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Northamptonshire Archaeology

An archaeological watching brief
during the installation of a new water main
on land at Southwood House Farm,
Calke Abbey Estate, Ticknall, Derbyshire
June 2006



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Report 08/219

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QUALITY CONTROL

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OASIS REPORT FORM

PROJECT DETAILS		
Project name	An archaeological watching brief during the installation of a new water main on land at Southwood House Farm, Calke Abbey Estate, Ticknall, Derbyshire.	
Short description	An archaeological watching brief was undertaken during groundworks for the laying of a new water main on land at Southwood House Farm, Calke Abbey Estate, Derbyshire. A single pit within the line of the service trench lay just beneath the topsoil turf layer. It contained a large quantity of over-fired and damaged pottery fragments, kiln wasters, along with a small quantity of roof tile and fragments that may have belonged to the structure of the pottery kiln producing the wares, which belongs to the Ticknall pottery industry of the late 15th and 16th centuries. The evidence suggests that a pottery kiln, possibly well preserved, is located nearby.	
Project type	Watching Brief	
Site status	Grounds belonging to a Listed Building	
Previous work	No	
Current Land use	Listed Building and garden in the care of The National Trust	
Future work	Unknown	
Monument type/ period	Post-medieval kiln waster pit	
Significant finds	Assemblage of 15th-16th century overfired and damaged pottery	
PROJECT LOCATION		
County	Derbyshire	
Site address	Southwood House Farm, Calke Abbey Estate, Ticknall, Derbyshire	
OS Easting & Northing	SK 358, 214	
Area – km, ha, sq m.	0.08ha	
Height OD		
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	The National Trust	
Project Design originator	The National Trust	
Director/Supervisor	David J. Leigh	
Project Manager	Steve Parry	
Sponsor or funding body	The National Trust	
PROJECT DATE		
Start date	June 2006	
End date	June 2006	
ARCHIVES	Location (Accession no.)	Content (eg pottery, animal bone etc)
Physical	The National Trust, East Midlands Region	Pottery 129kg Roof tile 18 fragments Possible kiln fragments and clinker material 953g
Paper	The National Trust, East Midlands Region	Watching brief forms (6) Colour slides (11) black and white contact prints (11) Digital photographs (24)
Digital	The National Trust, East Midlands Region	Report text and figures 08/219

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AN ARCHAEOLOGICAL WATCHING BRIEF
DURING THE INSTALLATION OF A NEW WATER MAIN ON LAND AT
SOUTHWOOD HOUSE FARM, CALKE ABBEY ESTATE, DERBYSHIRE
JUNE 2006

Abstract

An archaeological watching brief was undertaken by Northamptonshire Archaeology on behalf of The National Trust in June 2006 during groundworks for the laying of a new water main on land at Southwood House Farm on the Calke Abbey Estate, Ticknall, Derbyshire. A single pit within the line of the service trench lay just beneath the topsoil and turf layer. It contained a large quantity of over-fired and damaged pottery sherds, kiln wasters, of which 129kg was recovered, with the remainder left in situ. There was also a small quantity of roof tile and fragments that may have belonged to the structure of the pottery kiln producing the wares. The assemblage belongs to the Ticknall pottery industry of the late 15th and 16th centuries, and the evidence suggests that a pottery kiln, possibly well preserved, is located nearby. The kiln was producing a limited range of vessel forms in Midland Purple ware and Redware, along with some Cistercian ware.

1 INTRODUCTION

An archaeological watching brief was undertaken by Northamptonshire Archaeology in June 2006 during groundworks for the laying of a new water main on land at Southwood House Farm, Calke Abbey Estate, Ticknall, Derbyshire (NGR SK 358, 214: Fig 1 and Plate 1). The work was carried out on behalf of The National Trust, East Midlands Region, following guidelines set out in a specification for archaeological work prepared by the National Trust in June 2006 (Jo Bell pers comm).

2 BACKGROUND

2.1 Location and topography

Southwood House Farm lies on farmland within the Calke Abbey Estate approximately 1.5km to the south-west of Calke Abbey and approximately 2.5km south-east of the village of Ticknall, and 16km south of Derby (Figs 1 and 2). The underlying geology has been mapped by the British Geological Survey of Great Britain as comprising Carboniferous Limestone.

2.2 Historical background

Although the house of Calke Abbey has no religious connections it is believed to stand on the site of a former 12th-century Augustinian priory. The present building is of mainly 18th century date, having been subject to an almost complete rebuild between 1701 and 1704. Formerly owned by the Earl of Chester the house and gardens came into the possession of the National Trust in 1985 after having fallen into a state of disrepair. Following a period of renovation and structural refurbishment the house and

gardens, comprising 2,171 acres of park and surrounding land, opened to the public in 1989.

Nearby, the village of Ticknall, along with Melbourne and Swadlingcote, are well known for their post-medieval pottery production. These potteries were producing Purple Glazed wares, Midlands Purple wares, Blackwares and Cistercian wares from around the mid-15th century. This form of pottery and its production centres are subject to continuous research (Spavold and Brown 2005). The pottery industry flourished through the 16th and 17th centuries, but a lack of innovation meant that it was left behind by the newly developing production centres, particularly those in nearby Stoke-on-Trent. As a result, production declined dramatically between the early 18th century and the end of the century, although a handful of workshops survived until the end of the 19th century.

Southwood House Farm itself is thought to date from between 1549 and 1563 and was built by Gilbert Thacker. It was subsequently subject to alterations and additions, with major alterations between 1760 and 1770. Both the house and its associated farm buildings are now in the care of the National Trust.

3 OBJECTIVES AND METHODOLOGY

The aims of the watching brief were to:

- ◆ Observe the groundworks connected with the excavation of the service trench for the new water main and associated groundworks, and to record all archaeological deposits uncovered.
- ◆ Determine the date, character, state of preservation and depth of any archaeological deposits observed and to retrieve all datable artefacts.
- ◆ Create a permanent archive and record of the archaeological information collected during the course of the fieldwork and analysis.

The fieldwork comprised three visits to the site during the excavation of the trench for the new water main. This trench was excavated to a maximum depth of 0.84m and was 0.70m wide and extended from the junction of the driveway with Staunton Lane down to Southwood House Farm. The groundworks were carried out using a JCB 3CX mechanical excavator fitted with a toothless bucket.

A photographic record in both black and white negative and colour slide was kept, with supplementary photographs in digital format. The written record used Northamptonshire Archaeology pro-forma sheets. The watching brief was carried out in accordance with the standards and guidelines for an archaeological watching brief (IfA 2001).

4 THE WATCHING BRIEF EVIDENCE

There was a consistent stratigraphic sequence along most of the service trench. This comprised compact natural grey-brown clay overlain by mid-brown silt loam subsoil, up to 0.51m thick, and containing occasional irregular stones (Fig 3, 1003). In places the subsoil was disturbed and contained some small fragments of modern ceramic building material. The subsoil was overlain by grey-brown silt loam topsoil, up to 0.33m thick, containing occasional irregular stones and small fragments of modern ceramic building material (Fig 3, 1000). This stratigraphic sequence extended from the northern end of the service trench at the junction with Staunton Lane southwards to the car-park hard-standing area adjacent to Southwood House Farm (Plates 2-4). From this position to the southern end of the service trench a compact layer of grey/brown silty clay, up to 0.25m thick, containing numerous fragments of modern ceramic building material overlay the natural clay substratum (Plates 5 and 6).

Adjacent to the track between Staunton Lane and the farm buildings, a pit was cut into the subsoil (Fig 2; Plates 7 and 8). The pit was 3.90m wide with sloping sides and a rounded base which just cut into the natural clay at its maximum depth of 0.54m (Fig 3, 1002). The fill (1001) comprised a dense deposit of fresh pottery sherds with occasional pockets of fine grey-brown silt loam.

All the pottery within the area of the service trench was collected for analysis, although much more was left *in situ*, with the pit extending to both the east and west of the service trench.

There were no largely intact vessels, suggesting that the material had probably been subject to further breakages between the kiln and dumping in the pit, perhaps as a result of lying within a surface waster dump for some time. However, the presence of joining sherds does indicate that further breakage occurred at the time of deposition in the pit. This probable two-stage process of deposition, and the great quantity of material deposited in the pit has made it difficult to reconstruct full profiles of vessels, especially for the larger Midland Purple type ware jars.

No further archaeological deposits or artefacts were present in the remaining sections of the water main trench. The watching brief was carried out in favourable circumstances and the results are considered to be reliable.

5 THE POTTERY by C G Cumberpatch

5.1 Introduction

The pottery assemblage from Calke Abbey was examined by the author in August 2008. It consists of a large quantity of damaged and over-fired pottery comprising 2458 sherds, weighing 128913g. A summary quantification by fabric type and form is provided in Table 1, while the full quantification is contained in Appendix 1, Table 6. There are also eighteen fragments of roof tile (Table 4), a few unstratified sherds (Appendix 1, Table 7) and a quantity of slag or clinker-like material and some possible fragments from the kiln structure (Table 5).

5.2 Roman pottery

Two sherds of Roman pottery, weighing 7g, were identified amongst the assemblage. One is part of the ring foot base of a Samian (*Terra Sigillata*) ware bowl and the other part of the rim of a grey ware jar with a burnished surface. Both are in good condition and show little sign of abrasion.

5.3 Fabric and ware type

The range of variation within the pottery assemblage is considerable and includes recognisable Cistercian ware vessels (Cw) but these form only a small proportion of the total which is dominated by much larger utilitarian vessels. The latter display considerable diversity in terms of their fabrics: which range from very hard, dense, semi-vitrified fabrics to soft orange fabrics with a sandy texture. The purple bodied and glazed wares have been listed in the data tables as Midlands Purple ware (MPw) and include a range of variations which are discussed in more detail below, while the latter have been listed as Redware. The significance of these apparent distinctions should not be over-emphasised as it is likely that the high degree of variation is the result of the character of the assemblage which is composed principally of kiln wasters and over-fired vessels. Such an assemblage provides a rather poor foundation upon which to base a fabric type series as variations in conditions during the firing process can be shown to result in fabrics of widely different appearance even when, as here, it is highly likely that all the pottery was manufactured locally.

Table 1: Quantification of the assemblage by fabric and vessel form

Type	Form	Sherd count	Wt (g)	Date range
Cw (Cistercian ware)	Baluster jar	1	95	c 1450-1600+
Cw	Bottle/costrel	3	14	c 1450-1600+
Cw	Cup/tyg	49	1158	c 1450-1600+
Cw	Globular vessel	19	2015	c 1450-1600+
Cw	Hollow ware	112	1327	c 1450-1600+
Cw	Jar	17	904	c 1450-1600+
Cw	Unidentified	1	5	c 1450-1600+
Cw type	Hollow ware	1	47	c 1450-1600+
Cw type	Jar	9	324	c 1450-1600+
Cw totals		212	5889	
Cw/MPw (Midland Purple ware)	Hollow ware	1	27	c 1450-1600+
MPw	?Bottle/flask	1	27	15th-17th centuries
MPw	Bowl	1	29	15th-17th centuries
MPw	Cistern	35	6030	15th-17th centuries
MPw	Cylindrical jar (Jar 8)	41	2260	15th-17th centuries
MPw	Dog bowl	4	717	15th-17th centuries
MPw	Handled jar	1	163	15th-17th centuries
MPw	Hollow ware (jar)	1747	88950	15th-17th centuries
MPw	Jar (Jar 1)	22	1673	15th-17th centuries
MPw	Jar (Jar 3)	3	76	15th-17th centuries
MPw	Jar (Jar 4)	2	46	15th-17th centuries
MPw	Jar (Jar 5)	2	68	15th-17th centuries
MPw	Jar (Jar 7)	39	2435	15th-17th centuries
MPw	Jar (Jar 8)	2	69	15th-17th centuries
MPw	Jar (Jar 9)	4	153	15th-17th centuries
MPw	N/A	1	31	15th-17th centuries
MPw	Pancheon	14	588	15th-17th centuries
MPw	Tall jar	63	3163	15th-17th centuries
MPw	Tall jar (Jar 2)	55	2605	15th-17th centuries
MPw	Tall jar (Jar 3)	26	1424	15th-17th centuries
MPw	Tall jar (Jar 4)	2	180	15th-17th centuries
MPw	Tall jar (Jar 5)	6	315	15th-17th centuries
MPw	Tall jar (Jar 6)	20	763	15th-17th centuries
MPw type	Chafing dish?	1	600	c 1450-1600+
MPw type	Cistern	14	2312	15th-17th centuries
MPw type	Hollow ware	3	135	15th-17th centuries
MPw totals		2109	114812	
Redware	?Pancheon	5	135	15th-17th centuries
Redware	Bowl/dish	3	33	15th-17th centuries
Redware	Bowl/pancheon	5	66	15th-17th centuries
Redware	Hollow ware	11	219	15th-17th centuries
Redware	Jar	7	857	15th-17th centuries
Redware	Jar/bowl	3	125	15th-17th centuries
Redware	Pancheon	94	6403	15th-17th centuries
Redware	Hollow ware	8	347	15th-17th centuries
Redware totals		136	8185	
Overall totals		2458	128913	

The principal distinction within the Midlands Purple ware category is that between vessels with a light buff to cream fabric and finish and those with a dark red or purple finish with purple glaze and thin shiny surfaces resulting from glaze fuming. These categories are inevitably blurred because of the presence of a high proportion of wasters displaying effects resulting from over firing and similar processes, but the fact that the lighter coloured bodies appear to be associated with specific vessel forms (Jar 7 and Jar 8, described in detail below) suggests that the distinction is a real one and not merely an artefact of the production process (see Cumberpatch 2003 for a more detailed consideration of the significance of vessel colour at the end of the medieval period and during the post-medieval period).

White streaks are common in the darker fabrics, a characteristic noted elsewhere in relation to material from the Ticknall/Calke Abbey area and one which, it has been suggested, is a result of the use of clay with minimal processing (Boyle *et al* forthcoming).

5.4 Cistercian type wares

Cistercian ware constitutes only a minor part of the whole group and the majority of sherds appear to be wasters in that they show varying degrees of distortion and firing damage (Plate 15). The vessels are deemed to be Cistercian ware rather than Blackware as the forms present are, where identifiable, rounded cups or tygs (sometimes with white pipeclay decoration) rather than the typical taller flaring Blackware forms. In some cases the decision is a rather arbitrary one as it is difficult to determine the vessel form from the fragmentary body sherds. In general, it appears that the vessels are somewhat larger than comparable Cistercian ware vessels from Wrenthorpe (Moorhouse and Roberts 1992) and in this respect they do resemble Blackwares.

Few distinctive typological features were identified, but a common feature seems to be a cordon at the base of the neck of the vessel. This has a parallel in the cordons seen on some of the larger Midlands Purple ware vessels (described below).

Where the bases had not been wiped or obscured by sand or glaze, they show concentric wire marks indicating that they were cut from the wheel with a wire loop, as opposed to a straight wire which would have left parallel lines on the underside of the base. Several sherds bear applied white pipeclay decoration although the motifs are not particularly distinctive (Plate 9).

The Cistercian ware fabrics are hard, fine and dense in character with sparse to moderate quantities of sub-angular quartz grit, visible as fine white specks within the otherwise monochrome red or purple body. There is no sign of the white streaking which is common in the bodies of the larger Midlands Purple ware vessels.

5.5 Redware

There are two groups of material within the assemblage which are described as Redware. One of these is characterised by a soft orange fabric and is represented mainly by bases and body sherds. The second is much harder and denser in appearance although it is still a bright orange colour. This is associated mainly with the distinctive pantheon rims (Fig 4; 2 and 3). The difference between the fabrics is most readily explained by variations in firing, but it is unclear why there should be an

apparent split between different body parts. In the data tables the term Redware has been reserved for the soft oxidised fabrics. The rest are subsumed under the general Midlands Purple Glazed ware (MPw) category as they are often partially glazed internally (dark brown to purple) and often show the characteristic shiny brown to purple surfaces resulting from glaze fuming (Plate 16). The fabrics of some examples of the latter group are much closer to the Midlands Purple ware fabric than they are to the Redware fabric (the example shown on Fig 4, 2 being one such), adding further to the ambiguity of the significance of the fabric variations within the assemblage.

It is quite possible that the potters were producing softer Redwares, as well as the harder varieties, in response to a particular demand from customers, although this remains a suggestion to be evaluated with reference to other assemblages rather than a definite conclusion drawn from the study of this particular assemblage. Many of the bases appear to be from hollow wares (having the near vertical walls typical of jars) rather than from pancheons, although the absence of any complete vessel profiles precludes any definite conclusions on this point.

The pancheon rims are unusual in having a pronounced internal ridge separating the rim (usually a hammerhead form) from the body, as shown in the illustrations (Fig 4, 2 and 3, Plate 16). The purpose of this feature is unclear and it is much more pronounced than the break of profile seen, for example, on 17th-century Redware and Slipware Type 1 plates and dishes.

The soft orange Redware fabrics are generally homogeneous in appearance with sparse voids and sparse to moderate quantities of fine white and brown quartz and occasional red non-crystalline grains. The harder, denser red fabrics, typically associated with the pancheon rims, are generally similar although in some examples there seem to be a higher proportion of non-crystalline grit. The white streaks typical of the Midlands Purple ware fabrics are also present in the orange fabrics but are not as visible as they are in the darker red to purple fabrics. This, together with the fact that some of the distorted and more heavily over-fired pancheon rims have fabrics that are extremely hard, dense and homogeneous as well as purple in colour, suggests that the variation in the fabrics was largely a result of varying firing conditions and temperatures and not connected with any significant differences in the character of the clay bodies used by the potters.

5.6 Midlands Purple type ware (MPw)

Midlands Purple wares are the largest group in the assemblage but the range of variation in vessel form was not wide, suggesting that the waste dump represented the output of a limited number of potteries and probably only one. As no direct parallels were found for the specific vessel types in either of the two published sources (Spavold and Brown 2005; Boyle *et al* forthcoming), an *ad hoc* type series has been created for the site which, at some stage in the future, should be incorporated into a broader type series for the Ticknall/Calke Abbey area generally. Body sherds and bases which could not be ascribed to any specific type have been recorded simply as 'Base' or 'BS' (body sherd) with comments added to the data tables as necessary.

The following descriptions of the individual vessel types expand upon the limited notes presented in the data tables (Table 1 and Appendix 1: Table 6). Individual variations within the various groups are covered in the data tables, but two items may be mentioned specifically. The first of these is the chafing dish base (Fig 4, 1), which

appears to be unique amongst the assemblage and one sherd with a lateral rather than vertical strap handle.

The highest proportion of identifiable sherds seem to be from tall, rather narrow jars, an undetermined number of them probably cisterns, with two handles on the shoulder/body, a profiled rim and a cordon or ridge on the shoulder. Some, given the type code Jar 2 and Jar 3, have vertical, lid-seated rims, (Fig 4; 5 and 6) while others, Jar 5 and Jar 6, have sharply everted rims (Fig 4, 8 and Fig 5, 9). The term 'tall jar' has been used as a general descriptive name for the type in the data tables with the variations in the form being described in the notes section. A smaller number of vessels (Jar 4) appear to resemble, in general terms, the shape of medieval jugs (Fig 4, 7) although these too have the distinctive cordon at the base of the neck. A possible variant of this type is a jug or handled jar with a double cordon (Fig 5, 16).

Within these groups there is a second possible distinction which may or may not be the result of the fragmentation of the assemblage. This is the presence of semi-circular 'cut-outs' on the rim (Fig 4; 6 and 8: Plate 17), also seen on other vessel forms as described below. The purpose of these 'cut-outs' is unclear and they are not found on Midlands Purple type wares from Wrenthorpe. Whether they are a common feature in assemblages from the Ticknall area generally or were restricted to individual potteries is unclear, although further research on the assemblages recovered from fieldwalking and other excavations might clarify the matter.

The strap handles which are a feature of the 'tall jars' are generally narrow (between 24mm and 31mm wide) with a single deep groove down the centre flanked by ridges (Plate 18). They were attached to the neck and body, often with a very wide thumbled attachment at the lower end.

The bases were divided into two groups although, as with the rims with 'cut-outs', the fragmentation of the assemblage means that there is almost certainly a high degree of overlap between the two. The first group are the cisterns; jar-like vessels defined by the presence of a hole in the vessel wall immediately above the base which allowed a spigot to be fitted. Cisterns are a late medieval form, the appearance of which has been linked with the move to the brewing of hopped beer rather than ale and the desire to avoid drinking the cloudy yeast residue which settles at the bottom of hopped beers. Cisterns are a common component of later medieval and post-medieval assemblages from both potteries and from consumer sites and were often large in size and roughly finished (eg Cumberpatch 2004).

The plain bases, which lack the spigot hole have few distinguishing characteristics and include the usual range of features; stacking scars and firing shadows on the underside and patchy glaze internally and externally. It is probable that many, if not most, of the 'plain bases' are also from cisterns but lacking the single defining spigot hole, this could not be asserted definitely. Problems of distortion, fragmentation and irregularity meant that determining the diameters of the bases was, in most cases difficult and in many cases impossible (Plate 19). A haphazard or grab sample of forty-three plain examples was measured using a circular graph (Table 2).

Table 2: Jar base diameters (excluding cisterns)

Base diameter (mm)	Number of examples
140	2
150	1
160	2
170	3
180	6
190	13
200	7
210	6
220	1
230	0
240	1
250	0
260	0
270	0
280	1
Total	43

The cisterns themselves show an interesting variation in the shape and size of the spigot holes and in the ways that these were made. Some were pushed through the walls from the inside out, others (following the common practice seen elsewhere) from the outside, inwards, with the distinction indicated by the position of the flaps of clay around the edges of the hole. Figure 5, 12 and Plate 12 both show one of the better made examples with a raised ridge around the exterior of the hole and a ragged edge inside. Those where the hole was made from the inside out were generally less well finished. The holes tended to be so irregular in shape that it was hard to imagine that a wooden spigot fitted into them could possibly have resulted in anything even approaching a watertight seal (see Plates 10 and 11). This type of spigot hole is associated preferentially with sherds in the hard white to cream fabric and in one case (Fig 5: 13 and Plate 10) with the vertical clubbed rim jars discussed below. Table 3 records the diameters of thirteen cistern bases subdivided by the character of the fabric.

Table 3: Cistern base diameters

Red/purple body		White/buff body	
Base diameter (mm)	No. of examples	Base diameter (mm)	No. of examples
150	1	160	0
160	0	170	1
170	0	180	0
180	4	190	1
190	0	200	1
200	1	210	0
210	0	220	2
220	1	280	1
Total	7	Total	6

The remaining principal vessel forms in the Midlands Purple ware fabric are both types of jar. The first is a small group of squat, parallel-sided jars with a distinctive lid-seated rim with an internal flange, Jar 1 (Fig 4, 4: Plate 20). The group consists of twenty-two examples and no examples of lids were identified, suggesting that these may have been made of turned wood rather than pottery. One of the smallest groups of jars, represented by only four examples, Jar 9 (Fig 5, 13) also has a distinctive lid-seated rim but this is everted and the form of the jar seems to be barrel-shaped rather than parallel-sided as in the case of Jar 1.

As mentioned above, the Midlands Purple ware fabrics are variable in character but are similar in being hard, fine and dense or semi-vitrified in nature often with prominent white streaks in cross-section. Higher firing temperatures (as indicated by distorted sherds) appear to result in a denser and more vitrified appearance which may attest to the quality of the clay used and its suitability for the manufacture of pottery.

5.7 Buff and creamwares

While the majority of sherds are characterised by their hard, fine, often dense purple to red fabrics, the principal exception to this (mentioned above) are the Jar 7 and Jar 8 types (Fig 5; 10, 11 and 13) where both glazing and glaze fuming are rare and the fabric is a hard, dense and buff-white to creamy-buff colour, albeit sharing some characteristics with the red types. A total of 150 body sherds, weighing 5347g, are of the white variety, in addition to the diagnostic sherds discussed below.

The Jar 7 and Jar 8 vessels are distinguished by their parallel-sided form with a rim separated from the body by an external flange (Fig 5; 10, 11 and 13). Cut-outs on the rim are a common feature of the type.

The fabrics are characterised primarily by their colour which is most probably a result of the firing atmosphere. When viewed in cross section the fabrics are dense with a smooth fracture and moderate quantities of dark inclusions, many of them showing a vesicular 'cindery' appearance and occasional large (up to 1 mm) grains of dark red non-crystalline grit.

Initially, these sherds were believed to be a more or less random occurrence related to the variable effects of the firing atmosphere, compounded by the abundant evidence for over firing seen in the assemblage as a whole. However, as the recording proceeded it became apparent that these fabrics were preferentially associated with the two particular vessel forms noted above and with the cistern-like vessels with poorly finished spigot holes described above (Fig 5, 13). While it is possible that the examples from the site were the result of an individual firing, it is equally likely that an effort was being made by the potters to produce a type of light-bodied vessel, perhaps a counterpart or analogue of the Yellow wares manufactured at other Cistercian and Blackware potteries (although it should be emphasised that the vessel forms from Calke Abbey are quite different to Yellow ware forms). Of the fifty cistern bases identified, fourteen are in the buff to cream coloured fabric (listed in the data tables as MPw type) and have the irregular, poorly-finished spigot holes described above (Plates 10 and 11). The contrast with the more typical spigot holes can be judged by comparing these plates with the example shown in Plate 12. Although not all of the purple-glazed examples have properly executed spigot holes, the numbers are very low, while none of the buff to sand coloured examples have the better finished spigot holes.

Although the sample is not one that can be relied on from a statistical point of view, the apparently high correlation between these superficially similar but apparently rather different forms and the fabric and patterns of glazing would appear to merit further study should other waster dumps be excavated in the Ticknall/Calke Abbey area. The author is not aware of any finds of the smaller irregularly perforated types from consumer sites, but as the publication of urban assemblages from Nottingham and Derby is notoriously poor and fraught with logistical and other problems, this may relate more to the history of research in the area than to the real situation.

It is possible that the buff-white wares were specifically made as saggars, with the irregular holes designed to allow the hot gases to circulate around the smaller pots inside during firing, and this explanation may be partially supported by the evidence of one body sherd, the rim of a Cistercian ware cup, which was identified adhering to the inside of one of the buff-white sherds (Fig 5, 17 and Plate 13). Saggars of the 18th and 19th centuries were certainly perforated and also made use of 'cut-outs' to improve the flow of hot gases around the contents. In spite of these seeming parallels, the suggestion is not entirely satisfactory as there is no evidence of there being more than one hole in the walls and all of the holes are in the same position as a spigot hole, ie immediately above the base of the vessel. Nor is there any specific evidence of the manufacture of vessels solely as saggars at this date. The use of larger Midlands Purple or Coarse Blackware type vessels as *ad hoc* saggars is well known from Wrenthorpe and other sites and the evidence of the more conventional red to purple Midlands Purple ware vessels from Calke Abbey in the form of sherds from smaller vessels stuck to the inside of larger vessels suggests that this was also the case here. This evidence is hardly consistent with the manufacture of a specific type of pot for use solely as a sagger.

5.8 Roof tiles

Roof tile fragments from the site are listed in Table 4. The fabric of the tiles is similar in all respects to that of the harder, denser Midlands Purple ware with quartz grit and white streaks in a dark red to purple body. All of the tiles, including those with an arched form (presumably ridge tiles) have one surface covered in fine sand while the other generally bears patchy purple glaze. The arched ridge-type tiles have an applied and impressed spine along the highest point of the arch and one of the flat tiles has a shallow impressed wavy line on the glazed side (Plate 21) (cf Spavold and Brown 2005, 88, fig 18).

Tiles are known to have been used in some potteries as kiln plates with pots stacked on top of them. This process usually leaves stacking marks on the tiles. No such marks were noted in this case.

Table 4: Quantification of roof tile

Type	No	Wt (g)	ENV	Decoration	Date range	Notes
Roof tile?	7	815	7	Patchy purple glaze on one side, reverse sanded	15th-17th centuries	
Roof tile?	4	414	4	Patchy purple glaze on one side, reverse sanded	15th-17th centuries	
Ridge tile	2	581	2	Raised ridge at top of curve, impressed to produce serrated strip, patchy purple glaze on upper surface	15th-17th centuries	
Ridge tile	2	167	2	Curved ridge tiles, one with applied and impressed serrated strip on top	15th-17th centuries	
Roof tile	3	962	2	Impressed wavy line across one side of the tile with patchy purple glaze	15th-17th centuries	Rough sandy finish on the undecorated side
Total	18	2939	17			

5.9 Other objects

Few other objects were noted amongst the assemblage. Only one pot disc was identified (Plate 14) and it is of some interest to note that even where pots were being manufactured, such discs were still made from discarded body sherds and were not purpose-made, in spite of the fact that the latter would presumably have been easier than chipping and grinding sherds into rough disc shapes.

A small quantity of slag, clinker and related material was also present as part of the assemblage (Table 5).

Table 5: Slag, clinker and other material from context 1001

Description	No	Wt (g)	Notes
Fired clay with a single smooth face and slag-like material ext	2	334	
Soft orange fired clay lumps	7	29	Shapeless abraded lumps
Overfired vitreous slag-like lumps with splashes of glaze and glazed fumed surfaces	3	146	
Irregularly shaped slag-like lumps	6	205	
Dark orange overfired clay lumps	5	45	Harder and probably fired to a higher temperature than the soft orange clay lumps
Body sherd and base with large lumps of slag-like material attached	2	194	

5.10 Chronology

The dating of the assemblage presents a number of problems and the general points made by Boyle *et al* (forthcoming), with reference to the material from Church Lane, Ticknall, are as applicable to this assemblage as they are to Church Lane.

The dating of Cistercian ware has recently been revised by Boyle (unpublished) who has proposed a start date of around 1450 in preference to the later 15th-century date accepted until recently. The presence of Cistercian wares in this assemblage suggests that it belongs to an earlier phase of activity rather than a later one, but the absence of known parallels for the Midlands Purple and Redware type ware vessels is a problem. It is probable that parallels exist, notably from the nearest major towns, Nottingham and Derby, but the extremely limited scale of publication to date precludes their identification and thus any possibility of relating the essentially unstratified Calke Abbey assemblage to contexts containing material of known date. Boyle *et al* have suggested that pottery production in the Ticknall area began in the late 15th century and there is nothing in this assemblage to contradict this; indeed on general principles a later 15th to 16th-century date would seem entirely appropriate for the group although inevitably a final decision on the date range must await the identification of similar vessels from a context or contexts of demonstrable date.

The characteristics of the assemblage (the limited range of wares types and vessel types and the stratigraphic homogeneity of the deposit) point to accumulation within a relatively short time period involving the output of a single workshop. For this reason it is recommended that the assemblage be kept intact and accessible to future researchers at least until it can be placed more precisely within the broader picture of pottery manufacture in the Ticknall area.

5.11 Conclusion

The pottery assemblage from Calke Abbey is an important one as it consists almost entirely of waste material from pottery manufacture, a major source of income for the people of the Ticknall area in the post-medieval period and at the beginning of the early modern period (discussed in greater detail by Spavold and Brown 2005). It is suggested that the limited range of vessel types and the apparent homogeneity of the deposit, both stratigraphically and in terms of its composition, indicates that the assemblage was the waste component of the output of a single pottery, probably located close to the position of the dump. The apparent lack of joining sherds should not be considered an impediment to this interpretation; only part of the dump was excavated while time and space constraints precluded a comprehensive attempt to find matching sherds during the cataloguing process. It is possible that further work on the assemblage would result in the identification of more joining sherds to provide full vessel profiles. This would also result in a reduction in the figure for the maximum number of vessels (ENV) figure (Appendix 1, Table 6), which is clearly far too high.

5.12 Catalogue of illustrated pottery (Figs 4 & 5)

- 1 Chafing dish; splayed pedestal base with handle attachments on stem
- 2, 3 Pancheon, hammerhead pancheon rims with internal flange (see Plate 16)
- 4 Jar 1, parallel-sided squat jar with lid-seated rim (see Plate 20)
- 5 Jar 2, tall jar or cistern with two strap handles, vertical rim and cordon at base of neck
- 6 Jar 3, tall jar or cistern with two strap handles, vertical rim with semi-circular 'cut-outs' and cordon at base of neck
- 7 Jar 4, jug or jar with tall neck, strap handle and cordon at base of neck
- 8 Jar 5, everted rim jar with 'cut-outs' on rim and cordon at base of neck (see Plate 17)
- 9 Jar 6, everted rim jar with cordon at base of neck
- 10 Jar 7, parallel sided jar/cistern with clubbed rim, external flange and 'cut-outs' on rim
- 11 Jar 8, parallel sided jar/cistern with clubbed rim, external flange and 'cut-outs' on rim
- 12 Cistern base with regular, cleanly finished spigot hole
- 13 Cistern profile, rim of cistern-like jar with poorly made irregular spigot hole; cf Jar 7 & Jar 8
- 14 Dog bowl, shallow bowl with inturned rim and heavy base
- 15 Jar 9, jar with lid seated rim
- 16 Handled jar, jar or jug rim with everted rim, double cordon and strap handle
- 17 Rim of Cistercian ware cup adhering to inside of buff-white sherd (see Plate 13)

6 THE SITE ARCHIVE

The project has generated an archive comprising:

RECORD	NUMBER
Watching brief forms	6
Colour slides	11
Black and white contacts and negatives	11
Digital photographs	24
Pottery	128.91kg
Possible kiln fragments and clinker material	953g

The full project archive will be deposited with the National Trust following completion of the post-excavation analysis.

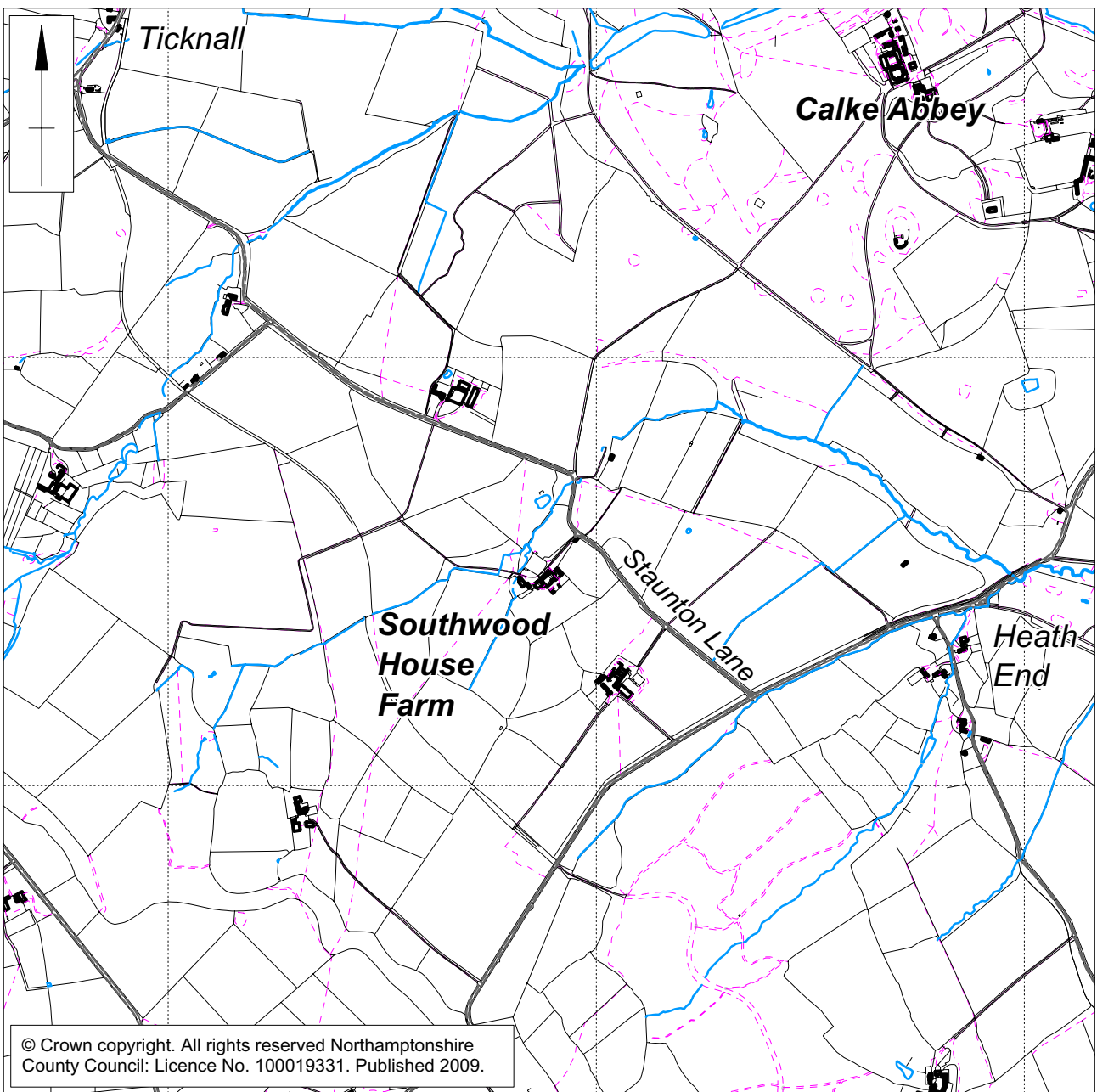
7 CONCLUSION

The watching brief undertaken during the installation of the new water main to Southwood House Farm revealed a single pit containing over-fired and damaged fragments of a range of pottery types; Midlands Purple ware, Cistercian ware, Buff and Creamware and Redware, dated between the late 15th and 16th centuries. An assemblage of this type is the direct result of pottery production and comprises a waster dump of vessels damaged during the firing process and post-firing activities. The discovery of such a pottery dump strongly suggests the presence of a manufacturing kiln relatively close by.

The pottery dump lay just beneath the present ground surface in an area of undeveloped grassland close to Southwood House Farm. Only that part of the pottery dump within the line of the new water main was excavated, the remainder is still preserved *in situ*. The lack of development in this area suggests that the associated kiln may be well preserved and thus of significant research value, once located.

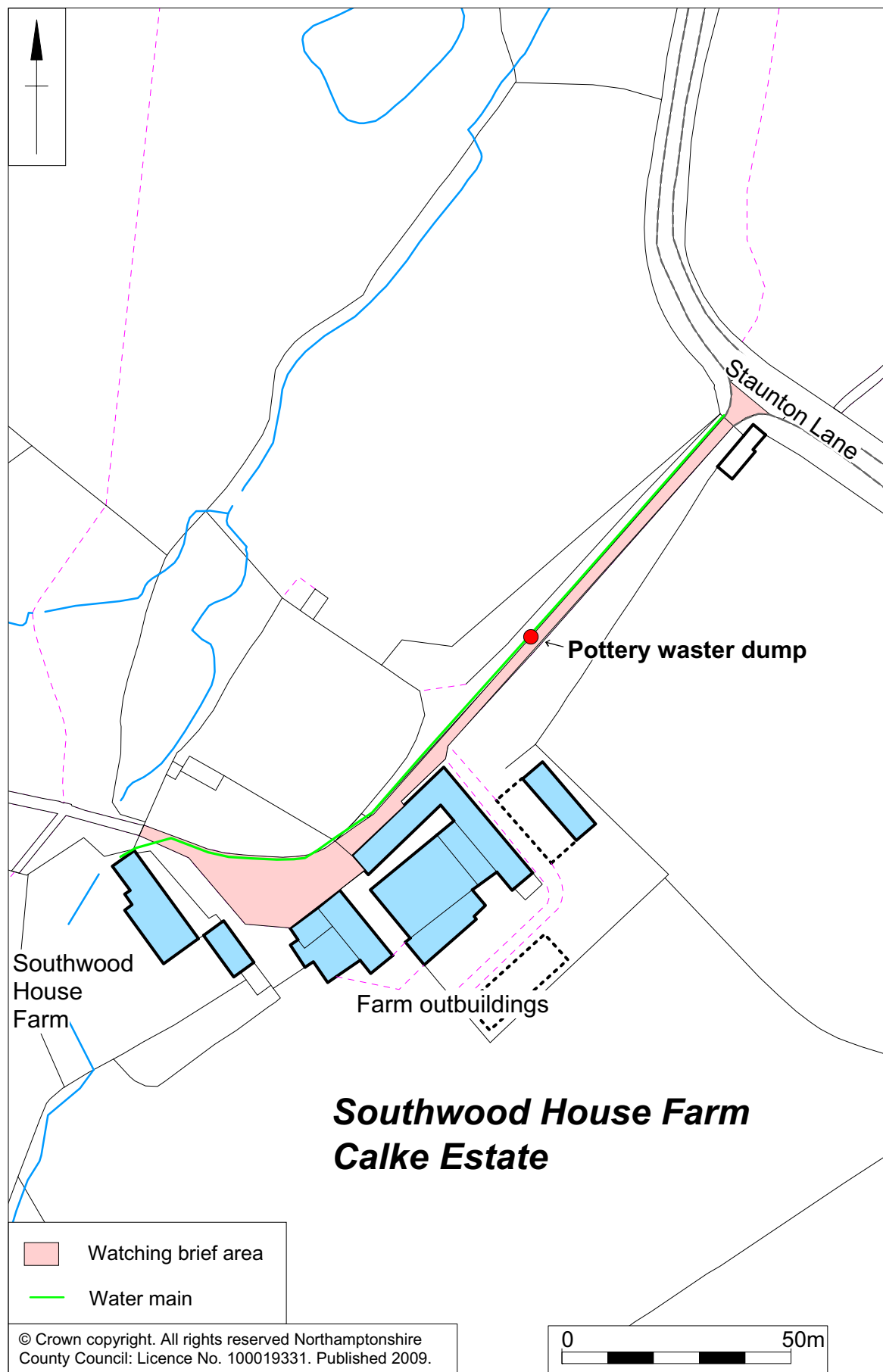
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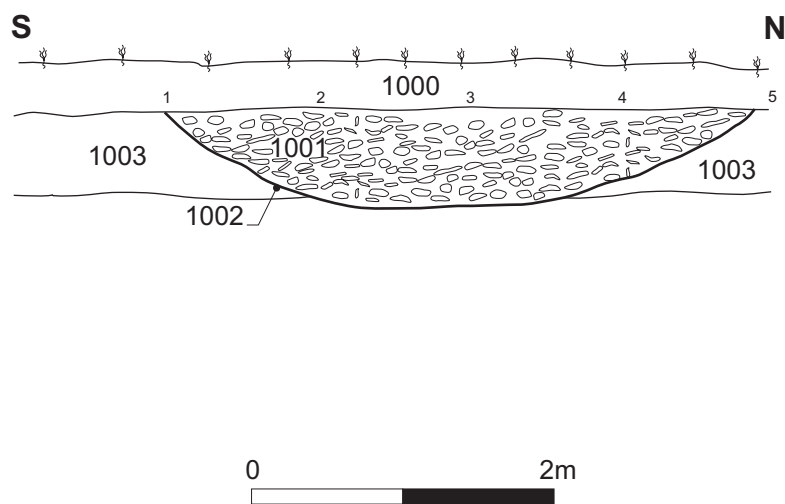


Scale 1:15,000

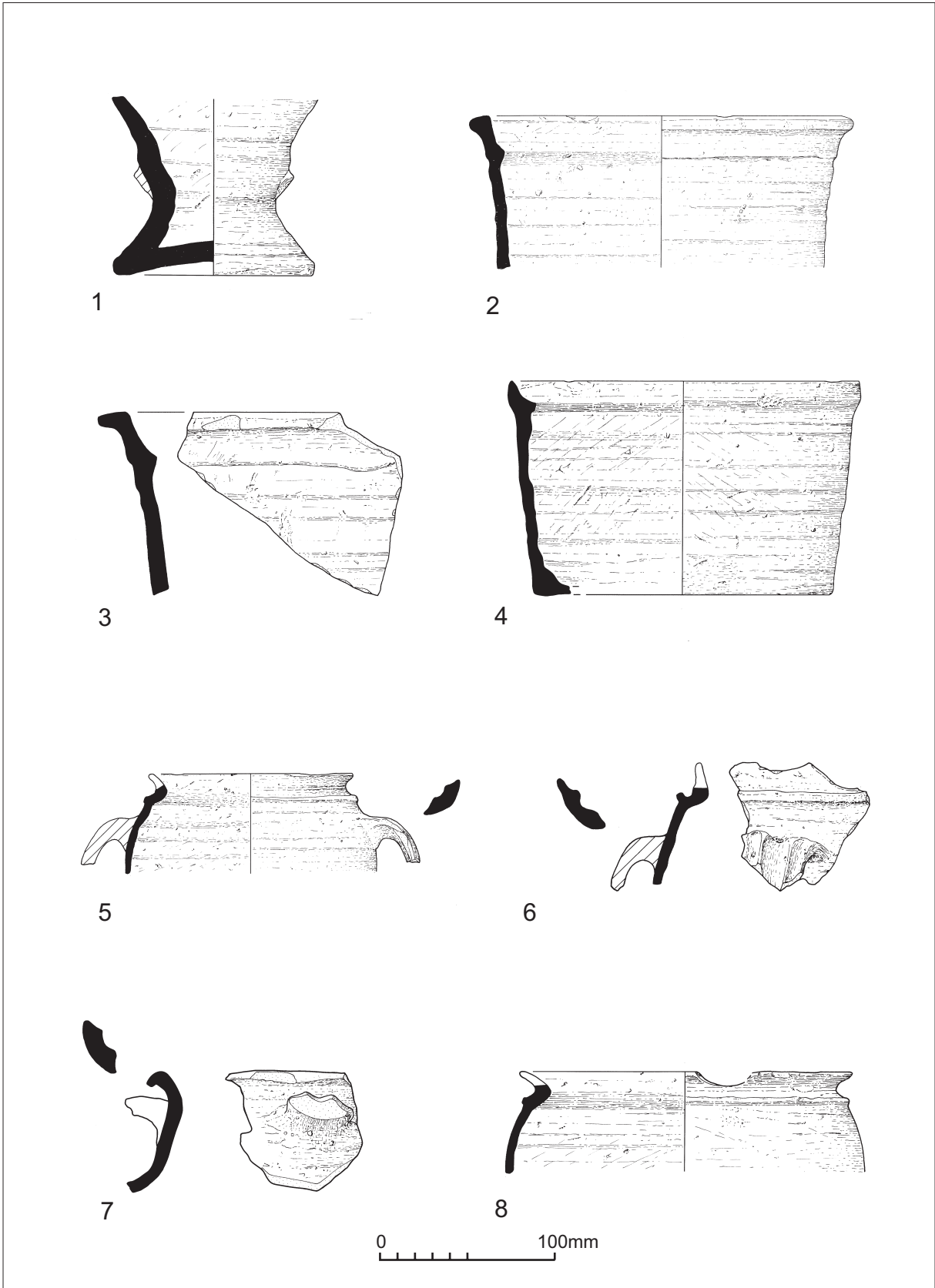
Site location Fig 1



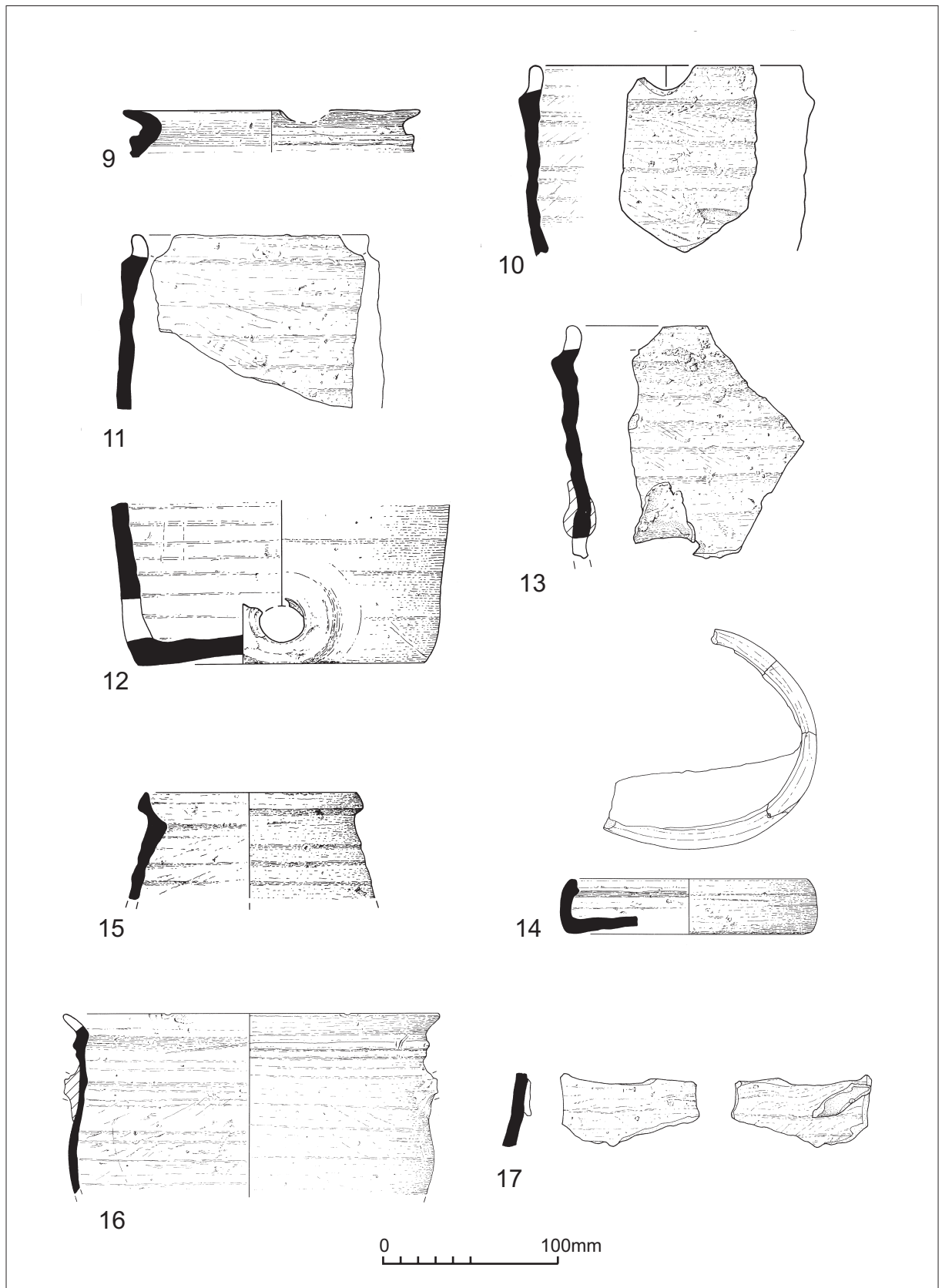
The location of the pottery waster dump Fig 2



Section of the pottery dump Fig 3



Illustrated pottery (1-8) Fig 4



Illustrated pottery (9-17) Fig 5



Plate 1: Southwood House Farm, Calke Abbey Estate, view to the south-west



Plate 2: The service trench, view north-east towards the entrance to the driveway



Plate 3: The service trench, view south-west towards Southwood House Farm



Plate 4: A general view of the service trench during groundworks to the north-east



Plate 5: The service trench crossing the farmyard, view to the east



Plate 6: The southern end of the service trench at the farmhouse



Plate 7: The pottery dump in the western face of the service trench



Plate 8: A close up of the pottery dump, looking west



Plate 9: Misfired white pipeclay decoration on Cistercian ware-type vessels



Plate 10: Irregular hole through the wall of a vessel with an external flap of clay (see Fig 5, 13)



Plate 11: Irregular holes showing external flaps of clay



Plate 12: Regular spigot hole in a Midlands Purple ware cistern



Plate 13: Cistercian ware sherd stuck to the inside of a buff-white body sherd
(see Fig 5, 17)



Plate 14: Redware pot disc (internal view)



Plate 15: Cistercian ware cups/tygs showing blistering of the glaze from over firing
(Scale 20mm)



Plate 16: Redware/Midland Purple Glazed ware pantheon with internal flange (left)
(cf Fig 4; 2 and 3) (Scale 50mm)



Plate 17: Midland Purple ware jars with semi-circular 'cut-outs' on the rims (Scale 50mm)



Plate 18: Midland Purple ware, strap handles from jars
(Scale 50mm)



Plate 19: Midland Purple ware jar and cistern bases showing distortions from over firing
(Scale 50mm)



Plate 20: Midland Purple ware small, upright jar with lid-seated rim and internal flange
(see Fig 4, 4) (Scale 50mm)



Plate 21: Glazed roof tile showing impressed spine or crest (top) and incised wavy-line decoration (Scale 50mm)

APPENDIX 1

Table 6: Pottery from context (1001), page 1 of 10

Type	No	Wt (g)	ENV	Part	Form (Form code)	Decoration	Date range	Notes
Cw	1	95	1	Splayed base	Baluster jar	U/Dec	c 1450 – c 1600+	
Cw	1	4	1	Rim	Bottle/costrel	U/Dec	c 1450 – c1600+	Narrow neck with bulge around rim
Cw	1	3	1	Rim	Bottle/costrel	U/Dec	c1450 – c1600+	Plain thin rim with pointed cap
Cw	1	7	1	Rim	Bottle/costrel	U/Dec	c1450 – c1600+	Slightly everted rim with internal bevel or lid seating
Cw	2	304	1	Base	Cup/tyg	Footed base	c1450 – c1600+	Black glaze extensively blistered externally giving an oddly regular effect of raised circles
Cw	7	226	7	Base & BS	Cup/tyg	Footed base, cordon at base of neck	c1450 – c1600+	Greenish-black glaze, extensively blistered externally giving an oddly regular appearance of raised circles external; lump of slag on base preventing the vessel standing on base
Cw	1	4	1	BS	Cup/tyg	Cordon externally	c1450 – c1600+	
Cw	1	2	1	BS	Cup/tyg	Cordon externally	c1450 – c1600+	Black glaze internal & external
Cw	5	81	5	BS & handle stump	Cup/tyg	Narrow strap handles	c1450 – c1600+	
Cw	1	14	1	BS/handle stump	Cup/tyg	U/Dec	c1450 – c1600+	Handle stump
Cw	7	84	7	Handle	Cup/tyg	Narrow strap handles	c1450 – c1600+	
Cw	1	59	1	Handle & BS	Cup/tyg	Cordon at base of neck	c1450 – c1600+	Globular body with one surviving handle
Cw	3	82	3	Handle & BS	Cup/tyg	Narrow strap handles	c1450 – c1600+	
Cw	1	41	1	Neck & handle	Cup/tyg	Narrow strap handle on neck with corrugation	c1450 – c1600+	
Cw	4	47	4	Rim	Cup/tyg	Cordon at base of inturned rim	c1450 – c1600+	

Table 6: Pottery from context 1001, page 2 of 10

Type	No	Wt (g)	ENV	Part	Form (Form code)	Decoration	Date range	Notes
Cw	1	11	1	Rim	Cup/tyg	Inturned rim with marked carination	c1450 - c1600+	
Cw	1	5	1	Rim	Cup/tyg	Inturned rim with slight carination	c1450 - c1600+	
Cw	1	7	1	Rim	Cup/tyg	Inturned rim	c1450 - c1600+	
Cw	1	7	1	Rim	Cup/tyg	U/Dec	c1450 - c1600+	Plain rim
Cw	2	11	2	Rim	Cup/tyg	Cordon below rim	c1450 - c1600+	
Cw	5	20	5	Rim	Cup/tyg	U/Dec	c1450 - c1600+	Thin, slightly everted rims
Cw	1	5	1	Rim	Cup/tyg	U/Dec	c1450 - c1600+	Inturned rim
Cw	1	2	1	Rim	Cup/tyg	U/Dec	c1450 - c1600+	
Cw	2	53	1	Rim & body	Cup/tyg	Cordon at base of flared rim	c1450 - c1600+	Pitted and blistered glaze
Cw	1	93	1	Rim, handle & BS	Cup/tyg	Cordon at base of slightly flared rim	c1450 - c1600+	Globular body with one surviving handle
Cw	1	93	1	Footed base	Globular vessel	U/Dec	c1450 - c1600+	Glaze pooled to one side of base internally, fired at an angle
Cw	2	375	2	Footed base	Globular vessel	U/Dec	c1450 - c1600+	Concentric circular wire marks on underside of base; both sherds show signs of collapse and distortion
Cw	1	171	1	Footed base	Globular vessel	U/Dec	c1450 - c1600+	Blistered glaze externally
Cw	1	208	1	Footed base	Globular vessel	U/Dec	c1450 - c1600+	Handle stump on lower body
Cw	1	93	1	Footed base	Globular vessel	U/Dec	c1450 - c1600+	Rough lump on underside of base prevents the vessel standing straight
Cw	1	131	1	Footed base	Globular vessel	U/Dec	c1450 - c1600+	Glaze pooled at one side of vessel, lump of vitrified sand on base but on the opposite side to the pooling

Table 6: Pottery from context 1001, page 3 of 10

Type	No	Wt (g)	ENV	Part	Form (Form code)	Decoration	Date range	Notes
Cw	4	108	4	Footed base	Globular vessel	U/Dec	c1450 - c1600+	Fragmentary bases
Cw	2	273	2	Footed base	Globular vessel	U/Dec	c1450 - c1600+	Concentric circular wire marks on underside of base
Cw	5	406	5	Footed base	Globular vessel	U/Dec	c1450 - c1600+	One with distinctively pitted and blistered glaze external,
Cw	1	157	1	Footed base	Globular vessel	U/Dec	c1450 - c1600+	Handle stump on lower wall; two broken sherds internal stuck to wall with glaze
Cw	10	161	10	BS	Hollow ware	Cordon at base of neck	c1450 - c1600+	Globular vessel; glaze often pitted and damaged through overfiring
Cw	3	99	2	BS	Hollow ware	Applied pipeclay lobate decoration ext; discoloured	c1450 - c1600+	Discoloured, probably overfired, decoration; unglazed internally Plate 9
Cw	33	304	33	BS	Hollow ware	U/Dec	c1450 - c1600+	Brown glaze internal & external
Cw	37	389	37	BS	Hollow ware	U/Dec	c1450 - c1600+	Brown glaze external, unglazed or glaze fumed internal
Cw	1	16	1	BS	Hollow ware	U/Dec	c1450 - c1600+	Glazed externally with small rage of clay adhering; partial glaze interanl
Cw	14	32	14	BS	Hollow ware	U/Dec	c1450 - c1600+	Glazed fumed internal & external
Cw	1	15	1	BS	Hollow ware	U/Dec	c1450 - c1600+	Waster
Cw	1	4	1	BS	Hollow ware	Black glaze ext only	c1450 - c1600+	Black glaze ext, unglazed internally; ?costrel/bottle
Cw	1	65	1	BS	Hollow ware	Brown glaze int & ext	c1450 - c1600+	Collapsed vessel
Cw	1	141	1	BS	Hollow ware	Cordon at base of neck	c1450 - c1600+	Brown glaze internally, unglazed externally
Cw	7	60	7	BS	Hollow ware	Shiny brown to black glaze ext & partially int	c1450 - c1600+	
Cw	1	23	1	Footed base	Hollow ware	U/Dec	c1450 - c1600+	
Cw	1	12	1	Rim	Hollow ware	U/Dec	c1450 - c1600+	Prominent internal ridge or cordon; form unidentifiable

Table 6: Pottery from context 1001, page 4 of 10

Type	No	Wt (g)	ENV	Part	Form (Form code)	Decoration	Date range	Notes
Cw	1	6	1	Rim	Hollow ware	Groove below rim	c1450 - c1600+	Plain rim
Cw	1	330	1	Base	Jar	U/Dec	c1450 - c1600+	Footed base but a straight-sided vessel; concentric wire mark on underside of base
Cw	1	83	1	Base	Jar	U/Dec	c1450 - c1600+	Unglazed internally
Cw	15	491	15	BS	Jar	U/Dec	c1450 - c1600+	Brown glaze externally, unglazed internally
Cw	1	5	1	BS	U/ID	U/Dec	c1450 - c1600+	Sharply angled sherd, could be a lid fragment
Cw type	1	47	1	BS	Hollow ware	Applied white pipeclay lobate decoration ext	c1450 - c1600+	Poorly finished; yellowish-white pipeclay decoration is only partially covered with glaze Plate 9
Cw type	1	88	1	BS	Jar	U/Dec	c1450 - c1600+	Brown glaze ext with angular lumps of fired clay adhering; unglazed int; Jar-sized vessel
Cw type	8	236	8	BS	Jar	U/Dec	c1450 - c1600+	Glazed internal & external; larger jar-sized vessel
Cw/MPw	1	27	1	BS/waster	Hollow ware	U/Dec	c1450 - c1600+	Sherd from an MP vessel with a Cw sherd stuck to the inside
MPw	1	27	1	Rim	?Bottle/flask	Narrow diameter lid seated rim	15th - 17th centuries	Distorted but clearly a much narrower rim than most examples from the assemblage
MPw	1	29	1	Rim	Bowl	Sharply everted rim	15th - 17th centuries	Overfired and slightly distorted
MPw	1	1056	1	Base	Cistern (Cistern)	Patchy purple glaze int & ext	15th - 17th centuries	Fig 5, 12
MPw	5	1759	5	Base	Cistern (Cistern)	Purple glaze int & ext	15th - 17th centuries	Well finished spigot holes with a raised disc around each aperture
MPw	13	1307	13	Base	Cistern (Cistern)	Purple glaze int & ext	15th - 17th centuries	Well finished spigot holes with a raised disc around each aperture
MPw	1	269	1	Base	Cistern (Cistern)	Purple glaze int	15th - 17th centuries	Crudely made hole, pushed out from inside with flap of clay above hole
MPw	1	131	1	Base	Cistern (Cistern)	Patchy purple glaze ext	15th - 17th centuries	Well finished spigot hole with raised disc around aperture
MPw	3	592	3	Base	Cistern (Cistern)	Patchy purple glaze int & ext	15th - 17th centuries	Poorly finished but with fairly regularly shaped spigot holes

Table 6: Pottery from context 1001, page 5 of 10

Type	No	Wt (g)	ENV	Part	Form (Form code)	Decoration	Date range	Notes
MPw	8	757	8	Base	Cistern (Cistern)	Patchy purple glaze int & ext	15th – 17th centuries	Poorly made spigot holes; often mishapen
MPw	1	100	1	BS	Cistern (Cistern)	Purple glaze fuming int & ext	15th – 17th centuries	A very crudely made hole pushed from the inside with a flat of clay externally
MPw	2	59	2	BS/Spigot hole	Cistern (Cistern)	Purple glaze ext, patchy	15th – 17th centuries	Regular spigot holes with raised disc around aperture
MPw	1	191	1	Rim	Cylindrical jar (Jar 8)	Patchy misfired glaze ext	15th – 17th centuries	Rounded rim with external flange forming ridge below rim. Fig *, 11
Mpw	31	1604	31	Rim	Cylindrical jar (Jar 8)	Some glaze but generally buff unglazed finish	15th – 17th centuries	See Fig 5, 11
MPw	9	465	9	Rim	Cylindrical jar (Jar 8)	Lumpy slag-like concretions ext	15th – 17th centuries	See Fig 5, 11
MPw	4	717	1	Profile	Dog bowl	Purple glaze int only	15th – 17th centuries	Shallow bowl with inturned rim Fig 5, 14
MPw	1	163	1	Rim & handle	Handled jar	Glaze fuming int only	15th – 17th centuries	Everted rim with double cordon ext and handle scar. Fig 5, 16
MPw	1	84	1	Handle & BS	Hollow ware (Jar)	Lateral handle with deep central groove	15th – 17th centuries	A standard type of strap handle but applied at right angles to the upright axis of the pot instead of vertically
MPw	100	9852	100	Base	Hollow ware	Patchy purple glaze int & ext; varies from almost none to complete coverage	15th – 17th centuries	Generally flat bases showing enormous variation in fabric and glaze, many distorted
Mpw	40	11147	40	Base	Hollow ware	Patchy purple glaze int & ext; varies from almost none to complete coverage	15th – 17th centuries	Generally flat bases showing enormous variation in fabric and glaze, many distorted
MPw	80	9795	80	Base	Hollow ware	Patchy purple glaze int & ext; varies from almost none to complete coverage	15th – 17th centuries	Generally flat bases showing enormous variation in fabric and glaze, many distorted
MPw	39	8154	39	Base	Hollow ware	Patchy purple glaze int & ext; varies from almost none to complete coverage	15th – 17th centuries	Generally flat bases showing enormous variation in fabric and glaze, many distorted
MPw	8	873	8	Base	Hollow ware	Purple glaze int & ext	15th – 17th centuries	Central parts of bases; no walls surviving
MPw	11	815	11	Base	Hollow ware	Purple glaze int & ext; patchy	15th – 17th centuries	Central parts of bases; no walls surviving

Table 6: Pottery from context 1001, page 6 of 10

Type	No	Wt (g)	ENV	Part	Form (Form code)	Decoration	Date range	Notes
MPw	4	212	4	Base	Hollow ware	Patchy purple glaze int & ext	15th – 17th centuries	Flat bases; one with slight bloating
MPw	1451	47298	1451	Body sherds	Hollow ware	Considerable variation; unglazed, fumed, patchy glaze and complete glaze	15th – 17th centuries	Considerable variety in the fabrics, finishehes and probably forms; many distorted sherds but few bloated sherds
MPw	7	300	7	BS	Hollow ware	Patchy purple glaze and fuming	15th – 17th centuries	Some distorted
MPw	1	14	1	BS	Hollow ware	Cordon externally	15th – 17th centuries	Blistered glaze ext
MPw	1	157	1	BS	Hollow ware	Purple glaze int, g;aze fuming ext	15th – 17th centuries	Rim of a smaller vessel stuck to the inside of the large body sherd suggesting use as a saggar
MPw	4	249	4	BS	Hollow ware	Purple glaze int & ext	15th – 17th centuries	Part of a group of sherds examined for the details of the fabrics; see text for details; very hard, semi-vitrified purple fabrics
MPw	1	251	1	Profile	Jar (Jar 1)	Patchy purple glaze int, glaze fumed int & ext	15th – 17th centuries	Slightly distorted shallow jar with lid-seated rim, dark red fabric with streaky glaze Fig 4, 4
MPw	1	282	1	Profile	Jar (Jar 1)	Patchy purple glaze int, glaze fumed int & ext	15th – 17th centuries	Distorted barrel-shaped jar profile with lid-seated rim, probably part of Fig 4, 4; dense dark red fabric with occasional white streaks
MPw	17	878	17	Rim	Jar (Jar 1)	Lid seated rim	15th – 17th centuries	See Fig 4, 4
MPw	2	45	2	Rim	Jar (Jar 1)	One glazed int & ext, one undecorated	15th – 17th centuries	See Fig 4, 4
MPw	1	217	1	Rim	Jar (Jar 1)	Lid seated rim on a squat, barrel shaped body, flat base	15th – 17th centuries	See Fig 4, 4
MPw	3	76	3	Rim	Jar (Jar 3)	U/Dec	15th – 17th centuries	
MPw	2	46	1	Rim	Jar (Jar 4)	U/Dec	15th – 17th centuries	Contact scar ext
MPw	1	11	1	Rim	Jar (Jar 5)	U/Dec	15th – 17th centuries	Bright orange fabric
MPw	1	57	1	Rim	Jar (Jar 5)	Purple glaze fuming int & ext	15th – 17th centuries	

Table 6: Pottery from context 1001, page 7 of 10

Type	No	Wt (g)	ENV	Part	Form (Form code)	Decoration	Date range	Notes
MPw	1	99	1	Rim	Jar (Jar 7)	Vertical clubbed rim on a cylindrical body with rim cut-outs	15th - 17th centuries	Fig 5, 10
Mpw	4	280	4	Rim	Jar (Jar 7)	Thin purple glaze or glaze fuming ext	15th - 17th centuries	See Fig 5, 10
MPw	4	317	4	Rim	Jar (Jar 7)	U/Dec	15th - 17th centuries	Purple slag-like lumps adhering to body and/or rim; see Fig *, 10 for profile
MPw	29	1715	29	Rim	Jar (Jar 7)	U/Dec; generally a buff-sandy colour int & ext	15th - 17th centuries	See Fig 5, 10
MPw	1	24	1	Rim	Jar (Jar 7)	U/Dec	15th - 17th centuries	Buff-sand coloured fabric
MPw	2	69	2	Rim	Jar (Jar 8)	U/Dec	15th - 17th centuries	Buff-sand coloured fabric
MPw	1	73	1	Rim	Jar (Jar 9)	Lid seated rim, slight rilling ext	15th - 17th centuries	Fig 5, 15
MPw	3	80	3	Rim	Jar (Jar 9)	Lid seated rim	15th - 17th centuries	See Fig 5, 15
MPw	1	31	1	Fragment	N/A	Purple glaze	15th - 17th centuries	Folded and fired clay sheet
MPw	8	449	8	Rim	Pancheon	Purple glaze int, glaze fuming int & ext	15th - 17th centuries	See Fig 4, 2 & 3; considerable variation in fabric
MPw	5	95	5	Rim	Pancheon	Sparse glaze but extensive glaze fuming	15th - 17th centuries	
MPw	1	44	1	Rim	Pancheon	Purple glaze fuming int & ext	15th - 17th centuries	Overfired; very hard, dense semi-vitrified body
MPw	20	542	20	Handle	Tall jar (Jar)	Narrow strap handle with central groove	15th - 17th centuries	Widths between c24mm and 31mm
MPw	19	955	19	Handle & BS	Tall jar (Jar)	Narrow strap handles with central groove	15th - 17th centuries	Lower handle attachments
Mpw	24	1666	24	Handle & BS	Tall jar (Jar)	Narrow strap handles with central groove	15th - 17th centuries	Upper handle attachments, no rims
Mpw	54	2515	54	Rim	Tall jar (Jar 2)	Short necked jar with slightly everted rim & cordon	15th - 17th centuries	See Fig 4, 5

Table 6: Pottery from context 1001, page 8 of 10

Type	No	Wt (g)	ENV	Part	Form (Form code)	Decoration	Date range	Notes
MPw	1	90	1	Rim & handle	Tall jar (Jar 2)	Short neck with cordon	15th - 17th centuries	Fig 4, 5
MPw	3	203	3	Rim	Tall jar (Jar 3)	Short necked jars with cordon at base of neck and cut-out	15th - 17th centuries	Distinctive rim with cut-out; see Fig *, 6, no handles on these examples
MPw	22	1132	22	Rim	Tall jar (Jar 3)	Short necked jar with cordon and cut-outs, ?lid-seated	15th - 17th centuries	See Fig 4, 6
MPw	1	89	1	Rim & handle	Tall jar (Jar 3)	Short necked jar with cordon, cut-out on rim & strap handle	15th - 17th centuries	Distinctive rim with cut-out Fig 4, 6
Mpw	1	117	1	Rim & handle	Tall jar (Jar 4)	Longer necked jar with cordon & overhanging rim	15th - 17th centuries	Distorted Fig 4, 7
MPw	1	63	1	Rim & handle	Tall jar (Jar 4)	Longer necked jar with cordon & overhanging rim	15th - 17th centuries	Distorted
MPw	1	93	1	Rim	Tall jar (Jar 5)	Resembles Jar3 but with a sharply everted rim above the cordon	15th - 17th centuries	Has cut-outs on the everted rim Fig 4, 8
MPw	5	222	5	Rim	Tall jar (Jar 5)	Everted rim, cordon & cut-outs	15th - 17th centuries	One is very badly distorted
MPw	1	47	1	Rim	Tall jar (Jar 6)	Resembles Jar 5 but without cut-outs on rim	15th - 17th centuries	Fig 5, 9
Mpw	19	716	19	Rim	Tall jar (Jar 6)	Everted rim & cordon	15th - 17th centuries	Some variation in how far the rims are everted
MPw type	1	600	1	Pedestal base	Chafing dish?	U/Dec	c1450 - c1600+	Heavy pedestal base with handle stumps on upper part of pedestal. Fig 4, 1
MPw type	1	84	1	Base	Cistern (Cistern)	Unglazed buff body int & ext	15th - 17th centuries	Irregularly shaped spigot hole with ragged edge ext
MPw type	1	230	1	Base	Cistern (Cistern)	Unglazed buff-sandy colour	15th - 17th centuries	Crudely made irregular spigot hole, pushed through wall from inside
MPw type	1	756	1	Base	Cistern (Cistern)	Unglazed buff-sandy colour	15th - 17th centuries	Sandy-buff coloured finish; spigot hole made from inside out
MPw type	4	698	4	Base	Cistern (Cistern)	Buff finish with some brown to purple glaze int only	15th - 17th centuries	Poorly made ,irregular spigot holes pushed from int to ext with flap of clay ext

Table 6: Pottery from context 1001, page 9 of 10

Type	No	Wt (g)	ENV	Part	Form (Form code)	Decoration	Date range	Notes
MPw type	6	398	6	BS	Cistern (Cistern)	Unglazed buff-sandy colour	15th - 17th centuries	Crudely made irregular holes with ragged edges externally
MPw type	1	146	1	Rim & spigot hole	Cistern (Cistern)	Thin purple-brown glaze int, unglazed ext, buff to sand coloured body	15th - 17th centuries	Rim closely resembles Jar 7 and Jar 8 Fig 5, 13
MPw type	3	135	3	BS	Hollow ware	U/Dec	15th – 17th centuries	Part of a group of sherds examined for the details of the fabrics; see text for details; very hard, dense buff sand-coloured fabric
Redware	4	119	4	Base	?Pancheon	Clear glaze int only	15th – 17th centuries	Very soft oxidised orange fabric
Redware	1	16	1	BS	?Pancheon	Clear glaze int	15th – 17th centuries	Pot disc Plate 14
Redware	3	33	3	Rim	Bowl/dish	Patchy glaze on one rim	15th – 17th centuries	Flaked and damaged rims in a soft oxidised fabric
Redware	5	66	5	Rim	Bowl/pancheon	U/Dec	15th – 17th centuries	Flaked and damaged rims in a soft oxidised fabric
Redware	2	57	1	Baluster base	Hollow ware	Red slip int & ext	15th – 17th centuries	Soft orange sandy ware, splayed base
Redware	1	83	1	Base	Hollow ware	Clear glaze int & ext	15th – 17th centuries	Unusual sherd but in the same soft orange fabric as other Redware bases
Redware	1	18	1	Base	Hollow ware	Shiny greenish glaze int	15th – 17th centuries	Soft oxidised fabric
Redware	1	8	1	Base	Hollow ware	U/Dec	15th – 17th centuries	Part of a group of sherds examined for the details of the fabrics; see text for details; soft orange fabric
Redware	6	53	6	BS	Hollow ware	U/Dec	15th – 17th centuries	Abraded body sherds in a soft oxidised fabric
Redware	6	783	6	Base	Jar	Clear glaze int	15th – 17th centuries	Angle of wall indicates that these bases are from jars with a slightly barrel-shaped profile
Redware	1	74	1	Base	Jar	Clear to purple glaze int & ext	15th – 17th centuries	Footed jar base, vertical sides
Redware	3	125	3	Rim	Jar/bowl	Clear glaze int; lid seated rim	15th – 17th centuries	Unclear whether these are small pancheons or bowls or squat jars similar to the example in Fig 4, 4

Table 6: Pottery from context 1001, page 10 of 10

Type	No	Wt (g)	ENV	Part	Form (Form code)	Decoration	Date range	Notes
Redware	4	409	4	Base	Pancheon	Clear glaze int	15th - 17th centuries	Soft orange fabric, angle of wall appears to indicate that these are from steep-sided pancheons
Redware	38	1269	38	BS	Pancheon	Clear glaze int only	15th - 17th centuries	Soft bright orange fabric with thin white streaks, sparse quartz inclusions and occasional round white inclusions
Redware	1	308	1	Rim	Pancheon	Clear glaze int with prominent internal ridge	15th - 17th centuries	Selected as representative of the group for illustration Fig 4, 2
Redware	1	177	1	Rim	Pancheon	Clear glaze int with prominent internal ridge	15th - 17th centuries	Selected as representative of the group for illustration Fig 4, 3
Redware	15	1593	15	Rim	Pancheon	Clear glaze int with prominent internal ridge	15th - 17th centuries	See illustrations and text for discussion
Redware	20	1648	20	Rim	Pancheon	Clear glaze int with prominent internal ridge	15th - 17th centuries	See illustrations and text for discussion
Redware	12	638	11	Rim	Pancheon	Clear glaze int with prominent internal ridge	15th - 17th centuries	See illustrations and text for discussion
Redware	2	243	1	Rim	Pancheon	Clear glaze int with prominent internal ridge	15th - 17th centuries	Waster - twisted rim
Redware	1	118	1	Rim	Pancheon	Clear glaze int with prominent internal ridge	15th - 17th centuries	Waster with sharp-edged fragments sticking to int surface
Redware type	2	105	2	Base	Hollow ware	U/Dec	15th - 17th centuries	Buff oxidised fabric but much harder than the Redware group
Redware type	6	242	6	BS	Hollow ware	Clear, brown or purple glaze int and/or ext	15th - 17th centuries	Part of a group of sherds examined for the details of the fabrics; see text for details; hard dark orange to red fabrics
Total	2458	128913	2448					

Table 7: Unstratified pottery

Type	No	Wt (g)	ENV	Part	Form (code)	Decoration	Date range	Notes
MPw	1	174	1	Base & spigot hole	Cistern (cistern)	Spots of purple glaze, glaze fumed int & ext	15th-17th century	Well made spigot hole, smoothed off with applied disc ext
MPw	1	43	1	BS	Hollow ware	Spots of purple glaze, glaze fumed int & ext	15th-17th century	
MPw	1	206	1	BS	Hollow ware	Thick purple glaze int, glaze fumed ext	15th-17th century	
MPw	1	230	1	Base & spigot hole	Hollow ware	U/Dec	15th-17th century	Hard cream to buff fabric, dense and semi-vitrified
MPw	1	97	1	BS & handle stump	Hollow ware	Patchy purple glaze ext, glaze fumed int & ext	15th-17th century	Hard dense semi-vitrified fabric
MPw	1	121	1	Rim	Jar (Jar7)	Buff to dull red body, unglazed	15th-17th century	Distorted rim
Total	6	871	6					