

Medieval pottery from manufacturing sites at King Street, Duffield and Burley Hill, Duffield, Derbyshire: a summary report

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SUMMARY

This paper is a summary of reports on two unpublished pottery assemblages from manufacturing sites in Derbyshire. King Street, Duffield and Burley Hill have been known for a number of years from interim reports and references in reports on material from other sites but have not previously been published in any detail. The data presented here was collected as part of a wider project to create a ceramic reference collection for north Derbyshire and South Yorkshire (http://ads.ahds.ac.uk/catalogue/specColl/ceramics_eh_2003/). The reference collection database contains photographs and additional details of individual vessels and fabric types. The full text of both reports has been deposited with local museums and with the Derbyshire County Sites and Monuments Record. Copies can also be obtained from the author on request.

KING STREET, DUFFIELD

The pottery assemblage from the excavation at King Street Duffield has not been hitherto been published in detail, although accounts of the material have entered the literature (e.g. McCarthy and Brooks 1988, 279). The only first hand account of the excavation appears to be a short note published in *Medieval Archaeology* (Wilson and Hurst 1967). This describes a site lying 200 yards south-west of Duffield Castle at grid reference SK343437 (Fig.1):

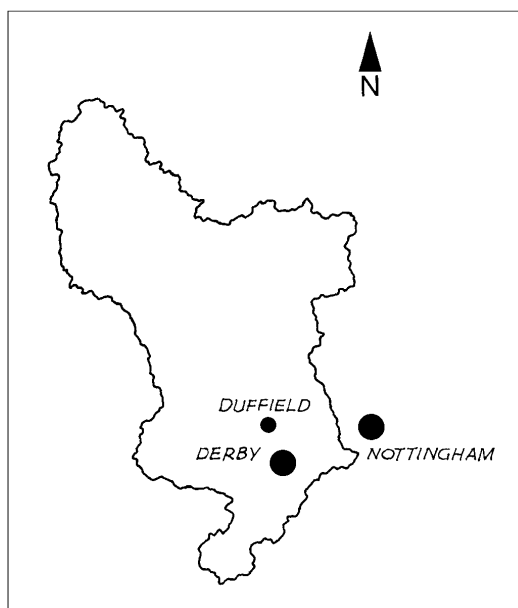


Fig. 1 Location map of Duffield within Derbyshire

"A pottery kiln, 4 ft by 6 ft, was of simple updraft type, lying north-south with a central pedestal attached to the rear wall. The firing chamber was on the south and the stoke-hole on the north. Two fragments of pottery radial bars, used for supporting the pots during firing, were the only pieces of kiln furniture. The pottery consisted mostly of squat unglazed cooking pots c. 8 in. diam. and 7 in. high, with beaded rims and sagging bases. There were fragments of unglazed jugs with pinched spouts and strap-type handles. Only a few glazed jugs were found. Decoration was restricted to incised lines round the upper parts of the pots. The pottery, dated by comparison with similar pottery from other sites in the midlands, belongs between the middle of the 12th and early 13th century" (Wilson and Hurst 1967, 316).

Methodology

The pottery was examined using a X10 hand lense and classified by fabric type. Samples of the types thus identified were then submitted for petrological and ICPS

analysis. All of the sherds were identified to fabric type and described, as far as possible, by vessel type and form. The assemblage consisted principally of rims, upper body sherds and bases; body sherds were almost entirely absent, suggesting that the group may represent a selection of the material excavated. A relatively high number of joining sherds were noted, in contrast to the situation at Burley Hill and, indeed, other production sites. This may suggest that the assemblage is one which accumulated quite quickly rather than representing a slow accumulation of material. The high degree of standardisation in form and fabric might support this conclusion. Although the fabric was generally soft, the sherds were in good condition and relatively unabrased.

Four fabric types were defined using a X10 hand lense and examples of these types were then submitted for petrological and chemical analysis. The petrological analyses were carried out by Dr. D. Williams (University of Southampton) and the chemical (ICPS) analyses by Dr N. Walsh (Royal Holloway College). The results obtained were analysed statistically by Dr. M. Hughes. Full versions of the reports can be found on the project website (Cumberpatch 2004a). A discussion of the local context has also been published elsewhere (Cumberpatch 2004b).

The ceramic assemblage

The pottery assemblage (held in Derby Museum) consisted of 346 sherds weighing 16,720 grams and represented a maximum of 239 vessels, including one which had been substantially reconstructed. The quantified data detailing the composition of the assemblage forms part of the project archive. The following description summarises the range of fabrics and the vessel forms noted in each fabric. All of the vessels were hand made (coil and/or slab built) and finished on a turntable. The assemblage was dominated by unglazed jar/cooking pot forms, cylindrical or barrel-shaped vessels with rolled or beaded rims (Fig. 2, no.1-4) which showed a limited range of variation (described below). Smaller numbers of pancheon-like vessels and bowls were also noted (Fig. 2, nos 7-8) but these forms were represented by only two rim sherds and the fragments were too small for the details to be determined with any accuracy. All of these vessels were thin-walled and carefully finished with only minor variations in the thickness of the wall and finger-marks on the inside of the bases. Variation in rim form was slight and decoration was limited to impressed lines running around the vessels. The jugs were distinguished by their deep funnel-necks and pronounced rilling on the neck and shoulder, the latter formed by then potters fingers during the finishing of the vessels on the turntable (Fig. 2, nos 5-6).

The assemblage also included two fragments of rectangular sectioned bars (6.8 cm x 2.8 mm and 7.0 mm x 2.8 mm) in a coarse sandy fabric similar to KSD03. These were plain and without any traces of glaze.

KING STREET DUFFIELD Type 01 (KSD01)

Fabric KSD01 was fine in texture and buff/orange (oxidised) in colour. It contained abundant fine (0.1-0.2 mm) quartz grit and coarser (up to 0.6 mm and occasionally 1.00 mm) red non-crystalline inclusions. The density of inclusions, particularly the non-crystalline ferrous type, varied. Petrologically the fabric can be described as follows:

Frequent moderately well-sorted quartz grains generally under 0.40mm in size, mostly monocrystalline but some polycrystalline examples as well, together with prominent variable-sized pieces of opaque iron oxide, are scattered throughout the clay matrix. Also present is a little chert, some shreds of white mica, a few small discrete grains of plagioclase feldspar and a number of long straggly air-pocket voids (Williams 2004).

Two variations in the basic cooking-pot form were noted. The first (JAR 1) had a short neck (Fig. 2, nos 1, 3-4) and the other (JAR 2) no neck (Fig. 2, no. 2). Rims were simple everted types, often rolled to produce a simple clubbed form with external thickening. There were slight variations in the exact shape of the rim within this classification but these did not seem to be significant. One jug with a narrow strap handle was also noted in this fabric.

The principle variation in the appearance of the cooking-pots was the presence or absence of impressed lines around the vessel. These features seem to have been applied while the vessels were on the turntable. None of the vessels in fabric KSD01 were glazed.

KING STREET DUFFIELD Type 02 (KSD02)

Fabric KSD02 was a sandy textured oxidised fabric closely resembling KSD01, but including larger quartz grit (occasionally up to 0.8 -1.00 mm, but mainly around 0.6-0.8 mm) and non-crystalline grains of a similar size. The distinction between the two fabrics was perceptible on the external surface in terms of the texture of the finish. The fabric was normally oxidised (resembling KSD01) and only occasionally reduced. Petrologically the fabric can be described as follows:

A moderate scatter of ill-sorted quartz grains, ranging up to 0.80mm across, together with some discrete grains of plagioclase feldspar and a little opaque iron oxide. The clay matrix has a noticeable laminated texture with a number of long straggly air-pocket voids (Williams 2001).

Vessel forms were limited to examples of the two jar/cooking pot forms, with JAR 1 commoner than JAR 2. None of the vessels in fabric KSD02 were glazed and decoration was limited to scored or impressed lines running around the upper parts of the vessels.

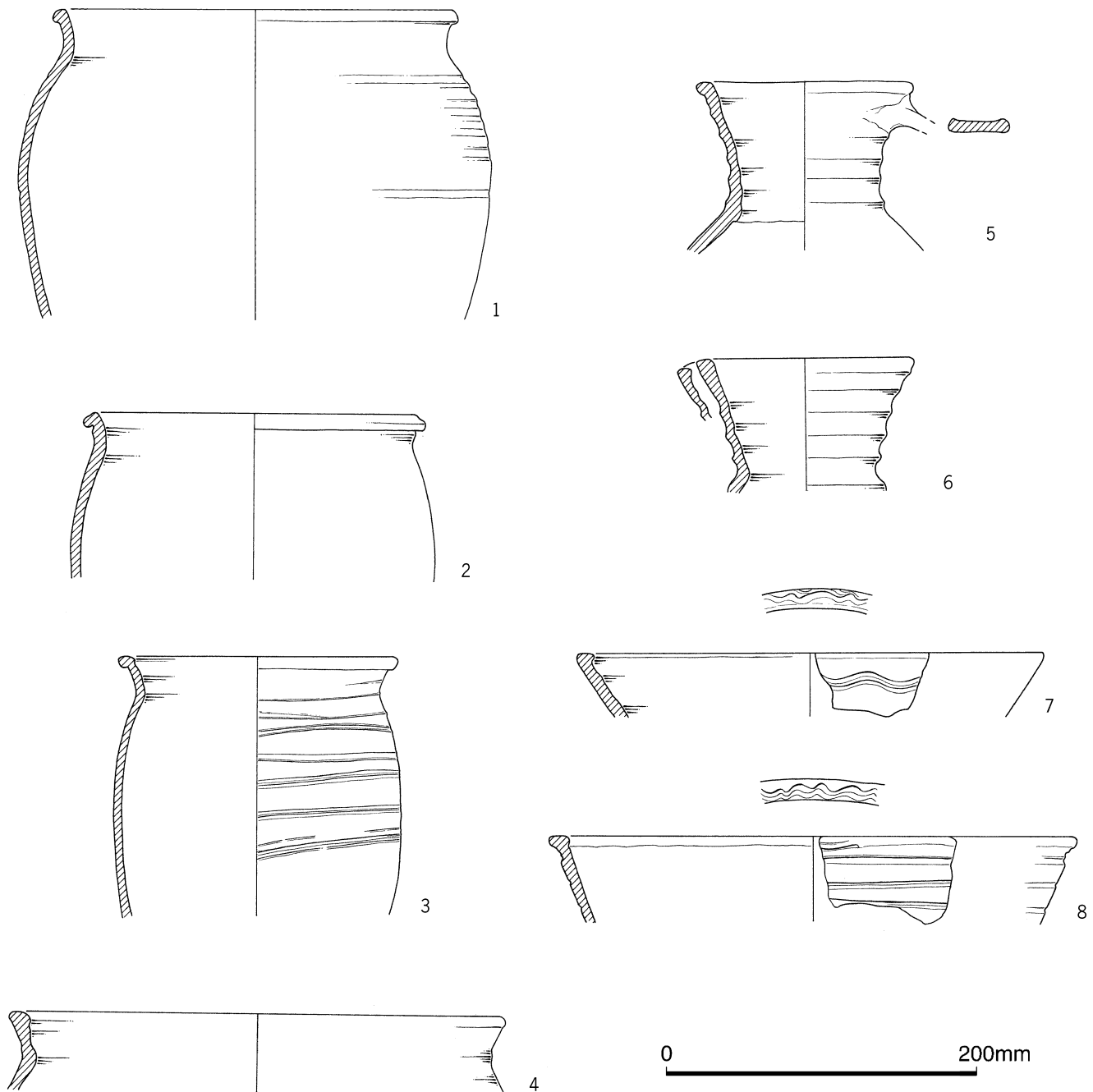


Fig. 2 King Street: Unglazed jars/cooking pots in cylindrical or barrel-shape forms. 1, 3-4 JAR1; 2 JAR2. 5-6 deep funnel-necked jugs; 7-8 pancheon-like vessels/bowls

KING STREET DUFFIELD Type 03 (KSD03)

Fabric KSD03 was similar in texture and inclusion size to KSD02, but rather denser and slightly coarser and apparently with fewer red non-crystalline grains. Petrologically the fabric can be described as follows:

A scatter of large quartz grains, on average slightly larger than for KSD02 together with prominent pieces of opaque iron oxide. Also present is a little chert and some pieces of a moderately coarse-grained sandstone (Williams 2004).

Jars bowls, pancheons and funnel-necked jugs were all represented in fabric KSD03, making it the most diverse of the fabrics in terms of the range of vessel types represented. KSD03 was the only fabric (apart from a single sherd in an unclassifiable fabric) which included glazed sherds. Both jars and jugs were glazed, although in the case of the latter, the spots and splashes suggested that the glazing was accidental.

KING STREET DUFFIELD Type 04 (KSD04)

Fabric KSD04 was similar in terms of the range of inclusions to KSD02, but slightly denser in texture and reduced

throughout with dull red surfaces internally and externally. It was the rarest of the fabrics and petrologically was similar in character to both KSD002 and KSD003 (Williams 2004). Very few vessels in this fabric were identifiable to form, and of those which were the only form recognisable was JAR1. None of the vessels in this fabric were glazed and decoration was limited to impressed lines around the body of the vessels.

Chemical analysis

Analysis of samples of the four fabrics using the Inductively Coupled Plasma Spectroscopic method (ICPS) and the statistical analysis of the data showed that the four fabrics fell into two groups; KSD1, KSD2 and KSD3 in one and KSD4 in a separate, but close, group. Samples from other sites in Derbyshire did not occur in these groups, implying that the clay source was not one used elsewhere.

DATING

The excavation apparently produced no independent means of dating the activity at King Street, Duffield and the distinctive KSD fabrics have not been positively identified on any other sites in the area, although the F3A and F3B fabrics defined by Beswick at Thurvaston and Stanley Grange (1999, unpublished) do bear some visual similarity to KSD01 and KSD04 respectively. Both of these fabric groups are, however, rather broad in their scope and samples taken and analysed did not indicate any close degree of similarity (Williams 2004, Hughes and Walsh 2004). Parallels for the distinctive types of vessels found on the King Street site have not so far been reported from other sites in Derbyshire.

The high degree of standardisation in both fabrics and vessel forms might indicate a relatively short period of activity on the site and, although this can be no more than speculation, it is possible that the pottery was established to serve the needs of the inhabitants of the castle.

The dating proposed by Wilson and Hurst (later 12th to early 13th century) is plausible, given the methods of manufacture employed and the character of the vessels, but no definite evidence can be produced as yet to verify the suggestion. An earlier date would be equally appropriate, given the technology employed.

Discussion

The pottery assemblage from King Street Duffield represents an unusual and apparently isolated group with no definite parallels on other sites to indicate a distribution beyond the site itself. That the pottery was produced exclusively for use in the nearby castle is a distinct possibility, but this cannot, at present, be verified. This having been said, it must be acknowledged that the body of comparative material available is not large and results from ongoing work in Derby and on rural sites in Derbyshire may yet alter the

picture. The distinctive character of the King Street wares should render their identification relatively simple.

BURLEY HILL, DUFFIELD

The pottery assemblage from Burley Hill, Duffield, was the result of a series of pieces of fieldwork including the excavations undertaken by R.G. Hughes of Derby Museum (Hughes 1957), informal collection by Mr. J. Osborne and, most recently, a programme of surface collection by the Derbyshire Archaeological Society (D.A.S.). The collection described here is held in Derby Museum. A further collection of pottery from the site is held by the Society and work on the site and the material is continuing (Tinkler pers. comm.).

The site and the fieldwork

The site of Burley Hill lies approximately three miles north of Derby centred on grid reference SK348412 (Fig. 3, Hughes 1957, 57). The site was discovered in 1862 during the course of drainage work. It entered the literature early on, thanks to the intervention of Llewellyn Jewitt who judged the pottery to be of Norman date. He noted the existence of two kilns, while later work established the existence of four (*ibid.*). Although Jewitt apparently intended to carry out further excavations, there is no record of this work. Of the vessels recovered by Jewitt, one, a baluster jug, has achieved some fame as it bears applied decoration in the form of horseshoes and buckles, the badge of the de Ferrers family who held Duffield Castle from the time of the Conquest until the reign of Henry II. This has been taken as indicating that the potteries flourished until the later part of the 13th century when the de Ferrers lands were confiscated (1278). This vessel, together with three others (also baluster jugs) is on display in Derby Museum (McCarthy and Brooks 1988, fig. 61).

There is no other internal dating evidence for the potteries, although Hughes considered that 'the bulk of the pottery dates from the 13th and 14th centuries' (1957, 59) and it is this date range which has entered the literature (*e.g.* McCarthy and Brooks 1988, 279). The question of the dating of the pottery will be reconsidered below.

Excavations in 1957 focussed on a single trench, although it seems that a number of stray finds were also recovered from the area around the trench. This intervention has provided the largest collection of pottery from the site, although in time it will probably be surpassed by material from the ongoing surface collections organised by the Derbyshire Archaeological Society (D.A.S.).

A small group of material was collected by Mr. J. Osborne of Allestree from rabbit holes and other disturbances along the field wall and in the small triangular spinney on the

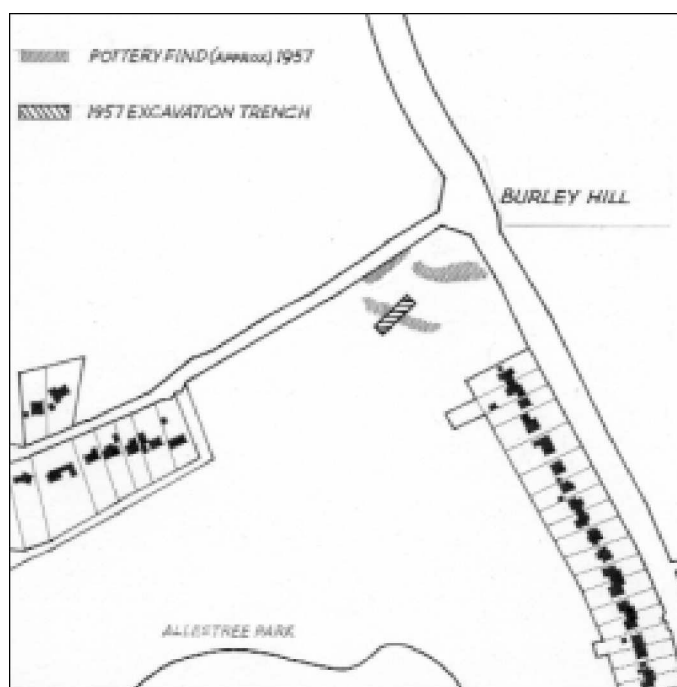


Fig. 3 Location map of pottery finds at Burley Hill in 1957 (after Hughes 1957)

corner of Burley Hill (SK349413).

Surface collection by members of the D.A.S. has focussed on the area of housing which runs along the western part of the site. This group is characterised by a higher number of wasters and overfired material than other groups. The fabrics generally appear to be overfired and are harder and with a denser, more semi-vitrified appearance than material from elsewhere, making accurate definition of the fabric type difficult or impossible. Material from two areas of collection (TAB and TAC) are considered here. This group also includes a quantity of kiln material; fired clay from the kiln structure, stone with glaze blobs and drips and some pieces of thick, tile-like material. It also includes over-fired clay fragments and pieces of coal. According to Hughes, the kilns were fired with coal, a practice noted in relation to other industries (Lewis 2001), although in the pottery industry it seems to have been less widespread than firing with wood (McCarthy and Brooks 1988:46).

Two small groups of sherds are unstratified and are from unlocated points in the general area of the potteries. It is likely that these groups represent stray or chance finds and unstratified material from the 1957 excavations. One of these groups includes a piece of brown salt glazed stoneware kiln furniture, apparently a prop. The significance of this item is unclear.

Methodology

As none of the pottery was recovered from stratified contexts it was, for the purposes of description, treated as a series of

homogenous groups and divided into diagnostic elements and body sherds. The latter were counted, weighed and bagged but not identified to fabric type. Diagnostic sherds were identified, weighed counted and described. The tabulated data forms part of the site archive. Details of the range of forms, including photographs of individual sherds and vessels form part of the regional reference collection (http://ads.ahds.ac.uk/catalogue/specColl/ceramics_ah_2003/). Examples of each fabric type were selected as outlined above for King Street Duffield

BURLEY HILL Fabric Type 1 (BuH01)

A fine, dark grey, reduced or dark orange oxidised sandy ware containing abundant rounded to sub-rounded quartz grains; mainly fine (0.1 mm – 0.3 mm) with occasional larger grains. The density of the fabric varies; oxidised examples appear to be somewhat more open than some of the reduced examples. Petrologically, the fabric is described as follows:

Frequent ill-sorted grains of mostly monocrystalline quartz, ranging up to 0.60mm across, are scattered throughout the clay matrix. Some of the larger grains are polycrystalline in texture. Also present are a number of large distinctive pieces of mudstone, shreds of white mica, small pieces of fine-grained sandstone, a few small discrete grains of microcline and plagioclase feldspar, a little chert, a large fragment of ironstone and a little opaque iron oxide (Williams 2004).

BURLEY HILL Fabric Type 2 (BuH02)

A fine, sandy fabric oxidised, sometimes with a pale grey core of internal or external margin. Range of inclusions resembles that in BuH01, fine rounded to sub-rounded (occasionally sub-angular) quartz grit. The fabric appeared to be an oxidised version of BuH01, a belief borne out by the results of the petrological examination which showed the two to be very similar (Williams 2003).

BURLEY HILL Fabric Type 3 (BuH03)

A dense, bright orange fabric with moderate to abundant quantities of clear quartz grains. Distinguished from both 01 and 02 by the texture rather than the quantity or type of inclusions. Occurs in a distinctive very soft, usually abraded variant and a harder type, sometimes reduced. The petrological description is as follows:

A somewhat finer-textured clay matrix than BuH01 and BuH02 with fewer quartz grains and slightly more frequent pieces of mudstone. The clay matrix has a laminated appearance with a number of long straggly voids. This almost certainly represents air-pockets due to the incomplete preparation of the clay before forming (Williams 2004).

BURLEY HILL Fabric Type 4 (BuH04)

A fine, dense sandy ware, reduced throughout and containing a similar range and size of inclusions to types 01 and 02 but with the addition of sparse to rare black sub-rounded grit (0.2 mm – 0.4 mm). The petrological description is as follows:

A fairly fine-textured clay matrix with a moderate scatter of ill-sorted quartz grains ranging up to 0.70mm in size, a few shreds of white mica, a little chert and a few small pieces of fine-grained sandstone. The clay matrix has a slightly laminated appearance although not as pronounced as BuH03. Only a few small pieces of mudstone were visible (Williams 2004).

BURLEY HILL Fabric Type 4 (OXIDISED) (BuH04OX)

A fine, dense, smooth oxidised sandy ware. The range and size of inclusions is similar to that in other types (although the density is less in some other types), but set in a smoother matrix. The petrological description is as follows:

The clay matrix has a noticeable laminated texture with a number of small air-pocket voids. There are a scatter of ill-sorted, mainly polycrystalline, quartz grains, strands of white mica, pieces of mudstone, one or two small pieces of fine-grained sandstone and an igneous rock and a little opaque iron oxide (Williams 2004).

BURLEY HILL Fabric Type 5 (BuH05)

A hard, dense bright orange oxidised fabric, resembling type 4 but without the fine black grit and with non-crystalline, chert-like rock fragments. Petrologically the fabric closely resembled BuH04(OX).

BURLEY HILL Fabric Type 6 (BuH06)

A fine white/cream sandy fabric containing sparse to moderate quantities of quartz and sparse quantities of red, non-crystalline grit. Petrologically the fabric closely resembled BuH01.

Chemical analysis

A programme of chemical analysis using the Inductively Coupled Plasma Spectroscopic technique was applied to the samples taken from the sites involved in the reference collection project (Hughes and Walsh 2002). The Burley Hill samples fell into two distinct groups; the first, consisting of types BuH01, BuH02 and BuH06 fell into one group, together with sherds from Brackenfield (Cumberpatch 2004c), Bradbourne and Thurvaston (Group B Cluster 14). The second group, consisting of types BuH04, BuH03 and BuH05 formed a discrete group (Cluster 10). The question

of the wider significance of the groupings for our understanding of the medieval pottery industry of Derbyshire has been considered more fully elsewhere (Cumberpatch 2004b), but for the purposes of understanding the Burley Hill site alone, it is notable that the identification of two groups within the assemblage reflects the results of the petrological analysis. It is probable that the two groups reflect either the exploitation of two different clay sources by the potters or methods of processing the clay which involved the introduction of sufficient diverse material into the clay mix to produce the impression of two distinct groups of clay. Either of these explanations is possible and both can be explained by invoking chronological factors (changes in raw material sources over time) or the organisation of production (two groups of potters exploiting different raw material sources and/or using different clay mixes resulting in two chemically and petrologically distinct groups). It is impossible to determine which of these explanations is the more plausible without a better understanding of the nature of the site itself, its history, the duration of activity and the organisation of production. The apparently high degree of standardisation within the pottery assemblage (as seen, for example, in the tradition of stabbed and slashed jug handles) does not suggest any deliberate attempt to differentiate the products of two or more distinct groups of potters, and more generally, there is little to suggest that customers sought novelty or innovation from potters. Indeed, the conservatism of the medieval pottery tradition in terms of its products is well established and it is perhaps most plausible to suggest that the potters were compelled at some stage to seek alternative sources of clay (perhaps as a result of difficulties in extraction or some change in land ownership or tenure precluding access to original sources). Only extensive excavation will resolve this matter.

Vessel types

The range of vessel types identified at Burley Hill was wide and included jugs, jars, pancheons and pipkins together with small numbers of other vessels. The representation of vessel types by fabric type is summarised in Table 1.

JUGS

Jugs were the commonest of vessel types identified (31.6% of all diagnostic sherds by sherd number, 44.4% of all diagnostic sherds by weight, the higher percentage by weight attributable to the numbers of handles definitive of the jug form, as opposed to rim sherds amongst other types). Baluster jugs, identified from the rather large, heavy bases, formed a significant element within this group (Fig. 4, nos 1-2), although other jug forms were also present, specifically small jugs (Fig. 4, no. 4) and shouldered or rounded jugs (MPRG 1998, 3.1), as shown in Fig. 4, no 3. The fragmentary state of the assemblage made it impossible to determine the

Table 1 Occurrence of vessel types and fabric types (Estimated number of vessels)

	BuH type	BuH01	BuH02	BuH03	BuH04	BuH04 (ox)	BuH05	BuH06	U/ID	Waster
?Cauldron				1						
?Jar/Pipkin				1						
?Jug		11	9	4		1				
?Jug/handled jar			2							
?Jug/pipkin						1				
?Pipkin		1								
?Plate				1						
Baluster jug	2	14	7	9		2	2			
Cistern		1		1						
Dripping dish			1							
Handled pancheon				1						
Jar	6	3	4	6	1	4				1
JR1		1	5	1	3	5				
JR1 type			1	1	1	5	1			
JR2		7	3	3						
JR2 type		1		1	1					
JR3		3		7	2	5	1			
JR3 type		1	1	1		1				
JR3A		2	2	7		1				
JR3A type				1		2				
JR4				3						
JR5			3	3	2					
JR6				1						
JR7		4	1		2	1				
JR7 type				2		1				
Jug		144	74	52	17	9	1	4	3	
Open vessel				1						
Pancheon		1	2	11		2		1		
Pcn1				3						
Pcn2			1	1		4				
Pcn3		1	1	4		3				
Pcn4				4		1				
Pcn4 type				1						
Pcn5				5						
Pipkin		1	3	2						
Small jar		1								
Small jug				4					1	
Tall vessel						1				
Trough-like		1								
U/ID	4	145	83	102	23	7		3		1

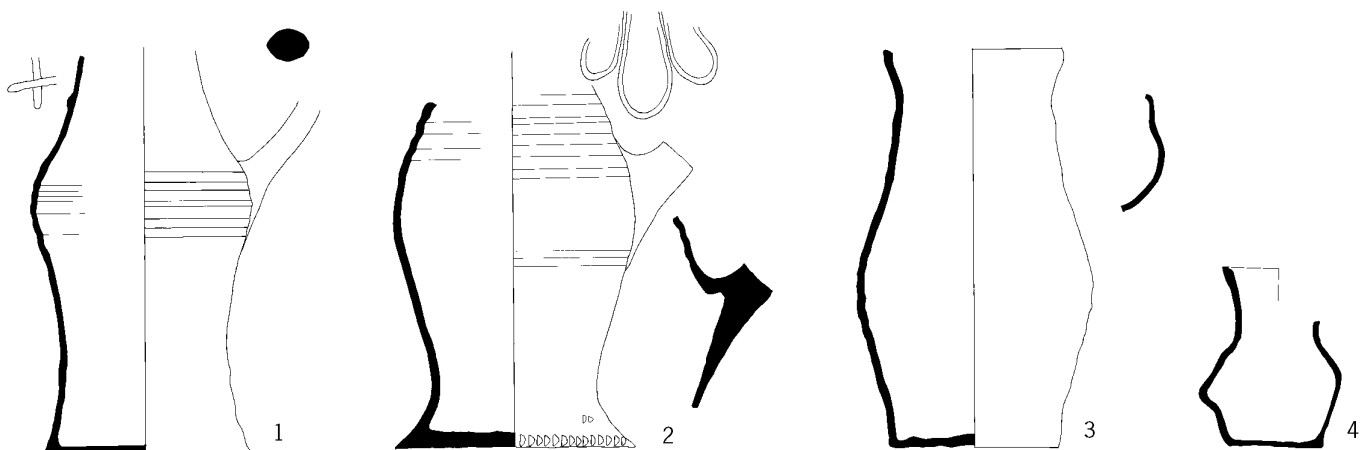


Fig. 4 Burley Hill: 1 – 2 baluster jugs; 3 shouldered or rounded jug; 4 small jug

precise ratio of different types and so no attempt was made to devise the type of classification attempted for the jars and pancheons and presented below. It is probable that some of the plain, flat bases belonged to shouldered or rounded forms but it is highly probable that this group is under-represented in the data from the site.

The following variations were noted in the treatment of the baluster jug bases:

- Plain splayed baluster jug type bases with no decoration;
- Finger impressions on the external edge of the splayed base; these were often angled and a number were sufficiently impressed to form small 'feet';
- Baluster jug bases with decorated external edges and additional decoration on the stem of the base;
- Finger nail impressions on the external edge of the splayed base;
- Triangular impressions made with a tool on the lower part of the splayed base;
- Pinch footed bases; elaborated flat bases with

pronounced feet, giving a baluster-like profile.

A number of examples, particularly amongst the baluster jugs, were poorly finished, although whether this pertains to the fact that they were wasters or whether it is a general characteristic of the vessels made at Burley Hill is impossible to determine.

Rod or narrow strap handles were typical of the Burley Hill jugs and strap handles were extremely rare and where present, lacked decoration. Slashes at the upper end (Fig. 5, no.7) and stabbed holes (Figure 5, nos 1, 2 and 4) were common features of the handles. Handles were patchily glazed, with glaze commonest on the upper surfaces.

Vessel spouts fell into two groups. Pinched spouts had visible finger marks at the side of the spout where the first finger had been used to pull the spout while the thumb and second finger pinched the sides of the rim to produce the spout. Pulled spouts lacked the lateral marks. Only one bridge spout was identified and tube spouts did not appear to be amongst the repertoire of the Burley Hill potters. Small

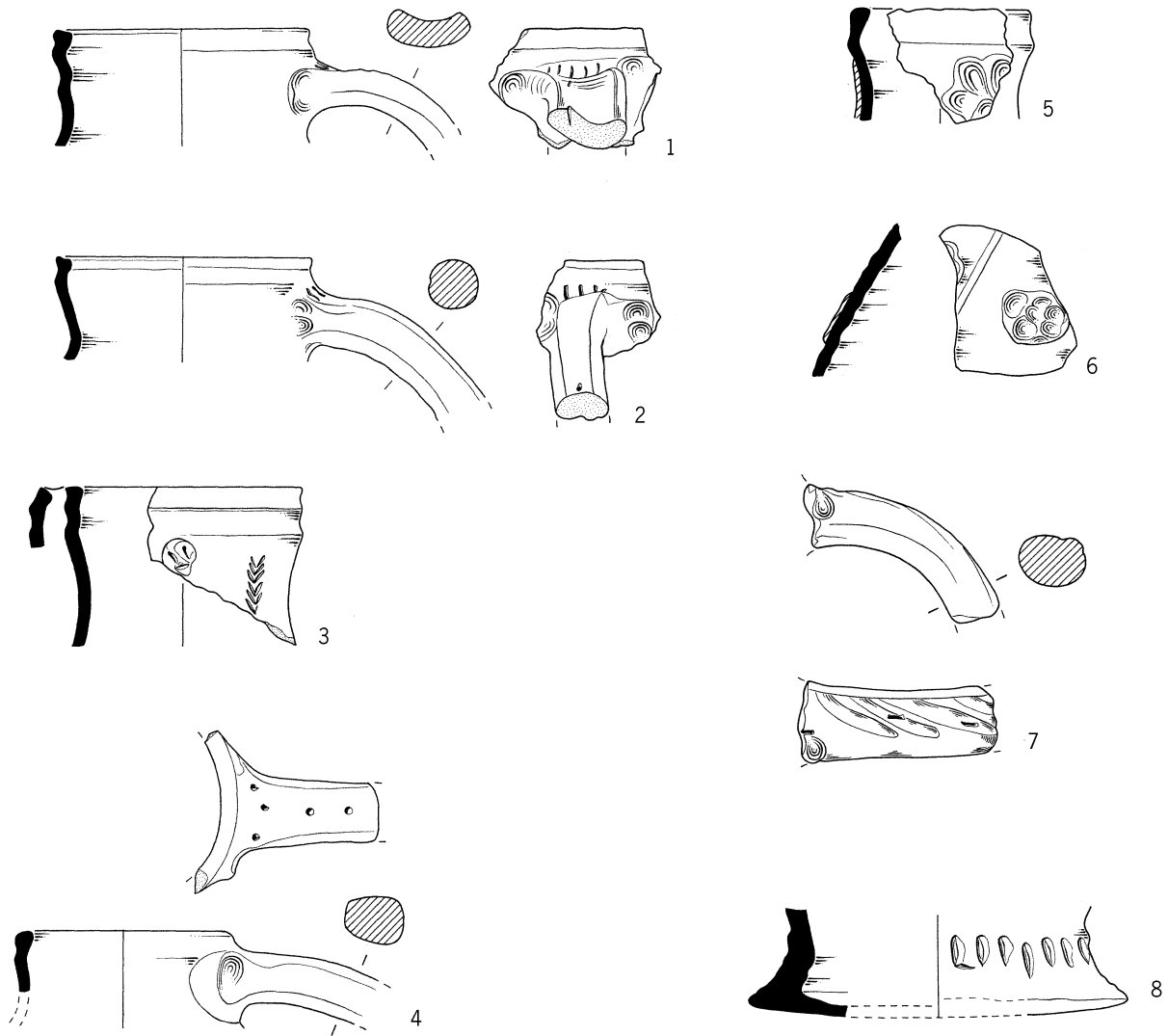


Fig. 5 Burley Hill: 1-8 jugs

applied faces were used to decorate a small number of jugs but these were not the bearded faces typical of anthropomorphic jugs (Cumberpatch in press).

Rim forms varied in detail (flat, rounded, internally bevelled) although there seemed little significance in this variation. Examples are listed in Table 5.

Decorative motifs included applied fronds (Fig. 5, no. 3), small face masks (Fig. 5, no. 3 and applied rosette plaques (Fig. 5, nos 5 - 6). Full details of the range of decoration are included in the archive report.

JARS

Jars formed 14.6% of the total number of diagnostic sherds within the assemblage by sherd number and 10.3% by weight. Jar rims were classified into discrete types, but there was a definite degree of variation within the categories and also a degree of similarity between the types summarised in Table 2. The forms defined represent an imposition on a situation characterised by variability in detail. Rilling on the bodies was generally not very pronounced, particularly when compared with the similar feature amongst the Brackenfield assemblage (Cumberpatch 2004c). The jars were very different in form from those made at King Street, Duffield.

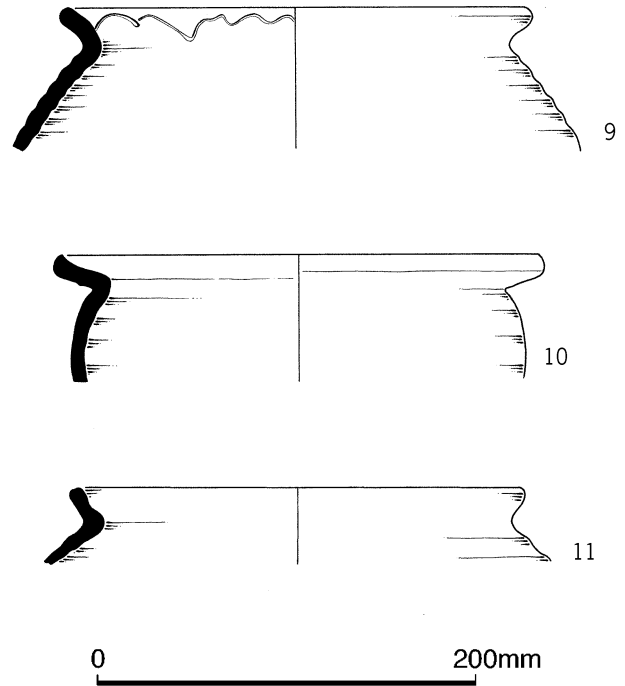


Fig. 6 Burley Hill: types of jars; 9-19 JR3A; 11 JR1

Table 2 Types of jars identified at Burley Hill

Form	Characteristics	Illustrations
JR1	Distinguished by a sharply everted rim on a globular body with a slightly dished rim profile. Some vessels appear to have a rilled profile. A number of vessels are glazed internally, but none appear to be glazed externally. The group is a slightly diverse one as there are a range of degrees of eversion and the extent of dishing of the rim. The examples illustrated show some of this variability.	Figure 6; 11 Figure 7; 12, 13
JR2	Distinguished by a short vertical rim with a 'D' shaped profile, a pointed cap and a prominent external angle. Glaze appears limited to accidental splashes.	Figure 7; 14, 15
JR3	A broad category covering simple everted rim jars, some rather sharply everted, some less so. The length of the everted rim varies, but there seems little regularity to this feature. Glaze appears limited to spots and splashes, probably accidental.	Figure 7; 16, 17
JR3A	A form resembling JR3, but with a funnel-shaped everted rim rather than the rounded everted form of JR3. Figure 7; 18, 19, 20	Figure 6; 9, 10
JR4	Jar type JR4 was identified from small rim sherds and may possibly be a pipkin rim. It is characteristically thin and fine.	Figure 7; 21
JR5	A group of rims with slightly varying profiles, everted with a dished profile and a slightly more vertical rim shape than some of the JR1 types. Jar form JR7 was distinguished by a distinctive everted funnel-necked rim with pointed cap.	Figure 7; 22, 23
JR6	An everted rim with short neck and pointed cap, was a rare form, occurring only once in the entire assemblage.	Figure 7; 24
JR7	Distinguished by a distinctive everted funnel-necked rim with pointed cap.	Figure 7; 25, 26
JR 8	Has a short vertical neck on a globular body with a heavy everted rim	Figure 7; 27
JR9	Has a sharply everted rim, sometimes with combed decoration on the interior	Figure 7; 28

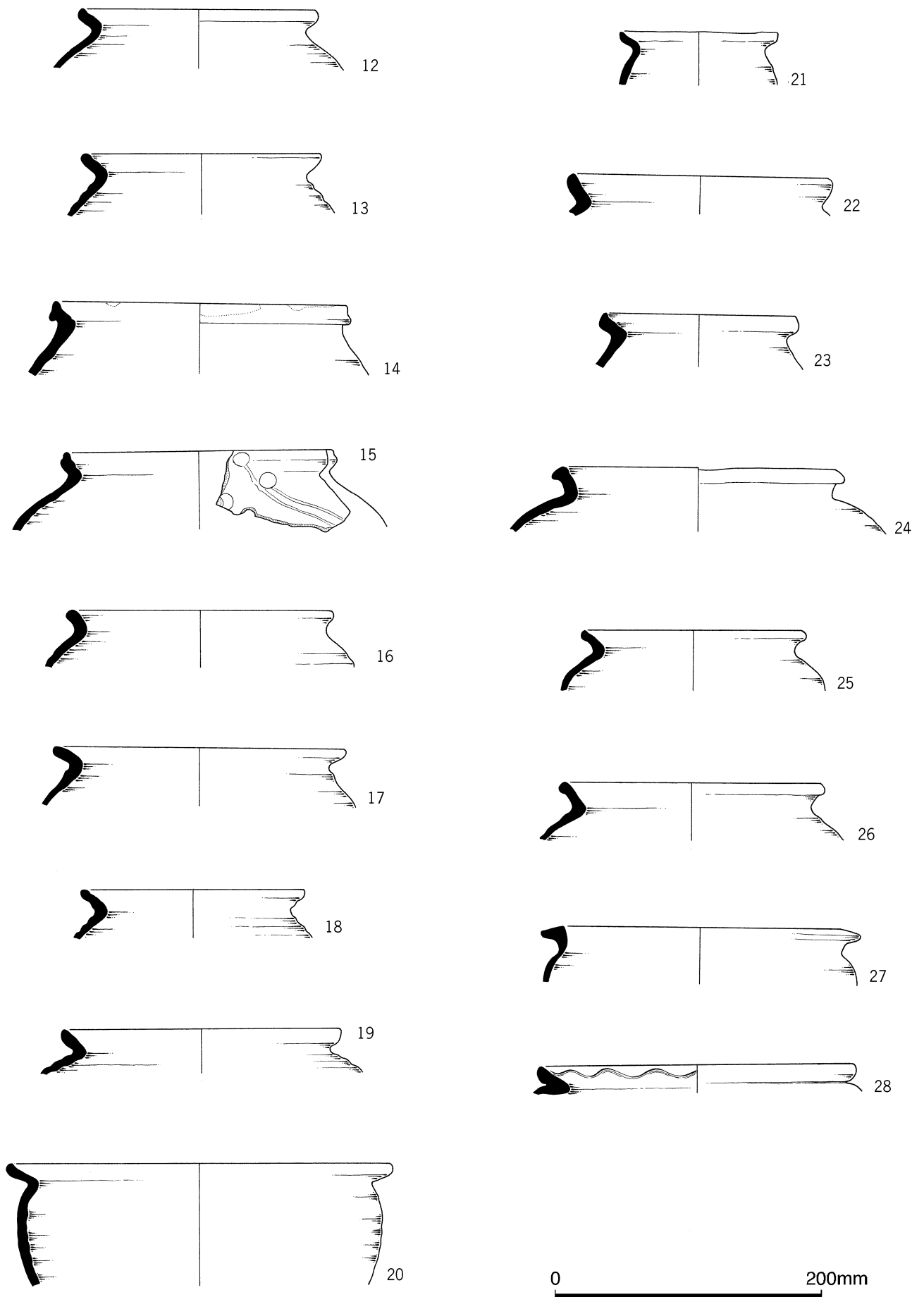


Fig. 7 Burley Hill: types of jars; 12-13 JR1; 14-15 JR2; 16-17 JR3; 18-19 JR3A, 21 JR4; 22-23 JR5; 24 JR6, 25-26 JR7; 27 JR8; 28 JR9

PANCHEONS

As with the jars, there is a degree of overlap between the types and variation within the types defined in Table 3. The descriptive scheme outlined below picks out the

principal variations. Although a diverse group, the representation of pancheons within the assemblage was relatively low, only 5.3% by number and 4.2% by weight when calculated as a proportion of the diagnostic vessels.

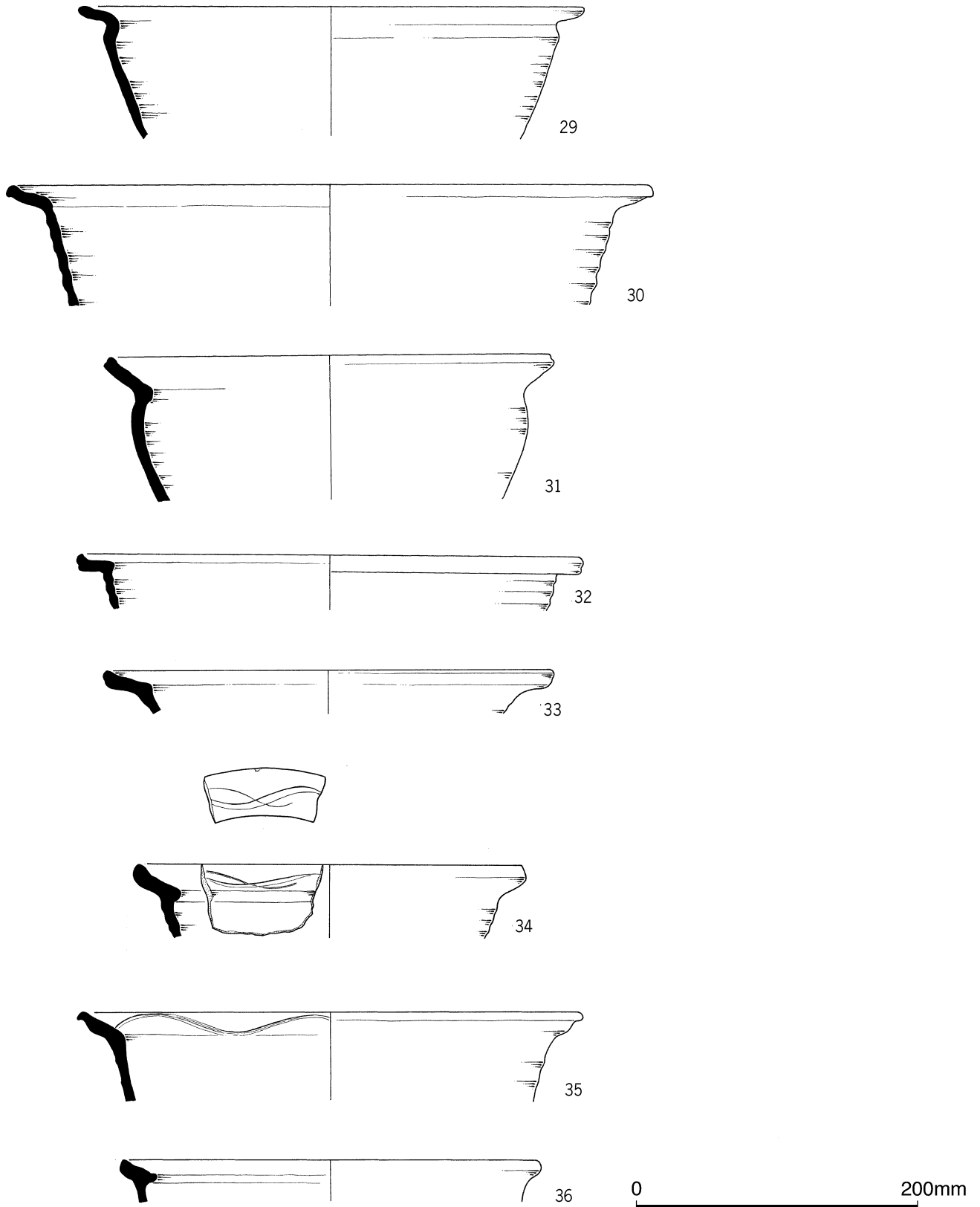


Fig. 8 Burley Hill; types of pancheon; 29 Pcn1; 30 Pcn2; 31 and 34 Pcn 3; 32 Pcn4; 33 Pcn 5; 35 Pcn 6; 36 Pcn7

Table 3 Types of pancheons identified at Burley Hill

Form	Characteristics	Illustrations
Pcn1	Pancheon with slightly 'S' shaped profile with bulge at junction of rim and body.	Figure 8; 29
Pcn2	A simple pancheon form with a smooth profile.	Figure 8; 30
Pcn3	Globular bodied pancheon with ridge at junction of body and rim.	Figure 8; 31, 34
Pcn4	Pancheon with sharply everted rim (almost a right angle) and more or less pronounced ridge at body/rim junction.	Figure 8; 32
Pcn5	Wide everted rim with slight ridge at body/rim junction	Figure 8; 33
Pcn6	A deep pancheon form with an everted, profiled rim; some decorated examples	Figure 8; 35
Pcn7	A pancheon form with a hammerhead rim	Figure 8; 36

CISTERNS

Cisterns were rare in the Burley Hill assemblage, only three examples being positively identified. Two of the three had plain spigot holes while the third was decorated with applied lines radiating from the spigot hole.

PIPKINS

Pipkins formed only a small part of the assemblage, a total of nine vessels being identified. Both hooked and straight handles were present, five of the former and four of the latter (Fig. 9, no. 1).

OTHER FORMS

A small number of other vessel types were recognised amongst the assemblage. Tall Vessels, a form sometimes associated with production sites and present in significant

numbers at Brackenfield (Cumberpatch 2004c), were rare with only one example being identified. Other rare forms included a dripping dish (Fig.9, no. 2), a handled pancheon and a loop handled cauldron with some resemblance to a Low Countries Redware form (Fig.9, no. 3). One utilised sherd was also noted.

Decoration

Glaze colours varied little throughout the assemblage with dark to mid-green the commonest colours. Mottling (generally darker than the body colour), probably a result of the presence of mineral-rich grains at the surface of the clay, was common. The glaze had a tendency to turn purple when overfired but there was no evidence of an intention to produce purple-glazed vessels. The use of suspension glaze seemed to be standard throughout the assemblage, although a few examples of possible splash glazing were noted (in the case of the only glazed sherd in fabric BuH06, for example).

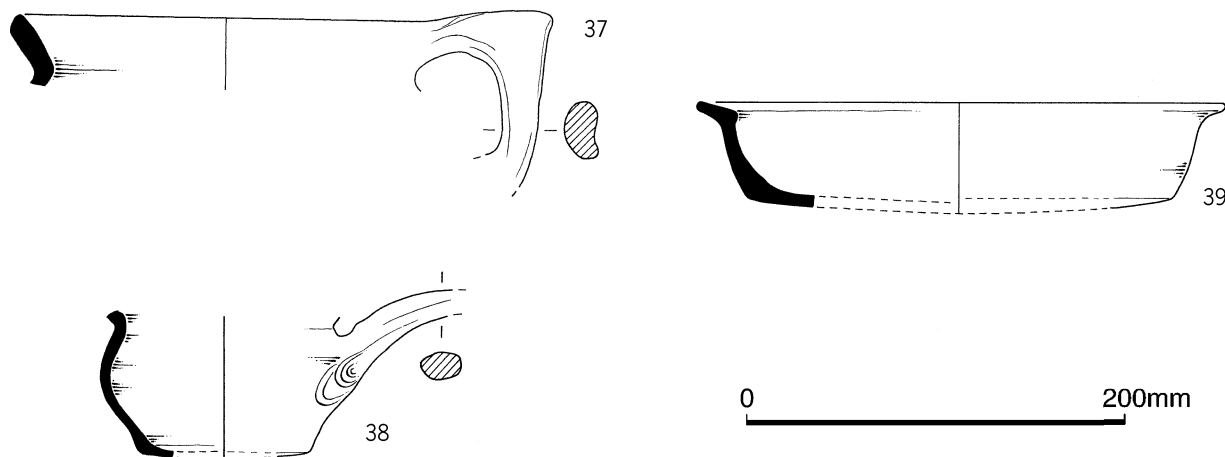


Fig. 9 Burley Hill; 37 cauldron; 38 pipkin and 39 dripping dish

The range of other types of decoration within the assemblage was relatively restricted and included a number of elements which appeared to be characteristic of the Burley Hill pottery. These are summarised in Table 4. Jugs were more highly decorated than other forms, particularly jars and that the range of decoration was wider and on these grounds it is suggested that the majority of the undiagnostic, decorated, body sherds were in fact from jugs rather than from other forms. If this is the case, then

it is clear that the greater part of the output of the potteries (at least as represented by the waste material) was in the form of jugs. As is often the case with medieval potteries, a small proportion of the jugs were decorated with face masks and anthropomorphic elements. The precise significance of these vessels and the decoration remains unknown, although some preliminary suggestions have been made elsewhere (Cumberpatch in press).

Table 4 *Decorative motifs and techniques identified amongst the Burley Hill pottery*

Vessel form	Motifs and techniques	Photographs
Jugs		
Rim	Undecorated; thickened, internal bevel, sometimes slightly intumed	BUH073, BUH074, BUH075
	Drilled hole (?to attach wooden lid)	BUH041, BUH042, BUH043
Rim/neck	Face masks	BUH033, BUH034, BUH066 – BUH072, BUH091, BUH092
	Bridge spouted jug	BUH076
Handle	Rod and narrow strap handles typically have a row of slashed lines at the junction of the rim/neck and the handle and stabbed holes along the centre line, sometimes elongated into slashes.	BUH001, BUH002, BUH003, BUH008, BUH009, BUH012, BUH013, BUH014, BUH015, BUH053, BUH054, BUH073, BUH074, BUH075
	Combed decoration on rod and narrow strap handles	BUH037, BUH038
	Deep finger-sized grooves at base of handle; an elaboration of the normal finger impressed lower attachment	BUH016, BUH017
	Thumbed lower attachment	BUH029, BUH030
Body (may include jars)	Ridges and grooves on shoulder and body giving a rilled profile	BUH103, BUH104, BUH105, BUH106, BUH107
	Applied and stamped pellets (cross stamps) on body	BUH018, BUH019, BUH020, BUH023
	Applied and impressed rosette patterns on body and neck	BUH021, BUH022, BUH031, BUH032, BUH095, BUH096, BUH099, BUH100
	Applied scales	BUH027, BUH028
	Incised and/or impressed 'frond' or 'wheatear' decoration; rare	BUH024, BUH025, BUH026
	Anthropomorphic decoration; face masks, arms; rare	BUH057, BUH058, BUH059, BUH077, BUH078
	Applied and/or impressed/incised lines, vertical and horizontal, sometimes using different coloured clay, sometimes combined with wheel stamps	BUH097, BUH098
	Wheel-stamped body,	BUH035, BUH036
	Wheel stamped with applied decoration	BUH093, BUH094
	Ring and dot stamped body	BUH061, BUH062
Base	Finger impressions on the external edge of the splayed base; sometimes angled, sometimes sufficiently impressed to form small 'feet'	BUH087, BUH088
	Pinch footed bases; elaborated flat bases with pronounced feet, giving a baluster-like profile	BUH081, BUH082
	Plain splayed baluster jug type bases with no decoration	BUH128
	Finger nail impressions on external angle of base/body (straight and angled)	BUH122, BUH123, BUH124, BUH125, BUH126, BUH127
	Repeated triangular impressions made with a tool on the lower part of the splayed base	BUH083, BUH084, BUH085, BUH086, BUH089, BUH090, BUH117, BUH118, BUH119, BUH120, BUH121, BUH129, BUH130

Table 4 (continued)

Vessel form	Motifs and techniques	Photographs
Jars		
Rim	Incised/combed wavy lines on the inside of the everted rims (particularly on JR3, JR3A, JR7 and JR9 types)	
Body	Thrown ridges and grooves giving a rilled body profile	See Jug bodies
Pancheons		
Rim	Incised and combed wavy line or lines on the inside of the everted rims	BUH060
	Profiled rim	BUH063, BUH064, BUH065
	Applied and impressed fillet below rim	BUH050, BUH051
Body	Rilled body profiles (as jars) With stacking scar	BUH054, BUH055, BUH056
Other forms		
Body sherds	Many decorated body sherds could not be ascribed to particular vessel forms and bore a wide variety of decorative elements including: Applied and impressed pellets; impressed and incised lines; applied scales; ombred wavy lines and chevrons; anthropomorphic elements; applied and impressed rosettes. Comparison with identifiable vessel suggested that the majority of these belonged to jugs.	See above; some bodies may be jars
Tall Vessel		BUH079, BUH080, BUH110, BUH111
Handle	One pipkin with slashed lines in handle (as jugs)	
Other	One cistern with radiating lines around the spigot hole	

The chronology of the Burley Hill potteries

Before an attempt can be made to reassess the dating of the Burley Hill pottery industry it must be acknowledged that our understanding of the site is at best partial and is based on small scale excavations and surface collection, neither of which are methodologies appropriate to answering this (or many other) questions. Further work, specifically excavation, is likely to change the current picture. In addition ongoing work in Derby and on rural sites is also likely to lead to revision of the summary presented here. This discussion will draw on the evidence available at present. It is hoped that new data will permit the suggestions made here to be evaluated with reference to a more broadly based data set.

Currently it seems that the dating of the industry to the thirteenth century depends upon the evidence of the decorated vessel bearing the horseshoe motif which was the emblem of the de Ferrers family who held Duffield Castle from the time of the Conquest until 1278 (McCarthy and Brooks 1988, 128, Fig. 61). This having been said, other examples of pots bearing such motifs from the site were not found in the assemblage, although a range of other designs were present (Table 3). McCarthy and Brooks have described a small number of other examples where the decorative motifs on pottery appear to relate to heraldic and other symbols linked with particular families (*ibid.*, 128-130). The overwhelming majority of designs and

motifs, however, have no clear associations with other aspects of medieval life and it is fair to say that we have little idea of the meanings of the symbolic languages employed by medieval potters or the ways in which these were understood by their customers (Cumberpatch 1997, in press). Horseshoe motifs in particular occur sporadically on a variety of vessels and wares across the midlands. Published examples include jugs from Thornholme Priory, Lincolnshire (Hayfield 1985, 122, fig 62, no.6; 136, fig. 79, no., 5), Lincoln (McCarthy and Brooks 1988, fig 254, no.1819) and Ashton in Cheshire (*ibid.*, 361, fig. 221, no.1521).

While it is quite possible that the horseshoe-decorated vessel does indeed relate to the de Ferrers coat of arms, the single example constitutes sparse evidence upon which to base a date for the entire industry. It may provide a spot-date, but there seems no reason to suggest that the pottery ceased operation after the fall from favour of the de Ferrers family and the single pot can give no indication of the date of the establishment of the pottery. It is necessary, in the light of this to seek for other indications of the chronology of the Burley Hill potteries.

Internal evidence for the date of the pottery was limited. Possible splash glazing was noted in only a few cases, suspension glazing being the norm. Although it is hazardous to use the incidence of splash glazing as a firm chronological indicator, this would tend to suggest that the industry post-dates the early 13th century which

accords with the character of the pottery generally. Evidence from other sites is relatively sparse and the absence of evidence from Derby and Nottingham is a particular problem. At Full Street in Derby Burley Hill type wares occurred in features dating to between the later 12th century and the 15th century (Coppack 1972, 74), although Coppack notes that it does not start to become common until the early years of the 13th century. It is notable that on this site it appeared to overlap with the splash glazed wares which might indicate that splash glazed wares ended somewhat earlier here than elsewhere (cf. Cumberpatch *et al.* 1998-9).

Rural sites regularly produce Burley Hill and Burley Hill type wares, but the lack of a clear definition of the type has, until recently, led to a proliferation of classifications of a vague or general type and it is difficult to determine whether sherds did in fact originate from Burley Hill or are only of a generally similar type. In addition, the lack of any substantial stratified groups from urban excavations means that a great deal of reliance is placed on the information derived from the excavations at Full Street, with all the problems that reliance on a single comparative example implies (*e.g.* Beswick 1999:249). At Hemp Croft, Thurvaston (Challis 1999) fabrics F1A and F1B were compared with Coppack's 'Local developed splashed ware' and with Burley Hill type ware (Beswick 1999, 249) and dates were derived from comparison with the Full Street material. Re-examination of the type series created for these two sites suggests that the correlations can be made between the Burley Hill types described in this report and the fabrics defined by Beswick. The situation is summarised in Table 5.

Table 5 Correlations between Burley Hill fabric groups and fabrics from Thurvaston and Full St., Derby

Burley Hill	Beswick (1999)	Full St. Derby
BuH01	F1B	Burley Hill (Reduced)
BuH02		
BuH03	F1A, F3B	Burley Hill (Oxidised)
BuH04	F3A	
BuH04 (ox)		
BuH05		
BuH06	F3A	

It should be noted that groups Beswick's F3A and F3B groups subsume a number of rather disparate fabric types and may include a wider range of types than simply those from Burley Hill (Cumberpatch in prep. 3). The quality of the assemblage from Thurvaston did not allow the conclusions based on the Full Street excavations to be re-

evaluated or tested, a common situation with the rural sites in Derbyshire. A similar situation was encountered at Stanley Grange (Beswick, unpublished) and Bradbourne (Cumberpatch 2004b). Excavations at Aldwark near Brassington also produced a substantial pottery assemblage (Alvey 2001), but here the conflation of Brackenfield and Burley Hill type wares into a single group and the internal incompatibility between reports rendered the task of comparing the assemblage with others difficult (Cumberpatch 2004b).

Excavations at Bradbourne (Allen in prep.) have produced an assemblage which includes a significant quantity of Burley Hill and Burley Hill type wares. Although there are problems with residuality on the site, a case can be made for an earlier phase in which Burley Hill wares occur in only very small quantities, the groups being dominated by brown sandy wares of Saxo-Norman type, including Derbyshire Early Medieval Sandy wares 1 – 3 and Derbyshire Early Medieval Gritty wares 1 – 2 (as defined in Cumberpatch 2004a). Unfortunately no evidence has yet been found which can be used to date the phases absolutely, and the relative dating remains no more than suggestive. Further work on the site will investigate the problem more closely. It seems unlikely that the question of the date of the Burley Hill industry will be finally resolved until excavations of some considerable scale take place on an appropriate urban site of substantial size and complexity to produce a usefully large ceramic assemblage with a robust relative chronology and independent means of dating.

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Résumé

Cet article résume deux rapports non publiés concernant deux assemblages de poterie provenant de sites producteurs divers en Derbyshire. Les sites de King Street, Duffield et Burley Hill sont connus depuis nombre d'années grâce à des rapports intermédiaires de fouilles et des références dans d'autres rapports, mais n'ont jamais fait l'objet de publication détaillée. Les données présentées ici ont été recueillies lors d'un projet plus vaste visant à créer une collection de références pour les céramiques dans le nord du Derbyshire et le sud du Yorkshire (http://ads.ahds.ac.uk/catalogue/specColl/ceramics_eh_2003/).

La base de données pour la collection de références contient des photos et détails supplémentaires sur chaque vaisselle et type de pâte. Les deux rapports complets ont été déposés dans les musées locaux et au Site and Monuments Record du Derbyshire. Une copie des rapports peut aussi être obtenue en contactant l'auteur.

Zusammenfassung

Diese Arbeit faßt zwei Berichte über bisher unveröffentlichte Fundgruppen aus Produktionsstätten in Derbyshire zusammen. Durch Zwischenberichte und Referenzen in anderen Berichten über das Material anderer Ausgrabungsstätten sind Kings Street, Duffield und Burley Hill seit geraumer Zeit bekannt, aber sie wurden bisher nicht im Detail veröffentlicht. Die hier vorgelegten Einzelheiten sind Teil eines größeren Projekts zur Schaffung einer Sammlung von keramischen Belegen für North Derbyshire und South Yorkshire (http://ads.ahds.ac.uk/catalogue/specColl/ceramics_eh_2003/). Die Datenbank der Belegsammlung enthält Photographien und zusätzliche Einzelheiten zu individuellen Gefäßen und Materialtypen. Der vollständige Text beider Berichte ist bei den lokalen Museen und beim Derbyshire County Sites and Monuments Record deponiert. Kopien können auch beim Autor angefordert werden.