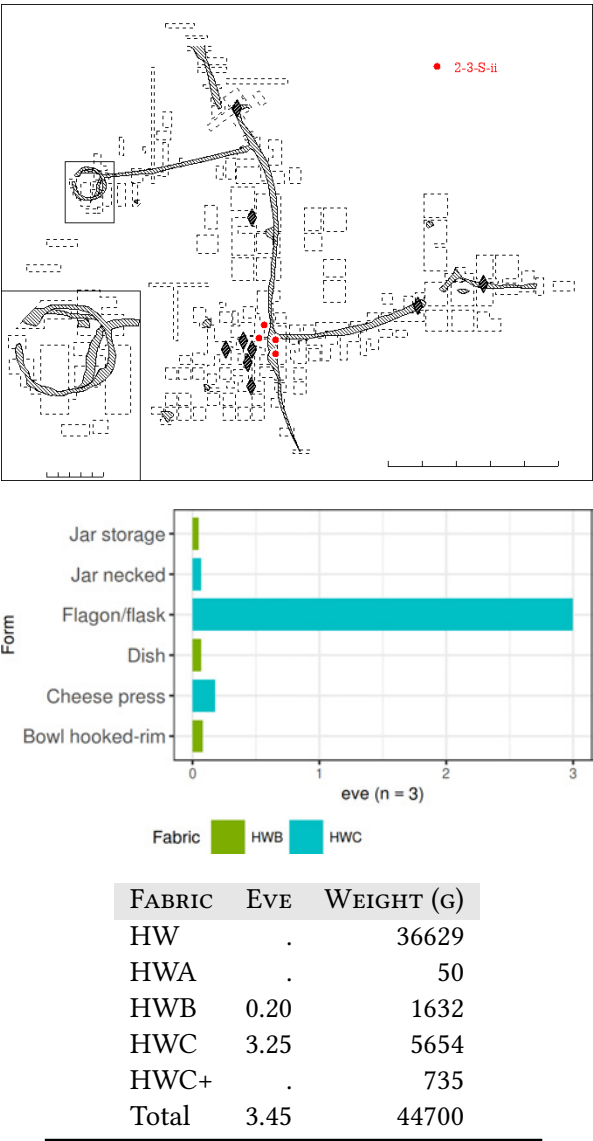
# 6.18. Phase 2 (3 South) ii : Ditch 1, central portion, the former preparation pit at the western end of Ditch 2

Excavation report See p.26.

**Local pottery** A large group of mixed HWB and HWC wares, including examples of the later black-burnished derived dishes and jars. The illustrated material includes several vessels in the red-slipped HWB variant 444-446, including sherds of platters similar to samian form Drag.18 , HWB bowls and jars, and flagons in HWC 449, 453.

**Non-local pottery** The pottery includes a substantial group, and wide range, of non-local wares, including South Gaulish both (Drag.27 and 30 of 1<sup>st</sup> cent.) and Central Gaulish (Drag.18/31, 27 of early 2<sup>nd</sup> cent.) and Verulamium-region wares (principally flagon sherds, but also jars and bowls). More unusual are a sherds of Central Gaulish white ware, ring-and-bot beakers from the Verulamium(?) region, a rim of a collared flagon in Sugar Loaf Court fabric 455 (from kilns in the City of London) and a mortarium in an oxidised fabric (dated AD 150-200).

**Other objects** The group includes a small number of glass fragments and iron studs, possibly from a boot.



FABRIC	EVE	WEIGHT (G)
HW	.	36629
HWA	.	50
HWB	0.20	1632
HWC	3.25	5654
HWC+	.	735
Total	3.45	44700

CONTEXT	REF.	REPORT	DESCRIPTION
T45F2L2	69/SF220	Glass no. 22	Shoulder of bottle or flask
T45F2L3	69/SF163	Metal no. 117	Iron object

CONTEXT	FABRIC	FORM	REF.	COMMENT
T42F1	CERA	obj	69/SF105	
T45F2L1	CERA	obj	69/SF154	
T45F2L1	CGWH		GM295	
T42SEF1	OXID	mortarium	GM548	AD 150-200 v.abraded
T42F1	RDBK	IIIB1	GM299	
T45F2L3	SAM-CG		69/RP146	2nd c.
T45F2L3	SAM-CG	Dr18/31	69/RP144	Early-mid 2nd c.
T45F2L2	SAM-CG	Dr27	69/RP132	Early-2nd c.
T45F2L3	SAM-CG	Dr27	69/RP151	Early-2nd c.
T45F2L1	SAM-SG		69/RP128	1st c.
T45F2L3	SAM-SG		69/RP180	1st c.
T45F2L3	SAM-SG	Dr27	69/RP151	Flavian
T56F2	SAM-SG	Dr27	69/RP245	Flavian
T42NEF1	SAM-SG	Dr30	69/RP213/243	Decorated no.4, AD 70-90
T42SEF1	SLOW	IA	GM549	455
T42NEF1	VCWS	I	GM364	
T42F1	VRW			
T42F1	VRW	I	GM319	
T42F1	VRW	I	GM356	
T42F1	VRW	I	GM300	
T42F1	VRW	I	GM350	
T42NEF1	VRW	I	GM284	
T42SEF1	VRW	I	GM390	
T56F2	VRW	I		
T45F2L2	VRW	I/II	GM315	
T42SEF1	VRW	IB		
T42SEF1	VRW	IB3/5	GM265	454
T42SEF1	VRW	jar		

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
444	90	T42F1	HWBR	GM280	red surface cf. Dr18
445	90	T42SEF1	HWCR	GM349	red slipped surface
446	90	T42F1	HWBR	GM281	red slipped plate
447	90	T42F1	HWB	GM387	
448	90	T42F1	HWB	GM297	
449	90	T42NEF1	HWC	GM389	handled jug
450	90	T42F1	HWB	GM397	
451	90	T42SEF1	HWC	GM375	cheese press
452	90	T45F2L3	HWC	GM383	jar with lip groove
453	90	T42NEF1	HWC	GM386	pinched mouth
454	91	T42SEF1	VRW	GM265	IB3/5
455	91	T42SEF1	SLOW	GM549	IA



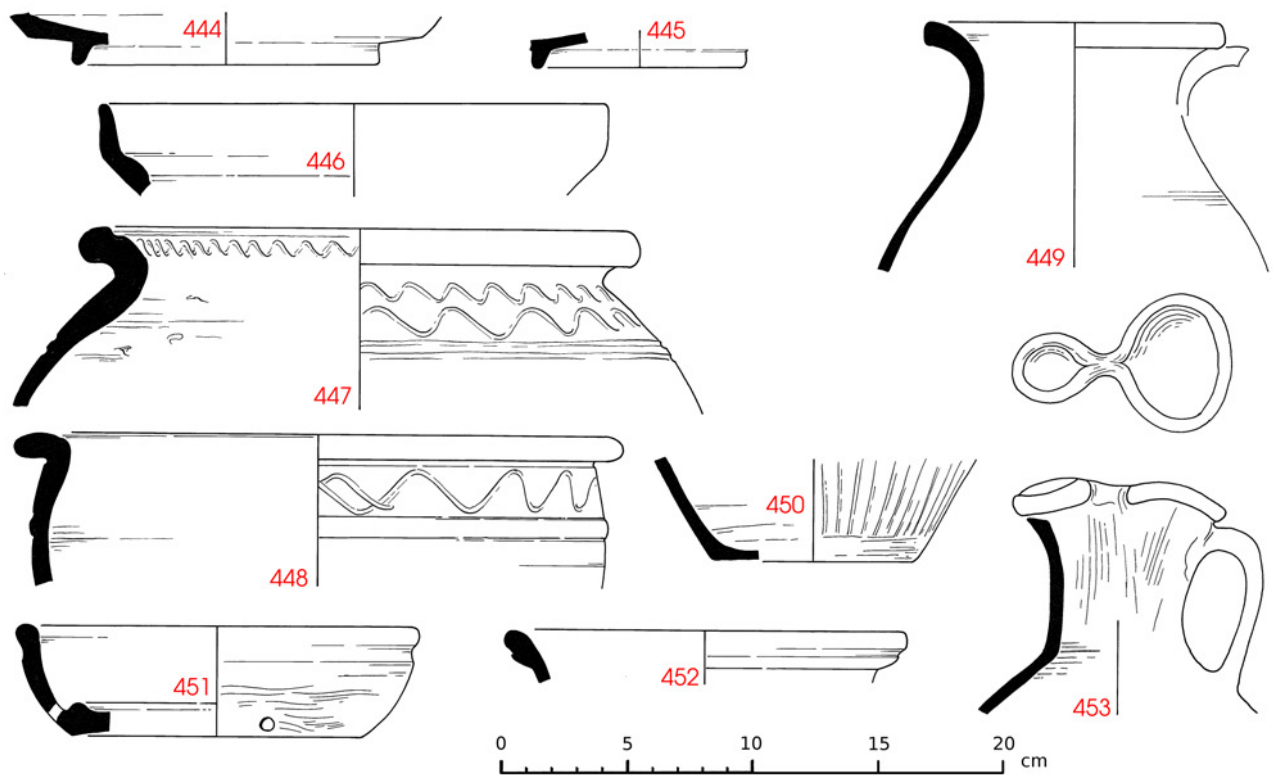


Fig. 90. Highgate Wood: 2 (3 South) ii: local pottery [1:3]

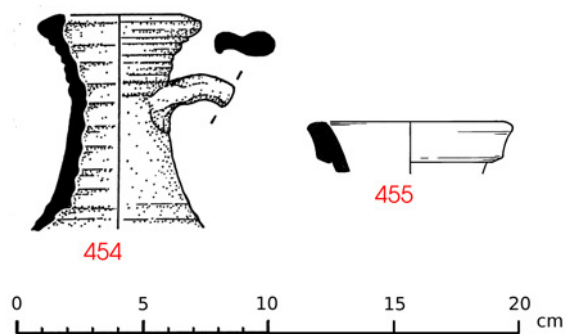


Fig. 91. Highgate Wood: 2 (3 South) ii: non-local pottery [1:3]

## 6.19. Phase 2 (3 South) iii : Ditch 1, southern portion

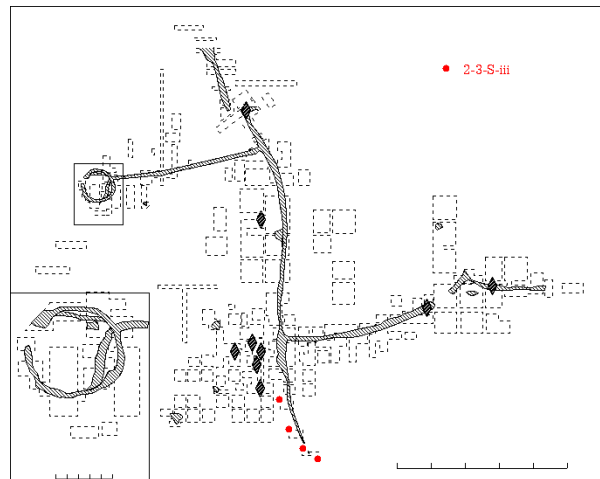
**Excavation report** See p.26.

**Local pottery** A small group, principally of HWC, including some of the later black-burnished derived types.

*Not illustrated.*

**Non-local pottery** Sherds of VRW flagons and mortaria and South Gaulish sigillata (1<sup>st</sup> cent.).

CONTEXT	FABRIC	FORM	REF.	COMMENT
T100F1	SAM-SG		71/RP146	1st c.
T100F1	SAM-SG		71/RP147	1st c.
T101F1	VRW	I		
T100F1	VRW	mortarium		

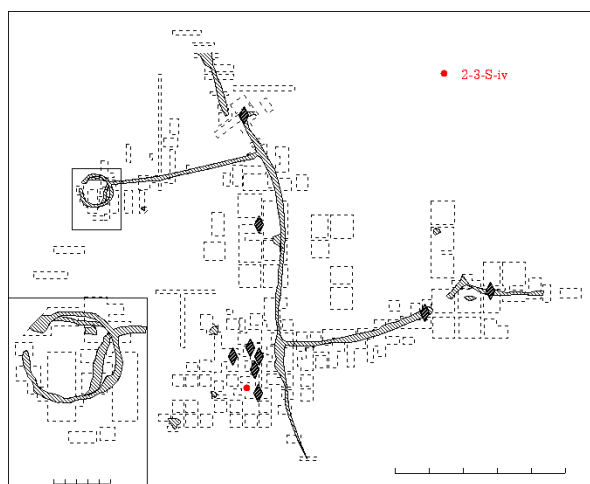


FABRIC	EVE	WEIGHT (G)
HW	.	.
HWB	.	220
HWC	.	6330
Total	.	6550

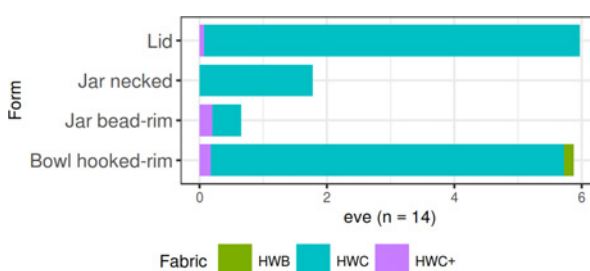
## 6.20. Phase 2 (3 South) iv : Kiln 3

Excavation report See p.26.

**Local pottery** The assemblage from kiln 3 is marked by a particularly high proportion of hooked-rim bowls and lids (40% & 42% respectively), with necked and bead-rim jars in the remainder. The fabrics are generally poor quality HWB or transitional HWC/C, with few sherds of the higher fired grey wares with a white slip which are typical of the material on the surrounding dump. The more developed phase 3 forms (everted-rim beakers etc) are rare.



No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
456	92	T24 inside kiln	HWC+	M2	
457	92	T24 inside kiln	HWC	M24	
458	92	T24 inside kiln	HWC	M11A	
459	92	T24 inside kiln	HWC	M35	
460	92	T24 inside kiln	HWC	M3	
461	92	T24 inside kiln	HWC	M26	
462	92	T24 inside kiln	HWC+	M29	
463	92	T24 inside kiln	HWC	M28	
464	92	T24 inside kiln	HWC	M9	
465	92	T24 inside kiln	HWC	M7	
466	92	T24 inside kiln	HWC	M58	
467	92	T24 inside kiln	HWC	M1	
468	92	T24 inside kiln	HWC	M14	
469	92	T24 inside kiln	HWC	M34	
470	92	T24 inside kiln	HWC	M12	
471	92	T24 inside kiln	HWC	M13	
472	92	T24 inside kiln	HWC	M11B	
473	92	T24 inside kiln	HWC	M33	
474	92	T24 inside kiln	HWC	M8	
475	92	T24 inside kiln	HWC	M23	
476	92	T24 inside kiln	HWC	M4	
477	92	T24 inside kiln	HWC	M30	
478	93	T24 inside kiln	HWC	M32	
479	93	T24 inside kiln	HWC	M21	
480	93	T24 inside kiln	HWC	M22	
481	93	T24 inside kiln	HWC	M15	
482	93	T24 inside kiln	HWC	M6	
483	93	T24 inside kiln	HWC	M31	
484	93	T24 inside kiln	HWC+	M10	
485	93	T24 inside kiln	HWB	M25	
486	93	T24 inside kiln	HWB	M19	
487	93	T24 inside kiln	HWC	M16	
488	93	T24 inside kiln	HWC	M17	
489	93	T24 inside kiln	HWC	M40	
490	93	T24 inside kiln	HWC	M43	
491	93	T24 inside kiln	HWC	M41	
492	93	T24 inside kiln	HWC	M39	
493	93	T24 inside kiln	HWC	M47	
494	93	T24 inside kiln	HWC	M48	
495	93	T24 inside kiln	HWC	M49	
496	93	T24 inside kiln	HWC	M45	
497	93	T24 inside kiln	HWC	M50	
498	93	T24 inside kiln	HWC	M46	
499	93	T24 inside kiln	HWC	M44	



FABRIC	EVE	WEIGHT (g)
HW	.	4970
HWB	0.15	30
HWC	13.67	3730
HWC+	0.45	120
Total	14.27	8850

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
500	93	T24 inside kiln	HWC	M38	
501	93	T24 inside kiln	HWC	M37	
502	93	T24 inside kiln	HWC	M55	
503	93	T24 inside kiln	HWC	M51	
504	93	T24 inside kiln	HWC	M57	
505	93	T24 inside kiln	HWC+	M54	
506	93	T24 inside kiln	HWC	M56	
507	93	T24 inside kiln	HWC	M52	

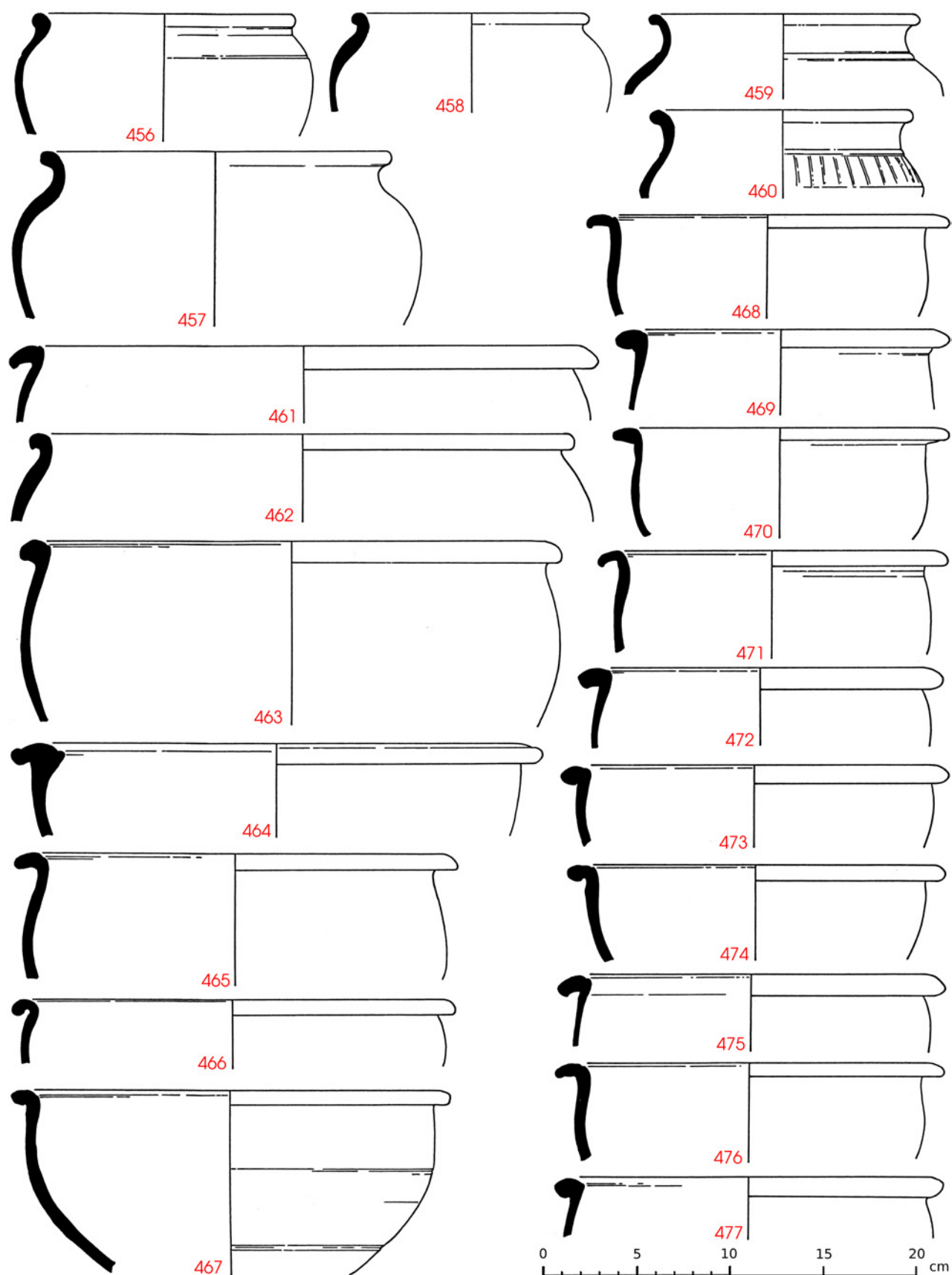


Fig. 92. Highgate Wood: 2 (3 South) iv: local pottery [1:3]

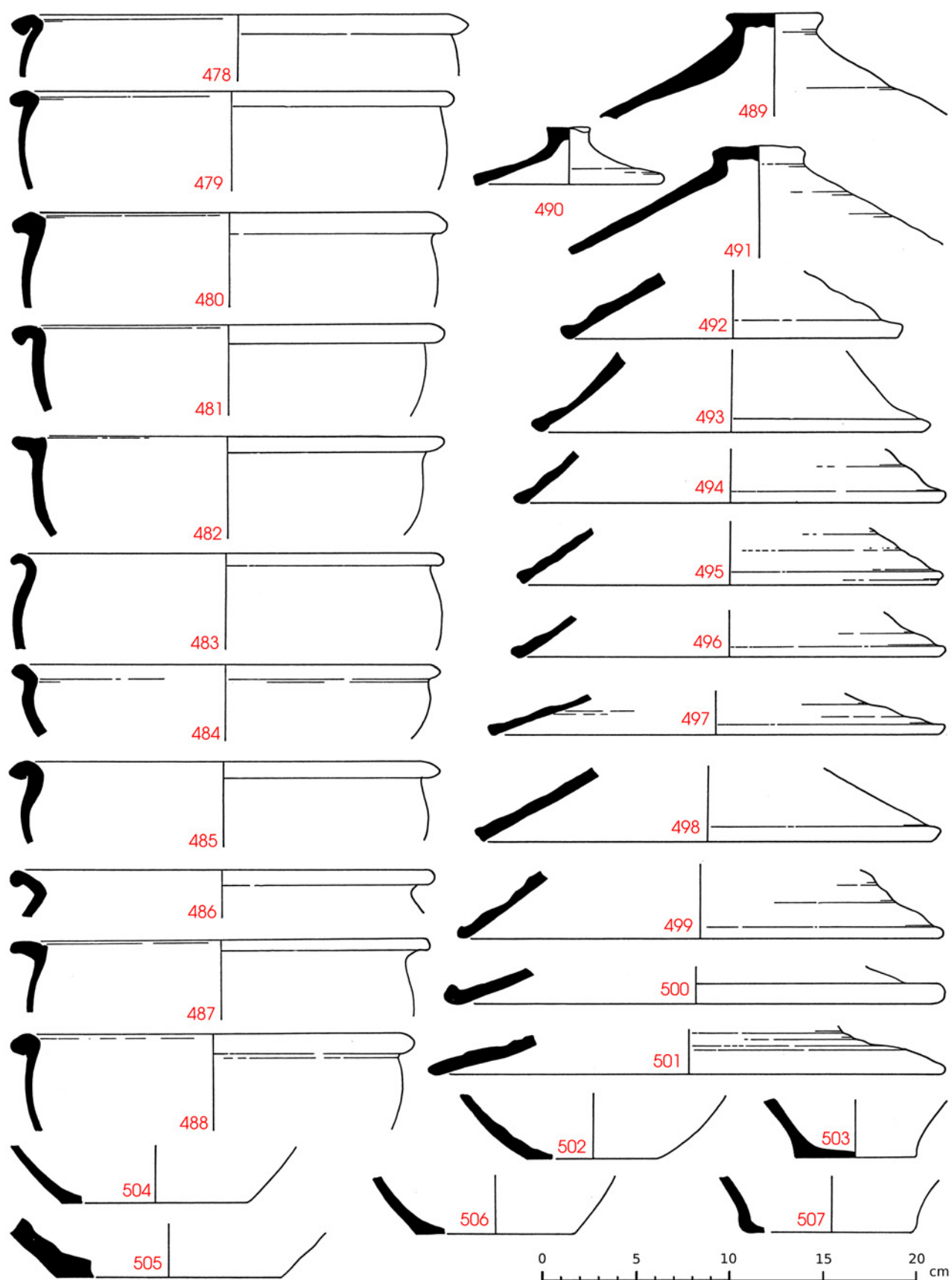


Fig. 93. Highgate Wood: 2 (3 South) iv: local pottery [1:3]

## 6.21. Phase 2 (3 North) i : North-South Ditch within Phase 1 Circular Ditch re-used

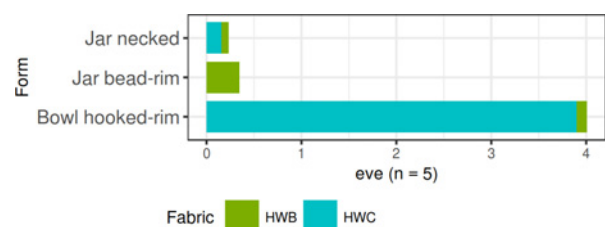
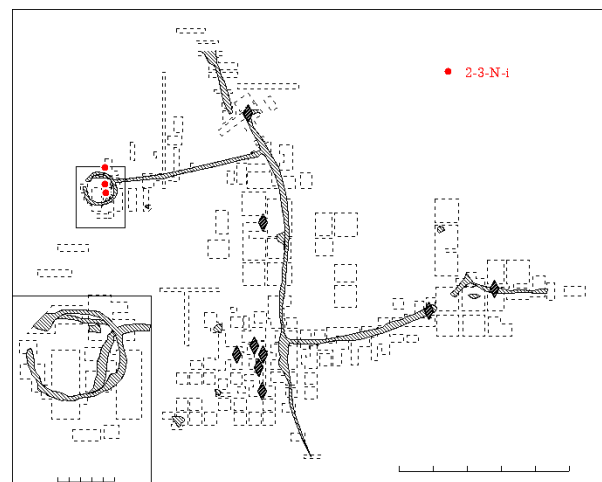
**Excavation report** See p.29.

**Local pottery** A small group of HWB and HWB/C were dominated by rather plain hooked-rim bowls and bead-rim jars.

*Not illustrated.*

**Non-local pottery** A few sherds of VRW.

CONTEXT	FABRIC	FORM	REF.	COMMENT
TTF1L2	PREHIST		74/RP19	
TTF1L2	VRW			



FABRIC	EVE	WEIGHT (G)
HW	.	330
HWA	.	13
HWB	4.55	1375
HWC	0.03	32
Total	4.59	1750

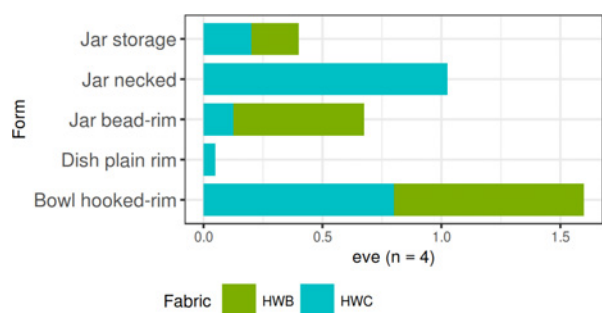
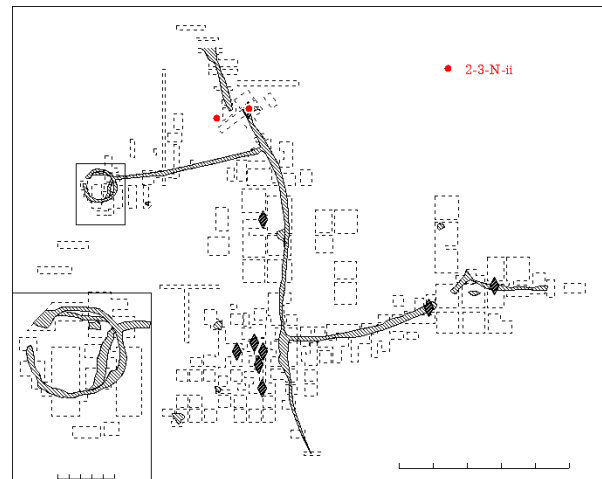


## 6.22. Phase 2 (3 North) ii : Kiln 9

Excavation report See p.29.

**Local pottery** The group includes bowls, necked jars, in both HWB and HWC but there is also a examples of a carinated beaker 518 and shallow dishes, including a fine specimen of shallow plate with a red surface in the style of the form Drag 15/17 538.

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
508	94	TFF1L3	HWB	H357	
509	94	TFF1L3	HWB	H359	
510	94	TFF1L3	HWB	H365	
511	94	TFF1L3	HWB	H366	
512	94	TFF1L3	HWB	H362	
513	94	TFF1L3	HWB	H368	
514	94	TFF1L3	HWC	H363	
515	94	TFF1L3	HWB	H358	
516	94	TFF1L3	HWB	H364	
517	94	TFF1L3	HWC	H360	
518	94	TFF1L3	HWB/C	H361	carinated beaker
519	94	TFF1L3	HWB/C	H367	dish
520	95	TAF2L6	HWC	H295	
521	95	TAF2L6	HWC	H299	
522	95	TAF2L6	HWC	H297	
523	95	TAF2L6	HWC	H296	
524	95	TAF2L6	HWC	H298	
525	95	TAF2L6	HWB	H301	
526	95	TAF2L6	HWC	H300	
527	96	TAF2L7	HWB	H284	
528	96	TAF2L7	HWB	H285	
529	96	TAF2L7	HWB	H288	
530	96	TAF2L7	HWC	H286	
531	96	TAF2L7	HWC	H287	
532	96	TAF2L7	HWC	H290	
533	96	TAF2L7	HWC	H289	
534	96	TAF2L7	HWC	H291	
535	96	TAF2L7	HWC	H292	
536	96	TAF2L7	HWC	H294	
537	96	TAF2L7	HWB	H293	
538	96	TAF2L7	HWBR	73/RP11	red surface Dr15/17



FABRIC	EVE	WEIGHT (G)
HW	.	5120
HWB	3.07	1220
HWC	0.67	180
Total	3.75	6520

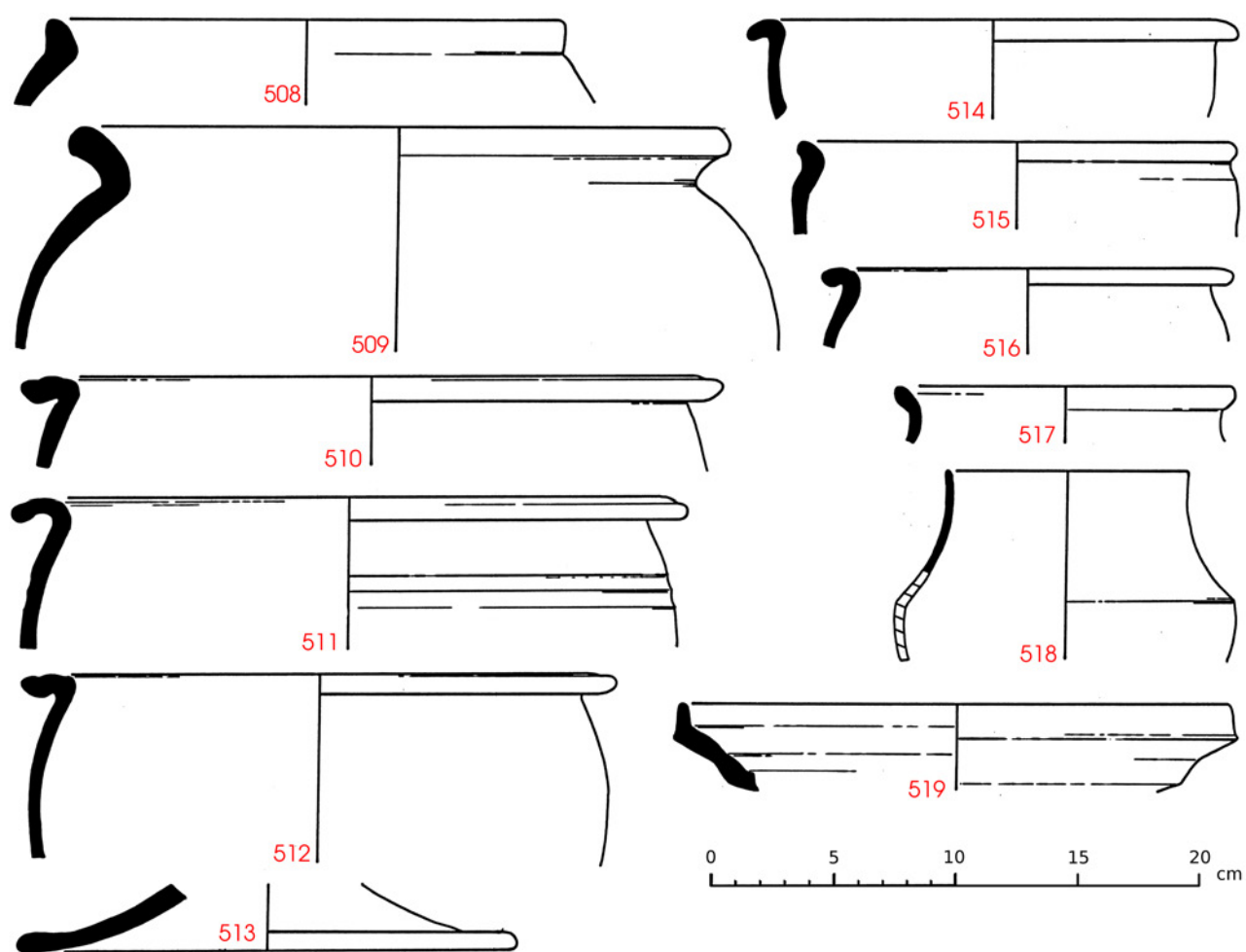


Fig. 94. Highgate Wood: 2 (3 North) ii: local pottery [1:3]

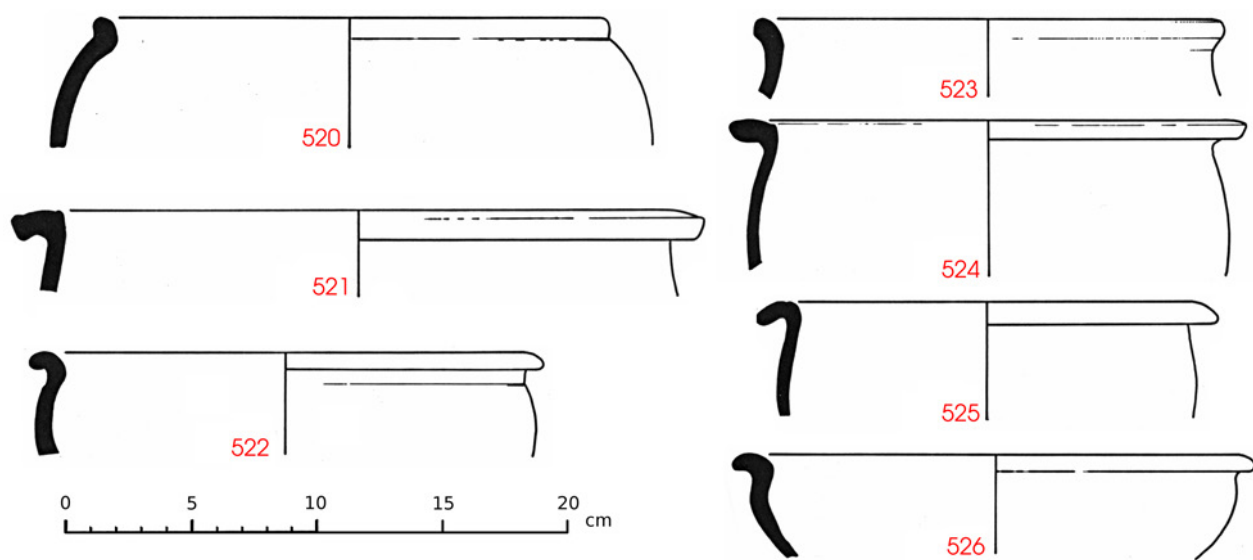


Fig. 95. Highgate Wood: 2 (3 North) ii: local pottery [1:3]

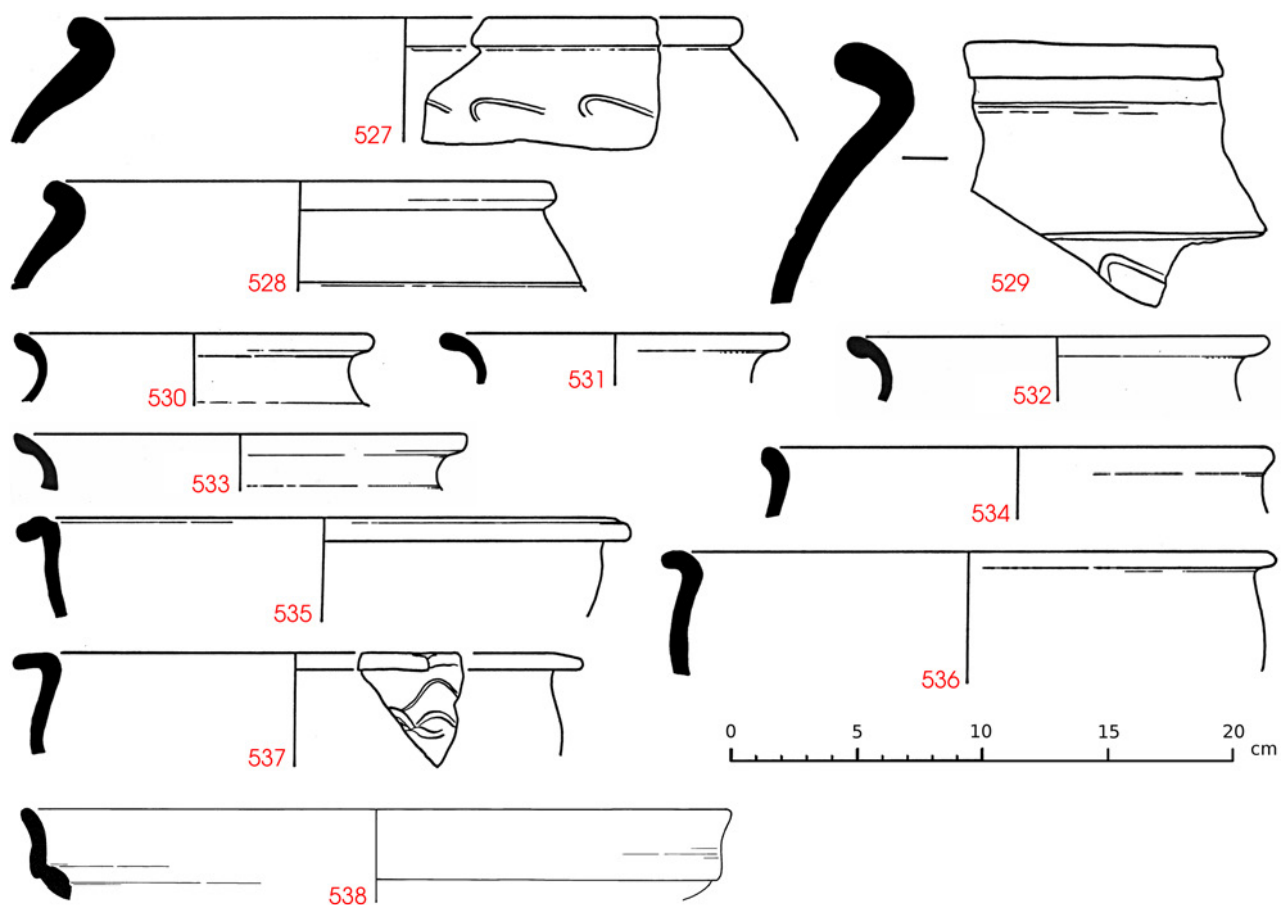


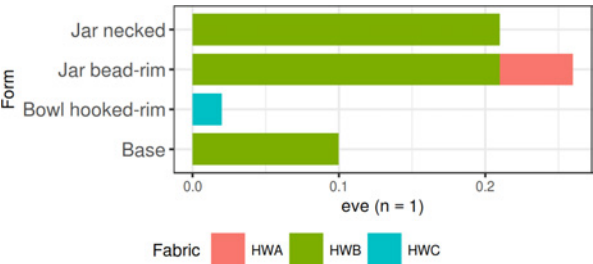
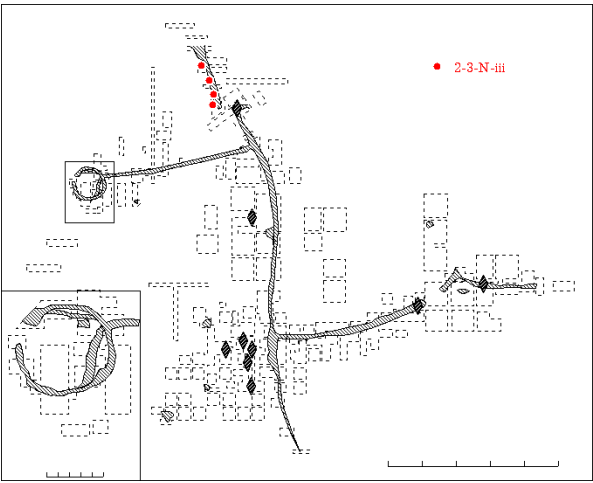
Fig. 96. Highgate Wood: 2 (3 North) ii: local pottery [1:3]

### 6.23. Phase 2 (3 North) iii : Primary fill of Ditch 4

Excavation report See p.33.

**Local pottery** This is a very small group. Most of the material is HWB and it includes both bead-rim jars and bowls. There is also a bead-rim jar in HWA 539 and the rim of a necked jar in HWB which are probably derived from the Phase 1 assemblage 542. A further small HWB sherd with cord-impressed decoration 544 may also be assignable to phase 1, rather than phase 2 where such decoration is not otherwise recorded. The group also includes a jar or beaker base and a rim of a hooked-rim bowl in HWC 546.

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
539	97	TGF1L2	HWA	X1077	phase 1
540	97	TMF1L2	HWB	X1076	
541	97	TGF1L2	HWB	X1078	
542	97	TLF1L2	HWB	X1080	phase 1?
543	97	TMF1L2	HWB	X1075	
544	97	TLF1L2	HWB	X1081	impressed decoration; phase 1?
545	97	TLF1L2	HWB	X1079	
546	97	TGF1L2	HWC	X1316	



FABRIC	EVE	WEIGHT (g)
HW	.	100
HWA	0.05	28
HWB	0.62	339
HWC	0.02	48
Total	0.69	515

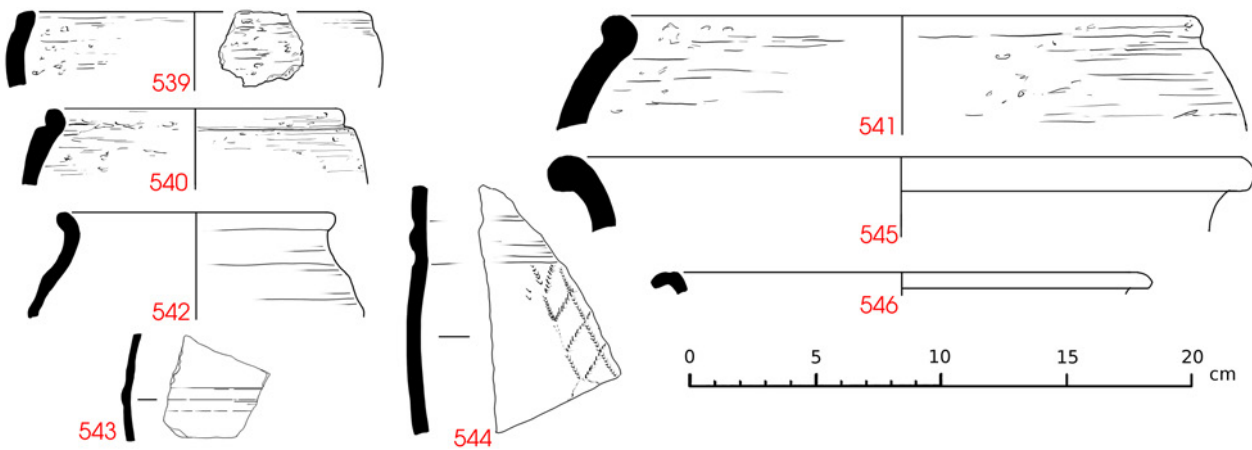


Fig. 97. Highgate Wood: 2 (3 North) iii: local pottery [1:3]

## 6.24. Phase 3 (1) i : Kiln remains, Preparation Pit 2

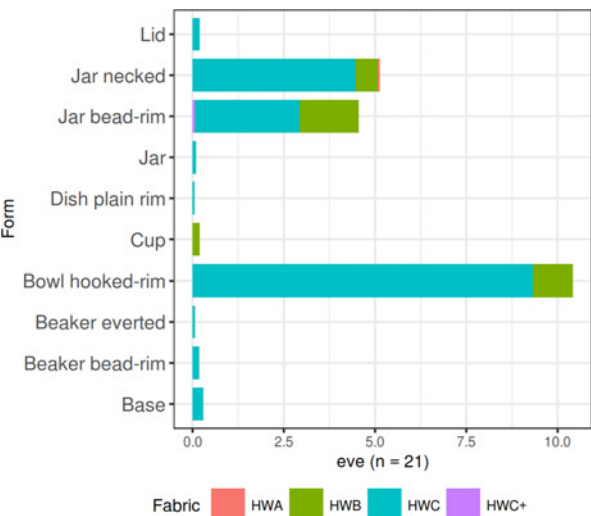
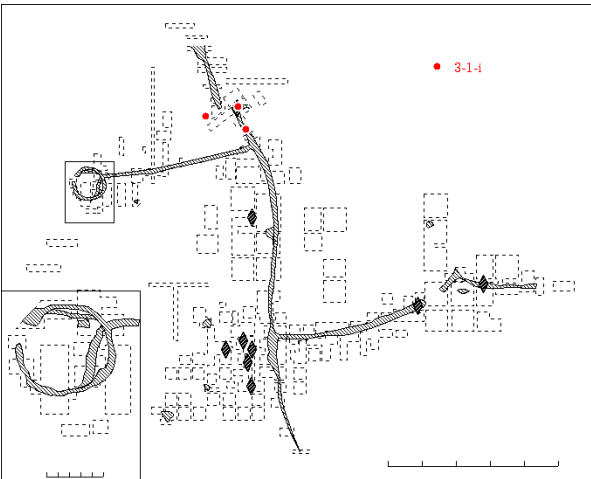
Excavation report See p.34.

**Local pottery** A substantial group, dominated by rather plain hooked-rim bowls and necked jars in HWB and transitional HWC/C fabrics. There are several feet from tripod bowls in the assemblage 576-8, 632, 664-5<sup>4</sup>.

From TAF1L2 there is a fragment of a campanulate cup in the red-slipped fabric HWBR 574.

**Non-local pottery** The group includes are sherds of samian (dated Flavian and early 2<sup>nd</sup> century) and a VRW mortarium stamped by Matugenus (680 AD 80-125).

CONTEXT	FABRIC	FORM	REF.	COMMENT
TNF1L1	SAM-CG	Dr33	73/RP14	Early-mid 2nd c.
TAF2L4	SAM-SG	Dr18	73/RP18	Flavian
TAF2L5	VRW			
TAF2L5	VRW	mortarium	GM471	680 MATU- GEN[US] AD 80-125 spout



FABRIC	EVE	WEIGHT (g)
HW	.	31890
HWA	0.05	20
HWB	7.72	2847
HWC	13.75	2890
HWC+	0.07	20
Total	21.60	37667

<sup>4</sup>Item 664 is also illustrated in the report on baked clay by A E Brown, where it is interpreted as a foot intended for attachment to the body of a vessel, but used as an aid to stacking pottery in the kiln (Report on Baked Clay Objects, p.330, Section 15.8, no. 12, and Fig. 205, no.12).

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
547	98	TAF1L1	HWB	H254	
548	98	TAF1L1	HWB	H258	
549	98	TAF1L1	HWC	H255	
550	98	TAF1L1	HWC	H260	
551	98	TAF1L1	HWB	H257	
552	98	TAF1L1	HWC	H256	
553	98	TAF1L1	HWC	H259	
554	98	TAF1L1	HWC	H268	
555	98	TAF1L1	HWB	H277	
556	98	TAF1L1	HWC	H261	
557	98	TAF1L1	HWC	H262	
558	98	TAF1L1	HWC	H263	
559	98	TAF1L1	HWC	H264	
560	98	TAF1L1	HWC	H265	
561	98	TAF1L1	HWB/C	H266	
562	98	TAF1L1	HWB	H267	
563	98	TAF1L1	HWC	H269	
564	98	TAF1L1	HWC	H270	
565	98	TAF1L1	HWC	H271	
566	98	TAF1L1	HWC	H272	
567	98	TAF1L1	HWC	H273	
568	98	TAF1L1	HWC	H274	
569	98	TAF1L1	HWC	H275	
570	98	TAF1L1	HWC	H276	dish
571	99	TAF1L2	HWC	H278	
572	99	TAF1L2	HWB	H279	
573	99	TAF1L2	HWC	H280	
574	99	TAF1L2	HWB	H282	campanulate bowl
575	99	TAF1L2	HWC	H281	
576	99	TAF1L2	HWB	X2123	foot
577	99	TAF1L2	HWB	X2122	foot
578	99	TAF1L2	HWB	X2124	foot
579	100	TAF2L3	HWC	H327	
580	100	TAF2L3	HWC	H329	
581	100	TAF2L3	HWC	H328	
582	100	TAF2L3	HWC	H330	
583	100	TAF2L3	HWC	H334	
584	100	TAF2L3	HWC	H332	
585	100	TAF2L3	HWC	H331	
586	100	TAF2L3	HWC	H335	
587	100	TAF2L3	HWC	H333	
588	100	TAF2L3	HWC	H336	
589	100	TAF2L3	HWC	H337	
590	100	TAF2L3	HWC	H338	
591	100	TAF2L3	HWC	H339	
592	100	TAF2L3	HWC	H340	
593	100	TAF2L3	HWC	H341	
594	100	TAF2L3	HWB	H343	
595	100	TAF2L3	HWC	H344	
596	100	TAF2L3	HWC	H345	
597	100	TAF2L3	HWC	H346	
598	100	TAF2L3	HWC	H347	
599	100	TAF2L3	HWC	H348	
600	100	TAF2L2	HWC	H349	
601	100	TAF2L1	HWC	H351	
602	100	TAF2L1	HWC	H350	
603	100	TAF2L1	HWC	H353	
604	100	TAF2L1	HWC	H352	
605	100	TAF2L1	HWC	H355	
606	100	TAF2L1	HWC	H354	
607	100	TAF2L1	HWC	H356	

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
608	101	TAF2L8	HWB	H283	
609	101	TAF2L5	HWC	H306	
610	101	TAF2L5	HWC	H303	
611	101	TAF2L5	HWB	H305	
612	101	TAF2L5	HWC	H304	
613	101	TAF2L5	HWC	H307	
614	101	TAF2L5	HWC	H302	
615	101	TAF2L5	HWC	H309	
616	101	TAF2L5	HWC	H308	
617	101	TAF2L5	HWC	H310	
618	101	TAF2L5	HWB	H320	
619	101	TAF2L5	HWC	H319	
620	101	TAF2L5	HWC	H321	
621	101	TAF2L5	HWC	H318	
622	101	TAF2L5	HWC	H322	
623	101	TAF2L5	HWC	H313	
624	101	TAF2L5	HWC	H314	
625	101	TAF2L5	HWC	H315	
626	101	TAF2L5	HWC	H316	
627	101	TAF2L5	HWC	H311	
628	101	TAF2L5	HWC	H317	
629	101	TAF2L5	HWC	H312	
630	101	TAF2L5	HWC	H323	
631	101	TAF2L5	HWC	H324	
632	101	TAF2L5	HWB	73/SF29	foot
633	101	TAF2L4	HWB	H325	
634	101	TAF2L4	HWC	H326	
635	102	TFF1L1	HWB	H391	
636	102	TFF1L1	HWC	H397	
637	102	TFF1L1	HWC	H392	
638	102	TFF1L1	HWC	H394	
639	102	TFF1L1	HWC	H393	
640	102	TFF1L1	HWC	H395	
641	102	TFF1L1	HWC	H396	
642	102	TFF1L2	HWB	H370	
643	102	TFF1L2	HWB	H369	
644	102	TFF1L2	HWC	H371	
645	102	TFF1L2	HWC	H374	
646	102	TFF1L2	HWC	H375	
647	102	TFF1L2	HWB/C	H373	
648	102	TFF1L2	HWB	H372	
649	102	TFF1L2	HWC	H376	
650	102	TFF1L2	HWC	H380	
651	102	TFF1L2	HWC	H379	
652	102	TFF1L2	HWC	H377	
653	102	TFF1L2	HWB	H378	
654	102	TFF1L2	HWC	H388	
655	102	TFF1L2	HWC	H387	
656	102	TFF1L2	HWB/C	H381	
657	102	TFF1L2	HWB	H382	
658	102	TFF1L2	HWC	H384	
659	102	TFF1L2	HWC	H383	
660	102	TFF1L2	HWC	H385	
661	102	TFF1L2	HWB	H386	
662	102	TFF1L2	HWC	H390	
663	102	TFF1L2	HWB	H389	
664	102	TFF1L2	HWB	73/SF19	foot
665	102	TFF1L2	HWB	73/SF11	foot
666	103	TNF1L1	HWB	H236	
667	103	TNF1L1	HWB	H237	
668	103	TNF1L1	HWC	H235	
669	103	TNF1L1	HWB	H238	



No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
670	103	TNF1L1	HWB	H239	handled jug
671	103	TNF1L1	HWC	H242	
672	103	TNF1L1	HWB/C	H247	
673	103	TNF1L1	HWB	H243	
674	103	TNF1L1	HWC	H244	
675	103	TNF1L1	HWC	H245	
676	103	TNF1L1	HWB	H248	
677	103	TNF1L1	HWC	H246	
678	103	TNF1L1	HWC	H241	
679	103	TNF1L1	HWC	H240	
680	104	TAF2L5	VRW	GM471	AD 80-125

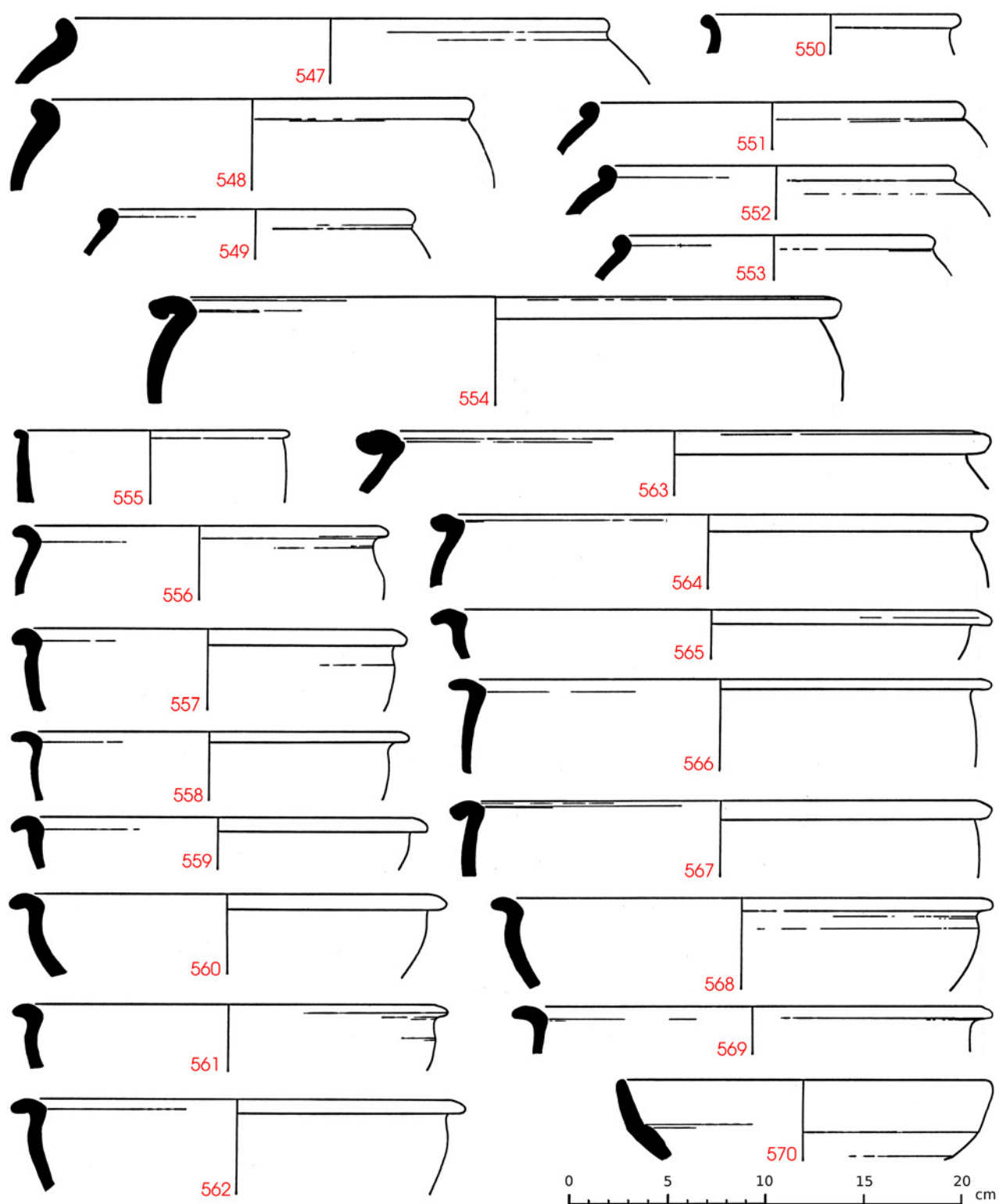


Fig. 98. Highgate Wood: 3 (1) i: local pottery [1:3]

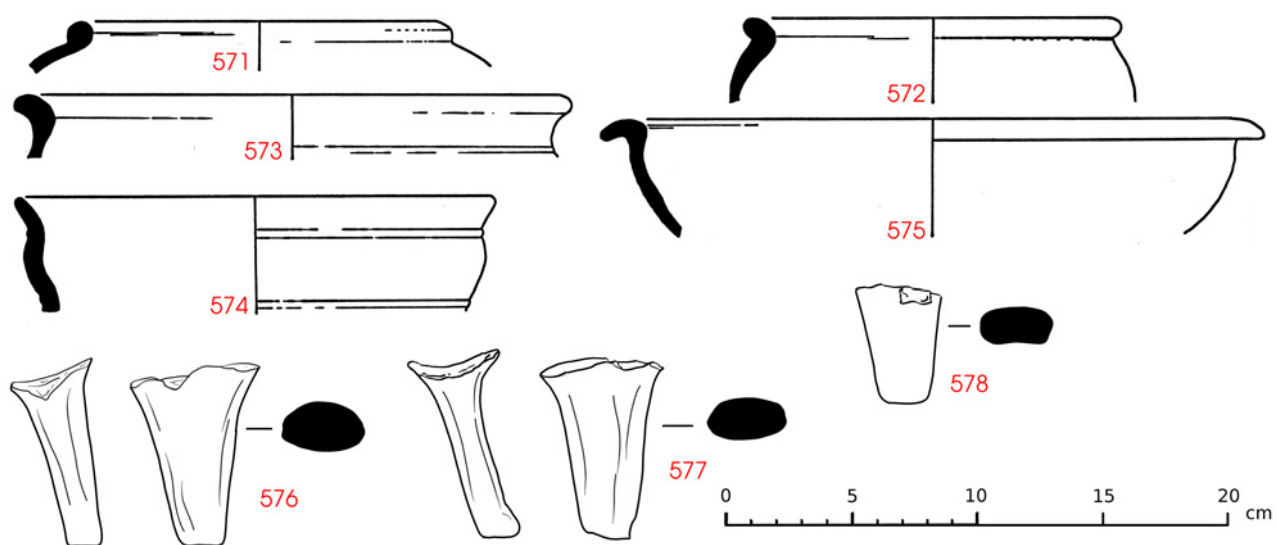


Fig. 99. Highgate Wood: 3 (1) i: local pottery [1:3]

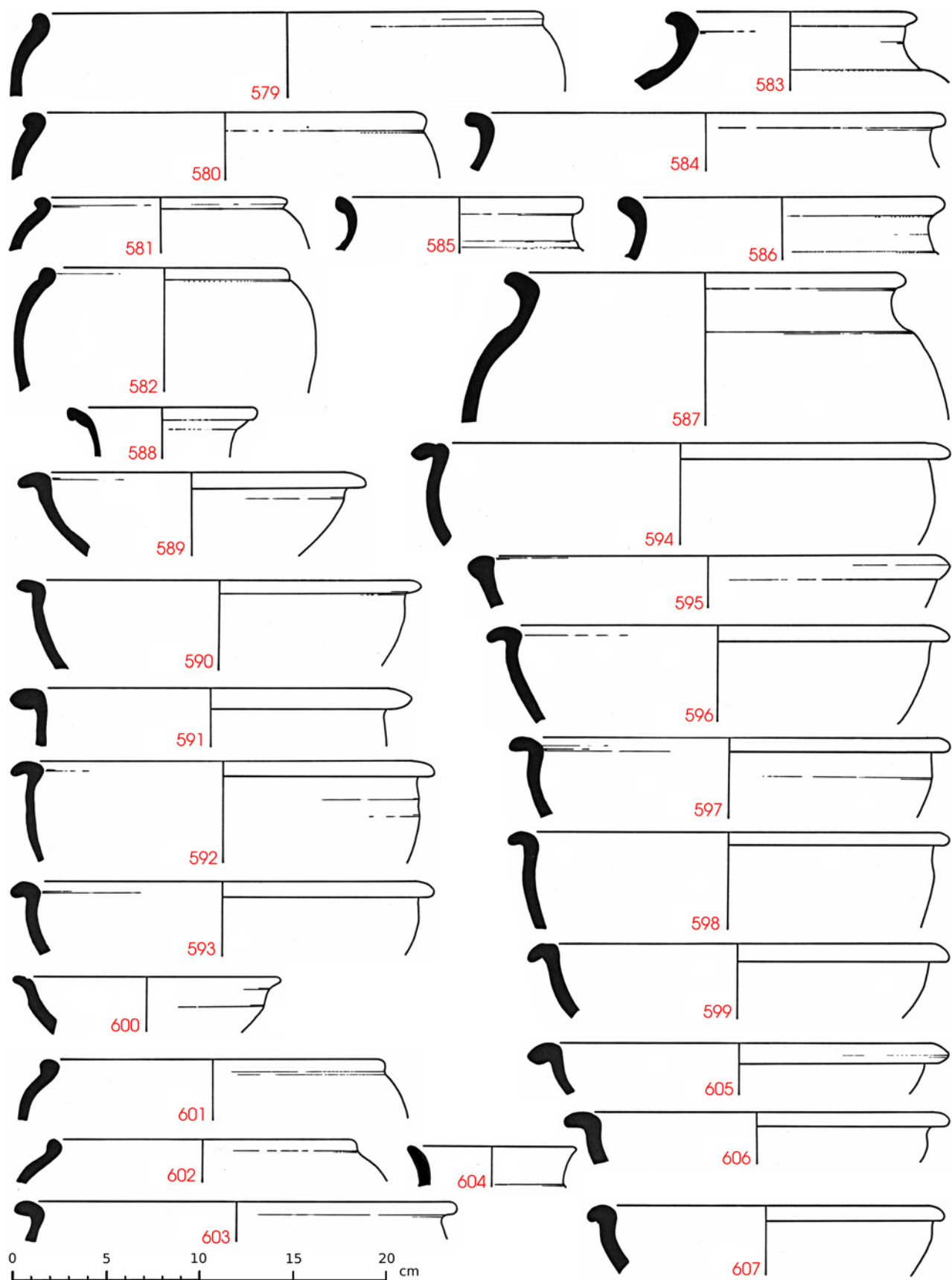


Fig. 100. Highgate Wood: 3 (1) i: local pottery [1:3]

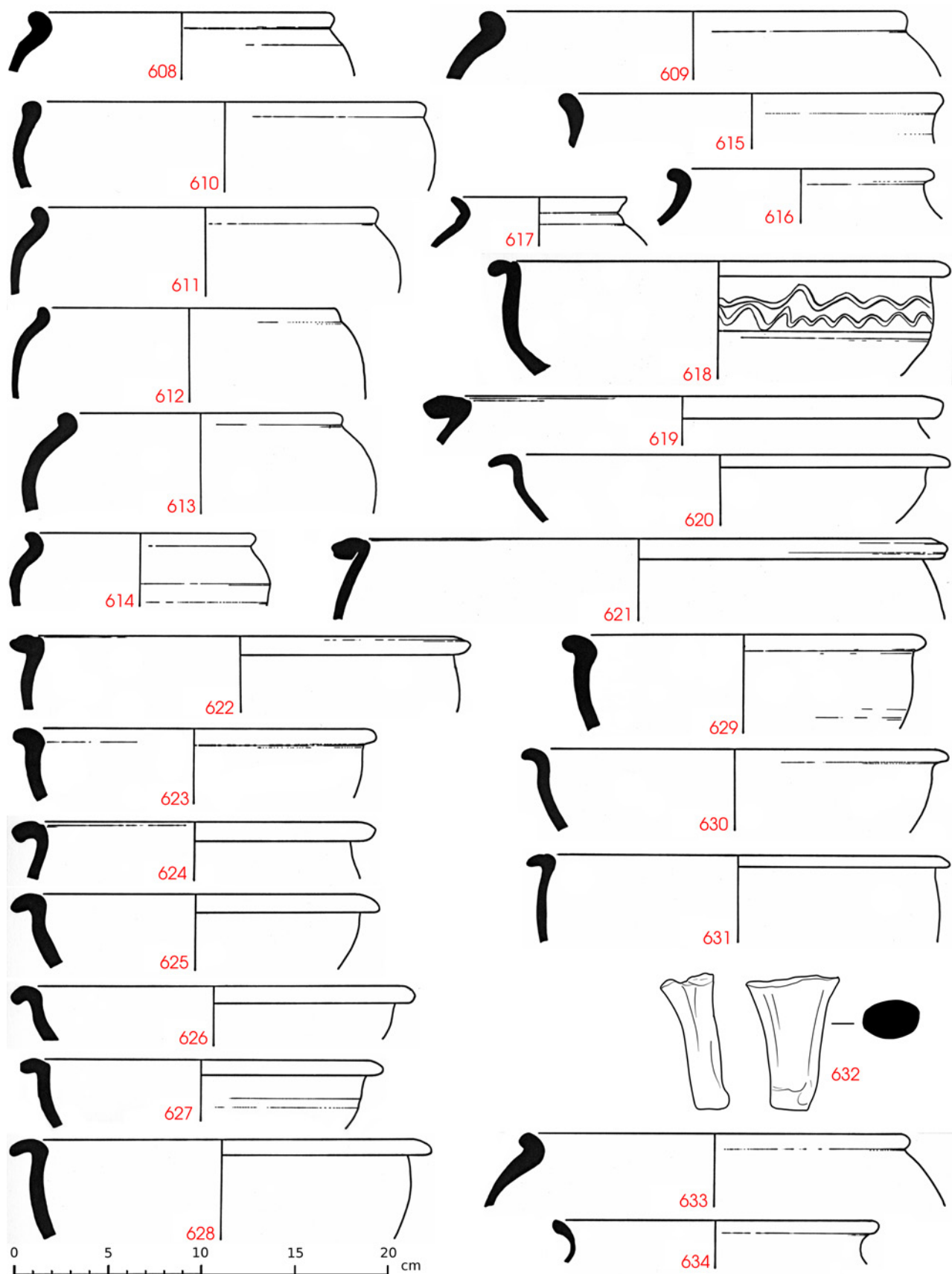


Fig. 101. Highgate Wood: 3 (1) i: local pottery [1:3]

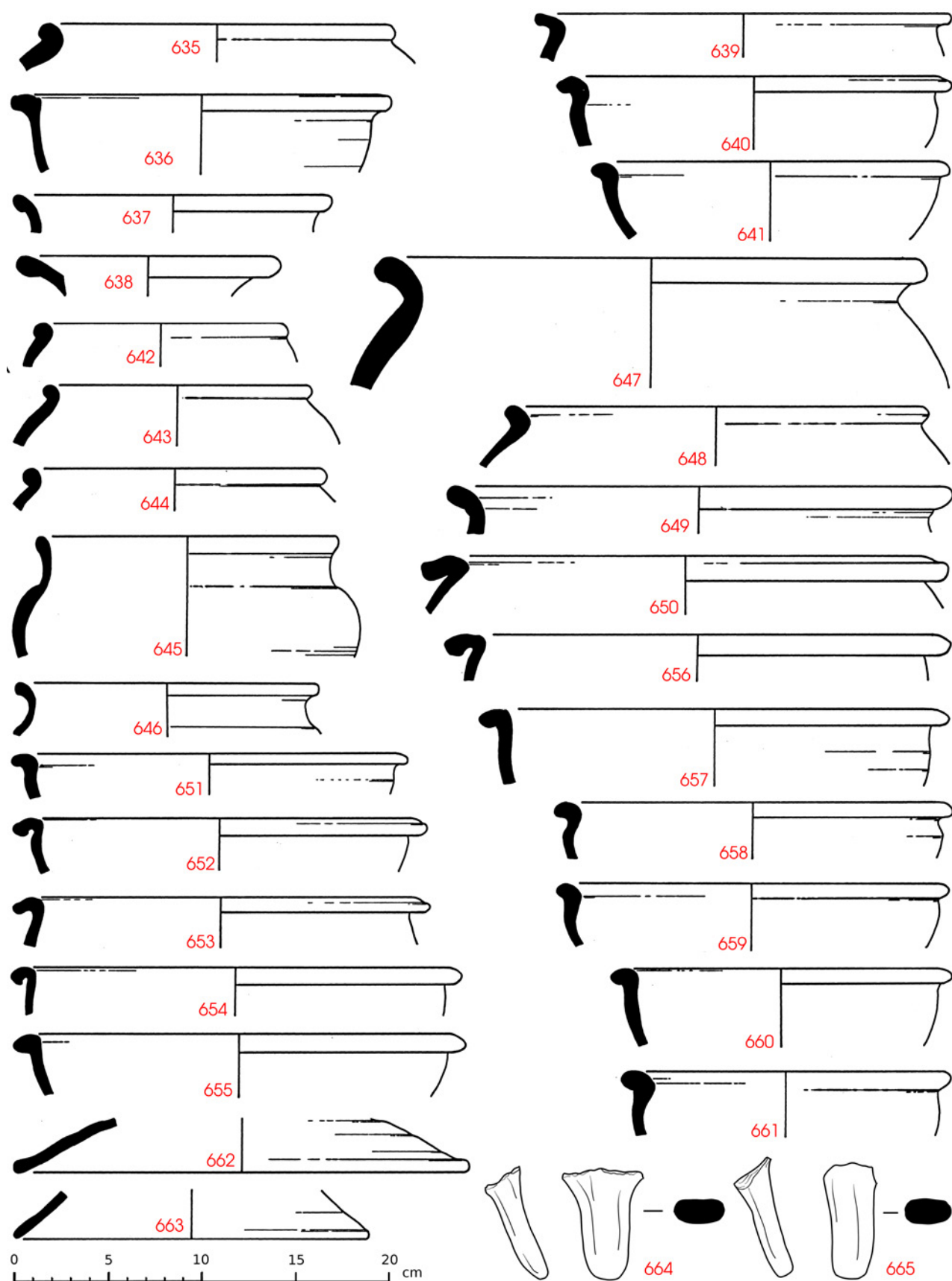


Fig. 102. Highgate Wood: 3 (1) i: local pottery [1:3]



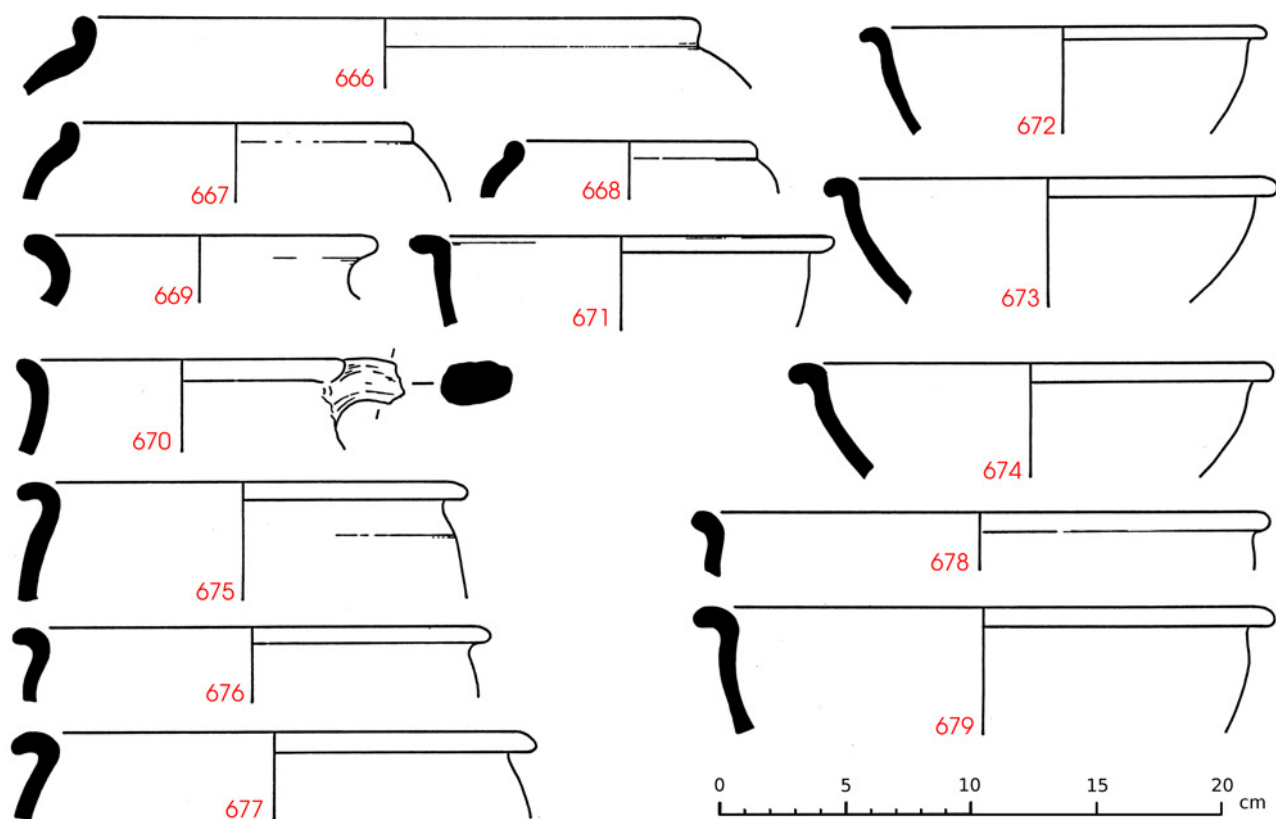


Fig. 103. Highgate Wood: 3 (1) i: local pottery [1:3]

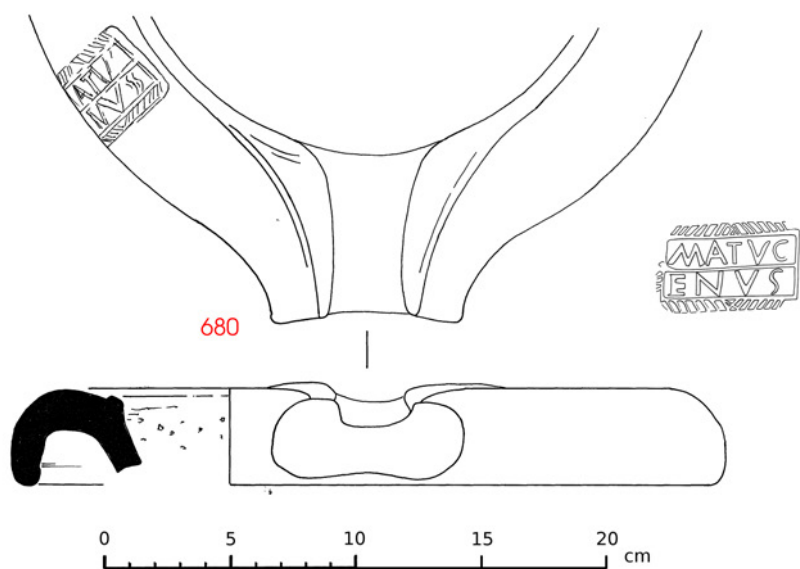


Fig. 104. Highgate Wood: 3 (1) i: non-local pottery [1:3]

# 6.25. Phase 3 (1) ii : Secondary fill, Ditch 4

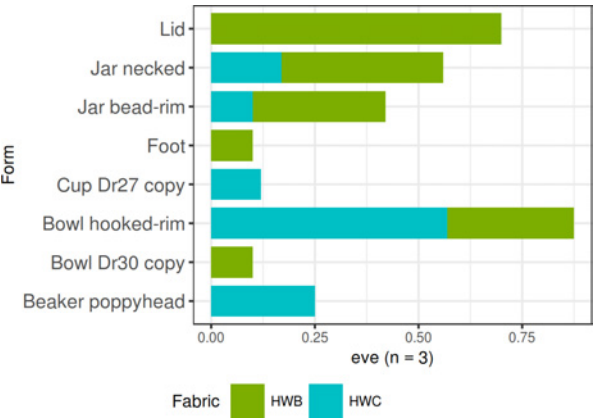
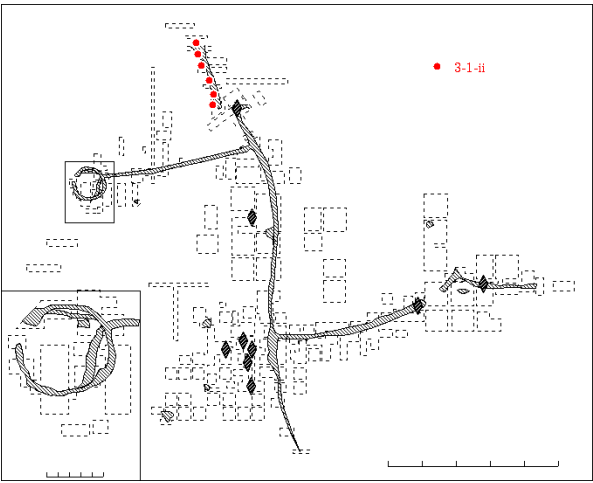
Excavation report See p.35.

**Local pottery** The groups from the upper levels of the ditch are small, but sufficient to demonstrate that they contain bowls and jars in transitional HWB and HWC fabrics, and a small campanulate cup similar to a samian Drag.27 683.

**Non-local pottery** The non-local pottery includes several samian sherds (SAM-SG, 1<sup>st</sup> cent.), VRW flagons sherds and a single sherd of Dressel 20 amphora.

CONTEXT	FABRIC	FORM	REF.	COMMENT
TKF1L6	AMPH	Dressel 20		
TBF1L2	RWS			burnt
TB2F1L2	RWS	I		
TB2F1L2	RWS	I		
TKF1L1	RWS	I		granular
TBF1L2	SAM-SG		73/RP2	1st c.
TBF1L2	SAM-SG		73/RP4	1st c.
TBF1L2	SAM-SG		73/RP3	1st c.
TBF1L2	SAM-SG		73/RP1	1st c.
TMF1L1	SAM-SG		73/RP15	1st c.
TB2F1L2	VRW			
TB2F1L2	VRW			
TMF1L1	VRW			
TGF1L1	VRW	I		
TKF1L1	VRW	I		

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
681	105	TGF1L1	HWB	X1069	
682	105	TMF1L1	HWB	X1318	
683	105	TGF1L1	HWC	X1314	Dr27 copy
684	105	TGF1L1	HWB	X1071	
685	105	TGF1L1	HWB	X1070	



FABRIC	EVE	WEIGHT (G)
HW	.	2000
HWB	2.19	2951
HWC	0.93	962
Total	3.12	5913

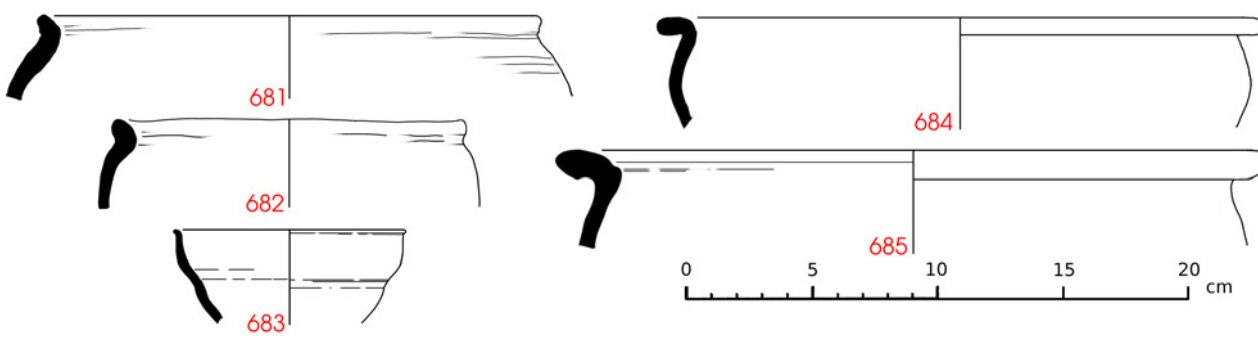


Fig. 105. Highgate Wood: 3 (1) ii: local pottery [1:3]

## 6.26. Phase 3 (1) iii (a) : North-eastern ditch

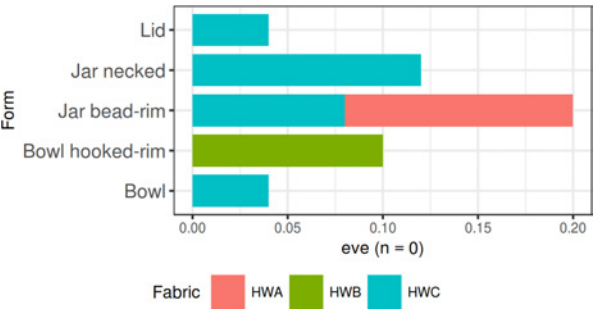
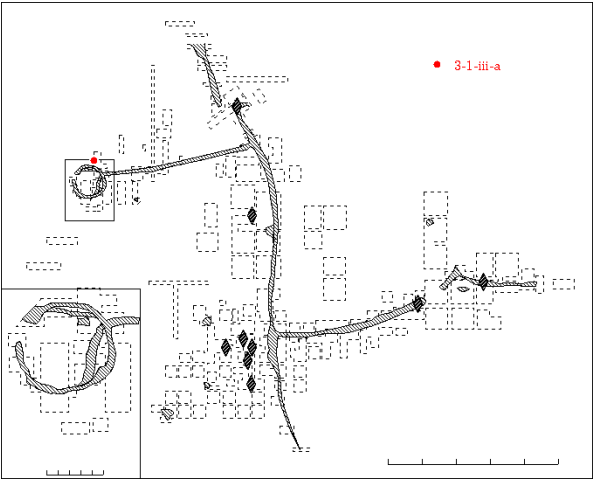
**Excavation report** See p.35.

**Local pottery** A small group including sherds of jars and bowls in HWB and HWC. In addition there are sherds of bead-rim jars in HWA, which are likely to be phase 1 vessels displaced from the adjacent circular feature.

*Not illustrated.*

**Non-local pottery** Sherds of sigillata (SG, 1<sup>st</sup> cent. AD) and VRW.

CONTEXT	FABRIC	FORM	REF.	COMMENT
TVF8	RWS	I		or burnt granular HWC
TVF8	SAM-SG		74/RP23	
TVF8	VRW	I		



FABRIC	EVE	WEIGHT (G)
HWA	0.12	59
HWB	0.10	127
HWC	0.28	243
Total	0.50	429

# 6.27. Phase 3 (1) iii (b) : South-eastern ditch

**Excavation report** See p.35.

**Local pottery** This is a substantial group of HWB and HWC, dominated by rather plain hooked-rim bowls and bead-rim jars.

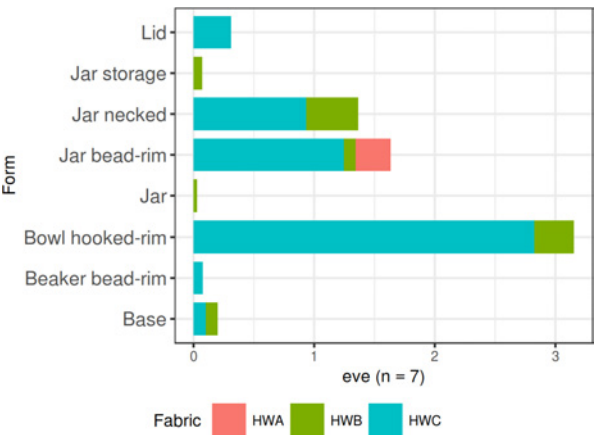
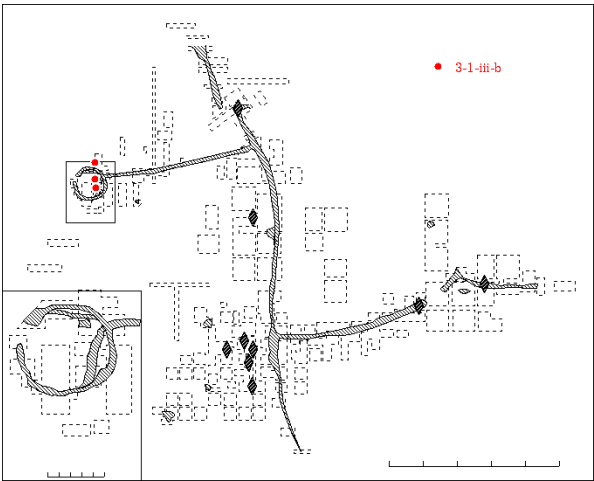
The group also includes a number of phase 1 vessels, including an almost complete cordoned jar in HWB 739 and sherds of several bead-rim jars in fabric HWA 738 which presumably derive from the underlying circular ditch.

**Non-local pottery** A few sherds of samian (SG, 1<sup>st</sup> cent. AD) and VRW.

CONTEXT	REF.	REPORT	DESCRIPTION
TWF1L1	74/SF28	Metal no. 133	Iron object

CONTEXT	FABRIC	FORM	REF.	COMMENT
TVF5	SAM-SG		74/RP20	1st c.
TTF1L1	SAM-SG	Dr27	74/RP14	Flavian
TVF2L2	VRW			



FABRIC	EVE	WEIGHT (G)
HW	.	8360
HWA	0.28	126
HWB	4.92	5654
HWC	1.62	325
Total	6.84	14465

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
686	106	TWF1L1	HWC	H179	
687	106	TWF1L1	HWC	H170	
688	106	TWF1L1	HWC	H180	
689	106	TWF1L1	HWC	H182	
690	106	TWF1L1	HWB	H177	
691	106	TWF1L1	HWB	H174	
692	106	TWF1L1	HWB	H175	
693	106	TWF1L1	HWB	H173	
694	106	TWF1L1	HWC	H188	
695	106	TWF1L1	HWC	H189	
696	106	TWF1L1	HWB	H181	
697	106	TWF1L1	HWC	H185	
698	106	TWF1L1	HWC	H186	
699	106	TWF1L1	HWC	H184	
700	106	TWF1L1	HWB	H196	
701	106	TWF1L1	HWB	H195	
702	106	TWF1L1	HWB	H191	
703	106	TWF1L1	HWB	H197	
704	106	TWF1L1	HWB/C	H192	
705	106	TWF1L1	HWC	H193	
706	106	TWF1L1	HWB/C	H202	
707	106	TWF1L1	HWB	H213	
708	106	TWF1L1	HWB/C	H201	
709	106	TWF1L1	HWB	H214	
710	106	TWF1L1	HWB	H199	
711	106	TWF1L1	HWB/C	H217	
712	106	TWF1L1	HWB	H194	
713	106	TWF1L1	HWB/C	H216	
714	106	TWF1L1	HWB/C	H215	
715	107	TWF1L1	HWB/C	H205	
716	107	TWF1L1	HWB	H218	
717	107	TWF1L1	HWB/C	H210	
718	107	TWF1L1	HWB/C	H208	
719	107	TWF1L1	HWC	H204	
720	107	TWF1L1	HWB/C	H207	
721	107	TWF1L1	HWC	H209	
722	107	TWF1L1	HWC	H212	
723	107	TWF1L1	HWC	H206	
724	107	TWF1L1	HWB	H211	
725	107	TWF1L1	HWB	H222	
726	107	TWF1L1	HWB	H223	
727	107	TWF1L1	HWB	H225	
728	107	TWF1L1	HWC	H226	
729	107	TWF1L1	HWB/C	H228	
730	107	TWF1L1	HWB	H229	
731	107	TWF1L1	HWB	H230	
732	107	TWF1L1	HWC	H227	
733	107	TWF1L1	HWB	X2128	foot
734	107	TWF1L1	HWB	X2127	foot
735	107	TWF1L1	HWB	X2126	foot
736	107	TWF1L1	HWB	H231	
737	107	TWF1L1	HWC	H232	
738	107	TWF1L1	HWA	H233	phase 1
739	107	TWF1L1	HWB	H234	phase 1
740	108	TTF1L1	HWB	H171	
741	108	TTF1L1	HWC	H178	
742	108	TTF1L1	HWC	H168	
743	108	TTF1L3	HWC	H172	
744	108	TTF1L1	HWC	H169	
745	108	TTF1L1	HWC	H176	
746	108	TTF1L1	HWC	H190	

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
747	108	TTF1L1	HWB/C	H203	
748	108	TTF1L1	HWB/C	H198	
749	108	TTF1L1	HWC	H219	
750	108	TTF1L1	HWC	H220	
751	108	TTF1L1	HWB	H221	
752	108	TTF1L1	HWC	H200	
753	108	TTF1L1	HWC	74/SF16	foot; gritty fabric

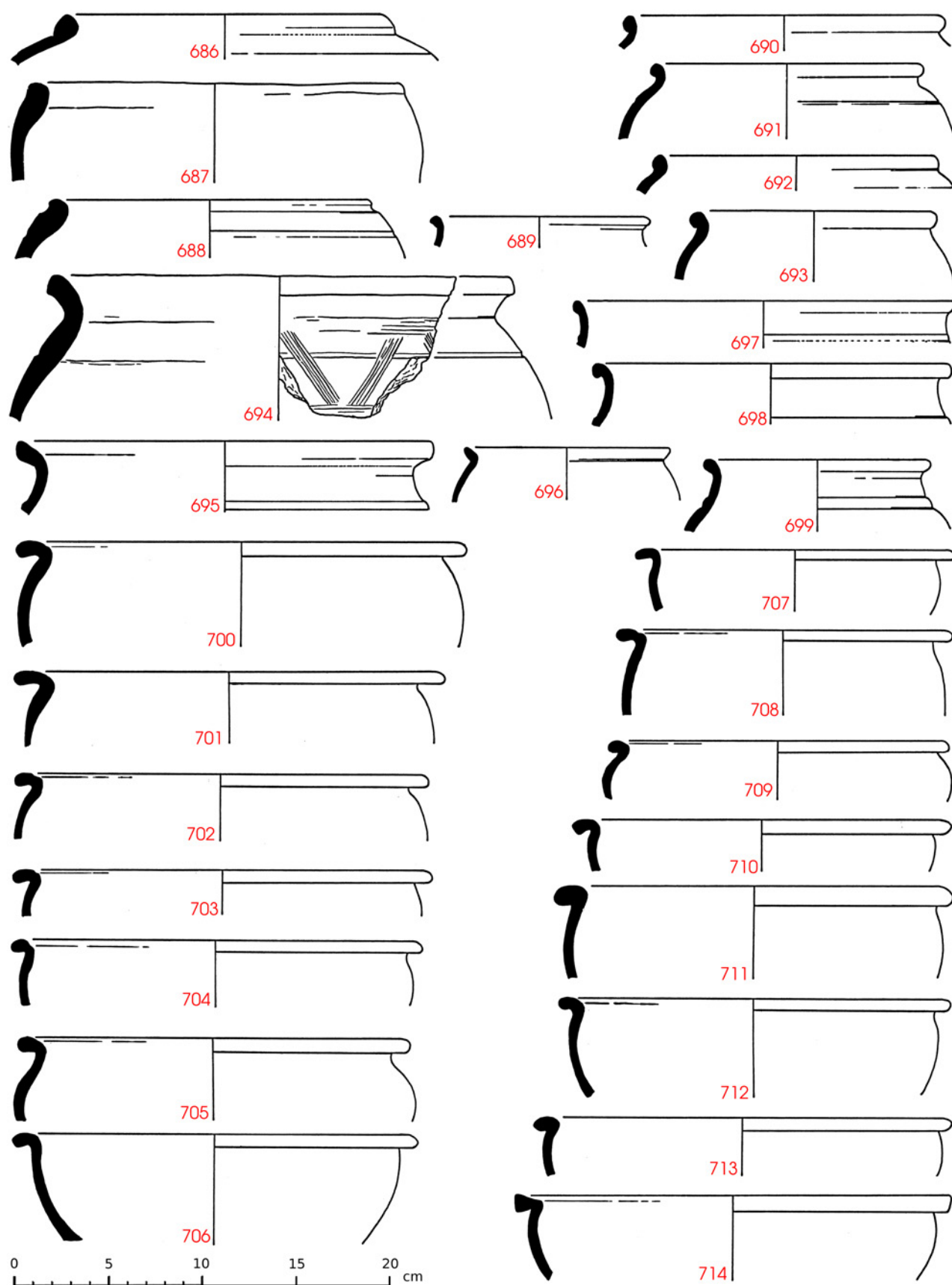


Fig. 106. Highgate Wood: 3 (1) iii (b): local pottery [1:3]



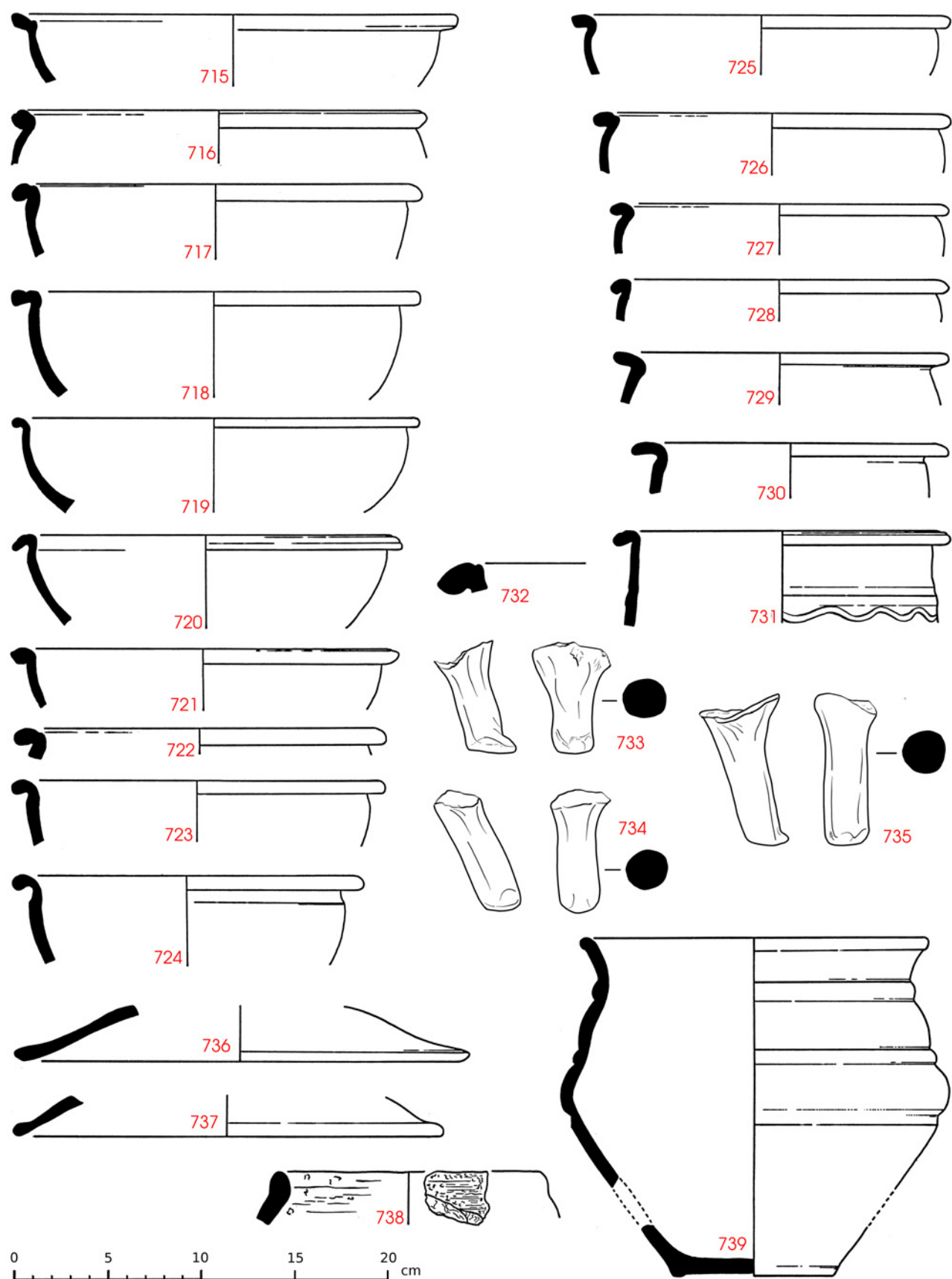


Fig. 107. Highgate Wood: 3 (1) iii (b): local pottery [1:3]

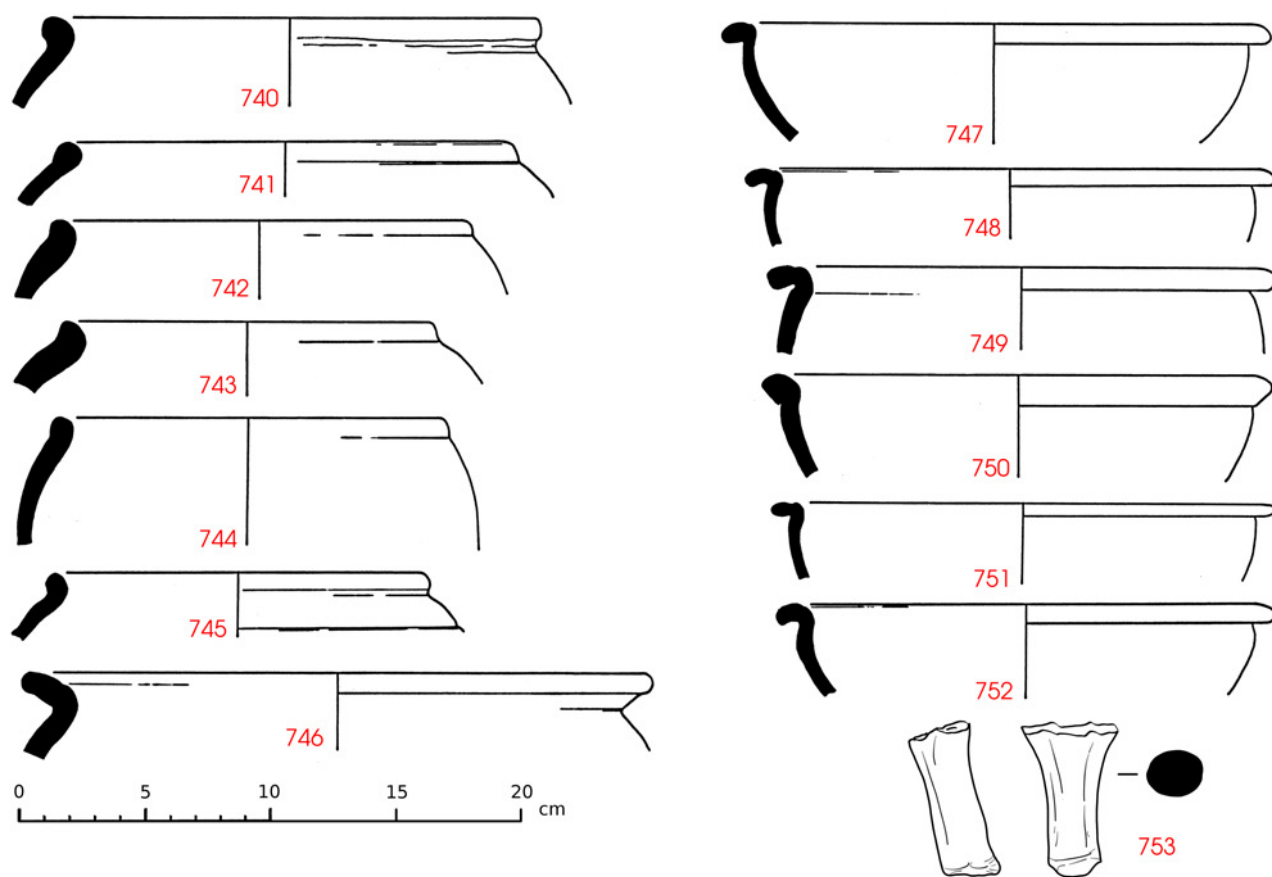


Fig. 108. Highgate Wood: 3 (1) iii (b): local pottery [1:3]

## 6.28. Phase 3 (1) iv (a) : Western end

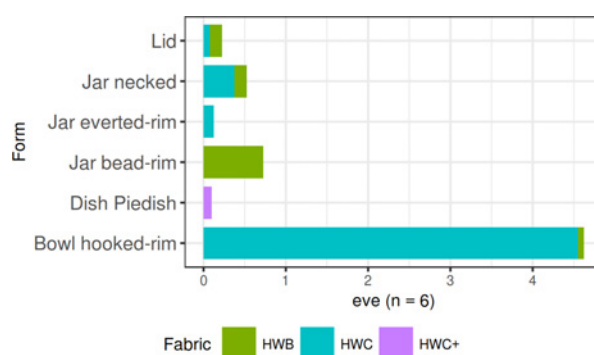
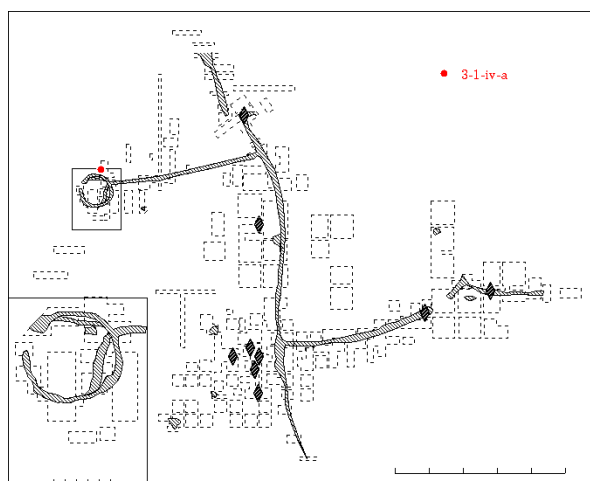
**Excavation report** See p.35.

**Local pottery** This is a substantial group of HWB and HWC, dominated by rather plain hooked-rim bowls.

**Non-local pottery** A few sherds of samian (SG 1<sup>st</sup> cent. AD) and a sherd of VRW mortarium.

CONTEXT	REF.	REPORT	DESCRIPTION
TVF1L3	74/SF4	Glass no. 3	Pillar moulded bowl

CONTEXT	FABRIC	FORM	REF.	COMMENT
TVF1L2	SAM-SG		74/RP18	1st c.
TVF1L2	SAM-SG	Dr27	74/RP22	Flavian
TVF1L1	VRW	mortarium		



FABRIC	EVE	WEIGHT (G)
HW	.	5010
HWB	5.77	2026
HWC	0.45	194
HWC+	0.10	48
Total	6.32	7278

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
754	109	TVF1L2/ TVF1L3	HWC	H145	
755	109	TVF1L1	HWB	X2043	
756	109	TVF1L1	HWB	X2044	
757	109	TVF1L1	HWB	X2045	
758	109	TVF1L2	HWC	H143	
759	109	TVF1L2	HWC	H144	
760	109	TVF1	HWC	X2046	
761	109	TVF1L1	HWC	X2047	
762	109	TVF1	HWC	X2048	
763	109	TVF1L1	HWB	X2049	
764	109	TVF1L1	HWB	X2050	
765	109	TVF1	HWC	X2051	
766	109	TVF1L1	HWB	X2052	
767	109	TVF1L1	HWB	X2053	
768	109	TVF1L1	HWC	H142	
769	109	TVF1L1	HWB	X2054	
770	109	TVF1L1	HWB	X2055	
771	109	TVF1L1	HWC	H148	
772	109	TVF1L1	HWC	H150	
773	109	TVF1L1	HWB	H149	
774	109	TVF1L2/ TVF1L3	HWC	H146	
775	109	TVF1L3	HWB/C	H147	
776	109	TVF1L2	HWC	H160	
777	109	TVF1	HWC	X2056	
778	109	TVF1L1	HWC	X2057	
779	109	TVF1	HWC	X2058	
780	109	TVF1L1	HWC	X2059	
781	109	TVF1	HWC	X2060	
782	109	TVF1L1	HWC	X2061	
783	109	TVF1L1	HWC	X2062	
784	109	TVF1L1	HWC	X2063	
785	109	TVF1L1	HWC	X2064	
786	109	TVF1	HWC	X2065	
787	109	TVF1L1	HWC	X2066	
788	109	TVF1L2	HWC	H159	
789	110	TVF1L2	HWB	H155	
790	110	TVF1L1	HWC	H153	
791	110	TVF1L2	HWC	H151	
792	110	TVF1L2	HWC	H165	
793	110	TVF1L3	HWC	H164	
794	110	TVF1L1	HWC	H154	
795	110	TVF1L1	HWC	X2067	
796	110	TVF1L2	HWB	H166	
797	110	TVF1L1	HWC	H152	
798	110	TVF1L3	HWC	H156	
799	110	TVF1L2	HWC	H157	
800	110	TVF1	HWC	X2068	
801	110	TVF1L3	HWC	H158	
802	110	TVF1L1	HWB	X2069	
803	110	TVF1L1	HWC	X2070	
804	110	TVF1	HWC	X2071	
805	110	TVF1L2	HWC	H163	
806	110	TVF1L1	HWC	X2072	
807	110	TVF1L1	HWB	X2073	
808	110	TVF1	HWC	X2074	
809	110	TVF1L1	HWB	X2075	
810	110	TVF1L1	HWB/C	X2076	
811	110	TVF1	HWC	X2077	
812	110	TVF1L3	HWC	H167	

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
813	111	TVF1L1	HWC	X2078	
814	111	TVF1	HWC	X2079	
815	111	TVF1	HWC	X2080	
816	111	TVF1	HWC	X2081	
817	111	TVF1L1	HWC	X2082	
818	111	TVF1L1	HWB	X2083	
819	111	TVF1L1	HWC	X2084	
820	111	TVF1	HWC	X2085	
821	111	TVF1	HWC	X2086	
822	111	TVF1	HWC	X2087	
823	111	TVF1	HWC	X2088	
824	111	TVF1	HWC	X2089	sieve?
825	111	TVF1	HWC	X2106	
826	111	TVF1	HWC	X2092	
827	111	TVF1	HWC	X2099	
828	111	TVF1	HWC	X2093	
829	111	TVF1	HWC	X2094	
830	111	TVF1L1	HWB	X2095	
831	111	TVF1	HWC	X2096	
832	111	TVF1	HWC	X2097	
833	111	TVF1	HWC	X2098	
834	111	TVF1	HWC	X2104	
835	111	TVF1	HWC	X2105	
836	111	TVF1	HWC	X2102	
837	111	TVF1	HWC	X2101	
838	111	TVF1	HWC	X2110	
839	111	TVF1	HWC	X2109	
840	111	TVF1L1	HWC	X2107	
841	111	TVF1	HWC	X2108	
842	111	TVF1	HWC	X2111	
843	111	TVF1L1	HWC	X2112	
844	111	TVF1L2	HWB	74/SF33	foot
845	111	TVF1L2	HWB	X2135	foot
846	111	TVF1L2	HWB	X2134	foot
847	111	TVF1	HWC	X2090	foot
848	111	TVF1	HWC	X2091	foot
849	111	TVF1L3	HWB	X2137	foot
850	111	TVF1L3	HWB	X2138	foot

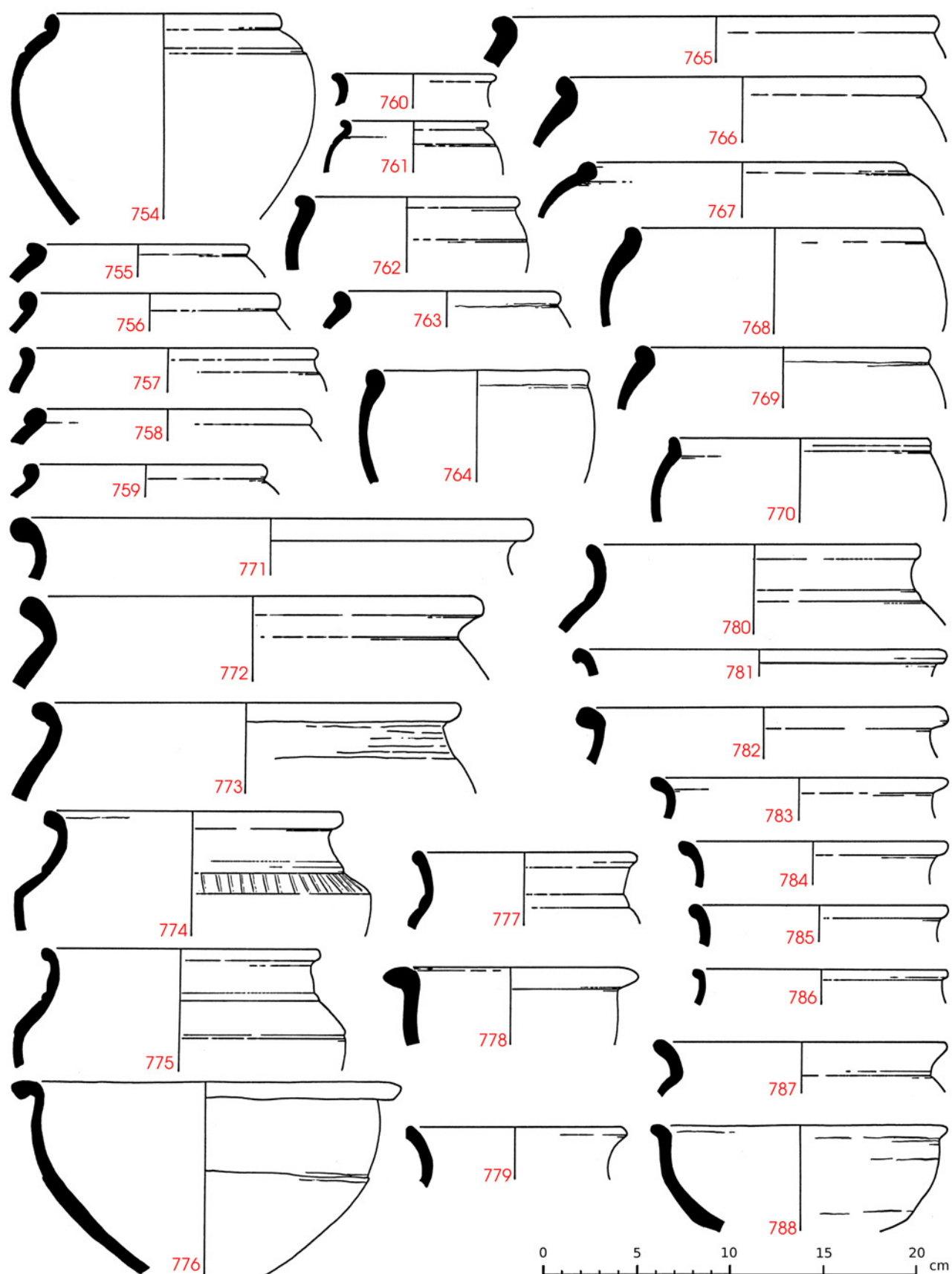


Fig. 109. Highgate Wood: 3 (1) iv (a): local pottery [1:3]

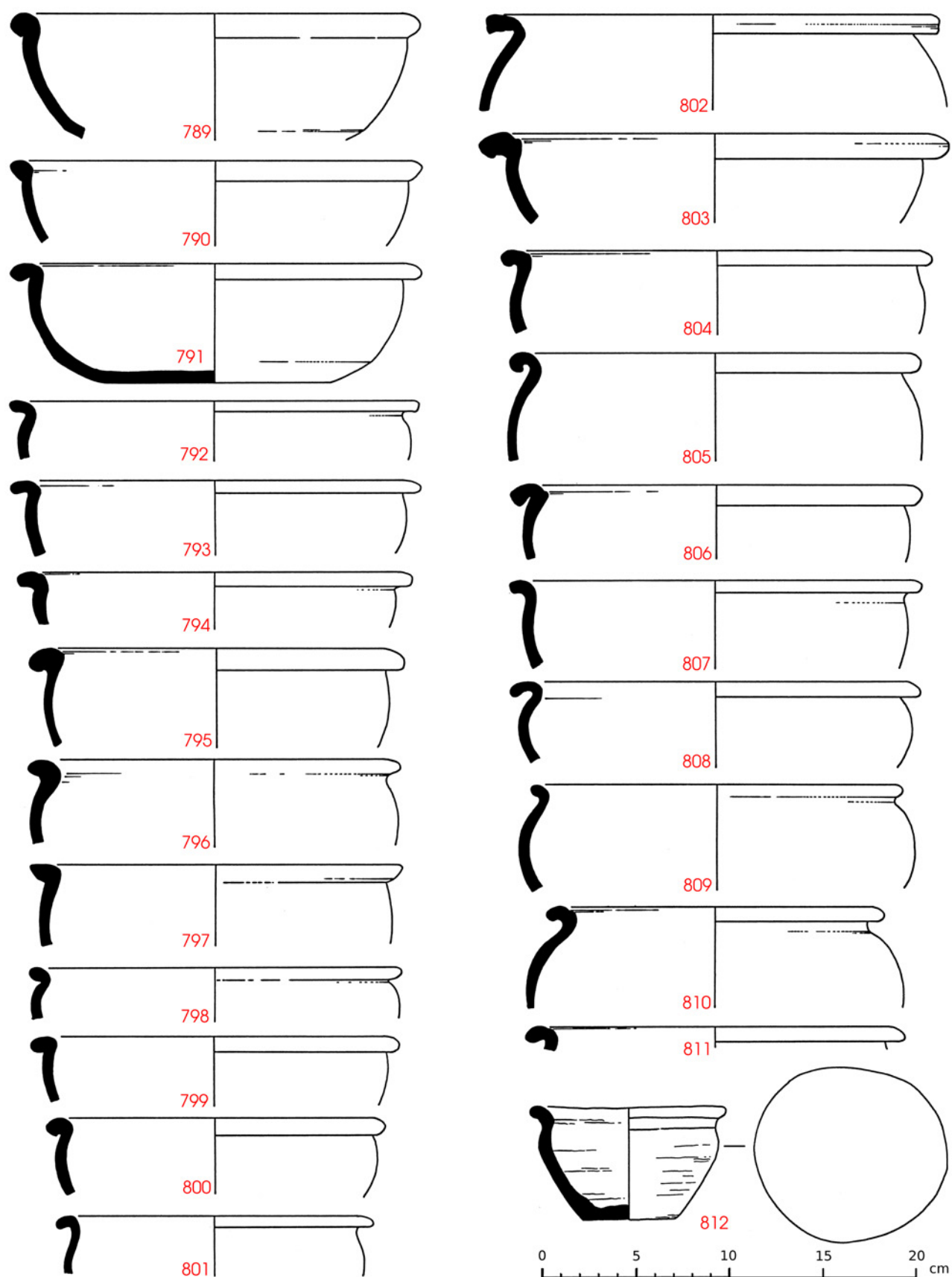


Fig. 110. Highgate Wood: 3 (1) iv (a): local pottery [1:3]



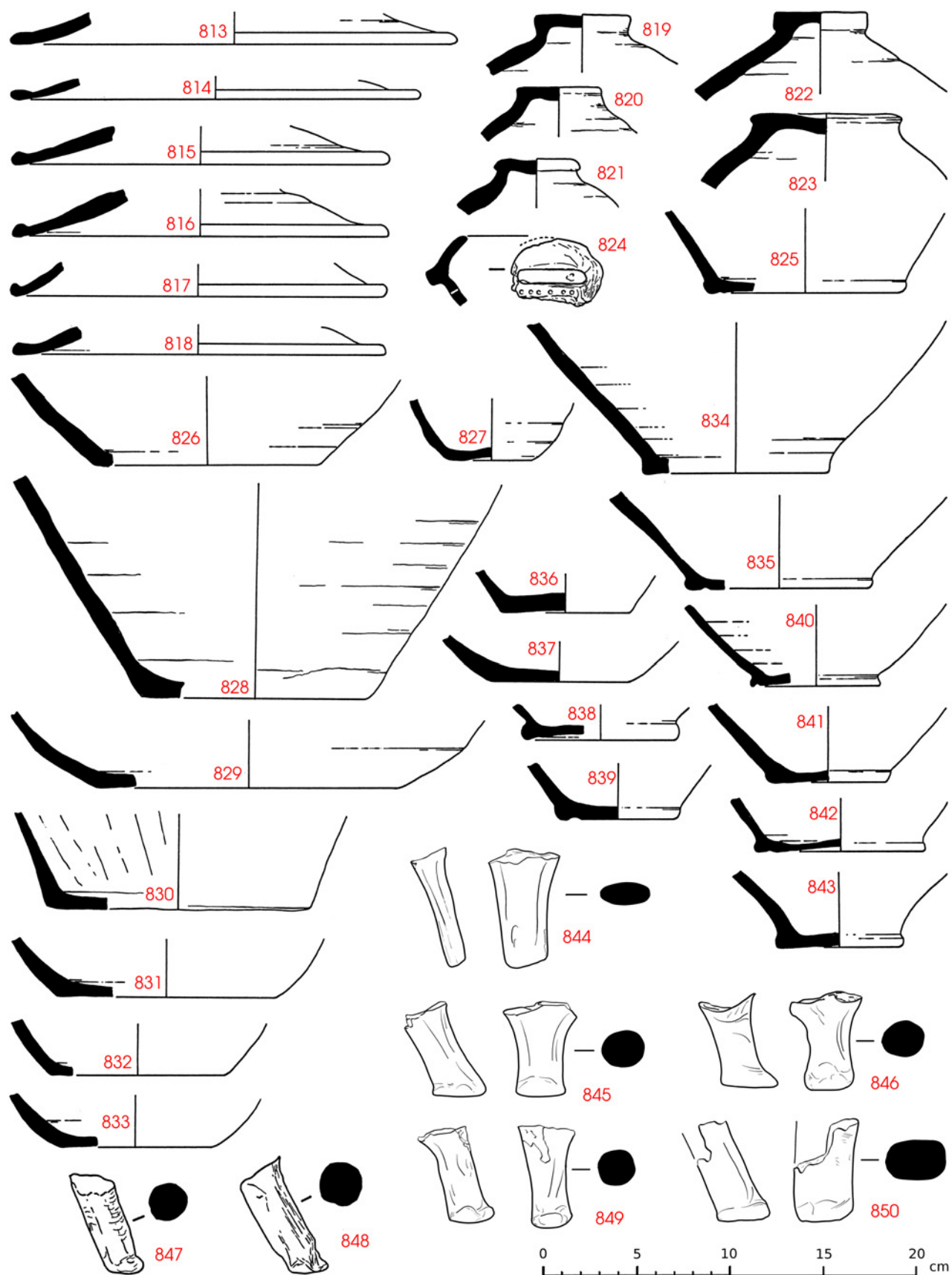


Fig. 111. Highgate Wood: 3 (1) iv (a): local pottery [1:3]

## 6.29. Phase 3 (1) iv (b) : Ditch moving east

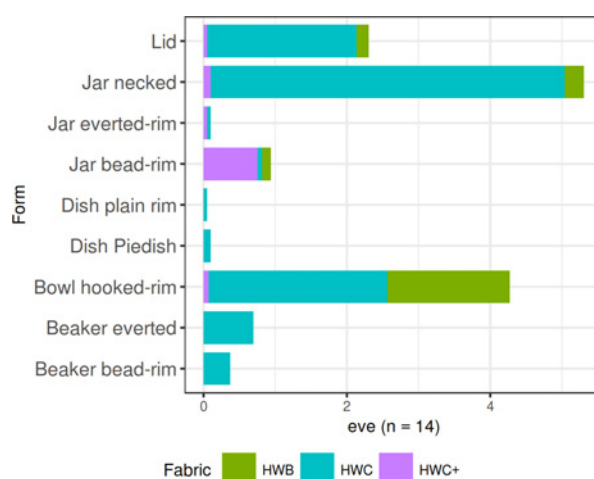
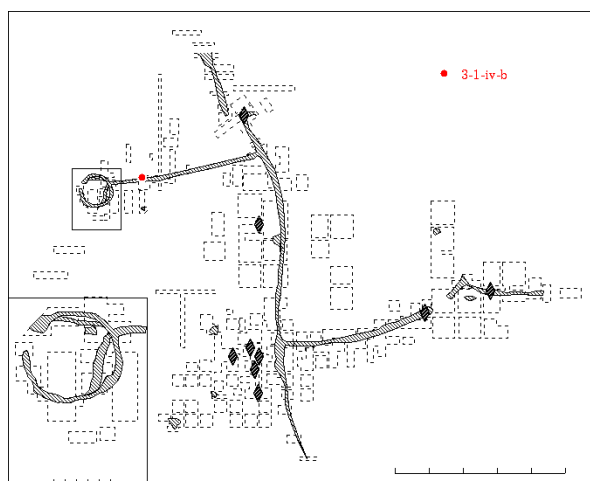
**Excavation report** See p.35.

**Local pottery** A substantial group dominated by necked jars and plain hooked-rim bowls in HWB and HWC.

*Not illustrated.*

**Non-local pottery** A range of non-local pottery includes two samian (SG, 1<sup>st</sup> cent. CG, 2<sup>nd</sup> cent.) and several VRW sherds. A few grey wares sherds in a granular fabric may be non-local, perhaps Alice-Holt products.

CONTEXT	FABRIC	FORM	REF.	COMMENT
T130S1F1L1	AHSU			
T130S1F1L6	AHSU			
T130S2F1L2	AHSU			
T130S3F1L2	AHSU			
T130S3F1L2	OTHER			
T130S1F1L1	RWS			
T130S3F1L2	RWS			
TUF1L1	SAM-CG		74/RP6	2nd c.
TUF1L1	SAM-SG		74/RP10	1st c.
T130S1F1L1	SAM-SG	plate	78/RPX2	Pre- or early Flavian
T130S1F1L1	VRW			
T130S2F1L1	VRW			
T130S2F1L2	VRW			
T130S3F1L2	VRW			



FABRIC	EVE	WEIGHT (g)
HW	.	5849
HWB	2.27	1221
HWC	10.85	7000
HWC+	1.02	379
Total	14.14	14449

6.30. Phase 3 (1) iv (c) : Ditch 5 extended to the east in this phase

Excavation report See p.35.

**Local pottery** A small group of mixed HWB and HWC material, including jars, bead-rim jars, beakers and bowls.

**Non-local pottery** The group includes sigillata (SG, 1<sup>st</sup> cent. AD) and several large sherds of a Central Gaulish colour-coated beaker with hairpin decoration which should be dated Flavian-Trajanic.

CONTEXT	FABRIC	FORM	REF.	COMMENT
T117F1L3	CGWH	beaker	GM472	hairpin decoration; slip worn off
T104F2L2	SAM-SG		72/RP30	1st c.

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
851	112	TSF1L5	HWB	H116	
852	112	TSF1L5	HWC	H117	
853	112	TSF1L5	HWC	H118	
854	112	T104F2L2	HWC	H399	
855	112	T104F2L2	HWC	H408	
856	112	T104F2L2	HWC	H410	
857	112	T104F2L2	HWC	H413	

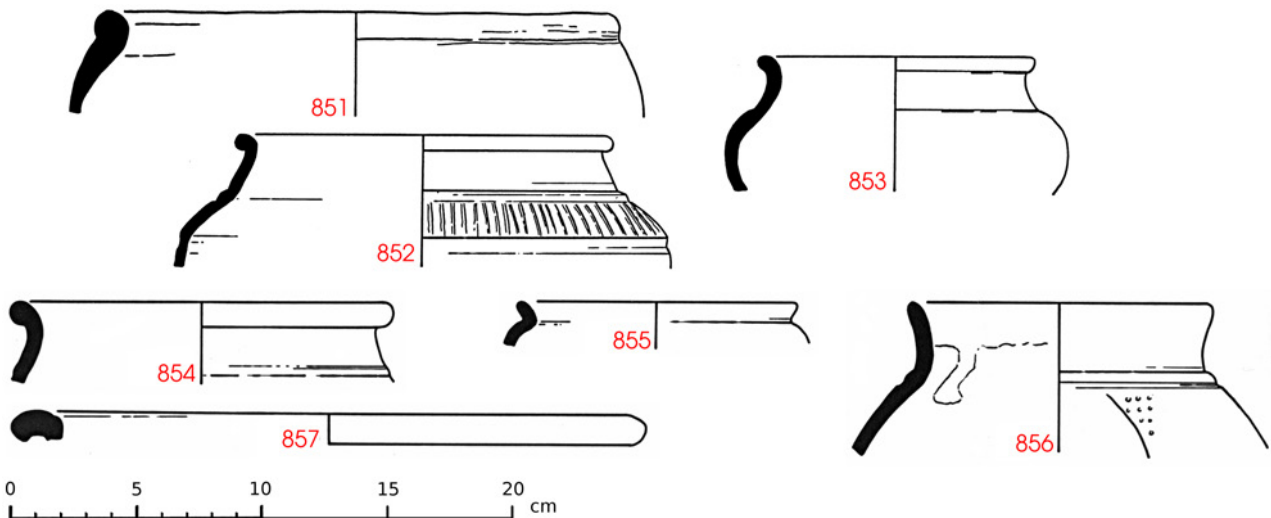
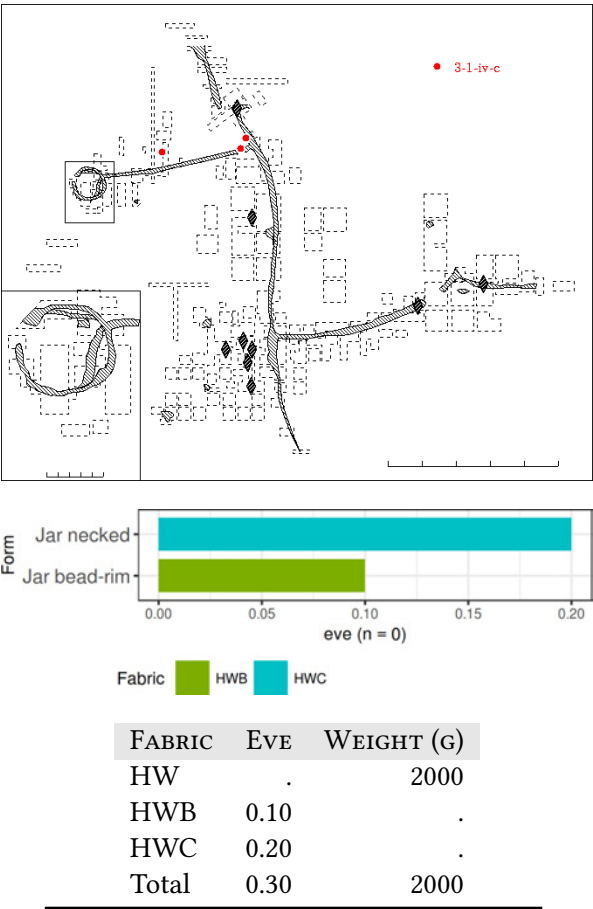


Fig. 112. Highgate Wood: 3 (1) iv (c): local pottery [1:3]

### 6.31. Phase 3 (1) iv (d) : Eastern portion Ditch 5, latest levels

Excavation report See p.35.

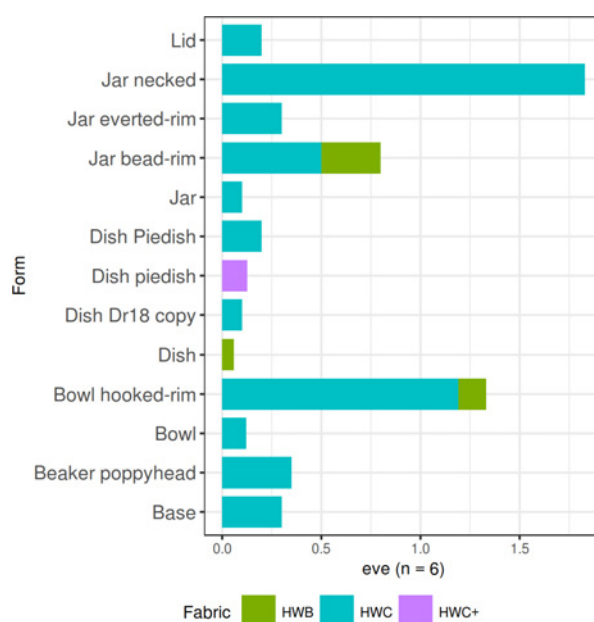
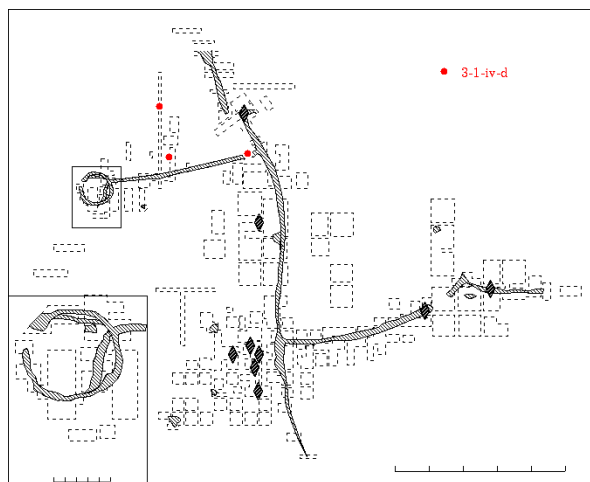
**Local pottery** The pottery from these levels includes vessels in HWC, dominated by necked jars and hooked-rim bowls, but including other forms such as the black-burnished derived pie-dish [892](#) and everted-rim jars [886-7](#), and a rather finely made copy of a Drag.18 plate [878](#).

**Non-local pottery** These layers contain several VRW mortarium sherds, including vessels stamped by Doccas ([893](#) AD 70-110) and Moricamulus ([894](#) AD 85-100), a VRW ring-necked flagon [895](#), several samian sherds (SG, 1<sup>st</sup> cent. and Flavian-Trajanic) and a sherd of a Central-Gaulish colour coated beaker.

CONTEXT	REF.	REPORT	DESCRIPTION
T104F2L1	72/SF211	Glass no. 44	Inlay

CONTEXT	FABRIC	FORM	REF.	COMMENT
T104F2L1	CGWH	beaker	GM452	shl=gm452 v.worn
T104F2L1	SAM-SG		72/RP29	
TSF1L1	SAM-SG		74/RP13	1st c.
TSF1L1	SAM-SG		74/RP12	
TSF1L1	SAM-SG	Cu11	74/RP9	Flavian-Trajanic
TSF1L1	SAM-SG	Cu11	74/RP2	Flavian-Trajanic
TSF1L1	SAM-SG	Cu11	74/RP11	Flavian-Trajanic
TIF2L1	VRW			
TIF2L1	VRW			
TIF2L2	VRW	I		
TSF1L1	VRW	mortarium	GM476	<a href="#">893</a> DOCCAS AD 85-100 spout
TSF1L1	VRW	mortarium	GM473	AD 70-100 spout
TSF1L1	VRW	mortarium	GM475	<a href="#">893</a> DOCCAS AD 85-100 spout
TSF1L1	VRW	mortarium	GM477	<a href="#">894</a> MORI- CAM[ULUS]/L.FECIT AD 70-110 spout wire-marks on base



FABRIC	EVE	WEIGHT (g)
HW	.	16150
HWB	0.80	374
HWC	5.49	113
HWC+	0.12	14
Total	6.41	16651

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
858	113	TSF1L4	HWB	H119	
859	113	TSF1L4	HWC	H120	
860	113	TSF1L4	HWC	H122	
861	113	TSF1L4	HWC	H121	
862	113	TSF1L3	HWC	H123	
863	113	TSF1L3	HWC	H126	
864	113	TSF1L3	HWC	H125	
865	113	TSF1L3	HWC	H124	
866	113	TSF1L2	HWC	H130	
867	113	TSF1L2	HWC	H129	
868	113	TSF1L2	HWC	H127	
869	113	TSF1L2	HWB	H128	
870	113	TSF1L1	HWB	H131	
871	113	TSF1L1	HWC	H132	
872	113	TSF1L1	HWC	H133	
873	113	TSF1L1	HWC	H134	
874	113	TSF1L1	HWC	H135	
875	113	TSF1L1	HWC	H136	
876	113	TSF1L1	HWC	H138	
877	113	TSF1L1	HWC	H137	
878	113	TSF1L1	HWC	H139	Dr18 copy
879	113	TSF1L1	HWC	H141	
880	114	T104F2L3	HWC	H402	
881	114	T104F2L3	HWC	H406	
882	114	T104F2L3	HWC	H412	
883	114	T104F2L1	HWC	H401	
884	114	T104F2L1	HWB/C	H403	
885	114	T104F2L1	HWC	H398	
886	114	T104F2L1	HWC	H404	
887	114	T104F2L1	HWC	H405	
888	114	T104F2L1	HWC	H409	
889	114	T104F2L1	HWB/C	H400	
890	114	T104F2L1	HWB	H411	
891	114	T104F2L1	HWC	H407	
892	114	T104F2L1	HWC	H414	
893	115	TSF1L1	VRW	GM475	AD 85-100
893	115	TSF1L1	VRW	GM476	AD 85-100
894	115	TSF1L1	VRW	GM477	AD 70-110
895	115	TSF1L1		H140	

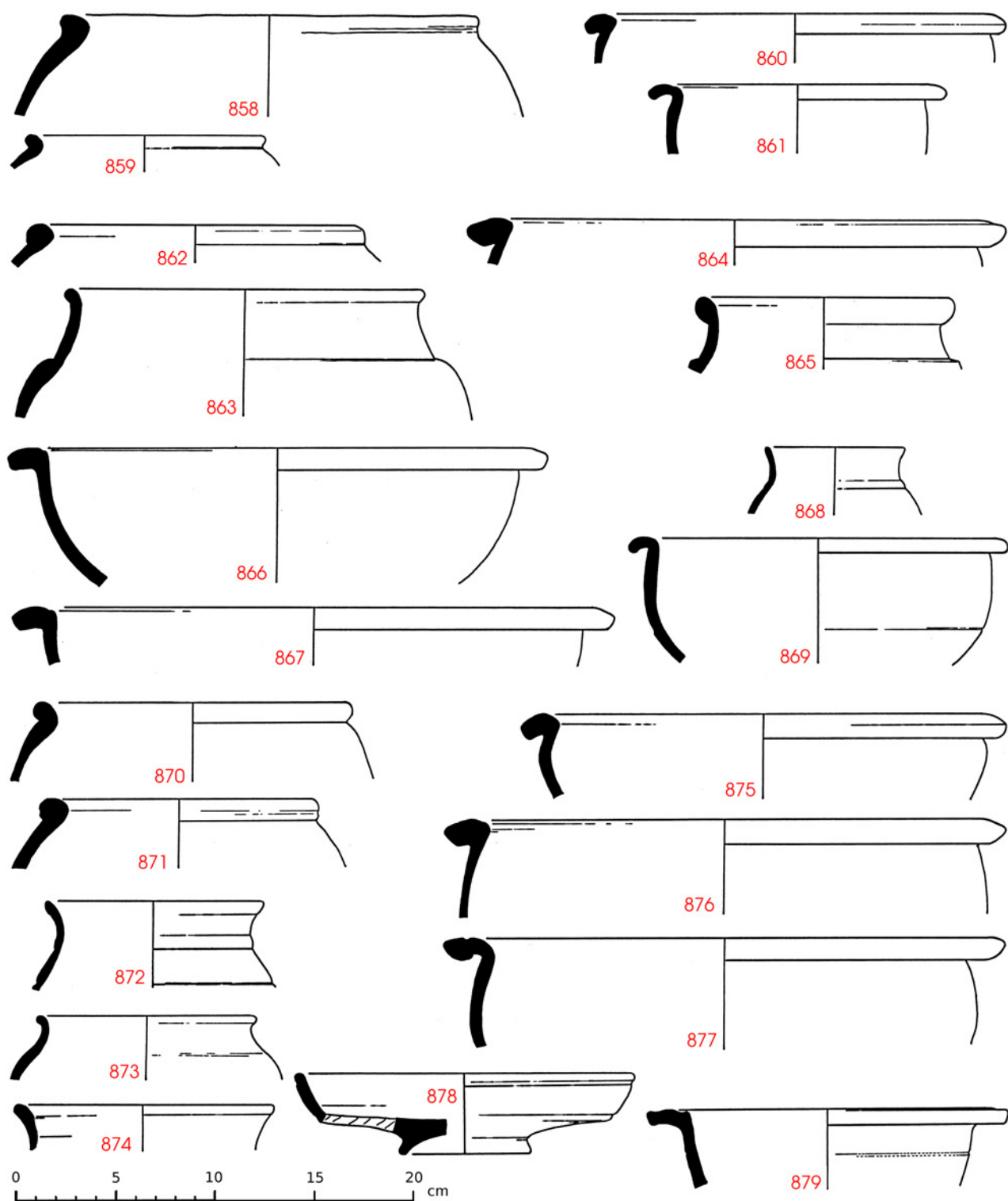


Fig. 113. Highgate Wood: 3 (1) iv (d): local pottery [1:3]



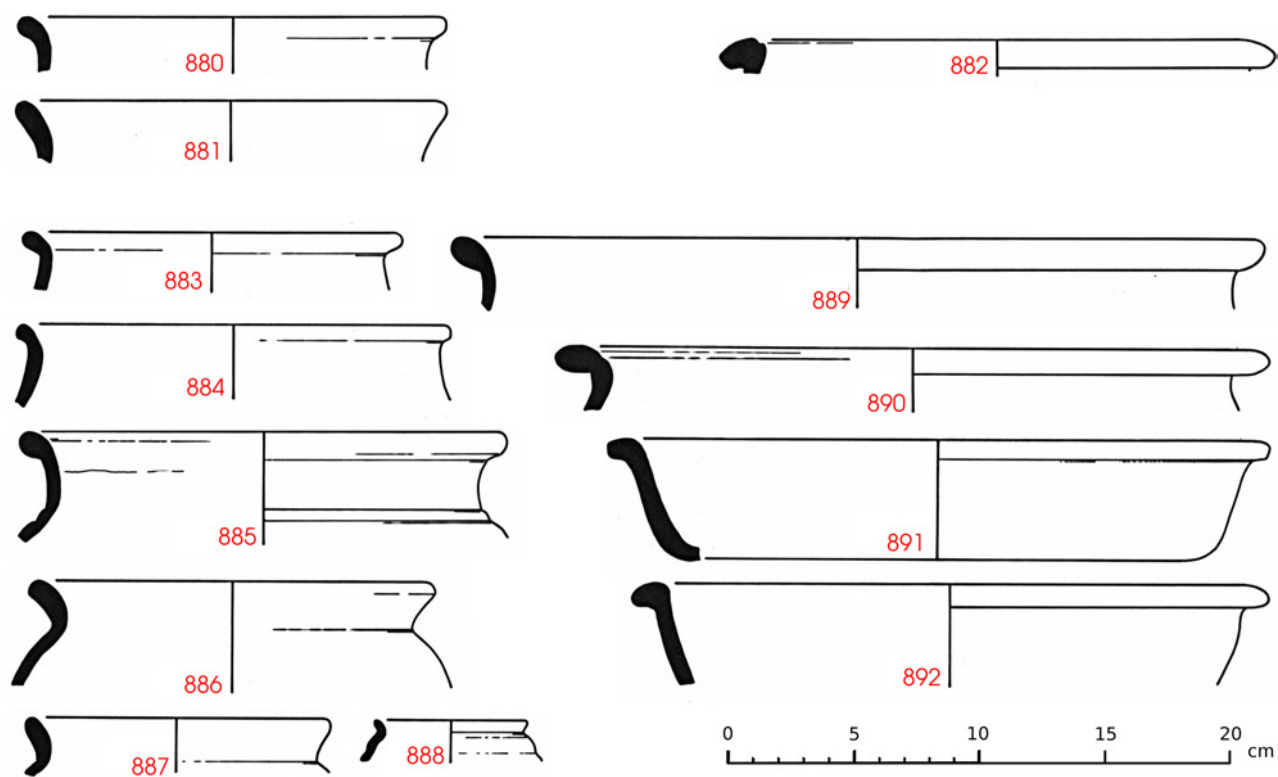


Fig. 114. Highgate Wood: 3 (1) iv (d): local pottery [1:3]

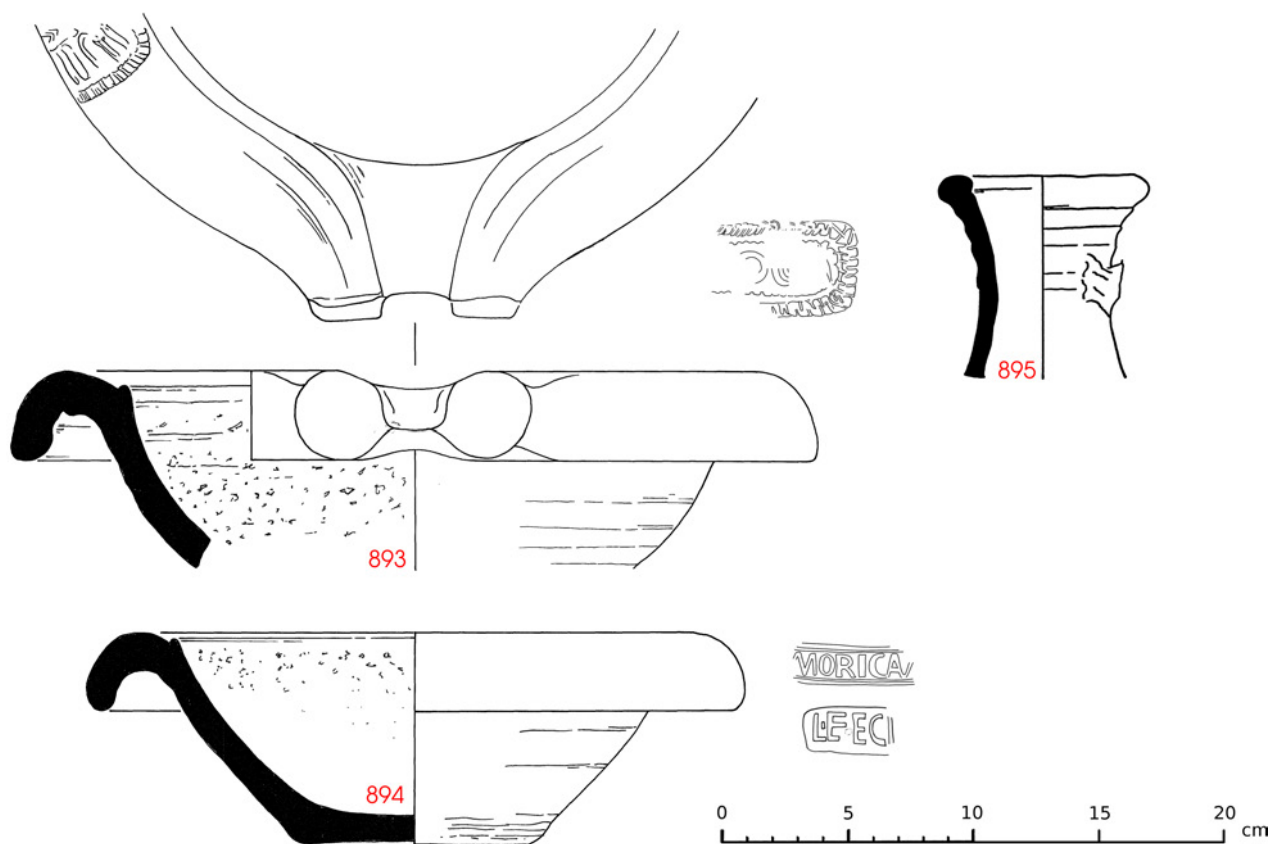


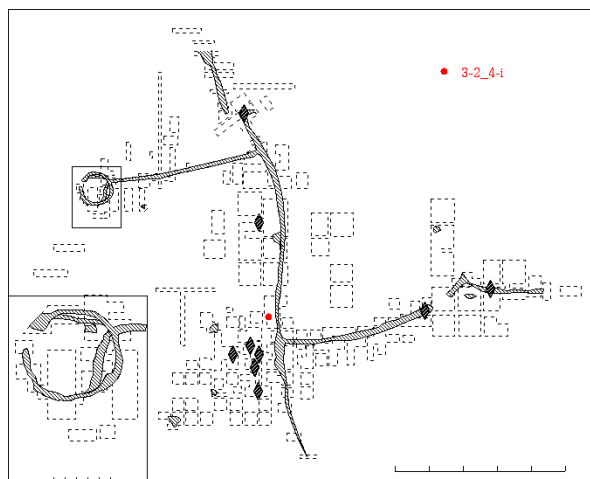
Fig. 115. Highgate Wood: 3 (1) iv (d): non-local pottery [1:3]

### 6.32. Phase 3 (2-4) i : Re-use of former levigation pit at western end of Ditch 2

**Excavation report** See p.36.

**Local pottery** A small group including HWC jars and bowls and an everted-rim jar in HWC+. *Not illustrated.*

**Non-local pottery** Sherds of sigillata (SG, 1<sup>st</sup> cent. AD) and VRW.



CONTEXT	FABRIC	FORM	REF.	COMMENT
T40F2	RWS		GM329	
T40F1	SAM-SG		69/RP155	1st c.
T40F2	SAM-SG		69/RP181	1st c.
T40F1	VRW	I		

FABRIC	EVE	WEIGHT (g)
HW	.	390
HWB	.	67
HWC	.	35
HWC+	.	10
Total	.	502

### 6.33. Phase 3 (2-4) ii : Ditch 1, northern portion, from south. Variety of profiles

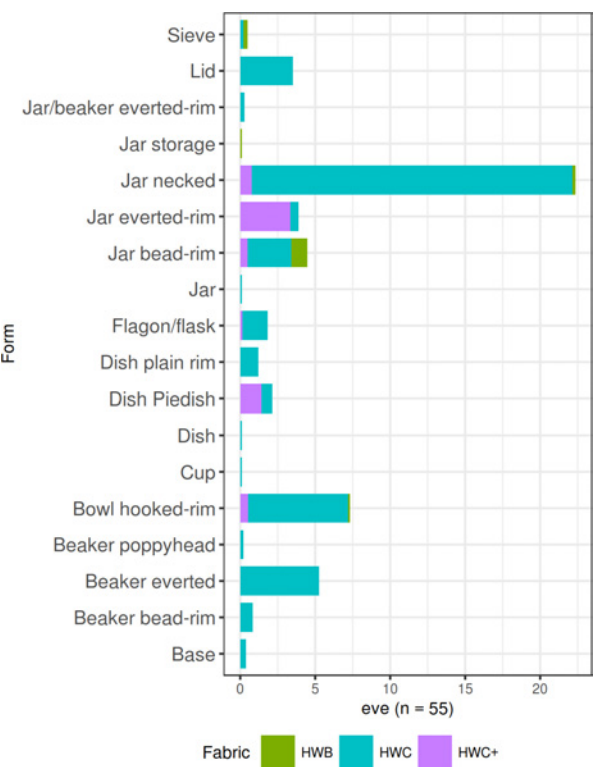
**Excavation report** See p.36.

**Local pottery** This is a substantial, but rather fragmentary assemblage. Most of the material is HWC, and the forms are dominated by necked jars, with smaller numbers of hooked-rim bowls, beakers and other jars. There are also a few lattice decorated everted-rim jars 910 and pie-dishes 904, 912 in HWC and HWC+. The HWB material includes a probable rim-sherd of a butt-beaker 916 (possibly phase 1), a tazze 922, a base pierced with holes before firing 925, and a possible tubular handle 905<sup>5</sup>.

**Non-local pottery** The group includes a particularly large assemblage on non-local wares. The sigillata includes both South Gaulish (1<sup>st</sup> cent. AD) sherds and Central Gaulish vessels (Drag 18/31 and Drag.35, early 2<sup>nd</sup> cent., Drag.33, early-mid 2<sup>nd</sup> cent., and a decorated Drag.37, dated AD 120-150). There are more than 30 sherds of VRW, representing at least 15 vessels, including ring-necked flagons, bowls, jars, including one with part of a face-mask 932. In addition there are five VRW mortaria (dated AD 70-110, 80-120, 110/120-140, 120-145 and 120-150) and one in an unsourced orange fabric (931 dated AD 100-130).

Further non-local vessels include a sherd of a Central Gaulish colour-coated beaker with hairpin decoration which should be dated Flavian-Trajanic and a sherd of an Iberian *salazon* amphora.

**Other objects** There are fragments of an Mayen lava quern stone in the group, plus two fragments of sand-stone querns and a hone stone.



FABRIC	EVE	WEIGHT (G)
HW	0.10	58900
HWB	1.80	1165
HWC	46.12	7632
HWC+	6.70	1525
Total	54.72	69222

CONTEXT	REF.	REPORT	DESCRIPTION
T105F1L1	72/SF30	Stone no. 19	Quern (Sandstone)
T105F1L2	72/SF196	Stone no. 5	Hone (Roman)
T92F2	71/SF158	Stone no. 27	Quern (Sandstone)
T94F2L2	71/SF176	Stone no. 1	Quern (Lava)

CONTEXT	FABRIC	FORM	REF.	COMMENT
T94F1L1	AMPH	Cam186	GM436	
T117F1L1	CGWH	beaker	GM452	v worn; shl=gm452

<sup>5</sup>Item 905 is also illustrated in the report on baked clay by A E Brown, where it is interpreted as a nozzle or tube, perhaps used in the decoration of pottery (Report on Baked Clay Objects, p.330, Section 15.8, no. 18, and Fig. 206, no.18).

CONTEXT	FABRIC	FORM	REF.	COMMENT	No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
T93F3	OXID				896	116	T117F1L1	HWC	H249	
T94F1L2	PREHIST		71/RP131		897	116	T117F1L1	HWB	H250	
T93F3	RWS	mortarium	GM536	928 AD 100-130	898	116	T117F1L1	HWC	H253	
T93F3L3	RWS	mortarium	GM539	931 v.friable orange fabric	899	116	T117F1L1	HWC	H252	
					900	116	T117F1L1	HWC	H251	
T99F1L2	SAM-CG		71/RP138	2nd c., frags	901	116	T93F3	HWC	M803	
T99F1L2	SAM-CG		71/RP141	2nd c.	902	116	T93F3	HWC+	M396B	
T99F1L2	SAM-CG	Dr18/31	71/RP148	Early-2nd c.	903	116	T93F2	HWC	M397	
T99F1L2	SAM-CG	Dr18/31	71/RP143	Early-2nd c.	904	116	T93F2	HWC+	M391B	pie dish w. lattice
T105F1L2	SAM-CG	Dr33	72/RP28	Early-mid 2nd c.	905	116	T93F2	HWB/C	71/SF227	hollow spout or handle
T93F2	SAM-CG	Dr35	71/RP150	Early-2nd c.						
T92F1L2	SAM-CG	Dr37	71/RP91/92	Decorated no.22, AD 125-150	906	116	T94F2L1	HW	M807	
					907	116	T94F2L1	HWC+	M806	
T93F3	SAM-SG		71/RP96	burnt	908	116	T94F2L1	HW	M805	
T94F1L5	SAM-SG		71/RP129	1st c.	909	116	T94F2L1	HW	M804	
T94F2L2	SAM-SG		71/RP115	1st c.	910	116	T94F2L3	HWC+	M393B	everted rim jar
T99F1L2	SAM-SG		71/RP139	1st c.	911	116	T94F2L4	HWC+	M392B	w. handle
T99F1L2	SAM-SG		71/RP140	1st c.	912	116	T94F2L3	HWC+	M394B	pie dish
T99F1L2	SAM-SG		71/RP144	1st c.	913	116	T94F2L4	HWC	X2139	stamped decora- tion
T92F1L2	SAM-SG	Dr18	71/RP95	Flavian						
T92F1L2	VRW				914	117	T92F1L3	HWB	X932	
T92F2	VRW				915	117	T92F1L3	HWB	X929	
T93F2	VRW		GM430	932	916	117	T92F1	HWB	X933	phase 1? Butt- beaker?
T93F3L2	VRW									
T94F1L3	VRW				917	117	T92F1	HWC	X935	
T94F1L4	VRW				918	117	T92F3L3	HWC	X953	
T92F1L3	VRW	I			919	117	T92F3L2	HWC	X951	
T92F2	VRW	I			920	117	T92F3L2	HWC	X950	
T93F2	VRW	I			921	117	T92F3L3	HWC	X954	
T93F3	VRW	I			922	117	T92F3L2	HWB	X949	tazze
T93F3L3	VRW	I			923	117	T92F1L3	HWC	X930	
T94F1L1	VRW	I			924	117	T92F1	HWC	X934	
T94F1L2	VRW	I			925	117	T92F1L3	HWB	X928	sieve?
T94F1L3	VRW	I			926	117	T92F1L3	HWB	X931	
T94F2L1	VRW	I			927	118	T105F1L1	VRW	GM465	AD 70-110
T94F2L2	VRW	I			928	118	T93F3	RWS	GM536	AD 100-130
T94F2L3	VRW	I			929	118	T94F2L3	VRW	GM508	AD 120-145
T94F2L4	VRW	I			930	118	T94F1L2	VRW	GM480	AD 110/120-140
T99F1L1	VRW	I			931	118	T93F3L3	RWS	GM539	mortarium
T99F1L2	VRW	I			932	118	T93F2	VRW	GM430	II face mask??
T94F1L1	VRW	IB			933	118	T92F1	VRW	X937	IB3
T94F2L1	VRW	IB			934	118	T99F1L2	VRW	GM431	IJ
T94F2L4	VRW	IB3	GM429							
T99F1L2	VRW	IIH?	GM432							
T99F1L2	VRW	IJ	GM431	934						
T99F1L1	VRW	IVA								
T117F1L1	VRW	jar								
T117F1L1	VRW	jar	X1055							
T93F3	VRW	jar								
T105F1L1	VRW	mortarium	GM465	927 AD 70-110						
T105F1L2	VRW	mortarium	GM466	AD 80-120 v.abraded burnt						
				AD 70-110						
T93F3	VRW	mortarium	GM486							
T93F3	VRW	mortarium								
T93F3	VRW	mortarium	GM534	AD 120-150						
T94F1L2	VRW	mortarium	GM480	930 AD 110/120- 140						
T94F2L1	VRW	mortarium	GM487	AD 70-110 spout scar						
T94F2L3	VRW	mortarium	GM479							
T94F2L3	VRW	mortarium	GM508	929 AD 120-145						

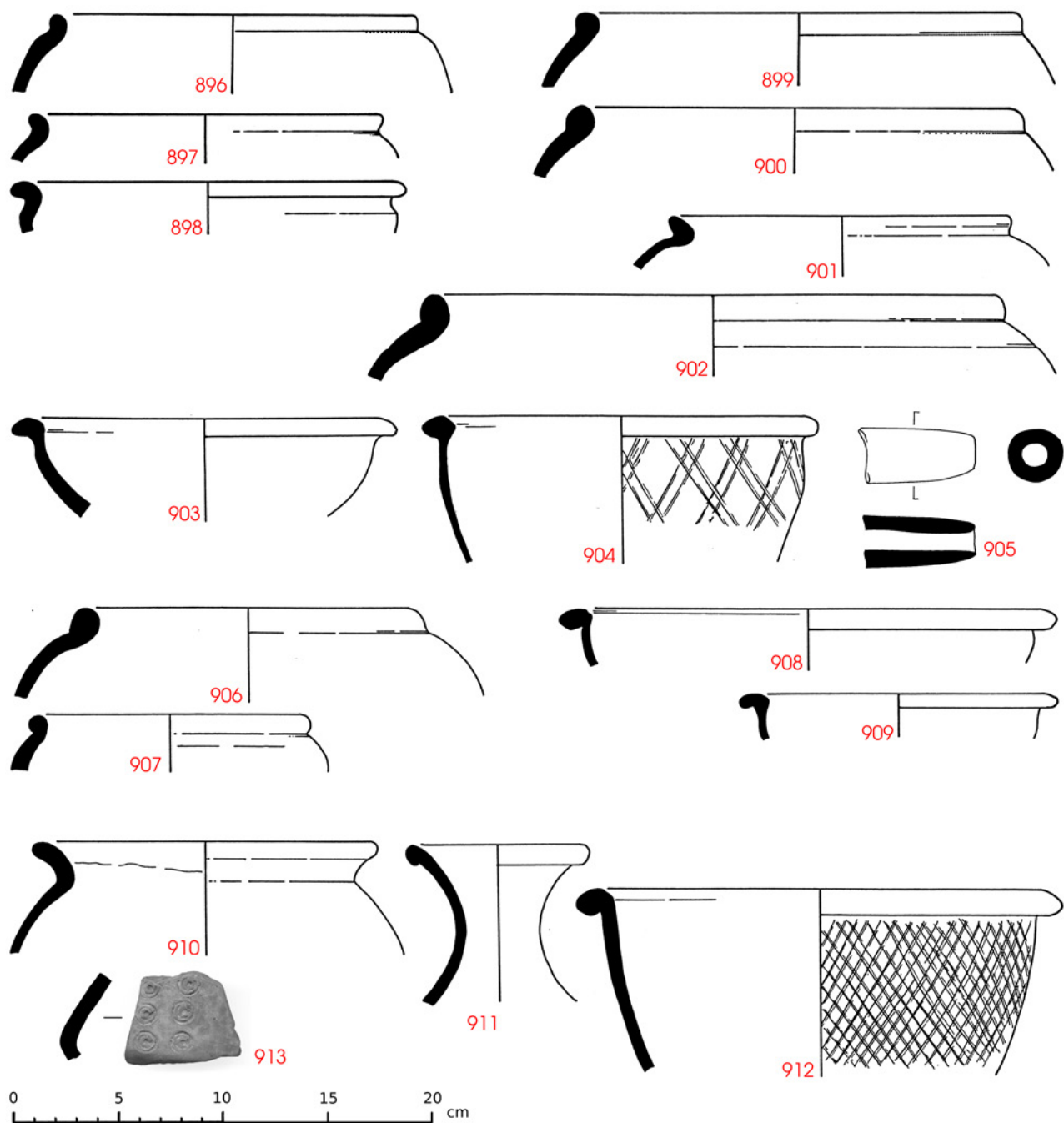


Fig. 116. Highgate Wood: 3 (2-4) ii: local pottery [1:3]

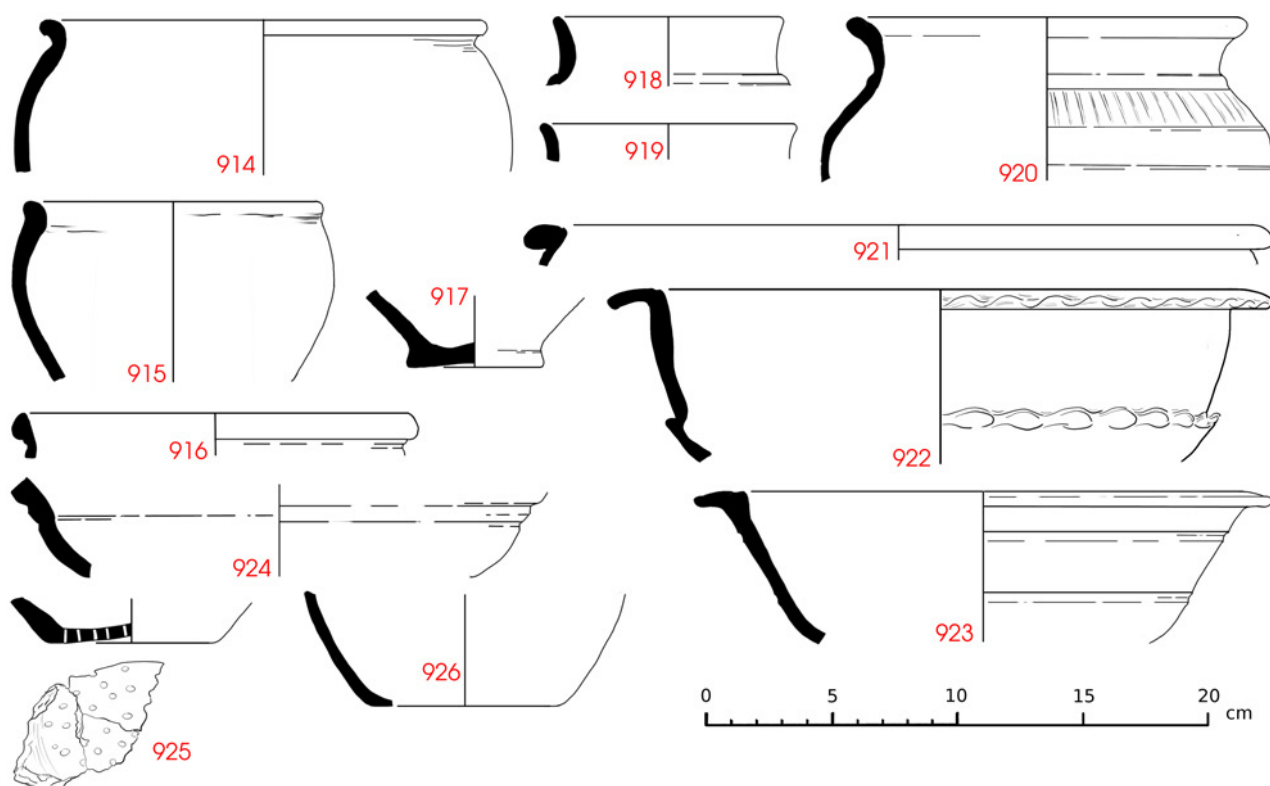


Fig. 117. Highgate Wood: 3 (2-4) ii: local pottery [1:3]

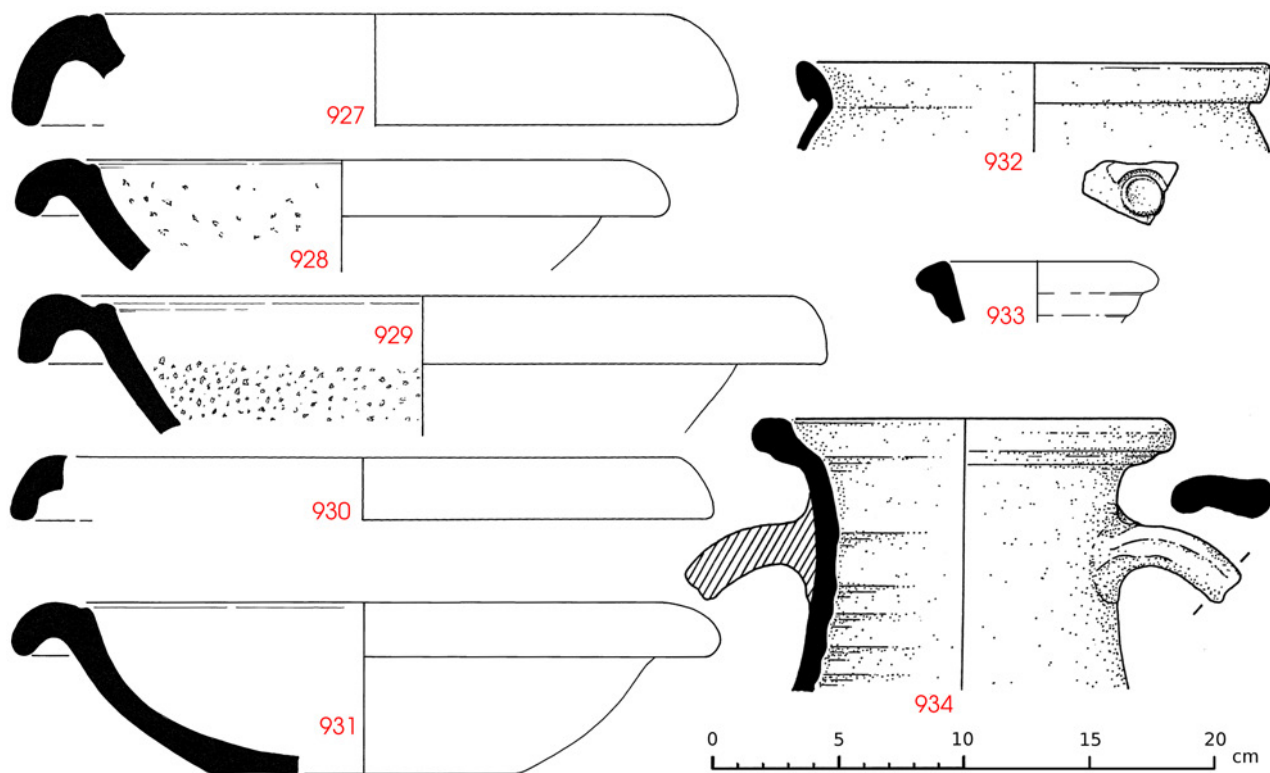


Fig. 118. Highgate Wood: 3 (2-4) ii: non-local pottery [1:3]



### 6.34. Phase 3 (2-4) iii (a) : Southern kiln dump core layers

**Excavation report** See p.37.

**Local pottery** The large quantity of pottery from the core of the southern dump is largely HWC and HWC+ but with c. 7% of HWB (by eve). The HWC forms are generally the standard phase III but with a significant number of the black-burnished derived types (1008, 1031-3, 1041-2 everted-rim jars and pie-dishes: c. 8%).

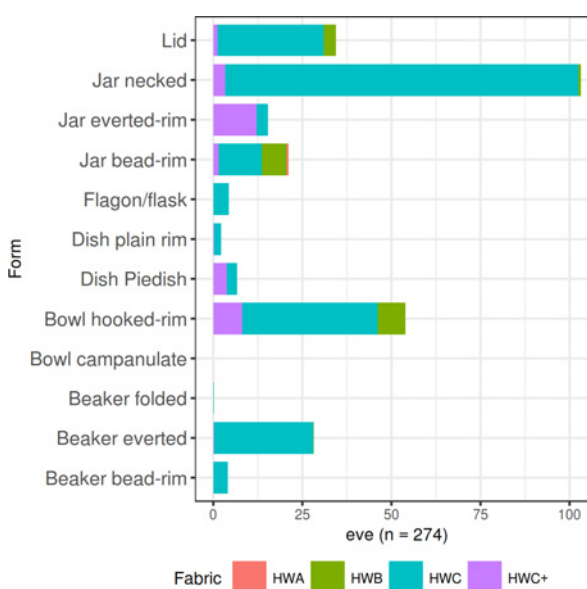
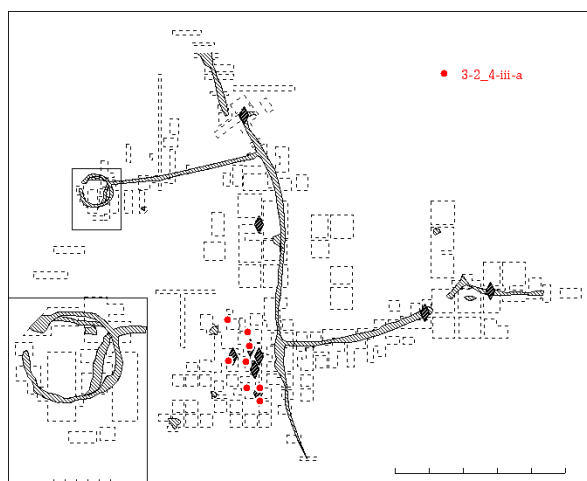
The dump groups are not entirely homogeneous across their spread and there are indication of horizontal groupings within the material. The material from T24 952-985 is most similar to that from the adjacent kiln 3 and the material from T5 993-1021 includes types that can be paralleled in the late kiln 2 group. However, the majority of the material on the dump should probably be related to the assemblages from kilns 1, 4 and 5 where the pottery is dominated by HWC necked-jars, hooked-rim bowls and everted-rim beakers, with smaller numbers of the black-burnished derived forms.

Among the more unusual forms are a sherd of a face pot in HWC 951, and fragments of a strainer bowls with a spill plate (1049: see p.282, Chapter 11) and other plates and bowls with a red surface 1045-6 in HWB.

**Non-local pottery** There are large groups of samian and VRW from most of contexts in the southern dump, and a few sherds from other sources.

The samian include both South Gaulish (1<sup>st</sup> cent. AD, Ritt 9, Drag. 15/17, 18, 27, 29, 36 and 37) and Central Gaulish (Drag.18/31, 27, 36, 37) sherds. One of the decorated Central Gaulish Drag.37 is dated Hadrianic-Antonine, and is one of the latest sigillata vessels identified on the site. The numerous VRW sherds are mostly from flagons, and there are several rims of ring-necked flagons. The VRW mortaria include a vessel stamped by Matugenus, dated AD 80-125 and unstamped sherds dated AD 60-90 and AD 120-150.

Other non-local vessels include several sherds and a rim of ring-and-dot beakers, fragments of a Central Gaulish rough-cast beaker and a rim sherd of a Rhône



FABRIC	EVE	WEIGHT (G)
HW	.	95774
HWA	0.50	120
HWB	19.03	4465
HWC	223.74	37430
HWC+	30.50	6345
Total	273.77	144134

valley mortaria 1052.

The group also includes the most unusual of the non-local vessels on the site, if not from the London region – a worn sherd bearing a moulded scene of Hercules and the Cerynian hind in *terre sigillée claire B*, from a workshop in the Rhône valley (1056: see p.277, Chapter 10).

**Other objects** There are a number of other objects recorded from the dump, including a glass bead and several glass vessels, a number of iron nails, a hone

stone in a local sandstone, fragments of a Mayen lava quern stone and a bronze brooch. A grooved copper strip, probably from a World War 2 bomb, was recovered from the core of the dump, in the vicinity of kiln 2. This item, presumably intrusive, demonstrates at least one of the possible causes of disturbance to the Roman stratigraphy in this area.

CONTEXT	REF.	REPORT	DESCRIPTION
T13L3	68/SF81	Metal no. 9	Brooch
T13L3	68/SF91	Metal no. 139	Iron object
T24L2	68/SF69	Glass no. 32	Fragment from the neck and body of unguent-bottle
T24L2	68/SF46	Metal no. 138	Iron object
T24L3	68/SF89	Glass no. 41	Bead
T3L2	67/SF18	Metal no. 135	Iron object
T3L2	67/SF27	Metal no. 136	Iron object
T3L2	67/SF33	Metal no. 137	Iron object
T5L2	67/SF35	Glass no. 4	Rim of bowl
T5L2	67/SF57	Metal no. 32	WW2 shell fragment
T5L2	67/SF20	Metal no. 144	Iron object
T5L2	67/SF31	Metal no. 145	Iron object
T5L2		Stone no. 5	Quern (Lava)
T5NWestL3	67/SF67	Glass no. 20	Shoulder of bottle or flask

CONTEXT	FABRIC	FORM	REF.	COMMENT
T13L3	AMPH			v.burnt
T5L2	CGOF	beaker	GM6	roughcast
T5NWL3	OXID	beaker		
T13L3	RDBK	IIIB1	GM391	
T2L2	RDBK	IIIB1	GM121	1055
T3L2	RDBK	IIIB1	GM9	
T5L2	RVMO	mortarium	GM426	1052 AD 50-80 v.abr
T5L2	RVMO	mortarium	GM426	1052 AD 50-80 v.abr
T5NWL3	SAM-		67/RP80	burnt
T24L2	SAM-CG		68/RP49	2nd c.
T24L2	SAM-CG		68/RP9	2nd c.
T25F2	SAM-CG		68/RP100	2nd c.
T32F1	SAM-CG		68/RP143	2nd c.
T3L2	SAM-CG		67/RP36	Early-2nd c.
T3L2	SAM-CG	Dr18/31	67/RP33	Early-2nd c.
T5L2	SAM-CG	Dr18/31	67/RP27	Early-2nd c.
T13L3	SAM-CG	Dr27	68/RP76	Early-2nd c.
T13L4	SAM-CG	Dr27	68/RP138	Early-2nd c.
T5L2	SAM-CG	Dr36	67/RP31	Early-2nd c.
T24L2	SAM-CG	Dr37	68/RP16	Decorated no.23, Trajanic-Hadrianic
T5L2	SAM-CG	Dr37	67/RP86	Decorated no.25, Hadrianic-Antonine
T24L2	SAM-SG		68/RP77	1st c.
T25F2	SAM-SG		68/RP148	1st c.
T32F1	SAM-SG		68/RP146	1st c.
T3L2	SAM-SG		67/RP30	1st c., burnt
T3L2	SAM-SG		67/RP7	1st c., decorated sherd

CONTEXT	FABRIC	FORM	REF.	COMMENT
T3L2	SAM-SG		67/RP85	Pre-Flavian
T3L2	SAM-SG		67/RP20	1st c., burnt
T5L2	SAM-SG		67/RP12	burnt
T5L2	SAM-SG		67/RP34	1st c.
T5L2	SAM-SG	Dr15/17	67/RP31	Pre-Flavian
T13SF2	SAM-SG	Dr15/17R	68/RP397	Pre- or early Flavian
T13L3	SAM-SG	Dr18	69/RP43	Flavian
T24L2	SAM-SG	Dr18	68/RP81	Pre-Flavian
T24L2	SAM-SG	Dr18	68/RP71	Flavian
T3L2	SAM-SG	Dr18	67/RP28	Flavian
T5NWL3	SAM-SG	Dr18	67/RP79	Flavian
T13L3	SAM-SG	Dr18?	68/RP123	1st c.
T3L2	SAM-SG	Dr27	67/RP7	Flavian-Trajanic
T5L2	SAM-SG	Dr27	67/RP18	Late-1st c.
T5L2	SAM-SG	Dr29	67/RP26	Pre- or early Flavian
T5L2	SAM-SG	Dr36	67/RP21	Flavian
T5NWL3	SAM-SG	Dr37	67/RP73/76/91	Decorated no.13, AD 65-80
T24L3	SAM-SG	plate	68/RP90	Pre- or early Flavian
T13L3	SAM-SG	Ritt9	69/RP59	Pre-Flavian
T13L3	SAND			HWC?
T13L3	SAND	bowl	X1279	
T13L3	SAND	bowl	X1278	
T13L3	VRW			
T24L2	VRW		GM245	1051
T24L3	VRW		GM216	coarse ?burnt VRW
T5L2	VRW			
T5L2	VRW			
T13L3	VRW	I	GM366	
T13L3	VRW	I	GM142	
T13L3	VRW	I	GM163	
T13L3	VRW	I	GM360	
T13L4	VRW	I	GM352	
T25F2	VRW	I	GM34	
T25F2	VRW	I	GM35	
T32F1	VRW	I	GM180	1053
T32F1	VRW	I	GM62	
T5L2	VRW	I		
T5NWL3	VRW	I		
T24L3	VRW	I?	GM213	
T24L2	VRW	IB	GM218	1054
T25F2	VRW	IB	GM185	
T13L4	VRW	mortarium	GM529	MATUGENUS AD 80-125
T13SL3	VRW	mortarium	GM507	1050 AD 60-90
T24L3	VRW	mortarium	GM494	AD 120-150

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
935	119	T13L4	HWC	M490	
936	119	T13L4	HWC	M489	
937	119	T13L3	HWC	M435	
938	119	T13L4	HWB	M488	
939	119	T13L4	HWC	M477	
940	119	T13L4	HWC	M487	
941	119	T13L3	HWC	M495	
942	119	T13L4	HWC	M478	

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT	No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
943	119	T13SEXTL3	HWC	M493		1003	124	T5NWEXTL3	HWC	M506	
944	119	T13L3	HWC	M514B		1004	124	T5NWEXTL3	HWC	X2010	
945	119	T13L3	HWC	M479		1005	124	T5NWEXTL3	HWC	M236	
946	119	T13SEXTL3	HWC+	M494		1006	124	T5NWEXTL3	HWC+	M233	
947	119	T13L4	HWC	M491		1007	124	T5NWEXTL3	HWC	M503A	
948	119	T13L3	HWC	M480		1008	124	T5NWEXTL3	HWC	M231	BB2 style; plain
949	119	T13L4	HWC	M492		1009	124	T5NWEXTL3	HWC	M518	
950	119	T13L3	HWC	M434		1010	124	T5NWEXTL3	HWC	M514A	
951	119	T13L3	HWC	68/RP94	face jar	1011	124	T5NWEXTL3	HWC	M519	
952	120	T24L3	HWC+	M113		1012	124	T5NWEXTL3	HWC	M228	
953	120	T24L3	HWB	M114		1013	124	T5NWEXTL3	HWC	X2012	
954	120	T24L3	HWB	M109		1014	124	T5NWEXTL3	HWC	M513B	
955	120	T24L3	HWB	M118		1015	124	T5NWEXTL3	HWC	M512	combed decoration
956	120	T24L3	HWB	M111							
957	120	T24L3	HWB	M112		1016	124	T5NWEXTL3	HWC	M511A	
958	120	T24L3	HWC	M110		1017	124	T5NWEXTL3	HWC	X2011	
959	120	T24L3	HWC+	M117		1018	124	T5NWEXTL3	HWC	M227	
960	120	T24L3	HWC+	M99		1019	124	T5NWEXTL3	HWC	X2013	
961	120	T24L3	HWB	M89		1020	124	T5NWEXTL3	HWC	M219	
962	120	T24L3	HWC+	M100		1021	124	T5NWEXTL3	HWC	M217	
963	120	T24L3	HWB	M104		1022	125	T6L3	HWB	M383	
964	120	T24L3	HWB	M91		1023	125	T6L3	HWB	M382	
965	120	T24L3	HWC	M98		1024	125	T6L3	HWB	M381	
966	120	T24L3	HWC+	M115		1025	125	T6L3	HWC	M371	
967	120	T24L3	HWC	M92		1026	125	T6L3	HW*	M884	
968	120	T24L3	HWC	M96	plain pie dish ?	1027	125	T6L3	HWC	X2114	
969	120	T24L3	HWC	M108		1028	125	T6L3	HWC	M366	
970	120	T24L3	HWC	M94		1029	125	T6L3	HWC	M367	
971	120	T24L3	HWC	M106		1030	125	T6L3	HW*	M883	
972	120	T24L3	HWC	M107		1031	125	T6L3	HWC+	M369	everted rim jar
973	120	T24L3	HWB	M90		1032	125	T6L3	HWC+	M368	everted rim jar
974	120	T24L3	HWC	M105		1033	125	T6L3	HWC+	M370	everted rim jar
975	120	T24L3	HWC	M103		1034	125	T6L3	HWB	M380	
976	120	T24L3	HWC	M95		1035	125	T6L3	HWC	M375	
977	120	T24L3	HWC	M102		1036	125	T6L3	HW*	M882	probably HWC
978	121	T24L3	HWC	M127		1037	125	T6L3	HWC	M376	
979	121	T24L3	HWC	M126		1038	125	T6L3	HWC	M377	
980	121	T24L3	HWC	M125		1039	125	T6L3	HWC	M374	
981	121	T24L3	HWC	M123		1040	125	T6L3	HWC	M372	
982	121	T24L3	HWB	68/SF98	foot	1041	125	T6L3	HWC+	M378	pie dish w. lattice
983	121	T24L2	HWB	68/SF65	foot	1042	125	T6L3	HWC+	M379	pie dish w. lattice
984	121	T24L3	HWC	M120		1043	125	T6L3	HW*	M880	
985	121	T24L3	HWC	M119		1044	125	T6L3	HW*	M881	probably HWC
986	122	T3L2	HWC	M411		1045	126	T24L3	HWBR	GM74	red surface
987	122	T3L2	HWC	M412							
988	122	T3L2	HWC	M407		1046	126	T13L3	HWBR	GM98	DR15/17 moulding
989	122	T3L2	HWC	M410	plain dish						campanulate bowl
990	122	T3L2	HWC	M409	plain dish	1047	126	T13L4	HWB/C	68/SF147	red surface
991	122	T3L2	HWC	M408	jar? w. piecrust dec	1048	126	T3L2	HWC	X1282	handled jug?
						1049	126	T24L3	HWB	GM259	miniature?
992	122	T3L2	HWC	GM11	stamped decoration LW/50						bowl with spill plate and sieve
993	123	T5L2	HWC	M473		1050	127	T13SL3	VRW	GM507	AD 60-90
994	123	T5L2	HWC	M472		1051	127	T24L2	VRW	GM245	
995	123	T5L2	HWC	M476	ring-neck flagon?	1052	127	T5L2	RVMO	GM426	AD 50-80
996	123	T5L2	HWC	M475	dish	1052	127	T89L2	RVMO	GM426	AD 50-80
997	124	T5NWEXTL3	HWA	M214	not phase 1	1053	127	T32F1	VRW	GM180	I
998	124	T5NWEXTL3	HWB	M232		1054	127	T24L2	VRW	GM218	IB
999	124	T5NWEXTL3	HWA/C	M521	not phase 1	1055	127	T2L2	RDBK	GM121	IIIB1
1000	124	T5NWEXTL3	HWC	M505		1056	127	T32F1	TSCB	68/RP142	Large sherd with applique of Hercules and the Ceryneian hind
1001	124	T5NWEXTL3	HWC	M504							
1002	124	T5NWEXTL3	HWC	M508A	folded beaker?						

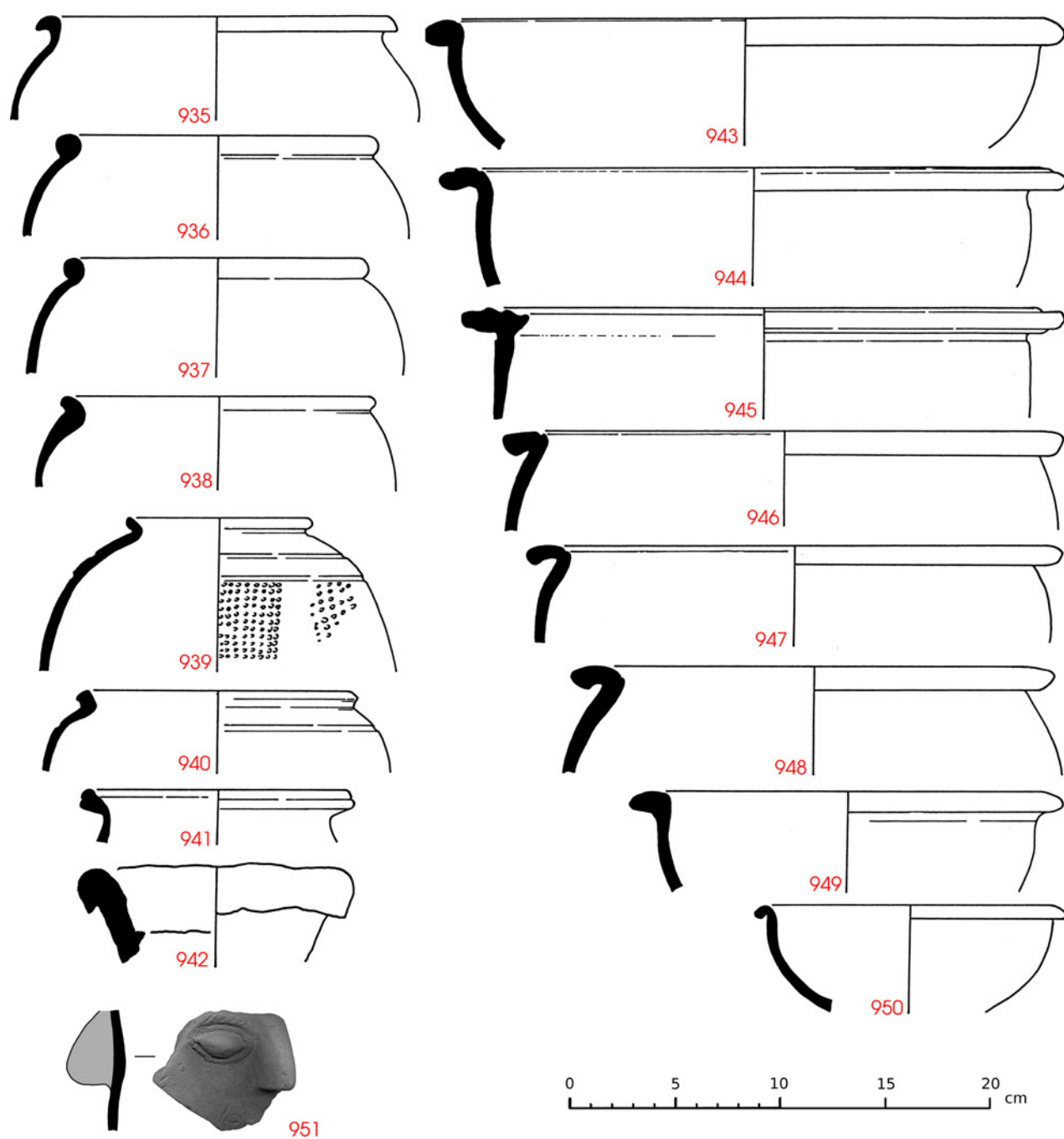


Fig. 119. Highgate Wood: 3 (2-4) iii (a): local pottery [1:3]



Fig. 120. Highgate Wood: 3 (2-4) iii (a): local pottery [1:3]

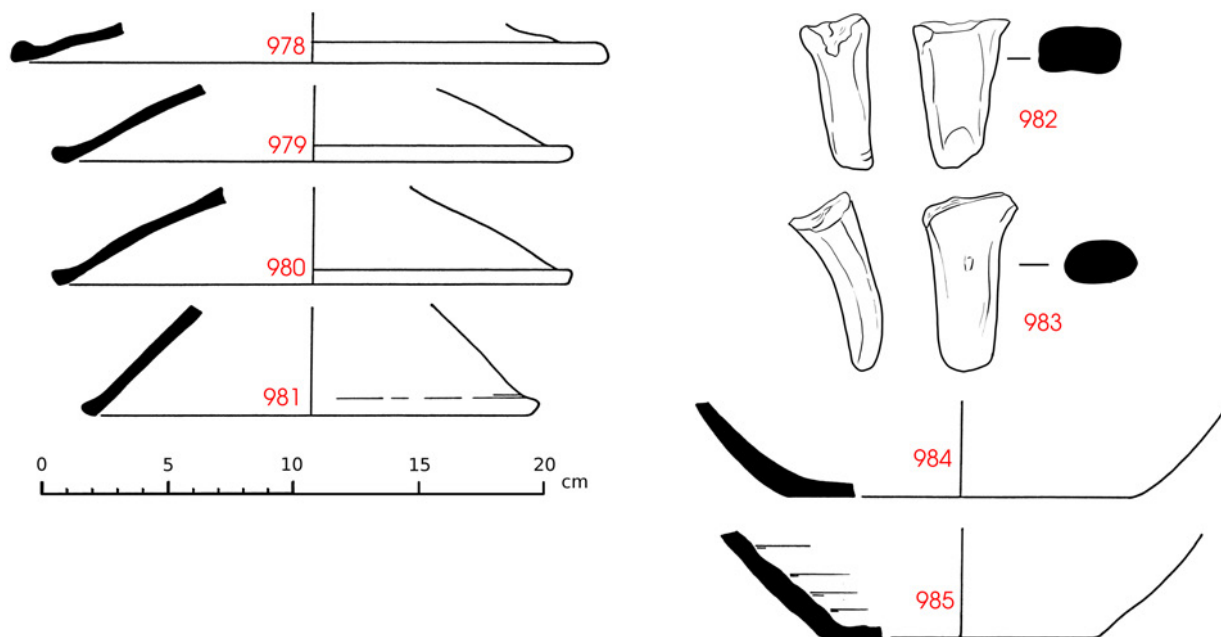


Fig. 121. Highgate Wood: 3 (2-4) iii (a): local pottery [1:3]

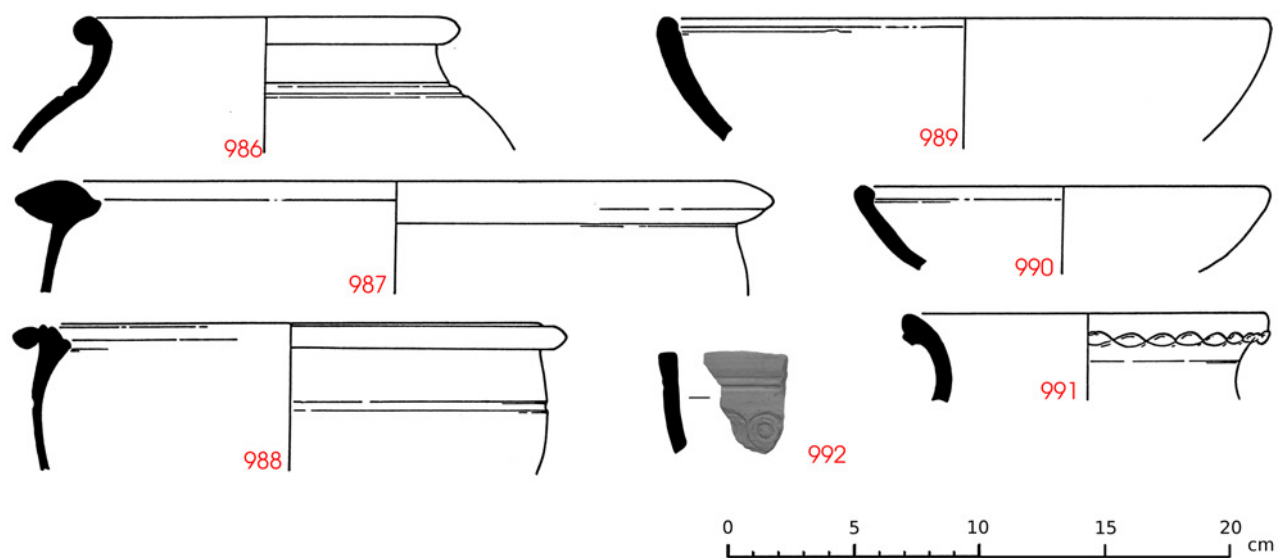


Fig. 122. Highgate Wood: 3 (2-4) iii (a): local pottery [1:3]

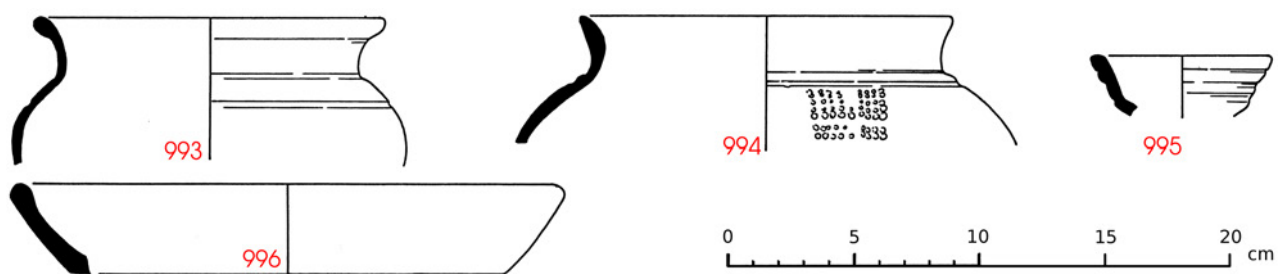


Fig. 123. Highgate Wood: 3 (2-4) iii (a): local pottery [1:3]



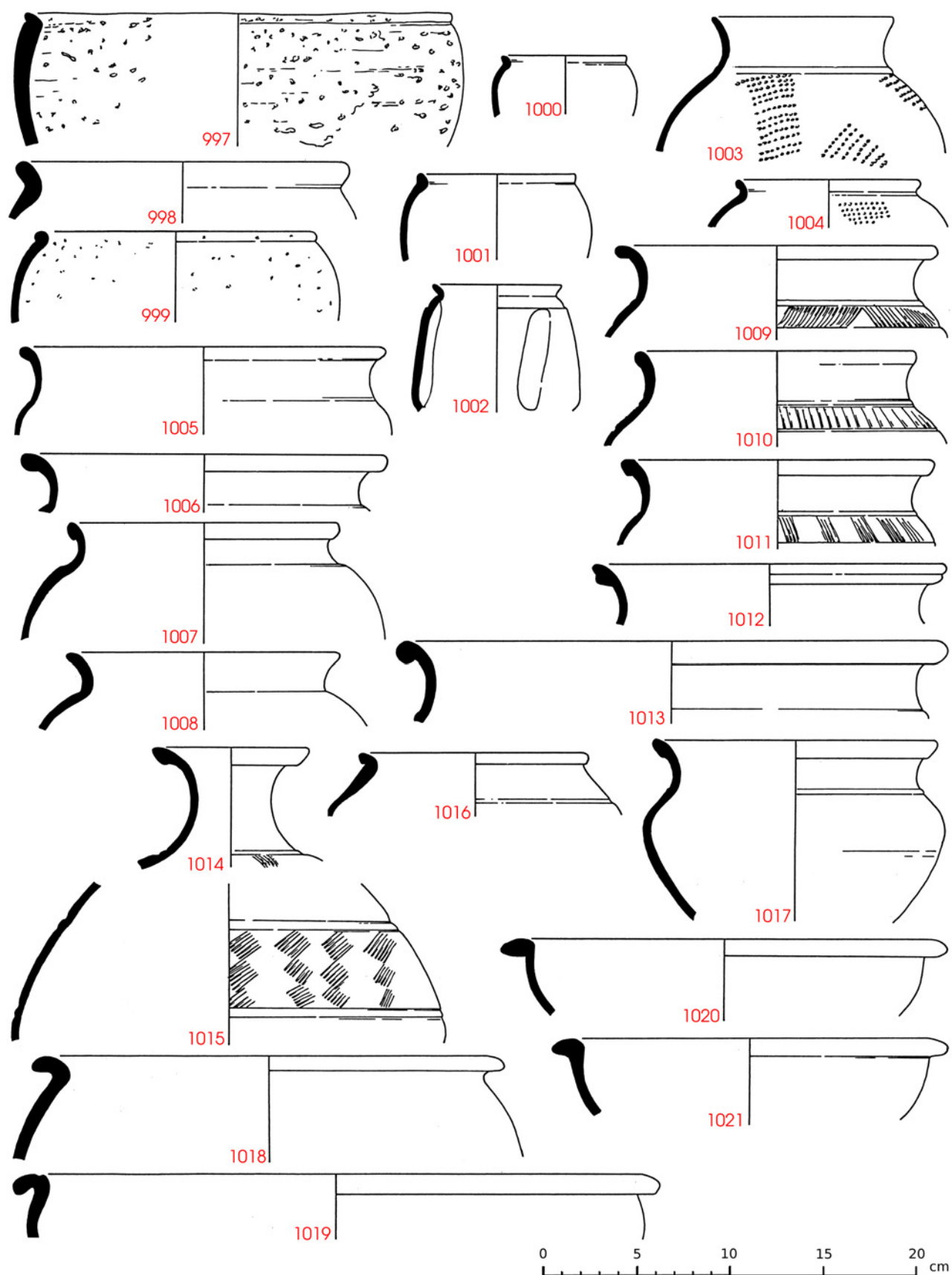


Fig. 124. Highgate Wood: 3 (2-4) iii (a): local pottery [1:3]

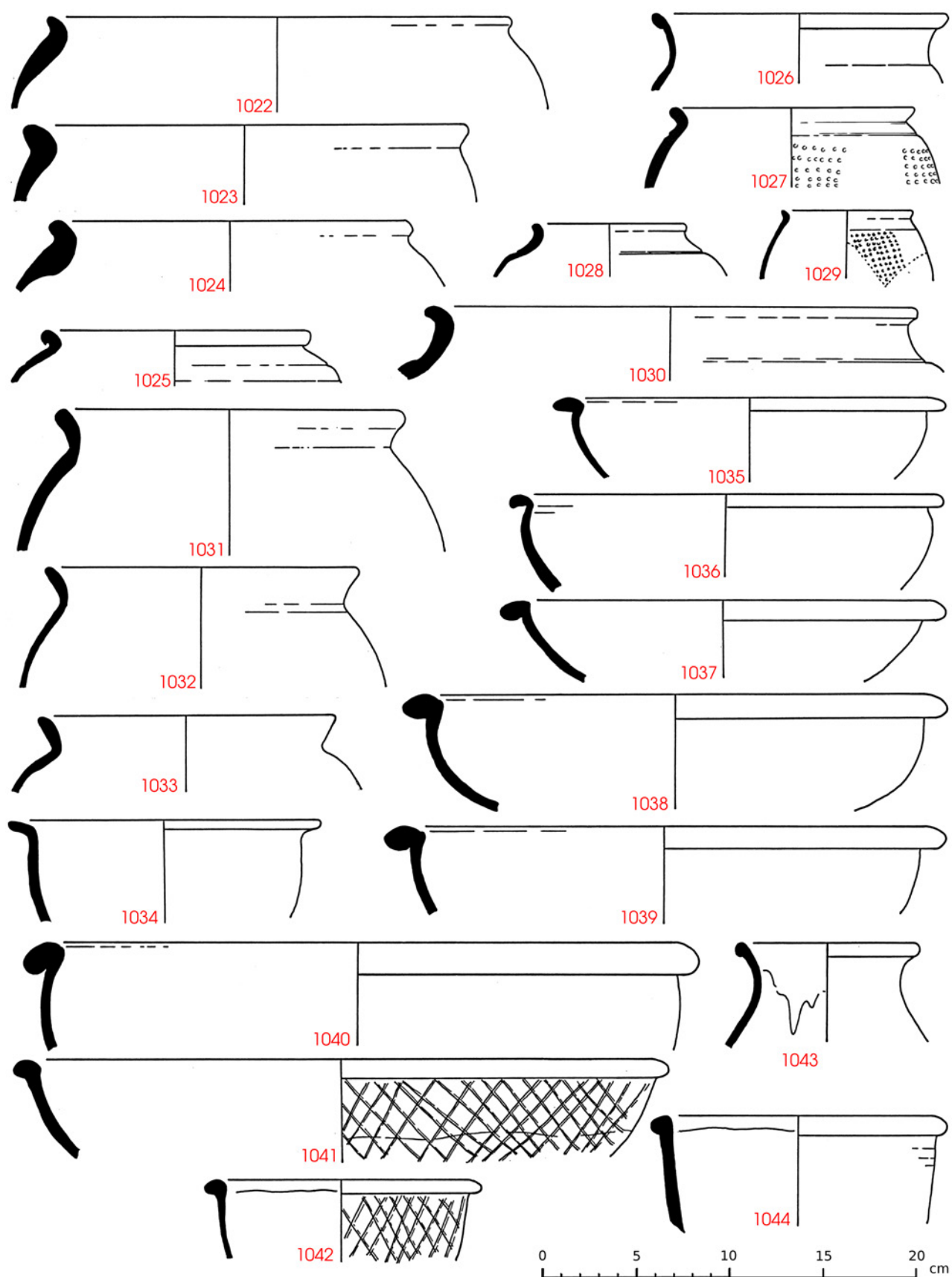


Fig. 125. Highgate Wood: 3 (2-4) iii (a): local pottery [1:3]

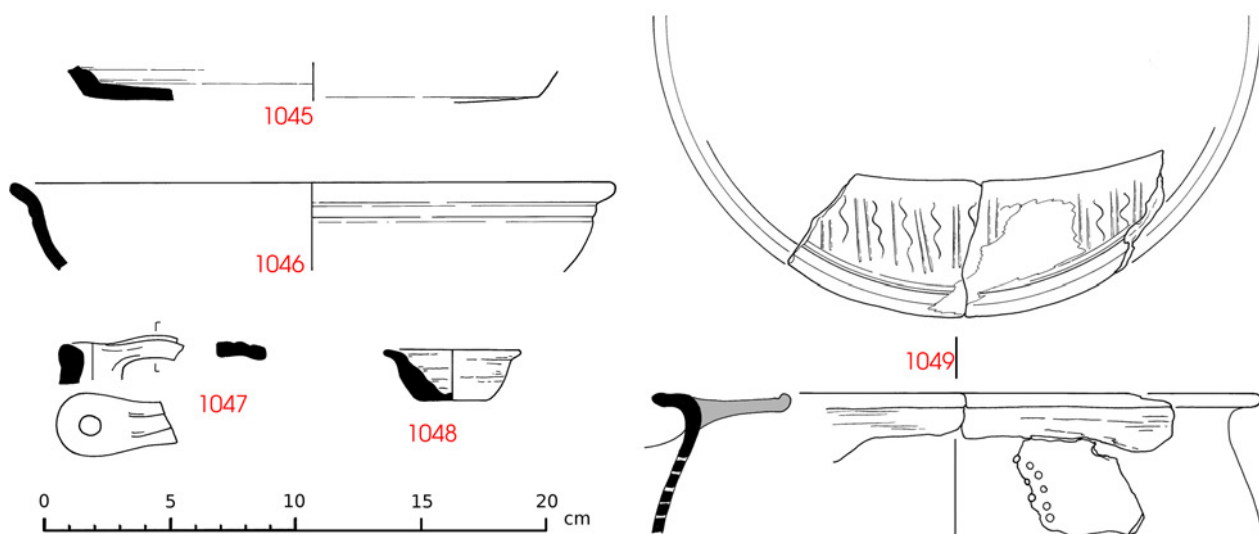


Fig. 126. Highgate Wood: 3 (2-4) iii (a): local pottery [1:3]

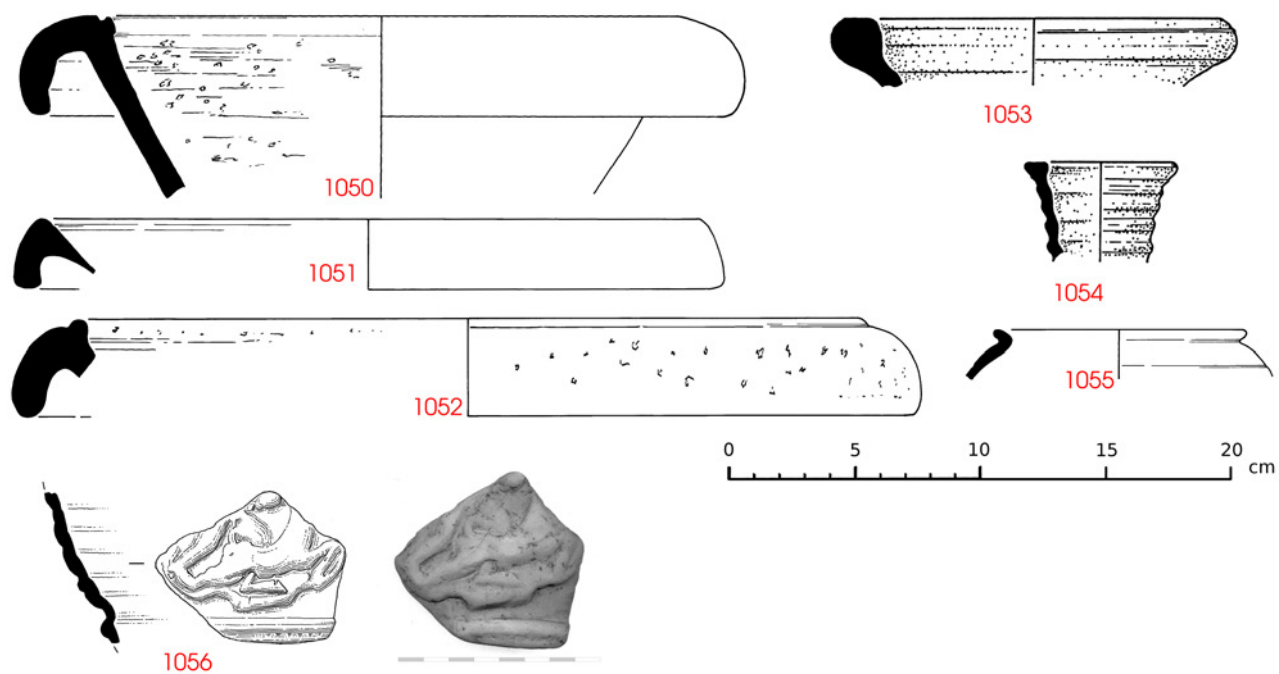


Fig. 127. Highgate Wood: 3 (2-4) iii (a): non-local pottery [1:3]

### 6.35. Phase 3 (2-4) iii (b) : Southern kiln dump other contexts

**Excavation report** See p.38.

**Local pottery** A substantial group, dominated by HWC, but including small quantities of both HWB and HWC+. The forms include necked jars, bead-rim jars, hooked-rim bowls, beakers and both pie-dishes and everted-rim jars 1128-9. The badly distorted pedestal urn 1130 is one of the more dramatic vessels from the site. It lacks a joining rim, but it was probably similar to the narrow-necked flasks 1132-36.

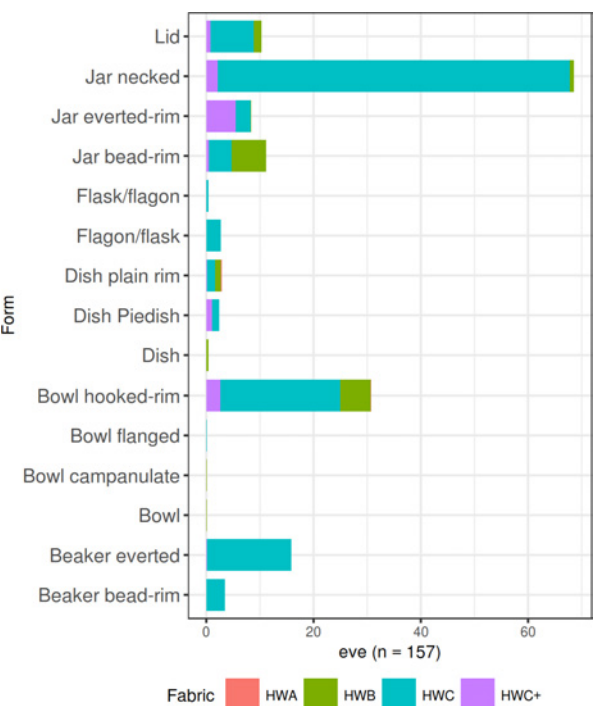
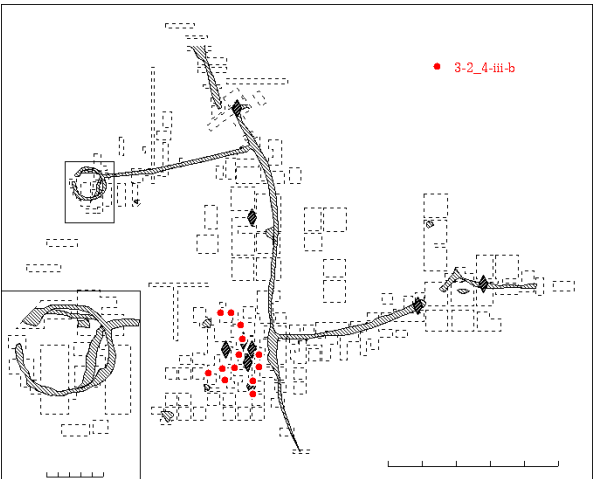
There is a single sherd decorated with an arm formed from an applied strip of clay, the fingers formed from fine incisions 1111. This may be considered with the fragment of face pot from elsewhere on the southern dump 951.

The assemblage also includes a quantity of HWB 1185-1214, and several dishes and other vessels in the red-slipped variant 1215-26.

**Non-local pottery** As with other contexts on the dumps, these contexts include a large number of non-local vessels. There are numerous sherds of South Gaulish (1<sup>st</sup> cent.AD, Ritt.12, Drag.15/17, 18, 24/25, 27, 29, 36 and 37) and Central Gaulish (early-mid 2<sup>nd</sup> cent. AD, Drag.18/31, 27 and 37) sigillata. There are many sherds of VRW, principally flagons including ring-necked flagons, flanged bowls and jars. The mortaria includes one stamped by Arentus (1248 AD 120-145) and several other sherds (dated AD 70-100/110 and 90-135).

Other wares represented include Central Gaulish and Cologne colour-coated ware, ring-and-dot beakers and London marbled ware (a campanulate cup *cf* Drag.27) and London mica-dusted ware (all broadly Flavian to mid-2<sup>nd</sup> cent AD). The base of a beaker or small jar impressed with a potter's stamp in a non-local fabric 1245 is described in Chapter 9 (p.276).

**Other objects** The group includes a number of fragments of Roman glass, iron and copper objects (some perhaps intrusive) and a fragment of a sand-stone quern. As with other contexts on the southern dump, the relatively large quantity and range of



FABRIC	EVE	WEIGHT (G)
HW	.	79769
HWA	0.25	60
HWB	15.87	6885
HWC	128.40	34840
HWC+	12.95	6210
Total	157.47	127764

non-local pottery and non-ceramic objects suggests the presence of domestic rubbish.

CONTEXT	REF.	REPORT	DESCRIPTION	CONTEXT	FABRIC	FORM	REF.	COMMENT
T13L5	68/SF162	Metal no. 43	Lead object	T8L2	CGWH		GM120	
T14L2	68/SF226	Glass no. 20	Shoulder of bottle or flask	T8L2	CGWH		GM136	
T14L2	68/SF230	Glass no. 20	Shoulder of bottle or flask	T3L3	FINE	beaker	GM118	
T14L2	68/SF220	Glass no. 26	Open-folded base of jug or bowl	T3L3	FINE	bowl	GM233	red slipped early
T14L2	68/SF224	Glass no. 27	Handle of jug	T9L2	KOLN	beaker	GM3	
T14L2	68/SF227	Stone no. 8	Hone (Roman)	T14L2	LOMA	cup	68/RP356	
T15L2	68/SF235	Glass no. 47	Body fragment, burnt or twisted by heat	T3NEL3	LOMA	cup cf Dr27	GM1	
T25L2	68/SF66	Glass no. 23	Shoulder of bottle or flask	T3L3	LOMI		GM19	
T25L2	68/SF10	Metal no. 64	Iron object	T44L2	MICA		GM274	cf MICA-636
T25L2	68/SF26	Metal no. 65	Iron object	T44L2	OXID	I	GM346	
T25L2	68/SF14	Metal no. 66	Iron object	T12L2	RDBK	IIIB1	GM82	
T2L3	67/SF8	Glass no. 27	Handle of jug	T3L3	RDBK	IIIB1	GM100	
T2L3	67/SF3	Metal no. 16	Bronze buckle. 18thc?	T3L3	RDBK	IIIB1	GM117	
T2L3		Stone no. 25	Quern (Sandstone)	T12L2	RWS	mortarium	GM513	1247 VCWS?
T32L2	68/SF24	Glass no. 12	Rim of flask and jug	T9L2	RWS	mortarium	X2005	1250 AD 150-200
T32L2	68/SF67	Metal no. 70	Iron object	T12L3	SAM-CG		68/RP374	v.burnt
T3L3	67/SF43	Metal no. 6	Brooch	T8L2	SAM-CG		67/RP32	2nd c.
T3L3	67/SF41	Metal no. 142	Iron object	T8L2	SAM-CG		67/RP130	Early-2nd c.
T3L4	67/SF48	Metal no. 5	Brooch	T12L2	SAM-CG	Dr18/31	68/RP384	2nd c.
T44L2	69/SF47	Glass no. 35	Fragment of bottom of unguent-bottle	T44L2	SAM-CG	Dr18/31	69/RP33	Early-2nd c.
T44L2	69/SF3	Metal no. 85	Iron object	T44L2	SAM-CG	Dr18/31	69/RP23	Early-2nd c.
T44L2	69/SF20	Metal no. 86	Iron object	T8L2	SAM-CG	Dr18/31	67/RP49	Early-2nd c.
T53F1		Metal no. 173	Iron object	T9L2	SAM-CG	Dr18/31	67/RP16	Early-2nd c.
T8L3	67/SF34	Metal no. 146	Iron object	T12L2	SAM-CG	Dr27	68/RP377	Early-mid 2nd c.
T9L2	67/SF10	Glass no. 6	Rim of bowl	T12L3	SAM-CG	Dr27	68/RP367	Early-2nd c.
T9L2	67/SF22	Glass no. 7	Rim of bowl	T32L2	SAM-CG	Dr27	68/RP89	Early-2nd c.
T9L2	67/SF29	Metal no. 140	Iron object	T9L2	SAM-CG	Dr37	67/RP13	Hadrianic-Antonine
				T32L2	SAM-SG		68/RP22	1st c.
				T3L3	SAM-SG		67/RP41	1st c.
				T3L4	SAM-SG		67/RP56	1st c.
				T44L2	SAM-SG		69/RP39	1st c.
				T8L2	SAM-SG		67/RP48	1st c.
				T9L2	SAM-SG		67/RP6	Pre- or early Flavian
				T12L2	SAM-SG	dish	68/RP358	Late-1st c.
				T44L2	SAM-SG	Dr15/17	69/RP17	Pre- or early Flavian
				T8L2	SAM-SG	Dr15/17	67/RP15	Pre- or early Flavian
				T3L3	SAM-SG	Dr15/17R	67/RP44	Pre- or early Flavian
				T12L2	SAM-SG	Dr18	68/RP353	Flavian-Trajanic
				T3L3	SAM-SG	Dr18	67/RP51	Pre-Flavian
				T3L3	SAM-SG	Dr18	67/RP39	Pre- or early Flavian, burnt
				T53L2	SAM-SG	Dr18	69/RP53	NEFL
				T12L2	SAM-SG	Dr18?	68/RP354	Flavian-Trajanic
				T13L2	SAM-SG	Dr24/25	68/RP388	Pre-Flavian
				T3L3	SAM-SG	Dr27	67/RP46	Pre- or early Flavian
				T3NEL3	SAM-SG	Dr27	67/RP66	Pre- or early Flavian
				T3L3	SAM-SG	Dr29	67/RP35/40/52/70	Decorated no.1, AD 65-80
				T9L2	SAM-SG	Dr29	67/RP6	Pre- or early Flavian
				T14L2	SAM-SG	Dr36	68/RP362	Flavian
				T3NEL3	SAM-SG	Dr37	69/RP65	Decorated no.9, Flavian
				T2L3	SAM-SG	plate	67/RP22	Flavian
				T3NEL3	SAM-SG	Ritt12?	67/RP74	Pre-Flavian
				T44L2	SAND	jar	GM396	v burnt

CONTEXT	FABRIC	FORM	REF.	COMMENT
T3NEL3	VRW			
T53F1	VRW			
T8L3	VRW			
T12L2	VRW	I	GM191	1242
T12L2	VRW	I	GM146	
T12L2	VRW	I	GM193	
T12L3	VRW	I	GM134	
T13L5	VRW	I	GM318	
T13L5	VRW	I	GM276	
T15L2	VRW	I	GM164	
T2L3	VRW	I		
T32L2	VRW	I	GM61	
T32L2	VRW	I	GM159	
T3L3	VRW	I	GM116	
T3L3	VRW	I	GM131	
T44F1	VRW	I		
T44L2	VRW	I	GM275	
T53L2	VRW	I	GM278	
T53L2	VRW	I		
T8L2	VRW	I	GM105	
T8L2	VRW	I	GM196	
T12L2	VRW	I?	GM23	
T3L3	VRW	IB	GM109	1239
T8L2	VRW	IB	GM108	
T8L2	VRW	IB	GM124	1241
T8L2	VRW	IB	GM107	1238
T8L2	VRW	IB	GM106	
T8L2	VRW	IB	GM133	1240
T13L2	VRW	IVA	GM226	
T14L2	VRW	IVA		
T44L2	VRW	IVA	GM355B	1243
T13L5	VRW	jar	GM160	
T2L3	VRW	jar	GM123	1244
T12L2	VRW	mortarium	GM531	
T12L2	VRW	mortarium	GM528B	AD 70-100/110
T14L2	VRW	mortarium	GM526	1249 [EDGE] AD 90-135
T14L2	VRW	mortarium	GM495	1246 AD 120-145
T14L2	VRW	mortarium	GM519	1248 ARENTUS AD 120-145
T53L2	VRW	mortarium	GM321	



No	FIG.	CONTEXT	FABRIC	REF.	COMMENT	No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1057	128	T3L3	HWC	M636		1117	130	T3L3	HWC	M658	
1058	128	T3L3	HWC	M625		1118	130	T3L3	HWC	M654	
1059	128	T3L3	HWC	M632		1119	130	T3L3	HWC	M661	
1060	128	T3L3	HWC	M597		1120	130	T3L3	HWC	M652	
1061	128	T3L3	HWC	M606		1121	130	T3L3	HWC	M651	
1062	128	T3L3	HWC	M595		1122	130	T3L3	HWC	M657	
1063	128	T3L3	HWC	M645		1123	130	T3L3	HWC	M656	
1064	128	T3L3	HWC	M635		1124	130	T3L3	HWC	M653	
1065	128	T3L3	HWC	M598		1125	130	T3L3	HWC	M655	
1066	128	T3L3	HWC	M601		1126	130	T3L3	HWC	M660	
1067	128	T3L3	HWC	M608		1127	130	T3L3	HWC	M662	
1068	128	T3L3	HWC	M647		1128	130	T3L3	HWC+	M469	everted rim jar
1069	128	T3L3	HWC	M610		1129	130	T3L3	HWC+	M468	everted rim jar
1070	128	T3L3	HWC	M593		1130	130	T3L3	HWC	X2118	pedestal jar
1071	128	T3L3	HWC	M600		1131	130	T3L3	HWC	M596	
1072	128	T3L3	HWC	M425		1132	130	T3L3	HWC	M611	
1073	128	T3L3	HWC	M602		1133	130	T3L3	HWC	M605	
1074	128	T3L3	HWC	M599		1134	130	T3L3	HWC	M459	
1075	128	T3L3	HWC	M619		1135	130	T3L3	HWC	M665	
1076	128	T3L3	HWC	M603		1136	130	T3L3	HWC	M669	campanulate cup
1077	128	T3L3	HWC	M482		1137	130	T3L3	HWC	M670	dish
1078	128	T3L3	HWC	M629		1138	130	T3L3	HWC	M458	
1079	128	T3L3	HWC	M641		1139	130	T3L3	HWC	M671	campanulate cup
1080	128	T3L3	HWC	M612		1140	130	T3L3	HWC	M668	campanulate cup
1081	128	T3L3	HWC	M640		1141	130	T3L3	HWC	M664	
1082	128	T3L3	HWC	M621		1142	130	T3L3	HWC	M667	miniature?
1083	128	T3L3	HWC	M637		1143	130	T3L3	HWC	M663	
1084	128	T3L3	HWC	M646		1144	130	T3L3	HWC	M457	
1085	128	T3L3	HWC	M624		1145	131	T3L3	HWC	M589	
1086	128	T3L3	HWC	M639		1146	131	T3L3	HWC	M577	
1087	128	T3L3	HWC	M638		1147	131	T3L3	HWC	M581	
1088	128	T3L3	HWC	M623		1148	131	T3L3	HWC	M583	
1089	128	T3L3	HWC	M618		1149	131	T3L3	HWC	M420	
1090	128	T3L3	HWC	M649		1150	131	T3L3	HWC	M560	
1091	128	T3L3	HWC	M642		1151	131	T3L3	HWC	M580	
1092	128	T3L3	HWC	M620		1152	131	T3L3	HWC	M571	
1093	128	T3L3	HWC	M634		1153	131	T3L3	HWC	M578	
1094	128	T3L3	HWC	M626		1154	131	T3L3	HWC	M438	
1095	128	T3L3	HWC	M633		1155	131	T3L3	HWC	M588	
1096	128	T3L3	HWC	M644		1156	131	T3L3	HWC	M562	
1097	128	T3L3	HWC	M617		1157	131	T3L3	HWC	M587	
1098	128	T3L3	HWC	M604		1158	131	T3L3	HWC	M557	
1099	128	T3L3	HWC	M607		1159	131	T3L3	HWC	M586	
1100	129	T3L3	HWC	M609		1160	131	T3L3	HWC	M568	
1101	129	T3L3	HWC	M614		1161	131	T3L3	HWC	M558	
1102	129	T3L3	HWC	M631		1162	131	T3L3	HWC	M419	
1103	129	T3L3	HWC	M630		1163	131	T3L3	HWC	M591	
1104	129	T3L3	HWC	M627		1164	131	T3L3	HWC	M565	
1105	129	T3L3	HWC	M622		1165	131	T3L3	HWC	M579	
1106	129	T3L3	HWC	M615		1166	131	T3L3	HWC	M573	
1107	129	T3L3	HWC	M613		1167	131	T3L3	HWC	M575	
1108	129	T3L3	HWC	M616		1168	131	T3L3	HWC	M561	
1109	129	T3L3	HWC	M648		1169	131	T3L3	HWC	M576	
1110	129	T3L3	HWC	M643		1170	131	T3L3	HWC	M566	
1111	129	T3L3	HWC	GM110	relief arm and hand	1171	131	T3L3	HWC	M567	
1112	130	T3L3	HWC	X901		1172	131	T3L3	HWC	M569	
1113	130	T3L3	HWC	X902		1173	131	T3L3	HWC	M572	
1114	130	T3L3	HWC	M688		1174	131	T3L3	HWC	M574	
1115	130	T3L3	HWC	X2115		1175	132	T3L3	HWC	M551	
1116	130	T3L3	HWC	M659		1176	132	T3L3	HWC	M555	
						1177	132	T3L3	HWC	M554	
						1178	132	T3L3	HWC	M553	

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT	No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1179	132	T3L3	HWC	M556		1236	135	T32L2		68/RP50	stamped
1180	132	T3L3	HWC	M464		1237	135	T8L3	HWC	GM238	stamped
1181	132	T3L3	HWC	M563		1238	136	T8L2	VRW	GM107	IB
1182	132	T3L3	HWC	M564		1239	136	T3L3	VRW	GM109	IB
1183	132	T3L3	HWC	M590		1240	136	T8L2	VRW	GM133	IB
1184	132	T3L3	HWC	M584		1241	136	T8L2	VRW	GM124	IB
1185	133	T3L3	HWB	M423		1242	136	T12L2	VRW	GM191	I
1186	133	T3L3	HWB	M686		1243	136	T44L2	VRW	GM355B	IVA
1187	133	T3L3	HWB	M682		1244	136	T2L3	VRW	GM123	jar
1188	133	T3L3	HWB	M683		1245	136	T3L3		GM437	base with internal stamp
1189	133	T3L3	HWB	M451		1246	136	T14L2	VRW	GM495	AD 120-145
1190	133	T3L3	HWB	M681		1247	136	T12L2	RWS	GM513	mortarium
1191	133	T3L3	HWB	M463		1248	136	T14L2	VRW	GM519	AD 120-145
1192	133	T3L3	HWB	M684		1249	136	T14L2	VRW	GM526	AD 90-135
1193	133	T3L3	HWB	M685		1250	136	T9L2	RWS	X2005	AD 150-200
1194	133	T3L3	HWB	M687							
1195	133	T3L3	HWA+	M415	not phase 1						
1196	133	T3L3	HWB	M674							
1197	133	T3L3	HWB	M676							
1198	133	T3L3	HWB	M677							
1199	133	T3L3	HWB	M452							
1200	133	T3L3	HWB	M462							
1201	133	T3L3	HWB	M689							
1202	133	T3L3	HWB	M414							
1203	133	T3L3	HWB	M453							
1204	133	T3L3	HWB	M455							
1205	133	T3L3	HWB	M416							
1206	133	T3L3	HWB	M678							
1207	133	T3L3	HWB	M675							
1208	133	T3L3	HWB	M673							
1209	133	T3L3	HWB	M417							
1210	133	T3L3	HWB	M461							
1211	133	T3L3	HWB	M672							
1212	133	T3L3	HWB	M679							
1213	134	T3L3	HWB	M422	dish						
1214	134	T3L3	HWB	M450	dish						
1215	134	T3L3	HWBR	GM12	red surface cf. Dr15/17						
1216	134	T3L3	HWB	M421	red burnished surface						
1217	134	T3L3	HWBR	GM132	red surface						
1218	134	T3L3	HWBR	GM130	red slipped						
1219	134	T3L3	HWBR	GM111	red slipped						
1220	134	T3L3	HWBR	GM129	red surface						
1221	134	T3L3	HWB	M413	dish						
1222	134	T3L3	HWBR	M418	campanulate bowl? red surface						
1223	135	T12L3	HWBR	GM36	red surface						
1224	135	T13L5	HWBR	GM382	red surface campanulate bowl						
1225	135	T12L3	HWBR	GM70	red surface						
1226	135	T13L5	HWBR	GM174	campanulate bowl red slipped						
1227	135	T12L3	HWC	GM254	handled jug; over-fired						
1228	135	T14L2	HWB/C	68/SF239	stamped decoration						
1229	135	T12L3	HWC	68/SF236	solid handle						
1230	135	T9L2	HWB	67/SF17	foot						
1231	135	T6L2	HWB	67/RP50	foot						
1232	135	T14NL2	HWB/C	68/SF245	foot						
1233	135	T12L2	HWB	68/SF221	foot						
1234	135	T12L3	HWB	68/SF231	foot						
1235	135	T14NL2	HWB	68/SF244	foot						

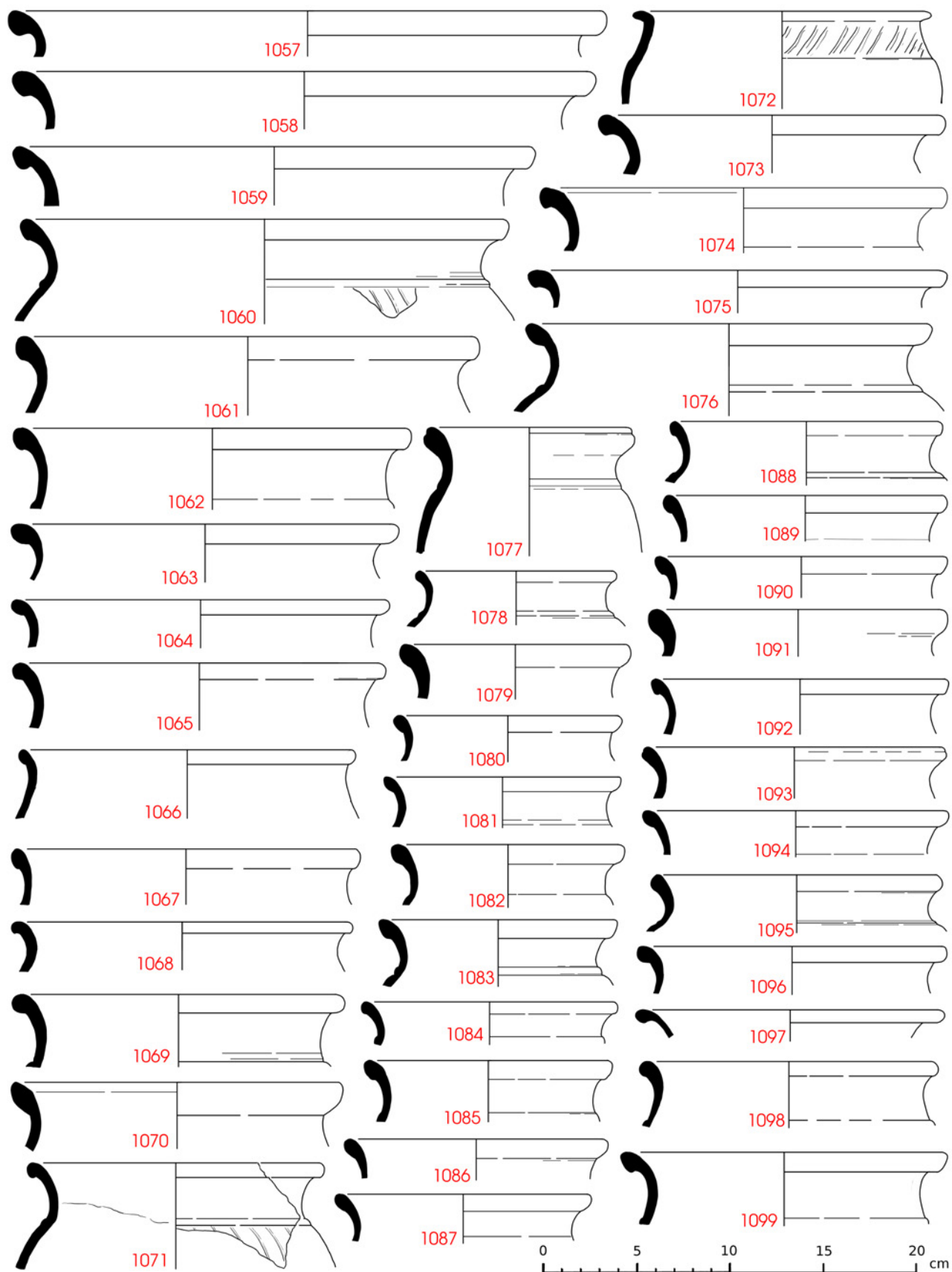


Fig. 128. Highgate Wood: 3 (2-4) iii (b): local pottery [1:3]

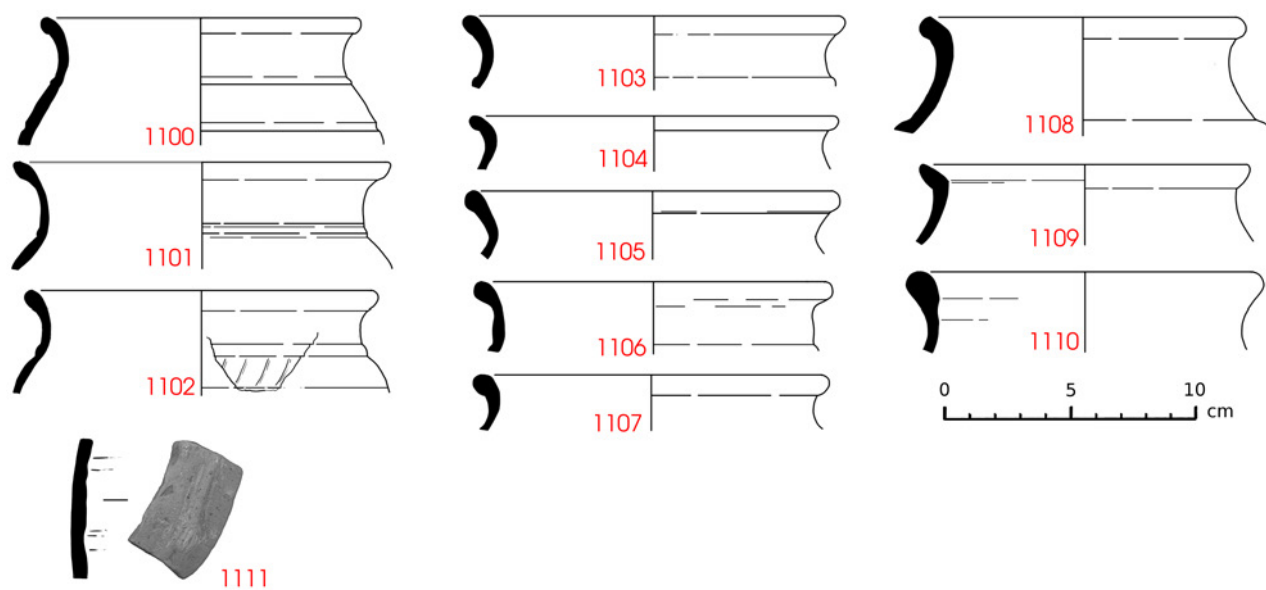


Fig. 129. Highgate Wood: 3 (2-4) iii (b): local pottery [1:3]

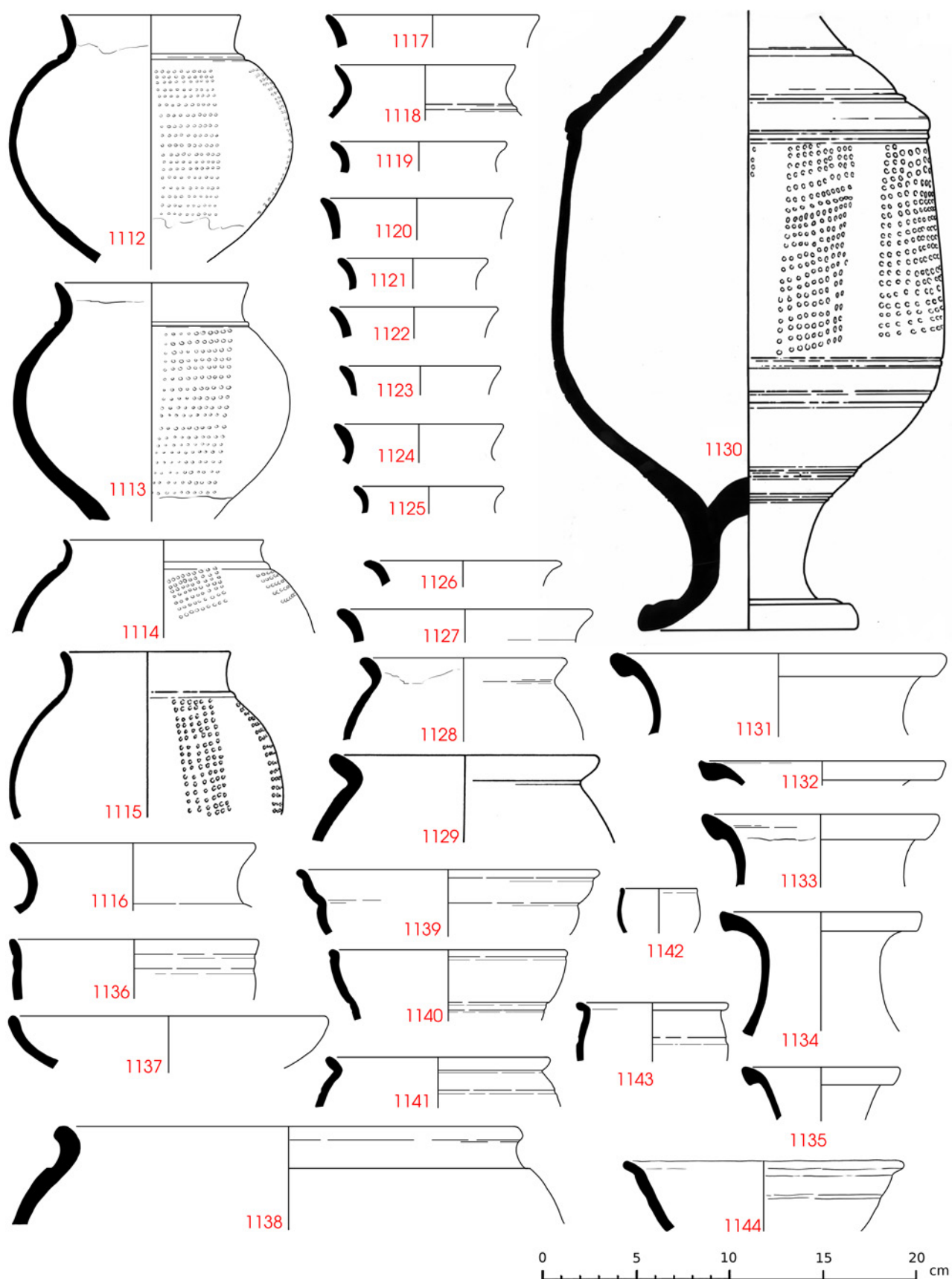


Fig. 130. Highgate Wood: 3 (2-4) iii (b): local pottery [1:3]

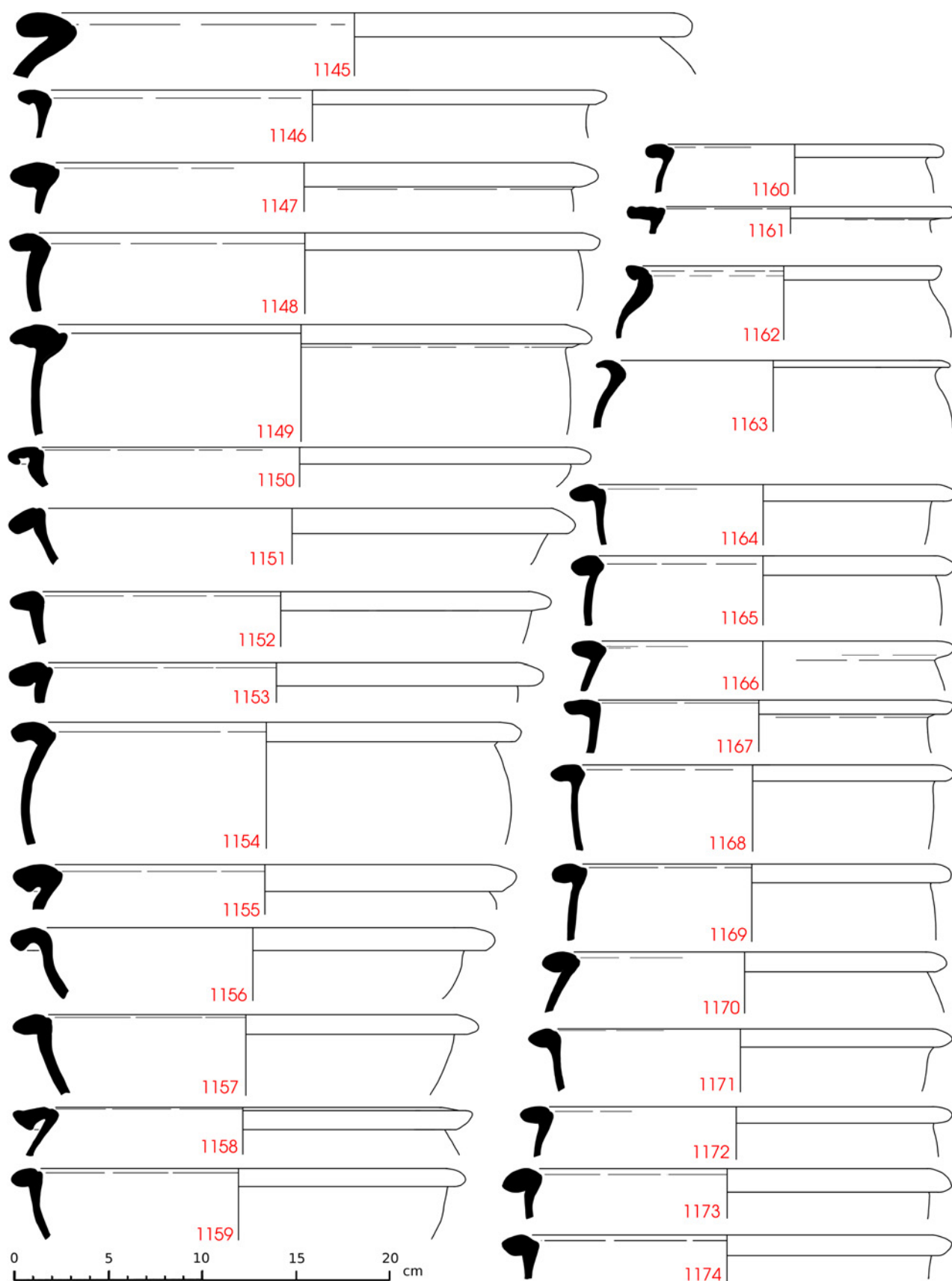


Fig. 131. Highgate Wood: 3 (2-4) iii (b): local pottery [1:3]



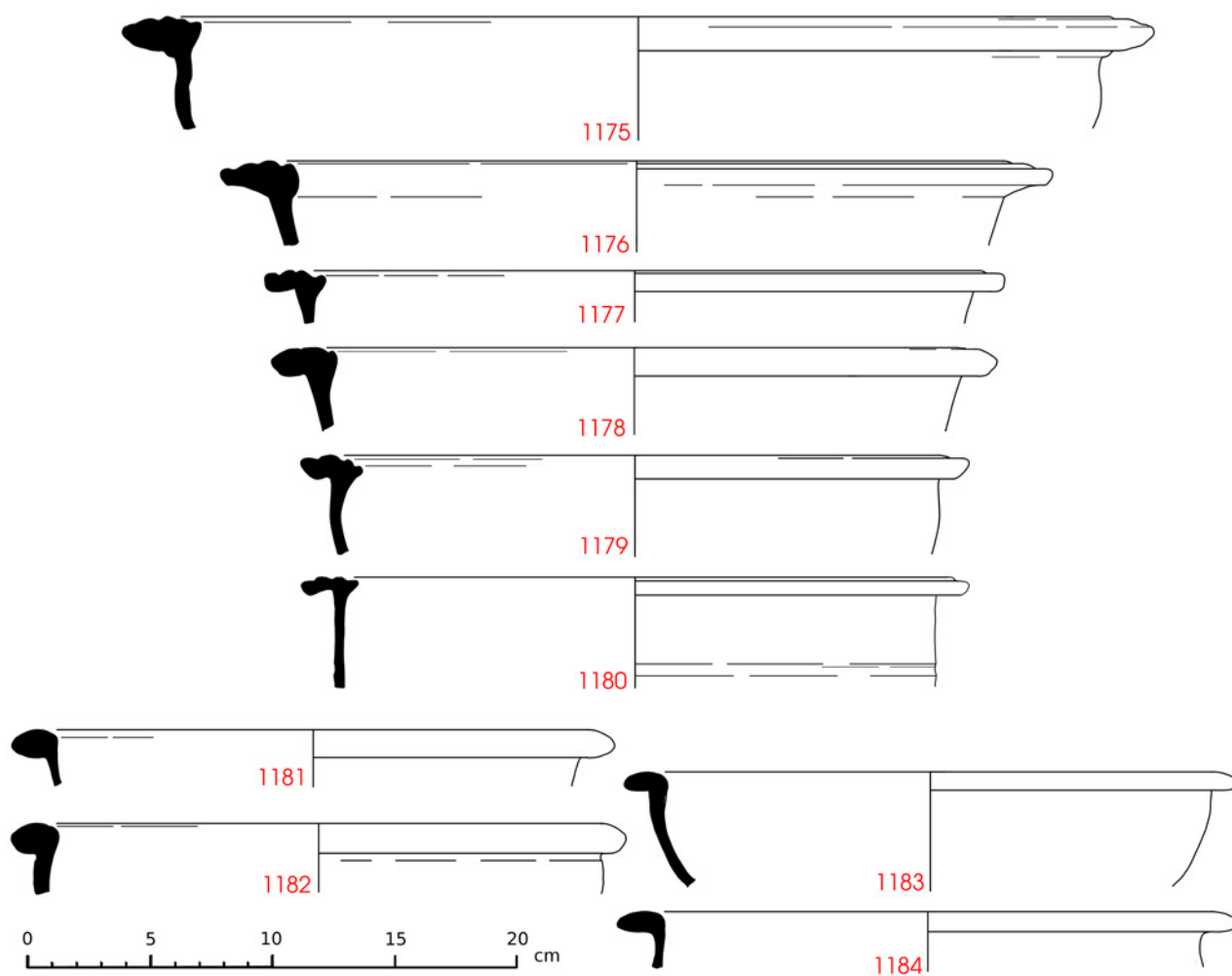


Fig. 132. Highgate Wood: 3 (2-4) iii (b): local pottery [1:3]

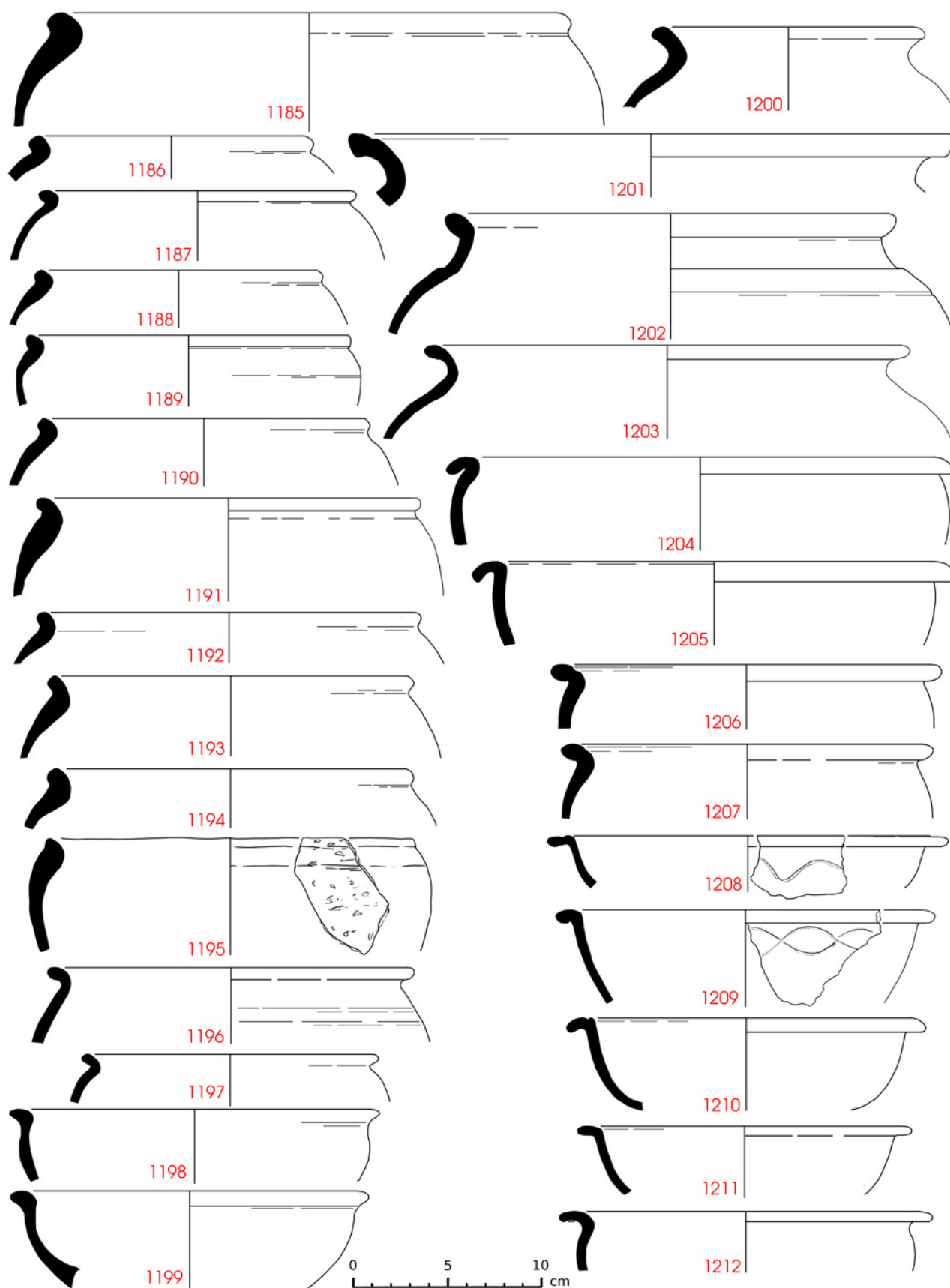


Fig. 133. Highgate Wood: 3 (2-4) iii (b): local pottery [1:3]

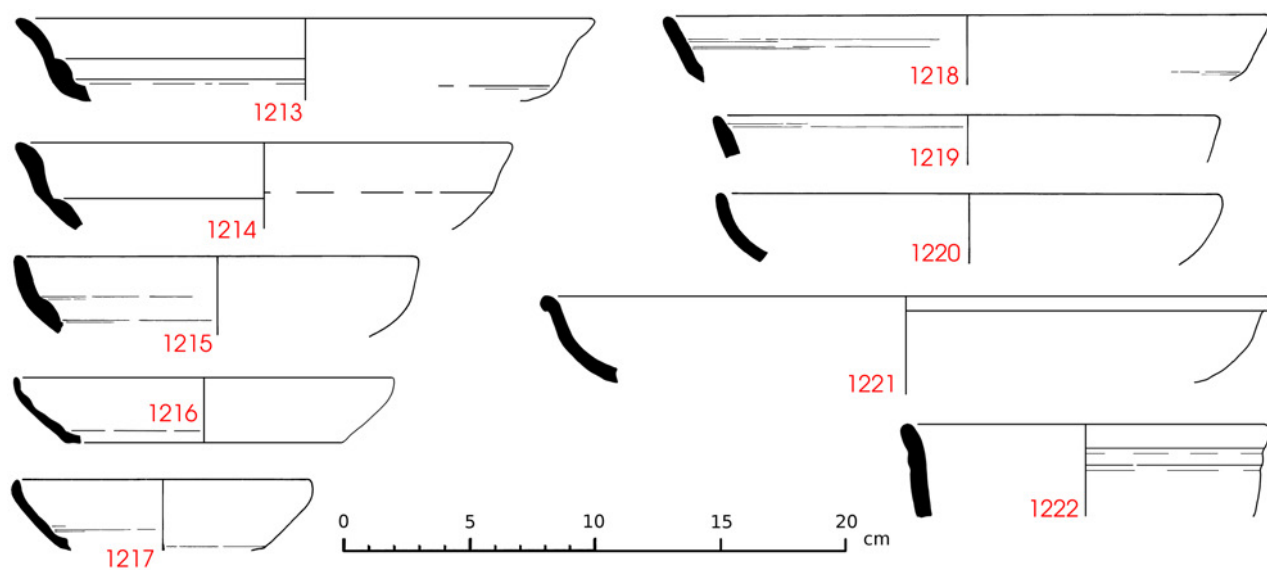


Fig. 134. Highgate Wood: 3 (2-4) iii (b): local pottery [1:3]

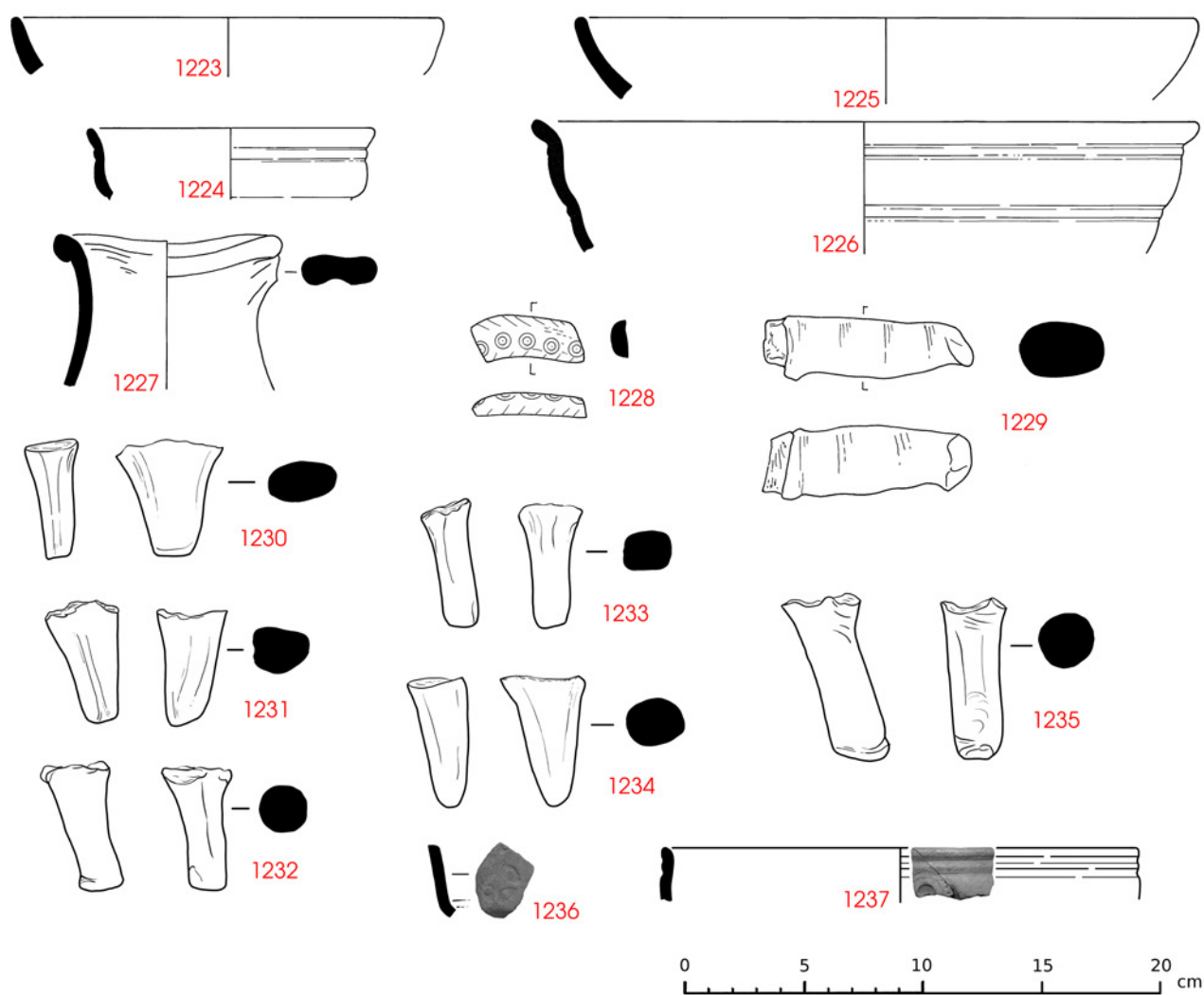


Fig. 135. Highgate Wood: 3 (2-4) iii (b): local pottery [1:3]

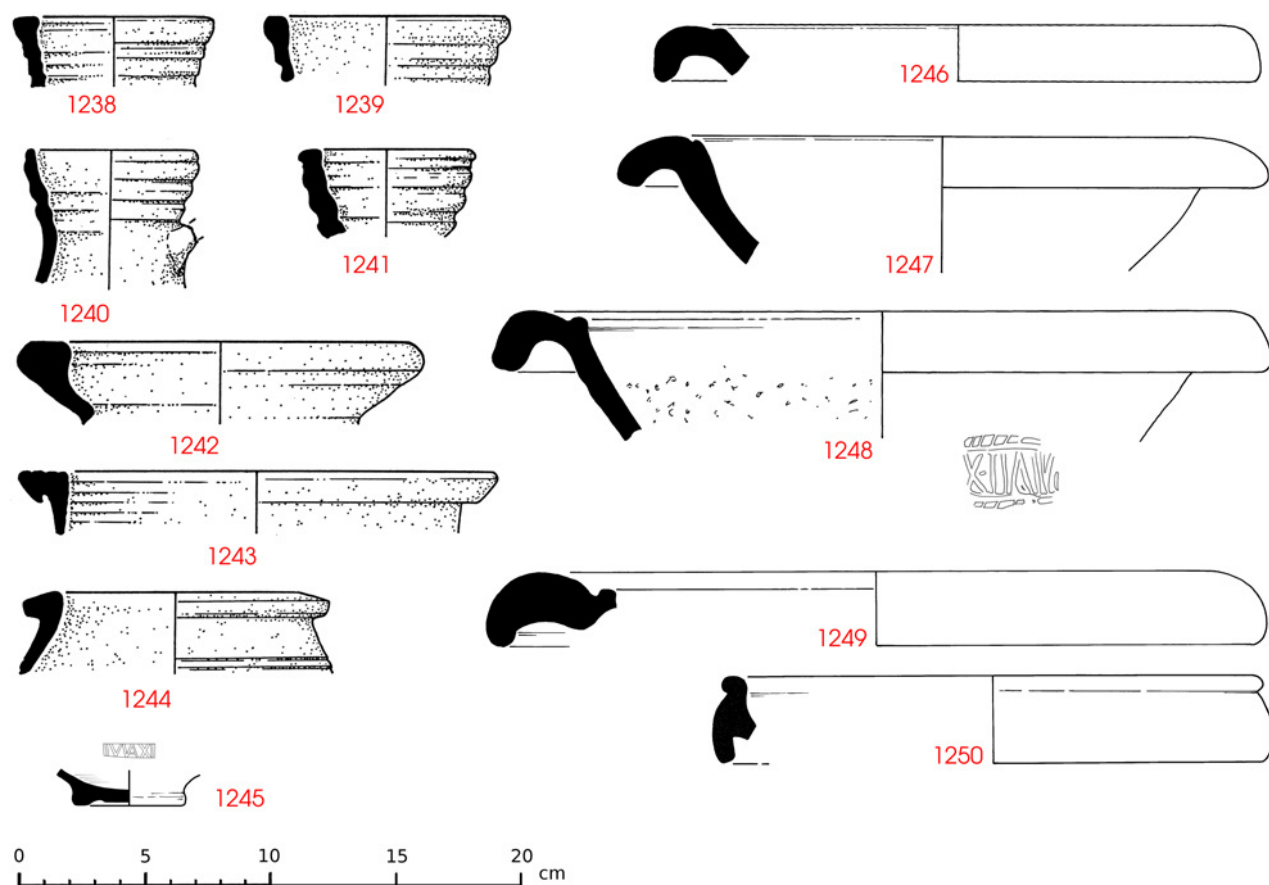


Fig. 136. Highgate Wood: 3 (2-4) iii (b): non-local pottery [1:3]

### 6.36. Phase 3 (2-4) iii (c) : Pottery Derived from Southern Dump

Excavation report See p.41.

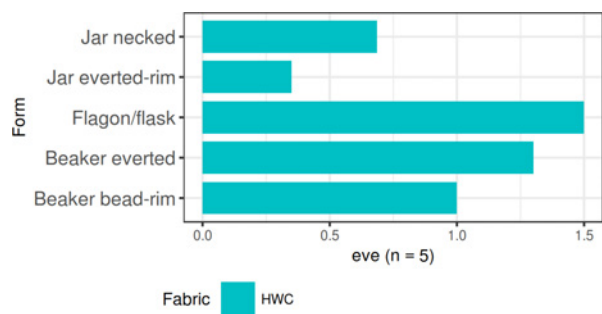
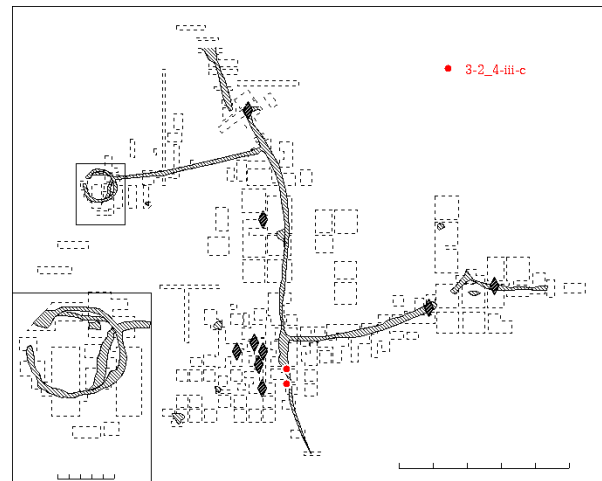
**Local pottery** This is a large group, which includes both pie-dishes **1281-2**, everted-rim jars **1261** and other vessels in HWC and HWC+. There is one bowl decorated with blocks of combed decoration **1285**.

**Non-local pottery** The group also includes a group of samian (South and Central Gaulish, 1<sup>st</sup> and early 2<sup>nd</sup> cent. AD). The VRW includes sherds from flagons and the mortaria include a vessel stamped by Marinus (**1309** AD 80-125) and other sherds dated AD 80-130 and AD 110-150.

CONTEXT	REF.	REPORT	DESCRIPTION	
T50F2	69/SF214	Metal no. 118	Iron object	

CONTEXT	FABRIC	FORM	REF.	COMMENT
T47F1	RWS	IB	GM338	cf BHWS/silty
T47F1	SAM-CG	Dr37	69/RP195	Early-2nd c.
T47F1	SAM-SG		69/RP67	1st c.
T50F1	SAM-SG		69/RP94	1st c.
T50F1	SAM-SG		69/RP179	1st c.
T50F1	SAM-SG		69/RP158	1st c.
T47F1	SAM-SG	Dr18	69/RP72	Flavian
T50F1	SAM-SG	Dr18	69/RP78	Flavian-Trajanic
T50F2	SAM-SG	Dr27?	69/RP200	Flavian-Trajanic
T47F1	SAM-SG	plate	69/RP159	Pre- or early Flavian
T47F1	VCWS		GM331	
T50F2	VCWS	I?	GM370	<b>1300</b>
T47F1	VRW			
T50F2	VRW			
T47F1	VRW	I	GM357	
T50F2	VRW	I?		
T47F2	VRW	IB	GM353	
T47F1	VRW	IVA		
T50F1	VRW	mortarium	GM535	<b>1309</b> MARINUS AD 80-125
T50F1	VRW	mortarium	GM515	<b>1310</b> AD 80-130
T50F1	VRW	mortarium	GM485	<b>1310</b> AD 80-130
T50F1	VRW	mortarium	GM537	<b>1311</b> AD 110-150
T50F2	VRW	mortarium		



FABRIC	EVE	WEIGHT (G)
HW	.	26369
HWA	0.20	635
HWB	.	700
HWC	4.83	5583
HWC+	.	1070
Total	5.03	34357

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT	No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1251	137	T47F1	HWB	H657		1311	140	T50F1	VRW	GM537	AD 110-150
1252	137	T47F1	HWB	H658							
1253	137	T47F1	HWC	H659							
1254	137	T47F1	HWC	H660							
1255	137	T47F1	HWB	H661							
1256	137	T47F1	HWC	H663							
1257	137	T47F1	HWC	H664							
1258	137	T47F1	HWB	H666							
1259	137	T47F1	HWC	H665							
1260	137	T47F1	HWC	H662							
1261	137	T47F1	HWC	H667							
1262	137	T47F1	HWC	H670							
1263	137	T47F1	HWC	H669							
1264	137	T47F1	HWC	H668							
1265	137	T47F1	HWC	H673							
1266	137	T47F1	HWC	H672							
1267	137	T47F1	HWC	H674							
1268	137	T47F1	HWC	H671							
1269	137	T47F1	HWB	H679							
1270	137	T47F1	HWC	H676							
1271	137	T47F1	HWC	H680							
1272	137	T47F1	HWC	H681							
1273	137	T47F1	HWB	H675							
1274	137	T47F1	HWC	H677							
1275	137	T47F1	HWC	H684							
1276	137	T47F1	HWC	H678							
1277	138	T47F1	HWC	H682							
1278	138	T47F1	HWC	H683							
1279	138	T47F1	HWB/C	H688							
1280	138	T47F1	HWC	H687							
1281	138	T47F1	HWC	H685	pie dish						
1282	138	T47F1	HWC	H686	pie dish						
1283	138	T47F1	HWC	H689							
1284	138	T47F1	HWC	M500							
1285	138	T47F1	HWC	H691							
1286	138	T47F1	HWC	H690							
1287	138	T47F1	HWC	GM388	pedestal base						
1288	138	T47F1	HWC	H693							
1289	138	T47F1	HWC	H694							
1290	138	T47F1	HWC	H692							
1291	138	T47F1	HWC	H695							
1292	138	T47F1	HWC	H696							
1293	138	T47F1	HWC	H697							
1294	139	T50F2	HWA	H698							
1295	139	T50F2	HWC	M922							
1296	139	T50F2	HWC	H700							
1297	139	T50F2	HWC	H701							
1298	139	T50F2	HWC	H699							
1299	139	T50F2	HWC	H702							
1300	139	T50F2	VCWS	GM370	!?						
1301	139	T50F2	HWC	H703							
1302	139	T50F2	HWC	H704							
1303	139	T50F2	HWC	H705							
1304	139	T50F2	HWC	H707							
1305	139	T50F2	HWC	H706							
1306	139	T50F2	HWC	H709							
1307	139	T50F2	HWC	H708							
1308	139	T50F2	HWC	H710	pie dish						
1309	140	T50F1	VRW	GM535	AD 80-125						
1310	140	T50F1	VRW	GM485	AD 80-130						
1310	140	T50F1	VRW	GM515	AD 80-130						



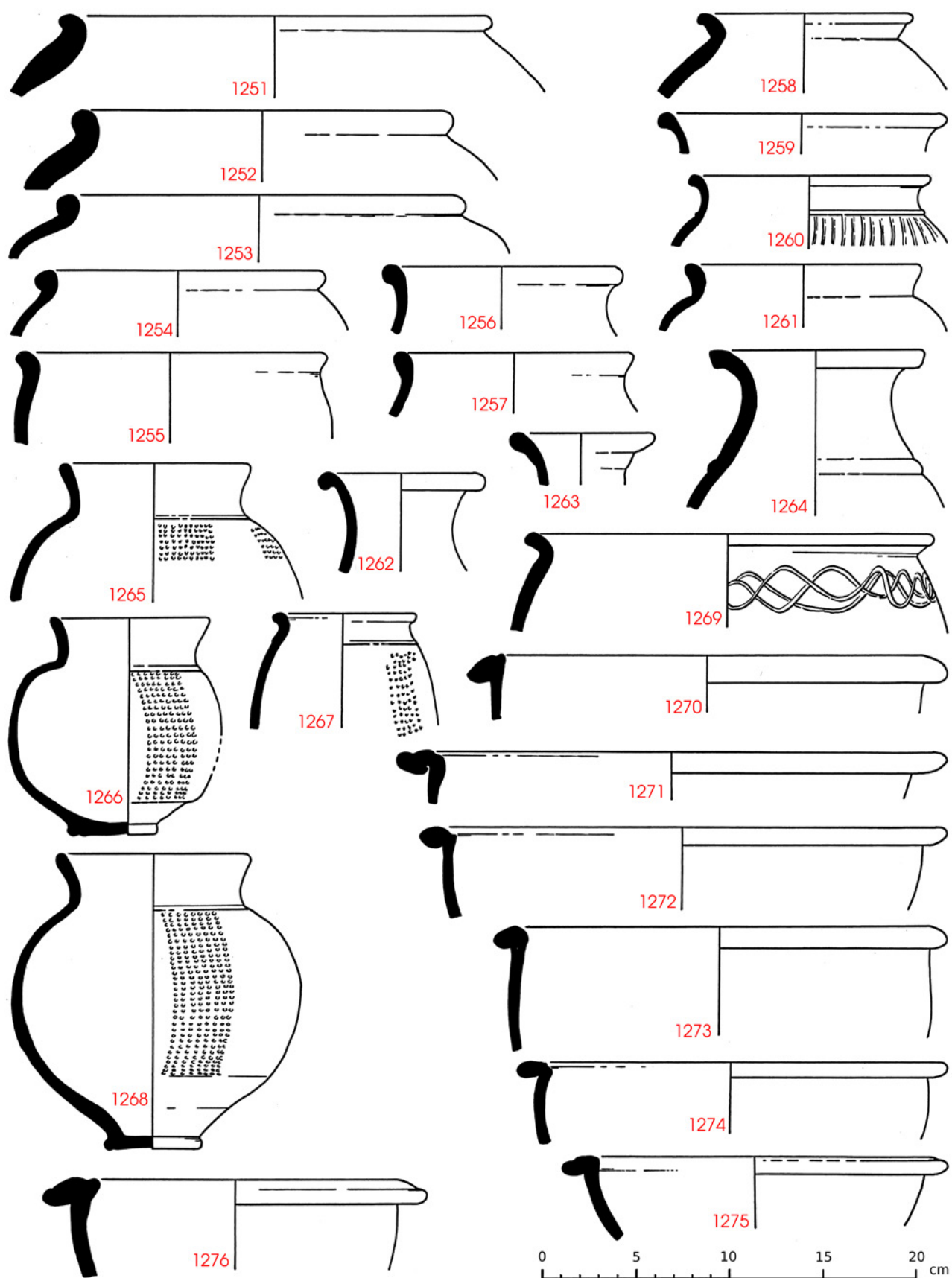


Fig. 137. Highgate Wood: 3 (2-4) iii (c): local pottery [1:3]

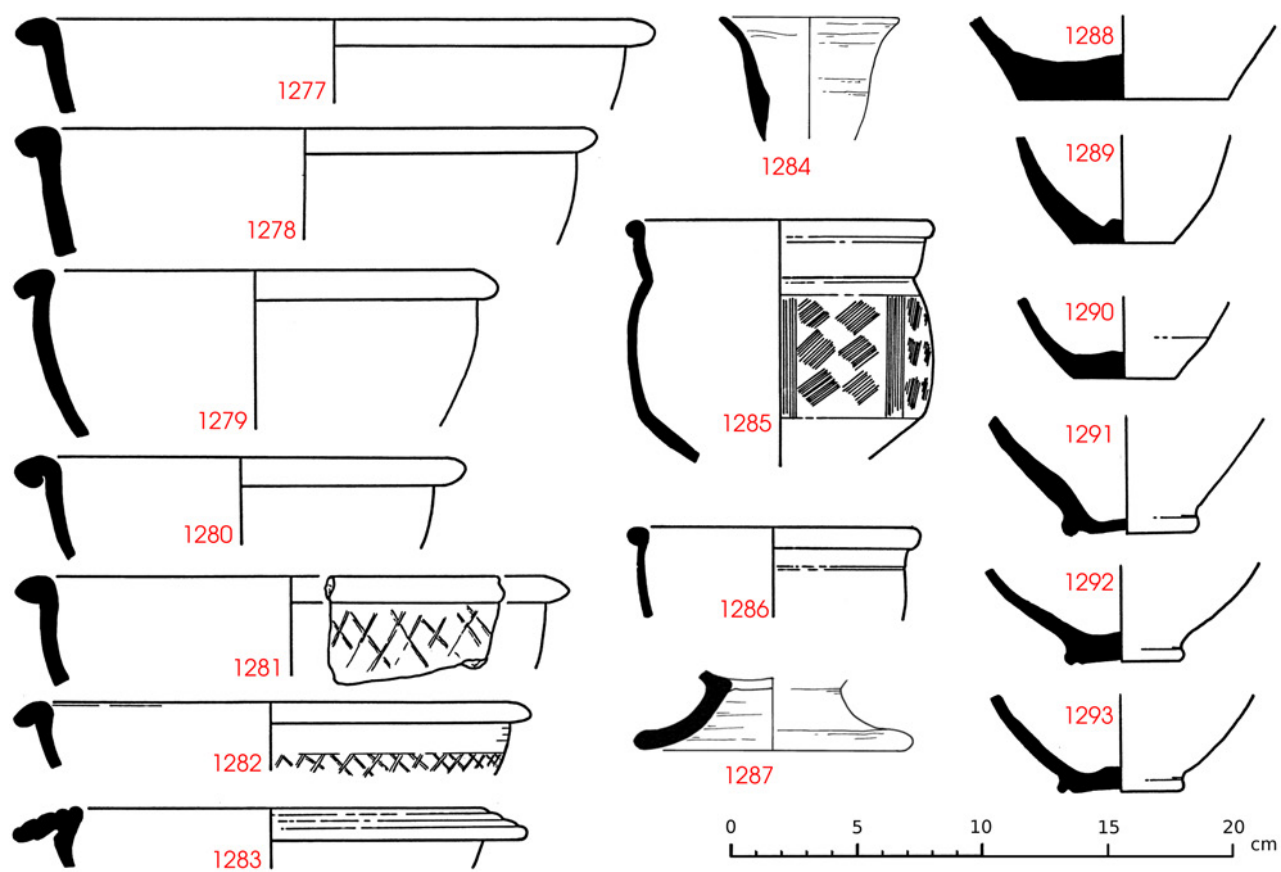


Fig. 138. Highgate Wood: 3 (2-4) iii (c): local pottery [1:3]

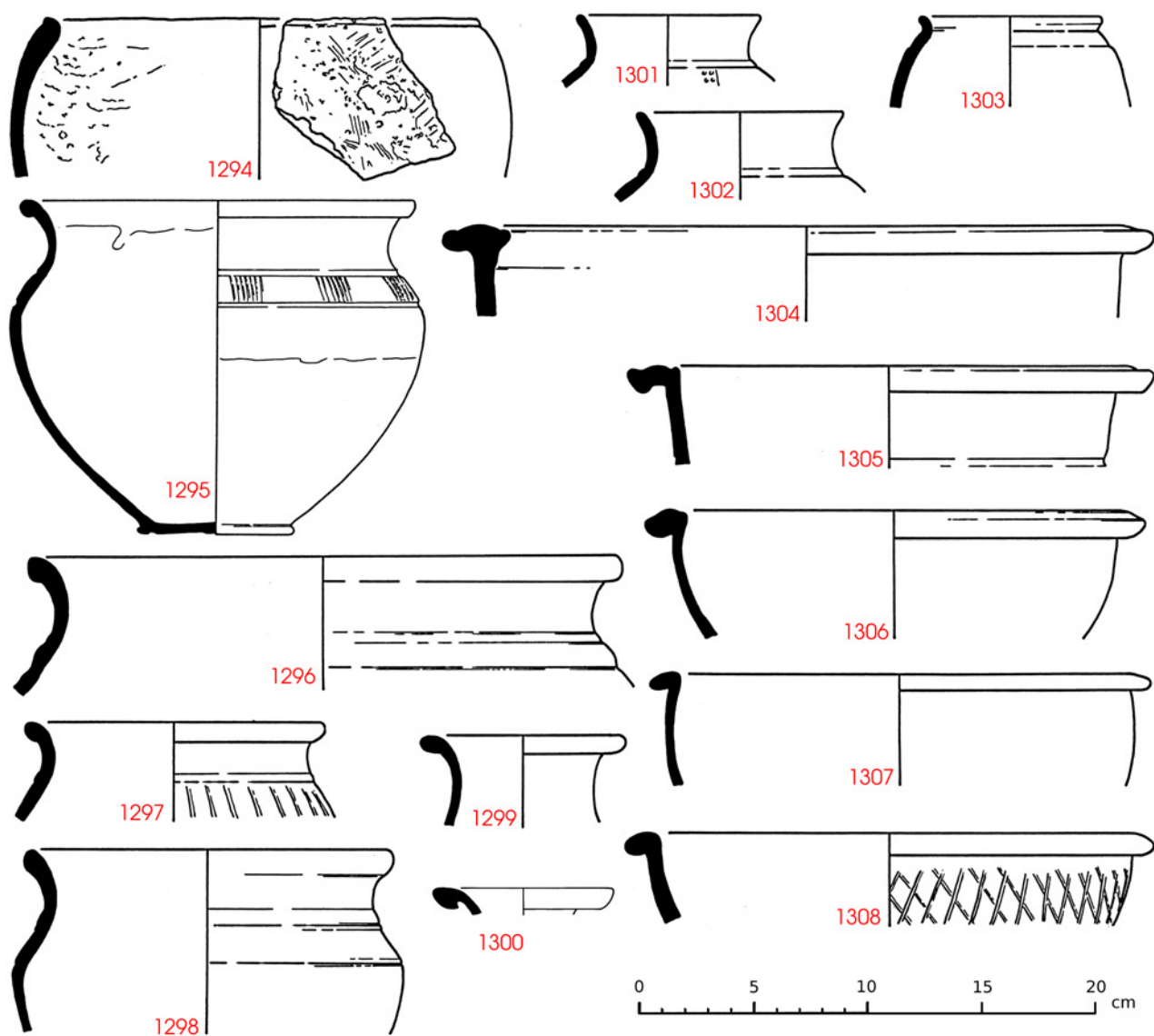


Fig. 139. Highgate Wood: 3 (2-4) iii (c): local pottery [1:3]

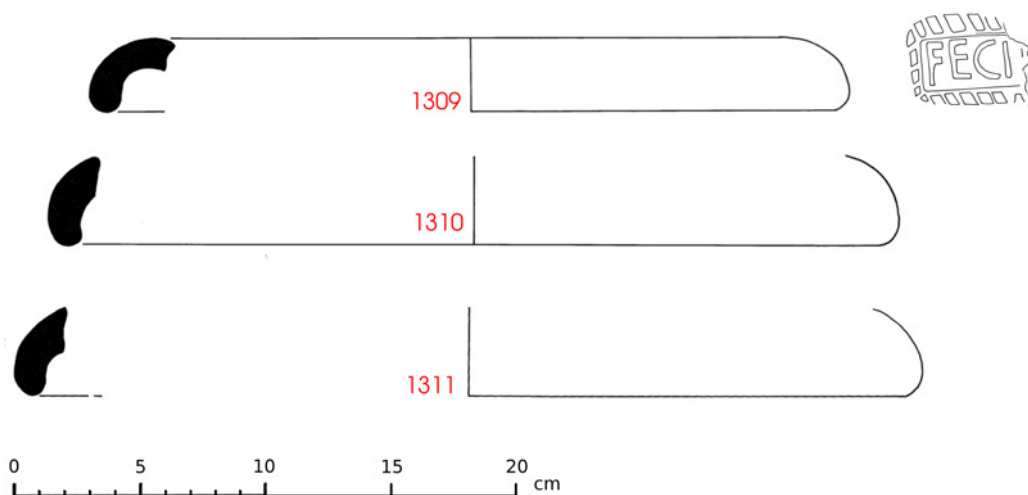


Fig. 140. Highgate Wood: 3 (2-4) iii (c): non-local pottery [1:3]

### 6.37. Phase 3 (2-4) iii (d) : Core layer Northern Kiln Dump

**Excavation report** See p.41.

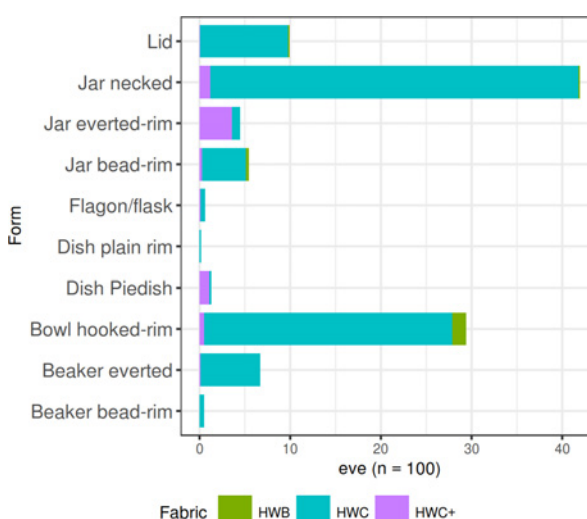
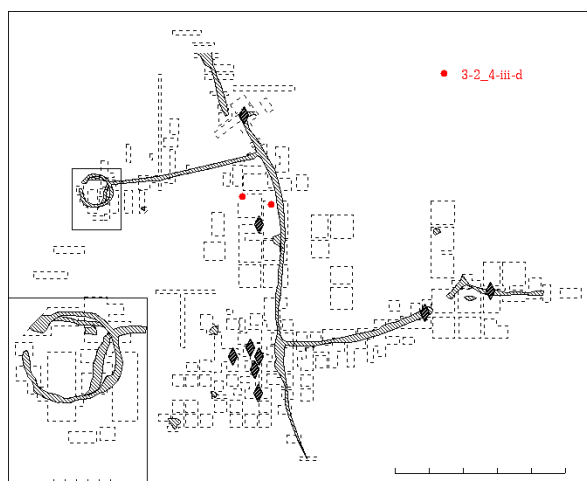
**Local pottery** The core of the Northern dump group is a substantial group, principally HWC, with some HWC+. The table of forms is dominated by necked jars (c. 40%) and hooked-rim bowls (c. 25%); in addition, there are smaller but significant numbers of everted-rim beakers **1328-1341**, everted-rim jars **1323-7** and pie-dishes **1374**.

**Non-local pottery** There is a large group of samian and VRW from this group. The samian ranges in date from pre-Flavian to the early 2<sup>nd</sup> century. The VRW include sherds of at least three mortaria, dated AD 60-90 and 65-100 and flagons and bowls.

**Other objects** The assemblage also includes a fragment of a glass jug or bowl and the part of an iron blade

CONTEXT	REF.	REPORT	DESCRIPTION
T94L4	71/SF142	Glass no. 20	Shoulder of bottle or flask
T94L4	71/SF151	Metal no. 134	Iron object

CONTEXT	FABRIC	FORM	REF.	COMMENT
T91F1	AHSU	bowl		
T91F1	AHSU	jar		
T91F1	SAM-CG	Dr35	71/RP73	Early-2nd c.
T91F1	SAM-CG	Dr35	71/RP66	Early-2nd c.
T91F1	SAM-SG		71/RP64	
T94L3	SAM-SG		71/RP67	1st c.
T94L4	SAM-SG		71/RP94	1st c.
T91F1	SAM-SG	Dr15/17	71/RP49	Pre- or early Flavian, burnt
T94L3	SAM-SG	Dr18	71/RP31	Flavian
T91F1	SAM-SG	Dr27	71/RP59	Flavian
T91F1	SAM-SG	Dr27	71/RP34	Flavian
T91F1	SAM-SG	Dr27	71/RP28	Flavian-Trajanic
T94L3	SAM-SG	Dr30	71/RP63	Decorated no.5, Pre- or early Flavian
T91F1	SAM-SG	Dr33	71/RP48	Flavian-Trajanic
T91F1	SAM-SG	Dr33	71/RP50	Flavian-Trajanic
T91F1	SAM-SG	Knorr78	71/RP74	Decorated no.15, Flavian
T91F1	VRW			
T91F1	VRW			
T91F1	VRW	cup?	X2002	<b>1388</b>
T91F1	VRW	I		
T91F1	VRW	I		
T91F1	VRW	I		
T94L4	VRW	IB?	GM419	



FABRIC	EVE	WEIGHT (g)
HW	.	18899
HWB	2.22	519
HWC	91.34	17928
HWC+	6.92	1175
Total	100.49	38521

CONTEXT	FABRIC	FORM	REF.	COMMENT
T91F1	VRW	IJ		
T91F1	VRW	IVA	X2003	<b>1387</b>
T91F1	VRW	mortarium	GM516	AD 65-100
T91F1	VRW	mortarium		
T91F1	VRW	mortarium	GM484	<b>1389</b> AD 60-90
T91F1	VRW	mortarium		
T91F1	VRW	mortarium		w.spout

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1312	141	T91F1	HWC	X1177	
1313	141	T91F1	HWC	X1173	
1314	141	T91F1	HWC	X1176	
1315	141	T91F1	HWC	X1175	
1316	141	T91F1	HWC	X1174	
1317	141	T91F1	HWC	X1222	
1318	141	T91F1	HWC	X1223	
1319	141	T91F1	HWC	M511B	
1320	141	T91F1	HWC	M802	
1321	141	T91F1	HWC	X1220	
1322	141	T91F1	HWC	X1221	
1323	141	T91F1	HWC	X1211	
1324	141	T91F1	HWC	X1230	
1325	141	T91F1	HWC	X1216	
1326	141	T91F1	HWC	X1215	
1327	141	T91F1	HWC	X1209	
1328	141	T91F1	HWC	X1207	
1329	141	T91F1	HWC	X1206	
1330	141	T91F1	HWC	X1212	
1331	141	T91F1	HWC	X1224	
1332	141	T91F1	HWC	X1205	
1333	141	T91F1	HWC	X1213	
1334	141	T91F1	HWC	X1208	
1335	141	T91F1	HWC	X1228	
1336	141	T91F1	HWC	X1217	
1337	141	T91F1	HWC	X1214	
1338	141	T91F1	HWC	X1218	
1339	141	T91F1	HWC	X1210	
1340	141	T91F1	HWC	X1226	
1341	141	T91F1	HWC	X1204	
1342	141	T91F1	HWC	X1251	
1343	141	T91F1	HWC	X1261	
1344	141	T91F1	HWC	X1231	
1345	141	T91F1	HWC	X1257	
1346	141	T91F1	HWC	X1243	
1347	141	T91F1	HWC	X1237	
1348	141	T91F1	HWC	X1242	
1349	141	T91F1	HWC	X1258	
1350	141	T91F1	HWC	X1264	
1351	141	T91F1	HWC	X1270	
1352	141	T91F1	HWC	X1232	
1353	141	T91F1	HWC	X1245	
1354	141	T91F1	HWC	X1268	
1355	141	T91F1	HWC	X1229	
1356	141	T91F1	HWC	X1227	
1357	141	T91F1	HWC	X1225	
1358	141	T91F1	HWC	71/SF33	
1359	141	T91F1	HWC	M515B	
1360	142	T91F1	HWC	M503B	
1361	142	T91F1	HWC	M510B	
1362	142	T91F1	HWC	X1191	
1363	142	T91F1	HWC	X1202	
1364	142	T91F1	HWC	X1192	
1365	142	T91F1	HWC	X1193	
1366	142	T91F1	HWC	M508	
1367	142	T91F1	HWC	X1203	
1368	142	T91F1	HWC	X1183	
1369	142	T91F1	HWC	M507	
1370	142	T91F1	HWC	X1199	
1371	142	T91F1	HWC	X1194	
1372	142	T91F1	HWC	71/SF41	foot

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1373	142	T91F1	HWC	X1185	
1374	142	T91F1	HWC+	X1182	
1375	142	T91F1	HWC	X1187	
1376	142	T91F1	HWC	X1190	
1377	142	T91F1	HWC	X1180	
1378	142	T91F1	HWC	X1200	
1379	142	T91F1	HWC	X1179	
1380	142	T91F1	HWC	X1196	
1381	142	T91F1	HWC	X1189	
1382	142	T91F1	HWC	X1201	
1383	142	T91F1	HWC	X1195	
1384	142	T91F1	HWC	X1197	
1385	142	T91F1	HWC	X1188	
1386	142	T91F1	HWC	X1186	
1387	143	T91F1	VRW	X2003	IVA
1388	143	T91F1	VRW	X2002	cup?
1389	143	T91F1	VRW	GM484	AD 60-90

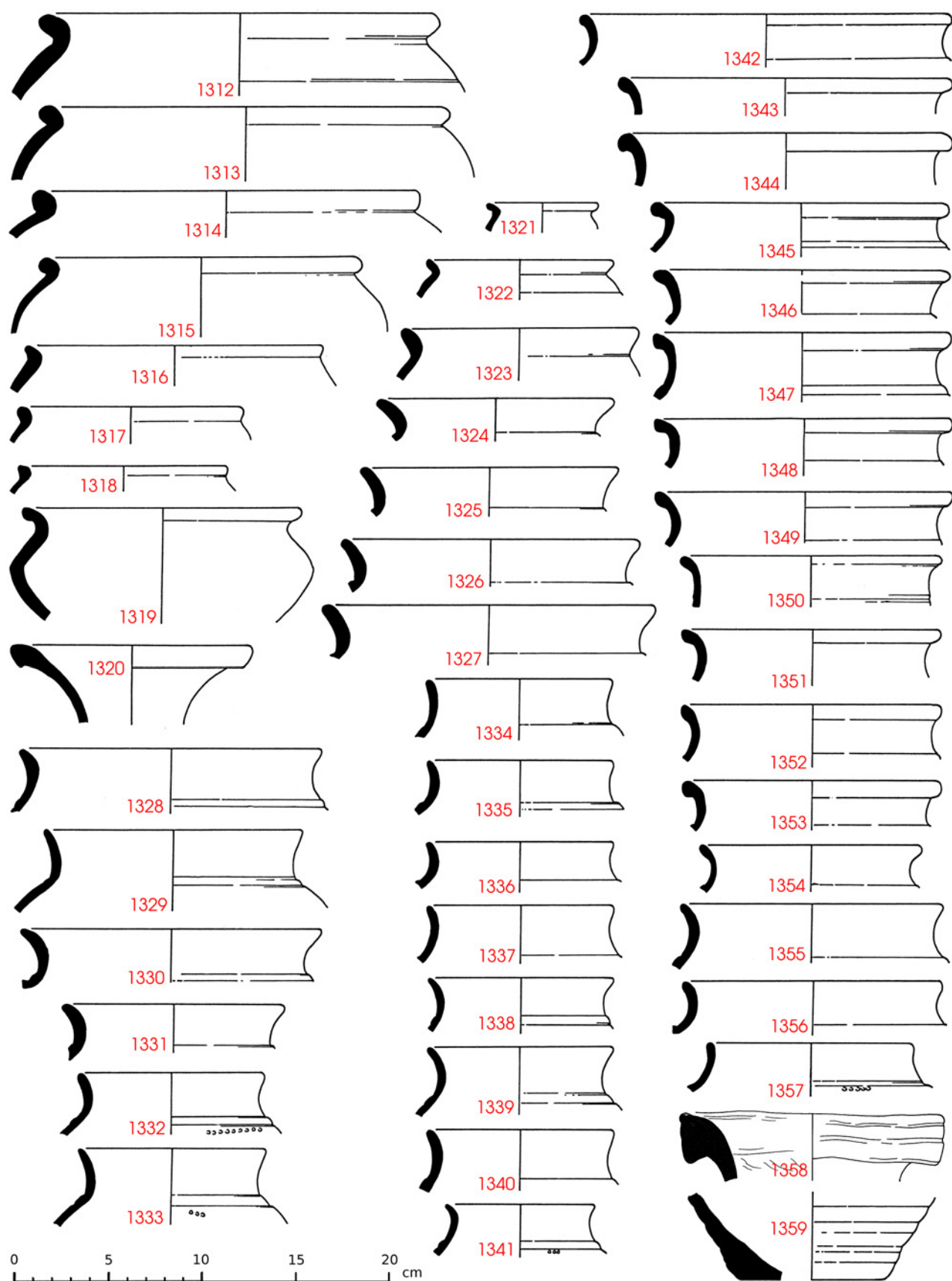


Fig. 141. Highgate Wood: 3 (2-4) iii (d): local pottery [1:3]



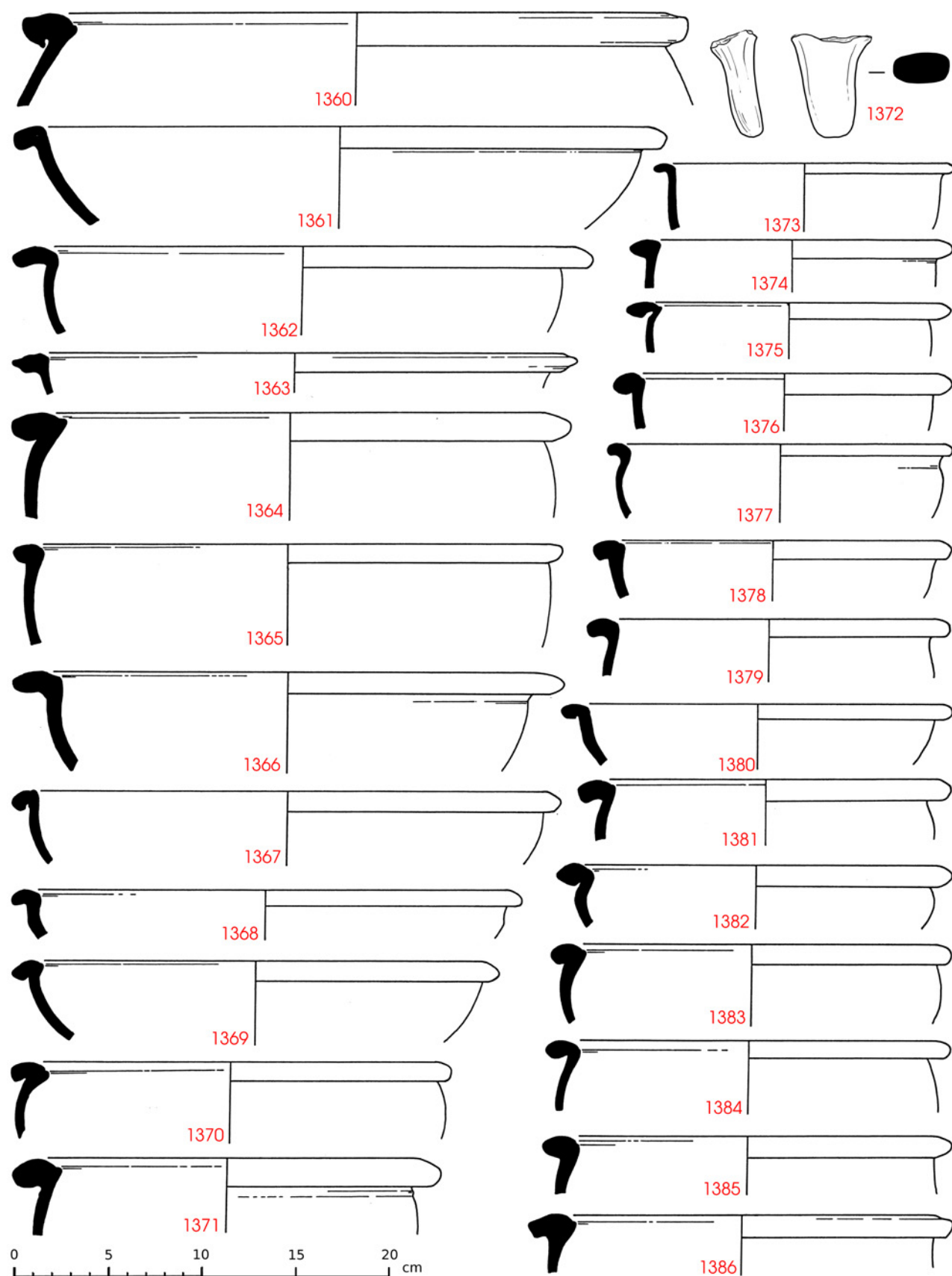


Fig. 142. Highgate Wood: 3 (2-4) iii (d): local pottery [1:3]

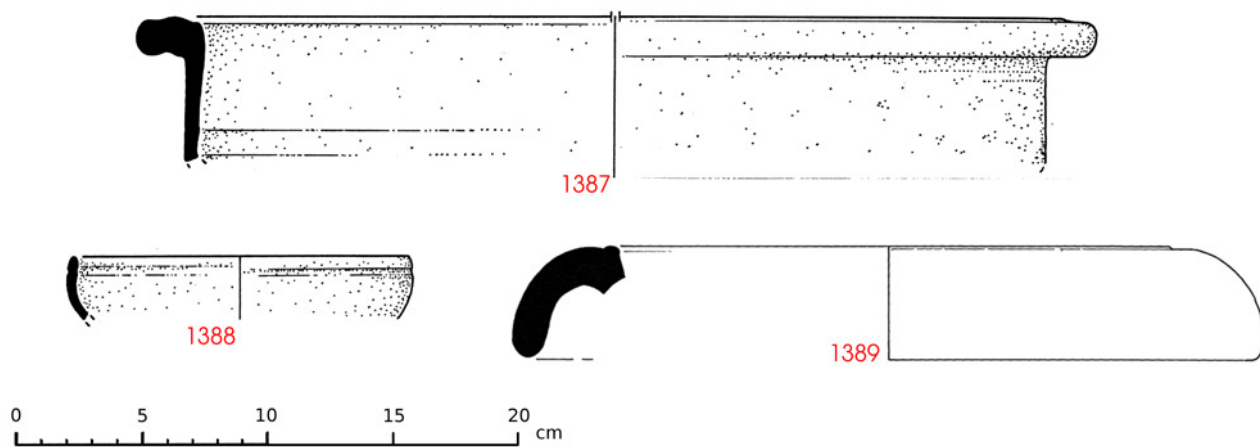


Fig. 143. Highgate Wood: 3 (2-4) iii (d): non-local pottery [1:3]

## 6.38. Phase 3 (2-4) iii (e) : Other layers

### Northern Kiln Dump

Excavation report See p.41.

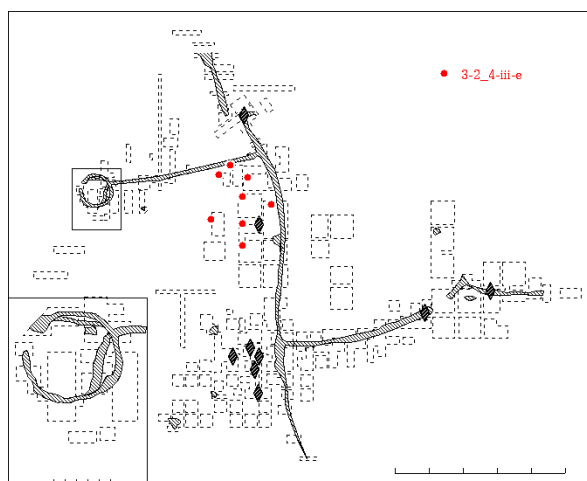
**Local pottery** A substantial assemblage, principally HWC with some HWC+ and HWB. The forms are dominated by necked jars and hooked-rim bowls, but also included everted-rim jars and pie-dishes with lattice decoration.

*Not illustrated.*

**Non-local pottery** The assemblage includes a particularly large group of non-local ceramics. The sigillata includes South Gaulish (Drag.15/17, 18, 27, 33, and 37; 1<sup>st</sup> cent. AD) and a single sherd of Central Gaulish (early 2<sup>nd</sup> cent. AD). The VRW includes sherds of flagons (including ring-necked flagons) and jars, but a group of eight mortaria (dated AD 65-100 to AD 80-120). There are sherds of two further mortaria in a red fabric (dated AD 140-180 and 150-200).

CONTEXT	REF.	REPORT	DESCRIPTION
T103F1	72/SF187	Stone no. 4	Worked stone
T120L2	71/SF218	Glass no. 43	Bead
T121L2	72/SF222	Glass no. 10b	Rim of jar or bowl
T121L2	72/SF231	Stone no. 3	Hone (Roman)
T121L2	72/SF233	Stone no. 22	Quern (Sandstone)
T91L2	71/SF78	Metal no. 112	Iron object
T91L3	71/SF129	Glass no. 5	Rim of bowl
T94L2	71/SF150	Metal no. 93	Iron object
T94L2	71/SF103	Metal no. 115	Iron object

CONTEXT	FABRIC	FORM	REF.	COMMENT
T103F1	OXID	I	GM445	
T103F1	OXID	I	GM445	
T94L2	PMED		GM43	
T121L2	RWS	I	GM450	
T120L2	RWS	mortarium	72/RP38	1396 AD 150-200
T120L2	RWS	mortarium	GM464	1394 AD 140-180
T121L2	SAM-CG		72/RP47	Early-2nd c.
T120L2	SAM-SG		72/RP33	1st c.
T120L2	SAM-SG		72/RP49	1st c.
T91L2	SAM-SG		71/RP10	1st c.
T91L3	SAM-SG		71/RP84	1st c.
T91L3	SAM-SG		71/RP13	1st c.
T91L3	SAM-SG		71/RP76	1st c.
T91L6	SAM-SG		71/RP111	
T91L6	SAM-SG	Dr15/17	71/RP117	Pre- or early Flavian
T91L2	SAM-SG	Dr18	71/RP5	Flavian, burnt
T94L2	SAM-SG	Dr18	71/RP87	Flavian
T120L2	SAM-SG	Dr27	72/RP55	Flavian
T91L2	SAM-SG	Dr27	71/RP3	Flavian
T91L3	SAM-SG	Dr27	71/RP12	Flavian
T91L4	SAM-SG	Dr27	71/RP17	Flavian



CONTEXT	FABRIC	FORM	REF.	COMMENT
T91L6	SAM-SG	Dr27	71/RP107	Flavian
T91L6	SAM-SG	Dr27	71/RP110	Flavian
T91L6	SAM-SG	Dr27	71/RP109	AD 65-90, stamp, GERMANUS i
T91L6	SAM-SG	Dr27	71/RP93	Flavian-Trajanic, stamp, CRES-TUS?
T91L3	SAM-SG	Dr33	71/RP83	Flavian-Trajanic
T91L3	SAM-SG	Dr33	71/RP9	Flavian-Trajanic
T91L6	SAM-SG	Dr33	71/RP100	Flavian-Trajanic
T91L6	SAM-SG	Dr33	71/RP105	Late-1st c.
T94L2	SAM-SG	Dr37	71/RP62	Flavian, remains of ovolo
T94L2	SAM-SG	Dr37?	71/RP97	Flavian-Trajanic
T103F1	VRW	I		
T103F1	VRW	I		
T118F3	VRW	I		
T121L2	VRW	I	GM446	
T121L2	VRW	I	GM438	
T120L2	VRW	IB	GM443	
T118F3	VRW	IJ?		
T103F1	VRW	jar		
T103F1	VRW	jar		
T103F1	VRW	mortarium	GM457	1390 AD 70-110
T103F1	VRW	mortarium	GM461	AD 80-120?
T103F1	VRW	mortarium	GM459	AD 70-130
T103F1	VRW	mortarium	GM460	AD 70-100/110
T103F1	VRW	mortarium		
T120L2	VRW	mortarium	GM459	AD 70-130
T120L2	VRW	mortarium	GM463A	1395 AD 140-180
T91L3	VRW	mortarium	GM501	1391 AD 65-100
T94L2	VRW	mortarium	GM517	AD 70-110
T94L2	VRW	mortarium	GM511	1393 AD 70-120
T94L2	VRW	mortarium	GM482	1392 AD 80-120+
T94L2	VRW	mortarium	GM478	AD 65-100; burnt

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1390	144	T103F1	VRW	GM457	AD 70-110
1390	144	T89NWL4	VRW	GM493	AD 70-110
1391	144	T91L3	VRW	GM501	AD 65-100
1392	144	T94L2	VRW	GM482	AD 80-120+
1393	144	T94L2	VRW	GM511	AD 70-120
1394	144	T120L2	RWS	GM464	AD 140-180
1395	144	T120L2	VRW	GM463A	AD 140-180
1395	144	T73L2	VRW	GM463B	AD 140-180
1396	144	T120L2	RWS	72/RP38	AD 150-200

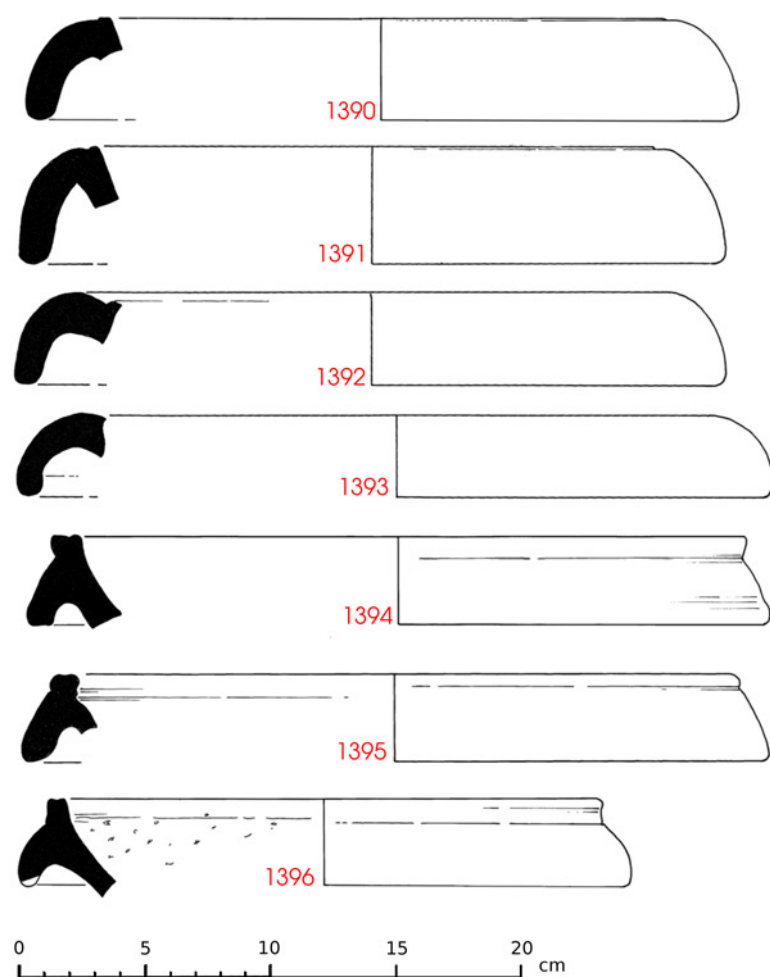


Fig. 144. Highgate Wood: 3 (2-4) iii (e): non-local pottery [1:3]

### 6.39. Phase 3 (2-4) iv (a) : Kiln 5

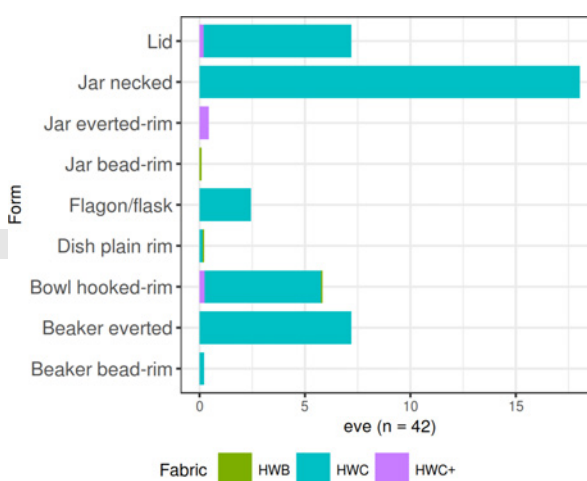
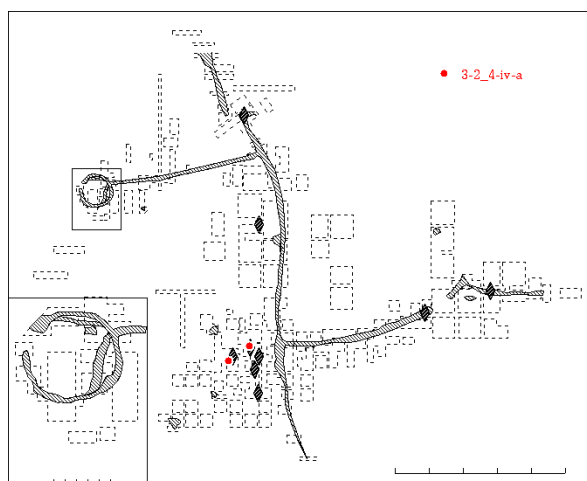
**Excavation report** See p.41.

**Local pottery** A small group, dominated by necked jars, hooked-rim bowls and everted-rim beakers in HWC. The bowls are of two types – one has a series of particularly heavy mouldings on the upper face of the rim **1422-28** while the other is simply thickened with a rounded profile on the upper surface of the flange, with a single groove on the inner lip **1418-21**. There are a few sherds of everted-rim jars, and a single pie-dish, in the black-burnished tradition.

**Non-local pottery** Two sherds of sigillata (SG, Drag.18, Flavian-Trajanic; CG, 2<sup>nd</sup> cent. AD).

CONTEXT	FABRIC	FORM	REF.	COMMENT
T13L3K5 over flue	SAM-CG		69/RP101	2nd c.?
T13L3K5 over flue	SAM-SG	Dr18	69/RP113	Flavian-Trajanic

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1397	145	T13K5 furnace support	HWC*	M891	
1398	145	T13K5 flue	HWC	M250	
1399	145	T13K5 top of furnace	HWC	GM263	
1400	145	T13K5 furnace support	HWC*	M890	
1401	145	T13K5 furnace support	HWC*	M894	
1402	145	T13K5 furnace	HWC	M252	
1403	145	T13K5 flue	HWC	M249	
1404	145	T13K5 furnace	HWC	M271	
1405	145	T13K5 furnace	HWC	M277	
1406	145	T13K5 flue	HWC	M256	
1407	145	T13K5 flue	HWC	M257	
1408	145	T13K5 flue	HWC	M268	
1409	145	T13K5 flue	HWC	M258	
1410	145	T13K5 furnace support	HWC*	M892	
1411	145	T13K5	HWC	X2014	
1412	145	T13K5 flue	HWC	M267	
1413	145	T13K5 furnace support	HWC*	M893	
1414	145	T13K5 furnace	HWC	M270	
1415	145	T13K5 flue	HWC	M260	
1416	145	T13K5 flue	HWC	M266	
1417	145	T13K5 flue	HWC	M248	
1418	146	T13K5 furnace	HWC	M251	
1419	146	T13K5 furnace	HWC	M253	
1420	146	T13K5 furnace	HWC	M273	
1421	146	T13NWEXTK5	HWC	M406	
1422	146	T13K5 furnace	HWC	M276	
1423	146	T13K5 flue	HWC	M263	
1424	146	T13K5 furnace	HWC	M274	
1425	146	T13K5 flue	HWC	M261	
1426	146	T13K5 flue	HWC	M262	
1427	146	T13K5 flue	HWC	M269	
1428	146	T13K5 furnace	HWC	M272	
1429	146	T13K5 furnace	HWC	M278	
1430	146	T13K5 furnace	HWC	M279	
1431	146	T13K5 furnace	HWC	M280A	
1432	146	T13K5 flue	HWC	M264	
1433	146	T13K5 flue	HWC	M265	



FABRIC	EVE	WEIGHT (g)
HW	.	16840
HWB	0.25	35
HWC	40.55	7692
HWC+	0.87	190
Total	41.68	24757

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1434	146	T13K5 furnace	HWC	M254	

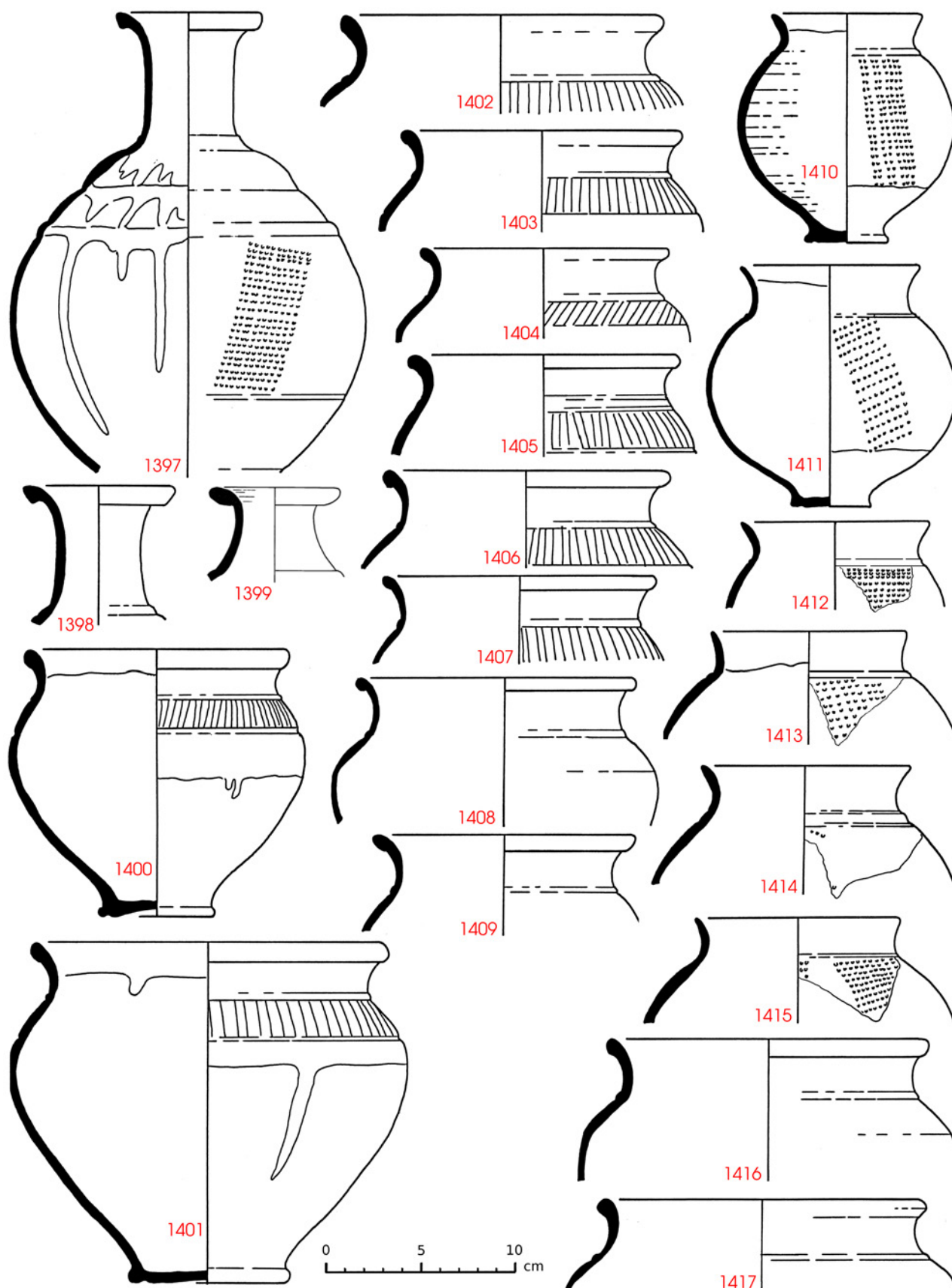


Fig. 145. Highgate Wood: 3 (2-4) iv (a): local pottery [1:3]



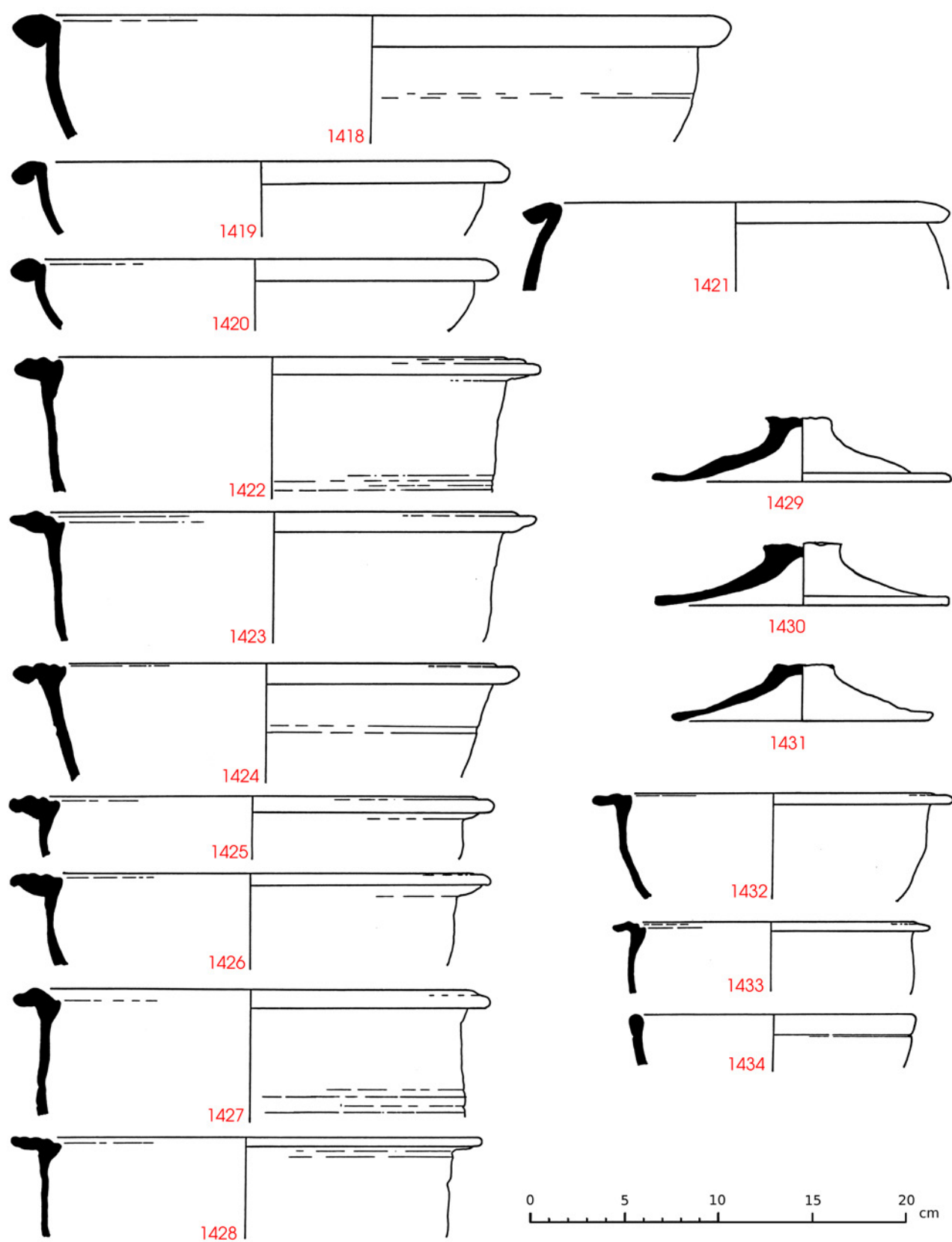


Fig. 146. Highgate Wood: 3 (2-4) iv (a): local pottery [1:3]

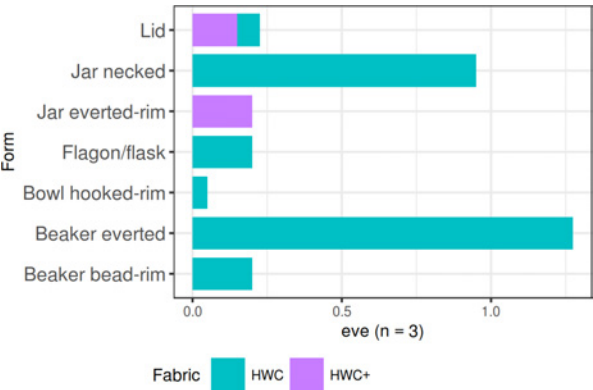
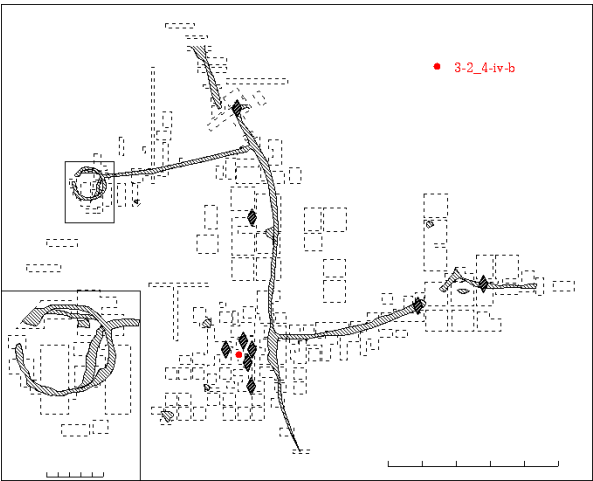
6.40. Phase 3 (2-4) iv (b) : Kiln 1

Excavation report See p.43.

**Local pottery** A rather small group of very fragmentary material, which includes some HWC+ material and includes a few sherds of everted-rim jar.  
*Not illustrated.*

**Non-local pottery** There is a single sherd of possible non-Highgate ware from the kiln pedestal, but it cannot be identified further.

CONTEXT	FABRIC	FORM	REF.	COMMENT
T6 inside kiln pedestal	OXID	lid	GM14	not HW?



FABRIC	EVE	WEIGHT (g)
HW	.	670
HWC	2.75	160
HWC+	0.35	40
Total	3.10	870

## 6.41. Phase 3 (2-4) iv (c) : Kiln 8

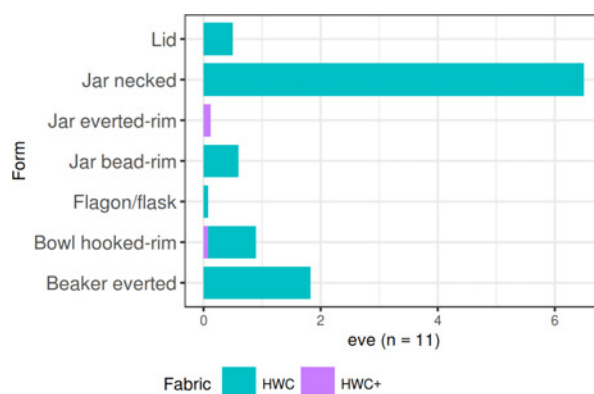
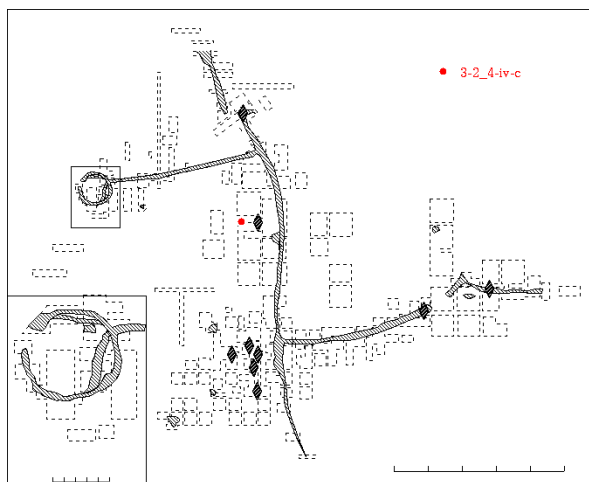
**Excavation report** See p.44.

**Local pottery** The quantified data from this small group includes a single, rather abraded, everted-rim jar from inside the flue of the kiln. The remainder are standard HWC types, dominated by necked-jars and smaller numbers of everted-rim beakers and hooked-rim bowls.

**Non-local pottery** There are a few sherds of VRW from contexts inside the kiln.

CONTEXT	FABRIC	FORM	REF.	COMMENT
T90 inside kiln	CERA	kiln furniture	71/SF136	
T90 inside kiln	VRW			
T90 inside kiln	VRW			
T90 inside kiln	VRW	I		

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1435	147	T90 inside kiln	HWC	M160	
1436	147	T90 inside kiln	HWC	M149	
1437	147	T90 inside kiln	HWC	M153	
1438	147	T90 inside kiln	HWC	M146	
1439	147	T90 inside kiln	HWC	M159	
1440	147	T90 inside kiln	HWC	M156	
1441	147	T90 inside kiln	HWC	M148	
1442	147	T90 inside kiln	HWC	M166	
1443	147	T90 inside kiln	HWC	M147	
1444	147	T90 inside kiln	HWC	M155	
1445	147	T90 inside kiln	HWC	M151	
1446	147	T90 inside kiln	HWC	M157	
1447	147	T90 inside kiln	HWC	M150	
1448	147	T90 inside kiln	HWC	M167	
1449	147	T90 inside kiln	HWC	M169	
1450	147	T90 inside kiln	HWC	M165	
1451	147	T90 inside kiln	HWC	M154	
1452	147	T90 inside kiln	HWC	M164	
1453	147	T90 inside kiln	HWC	M163	
1454	147	T90 inside kiln	HWC	M162	
1455	147	T90 inside kiln	HWC	M161	



FABRIC	EVE	WEIGHT (g)
HW	.	5755
HWC	10.32	1953
HWC+	0.20	30
<b>Total</b>	<b>10.52</b>	<b>7738</b>

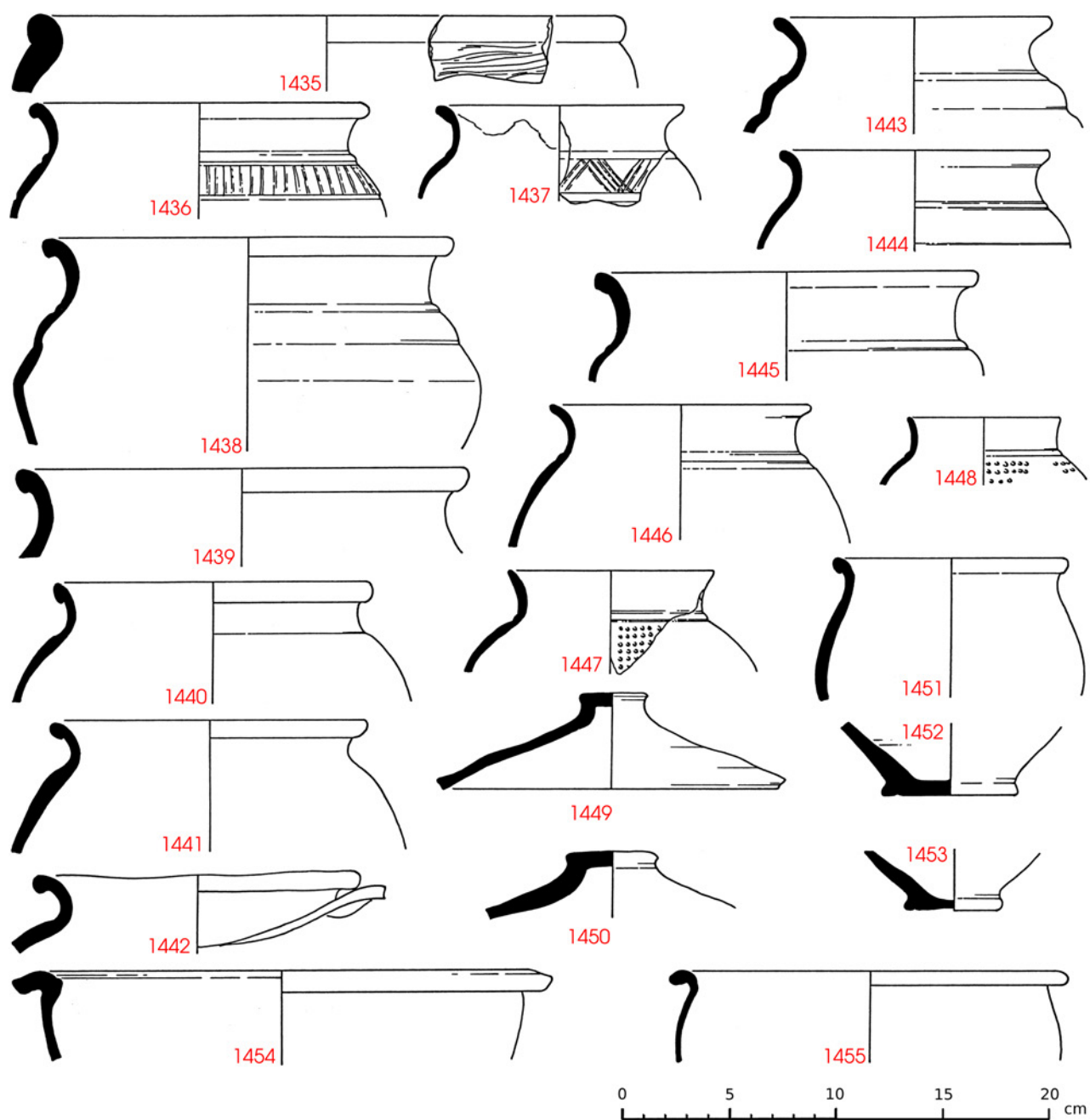


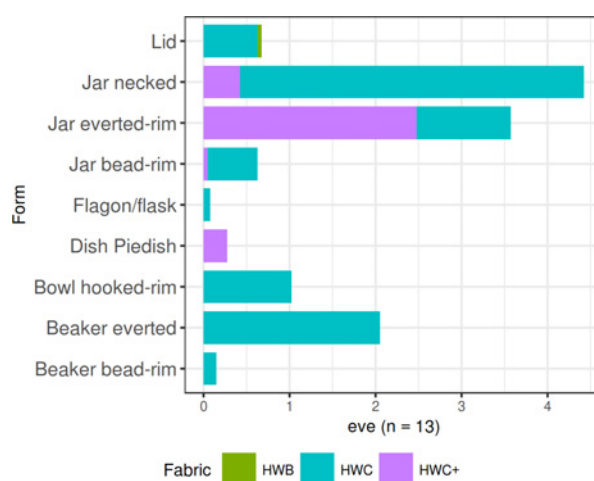
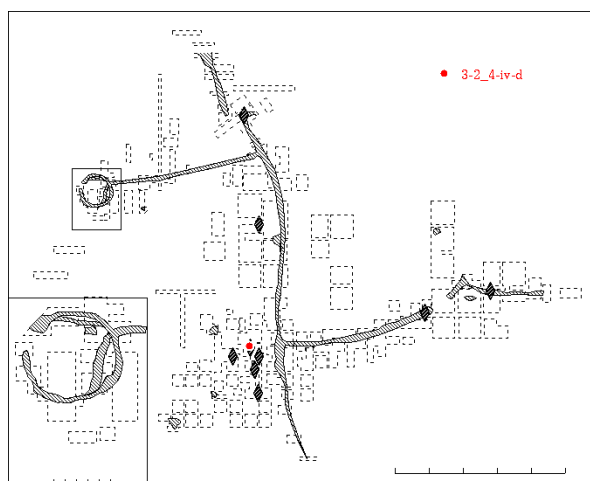
Fig. 147. Highgate Wood: 3 (2-4) iv (c): local pottery [1:3]

## 6.42. Phase 3 (2-4) iv (d) : Kiln 4

Excavation report See p.45.

**Local pottery** A fairly small and rather fragmentary group, but the forms include a small numbers of pie-dishes and large numbers of everted-rim jars with a range of other types, including necked-jars and everted-rim beakers. There are very few hooked-rim bowls.

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1456	148	T13K4 flue	HWC	M139	
1457	148	T13K4 flue	HWC	M142	
1458	148	T13K4 flue	HWC	M133	
1459	148	T13K4 flue	HWC+	M129	BB2 everted rim jar
1460	148	T13K4 flue	HWC	M134	storage jar
1461	148	T13K4 flue	HWC	M143	
1462	148	T13K4 flue	HWC	M144	
1463	148	T13K4 flue	HWC	M138	
1464	148	T13K4 flue	HWC	M145	
1465	148	T13K4 flue	HWC	M128	
1466	148	T13K4 flue	HWC	M141	
1467	148	T13K4 flue	HWC+	M136	
1468	148	T13K4 flue	HWC+	M131	
1469	148	T13K4 flue	HWC	M135	
1470	148	T13K4 flue	HWC	M132	
1471	148	T13K4 flue	HWC+	M130	pie dish plain
1472	148	T13K4 flue	HWC	M140	
1473	148	T13K4 flue	HWC+	M137	



FABRIC	EVE	WEIGHT (G)
HW	.	10945
HWB	0.05	5
HWC	9.60	1395
HWC+	3.22	540
Total	12.87	12885

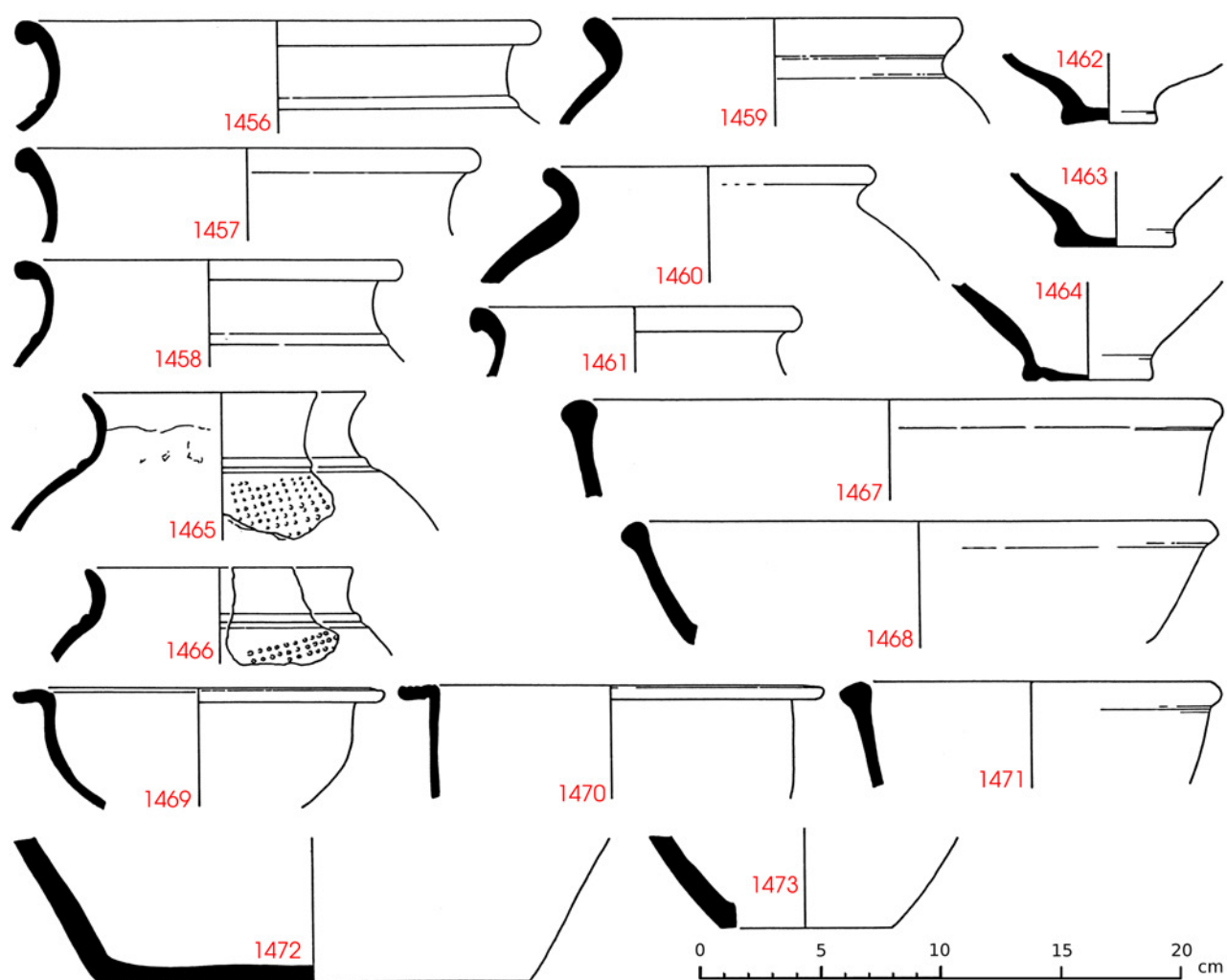


Fig. 148. Highgate Wood: 3 (2-4) iv (d): local pottery [1:3]



6.43. Phase 3 (2-4) v (a) : Pit 2

Excavation report See p.49.

**Local pottery** This is a small group, almost entirely in HWC. There are no examples of the black-burnished derived types, so this group should precede the appearance of these forms in the repertoire.

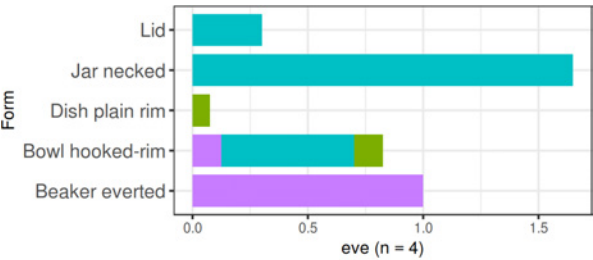
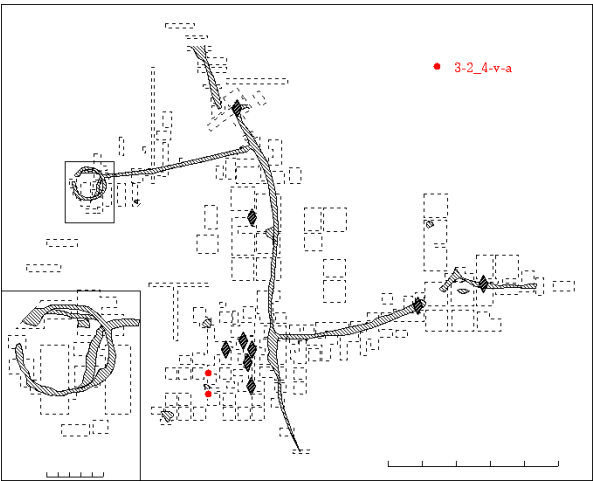
**Non-local pottery** The group includes a few sigillata sherds (SG, 1<sup>st</sup> cent. AD), and a sherd of a VRW flagon.

**Other objects** Two lead objects and one iron object recorded.

CONTEXT	REF.	REPORT	DESCRIPTION
T8F3	67/SF74	Metal no. 40	Lead object
T8F3	67/SF75	Metal no. 41	Lead object
T8F3	67/SF68	Metal no. 48	Iron object

CONTEXT	FABRIC	FORM	REF.	COMMENT
T8F3	SAM-SG		67/RP75	1st c.
T8F3	SAM-SG	Dr15/17	67/RP87	Pre-Flavian
T8F3	VRW	I	GM102	

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1474	149	T8F3SWEXT	HWC	M827	
1475	149	T8F3	HWC	M826	
1476	149	T8F3	HWC	X913	
1477	149	T8F3	HWC+	X914	
1478	149	T8F3	HWC+	M825	
1479	149	T8F3	HWC	X915	
1480	149	T8F3	HWB	X916	



FABRIC	EVE	WEIGHT (G)
HW	.	4420
HWB	0.20	50
HWC	2.52	1167
HWC+	1.12	155
Total	3.85	5792

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1481	149	T8F3	HWC	GM239	stamped decoration LW/51

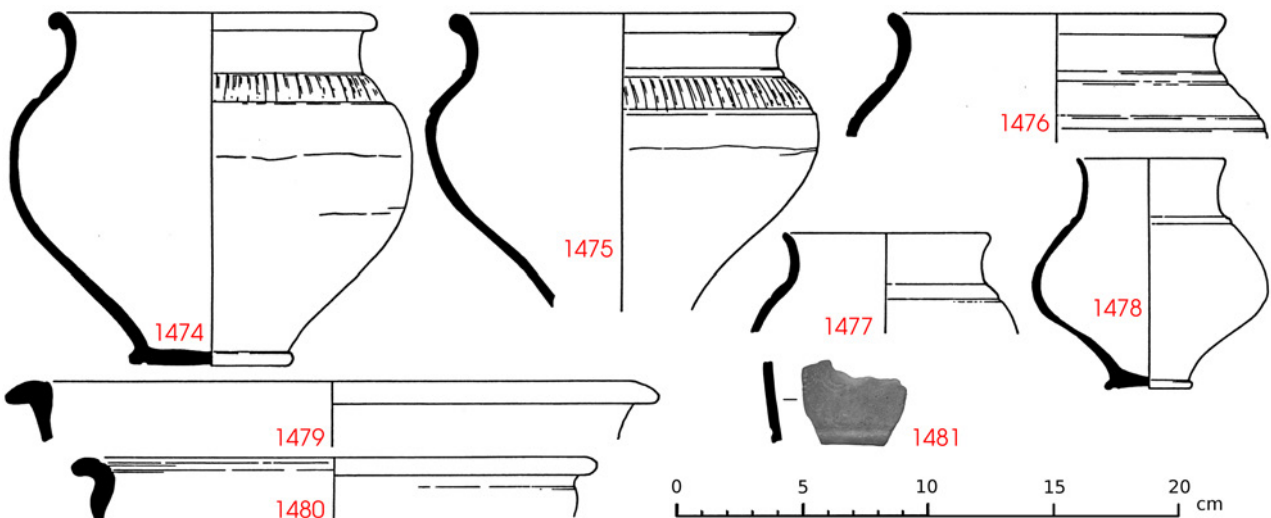


Fig. 149. Highgate Wood: 3 (2-4) v (a): local pottery [1:3]

## 6.44. Phase 3 (2-4) v (b) : Pit 1

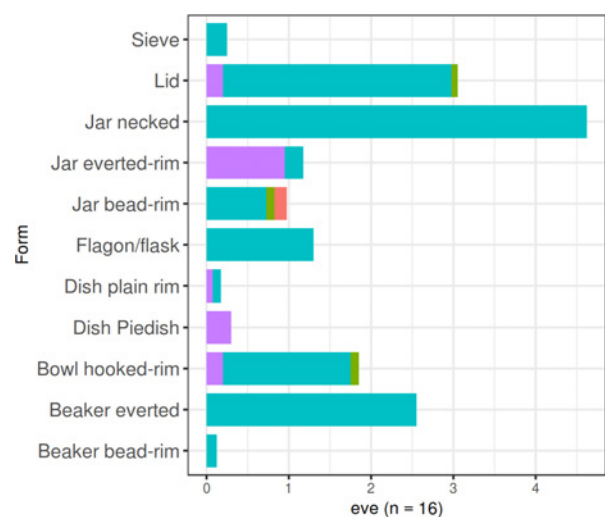
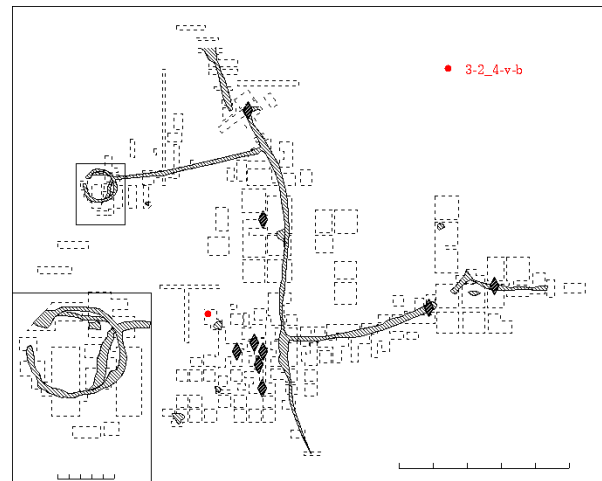
**Excavation report** See p.51.

**Local pottery** The pottery from this feature is principally HWC, with a moderate proportion of black-burnished derived forms (everted-rim jars and pie dishes) mixed with other necked jars and hooked-rim bowls. The illustrated material includes a rare example of a pedestal foot **1490** and a jar with pie-crust decoration on the rim **1486**.

**Non-local pottery** The assemblage includes a small group of sigillata (SG, 1<sup>st</sup> cent. AD; CG, early 2<sup>nd</sup> cent. AD, including a decorated Drag.37 dated AD 100-125) and sherds of Cologne and Central Gaulish colour-coated beakers.

CONTEXT	FABRIC	FORM	REF.	COMMENT
T1SEF5	CGOF	III roughcast	GM2	
T1SEF5	KOLN		GM5	
T1SEF5	SAM-CG	Cu11	67/RP84	Early-2nd c.
T1SEF5	SAM-CG	Dr18/31	67/RP67	Early-2nd c.
T1SEF5	SAM-CG	Dr18/31	67/RP72	Early-2nd c.
T1SEF5	SAM-CG	Dr37	67/RP84	Decorated no.20, AD 100-125
T1SEF5	SAM-SG		67/RP77	1st c.
T1SEF5	SAM-SG		67/RP90	1st c.
T1SEF5	SAM-SG		67/RP88	1st c.
T1SEF5	SAM-SG	Ritt9/Dr27	67/RP78	Pre-Flavian

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
<b>1482</b>	150	T1F5	HWC	M302	
<b>1483</b>	150	T1F5	HWC	M303	
<b>1484</b>	150	T1F5	HWC	M304	
<b>1485</b>	150	T1F5	HWC	M301	
<b>1486</b>	150	T1F5	HWC	M300	pie crust rim
<b>1487</b>	150	T1F5	HWC	M296	
<b>1488</b>	150	T1F5	HWC	M299	
<b>1489</b>	150	T1F5	HWC	M298	
<b>1490</b>	150	T1F5	HWC	M306	pedestal base?
<b>1491</b>	150	T1F5	HWC+	M297	
<b>1492</b>	150	T1F5SEEXT	HWC+	M441	
<b>1493</b>	150	T1F5SEEXT	HWC	M443	
<b>1494</b>	150	T1F5SEEXT	HWC	M442	
<b>1495</b>	150	T1F5	HWC+	M305	
<b>1496</b>	150	T1F5	HW	M550	maybe not a rim
<b>1497</b>	150	T1F5SEEXT	HWC	M446	
<b>1498</b>	150	T1F5SEEXT	HWC	M444	
<b>1499</b>	150	T1F5SEEXT	HWC	M445	
<b>1500</b>	150	T1F5SEEXT	HWB	M440	



FABRIC	EVE	WEIGHT (g)
HW	.	9645
HWA	0.15	40
HWB	0.27	60
HWC	14.22	1836
HWC+	1.72	205
Total	16.37	11786

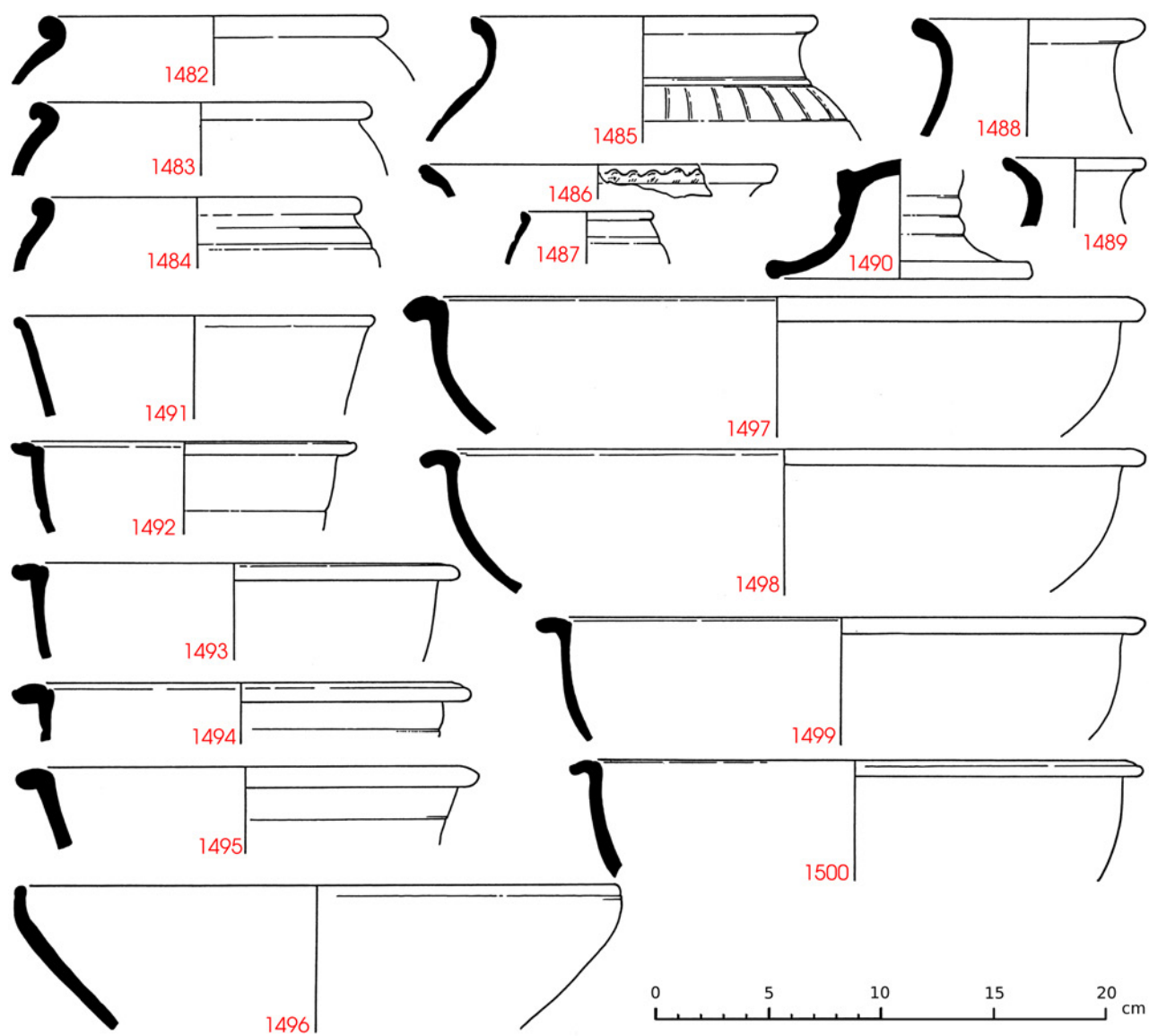


Fig. 150. Highgate Wood: 3 (2-4) v (b): local pottery [1:3]

### 6.45. Phase 3 (2-4) v (c) : Pit 3

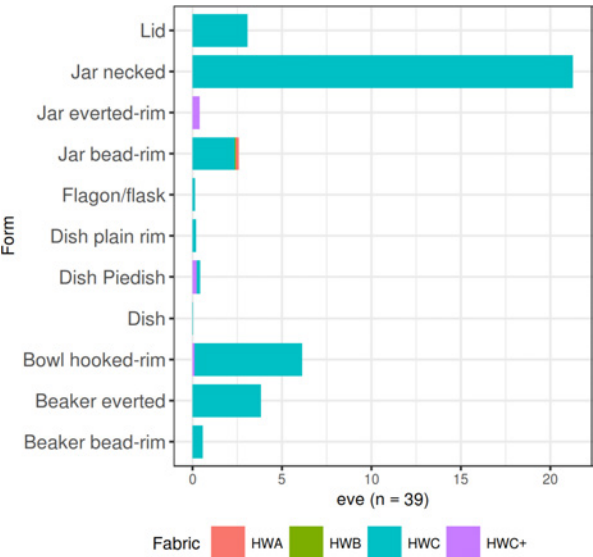
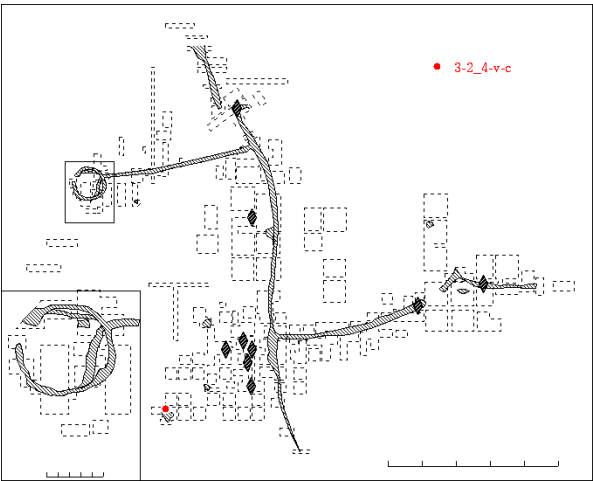
**Excavation report** See p.51.

**Local pottery** A large group of the standard HWC fabric, dominated by necked jars and hooked-rim bowls. In addition, there are a few sherds of the black-burnished derived everted-rim jars and bowls, some in fabric HWC+. Rarer forms include part of a cheese-press in HWC 1527, and a shallow dish with a beaded lip 1523, perhaps imitating the sigillata form Drag.18, in a HWC fabric with traces of a red slip.

**Non-local pottery** There is a particularly large number of sigillata sherds in the group (SG, Drag.18, 27, 1<sup>st</sup> cent. AD; CG, Drag.27, 20, 37, early 2<sup>nd</sup> cent. AD), VRW ring-necked flagons and a sherd of a ring-and-dot beaker.

**Other objects** The pit also includes fragments of an iron blade an a nail, and a blob of melted lead.

CONTEXT	REF.	REPORT	DESCRIPTION
T33F1L1	68/SF249	Metal no. 45	Lead object
T33F1L1	68/SF246	Metal no. 49	Iron object
T33F1L1	68/SF250	Metal no. 50	Iron object



FABRIC	EVE	WEIGHT (G)
HW	0.50	13659
HWA	0.17	30
HWB	0.17	10
HWC	37.70	4278
HWC+	0.72	96
Total	39.28	18073

CONTEXT	FABRIC	FORM	REF.	COMMENT
T33F1L1	RDBK		GM207	
T33F1L1	SAM-CG	Dr27	68/RP382	AD 110-125, stamp, TAS- GILLUS ii
T33F1L1	SAM-CG	Dr27	68/RP393	Early-2nd c.
T33F1L1	SAM-CG	Dr30	68/RP398	Early-2nd c.
T33F1L1	SAM-CG	Dr37	68/RP333	2nd c.
T33F1L1	SAM-SG		68/RP368	1st c.
T33F1L1	SAM-SG		68/RP402	1st c.
T33F1L2	SAM-SG		68/RP350	1st c.
T33F1L1	SAM-SG	Dr18	68/RP403	Flavian-Trajanic
T33F1L1	SAM-SG	Dr27	68/RP345	Pre- or early Flavian
T33F1L1	SAM-SG	Dr27	68/RP343	Flavian
T33F1L1	SAM-SG	Dr27	68/RP357	Flavian
T33F1L1	SAM-SG	Dr27	68/RP406	Flavian
T33F1L1	SAM-SG	Dr27	68/RP400	Flavian
T33F1L1	SAM-SG	Dr27	68/RP352	Flavian
T33F1L1	SAM-SG	Dr27?	68/RP348	Flavian
T33F1	VRW	I	GM248	
T33F1L1	VRW	I	GM211	
T33F1L1	VRW	I	GM219	
T33F1L1	VRW	I	GM229	
T33F1L1	VRW	I	GM231	1529
T33F1L1	VRW	I	GM208	
T33F1L1	VRW	I	GM227	
T33F1L1	VRW	IB	GM395A	1528
T33F1L1	VRW	IB	GM222	

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1501	151	T33F1	HWC	M343	
1502	151	T33F1	HWA	M345	
1503	151	T33F1	HWC	M342	
1504	151	T33F1	HWC	M327	
1505	151	T33F1	HWC	M323	
1506	151	T33F1	HWC	M328	
1507	151	T33F1	HWC	M326	
1508	151	T33F1	HWC	M324	
1509	151	T33F1	HWC	M325	
1510	151	T33F1	HWC	M331	
1511	151	T33F1	HWC	M322	
1512	151	T33F1	HWC	M349	
1513	151	T33F1	HWC	M338	
1514	151	T33F1	HWC	M335	
1515	151	T33F1	HWC	M337	
1516	151	T33F1	HWC	M329	
1517	151	T33F1	HWC	M330	
1518	151	T33F1	HWC	M348	plain pie dish?
1519	151	T33F1	GREY?	M350	not a Highgate product?
1520	151	T33F1	HWC	M344	plain pie dish?
1521	151	T33F1	HWC	M346	
1522	151	T33F1	HWB	M351	
1523	151	T33F1L1	HWCR	GM234	red surface
1524	151	T33F1	HWC	M340	
1525	151	T33F1	HWC	M334	
1526	151	T33F1	HWC	M341	
1527	151	T33F1L1	HWC	GM260A	cheese press
1528	152	T33F1L1	VRW	GM395A	IB
1529	152	T33F1L1	VRW	GM231	I

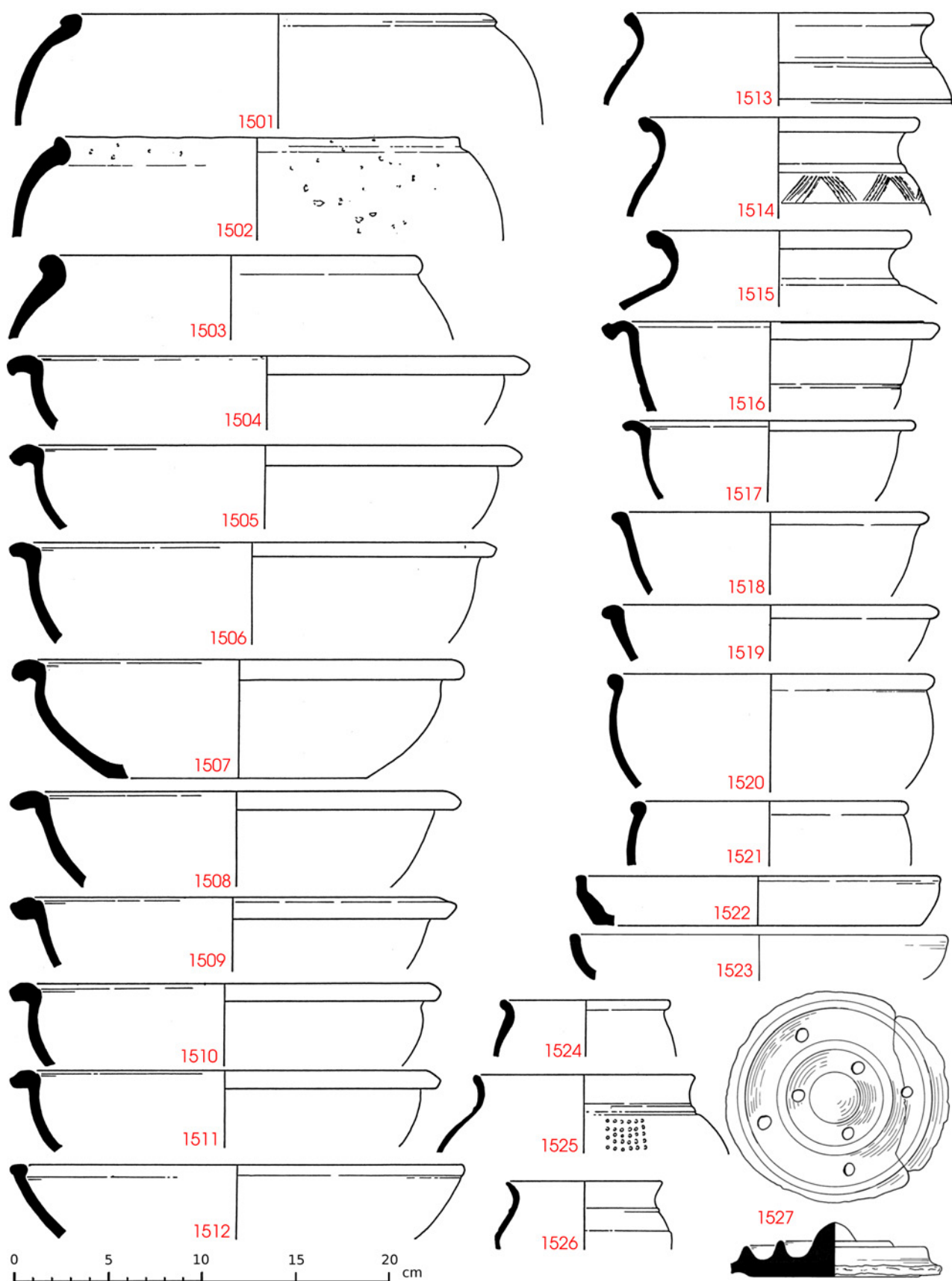


Fig. 151. Highgate Wood: 3 (2-4) v (c): local pottery [1:3]



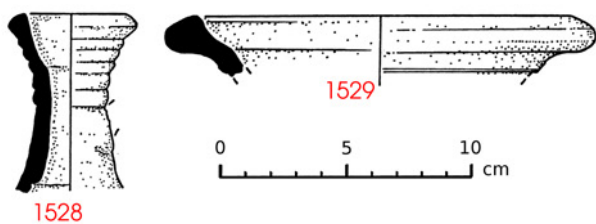


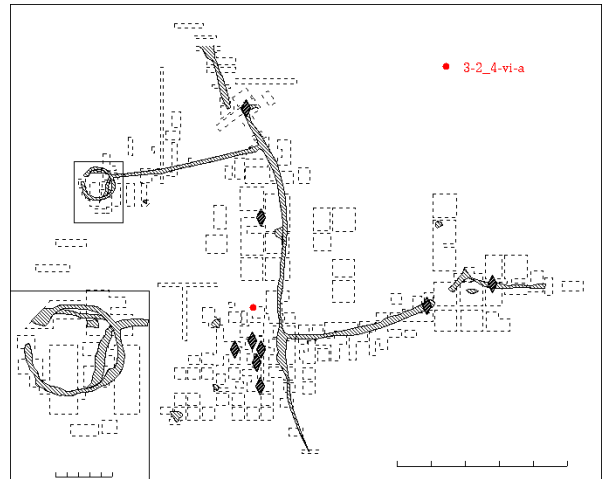
Fig. 152. Highgate Wood: 3 (2-4) v (c): non-local pottery [1:3]

**6.46. Phase 3 (2-4) vi (a) : Hearth and possible structure, Trench 11**

**Excavation report** See p.51.

**Local pottery** A very small group, including sherds of a HWB hooked-rim bowl only.

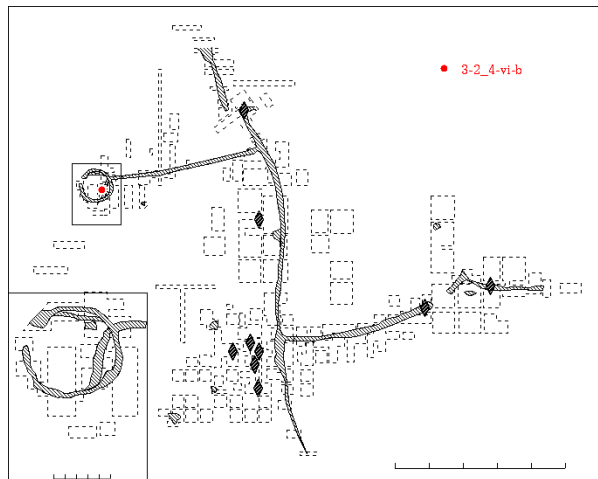
*Not illustrated.*



## 6.47. Phase 3 (2-4) vi (b) : Hearth, Trial Trench

Excavation report See p.51.

**Local pottery** Very little pottery recorded, but includes bowls in HWC and a bead-rim jars in HWC+. *Not illustrated.*



FABRIC	EVE	WEIGHT (G)
HW	.	325
HWC	.	15
HWC+	.	60
Total	.	400

6.48. Phase 3 (2-4) vi (c) : Semi-circular structure, Trial Trench and Trench 4

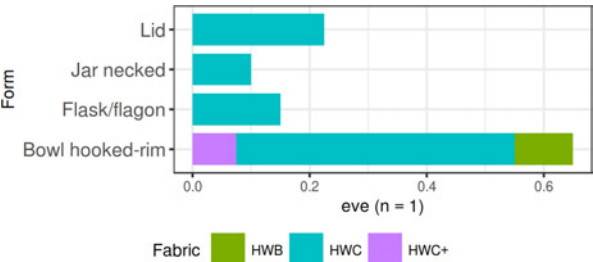
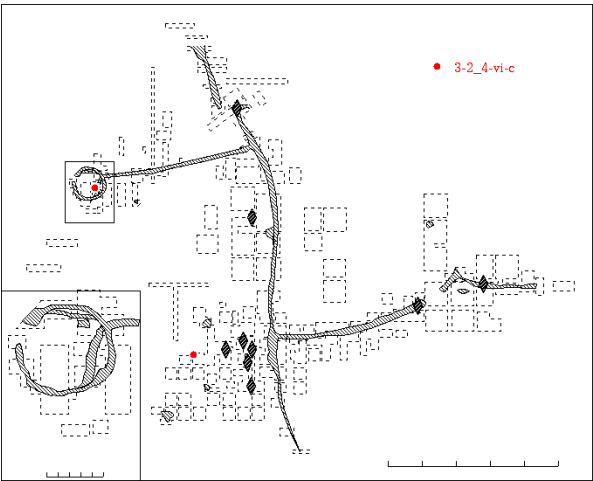
Excavation report See p.51.

**Local pottery** A small group, principally HWC jars and hooked-rim bowls, but including sherds of everted-rim jars and pie-dish types. More unusual vessels include a handled jug and ring-necked flagon in HWC.

**Non-local pottery** Non recorded.

CONTEXT	FABRIC	FORM	REF.	COMMENT
T4F5	RWS	IE?	X1283	1530

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1530	153	T4F5	RWS	X1283	IE?
1531	153	T4F4	HWC	GM262	ring necked flagon?



FABRIC	EVE	WEIGHT (G)
HW	.	1580
HWB	0.10	20
HWC	0.95	213
HWC+	0.07	15
Total	1.12	1828

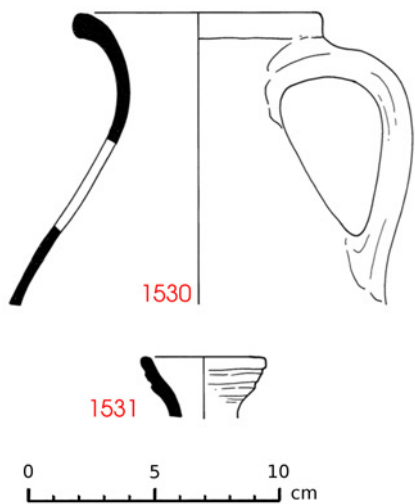


Fig. 153. Highgate Wood: 3 (2-4) vi (c): non-local pottery [1:3]

## 6.49. Phase 3 (2-4) vi (d) : Shallow depressions

**Excavation report** See p.51.

**Local pottery** This is a small group, largely in HWC but with some HWB and HWC+. The principal forms are necked jars and hooked-rim bowls, and there are a few sherds of everted-rim jars and pie-dishes.

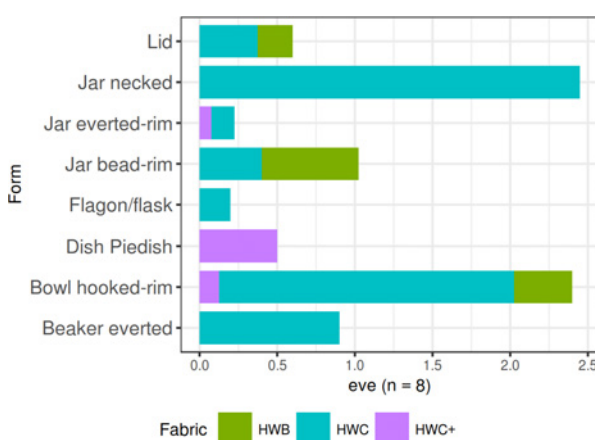
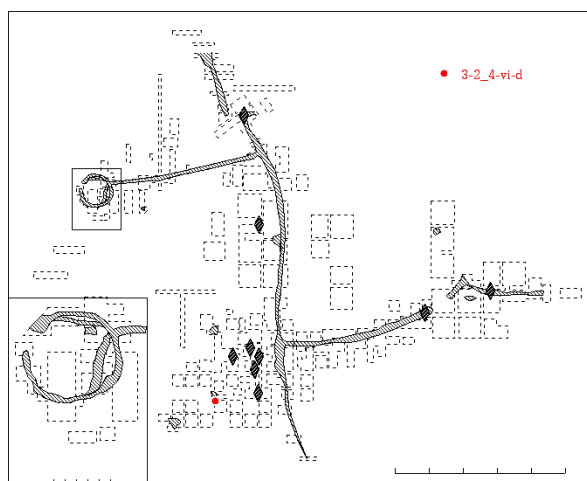
**Non-local pottery** The non-local pottery includes sherds of sigillata (SG and CG), VRW ring-necked flagons, a sherd of Cologne colour-coated ware and a sherd of a flat-rimmed bowl in the Black-burnished 1 ware of south-east Dorset.

**Other objects** Two fragments of Roman glass.

CONTEXT	REF.	REPORT	DESCRIPTION
T29F1	68/SF219	Glass no. 23	Shoulder of bottle or flask
T29F1	68/SF223	Glass no. 45	Fragment of stirring-rod

CONTEXT	FABRIC	FORM	REF.	COMMENT
T29F1	BB1	IVG	X1284	1554
T29F1N	KOLN		68/RP423	
T29F1	OXID	I	GM250	
T29F1	SAM-CG		68/RP349	
T29F1L2	SAM-CG		68/RP326	2nd c.
T29F1L2	SAM-CG	Dr30	68/RP326	Early-2nd c.
T29F1	SAM-SG		68/RP349	
T29F1	VRW	I	GM261	
T29F1	VRW	IB	GM223	1553

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1532	154	T29F1	HWA	M284	not phase 1
1533	154	T29F1L2	HWB	M352	
1534	154	T29F1	HWB	M281	
1535	154	T29F1	HWB	M282	
1536	154	T29F1L2	HWC	M353	
1537	154	T29F1	HWC	M295	
1538	154	T29F1	HWC	M293	
1539	154	T29F1L2	HWB	M280B	
1540	154	T29F1	HWC	M292	
1541	154	T29F1L2	HWC	M357	
1542	154	T29F1	HWC	M287	
1543	154	T29F1	HWC	M288	
1544	154	T29F1	HWC	M289	
1545	154	T29F1	HWC	M286	
1546	154	T29F1	HWC	M290	
1547	154	T29F1	HWB	M283	
1548	154	T29F1L2	HWC	M358	
1549	154	T29F1L2	HWC	M356	
1550	154	T29F1L2	HWC+	M355	pie dish plain
1551	154	T29F1	HWC+	M294	
1552	154	T29F1	HWB	M285	



FABRIC	EVE	WEIGHT (G)
HW	.	3905
HWA	.	.
HWB	1.22	315
HWC	6.37	1100
HWC+	0.70	285
Total	8.30	5605

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1553	155	T29F1	VRW	GM223	IB
1554	155	T29F1	BB1	X1284	IVG

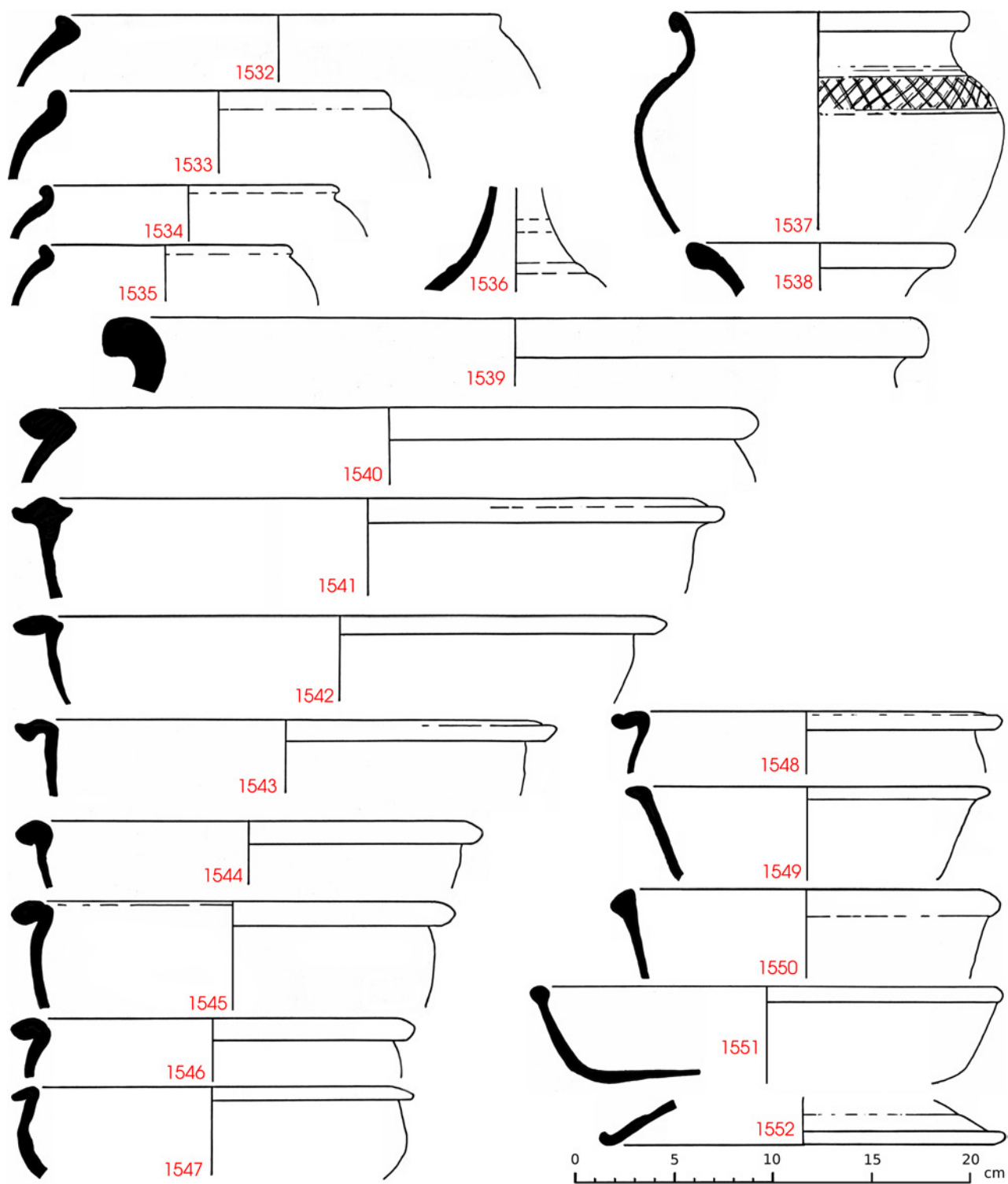


Fig. 154. Highgate Wood: 3 (2-4) vi (d): local pottery [1:3]

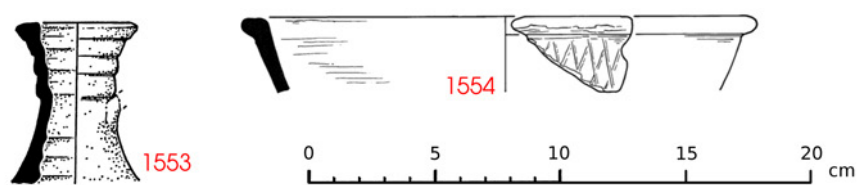


Fig. 155. Highgate Wood: 3 (2-4) vi (d): non-local pottery [1:3]



## 6.50. Phase 3 (2-4) vii (a) : Pit 6

**Excavation report** See p.53.

**Local pottery** The material from pit 6 includes a substantial group of HWC, with a number of the lattice decorated everted-rim jars and bowls (c. 7%).

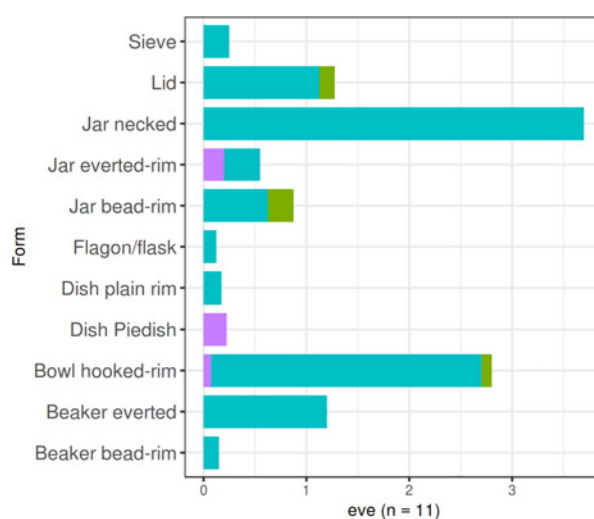
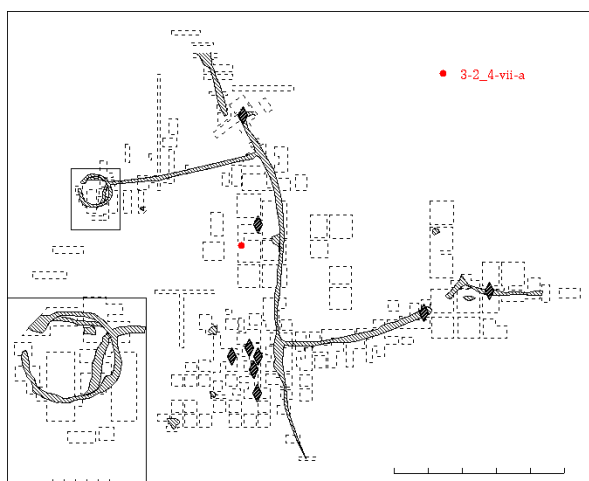
**Non-local pottery** A small group of samian (both SG and CG) and VRW (ring-necked flagons and bowls).

**Other objects** The pit also includes a copper brooch and a pair of tweezers

CONTEXT	REF.	REPORT	DESCRIPTION
T89F4	71/SF84	Metal no. 3	Brooch
T89F4	71/SF98	Metal no. 26	Tweezers
T89F4L1	71/SF125	Metal no. 28	Strip
T89L3	71/SF178	Stone no. 15	Quern (Sandstone)

CONTEXT	FABRIC	FORM	REF.	COMMENT
T89F4L1	SAM-CG		71/RP68	2nd c.
T89L3	SAM-CG		71/RP25	Early-2nd c.
T89F4L1	SAM-SG		71/RP70	1st c.
T89F4L1	SAM-SG		71/RP69	1st c.
T89L3	SAM-SG	Dr24/25?	71/RP98	Pre-Flavian
T89F4L1	VRW			
T89F4L2	VRW			
T89F4	VRW	I		
T89F4L1	VRW	I		
T89F4	VRW	IB		
T89F4L2	VRW	IB	GM433	
T89F4	VRW	IVA	X2001	1581
T89F4	VRW	IVA	X2000	1580

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1555	156	T89F4	HWB	M320	
1556	156	T89F4	HWC	M319	
1557	156	T89F4	HWC	X1304	
1558	156	T89F4	HWC	X1301	
1559	156	T89F4	HWC	X1302	
1560	156	T89F4	HWC	M307	
1561	156	T89F4	HWC	X1300	
1562	156	T89F4	HWC	X2015	
1563	156	T89F4	HWC	M317	
1564	156	T89F4	HWC	M318	
1565	156	T89F4	HWC	M315	
1566	156	T89F4	HWC	X1303	
1567	156	T89F4L2	HWC	X1307	
1568	156	T89F4	HWC	M313	
1569	156	T89F4	HWC	X1306	
1570	156	T89F4	HWC	M314	
1571	156	T89F4	HWC	X1305	
1572	156	T89F4	HWC	M309	
1573	156	T89F4	HWB	M311	
1574	156	T89F4	HWC	M310	
1575	156	T89F4	HWC	M321	



FABRIC	EVE	WEIGHT (g)
HW	.	11310
HWB	0.50	164
HWC	10.32	1895
HWC+	0.50	80
Total	11.32	13449

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1576	156	T89F4	HWC	M312	
1577	156	T89F4	HWC	M316	
1578	156	T89F4	HWC	M308	
1579	156	T89L3	HWB	71/SF135	foot
1580	157	T89F4	VRW	X2000	IVA
1581	157	T89F4	VRW	X2001	IVA

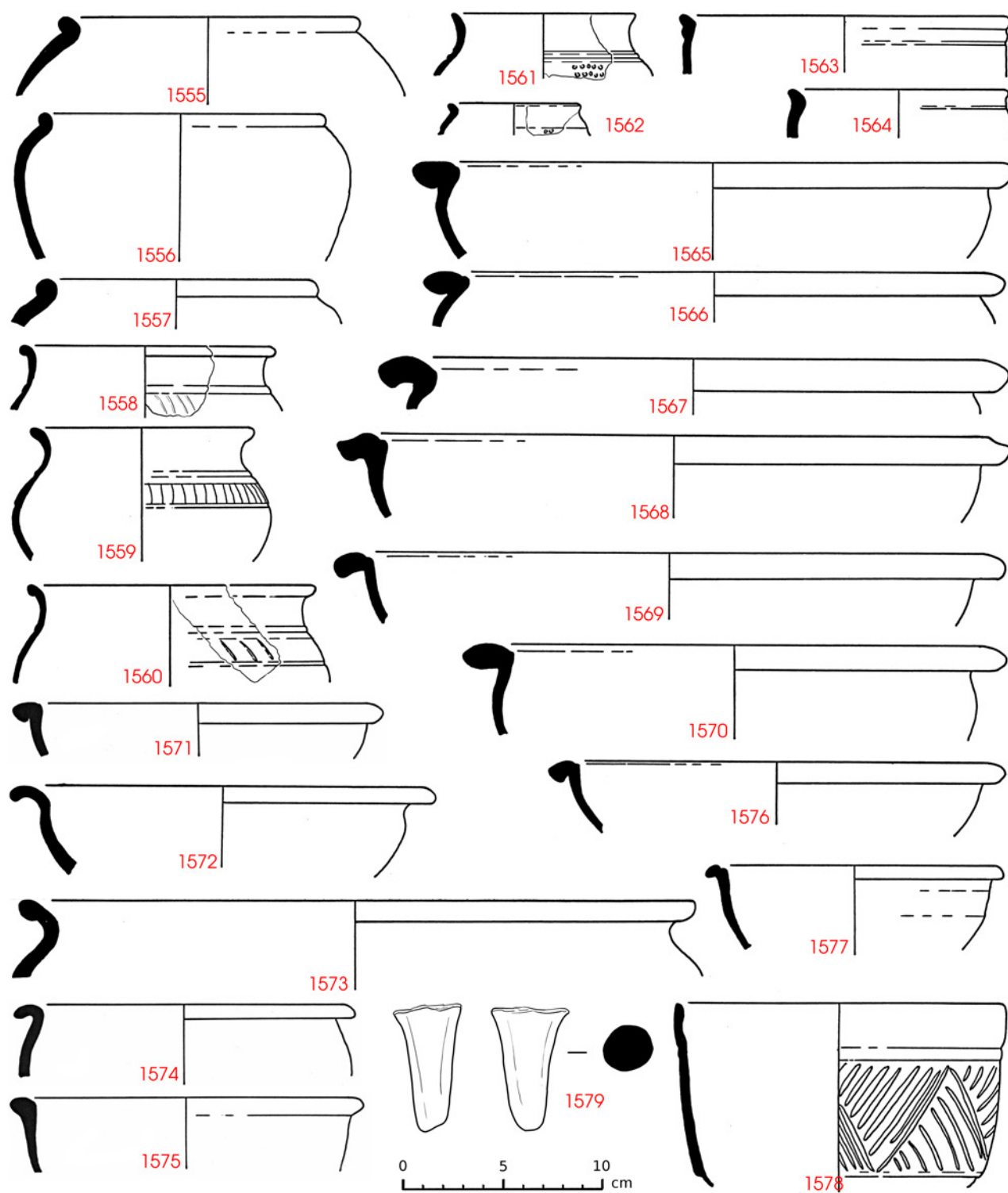


Fig. 156. Highgate Wood: 3 (2-4) vii (a): local pottery [1:3]

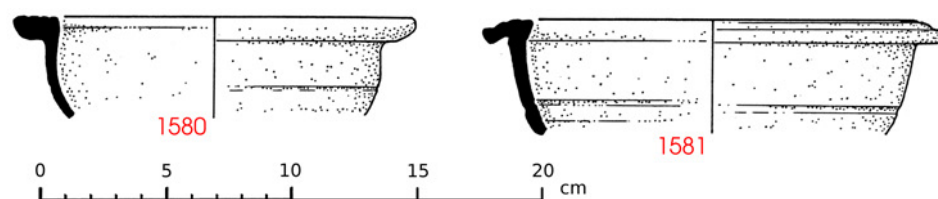


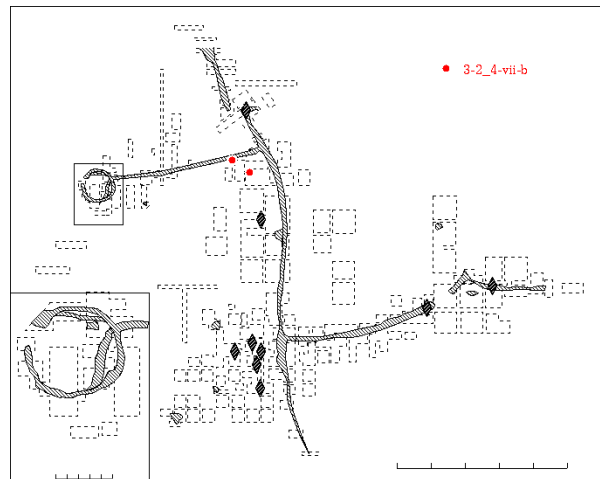
Fig. 157. Highgate Wood: 3 (2-4) vii (a): non-local pottery [1:3]

## 6.51. Phase 3 (2-4) vii (b) : Feature in Trenches 103 and 118

Excavation report See p.53.

**Local pottery** A small group material including HWC jars and flasks, and an everted-rim jar in HWC+.

*Not illustrated.*



FABRIC	EVE	WEIGHT (G)
HW	.	115
HWC	.	15
HWC+	.	10
Total	.	140

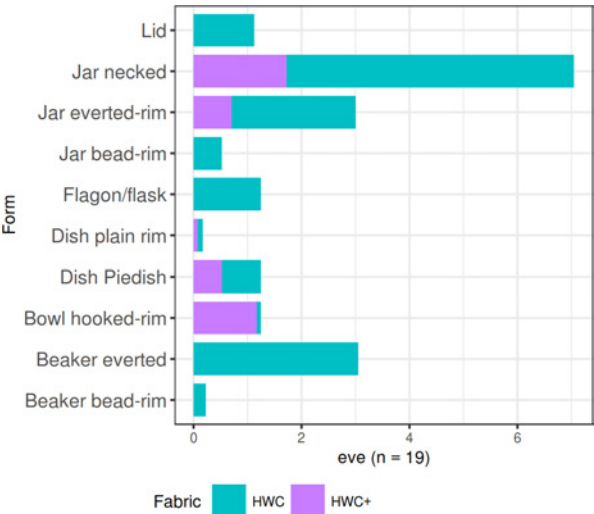
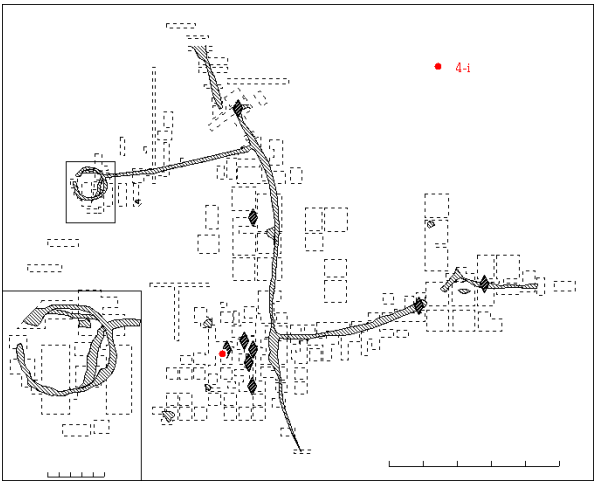
### 6.52. Phase 4 i : Kiln 2

Excavation report See p.53.

**Local pottery** This assemblage is clearly quite different in its composition to that from any of the other kilns. There are high percentages of both everted-rim jars (1609-12: 16%) and pie-dishes (1618-19, 1622-24: 6%) with necked jars and everted-rim beakers dominating in the remainder of the assemblage. The classic Highgate hooked-rim bowl and its derivatives forms a relatively low proportion of the assemblage (1613-17: 7%).

The typology of many of the vessels marks them out from the general run of HWC types from the other kilns and surrounding dumps. Several of the necked-jars have a single groove on the outer face of the lip 1588-90 and the rims of the poppy beakers have the rather tall flaring profile which is a late feature of the type 1598. Some of the material from the surrounding dump may be related to the production in this kiln

**Non-local pottery** There are sherds of several VRW flagons from the group.



FABRIC	EVE	WEIGHT (G)
HW	.	3195
HWC	14.70	1620
HWC+	4.20	960
Total	18.89	5775

CONTEXT	FABRIC	FORM	REF.	COMMENT
T5K2 furnace	VRW	IB	X1276	
T5K2 furnace	VRW	IJ	X1275	

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1582	158	T5K2 flue entrance	HWC	M177	
1583	158	T5K2 flue entrance	HWC	M176	
1584	158	T5K2	HWC	H739	
1585	158	T5K2 flue entrance	HWC	M181	
1586	158	T5K2 flue entrance	HWC	M180	
1587	158	T5 kiln area	HWC	M510A	
1588	158	T5K2 flue entrance	HWC	M178	jar w. Grooved lip
1589	158	T5K2	HWC	H731	
1590	158	T5K2	HWC	H732	
1591	158	T5K2	HWC	H742	
1592	158	T5K2 furnace	HWC	M190	
1593	158	T5K2 flue entrance	HWC	M174	
1594	158	T5K2 flue entrance	HWC	M182	
1595	158	T5K2	HWC	H729	
1596	158	T5K2	HWC	H728	
1597	158	T5K2 flue entrance	HWC	X903	
1598	158	T5K2 flue entrance	HWC	M173	
1599	158	T5K2	HWC	H741	
1600	158	T5K2	HWC	H740	
1601	158	T5K2 flue entrance	HWC	M183	
1602	158	T5K2 furnace	HWC	M196	
1603	158	T5K2 furnace	HWC	M195	
1604	158	T5K2 front of flue	HWC	M184	
1605	158	T5K2 furnace	HWC	M197	
1606	158	T5K2 front of flue	HWC	M185	
1607	158	T5K2	HWC	H734	
1608	158	T5K2	HWC	H736	
1609	158	T5K2	HWC	H738	
1610	158	T5K2	HWC	H737	
1611	158	T5K2	HWC	H735	
1612	158	T5K2 furnace	HWC	M198	
1613	159	T5K2 furnace	HWC+	M189	
1614	159	T5K2 flue entrance	HWC+	M171	
1615	159	T5K2	HWC	H744	
1616	159	T5K2 furnace	HWC+	M191	
1617	159	T5K2 flue entrance	HWC+	M179	
1618	159	T5K2 flue entrance	HWC	M175	BB2 dish w. lattice
1619	159	T5K2	HWC	H747	BB2 dish
1620	159	T5K2 flue entrance	HWC	M170	BB2 dish
1621	159	T5K2 furnace	HWC+	M192	BB2 influenced?
1622	159	T5K2 furnace	HWC	M212	BB2 dish w. lattice
1623	159	T5K2	HWC	H748	BB2 dish w. lattice
1624	159	T5K2 flue entrance	HWC	M172	BB2 dish w. lattice
1625	159	T5K2	HWC	H746	plain dish
1626	159	T5K2 furnace	HWC	M199	
1627	159	T5K2 front of flue	HWC	M187	
1628	159	T5K2 front of flue	HWC	M186	
1629	159	T5K2 furnace	HWC	M200	

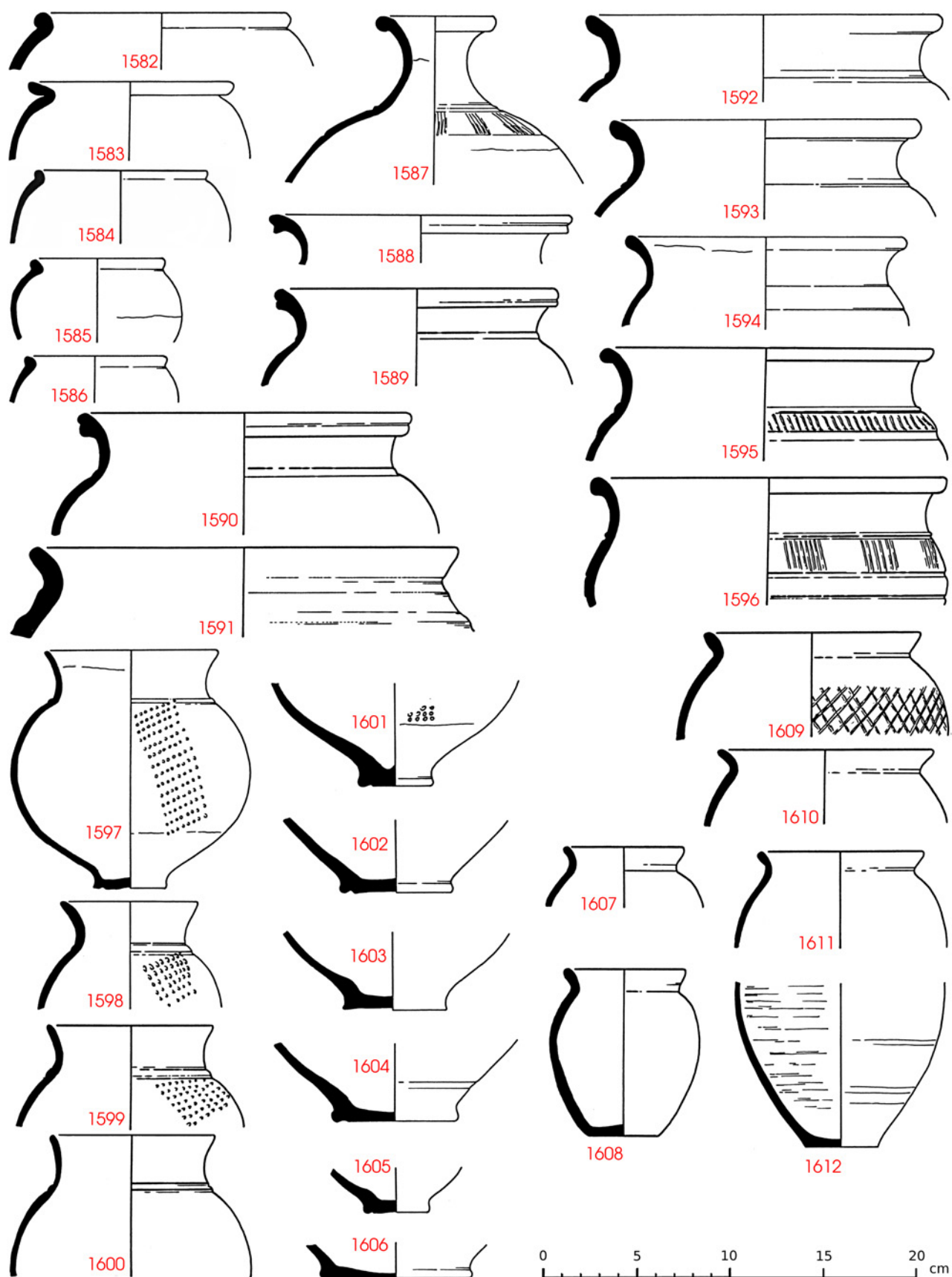


Fig. 158. Highgate Wood: 4 i: local pottery [1:3]



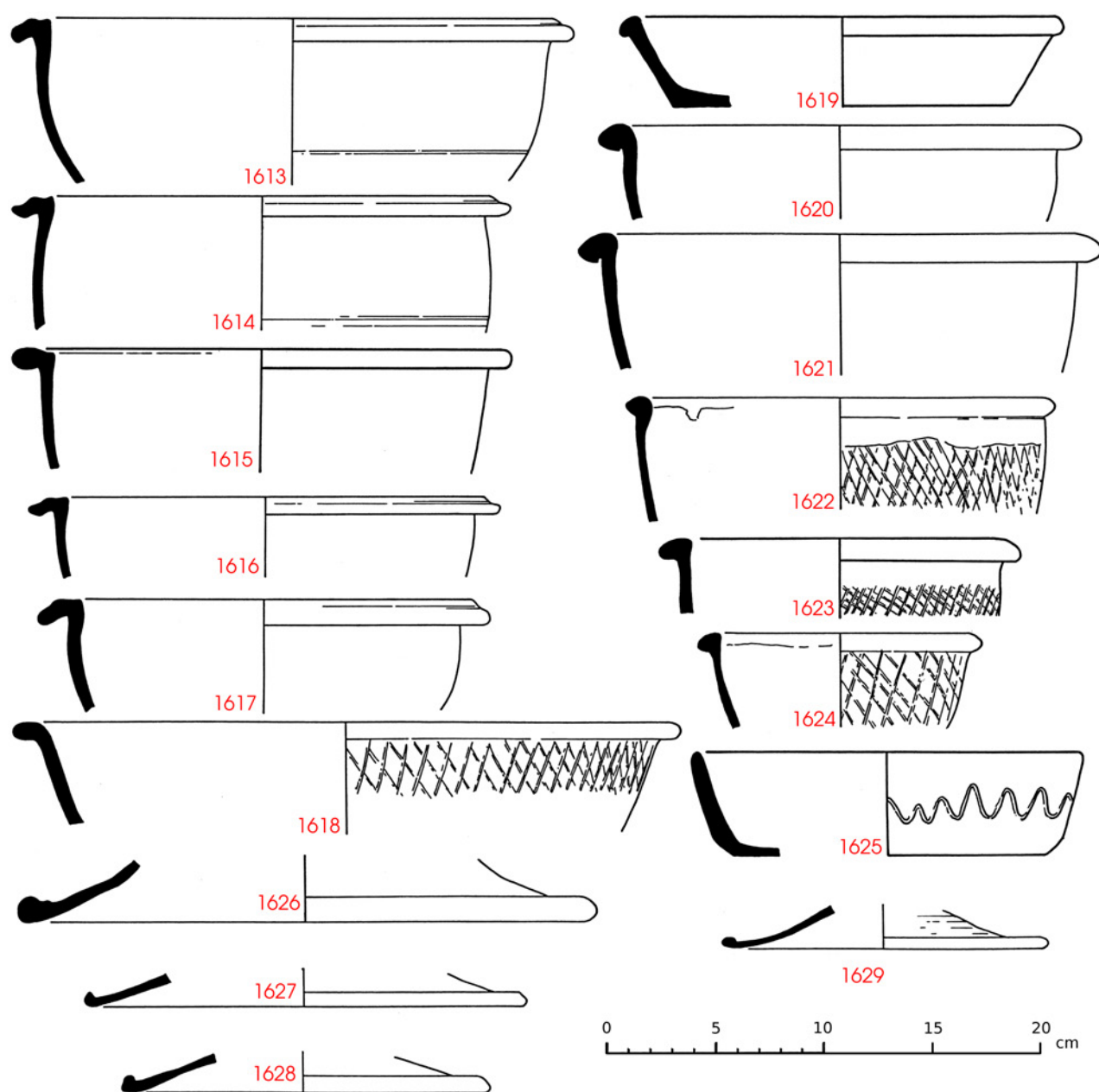


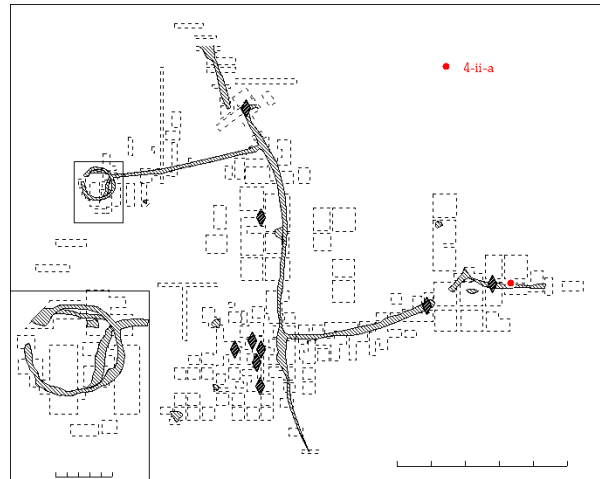
Fig. 159. Highgate Wood: 4 i: local pottery [1:3]

### 6.53. Phase 4 ii (a) : Late activity in Ditch 3

Excavation report See p.56.

**Local pottery** A small group which is predominantly HWC and HWC+, and includes pie-dishes 1632. The illustrated material includes a large sherd from the base of a cheese-press with a prominent moulding 1635.

**Non-local pottery** The group includes several sherds of sigillata (SG, Drag.27, Flavian-Trajanic; CG, Drag.33, mid-2<sup>nd</sup> cent. AD), sherds of several flagons in VCWS and a mortarium in a fine VRW fabric dated AD 150-200.



CONTEXT	REF.	REPORT	DESCRIPTION
T83F1	70/SF75	Metal no. 126	Iron object
T83F1	70/SF76	Metal no. 127	Iron object
T83F1	70/SF78	Metal no. 128	Iron object

CONTEXT	FABRIC	FORM	REF.	COMMENT
T83F1	SAM-CG	Dr33	70/RP48	Mid-2nd c., stamp lost
T83F1	SAM-SG	Dr27	70/RP55	Flavian-Trajanic
T83F1	VCWS	I	GM405	
T83F1	VCWS	IB2	GM413	1636
T83F1	VCWS	IB7	GM412	too abraded
T83F1	VCWS	IJ	GM402	1637
T83F1	VRW	mortarium	GM520	1638 AD 150-200

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1630	160	T83F1	HWC	H479	
1631	160	T83F2	HWC	H483	
1632	160	T83F2	HWC	H482	
1633	160	T83F2	HWC	H480	
1634	160	T83F2	HWC	H481	
1635	160	T83F2	HWC	H484	cheese press
1636	161	T83F1	VCWS	GM413	IB2
1637	161	T83F1	VCWS	GM402	IJ
1638	161	T65L1	VRW	GM538	AD 150-200
1638	161	T65NEL1	VRW	GM510	AD 150-200
1638	161	T83F1	VRW	GM520	AD 150-200

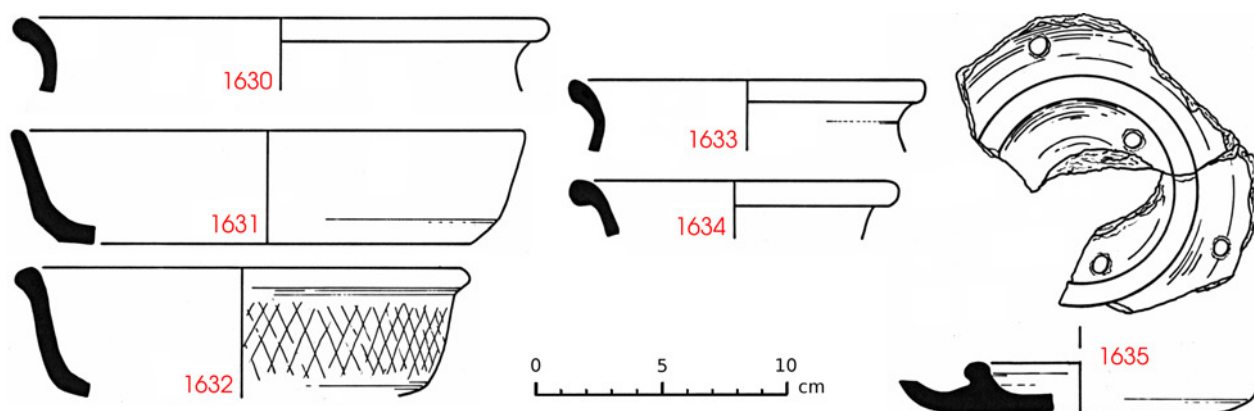


Fig. 160. Highgate Wood: 4 ii (a): local pottery [1:3]

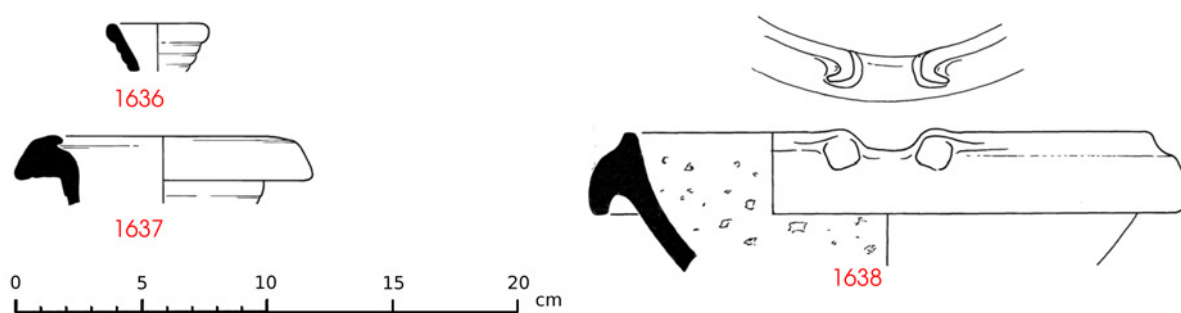


Fig. 161. Highgate Wood: 4 ii (a): non-local pottery [1:3]

6.54. Phase 4 ii (b) : T83F6

Excavation report See p.56.

Local pottery A few sherds only of HWC.  
Not illustrated.

Non-local pottery The group includes the rim of a mortarium in a red fabric with a white slip 1639, dated AD 150-200.

CONTEXT	REF.	REPORT	DESCRIPTION
T83F6	70/RP87	Prehistoric pottery no. 8	Prehistoric pottery

CONTEXT	FABRIC	FORM	REF.	COMMENT
T83F6	PREHIST		70/RP87	
T83F6	RWS	mortarium	GM540	1639 AD 150-200
T83F6	RWS	mortarium	GM540	1639 AD 150-200
T83F6	RWS	mortarium	GM540	1639 AD 150-200

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1639	162	T83F6	RWS	GM540	AD 150-200
1639	162	T83L2	RWS	GM540	AD 150-200
1639	162	T97L2	RWS	GM540	AD 150-200

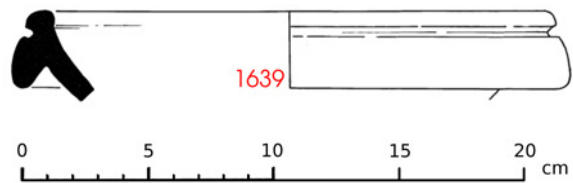
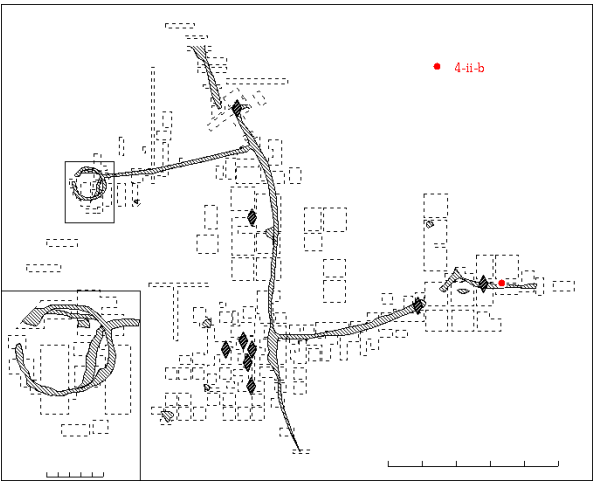


Fig. 162. Highgate Wood: 4 ii (b): non-local pottery  
[1:3]

## 6.55. Phase 4 ii (c) : Pit 4

**Excavation report** See p.56.

**Local pottery** A small group of HWC, including necked-jars, hooked-rim bowls and several examples of everted-rim jars and pie-dishes 1647-8.

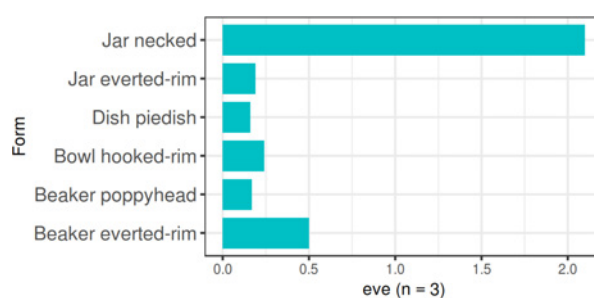
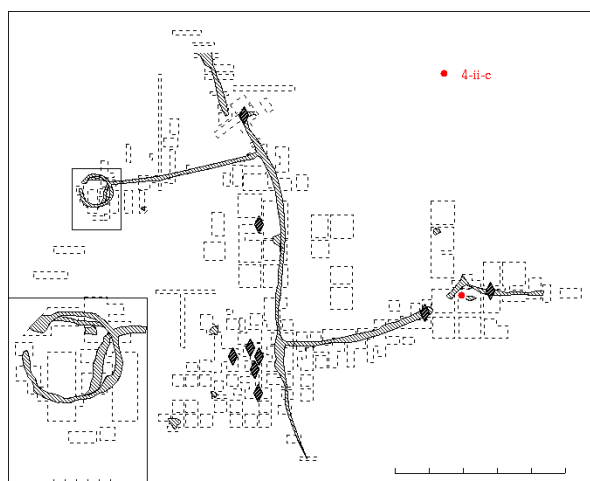
**Non-local pottery** There are several sherds of sigillata (SG, 1<sup>st</sup> cent. AD and Flavian-Trajanic), a VRW mortaria (AD 90-130) and mortarium in a red fabric (c. AD 110-140).

**Other objects** Fragments of a stone quern and several iron nails.

CONTEXT	REF.	REPORT	DESCRIPTION
T69F3	70/SF77	Metal no. 51	Iron object
T69F3	70/SF84	Metal no. 52	Iron object
T69F3	70/SF114	Stone no. 7	Quern (Sandstone)

CONTEXT	FABRIC	FORM	REF.	COMMENT
T69F3	RWS	mortarium	GM514	1650 [EDGE] AD 110-140
T69F3	SAM-SG		70/RP74	1st c.
T69F3	SAM-SG		70/RP91	1st c.
T69F3	SAM-SG		70/RP67	1st c.
T69F3	SAM-SG		70/RP79	1st c.
T69F3	SAM-SG	Dr18	70/RP76	Flavian
T69F3	SAM-SG	Dr18	70/RP77	Flavian-Trajanic
T69F3	VRW			
T69F3	VRW	mortarium	GM542	AD 90-130?

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1640	163	T69F3	HWC	H485	
1641	163	T69F3	HWC	H487	
1642	163	T69F3	HWC	H494	
1643	163	T69F3	HWC	H486	
1644	163	T69F3	HWC	H489	
1645	163	T69F3	HWC	H490	
1646	163	T69F3	HWC	H491	
1647	163	T69F3	HWC	H492	pie dish
1648	163	T69F3	HWC	H493	pie dish
1649	163	T69F3	HWC	H488	
1650	164	T69F3	RWS	GM514	AD 110-140



FABRIC	EVE	WEIGHT (G)
HWC	3.36	2510
Total	3.36	2510

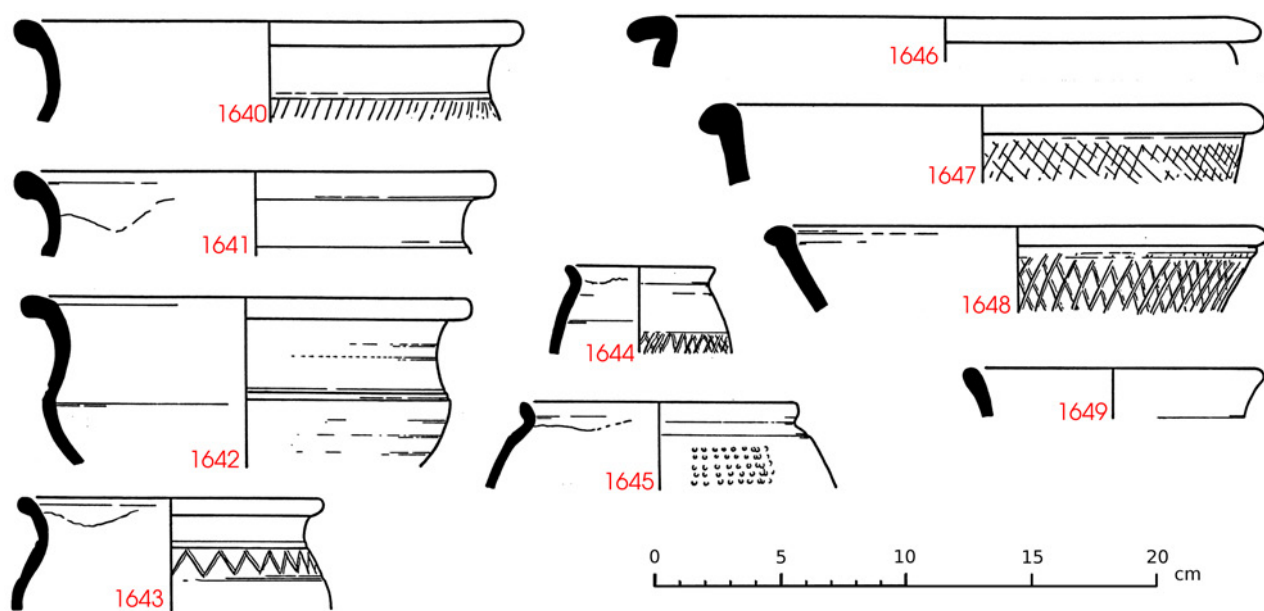


Fig. 163. Highgate Wood: 4 ii (c): local pottery [1:3]

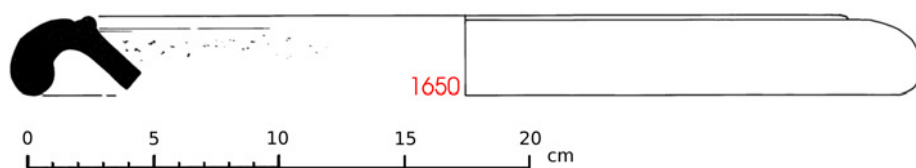


Fig. 164. Highgate Wood: 4 ii (c): non-local pottery [1:3]



## 6.56. Unassigned and topsoil

**Local pottery** There is a large quantity (> 166kg) of pottery from L1 and L2 contexts. This is only a partial collection as much of the material from these ‘topsoil’ contexts was discarded on site, after sorting, so the statistics are not significant, but the majority is HWC.

The illustrated material includes vessels from the small-finds (SF) and recorded pottery (RP) systems. A particular feature is the large number of feet from tripod bowls 1651-1680, particularly in HWB. Other items of note include a series of vessels with finer red surfaces, including some which imitate, however distantly, imported table-wares 1681-9, a number of cheese presses 1696-7 and some more unusual forms such as flagons 1690-3.

**Non-local pottery** A large quantity of *terra sigillata* and VRW is recorded from these contexts. Mortaria and flagons — principally in VRW fabric — are illustrated by 1702-1733. Some later Roman ‘activity’ is represented by a BB1 flanged bowl 1735, probably of 4<sup>th</sup> century date from the topsoil in T99.

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1651	165	TEL2	HWB	X2136	foot
1652	165	TEL2	HWB	X2131	foot
1653	165	TB2L2	HWB	74/SF34	foot
1654	165	TVL2	HWB	74/SF2	foot
1655	165	T123L2	HWB	72/SF241	foot
1656	165	T104F1	HWB	72/SF121	foot
1657	165	T89L2	HWB	71/SF54	foot
1658	165	T30L3	HWB	68/SF160	foot
1659	165	TGF1	HWB	X2133	foot
1660	165	TEL2	HWB	X2130	foot
1661	165	TXL2	HWB	74/SF26	foot
1662	165	T89L2	HWB	71/SF77	foot
1663	165	T34L2	HWB	68/SF176	foot
1664	165	T89L2	HWB	71/SF55	foot
1665	165	T21L3	HWC	68/SF107	foot
1666	165	T34L2	HWB	68/SF103	foot
1667	165	TGF1	HWB	X2132	foot
1668	165	T??F1		X2121	foot
1669	165	TVL2	HWB	74/SF18	foot
1670	165	T104F1	HWB	72/SF149	foot
1671	165	T13L2EOKF4	HWB/C	69/SF122	foot
1672	165	T34L1	HWB	68/SF82	foot
1673	165	T????		X2120	foot
1674	165	TSL2		74/SF4	foot
1675	165	T1L2	HWB	67/SF5	foot
1676	165	T108L2	HWB	72/SF150	foot
1677	165	T104L2	HWB	72/SF109	foot
1678	165	T109L2	HWB	72/SF92	foot
1679	165	T26L1	HWB	68/SF38	foot
1680	165	T13WQSWL2	HWB	69/SF210	foot
1681	166	T24EL2	HWBR	GM220	red surface

No	FIG.	CONTEXT	FABRIC	REF.	COMMENT
1682	166	T60L2	HWBR	GM292B	w.red slip
1683	166	T13NWQL3	HWB	M426	
1684	166	T55L4	HWBR	GM334	w.red slip
1685	166	T38L2	HWBR	GM50	red slipped cf. Dr15/17?
1686	166	TBF1	HWBR	GM469	red surface
1687	166	UNSTRAT	HWB	X2113	
1688	166	TZF1L1	HWBR	X2119	campanulate cup
1689	166	T30L2	HWB	GM49	
1690	166	T4L2	HWC	GM18	jar with ext. groove on lip
1691	166	T23L1	HWC+	GM224	
1692	166	T42L2	HWC	GM283	
1693	166	T1L2	HWC	67/SF12	handle
1694	166	T76L2F4	HWB/C	70/SF89	
1695	166	T27L3		68/SF156	neck or spout
1696	166	T14WL2	HWC	GM26	cheese press
1697	166	T23L2	HWC	68/SF17	cheese press
1698	166	T26L2	HWC	GM197	
1699	166	T40L2	HWC	GM273	
1700	166	T7L2	HWC	GM10	stamped decoration
1701	166	TT1L2	HWC	X2116	
1702	167	T89L2	VRW	GM503	AD 60-100
1703	167	T101L2	VRW	GM523	AD 80-120+
1704	167	T107L2	VRW	GM462	AD 80-125
1705	167	TVL2	VRW	GM474	AD 70-100
1706	167	T27L2	VRW	GM505	AD 85-100
1707	167	T40L2	VRW	GM489	AD 90-120+
1708	167	T109L2	VRW	GM467	AD 120-145
1709	167	T7L2	VRW	GM104	AD 120-150
1710	167	T89L2	VRW	GM498	AD 140-180
1711	167	T27L2	OXID	GM530	AD 140-180?
1712	167	T65L2	VRW	GM541	AD 140-180+
1713	167	T4L2	RWS	GM499	AD 150-200
1714	167	T5NWL2	RWS	67/RP245	mortarium abraded
1715	167	T29L2	VRW	GM194	IB
1716	167	T11L2	VRW	GM172	IB5
1717	167	T13WQSWL2	VCWS	GM362	IB5
1718	167	T13S2L3	VRW	GM150	IB
1719	167	T8L1	VRW	GM209	IB
1720	167	T4L2	VRW	GM138	IB
1721	167	T13WQSWL2	VRW	GM313	IB
1722	167	T30L3	VRW	GM173	IB
1723	167	T125F1L1	VRW	GM448	IB
1724	167	T13S2	VRW	GM167	IB
1725	167	T4L2	RWS	GM247	IB cf BHWS/silty
1726	167	T38L2	VCWS	GM157	IB7
1726	167	T37L1	VCWS	GM157	IB7
1726	167	T30L2	VCWS	GM157	IB7
1727	167	T29L2	VRW	GM188	IB
1728	167	T30L2	VRW	GM178	I
1729	167	T24L1	VRW	GM215	I
1730	167	T56L2	VRW	GM310	I
1731	167	T63L1	VRW	GM322	bowl
1732	167	T13WK4 flue L2	VRW	GM369B	I
1733	167	T42F1SE	VCWS	GM369	I
1734	167	T37F1L2	LONST	GM199	stamped decoration
1735	167	T99L2	BB1	GM428	Flanged Bowl

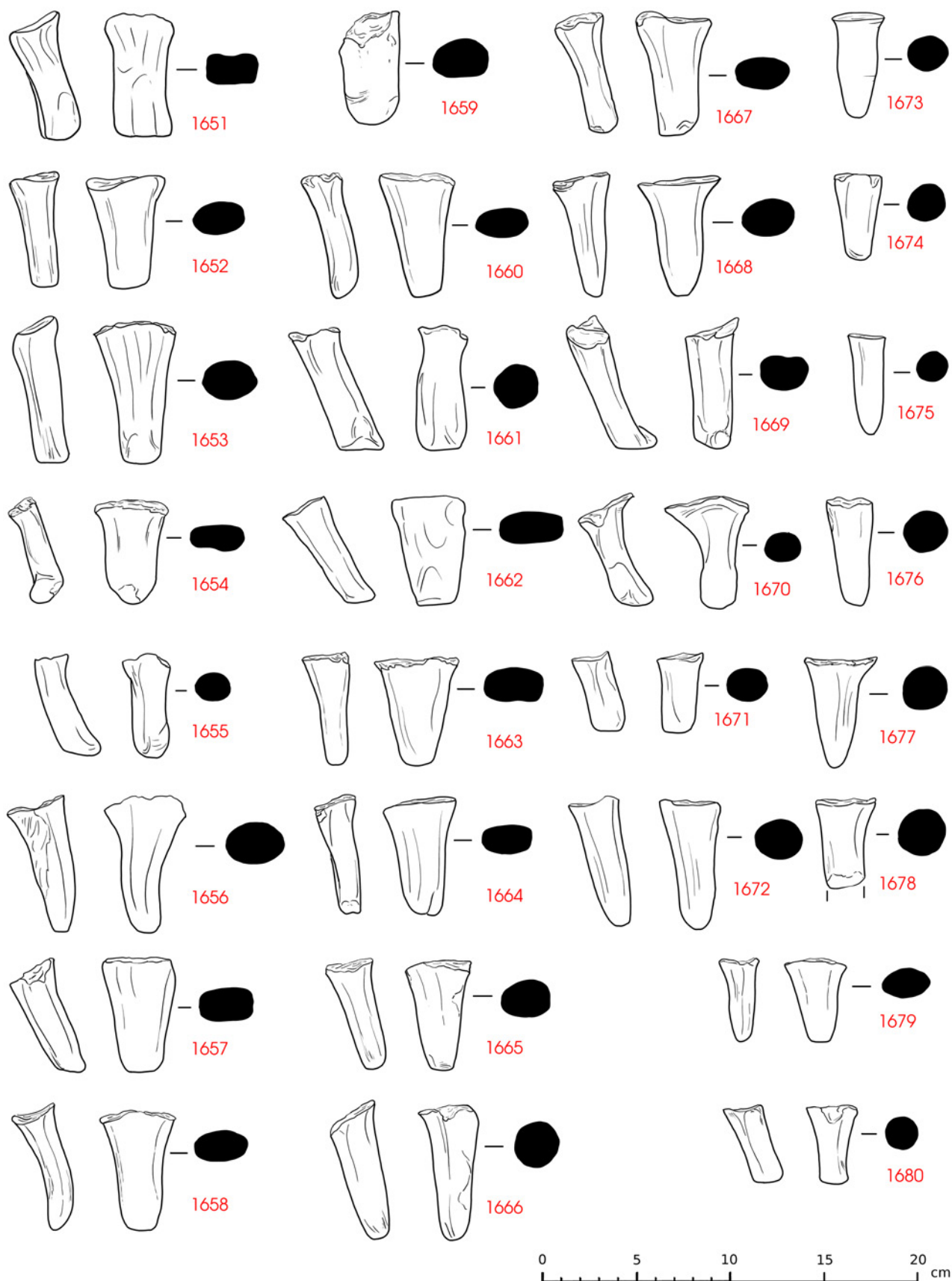


Fig. 165. Highgate Wood: Unassigned and topsoil: local pottery [1:3]

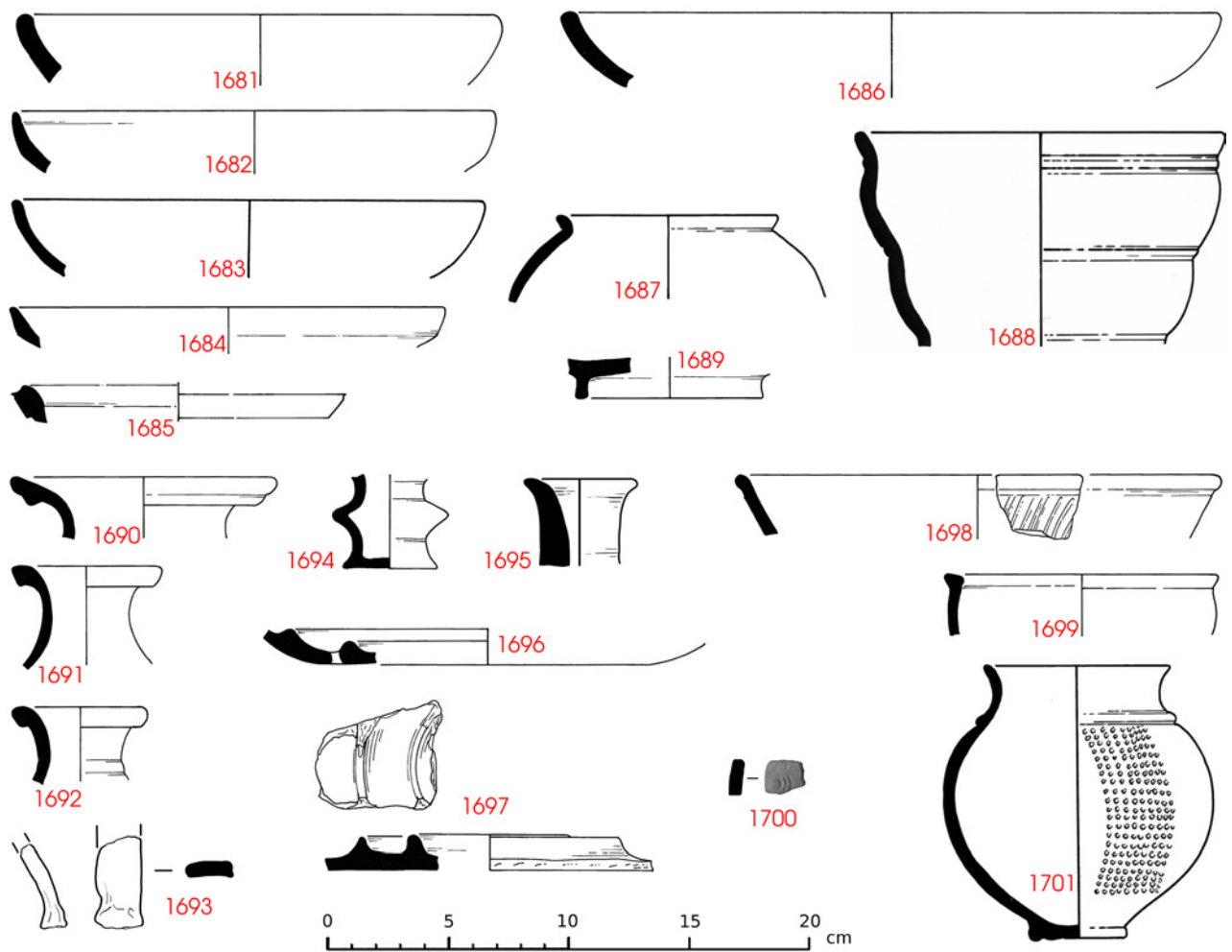


Fig. 166. Highgate Wood: Unassigned and topsoil: local pottery [1:3]

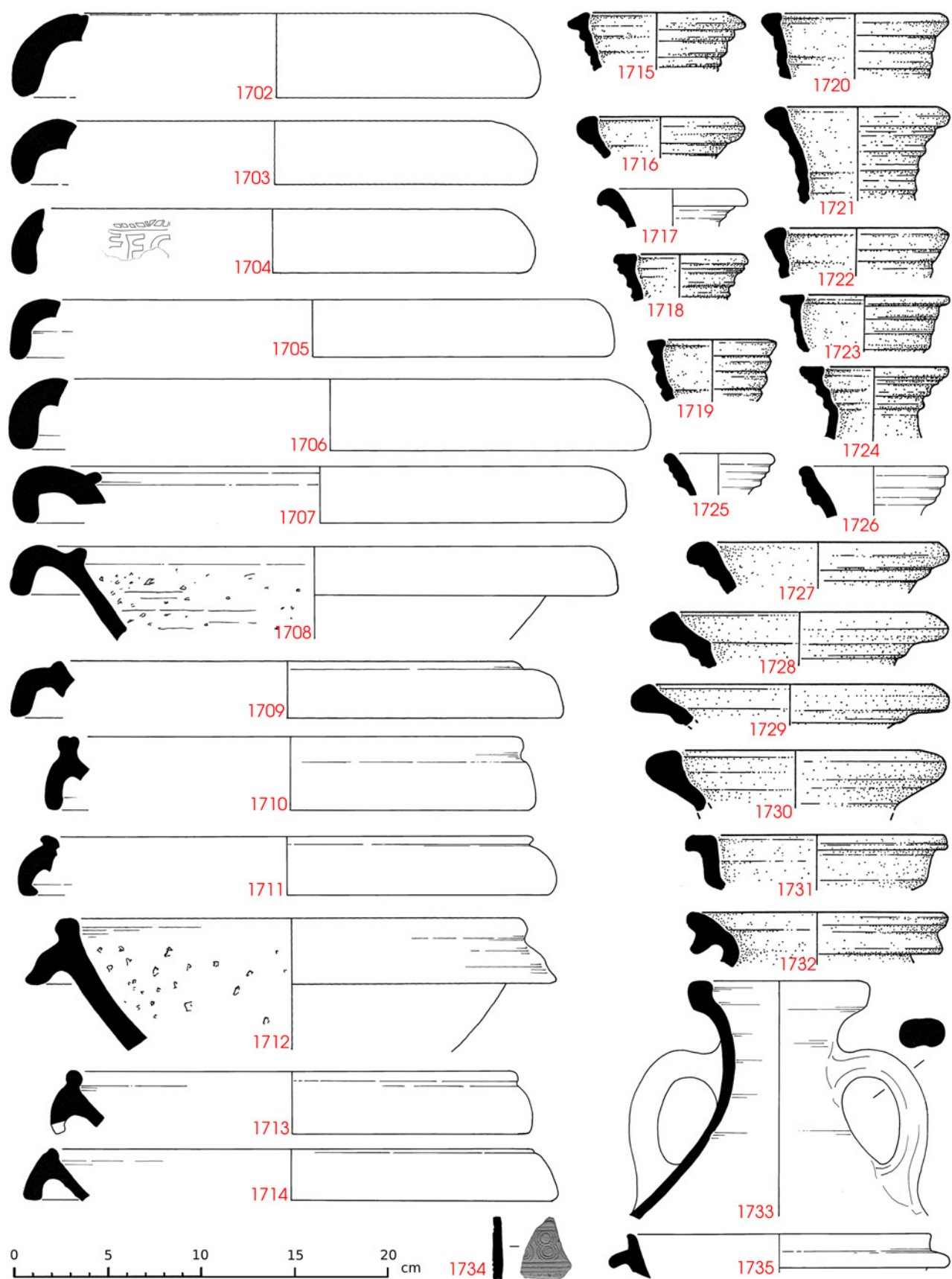


Fig. 167. Highgate Wood: Unassigned and topsoil: non-local pottery [1:3]

## 7. Terra Sigillata

### 7.1. Stamps on terra sigillata

B M DICKINSON

1. OF.CALVI on Dr 18. Die 5hh, Calvus i, La Graufesenque. This die occurs in Period 3/4 at Valkenburg ZH (Nero-Flavian). It is not one of his commoner stamps, and is only known on dishes. c. AD 65–90.<sup>1</sup>  
*Context:* T44NF1 HW69 RP223 (unphased)
2. CERM[NI] on Dr 33. Die 28b, Germanus i of La Graufesenque. It occurs at Hedderheim, Milton (Tassiesholm) and in a grave-group of the mid-70s at Winchester. c. AD 65–90.<sup>2</sup>  
*Context:* T91L6 HW71 RP109 (3-2\_4-iii-e)
3. [T]ASCIPIV← (retrograde) on Dr 27. Die 4b, Tasgillus ii of Les Martres and Lezoux. This die is only to be dated by its use at both Les Martres and Lezoux — here on Martres ware, so c. AD 110–125.<sup>3</sup>  
*Context:* T33F1L1 HW68 RP382 (3-2\_4-v-c)
4. Dr 27 bearing a stamp which is not certainly identifiable. It may be a stamp of the Flavian-Trajanic La Graufesenque potter, Crestus, perhaps reading OFCRE but the reading is not clear.<sup>4</sup>  
*Context:* T91L6 HW71 93 (3-2\_4-iii-e)
5. Dr 30, SG. Medallion containing a pair of ‘spectacle’ scrolls: a similar pair of scrolls is shown on Hermet 1934, pl. 69, no.13, and a similar wreath medallion on pl.71, no.5. c. AD 50–70.  
*Context:* TVL2 HW74 RP16
6. Dr 30, SG. Panel arrangement with wreath and plain arcades: for the general style with arcades, tendrils and small panels, cf Knorr 1919, taf. 98, B and C. The gladiator apparently has no exact parallel. c. AD 70–85.  
*Context:* T43F1 HW69 RP184
7. Dr 30, SG. Ovolo with large rosette-tongue. c. AD 70–90.  
*Context:* T42NEEXTF1 HW69 RP213/243
8. Dr 30 probably, SG. Neat double-bordered ovolo. Pre- or early Flavian.  
*Context:* T94L3 HW71 RP63
9. Dr 37, SG. Very worn; the motif may be a gladiator’s shield. (cf Hermet 1934, pl.21, nos.156,158). Flavian.  
*Context:* T99L2 HW71 RP122
10. Dr 37, SG. Pointed star on ovolo tongue, spurred bud in frieze. c. AD 65–80.  
*Context:* - HW67 RP-
11. Dr 37, SG. Small trident-tongued ovolo. c. AD 70–90.  
*Context:* T40NEXTF1 HW69 RP227
12. Dr 37, SG. Blurred ovolo. Flavian.  
*Context:* T3NEEXTL3 HW69 RP65

### 7.2. Decorated sigillata

J BIRD

1. Dr 29, SG. Scroll with pointed leaves in the upper frieze: a closely similar scroll occurs at Verulamium (Hartley 1972, fig.88, no.66) where other parallels are given. c. AD 65–80.  
*Context:* T3L3 HW67 RP35/40/52/70
2. Dr 37, SG. Blurred ovolo. Flavian.  
*Context:* T89NWSECTL2 HW71 RP21
3. Dr 37, SG. Grass motif in frieze above band of rosettes (cf Hartley 1972, fig.86, no.44), then a gladiator frieze (the figures are not certainly identifiable). c. AD 70–90.  
*Context:* T83L2 HW70 RP40
4. Dr 37, SG. In the general style of the Pompeii hoard material, including a chevron wreath (as

<sup>1</sup>See now NOTS, vol.2, 187.

<sup>2</sup>NOTS, vol.4, 189.

<sup>3</sup>NOTS, vol.9, 16.

<sup>4</sup>For Crestus i, see now NOTS, vol.3, 184–9.



- Atkinson 1914, pl.10, no.52). c. AD 70–85.  
Context: T93L2 HW71 RP41
13. Dr 37, SG. The heavy wreath festoon was regularly used by Germanus (eg Hermet 1934, pl.101–2) but the unusually wide wreath has no apparent parallel in his work. c. AD 65–80; slightly burnt.  
Context: T5NWEXTL2 & T5NWEXTL3 HW67 RP73/76/91
  14. Dr 37, SG. An identical panel design with the corded tendril, bestiarius (Hermet 1934, pl.23, no.250) and coarse border was mould-stamped by Mercato (Knorr 1919, taf.57.J) c. AD 85–110; slightly burnt.  
Context: T90L2 HW71 RP1
  15. Knorr 78, SG. Vertical wavy lines and chevrons, as Hermet 1934, pl.91, no.35. Flavian.  
Context: T91F1 HW71 RP74
  16. Fragment, SG. Saltire with pointed leaf on tendril. Flavian.  
Context: ? HW67 RP42
  17. Dr 37 in the style of the ‘Rosette Potter’ of Les Martres de Veyre. The bear (D.815) and leaves are shown on Stanfield & Simpson 1958, pl.26, no.319. c. AD 100–125.  
Context: ? HW68 RP264
  18. Dr 37, CG. For the leaf-tips, cf Stanfield & Simpson 1958, pl.48, no.562, by X-13/‘Donnaucus’, though the beads are rather more widely spaced than his usually are. c. AD 100–125.  
Context: T35L2 HW68 RP167
  19. Dr 37, CG. Terminal rosette at base. The apparently vertical pair of beadrows recalls the work of Docilis. c. AD 125–150.  
(possibly the same bowl as no.22 below)  
Context: T1SEEXTL2 HW67 RP64
  20. Dr 37, CG. The heavily damaged figure is probably a sea-centaur, D.25. c. AD 100–125.  
Context: T1SEEXTF5 HW67 RP84
  21. Dr 37, CG. The triton (D.15) and sphinx (D.497) were used by X-13/‘Donnaucus’ (Stanfield & Simpson 1958, pl.44, no.502, pl.45, no.525) c. AD 100–125.  
Context: T82F1A HW70 RP62
  22. Dr 37, CG. Broken double-bordered ovolo; panel design with sea-horse (D.37), sea-bull (O.41) and dolphin. One of the beaded borders is apparently double, terminating in a rosette (cf no.19 above, which may be from the same bowl). There are stylistic links with the Sacer group. c. AD 125–150.  
Context: T92F1L2 HW71 RP91/92
  23. Dr 37, CG. The pointed leaves may be those used by X-13/‘Donnaucus’ (Stanfield & Simpson 1958, pl.44, no.513). Trajanic-Hadrianic.  
Context: T24L2 HW68 RP16
  24. Dr 37 in the style of Sacer of Lezoux. The ovolo, leaf, scrollery, and circle are shown on Stanfield & Simpson 1958, pl.83, no.8, which may be from the same mould. c. AD 130–150.  
Context: T29L2 & T37L2 HW68 RP186/195/240/267
  25. Dr 37, CG. Scrollery, as no.24 above. Hadrianic-early Antonine.  
Context: T5L2 HW67 RP86

### 7.3. Summary of the *terra sigillata* from Highgate Wood

P A TYERS

The samian from Highgate was examined and catalogued by J Bird, usually at the conclusion of each season’s excavations. The records of samian from the stratified pottery assemblages are listed in the catalogues accompanying the illustrations, but some comments on the overall assemblage are presented here.

The samian sherds from Highgate are not in good condition. The usual high gloss and hard firing of these wares can, in the worst cases, be reduced here to a soft and friable paste with sparse flecks of dull slip. Many of the sherds are small — over 50% are less than 2g in weight — and have badly eroded surfaces.

There are almost 600 records of sigillata from the site, though this cannot be considered as a vessel count as, with the exception of the decorated sherds catalogued above, no attempt has been made to group sherds together across contexts. Indeed this would be a largely futile exercise given their poor and fragmentary condition. Half the group are featureless sherds,

Form	SG	Fabric			Total
		CG	EG	?	
Dr 15/17	9				9
Dr 15/17 or Dr 18	6				6
Dr 15/17R	2				2
Dr 18	39				39
Dr 18?	9				9
Dr 18/31	1	57			58
Dr 18/31 or Dr 31		3			3
Dr 18/31?		3			3
Dr 18R	2				2
Dr 24/25	5				5
Dr 24/25?	1				1
Dr 27	38	18			56
Dr 27?	2				2
Dr 29	4				4
Dr 30	9	3			12
Dr 31		1	1		2
Dr 33	7	9			16
Dr 33?		2			2
Dr 35		4			4
Dr 36	2	2			4
Dr 37	15	15			30
Dr 37?	2				2
Dr 38 (or Curle 11?)		1			1
Dr 42	3				3
De 67	2				2
Knorr 78	1				1
Knorr 78?	2				2
Curle 11	4	3			7
Curle 11?	1				1
Ritt 12?	1				1
Ritt 9	1				1
Ritt 9 or Dr 27	1				1
Cup	3	1			4
Dish	1				1
Unidentified	185	102		3	290
Total	358	224	1	3	586

Table 3. Summary of *terra sigillata* fabrics and forms

not assignable to any form, while the others have been identified, with varying degrees of certainty.

Some 60% of the sherds are identified as South Gaulish, with the remainder Central Gaulish, except for one East Gaulish Dr 31. The Central Gaulish assemblage includes one sherd in the micaceous fabric of the 1st century AD. The production of Les Martres-de-Veyre is represented by a single stamp of Tasgillus ii (no.3 in the catalogue above) and several decorated sherds in the style of Martres potters (catalogue nos. 17, 18, 21, 23), though the condition of the material makes the identification of this source particularly problematic in the sherd material.

Phase	Pottery (kg)	<i>Sigillata</i> records	Records/kg
1	9.8		
2	221.1	51	0.23
3	638.3	200	0.31
4	23.3	9	0.39
Unphased	110.0	56	0.51
Total stratified	1002.5	316	0.32
Topsoil	178.8	278	1.55

Table 4. Distribution of *terra sigillata* in the stratified and topsoil assemblages

A summary of the forms and fabrics present is presented in Table 3. All the major mid-first to mid-second century *sigillata* forms are represented and there is nothing unexpected in the form list, which is headed by Dr 18, 18/31, 27, 33, 30 and 37. Typical Antonine forms are rare or absent, with only two examples of Dr 31, and one possible Dr 38. Other typical Antonine forms (eg Walters 79-81, Dr 32, 40, 43-45 etc) were not recognized in the assemblage.

The chronological distribution of the dated sherds (Fig. 168) shows a slight peak in the Flavian-Trajanic period but a rapid decline after the Hadrianic period. The latest piece (the single East Gaulish sherd) is broadly dated to the mid- or late-second century AD. This pattern is mirrored in the four stamps and twenty-five decorated pieces, described above – the latest are dated AD 130-150 and Hadrianic-early Antonine.

The spatial distribution of the *sigillata* across the site (Fig. 169) shows concentrations in the area of the northern and southern dumps, with their associated kilns. As such, this broadly reflects the overall distribution of local pottery across the site, and there is no indication that these fine wares are concentrated in, for instance, areas of domestic activity. The broken *sigillata* seems to have been discarded alongside the wasters from the kiln production.

The distribution of the *sigillata* records across the phases of activity on the site is illustrated in Table 4. Taking all the stratified contexts together, *sigillata* sherds are represented in a ratio of 0.32 records per kg of Highgate pottery. In contrast, in the topsoil assemblages from the uppermost levels in the excavated areas the ratio is higher, at 1.5 *sigillata*



records per kg of local pottery. All the *sigillata* was retained from these topsoil levels, whereas featureless pottery sherds in the local wares were discarded, usually on site or shortly thereafter. A similar pattern may be observed in the distribution of the mortaria on the site.

Stanfield, J A & Simpson, G 1958 *Central Gaulish potters* London: Oxford University Press for the University of Durham

## 7.4. Abbreviations

D. = figure-types from Déchelette 1904.

O. = figure-types from Oswald 1936-7.

NOTS = *Names on terra sigillata* (Hartley & Dickinson 2008-2012)

De = Déchelette form

Dr = Dragendorff form

Cu = Curle form

Ritt = Ritterling form

CG = Central Gaulish

EG = East Gaulish

SG = South Gaulish

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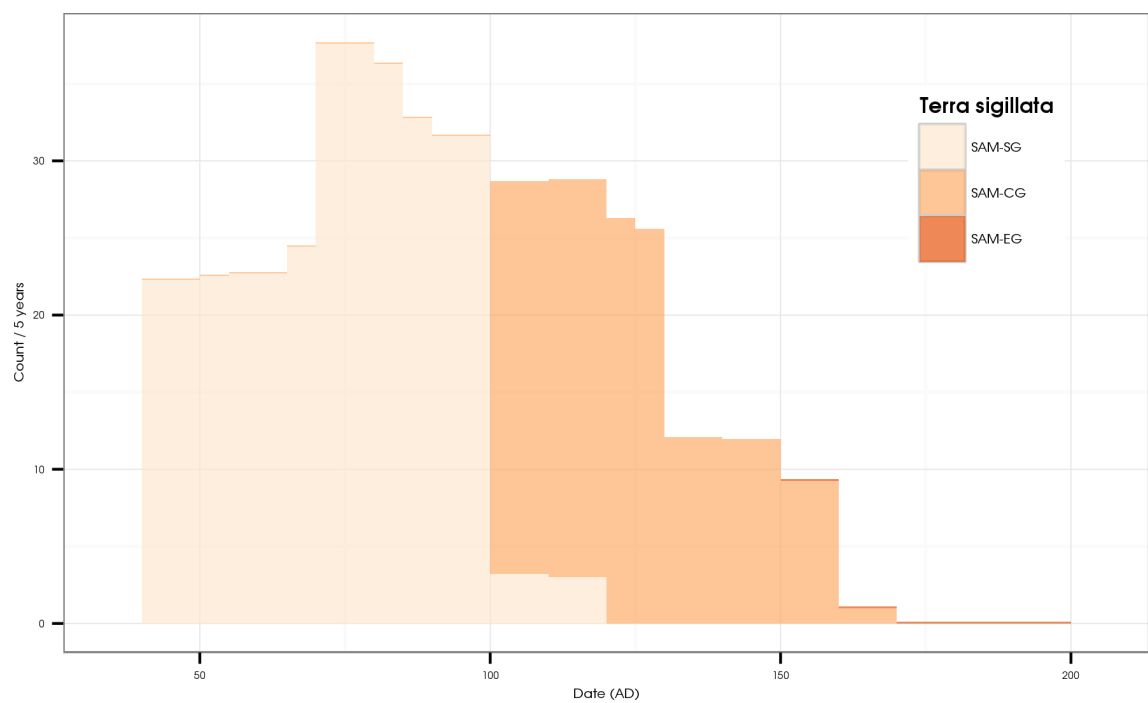


Fig. 168. Chronological distribution of *terra sigillata*

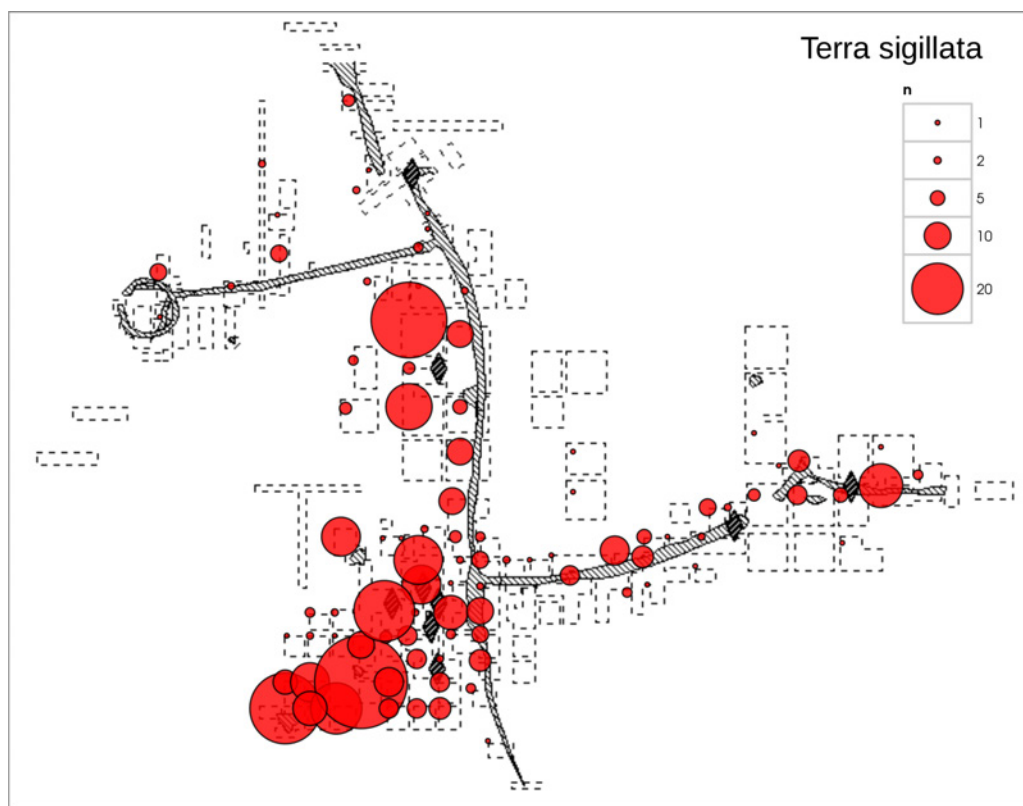


Fig. 169. Distribution of *terra sigillata* on the site

## 8. The Mortaria

K F HARTLEY

### 8.1. Catalogue of stamps<sup>1</sup>

#### *Arentus*

1. (Fig. 170) Poor impression of a stamp of a potter who stamped ARIINT-X retrograde (see Hartley 1972, 379, no. 41 for further details).

*Context:* T14L2 HW68 RP364 GM519

He worked at Brockley Hill (Castle 1976, 211, MS3); the optimum date for his rim-profiles is AD 120–145. [508] could be from the same vessel.

#### *Doccas*

2. (Fig. 170) Incomplete impression of a stamp which reads DOCCAS when complete. The die concerned was the most commonly used by this potter and was clearly in use at Brockley Hill (Castle 1972 and Castle 1976).

*Context:* TSF1L1 HW74 GM475/476

Doccas was one of the Verulamium region potters who moved to the Mancetter-Hartshill potteries, but the bulk of his work appears to have been done before this. His work at Brockley Hill must be within the period AD 85–110. For further details of his work see Castle 1972, 82 and Hartley 1979.

#### *Doinus*

3. An eroded stamp of Doinus with reversed N and S. AD 85–110.

*Context:* T27L2 HW68 RP57 GM505 (not illustrated)

4. Fragmentary stamp giving parts of ]OINV[ from another die of Doinus. AD 70–100.

*Context:* TVL2 HW74 GM474 (not illustrated)

Doinus worked at Brockley Hill (see Castle 1972, 77, fig. 5 and 83–85 for further details. It should be noted that there was no conclusive proof that the kiln excavated belonged to Doinus).

#### *Marinus*

5. (Fig. 170) FECIT counterstamp of Marinus (see Castle 1976, fig. 8, nos. MS 65 and MS 66–68 for an example of this stamp and the namestamp which went with it).

*Context:* T50F1 HW69 RP73 GM535

Marinus worked at Brockley Hill; his rim-profiles best fit a date within the period AD 80–125.

#### *Matugenus*

6. (Fig. 170) A two-line stamp reading MATUG//ENVS.

*Context:* TAF2L5 HW73 RP16/17 GM471

7. (Fig. 170) Flange fragment with broken stamp FEC[.].

*Context:* T107L2 HW72 GM462

8. Fragment with part of the border of a namestamp of Matugenus.

*Context:* T13L4 HW68 RP277 GM529 (not illustrated)

Stamps 7 and 8 are from the two faces of a die similar to the one found at Brockley Hill (Suggett 1955; the excavator believed that the actual die found was a waster which had exploded in the kiln). The stamps were used in association but these two are from different vessels. Matugenus operated at Brockley Hill in the period AD 80–125 (Hartley 1984, nos. 83–97).

#### *Moricamulus*

9. (Fig. 170) An almost complete, heavily worn mortarium with both namestamp and counterstamp, reading MORICAM//L.FECIT, with the F having a bottom stroke like an E. MORICAM is probably the full impression of this die of Moricamulus. His three other namestamp dies are all associated with FECIT counterstamps made in the same style as the namestamp. The stamp L.FECIT is well-known; although the L could stand for a man's name it is much more likely to represent the placename *Lugdunum* (see Hartley 1972, 372 and Saunders & Havercroft 1977, 139–140, for further details of its use

<sup>1</sup>Compiled from reports by K F Hartley

on mortaria). If so, it will be a true counterstamp but no other example is known of a mortarium stamped with this die of Moricamulus or either of the L.FECIT dies, which has the full complement of stamps. If the L.FECIT stamp were in the same style as the name stamp one would just assume that it was a counterstamp habitually used with this die of Moricamulus. The difference means that further examples are needed to verify the association. One example is known of two potters in the Verulamium region stamping the same mortarium with the namestamp of one and the counterstamp of the other.<sup>2</sup> What is clear is that both dies were being used in the same workshop.

*Context:* TSF1L1 HW74 GM477

10. (Fig. 170) The lower half of a fragmentary stamp from one of two dies which read L.FECIT, the F having a bottom stroke like an E.

*Context:* T96F1 HW71 RP77 GM522

Moricamulus operated in the Verulamium region in the period AD 70–110 (Hartley 1972, nos. 29–30; Bishop & Dore 1989, 266, no.130). Mortaria with L.FECIT stamps certainly date to the same period (Hartley 1972, 375, no. 23).

#### *Oastrius*

11. (Fig. 170) A very eroded stamp of Oastrius (S, T and R ligatured), on a burnt sherd.

*Context:* T82NF1 HW70 RP90

12. (Fig. 170) Almost half of a completely unworn mortarium with the concentric scoring surviving on the inside and traces of it, combined with grit, on the flange. It has a counterstamp of Oastrius, reading LVGD.F, with G represented by a laterally inverted D.

*Context:* T61F1L6 HW69 RP210 GM545

Oastrius is one of the earliest of the Verulamium region potters and operated during the period c. AD 55–80. His kiln at Little Munden Farm, Bricket Wood, is reported by Saunders and Havercroft (1977). These stamps are certainly from two different vessels.

#### *Other stamps*

13. Burnt mortarium with faint impression of

<sup>2</sup>From W F Grimes excavation at St Albans, Wood St., London, SA 29/9 and 10; Castle 1976, 217, MS31

a chevron border, which is probably from a stamp of Lallaius or G. Attius Marinus. Verulamium region, AD 90–135.

*Context:* T14L2 HW68 RP370 GM526 (not illustrated)

14. Fragmentary stamp. Too little of the border survives for identification to be possible. Verulamium region. Probably AD 110–150.

*Context:* T50F1 HW69 RP152 GM537 (not illustrated)

15. Border and the very edge of an unidentified stamp on a mortarium in very hard, fine-textured orange-brown fabric with very thick, well-defined dark grey core; very moderate, tiny quartz and red-brown inclusions; no trituration grit survives. Thick buff-cream slip. It seems likely to be from the same source as the unstamped mortarium 543/544. It can be attributed to a source in south-east England. A few potters in the Verulamium region produced mortaria in red-brown fabric with cream slip, but a workshop possibly at Much Hadham, Herts., which produced a few mortaria stamped with 'London ware' type stamps, produced this precise type of fabric; the only alternative to these would be a more local source. AD 110–140.

*Context:* T69F3 HW70 RP70 GM514 (not illustrated)

## 8.2. Comments on the mortaria from Highgate

P A TYERS

The catalogues of mortaria from the site were compiled by K F Hartley in 1996.<sup>3</sup> The records of vessels from the stratified pottery assemblages are listed in the catalogues accompanying the illustrations, but some comments on the overall assemblage are presented here.

The sources of mortaria found at Highgate are illustrated on Table 5. The assemblage is dominated by

<sup>3</sup>In addition to those vessels examined by K F Hartley there is a small number of additional sherds recovered from the bulk pottery assemblages and catalogued later. These are principally small body and base sherds of Verulamium-region vessels.

Source	No
Verulamium-region	56
Local (red with white slip)	9
Rhône valley	2
Colchester	1
Gloucester region	1
Uncertain	2
Total	71

Table 5. Highgate Wood: summary of mortaria

products of the Verulamium region but with a small number of vessels from other sources.

*Rhône valley mortaria* Sherds from two vessels, both very abraded with very poorly preserved surfaces. This fabric is moderately common in London in groups of Neronian and Flavian date (Davies *et al* 1994, 70–2).

Date: c. AD 50–80

Context: T89L2 HW71 RP11? GM426 and T5L2 HW67 GM426

Context: T11L2 HW68 RP95 GM497

*Gloucester-region mortaria* A single vessel which closely resembles the work of A. Terrentius Ripanus, who operated from the Gloucester region. These vessels have a wide but thin distribution across western England and Wales, but there are a few specimens from London (Davies *et al* 1994, 67–70). Hard, slightly rough fabric with irregular fracture; pale red-brown fabric with a darker margins; fine inclusions of quartz sand and limestone set in micaceous, calcareous matrix; thin cream or white slip with clear or milky quartz trituration.

Date: c. AD 60–90

Context: TWF1L3 HW74 GM545B

*Colchester mortaria* A single abraded sherd from a Colchester mortarium.

Date: c. AD 140–170

Context: T110L2 HW72 GM455

The chronological distribution of all dateable mortaria from the site is shown on Fig. 171. The earliest vessels are represented by a particularly fine, unworn, mortarium with a counterstamp of Oastrius of Bricket Wood, and the Rhône valley and Gloucester-region vessels. The Flavian-Trajanic assemblage is almost entirely from the Verulamium region, particularly from Brockley Hill, which is only some 12km from Highgate. From the Hadrianic

period there is an increasing number of vessels from other sources, particularly a cream-slipped fabric from a source in the London/Herts region (as discussed in the description of stamp no. 15) and a single vessel from Colchester.

The spatial distribution of mortaria across the site (Fig. 172) shows a particular concentration in the area of the kiln 8, the northern dump and the adjacent ditch. Taking all the stratified contexts together, mortarium sherds are represented in a ratio of 0.07 records per kg of Highgate pottery. In contrast, in the topsoil assemblages from the uppermost levels in the excavated areas the ratio is higher, at 0.20 mortarium records per kg of local pottery. As with the *sigillata*, all the mortarium sherds were retained from these topsoil levels, whereas some featureless pottery sherds in the local wares were discarded.

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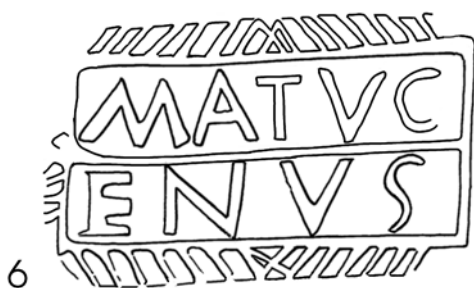
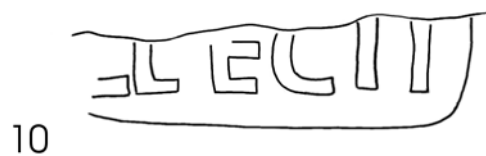
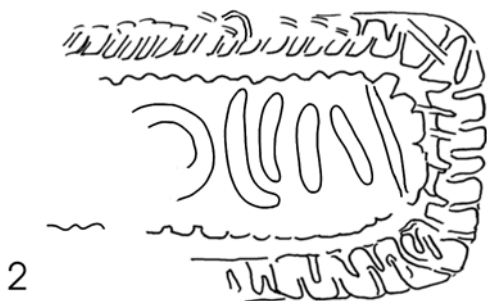


Fig. 170. Mortarium stamps [1:1]

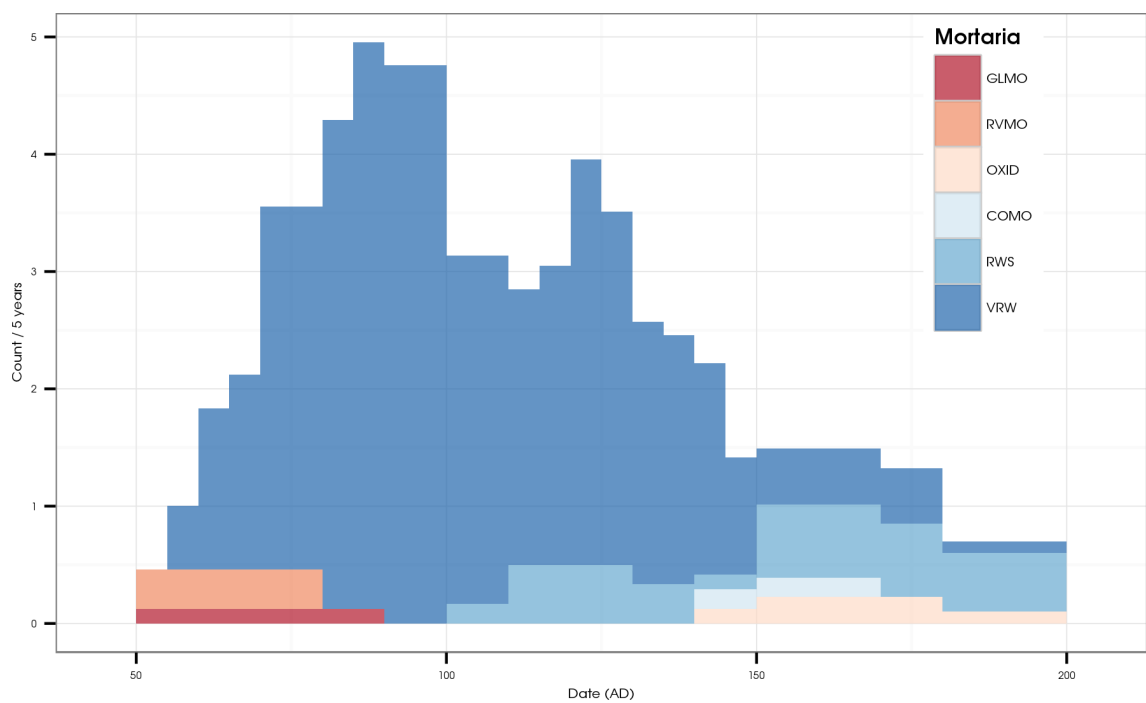


Fig. 171. Chronological summary of mortaria

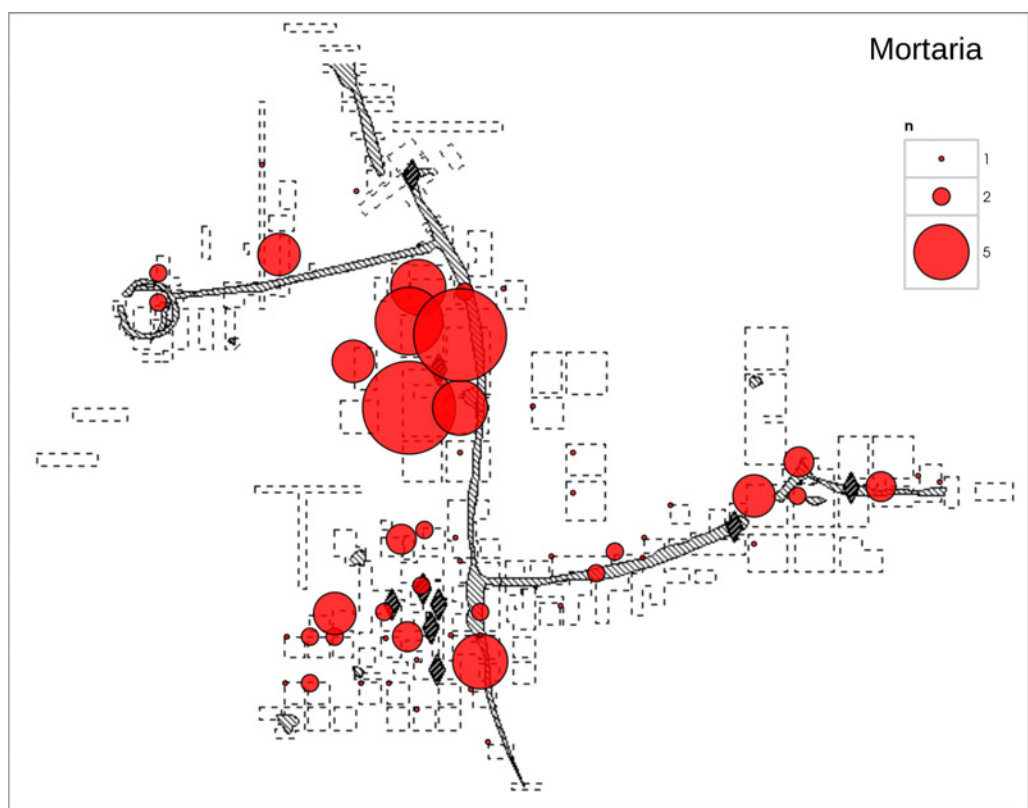


Fig. 172. Distribution of mortaria on the site

## 9. Potter's stamp on grey ware (no. 1245)

V R RIGBY

**IVMAXI** central stamp on the base of a small cup or bowl with a moulded foot-ring. Fabric fine-grained even textured dark grey-brown ware with sparse mica; matt faceted interior, smoothed exterior (Fig. 173).

The precise number and reading of the ligatured letters is uncertain despite the fact they are clearly cut and neatly arranged: IVMAXI and IVNVAXI are possible. However the letters are interpreted the die is unique and therefore lacks independent dating evidence.

In excess of 80 stamps on coarse wares have been recorded in *Londinium* and its bridge-head settlement at Southwark. There is a reasonably good match between the fabric of the Highgate piece and a group of related platter-types with illiterate stamps for which a production centre has yet to be identified.<sup>1</sup>

*Context:* T3L3 HW67 RP40 GM437 (3-2\_4-iii-b)

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Fig. 173. Highgate Wood: Potter's stamp on grey ware [1:1]

<sup>1</sup>This vessel — which is not in the local Highgate fabric — is now reported in the online *Gallo-Belgic pottery database* (Timby & Rigby 2007), where it is item 940. There is an impression from a similar die from Owslebury, Hants (*ibid*, item 939) *Ed*.

## 10. The Hercules Medallion in *sigillée claire B* (no. 1056)

P A TYERS

### 10.1. The Hercules medallion<sup>1</sup>

A fine-textured, pale buff fabric (Munsell 10YR 7/3), with fine mica, and occasional red-brown and white particles (<0.1mm) visible in the surface and the break. Within the deeper mouldings on the external surface a dark brown or black surface discolouration is visible, which may be traces of the original colour-coating, or some post-depositional alteration. The sherd is rather soft and abraded, probably due to the harsh soil conditions on the site (Fig. 174).

The sherd bears the lower third of a large applied medallion, perhaps around 9cm in diameter when complete.<sup>2</sup> Enough of the decoration is preserved to indicate, without doubt, that the scene portrayed is the third labour of Hercules: the capture of the Ceryneian hind. The whole of the hind remains except for the head, and Hercules himself is represented by the legs and part of one arm: his bended knee can be clearly seen on the animal's back. The scene is closely, but not exactly, paralleled on a mould from Vienne (Déchelette 1904, II, 265, no.54; Willeumier & Audin 1952, 157–8, no.303). The sherd comes from the wall of a large jar or bowl (approximately 20cm in diameter) with a constriction immediately below the applique, above a prominent hollow cordon.

The Hercules sherd was recovered from the southern waster dump, just to the south of Kiln 3.

*Context:* T32F1 HW68 RP142

<sup>1</sup>This report is based in part on the text incorporated in the paper by Delage *et al* 2009, which describes the Highgate sherd and other *sigillée claire B* vessels from northern and eastern Gaul, and addresses the wider question of the chronology of the production.

<sup>2</sup>The original description and identification of the scene on this medallion is by Dr Kevin Greene, in an unpublished handwritten note in the Highgate archive dated c. 1970. I am also grateful to Armand Desbat for confirming the identification of the Highgate vessel as *sigillée claire B* when he examined it in Lyon in 1987.

### 10.2. *Sigillée claire B*

*Sigillée claire B* is the product of the ceramic industries of the Rhône valley, between Vienne and Orange and flourished from the mid-2nd to later 3rd century AD. The fabric is generally pink or orange in colour with a fine orange, orange-red or orange-brown slipped surface, which does tend to vary somewhat across the vessel, and lacks the fine gloss finish of contemporary Central and East Gaulish *sigillata*.<sup>3</sup> The repertoire of the early production includes table wares that echo the classic *sigillata* repertoire of the 2nd century AD, including versions of Drag.32, 33, 37 and 38 and Curle 15 and 21 (Desbat 1988; summary in Raynaud 1993). However the vessels that have attracted most attention in the archaeological literature are jars decorated with finely moulded applied medallions featuring a rich and detailed iconography. The scenes depicted are wide ranging, but include gods and heroes — including a series depicting the labours of Hercules — and scenes from the theatre, gladiatorial games and circus (Déchelette 1904, II, 235–308; Willeumier & Audin 1952; Vertet 1969; Desbat & Savay-Guerraz 2011).

The core of the distribution of *sigillée claire B* lies in the Rhône valley, eastern Languedoc and Provence, with occasional vessels from coastal sites around the Mediterranean. North of Lyon there are a number of examples in Burgundy and Franche-Comté, and beyond this a thin scatter across northern Gaul and along the Lower Rhine (Delage *et al* 2016, 137; map in Rivet and Saulnier 2016, 20, Fig.5). It is these that provide the wider context for the Hercules medallion from Highgate.

The precise source of the classic early *claire B* vessels has yet to be identified, though chemical analysis points to the Rhône valley, between Vienne and Orange (Desbat & Picon 1986; Schmitt 1988). In this area, the large collection of wasters from Saint-Peray

<sup>3</sup>A flavour of the range of colours of the slips, and quality of the finish, of *sigillée claire B* is now available in the colour photographs in Desbat & Savay-Guerraz 2011 or Rivet & Saulnier 2016.

(Ardèche) relate to production towards the end of the 3rd century AD, but may nevertheless be indicative of one source region.

The mould illustrated by Déchelette that parallels the Highgate sherd is one of a collection from Vienne accessioned into the *Musée des Antiquités Nationales* during the 19th century. This might be thought to indicate the location of at least one workshop, but Déchelette (and others) have cast some doubt on this material as the circumstances of discovery are not precisely recorded (Déchelette 1904, II, 238). Furthermore, the Lyon/Vienne area has now been effectively ruled out as one of the sources of *sigillée claire B*, according to the chemical analyses. Desbat has surveyed the evidence and concludes that *On peut donc à juste titre émettre quelques doutes sur l'ancienneté et sur l'authenticité de ces moules viennois* (Desbat 2016, 135).

### 10.3. *Sigillée claire B* in Roman Britain

*Sigillée claire B* is one of the rarer categories of imported ceramics to have been recognized in the Romano-British repertoire. Apart from the Highgate vessel, there are apparently two further examples.

#### Tower of London, Inner Ward

The sherd from the Tower of London, published by Joanna Bird in 1985, comprises a small fragment from the edge of a medallion featuring part of a body, an arm and a lock of hair (Bird in Parnell 1985, 51–2 and Fig.25, no. 13). The scene cannot be identified with certainty but Bird draws attention to Déchelette's no.88 (1904, II, 283), with an image of Scylla.<sup>4</sup>

The sherd was recovered from a dump level (layer 32) adjacent to the riverside wall (Parnell 1985, 21, phase VIIb). The context is dated to the later 4th century AD and includes a series of Valentinian coins and a substantial group of contemporary

pottery (Cameron in *ibid*, 58–60). However the assemblage does include residual material, including Dressel 20 and other early Roman amphoras, and Central Gaulish *sigillata* of the 2nd century AD (Green in *ibid*, 52–5; Dickinson in *ibid*, 52, nos. 2, 10).

#### Hardknott

From the Roman fort at Hardknott, Bidwell *et al* illustrate several joining sherds in a fine orange fabric with darker orange slip bearing part of circular moulded medallion surrounded by a wreath (Bidwell *et al* 1999, 92, Fig.39, no.149). Though fragmentary, this features two standing figures, of which only the feet or lower legs remain. The right-hand figure, with a light cloak or similar garment draped over his left arm, can be identified as the *genius* of Lyon, the symbolic representation of the city. There are several other examples of this scene in the *claire B* repertoire (Déchelette 1908, II, 270–1, no.65; Wuilleumier & Audin 1952, 70–3, nos. 97–103; Delage *et al* 2009, Fig.3, no.7; Rivet & Saulnier 2016, 119–120, no.71), though none of these is clearly from the same mould as the Hardknott piece.

The occupation of Hardknott is dated — largely on the basis of the *sigillata* and coarse ware assemblage — to the Hadrianic period, with an abandonment by c. AD 150 (Bidwell *et al* 1999, 65–6). However, there are a handful of (apparently) later sherds from the site suggesting some continuing interest in the location (*ibid*, 96) and in the published report the *claire B* piece is assigned to this phase rather than the main occupation. It is unfortunate that the context of these sherds is unclear, for they would be a key anchor point in the chronology of *claire B* if they could be assigned securely to the main phase of occupation at Hardknott.<sup>5</sup>

### 10.4. Conclusions

The internal and external dating coincide to suggest that the end of pottery production at Highgate Wood should be placed in the mid- or late-Antonine period, and probably several decades before the end of the

<sup>4</sup>In the original report on this vessel, Bird cites a medallion with a moulded gladitorial scene from Fishbourne as a further example of decorated Rhône valley vase from Britain (Cunliffe 1971, II, 152, no. 4 and pl. 22b). Bird (pers comm) now considers that this is likely to be an *oscillum*, and probably from a local source, perhaps Wigginholt, rather than an import, and thus unrelated to the vessel described here.

<sup>5</sup>I am grateful to Paul Bidwell and Armand Desbat for discussion on the the Hardknott *claire B* sherds.

2nd century AD. There is no reason to suppose that the Hercules sherd — recovered from a waster heap located near the heart of the site — was not discarded at Highgate during the period of pottery manufacturing.

One question that arises is how the Highgate potters acquired this rare and unusual vessel, almost unique in the province. London was certainly capable of attracting unusual imports (ceramic and otherwise) from all parts of the Roman world, and for the Hercules vessel the obvious immediate source is London.<sup>6</sup> However, if we are allowed a moment of speculation, we should consider the possibility that the vessel may not have passed into the hands of the Highgate potters as part of some conventional economic process; it may even have been simply scavenged, broken, from some handy rubbish dump in or near the city. Perhaps one can go further and suggest that the sherd had some value to the Highgate potters as a talisman. Even in its fragmentary state perhaps it offered a little protection from the forces lined up against them, be they the merchants and land-owners who governed many aspects of their lives or the demonic forces resident in the fires that they needed to control, or placate. Perhaps a little supernatural assistance would have been called upon, from time to time.<sup>7</sup> Whatever function it may have performed in the life of the Highgate potters, it was finally discarded amongst the wasters and firing debris in the vicinity of Kiln 3.

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<sup>6</sup>The evidence for the cult of Hercules in London has been collected by Bird (2008).

<sup>7</sup>The role of ritual in the working lives of ancient and traditional potters has occasionally been commented on (Rice 1987, 152, 156). A frequently illustrated black-figure vase of the 6th century BC depicting the operations in an Athenian pottery workshop shows a grotesque head placed in front of the kiln furnace, usually interpreted as being in a protective role (Munich, Antikensammlungen: 1717; Beazley archive 302031: <http://www.beazley.ox.ac.uk/record/68A4A755-C32D-4E99-AF90-43367621E6D5>). In a different cultural context one might point to a book of prayers used by potters in Pakistan collected by Owen Rye in the 1970s (Rye & Evans 1976, 189, Appendix 5). This contains verses suitable for most stages of the pottery manufacturing process, including clay preparation, forming, and the loading and unloading of the kiln.



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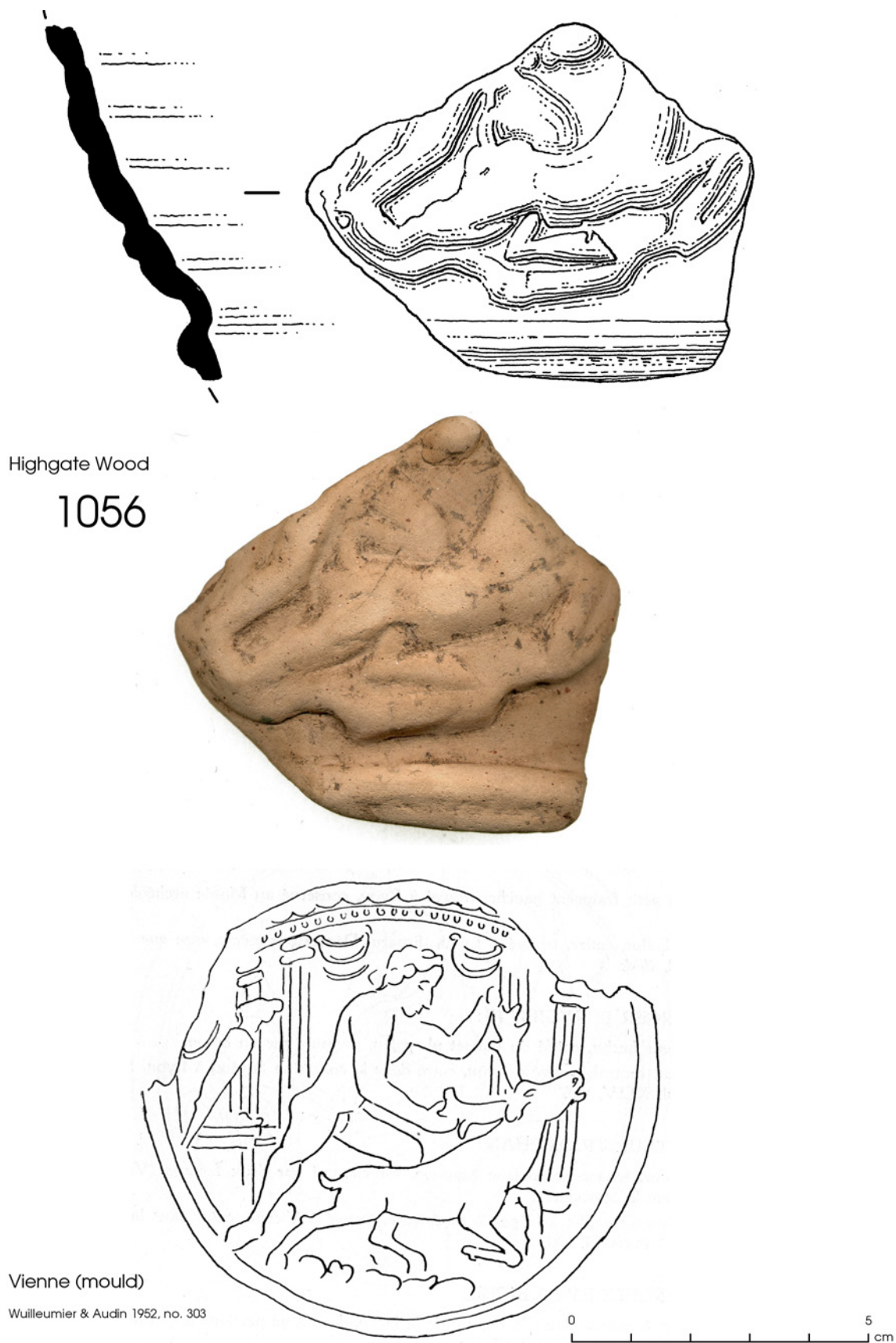


Fig. 174. The Hercules medallion in *sigillée claire B* [1:1]

## 11. Report on a Spouted Strainer Bowl (no.1049)

P R SEALEY

Three sherds from a spouted strainer bowl were present (Fig. 175). Two of them join to make up three-quarters of a spill-plate, a segmental lid set horizontally inside the rim designed to stop the contents spilling when they were decanted through the spout. Its inner edge is slightly curved to give the whole plate a rather lunate outline. This inner edge takes the form of a low rib with a parallel groove inside. On the upper surface of the spill-plate there are incised lines running obliquely from the inner edge towards the rim which take the form of artless wavy and zig zag lines between a pair of more or less straight parallel ones. Towards the rim the inside of the spill-plate thickens as it approaches the straight and steep upper wall of the bowl. On the exterior, the spill-plate projects outwards to form a hook rim, a typical feature of Highgate pottery.

The third sherd is part of a sub-rectangular perforated strainer panel luted to the wall of the bowl after the holes had been made with a tool some 2 mm in diameter. Only part of the lower (inner) end of the spout survives. The strainer panel does not join the spill-plate but must have come from the same vessel; its orientation and precise position on the pot cannot be established and the drawing offers a conjectural restoration.

All three sherds are abraded; the red slip survives only on part of the upper surface of the spill-plate. They were stratified in a 2nd century AD context but clearly relate to production at Highgate in the preceding century.

*Context:* T24L3 HW68 GM259

### 11.1. Spouted Strainer Bowls

There are two basic forms of pottery spouted strainer bowl in Britain, distinguished by their profile: one is carinated (*Cam* 323), the other (*Cam* 322) rounded (Hull 1958, fig.121, 288; 1963, fig.105, 187). Although

there is a considerable range of typological variation within *Cam* forms 322 and 323, these broad categories are valid and useful because they derive ultimately from quite different bronze prototypes, a rounded and a carinated form respectively. *Cam* 323 strainers have a deep carinated biconical body, with straight sides to both the upper and lower halves; a few have a rounded lower half. The straight and steep upper wall of the Highgate strainer shows it belongs to the *Cam* 323 family. The derivation of the Highgate spill-plate from metal prototypes is also evident in the detail of the rib with groove running along its inner edge (see below).

### 11.2. The Development of Spouted Strainer Bowls in Britain

Spill-plates like Highgate are first attested on a bronze vessel with a rounded bowl form (*ie Cam* 322) from the Welwyn Garden City (Hertfordshire) grave, dated *c.* 25–15 BC (Stead 1967, 23–5, 47; for the chronology, see Strong 1967, 22, and Rigby & Freestone 1986, 16). Pottery strainers of the carinated *Cam* 323 form were current in Britain on the eve of the Roman invasion. There is one dated *c.* AD 30–50 from Prae Wood (Hertfordshire); an unstratified spill-plate from the same site might also be pre-Roman (Wheeler & Wheeler 1936, 171–3, fig.22 no.1; Thompson 1982, 567 no.C2, 913–4, 928–9). The Prae Wood and Highgate spill-plates are the only ones with curved inner edges. Three more *Cam* 323 from a ritual pit at Ardleigh (Essex) were stratified in a context dated *c.* AD 45 (Erith & Holbert 1974, fig.6 nos 21–3, 12; Thompson 1982, 567, 584; Sealey 1999). Another from the (unpublished) 1980 excavations at Wickford (Essex), kindly shown me by P Neild, came from a ditch filled *c.* AD 50. Other early *Cam* 323 strainers include the ten or so from the Sheepen site at Colchester (Essex) (Hawkes & Hull 1947, fig.50 no.8, 273–5; Niblett 1985, fig.33, microfiche 1:D3–4); the contexts are Claudio-Neronian. All these Hertfordshire and Essex strainer bowls are in

wheel-thrown grog-tempered (Belgic) ware.

The angular carinated profile of the *Cam* 323 strainer bowls is not a form intrinsic to pottery, particularly in a tradition in which throwing on the wheel was standard practice. There are two complete bronze spouted strainer bowls with a carinated biconical form identical to some of the pottery versions. Both of these (unpublished) strainers are components of metalwork hoards of early Roman – and very probably, Boudican – date from Icenian country, from Brandon (Suffolk) (Grew 1980, 376) and Crownthorpe (Norfolk) (Henig 1995, 35, pl.17), in Moyses Hall Museum at Bury St Edmunds and in Norwich Castle Museum respectively. Another East Anglian hoard from Santon (Norfolk) has a bronze spill-plate from a third strainer (Smith 1909, 154–5; Stead 1967, 25; for the chronology, see Spratling 1975). Its grooved edge finds an echo in the rib with groove on the inner edge of the Highgate spill-plate. Marsh (1978, 182) thought the London strainer bowls were an introduction from the Rhineland in the Roman period, but the evidence reviewed here shows instead that they developed from insular late Iron Age antecedents.

*Cam* 323 remained current until the early 2nd century AD. There are two dated c. AD 90–130 from a pit in London, at Southwark (Marsh 1978, fig.6.20 no.46.2, fig.6.21 no.46.16, 182, 184, 199, fig.6.25; Hinton 1988, 246–7, 279, fig.121 nos 1025–6). More (unstratified) examples from City sites housed in the Museum of London amplify details of the typology (Marsh 1978, fig.6.20 nos 46.1–5, 181–184; see also Burnby 1984, pl.2 right).

There are only two other spouted strainer bowls from Greater London. A carinated pottery strainer from a Brockley Hill kiln site (but not in the local Verulamium region fabric), dated c. AD 80–120, belongs to the *Cam* 323 class but has a straight upper wall that slopes outwards, a quirk of typology that remains unique (Castle 1971). The only bronze version from Greater London is represented by a spout in the form of a dog from Brentford, apparently stratified in a context dated c. AD 60 to the early 2nd century (Megaw 1978; Canham 1978, 29, 53–4, 78–9, 123–4). Spouted strainer bowls of whatever form or material are evidently rare in London (Davies *et al* 1994, 139), and indeed elsewhere in Britain.

### 11.3. The Function of Spouted Strainer Bowls

The bronze prototypes of pottery strainers like Highgate are widely regarded as wine strainers (Rigby & Freestone 1986, 15–16; Trow 1990, 103), following Megaw (1963, 35; 1970, 162). But there are no counterparts for these vessels in the Roman world (*pace* Kennet 1976), as Megaw (1971, 300; 1978) himself concedes, and strainers of any kind are seldom found in contemporary sets of Roman silver plate (Strong 1966, 144–5). Any straining of wine to remove dregs was done with a linen bag, the *saccus* (Horace *Satires* 2.4.53–4; Columella *De Agri Cultura* 2.2.20; Pliny *Naturalis Historia* 14.28.138; 15.37.124; 19.19.53; 20.72.185; Martial *Epigrams* 8.45; 12.60.9; 14.103–4). The metal strainers of the last two Martial texts were used for the straining of wine through snow to cool it, a practice confined to the grandest Italian households and which can have no bearing on how wine was drunk in Britain. Moreover the additives cited by Megaw relate to the production of wine before it reached the consumer, not to its serving at table. They include flavouring agents soluble in alcohol, and finers to remove the cloudiness from fermenting wines.

It is worth considering instead the possibility that spouted strainer bowls were used for flavouring local drinks, in particular the so-called Celtic beer (*cervisia*) popular in northern and western Europe (Davies 1971, 133; Adams 1995, 128). Just such a drink had been mulled in a bronze cauldron from a c. AD 150–250 grave at Juellinge in Denmark; a bronze colander had been used to remove cranberries, bilberries and leaves of the bog-myrtle (Müller 1911, 47–9, 53 4; Curle 1932, 307). This explains why there are four instances of the association of spouted strainer bowl and cauldron in southern Britain: at Felmersham (Bedfordshire) (Watson 1949, pl.5a-b, 41–2; Megaw 1970, 162 no.276; 1971; for the cauldron, see Kuhlicke 1969), and in the Brandon (see above) and Santon hoards (Smith 1909, 146–8). The set of strainer bowls and cauldron from Ardleigh are a unique service of these vessels in pottery, rather than bronze (for the cauldron, see Erith & Holbert 1974, fig.7 no.35, 14, and Sealey 1999).

## 11.4. Discussion

Highgate is a significant addition to the corpus of spouted strainer bowls from Britain. None of the other London strainer bowls have spill-plates and they had apparently been dispensed with by the end of the 1st century AD; indeed ours is the last spouted strainer bowl with such a feature. Only this one vessel was found at Highgate Wood and it is clear they were not produced in any quantity. Its presence at a pottery with roots in the local late Iron Age tradition is entirely consistent with the view taken here that such vessels had no real connection with wine services and were used instead for Celtic beer.

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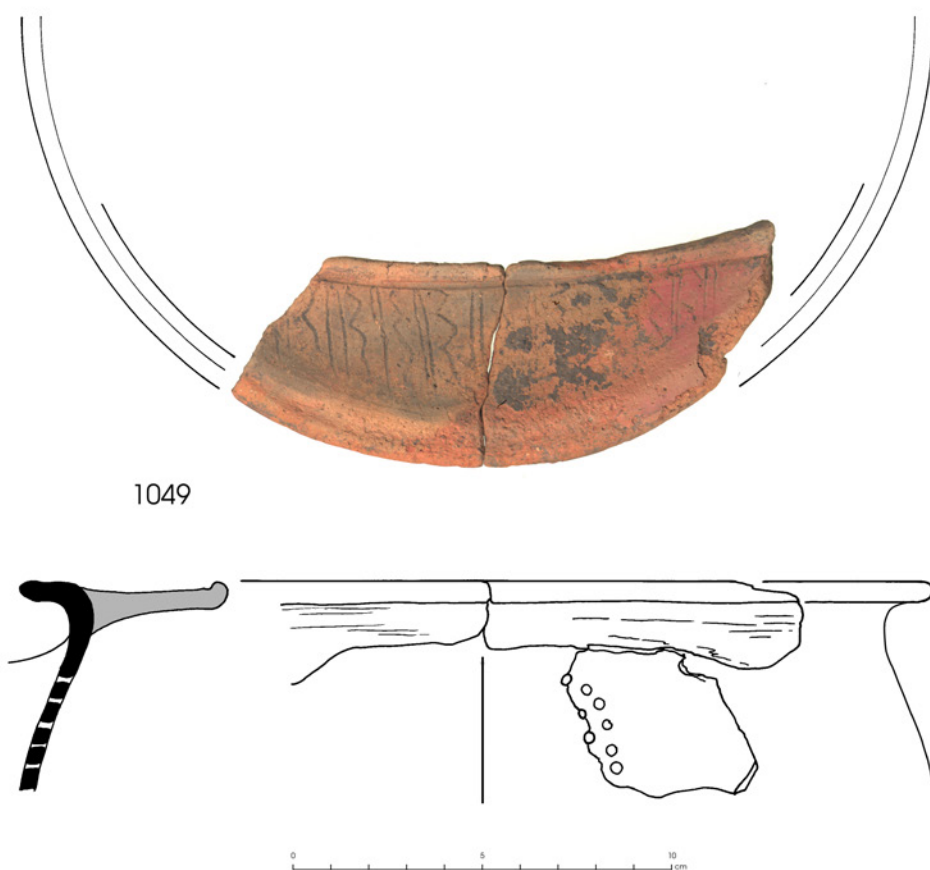


Fig. 175. Strainer bowl [1:2]

## 12. The reconstruction of vessel no. 174

P A TYERS

A small group of sherds from several contexts in the vicinity of Kilns 6 and 7 stand out from the rest of the material due to their unusual form and constructional details. The material is first described, a possible reconstruction presented and the wider background of the form is then considered.<sup>1</sup>

### 12.1. The sherds from Highgate

The sherds (Fig. 176) can be considered in three groups:

- A) Wall sherds, inclining slightly from the vertical, and finished with a slightly thickened bead, marked by a groove on the outer face and a slight chamfer on the inner edge of the rim. The largest sherd is 5.7cm in height. The lower part of the outer face, near the broken edge of the sherds, is marked by a series of slash marks, at an angle of c. 45°. The spacing of the slashes, their depth, and their extent varies from one sherd to another. There are 12 sherds in total, 36% of the total circumference of the vessel, including joining groups of two and three with a diameter at the rim of c. 44cm.
- B) Five flatter 'base' sherds, including two pairs of joining sherds. The largest sherd shows clearly that the 'base' diverges from the horizontal by c. 5°. The angle between the 'wall' and 'base' is marked by a series of slashes, matching those on the sherds described above.
- C) Three sherds from a flange, two joining, with a width of 4cm and a diameter at the outer edge of c. 49cm, representing 12.5% of the total circumference. On the inner face there are traces of slashes similar in character and

angle to those on the wall and base sherds and faint traces of slight ridges at the same angle.

The sherds are not in prime condition. They vary somewhat in both colour, texture and finish, and often have worn or rounded edges. The fabric seems to be the standard HWB grog-tempered ware, though some sherds have a rather smooth, slightly 'soapy' texture and a red- or orange-brown colour, while others are grey or grey-brown, harder fired with a more hackly fracture, and have lost their original surfaces. In one pair of sherds, which join, one has a smoother red-brown finish and the other is harder fired and grey (Fig. 176, B).

These variations in firing and surface condition may suggest that the vessel broke apart in the kiln, and different sherds were then subjected to variations in atmosphere during the later stages of the firing. Alternatively the vessel was broken after firing, and the sherds were then subjected to different depositional histories, some perhaps being subsequently exposed to heat, or re-fired.

The condition of the sherds inevitably leads to some uncertainty in the reconstruction and this must be borne in mind in the discussion that follows. There are no clear joins between the three groups – wall, base and flange sherds – though there are joins between sherds within each group.

The majority of the sherds are from the west end of Ditch 2, in the vicinity of Kiln 7 (Phase 2-2-i: T85F1, with a joining 'base' sherd from T84F4L2, Fig. 176, B). More unexpected is a single wall sherd from T70F1 (Fig. 176, A), which is from the area of Kiln 6 (Phase 2-2-v), in Ditch 3, and thus some 15m to the east of, and slightly uphill from, the T85 group. The sherd from T70F1 does not seem to join those from T85, but as only one third of the vessel circumference remains this is perhaps to be expected. The sherd has an almost identical section and diameter, and shows traces of the slashes at the base of the wall that are seen on the T85 & T84 sherds. If it is not from the same vessel, it must be from another which is almost identical, the remainder of which was not recovered

<sup>1</sup>This text is a shortened and updated version of the French text published in Tyers (2016a), where further discussion and references will be found.

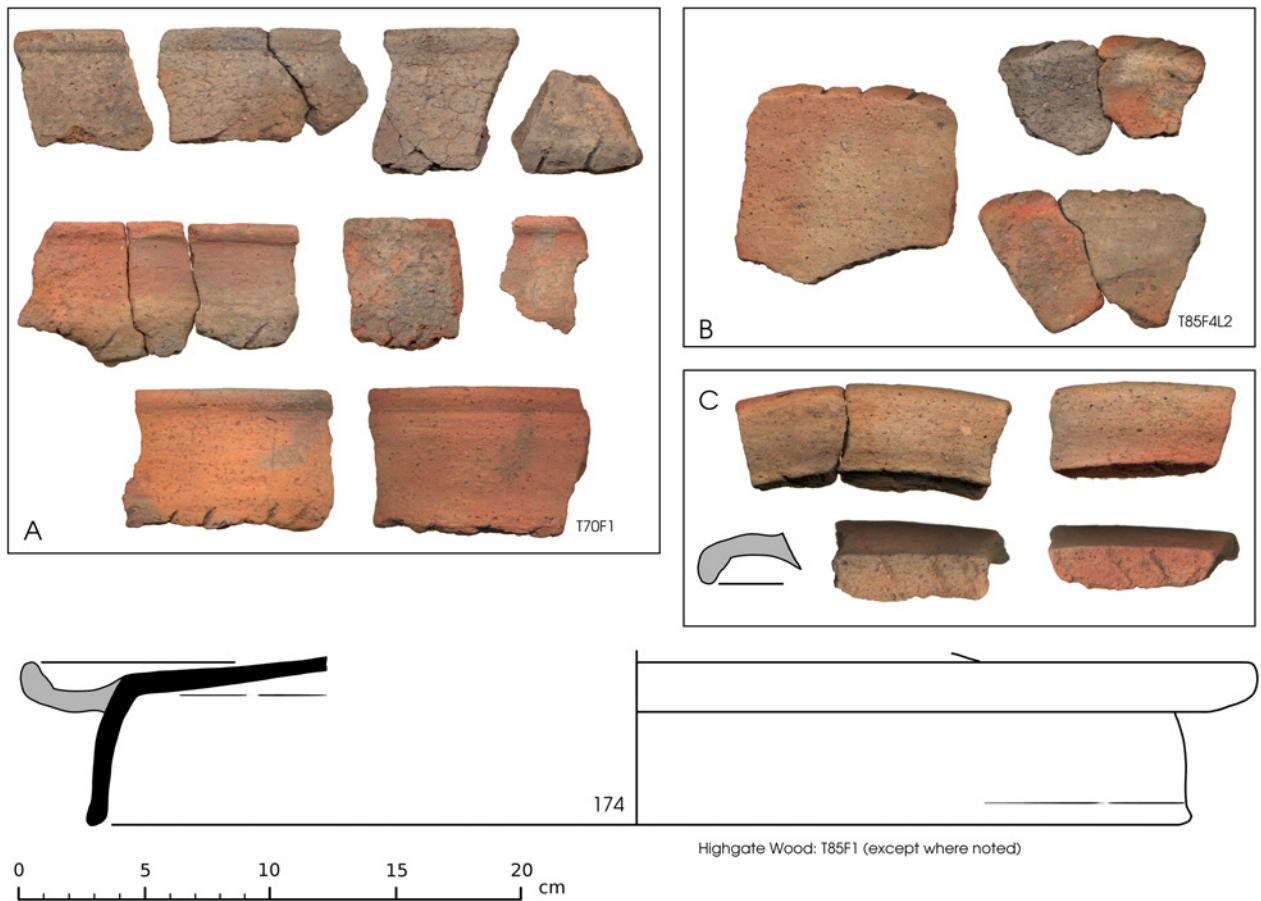


Fig. 176. Sherds and proposed reconstruction of Highgate vessel no.174 [1:3]

during the excavation.

### Reconstruction

The vessel seems to have started as a shallow, straight-walled dish with a beaded rim, a flat base and a diameter of c. 44cm (Fig. 177, A). At the leather-hard stage the base was pushed out of the horizontal plane to form a rounded or slightly domed profile, and the slashes added at the base of the wall to facilitate the attachment of the flange (Fig. 177, B).

The flange was formed separately, and around some (at least) of its circumference the inner face was marked with slashes to facilitate its attachment to the similarly prepared zone on the wall of the vessel. When the two parts were pressed and smoothed together the still-damp clay on the inner face of the flange was forced into the slashes on the body, resulting in the slight ridges now visible on the sherds (Fig. 177, C).

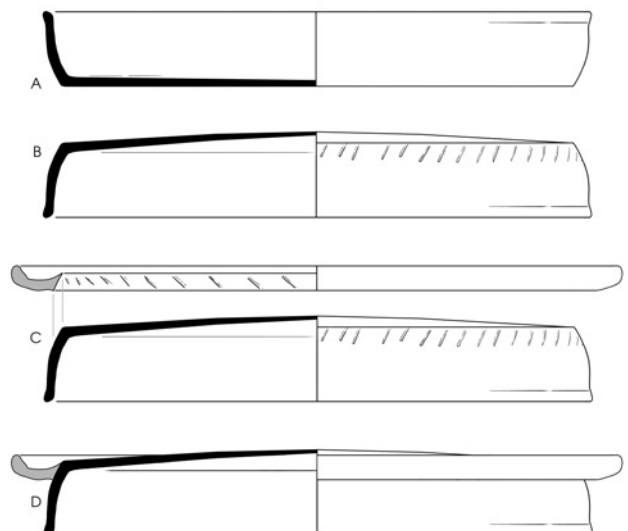


Fig. 177. Suggested manufacturing sequence for Highgate vessel no. 174

This would have been a complicated vessel to construct. Not only is it one of the largest recovered

from Highgate, with a diameter of over 40cm, but the separate manufacture and then attachment of the flange would have produced a further set of problems during drying and firing. The fact that the three extant flange sherds have become detached where they joined the body – the weakest point in the vessel – does not suggest that this was entirely successful, at least not in this instance.

As reconstructed, the vessel does not match any of the usual forms in the Romano-British ceramic repertoire. It may have been an unusually large shallow dish provided with a rather inconveniently placed flange, but the alternative proposed here is that this can be interpreted as a baking cover or *clibanus*.

## 12.2. The *clibanus*

Roman writers describe a regular method of baking bread and other dishes *sub testu*, in which a fire was set on a flat surface, scraped aside and then the items to be cooked were placed under a dome-shaped pottery cover on this heated surface. The charcoal and ashes were then heaped over and around the cover to provide heat from above as well as below. A specialized vessel called a *testum* or *clibanus* was sometimes employed, although it was not described in any details in the texts. Various identifications of the form have been advanced by archaeologists in the past.

Some of these difficulties and uncertainties were addressed in a paper by Cubberley, Lloyd and Roberts (1988). They review the literary references to this style of cooking and suggest that the term *clibanus* is part of a wave of Hellenized terminology imported into the Roman world in the 3rd-2nd century BC. Cubberley *et al* proceed to identify vessels in the archaeological record, principally from Italy, that can be interpreted as *clibani* or *testa*, dating from the late Republican period through to the end of the Roman period. A similar form is also recorded from Medieval contexts, and indeed is still in use in traditional kitchens in Italy, and elsewhere.

Given the broad chronological range of the material a certain diversity of typology is to be expected, but in general the vessels identified as *clibani* have a carinated profile, with a projecting flange at the carination, the purpose of which was to support the

hot ashes piled on top of the vessel. Some examples have holes pierced through the wall, or a central vent at the top of the vessel. In diameter they range from over 50cm down to c. 25cm, with the larger sizes a particular feature of the Late Republican and early Imperial specimens. Cubberley *et al* identify potential *clibani* from throughout Italy (1988, 109–114), many as re-identifications of vessels in earlier publications that had been originally illustrated the other way up or at uncertain angles. Some of the suggested examples are rather fragmentary and only the distinctive flange and the adjacent part of the body survives.

### The early Imperial *clibanus* in Italy and the western provinces

Olcese's discussion of the typological development of the form in Central Italy suggests that the late Republican examples are rather carinated in form, with a flat profile (Olcese, 2003, 40–2, 88–9, type 2). A later 1st century AD example from Pompeii has a more rounded, domed profile (Di Giovanni, 1996, p. 98, Fig.26, Forma 2431a: here Fig. 179 no.2). This vessel is 26cm in diameter, with a broad flange, terminated by a distinct beaded lip; the fabric is described as rich in biotite and quartz.

The occasional export into the western provinces of this Italian type of *clibanus* is suggested by a scatter of examples from sites in Spain (Calahorra, La Rioja: Pascual (2002), 178, Fig.67; Pascual (2001), 94, Fig.2, 1) and France (Lyon: Batigne-Vallet (2015), 228, Fig. 1, 6–7; Angers: Morteau (2017), 642, Fig.127, 1–2; Reims: Deru & Paicheler (2003); Deru (2014), 106, Fig.49, 41). The fabrics of these vessels are generally described as micaceous, rich in biotite and volcanic inclusions, and they are usually ascribed to an Italian source – which is supported by the more detailed petrological analyses of the specimens from Calahorra and Reims. Where dated these vessels are of the mid-1st to early 2nd century AD, with the Reims example somewhat later, perhaps mid-2nd century.

A further sidelight on the domed *clibanus* lid is its occasional association with a shallow flanged dish of similar dimensions. Such a pair has been published from *Ambrussum* (Fig. 179, 4–5), in southern France (Barberan in Fiches, 2009, p. 62; see also Raynaud,

2010, p. 297, Fig.9) , and a very similar group from *Herculaneum* was exhibited in a temporary exhibition at the British Museum in 2013.<sup>2</sup> Ritterling's types 96A and B from the fort at Hofheim can probably be linked with this phenomenon (Ritterling, 1913, p. 326 and Taf. XXXV, 96 A [dish] and B [lid]). Together, such combinations form a small enclosed 'oven'.

This form of flanged dish is discussed by Olcese as *tegame* type 9 (2003, p. 88, Taf.XVI, 6-7), listing examples of the late-1st to mid-2nd century AD from Ostia and Rome. As with the *clibanus* lid, there is evidence of the occasional export from Italy of these flanged dishes. In addition to the *Ambrussum* example cited above there are several vessels from Fos-sur-Mer in southern France (Marty, 2004, p. 109, Fig. 11, 73-74: here Fig. 179, no.5) and single specimens from Lyon (Batigne-Vallet *et al* 2014, Fig.16, 17) and Angers (Morteau, 2017, Fig.27, 3), and doubtless others remain to be identified in the published literature (Tyers, 2016a, 727–8).

## Summary

So, to summarise, the form of *clibanus* circulating in the second half of the 1st century AD is represented by vessels with a domed profile, while earlier forms may have a more carinated shape. The combination of the *clibanus* lid and the flanged dish should be considered together. The export of these specialised pieces of Roman culinary equipment from Italian factories into the western provinces continues into the 2nd century AD.

Putting the Italian imports to one side for the moment, there remains the question of the production of the *clibanus*/dish combination in potteries outside Italy. A small kiln operating some 900m north-east of the legionary fortress at Mainz reported by Heising included versions of both the flanged dish and lid amongst its products (kiln FS 25: Heising, 2007, p. 53, types 361 [dish] and 362 [lid]: here Fig. 179, nos 7–8). This kiln is assigned by Heising to his phase 3, dated AD 40–70. This period is marked by an influx of Mediterranean influenced pottery forms and kiln types to supply the local legionary market (Heising, 2007, 232–4), and the production of versions of this

rather unusual piece of — essentially Italian — culinary equipment would certainly fit well in such a context.

## 12.3. The *clibanus* in Roman Britain

The occurrence of the *clibanus* in Roman Britain has been discussed by Darling (2012). Following the publication of Cubberley *et al* the label has been attached to several unusual vessels from Britain (e.g. Williams & Evans, 1991). Darling's interpretation is that many of these are a form of enclosed 'barrel-shaped' oven with an integral base. As such they should be considered as a separate type, distinct from the flanged *clibanus* as per Cubberley *et al*. However, Darling identifies a few, rather fragmentary and ambiguous vessels which may have functioned as cooking covers, such as a sherd with a handle from Longthorpe which resembles covers from Italy and elsewhere (Darling, 2012, 252–3, Fig.33.1, 2). Clearly more analysis is needed, probably requiring the re-examination of the unassigned miscellanea from some earlier published sites.

### Italian imports in Britain

While the flanged *clibanus* style of flanged lid does not seem to have been yet identified in Britain, its companion, the flanged dish, is represented by two examples:

1. Gloucester, St Oswald's Priory: a rim and wall fragment with part of the flange, and thinner sherds from the base, in a red-brown micaceous fabric. This has been recently re-examined, and can now be identified as an example of this type (Heighway & Parker, 1982, Fig.8, no.17; Tyers, *forthcoming*, Fig.1, no.1). This vessel was recovered from a late 1st century AD context.
2. London, Eastcheap: a large flanged dish (here, Fig. 179, 6) from the site of 41 Eastcheap in the City of London, from a context dated AD 60/61–85 which can be associated with a post-Boudiccan military camp (Pitt, 2014, p. 158, Fig.6 <P5>). The fabric is micaceous, and the form closely matches the dishes from

<sup>2</sup>Illustrated in Roberts (2013), 253, Fig.305. See also Tyers (2016a), 724–7 for further discussion of these vessels.



Italy and France.<sup>3</sup>

A thin-section of the Gloucester dish has been re-examined and the petrology proves to be very similar to that of the *clibanus* lid reported by Pascual from Calahorra in Spain (Pascual, 2002, 238–9 and 261, Photo. 25; Capelli in Tyers, *forthcoming*). Italy, and more specifically Campania, is suggested as the probable source. This certainly strengthens the case that a small number of workshops may be responsible for this whole series of rather specialised cooking vessels, though more petrological analyses of examples from elsewhere would be needed to pursue this point.

#### 12.4. The Highgate *clibanus*

This, then, is the context for the interpretation of the Highgate sherds as a *clibanus*. This suggestion is not without its problems. Even allowing for any ambiguity in the reconstructed diameter and angle from the few remaining sherds, the vessel is very much at the top end of the diameter range of most of the continental examples, though approached by those from Herculanum and Reims. More difficult may be the shallow angle and thin wall of the upper part, so the overall internal height of the vessel may have been no more than 7cm, slightly taller than the Pompeii or Herculanum examples (5.5cm), but somewhat less than Reims (11cm).

Nevertheless, and *for illustrative purposes only*, Fig. 178 shows the Highgate *clibanus* lid paired with the very similarly sized imported flanged dish from Eastcheap. The combination demonstrates the overall appearance and scale that such vessels may have had if they were originally used as part of a pair, as at Hofheim, Herculanum and *Ambrussum*.

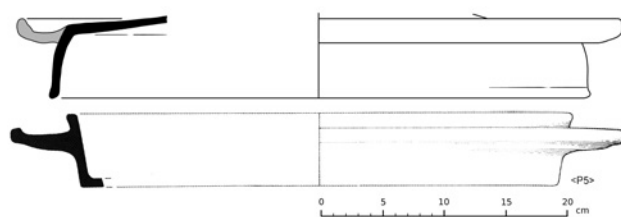


Fig. 178. The Highgate *clibanus* and the Eastcheap flanged dish

<sup>3</sup>Identification based on published description. Material not made available for further study in 2016. See Tyers (2016b).

The form is clearly not a regular part of the Highgate potters' repertoire as there seems to be only this single example from the site. It is not obviously related, typologically, to any of the principal vessel forms produced during this phase of activity, nor is it an obvious adaptation of any of their common forms. It may even have been produced when the potter was presented with the broken fragments of an imported *clibanus* – which, as the Eastcheap vessel demonstrates, are likely to have been present in late 1st century London – or even in response to a verbal description, without having seen an original vessel.

It is worth pointing out, perhaps, that among the products of phase 2 at Highgate, to which these sherds belong, there are other loose 'imitations' or 'derivatives' of imported types. This includes a series of plates with traces of red-slipped surfaces, which derive from contemporary *sigillata* forms such as Drag. 15/17 or 18, and several sherds from shallow dishes with an internal red slip, similar in form and finish to Pompeian-Red ware platters. None of these forms are common, but the idea of taking imported prototypes, and even imported specialist kitchen wares, as models was not entirely alien to the Highgate potters.

Further speculation should be suspended until examples of this form are recovered from domestic contexts in London or elsewhere. It may then be possible to determine from the sooting patterns or wear marks how such a vessel had been used, and thus whether it can be classified as a *clibanus*.

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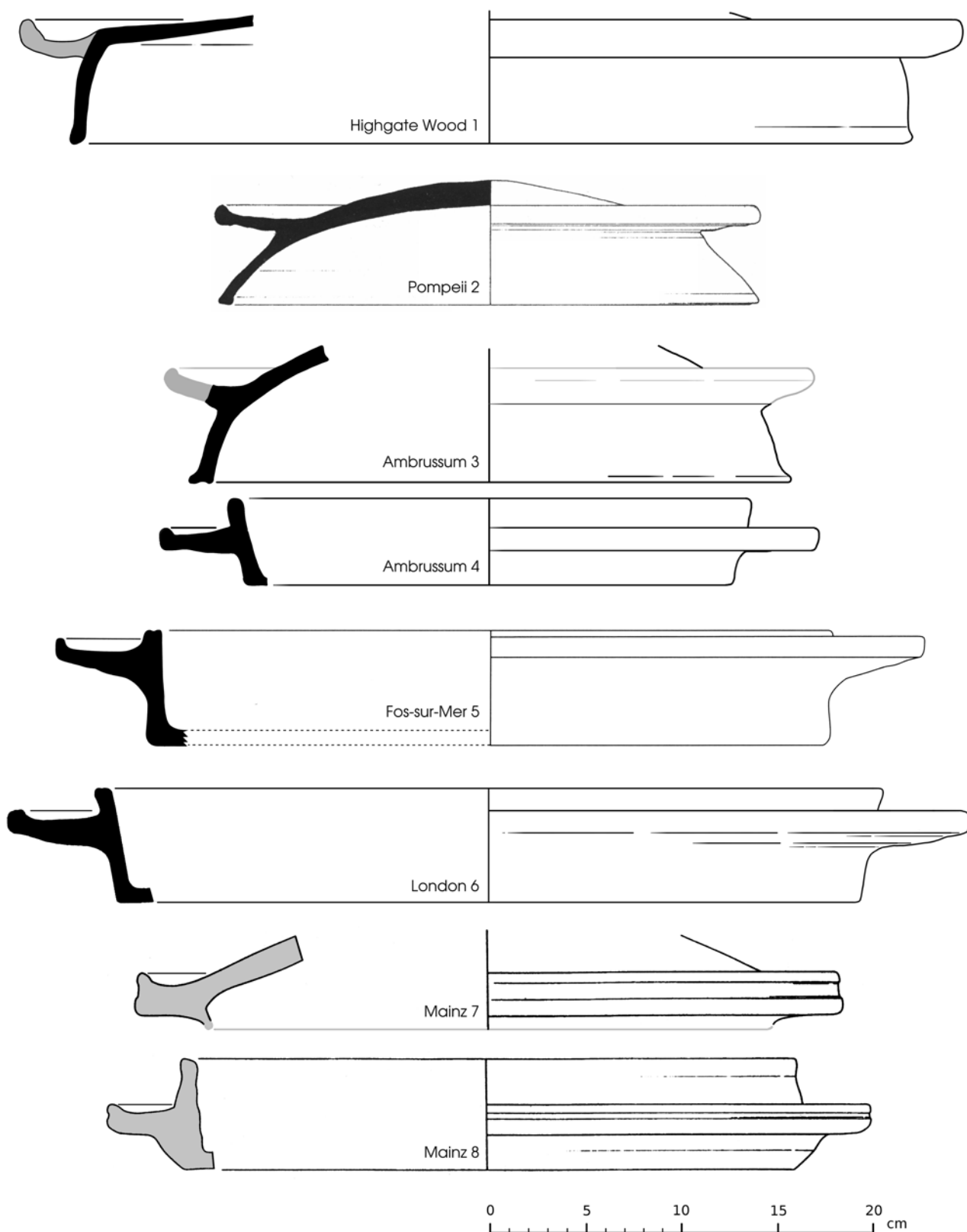


Fig. 179. The Highgate *clibanus* and comparative material [1:3]

## 13. Petrographic Analysis of Roman Pottery

P S QUINN

### 13.1. Background

Thin section petrographic analysis has been undertaken on 30 pottery sherds, one clay object, an experimental replicate vessel and three raw material samples from the Roman production site of Highgate Wood, north London. This analysis forms part of an on-going study of Highgate Wood and its pottery (Brown and Sheldon 1969a, 1969b, 1970, 1971, 1974, 1974; Brightwell *et al* 1971a, b; Tyers 1977, 1996). Details of the samples analysed and the specific aims of the analysis are given below. This report is an amalgamation of two earlier studies (Quinn 2012a, 2012b) on Roman ceramics from Highgate Wood, with the addition of six extra samples.

### 13.2. Sample Materials

The study material comprises 30 sherds of Roman pottery from the Highgate Wood site. Several representative sherds were selected<sup>1</sup> from each of seven macroscopic fabric groups established at the site (Tyers 1996). A clay ball found at the site and a piece of experimental pottery, manufactured from clay local to the site were included for comparison, as were one local clay sample and two sand samples, collected near the site. For the purpose of this analysis, the samples have been given analytical numbers from Highgate Wood 1 - Highgate Wood 35. Details of the analysed samples can be found in Table 6 below.

<sup>1</sup>Samples selected by A E Brown. Macroscopic fabric classification in this report differs from that given in Quinn (2012a, 2012b) and supersedes these.

### 13.3. Aims of Analysis

Detailed petrographic analysis was conducted on the 30 pottery samples in order to characterize their composition and answer specific questions about the craft technology employed in their manufacture. Possible sources of raw materials that could have been utilised for the production of Roman pottery at Highgate Wood are also suggested. The thin petrographic composition of the samples was compared to the macroscopic descriptions of the seven Highgate Wood pottery fabrics (Tyers 1996; Tomber and Dore 1998) as well as previous thin section petrographic analyses of pottery from this site (Davies 1984). A comparison was made between the 30 pottery samples and the composition of the clay ball, the experimental pot manufactured from local clay (Brightwell *et al*, 1973), as well as the local clay and sand samples in order to determine whether these represented a match for the ceramics in terms of raw materials and preparation techniques.

### 13.4. Methodology

Small pieces of all 30 ceramic samples were impregnated with epoxy resin and prepared as standard petrographic thin sections at the Institute of Archaeology, University College, London. Thin sections were taken in a vertical orientation through the wall where possible. A quantity of the loose dry clay sample was wetted, fashioned into a briquette, fired and thin sectioned. The two sand samples were mounted in an epoxy resin block before thin sectioning. All thin sections were studied at magnifications of 25–400x under the polarizing light microscope. The ceramic samples were characterised petrographically and interpreted in terms of their constituent raw materials and manufacturing technology. The samples from each macroscopic fabric group were compared with one another to confirm their compositional similarity and the correspondence with the descriptions of Tyers (1996). Comparisons were also made between each

fabric in order to detect any relationships in terms of shared raw materials and technology. Identification of the likely source(s) of raw materials was made by comparison with geological maps and reports of the study area as well as the nature of the locally derived clay and sand samples.

## 13.5. Results and Interpretation

### 13.5.1. Macroscopic Fabric Early HWB

The five sherds from macroscopic fabric Early HWB submitted for petrographic analysis have a similar composition in thin section, being composed of a generally silty, iron-rich clay with grog temper (Fig. 180 and Fig. 181, A-D). The silty base clay is non-calcareous and contains abundant silt-sized angular to sub-rounded quartz inclusions, less common white mica, feldspar and rare hornblende. Occasional large sand-sized, rounded inclusions of quartz, plus rare chert and plagioclase feldspar also occur. These may have been naturally occurring in the base clay due to their relatively rare occurrence in the sample, though they bear resemblance to sand sized inclusions in the grog. The base clay is relatively rich in iron, which is best observed in sample HW5 due to its firing atmosphere and occurs as opaque bodies as well as more dispersed streaks (Fig. 181, C,D). Crushed pottery temper was added to the paste. The grog inclusions vary in both their composition and firing atmosphere. Grog from a pottery fabric with abundant well-sorted generally rounded quartz (Fig. 180, A,B) may be a match for samples HW12, 14, 15, 19 and 20 of macroscopic fabric HWC in this study. Other grog particles with clear sand temper (Fig. 180, E,F and Fig. 181, A,B) appear to be a match for samples HW11, 13 and 16 of macroscopic fabric Early HWC. The samples were fired in an incompletely oxidising (samples HW1 and 2) to reducing atmosphere (samples HW3 and 4). Sample HW5 stands out in that it is comparatively well oxidised (Fig. 181, C,D). Based on the optical activity of the clay matrix in samples 1 and 5, as well as the colour of the rare hornblende inclusions sample HW5, the pots were fired at an equivalent temperature of <850°C or perhaps <750°C. Small meso-elongate voids are common in most samples. The samples also include distinctive larger macro- and meso-vughs and elongate voids.

### 13.5.2. Macroscopic Fabric HWA

The three sherds from macroscopic fabric HWA submitted for petrographic analysis have a similar composition in thin section, being composed of a non-calcareous silty clay with charred organic matter, occasional sand inclusions, rare grog temper and distinctive macro-voids (Fig. 181, E,F and Fig. 182, A-D). Grog is very rare in the three samples and occurs only as occasional small inclusions. This may suggest that it was an accidental incorporation rather than an intentional addition. The small size and rarity of grog in samples HW24, 25 and 26 means that it is not possible to correlate the composition of these inclusions with other Highgate Wood fabrics. The three HWA samples contain rare but definite evidence for plant matter that has carbonised during firing. This corresponds to the description of the fabric by Tyers (1996, 3). It is not clear whether this represents temper or was naturally occurring, on account of its relative rarity in the samples. The three samples analysed here contain distinctive macro-vughs and macro-elongate voids that have been left by the removal of some sort of inclusion type (Fig. 182, B). Whilst some of these may have been created by the destruction of organic matter, only a small proportion contain carbonized material or blackened margins. Furthermore, many have shapes that are more reminiscent of mineral or rock inclusions. It is not possible to be sure what occupied these voids, but some sort of soluble inclusion such as calcite, might be a possible suspect. The large voids correspond to the description of the macroscopic fabric HWA as having an 'open vesicular texture' (Tyers 1996, 3). Rare sand sized, generally rounded inclusions of quartz occur in samples HW24, 25 and 26. It is not clear whether these were an intentional addition, though they bear similarities to rounded sand temper in other Highgate Wood fabrics. The silty, non-calcareous base clay of the three samples contains fine inclusions of quartz, feldspar, muscovite and biotite mica, chert and opaques. The three HWA sherds were fired <850°C in an oxidising (sample HW24), incompletely oxidising (sample HW25) and reduced atmosphere (sample HW26).

### 13.5.3. Macroscopic Fabric HWB

The six samples of macroscopic fabric HWB submitted for analysis bear strong similarities to one

another as well as the analysed samples of fabric Early HWB in thin section (Fig. 182, E,F, Fig. 183 and Fig. 184, A-D). Like the fabric Early HWB samples, they are characterised by fine, non-calcareous silty clay and grog temper, elongate meso-voids and some larger voids. The base clay contains abundant silt-sized quartz, mica and iron, as well as less common feldspar. It does not contain the rarer, rounded, sand-sized inclusions that are present in fabric Early HWB and may have an overall finer texture. The grog added to fabric HWB differs from that in fabric Early HWB. It has a silty quartz-rich composition (Fig. 183, C,D) and is generally much finer than that in Early HWB. The fabric HWB samples contain much distinctive opaque material in thin section. This is more obvious in samples HW6, 8 and 10 due to their firing atmosphere. It consists of dark, reduction fired grog, opaque bodies (Fig. 183, A,B and Fig. 184, A,B) as well as more dispersed iron-rich streaks (eg sample 8). This gives the fabric a heterogeneous appearance in thin section. Burnt plant matter occurs in voids in sample HW6 (Fig. 182, E,F) and possibly sample HW10. Other samples contain voids that may have been left by the destruction of plant matter. This material may have been an intentional addition to the clay paste, but is not very abundant in any of the samples. The samples of HWB were incompletely oxidised during firing and many therefore have a dark core. Sample HW7 was reduced throughout. The optical activity of the clay matrix in the five samples suggests that the equivalent firing temperature was <850°C, though sample 9 shows evidence of being higher fired. The thin section petrographic analysis of this fabric more or less corresponds to its macroscopic description by Tyers (1996, 3). The opaque bodies observed in thin section may correspond to the 'charcoal' mentioned by this author. 'Occasional large quartz inclusions' were not present in the thin sections prepared of the five samples.

#### 13.5.4. Macroscopic Fabric HWB/C

The two macroscopic Fabric HWB/C samples analysed in this report have different petrographic compositions (Fig. 184, E,F, Fig. 185, C,D). Sample HW29 is characterised by the presence of grog and possible plant temper in a silty non-calcareous quartz-rich clay (Fig. 184, E,F). The presence of grog is in agreement with the definition of this

fabric. Larger sand-sized quartzose inclusions, which could represent temper, are present in sample HW29. These are similar to the material in the macroscopic Fabric Early HWC samples and some macroscopic Fabric HWC samples. They give sample HW29 a coarser texture than the macroscopic Fabric HWB samples analysed in this report, with which macroscopic Fabric HWB/C is supposed to be related. This thus corresponds well with the definition of macroscopic Fabric HWB/C of Tyers (1996, 4), which states that it is 'coarser textured than standard HWB, with more sand visible in the matrix'. Sample HW31 bears some similarities to HW29, but does not contain the large rounded sand inclusions (Fig. 185, C,D). It is therefore more strongly related to the samples analysed of macroscopic Fabric HWB, though it contains less grog and plant matter than these. The two macroscopic Fabric HWB/C samples analysed in this report were fired <850°C in a well oxidised (sample HW29) or incompletely oxidising atmosphere (sample HW 31).

#### 13.5.5. Macroscopic Fabric Early HWC

Samples HW11, 13, 16, 30 and 32 are characterised by a fine silty clay with medium sand sized quartzose temper (Fig. 185, A,F and Fig. 186). The medium sand sized, generally rounded inclusions are composed of quartz, chert and polycrystalline quartz. This material, which is compositionally similar to the rarer large inclusions in samples HW17 and 18 of macroscopic fabric HWC was added as temper to a non-calcareous fine clay with angular to sub-rounded inclusions of quartz and white mica. The base clay is slightly finer and has less natural inclusions in sample HW11 than in samples HW13 and 16. Sample HW11 contains a possible fragment of grog that may have been accidentally incorporated rather than being an intentional addition. All samples contain meso- and macro-elongate voids that are aligned parallel to the vessel margins, especially HW16. The three Early HWC samples HW 11, 13, and 16 were fired in a reducing atmosphere at an equivalent firing temperature was <850°C.

#### 13.5.6. Macroscopic Fabric HWC

In thin section, the six samples analysed from macroscopic fabric HWC have two different petrographic



compositions (Figs. 187 and 188 and Fig. 189, A,B). Samples HW12, 14, 15, 19 and 20 are characterised by the presence of abundant, well-sorted, generally sub-rounded, very fine sand sized quartz and chert inclusions, plus iron rich textural features (Fig. 187, Fig. 188, E,F and Fig. 189, A,B). They have a non-calcareous clay matrix and abundant, well-sorted very fine, equant and elongate, very fine sand sized, sub-angular to sub-rounded inclusions of quartz, chert, white mica, oxidised glauconite, plagioclase and microcline feldspar and hornblende. The fine, well-packed and well-sorted nature of the inclusions might suggest that the clay could have been refined or levigated to remove coarse particles (Whitbread 1995, 392). However, sample HW19 contains a single equant inclusion composed of silt sized clasts of quartz, chert and mica that resemble the other inclusions in the sample. This textural feature could suggest that the very fine sand to silt-sized inclusions in samples HW12, 14, 15, 19 and 20 could have been added as temper. This would mean that the inclusion in question is a fragment of unmixed temper. However, no other such particles occur in these samples and the silt sized inclusions are very well distributed in the matrix. Furthermore, the similarity of these samples to the experimental pot sample HW21 and the clay used to manufacture it (HW35) suggest that HW12, 14, 15, 19 and 20 were neither tempered nor levigated.

Samples HW12, 14, 15, 19 and 20 also contain large (up to 1.5mm) equant, rounded, dark red to opaque textural iron-rich concretions that can contain fine sand sized inclusions (Fig. 187). Sample HW12 contains a possible fragment of grog that may have been accidentally incorporated rather than being an intentional addition. Most samples contain abundant small meso-elongate voids that may have formed during drying. Sample HW19 has abundant meso-elongate voids aligned to its margins. Sample HW20 does not contain many voids. Sample HW20 was reduction fired. Sample HW19 has five separate firing horizons in thin section that might suggest that it was incompletely oxidised, leaving a black core, then subjected to a short reduction firing or sooting to give it a dark margin.

Samples HW17 and 18 are similar to samples HW12, 14, 15, 19 and 20 in that they contain abundant, very fine sand sized quartz and chert inclusions and large iron-rich textural features (Fig. 188, A-D). However,

they also contain significant amounts of rounded medium-coarse sand sized quartz inclusions that could have been added as temper. This material resembles that which was added to samples HW11, 13 and 16 of macroscopic fabric Early HWC. The possible sand temper is slightly more abundant in sample HW18 than in sample HW17. Sample HW18 contains minor amounts of fine grog particles. Both samples HW17 and 18 were fired in an oxidising atmosphere at or below 850°C and possess a thin, light coloured slip layer. The macroscopic definition of fabric HWC by Tyers (1996, 4) and its petrographic characterisation by Tomber and Dore (1998, 136) appears to correspond to samples HW12, 14, 15, 19 and 20. Samples HW17 and 18 seem to have a similar composition, but with additional coarse sand temper. They correspond more closely to macroscopic fabric HWC+ below.

#### 13.5.7. Macroscopic Fabric HWC+

The one sample of macroscopic Fabric HWC+ analysed in this report is characterised by a bi-modal fabric of abundant, well sorted fine sand sized inclusions of quartz, chert, white mica, oxidised glauconite, rare plagioclase and hornblende, plus a larger fraction of rounded medium-coarse sand-sized inclusions of quartz, polycrystalline quartz, chert and untwinned feldspar (Fig. 189, C,D). One polycrystalline quartz inclusion has a slightly foliated texture. An inclusion of chalcedony occurs in the coarser fraction which is likely to be related to the chert. This coarser material may have been added as temper to a non-calcareous sandy base clay that resembles that in samples HW12, 14, 15, 19 and 20 of macroscopic Fabric HWC. It is therefore a match for samples HW17 and 18. Sample HW33 contains abundant meso-elongate voids. It was fired <850°C in incompletely oxidising atmosphere. In thin section, sample HW33 matches closely the definition of macroscopic fabric HWC+ of Tyers (1996, 4).

#### 13.5.8. Clay ball and experimental pottery sample

The fired clay ball discovered at the site (Sample 34) is composed of a very fine heterogeneous fabric containing fine white mica, quartz inclusions and abundant iron-rich streaks (Fig. 189, E,F). This composi-



tion does not match that of any of the archaeological or raw material samples analysed from Highgate Wood in this report.

Experimental pottery sample HW21 (Fig. 190, A,B) is related petrographically to samples HW12, 14, 19 and 20 of macroscopic fabric HWC. This pot comes from the Horniman Kiln Experiment described by Brightwell *et al* (1972, 1973). The clay was dug at Highgate Wood, broken up, hydrated and blended. It does not appear to have been levigated or refined in any way, nor was it tempered. Given the similarity of sample HW21 to Roman samples HW12, 14, 19 and 20 analysed in this report, it is likely that the paste used to manufacture these samples was also not levigated or tempered. The pot seems to have been fired at a low temperature as the glauconite inclusions were not oxidised and therefore have a green colour.

#### 13.5.9. Local clay and sand samples

It is not surprising that the briquette of local clay sample derived from HW35 (the bottom of a bucket) is petrographically very similar to experimental pottery sample HW21, as this was the material used in the Horniman Kiln Experiment to produce the pot. It closely matches archaeological ceramic samples HW12, 14, 19 and 20 of macroscopic fabric HWC. It differs from these samples and HW21 in that it contains a higher proportion of very fine sand inclusions of quartz, chert, feldspar and glauconite. Clay sample HW35 contains the large dark red to opaque textural features that are present in samples HW12, 14, 14, 19 and 20 of macroscopic fabric HWC, suggesting that these are a natural occurrence and did not form during levigation. Rare medium-very coarse sand-sized inclusions occur in the briquette prepared from clay sample HW35. These are not as abundant as those in samples HW18 and 33, suggesting that the latter might represent temper.

Local sand samples HW22 and 23 (Fig. 190) are a good match for the medium sand sized, generally rounded inclusions of quartz, chert and polycrystalline quartz in the Highgate Wood pottery samples analysed from macroscopic fabrics Early HWC, HWC+ and some of the samples from HWC. This supports the interpretation of these inclusions as temper and suggests that a local source of sand could have been utilised. It is not known from which geological unit the two sand

samples were collected. However, they indicate that suitable sandy sedimentary deposits occur at the site.

### 13.6. Possible raw material sources

The area of Highgate Wood is located mainly on sediments of the Palaeogene London Clay Formation. Sediments of the Claygate Member and Bagshot Sand occur at the southern end of the modern extent of the woods. More recent, superficial deposits of the Dollis Hill Gravel and the Lowestoft Formation occur just to the north. Ample sources of fine clay and looser sandy sediments therefore occur near to the site. One or more of these could have been utilised for ceramic manufacture in Roman times.

The London Clay is the dominant lithology at Highgate Woods and underlies the Roman kiln site. This is a fine, often silty grey to brown clay. It contains glauconite in places, especially in the sandier levels and at the base. This might suggest that the London Clay could have been the source of the clay used to manufacture silty Roman pottery samples HW12, 14, 19 and 20, which contain glauconite. The clay used for experimental pot sample HW21 was dug at the site at a depth of 1.5–2.5 feet below the surface (Brightwell *et al*, 1974, 53) and is therefore likely to have come from the London Clay. This also contains glauconite clasts. Sumbler *et al* (1996, 141) note that the London Clay is not used for modern brick manufacture because of its high shrinkage, but suggest that it could have been used more widely in the past. The proportion of the clay mineral smectite decreases towards the top of the London Clay Formation and it may be that the clay underlying Highgate Wood is therefore suitable for pottery making.

The Claygate Beds, which occur at the top of the London Clay and can be found to the south of Highgate Wood are also described as a silty and sandy clay deposit. They were deposited in a shallower water environment than the majority of the London Clay and appear to be more sandy in composition. Sumbler *et al* (1996, 104) describe the Claygate Beds as being composed of sand at sites in Surrey and Essex. Without further information on the nature of this unit in north London, it is difficult to comment on its suitability as a raw material for pottery production. However, it is worth noting that Vince (2006, 2007) suggests that silty, micaceous

clay from the Claygate Beds was used to produce Medieval pottery in Middlesex.

The Bagshot Sands of the Bagshot Formation are composed of 'orange or pale yellow, fine-grained sand, with thin beds of pale grey clay' (Sumbler *et al* 1996, 105). It is not known how whether the thin clay beds were large enough to be utilised for the production of pottery on the scale that took place at Highgate Wood. However, given the occurrence of more extensive clay deposits in the form of the London Clay and perhaps the Claygate Beds, they may not have been used. The Bagshot Sands may have represented a locally available source of sand temper. No information about the clast composition of these sands was available at the time of writing, though Sumbler *et al* (1996, 105) mention the presence of lignite and plant remains. This might suggest a connection with macroscopic fabric HWB, which Tyers (1996, 3) considered to contain charcoal.

The Pleistocene Dollis Hill Gravel Member, which occurs to the north of Highgate Wood is composed of gravel and is sandy and clayey in parts. It contains some laminated silty beds and lenses of peat and organic material. It could have been used as a source of sand temper, though it is not known whether the composition of the clasts in this unit matches the temper inclusions in any of the pottery samples analysed.

The Lowestoft Formation is an extensive sheet of chalky till left by the Anglian Glaciation, together with outwash sands and gravels, silts and clays. This till is characterised by a high chalk and flint content. The absence of calcareous inclusions in the Highgate Wood pottery seems to rule out the use of this glacial deposit as a source of raw material for pottery manufacture at the site.

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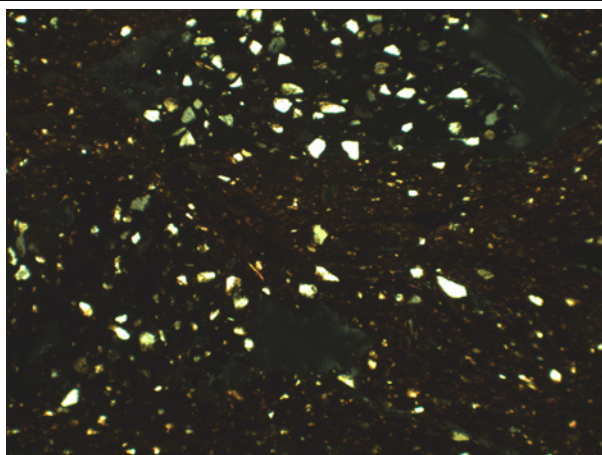
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*Petrological and Archaeological Study* (Fitch Laboratory Occasional Paper, 4) British School at Athens

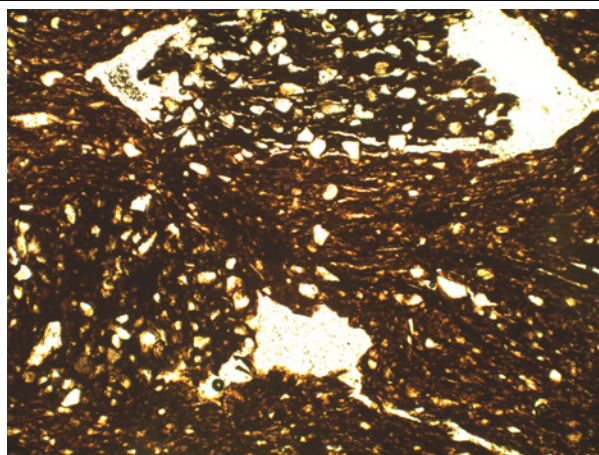
Sample number	Context	Kiln/Ditch Number	Macroscopic Fabric
Highgate 1	Trench P1 Box 118	-	Early HWB
Highgate 2	Trench P1 Box 118	-	Early HWB
Highgate 3	Trench P Box 188	-	Early HWB
Highgate 4	Trench P HW74	-	Early HWB
Highgate 5	Trench P HW74	-	Early HWB
Highgate 6	Trench U F1 L2	Kiln 10	HWB
Highgate 7	Trench 85 F1	Kiln 7	HWB
Highgate 8	Trench 85 F1	Kiln 7	HWB
Highgate 9	Trench A F2 L7	Kiln 9	HWB
Highgate 10	Trench 70 F1	Kiln 6	HWB
Highgate 11	Trench V F1 L3	Ditch 5	Early HWC
Highgate 12	Trench A F2 L3	Kiln 9, Phase 2	HWC
Highgate 13	Trench V F1 L2	Ditch 5	Early HWC
Highgate 14	Trench N F1 L1	Kiln 9, Phase 2	HWC
Highgate 15	Trench 24 L2	Kiln 3	HWC
Highgate 16	Trench 130 F1 L1	Ditch 5	Early HWC
Highgate 17	Trench 5	Kiln 2	HWC
Highgate 18	Trench 76 F4	Ditch 2	HWC
Highgate 19	Trench 13	Kiln 4	HWC
Highgate 20	Trench 91 F1	Northern waster heap	HWC
Highgate 21	Kiln Experiment 1973	-	-
Highgate 22	Sand sample	-	-
Highgate 23	Sand sample	-	-
Highgate 24	HW	-	HWA
Highgate 25	Trench V F8	-	HWA
Highgate 26	Trench P2	-	HWA
Highgate 27	Trench F F1 L2	-	HWB
Highgate 28	Trench 117 F1 L1	-	HWC
Highgate 29	Trench G F1 L1	-	HWB/C
Highgate 30	Trench W F1	-	Early HWC
Highgate 31	Trench W F1 L2	-	HWB/C
Highgate 32	Trench W F1 L1	-	Early HWC
Highgate 33	Trench 94 F2	-	HWC+
Highgate 34	Ceramic ball	Trench 92 F2 L2	-
Highgate 35	Clay sample	Trench A F2 L9	-

Table 6. Highgate Wood: Details of analysed Roman pottery samples

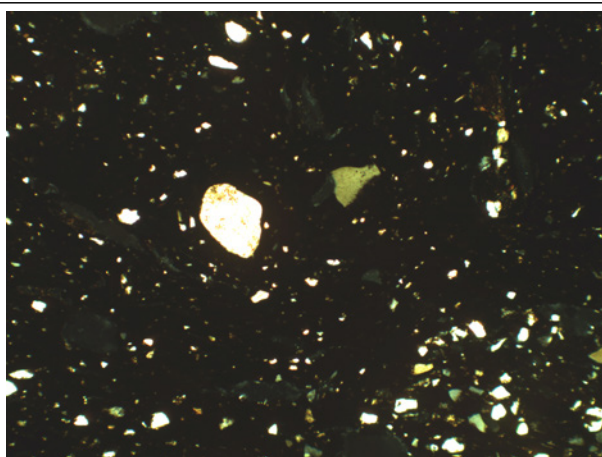




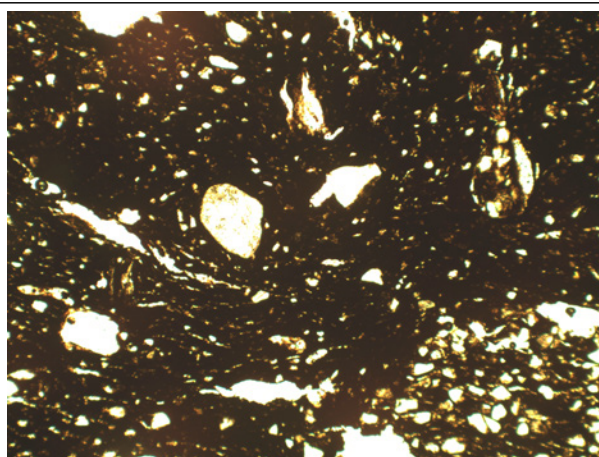
A – Highgate 1 XP (Early HWB)



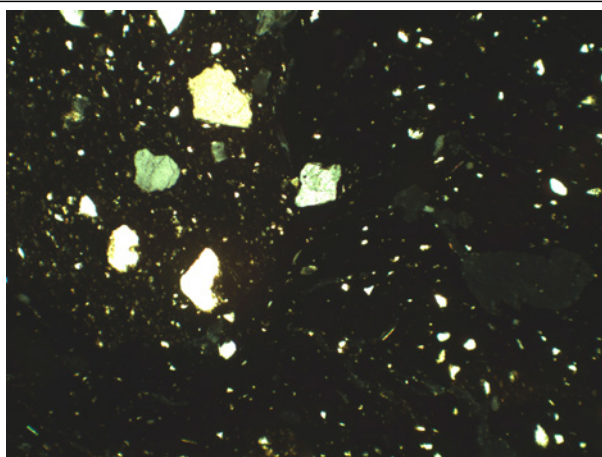
B – Highgate 1 PPL (Early HWB)



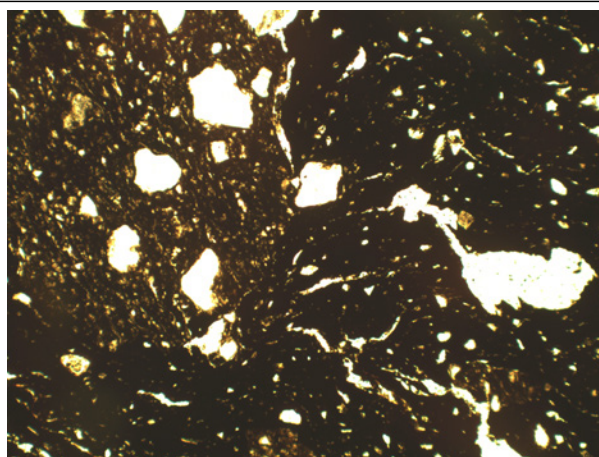
C – Highgate 2 XP (Early HWB)



D – Highgate 2 PPL (Early HWB)



E – Highgate 3 XP (Early HWB)

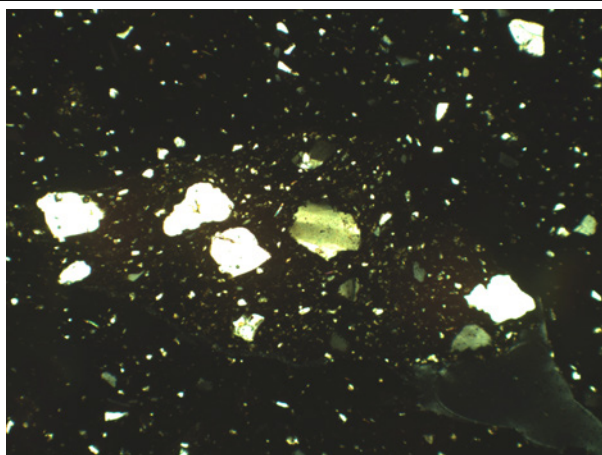


F – Highgate 3 PPL (Early HWB)

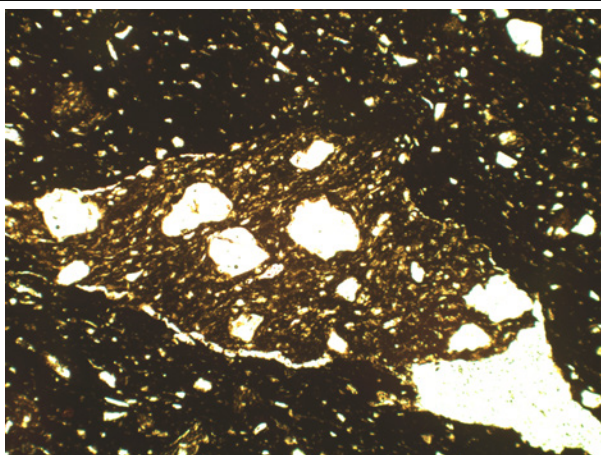
Fig. 180. Thin section photomicrographs Roman pottery samples from macroscopic fabric Early HWB analysed in this report.

Image width = 2.9mm. PPL = plane polarised light, XP = crossed polars.

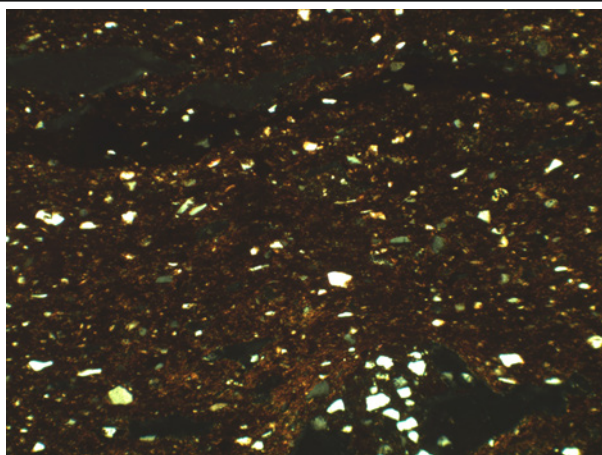




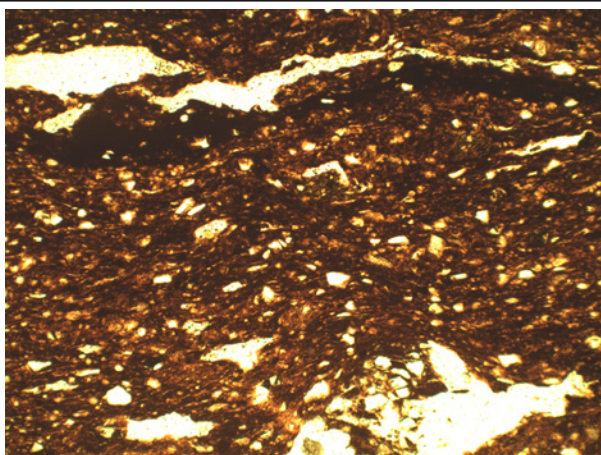
A – Highgate 4 XP (Early HWB)



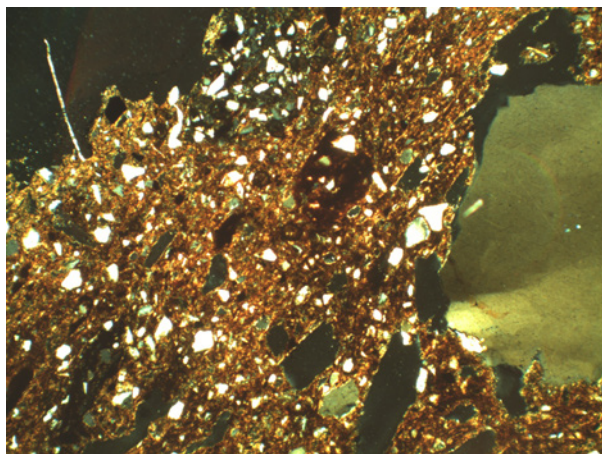
B – Highgate 4 PPL (Early HWB)



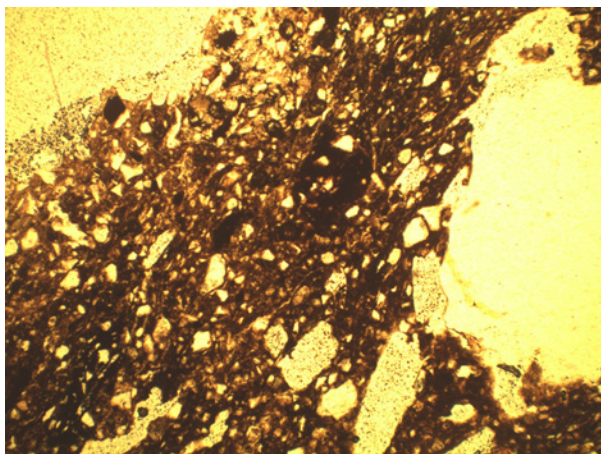
C – Highgate 5 XP (Early HWB)



D – Highgate 5 PPL (Early HWB)



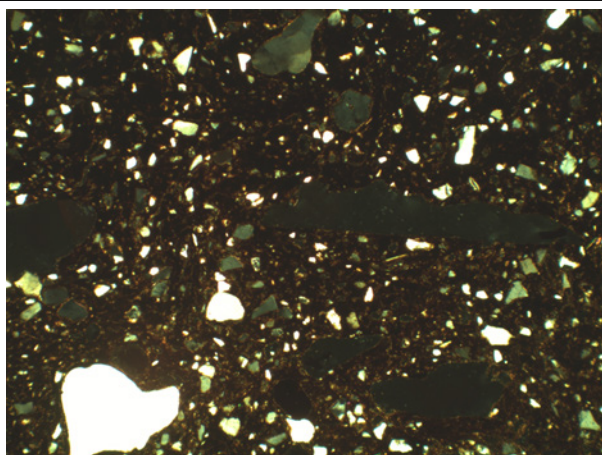
E – Highgate 24 XP (HWA)



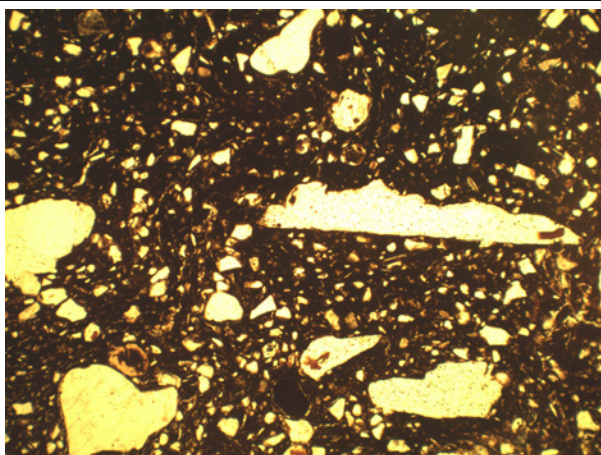
F – Highgate 24 PPL (HWA)

Fig. 181. Thin section photomicrographs Roman pottery samples from macroscopic fabric Early HWB and HWA analysed in this report  
Image width = 2.9mm. PPL = plane polarised light, XP = crossed polars.

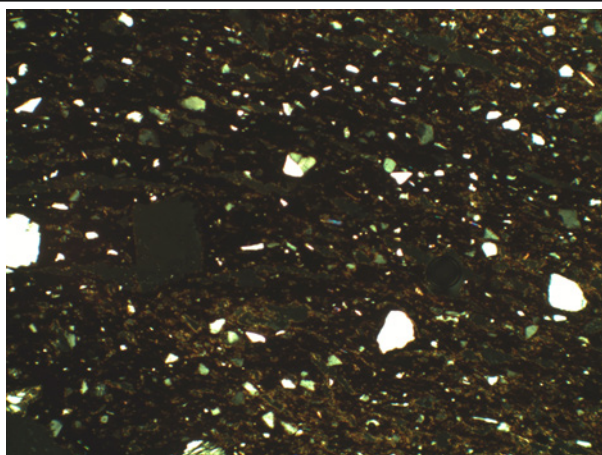




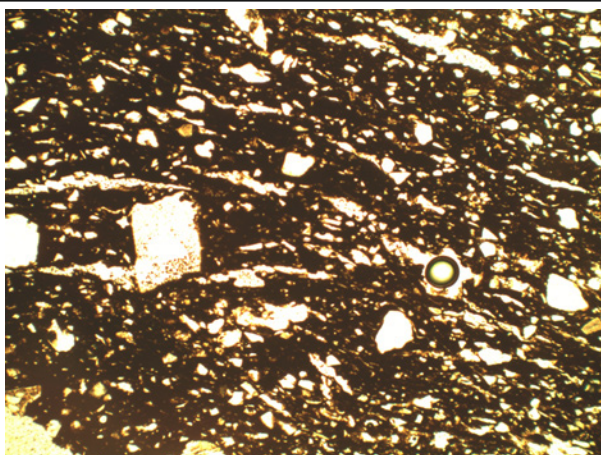
A – Highgate 25 XP (HWA)



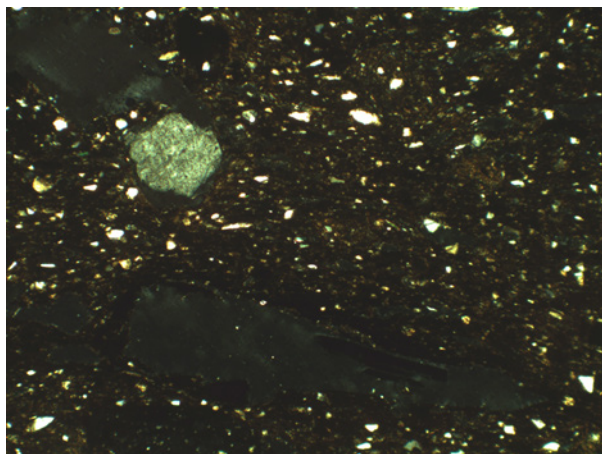
B – Highgate 25 PPL (HWA)



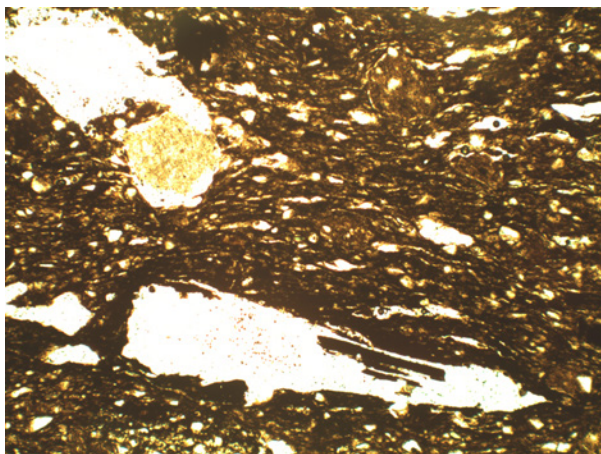
C – Highgate 26 XP (HWA)



D – Highgate 26 PPL (HWA)



E – Highgate 6 XP (HWB)

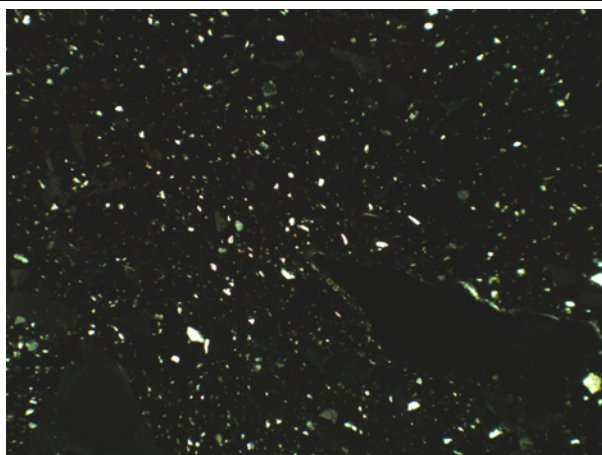


F – Highgate 6 PPL (HWB)

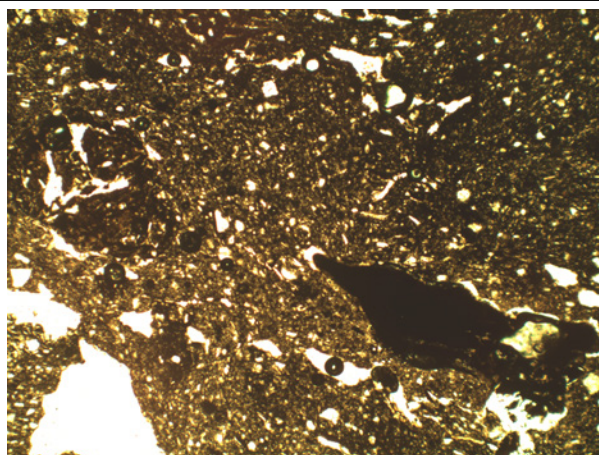
Fig. 182. Thin section photomicrographs Roman pottery samples from macroscopic fabric HWA and HWB analysed in this report

Image width = 2.9mm. PPL = plane polarised light, XP = crossed polars.

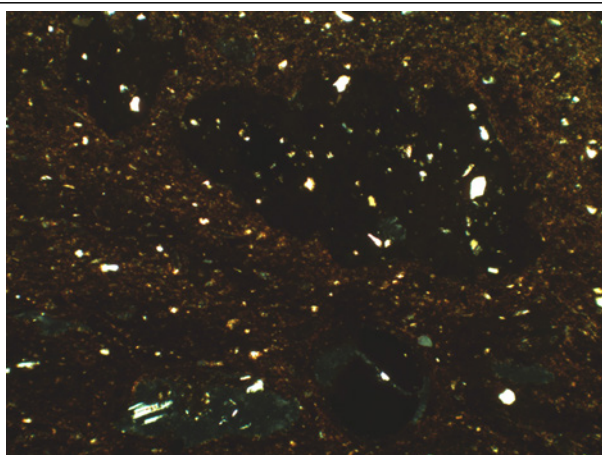




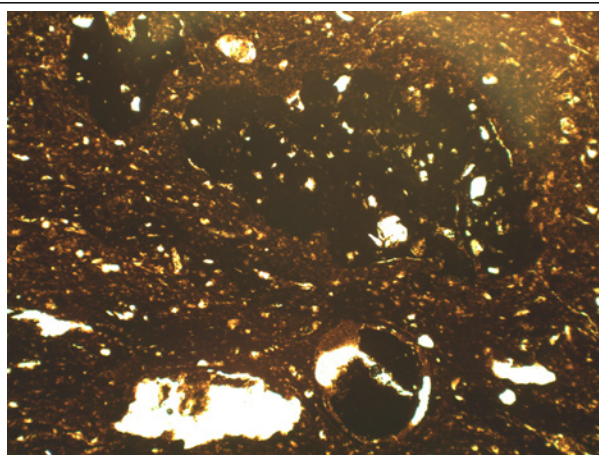
A – Highgate 7 XP (HWB)



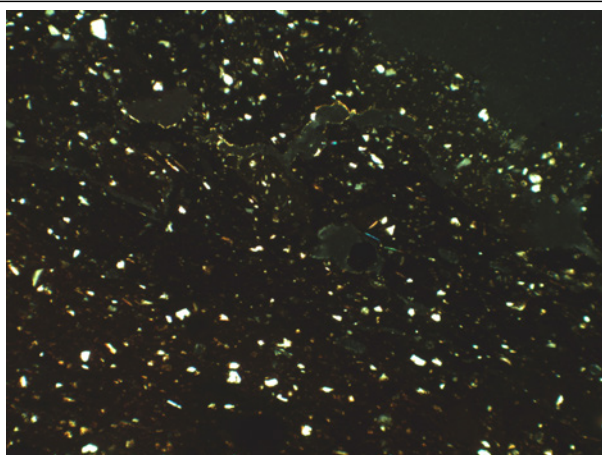
B – Highgate 7 PPL (HWB)



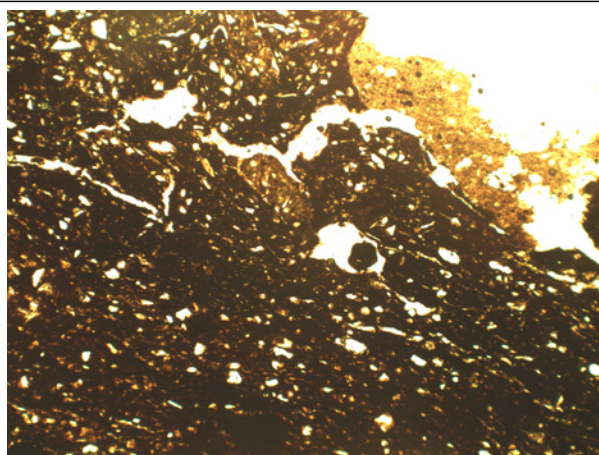
C – Highgate 8 XP (HWB)



D – Highgate 8 PPL (HWB)



E – Highgate 9 XP (HWB)

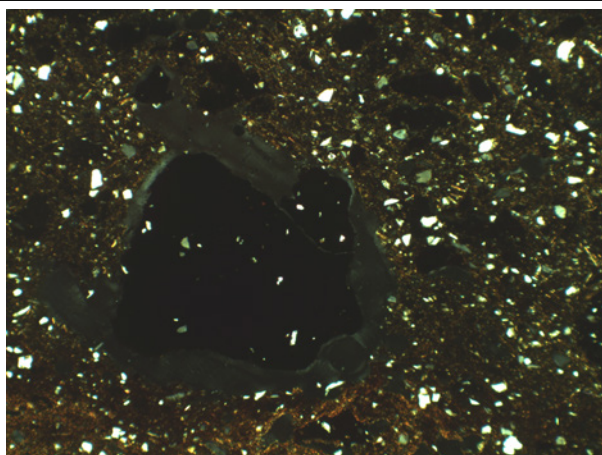


F – Highgate 9 PPL (HWB)

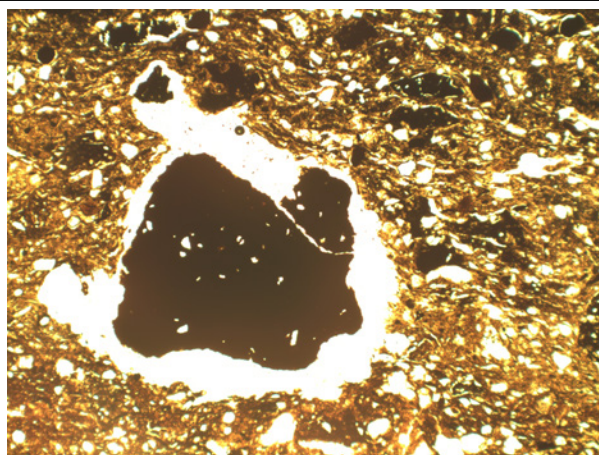
Fig. 183. Thin section photomicrographs Roman pottery samples from macroscopic fabric HWB analysed in this report

Image width = 2.9mm. PPL = plane polarised light, XP = crossed polars.

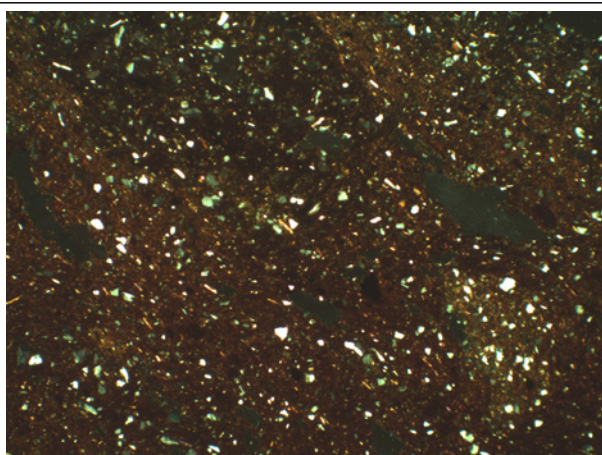




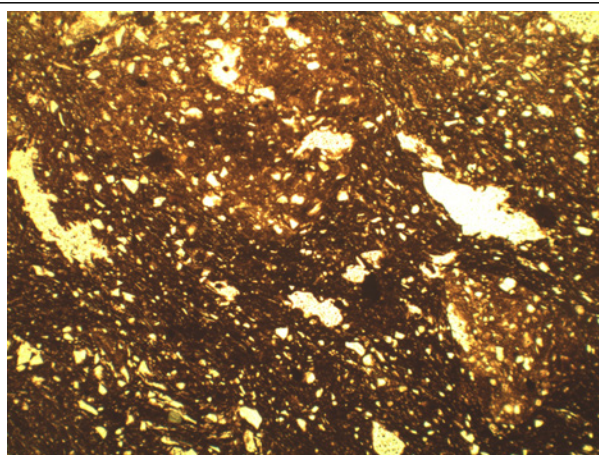
A – Highgate 10 XP (HWB)



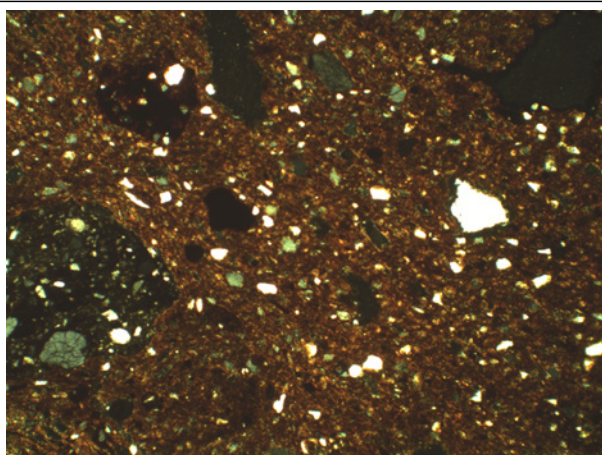
B – Highgate 10 PPL (HWB)



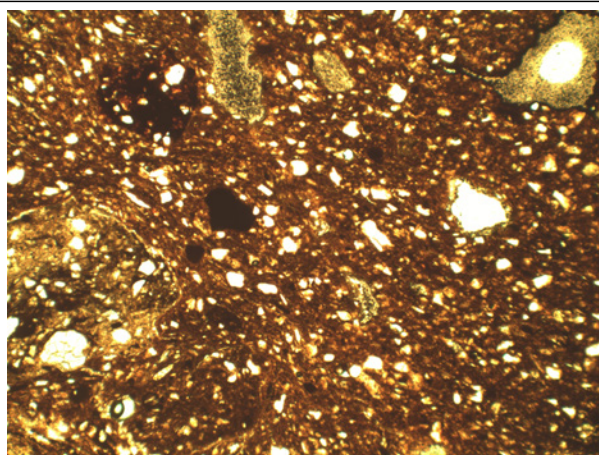
C – Highgate 27 XP (HWB)



D – Highgate 27 PPL (HWB)



E – Highgate 29 XP (HWB/C)

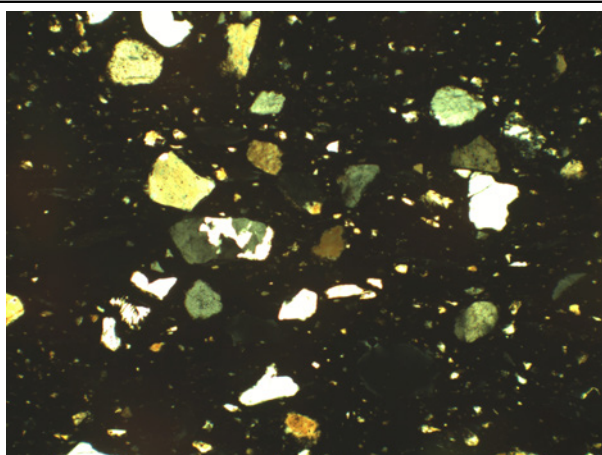


F – Highgate 29 PPL (HWB/C)

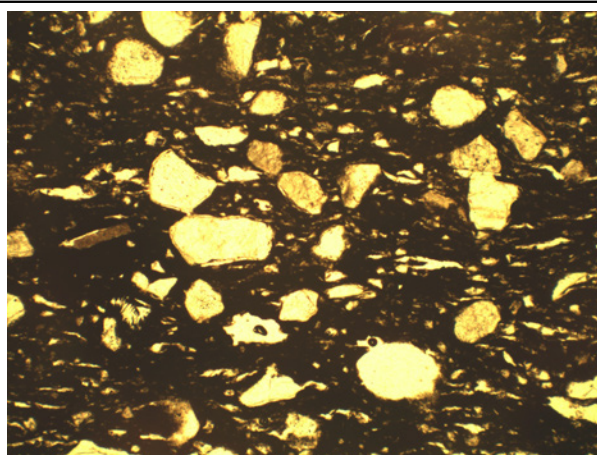
Fig. 184. Thin section photomicrographs Roman pottery samples from macroscopic fabric HWB and HWB/C analysed in this report

Image width = 2.9mm. PPL = plane polarised light, XP = crossed polars.

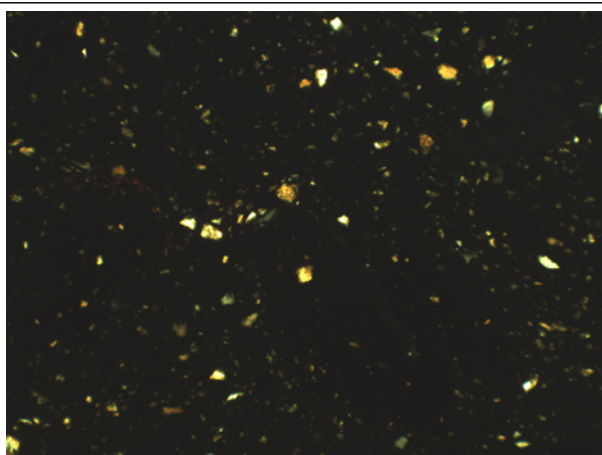




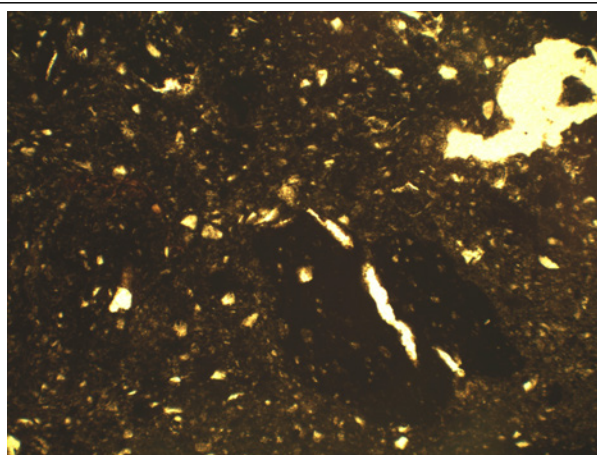
A – Highgate 30 XP (Early HWC)



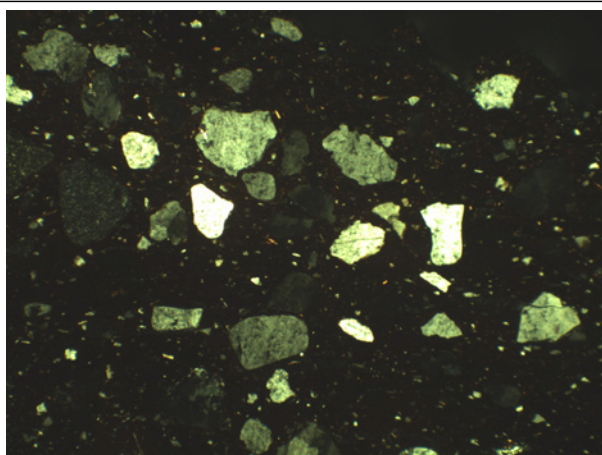
B – Highgate 30 PPL (Early HWC)



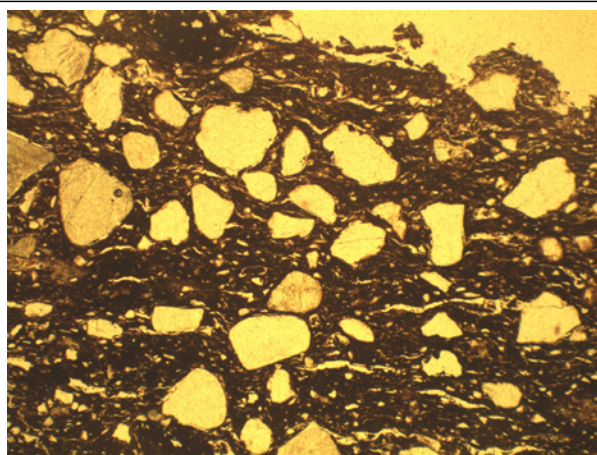
C – Highgate 31 XP (HWC/C)



D – Highgate 31 PPL (HWC/C)



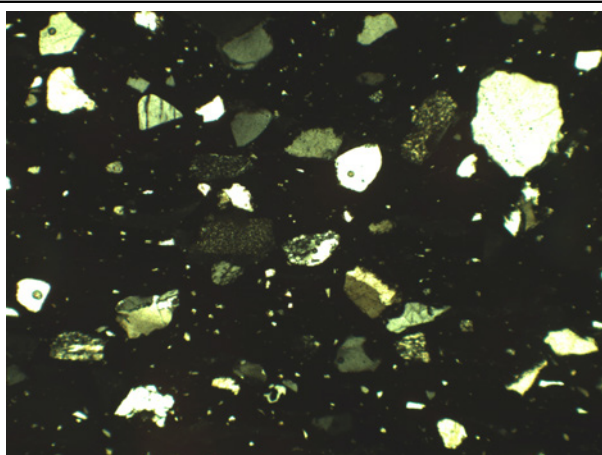
E – Highgate 32 XP (Early HWC)



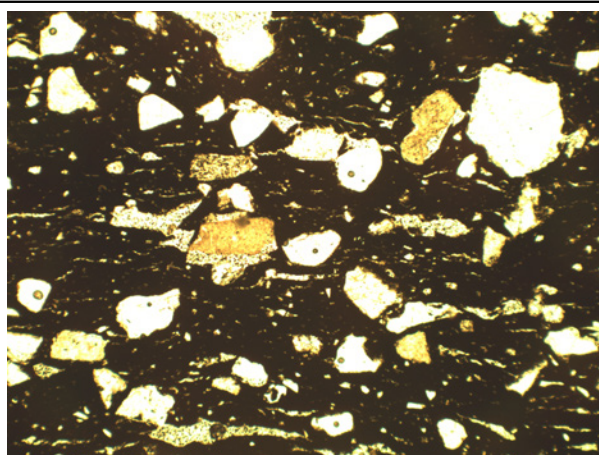
F – Highgate 32 PPL (Early HWC)

Fig. 185. Thin section photomicrographs Roman pottery samples from macroscopic fabric HWC/C and Early HWC analysed in this report  
Image width = 2.9mm. PPL = plane polarised light, XP = crossed polars.

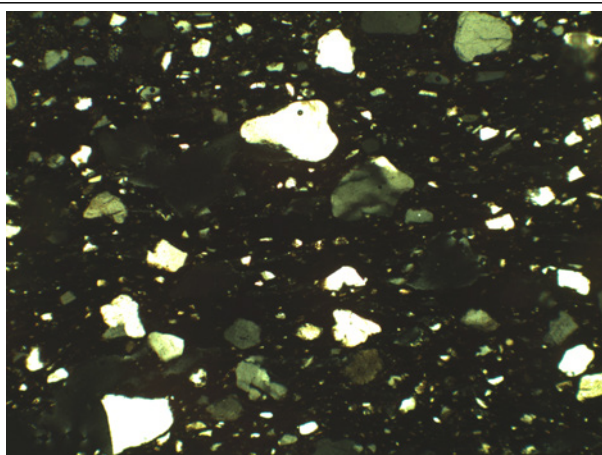




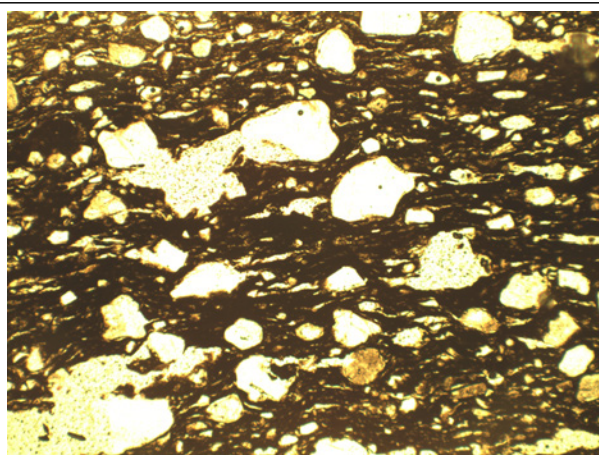
A – Highgate 11 (Early HWC)



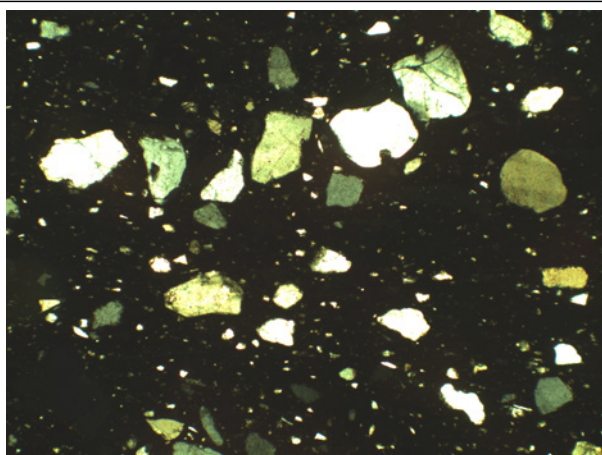
B – Highgate 11 PPL (Early HWC)



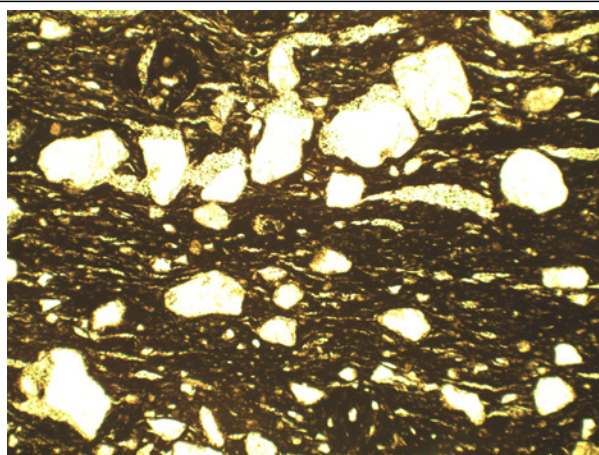
C – Highgate 13 XP (Early HWC)



D – Highgate 13 PPL (Early HWC)



E – Highgate 16 XP (Early HWC)

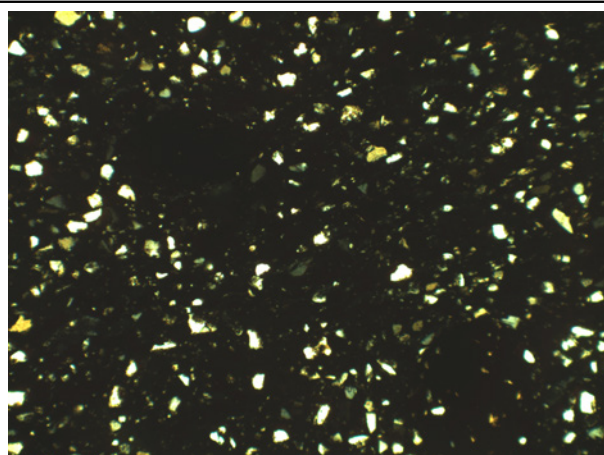


F – Highgate 16 PPL (Early HWC)

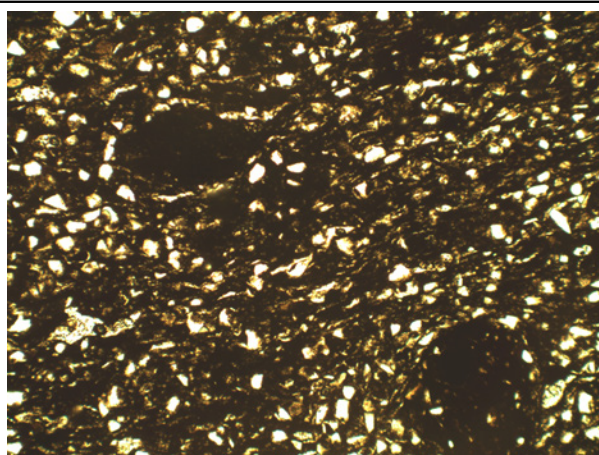
Fig. 186. Thin section photomicrographs Roman pottery samples from macroscopic fabric Early HWC analysed in this report

Image width = 2.9mm. PPL = plane polarised light, XP = crossed polars.

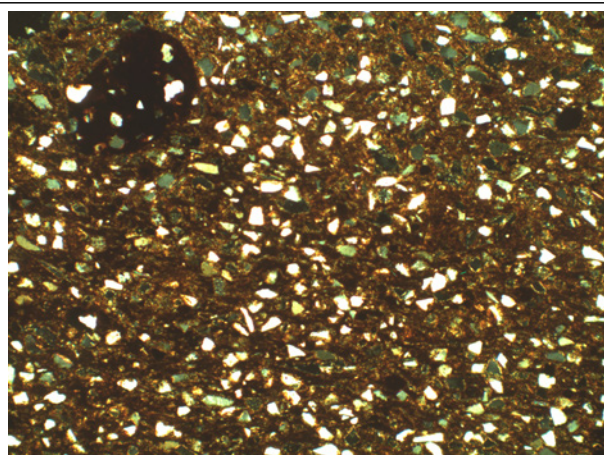




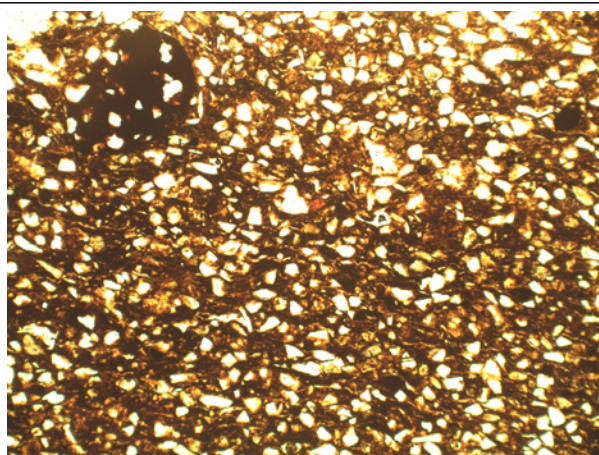
A – Highgate 12 XP (HWC)



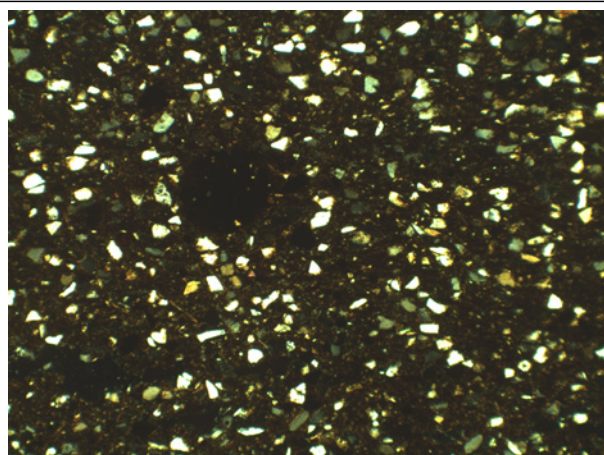
B – Highgate 12 PPL (HWC)



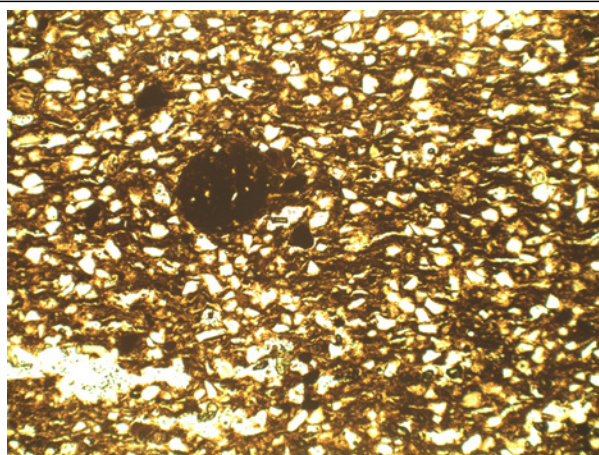
C – Highgate 14 XP (HWC)



D – Highgate 14 PPL (HWC)



E – Highgate 15 XP (HWC)

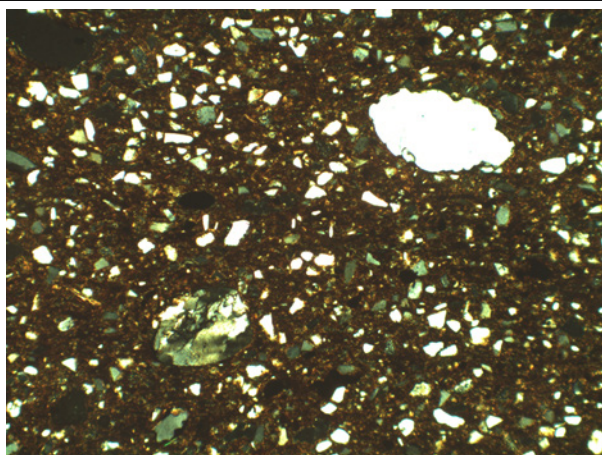


F – Highgate 15 PPL (HWC)

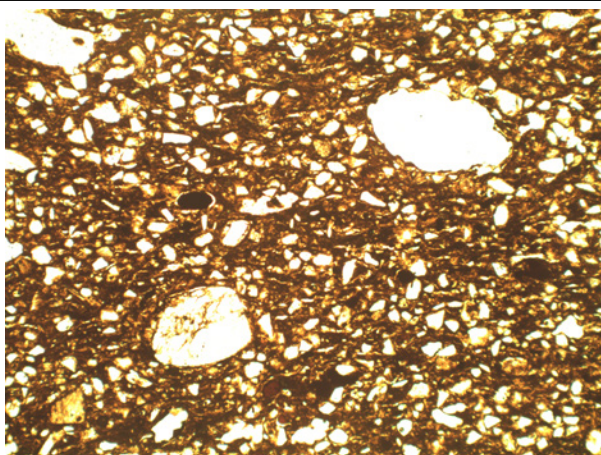
Fig. 187. Thin section photomicrographs Roman pottery samples from macroscopic fabric HWC analysed in this report

Image width = 2.9mm. PPL = plane polarised light, XP = crossed polars.

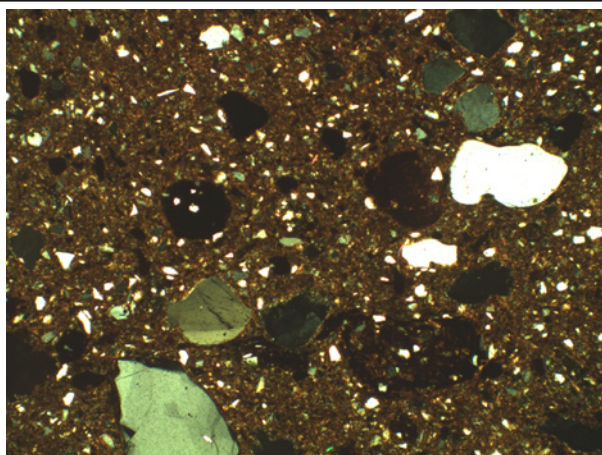




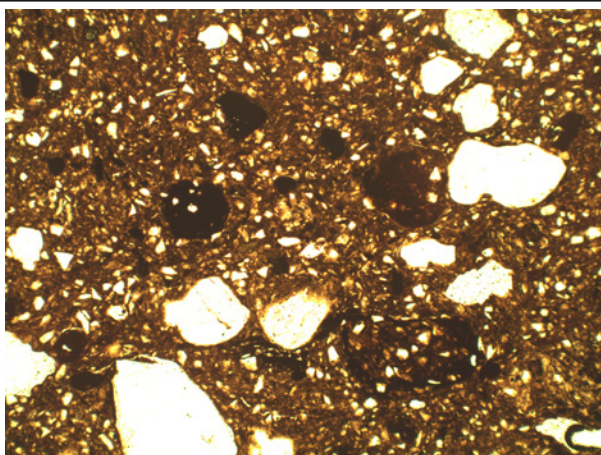
A – Highgate 17 XP (HWC)



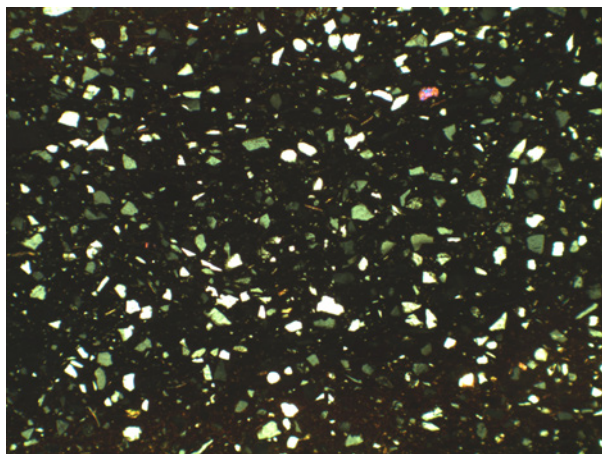
B – Highgate 17 PPL (HWC)



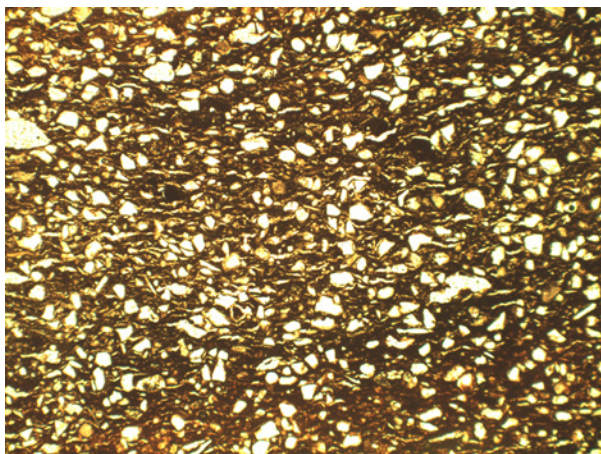
C – Highgate 18 XP (HWC)



D – Highgate 18 PPL (HWC)



E – Highgate 19 XP (HWC)

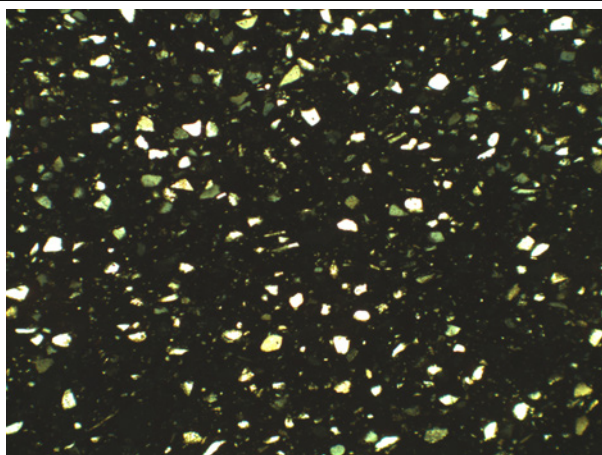


F – Highgate 19 PPL (HWC)

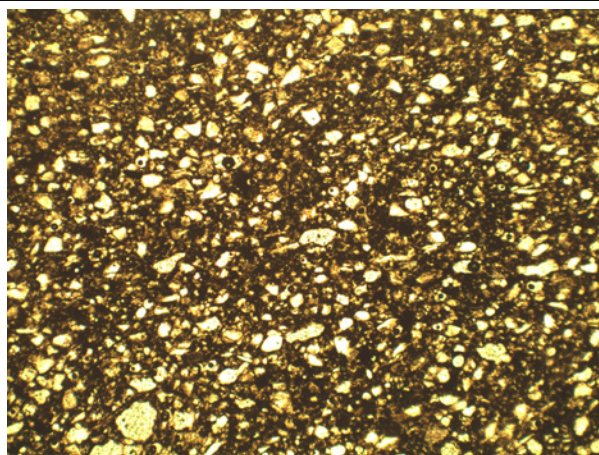
Fig. 188. Thin section photomicrographs Roman pottery samples from macroscopic fabric HWC analysed in this report

Image width = 2.9mm. PPL = plane polarised light, XP = crossed polars.

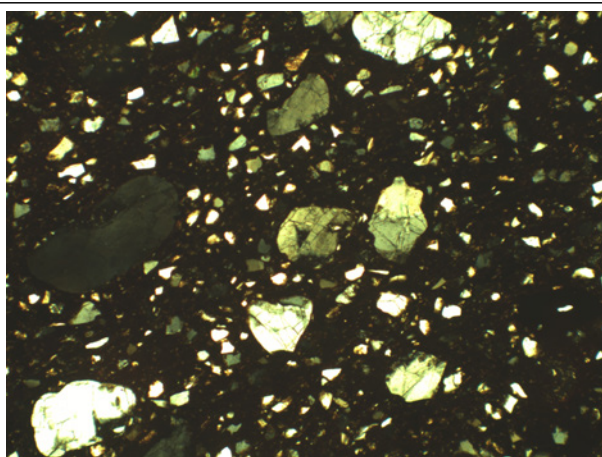




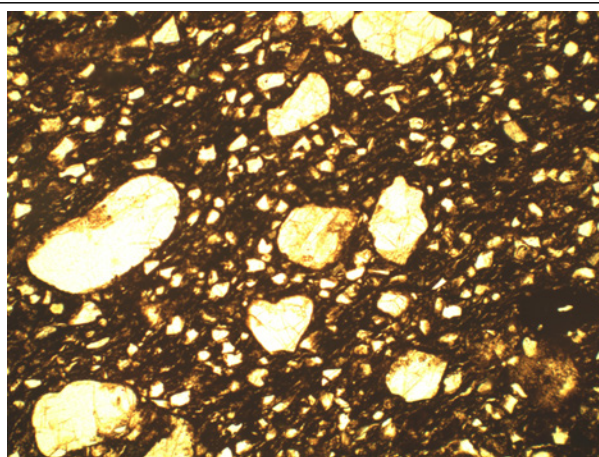
A – Highgate 20 XP (HWC)



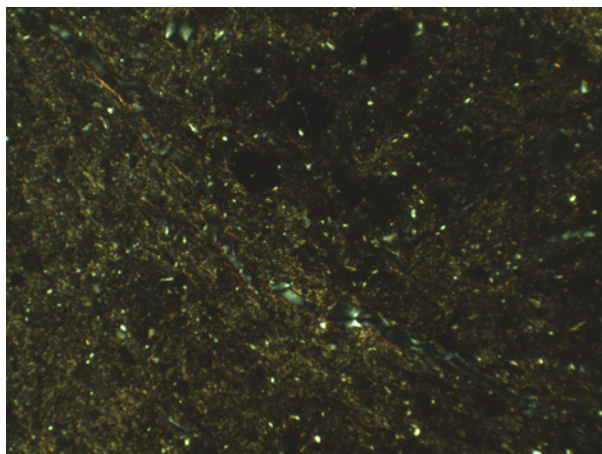
B – Highgate 20 PPL (HWC)



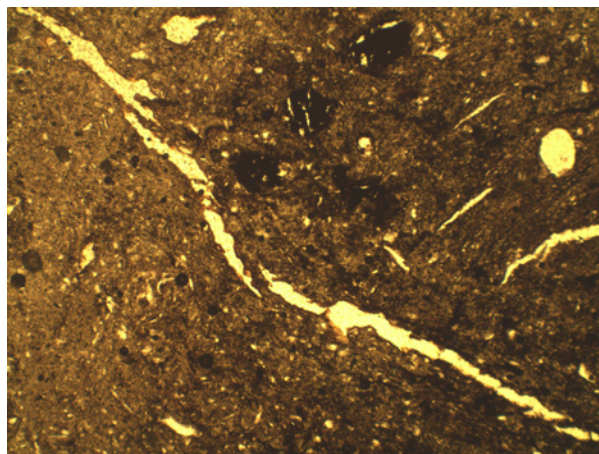
C – Highgate 33 XP (HWC+)



D – Highgate 33 PPL (HWC+)



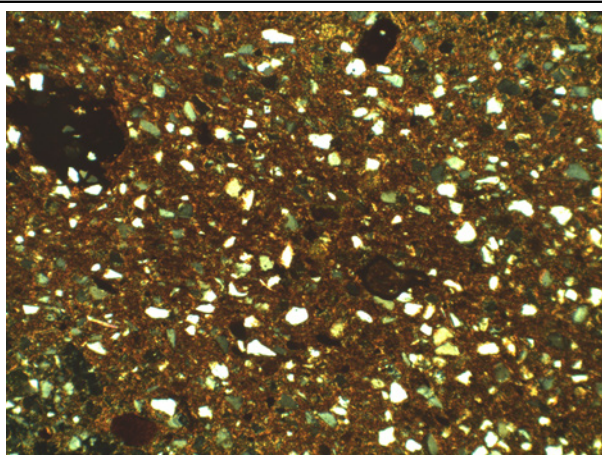
E – Highgate 34 XP (Clay ball)



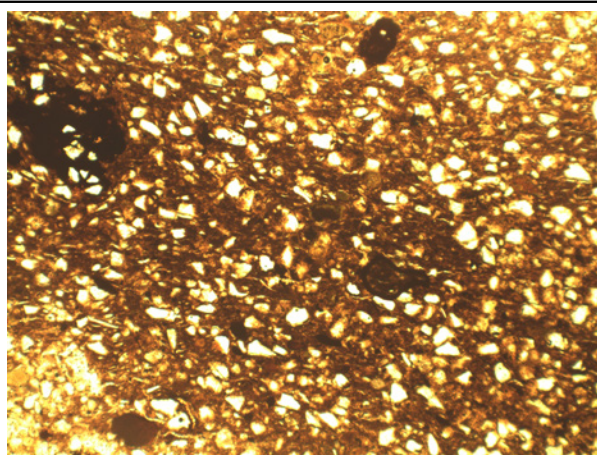
F – Highgate 34 PPL (Clay ball)

Fig. 189. Thin section photomicrographs Roman pottery samples from macroscopic fabric HWC and HWC+ analysed in this report as well as the clay ball sample  
Image width = 2.9mm. PPL = plane polarised light, XP = crossed polars.

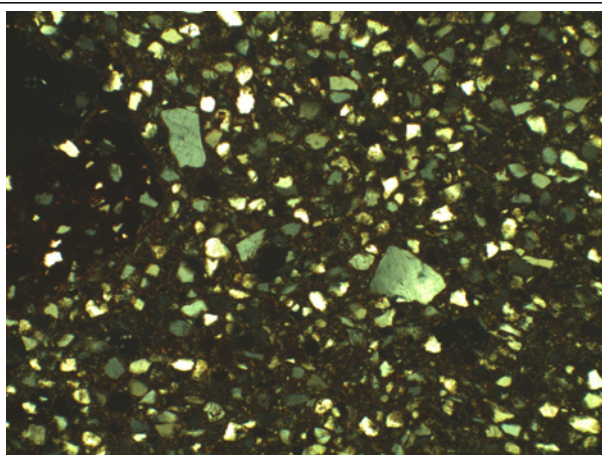




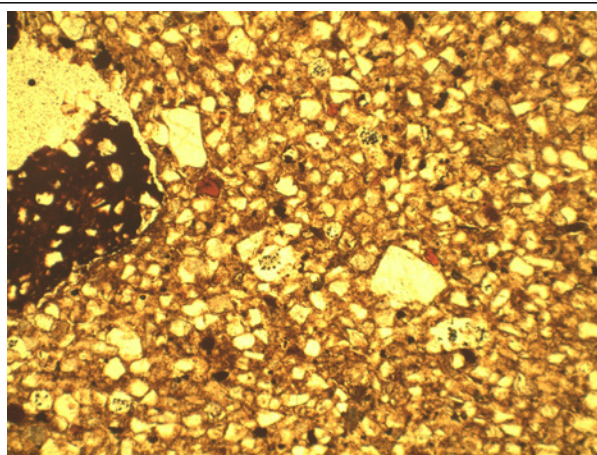
A – Highgate 21 XP (Experimental pot)



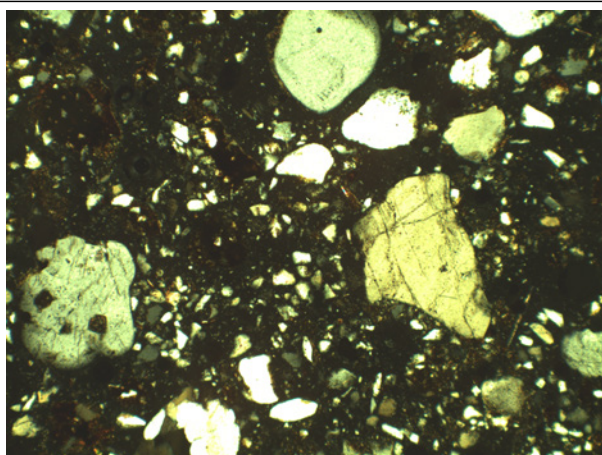
B – Highgate 21 PPL (Experimental pot)



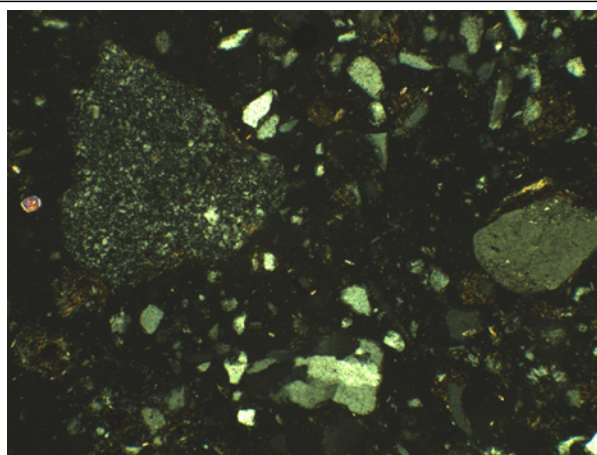
C – Highgate 35 XP (Local clay sample)



D – Highgate 35 PPL (Local clay sample)



E – Highgate 22 XP (Sand sample)



F – Highgate 22 XP (Sand sample)

Fig. 190. Thin section photomicrographs experimental pottery sample and local clay and sand samples collected from near Highgate Wood  
Image width A–E = 2.9mm, F = 1.45mm. PPL = plane polarised light, XP = crossed polars.

## 14. Chemical Characterization of Pottery by ICPS

M J HUGHES

### 14.1. Introduction

The aim of the present scientific investigation was to see whether chemical analysis using ICPS (inductively coupled plasma spectrometry) could confirm the division of the pottery into the fabric groups described. Six fabric groups were identified:

- A fabric (number of sherds analysed = 5)
- Early B fabric — vesicular wares — hard but brittle (n=8)
- B fabric: grog-tempered ware (includes fine silty quartz plus some white mica) (n=10)
- B/C fabric (n=6)
- Early C fabric: transitional grog-and-sand tempered ware (more sand than standard B); likely to be a mixed group (n=10)
- C fabric: grey sand-tempered wares (very fine textured) (n=10).

A single sample of clay recovered from the site was also analysed to see what relationship if any it bore to the pottery fabrics. It had been fired as part of a kiln experiment in 1973, and in this form was analogous to the physical form of the pottery being analysed.

Chemical analysis using inductively-coupled plasma atomic emission spectrometry (ICP-AES, or ICPS for short) of the fabric of pottery gives a chemical fingerprint and thus information on its source, reflecting the clay from which it was made. It is widely-available, rapid, produces accurate results on many elements and at relatively low cost per sample (the sample dissolution and instrumentation are described in Thompson and Walsh 1989 and Potts 1987). The atomic emission version analyses for all the major elements in ceramics (except silicon which can be estimated by difference if needed), plus a good cross-section of the trace elements including the transition metals and some rare earth elements. It differs from petrological methods in producing an overall composition of the whole fabric, mainly

that of the clay. This tends to complement petrology which describes the mineral inclusions within the clay. There do not appear to have been any similar chemical analysis studies of pottery of this period in the UK of multiple fabrics produced at the same site. As an example of recent ICPS projects on much later ceramics, the products of a number of delftware production centres in London were compared and shown to be distinguishable chemically (Hughes 2008).

### 14.2. ICPS Analysis (Inductively-Coupled Plasma Atomic Emission Spectrometry (ICP-AES))

Powdered samples were obtained from the pottery by drilling with 2 or 3mm diameter tungsten carbide drills fitted into a hand-held low voltage electric drill. In addition, the samples sent for ICPS analysis included a portion of a Certified Reference Material (NBS679 Brick Clay — produced by the US National Institute for Standards and Technology, Washington DC) in the analysis batch but without identification to the laboratory as such. This acted as an analysis quality control sample and the analysis results on it were entirely satisfactory. The weighed samples were placed in small individual Teflon (PTFE) beakers, treated with a mixture of hydrofluoric and perchloric acids and heated overnight on a hotplate to dissolve the ceramic. The acids were evaporated off and the residue dissolved in nitric acid and made to volume with ultra high quality water (Thompson and Walsh 1989, Potts 1987). All the ICPS results are given in full in Table 7, and the results are summarised in Table 8 as the average and standard deviation for each of the fabric groups.



### 14.3. Results of the ICPS chemical analyses

The body fabric of a ceramic can be considered (as thin section photomicrographs consistently show) as clay particles plus temper; the latter is commonly quartz or rock fragments. The clay particles consist of the so-called clay minerals, layered sheets of aluminosilicates; ceramic clay often consists of a mixture of such minerals, re-formed from the breakdown of igneous rocks during weathering. The mix of clay minerals contributes almost all the concentrations of the major and trace elements making up the analysis of the final clay except silica. Silica in the ceramic is derived however from both the clay minerals (in which it is the dominant element) and almost all tempers, with the exception of shell/limestone which contributes calcium instead. The most common temper, quartz, is almost pure silica and boosts the overall percentage of silicon in the analysis, but proportionately reduces the concentrations of all other elements, *ie* those on which multivariate statistics is based. Very often therefore the largest difference chemically between two fabrics is that the more highly tempered fabric has lower concentrations of all relevant elements. The task of multivariate statistics is to firstly identify whether there are temper percentage differences between fabrics, and then, after eliminating the contribution of the temper, to see if the underlying clay mineral chemistry differs between fabrics.

### 14.4. Interpretation of the ICP analyses using Principal Components Analysis and Discriminant Analysis

To interpret the analysis results, the computer-based multivariate statistical techniques of Principal Components Analysis (PCA) and Discriminant Analysis (DA) were used (Tabachnick and Fidell 2007); descriptions of their application to archaeology have been given elsewhere (see for example, Baxter 1994 and 2003; Manly 2005; Shennan 1997). Multivariate statistical methods simultaneously consider the concentrations of many elements in each sample and can show the relationship between the analyses of (in this case) different sherds of pottery. The program MINITAB version 16 was

used with the procedures 'PCA' and 'discriminant' (Ryan *et al* 2005). The discriminant procedure was supplemented with a 'Balanced Manova' calculation to generate the eigenvalues for the discriminating elements and subsequently plot the discriminant scores (following a procedure devised by Dr.N.Fieller, University of Sheffield). The Excel file containing the original analysis data was read into MINITAB and natural logarithms were taken of all elements before subjecting the data to multivariate statistics – taking logs is regularly used in such applications. Some of the analysed elements were omitted from the statistics, based on previous experience, including those which are volatile during pottery firing such as arsenic, cadmium and lead. Phosphorus was also omitted as it tends to be mobile in soil water post-burial. Interpreting the statistical plots produced in this project (Fig. 191–Fig. 194), each individual item analysed has been shown by a symbol for the fabric group to which it belongs. Such plots are effectively chemical 'maps' for the items analysed, and if the ceramics within a group are made of the same clay, they will plot in the same part of the figure.

#### 14.4.1. Discriminant Analysis on all the sherds

Discriminant analysis begins with the assumption that a set of objects – in this case the sherds – are known to belong to one or more (fabric) groups (Baxter, 1994, 185; Manly 2005, 105); *ie* it presumes that a model for the data exists. The question addressed by discriminant analysis is whether it is possible to separate two or more groups of individuals given measurements for them on several variables (characteristics) (Manly 2005, 100ff) – in this case the concentrations of the chemical elements measured by ICPS. The individuals have in the present case been divided into six fabric groups based on microscopic and petrographic features. The fabric groups were represented by relatively small numbers of samples, but nevertheless a discriminant analysis was attempted, interpreting the results cautiously. Linear discriminant analysis was used, using the members of the six fabrics as 'known' groups.

A first discriminant analysis was carried out, using almost all the elements from the ICPS analysis: aluminium, iron, magnesium, calcium, sodium, potassium, titanium, manganese, lithium, nickel,

scandium, vanadium, yttrium, zinc, chromium, cobalt, copper, rubidium, strontium, zirconium, and a selection of the rare earth elements: lanthanum, cerium, neodymium, samarium, europium, dysprosium and ytterbium. The clay sample was treated as an unknown to be classified by the discriminant analysis program to whichever was the most similar of the fabric groups. A high percentage of the sherds was correctly classified by the statistics program when the results were tested against the discriminating factors calculated by the program. This suggests that each fabric group has recognisably different chemical features from all other groups. The first three discriminant functions contained 95% of the discrimination (chemical differences) between fabrics (discriminant function 1: 67%; function 2: 18%; and function 3: 10%). A graphical representation of the relationship between groups is possible by plotting values of the discriminant functions for each item (Manly 2005, 108). Plots of these three functions therefore effectively summarises the chemical differences between fabrics.

Fig. 191 shows the first and second discriminant functions: fabric A is very well separated from all the rest of the fabrics, of which some are quite separate: early B and B are fairly close in clay chemistry, though distinct; early C and C are somewhat closer to each other but different from early B/B; and fabric B/C lies chemically somewhere between these two pairs of fabric groups. Discrimination between the fabrics occurs on both the first (horizontal) and second (vertical) axes of Fig. 191. That is, certain elements distinguish A from the rest (function 1), while the other fabrics are differentiated from each other by a combination of the second and small differences in the first components. The clay sample (RH40) falls within the range of fabric B sherds, although its chemical analysis shows that it has systematically lower concentrations of many elements compared to the average for B (Table 8). This suggests that the underlying clay mineral chemistry (after removing the effects of temper, which discriminant analysis does) is similar to B even though there appears to be more diluting temper within the clay than in B. The first discriminant function is strongly associated with the rare earth elements neodymium (positively) and dysprosium (negatively), and to a lesser degree positively with samarium and rubidium and negatively with lanthanum, europium, scandium, potassium and magnesium (in descending order of

significance to the inter-group chemical differences). The second discriminant function is associated positively with rubidium, chromium, dysprosium and strontium (descending order), and negatively with potassium, vanadium, samarium, zirconium and iron. The patterning is quite distinctive: the rare earth elements contribute strongly to the first discriminant function (which contains most of the inter-groups differences in analysis), and trace elements dominate the second function, with the exception of potassium (major element). The major contribution of the trace elements to the separation between groups rather than the major elements seems to be interpretable as arising from the sand temper part of each fabric containing minor minerals which are relatively rich in trace elements, and contributing to inter-fabric chemical differences. Only one sherd from all the groups, RH30 (fabric C: T130 F1 L1) was assigned by discriminant analysis as having a chemistry more typical of another group (early C).

To test whether the strong influence of the rare earth elements in this discriminant analysis had masked more subtle differences in the clay chemistry of the major elements, the discriminant analysis was repeated with a 'reduced elements' set. These included the major elements used in the first test, and the trace elements lithium, nickel, chromium and cerium. Those excluded were almost all the rare earth elements, cobalt, zirconium and some of the transition metals such as copper. A plot of the resulting first two discriminant functions is shown in Fig. 192. It has features generally similar to Fig. 191 but with less distinction between fabric groups. Fabric A remains distinctive, but with fewer chemical elements used, not only does the plot indicate more overlapping of the other fabric groups, the output from the statistical program shows a greater degree of 'misclassification' of sherds to fabric groups other than the one to which they were defined initially. The proportion correctly classified fell to an average of 75% of the groups; least distinctive was fabric B/C with only half the 6 sherds in this fabric correctly assigned to it, as Fig. 192 illustrates: the program assigned one sherd each to B (RH50), early C (RH52) and C (RH49). Likewise, A and early B each had one case assigned to B/C (RH46 and RH4 respectively). Three of early C (RH22, 23 and 29) were assigned to C and two of C (RH34 and 37) were assigned to early C and one (RH30) to B/C. The second discriminant analysis



did show recognisable, though less sharply-defined, chemical differences between the six groups.

#### 14.4.2. Principal Components Analysis

All the sherds plus the clay sample were subjected to a Principal Components Analysis using the same chemical elements as the first discriminant analysis. The objective in Principal Components is to take a set of variables on each object (in this case, the element concentrations on each sherd) and find a much smaller number of indices (components) which represent all the principal features of the analysis — *ie* it is a form of data-reduction (Manly 2005, 75–90). In practical terms, it summarises the ICPS results on each sherd by a small number of other numbers (principal components 1, 2, *etc*), and pairs of these components can be plotted to show the data visually.

The first principal component contained 57% of the variation in the set of analyses; the second 13%; and the third 8%. The first three components thus contained cumulatively 78% of the variation, indicating that they very effectively summarise the ICPS data on each ceramic. The principal component scores of the different components for each ceramic are a summary of the chemical analysis of its body fabric, and plots of all the individual principal component scores are effectively chemical analysis ‘maps’ showing the relationship between the ceramics based on their chemical analysis alone. The fabric group of each ceramic is not used in the statistical calculations (unlike discriminant analysis) but on plots such as Fig. 193, to show the analysis results, the fabric group of each ceramic is represented by a different symbol. Patterns of similar chemistry within a fabric group should emerge from such plots, with ceramics from the same fabric group plotting close together in the figure. In common with many previous ICP studies of groups of pottery, the first component, which with 57% of the chemical variation contains a high proportion of inter-ceramic variation in chemistry in this set of samples, is strongly associated with the concentrations of all the elements. The first component represents a ‘size’ measurement (by analogy): ceramics with higher concentrations of elements have high values of the first principal component. In practice, ceramics with high concentrations of all elements usually interpreted as a fabric with low concentrations of diluting temper, especially quartz.

The plot of the first two component scores in Fig. 193 shows that fabric B contains rather high concentrations of elements compared to other groups (it plots to the right side of Fig. 193, *ie* high scores on the first principal component) though they show overlap with some early B and B/C fabric sherds. Sherd RH24 (early C) has a different clay chemistry to the rest since it plots to the left of Fig. 193. Some general patterning of fabric groups is seen for other groups: fabric A plots at the top of Fig. 193 (*ie* the group has systematically high scores on the second principal component); most sherds of fabric C plot at the bottom of Fig. 193 in a diagonal line. Early C shows variation between individuals in the fabric group — this is confirmed as a mixed group, as originally thought.

The intermingling of sherds in different fabrics in Fig. 193 indicates a general chemical similarity between all the groups suggesting the use of similar clays for the different fabrics. The petrographic differences in fabric (different proportions and types of temper) tend to show up however as relatively small differences in between-fabric chemistry, since the clay minerals in the fabric (rather than, for example the quartz temper) contain almost all the percentages of elements apart from silicon in the overall chemistry of the ceramic. In this case it tends to confirm the use of relatively similarly-sourced clays for all fabrics, regardless of the inter-fabric mineralogical differences; *ie* the main differences are between the different tempers, whereas the underlying clay composition is very similar for all fabrics.

Fabric B it is suggested from analysis has lower percentages of temper compared to other fabrics. For this reason, it plots to the right of Fig. 193 (the ‘high element concentration’ end) — Table 8 shows it has the highest average concentrations of all the fabrics. It is a grog-tempered ware, and since grog is a fired clay, adding grog as a temper, especially if it was locally sourced, would not ‘dilute’ or reduce the clay proportion of the fabric, so it would tend to have high scores on the first component (unlike fabrics tempered with quartz). Thus the chemistry of fabric B is entirely consistent with its fabric description. This seems to be main explanation for the tendency for chemical differences between fabric B and other fabrics, which include sand-tempered wares. The tendency for a difference between fabric A and the rest of the fabrics is also shown in Fig. 193 (explained pre-

viously in the discriminant analysis section).

It can be instructive to consider plots of other pairs of principal component scores, and from previous experience, the next most useful pair (where the first few scores contain the majority of inter-ceramic differences in chemistry *eg* 78% for PC1–3 in the present case) are the second and third components, which are plotted in Fig. 194. The patterning by groups is to a degree ‘tidier’ in this Figure, in which the effects of different amounts of temper from sherd to sherd have been eliminated. Many of the fabric groups tend to spread along a series of diagonal lines across the Figure. In this plot, Fabric A shows more scatter from left to right than Fig. 193, but now there seems to be a consistent grouping of other fabrics, arranged in order across the plot: early B now groups together on the left of Fig. 193, next to it on the right is fabric B, then fabric B/C and finally on the lower right of Fig. 194 appears early C. The early C fabric shows a more consistent patterning than Fig. 193, with some exceptions (RH24 and 28). In summary, there appears to be grouping across the horizontal axis (the third principal component) of Fig. 194 in chronological order. The elements contributing to the third component are: higher concentrations of the rare earth elements coupled with lower concentrations of aluminium, iron, scandium, zinc, chromium and titanium. The second (vertical) component of Fig. 194 correlates with higher concentrations of manganese, zinc, copper, nickel and cobalt (these are all transition metals in the Periodic Table of chemical elements), coupled with lower concentrations of sodium, potassium and rubidium (*ie* three alkali metals), calcium, strontium and titanium. The elements contributing to the different components are geochemically consistent.

The view that the main differences between fabrics lie in the different proportions and types of temper is supported by the average analyses for each fabric group, shown in Table 8. Fabric A is distinguished from the rest with systematically lower percentages of the alkali elements potassium and rubidium, and strontium, and lowest levels of all fabrics of the rare earth element lanthanum. The pair of fabrics early B and B have systematically higher concentrations of many elements compared to early C and C: for example the percentage of aluminium (a major element in the aluminosilicate clay minerals) is higher in early B and B, which represents a higher propor-

tion of those minerals (*ie* less temper than early C and C). The general pattern for fabric B/C is that the concentrations of elements lie between these two pairs of fabrics. All this correlates well with the patterns shown in Fig. 191 and Fig. 194.

## 14.5. Discussion and Conclusions

The ICPS analyses show evidence of systematic differences between the clay chemistry of the six fabrics, such that they can be differentiated from each other by chemical analysis. Fabric A is however the most distinctive, while the remaining fabrics show associations: early B and B are fairly close chemically, as are early C and C, but the pairs show greater differences than within each pair. Fabric B/C falls intermediate in chemistry between them, and like early C are the least consistent fabric groups: some of its members show greater similarity to other fabrics than the main group. The chemical differences between fabrics were found to be greatest in some of the trace elements, including the rare earth elements. These latter elements can be found enriched in heavy minerals, which may in turn be associated with sand in the fabric. While it is not possible to be definitive, it is quite possible that the different percentages of quartz temper (differing in grain size as well as percentage) in the different fabrics carry with them heavy minerals whose distinctive chemistry in trace elements helps to differentiate the fabrics. It is not possible to say from chemical analysis whether some or all of the temper present in the various fabrics arose naturally or was deliberately added, but it seems that the temper is something of an index of underlying differences in clay chemistry between the various fabrics.

The chemical analysis ‘signatures’ identified for the fabrics by ICPS would allow sherds of pottery produced at the site but found elsewhere to be recognised from their analysis.

The sample of clay was assigned by discriminant analysis as being most similar to early B fabric; it is in any case generally consistent with the chemistry of the pottery fabrics.

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## Table and Figure captions

Abbreviations for Tables 7 and 8:

- Sample = lab number
- The results from Al<sub>2</sub>O<sub>3</sub> to MnO inclusive are given as the oxide, in weight percent; all the rest are given as the element, in parts per million.
- Elements: Al<sub>2</sub>O<sub>3</sub> aluminium; Fe<sub>2</sub>O<sub>3</sub> iron; MgO magnesium; CaO calcium; Na<sub>2</sub>O sodium; K<sub>2</sub>O potassium; TiO<sub>2</sub> titanium; P<sub>2</sub>O<sub>5</sub> phosphorus; MnO manganese; Ba barium; Co cobalt; Cr chromium; Cu copper; Li lithium; Rb rubidium; Ni nickel; Sc scandium; Sr strontium; V

vanadium; Y yttrium; Zn zinc; Zr zirconium; Cd cadmium; Pb lead;

- Rare earth elements: La lanthanum; Ce cerium; Nd neodymium; Sm samarium; Eu europium; Dy dysprosium; Yb ytterbium;

Fig. 191. Discriminant analysis of the ICPS data on the six fabrics using most of the chemical elements. The horizontal axis plots the first discriminant function (containing 67% of the difference between groups), and the vertical the second function (a further 18%).

Fig. 192. Discriminant analysis using a 'reduced elements' set (*ie* most of the major elements plus a small selection of the trace elements only). The separation between fabric A and the rest of the fabrics is less marked than using the full set of elements (*cf* Fig. 191).

Fig. 193. A plot of the first two principal components arising from ICPS analyses on all the ceramics analysed in the project. The first principal component (containing 57% of the variation in all samples) had pottery richer in all the elements towards the right of the Figure. Principal component two (13% of the variation) had pottery which was richer in the elements copper, manganese, nickel, ytterbium, zinc and cobalt (descending order of significance) but lower amounts of sodium, potassium, rubidium, strontium, calcium, titanium, lithium, chromium and lanthanum towards the top of the Figure.

Fig. 194. A plot of the second and third principal components arising from the same principal components analysis as Fig. 193. The 'dilution' effect (*ie* the different percentages of temper in the fabric) has been removed and the plot indicates underlying differences between the fabrics in the clay chemistry itself. The third (horizontal) component is associated with higher amounts of all the rare earth elements (samarium, europium, neodymium, dysprosium, lanthanum, cerium and ytterbium), and strontium (in descending order of significance) and lower amounts of iron, titanium, zirconium, copper, vanadium, chromium, aluminium, scandium, zinc and manganese towards the right of the Figure.

Sample	Fabric	Reg No.	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	MnO	Li	Ni	Sc	V	Y	Zn	Cr	Co	Cu	As	Rb	Sr	Zr	Cd	Ba	Pb	La	Ce	Nd	Sm	Eu	Dy	Yb
RH42	A	T82 F1A no.26	14.5	5.7	1.8	0.3	0.2	2.5	0.81	0.19	0.36	55.4	50.3	17.2	155.1	24.4	149.5	148.4	70.6	55.7	11.7	90.5	49.1	238.1	0.37	370.3	19.1	30.1	77.4	32.7	6.5	1.38	4.2	2.7
RH43	A	P2 F4 no.24	14.2	8.2	1.4	0.3	0.4	2.4	0.84	0.60	0.07	50.2	86.6	16.7	149.2	21.2	136.9	130.4	23.8	36.2	17.7	87.0	52.4	251.1	0.24	347.5	19.8	27.4	71.3	27.0	4.9	1.02	3.5	2.4
RH44	A	TP2 F4	12.3	7.7	0.6	0.2	0.3	1.9	0.80	0.44	0.05	32.4	48.9	14.9	143.6	21.7	68.0	148.1	15.4	30.0	19.0	60.9	39.6	198.6	0.19	296.2	20.1	29.2	67.9	33.2	6.6	1.32	4.2	2.5
RH45	A	TP2 F4	12.3	7.7	0.6	0.2	0.3	2.0	0.85	0.56	0.04	34.1	49.3	15.6	155.3	19.2	63.0	167.3	12.3	36.0	20.1	64.2	41.9	214.1	0.20	310.4	17.4	28.3	61.4	29.6	5.8	1.13	3.7	2.3
RH46	A	V F8 no.25	14.1	7.0	1.3	0.3	0.4	2.3	0.77	0.23	0.02	53.4	54.3	14.7	134.4	28.4	125.7	127.0	17.6	22.3	14.2	81.5	52.7	202.9	0.22	350.8	17.5	35.0	84.3	39.4	7.7	1.61	5.2	3.1
RH2	early B	box 188 TP	15.0	9.0	1.9	0.7	0.3	3.1	1.08	1.03	0.04	44.1	71.3	19.0	184.8	26.2	120.0	192.4	23.4	26.1	21.0	101.7	75.9	243.7	0.33	414.7	79.0	49.6	93.6	44.5	7.9	1.57	4.8	2.7
RH3	early B	box 188 TP	18.8	9.0	2.4	0.4	0.3	3.2	1.10	0.13	0.13	82.4	73.2	19.4	219.9	31.6	120.7	176.6	38.8	20.4	12.8	122.2	87.6	217.6	0.11	371.6	31.6	48.8	108.0	45.6	8.3	1.76	5.2	2.7
RH4	early B	box 188 TP	14.3	8.2	1.2	0.3	0.4	3.1	0.96	0.50	0.05	50.3	48.1	17.6	184.8	19.5	84.8	153.2	16.9	23.7	20.6	100.5	57.7	229.5	0.16	371.5	34.0	37.3	70.0	33.7	6.0	1.25	3.7	2.2
RH5	early B	box 188 TP	16.6	8.9	1.9	0.3	0.3	3.1	1.07	0.72	0.04	52.1	69.4	18.4	178.9	22.4	112.0	139.6	21.1	35.7	15.0	109.7	55.2	254.1	0.19	339.8	26.6	37.8	75.6	35.0	6.5	1.30	4.1	2.5
RH6	early B	box 188 TP1	15.8	8.7	1.4	0.3	0.3	3.1	1.05	0.42	0.02	51.9	44.5	18.0	202.8	18.9	89.0	169.7	17.9	22.7	21.7	108.8	65.5	248.5	0.17	370.7	29.0	38.5	73.0	34.0	6.1	1.21	3.9	3.7
RH7	early B	box 188 TP	15.7	8.1	1.2	0.3	0.3	2.9	0.97	0.46	0.03	49.0	46.7	17.8	179.8	18.4	91.2	150.3	15.5	20.7	21.7	101.8	60.3	222.1	0.18	354.7	22.8	36.0	71.9	31.9	5.6	1.14	3.3	2.2
RH8	early B	box 188 TP1	16.9	9.1	1.7	0.3	0.3	3.0	1.05	0.29	0.04	46.0	47.0	18.7	214.4	19.6	106.9	161.6	16.9	29.7	17.1	109.4	71.3	233.9	0.25	348.6	25.1	36.7	73.2	33.1	6.0	1.19	3.5	2.2
RH9	early B	box 117 T67 F1	14.9	6.5	1.2	0.9	0.5	2.1	0.76	0.54	0.03	40.9	36.4	13.3	149.6	15.4	78.4	114.5	14.1	14.2	14.4	71.3	66.4	141.3	0.20	257.0	20.8	27.2	54.9	24.9	4.5	0.92	2.7	1.5
RH10	B	TU F1 L2	20.4	9.0	3.1	0.5	0.3	3.7	1.09	0.34	0.05	98.5	78.3	23.0	233.8	43.8	121.0	159.6	48.4	29.5	12.2	149.5	103.6	240.6	0.25	426.7	25.3	59.8	152.9	57.0	10.5	2.24	7.1	4.0
RH11	B	TU F1 L2	18.1	8.6	2.5	0.5	0.3	3.0	0.76	0.63	0.05	61.0	87.7	21.1	211.3	42.5	139.8	154.6	27.5	34.4	38.2	111.9	111.7	257.9	0.63	726.0	25.9	52.0	111.5	50.6	9.5	2.10	6.8	3.9
RH12	B	box 190 TU F1 L2	18.2	8.5	2.3	0.5	0.3	3.4	1.07	1.07	0.04	67.8	63.5	21.0	203.7	35.0	105.3	154.8	19.8	29.4	19.5	128.4	99.7	254.5	0.45	512.3	43.4	49.3	98.7	47.5	8.9	1.94	6.1	3.6
RH13	B	box 185 T85 F1	20.5	9.1	2.3	0.6	0.3	3.7	1.07	0.62	0.03	102.9	51.9	22.0	214.1	23.9	120.1	150.5	18.4	25.6	13.5	143.3	106.5	250.6	0.16	432.0	22.3	41.5	78.6	36.7	6.7	1.40	4.3	2.6
RH14	B	box 176 TA F2 L7	20.7	8.9	3.1	0.6	0.3	3.8	1.13	0.50	0.06	80.4	82.1	22.2	228.3	39.9	122.1	160.8	40.7	29.9	9.4	143.0	101.8	234.2	0.12	451.1	23.0	56.6	110.0	53.6	10.0	2.14	6.7	3.6
RH15	B	box 121 T70 F1 E kiln6	16.1	8.0	2.0	0.3	0.3	3.1	0.84	0.20	0.03	41.8	66.6	18.6	189.7	29.6	121.1	150.8	17.3	32.9	22.2	102.0	78.4	238.8	0.55	556.2	22.7	41.5	81.8	41.7	7.9	1.72	5.5	3.5
RH16	B	box 121 T70 F1 E kiln6	18.3	8.5	2.8	0.5	0.4	3.6	1.10	0.25	0.05	91.4	63.3	19.8	196.0	28.6	115.2	160.3	25.3	24.9	9.9	132.4	91.7	208.1	0.09	390.6	21.5	45.1	86.7	42.8	7.8	1.60	5.0	2.6
RH17	B	box 121 T70 F1 E kiln6	17.4	8.6	2.5	0.6	0.4	3.5	1.08	0.88	0.05	76.0	66.8	20.3	203.9	32.1	121.2	160.4	21.9	27.3	10.0	124.2	93.2	241.0	0.20	428.0	44.9	48.1	92.4	45.3	8.5	1.73	5.7	3.2
RH18	B	box 135 T70 F1 L2	13.1	5.7	1.4	0.2	0.2	2.4	0.82	1.45	0.02	31.2	35.0	16.6	149.6	21.1	97.3	114.1	13.8	26.5	16.9	76.4	65.5	217.3	0.47	466.0	18.5	32.1	58.0	27.5	5.0	1.08	3.4	2.2
RH19	B	box 194 TV F1 L1	18.4	8.7	2.6	0.2	0.2	2.9	0.99	1.01	0.03	57.7	80.8	21.2	207.1	22.5	143.2	155.4	18.8	39.3	24.4	111.3	45.5	271.2	0.20	335.7	22.8	31.9	72.8	30.3	5.6	1.15	3.8	2.6
RH47	B/C	TV F1 L2	13.8	6.8	1.4	0.2	0.2	2.3	0.78	1.51	0.04	44.2	49.9	16.1	163.0	23.7	109.9	122.8	11.6	24.5	15.6	83.7	69.5	191.4	0.47	486.4	27.7	34.5	64.7	33.9	6.2	1.36	4.1	2.5
RH48	B/C	TV F1 L2	13.7	7.1	1.3	0.1	0.2	2.3	0.76	0.88	0.04	34.1	59.8	15.1	143.4	18.5	89.1	106.8	15.0	26.2	15.1	75.3	61.4	186.1	0.19	331.5	17.4	26.2	58.1	27.0	5.2	1.10	3.4	2.1
RH49	B/C	TV F1 L2	15.4	7.2	1.6	0.3	0.3	2.7	0.86	0.52	0.03	67.1	38.4	17.0	166.8	21.0	80.3	133.2	14.7	21.6	12.0	115.4	82.5	228.1	0.21	378.7	18.2	34.9	66.0	32.3	5.9	1.22	3.7	2.2
RH50	B/C	TV F1 L2	17.3	8.3	1.7	0.4	0.3	3.1	0.95	1.11	0.02	55.4	64.3	19.1	189.3	36.3	102.3	156.7	19.5	24.9	30.2	119.0	92.8	234.1	0.26	485.6	20.4	45.7	94.9	47.4	9.7	1.92	6.0	3.3
RH51	B/C	TW F1 L2	18.4	9.0	2.5	0.5	0.4	3.5	1.03	0.28	0.07	91.8	72.3	21.9	214.0	36.9	114.9	162.2	42.0	26.9	13.6	142.2	102.6	237.6	0.13	411.7	23.4	51.2	142.6	51.3	9.7	2.08	6.4	3.5
RH52	B/C	TW F1 L2	12.8	6.8	1.2	0.2	0.3	2.4	0.8	0.4	0.0	45.9	41.5	14.5	147.1	17.4	78.2	120.0	13.8	18.8	12.9	82.3	58.0	171.6	0.1	321.9	17.9	30.3	58.4	27.9	5.1	1.0	3.0	1.8
RH20	early C	box 190 TV F1 L3	12.2	6.2	1.0	0.2	0.4	2.7	0.80	0.71	0.01	29.6	36.7	13.7	152.1	15.5	58.9	132.1	13.4	17.7	18.3	85.1	64.9	165.2	0.18	434.1	19.3	30.4	59.6	25.9	4.6	0.91	2.8	1.7
RH21	early C	box 186 TT F1 L1	13.2	6.7	1.4	0.2	0.2	2.3	0.85	1.33	0.02	36.6	55.5	16.3	170.5	22.8	74.4	142.8	17.2	21.3	15.6	78.5	48.2	218.4	0.30	375.5	19.0	41.6	80.9	36.0	6.3	1.28	4.1	2.5
RH22	early C	TA F2 L3	15.9	7.2	2.0	0.5	0.4	3.5	0.95	0.25	0.03	66.7	53.4	17.5	170.7	30.1	94.9	150.8	16.6	20.5	10.8	122.6	91.8	185.5	0.08	432.2	19.7	44.2	82.0	42.3	7.8	1.63	5.1	2.8
RH23	early C	box 178 TA F2 L5	13.8	7.5	1.6	0.3	0.3	3.2	0.90	0.13	0.02	53.1	37.9	15.2	150.5	18.0	83.6	150.9	13.7	13.6	12.4	100.8	71.8	161.6	0.07	389.6	17.0	34.3	64.8	30.6	5.5	1.07	3.0	1.8
RH24	early C	box 194 TV F1 L2	12.2	6.4	1.2	0.1	0.2	2.0	0.70	0.90	0.02	32.3	33.6	14.5	143.3	12.4	90.3	114.2	10.6	25.9	21.9	73.7	37.8	194.1	0.18	341.4	17.5	19.1	37.1	18.1	3.4	0.72	2.2	1.7
RH25	early C	box 194 TV F1 L2	13.7	6.6	2.0	0.3	0.2	2.5	0.79	0.22	0.02	54.0	55.5	15.6	158.8	26.6	86.1	127.0	16.8	17.1	12.4	99.1	65.9	170.8	0.11	298.1	17.2	37.6	69.5	36.4	6.8	1.46	4.4	2.4
RH26	early C	box 195 TV F1 L2	14.9	7.1	1.8	0.4	0.3	2.7	0.75	1.92	0.03	49.5	66.6	17.7	181.0	33.2	129.6	152.2	16.5	27.5	23.8	97.8	90.8	230.1	0.50	581.3	26.2	43.6	86.3	44.4	8.5	1.82	6.0	3.4
RH27	early C	box 195 TV F1 L2	15.0	6.7	1.6	0.3	0.3	2.7	0.84	0.54	0.02	64.7	43.4	17.2	167.7	23.7	83.2	128.4	17.9	22.2	14.2	107.8	77.9	200.0	0.21	392.6	26.3	35.2	67.4	34.0	6.3	1.32	4.2	2.6
RH28	early C	box 194 TV F1 L2	14.5	6.8	2.1	0.1	0.2	2.4	0.82	0.27	0.02	43.9	68.3	16.1	169.0	16.3	123.5	123.1	21.6	27.4	12.2	84.1	40.0	204.8	0.13	325.6	16.5	22.3	48.0	23.0	4.3	0.91	2.8	2.0
RH29	early C	T24 L2																																

Sample	Fabric	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	MnO	Li	Ni	Sc	V	Y	Zn	Cr	Co	Cu	As	Rb	Sr	Zr	Cd	Ba	Pb	La	Ce	Nd	Sm	Eu	Dy	Yb
mean	A	13.5	7.26	1.16	0.25	0.32	2.20	0.82	0.40	0.109	45.1	57.9	15.8	148	23.0	109	143	27.9	36.1	16.5	76.8	47.2	221	0.24	336	19	30.0	72.5	32.4	6.29	1.29	4.15	2.62
s.d.		1.1	0.95	0.53	0.06	0.06	0.25	0.03	0.19	0.141	11.0	16.2	1.1	9	3.5	40	18	24.2	12.4	3.5	13.5	6.1	23	0.07	31	1	3.0	8.8	4.6	1.03	0.23	0.68	0.31
mean	early B	16.0	8.43	1.61	0.45	0.35	2.95	1.01	0.51	0.046	52.1	54.6	17.8	189	21.5	100	157	19.9	24.2	18.0	103.2	67.5	224	0.20	354	34	39.0	77.5	35.3	6.37	1.29	3.90	2.46
s.d.		1.4	0.88	0.43	0.22	0.07	0.35	0.11	0.27	0.034	12.8	14.3	1.9	23	5.2	17	24	8.4	6.5	3.6	14.6	10.6	36	0.07	45	19	7.2	16.2	6.7	1.22	0.26	0.80	0.62
mean	B	18.1	8.34	2.47	0.46	0.30	3.29	0.99	1.10	0.039	70.9	67.6	20.6	204	31.9	121	152	25.2	30.0	17.6	122.2	89.8	241	0.31	469	27	45.8	94.3	43.3	8.02	1.71	5.46	3.19
s.d.		2.3	0.99	0.51	0.15	0.07	0.44	0.13	0.79	0.013	23.6	15.8	1.9	23	8.3	14	14	11.1	4.5	9.0	22.4	20.8	19	0.19	109	9	9.4	26.3	9.6	1.83	0.41	1.29	0.63
mean	B/C	15.2	7.52	1.62	0.31	0.29	2.72	0.86	0.78	0.036	56.4	54.4	17.3	171	25.7	96	134	19.4	23.8	16.6	103.0	74.5	208	0.23	403	21	37.1	80.8	36.6	6.83	1.45	4.44	2.59
s.d.		2.2	0.89	0.45	0.13	0.06	0.50	0.11	0.47	0.020	20.6	13.3	2.8	27	8.8	16	22	11.4	3.1	6.8	26.5	22.7	28	0.13	72	4	9.5	33.2	10.3	1.96	0.45	1.43	0.68
mean	early C	13.9	6.84	1.65	0.27	0.29	2.70	0.82	0.64	0.022	48.4	48.7	16.0	162	21.9	90	137	15.9	20.6	15.3	95.5	65.6	188	0.18	394	20	34.9	67.7	32.7	5.99	1.23	3.81	2.27
s.d.		1.2	0.41	0.36	0.11	0.06	0.42	0.07	0.60	0.005	12.7	12.9	1.3	11	6.7	22	14	3.0	5.4	4.5	15.0	19.0	27	0.13	79	4	8.7	16.0	8.4	1.59	0.34	1.16	0.57
mean		14.7	7.35	1.71	0.32	0.31	3.03	0.90	0.16	0.024	56.5	42.7	16.1	161	20.5	89	144	16.7	17.1	11.0	110.8	75.7	170	0.08	385	22	37.4	71.4	33.8	6.01	1.20	3.52	1.87
s.d.		0.5	0.37	0.20	0.05	0.04	0.19	0.04	0.07	0.006	9.3	10.5	0.8	6	6.2	8	8	5.5	2.4	1.8	4.2	5.7	11	0.03	23	12	4.4	11.1	6.3	1.38	0.32	1.06	0.54
RH 40	clay	14.7	7.87	1.39	0.38	0.31	3.12	0.81	0.10	0.016	47.4	36.9	15.9	160	24.7	83	135	12.4	17.3	18.2	125.6	80.7	331	0.15	381	23	41.5	73.1	29.2	4.68	0.96	3.57	2.44

Table 8. Highgate Wood: Average chemical composition of the six different fabrics analysed, expressed as the mean (average) and one standard deviation about the mean

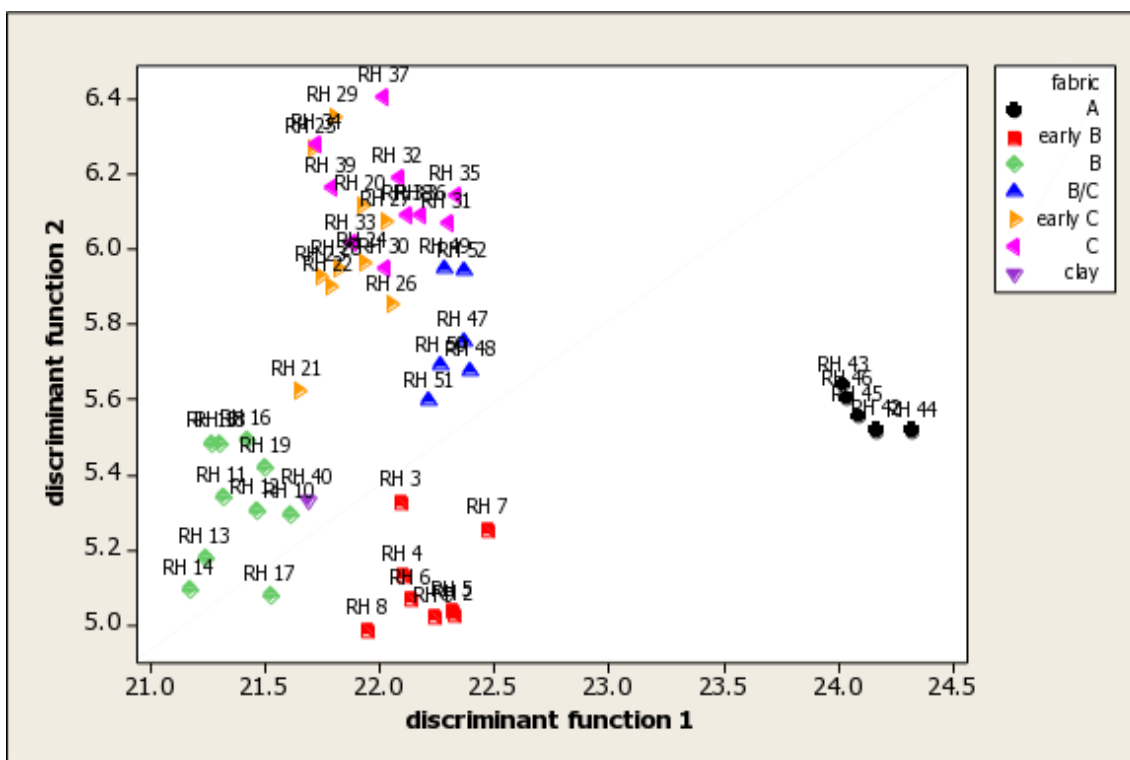


Fig. 191. Discriminant analysis of the ICPS data on the six fabrics using most of the chemical elements

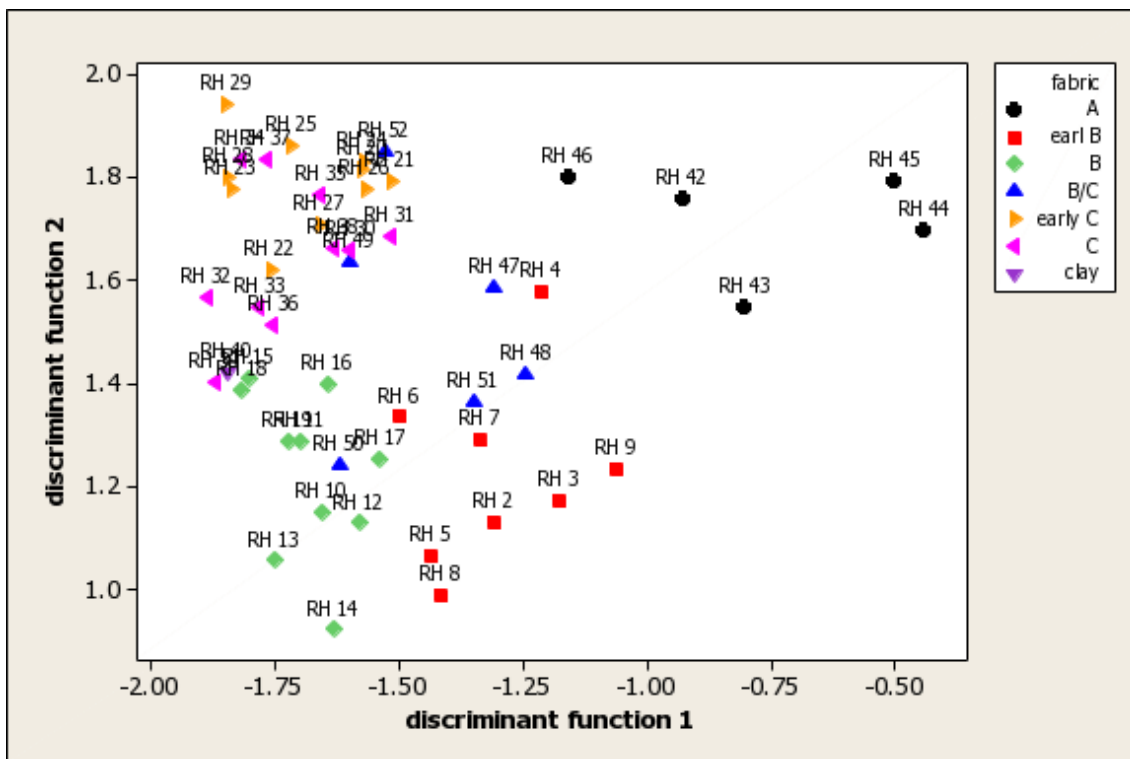


Fig. 192. Discriminant analysis using a 'reduced elements' set



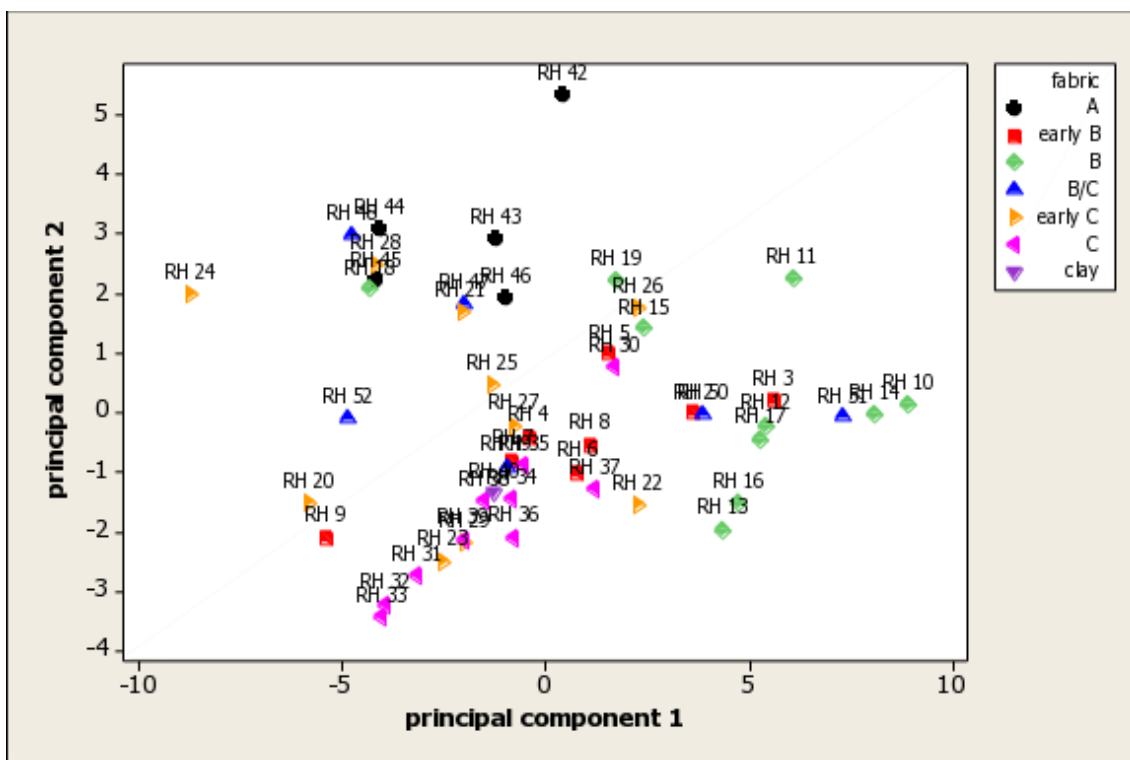


Fig. 193. A plot of the first two principal components arising from ICPS analyses on all the ceramics

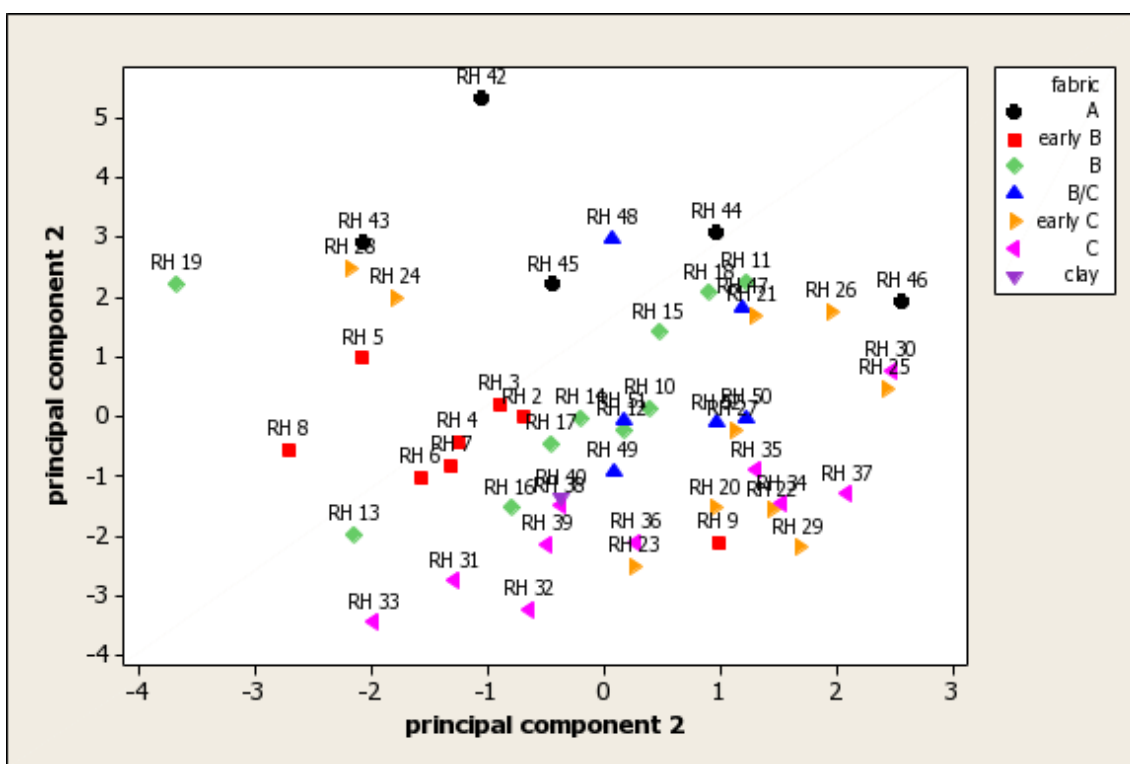


Fig. 194. A plot of the second and third principal components arising from the same principal components analysis as Fig. 193

## 15. The Baked Clay Objects

In addition to the material on the site that can be reasonably interpreted as vessels of various types, there is a quantity of other baked clay. This material is likely to have performed one of three functions although it may not always be possible to distinguish between them. Firstly, there is the clay that was at some time part of one of the kiln structures (either permanent or temporary) but which has become detached and discarded amongst the other kiln waste. Secondly, there are the aids used during the stacking of the kiln, to separate layers of vessels or to adjust the level of the load. Finally there are clay objects which might have been used as tools during the manufacturing process.

Nearly 500kg of baked clay material from the kilns, dumps and ditches have been examined. Material from the structure and operation of the kilns (but excluding such small items as spacers and stabilisers), can be broken down into three broad categories (Table 9).

### 15.1. Featureless clay fragments

Obviously the largest group, it is clear from the Table how little of this kind of material came from the ditch-set kilns of Phase 2. The small pieces of baked clay which could be securely assigned to this phase amount to only 2.103kg, some 0.7% of this class. The excavation produced no direct evidence for the construction of these kilns and a fair presumption would be that they were basically of turf like those (actually later) kilns at Alice Holt in Hampshire, as reconstructed by Swan in 1984 (Fig XVIII, also Lyne & Jefferies 1979, 17). A small quantity of fragments of sandy reddish and reddish brown tiles was recovered from both Kilns 6 and 7, which could well have been useful for supporting pottery during firing, as would the numerous fragments of Highgate pottery found lying on the bottom of the furnace of Kiln 6, a few of which appear on the section drawing, Fig. 14.

The vast bulk of the pieces therefore come from the circular and oval kilns of Phases 2(3), 3 and 4 and

from layers associated with their operation. A few of these fragments could be quite large and can be seen to have formed part of a kiln structure. An example from Ditch 2 (Trench 95 F2 L1) was 0.17 x 0.16 x 0.075m and was smoothed over to produce a convex surface on one side. Another lump of clay from the top of the furnace of Kiln 5 (Trench 13) was 0.11 x 0.075 x 0.02m and had been pushed into the kiln structure, with folds of clay on the underside and smoothed over to make a convex surface on the other. Other pieces could be seen to be derived from the segments from which the bases of some kilns were constructed, such as Kilns 3 and 5. Others could be identified as the seatings for firebars. Lumps of clay were also used as temporary packing within the kiln. A few pieces show signs that they were pressed up against vessels in the kiln, while still wet. One small fragment has a regular grid of impressions from the barbotine dots on a poppy beaker. At least two had a small area of impression from a coarse cloth.

But generally the fragments were smallish buff but mostly grey lumps, usually featureless, without any obvious edges or faces. In the mass they looked like the debris left behind by the kiln experiments of 1971, when the kilns had been given clay domes formed of slabs or blocks of clay smoothed over by hand with wet clay and with quite small apertures at the top for the loading and unloading process.

It is highly unlikely however that the Highgate kilns had superstructures which were like this. A domed superstructure of the kind reported on by the potters responsible for the experiments (Kiln 1, Experiment 1972, 12–17) would have contained something of the order of 200kg of clay. To calculate this the height of the dome was taken to be 1.044m (3.5ft) and the diameter as 1.316m (4.5ft). The constituent clay blocks were assumed to be a modest 3cm thick and the dry weight of London Clay 1440kg per cubic metre. The amount of featureless burnt clay from the whole site came to just under 400kg, and the quantity from the southern kiln dump, where there had been five or possibly six kilns and adding in material from Ditch 2, the nearby pits and Layer 2 material, came to only

	Featureless fragments	Firebars	Clay plates and sheets	Total (kg)
Phase 1	1.869			1.869
Kiln 7	0.703			0.703
Kiln 6	1.400			1.400
Ditch 2 east of Trench 61	11.946	3.257		15.203
Kiln 9(1) and (2) and associated	16.992	14.560	5.774	37.326
Ditch 2 W of Trench 61	8.746	4.265	0.695	13.706
Former Levigation Pit W end Ditch 2	23.917	1.579	0.865	26.361
Kiln 8	9.032	0.560	0.681	10.273
N Kiln Dump	55.698	3.290	4.077	63.065
Pit 6	3.428		0.178	3.606
Ditch 1 North	28.960	7.983	0.360	37.303
Kiln 3	17.339	1.756	2.519	21.614
Kiln 5	11.443	5.315	1.812	18.570
Kiln 1	9.379	0.472	0.754	10.605
Kiln 4	11.022	1.790	0.302	13.114
Kiln 2	5.558	0.523	2.212	8.293
S Kiln Dump	114.955	9.333	8.747	133.035
Ditch 1 South	13.609	3.997	1.522	19.128
Pit 3	4.155			4.155
Layer 2 Various	43.600	8.315	3.597	55.512
Totals (kg)	393.751	66.995	34.095	494.841
Percentage of total	79.6%	13.5%	6.9%	

Table 9. Highgate Wood: Baked Clay

290kg. A proportion of this would have come from the flue and furnace elements of the kilns during their collapse, weathering and also reconstruction when in use — both flues and furnace wall of Kiln 4 were rebuilt and there was evidence for the patching and relining of Kilns 2 and 8. There is nothing like enough burnt clay at Highgate to account for superstructures of the kind used during the experiments for all the later kilns, even taking into account the pieces remaining in the unexcavated baulks. Using the same set of dimensions but assuming a straight sided kiln open at the top, 20% less clay would have been used, but this still means that we found a much smaller quantity of baked clay than could have been expected from kilns of this type.

It therefore seems quite likely that most of the pieces found came from the repair and periodic reconstruction of the below ground and near below ground elements of the kilns, the stokeholes and furnaces, rather than the superstructures, which would have been formed of something else, probably turf. The kilns of Phases 2(3), 3 and 4 would have

corresponded to types (iv) or (v) shown in Swan 1984, Fig II: sunken kilns (not all that much in the case of Highgate) with permanent open topped superstructures or open topped superstructures of temporary or permanent materials, depending upon the view taken of turf as a structural material.

It has been shown by experiment that it is quite possible to obtain a successful firing of reduced pottery using an open topped turf-walled kiln with vertical or gently sloping sides; the top would have been sealed off at the end of each firing by such things as broken pottery, sheets of clay or more turf (Bryant 1973). It has been suggested that a kiln like this, given appropriate repairs, to maintain airtight walls, could have lasted for a considerable length of time. However, the superstructures would have left little trace (Swan 1964, 34–8).

There is some evidence that turf was used at Highgate for the construction of kiln superstructures. Kiln 3 is surrounded by a ring of stakeholes, which make much better sense as part of a wooden framework to

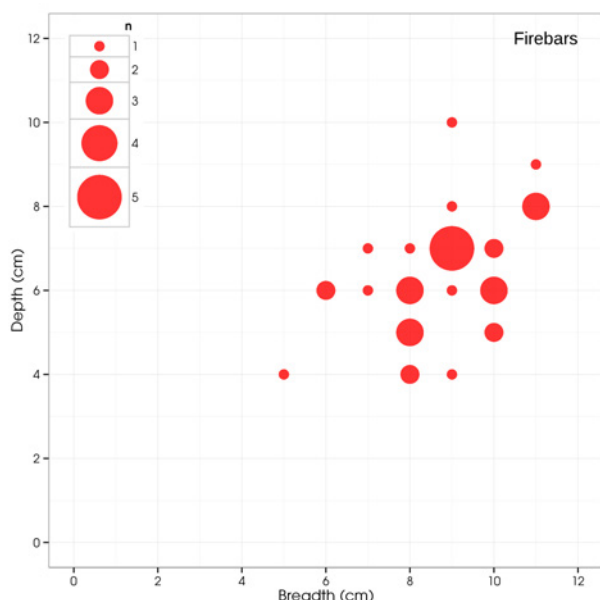


Fig. 195. Firebar dimensions

keep curves in place than as an external system for the clay wall of a kiln. Also, there is the thin sheet of reddish granular earthy material which been thrown on top of the filling of Preparation Pit 1 which requires explanation (Fig. 22, 10, Red baked clay layer. Also Fig. 23). This could have been the remains of a piece of turf which had formed part of the capping of the first phase of Kiln 9 and which had been exposed to fire.

There is the possibility that turf might have been available from the site itself, but as in the medieval period and indeed today there would have been grassland not all that far from where the kilns were.

## 15.2. Firebars

Fig. 197–Fig. 198

These are the most easily recognisable element of kiln furniture. At Highgate, the kiln bars are hand formed, in some cases roughly trimmed to shape with a knife or other blade. They consist of a very hard grey clay with an irregular fracture, with occasional pitting, the consequence possibly of the use of vegetable matter for tempering. Irregular cracks or folds are sometimes visible on their outer faces, suggesting that in some instances the clay has been folded over to form the shape of the bar, but there is no sign of any internal former such as a wooden bar, which has been recorded on some kiln sites. Quite

often bars are encountered which have split along the lines of the fold. The bars are usually rectangular in section, or with a slightly broader lower face, and sometimes taper slightly towards the ends. The distribution of their cross-sectional dimensions is shown in Fig. 195. Firebars are found in association with kilns with suspended floors characteristic of the B/C and C manufacturing phases, as is to be expected. There are some firebars which come from layers apparently associated with the operation of Kiln 7 (Trenches 85 and 96), but there is evidence in the upper layers of Ditch 2 at this point for some levelling off with light brown earth and dark ashy material containing HWB/C and HWC pottery of Phase 3, so the bars would belong to that Phase as probably were the lumps of undifferentiated baked clay and other kiln furniture found here.

1. Trench 91 F1 L5. Northern Dump core layer, Phases 3(3)–(4).
2. Trench F F1L2 (1973 SF 17). Second phase of Kiln 9, Phase 3(1).
3. Trench 61 F1L5 (1969 SF200). Ditch 2, Phases 2–3.
4. Trench A F2L5 (1973 SF29). Second phase of Kiln 9, Phase 3(1).
5. Trench F F1L2 (1973 SF18). Second phase of Kiln 9, Phase 3(1).
6. Trench F F1L2 (1973 SF19). Second Phase of Kiln 9, Phase 3(1).
7. Trench 94 F1L5. Ditch 1 North, Phase 3(4).
8. Trench A F2L5 (1974 SF 29). Second phase of Kiln 9, Phase 3(1).
9. Kiln 2. Phase 4.
10. Trench A F2L5 (1973 SF29). Second phase of Kiln 9, Phase 3(1).
11. Trench 13 Kiln 5, Top of Flue, Phase 3(2).
12. Trench 5 L2 (1967 SF52). Southern Kiln Dump core layer, Phases 3–4.
13. Trench F F1L2. Second phase of Kiln 9, Phase 3(1).
14. Trench 42 SExt. Former levigation pit, W end of Ditch 2, Phases 2(3) – 3(2)–(4).

15. Trench 47 F1 (1969 SF225). Ditch 1, southern portion, Phases 3–4.
16. Trench 12 L2. Southern Kiln Dump, non-core layer, Phase 3 probably.
17. Trench A F3. First Phase of Kiln 9, Phase 2(3) North.
18. Trench A F2L5. Second phase of Kiln 9, Phase 3(1).

### 15.3. Clay plates or sheets

Fig. 199–Fig. 201

Among the baked clay of Phases 3 and 4 are a number of flattish clay pieces, varying between 50mm and 2cm in thickness. Very few pieces join so it is difficult to estimate the size of the original sheets, but examples 17 x 10cm and 12 x 8cm have been noted. Several have a smoothed, cut or broken off straight edge (Fig. 199, 1 and 2), another had a circular indentation with a radius of c. 14cm worked into it (4) and a third appeared to have been part of a plate 12cm in diameter (3).

The majority seem to have one smooth surface and one coarse uneven surface. In this respect they resemble the clay plates found on other kiln sites such as Horningsea, Cambridgeshire (Walker 1914, 14–69), or Bourne Hill, Wherstead, Suffolk (Gill *et al* 2001), where the irregular faces bear the abundant impressions of cultivated grains, straw, meadow grasses and weeds, as if the plates had been fashioned on the ground surface.

In many cases linear and other marks could be seen on the Highgate fragments. In order to establish what their significance was, 116 pieces were submitted to Lisa Grey, archaeobotanist, for examination. These fragments were gently curved , ranged in overall size from 12 x 10cm to 5 x 5cm and in thickness from 1.5–0.75cm. They were grey and brown in colour. Her list has been deposited with the site archive, but a summary is given below as Table 10. This shows that there is evidence to support the notion of the manufacture of some plates on the ground surface. There were 31 instances of unidentifiable stems, but rather sparse evidence for grains – 23 of the impressions were of single grains only, four pieces had two impressions, two had three

Nature of impression	No of Instances
Nothing significant	26
Striations	35
Striations with other marks	4
Stems, not identifiable	31
Stems, cereals, grasses	2
Bread wheat/Spelt	14
Oats/Rye	4
Grass/Rye	1
Grain impressions, unidentified	2
Grass seeds	3
Grass leaf and stem	4
Grassland plantain seed	1
Asteraceae (daisy family)	1
Dicotyledonous leaf	1
Monocotyledonous leaves	1
Hazelnut, possible impression	1
Bog bean fruits	5
Sedge	1
Embedded charcoal	3

Table 10. Highgate Wood: Impressions on Baked Clay Samples

and only one piece had four. There were a relatively small number of other types of vegetable matter.

Twenty-six pieces had one or more irregular faces, but with no vegetable impressions. But no less than 39 had fine markings referred to as ‘striations’ on them, mostly on one side only. Eight such pieces are shown in Fig. 200 and Fig. 201. Comparison with modern split wood suggests that such markings could be the result of the clay being pressed against wood which has been subjected to this treatment.

It would therefore have been possible for the Highgate plates to have been formed on a wooden bench or table. But since there is evidence for the manufacture of a number of plates on the ground, it can be argued that in a similar way the Highgate ones with these particular markings could have been made on a plank floor.

That some kind of planking was present is suggested by the impressions themselves. Several have a raised line of clay running along them, caused maybe by the junction of two planks; some of the straight edges have a similar raised strip (Fig. 201, 10 and 13).

This raises the possibility that the Highgate potters made use of simple wooden sheds for their opera-

tions, which have left little archaeological trace for us to find. If this had been the case, then it would help to explain the relatively large number of iron nails which had been discarded on the waster heaps and in the ditches.

But not all plates had markings which were like this — some were smoothed on both faces, and there were a few with unwiped faces consisting of rough clay, rather than the distinctive nodular or pitted surfaces on the majority of plates.

Clay sheets have been recognised from a number of kiln sites (Swan 1984, 64–6). Several functions have been suggested, including part of the equipment for levelling the load in the kiln or as some part of the kiln structure, perhaps as a component of the temporary covering during the firing. Most of the pieces are flattish or gently curved and it is possible to see them as fulfilling some such purpose.

However at Highgate a number of the plate-like fragments, usually the thicker ones, 2–3cm, were quite strongly curved (Fig. 199, 5–6) and so do not have the appearance of having been made on the ground surface; the smoothed face could be on either the concave or the convex side. Sometimes the curved pieces splayed out to attain a significant thickness at the bottom. The curved fragments look as if they could have been pushed up against turf, and to have acquired their distinctive irregular and pitted appearance in that way, possibly to repair gaps in the superstructure, to seal off the junction of a turf layer with a clay kiln base or to stabilise the open top of the kiln, which would be subject to some wear during the loading and unloading process.

1. Trench 6, L3. Southern Kiln Dump, core layer, Phases 3–4.
2. Trench 13, Kiln 5, east of flue, Phase 3(2).
3. Trench 13, Kiln 5, in front of flue, Phase 3(2).
4. Trench 13, Kiln 5, east of flue, Phase 3(2).
5. Trench 13, Kiln 5, east of kiln, Phase 3(2).
6. Trench 13 WExt, Kiln 4, flue blocking, Phase 3(4).
7. Both sides; the smoothed face has faint traces of striations which have been almost entirely erased. Trench 13, W Ext, Kiln 4 Flue.
8. Trench 61 L3, Southern Kiln Dump core.

9. Trench 13, furnace, Kiln 4.
10. Faint markings. Straight edge along top with raised band of clay. Trench 13 L3, over flue Kiln 5.
11. Trench 5 Kiln 2, heap of earth in front of flue.
12. Trench 13 L3.
13. Trench 13 W Ext L3, Kiln 4.
14. Trench 13 W Ext. Flue, Kiln 4.

#### 15.4. Perforated plates

Fig. 202

There are a few fragments of perforated clay plates from the site. Most pieces are 3–4cm thick, of hard grey clay smoothed flat on both faces and with finished edges. A group of eight pieces (Fig. 202) from the extension of Ditch 5 crossing the circular ditch (Trenches T, W and V) are probably from the same object. This includes two corner pieces, a number of edge fragments and two pieces with a pair of holes at approx 10cm spacing. Such perforated plates may have used as temporary flooring or for levelling within a kiln, to stabilise the load (Swan 1984, 65–6). Their context at Highgate is with a large group of wasters assigned to Phase 3(1). The same group includes fragments of a number of conventional kiln bars. Fragments of holed clay plates also came from a relatively late layer in Ditch 2 (Trench 43 F1 L1) and from inside Kiln 3.

1. Trench W F1L1. Fill of SE internal ditch (1974 SF 31). Phase 1 Circular Structure, but Phase 3(1).
2. Trench T F1L1 (1974 SF 11). As 1.
3. Trench T F1L1 (1974 SF 12). As 1.
4. Trench V L2 L1 (1974 SF 14). Same feature, but L2.
5. Trench T F1L1 (1974 SF 12). As 4.
6. Trench V L2 (1974 SF 14). As 4.
7. Trench W F1L1 (1974 SF31). Fill of SE internal ditch, Phase 1 Circular Structure, Phase 3(1).
8. Trench V L2 (1974 SF 14). Same feature, but L2.



9. Trench 43 F1L1 (1969 SF 161). Fill of Ditch 2 W of Trench 61. Phases 2–3.

## 15.5. Fittings for the support of flue arches

Fig. 203

All the experiments carried out with reproduction kilns at Highgate have run up against the problem of collapsing flue arches during firing. How the Roman potters dealt with this was made clear during the excavation of Kiln 4, where it was found that the blocking of the flue had incorporated a group of objects which together amounted to a system for keeping the flue arch up (Fig. 203, 1). The items were: a cylinder of hard grey baked clay 8cm in diameter and 22.5cm high which had been placed inside a support vessel 17cm in diameter and 10.25cm high. The top of the cylinder sat inside an elaborate cap 5cm high and 16cm across at its widest point. This system was not unique to Kiln 4. Cylinder fragments were found in deposits going with the first phase of Kiln 9, with Kilns 8, 4 (again), and 2; on the northern pottery dump (twice), the southern pottery dump (four times), and in the southern part of Ditch 1. Specially made caps occurred less frequently, but examples came from both pottery dumps.

1. Cylinder, cap and cylinder holder (1969 SF 193). Kiln 4, flue blocking, Phase 3(4).
2. Cylinder. Trench 5 L2. Southern Kiln Dump, Phases 3–4.
3. Cylinder cap. Trench 6 L3. As 2.
4. Cylinder cap. Trench 91 L6 (1971 SF 146). Northern Kiln Dump, non-core layer, Phases 3(3)–(4).
5. Cylinder cap. Trench 13 WExt, Kiln 4, flue blocking, Phase 3(4).

## 15.6. Short heavy rings

Fig. 203

There were a number of short cylinders, approximately 6cm high, with a smooth chamfer on the inner face of the lip, more or less vertical, rather

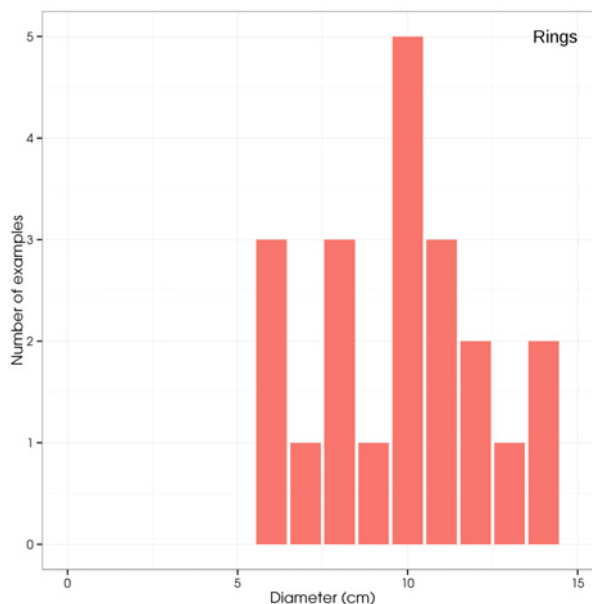


Fig. 196. Diameters of heavy rings

thick, sides with a flattened bottom (sometimes with regular stabbing), and prominent finger-marks on both inner and outer surfaces; the cylinders were hollow. They occurred in deposits throughout Phase 3 and are mostly in HWC Fabric, grey-brown in colour, hard and sandy. The chamfered tops could have accepted the up-ended rims of pots requiring special care during firing. Other suggestions for the purpose of these objects, which are not infrequently found on pottery sites, is for their use at the bottom of a stack of vessels in the kiln, forming a solid support, or to separate layers of pottery in the firing chamber, as suggested for similar objects at Crambeck in Yorkshire (Wilson (ed) 1989, 12, 23).

6. Trench 61 F1L5 (1969 SF 201). Ditch 2, probably Phase 3.
7. Trench 89 F4 (1971 SF109). Pit 6, Phase 3(4).
8. Trench 91 F1. Northern Kiln Dump, core layer, Phases 3(3) and (4).
9. Trench 43 F1 (1969 SF 141). Ditch 2, probably Phase 3.
10. Trench 47 F2 (1969 SF 164). Ditch 2 South, Phases 3 (2)–(4).
11. Trench 52 F1 (1969 SF143). Ditch 2 W of Trench 61, Phases 2(3) South.
12. Trench 13. Kiln 5 flue, Phase 3(2).
13. Trench 90. Inside Kiln 8, Phase 3(3).

14. Trench 94 L2. Ditch 1 North (1971 SF128). Phases 3 (2)–(4).
15. Trench 90. Inside Kiln 8, Phase 3(3).
16. Trench 5 L2. Southern Kiln Dump, core layer, Phases 3–4.
17. Trench 103 F1. (1972 SF 168). Northern Kiln Dump, non-core layer, Phases 3(3)–(4).
18. Trench 94 F2L3 (1971 SF183). Ditch 1 North, Phases 3(2)–(4).
19. Trench 13. Kiln 5 furnace, Phase 3(2).
20. Trench 5 L2. Southern Kiln Dump, core layer, Phases 3–4.
21. Trench 94 L3 (1971 SF133). Ditch 1 North, Phase 3(4).
4. HWB fabric. Trench 105 F1L1 (1972 SF 71). Ditch 1 North, Phases 3(2)–(4).
5. Trench 91 F1(1971 SF71). Northern Kiln Dump core layer, Phase 3 (3)–(4).
6. Trench 27 L2 (1968 SF 93). SW of Southern Kiln Dump, probably Phase 3.
7. HWC fabric. Trench 105 L2 (1972 SF54). Ditch 1 North, probably Phase 3.
8. Trench 77 L2 (1971 SF 197). Line of Ditch 2, close to surface.
9. Trench 105 F1L2 (1972 SF195). Ditch 1 North, Phase3(2).
10. Trench 104 below F1 (1972 SF178). Ditch 1 North, Phases 3(2)–(4).
11. Trench 105 F1L1 (1972 SF 29). Ditch 1 North, Phases 3(2)–(4).

### 15.7. Curved strips of clay

Fig. 204

A rather more diffuse group, covering a class of curved clay pieces with square, triangular or sometimes ribbed cross-sections. The bases and heights of these objects average out at 3cm. Many of them look as if they originally formed portions of rings with radii commonly of 8–10cm, but this is probably an illusion; some of them are far from being part of a circle and a few taper off to a point. Such objects occur in deposits associated with Kiln 6 in Phase 2, and are common throughout Phase 3. They perhaps served as ‘distance pads’ to separate vessels during the loading and firing process, being placed against the rims of vessels. No 11 was shaped in a way which suggests that the intention was for a pot to fit into the grooves. No 12 had a hole running through it, possibly made by forming the object around a nail.

1. HWC fabric. Trench 105 SWExt L2 (1972 SF216). Area of Ditch 1 North, probably Phase 3.
2. HWB fabric. Trench 102 L2 (1972 SF108). Area of Ditch 1 South, ?Phase 2(3)S.
3. HWB fabric. Trench 103 NEExt F1 (1972 SF194). Ditch 1 North, Phases 3(2)–(4).

12. HWC fabric. Trench 21 L3 (1968 SF 45). West of Southern Kiln Dump, probably Phase 3.
13. Trench 94 L2 (1971 SF157)). Line of Ditch 1 North, probably Phase 3.
14. Trench 94 L3 (1971 SF133). Ditch 1 North, Phase 3.
15. Trench 52 L2 (1969 SF102). Ditch 2 W of Trench 61, probably Phase 3.

### 15.8. Other aids to stacking and supporting pottery in the kiln

Fig. 205–Fig. 206

- (a) Pyramidal objects Probably used to keep pottery away from the sides of the kiln during firing. This will explain the patches of wear which these objects frequently show along their length (*eg* nos 1, 2, 3, 5, 10). They can be relatively large, 7.5cm long, down to the much smaller 4cm, and vary considerably in the quality of manufacture.

1. HWB fabric. Trench 104 F1 (1972 SF121). Ditch 1 North, Phases 3(2)–(4).
2. HWB fabric. Trench 34 L1 (1968 SF82). S of Southern Kiln Dump, topsoil.

3. HWB fabric. Trench 12 L2 (1967 SF12). Unphased.
4. HWB fabric. Trench 108 L1 (1972 SF150). Unphased.
5. HWB fabric. Trench 34 L2 (1968 SF103). Unphased.
6. Trench 42 F1 (1969 SF114). Levigation Pit at the W end of Ditch 2, Phase 2(3) South.
7. Trench 60 F1L2 (1969 SF224). Ditch 2, Phase 2(3) South.
8. HWC fabric. Trench 40 L2 (1969 SF150). Area of former levigation pit, W end of Ditch 2, unphased layer.
9. Trench 60 L2 (1969 SF108). Unphased.
10. Softish grey fabric. Trench 61 L3 (1969 SF94). Fill of Ditch 2, Phase 2(3) South.
- (b) Feet intended to be added to the body of pottery vessels but not used. Show the same kind of wear as the above and possibly used for the same purpose, for which their shape would have been well suited.
11. HWB fabric. Trench 60 F2 (1969 SF215). Ditch 2 W of Trench 61, Phase 2(3)South.
12. HWB fabric. Trench F F1L2 (1973 SF19). Ditch 1 North, layer assigned to second phase of Kiln 9, Phase 3(1).
- (c) Rolls of clay
13. HWC fabric. Grey-buff in appearance, very sandy. Trench 33 WExtF1 L3 (1968 SF264). Pit 3, Phase 3(4).
14. Trench V L2 (1974 SF10). Ditch 5, unphased layer.
15. HWC fabric, grey-brown, very sandy. Trench V L2 (1974 SF10). Ditch 5, unphased layer.
16. HWB fabric, reddish brown. Trench 88 L2 (1971 SF10). West of Ditch 1 North, unphased.
- (d) Nozzles/tubes, used perhaps in the decoration of pottery
17. Grey sandy C fabric. Trench 21L3 (1968 SF96). Southern Kiln Dump, core layer, Phases 3 (2)–(4).
18. Buff fabric. Trench 93 F2 (1971 SF227). Ditch 1 North, Phase 3(4).
- (e) Clay plugs
19. HWC fabric, hard grey. Trench 47 L2 (1967 SF40). Unphased.
20. HWB fabric, grey/bright reddish brown. Trench 43 F1 (1969 SF161). Phase 2(3) South.
21. HWB fabric, grey/brown. Trench 42 F1,. Phase 2(3) South.
- (f) Small roll of clay.
22. HWB/C fabric? Used to stabilise pottery in the kiln. Trench 60 F1 L2 (1969 SF 224). Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

## 15.9. Triangular clay objects (weights?)

Fig. 207

1. Fragments of an object of baked clay considered when discovered to have been a loomweight of the kind found on prehistoric sites. From Trench T F2L2, part of the Circular Ditch of Phase 1. It was badly made, simply consisting of clay folded roughly into shape. The original appearance of the object is indicated by the dashed lines on the drawing Its dimensions were approximately 14cm across the base, sides 15cm, thickness 7cm. One hole with indications of another are suggested.

It is quite possible that this object was made originally as a loomweight, but at Highgate it could well have been used as a piece of furniture in the firing of pottery in a clamp. The Iron Age site at Willingham, Derbyshire, shows how such clay objects were used to support pots as they were being fired (Elsdon 1979, 197–9, with a list of other examples; Swan 1984, 53–4). The ‘weight’ is another piece of evidence to suggest the manufacture of pottery at Highgate before the Roman Conquest.

2. – 4. Three large triangular clay objects with rounded corners (up to c. 18 x 20cm, and 10cm thick) were found in a group in Trench 63 L2, above Kiln 7 (more likely to belong to Phase 3

than to Phase 2(2) here). They are only very poorly fired and friable, reddish-brown sandy, and the only feature visible on the outer surfaces are broad grooves worn across a corner in two cases. The function of these objects is uncertain. A passing resemblance to later pre-historic triangular loom weights might be illusory as there is no trace of a suspension hole and the cause of the worn groove is unclear. Nevertheless, given their size and bulk, their use as some form of weight, such as for temporary roofing or tarpaulins might be possible, necessary when unfired pottery was stacked in bad weather. The weights of the pieces are as follows: 2: 0.36kg; 3: 0.54kg; 4: 1.66kg.

5. There was another possible weight, with cord marks along its edge, from Ditch 2 (Trench 95 F2 L3). This layer was formed as the result of the operation of Kiln 7 and the object can reasonably be thought of as belonging to Phase 2(2). Its weight was 1.717kg.

## 15.10. Other clay objects

Fig. 208

Clay discs with holes in the centre

1. B fabric. One side grey, the other grey-buff. Hole has smoothing due to wear around it. Could have been used as a weight (0.303kg) or simply as a lid. Trench 43 F1 (1969 SF141). Phase 2(3) South.
2. Similar to 1 above in appearance and possibly function. 0.062kg. Trench 42 NExtL1 (1969 SF 234). Area of S end of Ditch 1 North, topsoil.

Other items

3. Softish brown clay. Probable gaming piece. Trench 14 L2 (1969 SF239).
4. HWC fabric. Spindle whorl. Trench 7 L2 (1967 SF24). West of Southern Kiln Dump, topsoil.
5. Small clay lump with linear striations on one face, alongside a 1.5cm pyramidal-shaped projection. These features suggest that the clay was pressed, while wet, against a cut wooden surface, perhaps to plug a hole. The wooden object may have been a piece of the

potter's portable equipment, perhaps a box or tray. Trench 3 NExt L2 (1967 SF6 or 10).

6. Small bead of reddish brown clay (2cm diameter), pierced through the centre, with a herring-bone pattern lightly incised by hand around the outer face. It is possible that this is a roller-stamp for decorating pottery, although the decoration that might result from the use of such a tool has not been recorded from Highgate. It is perhaps at least as likely that this is simply a decorated bead. Trench 3 L2 (1967 SF8). Southern Kiln Dump core layer, Phases 3(2)–(4).
7. Lump of bright red clay with scratched lines. Trench 32 L1 (1968 SF135). S of Southern Kiln Dump, topsoil.
8. Small crucible, hand made, reddish brown fabric. Trench 95 F2L2 (1971 169). Ditch 2 E of Trench 61, probably Phase 3.
9. Ball of clay 6cm diameter. A white clay which is not matched by any of the other samples encountered at Highgate. Possibly the clay from which decorative slip was made. Sample 34 in Thin Section Report. Weight: 0.177kg. Trench 92 F3L2, Ditch 1 North, Phases 3(2)–(4).
10. Impression of bucket (wooden or leather) containing clay similar to that used to make pottery of Highgate C fabric. Sample 35 in Thin Section Report. Trench A F2L9. Fill of Preparation Pit 2, Phase 2(3)North/Phase 3(1.)
11. HWC fabric. Thin object, broken off in three places, grey underside, buff on upper surface. Could have been used in a kiln but given its slight nature, more probably a trivet used in cooking. Trench I L2, unphased.
12. Small weight, broken off at bottom.. Fine textured orange clay. Trench P2F2, Phase 1.

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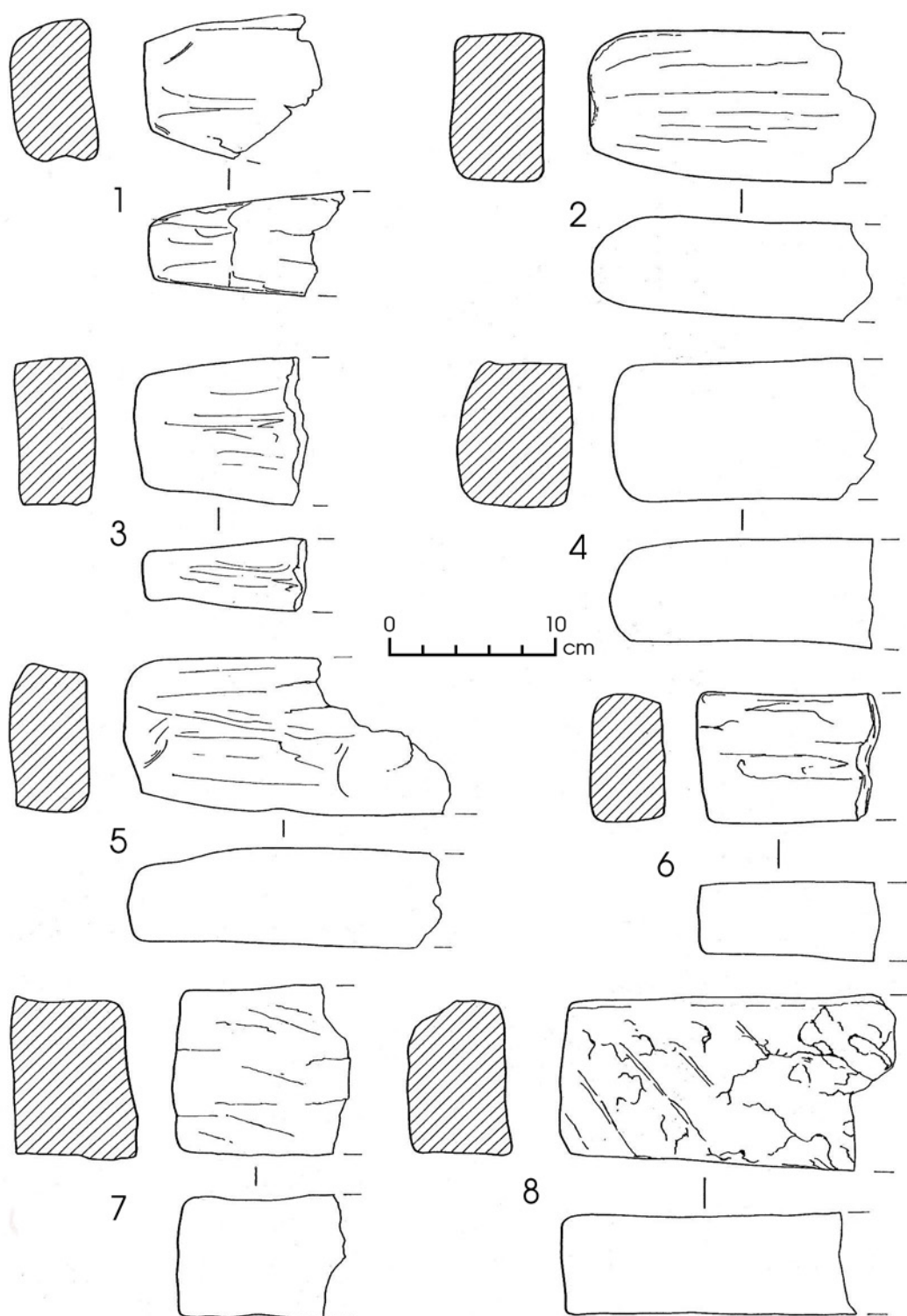


Fig. 197. Baked Clay: firebars, 1 [1:4]



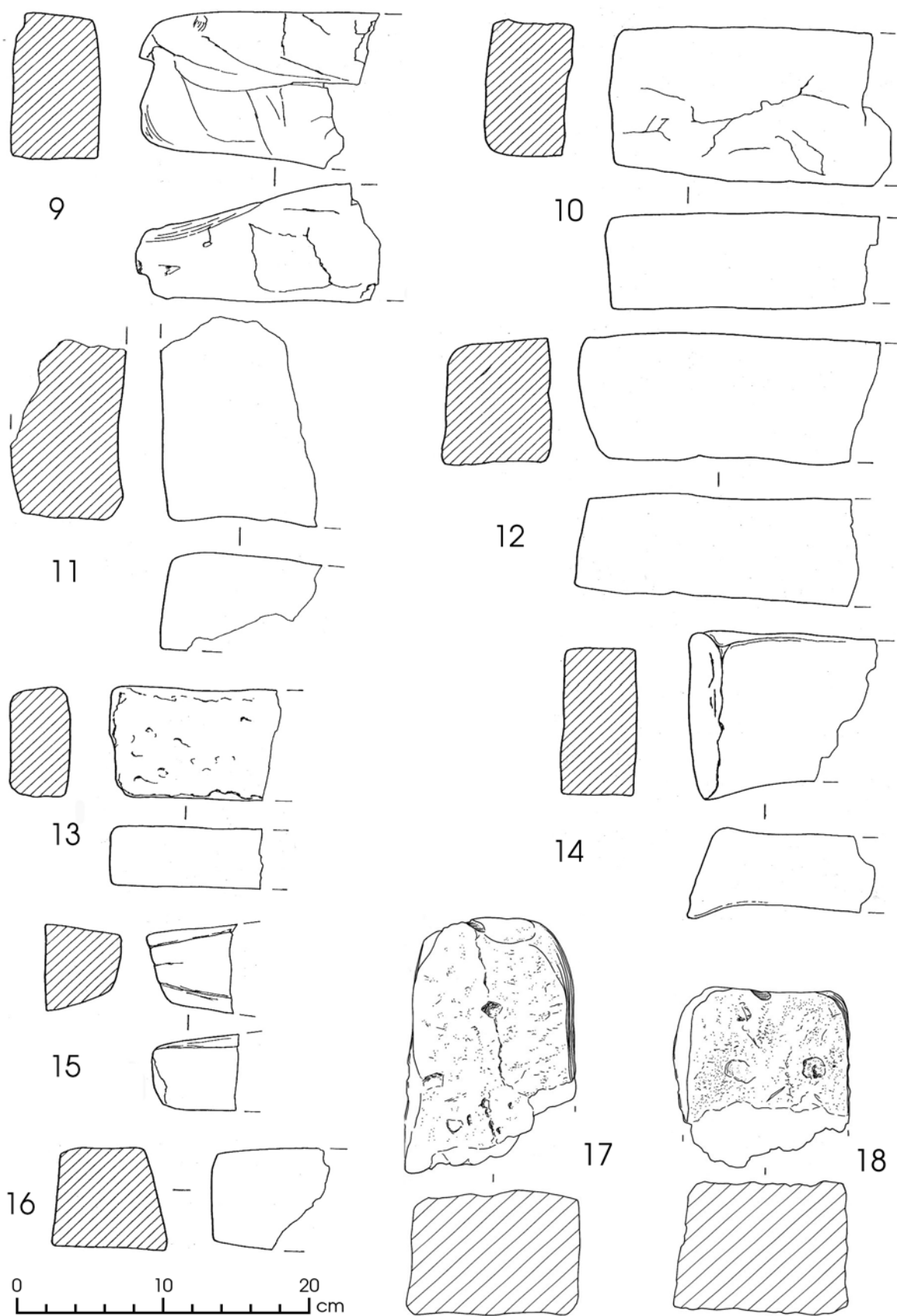


Fig. 198. Baked Clay: firebars, 2 [1:4]

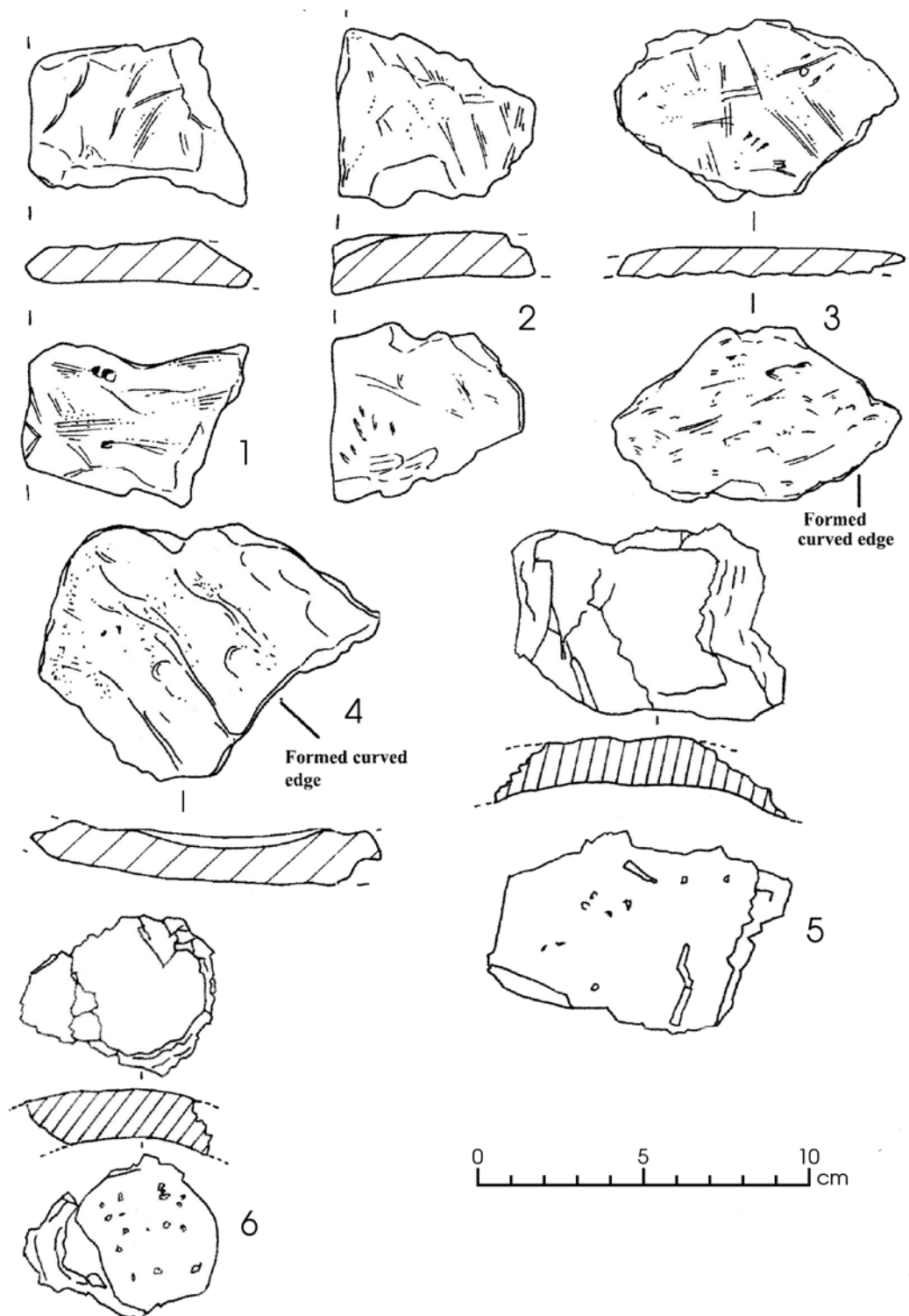


Fig. 199. Baked Clay: clay plates [1:2]

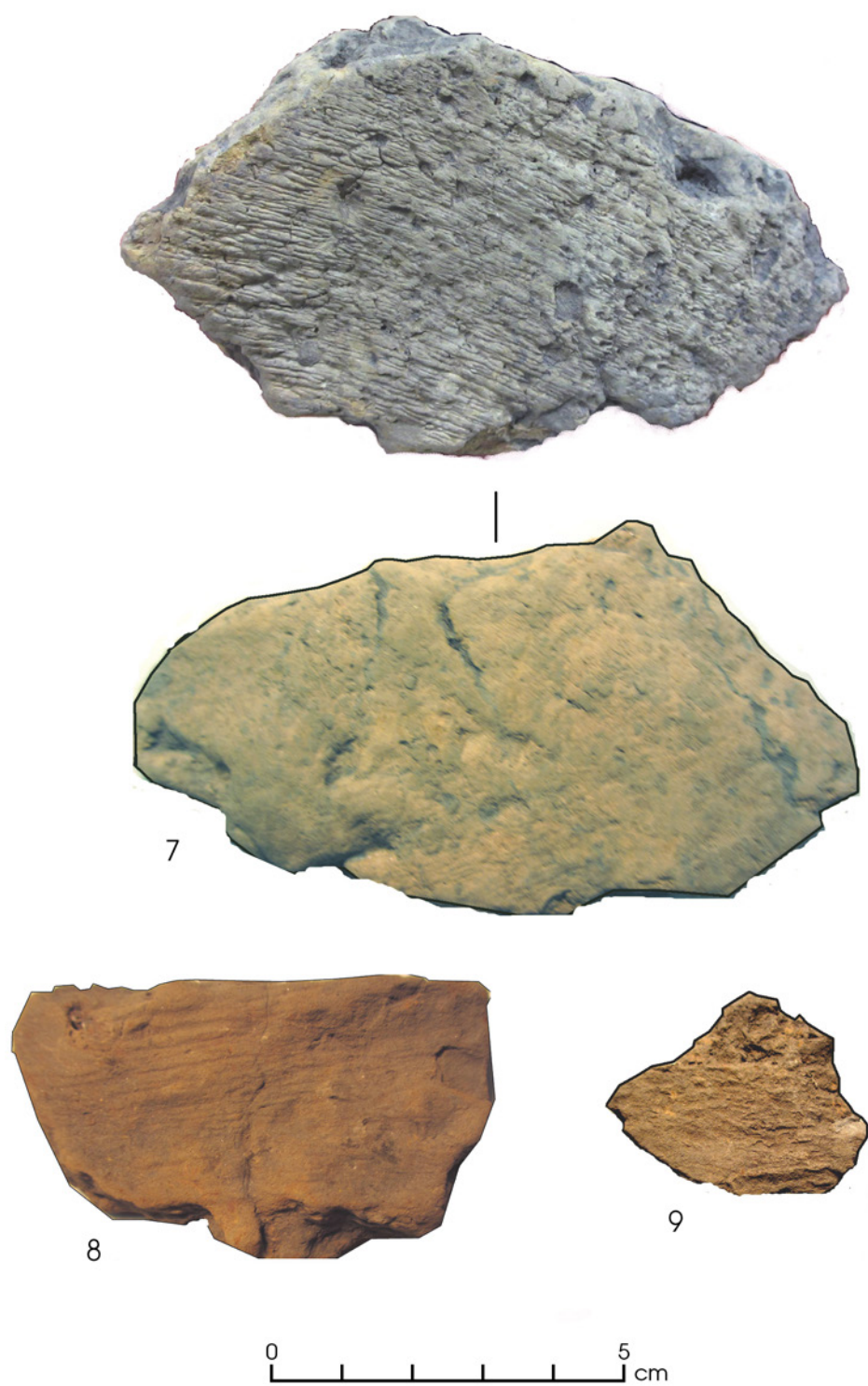


Fig. 200. Baked Clay: plates with striations, 1 [1:1]

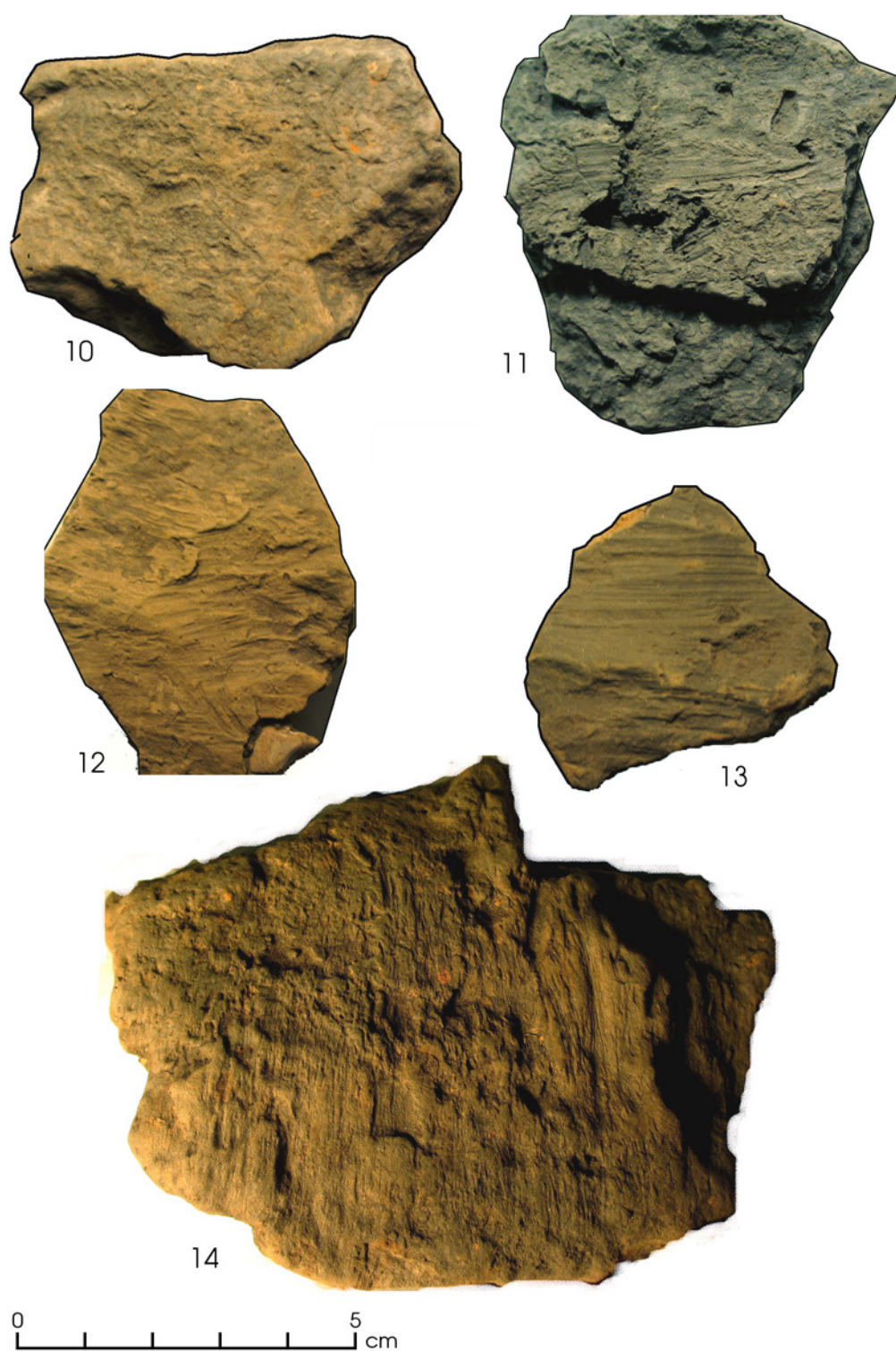


Fig. 201. Baked Clay: plates with striations, 2 [1:1]

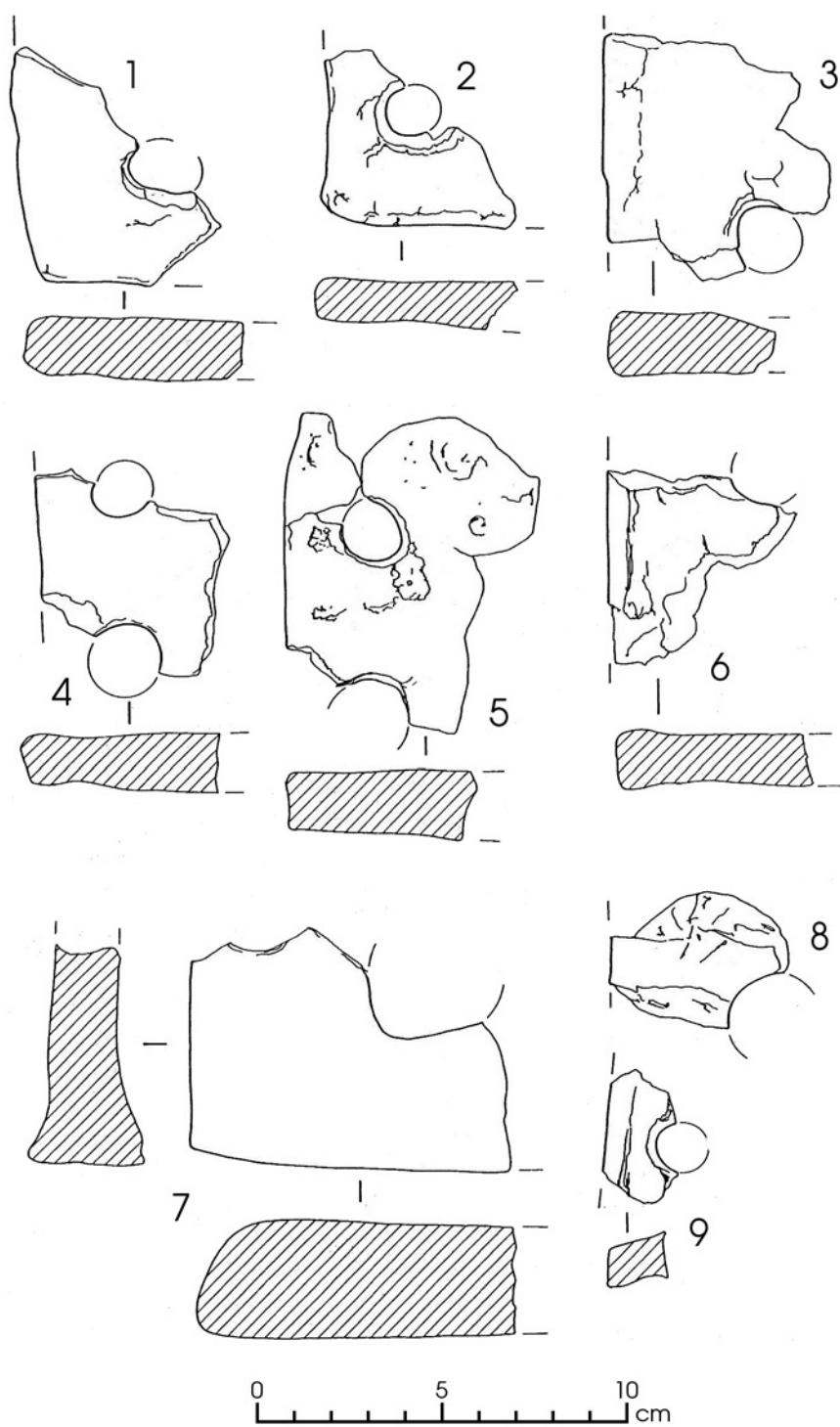


Fig. 202. Baked Clay: perforated plates [1:2]

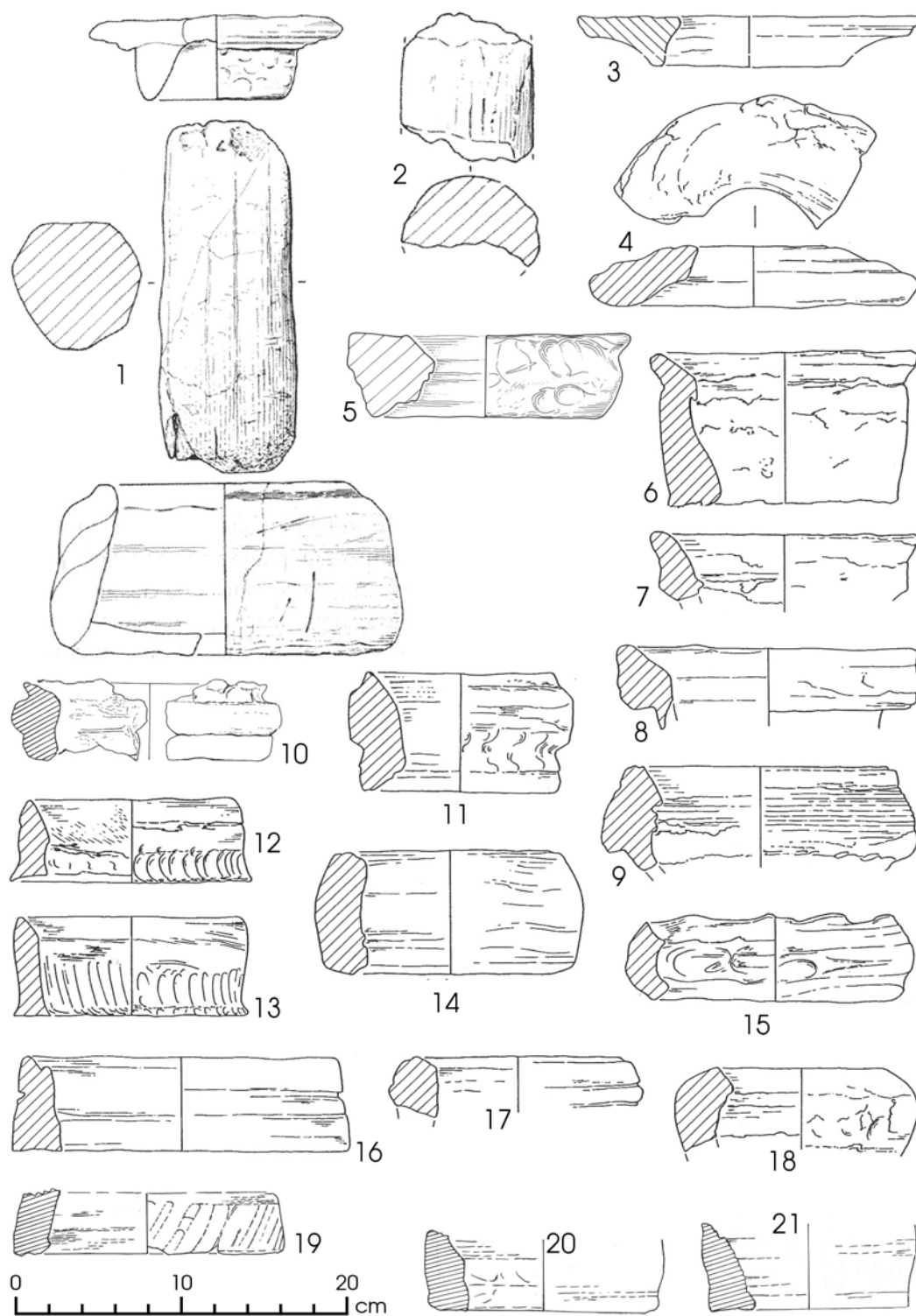


Fig. 203. Baked Clay: flue arch supports and heavy rings [1:2]



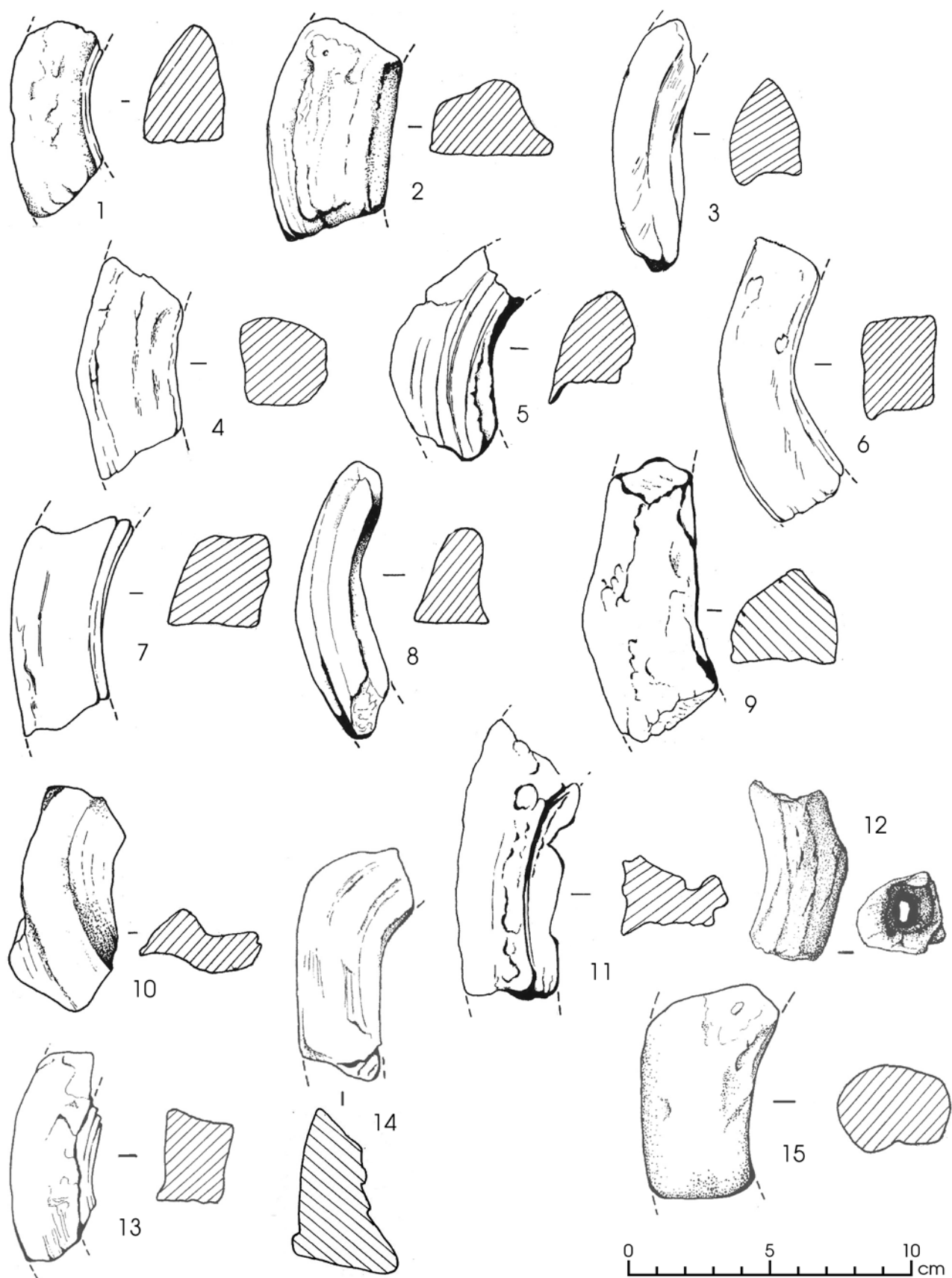


Fig. 204. Baked Clay: curved clay strips [1:2]

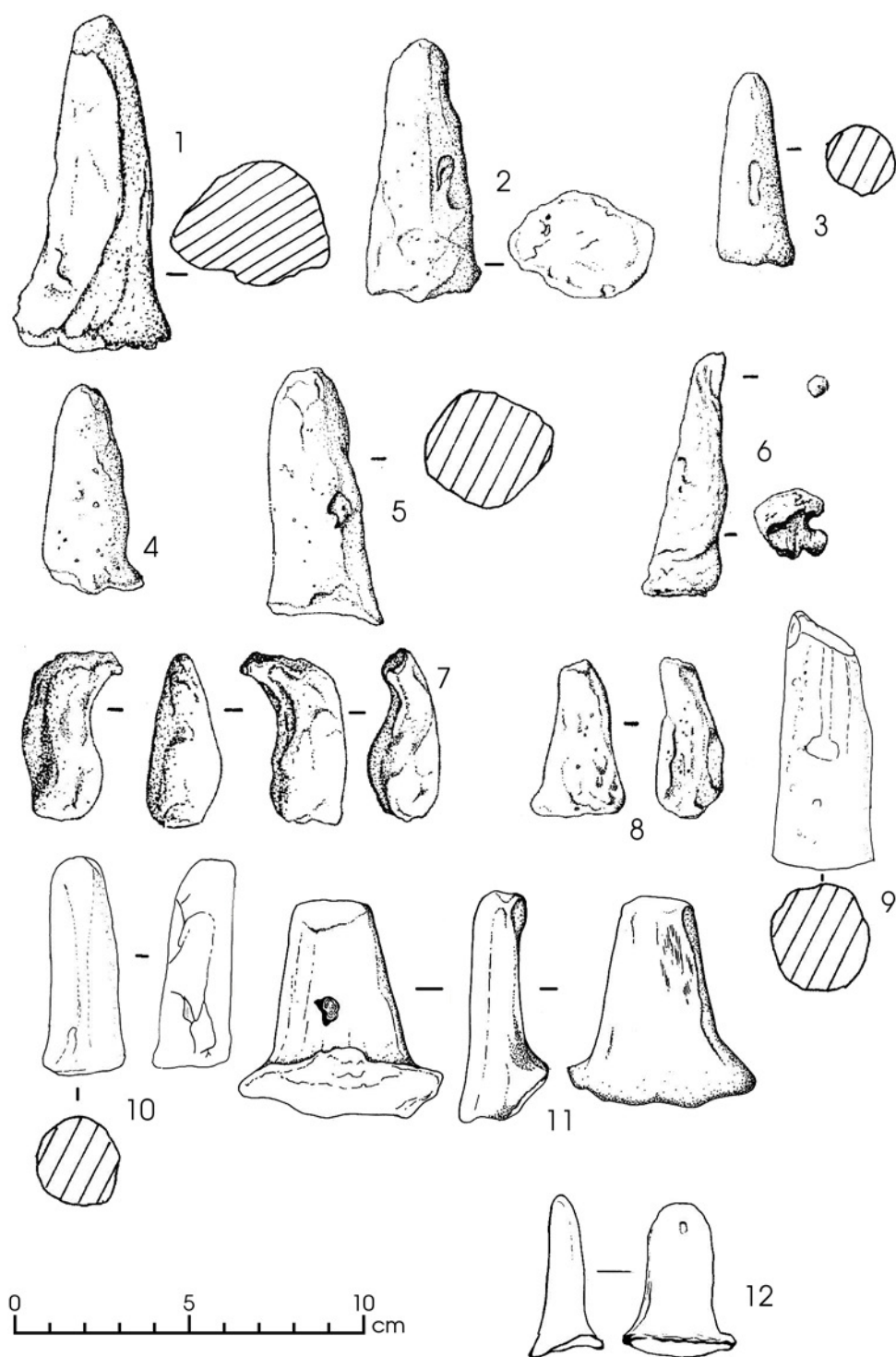


Fig. 205. Baked Clay: spacers [1:2]

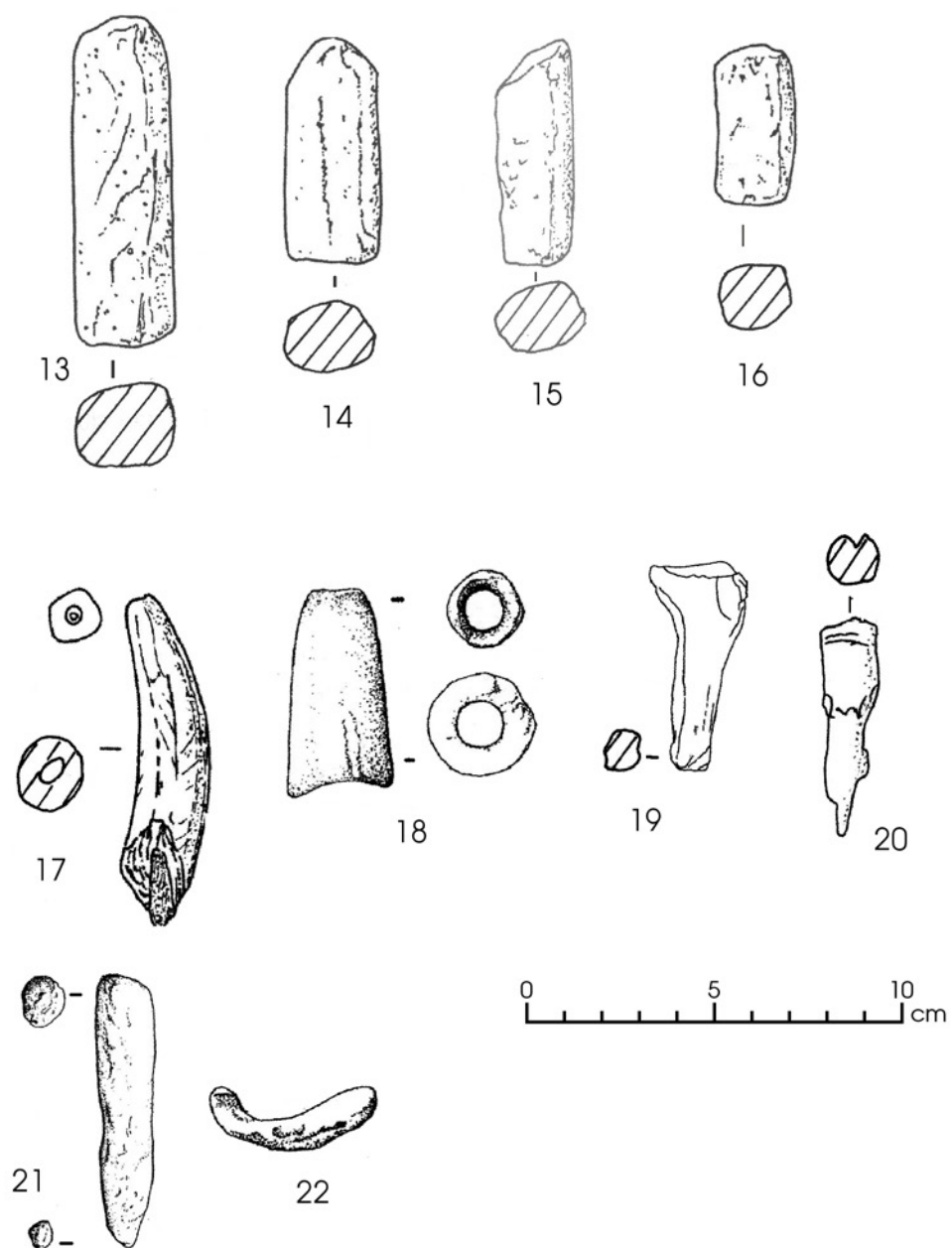


Fig. 206. Baked Clay: rolls of clay *etc* [1:2]

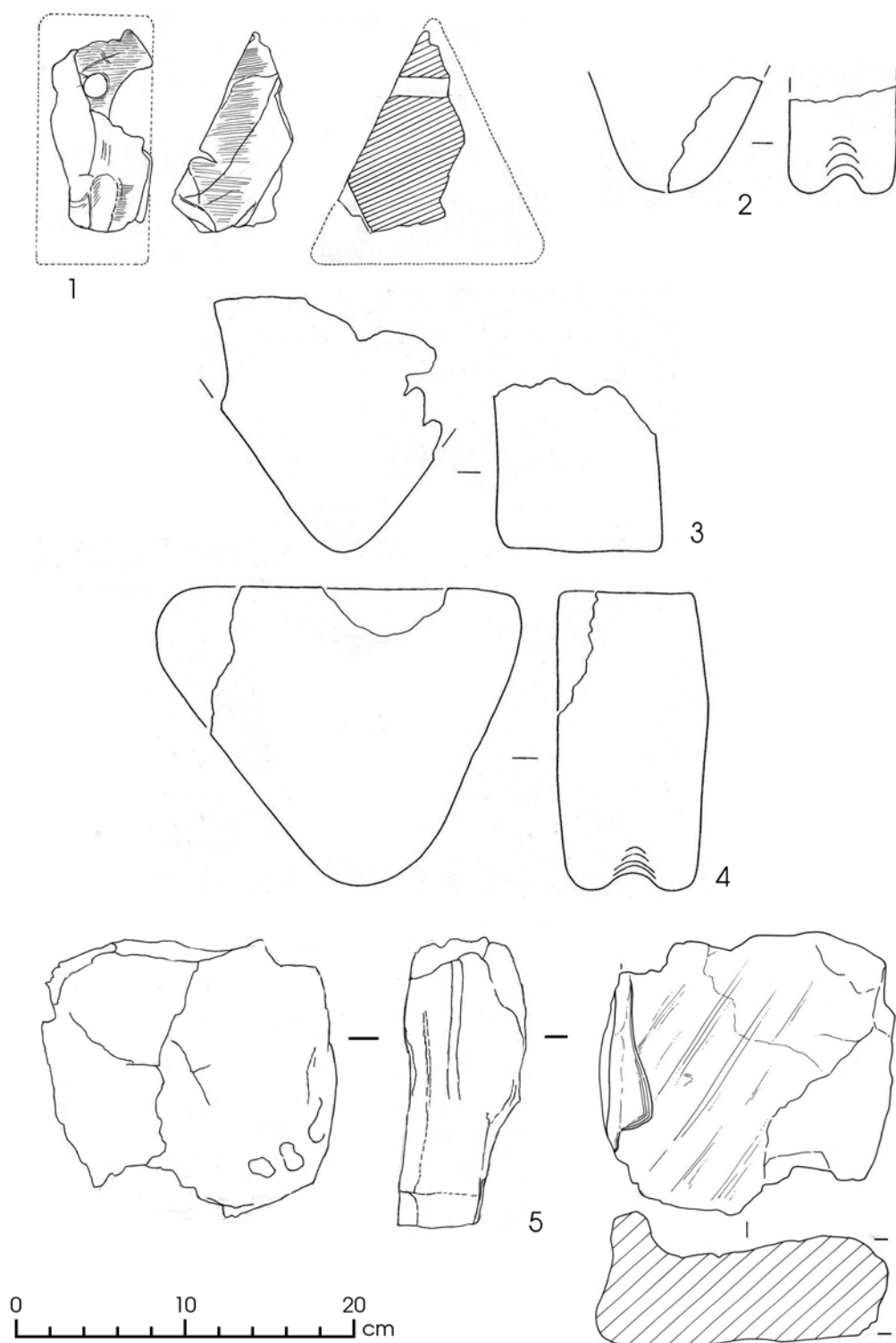


Fig. 207. Baked Clay: possible clay weights [1:4]

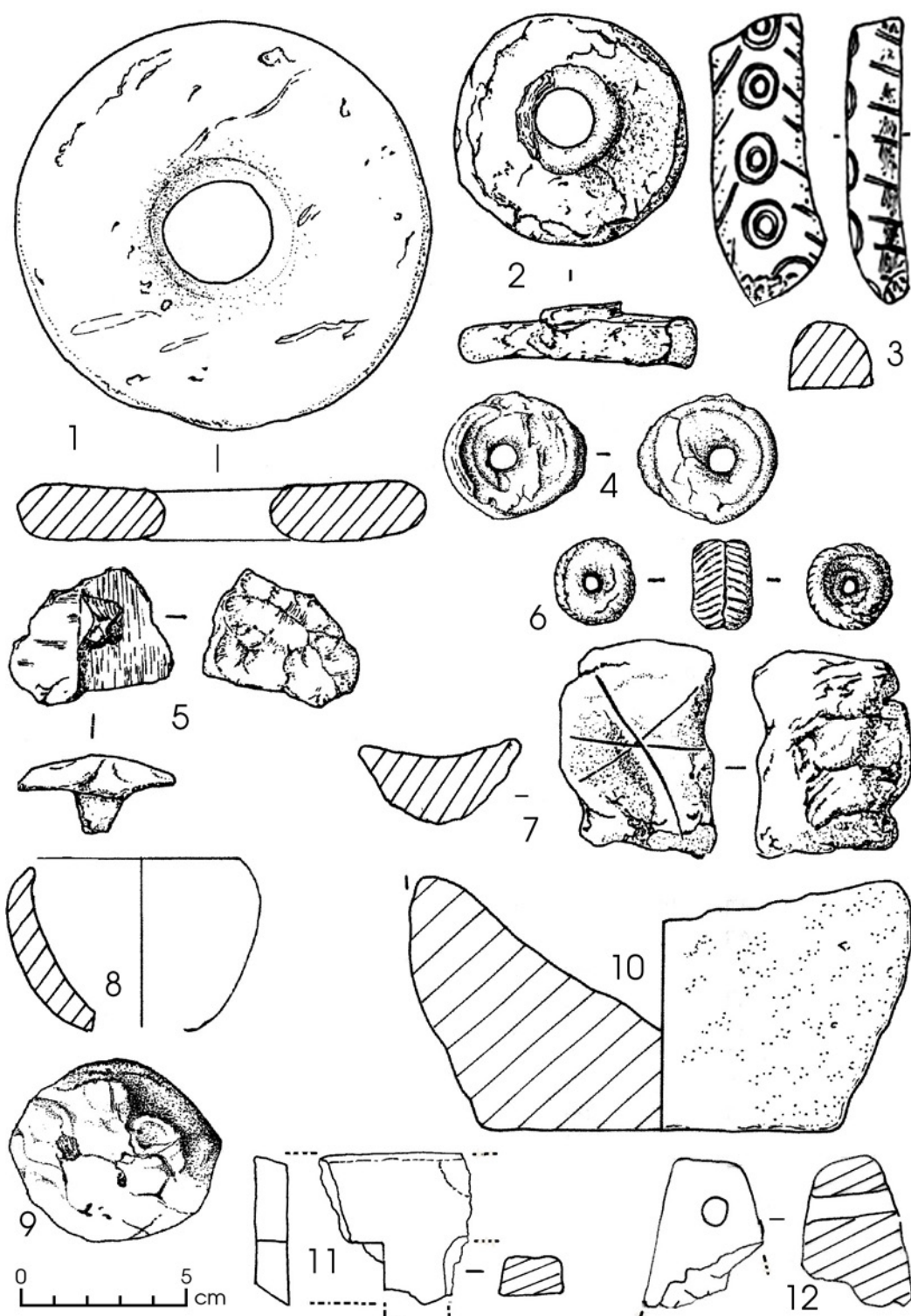


Fig. 208. Baked Clay: miscellaneous objects [1:2]





Part IV.

## The Other Finds



## 16. The Metal Small Finds

M J HAMMERSON

M R HULL†

### 16.1. Brooches

*The report on the brooches from Highgate Wood was written by the late M R Hull in 1972. Since the dating he applied generally remains valid, it has been decided to leave the text as far as possible as he wrote it. It should be borne in mind, however, that such statements as 'this is only the ninth example to come to light' may well no longer be the case. The brooches are of copper or bronze unless otherwise stated.*

1. (Fig. 209) Spring of 8 turns of squarish wire; the chord was held by a loop (broken) on the head; bow flattened round loop, otherwise of D-section, with small lateral appendages where head joins crossbar. Has a fine green patina about 1mm thick which has peeled off the lower end of the bow. Catchplate gone. The construction and the two appendages identify it as Hull Wiltshire type 121A (The type may be sprung [A] or hinged [B]). Although many are known, only two are dated. The distribution, which is from St. Mawgam and Caerleon to Silchester and Lowbury Hill, north to Leicester and Templeborough, only helps in that two or three occur at Ham Hill and again at Hod Hill. This suggests that it is a native type and its origin therefore possibly quite early, though the two dated examples are not helpful. The first was found in a Flavian level at Wroxeter (Shrewsbury Museum, H102), and is hinged and generally not typical in appearance. The second, also hinged, is typical; it was found in an inhumation burial of the 3rd-4th century, and this was used as evidence of the longevity of the type, though Hull considered this unlikely and cautions that the grave was cut into an Iron Age pit

(Richardson 1951, Fig.15.4).

*Context:* T61F1 (1969, SF 173); Ditch 2, Phase 2(3) South.

2. (Fig. 209) Brooch of Dolphin shape, but of Colchester construction (*ie* spring held by two holes through a lug). The remaining half-spring has five turns. The left arm is perhaps imperfect; the right has an oblique groove. The bow is divided into ridges by four sharply cut grooves; the middle two ridges have oblique knurling. The catchplate was probably solid. The date probably falls between AD 40 and 70, though there is little direct evidence available. The dolphin shape should not last beyond *c.* AD 70.

*Context:* T90L3 (1971, SF 50); Northern Kiln Dump, non-core contexts, Phases 3(3)–(4).

3. (Fig. 209) A large brooch, partly corroded. The construction is Colchester BB (Hull Type 93). The axis bar passed through a hole in the lug and the chord through another hole in the top of the crest. The latter continued as a ridge, all down the bow, with a slight hollow on each side of it; the small arms have each two inconspicuous grooves. The catchplate has perished. The type is common in Essex, Kent and East Anglia, to St.Albans, and reaches as far as Winchester, Silchester, Cirencester, Wroxeter and Leicester. First appearing *c.* AD 65, it may have lasted as late *c.* AD 80, but if so the armies of Cerealis and Agricola had no use for it, nor had their campfollowers.

*Context:* T89F4 (1971, SF 84); Pit 6, Phase 3(4).

4. (Fig. 209) Part of bow of Colchester Derivative bow brooch; wings and rear hook broken. Well defined crest ending approximately half-way along the bow, *c.* late AD 40s – 65.

*Context:* T29L2 (1968, SF 203).

5. (Fig. 209) Large example of Hull Colchester B type brooch. The type is entirely British and belongs to the south-eastern Belgic area. The date probably begins about AD 50 and

ends by AD 70, for none have been found in Flavian forts and there are none in Scotland. The furthest north are two from Broxtowe in Notts.

*Context:* T3L4 (1967, SF 48); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

6. (Fig. 209) Circular brooch, iron. Roman, but corrosion and damage prevents definite identification as either annular or penannular, or close dating.  
*Context:* T3L3 (1967, SF 43); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).
7. (Fig. 210) Probably Hull Wroxeter type, though it also has much in common with his south-western enamelled series. One of the main characteristics of the Wroxeter type is the round stud set at a point where the curve of the bow makes a hump as it reverses, and another is that the head is usually a D-shaped plate. However, arms forming a crossbar do occur. The south-western enamelled always has a crossbar and a similar hump in the bow, but not the round stud; instead there is a button, like the Backworth Riis or Riv, or merely two leaves. Both types have the enamelled panel. The Wroxeter type developed from a variety of the Polden Hill type in the first century – probably not early, for it is influenced by the Backworth type, though it is difficult to say how long it lasted. There are a few good examples in Scotland, and its occurrence at Brough has prompted the suggestion that it may have been made there. There is little evidence that it lasted beyond c. AD 140.  
*Context:* T30F1L1 (1968, SF 13), unphased.
8. (Fig. 209) Bow of what was almost certainly a Nauheim derivative, similar to Hawkes & Hull 1947, pl.xcii, fig.55, but, as often, with narrow bow. Date pre-Roman, dying out in the pre-Flavian period.  
*Context:* TT1L2, N-end-of-trench (1966, SF 1).
9. (Fig. 209) A similar somewhat wider example; fragment of bow.  
*Context:* T13L3 (1968, SF 81; Southern Kiln Dump, core layer, Phases 3(2)–(4).
10. (Fig. 210) Heavily corroded brooch which collapsed on lifting. The semicircular arched bow and iron pin-hinge suggest an Aucissa-type

brooch c. AD 45–6.

*Context:* T76F4 (1970, SF 97); Ditch 2, Phase 2(3) South.

11. Bronze fibula brooch pin, 47mm long.  
*Context:* T3NEextL2 (1967, SF 55).
12. (Fig. 209) Pin of a brooch; undateable. Bronze.  
*Context:* T60F1 (1969, SF 218); Ditch 2, Phase 2(3) South.
13. (Fig. 210) Spring of brooch.  
*Context:* T76F4 (1970, SF 70); Ditch 2, Phase 2(3) South.
14. Gilt bronze brooch; recent.  
*Context:* T43L1 (1969, SF 4).

## 16.2. Other bronze objects

15. (Fig. 210) Toilet-set brooch, or chatelaine, mostly perfect and in good condition. The plate is quite smooth and flat on the back; the front is recessed for three enamelled lozenges and two halves; the enamel in the field has perished but is preserved in the lozenge; its colour is dark and is now uncertain. The plate is surmounted by a round, oblate knob which has had a further ornament on top but its broken remnants do not indicate its nature. In this respect the knob differs from all the other known brooches of this class. The implements are suspended on a stout bar; there are now four, and are unlikely to have been more. That on the right is a flat spike and not part of a tweezers; that on the left is of round section; the second from right may have been tweezers. This is only the ninth example to have come to light [as of 1972] and of these only one carries any dating evidence. It was found in a grave at Canterbury with brooches, pottery, glass, etc, probably of the second century (Brent 1873, 376). The type is wholly British, with a British style of enamelling. Only one has been found abroad, at Heerlen, Holland [as at 1972] (Bogaers 1959, 157, Fig.16 Nos.5 & 6).  
*Context:* T44EextF4 (1969, SF 233); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).
16. (Fig. 210). Bronze buckle. No closely dated parallel [as at c. 1973] but size, style and method

- of attachment suggest mid-18th century, c. 1740. The missing tongue was probably of the pitchfork type.  
*Context:* T2L3 (1967, SF 3); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).
17. Small fragment of bronze, possibly a pin.  
*Context:* T43F1 (1969, SF 178); Ditch 2, Phase 2(3) South.
  18. (Fig. 210) Fragment of bronze object, possible key or mount.  
*Context:* T61F1L1 (1969, SF 186); Ditch 2, Phase 2(3).
  19. Fragment of copper sheet. Probably modern.  
*Context:* surface (1967, SF 54).
  20. Bronze disc, 21.5mm diameter.  
*Context:* T8SWextF3 (1967, SF 64); Pit 2, Phase 3(2).
  21. (Fig. 210) Fragment of thin bronze bracelet with scalloped decoration on outer face. Probably Roman.  
*Context:* T52SextL2 (1969, SF 228).
  22. Lump of melted bronze, c. 25 x 12mm.  
*Context:* T66L1 (1970, SF 6).
  23. (Fig. 210) Fragment of ribbed bracelet.  
*Context:* T77L2 (1970, SF 39); Ditch 2, but Layer 2.
  24. (Fig. 210) Part of terret ring.  
*Context:* T83L2 (1970, SF 44); Ditch 3, but Layer 2.
  25. (Fig. 210) Fragment of bracelet, 13mm wide, of thin sheet bronze, with two parallel lines of repousse dot decoration.  
*Context:* T13SextL2 (1968, SF 229); Southern Kiln Dump, but Layer 2.
  26. (Fig. 211) Pair of tweezers.  
*Context:* T89F4 (1971, SF 98); Pit 6, Phase 3(3).
  27. (Fig. 211) Pair of tweezers; two arms broken apart.  
*Context:* TOF1L2 (1974, SF 19); Circular Ditch, Phase 1.
  28. Strip of bronze, square-section, 26 x 2.5 x 1mm.  
*Context:* T89F4L1 (1971, SF 125); Pit 6, Phase 3(4).
  29. Two fragments of bronze sheet, one with bronze rivet.  
*Context:* T21L2 (1968, SF 3).
  30. Fragment.  
*Context:* TT1L3 (1966, SF 3).
  31. Embossed bronze disc, c. 10cm diam.  
*Context:* surface (1967, SF 54).
  32. (Fig. 211) Grooved copper alloy fragment, 48 x 18 x 3mm.  
Though recovered from the core of the Southern Dump, comparison with other wartime finds leaves little doubt that this is a fragment from a World War 2 bomb, or just possibly from an anti-aircraft shell. A barrage balloon was located in the wood – the anchor blocks may still be located by crop-marks on the playing field during dry weather – and bombs were dropped along the adjoining railway line during the 1939–45 war; it is therefore not unlikely that a fragment from an exploding bomb could have embedded itself deeply in otherwise secure archaeological strata, leaving no recognisable indication of its entry into the ground.  
*Context:* T5L2 (1967, SF 57); Southern Kiln Dump, core layers.

### 16.3. Coins

33. AR Denarius, Roman republic, L Julius Bursio c. 83 B.C. (Sydenham 728–9). Very worn.  
*Context:* TT1 (1966).
34. Bronze disc, c. 22mm diam, somewhat irregular shape. Possibly a coin, but date unknown and all detail lost.  
*Context:* T8SWextF3 (1967, SF 64); Pit 2, Phase 3(2).
35. George III, AR 4d, 1817.  
*Context:* T65L1 (1970, SF 13).
36. Victoria, AE 1d, 1866, 1876 or 1886. Corroded.  
*Context:* T74L1 (1970, SF 2); above ruts of trackway.
37. Victoria, AE 1d, 1863. Corroded.  
*Context:* T68L1 (1970, SF 3).

38. Victoria, AE 1d, c. 1860–1880, v.worn.  
*Context:* T89L1 (1971, SF 8).

#### 16.4. Objects of lead

39. (Fig. 211) Bead-like object, in lead. 17mm diam, biconical profile, central hole 9mm.  
*Context:* T1SEextL2 (1967, SF 45).
40. 23mm strip of lead, c. 9mm square in section.  
*Context:* T8F3 (1967, SF 74); Pit 2, Phase 3(2).
41. Melted strip of lead, c. 50mm long, tapering from c. 15mm.  
*Context:* T8F3 (1967, SF 75); Pit 2, Phase 3(2).
42. (Fig. 211) Lead disc, c. 2mm thick. Diam. 29 x 27mm; 9mm circular central hole. Perhaps a spindle-whorl?  
*Context:* T22L2 (1968, SF 86).
43. (Fig. 211) Cruciform lead object, with faint rectilinear decoration on one surface. Sharply in-turned ends of arms suggest it was intended to be clamped to the end of an object c. 4cm square, perhaps of wood. A small central hole c. 1mm dia., further suggests the object was secured to the (?) wooden object with a small pin or nail.  
*Context:* T13L5 (1968, SF 162); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).
44. Melted drop of lead, c. 35mm x 22mm.  
*Context:* T33F1L1 (1968, SF 249); Pit 3, Phase 3(4).
45. (Fig. 211) Sub-conical lead object, 31mm tall; nose almost flat, c. 10mm diam; base 24mm diam. Pierced lengthwise by central hole 10mm diam., apparently filled with grey fired clay. Function uncertain; perhaps a nozzle for applying clay decoration to pottery, lost in kiln, resulting in clay remaining within and becoming fired.  
*Context:* T61L2 (1969, SF 78): Ditch 2, but Layer 2.
46. Fragment of sheet iron [or possibly iron pan].  
*Context:* TPF1L1 (1974, SF 38); Circular Ditch, Phase 1.
47. Knife blade frag? 27mm+.  
*Context:* T8F3 (1967, SF 68); Pit 2, Phase 3(2).
48. Circular nail head 23mm dia.; shank (stump only) 12mm square at junction with head.  
*Context:* T33F1L1 (1968, SF 246); Pit 3, Phase 3(4).
49. Blade frag.?  
*Context:* T33F1L1 (1968, SF 250); Pit 3, Phase 3(4).
50. Frag. of large nail shank.  
*Context:* T69F3 (1970, SF 77); Pit 4, Phase 4.
51. Part of large nail shank?  
*Context:* T69F3 (1970, SF 84); Pit 4, Phase 4.
52. (Fig. 212) Triangular-headed nail 75 x 10 x 5mm.  
*Context:* T13L1 (1968, SF 9).
53. Shank-shaped object with pointed arrow shaped head; possibly a tool bit.  
*Context:* T29L1 (1968, SF 18).
54. Frag. of small nail shank.  
*Context:* T8L1 (1967, SF 76).
55. Nail c. 100mm.  
*Context:* T37L1 (1968, SF 95).
56. Nail shank frags.  
*Context:* T37L1 (1968, SF 99).
57. Large nail shank.  
*Context:* T14L1 (1968, SF 216).
58. Half of iron heel plate.  
*Context:* T94L1 (1971, SF 46).
59. Two frags. of iron sheet.  
*Context:* T1L2 (1967, SF 13).
60. Nail shank 80mm, slightly curved.  
*Context:* T4L2 (1967, SF 19).
61. Broken shank of large nail 60mm+  
*Context:* T4L2 (1967, SF 26).
62. Iron strip or nail shank 65 x 11 x 5mm.  
*Context:* T21L2 (1968, SF 5).
63. (Fig. 212) Stud or hobnail; shank 6mm.  
*Context:* T25L2 (1968, SF 10).

#### 16.5. Objects of iron

Virtually all iron objects were heavily corroded.



65. Clock key?  
*Context:* T25L2 (1968, SF 26).
66. Nail shank or iron strip 67mm.  
*Context:* T25L2 (1968, SF 14).
67. Nail shank (or bar) frag. 50 x 13 x 9mm.  
*Context:* T27L2 (1968, SF 22).
68. Fragment: tip of nail or knife blade?  
*Context:* T26L2 (1968, SF 59).
69. (Fig. 212) Nail: small head shank, broken 35mm.  
*Context:* T23L2 (1968, SF 63).
70. (Fig. 212) Nail shank bent into hook shape.  
*Context:* T32L2 (1968, SF 67).
71. (Fig. 212) Small stud.  
*Context:* T33L2 (1968, SF 100).
72. Quantity of fragments possibly from a strip or blade.  
*Context:* T30L2 (1968, SF 101).
73. Frag. of small nail shank.  
*Context:* T29L2 (1968, SF 106).
74. Blade frags.?  
*Context:* T22L2 (1968, SF 11).
75. Nail 46mm.  
*Context:* T38L2 (1968, SF 117).
76. Heel plate.  
*Context:* T35L2 (1968, SF 125).
77. Unidentifiable frags.  
*Context:* T22L2 (1968, SF 129).
78. Nail head?  
*Context:* T23L2 (1968, SF 136).
79. Nail shank, or possibly tool bit, 9mm square section.  
*Context:* T26L2 (1968, SF 172).
80. Nail head c. 15mm sq, shank frag.  
*Context:* T37L2 (1968, SF 174).
81. Nail shank 34mm.  
*Context:* T29L2 (1968, SF 187).
82. Nail shank frag. 50mm.  
*Context:* T35L2 (1968, SF 188).
83. Sub-rectangular sheet frag. c. 40mm sq, possibly large stud head.  
*Context:* T35L2 (1968, SF 198).
84. Large nail shank or tool shaft.  
*Context:* T35L2 (1968, SF 211).
85. Large nail 105mm.  
*Context:* T44L2 (1969, SF 3).
86. Fragments of iron sheet.  
*Context:* T44L2 (1969, SF 20).
87. Fragments of medium large nail/nails.  
*Context:* T45L2 (1969, SF 35).
88. Frag. of small nail.  
*Context:* T40L2 (1969, SF 98).
89. (Fig. 212) Object broken 45mm. Surviving end chisel-shaped; possibly a drill bit.  
*Context:* T49L2 (1969, SF 129).
90. Nail shank.  
*Context:* T63L2 (1969, SF 146).
91. Nail head 20mm sq. with shank frag.  
*Context:* T62L2 (1969, SF 147).
92. Blade frags.?  
*Context:* T97L2 (1971, SF 148).
93. Nail shank frag. 3mm sq.  
*Context:* T94L2 (1971, SF 150).
94. (Fig. 212) Nail c. 40mm, head 14mm square.  
*Context:* T70L2 (1970, SF 8).
95. Nail shank frag, curved, 40mm.  
*Context:* T74L2 (1970, SF 40).
96. Length of twisted or plaited iron wire 40mm long.  
*Context:* T65L2 (1970, SF 19).
97. Two nails, large.  
*Context:* T83L2 (1970, SF 42).
98. Small bent nail shank.  
*Context:* T83L2 (1970, SF 43).
99. Nail shank frags.  
*Context:* T83L2 (1970, SF 49).
100. (Fig. 212) Nail 35mm shank, head 12mm dia.; and small frag. of iron sheet.  
*Context:* T83L2 (1970, SF 52).

101. (Fig. 212) Part of rectangular hasp or buckle.  
*Context:* T83L2 (1970, SF 59).
102. Large nail shank?  
*Context:* T83L2 (1970, SF 61).
103. Frag. of small nail.  
*Context:* T84L2 (1970, SF 87).
104. Nail frags.  
*Context:* T84L2 (1970, SF 94).
105. Nail head c. 15mm sq. and part of shank.  
*Context:* T83L2 (1970, SF 47).
106. Nail; head 12mm diam, shank broken 4mm sq.  
*Context:* T89L2 (1971, SF 12).
107. Large nail shank c. 50mm, c. 10mm square section.  
*Context:* T89L2 (1971, SF 20).
108. Nail shank frag. 30mm.  
*Context:* T89L2 (1971, SF 30).
109. Tip of large nail shank?  
*Context:* T89L2 (1971, SF 53).
110. Nail frags.  
*Context:* T93L2 (1971, SF 61).
111. Nail shank frag. 38mm.  
*Context:* T93L2 (1971, SF 72).
112. Heel plate?  
*Context:* T91L2 (1971, SF 78).
113. Frags. of two nail shanks.  
*Context:* T93L2 (1971, SF 82).
114. Nail shank 40mm.  
*Context:* T92L2 (1971, SF 92).
115. Fragments of horse shoe.  
*Context:* T94L2 (1971, SF 103).
116. Nail shank 45mm, slightly curved.  
*Context:* TUL2 (1974, SF 15).
117. Quantity of studs possibly from hobnailed boot.  
*Context:* T45F2L3 (1969, SF 163); fill of former levigation pit, Phase 2(3) South.
118. Nail head corroded, large.  
*Context:* T50F2 (1969, SF 214); material derived from Southern Kiln Dump in Southern part of Ditch 1, Phase 3(2)–(4).
119. Frag. shank of small nail.  
*Context:* T92F3 (1971, SF 180); Ditch 1 North, Phase 3(2)–(4).
120. (Fig. 212) Small nail with pyramidal head 16mm+.  
*Context:* T52F1 (1969, SF 131); Ditch 2, Phase 2(3) South.
121. Nail shank, bent tip.  
*Context:* T43F1 (1969, SF 160); Ditch 2, Phase 2(3) South.
122. (Fig. 212) Nail head 10mm sq, shank 29mm.  
*Context:* T52F1 (1969, SF 174); Ditch 2, Phase 2(3) South.
123. Unidentifiable object.  
*Context:* T61F1L6 (1969, SF 208); Ditch 2 layer associated with operation of Kiln 7, Phase 2(2).
124. (Fig. 212) Nail; head oval 11 x 8mm; shank 25mm.  
*Context:* T70F1 (1970, SF 21); Kiln 6, Phase 2(2).
125. Two small nail frags.  
*Context:* T82F1a (1970, SF 74); Ditch 3, Clay Preparation Pit 1, Phase 2(2).
126. Nail frags.  
*Context:* T83F1 (1970, SF 75); late activity in Ditch 3, Phase 4.
127. Nail shank.  
*Context:* T83F1 (1970, SF 76); as 126.
128. (Fig. 212) Two frags of spatula or blade?  
*Context:* T83F1 (1970, SF 78); as 126–7.
129. Nail shank bent at right angle c. 60mm; and further frag.  
*Context:* T84F1 (1970, SF 100); Ditch 3, basal layer, Phase 2(2).
130. Nail 25mm.  
*Context:* T84F1 (1970, SF 104); as 129.
131. Part of large nail?  
*Context:* T96F1 (1971, SF 89); Ditch 2, Phase 2(3) South.
132. Small nail frag.?  
*Context:* T98F1L1 (1971, SF 189); Clay Preparation Pit 1, Phase 2(2).

133. Fragment of sheet or blade.  
*Context:* TWF1L1 (1974, SF 28); South-eastern Ditch inside Circular Phase 1 Structure, Phase 3(1).
134. (Fig. 212) Tip of pruning knife, billhook or saw?  
*Context:* T94L4 (1971, SF 151); Northern Kiln Dump, core layer, Phase 3(4).
135. Nail fragments.  
*Context:* T3L2 (1967, SF 18); Southern Kiln Dump, core layer, Phases 3(2)–(4).
136. Nail shank 40mm long, 6mm square.  
*Context:* T3L2 (1967, SF 27), as 135.
137. Nail shank frag. 30mm.  
*Context:* T3L2 (1967, SF 33); as 135–6.
138. (Fig. 212) Uncertain object 34mm, broken with diamond-shaped head pierced by central hole.  
*Context:* T24L2 (1968, SF 46); Southern Kiln Dump, core layer.
139. (Fig. 212) Nail; shank c. 85mm, head 45mm diam.  
*Context:* T13L3 (1968, SF 91); Southern Kiln Dump, core layer.
140. Nail shank 49mm.  
*Context:* T9L2 (1967, SF 29); Southern Kiln Dump, non-core layer.
142. (Fig. 212) Small nail shaped as if driven into wood and shaped round it; wood subsequently rotted.  
*Context:* T3L3 (1967, SF 41); Southern Kiln Dump, non-core layer.
143. Nail c. 150mm.  
*Context:* TT1L4 (1966).
144. (Fig. 212) Nail head, oval, 19mm dia.  
*Context:* T5L2 (1967, SF 20); Southern Kiln Dump, core layer.
145. Frags. of small nail shank.  
*Context:* T5L2 (1967, SF 31); as 144.
146. Frags. of strip or blade.  
*Context:* T8L3 (1967, SF 34); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).
147. Shank frag. of small nail.  
*Context:* T5NextL2 (1967, SF 44); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).
148. Fragments of nail shank c. 50mm.  
*Context:* T6SextL1 (1967, SF 47).
149. Modern spring?  
*Context:* T5NWextL2 (1967, SF 49).
150. Modern lace tag.  
*Context:* T5NWextL2 (1967, SF 50).
151. Featureless iron frag.  
*Context:* T3NEextL1 (1967, SF 51).
152. Nail 25mm shank, head 15mm dia.  
*Context:* T1SEextL2 (1967, SF 52).
153. Part of long key, post-medieval.  
*Context:* T5NWextL2 (1967, SF 56).
155. Fragments of possible large nail.  
*Context:* T30F1L1 (1968, SF 20).
161. Nail shank 40mm.  
*Context:* T24EextL3 (1968, SF 207); Southern Kiln Dump, core layer, Phases 3 (2)–(4).
162. Nail shank 45mm+.  
*Context:* T61L3 (1969, SF 93); Ditch 2, Phase 2(3) South.
163. Frags. of thin iron sheet.  
*Context:* T44EextL2 (1969, SF 118); Southern Kiln Dump, non-core layer, Phases 3 (2)–(4).
164. Nail shank frag?  
*Context:* T55L1 (1969, SF 168).
166. Square nail shank frag. 28mm+  
*Context:* T80F1 (1970, SF 64); wheel rut, track-way.
167. Blade or strip frag.  
*Context:* T82L1A (1970, SF 80); Preparation Pit 1, Phase 2(2).
169. Nail frag.  
*Context:* T84ExtF1 (1970, SF 107); Ditch 3, basal layer, Phase 2(2).
171. Nail shank 47mm.  
*Context:* T110F1 (1972, SF 207).
172. Heel plate.  
*Context:* surface, near T80 (1970, SF 67).
173. Nail frags.  
*Context:* T53F1 (1969); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

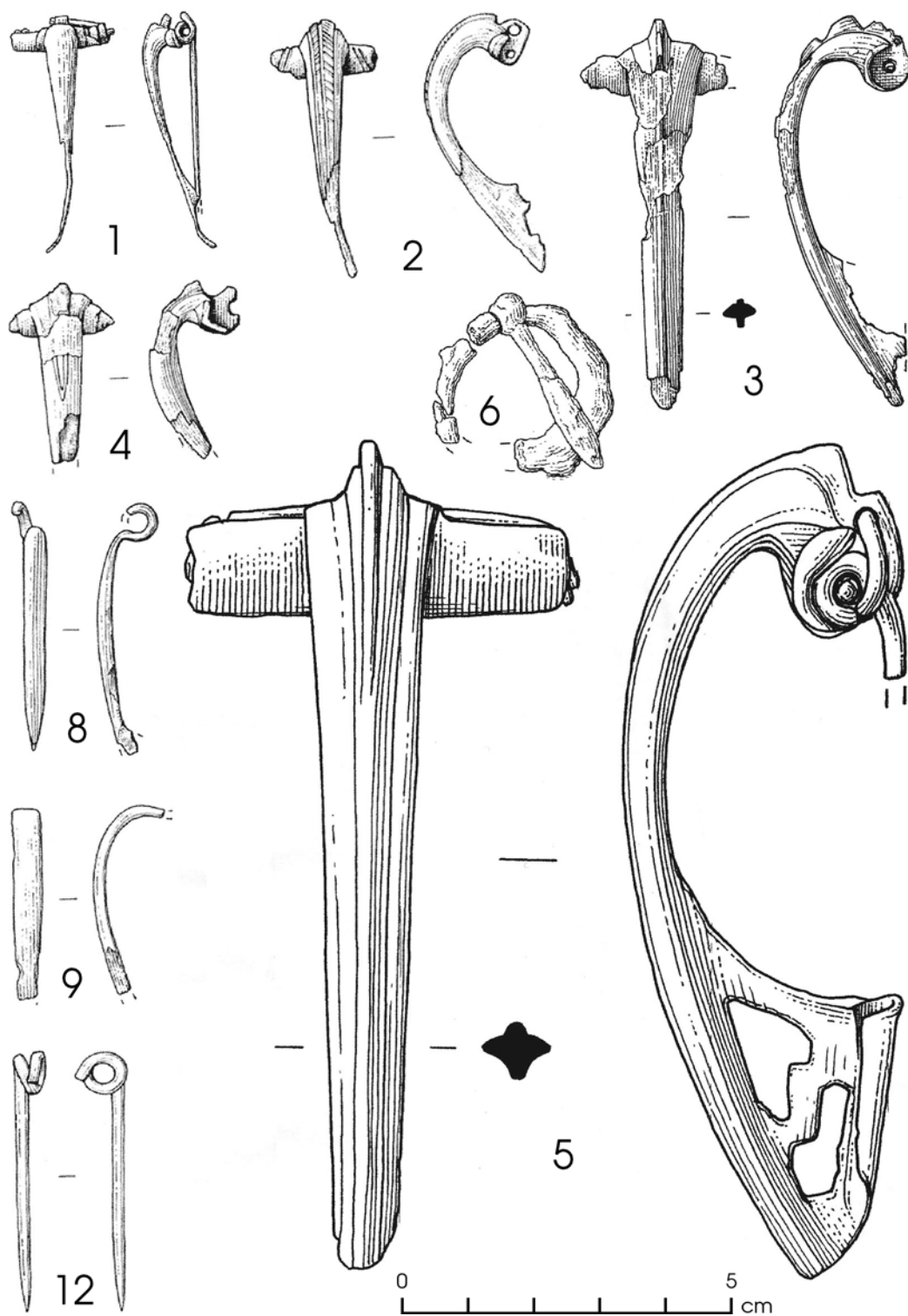


Fig. 209. Bronze and iron brooches [1:1]

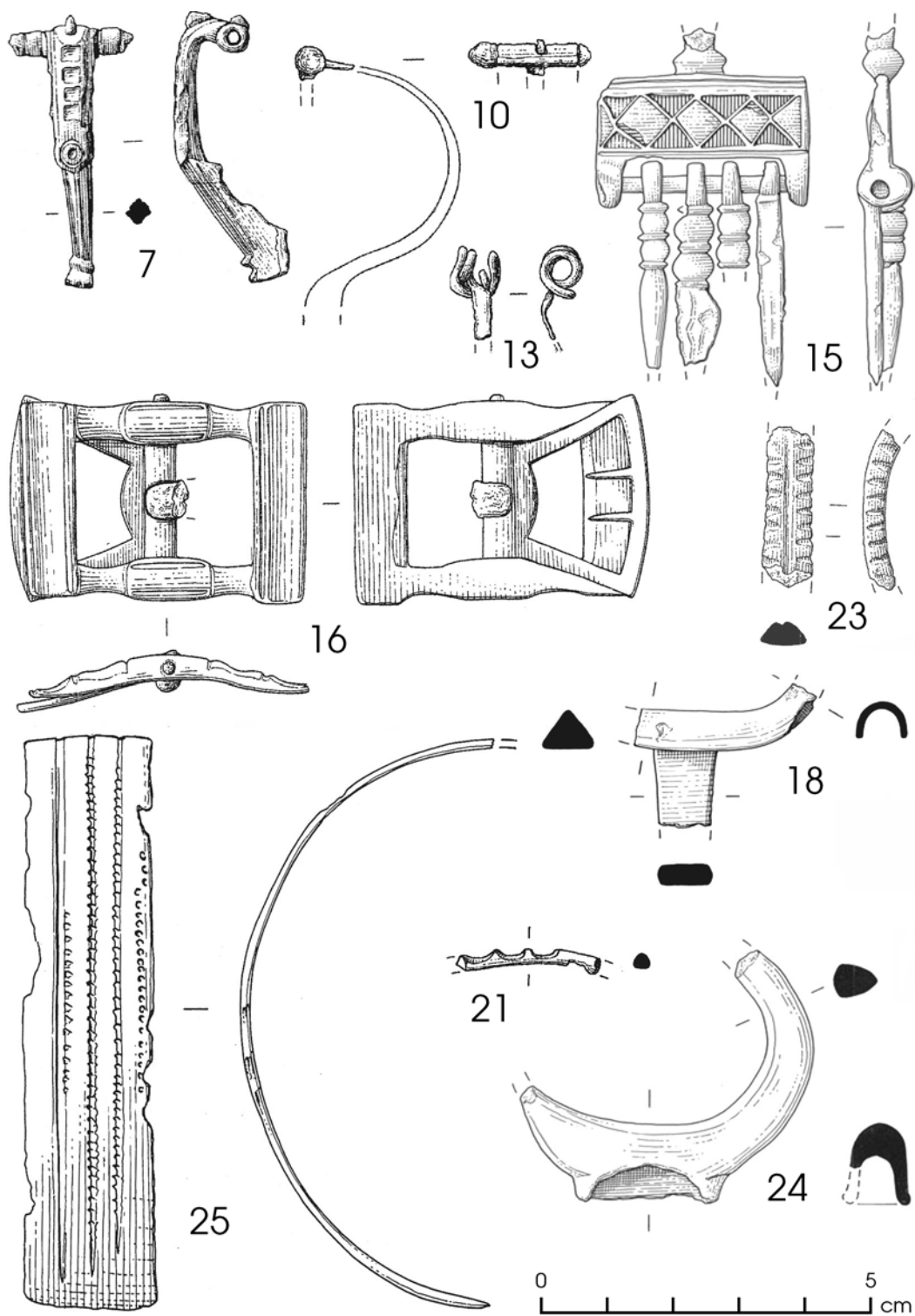


Fig. 210. Bronze brooches and other bronze and copper objects [1:1]

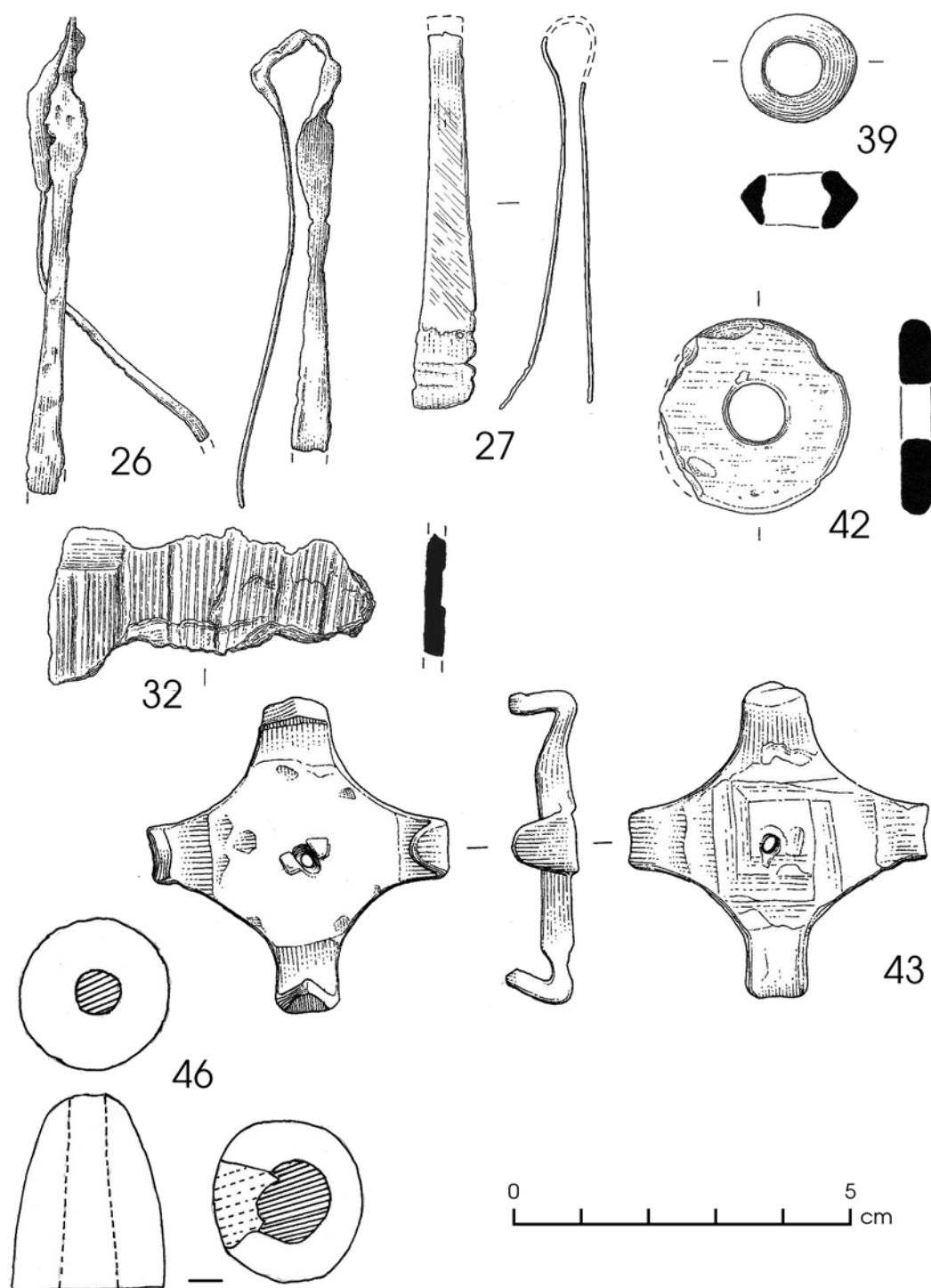


Fig. 211. Bronze and lead objects [1:1]



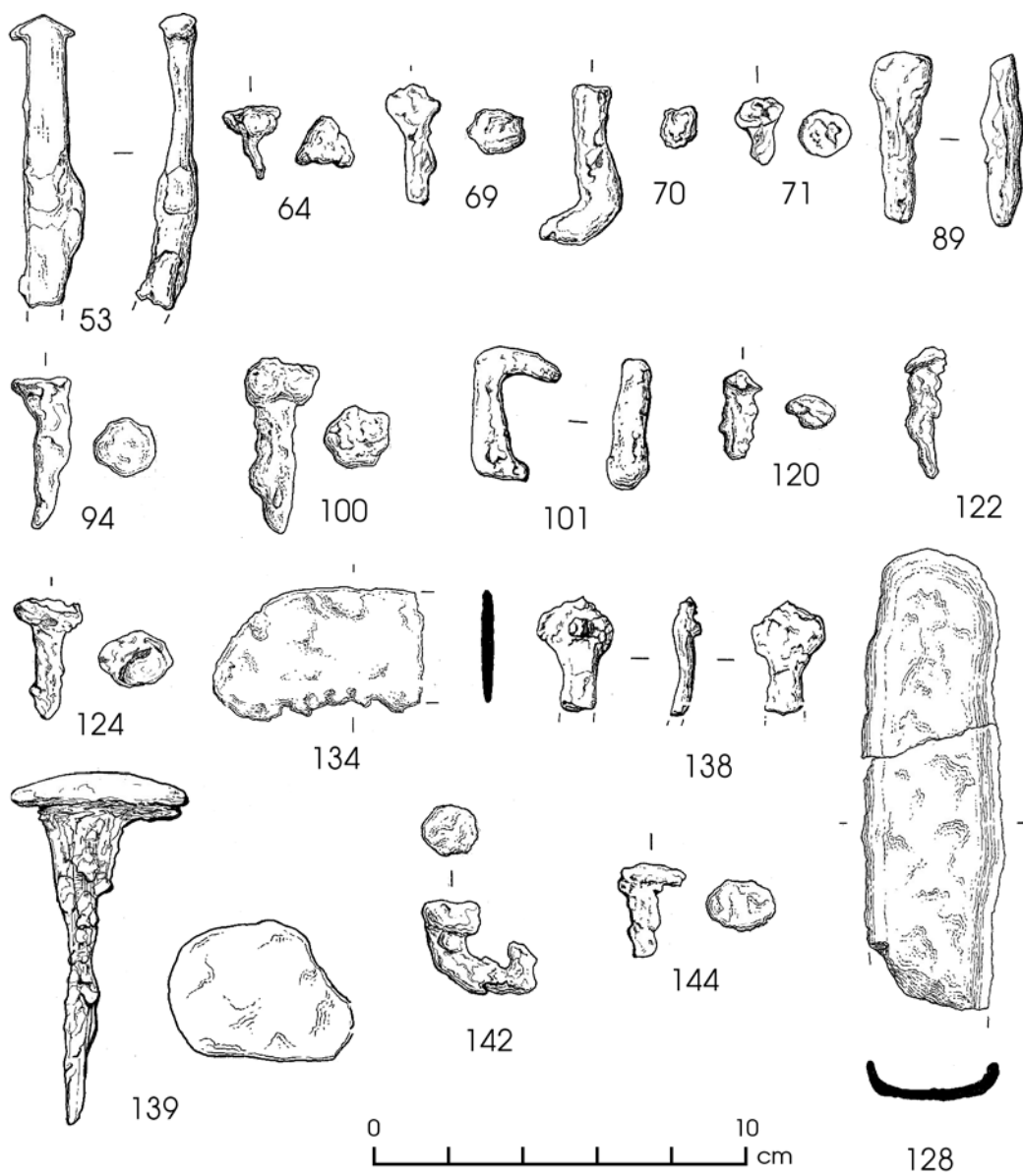


Fig. 212. Iron objects [1:2]

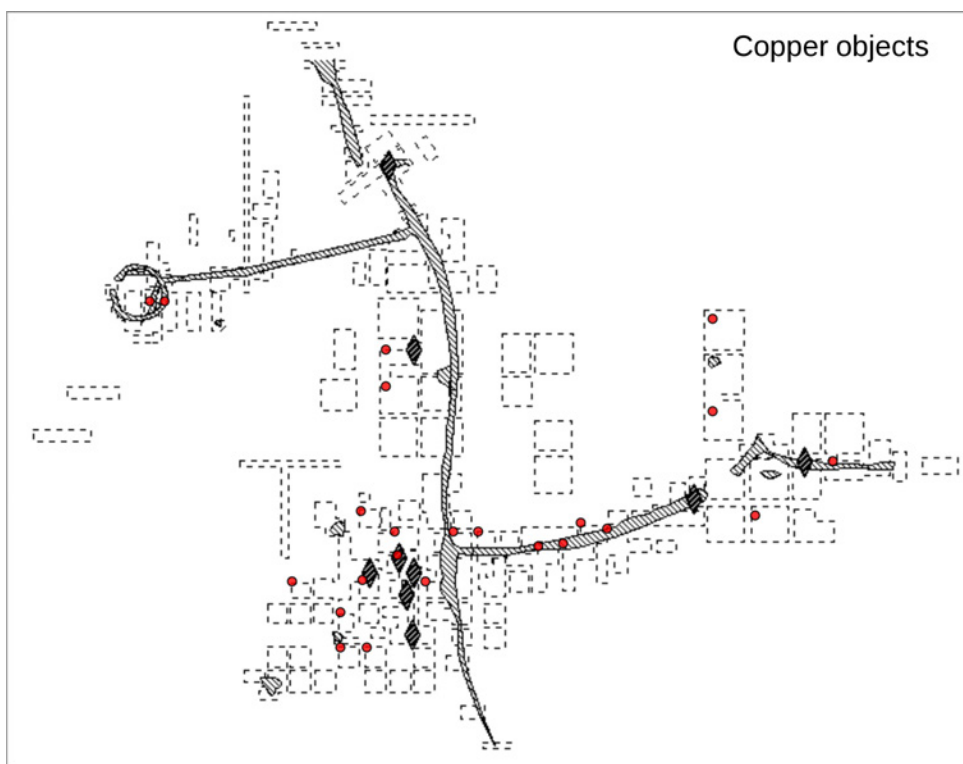


Fig. 213. Distribution of bronze and copper objects

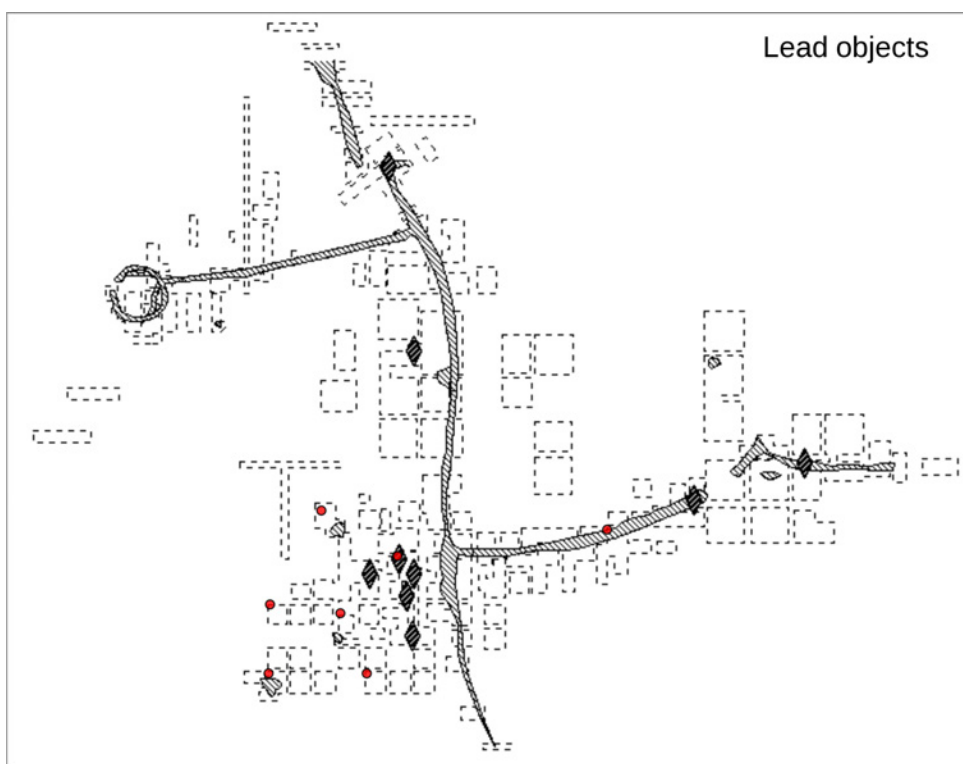


Fig. 214. Distribution of lead objects

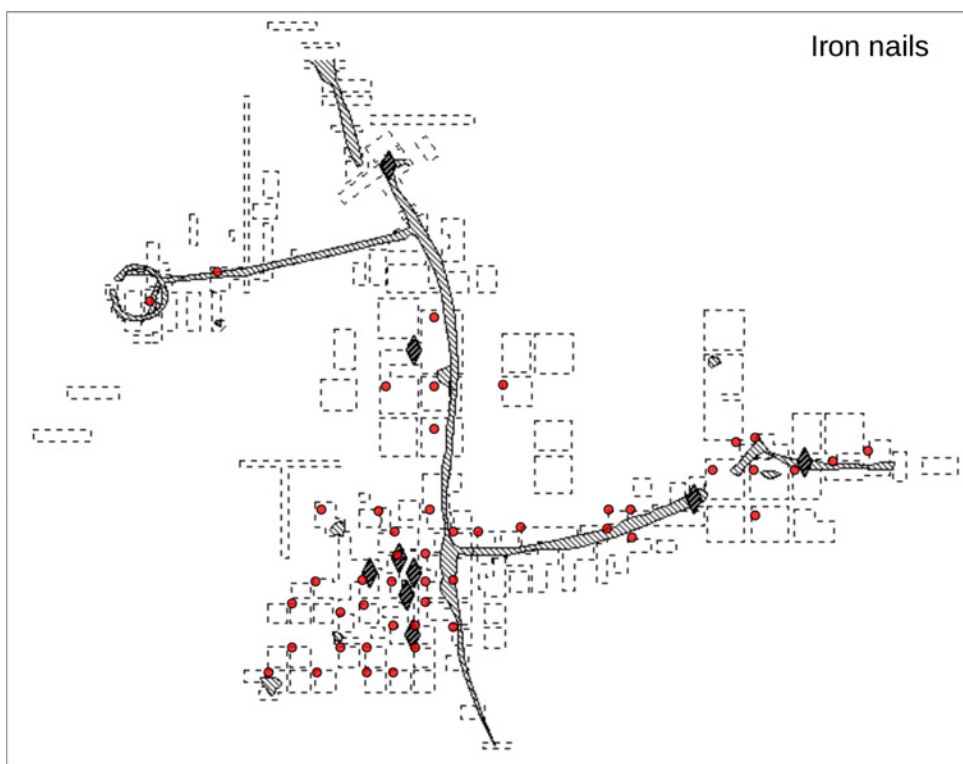


Fig. 215. Distribution of iron nails

## 17. The Stone Artifacts

A WARDLE

Fifty one fragments of worked stone were recovered from the excavations between 1968 and 1974, of which 17 can be identified as hones and 27 as parts of querns. The remaining seven fragments were not securely identified and details can be found in the archive. Identification of the stone types was undertaken in the 1970s by S E Ellis of the British Museum (Natural History) (hones) and T Ford of University of Leicester, and their reports are collated here. The hones identified at the British Museum were thin-sectioned.

### 17.1. Hones

Figs. 216 and 217

The majority of the hones found in Roman contexts are made from local sandstones, with two examples of Coal Measures Sandstone (Nos 1 and 6). It should be noted that the most common type of hone found in London and elsewhere in the Roman period, that made of Kentish Rag, is absent (Moore 1978, 67; Rhodes 1986, 240). Coal Measures Sandstone is the next most frequent type (see New Fresh Wharf, *ibid*). The Roman site at Highgate Wood in general therefore, exploited local resources.

Two stones of arkosic grit (Nos 8 and 9) are of uncertain date. Ellis (1969) cites a parallel from an early Saxon site (Linford, Essex) but this may be an example of reused Roman building stone. The Highgate Wood contexts appear to be securely dated to the 1st/2nd century.

Three hones are definitely of post-Roman date, notably two schist-hones. These mullions in a mica-quartz-schist from Eidsborg, Telemark, Norway which belong to Ellis Type 1A (Ellis 1969) and have subsequently been referred to as Norwegian

ragstone (Moore 1978), are among the most common types used since Roman times. They are good examples of primary hones, implements imported for a specific purpose, as opposed to secondary hones, tools fashioned for example from reused building materials. Hones from this source do not appear on English sites earlier than the 10th century but became predominant in medieval times. Several are known from Saxo-Norman contexts in London (Pritchard 1991, 155). The hone made from ottrelite-phyllite (No 17) may be of similar date or later as there is no evidence that the source was worked in the Roman period, but the stone was quarried until comparatively recent times (Davison *et al* 1986). The presence of these late Saxon or medieval artefacts on an otherwise Roman site may be explained by examination of their contexts. All come from unstratified or disturbed levels and one can conjecture that the tools were lost during coppicing of the wood in the medieval period.

#### 17.1.1. Roman

1. Rectangular hone, broken at both ends. Slightly ferruginous feldspathic sandstone of Coal Measure or Millstone Grit type, probably from the Pennine area (Davison *et al* 1986). Similar hones have been found in late Saxon and medieval sites at Thetford and York (*ibid*) but a Roman date is not excluded. Surviving length 64mm; width 27mm; thickness 23mm. *Context*: T118L2 (1972, SF 202) ; Northern Kiln Dump, but Layer 2 and so not securely stratified.
2. Fragment of pale pinkish-buff sandstone, one end smoothed and undamaged, the other fractured. A deep sharpening groove has been worn on the upper surface. The stone resembles concretionary sandstones from the Reading Beds; possibly a 'sarsen' from local gravel or boulder clay (Davison *et al* 1986). Surviving length 46mm; width 73mm; thickness 27.5mm.

*Context:* T21L2 (1968, SF 53); Layer 2 again.

3. Hard pale buff-coloured sandstone; fragment from the tip of a large whetstone, the sides smoothed and the wider end broken. Surviving length 59mm; thickness 39mm.

*Context:* T121L2 (1972, SF 231); Northern Kiln Dump, non-core layer.

4. (not illustrated). Pale buff-coloured sandstone, two edges shaped, the others broken, possibly used as a whetstone. As No 2 almost certainly of local origin (Davison *et al* 1986). Surviving length 78mm; surviving width 62mm; thickness 36mm.

*Context:* T22L2 (1968, SF 131); Layer 2.

5. (not illustrated). Fragment of quartzitic sandstone, possibly Coal Measures (identification by T Ford). Two faces are very smooth, suggesting its possible use as a sharpening stone. Surviving length 70mm; thickness 40mm.

*Context:* T105F1L2 (1972, SF 196); Ditch 1 North, Phase 3(2)–(4).

6. (not illustrated). Fragment of limonitic sandstone probably from the Carboniferous (Coal Measures) of northern England (Ellis 1974), one face appearing worn. It may have been obtained from the local glacial drift but may be part of a building or floor stone originally. Surviving length 40mm; thickness 21mm.

*Context:* TSL2 (1974, SF 8); Ditch 5, but Layer 2.

7. Grey siltstone. Two joining fragments of small thin hone, with flat base and faceted upper part giving a polygonal section. Surviving length 75mm; width 16mm; thickness 8mm.

*Context:* T21L3, unphased.

8. Large fragment of impure arkosic grit (Davison *et al* 1986), evidently a building or paving stone perhaps reused as a hone. The upper and lower surfaces are smooth and one edge has a sharpening groove; the others are fractured. Ellis, who suggests a source in the Upper Carboniferous of north-eastern England or the Pennine area, comments that it closely resembles a stone (possibly reused Roman building material) from the early Saxon site of Linford near Mucking, Essex. The context of this and the following hone are however

apparently securely dated to the 1st/2nd century AD. Surviving length 97mm; width 76mm; thickness 50mm.

*Context:* T14L2 (1968, SF 227); Southern Kiln Dump, non-core layer Phases 3(2)–(4).

9. Fragment, broken at both ends, with an oval section, made from arkosic grit, possibly from the Upper Carboniferous of north-eastern England or the Pennine area (Davison *et al* 1986). Surviving length 32mm; width 42mm; thickness 26mm.

*Context:* T13L3 (1968, SF 105); Southern Kiln Dump, core layer, Phases 3(2)–(4).

The following stones, which are all broken have at least one smooth face, and may have functioned as hones, perhaps as a secondary use. Not illustrated.

10. Sandstone, ?Reading Beds. Two edges are squared and one is very smooth. Possibly a fragment of building stone reused as a hone. Surviving length 86mm; thickness 12mm.

*Context:* T104L2 (1972, SF 79); Ditch 1 North, Layer 2.

11. Sandstone; worked fragment, one face smoothed, the others fractured. Surviving length 92mm.

*Context:* TIL1 (1973, SF 24); topsoil.

12. Fragment of ?hone. Fine grained grey sandstone with one smooth, slightly curved surface, all others fractured. Surviving length 87mm.

*Context:* T95F3L1 ; Ditch 2, layers associated with operation of Kiln 7, Phase 2(2) .

13. Sandstone; one side is flat, the others fractured. Surviving length 109mm.

*Context:* T1L3.

#### 17.1.2. Post-Roman

14. Schist-hone (Norwegian ragstone) rectangular in section, broken at one end. The composition of this example is not quite typical, as it lacks one of the characteristic minerals, calcite, but the latter is not invariably present in Eidsborg hones. The object shows signs of wear on the flat sides. There is a suggestion in the form of the earliest dated Norwegian Ragstone hones from London that hones of rectangular section

are later in date than those with an oval profile (Pritchard 1991, 155). Surviving length 138mm; width 28mm; thickness 15mm.

*Context:* T23 (1968, SF 6); unstratified.

15. Part of a Norwegian ragstone hone, originally square in section, as above and again of Saxon or medieval date (Davison *et al* 1986). The hone, which is broken at both ends, is worn and has a deep sharpening groove on its upper surface. Surviving length 115mm; width 20mm; thickness 20mm.

*Context:* T103L1 (1972, SF 48); topsoil.

16. Norwegian Ragstone, with rectangular section, very worn, as above. Medieval. Both ends are broken and the upper surface is irregular through use. Surviving length 124.5mm; width 41mm; thickness 21mm.

*Context:* TRL2 (1974, SF 1); outside the site itself, from a trial trench to the west of it, Layer 2.

17. Grey phyllite, of rectangular section, fractured at both ends, the sides now concave through wear, and with a sharpening groove on one surface. The stone is dark grey phyllite (Davison *et al* 1986), the thin section showing it to be an ottrelite-phyllite, identical with the whet slate of Ottrez, Liege, in Belgium, *ie* the western Ardennes. The stone was probably not worked in Roman times (*ibid*); the piece appears to date from the 10th century at the earliest and may be considerably later. Surviving length 110mm; width 29mm; thickness 20mm.

*Context:* T89NWextL3 (1971, SF 47); Pit 6, Phase 3(3). A very shallow feature, so quite possibly intrusive?

## 17.2. Querns

**Fig. 220**

Five pieces of quernstone are made of Mayen or Niedermendig lava, from the Eifel Hills of the Rhineland, a soft basalt quarried since Neolithic times (Crawford and Röder 1955). The possibility that some of the so-called Niedermendig querns in Britain may be made of Volvic lava from a source in the Auvergne has been raised by Peacock (Peacock 1980, 49). Lava querns

have a wide distribution within Britain and a regular trade may have been centred upon London (Buckley and Major 1983, 75). Most are of 1st or 2nd century date (Peacock 1980, 50) and it has been suggested (McIlwain 1980, 132) that they may have been introduced to the country by the Roman army as military equipment.

The lava querns from Highgate Wood are all fragmentary and extremely worn — the lava itself is brittle and fractures easily. In only a few cases can the part of the quern, lower or upper stone, be identified and only No 1 clearly shows the striations which were functional on the grinding surface but decorative on the top of the upper stone and on the edges of both stones. The identifiable fragments conform to the Roman types identified by Röder (Crawford and Röder 1955, 69-70, fig. 1, nos 5 and 6).

1. Fragment of upperstone, with concave lower surface, retaining its radial striations. The upper surface has a flat raised rim or lip, which helped to hold back the grains, and abraded two-directional parallel grooving (*cf* examples from Colchester, (Buckley and Major 1983, 73-5, fig 78, nos 2054, 2062) and London, (McIlwain 1980, 133, fig. 76, no 684). The parallel grooves on the side are also worn. Diameter 420mm; max thickness at lip 48mm.

*Context:* T94F2L2 (1971, SF 176); Ditch 1 North, Phase 3(2)–(4).

2. Fragment of lower stone, worn thin, the grinding surface very worn, with faint traces of vertical grooving on the edge. Diameter 450mm; thickness 26mm.

*Context:* T29F1 (1968, SF 209); shallow depression, Phase 3(3).

3. (not illustrated) Fragment of upperstone, very abraded; no diameter recoverable. Surviving length 100mm; thickness 45mm.

*Context:* T83L2 (1970, SF 35); Ditch 3, but Layer 2.

4. (not illustrated) Fragment, all edges broken. Surviving length 60mm.

*Context:* T40L2 (1969, SF 69); area of Ditch 1 North, but Layer 2.

5. (not illustrated) Fragment, probably part of a lower stone, all edges broken. Surviving length 96mm.



*Context:* T5L2 ; Southern Kiln Dump, core layer, Phases 3(2)–(4).

The imported lava querns are outnumbered by quernstones made from local materials. In only a few cases do these retain any form, but the stones catalogued below all show some signs of having been worked and their function as querns is assumed from the presence of the more obvious examples. The stones were identified by Dr T Ford as ironpan sandstones, the hardpan parts of various Eocene sandstones outcropping in North London, which include the Thanet Sands and Reading Beds and are left after the erosion of the surrounding unconsolidated material. Similar rocks elsewhere have been commonly known as ‘sarsens’.

6. Eocene sandstone. Fragment of upperstone with concave grinding surface and central hole. The other side has rectangular handle socket, on which radial grooves can be seen, across the radius of the stone. The wooden handle, which fitted into the socket, may have had a vertical upstanding grip (*cf* Curwen 1941, 23, figs 24-27). At its other end it fitted on to a wooden rynd which was inserted into the central aperture and rested on the spindle (Curwen *ibid*). The sides of the quernstone are very abraded with only faint traces of grooving. On the upper surface of the fragment is an oval depression, perhaps signs of reuse. This form of quern with the radial handle was common in the 1st century AD. Approximate original diameter 310mm; thickness 42mm.  
*Context:* TPF1L1 (1974, SF 38); Circular Structure, Phase 1.

7. (not illustrated) Eocene sandstone; fragment of upperstone, with concentric tool marks on the lower grinding surface. The upper surface is considerably damaged but traces of tooling marks are visible. Approximate diameter 270mm; max thickness 55mm.  
*Context:* T69F3 (1970, SF 114); Pit 4, Phase 4.

8. Eocene sandstone. Fragment of ?upperstone, the grinding surface and all other edges broken away. Toolmarks remain on the slightly convex upper surface, worked around the circumference and there is trace of a small ridge which would have surrounded the central hole. The outer edge is not preserved, nor the full

thickness. Surviving length 140mm.

*Context:* T61L3 (1969, SF 92); Ditch 2, Phase 2(3) South .

9. Eocene sandstone; fragment of upperstone, the surfaces worn, but with traces of tooling on the lower grinding surface. Approximate diameter 320mm; thickness 63mm.

*Context:* T110L2 (1972, SF 156).

10. Sandstone, Reading Beds. Fragment of upperstone with concentric tooling marks on the grinding surface; the other irregular and abraded (?burnt). Approx diameter 360mm; thickness 90mm.

*Context:* T67F1L1 (1970, SF 90); structure north of Ditch 3, Phase 2(2).

The remaining pieces have not been illustrated:

11. Fragment of Eocene sandstone hardpan ?quernstone, fractured and abraded; very gritty. Surviving length 70mm.

*Context:* T72L2 (1970, SF 22); north of Ditch 3.

12. Small fragment pale buff Eocene sandstone, with part of an edge and one surface, probably a quern. Maximum surviving length 65mm.

*Context:* T72L2 (1970, SF 28); as 11.

13. Eocene sandstone, greenish-buff, ?Thanet Sands. Fragment of upper stone. Part of the grinding surface survives, with the damaged outer edge and top surface. Approximate original diameter 350mm; thickness 112mm.

*Context:* T98F1 (1971, SF 219); Preparation Pit 1, Phase 2(2).

14. Fragment of Eocene set hardpan, very gritty and possibly from a quern. Surviving length 55mm.

*Context:* T88L2 (1971, SF 26).

15. Eocene sandstone. Fragment; all edges broken, with remains of one worn grinding surface. Surviving length 149mm.

*Context:* T89L3 (1971, SF 178); Pit 6, Phase 3(3).

16. Fragment of Eocene sandstone. Possibly worked and therefore perhaps from a quern, but surfaces are very irregular. Surviving length 90mm; thickness 50mm.

*Context:* T90L2 (1971, SF 9); Northern Kiln Dump, Layer 2 in a non-core layer trench.

17. Sandstone; fragment, all surfaces abraded, but with traces of tooling on the grinding surface. Surviving length 82mm; thickness 28mm.  
*Context:* T110L2 (1972, SF 105).
  18. Eocene sandstone; fragment from an ?upper-stone, all edges fractured, but with traces of a tooled grinding surface. Surviving length 135mm; thickness 30mm.  
*Context:* T105L2 (1972, SF 43); Ditch 1 North, but Layer 2.
  19. Eocene sandstone. Fragment, possibly, but not certainly, from the same quern as 18 above. Surviving length 65mm.  
*Context:* T105F1L1 (1972, SF 30; Ditch 1 North, Phase 3(2)–(4) .
  20. Eocene sandstone; fragment. Part of one grinding surface remains ; all other edges are broken or abraded. Surviving length 84.5mm; thickness 41mm.  
*Context:* T110L2 (1972, SF 114); north of Ditch 2.
  21. Eocene sandstone. Part of one tooled grinding surface remains, possibly from an upper stone; all other surfaces are abraded. Surviving length 80mm; thickness 34mm.  
*Context:* T110L2 (1972, SF 158); north of Ditch 2.
  22. Eocene sandstone; fragment of ?quern, with one flat tooled surface, all edges fractured. Surviving length 80mm; thickness 42mm.  
*Context:* T121L2 (1972, SF 233); Northern Kiln Dump, non-core layer, Phases 3(3)–(4).
  23. Eocene sandstone. Possibly a quern fragment but no original surface remains. Surviving length 75mm.  
*Context:* T125F1 (1972, SF 252); Ditch 4, but unstratified .
  24. Sandstone, worked. One side is flat, the others fractured, with no original surfaces remaining. Identification uncertain, but the material was used for querns. Surviving length 109mm.  
*Context:* T1L3, unphased .
  25. Fragments of hardpan sandstone. Possibly from quern, but no obvious form survives.  
*Context:* T2L3; Southern Kiln Dump, non-core layer, Phases 3(2)–(4).
  26. Sandstone, Reading Beds. ?Quern. The edge of the fragment is slightly curved and one surface is flat, but the form is rather indefinite and the stone abraded. The suitability of the material makes its use as a quern probable. Surviving length 130mm; thickness 55mm.  
*Context:* T83L2 (1970, SF 58); area of Ditch 3, Layer 2.
  27. Micaceous sandstone, Reading Beds. No obvious signs of being worked, but the flat base and sloping top suggests that this is part of a lower stone. Surviving length 170mm; thickness 65mm.  
*Context:* T92F2 (1971, SF 158); Ditch 1 North, Phase 3(2)–(4).
- ### 17.3. Miscellaneous worked stones
1. Slate pencil, fractured. 19th century. Length 112mm.  
*Context:* T14L1 (1968, SF 267); topsoil.
- ### 17.4. Worked stones — forms not identifiable
2. Sandstone, ?Reading Beds. all surfaces fractured.  
*Context:* T107L2 (1972, SF 84).
  3. Sandstone, Reading Beds. Triangular fragment with two sides squared, but not obviously from an artefact. Surviving length 81mm; thickness 21mm.  
*Context:* T109L2 (1972, SF 89).
  4. Sandstone, Reading Beds. Rectangular fragment, possibly worked. Surviving length 46mm; thickness 27mm.  
*Context:* T103F1 (1972, SF 187; Northern Kiln Dump, non-core layer, Phases 3(3)–(4).
  5. Lump of stone, burnt, possible faint tool marks, but more likely to be building material than an artefact.  
*Context:* T104F2 (1972, SF 182) ; Eastern end of Ditch 5, Phase 3(1) .
  6. Quartzitic pebble; pink-buff. Fragment of worked stone, forming a neat corner, but not

a quern and not obviously a hone — possibly building material. Surviving length 65mm; thickness 41mm.

*Context:* T105SWextL2 (1972, SF 220); Ditch 1 North, but Layer 2.

7. Fine-grained sandstone. Worked fragment, one face smoothed, the others fractured.

*Context:* TIL1 (1973, SF 24).

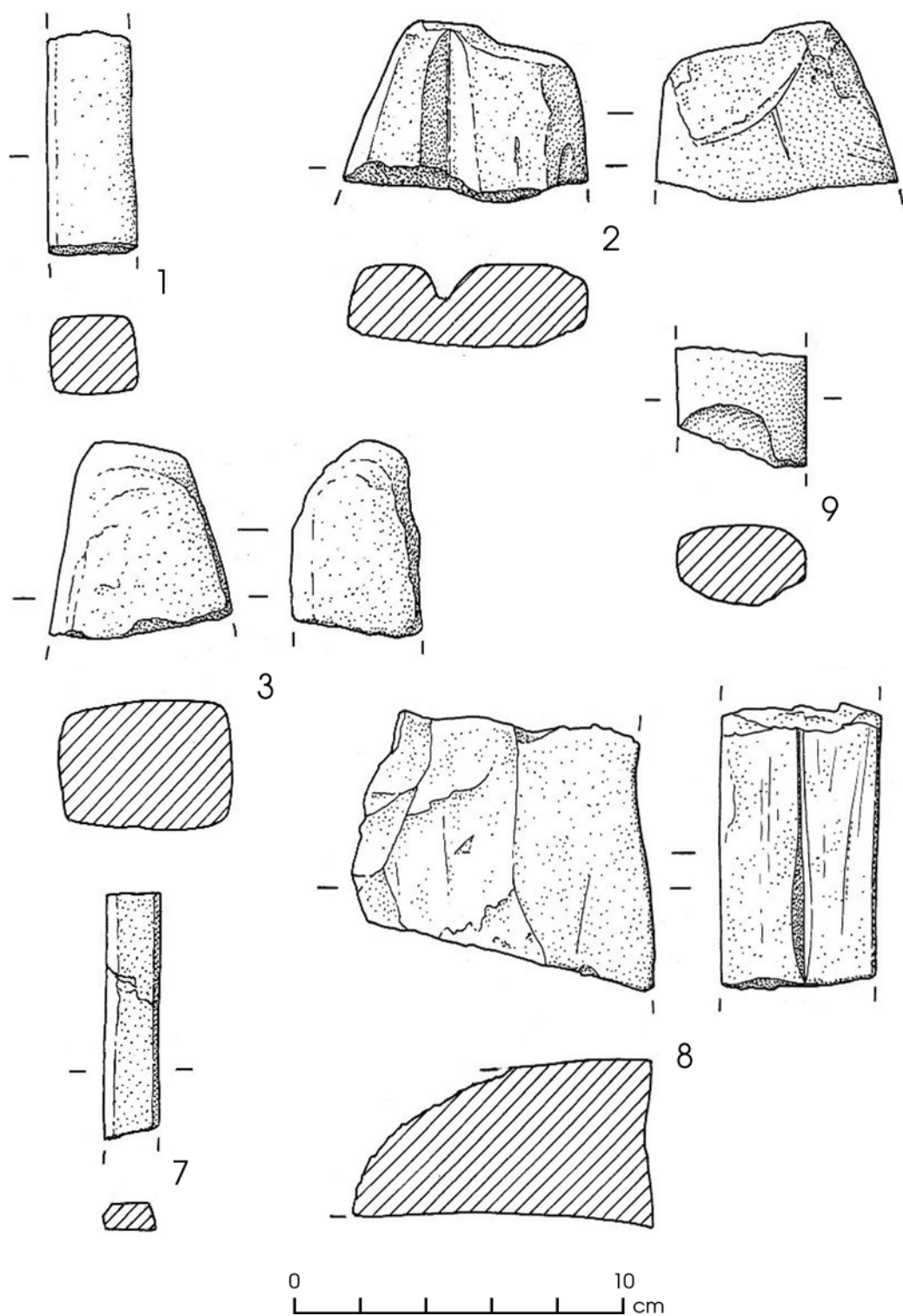
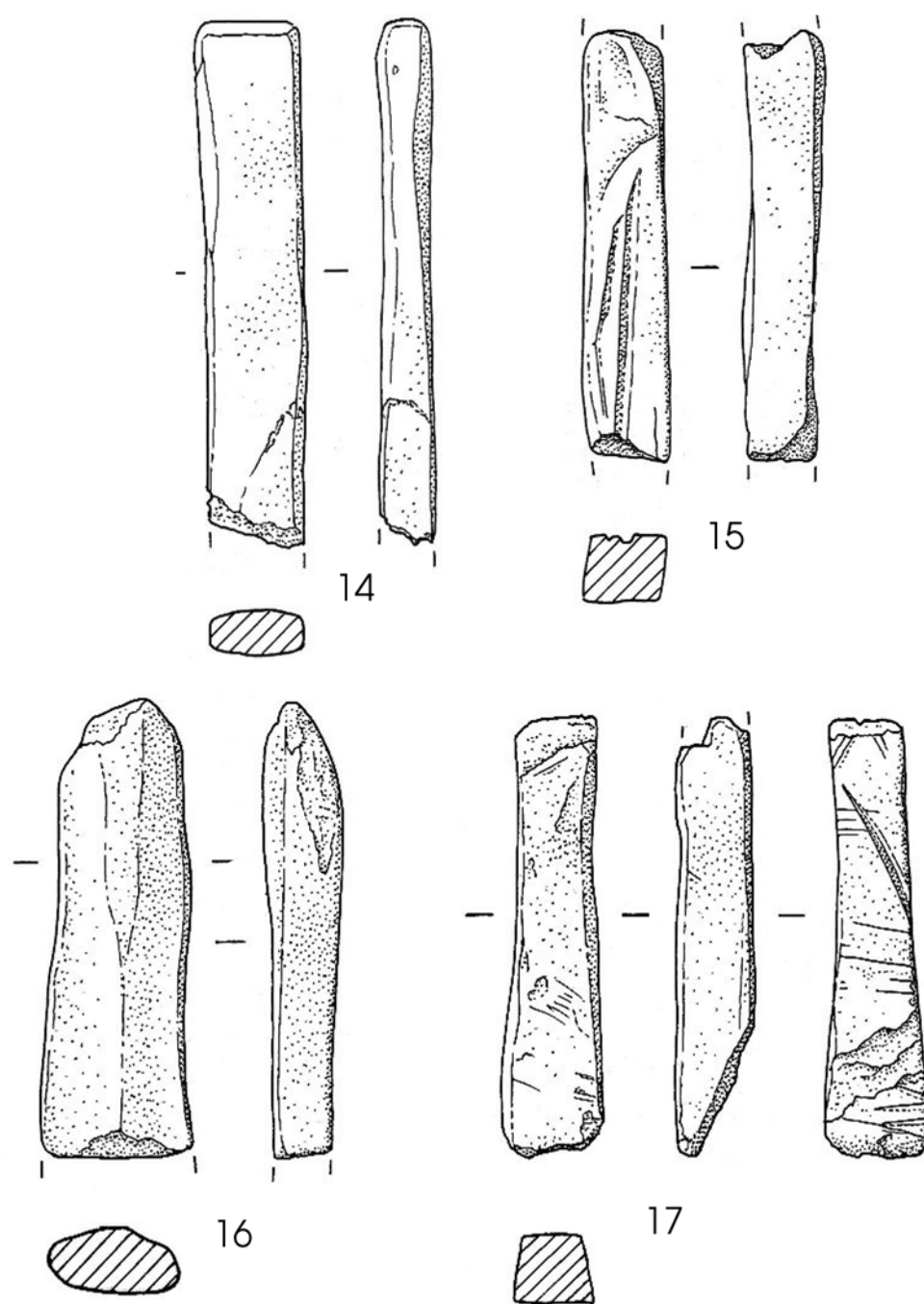


Fig. 216. Hones, 1 [1:2]



0 10 cm

Fig. 217. Hones, 2 [1:2]

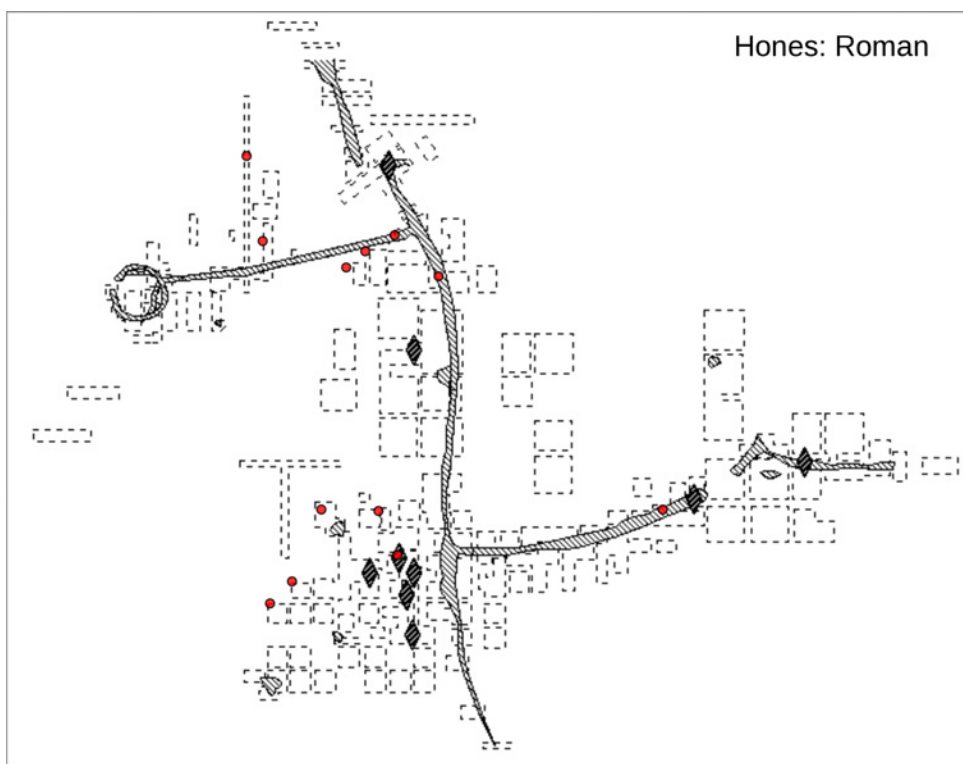


Fig. 218. Distribution of Roman hones

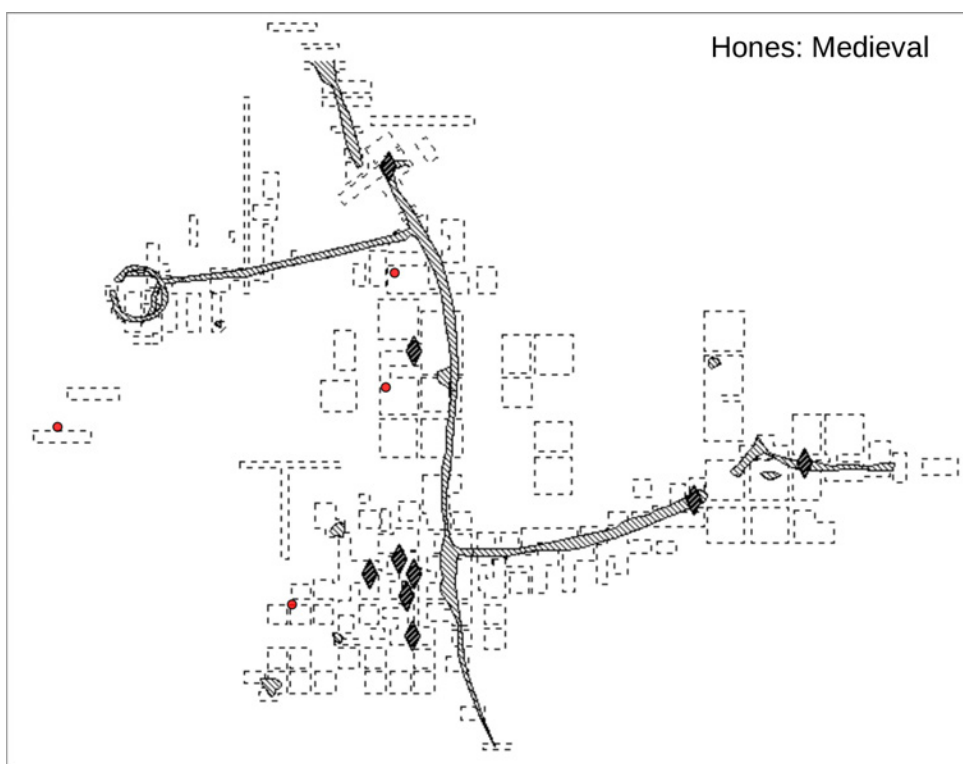


Fig. 219. Distribution of medieval hones



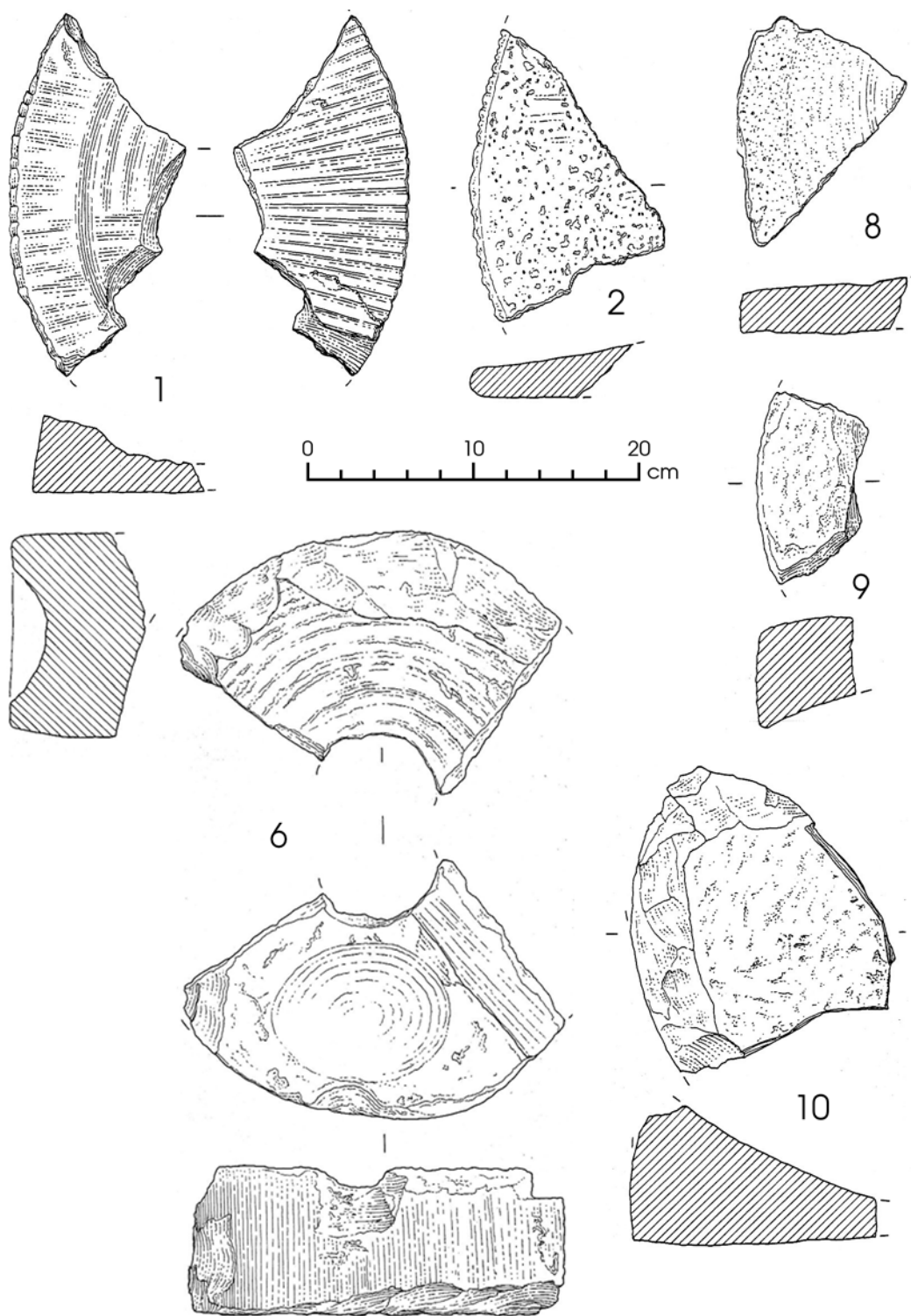


Fig. 220. Querns [1:4]

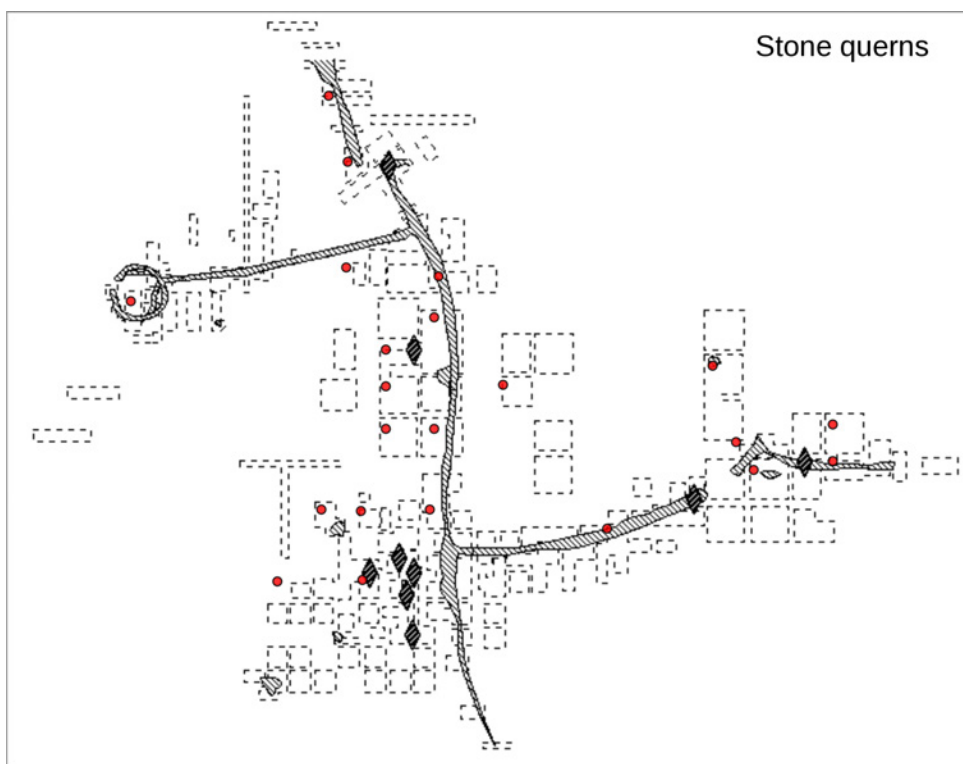


Fig. 221. Distribution of querns

## 18. The Glass

D B HARDEN†  
J D SHEPHERD

*The glass was catalogued by the late Dr Harden in 1977. The general remarks by John Shepherd were written in 1995 to bring this material into line with developments in the study of Roman glass in London.*

### 18.1. Discussion

The fragments in this assemblage of glass from Highgate Wood are small and none is of any great intrinsic interest. Yet as a group they give a good indication of the kinds and shapes of glassware that was current on an industrial site in the London area during the first two centuries of the Roman occupation.

Apart from the yellow and green mottled mosaic fragment of a tray (no 1) and the fragment of a blue and white mosaic pillar-moulded bowl (no 3), the vessel glass is mainly of the common naturally-coloured variety (*ie* bluish green *etc*), with only half-a-dozen coloured fragments (yellow and brown) and two colourless. All of the fragments are mostly undecorated, such decoration as occurs being confined normally to ribs and trails. There is just one fragment with a mould-blown pattern (no 19), but unfortunately the design is so faint as to be almost indecipherable. There is no need to make more than a passing comment on the burnt fragments (nos. 46–8). None of them are diagnostic of glassworking and it is most probable that they were simply accidentally burnt during routine kiln firings.

As is usual with glass from Roman sites in Britain these fragments have very little, if any, weathering. Only on some are the surfaces dulled, notably the shoulder of a bottle (no 16) and a fragment of window-glass (no 39).

The small size of the individual fragments in this assemblage as a whole is a significant detail to note. Evidently much of the glass has undergone trampling, presumably around the kiln sites, but it is interesting to note that there is nothing remotely close to a complete vessel among this assemblage. This could be easily explained by suggesting that the majority of the glass arrived on the site in tipped material for the make-up of working surfaces. However, this was evidently not the case around the kilns at Highgate where no dumped soil was recorded. It is unlikely, therefore, that all of the glass arrived on site in a fragmentary state although this is always a possibility for some fragments. The absence of dumping means that the condition of the glass requires an explanation.

Perhaps the simplest explanation would be that the rest of the broken glass vessels had been taken away for disposal elsewhere and that the fragments recorded here are those that accidentally escaped collection. The nature of this disposal is not certain. They could have been simply dumped in another place with other rubbish that might have accumulated around the site. However, broken glass (cullet) was, and still is, a valuable source of recyclable material. Documentary evidence from Rome indicates that there was a trade in broken glass, street-hawkers exchanging sulphur sticks for the glass and with the almost total absence of glassmaking in Roman Britain, only glassworking from recycled glass, it is probable that similar small scale transactions were being carried out in the London area. This collection and use of cullet is well portrayed by the 50kg dump of glass fragments (100,000+) dating to the first quarter of the second century, *c.* 75% vessel fragments, the remainder glassworking waste debris, recently discovered in an area adjacent to the amphitheatre at Guildhall Yard in the City of London (GYE92 [14319]). Evidence for glassworking, but not glassmaking, comes also from sites dating to the first half of the second century in the Upper Walbrook valley and the late second and early third century in the south-east corner of Londinium (Shepherd and Heyworth, 1991, 14–15). We can safely assume that the artisans working at

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Report submitted 1995

Highgate would have been fully aware of the worth of their broken glass and took full advantage of this system. It should be emphasised that there is no evidence for glassworking at Highgate so the glass probably left the site, perhaps being recycled in the glasshouses of Londinium.

Among the objects other than vessels the only ones worthy of special remark are the six beads, which, as finds on an industrial site of this kind, are quite unexpectedly interesting. In the Roman period beads are notoriously difficult to date and it is therefore quite valuable to have four different types here (nos 40–3) occurring in first and second century horizons. The broad dates given here are for the period of production of the individual forms. It will be seen that, although most of them fit in well with the inclusive date for these kilns (mid first to mid second century) some extend into the later 2nd or even the third century. This is merely an indication that some glass forms, especially the most common, are exceedingly long lived. It certainly must not be taken to infer that the date range for this particular site should be extended.

## 18.2. Catalogue<sup>1</sup>

### 18.2.1. Tray

1. Fragment from a flat, circular tray with a wheel-ground, rounded edge. Mottled mosaic glass, mainly opaque yellow rods in clear green ground, but some opaque red strips as well. D. c. 9cm. T. 0.4cm. Later first century.  
*Context:* T47L2 (1969, SF 59); area of Ditch 1 South, but Layer 2.

### 18.2.2. Pillar moulded bowls (Isings form 3a)

2. Two adjoining fragments of the rib from a bluish green pillar-moulded bowl. Bubbly glass with much strain-cracking. D. not ascertainable. Second half of first century.  
*Context:* T7L2 (1967, SF 36).  
*Context:* T27L2 (1968, SF 97).

3. Fragment from the rib of a pillar-moulded mosaic bowl with opaque white marbling in translucent deep blue. D. not ascertainable. Mid first century. For this shape and colours *cf* the bowl from a mid first century cremation burial at Radnage, Bucks (British Museum Acc No 1923.6-5.1. Skilbeck 1923, pl. xxxv, 1, 2b) and an almost exact duplicate, unprovenanced, also in the British Museum (Acc No 70.6-6.6. Bought from E Piot, Paris; given by the Executors of F Slade).  
*Context:* TVF1L3 (1974, SF 4); Ditch 5, Phase 3(1).

### 18.2.3. Rims of bowls

4. (Fig. 222) Fragments from the rims of two bowls, dark yellow. Rims outplayed and folded outward and downward to leave a large hollow. D's c. 16 and 19cm. Later first or early second century.  
*Context:* T5L2 (1967, SF 35); Southern Kiln Dump, core layer, Phases 3(2)–(4).  
*Context:* T92L2 (1971, SF 221); Ditch 1 North, but Layer 2.
5. As for no 4, but olive green. D. c. 18cm.  
*Context:* T91L3 (1971, SF 129); Northern Kiln Dump, core layer Phase 3(4).
6. (Fig. 222) Fragment from the rim of a deep bowl, natural green. Rim outplayed and folded upward and inward to leave a small tubular hollow. D. c. 9cm. Late first or second century.  
*Context:* T9L2 (1967, SF 10); Southern Kiln Dump, non-core layer.
7. (Fig. 222) Fragment of rim of a deep bowl, natural green. Rim outplayed and folded upward and inward, solid. D. c. 8cm. Late first or second century.  
*Context:* T9L2 (1967, SF 22); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).
8. As for no 7, but smaller and with thinner walls. D. c. 6.5cm.  
*Context:* T21L3 (1968, SF 113).
9. As for no 7, but vertical rim, folded outward and downward. D. c. 9cm.  
*Context:* T21L3 (1968, SF 68).

<sup>1</sup>Abbreviations in catalogue: D.=diameter, L.=length, T.=thickness, H.=height

#### 18.2.4. Rims of jars or bowls (Isings forms 62 or 67c)

10. (Fig. 222) Fragment from the rim of a jar, bluish green. Rim first given a small fold inward and downward and then bent back outward and downward to form a broad collar. Bulbous or ovoid body. Bubbly glass. D. c. 8cm. Later first or second century.  
*Context:* T29L2 (1968, SF 205); area of shallow depression in Trench 29, Phase 3(3), but Layer 2.

- A fragment from a similar vessel in bluish green glass.  
*Context:* T121L2 (1972, SF 222); Northern Kiln Dump, non-core layer, Phases 3(3)–(4).

11. (Fig. 222) As for no. 10, but olive green, and rim first thickened and fire-rounded, not folded, before being bent outward and down to form a broad collar. D. c. 9cm.  
*Context:* T38L2 (1968, SF 157).

- Two other fragments with a similar rim form come from  
*Context:* T34L2 (1968, SF 182), a yellow example and  
*Context:* T92L2 (1971, SF 139), a bluish green example.

#### 18.2.5. Rims of flasks and jugs

12. (Fig. 222) Two adjoining fragments from the rim of a small flask or jug, bluish green. Rim outplayed to wide funnel, lip folded outward and downward, solid. Neck cylindrical. Very bubbly and streaky. D. of rim c. 4.5cm. Second century.  
*Context:* T32L2 (1968, SF 24); Southern Kiln Dump, non-core layer.  
*Context:* T38L1 (1968, SF 84).
13. As no. 12, but rim not so widely splayed and lip folded inward and downward. D. of rim c. 2.8cm.  
*Context:* T29L2 (1968, SF 158).
14. (Fig. 222) Rim and upper neck of small flask or jug, natural green. Rim splayed outward and folded inward and downward to leave a small tubular hollow. Neck cylindrical, very bubbly,

with impurities. D. of rim c. 2.8cm. Second century.

*Context:* T54L2 (1969, SF 111); area of Ditch 2, but Layer 2.

15. (Fig. 222) Fragment of rim of a jug with upper handle attachment, olive-green. Rim out bent and folded upward and inward, solid. Neck cylindrical, handle drawn on. D. of rim c. 3cm. Later first or early second century.  
*Context:* T34L2 (1968, SF 92).

#### 18.2.6. Shoulders of bottles or flasks

16. Two fragments, not joining, but from the shoulder of the same small bottle, natural green; from a broad shoulder, sloping slightly towards rounded junction with cylindrical body. Surfaces dulled. Late first to third century.  
*Context:* T22L2 (1968, SF 120).  
*Context:* T30L3 (1968, SF 168).
17. Fragment from the shoulder of a flask, colourless. from sloping shoulder of bulbous vessel, showing part of curve up toward neck. D. uncertain. Later first to third century.  
*Context:* T60L2 (1969, SF 106); area of Ditch 2, but Layer 2.
18. Fragment as for no 17, but bluish green. Second or third century.  
*Context:* T80F2 (1970, SF 119); unphased.
19. Part of the shoulder of a jug(?) (Isings form 52a), yellowish. Faint traces of the ends of vertical mould-blown ribbing. D. of body c. 5cm. Late first to third century.  
*Context:* T35L2 (1968, SF 202).

#### 18.2.7. Body fragments of jugs (Isings form 52a) or bowls Isings form 67c) with ribs or trails.

20. Two joining fragments of a flask or jug, bluish green. Fragment from near the bottom of the vessel showing an end of a vertical rib formed by 'optic'-blowing (*ie* blowing first into a ribbed mould and then free-blowing). D. uncertain. Later first or early second century.  
*Context:* T14L2 (1968, SF 226).

*Context:* T14L2 (1968, SF 230); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

- Fragments decorated in a similar manner and from similar vessels, all bluish green.

*Context:* T5NWextL3 (1967, SF 67); Southern Kiln Dump, core layer.

*Context:* T11L2 (1968, SF 109); area of hearth and possible structure.

*Context:* T44EextL2 (1969, SF 133).

*Context:* T44EextL3 (1969, SF 137a); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

*Context:* T94L4 (1971, SF 142); Ditch 1 North, Phase 3(2)–(4).

21. As no 20, but dark brown. The second piece comes from higher up the body.

*Context:* T29L2 (1968, SF 180).

*Context:* T109L2 (1972, SF 90).

22. Fragments of bodies of flasks or jugs, dark yellow. fragments from near bottom, each showing parts of three wrythen ribs, ie ‘optic’-blown and twisted, sloping downward. D. uncertain. Late first or second century.

*Context:* T45F2L2 (1969, SF 220; fill of former levigation pit, Phase 2(3) South.

*Context:* T110L1 (1972, SF 58).

23. Fragments from the bodies of flasks, natural green. Each shows parts of two thin raised spiral trails. D. uncertain. Late first or second century.

*Context:* T25L2 (1968, SF 66); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

*Context:* T29F1 (1968, SF 219); shallow depression, Phase 3(3).

#### 18.2.8. Open-folded bases of jugs (Isings form 52a) or bowls (Isings form 67c)

24. (Fig. 222) Two joining fragments making one half of base, colourless. Ovoid(?) body with outward fold at basal angle; bottom concave. Very bubbly. D. c. 5.5cm. Second century.

*Context:* T60F1 (1969, SF 180); Ditch 2, Phase 2(3) South.

*Context:* T46NextL2 (1969, SF 196). 25.

25. As no 24, but natural green and not so bubbly. D. c. 6.5cm. Late first or second century.

*Context:* T30F1 (1968, SF 30).

- Similar fragments from similar vessels come from, all natural green:

*Context:* T38L2 (1968, SF 157).

*Context:* T45F2 (1969, SF 107); former levigation pit, Phase 2(3).

*Context:* T42NEextF1 (1969, SF 237); former levigation pit, as above.

26. Fragment from basal angle, dark natural green. As nos. 24–5, but fold nipped in to sharp angle and base much greater in diameter (c. 14cm). Late first or second century.

*Context:* T14L2 (1968, SF 220); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

#### 18.2.9. Handles of jugs (Isings forms 52/55)

27. (Fig. 222) Two joining fragments of drawn handles, bluish green. Handle, flat, without ribs, and with two splayed ends at bottom, where it joins shoulder. Probably from small jug with tall neck and bulbous body. H. as extant 5.3cm. Second century.

*Context:* T14L2 (1968, SF 224); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

*Context:* T14L2Next (1968, SF 243); as above.

- A fragment from the bottom of a similar handle with splayed ends.

*Context:* T2L3 (1967, SF 8); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

- Two similar fragments from the middle of a handle.

*Context:* T22L2 (1968, SF 153).

*Context:* T14L2Next (1968, SF 241); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

28. Fragment from the middle of a drawn handle, dark yellow. Handle flat, with two vertical ribs on outside, probably made by tooling. From angular handle of large tall-necked jug.

*Context:* T44EextF1 (1969, SF 189); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

- A similar fragment, but very small with no rib extant. Dark green.

*Context:* T38L2 (1968, SF 151).



#### 18.2.10. Common green bottles

29. Fragment from the junction of neck and shoulder, bluish green. Probably from a cylindrical bottle (Isings form 51). D. uncertain. Late first or second century.  
*Context:* T30L2 (1968, SF 70).
30. Fragment of flat bottom of prismatic square-sectioned bottle (Isings form 50) with moulded stamp showing parts of two concentric circles (moulding faint), dark natural green. D. uncertain. Late first or second century.  
*Context:* T29L2 (1968, SF 134); area of shallow depression, but Layer 2.
31. Fragment showing part of the cylindrical neck with shoulder curve from a cylindrical or square bottle, bluish green. D. uncertain. Late first or second century.  
*Context:* T104F1 (1972, SF 148); Ditch 1 North, Phase 3(2)–(4).

#### 18.2.11. Fragments from the necks and bodies of unguent bottles

32. Fragments of cylindrical necks of unguent bottles, natural green. Later first or second century.  
*Context:* T3NEextL2 (1967, SF 53); Southern Kiln Dump, core layer.  
*Context:* T24L2 (1968, SF 69); Southern Kiln Dump, core layer, Phases 3(2)–(4).  
*Context:* T14L2Next (1968, SF 242); Southern Kiln Dump, non-core layer.
33. Fragment of body of unguent bottle, natural green. Extant: lowest part of cylindrical neck and part of narrow conical body, splaying out from neck in gentle curve. bubbly and streaky. Dims. uncertain. Later first or second century.  
*Context:* T43F1 (1969, SF 190); Ditch 2, Phase 2(3) South.

#### 18.2.12. Fragments of bottoms of unguent bottles

34. (Fig. 222) Fragment of lower part of side and bottom of unguent bottle, natural green. narrow conical body, rounded basal angle, concave bottom. Very bubbly. D. bottom c.

4cm. Later first to early third century.

*Context:* T96L2 (1971, SF 94); area of Ditch 2, but Layer 2.

35. As no. 34, but from a more bulbous vessel, natural green. Very bubbly and streaky. Late first to early third century.  
*Context:* T44L2 (1969, SF 47); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).
36. Fragment of bottom of unguent bottle, flat underneath, natural green. Very bubbly. Later first to third century.  
*Context:* T33L1 (1968, SF 61); area of Pit 3, topsoil.

#### 18.2.13. Window glass

37. – 39. Only three fragments were found, all of the matt/glossy variety.  
*Context:* T44EextL3 (1969, SF 137b); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).  
*Context:* T35L2 (1968, SF 195).  
*Context:* T33SWextL2 (1968, SF 252); Pit 3 area, Layer 2.

#### 18.2.14. Beads

40. (Fig. 223) Barrel shaped, intact, dark bluish green. Bubbly and much worn. L. 1.1cm. Roman.  
*Context:* T30L2 (1968, SF 1).  
Similar, probably from the same chain, from L. 0.9cm and L. 0.9cm.  
*Context:* T29L1 (1968, SF 12); area of shallow depression in Trench 29, but topsoil.  
*Context:* T34L1 (1968, SF 57).
41. (Fig. 223) Half a ring-bead, bright dark blue, with thick opaque white layer on inside of ring. Dulled. D. 2.2cm. T. 0.4cm. Roman.  
*Context:* T24L3 (1968, SF 89); Southern Kiln Dump, core layer, Phases 3(2)–(4).
42. (Fig. 223) Short cylinder-bead, intact, opaque white. L. 0.45cm. D. 0.5cm. Inside D. 0.3cm. Roman.  
*Context:* T46NextL1 (1969, SF 197).
43. (Fig. 223) Half an oblate bead, D-sectioned, dull natural green. D. 2.3cm. T. 1.2cm. Roman.

*Context:* T120L2 (1971, SF 218); Northern Kiln Dump, non-core layer, Phases 3(3)–(4).

#### 18.2.15. Inlay

44. Triangular fragment of inlay, from a piece of furniture or a casket, with at least one original edge, clear dark blue. Bubbly. L. of sides 2.5, 2.0 and 1.5cm. T. 1.5mm. Later first or second century.

*Context:* T104F2L1 (1972, SF 211); eastern portion of Ditch 5, Phase 3(1) .

#### 18.2.16. Fragment of stirring-rod (Isings form 79)

45. (Fig. 222) Part of a stirring-rod, natural green. Round in section, the surface ribbed by twisting. Later first to third century.

*Context:* T29F1 (1968, SF 223); shallow depression, Phase 3(3).

#### 18.2.17. Body fragments, burnt or twisted by heat

46. Blue, twisted by heat. (This fragment is very similar to modern medicine bottle glass but, if so, how did it become burnt and distorted on this site? DBH)

*Context:* T22L2 (1968, SF 28); Layer 2.

47. Natural green. Both twisted by heat.

*Context:* T37L1 (1968, SF 42).

*Context:* T15L2 (1968, SF 235); Southern Kiln Dump, non-core layer, Phases 3(2)–(4).

48. Colourless, twisted by heat.

*Context:* T21L2 (1968, SF 4).

#### 18.2.18. Ring-setting

49. (Fig. 223) Ring-setting of glass, moulded in three layers- red, white, and black, imitating sardonyx. It is oval in shape and has bevelled sides. Probably third or fourth century AD. Dimensions: upper surface c. 10 x 8mm; lower surface 15 x 11mm; thickness 3mm. Most ring stones bear intaglio devices and were employed as signets, but some seem to have served merely as decoration. It appears that the purely ornamental possibilities of glass and pastes were most fully recognised

in the Middle and Later Empire, at the very time that the use of seals became more restricted. Thus two very fine gold rings found at New Grange in Ireland have plain blue and black nicolo-paste settings (Topp 1956). Loose nicolo-pastes of the same variety have been excavated in fourth century contexts at Shakenoak (Brodribb, Hands and Walker 1968, 80, Fig 26, No 50; *idem* 1973, 105, Fig 52, No 244). (Note by Martin Henig).

*Context:* T85L2 (1970, SF 109); area of Kiln 7, Layer 2.

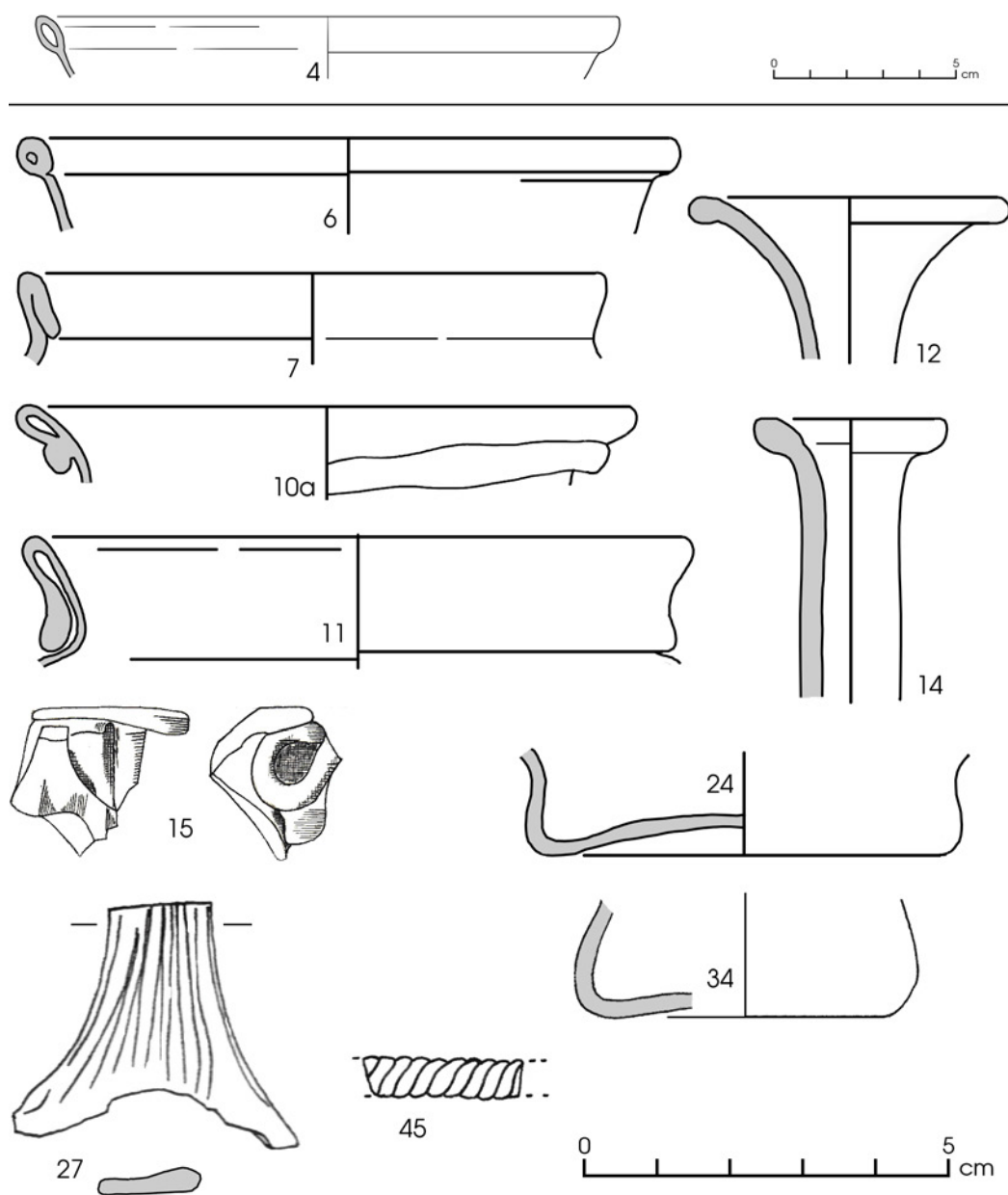


Fig. 222. Glass: vessels [no.4 1:2; others 1:1]

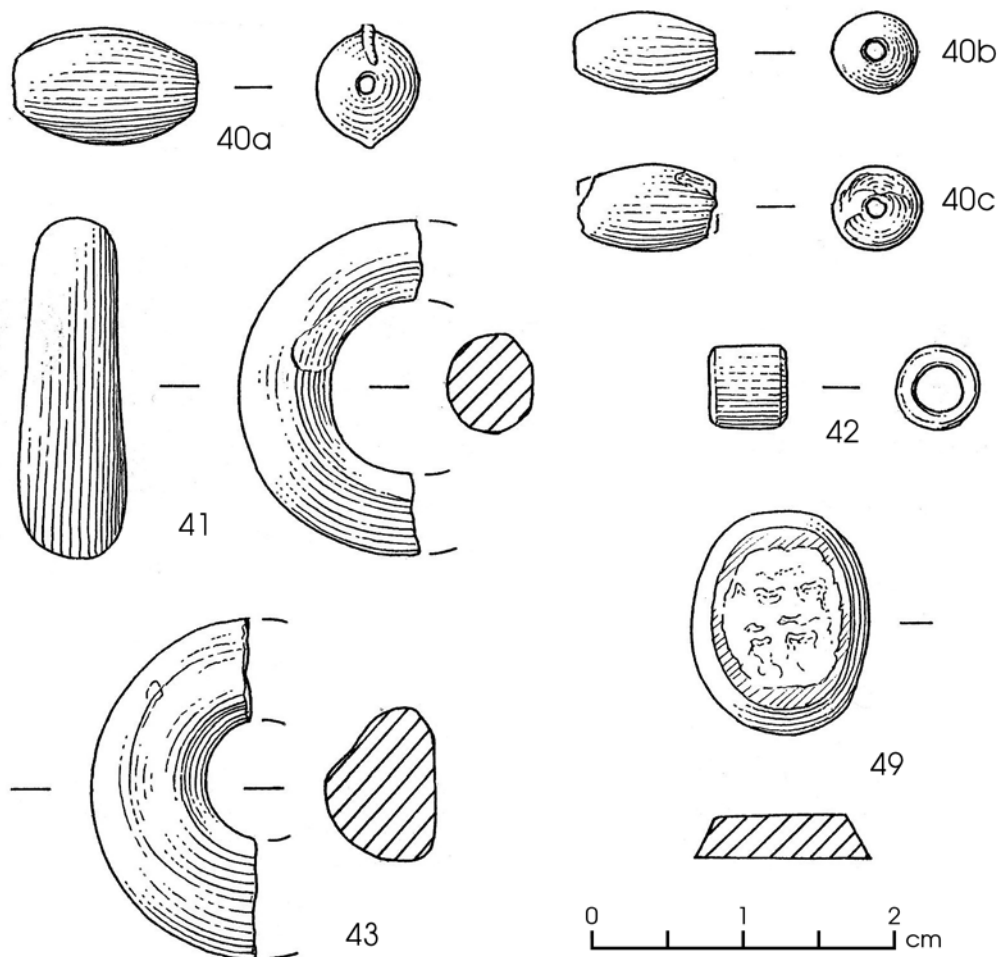


Fig. 223. Glass: beads and ring setting [2:1]

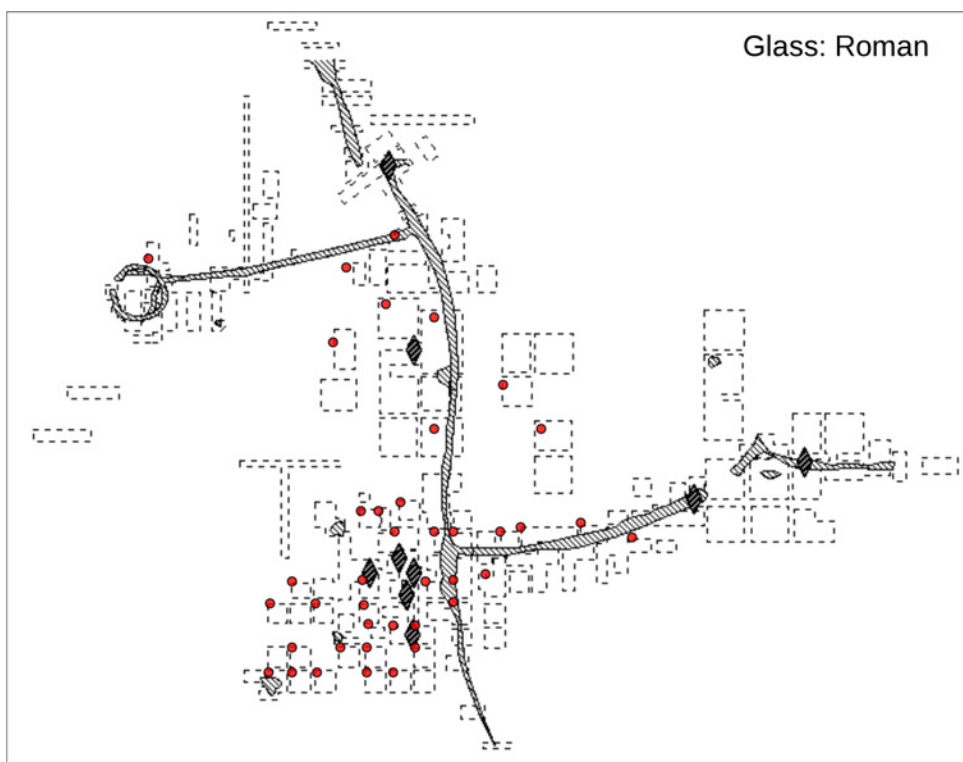


Fig. 224. Distribution of glass

## 19. Highgate Wood and Queen's Wood: The Flintwork

A D LACAILLE†  
J COTTON

*The collection of flintwork was originally examined by the late A D Lacaille in the early to mid 1970s, and a written report incorporating a table and illustrations was prepared. In the lead up to the present publication the second writer was asked to re-examine the flintwork and edit the original report to take account of more recent work.*

*In the event, a number of pieces of flintwork could not be located, making detailed cross checking and editing of the original report problematic. A compromise solution has therefore been adopted here: ADL's tabulated identifications and the original illustrations have been retained but incorporating JC's reidentifications where relevant. The concluding discussion is based largely on the results of this recent work and departs somewhat from the original report in suggesting that the flintwork is likely to represent the product of more than one period (see below). ADL's original report and the surviving flintwork are held in the site archive.*

### 19.1. The flintwork

A combined total of 857 pieces of struck flint and 25 pieces of burnt flint were recovered from Highgate Wood and nearby Queen's Wood during the fieldwork carried out between 1961 and 1973. Of these, 27 struck flints and 8 burnt flints were picked up off the surface in the latter; the remainder were recovered from various Romano-British and unstratified contexts during the extensive excavations carried out in the former.

The raw material is of variable quality and colour with a high proportion of cortical fragments whose smooth, pock-marked and occasionally pot-lidded cortex suggests opportunistic utilisation of the small

bleached pebbles found locally on the summit of Highgate Hill and in the superficial gravel deposits to the west of the site. ADL also noted a couple of fragments of 'Hertfordshire' puddingstone.

It is necessary to offer a few explanatory comments about the figures contained in the table. Flakes and spalls together account for over 50% of the total collection, although if other categories of knapping waste are added the figure for debitage rises to nearly 95%. The 'flakes' and 'core-trimmings' categories incorporate a number of pieces thought by ADL to have been utilised, perhaps as knives (eg Fig. 225, nos 5 & 10, Fig. 226, nos 11 & 13); also included are three pieces originally described as 'transverse arrowheads', two of which (Fig. 226, nos 15 & 17) are considered by JC to be little more than notched flakes (for the latter see also Fig. 226, no 2).

True blades (Fig. 225, nos 4–6) are few in number by comparison with the flakes/spalls, though this could be a function of the small size and variable quality of the flint pebbles which clearly made up the bulk of the raw material. The 'miscellaneous waste' category also includes at least two complete gunflints and another fragmentary example identified by ADL and noted as 'testimony of the practice of shooting, if not of duelling, at Highgate in the eighteenth or early in the nineteenth century'.

The 'cores' category certainly includes a few characteristic single- (Fig. 226, nos 3 & 4), opposed- (Fig. 226, no 5) and multi-platform (Fig. 226, no 7) types, but also other pieces perhaps better described as 'pebbles worked as cores', where the knapper was presumably testing the suitability of a particular pebble for further reduction. One fragmentary core may have been modified to produce a simple graver (Fig. 226, no 8); a single graver spall was also identified by ADL.

The few other tool types are dominated by crude scrapers worked principally on flakes (Fig. 225, nos 7, 12–18 & 20–21, Fig. 226, no 1) and the odd blade (Fig. 225, no 11). The majority comprise end or end/side scrapers, a couple of which (eg no 13) have been burnt. One (no 15) is notable for being worked

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Reports submitted 1975 and 1996



at its distal rather than proximal end; several (eg no 16) utilise thermally-fractured flakes and 'pot-lids' with a minimum of additional working. One possible axe-thinning flake identified by ADL apart (Fig. 226, no 12), the only other diagnostic pieces within the collection comprise a small convex-backed microlith (Fig. 226, no 19) and a second unusually broad, basally-retouched point of possible 'Horsham' type (Fig. 226, no 18).

## 19.2. Discussion

There appear to be at least two recognisable groups of flintwork within the collection: one, much the smallest numerically, using a generally better quality flint and a soft hammer technique to produce narrow, parallel-sided blades; the second group adopting an essentially opportunistic approach to exploit low grade raw material for the production of broad, squat flakes characterised by low flaking angles and wide striking platforms. Whether these two groups have chronological significance remains something of an open question, though on balance it is perhaps more likely than not; typically there is no stratigraphic information on which to base a judgement.

ADL's view was that the material could all be accommodated within the Neolithic, although the presence of several small single-platform pyramidal bladelet cores (eg Fig. 226 no 3), the convex-backed microlith (Fig. 226 no 19) and the basally retouched point of possible 'Horsham' type (Fig. 226 no 18) suggest that at least some elements of the former group have late Mesolithic affinities. Similar material has been recovered in small quantities from sites elsewhere across the London area (Lewis 2000). Single 'Horsham'-type points have turned up at West Heath, Hampstead (Collins & Lorimer 1989, 26 & fig 11.10) and Waterloo site 'C' (Tom Macdonald pers comm), for example.

The poverty of technique displayed by the larger, second group of flintwork may, in part, reflect the variable quality of the raw material available locally; equally it could be an indication that this part of the collection is of later prehistoric date and type. The dearth of diagnostic artefacts — crude scrapers and a couple of flake knives apart — is a further, though not conclusive, indicator of a late Neolithic or perhaps Bronze Age date. Certainly

similarly undistinguished material has turned up in association with Middle and Late Bronze Age pottery on a number of sites in the lower Thames region.

In broader topographic terms the Highgate locality is an elevated one which overlooks the headwaters of the Brent, Westbourne, Tyburn Stream and Fleet catchments (eg Barton 1992), and the expanse of the Lea valley to the east. A distribution plot of the flintwork prepared by Michael Hammerson shows that the material is evenly spread across the southern and eastern areas of the site, but that it falls away markedly downslope to the north west. Though diagnostic pieces are few, the collection is a relatively large and locally significant one, and presumably points to the episodic exploitation of woodland resources well away from the better known lower lying localities adjacent to the Thames.

Recent fieldwork has begun to identify other pre-historic sites in similar locations within the Greater London region, of which the predominantly early Mesolithic site on the junction of the Bagshot Sands and Claygate Beds at West Heath, Hampstead, two miles to the south-west of Highgate, is perhaps the most notable (Collins & Lorimer 1989). Although not secured by direct dating methods, palynological data recovered from the West Heath Spa site adjacent also hints at (?late Mesolithic and Neolithic/Bronze Age) human disturbance of a lime-dominated forest cover either side of a probably early Neolithic elm-decline horizon (Greig 1989, 95–7; WHS 1b–2b), the latter dated elsewhere in London and beyond to the period around 5000bp (eg Scaife 1988; Sidell *et al* 1995, 282–3).

The material from Highgate and Queen's Woods therefore provides distant but more direct archaeological evidence for localised late Mesolithic and late Neolithic/Bronze Age activity on these northern heights. It can be added to a thin scatter of other artefacts already recorded from the immediate locality. This includes a Neolithic ground stone axe from Windermere Road, Muswell Hill, to the north (Lacaille 1960), and a flint dagger of Beaker type said to have been found 'in superficial gravel' at either the foot of Muswell Hill or Shepherd's Hill, Highgate (Madge 1938, 17).

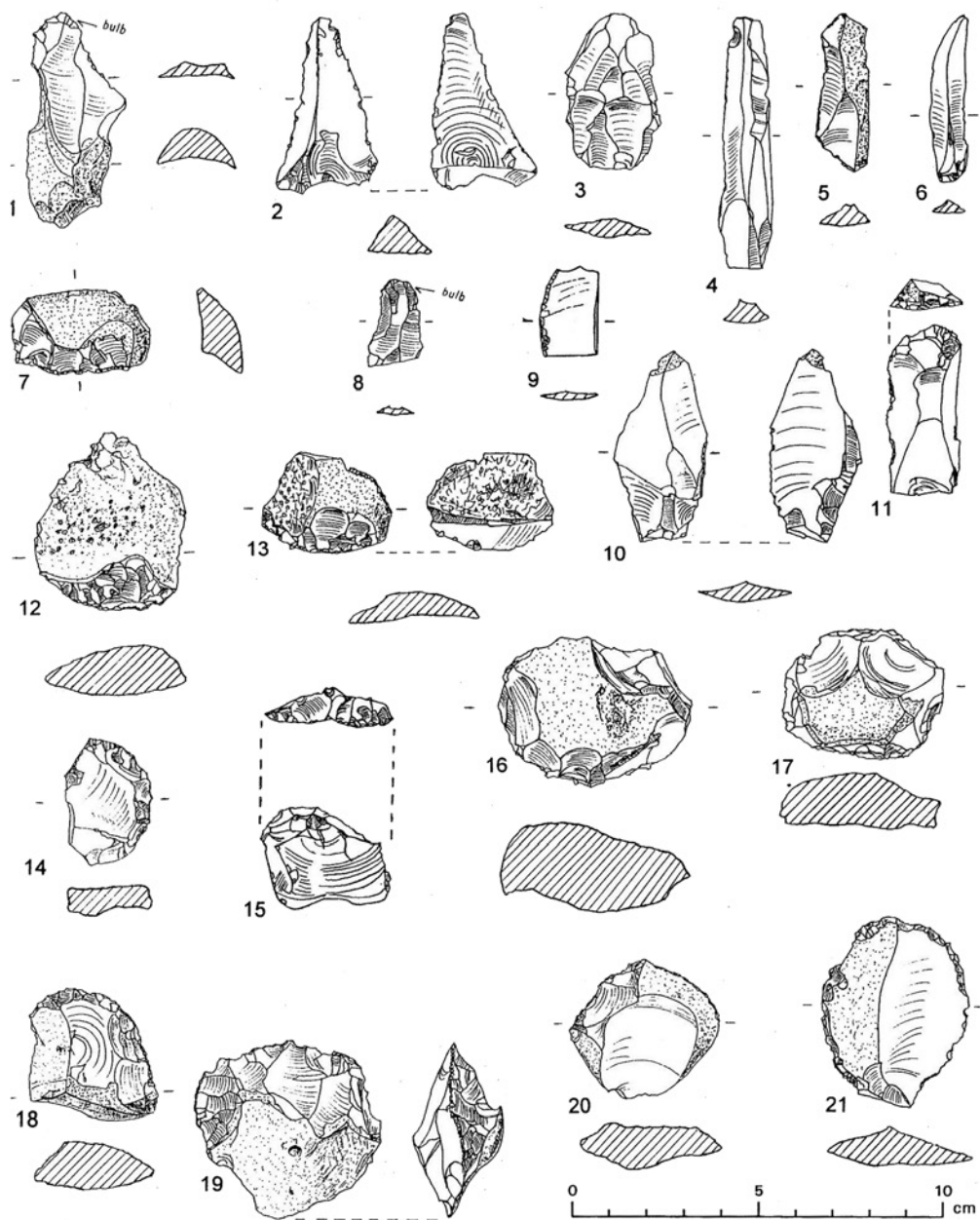


Fig. 225. Flintwork, 1 [1:2]

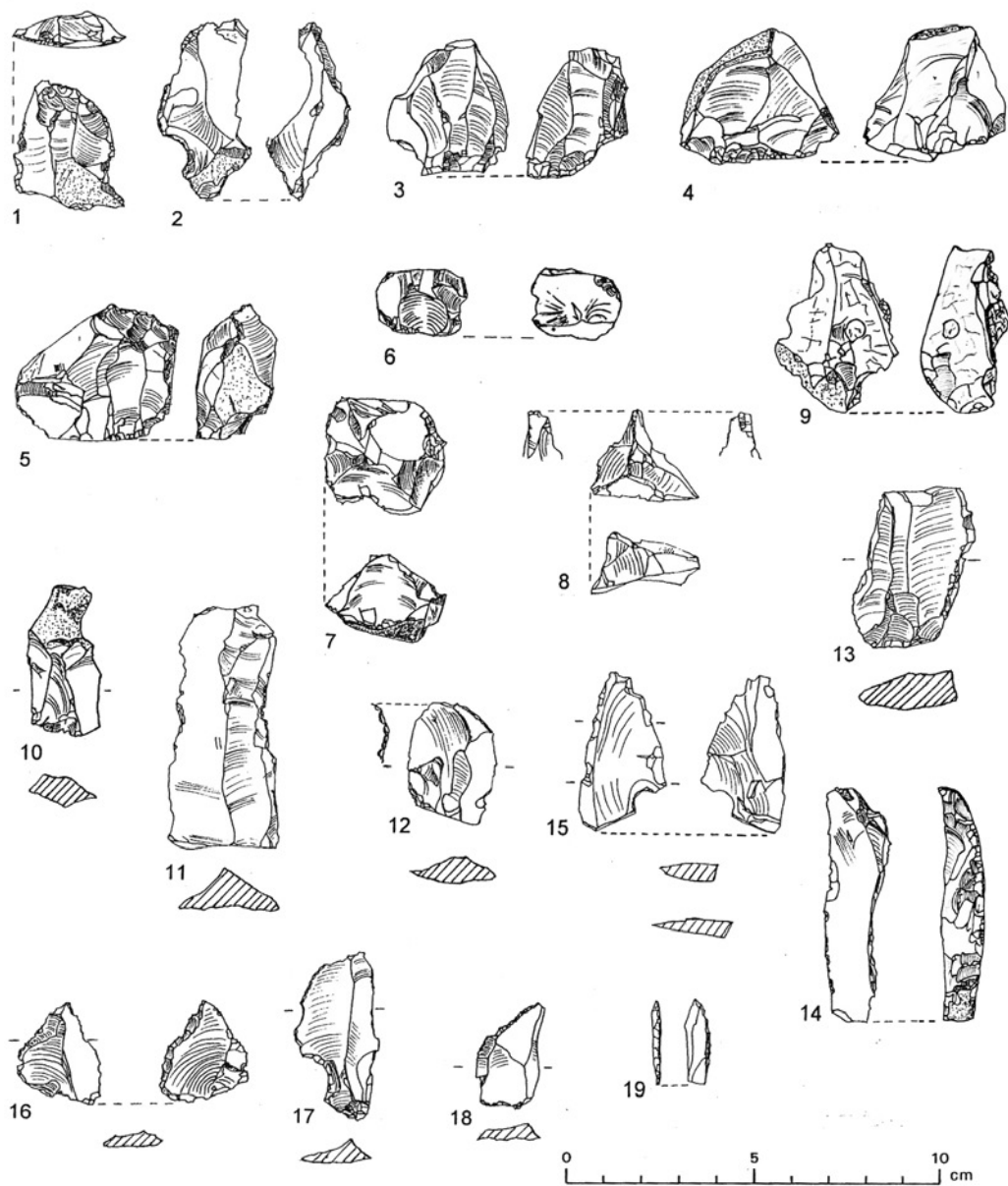


Fig. 226. Flintwork, 2 [1:2]

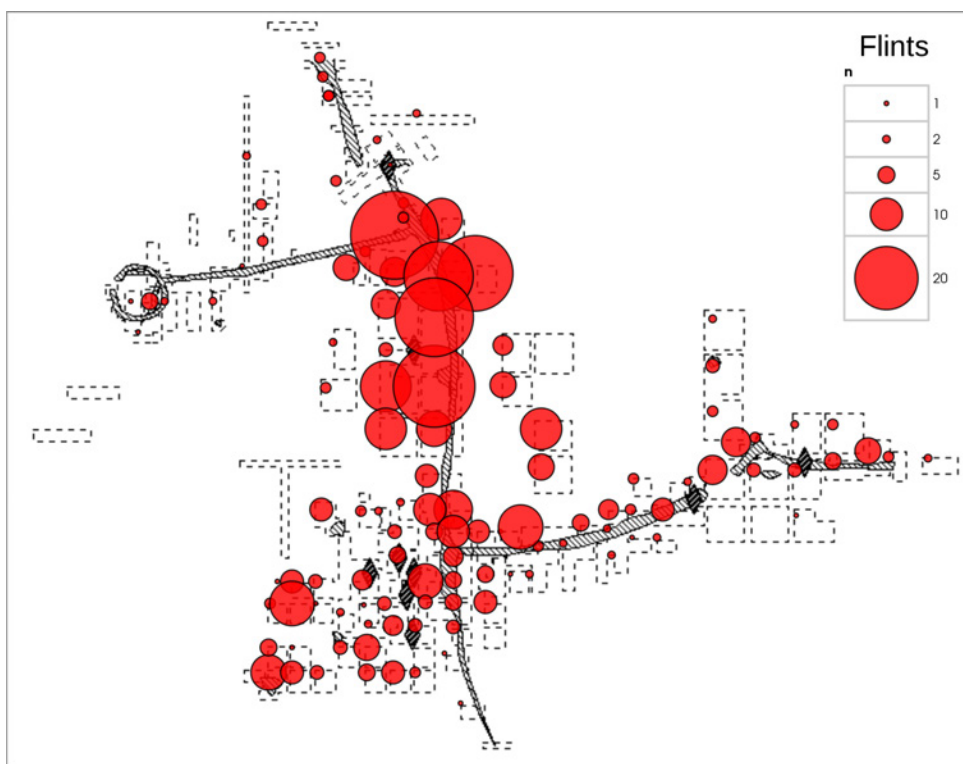


Fig. 227. Weighted distribution of flintwork

## 20. The Prehistoric Pottery

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The prehistoric pottery recovered during these excavations is represented by some twenty-three sherds. These were distributed randomly across the site, mainly occurring in the upper levels of soil accumulation (Fig. 228). Although a similar situation is recorded for the flintwork, there is no reason why the two groups of artifacts should be linked. The fabric is coarse, containing large quantities of angular flint grit and, occasionally, additional amounts of sand and rounded flint grit. The angular flint is often large with some grits up to 0.6cm in diameter. No rim or base sherds are identifiable. Despite all the material being abraded, thick walled vessels would seem to be indicated. The fabric and surface colours vary due to the uneven firing conditions and where a surface is preserved it carries a coating of slurried clay through which the flint may protrude.

In southern Britain pottery with a dense filler of flint grit is common from the Middle Bronze Age until the Early Iron Age, a period beginning in 1400 BC and lasting for some one thousand years. The thick walled vessels postulated here could belong anywhere within this period. The material indicates settlement on the clays and plateau gravels of the London region and thus supplements the settlement attested on the lighter soils of the Thames valley. Such occupation would imply a degree of forest clearance and may be linked with the forest grazing of cattle and swine.

### 20.1. Prehistoric Pottery Catalogue

1. Body sherd 1.8cm thick. Abraded. Brown-grey fabric with dense angular flint grit. Possible traces of one slurried surface. Some of the flint up to 0.6cm in diameter.  
*Context:* T60L1 (1969, RP 47).

2. Abraded body sherd. Red-grey fabric with a dense filler of angular flint with some sand and rounded flint.  
*Context:* T63L2 (1969, RP 107).
3. Abraded body sherd. Black core grading out to brown. Medium filler of angular flint.  
*Context:* T74L2 (1970, RP 6).
4. Abraded body sherd 1.6cm thick. Black core, brown surfaces. Dense filler of angular flint and some sand.  
*Context:* T65L2 (1970, RP 16).
5. Abraded body sherd with black core and dark brown surfaces. Dense filler of angular flint.  
*Context:* T72L2 (1970, RP 17).
6. Abraded body sherd in red-brown fabric with dense filler of angular flint.  
Small abraded body sherd in red-brown fabric with filler of angular flint.  
*Context:* T72L2 (1970, RP 18).
7. Abraded body sherd, fabric colour varies from black to red-brown. Dense filler of angular flint.  
*Context:* T71L2 (1970, RP 28).
8. Abraded body sherd, black core, one remaining surface brown. Dense filler of angular flint and some sand.  
*Context:* T83F6 (1970, RP 87).
9. Very abraded body sherd in dark brown fabric with a dense filler of angular flint.  
*Context:* T93 (1971, RP 7).
10. Abraded body sherd, grey-brown fabric with a dense filler of angular flint.  
*Context:* T94L1 (1971, RP 27).
11. Body sherd in light brown fabric. Medium filler of angular flint and sand.  
*Context:* T94F1 (1971, RP 131).
12. Body sherd in hard brown fabric with a dense filler of rounded quartz grains.  
*Context:* T105L2 (1972, RP 2).

13. Two surface flakes of body sherds in black fabric with angular flint filler.  
Abraded body sherd, brown core and lighter surfaces. Filler of rounded and angular flint and sand.  
*Context:* T109L1 (1972, RP 6).
14. Abraded body sherd, black-brown fabric, dense filler of fine angular flint.  
*Context:* T107L2 (1972, RP 10).
15. Abraded body sherd, black-brown fabric, dense filler of fine angular flint.  
*Context:* T110L2 (1972, RP 16).
16. Abraded body sherd, light brown fabric, dense filler of angular flint.  
*Context:* T111L2 (1972, RP 25).
17. Abraded body sherd 1.4cm thick. Grey core, black interior surface, slurried and possibly sooted. No remaining external surface. Dense filler of angular flint and one possible grey sandstone fragment.  
*Context:* T107F2ESectL2 (1972, RP 45).
18. Two fragments of fired clay, sparse flint grit.  
*Context:* T104F2ESectL2 (1972, RP 50).
19. Abraded body sherd, black fabric, dense filler of angular flint.  
*Context:* THL1 (1973, RP 7).
20. Body sherd, brown fabric, dense filler of angular flint, some as large as 0.6cm in diameter.  
*Context:* TVL2 (1974, RP 1).
21. Very abraded body sherd in orange fabric with filler of angular flint.  
*Context:* TTF2L2 (1974, RP 19).



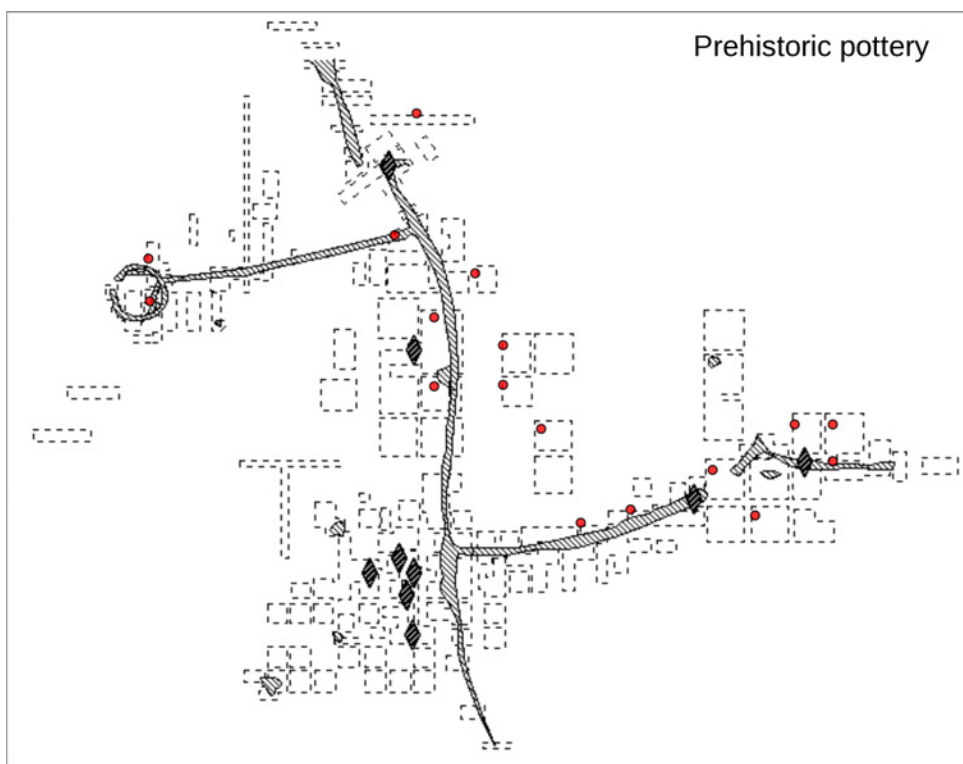


Fig. 228. Distribution of prehistoric pottery

## 21. Biological Remains

Identifications by G Jarvis (bones, 1970), A Locker (bones, soil samples and charcoal, 1976), and I Tyers (charcoal, 1993).

*Fraxinus sp.* ash  
*Ilex sp.* holly  
*Populus sp.* poplar — probably aspen  
*Quercus sp.* oak  
*Salix sp.* willow

### 21.1. Animal and Human bones

A small amount of animal bone was recovered from the site, usually in poor condition, and the following species were identified:

*Ovis sp.* Sheep  
*Bos sp.* Cattle  
*Cervus elephas* Red deer ?  
*Equus sp.* Horse

It is not possible to assess the relative proportions of species present as the sample was too small, however cattle appear to be predominant.

In addition, five small fragments of human skull were identified, but as only two of these fragments provide a proper fit together it is not possible to identify the part of the skull from which they come. The thickness of the fragments would seem to indicate a young child, but not a very young baby.

*Context:* T43F1 (1969, Sample 56); Ditch 2, Phase 2(3) South.

### 21.2. Soil samples

A number of soil samples, including pot contents, were wet sieved; however they did not contain any identifiable organic matter.

### 21.3. Charcoal

A number of representative samples were selected and the following species were identified:

*Carpinus sp.* hornbeam  
*Corylus sp.* hazel  
*Crataegus sp.* hawthorn

The species most commonly found were hawthorn, oak and hornbeam.

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## Colophon

The final text for this report was produced using the [pandoc](#) document processing system and [L<sup>A</sup>T<sub>E</sub>X](#), using the [scrbook](#) class. The main font is [Libertinus](#). The final illustrations were edited with [gimp](#) and [inkscape](#), data management used [mariadb](#) and [perl](#), and the graphs and plots were created with the [ggplot2](#) package in the [R](#) statistical environment. I am immensely grateful to the groups and individuals who produce these software tools and make them freely available, and to all who take the time to explain how to use them on internet discussion forums and elsewhere.

PAT, JULY 2, 2018



