

A pottery production site at Samlesbury, near Preston, Lancashire

21

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Summary

Excavation along a gas pipeline route through central Lancashire has revealed a previously unknown pottery production site of 13th to 15th century date. The site, which lies south of the river Ribble, comprised oval gullies, representing possible truncated clamp kiln bases, together with associated ditches and pits and over 10,000 sherds of pottery. Three distinct areas produced evidence of pottery production, over a distance of nearly half a kilometre and suggesting a widespread industry. Most of the recovered pottery

was utilitarian, but examples of this material have been recognised in Wigan and Lancaster, while parallels are seen in an area stretching from Lancashire to north Wales. Excavated kilns and associated pottery assemblages are rare both in Lancashire and north-west England as a whole. This makes the excavations at Potter Lane of particular importance, given the date range, the area over which the finds were made, and the possibility of contemporary settlement adjacent to the remains.

Introduction

Philip N Wood

Archaeological excavation of a medieval pottery production site was carried out at Samlesbury, near Preston, Lancashire, as part of the archaeological mitigation works on the Samlesbury to Helmshore Natural Gas Pipeline. The work took place between February and June 2002, and was undertaken by Northern Archaeological Associates for McConnell Dowell Ltd., on behalf of National Grid. A watching brief was undertaken on topsoil stripping along the entire route of the pipeline, and the site was identified by surface finds of pottery. The work was carried out in accordance with an archaeological management plan and methods statements, agreed prior to the work with Lancashire County Council's archaeological advisor.

Site location

The area of investigation (at SD 5840 2875 centred) lay south of the hamlet of Samlesbury, some 4 km south-east of Preston, Lancashire, in three fields south of Cuerdale Lane (Figure 1). Evidence of pottery production was found over a distance of 400m and comprised three distinct sites to either side of Potter Lane (Sites A, B and C). This area was located on flat ground at a height of approximately 45 m OD, through enclosed pasture fields, approximately equidistant between the rivers Ribble and Darwen. The area was underlain by sedimentary rocks of Permian and Triassic

date. Overlying drift deposits comprised predominately glacial and post-glacial deposits. Glacial deposits covering the majority of the route were glacial till (boulder clay), post-glacial deposits comprised localised alluvium, terrace deposits and peat.

Archaeological and historical background

Archaeological information for the area of the pipeline corridor is limited, with most previously known features in the area dating to the post-medieval or modern periods. This appears due to the upland nature of large parts of the pipeline route and lack of previous detailed archaeological survey. While the need for further targeted study has long been recognised, sufficient information exists for a brief summary of past activity in the wider area.

During the early prehistoric period, the Southern Pennines is recognised as an area used by hunters and gatherers. Evidence obtained predominantly from finds of artefacts, but also pollen evidence and excavation, is increasingly showing occupation throughout Lancashire, with widespread clearance of woodland by fire especially in upland areas, from the Mesolithic period through to the Bronze Age (Cowell 1996, 30). While arable agriculture in the lowlands of the county is thought to have become more important from the later Neolithic period, upland areas are believed to have been exploited for hunting and herding to the end of the Bronze Age, when large-scale abandonment of some areas is thought to have occurred (Middleton 1996, 46, 54–5).

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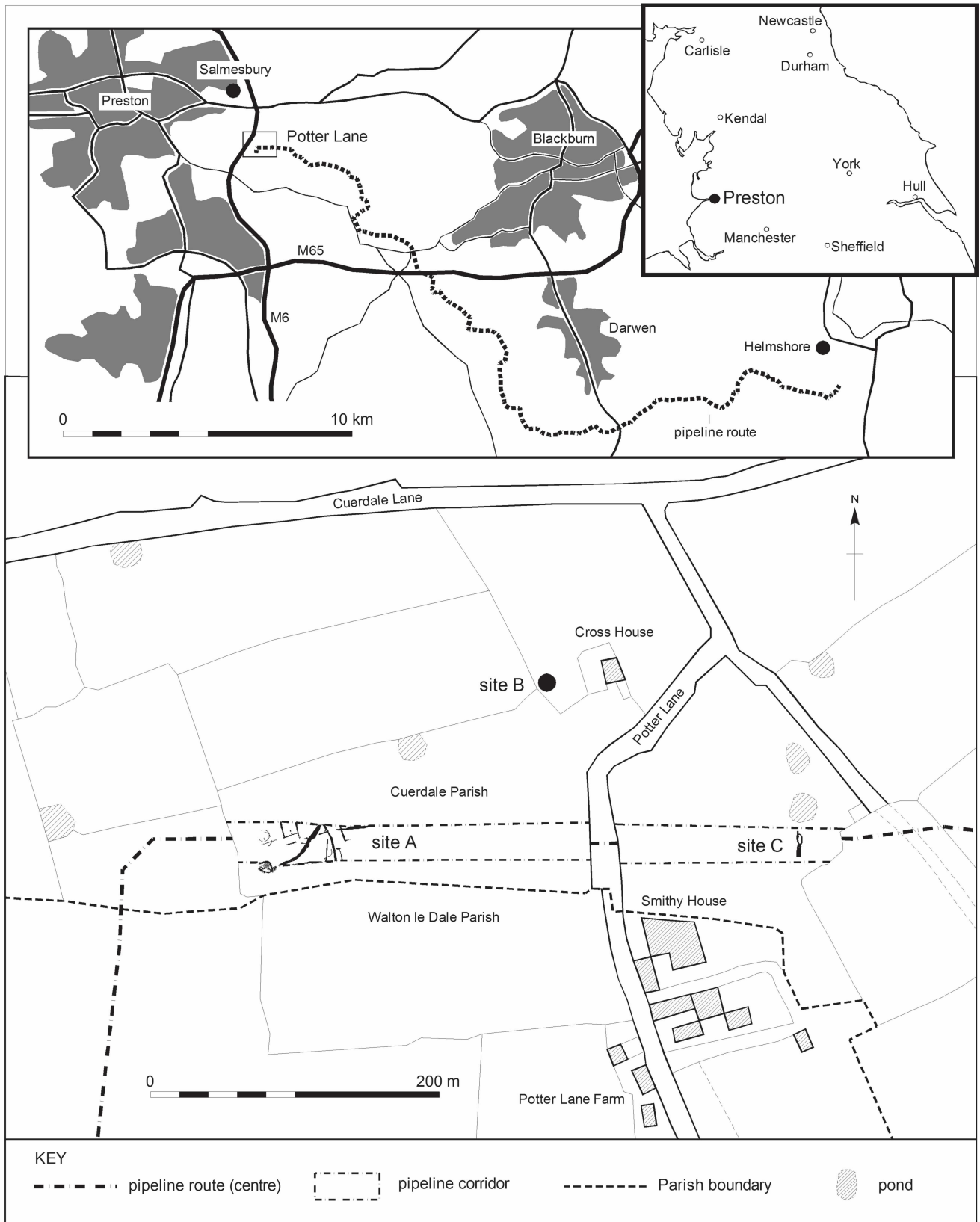


Figure 1
Potter Lane: pipeline route and site locations

This abandonment continued into the early Iron Age, but later, large-scale clearance of regenerated woodland and expansion of arable farming onto heavier lowland clays occurs, which is accompanied by the expansion of settlement into the high Pennine Dales. Like the majority of northern England, Lancashire has few hillforts. Settlements, usually dated to the later Iron Age or Romano-British periods, include rectangular and round or oval enclosed sites, but also unenclosed sites, often comprising single hut circles. These have been identified throughout the county, with unenclosed examples usually being located at lower elevations than the enclosed sites (Haselgrove 1996, 65–9).

By the AD 70s, Roman forts were established throughout the county, including at nearby Ribchester. A related settlement, apparently under military control, lay at Walton-le-Dale, close to the excavated sites. These may have been partly used as production centres for the army, obtaining raw materials from the surrounding areas and populace for use by the military. The clearances seen in the later Iron Age continued into the late Romano-British period and rural settlement types, where known, are similar to those of the previous period. The impact of retired veterans upon settlement in the areas around forts, and the wider landscape, is uncertain (Buxton and Shotton 1996, 77–9).

Research into the early medieval period in Lancashire is generally characterised by the study of place-names, stone sculpture and documentary sources, with few archaeological sites excavated. The Cuerdale hoard, found on the bank of the Ribble 2 km from the excavated sites and dated to the early 10th century, is the largest Scandinavian hoard from north-western Europe, and while it may represent a war chest for diplomacy or raiding, shows that this area was by no means a backwater in this period (Newman 1996(a), 95–103).

The medieval period appears to have seen the start of urban centres in Lancashire, itself a post-Conquest creation. Preston, the nearest town to the excavations, gained a charter in the late 12th century, although nearby Penwortham may have been an antecedent. Preston, although still small by national standards, was the largest town in the county by the 13th century (White 1996, 125, 127–30). Rural settlement in the medieval period appears characterised by great local variety, with landscape type greatly affecting the patterns of settlement, although few rural sites have been excavated. The area of Potter Lane has been characterised as being on the edge of a frontier zone between the uplands comprising open moors, and the coastal lowlands consisting of open fields and nucleated settlement (Newman 1996(b), 112–5).

The early post-medieval period in Lancashire generally saw a continuation of the medieval patterns of land use and settlement with towns retaining their medieval layouts and character.

However the exploitation of natural resources such as coal, and small scale manufacturing industry at this time, presaged later expansion, especially from the late 17th century, on a tremendous level. (Phillips and Smith 1994, 5, 27–8).

The excavated sites

Philip N Wood

Site A, west of Potter Lane

The site was located between 170 m and 240 m to the west of Potter Lane (SD 5820 2868 centred) starting immediately east of a hedge line, on flat ground at a height of 46 m OD through enclosed pasture fields. Medieval pottery was recovered during monitoring of topsoil stripping from remnants of subsoil, over a distance of approximately 100 m east of the hedge line. This area was re-cleaned by machine, and cut features were identified over a distance of 90 m (Figure 1). Excavation of the majority of features took place in February under extremely poor weather conditions, with daily flooding of parts of the site, and could not be completed. Excavation of the possible kiln was attempted in May 2002, but was again abandoned due to flooding. The feature was successfully excavated in June.

Excavated features fell into four categories; features associated with possible roundhouse gullies at the west end of the site, features associated with a possible kiln base in the south-west corner of the site, shallow linear features of medieval date to the east of the kiln and ring gullies, and later agricultural features.

Both topsoil [01] and a probable relict plough soil [02] contained a large quantity (over one thousand sherds) of medieval pottery, including obvious waster sherds.

Ring gullies

At the western end of the site lay two partially surviving and inter-cutting ring gullies, [48] and [69] (Figure 2). Gully [48] enclosed an area 8 m in diameter, the gully itself being 0.2 to 0.3 m in width, and 0.2 m deep along its northern section, 0.05 m elsewhere. This was cut by ring gully [69], which survived intermittently for about 12 m and may have measured *c.* 10 m in diameter. Two postholes or small pits ([78] and [80]) appear to have been associated with gully [48], while a third posthole [74] is more likely to be associated with gully [69]. No entranceway could be identified within either gully, although the western portion of gully [48] was completely truncated and there may have been an entrance at this point.

Despite the prevalence of medieval pottery in the overlying soils, none was recovered from the ring gullies. Gully [48] did however contain a fragment of a rotary quern, thought to be of Romano-British

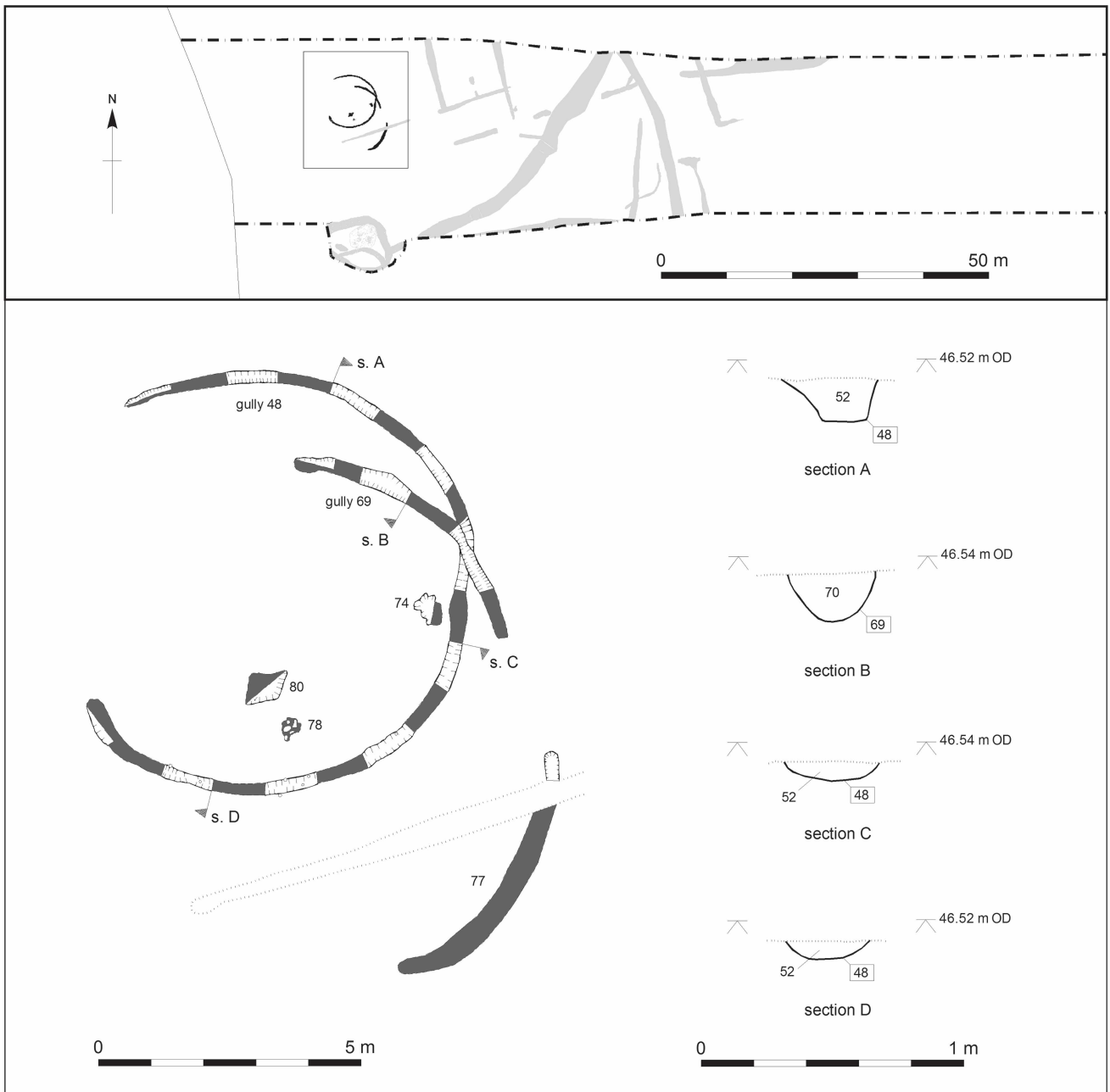


Figure 2
Site A (west of Potter Lane): possible roundhouses

or Iron Age date (Figure 15), together with an iron blacksmith’s hot set (Figure 13). The second ring gully [69] contained two worked flints, a possible burin and a small end and side scraper, both of probably late Mesolithic and therefore residual. Analysis of recovered soil samples yielded little preserved material, although the presence of peat was noted.

Although only one potentially contemporary and datable artefact was recovered from the ring gullies, the distribution of finds points strongly to these features being the remains of roundhouses of Iron Age or Romano-British date. This, and the presence of Mesolithic flints, demonstrates that the area was attractive to settlement for a significant length of time.

Possible kiln base

In the south-west corner of the excavated corridor lay a sub-circular area, 12 m to 15 m in diameter, of thin and overlapping dark grey silts and clays, the principal of which [38] contained a small quantity of pottery and a small quantity of preserved remains of peat or wetland material. Removal of these deposits revealed an oval gully [86], enclosing an area some 12 m east-west and 8 m north-south in size (Figs 3 and 4). The gully measured between 1.15 m and 1.4 m in width, and between 0.35 m and 0.5 m in depth. The fills of the gully comprised a mixture of grey clay and black silt layers, some which comprised a high proportion

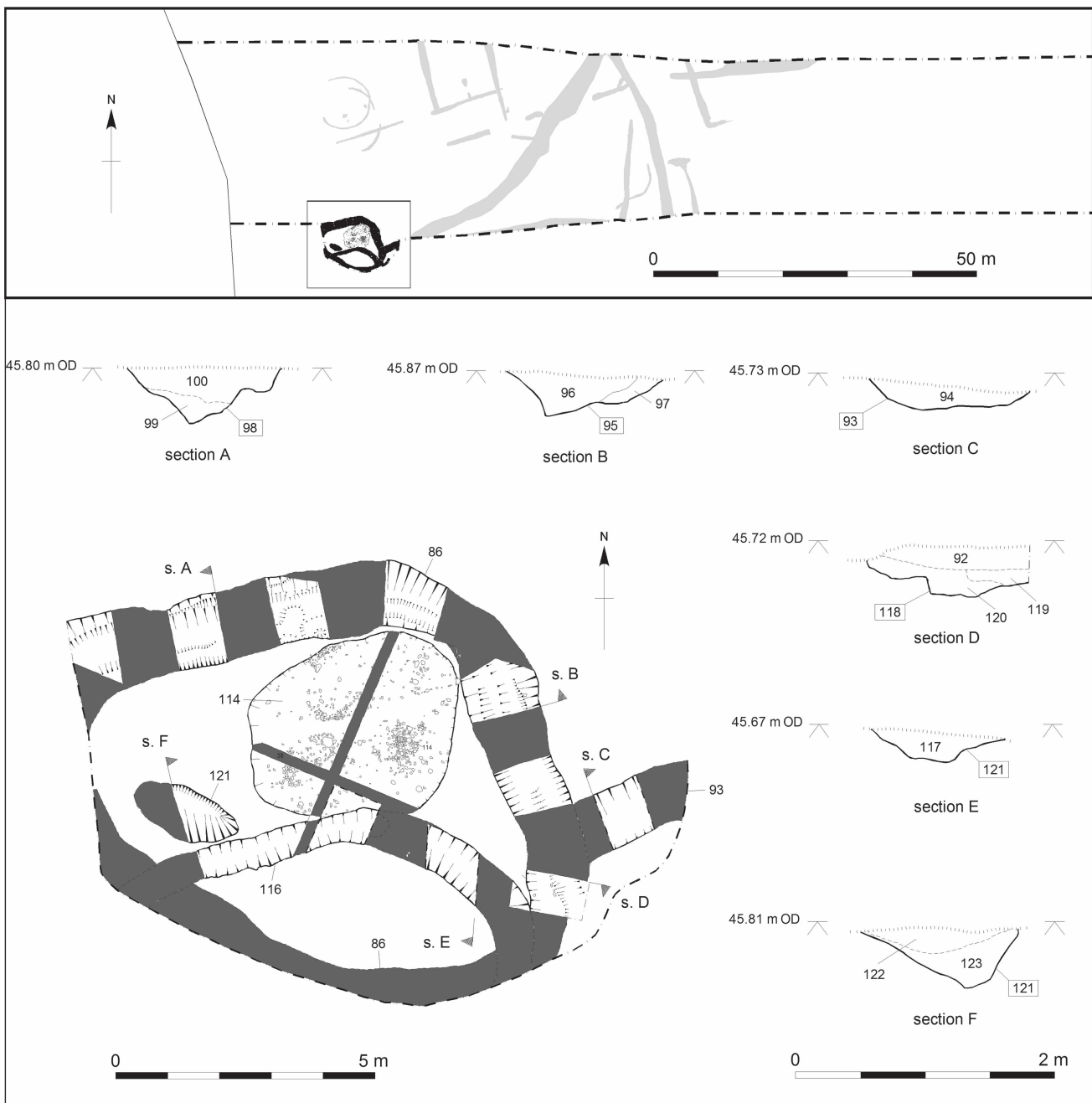


Figure 3
Site A (west of Potter Lane): possible kiln base

of medieval pottery together with lenses of red burnt clay. Palaeoenvironmental analysis identified both charcoal and peat fragments, burnt and un-burnt, in the majority of the soil samples examined. The gully enclosed a disturbed cobble surface [114], some 4.4 m north-east to south-west and 3.5 m north-west to south-east, within a shallow (0.05m), oval cut [115], close to the northern side of the gully.

Gully [86] was seen to cut a similar-sized curvilinear gully [93], to its east. While only a small length of gully [93] lay within the excavated area, this may represent a similar feature. A third curvilinear gully [116] cut the

southern portion of gully [86], and this gully may again be a similar feature. An oval pit [121], 1 m by 0.25 m and 0.45 m deep, lay next to gully [116], although it is uncertain whether it is associated with this feature or gully [86], in which it also lies.

The presence of such a concentration of medieval pottery (including many waster sherds – see below) within the gullies, demonstrates the presence of a pottery kiln in the immediate area. Gully [86], which encloses the oval cobbled area, contains by far the greatest proportion of pottery, some of the excavated fills almost entirely comprising pottery sherds and



Figure 4
Site A (west of Potter Lane): kiln base

burnt clay. This suggests strongly that the cobbled surface and surrounding gully were directly involved in the production of pottery. There were no indications of structural features such as posts, either in or around the excavated gullies, overlying spreads or around the cobbled surface to suggest the presence of a building, although structures for throwing and drying would certainly have been needed and have been found adjacent to kilns at some sites (McCarthy and Brooks 1992, 74–6).

If they do not represent a building, the cobbled surface and gully may be the base of a kiln itself. No evidence of a superstructure of any sort was found however, although a quantity of burnt clay, some with wattle impressions, was found in the majority of the gully's fills (see below). It is possible that a superstructure had been entirely removed by later activity (the cobbled surface showed damage, possibly from ploughing). It is perhaps more likely that the remains represent a kiln with little permanent superstructure (and which was not partly sunken in a pit). A basic kiln type for pottery production is the clamp kiln, which could be constructed on the ground surface and which did not have a permanent superstructure. Evidence of the use of this type of kiln for pottery production in England has been found as late as the 16th century (McCarthy and Brooks 1992, 40–1). The superstructure

would be composed largely of the fuel, with a clay or mud covering. The fuel itself would, from documentary and excavated evidence, usually be wood, although in some areas peat was used (Le Patourel 1968, 117; McCarthy and Brooks 1992, 41, 48). The cobbles would therefore represent a more permanent base for the clamp, its position adjacent to the northern edge of the gully would have provided room on the other sides to work – building, firing and dismantling the clamp.

The gully, which appears to have been used as a convenient dump for pottery wasters, may have originally been dug to provide drainage – excavation conditions showed this to be something of a problem. That the gully, including its primary fills, was utilised for dumping pottery wasters also implies that it was in use at the time of pottery production, rather than as a suitable 'hole in the ground' for waste material long after potting had ceased. The black silty layers may have originated as material periodically washed into the gully from the presumably charcoal-rich ground surface of the wider production area. Sample excavation through the cobbles produced no evidence of heat-reddening in the underlying natural clay however. This contrasts with the reddened clay fragments found in the gully, suggested as being from a clamp kiln superstructure. If the cobble layer does indeed represent the base of a clamp kiln, the lack of any apparent heating on them or the underlying natural is difficult to explain.

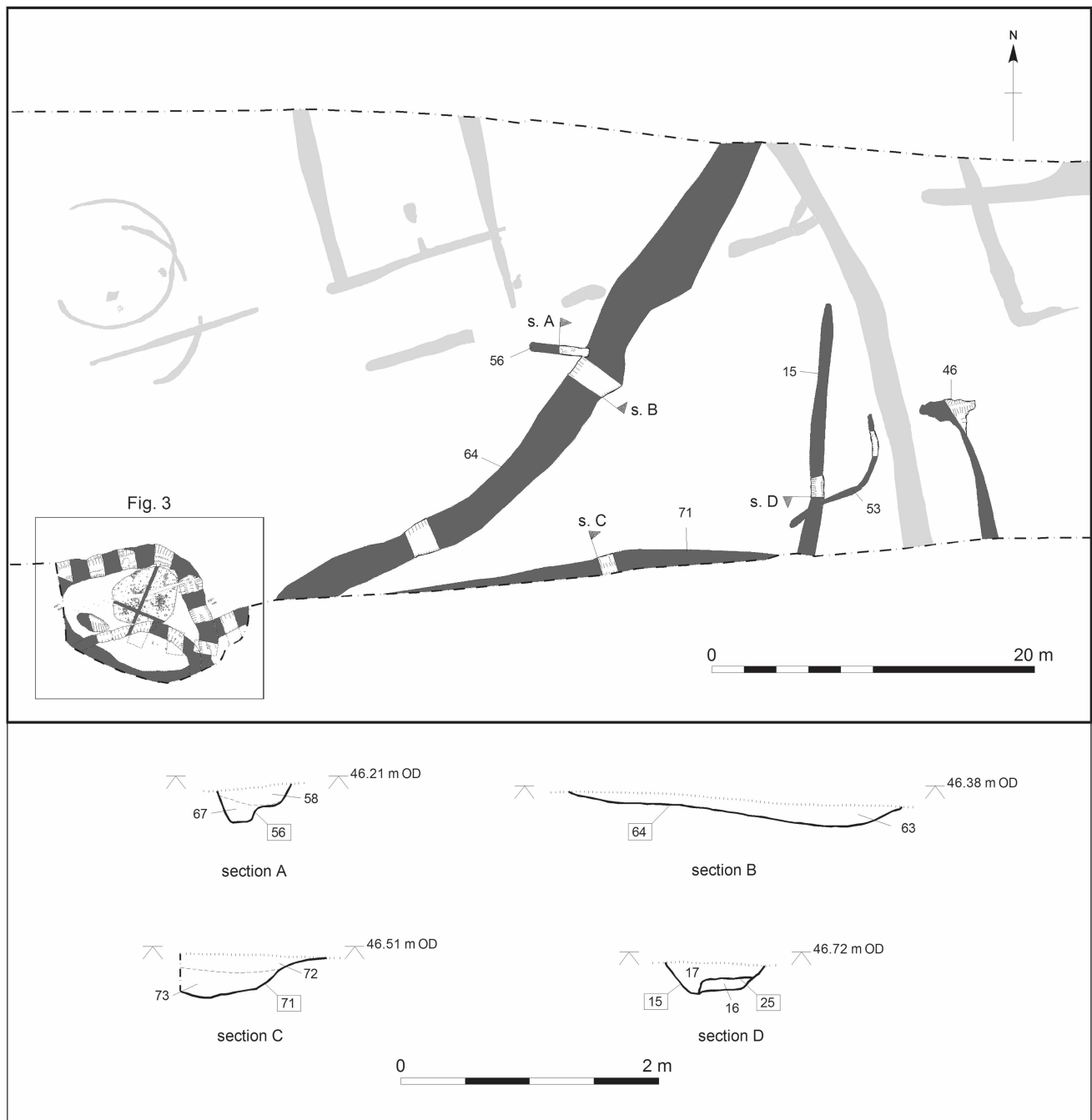


Figure 5
Site A (west of Potter Lane): other medieval features

Other medieval features

A number of generally shallow ditch, gully and pit features extended for some 80 m east of the potential kiln and the ring gullies, and have been assigned a medieval date, primarily from their form and the presence of medieval pottery in their fills (Figure 5). A wide (2.55 m) and shallow (up to 0.28 m) curvilinear ditch [64] ran roughly north-east to south-west across the centre of the site. It was cut by a short rectangular gully [56], 3.7 m by 0.45 m and up to 0.25 m deep. This feature was filled by dark clay and silt layers, one of which [57], produced further traces of charred

and uncharred peat. Four other ditch or gully features ran partly or completely across the site. Curvilinear gullies [53] and [46] terminated close to one another, suggesting they may have been contemporary. Gully [46] had a large pit-like terminus, although with no apparent structural features within it, while gully [53] had been recut [15] along part of its length. Ditch [71], which ran along the southern edge of the stripped area, was never fully exposed, although it survived to a depth of 0.35 m, while gully [15], which showed a recut, appeared to cut gully [53].

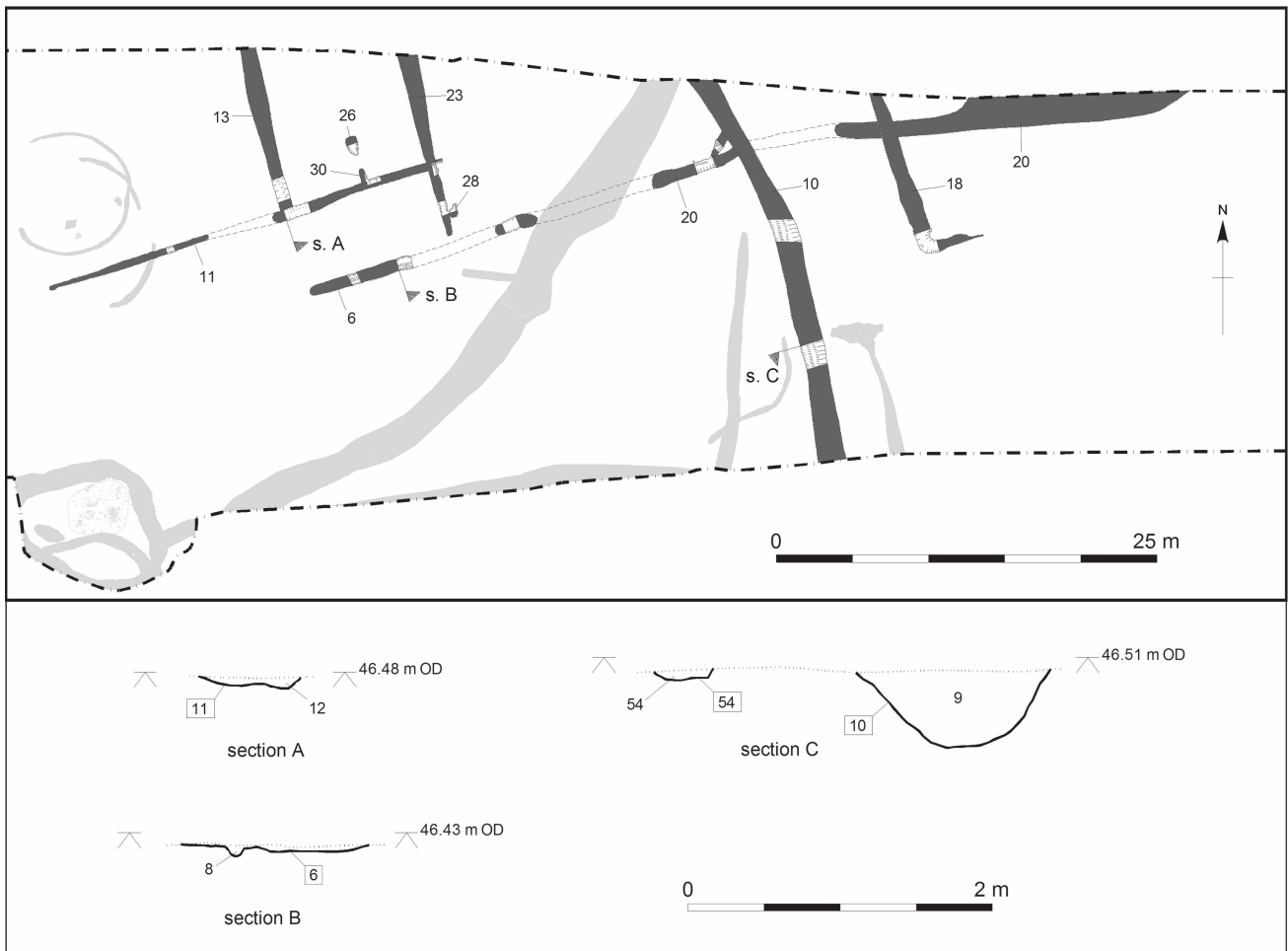


Figure 6
Site A (west of Potter Lane): later features

Later features

A number of almost exclusively shallow (less than 0.1 m) linear features were also recognised (Figure 6). All contained some medieval pottery, but all except one ran parallel, or at right angles to, the hedge line north of the pipeline corridor. These are probably the remains of heavily truncated post-medieval rigg and furrow cultivation. In addition, a single curving ditch [10] ran roughly north to south across the corridor. This feature was considerably deeper (0.5 m) than the presumed furrows, but cut one of them.

While the presence of post-medieval agricultural features on the site is unsurprising, only two post-medieval sherds of pottery were recovered from the excavation. This is unusual considering the practice of manuring fields with farmyard material, often containing household refuse. The lack of later pottery, which was not a product of finds recovery strategy, may imply that while ploughed, the field lay at a considerable distance from its associated farm at this time.

Site B, north-west of Potter Lane

Some 45 m north-west of Potter Lane, and over 200 m north-east of the site discussed above (at SD 5840 2880), a total of 1081 sherds of almost entirely medieval pottery (including wasters) together with a quantity of fired clay, was found during topsoil (context [0/01]) stripping for a vehicle access track (Figure 1). The finds were recovered from approximately a 25 m length of the access track. No features were associated with this material, however the presence of a kiln in the immediate vicinity seems certain.

Site C, East of Potter Lane

This was located some 140 m east of Potter Lane, and some 400 m east of Site A, at SD 5858 2871 (Figure 1). The features lay immediately south of a pond, some 12 m in diameter. The site lay at a height of 48 m OD and, like the other sites, was in an enclosed pasture field.

An oval gully [1/11], measuring 7.5 m north to south, 4 m east to west and 0.25 m deep, was identified, similar to those excavated at Site A west of Potter

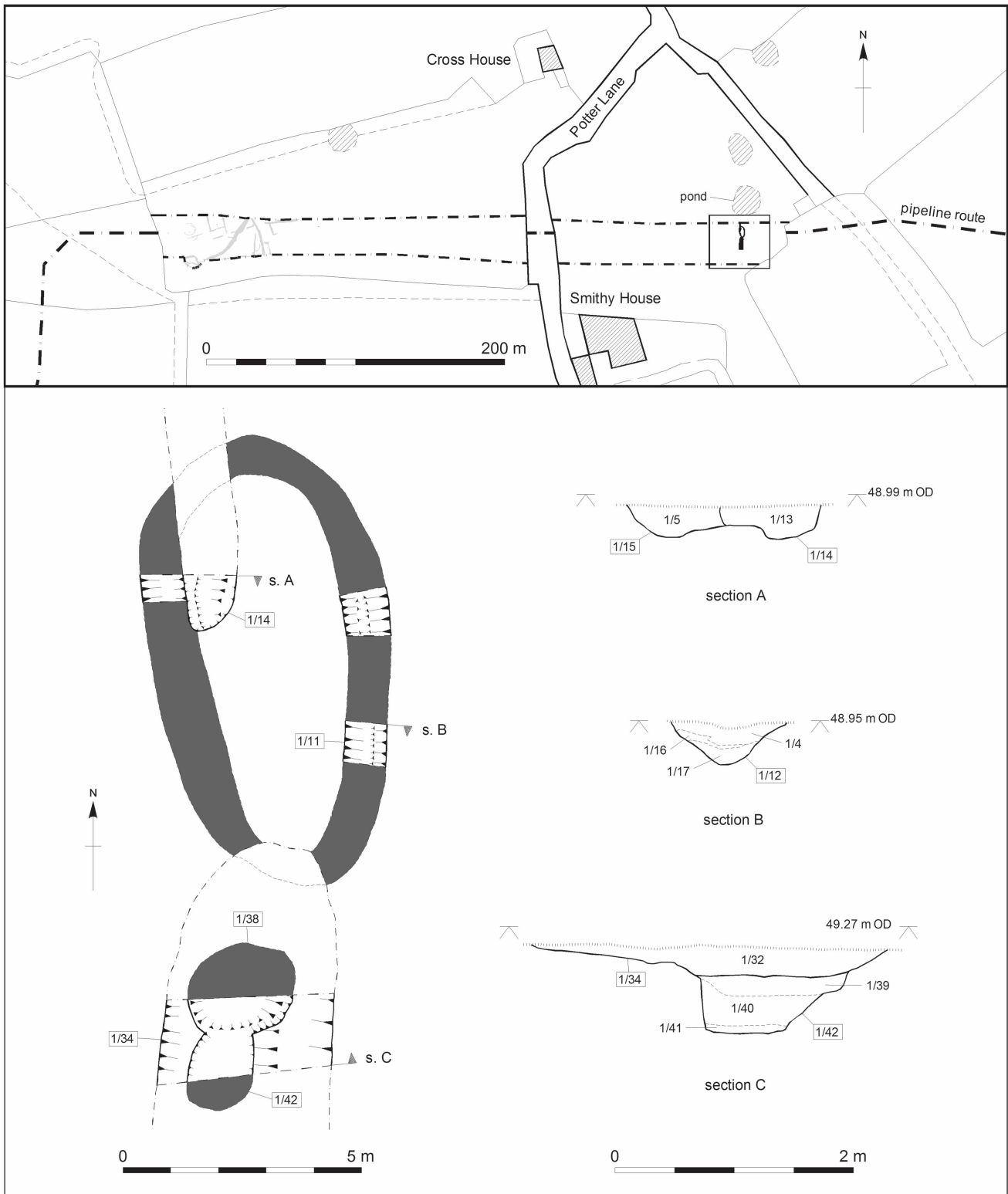


Figure 7
Site C (east of Potter Lane): oval gully

Lane (Figs 7 and 8). Some 1.5 m to the south of this gully lay two large pits ([1/38] and [1/42]). Both pits were approximately 0.7 m in depth, and over 1 m in diameter. The base layer of pit [1/42] contained small quantities of decayed wood, charcoal and peat. It was not possible to tell if either pit cut the other. The pits

were in turn cut by a wide (2.3 m), shallow (0.25 m) ditch [1/34], the terminus of which also cut the southern end of oval gully [1/11]. A second and much smaller ditch [1/14] cut the northern end of gully [1/11] and ran north beyond the edge of excavation towards the side of the pond.



Figure 8
Site C (east of Potter Lane): oval gully with pond in background

The oval gully [1/11] is similar in appearance to those at Site A, and is most likely a feature of similar function, although here, the gully is longer but narrower, and no internal cobbling was present. This suggests that the feature, if it represents another clamp kiln base, is more plough truncated than the examples to the west. No heat-reddening of the clay was found within the gully, and the gully itself contained far less pottery, although these did include waster sherds.

Excavated pottery

Jeremy Bradley and Ian Miller

Introduction

The excavations yielded a large assemblage of medieval pottery, the majority of which dates from the 13th and 14th centuries, with a small component that is probably of a 15th-century date. The assemblage represents the largest body of medieval pottery recovered from north-west England by a significant margin, and provides rare evidence for a ceramic production centre in the region. Indeed, given the paucity of comparable finds from this

part of the country, and the contribution it provides to an understanding of medieval pottery production at a national level, the Samlesbury assemblage is considered to be of national significance.

Quantification

A combined total of 10,265 fragments of pottery, weighing 146.443 kg, was recovered from the three sites excavated around Potter Lane. This total comprised 10,220 fragments of medieval pottery and, remarkably, only 45 fragments that were of a post-medieval date (Table 1). In addition, 1,374 fragments (15.738 kg) of fired clay or kiln material were also recovered.

As might be expected, the majority of the fragments were vessel body sherds, although a range of diagnostic rims, handles and bases were also retrieved. In general terms, the pottery was in good condition and, despite the large number of small sherds, few were heavily abraded or rolled and the breaks were clean, suggesting little post-depositional disturbance. The post-medieval pottery largely comprised small and abraded sherds, adding little to the interpretation of the site, and has thus been omitted from this discussion.

Table 1

Quantification of pottery by sherd count

Site	sherd totals (kg)	weight (sherds)	medieval pottery (sherds)	post-medieval pottery
Site A (west of Potter Lane)	8360	118.114	8358	2
Site B (north-west of Potter Lane)	1081	16.430	1045	36
Site C (east of Potter Lane)	824	11.899	817	7
total	10265	146.443	10220	45

Fabric descriptions

The medieval pottery from the combined excavations was grouped into two main fabric types, those in a gritty fabric and those in a sandy fabric, although there was some slight variation within these groups. Five other fabric groups were also recognised, although these accounted for only 0.5% of the total, raising the possibility that they had been manufactured elsewhere, and represented domestic activity on the site. In addition, 350 sherds (3.9%) were unclassified. These were generally sherds that had been poorly fired, or were too small to allow more accurate identification.

The two main fabric groups were sub-divided into oxidised, partially-reduced and fully-reduced types. The reasons for this were twofold; firstly to deduce what the original fabric in its finished state was intended to be and, secondly, to identify whether the fully-reduced sherds were entirely the result of over-firing.

Fabric 1 . Gritty ware

A medium coarse gritty fabric, containing moderately well-sorted rounded or sub-rounded quartz inclusions and sand temper. Generally, the inclusions ranged from 5% and 10%, but wider variations were noted. The fabric was probably intended to be pinkish-orange, given that 70.9% of the sherds were oxidised. Some 15.9% were partially-reduced, and it possible that this was the intended fabric type, particularly with the jug forms. The remaining sherds were reduced and were likely to be wasters. Glazing, although less apparent than on the sandy wares (Fabric 2), ranged from orange (iron-rich) to green (copper-rich). Jars were the dominant form, although jugs, pipkins, cistern, and bowls were also represented. The most common form of decoration was incised lines, although applied thumb strips, rouletting and rilling were all present, either individually or in combination.

Fabric 2 . Sandy ware

An orange sandy fabric, containing well-sorted rounded quartz inclusions. Some 47.9% was in an oxidised form, and 37.2% in a partially-reduced fabric, suggesting that both versions were intended; there was no indication that particular vessel forms were more prevalent in one sub-fabric type or another. Some 14.9% of the sherds

were reduced, mirroring the proportion of reduced fragments occurring in Fabric 1. Vessel forms were more limited than in Fabric 1, and were dominated by jugs, with 37% of the estimated number of vessels comprising jars. Other forms, such as cisterns, were uncommon. Approximately one half of the sherds had a green glaze. Incised line was the most common form of decoration, although applied thumb strips and rouletting was evident on numerous sherds.

Fabric 3

An orange partially-reduced fabric with grey interior. The fabric was moderately soft, dense and did not contain any inclusions, nor was it glazed. There were only two examples of this fabric, which both appear to be baluster jug body sherds.

Fabric 4

A white firing sandy fabric with moderately well sorted sand inclusions (5%). A pale pink slip was noted on the exterior of the vessels, and splashes of apple-green glaze. No diagnostic sherds were recovered to allow vessel types to be identified.

Fabric 5

A partially-reduced fabric with a light bluish-grey interior and pinky-buff surface. The fabric contained about 10%, well sorted quartz sand.

Fabric 6

A partially-reduced gritty fabric, with 5% well-sorted quartz grit inclusions. The interior is bluish-grey with a pinky-buff exterior and rather resembles Fabric 5. The glaze is a speckled, pale olive green.

Fabric 7

Pinkish-buff sandy fabric, containing well sorted, medium-fine quartz sand (10%). The fabric has a pinkish slip, generally, but not always, on both sides. Glazing is uncommon and where it exists was either over-fired or pale olive.

Table 2

Summary of the percentage of fabric type

fabric type	% by sherd count	% by weight
Fabric 1	71.7	70.74
Fabric 2	23.6	26.6
Fabrics 3–7	0.2	0.7
post-medieval	0.5	0.3
unclassified	3.8	1.8

Gritty ware Fabric 1 was overwhelmingly the main fabric type being produced, accounting for over 70% of the total assemblage, with 23.6% in Fabric 2 (Table 2). The statistics alone, however, mask some significant variation in the different assemblages. In particular, the material recovered from Site B north-west of Potter Lane was dominated by Sandy ware (Fabric 2). Similarly, whilst the material recovered from Site C east of Potter Lane was Fabric 1, a larger proportion of Sandy ware was produced from the topsoil (31%), which tentatively suggests that these were being produced at a slightly later date.

Site A Assemblage

The majority (8,360 sherds) of the entire assemblage was recovered from west of Potter Lane, where the bulk of the pottery was retrieved from a total of 39 contexts. Some 76.5% of the group comprised Gritty ware (Fabric 1), with Sandy ware (Fabric 2) accounting for 18%. The remainder of the assemblage was either unclassified (2.3%) or in Fabrics 4–7, which accounted for only 0.4% of the total. The topsoil yielded the largest number of sherds (1,308), implying that the site had been subject to some low-level agricultural activity.

Possible kiln

The bulk of the pottery was recovered from gully [86], which yielded a total of 5,350 sherds. The majority of these sherds were in Fabric 1 (80%), with 16.5% in Fabric 2. Material from the stratigraphically earliest fills of gully 86 ([104], [97] and [99]) contained only very small amounts of Fabric 2 material (less than 5%). The remainder was either Fabrics 4–7, or unclassified. In addition, gully [116], which cut gully [86] and was thought to be part of another kiln, contained only 24 sherds, all of which were in Fabric 1. The above evidence indicates that the bulk of the pottery being manufactured on the site was in the gritty tradition, with a small but significant proportion of the finer sandy fabric being produced in tandem.

The group from gully [86] effectively provides the full range of pottery manufactured on that site, which included jars, jugs, cisterns and pipkins. The variety of types within these basic form categories included jugs with applied bridge spouts, typical of the mid

13th-century and later, and cisterns, which were a 14th century introduction. This suggests that the group was a result of several firing campaigns over a lengthy period.

The layer [38] covering the kiln foundation produced only fifteen sherds of pottery, nine of which were Fabric 1, suggesting that the sherds and kiln fabric from the last firing may have been deposited within the gully.

Other medieval features

Several of the features that extended for some 90 m to the east of the possible kiln, and some are likely to have formed part of the production area, yielded only a few fragments of pottery. Some features, such as the fill of gully [19], produced only Fabric 1 sherds, while others, such as the fill of north/south-aligned ditch [15] (a recut of gully [53]), yielded slightly more sherds in Fabric 2. A larger group was recovered from east to west-aligned ditch [71], on the southern edge of the site, which produced 99 sherds. Of these, 87 sherds were recovered from the secondary fill [72], of which 89.6%, were in Fabric 2. In contrast, primary fill [73], although producing only twelve sherds, accorded with the general site trend of a ratio of 3:1 in favour of Fabric 1.

Site B Assemblage

The proportions of pottery recovered from topsoil stripping indicated that production there was overwhelmingly in the sandy Fabric 2 tradition, which accounted for 73% of the total. The negligible quantity of gritty wares present reflects the perceived trend that gritty wares were largely superseded by finer wares during the later 13th century.

The majority of the vessels represented from the site appeared to be jugs (61%). A single sherd from a cistern and two lid fragments were also recovered. One notable find was a fragment of a possible dripping tray, which was unique to the entire assemblage. The absence of vessels typical of the 13th century, such as jugs with applied bridge spouts, and the presence of vessels such as cisterns and large storage jars with applied thumb strips below the rim, suggests that a 14th century date would be appropriate for activity on this site. The presence of a quantity of kiln fabric and furniture, as well as the more obvious wasters would confirm the presence of a kiln in the immediate vicinity.

Site C Assemblage

In total, 81% of the 817 sherds of medieval pottery recovered from this site were in Fabric 1, with only 16% being in Fabric 2. This implies Fabric 1 to have been the principle type produced, hinting that it may have provided a focus for the earliest pottery production in the excavated areas.

An oval gully [1/11], similar to those excavated at Site A, yielded 126 sherds of pottery, the bulk of which

were in Fabric 1. Two nearby pits, [1/38] and [1/42], also yielded fragments of pottery. Some 170 sherds of pottery were derived from the fill of pit [1/42], all of which were in Fabric 1. Both pits were cut by a ditch, [1/34], the fill [1/32] of which yielded 138 sherds of pottery. Again, the vast majority of these (136 sherds) were in Fabric 1.

The largest group of pottery from this site, however, was recovered from the topsoil [1/7], which yielded 293 sherds. Sherds in Fabric 1 again formed the largest proportion (66.5%), while 31.4% were in Fabric 2. The increased proportion of Fabric 2 within this unstratified material may have resulted from a final firing of the kiln, or alternatively could have come from yet another nearby (and unexcavated) kiln site. The date range for this site was more difficult to determine, since it lacked the vessel types seen elsewhere that have been used to hone the dating, although a later 13th- or 14th-century date may be appropriate.

Dating

Precise dating of the pottery remains difficult, highlighting the problems inherent in the study of medieval ceramics in the north-west, especially the paucity of secure and independently-dated stratigraphic sequences from excavations throughout the region. Nevertheless, it seems that gritty wares represented the earliest material produced on the site, with finer sandy wares becoming increasingly common in later deposits. The transition from gritty wares to the finer sandy wares was not rapid, as similar vessel forms in the two fabric types were evidently being produced in tandem. This scenario has recently been posited for Carlisle, where the prevalence of gritty wares in medieval deposits also containing partially-reduced wares cannot simply be put down to residuality (Miller, forthcoming a). A case in point from the Potter Lane sites was rim type 3, which was upright and collared and was clearly associated with jug forms. Some 61 of these rims occurred in Fabric 1, and 44 in Fabric 2, demonstrating that they being produced in both fabrics, and that they were found approximately in the same ratio as the fabric types. These same rim forms were also associated with applied bridge spouts, and again these vessels were represented in both Fabrics 1 and 2, albeit in restricted numbers; an estimated seven vessels were noted in Fabric 2, as opposed to only two in Fabric 1.

Broad dates have been ascribed typologically, based largely on limited excavation work in towns such as Chester, Carlisle, Lancaster and Wigan, and reference to specific vessel types, with known dates of introduction. In particular, the occurrence of applied bridge-spouted pitchers, cisterns and large storage jars are the main 'fossil types' that can aid the dating of the assemblage. Jugs with applied bridge spouts were probably developed from vessels introduced from France, and date from mid 13th-century contexts

in Britain. Cisterns are generally thought to appear in the 14th century (Jennings 1992, 11), while large storage jars have a much broader date range, but offer comparisons with other sites in the region.

In general terms, and on stylistic evidence, a 13th-century date may be suggested for the earliest material from Site A, comprising the hard and coarse fabrics that conforms to the widespread Northern Gritty ceramic tradition. However, some of the decoration present on the excavated pottery, such as the applied cordons, is characteristic of the 14th century, whilst the slender proportions of several of the jug forms were widespread throughout the 14th century; good examples of this form being present in the fills of gully [86].

The characteristics and volume of material recovered from the Potter Lane sites, and its spatial distribution, suggests that the site remained in production throughout the 14th century, and possibly into the 15th century. This is supported by some of the forms present within the assemblage. Parallels for the bunghole cisterns recovered from Site A (layer [38] and one of the upper fills of gully [86], for instance), may be drawn from material excavated at Lymm, Cheshire, to which a date in the second half of the 15th century has been ascribed (Bearpark and Johnson 1976, 29). Similarly, the applied thumbled strip decoration immediately below the rim present on several of the sherds from Potter Lane, closely resemble material from Lymm (*ibid.*). This type of decoration was frequently applied to Silverdale type wares, to which a 15th- or 16th-century date has been ascribed (White 2000). However, there was a notable absence of Reduced Greenwares, which dominated pottery supply in the north during the 15th century. Similarly, there was also a lack of later forms, such as drinking vessels and chafing dishes, although the former appear to be largely absent from the ceramic record for the north-west.

The individual sites around Potter Lane can be seen to be of slightly different dates, again based on the presence or absence of specific vessel types. For instance, applied bridge-spouted pitchers, cisterns and large storage jars were all present west of Potter Lane (Site A), suggesting that this site saw continuous production for well over 100 years, if not longer. There was no evidence of jugs with applied bridge spouts at Site B, but cisterns were present, suggesting that the production of pottery commenced in the 14th century. Moreover, in contrast to the other excavated sites, the material here was dominated by Fabric 2, which would again suggest a later date. Site C, east of Potter Lane, was the most problematical, in that there was a complete absence of applied bridge spouted jugs and cisterns, (but a single example of the large storage jar), yet Fabric 1 was also more abundant on this site. The reason for this difference is unclear, and may be related to date, or could be caused by different products being made in different kilns at the same time.

Vessel forms

The variety of diagnostic sherds recovered provides evidence for a comparatively limited range of forms, although few vessel profiles could be established from the available sherds (Figures 9 to 12). Nevertheless, it was apparent that jars were the most dominant form, followed by jugs or pitchers. A few pipkins, cisterns, lids and bowls were also recognised, as well as a single fragment of a vessel believed to be a dripping pan.

All vessels were seemingly wheel-thrown, with the exception of a single bowl (Figure 10.25). The range of forms, although comparatively wide, nevertheless appears to have been restricted to fairly utilitarian vessels; there was no evidence for more exotic forms, such as face jugs, puzzle jugs, *aquamaniles*, or for the use of anthropomorphic or zoomorphic decoration, typifying the character of medieval assemblages from several excavations in the North West. In particular, sherds recovered from the remote medieval production sites on Docker Moor in north Lancashire (Gibbons 1986), and at Ellel near Lancaster (White 1993), which were both in production by the 13th century, represent vessels that were seemingly limited to a small range of utilitarian forms, with conservative decoration restricted largely to thumbled rims and occasional applied thumb strips. Fragments of these wares have been recovered from excavations of rural settlements, such as a medieval farm at Millhouse in the Lune Valley (Edwards 1967, 44, fig 3, 50, fig 5), in addition to urban centres including Penrith (Brooks 2000), Kendal and Lancaster (White and Miller forthcoming), suggesting that the kilns on Docker Moor and at Ellel were supplying the needs of both rural and urban communities. There is little reason to doubt that the Samlesbury pottery was similarly used by rural communities in addition to its known appearance in an urban environment (Oxford Archaeology North 2008; Oxford Archaeology North 2009).

Jugs

In total, 257 sherds that may be firmly identified with jugs were present within the assemblage, although this is likely to underestimate the total number of jugs due to the fragmentary nature of the assemblage as a whole. A total of 56% of the vessels were in Fabric 1 and 42.4% in Fabric 2, showing a much more even distribution.

Although vessels of both slender and medium proportions were recognised, the vast majority of the vessels were identified from rim form and handle fragments (Figure 9). However, it is possible that amongst the jugs of slender proportions were fragments seemingly representing baluster, barrel-shaped and biconical profiles, whilst the medium proportioned jugs appeared to include globular and rounded profiles. Variants included a small number of tube-spouted jugs recovered from topsoil [01] at Site A (Figure 9.12 and

13). The spouts applied to these vessels were quite squat, resembling pitchers in the Stamford ware tradition more common east of the Pennines (Dunning 1959), rather than the longer tube spouts that have been recovered, for instance, from 12th- and 13th-century deposits in York and Beverley (Brooks 1987, 179, fig. 61:639; Watkins 1991, 89, fig 75: 181). Broad parallels may be drawn from squat tubes applied to pitchers found in 13th-century levels at Carlisle (Jope and Hodges 1955, 85, 88, fig 7:5), which may be of a contemporary date to the Samlesbury material. The majority of the spouts, however, comprised simple pulled-lips, although several applied bridge spouts and two cylindrical spouts were also present within the assemblage.

Handles

These were largely of a loop type (*i.e.* attached to the vessel at both ends), and of either a rod or strap profile. Most of the handles were decorated; the strap handles characteristically had two parallel, incised lines flanking a central incised wavy line along the length of the handle, and the rod handles frequently had two rows of diagonal stabbing.

Rims and spouts

Two related rim types were represented among the identifiable jug sherds; these were an upright collared (Rim Type 3) and an upright and thickened form (Rim Type 5), the quantities from the two main fabric types are shown below (Table 3). Rim Type 3 was associated almost exclusively with applied bridge spouts, and was present in gritty and sandy fabrics. However, slightly more vessels were identified in Fabric 2 (eight vessels) as opposed to only three in Fabric 1. A particularly fine two-handled jug associated with a H2 handle (see below) was recovered from a fill [99] of gully [86], west of Potter Lane (Site A). Applied bridge spouted jugs were probably originally developed from Saintonge jugs from France, which were recognised from mid 13th-century contexts in Britain (Watkins 1987, 127). Jugs with this type of spout have also been found at Caerlaverock Old Castle, from fairly closely dated contexts spanning AD 1220s to the 1270s (Hall 2004, 47, 49).

Jugs with pulled spouts were much more common, with an estimated 16 vessels represented. The majority (14 vessels) were in Fabric 2, although a few vessels in Fabric 1 were present. This type of spout was found amongst a variety of rim types, including the simple rim form (R6 as well as more commonly amongst the R3 and R5 types). It is notable that this type of spout appears

Table 3
Summary of jug rim types in Fabric 1 and 2

Rim type	Fabric 1	Fabric 2
R3	61	44
R5	7	14

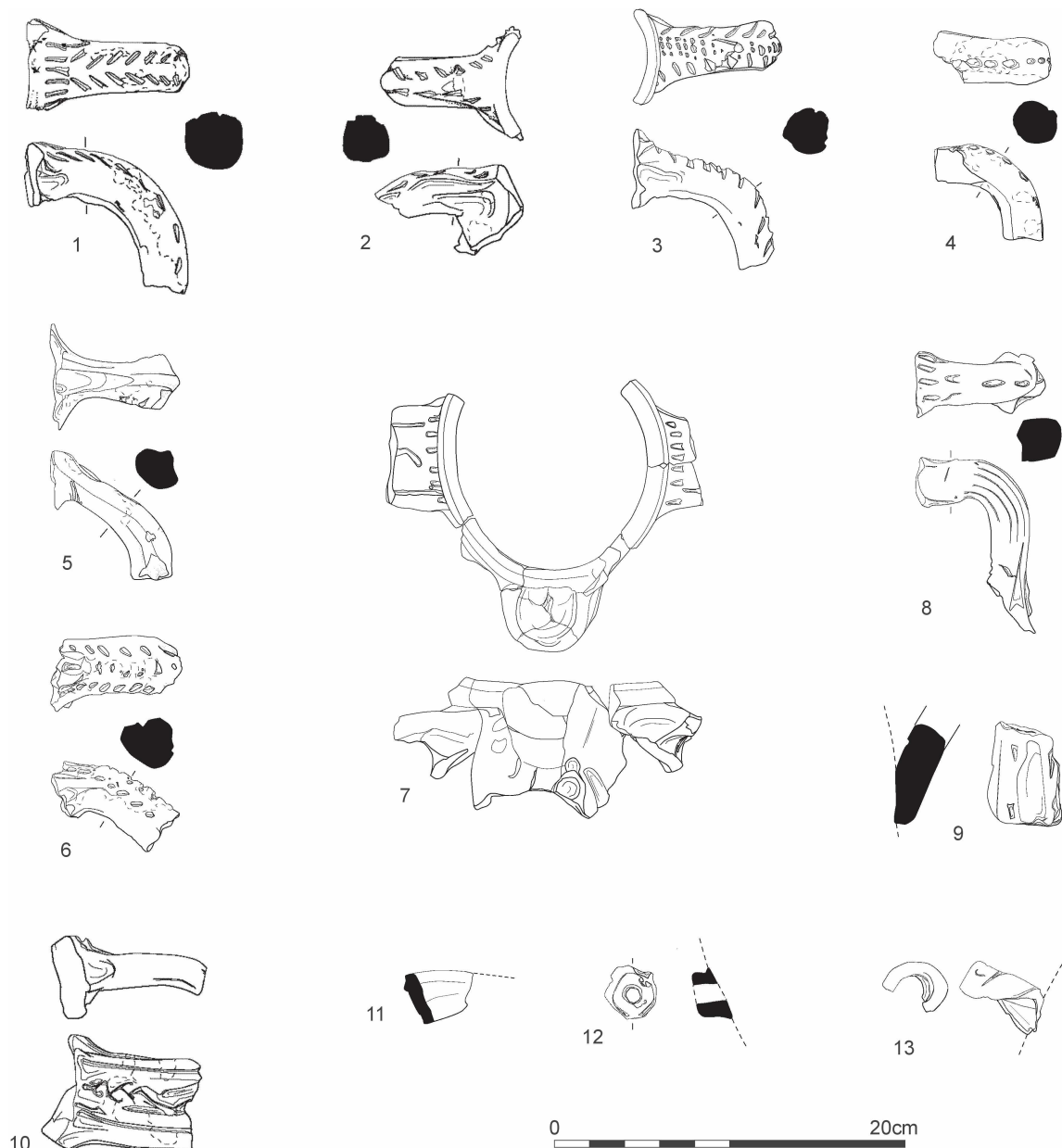


Figure 9
Jugs: handle fragments and spouts.

in the assemblage from Site B, thought to be of a later date to the other excavated groups, while there was a complete absence of the applied bridge spouts from this site. The final category of spout type, the free standing tubular variety, was represented by two examples, both recovered from this same site. Both spouts were in partially-reduced Fabric 2, and decorated with a green glaze.

Handles

Handles are the predominant characteristic of jug forms, and those recovered from Potter Lane are distinctive in their main features (Figure 9.1–10). A total of 170 handle fragments was recovered, which may be divided into ten main types:

- H1** Large strap with incised combing decoration (not illustrated)
- H2** Large strap handle with two incised lines flanking central incised wavy line (Figure 9.10)
- H3** Rod handle with diagonal stabbing in two rows and usually with a pronounced central spine (Figure 9.1, 3)
- H4** Rod handle with single row of stabbing down centre (Figure 9.8)
- H3/H4** Rod handle combining diagonal stabbing in two rows with a single row of stabbing down centre (Figure 9.6)
- H5** Triangular profile rod, with diagonal stabbing (Figure 10.26)
- H6** Little loop handle (Figure 10.27)
- H7** Strap handle with stabbing (not illustrated)
- H8** Plain rod handle (not illustrated)
- H9** Plain strap handle (not illustrated)

Rod handles were the most common, accounting for 48.2% of the total as opposed to 40.5% that were strap handles (and 11.3% were unclassified), showing that there was only a slight numerical difference between the two forms. The commonest handles were the H2 and H3 varieties, which accounted for 62% of the total. The H2 form was interesting in that there were nearly equal proportions of handles in Fabric 1 and 2, while for H3 both fabrics appeared in fairly large numbers but with more handles appearing in Fabric 1 as might be expected. The H3/H4 hybrid occurred largely in Fabric 1. Generally, the handle types were found throughout the three sites, with a few exceptions. The H3/H4 hybrid was, with one exception, only located at Site A, while H7 – stabbed strap handle – was limited to this site and Site B. Handle types H1 and H6 were restricted to this latter site.

Table 4

Summary of handle form, fabric type and quantity

handle form	Fabric 1	Fabric 2
H1	2	3
H2	29	27
H3	30	21
H4	2	3
H3/H4	10	3
H5	7	2
H6	2	
H7	1	2
H8	7	6
H9	3	13

Jars

The dominant vessel form within the assemblage comprised straight-sided, cylindrical storage jars (Figure 10). These large vessels were generally unglazed, although were often decorated with an applied thumb strip below the rim. A variation of this form; were jars with rounded or globular profiles, which appeared to be largely undecorated, although a small component had a green lead glaze. As may be expected for jar forms, 80.4% were in Fabric 1, yet it is notable that there were 53 estimated vessels (19.6%) represented in Fabric 2, suggesting that there was a definite preference for jars in the gritty fabric. This concurs with evidence available from the east of the Pennines, where analysis of the ceramic assemblages recovered from excavations in Hull, Hedon, and Beverley in Yorkshire, for instance, concluded that there was a marked preference for jars in a gritty fabric (Cumberpatch 1997). It has been suggested that the addition of grit to the ceramic paste was intended to assist in opening the clay body during drying to speed up and even out the process, and also during the early stages of firing to facilitate the removal of remnant

water and to prevent spalling and shattering during the water-smoking phase (*ibid*).

Rim forms

Three related jar rim forms were identified, all of which were everted. The most common form was Rim Type 1 (Figure 10.17, 20), which was everted, collared and flanged, suggesting that some at least were intended to support lids. A total of 297 rim sherds of this type were present, representing a similar estimated number of vessels.

A similar everted rim form (Rim type 2; Figure 10.22) was thickened and had a straight or rounded vertical edge. This was the smallest grouping of jar forms, with an estimated total of 44 vessels represented in Fabric 1, and fifteen within Fabric 2. Much like the other two rim forms, Rim Type 4 was everted (Figure 10.14), squared with a vertical outer edge. Rim Type 4, was represented by 88 vessels. The proportion of Rim Type 4 rims in Fabric 1 to those in Fabric 2 was 81.8% compared to 18.2%. A single example of a thumb impressed everted rim in Fabric 1 was recovered from Site A topsoil [01]. This jar was also unusual in that it had a rounded form.

A separate group of jars were large storage vessels with characteristically everted rims and an applied thumb strip below (Figure 10.17). Unfortunately, like much of the assemblage, it was only the rims themselves that survived leaving few clues to their form, although they were likely to have been vertical-sided. Some glazing was noted, usually splashed. As with the other jar forms, examples were found in both fabric types. Comparisons can be made with similar material from other sites, including Lymm (Cheshire), Ewloe (Flintshire), and Silverdale (north Lancashire) (Davey 1977, 48–9, 96–7; 102–3). The dating of these vessel types from the above sites was from the late 14th century, and into the early 16th century in the case of Lymm, the 15th century for Ewloe, and into the 16th century for Silverdale, making the material here some of the latest from the Potter Lane sites.

Pipkins

Five handled ceramic cooking vessels, or pipkins, were present in the assemblage, all of which were recovered from the site west of Potter Lane, and all were in gritty fabric 1 (Figure 10.15, 26 and 27). However, they were only identified from their characteristic handle forms (Handle Type 5), which were usually triangular with slashed decoration, unglazed, and occasionally hooked. A good example of this type of handle, recovered from a fill of gully [86] at Site A, demonstrated that it had been attached to the body by a type of mortice and tenon joint, the tenon being located on the handle. The lack of any identifiable body sherds would suggest that bodies would be comparable with the jar forms and would have utilised similar rim types.

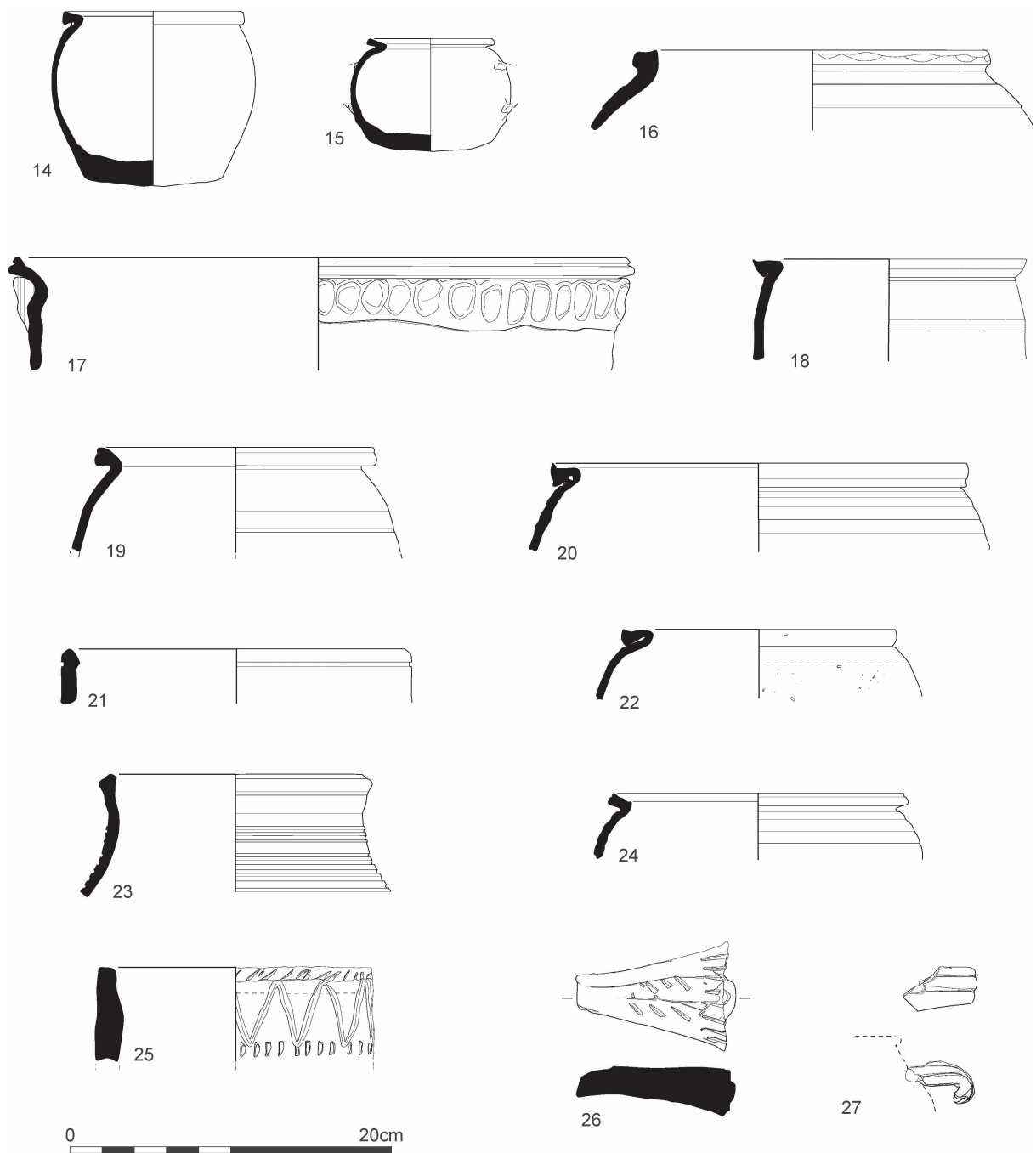


Figure 10
14–15 Near complete globular jar and pipkin **16–24** Rimsherds from jars or storage vessels **25** Hand made bowl
26–27 Pipkin handles

Cisterns

The assemblage contained a minimum of six cisterns, which were represented by fragments of bungholes. These vessels are typically 14th century and later in date, and were often used to store liquids such as ale. Four of the bungholes were in Fabric 2, and two were in Fabric 1, and all were rounded in section with stabbed decoration. The location of the bunghole, usually about three to four centimetres from the base, allowed the sediment to remain in the bottom of the vessel,

permitting the liquid to be poured from the bunghole via a wooden spigot. It is possible that part of a group of rims with applied thumb strips, twelve in total, were also cisterns. The rim forms were either simple or upright and thickened and resembled Hambleton cistern rims from North Yorkshire (Jennings 1992, fig 39).

Dripping pan

This shallow, unglazed vessel had a flat-based with straight, near vertical, walls was represented by a single,

but diagnostic, sherd recovered from Site B (Figure 11.37). The simple flat-topped rim had thumbnail impressions along the top, and on the inside of the base around the area where the remains of the handle were attached. The vessel, designed to catch the juices from roasting meat, was probably rectangular, as sometimes illustrated in medieval manuscripts (*op cit.*, 28). The impression gained from this vessel was that it was rather crude, perhaps indicating that it was a one-off. Such vessels would appear to be quite rare in the north-west of England.

Lids

Three lids were identified in the assemblage, all of which were unglazed. Two were recovered from Site A, and one from Site B (Figure 11.38). The lids from the former were both in Fabric 2, while the latter example was in Fabric 1. The lids from Site B were both flat with knife trimmed edges, with no evidence of a handles. The single sherd from east of the lane was flat, but with too little remaining to infer much else about it.

Decoration

Only a small proportion (6.2%) of the recovered sherds were decorated, excluding the use of glazes. The predominant form of decoration comprised incised lines, scored horizontally around the vessel body wall (Figure 11.31–35). Very similar numbers of sherds were recorded in both main fabric groups for this type of decoration. A rare variant of this was regular stabbing, which produced circular holes. Decorative motifs are presented in Table 5 below. A proportion of the sherds had been decorated with the use of a roller-stamp or roulette wheel to produce a continuous repeated impressed pattern. The design of the rouletted pattern was almost exclusively rectangular. Out of a total of 88 sherds where this type of decoration was found, 71.6% were in Fabric 1, which would be consistent with general ratio of Fabric 1 to 2, although this does not account for the similar numbers for incised decoration found on both fabrics. However there is a tendency for this type to be later, and therefore appear on Fabric 2 vessels in greater proportion.

Table 5
Summary of decoration motifs and fabric types

decoration applied	Fabric 1	Fabric 2
incised line	143	137
incised/stabbing	1	
incised/thumb	3	
rilling	17	11
rouletting	58	25
rouletting/thumb	5	
thumbed strip	65	38
wavy incised line	3	

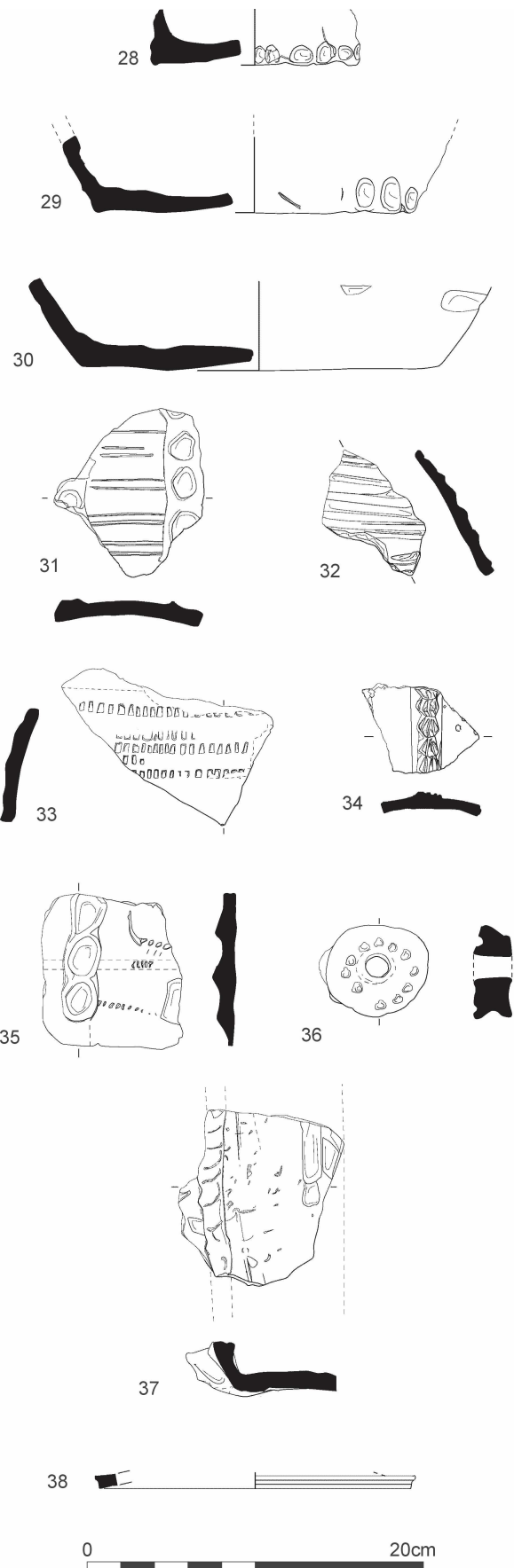


Figure 11
28–30 Basal angles 31–35 Types of decoration 36 Bung-holes
37 Dripping pan 38 Lid

Applied cordons also appeared on numerous sherds. These comprised a strip of clay, which had been indented by the use of a fingertip or thumb, and applied to the vessel wall, in either horizontal, diagonal or vertical strips. Similarly, several vessels had a regular thumb-impressed decoration immediately below the rim; a particularly good example was recovered from an upper fill [96] of Site A gully [86]. There were also several examples of the mixed use of decoration, such as incised lines associated with stabbing, rouletting and applied thumbed strips.

Glaze

A glaze had been applied to 35% of the recovered sherds. Curiously, there were more glazed sherds in Fabric 1 (20.3%) than in Fabric 2 (15.2%), although this can be accounted for by the sheer volume of sherds in Fabric 1. The glazes were predominantly green lead glazes, although a small proportion of a yellow lead glaze was also noted.

Bases

The shape of the jugs and jars bases was either flat or sagging, normally with an obtuse angle (Figure 11.28–30). A small proportion displayed a series of thumb or finger impressions around the base edge as a continuous band or interrupted band (Figure 14.28 and 29). It was likely, although no full jug profiles were recovered, that the thumbed bases were from jugs, based on evidence from other sites in north-west England.

For the purposes of the analysis, the basal sherds were broken down into six categories (Table 6). Undecorated sagging bases were the most prevalent type, with the majority occurring in Fabric 1. In total, 398 sherds were categorised as being unclassified. These were sherds that too little remained to discern the basal profile, although in 33 instances thumb impressions were noted.

Wasters

In total, 267 sherds of pottery ‘wasters’ – fragments of vessels so badly distorted or damaged during firing that

they cannot be used and are discarded, normally in the vicinity of a kiln – were recovered from the excavations. It should be noted, however, that some caution has been applied to the designation of sherds as wasters, and only heavily distorted fragments have been classified as such. It seems probable that a much larger number of fragments technically constitute wasters, for instance the reduced Fabric 1 and 2 sherds, but do not bear distinct physical evidence. Nevertheless, the number of definite waster sherds identified provides clear evidence for a pottery production centre. Supporting evidence is provided by the recovery of a large quantity of fragments of fired clay or kiln material.

Unsurprisingly, the majority of these were recovered from the Site A, west of Potter Lane. Wasters were recovered from a total of 19 stratified contexts, with particular concentrations occurring in the fills of gully [86] (a total of 120 sherds) and a layer [92] partly overlying this gully (25 sherds).

Fired clay

A total of 1,374 fragments (15,738 kg) of fired clay were recovered from the excavations. These were mainly small and did not contain any diagnostic features. Amongst the few exceptions were several fragments recovered from gully [86] (Site A), which contained wattle impressions. Whilst it would seem probable that some of this material represented a structural element of the production centre, the fragments were too small to furnish any information on the nature of the structure.

Kiln furniture

A total of 20 fragments of kiln furniture were recovered in a variety of forms (Figure 12). There were concentrations around the probable kiln at Site A (gully [86] material), as well as examples from the other sites. The most common were cylindrical or conical objects, similar but not identical to those found at Audlem (Webster and Dunning, 1960). The objects from the Potter Lane sites were cruder than the Audlem examples, and appeared to have no solid base. Two particularly good examples were recovered from fill (104) of gully [86] (Figure 12.40–41).

Other kiln furniture included three fragments of tiles with circular apertures from the fill of a ditch, [1/32] (Figure 12.42) and a pit [1/39] at Site C. Whether these objects were part of saggars, similar to those found at, for example, a 14th century kiln site in Kingston upon Thames, Surrey (Miller and Stephenson 1999, 34, fig.49) is open to debate. There, they were characterised as saggars, which are more common on post-medieval pottery kilns. Six fragments of tiles with chamfered edges, four of which were probably from the same object, were recovered within topsoil from Site B. Finally, two circular/sub-circular objects were recovered from fills [99] and [112] of gully [86] at Site

Table 6

Summary of types of base in the two main fabric types from the Potter Lane sites

base type	Fabric 1	Fabric 2
B1 (thumbed sagging base)	16	6
B2 (thumbed flat base) impressions	11	2
B3 (plain sagging base)	195	37
B4 (plain flat base)	79	37
U (unclassified)	270	95
UT (unclassified, thumbed impressions)	24	9

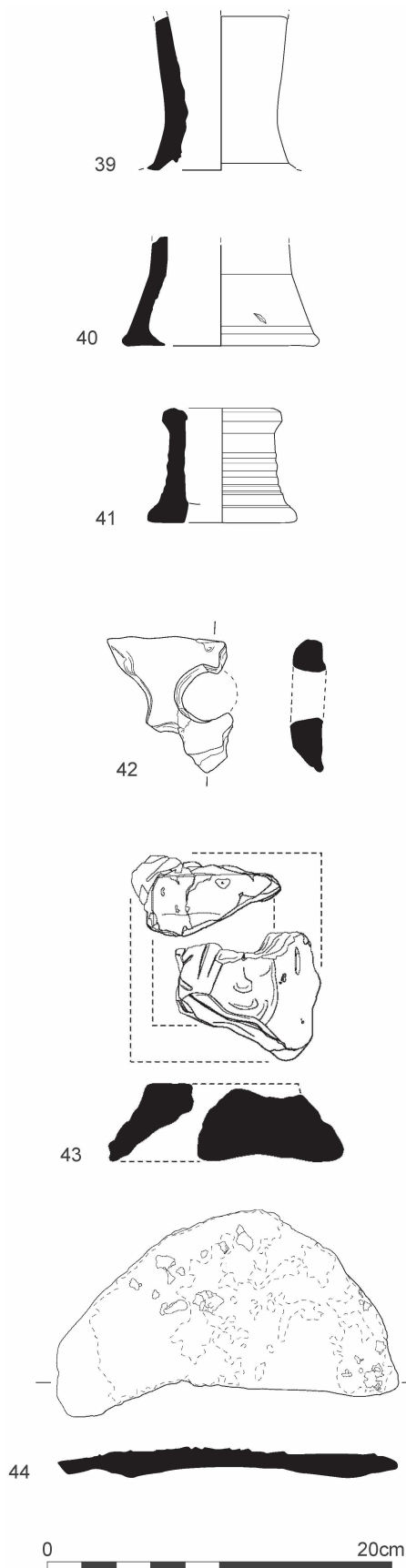


Figure 12
39–41 Kiln stands 42–44 Kiln furniture

A, (Figure 12.44). It was not clear whether these were badly constructed bases or kiln furniture. It was possible that they were indeed bases utilised in the kiln. Another unidentified object comprised a rounded fragment of fired clay with thumb impressions, from gully [86].

Catalogue

Numbers and letters in brackets refer to site code and context numbers

- 1 Rod handle (H3) with diagonal stabbing and upright collared rim (R6) (Site A, context 01).
- 2 Rod handle (H3) with upright and thickened rim (R5) (Site A, context 01).
- 3 Rod handle (H3/H4) with three rows of stabbing with upright and thickened rim (R5) (Site A, context 01).
- 4 Rod handle (H4) with single row of stabbing (Site A, context 72).
- 5 Plain rod handle (H8) (Site A, context 83).
- 6 Rod handle combining diagonal stabbing in two rows with single row of stabbing down the centre (H3/H4) (Site A, context 96).
- 7 Three handled jug with applied bridge spout (Site A, context 99).
- 8 Rod handle with single row of stabbing down the centre (H4) (Site A, context 101).
- 9 Strap handle with stabbing (H7) (Site B, context 0/01).
- 10 Large strap handle with two incised lines flanking central incised wavy line (Site C, context 1/61).
- 11 Pulled spout (R5) (Site A, context 96).
- 12 Cylindrical spout (Site B, context 0/01)
- 13 Cylindrical spout (Site B, context 0/01).
- 14 Near complete, small globular jar (Site A, context 99).
- 15 Small globular pipkin (Site A, context 99).
- 16 Storage container with thumbed rim (Site A, context 01).
- 17 Large vertical side storage jar with applied thumbing (Site A, context 83).
- 18 Straight side jar with everted, collared and flanged rim (R1) (Site A, context 90).
- 19 Straight side jar with everted rim (R2) (Site A, context 100).
- 20 Large storage jar with everted rim (R1) for lid seating (Site A, context 110).
- 21 Straight sided jar with simple rim (R6) (Site A, context 110).
- 22 Globular jar with everted rim (R2) (Site A, context 112).
- 23 Storage jar with rilling (Site A, context 112).
- 24 Globular jar with an everted rim (R4), which was squared with vertical outer edge (Site A, context 112).
- 25 Straight side hand made bowl with incised and stabbed decoration (Site A, context 82).
- 26 Pipkin handle (H5) showing tenon attachment (Site A, context 100).
- 27 Small pipkin handle (H5) (Site A, context 112).
- 28 Flat thumbed based (B2) (Site A, context 92).
- 29 Rounded thumbed base (B1) (Site A, context 96).
- 30 Plain rounded base (B3) (Site A, context 99).
- 31 Body sherd decorated with incised line and thumbed decoration (Site A, context 112).
- 32 Body sherd decorated with rilling (Site A, context 112).
- 33 Body sherd decorated with rouletting (Site C, context 1/13).
- 34 Body sherd decorated with vertical thumbed and combed strip (Site A, context 01).
- 35 Body sherd decorated with vertical thumbed strip (Site A, context 101).

- 36 Bung-hole with stabbed decoration (Site A, context 100).
- 37 Dripping pan (Site B, context 0/05).
- 38 Vessel lid (Site B, context 0/05).
- 39 Base of kiln stand (Site B, context 0/01).
- 40 Base of kiln stand (Site A, context 104).
- 41 Base of kiln stand (Site A, context 104).
- 42 Kiln furniture with perforations (Site C, context 1/32).
- 43 Kiln furniture (Site B, context 0/4).
- 44 Kiln furniture (Site A, context 112).

Flint

Peter Makey

Two struck prehistoric flints were recovered from the fill [70] of the probable roundhouse gully [69] at Site A, west of Potter Lane. The pieces are a possible burin and a small end and side scraper. Although dating of such pieces is problematic, they are both of forms most frequently found in later Mesolithic period assemblages. The possible burin resembles a micro-burin, although it has clearly not been formed as a by-product of microlith manufacture. The implement has been manufactured as a burin but is of a microlithic size – the resemblance to a classic micro-burin is probably coincidental. Burins are typically thought of as engraving tools and have a sporadic occurrence.

The scraper shows traces of edge abrasion consistent with the piece being in a residual context, however the possible burin is in a fresh state and cannot have travelled far. Both pieces have been knapped on a coarse to medium grained flint that varies in colour from dark yellowish orange to yellowish brown. The raw material used was probably obtained from the erosion of local boulder clay deposits. The scraper has been heavily used but the exact nature of the use has been obscured by post-depositional damage. The possible burin does not appear to show any traces of edge utilisation, it may even have been lost prior to use.

Iron

Jon Watt

Three iron objects were recovered from the excavated sites. A probable knife blade and an iron strip, both undated, were recovered from topsoil [0/01] at Site B, north-west of Potter Lane. In addition, a single iron object was recovered from Site A, west of Potter Lane, from the fill [52] of roundhouse gully [48], and is interpreted as blacksmith's hot set (Figure 13). It has a broad oval sectioned stem, head slightly burred, thinning and expanding slightly to a broad blade, found in two pieces, length: 183 mm, width: 39 mm.

A hot set has a relatively narrow blade and is used to cut hot iron. Such functional tools have changed little since the Iron Age and this item would not look out of place in a modern blacksmith's workshop. However its find spot suggests it may be of late Iron Age or Roman

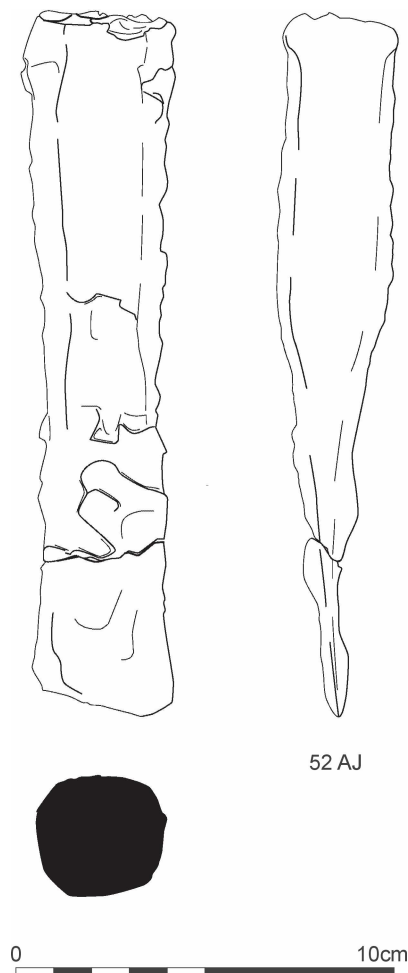


Figure 13

Site A (west of Potter Lane): Blacksmiths hot set

date, and similar sets are known from Roman contexts in London (Manning 1985).

Stone

Elizabeth Wright

A small fragment from the edge of a rotary quern stone was recovered from the fill (52) of roundhouse gully 48 at Site A (Figure 15). The quern is manufactured from dense yellow-brown feldspathic sandstone, well sorted and of fine to medium grain size, with some mica and iron minerals, probably attributable to the Coal Measures. The fragment measures 118mm by 80mm and 50mm thick, narrowing to 48mm where broken closer to the centre. The grinding surface is smooth, flat and well worn. The quern edge, which is curved and sloping is neatly peck dressed. The fragment most probably derives from a top stone, whose upper surface was once peck dressed in a similar fashion to the outer edge, however an area of smooth wear overlies the original dressing, probably acquired as a result of secondary use. It is not unusual to find that parts of

querns have been used as whetstones for sharpening knives or blades during their period of use as querns. Insufficient of the curved edge remains to allow estimation of the original diameter with any accuracy, though a diameter of no more than 400mm is probable.

It seems most likely that the fragment derives from the upper stone of a quern of Roman date though it is still possible that instead it derives from a rather thin, flat lower stone of Iron Age type of either pre- or post-conquest date.

Other recovered finds

Sarah Wilkinson

The excavations around Potter Lane produced a variety of materials all of which are recorded in detail in the post excavation assessment report (NAA 2004). The materials discussed here in summary comprise clay tobacco pipe, glass and ceramic building material.

Clay tobacco pipe

A total of 10 clay pipe fragments were recovered from the excavated sites, all from topsoil deposits and with a date range of the 17th to 19th centuries. The only notable fragment is from topsoil over Site C (Figure 14). This is a small, rouletted bowl with encircled letters 'PB' stamped on the base of a round heel, was probably made by Peter Birchall of Rainford, whose will was proved in February AD 1691. Both the bowl form and fabric (Coal Measures clay) are clearly of a local type and can be dated to AD 1640–60 (pers. comm. David Higgins). Peter Birchall was the father of two prominent Rainford makers Robert and James, who were working in the first decades of the 18th century (pers. comm. Peter Davey). Peter Birchall represents a previously unrecorded maker from Lancashire, an area where there has been comparatively little research into the early pipemaking industry.

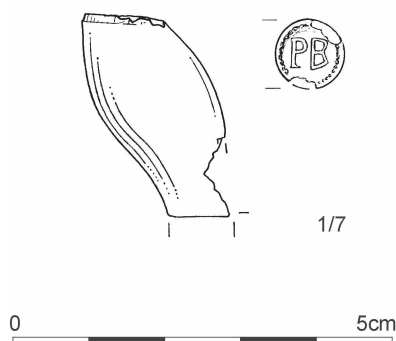


Figure 14
Site C (east of Potter Lane): clay tobacco pipe

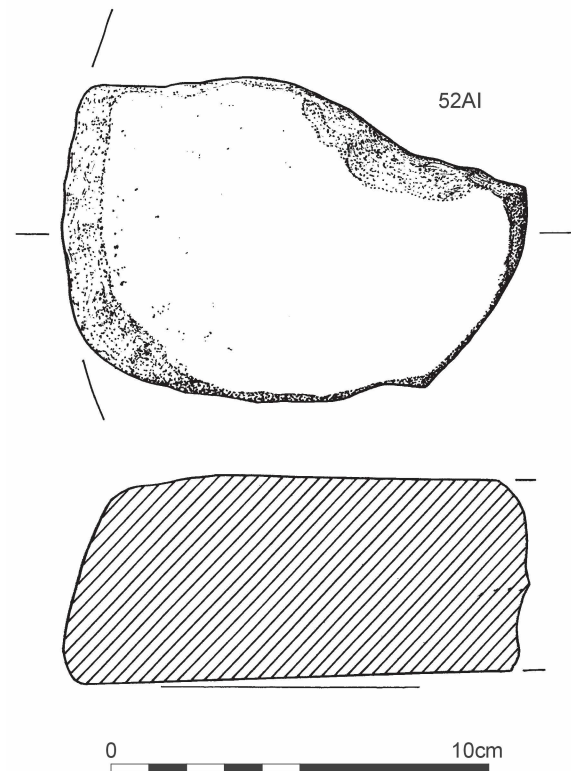


Figure 15
Site A (west of Potter Lane): quernstone

Glass and ceramic building material

Single sherds of post-medieval vessel glass, of 18th to 20th century date, were recovered from topsoil deposits at Sites B and C. A total of 16 fragments of ceramic building material (brick, roof tile and field drain) were recovered from the excavated sites around Potter Lane. All came from topsoil, intermediate subsoil, or cleaning layers. The glass and ceramic building material All are unstratified and date to the later post-medieval (18th to 20th centuries) period.

Biological remains

John Carrott

Introduction

Thirteen samples were included in the assessment (Jaques *et al.* 2004), which provides details of the processing and recording methods employed and of the remains recovered by context. Of these, twelve samples were from Site A west of Potter Lane and a single sample was from Site C east of Potter Lane. Four came from possible prehistoric deposits (Site A contexts [52], [55], [75] and [76]) and nine from medieval deposits (Site A contexts [38], [57], [82], [84], [91], [94], [104] and [106], and Site C context [1/41]).

Interpretation

The deposits produced very few identifiable biological remains of little interpretative value, but almost all (the exceptions being medieval contexts [84] and [106], fills associated with the gully [86] of the possible kiln) gave some evidence for peat, either charred or uncharred.

Charred peat was only recorded in one of the possibly prehistoric contexts (context [52], the fill of a ring gully), whilst the medieval deposits yielded both charred and uncharred material (in four cases, context [57] – fill of rectangular feature [56], context [82] – a fill of the probable kiln gully [86], context [84] – a gully fill, and from pit fill [1/41] at Site C). Two of the possibly prehistoric deposits (contexts [52] and [75], a post hole fill) also yielded traces of charred rhizome, thought likely to originate in the burning of turfs or possibly peat. The presence of such material is not unexpected in the vicinity of a medieval kiln (contexts [82] and [84] in particular were directly associated with the kiln) as there is a growing body of evidence from plant macrofossil assemblages for the use of turfs and/or peat in such structures, but is more difficult to explain in the context of the presumed prehistoric deposits (unless they are actually of later date). No more detailed analysis of the biological remains from these deposits was undertaken.

Discussion

Philip N Wood and Ian Miller

Excavation at the western end of the Samlesbury to Helmshore pipeline provided the very rare and fortuitous opportunity to investigate a rural pottery production site of medieval date. Not only has a previously unknown production site been found, but three separate locations have been identified, spread over a distance of nearly half a kilometre, with the possibility of an even wider industry. The excavations uncovered the remains of at least one likely clamp kiln, and possibly a total of four, of which those west of Potter Lane (Site A) appear to form a stratigraphic sequence, potentially covering a period between the 13th and 15th centuries. Few other kiln sites of any date are known from excavations in Lancashire (see below), and the lack of comparative material, both structural and artefactual, from production sites in the north-west of England, increases the importance of the discoveries made here.

There are only two known sites within the modern county of Lancashire that are attested to have been in production during the 13th and 14th centuries, those on Docker Moor (Moorhouse 1911; Edwards 1967), and Ellel (White 1993). In neither case were the actual kiln structures identified, their presence being inferred from concentrations of fired clay and pottery wasters. Similarly, a kiln has yet to be firmly identified in the Silverdale/Arnsdale area of north

Lancashire, although this has long been recognised as a centre for the manufacture of Reduced Greenwares that was probably established during the 15th century (White 2000). Comparable material, including a few production wasters, has been recovered from Caton, near Lancaster, although firm evidence for a kiln remains elusive (Miller forthcoming c). These sites, however, are all situated in the north of Lancashire, and there has hitherto been very limited evidence for medieval pottery production within the county to the south of the river Ribble. The only evidence in this latter area may be drawn from Wigan, which lies over 30 km to the south-west of Potter Lane. The production of pottery in the town is implicit in a document of AD 1310, which refers to 'Adam the potter of Wigan' who held a house and half an acre of land on Marking Place (cited in Powell 1998, 7–8), whilst archaeological excavations on Hallgate in 1991 yielded fragments of ceramic wasters from medieval deposits, providing reasonable evidence for a former pottery kiln within the vicinity (GMAU 2001).

Recent excavations within the historic core of Wigan revealed a shallow stratigraphic sequence of medieval deposits, providing evidence for activity in the rear of burgrave plots between the late 12th and 16th centuries. Of special interest was the recovery of medieval pottery fragments that may be attributed with confidence to the Potter Lane production centre, including sherds of jug handles with the distinctive stabbed decoration (Zant et al. forthcoming). Similarly, a single handle sherd in a sandy fabric with a splashed glazed and the characteristic pronounced ridge, has been discovered in excavations in Lancaster (Oxford Archaeology North, forthcoming).

Other known medieval pottery kilns in the wider region lie to the south, and include the recently discovered site at Prescott, Merseyside (Edwards 2000), and four known sites in Cheshire: Ashton (Newstead 1934), Audlem (Webster and Dunning 1960), Eaton-by-Tarporley (Edwards 2000) and Brereton Park (Rutter 1983). Some similarities may be drawn between the ceramic forms produced at these centres and those excavated at Potter Lane, although the modes of decoration tend to be different. The jars recovered from the kiln site at Audlem, for instance, tended to be undecorated with globular profiles and everted rims (Webster and Dunning 1960, 113), similar to a large proportion of the material from Potter Lane. The jug forms were sparsely decorated (*ibid.*), again comparing favourably with the Potter Lane assemblage. In contrast, the pottery recovered from the kiln site at Ashton was frequently decorated by means of incised combing, applied rouletted strips, applied stamped pellets, and applied motifs (Newstead 1934).

In general terms the vessel from Potter Lane have affinities with a number of sites from the north-west, and from as far south as North Wales, but with fewer similarities to Cumbrian sites. Stabbed handles are known from Dyserth Castle in North Wales (Davey

1977, 37) for instance, and these were thought to be products from the Audlem kiln in Cheshire (Webster and Dunning 1960). Other examples, dated to the 15th century, are known from Ewloe, where there were also good parallels with the large storage jars found at Potter Lane (Davey 1977, 95–7). Other similar vessels have been discovered at Lymm in Cheshire, where they have a broader date range of the late 14th to 16th centuries (*op cit.*, 51–2). Finally, north of the River Ribble, the pottery manufactured around Silverdale included large storage jars with applied cordon decoration below the rim (White 2000, 289), and there is some evidence for similar material having been produced at Caton, near Lancaster.

Whilst gritty ware jar forms are similar for the north of England and the globular and cylindrical forms found at Potter Lane are no exception, the rim forms do vary greatly. The Potter Lane rim forms were distinctly everted, and had a characteristic flange on the upper surface. This type of rim has parallels with gritty ware jars from two sites in the Lune Valley in Lancashire: an excavated farmstead at Millhouse, and the nearby manufacturing centre at Docker Moor (Edwards 1967, figs 3–4).

As stated, the assemblage would appear to invite parallels from Lancashire and North Wales, rather than further north. Similar material from Lymm, Ewloe and Silverdale has already been mentioned, while influences from further afield come in the form of the applied bridge spouted jugs, which have their origin in the Saintonge tradition of south-west France, although it is likely that such influences were through a process of diffusion rather than directly from the source. Generally, however, the ability of the potters working in the Potter Lane area to adopt new forms of pottery styles is demonstrated by introduction of vessels such as cisterns. Nevertheless, the range of products is limited to rather everyday items such as jars and jugs, suggesting that the potters were producing items for general consumption rather than more high status items. The few more specialised items such as the dripping-tray hint at a more high status market.

The structural evidence, especially for Site A (west of Potter Lane) would suggest that the oval gullies are most likely the damaged bases of clamp kilns. As the most basic type of kiln used in the medieval period, it leaves the least physical evidence. At Ellel, in north Lancashire, a patch of heated subsoil was found, which was thought to represent the site of the kiln, beside a low mound of wasters (White 1993, 5–9). At Samlesbury however, at least in one instance, a more permanent base of cobbles has been laid for the base, while the surrounding gullies are probably to compensate for the rather poor weather of the area. Such open gullies have – fortunately for us – proved attractive for throwing pottery into, arguably while the kilns were in use. Traces of charcoal and both burnt and un-burnt peat were found in the kiln gully. Both are known elsewhere as fuels in the medieval

period, and the use of both wood and peat here may have depended on variations in the supply and price of these materials.

Although no structural features were identified, the other medieval features identified west of Potter Lane are likely to relate to the potters' settlements and evidence of habitation may exist close by. The presence of such a quantity of pottery of such varying likely dates, found over a distance of 90 m in the features east of the probable kiln base, together with in the overlying soils, suggests that there may have been discrete spoil tips of wasters, probably close to the kilns, similar to that found at the kiln site at Ellel. It also suggests that there were potentially a considerable number of spoil tips, or that they have been ploughed flat and spread out over a wide area. The presence of settled potters in this area is confirmed by the appearance in the Lay Subsidy Roll of AD 1379, of a potter paying tax in Cuerdale vill, and another in the adjacent Samlesbury vill (VCH vol 6, 302, 311). The post-medieval parish boundary between Cuerdale and Walton le Dale runs along the hedge immediately south of the site west of Potter Lane (Figure 1).

The name Potter Lane almost certainly reflects the past potting industry. The road runs roughly north to south, and current maps show the lane running south from the Cuerdale Road past the excavated sites and ending at the River Darwen. A route of the same name is also recorded as running north–south for a short distance adjacent to the River Ribble beside Samlesbury church, although there is no map evidence to support this (Eaton 1936, 6). A river link, to the Darwen and possibly also the Ribble constitutes an important medieval routeway between two rivers, the Ribble at least being navigable to this point. Movement of pottery by river would be advantageous, both due to its fragility, and to maximise distribution to local markets, perhaps especially to the regional fairs which were held annually (Moorhouse 1983, 48, 55).

Evidence for pottery production has been proved over a distance of nearly half a kilometre around Potter Lane. Evidence however, exists for production over a much wider area. The probable kiln base at Site C, lay some 3m to the south of a pond, one of a large number around Potter Lane (Figure 1). This may indicate a direct link between the two features. Occasionally some of these features are marked on the 1st edition 25" to 1 mile scale Ordnance Survey map as 'Old Clay Pits', although their dates are uncertain (Lancashire Records Office, 1893, sheets LXI.16 and LXI.12). The digging of clay was of course a vital part of potting, documentary evidence from elsewhere in the country shows that the potters had to pay to extract their raw material (Clay Rent) and disputes could occur when potters took clay from the common land, rather than their own crofts and smallholdings, and didn't fill in the holes (Le Patourel 1968, 113–4). The excavation of a post-medieval farmhouse at Tattersall Nook, some 2.8 km to the east and excavated as part of the

same pipeline scheme, yielded several pottery waster sherds, to which a 14th or 15th century date was suggested. A pond, situated some 20 m away from this find, moreover, may have originated as another clay extraction pit (Wood, forthcoming). This pond is again one of many in that area, suggesting a very widespread and long-lived industry between the rivers Darwen and Ribble.

In eastern England, examples have been seen, from both documentary and excavated evidence, of pottery production over both a considerable length of time and concentrated in several locations within a nucleated settlement. The pattern of settlement in this area of Lancashire is however more dispersed, in the medieval period as now. The two taxpaying potters mentioned in AD 1379 were located in separate, unconnected villas – Cuerdale was held by knights service and Samlesbury held into the 14th century by thegnage (VCH, vol. 6, 300–303). The dispersed settlement pattern may partly explain the apparent widespread nature of the industry between the two rivers (presuming at least some of the extant ponds are related to clay extraction for potting), while its development here may have been based on the availability of raw materials (McCarthy and Brooks 1992, 71–4).

Finally, in addition to the kiln and other medieval features, what appear to be two Iron Age or Romano-British roundhouses were identified. The roundhouses were of the single gully type, with diameters of 8 m and 10 m, had no surviving floors, and limited evidence of internal posts. The only datable and likely non-residual find is late Iron Age or Romano-British. It seems unlikely therefore that these are medieval features but, with the residual Mesolithic flint, it does show that this area was attractive to settlement for a very long time.

Conclusion

Philip N Wood and Ian Miller

Excavation around Potter Lane, Samlesbury has revealed the widespread remains of a rural, medieval pottery production centre and has yielded the largest body of medieval pottery recovered from a site in north-west England. There is a notable lack of excavated rural sites in Lancashire and a dearth of stratified pottery assemblages. The importance of investigating such sites and the distribution of their pottery products has been recognised for many years in research agenda at both regional and national levels (Newman 1996, 121; English Heritage 1997, 53–4; Newman and Newman 2007, 114).

The results prove pottery production was carried out over an area almost half a kilometre wide, and from the 13th into the 15th centuries. With associated evidence, it is suggested that this is a part of a much wider but dispersed industry, spanning several square kilometres and several centuries. The pottery may principally have been used in the immediate area, but material from the

excavated sites has been identified at Wigan (OA North 2008), and possibly at Lancaster, over 30 km away.

The excavated sites at Potter Lane have furnished evidence for the production of mainly utilitarian wares dating from the 13th to 15th centuries. The pottery from the Potter Lane sites would suggest that gritty ware pottery tradition typical of 12th and 13th century Lancashire and Cumbria was not simply replaced by the later medieval finer wares, but that they production occurred in tandem, at least for a while. This has already been posited for Carlisle, where the prevalence of gritty wares in medieval deposits also containing partially-reduced wares, cannot simply be put down to residuality (Miller forthcoming a). This idea of gritty and finer fabrics existing in tandem has been examined in detail for Yorkshire by Chris Cumberpatch (1997). Firstly, a correlation between vessel form and fabric can be noted, whereby jars were predominately produced in grittier fabric, while jugs tend to be, but not exclusively in finer sandy fabrics (*ibid*). The predominance of jars produced in Fabric 1 at Potter Lane bear out this apparent trend, with 81.4% of the jars found in that fabric. Evidence for jugs on the other sites appear to buck this trend somewhat, with more jug fragments (56%) being recovered in Fabric 1. The use of gritty fabric for vessels normally associated with sandy fabric has been shown to exist by Cumberpatch at Sandal Castle in West Yorkshire, although this appears to be the exception.

Material from Site B, based on the vessel types, is thought to be date to the 14th century. Here, the trend was more typical for both period and fabric type, with the sandy fabric (F2) being dominant, as were jugs. Jars were less frequent, which may have tied in with the increased availability of metal vessels (Cumberpatch 2003; Jennings 1992, 28).

It is perhaps worth noting some absences from assemblage at Potter Lane, such as urinals and drinking vessels. Such items tend to be associated with the rise in the use of cisterns, which underline the importance of ale or beer drinking in the medieval period. In the case of drinking vessels, their absence might be entirely due to the date at which pottery production ended at the Potter Lane sites, with personal drinking vessels really only becoming popular at the end of the 15th century (Cumberpatch 2003). Whilst urinals, which first appear in the northern potter's repertoire in the 14th century (Armstrong and Ayers 1987, 98), may be absent because the sherds were not recognised, particularly as the sherds from the Potters Lane sites tended to be small. It would appear likely that this might reflect the continued use of wood or treen vessels, particularly in the case of drinking vessels.

The likelihood of settlement associated with the potting activity seems high, given both the medieval features adjacent to the probable kiln bases, and documentary evidence from both here and further afield, suggesting that potting was a part-time industry by tenants who also farmed their crofts and other

smallholdings (Le Patourel 1968, 110). On the basis of current evidence, the Potter Lane area would appear to provide the best opportunity to excavate a pottery production and linked settlement site in Lancashire in the future. The potential extent of the industry, both spatially and over time, make the discoveries at Potter Lane and the significance of this area, of singular importance.

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Résumé

Des fouilles entreprises le long de l'itinéraire d'un gazoduc à travers le centre du Lancashire ont révélé un site de production de poterie jusqu'alors inconnu datant du 13^{ème} au 15^{ème} siècle. Le site, situé au sud de la rivière Ribble, consiste en rigoles ovales représentant probablement des fonds de fours semi-enterrés à proximité d'autres vestiges-fossés et fosses et plus de 10 000 tessons de céramiques. Trois secteurs bien distincts situés sur une distance de presque 2 km ont fourni des preuves de la production de poterie suggérant ainsi une industrie bien développée.

La majorité des céramiques retrouvées étaient des formes culinaires et des exemples de cette céramique ont été retrouvés à Wigan et Lancaster et des formes semblables ont été identifiées dans une zone allant du Lancashire au nord ouest de l'Angleterre. Des fours et groupes de céramiques associés bien fouillés sont rares en Angleterre généralement et dans le Lancashire en particulier. Les fouilles à Potter Lane sont donc particulièrement importantes étant donné la période, la taille de la zone de production et la présence possible d'un site d'habitation contemporain près des vestiges de production.

Zusammenfassung

Ausgrabungen entlang der Pipelinetrasse durch Zentral-Lancashire brachten bisher unbekannte Töpferwarenherstellungsstätten aus dem 13-15. Jh. zutage. Die Ausgrabung, die südlich des Flusses Ribble stattfand, umfaßte ovale Vertiefungen, die möglicherweise beschädigte Feldbrand-Brennöfenbasen darstellen, wie auch dazugehörige Gräben und Gruben, sowie zehntausend Töpferscherven. Drei unterschiedliche Abschnitte erbrachten Beweise für Töpfereiproduktion, die sich über eine Länge von fast einem halben Kilometer erstreckten und so auf eine ausgedehnte Industrie deuten. Das meiste war Gebrauchsware, aber einzelne Scherven wurden auch als Wigan und Lancaster erkannt, während Parallelfälle sich von Lancashire bis nach Nordwales erstrecken. Ausgegrabene Brennöfen und dazugehörige Töpferwarenfunde sind selten in Lancashire und Nordwest-England als Ganzem. Dieses gibt den Ausgrabungen in Potter Lane ihre besondere Bedeutung in Anbetracht der Datierungsbreite, der Gegend in denen die Funde gemacht wurden, und möglichen gleichaltrigen Siedlungen angrenzend an diese Fundstelle.