A POST-MEDIEVAL POTTERY WASTER PIT AT SOUTHWOOD HOUSE FARM ON THE CALKE ABBEY ESTATE, NEAR TICKNALL, SOUTH DERBYSHIRE

By

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and

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SUMMARY

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, South Derbyshire. A pit within the line of the service trench 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.*

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, South Derbyshire (NGR SK 358214; Fig. 1). The site lies 16km south of Derby near the county border with Leicestershire. The fieldwork 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.).

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

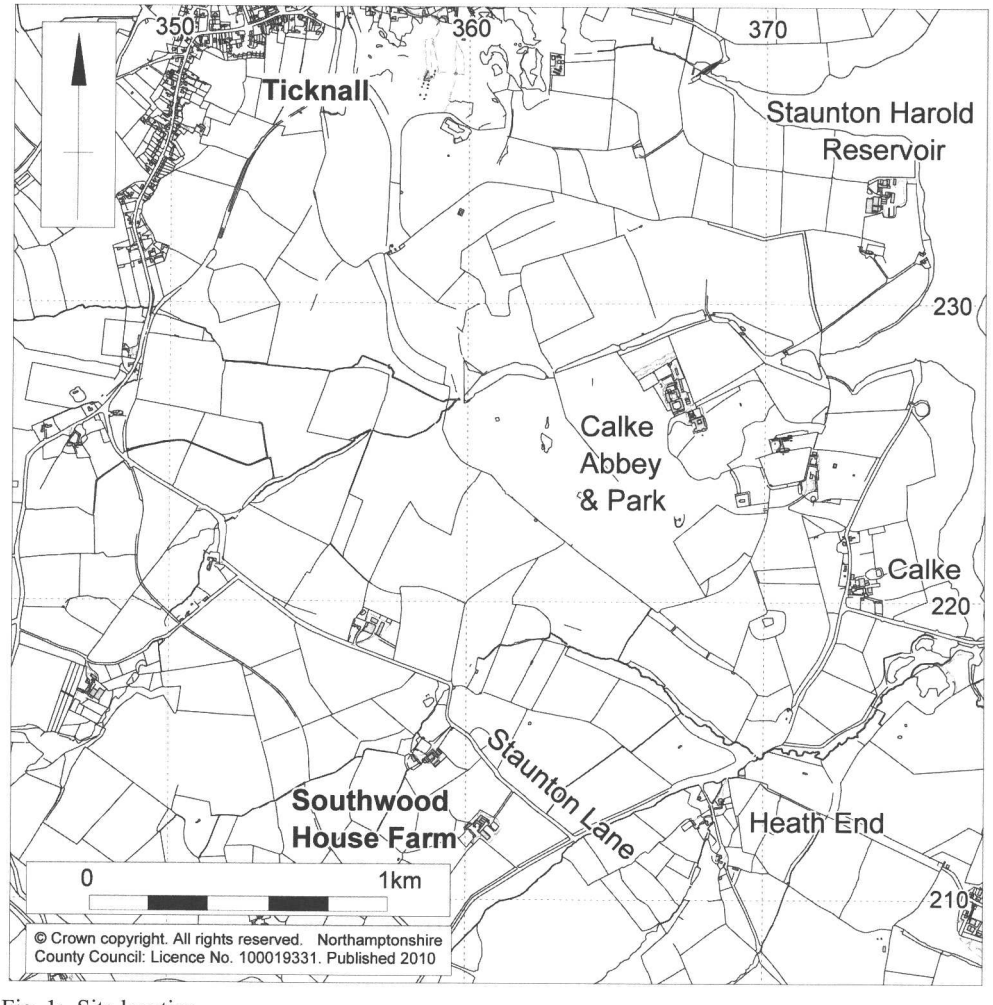

Fig. 1: Site location.

HISTORICAL BACKGROUND

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 that 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, as part of the Calke Abbey Estate.

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.

THE WATCHING BRIEF

The aim of the watching brief was to observe all groundworks connected with the excavation of a service trench for a new water main, and to record any archaeological deposits uncovered. The service trench ran from Staunton Lane along the north-western side of the access road and continued along the northern side of the broader yard to the west and north of the farm buildings (Fig. 2).

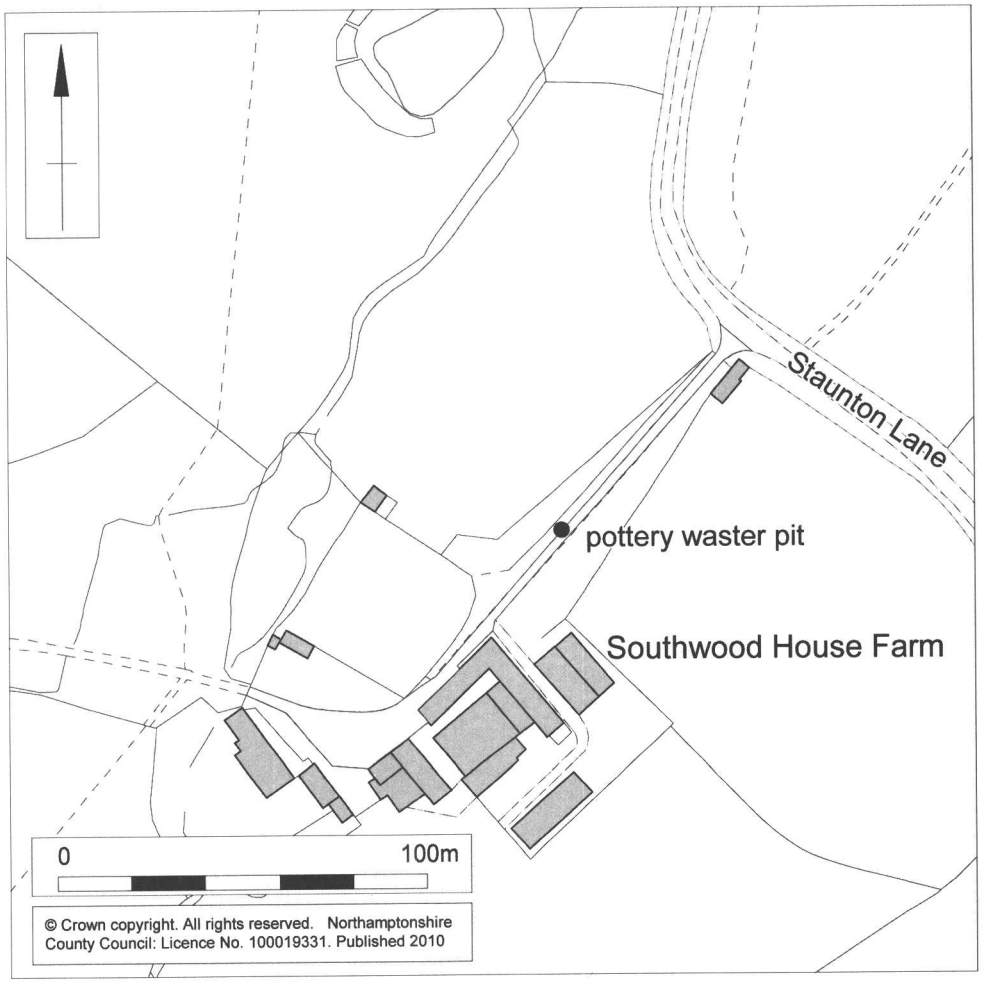

Fig. 2: The location of the pottery waster dump.

Plate 1: The service trench, view south-west towards Southwood House Farm.

Fieldwork comprised three visits during excavation of the service trench, which was 0.70m wide and had a maximum depth of 0.84m. Groundworks were carried out using a JCB 3CX mechanical excavator fitted with a toothless bucket.

The stratigraphic sequence was consistent along the service trench from the junction with Staunton Lane to the car-park area adjacent to Southwood House Farm. This comprised compact natural grey-brown clay overlain by mid-brown silt loam subsoil, up to 0.51m thick, and containing occasional irregular stones, layer 1003 (Fig. 3). 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, layer 1000.

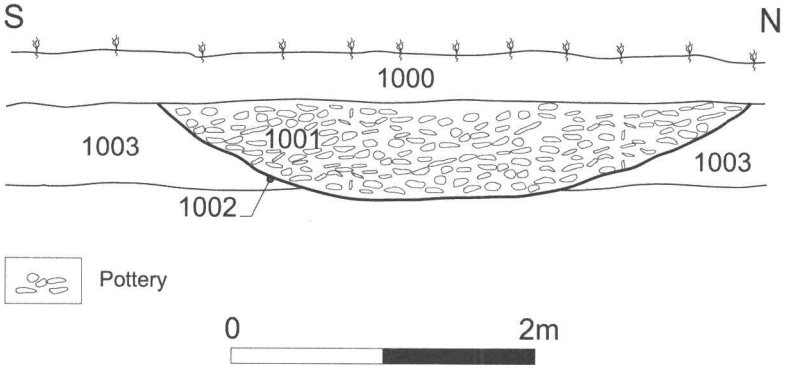

Fig 3: Section of the pottery dump.

Adjacent to the north-west side of the track between Staunton Lane and the farm buildings, a pit had been cut into the subsoil (Fig. 2; Plate 1). 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 pottery within the area to be disturbed by the service trench was collected for analysis, although much more was left *in situ* in the pit which extended to both the east and west of the service trench.

There were no vessels largely intact, 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.

THE POTTERY

By C. G. Cumberpatch

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 128.9kg; Estimated Number of Vessels (ENV) 2448. A summary quantification by fabric type and form is provided in Table 1, and the full quantification is available in the client report (Leigh 2009). There are also eighteen fragments of roof tile and a quantity of slag or clinker-like material and some possible fragments from the kiln structure.

Fabric and ware type

The range of variation within the pottery assemblage is considerable and includes recognisable Cistercian ware vessels (Cw), but they 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. 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 a 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.

The principal distinction within the Midlands Purple ware category is 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 lighter coloured bodies appear to be

Form	Sherd count	Weight (g)
Cistercian ware (Cw): date range *c* 1450-1600+		
Baluster jar	1	95
Bottle/costrel	3	14
Cup/tyg	49	1158
Globular vessel	19	2015
Hollow ware	112	1327
Jar	17	904
Unidentified	1	5
Hollow ware (Cw type)	1	47
Jar (Cw type)	9	324
Cw totals	***212***	***5889***
Midland Purple ware (Cw/MPw): date range *c* 1450-1600+		
Hollow ware	1	27
Midland Purple ware (MPw): date range 15th-17th centuries		
?Bottle/flask	1	27
Bowl	1	29
Cistern	35	6030
Cylindrical jar (Jar 8)	41	2260
Dog bowl	4	717
Handled jar	1	163
Hollow ware (jar)	1747	88950
Jar (Jar 1)	22	1673
Jar (Jar 3)	3	76
Jar (Jar 4)	2	46
Jar (Jar 5)	2	68
Jar (Jar 7)	39	2435
Jar (Jar 8)	2	69
Jar (Jar 9)	4	153
N/A	1	31

Form	Sherd count	Weight (g)
Midland Purple ware (continued)		
Pancheon	14	588
Tall jar	63	3163
Tall jar (Jar 2)	55	2605
Tall jar (Jar 3)	26	1424
Tall jar (Jar 4)	2	180
Tall jar (Jar 5)	6	315
Tall jar (Jar 6)	20	763
Chafing dish? (*c* 1450-1600+)	1	600
Cistern	14	2312
Hollow ware	3	135
MPw totals	***2109***	***114812***
Redware: date range 15th-17th centuries		
?Pancheon	5	135
Bowl/dish	3	33
Bowl/pancheon	5	66
Hollow ware	11	219
Jar	7	857
Jar/bowl	3	125
Pancheon	94	6403
Hollow ware	8	347
Redware totals	***136***	***8185***
Overall totals	**2458**	**128913**

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

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 and Rowlandson 2006-8).

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 2). 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 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).

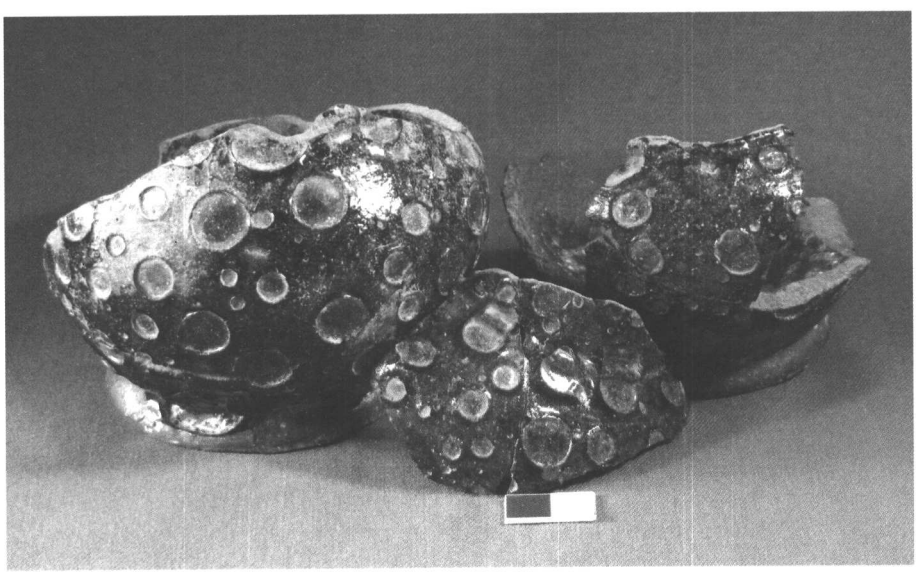

Plate 2: Cistercian ware cups/tygs, showing blistering of the glaze from over Firing.

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 3).

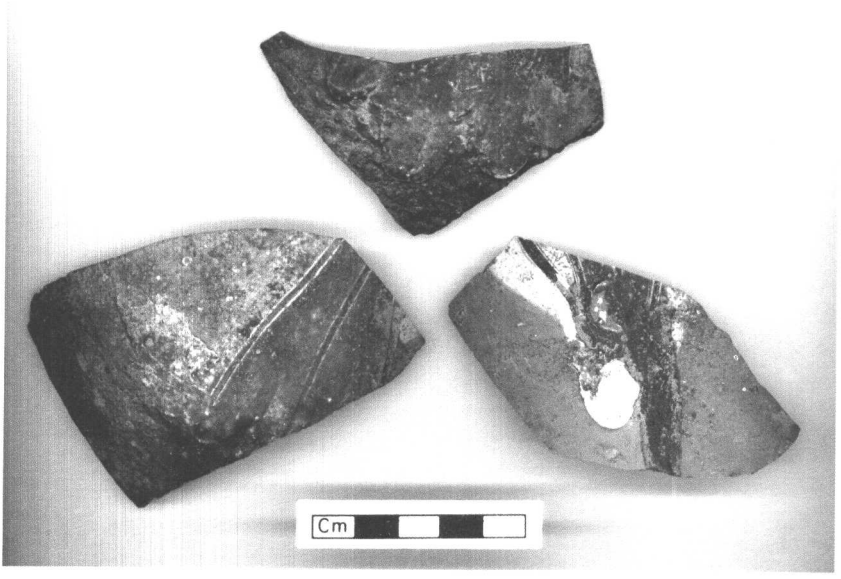

Plate 3: Misfired white pipeclay decoration on Cistercian ware type vessels.

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 larger Midlands Purple ware vessels.

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 and Rowlandson 2006-8), 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 individual vessel types expand upon limited notes presented in the data tables (Table 1; Leigh 2009, table 6). Two items may be mentioned specifically. The first 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, (Figs 4.5 and 4.6) while others, Jar 5 and Jar 6, have sharply everted rims (Figs 4.8 and 5.9). The term 'tall jar' has been used as a general descriptive name for the type in the data table. 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).

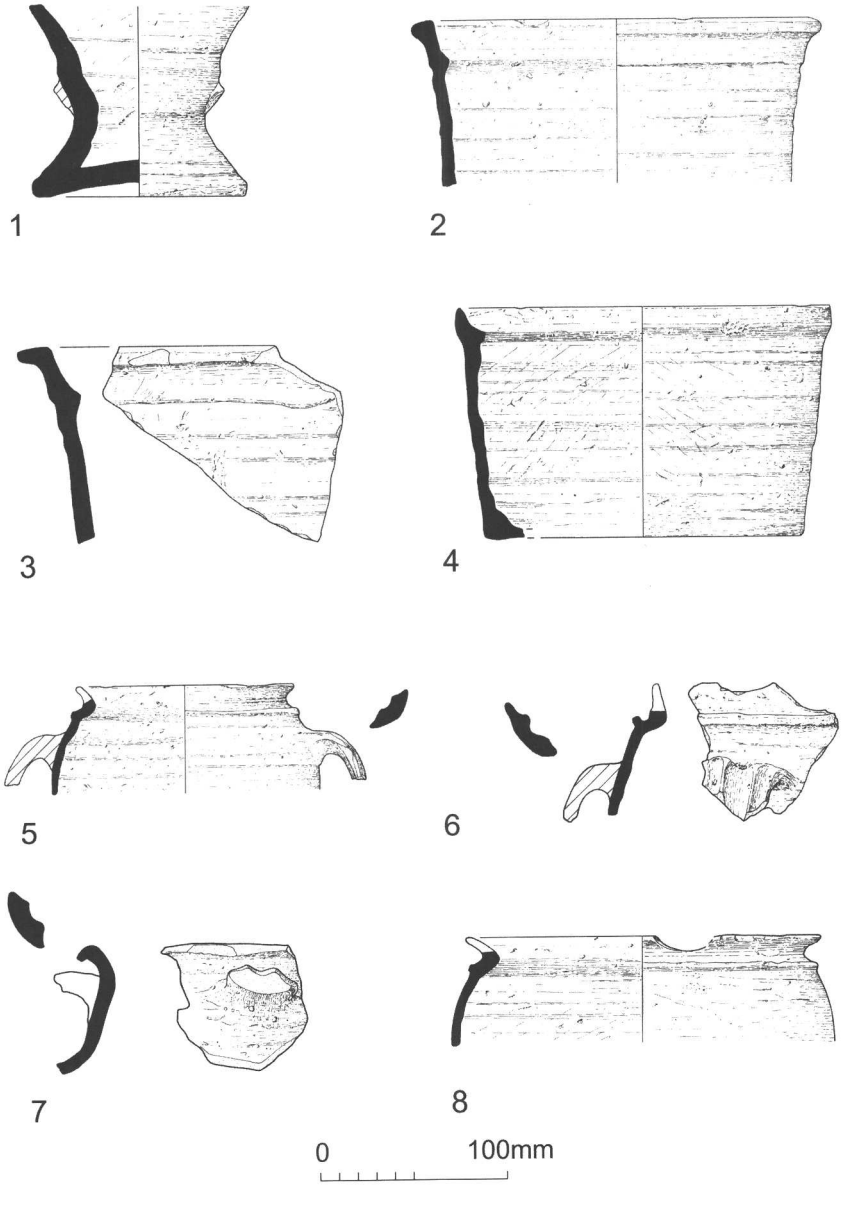

Fig. 4: Illustrated pottery, 1 – 8.

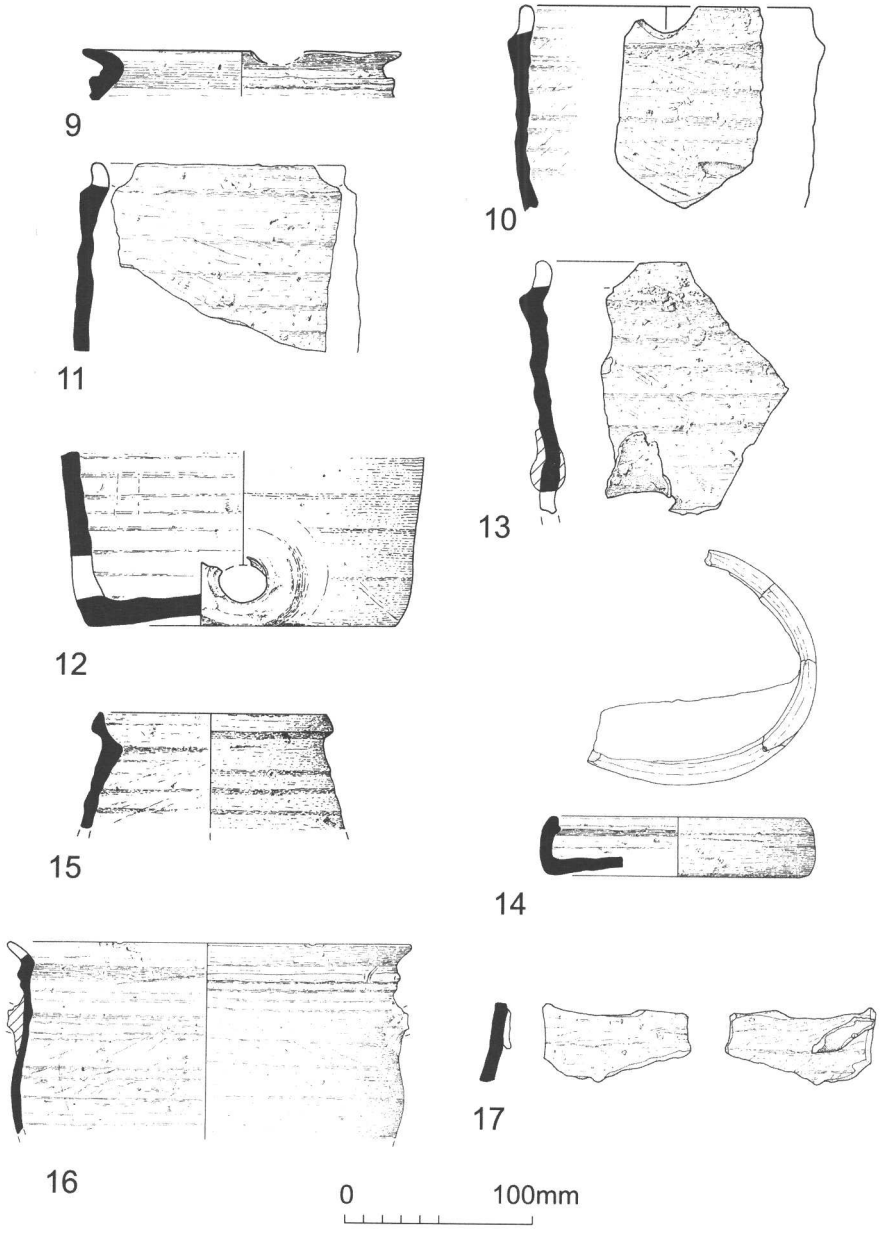

Fig. 5: Illustrated pottery, 9 – 17.

Within these groups there is a second possible distinction which may or may not be the result of fragmentation of the assemblage. This is the presence of semi-circular 'cut-outs' on the rim (Figs 4.6 and 4.8; Plate 4), 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 assemblages recovered from fieldwalking and other excavations might clarify the matter.

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 5). They were attached to the neck and body, often with a very wide thumbed attachment at the lower end.

Plate 4: Midland Purple ware, jars with semi-circular 'cut-outs' on the rims.

Plate 5: Midland Purple ware, strap handles from jars.

Bases were divided into two groups although, as with the rims with 'cut-outs', 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 brewing 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 consumer sites and were often large in size and roughly finished (e.g. Cumberpatch 2004).

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 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. A haphazard or grab sample of forty-three plain examples was measured using a circular graph (Table 2).

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

Table 2: Jar base diameters (excluding cisterns).

The cisterns themselves show an interesting variation in the shape and size of the spigot holes and in the ways 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 flaps of clay around the edges of the hole. Better made examples have a raised ridge around the hole exterior and a ragged edge inside (Fig. 5.12; Plate 6). Those where the hole was made from the inside out were generally less well finished. Holes tend to be so irregular in shape that it is hard to imagine that a wooden spigot fitted into them could possibly have resulted in anything approaching a watertight seal (Plates 7 and 8). This type of spigot hole is associated preferentially with sherds in the hard white to cream fabric and, in one case (Fig. 5.13; Plate 7), with the vertical clubbed rim jars discussed below. Table 3 records the diameters of thirteen cistern bases subdivided by the character of the fabric.

Remaining principal vessel forms in 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, e.g. Jar 1 (Fig. 4.4; Plate 9). This 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, e.g.

Plate 6: Regular spigot hole in a Midlands Purple ware cistern.

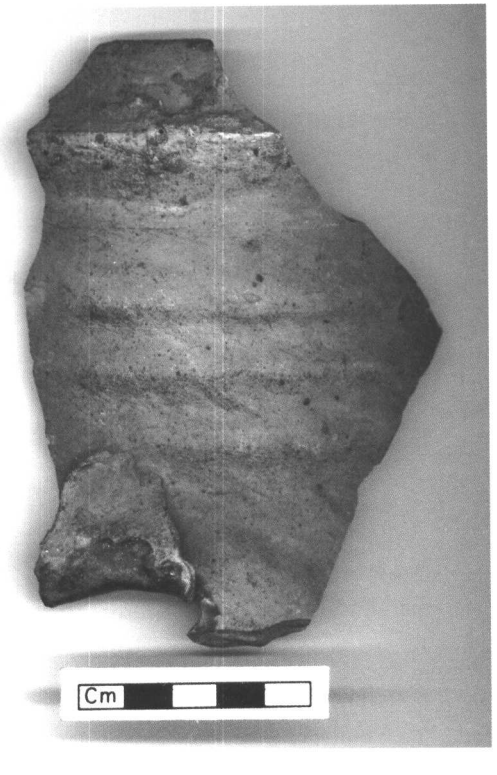

Plate 7: Irregular hole through the wall of a vessel with an external flap of clay (see Fig 5.13).

Red/purple body		White/buff body	
Base diameter (mm)	*No. of examples*	*Base diameter (mm)*	*No. of examples*
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**

Table 3: Cistern base diameters.

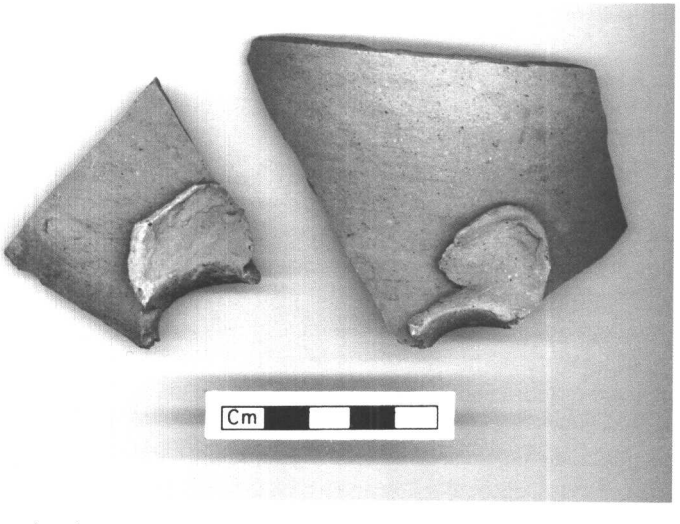

Fig. 8: Irregular holes showing external flaps of clay.

Jar 9 (Fig. 5.13), also has a distinctive lid-seated rim but this is everted and the jar form seems to be barrel-shaped rather than parallel-sided, as in the case of Jar 1.

As mentioned above, 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 pottery manufacture.

Redware

Two groups of material within the assemblage are described as Redware. One of these is characterised by a soft orange fabric and is represented mainly by bases and body sherds. The

Plate 9: Midland Purple ware small, upright jar with lid-seated rim and internal flange (see Fig 4.4).

second is much harder and denser in appearance although it is still a bright orange colour. This is associated mainly with distinctive pancheon rims (Figs 4.2 and 4.3). 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. Fabrics of some examples of this latter group are much closer to Midlands Purple ware fabric than they are to Redware fabric (the example shown on Fig. 4.2 being one such), adding further to the ambiguity of the significance of fabric variations within the assemblage.

It is quite possible that the potters were producing softer Redwares, as well as 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 study of this particular assemblage. Many 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.

Pancheon rims are unusual in having a pronounced internal ridge separating the rim (usually a hammerhead form) from the body (Figs 4.2 and 4.3). 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 seems to be a higher proportion of non-crystalline grit. White streaks typical of Midlands Purple ware fabrics are also present in orange fabrics but are not as visible as they are in the darker red to purple fabrics. This,

together with the fact that some distorted and more heavily over-fired pancheon rims are in extremely hard, dense and homogeneous fabrics, as well as purple in colour, suggests that fabric variation 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.

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 (Figs 5.10, 5.11 and 5.13) 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.

Jar 7 and Jar 8 vessels are distinguished by their parallel-sided form with a rim separated from the body by an external flange (Figs 5.10, 5.11 and 5.13). Cut-outs on the rim are a common feature of the type.

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 1mm) grains of dark red, non-crystalline grit.

Initially, these sherds were believed to be a more or less random occurrence related to variable effects of the firing atmosphere, compounded by the abundant evidence for over firing seen in the assemblage as a whole. However, as 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 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 cistern bases identified, fourteen are in the buff to cream coloured fabric (listed in Table 1 as MPw type) and have the irregular, poorly-finished spigot holes described above (Plates 7 and 8). The contrast with the more typical spigot holes can be judged by comparing these plates with the example shown in Plate 6. Although not all purple-glazed examples have properly executed spigot holes, the numbers are very low, while none of the buff to sand coloured examples has the better finished spigot hole.

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 made specifically as saggars, with the irregular holes designed to allow hot gases to circulate around smaller pots placed inside during firing.

This explanation may be partially supported by the evidence of a rim sherd of a Cistercian ware cup, which was found adhering to the inside of one of the buff-white sherds (Fig. 5.17). 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, i.e. immediately above the base of the vessel. Nor is there any specific evidence of the manufacture of vessels solely for use 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 evidence from the more conventional red to purple Midlands Purple ware vessels from Calke Abbey in the form of sherds of smaller vessels stuck to the inside of larger vessels suggests that this was also the case here. This evidence is hardly consistent with manufacture of a specific type of pot for use solely as a saggar.

Roof tiles

The fabric of roof tiles from the site 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 (Table 4). 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. Arched ridge-type tiles have an applied and impressed spine along the highest point of the arch and one has a shallow impressed wavy line on the glazed side (Plate 10) (*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.

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**			

Table 4: Quantification of roof tile

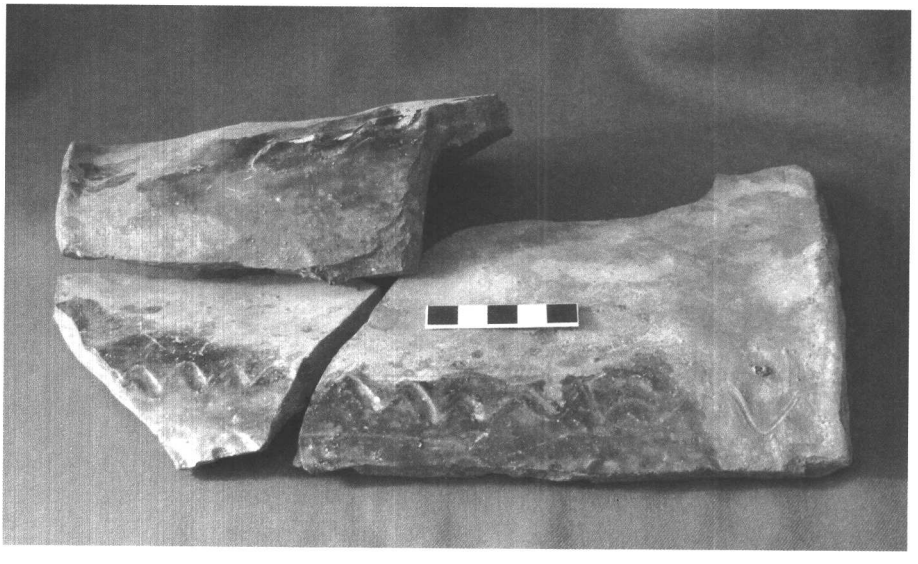

Plate 10: Glazed roof tile showing impressed spine or crest (top) and incised wavy-line decoration.

Plate 11: Redware pot disc (internal view).

Other objects

Few other objects were noted amongst the assemblage. Only one pot disc was identified (Plate 11), 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.

Chronology

Dating of the assemblage presents a number of problems and general points made by Boyle and Rowlandson (2006-8), with reference to material from Church Lane, Ticknall, are as applicable to this assemblage as they are to Church Lane.

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 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 and Rowlandson (2006-8) 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 identification of similar vessels from a context or contexts of demonstrable date.

Characteristics of the assemblage (the limited range of ware 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.

Catalogue of illustrated pottery (Figs 4 and 5)

1	Chafing dish; splayed pedestal base with handle attachments on stem
2 & 3	Pancheon, hammerhead pancheon rims with internal flange.
4	Jar 1, parallel-sided squat jar with lid-seated rim (Plate 9).
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 (Plate 4).
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 (Plate 6).
13	Cistern profile, rim of cistern-like jar with poorly made irregular spigot hole; *cf.* Jar 7 & Jar 8 (Plate 7).
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.

CONCLUSION

By Christopher Cumberpatch and David J Leigh

The watching brief, undertaken during installation of a new water main to Southwood House Farm, revealed a single pit containing over-fired and damaged sherds from a range of pottery types: Midlands Purple ware, Cistercian ware, Buff and Creamware and Redware, dated between the late 15th and 16th centuries. This pottery assemblage is an important one as it consists almost entirely of waste material from pottery manufacture, a waster dump of vessels damaged during the firing process and post-firing activities. Pottery manufacture was 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 (as 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 at Southwood Farm, 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 lack of previous development in this area would suggest that the kiln(s), and other associated features, may be well preserved and thus of significant research value, once located.

Only part of the located pottery 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 identification of more joining sherds to provide full vessel profiles, while further or total excavation of this single waster pit would produce an even larger primary assemblage of the wares produced at this single pottery.

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