Ash House Farm
Arbourthorne, Sheffield
South Yorkshire

Archaeological Investigations
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George Wimpey South Yorkshire Ltd

Ash House Farm

Arbourthorne, Sheffield

South Yorkshire

Archaeological Investigations

Summary

An archaeological evaluation by trial trenching and a strip and record exercise investigated the former farmstead and adjacent land. While the trial trenching was largely negative, the strip and record revealed the foundations of the 18th-century farmhouse and 17th-century timber-framed barns that were demolished in 2004 following building recording. A stone-built cellar was located below the 18th-century farmhouse that may represent an earlier dwelling contemporary with the barns. Pottery from the cellar backfill suggests this was demolished in the mid to late 18th century. A contemporary stone-constructed waterhole or well and a large circular below-ground cold store were located close to the house. The latter was later converted into a soft water tank before backfilling in the late 19th century. Other features included gullies, boundary walls and culverts all contemporary with the farm.

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1. Introduction

1.1 Archaeological Services WYAS (ASWYAS) was commissioned by George Wimpey South Yorkshire Ltd to undertake a series of archaeological works at Ash House farm, Myrtle Road, Sheffield (NGR SK 3615 8495) in advance of a proposed housing development. An archaeological planning condition was placed on the site and the South Yorkshire Archaeology Service (SYAS) requested archaeological mitigation. The initial stages of archaeological mitigation were agreed with acting archaeological consultant Ian Rowe of Signet Planning, Harrogate, on behalf of George Wimpey South Yorkshire Ltd.

1.2 The site comprises an area of land measuring approximately 4.5 hectares and is located *c.*1.5km to the southeast of Sheffield City Centre (Fig. 1). The site lies at between approximately 130m and 150m above Ordnance Datum with a general interrupted slope on the site down towards the northwest. The site at the time of investigation consisted of three broad areas: the central farm site 'Ash House' (formerly Ash Farm), which forms a cleared area of *c.*0.5 hectares where former farm buildings were situated; an overgrown area of *c.*2 hectares to the north, east and south of the farm site; and a playing field area to the north-west (Fig. 2). The buildings on the farm site had recently been demolished and the area consisted of a levelled surface of stone and made ground with some undergrowth towards the periphery. The open areas to the east of the farm site comprise areas of long grass, undergrowth, thickets and dumped building and household waste. The playing field area was a flat, levelled area covered with tufty grass with some undergrowth and small trees. The area was stepped into the slope during construction and is retained by large stonewalls fronting on to Myrtle Road and the farm access road to the north.

1.3 Three phases of archaeological investigation were undertaken at Ash House farm:

Phase 1: Geophysical survey (and aborted earthwork survey);

Phase 2: Excavation by trial trenching, strip and record exercise;

Phase 3: Continued excavation.

1.4 The soils of the area are unclassified within an urban area (Soil Survey of England and Wales 1983) and the solid geology is Lower Coal Measures (British Geological Survey 1974).

1.5 The work was carried out between 5th July and 4th November 2005.

2. Historical and Archaeological Background

2.1 The site lies within the bounds of Sheffield's former late medieval deer park that was situated to the southeast of the town. The park was nearly 10km^2 (13km in circumference) and was a rounded rectangle in shape (Jones 2003, 36). Centred on the Manor Lodge, a 16th-century house where Mary Queen of Scots was periodically imprisoned, the park began to be broken up in the early 17th century.

2.2 The first cartographic depiction of the park is based on a terrier compiled by John Harrison in 1637, although the original accompanying map does not

survive. Scurfield (1986, figure 3) has redrawn the map from the information in the terrier providing the most detailed plan of the Sheffield area around the time of the first break up of the park (Fig. 3). Ash Farm, later Ash House, is not listed in the 17th-century terrier, but was later located in an area known as Heeley Side, on the top of the steep north-west facing slopes towards the park's southern boundary. The southern boundary of this farm was along the line of the former park boundary, indicating that it still formed a significant boundary in the later 17th-century landscape. The area named Newfield Grange in the 1637 survey, which fell outside the park boundary to the south, was also later included in the farm. Access to the early farm was gained from Heeley Green to the south-west via what was to become Myrtle Road, and to the south lay Heeley Common. The 1637 map shows that the later Spurr Lane or Myrtle Road also followed the line of the park boundary down the hill to the River Sheaf, and along the path of the later Bramall Lane towards Little Sheffield Moore and the town.

2.3 The land use in the park at the time of the early 17th-century survey included woodland, pasture, meadow and arable, with the latter concentrated in the west towards the town (Scurfield 1986, figure 3). The large area of Heeley Side was given over to common land and also contained coal pits. Scurfield (1986, 163-5) describes the three main agricultural land subdivisions in the Sheffield area as; *Demesne*, the area retained by the manor including quarries etc. which still formed the main central and eastern part of the original park; *Towne fields,* which comprised the ridge-and-furrow and allotments or strips located outside the park; and *Farms and small-holdings,* that were located mostly in the western area of the park adjacent to the town. More than one third of the park had been let to tenants by this time (Jones 2003, 36).

2.4 Of the 63 farms and small holdings greater than 20 acres listed in Harrison's 1637 survey in the Sheffield area, only nine (14%) were between 100 and 200 acres (Ash Farm was later 126 acres), with a further six greater than 200 acres only with the inclusion of large areas of pasturable woodland (Scurfield 1986, 165-6). Whilst the establishment of Ash Farm was several decades later, the pattern of land use is unlikely to have altered greatly. The patchwork pattern of land use described in the 1637 survey probably extended gradually across the remainder of the *Demesne* during the mid to late 17th century as the park became farmland.

2.5 A building recording survey and archaeological assessment by ASWYAS demonstrated that the original barns on the farm site dated to the late 17th century (Swann 2005). The study also included a map regression exercise using the available historical cartographic information and an archaeological watching brief whilst the structures were demolished. The original timber-framed barns (Barn 1 and Barn 2, Fig. 2) were dated by dendrochronology to 1665-70 based on the felling dates for the structural timbers. The timber parts of the barns had later structural additions including stone cladding dating to the mid 19th-century, and a series of low early 19th-century stone sheds abutted Barn 1 to the northeast. The three-storey farmhouse, latterly known as 'Ash House' and located to the east of Barn 1, was dated to the 18th century and presumably replaced an earlier farmhouse that had accompanied the 17th-century barns. The later farmhouse had a cottage added to the north and a range of two-storey utility rooms to the east. Constructed from stone, the main

house also had a stone-vaulted cellar. The survey highlighted the possibility that remains of the earlier farmhouse might survive.

2.6 The first detailed plans of Ash Farm date to the late 18th century (Fig. 4). Two plans, probably dating to within a few years of each other, depict the extent of the farm and associated fields let by the Duke of Norfolk to tenant Thomas Sheldon (She SD718 and She D719, Fig. 4). Both are unfortunately undated, and the surveyor is unknown, but are thought to date to around 1776. The first, which has not been reproduced here, is very similar to that reproduced in Fig. 4, although a slightly earlier date is proposed. This is due to the inclusion of 'Berry Storth Wood' in the earlier 1637 terrier and on this map, compared to its absence from the second late 18th-century map (reproduced in Fig. 4). In this apparently later version, the wood is named Paddock Wood after the farm to the east, which is also shown on the later 1795 map (Fig. 5). Nevertheless, both early maps show the triangular-shaped area of sixteen fields with the Ash Farm complex in the western corner. The lay out of buildings, showing an 'L' shaped series of barns and farmhouse and garden to the east, is consistent with the later 19th-century maps suggesting little change to the main buildings after the late 18th century. It is unclear whether the original 17th-century lease consisted of the same area of fields as in the late 18th century, but a major change in boundaries seems unlikely.

2.7 The references on the two early maps state that the farm covered a large area of some 51 hectares (126 acres, and 31 perches). Field names give some clues as to the type of farming undertaken at the time, with two Ox pastures (field 4 and 5, Fig. 4) to the north-east of the farmhouse, another pasture field (field 10) to the east, and Far High Field with the woody pasture (field 16) in the far south-east corner of the farm. Woody pasture may be a reference to the woodland grazing of animals such as pigs or cattle, a common medieval practice, but which almost certainly continued on a smaller scale into the 17th and 18th centuries in the Sheffield area (Scurfield 1986, 157).

2.8 The Fairbank map of 1795 shows the area of the former park to consist of dispersed farms and patchwork of fields (Fig. 5). Some more major farms are named on the map, including The Farm, Park Grange and Paddock Farm, and there are at least another fifteen smaller farms including Ash Farm that are depicted but not named. The field pattern indicates isolated farmsteads were established as the result of enclosure. In the case of Sheffield Park, the enclosure was the result of the break up of the park, and a need to provide an income for the Duke of Norfolk through rent, and not the state-directed enclosure of land that was common in nearby Derbyshire and West Riding of Yorkshire (Hoskins 1955, 177f), although this may have had an influence over later field development. This map also shows the new turnpike road to Worksop and Mansfield that traverses the park to the east of the site.

2.9 The more detailed early 19th-century maps of Sheffield do not extend as far as Ash Farm and the first edition Ordnance Survey map surveyed between 1850-1 is the first map from this period to cover the area (Fig. 6). This shows the same field pattern as in the later 18th century and it seems likely, but cannot be demonstrated, that the farm held the same boundaries. More barns had been added to the farm and the farmhouse was extended. A small sandstone quarry is depicted to the south-west of the farmhouse, probably for the construction of

local or farm buildings and boundary walls. There is some piecemeal development in the Heeley area to the south of the farm and The Ball public house has been constructed in the far western corner of the farm. By the late 19th century, the area of the farm is still little changed (Fig. 7), although a recreation ground in the field to the north-west of the farmstead is recorded. This was constructed by cutting into the natural slope at the top and making up the area, supported by a large stone retaining wall adjacent to Spurr Lane. This was an early training ground for Sheffield United football club. Minor changes to the farm fields include a rifle range and flag staff in the central area, and the fields in the north are by then labelled 'Black Bank' and appear more wooded. The continued development of Heeley to the south is also evident.

2.10 The Ordnance Survey revision of 1921 indicated that significant changes had occurred to the farm by this time (Fig. 8). It shows the new roads laid out for the Arbourthorne Estate in the central and eastern parts of the farm. The 1948 Ordnance Survey revision (Fig. 9) clearly indicates the scale of the development in this area during the first half of the 20th century. It was during this development that Paddock Farm, probably of similar age to Ash Farm, was demolished. Much of the farm's land had been converted into large housing estates by this time, although the area known as Black Bank remained untouched. The developed areas adjacent to the farmstead, which by 1948 was reduced to a very small area, consisted of pre-fabricated houses which were replaced with more substantial dwellings in the 1970s and 1980s (Fig. 2). The houses in the corridor of land to the north-east of the farmstead were demolished by 1973 and the area was returned to open ground. The quarry to the south-west of the farmstead was backfilled in the late 20th century (Swann 2005, figure 7).

2.11 Ash Farm, now Ash House (Fig. 2), and its outbuildings remained the sole survivor of the early Sheffield Park farmsteads until their demolition in 2004. Farm buildings dating to pre-1750 are generally rare in England, and especially so in the north (Barnwell and Giles 1997, 146). This is particularly the case with barns, as early structures were often less well constructed and were less accommodating to the changes in agriculture. If buildings could not be adapted then they were often demolished. While the farmhouse was replaced in the 18th century and new sheds were added to the barns in the 19th century (Swann 2005), the late 17th-century barns remained. The original function of the barns is likely to have been for crop processing and storage, with their use for over wintering animals probably occurring later (cf. Barnwell 1998). The longevity of the Ash House barns suggests that they were adapted as the requirements of the farm changed. The later stone cladding of the walls obscured the earlier timber frame and the original use of the barns remains unclear, but the blocked windows in the upper stone walls of the barns hints at possible conversion (Swann 2005).

2.12 Geotechnical investigations have recently been carried out on the development site (JPA 2004, 2005). Trial pit results from the playing field area revealed large depths of made ground in the northwest part, which was in excess of 4m in one instance (JPA 2005). The area to the south towards the site of the old pavilion recorded very shallow made ground, mostly topsoil, overlaying solid bedrock. The reports indicate that the area has been subject to a cut and fill technique and a wedge of made ground was used to level the area (JPA 2004).

Investigation of the farmhouse site generally revealed thin layers (*c.*0.1m average) of topsoil or hardcore that overlay sandstone (JPA 2004). Some made ground was encountered but the well remained elusive (JPA 2004, 2005). The former quarry area to the southwest of the farmhouse site was found to be backfilled with made ground up to 4.3m deep (JPA 2004). Various made ground or topsoil deposits were located in the remainder of the site, which in places overlay orange/blue clay and was between 0.25m and 1.10m deep (JPA 2004).

2.13 The farm buildings were not listed and were demolished in 2004 as part of the present development.

3. Objectives and Methodology

3.1 Geophysical survey

3.1.1 General objectives of the geophysical survey were:

- to investigate the archaeological potential of the grassed area to the south-east of the farmhouse site;
- to establish the extent and character of any such archaeological interest within the limits of the defined areas.

3.1.2 The geophysical survey was carried out on 5th July 2005. The survey was made difficult by vegetation that had grown up since a site visit a few months previously. Due to this excessive vegetation, only certain areas of the site were available for survey and even then it was considered dangerous to complete the survey. Conditions underfoot were unknown, so a slower recording and storing of geophysical data was undertaken in the accessible areas.

3.1.3 As a result, only three 20 by 20 grids were surveyed in the middle of the area where frequent dog walking had flattened the vegetation and obstructions were more visible (Fig. 10).

3.1.4 The objectives were to be achieved by undertaking detailed magnetometer survey of the three areas to be affected by the proposed groundworks. Detailed survey employs the use of a sample trigger to automatically take readings at predetermined points, typically at 0.25m intervals, on traverses 1m apart. These readings are stored in the memory of the instrument and are later downloaded to computer for processing and interpretation. Detailed survey allows the visualisation of weaker anomalies that may not be identifiable by magnetic scanning.

3.1.5 During this evaluation, a team of two geophysicists used a Bartington Grad601 magnetic gradiometer, taking readings on the 0.1nT range at 0.25m intervals on zig-zag traverses 1m apart within 20m by 20m square grids. The instrument was checked for electronic and mechanical drift at a common point and calibrated as necessary.

3.1.6 The survey methodology, reporting and any recommendations comply with guidelines outlined by English Heritage (David 1995) and by the IFA (Gaffney, Gater and Ovenden 2002).

3.1.7 The processed (greyscale) and unprocessed (XY trace plot) data, together with accompanying interpretation diagrams, are presented in Figures 11 and 12.

Figure 13 shows the processed magnetometer data superimposed onto a digital map base. All are at a scale of 1:1000.

3.1.8 Technical information on the equipment used, data processing and magnetic survey methodology is given in Appendix III.

3.2 Earthwork survey

3.2.1 The general objective of the earthwork survey was to record the extent and form of an earthwork bank situated on the southern boundary of the site along the line of the former park boundary.

3.2.2 The survey was attempted using a series 600 Geodimeter total station at the time of the geophysical survey, although due to high and dense summer vegetation it was abandoned. Furthermore, the bank appeared modern in origin and controlled machine excavation adjacent to Trench 2 to test this hypothesis was agreed with SYAS. Further investigation formed part of the later trial trenching phase when the area was carefully cleared of vegetation with the mechanical excavator.

3.3 Trial trenching

3.3.1 General objectives of the trial trenching were:

- to test the results of the previous geophysical survey;
- to investigate the earthwork bank with a controlled machine-excavated section, and complete the earthwork survey if necessary;
- to investigate the archaeological potential of the open area to the north and south-east of the farmhouse site;
- to establish the extent, character and date where possible of any archaeological features.

3.3.2 A 5% sample of the eastern open area (1.76 hectares) of the site was requested by SYAS. This was investigated by thirteen trial trenches with a total area of 880m^2. The trench locations were proposed by ASWYAS in the project design (Appendix I) and agreed by SYAS.

3.3.3 The trial trenches were initially laid out using a Trimble Geoexplorer GPS instrument. Slight changes to trench locations were required in the field due to public rights of way and the location of the boundary fence. Trenches were later re-surveyed using a Geodimeter total station and tied into fixed reference objects after excavation. Trenches were scanned with a below ground cable detector prior to excavation. Levels were obtained from the benchmark on the Ball Inn pub and were transferred using a dumpy level to the nearest total station survey station. Survey stations were then used as temporary benchmarks around the site.

3.3.4 Trial trenches were excavated under archaeological supervision using a 360-degree rubber-wheeled mechanical excavator fitted with a toothless bucket. The overburden of each trench was removed in spits to the first archaeological horizon or natural ground. Made ground layers were removed carefully by machine. Spoil was stored adjacent to the trench. Open trenches were secured with fencing. Trenches were then hand cleaned and features were hand

excavated in accordance with ASWYAS standard methods (ASWYAS 2006) and the requirements set out in the project design (Appendix I).

3.3.5 Trench 2 was extended to the south-west after consultation with SYAS. This provided a section across the bank along the line of the park boundary. The bank proved to be modern and as a result, an earthwork survey of the feature was not undertaken.

3.4 Strip and record

3.4.1 The site consisted of a levelled area where the farm buildings had been demolished, with spreads of demolition material and vegetation in places. The strip and record exercise was carried out with the same mechanical excavator as in the trial trenching. The overburden was stripped under supervision and the spoil was removed from the area by a dumper and stored in the playing field to the north-west. Although some of the trees and vegetation had been removed during the demolition of the farmhouse and barns, several large trees, a hedge line and the overgrown edges of the site reduced the size of the area to be stripped. An easement of several meters was left around the mature trees, and a small area towards the access track was left due to a telegraph pole and site facilities. A total of 0.36 hectares was stripped.

3.4.2 The overburden was removed by machine in spits to the top of the natural or the first archaeological feature or horizon. Features were then cleaned and excavated according to the guidelines stated in the project design (Appendix I) and to ASWYAS standard practice (ASWYAS 2006). The site was planned using a Geodimeter total station, and detailed drawings of discrete features or samples of features (such as walls) were made. Potential cut features were test excavated to investigate their authenticity.

3.4.3 Three features required further investigation at the request of SYAS and a methodology was outlined in a Statement of Intent (Appendix II). This made provision for the full excavation of the privy, the former farmhouse cellar and the below-ground cold store. It included the requirement to take bulk environmental and palaeo-environmental samples from waterlogged deposits. Controlled machine excavation of the backfill deposits within the below-ground cold store was agreed due to its potential depth. This was carried out with the use of a JCB wheeled excavator fitted with a small toothless bucket under archaeological supervision. The excavation areas were secured with fencing and the excavation was tied into the existing site survey. Upon completion, the excavations were backfilled and left in a safe manner.

3.5 General

3.5.1 ASWYAS produced a project design at the request of SYAS that outlined the methodology for Phase 2 (Appendix I). This was later updated by a statement of intent for Phase 3 (Appendix II). Dinah Saich of SYAS monitored the work.

3.5.2 The site archive contains all the information gathered during the investigations, which is indexed in Appendix IV. Inventories of contexts, artefacts recovered and samples taken are given in Appendices V, VI and VII. The paper archive resulting from the investigation is currently stored by ASWYAS and will be deposited with the relevant body, within a timescale agreed between ASWYAS and the recipient museum.

3.5.3 All figures reproduced from Ordnance Survey mapping are done so with the permission of the controller of Her Majesty's Stationery Office. © Crown copyright.

4. Results

4.1 Geophysical survey (Figs 10-13)

4.1.1 The results of the geophysical survey are shown as a greyscale plot in Figure 11 with XY trace plot in Figure 12. The interpretation plot is shown in Figure 13. The results for the surveyed area show 'iron spike' anomalies that are consistent with ferrous debris. Such debris is visible in the vicinity as the site has been used as an extensive dumping ground for household and building waste.

4.1.2 The unsurveyed area within the southeast area of the site was considered to be of low potential due to the high frequency of ferrous material, fly tipping and building waste.

4.1.3 The results of the limited geophysical survey were negative, but this does not necessarily indicate the absence of buried archaeological features as they may have been masked by the spreads of material.

4.2 Earthwork survey (Fig. 8)

4.2.1 The earthwork survey of the former park boundary bank situated on the southern boundary of the site was attempted within Phase 1, but again due to a recent increase in dense undergrowth vegetation the bank was not accessible. Further investigation of the bank was undertaken as part of the trial trenching phase, when after consultation with SYAS a machine section of the bank was excavated under archaeological supervision (Section 4.3.4). The bank was found to be a modern bund containing concrete, demolition rubble and rubbish. It is likely to date from the demolition of the prefabricated houses to the north-east or the construction of the low rise flats to the south during the late 20th century.

4.3 Trial trenching

4.3.1 The locations of the trial trenches are shown in Figure 2, and a more detailed location plan of Trenches 1-10 is shown in Figure 14. Selected trench plans, sections and all features are shown in Figures 15-18.

4.3.2 When present, the subsoil varied between mid yellowish brown and mid to dark orangey brown silty clay. The variation was due to the changing natural which was either weathered fragmentary sandstone bedrock or orange blue clay.

Trench 1 (Fig. 15)

4.3.3 Trench 1 was located along the south-west edge of the site to investigate the line of the former park boundary, although it was moved slightly to the north-east due to a public right of way. The 25m by 4m trench was an average of 1.10m in depth revealing a thin 0.1m thick turf line (283) overlaying a deep layer of made ground (284). This consisted of a mid yellowish brown silty clay layer with occasional brick and sandstone fragments and charcoal flecks that overlay Wall 285. The wall was roughly constructed and was only

exposed in the section of the trench for a length of 7.9m (Fig. 15, S.56). Constructed from roughly hewn sandstone blocks, three courses high in places, the wall seemed to represent a continuation of the farmhouse site boundary marked on the Ordnance Survey map of 1921 (Fig. 8). The wall probably dated to the late post-medieval period, although no direct dating, in terms of artefacts, was recovered from the trench. No other archaeological features were located.

Trench 2

4.3.4 Trench 2 was located along the south-west edge of the site to investigate the line of the former park boundary. Orientated north-west to south-east, the trench was extended to the south-west to investigate a bank that followed the line of the boundary. Dense undergrowth and fly tipping had to be removed prior to excavation. The trench was excavated in stages due to a public right of way. One half of the trench was excavated, inspected and backfilled, before the other half was investigated (Plate 1). The section across the bank was excavated last after the main trench had been backfilled so that the mechanical excavator could be aligned perpendicular to the earthwork.

4.3.5 The 25m by 4m trench was 0.4m deep on average and revealed a 0.15-0.2m layer of topsoil. This overlay a 0.1-0.2m layer of subsoil which was above the weathered sandstone natural. No archaeological features or finds were located. The 1.5m high bank consisted of demolition rubble and topsoil, and was part of a modern bund.

Trench 3 (Fig. 16)

4.3.6 Trench 3, 25.5m by 4m, was positioned in order to evaluate the potential remains of a linear trackway depicted on the historical maps (Figs 6 and 7). Orientated north-east to south-west, the trench was excavated to an average depth of 1m revealing a thin turf line (167) which overlay layer of made ground (168) that was similar to that identified in Trench 1 (Fig. 16, S.21). This overlay a buried topsoil layer (169) of firm dark brownish grey clay silt. This in turn overlay a layer of subsoil (170) which was above the orange/blue clay natural (171). Two rough stone land drains cut the subsoil and were observed traversing the trench on a north-west to south-east alignment. A continuation of these was located in Trench 6.

4.3.7 The subsoil natural horizon also revealed a shallow linear gulley (164) and associated possible post-holes (160 and 162) that appeared to be of relatively recent origin. An isolated squared pit (166) was also excavated. The linear gulley was on a north-west to south-east alignment and appeared to butt end near to post-hole 160. At *c*.0.6m wide and 0.1m deep the gulley had a shallow concave profile and was filled by a light yellow brown silty clay fill with occasional small pebbles (163). This fill was cut by a small sub-circular post-hole (162, a relationship that was visible in plan) that was a maximum of 0.25m in diameter and 0.07m deep. Post-hole 160 was 0.5m in diameter and contained the partially rotted remains of a rounded post within the fill (159) suggesting a recent origin. The square pit (166) measured 0.25m by 0.2m and was only 0.07m deep, and appeared to be recent in date.

Trench 4 (Fig. 17)

4.3.8 Aligned east north-east to west south-west, Trench 4 was positioned in order to investigate the presence of a linear trackway depicted on the historical maps (Figs 6 and 7). The trench was extended at its north-eastern limits, after consultation with SYAS, to investigate a possible ditch feature. As a result, the trench measured 27.5m in length and 2.25m in width. A sequence of overburden was encountered consisting of a thin turf line (100) above a layer of made ground (117) that was thicker towards the east north-east end of the trench (Fig.17, S.7). This covered a thin buried turf layer (118) and subsoil (119), which represent the former ground surface. The natural consisted of clay and weathered sandstone (120).

4.3.9 An irregular ditch-like feature (111/113, Fig. 17, S.3 and 4) was investigated at the east north-east end of the trench (Plate 2). This was initially thought to be a curvilinear ditch and the trench was extended to investigate it further. Upon hand excavation, however, it became apparent that the feature represented a probable tree bole that may have been cut by a small pit 115. The cut for the possible pit was only partly visible in plan and no dating evidence was obtained. The bulk soil sample from the pit fill 116, however, contained small quantities of hazel wood charcoal and hammerscale (see Section 6.3.5-6.3.6). The later may indicate industrial activity in the area or represent 'background noise'.

Trench 5

4.3.10 Trench 5 was located adjacent to the south-east boundary of the site to investigate the archaeological potential of this area. Aligned north-east to south-west, the trench was 24.75m long and 2.15m wide and was 1.2m deep on average. The same sequence of modern overburden was encountered with layers of topsoil, made ground and a buried topsoil totalling a maximum 1m deep. A stone land drain traversed the south-west end of the trench on a north to south alignment. No archaeological features or finds were observed.

Trench 6 (Fig. 18)

4.3.11 Trench 6 was located in the central southern area of the site to investigate the anomalies recorded during the limited geophysical survey (Fig. 10). The north-east to south-west orientated trench was 26m in length, 2.25m in depth and between 0.5m and 0.75m in depth. Two parallel stone land drains (104 and 108, Fig. 18, Plate 3) were observed below the topsoil (100) and cutting the subsoil (109) in the central area of the trench. The same land drains were also encountered in Trench 3 to the north-west. The geophysical anomalies in the area of Trench 6 were apparently caused by recent ferrous material in the topsoil.

Trench 7

4.3.12 Aligned north-west to south-east, Trench 7 was 25.3m long and 4m wide and a maximum of 1.6m deep. It was located next to the south-east boundary of the farmhouse site to investigate the archaeological potential of this area (Fig. 14). Excavations revealed a thin turf line (121) which overlay a deep layer of made ground (122) that was up to 0.9m deep and formed a broad modern bank of material to the south-east of the farm compound. The made ground was above a thin buried turf layer (123), which in turn overlay a 0.3m deep subsoil layer

and natural clay. Apart from four recent land drains that traversed the trench, no archaeological features and finds were observed.

Trench 8

4.3.13 Trench 8 was positioned in the eastern area of the site to investigate the archaeological potential of this area (Fig. 14). It measured 24m in length and was 4.1m in width and was *c*. 0.6m deep. This area had largely avoided the layers of made ground seen elsewhere on the site and revealed a 0.2m deep topsoil layer (126) which overlay subsoil (127) 0.3m deep. This overlay natural clay (128). The edge of a 0.37m deep layer of made ground (129) extended into the north-west end of the trench overlaying the subsoil and probably represents recent disturbance. Apart from the two recent land drains that traversed the trench, no archaeological features were observed.

Trench 9 (Fig. 15)

4.3.14 Trench 9 was located in the far eastern area of the site and encountered deep layers of made ground (Fig. 15, S.11; Plate 4). The trench was originally intended to measure 25m by 2m, but had to be extended by 2m to allow the sides to be stepped due to a depth of 1.9m. A layer of topsoil overlay a deep 0.75m thick layer of made ground (137) which was above a buried topsoil layer (138). This overlay a second 0.8m thick levelling layer which was cut by five modern drains and a manhole. This layer overlay a second buried topsoil layer (140) which represents the original ground surface and was above a 0.2m thick subsoil layer (141). Below this the natural consisted of blue-orange clay (142). No archaeological features were observed.

Trench 10

4.3.15 Orientated east to west, Trench 10 was used to investigate the north-east area of the site. The trench was 25m by 2m and a maximum of 0.75m deep revealing a 0.5m thick layer of topsoil (143). This overlay a modern layer of demolition material (144) in the western end of the trench that was 0.5m thick and most likely derived from the post-war housing that once occupied the area. This was above a 0.25m thick layer of subsoil (145) which overlay the natural weathered sandstone natural. No archaeological features were observed.

Trench 11

4.3.16 Trench 11 was also positioned to investigate the north-east area of the site. Measuring 25m by 2m, the trench was *c*.0.7m deep and revealed a 0.65m deep layer of topsoil (147) above a 0.2m deep subsoil layer (148). This overlay the natural which consisted of weathered sandstone bedrock with clay patches. Modern disturbances observed within the trench included a water pipe and a concrete foundation. The levels (OD) for the top and base of the north end of the trench were 141.49m and 140.81m respectively, and at the south end 143.96m and 143.26m. No archaeological features were observed.

Trench 12

4.3.17 Aligned broadly east to west, Trench 12 was 27.6m long and 4m wide and an average of 0.6m deep. A 0.3m deep layer of topsoil (150) overlay subsoil (151) 0.3m thick, both of which deepened to the west and were above natural. The levels (OD) for the top and base of the east end of the trench were 139.43m and 138.78m respectively, and at the west end 138.03m and 137.33m. The

trench was traversed by five modern service trenches and drains, but no archaeological features were observed.

Trench 13

4.3.18 Trench 13 was aligned east north-east to west south-west and was located in the far northern area of the site, although it was moved *c*.10m south due to a fenced public right of way. The trench was intended to be 15m by 2m, but was extended by 5m at the western end in an attempt to locate the edge of an area of modern disturbance. Excavation revealed a 0.4m thick layer of topsoil which contained the remains of a concrete path (153). This overlay a 0.25m thick layer of subsoil (156). Both the topsoil and subsoil were cut in the centre of the trench by a large sewer pipe trench (158) that was 2.5m wide, and at the west end by an extensive area of modern disturbance (155). The natural consisted of weathered sandstone. The levels (OD) for the top and base of the east end of the trench were 139.51m and 139.03m respectively, and at the west end 139.86m and 138.98 m. No archaeological features were observed.

4.4 Strip and record (Figs 2, 19 and 20)

4.4.1 A strip and record exercise was carried out on the farmhouse site. An overall schematic plan is presented in Figure 19 and a phased plan in Figure 20. Three broad phases of activity were identified:

Phase 1: Late 17th century (original farmhouse and barns);

Phase 2: 18th century (second farmhouse and associated features);

Phase 3: 19th century and later (later external features).

4.4.2 The phasing is based on datable artefacts and cartographic evidence, as well as the building survey with accompanying dendrochronology (Swann 2005). The results are discussed below by phase with reference to significant artefact assemblages. More detailed artefactual analysis and interpretation are presented in Section 5.

Phase 1: Late 17th century

4.4.3 Phase 1 consists of the 17th-century barns (Barns 1 and 2, Fig 20), which were recorded prior to demolition (Swann 2005) and an earlier cellar below the 18th-century farmhouse.

The barns (Figs 20 and 21)

4.4.4 The barn timbers were dated using dendrochronology to the late 17th century (felling dates of between 1665-70) and form part of the first phase of known activity on the site. Whilst the strip and record did investigate the area of the former barns, the focus was on the farmhouse site. The strip and record exercise revealed that most of the barn structures were removed during the demolition process along with the wall foundations. The remains of part of the external north-west wall (185) in Barn 1 measuring 6m in length and 0.65m in width, and part of an internal wall (187) in Barn 2 measuring 3.3m in length and truncated to 0.5m in width were identified (Fig. 21). The walls survived to 0.25m and 0.2m in height respectively and consisted of a single course of unshaped rough stone blocks bonded with lime mortar. These have been included in Phase 1 as they formed part of the barns, although they may represent later additions to the barns.

4.4.5 Several shallow post-holes containing decayed wooden posts were also identified within the barns (Fig. 21, Inset A). Two of these were excavated. Post-hole 221 was squared in shape and a maximum of 0.26m wide and 0.17m deep with a 'V' shaped base suggesting a pointed post (Fig. 25, S.41). The position of the post-hole within the wall line of Barn 2, along with two others, suggests they formed sockets for wall posts. Prior to demolition, wall posts were seen resting on large stone stylobates (up to 1.3m high) where rotten post bases were repeatedly trimmed and replaced by stones (Swann 2005). The original post may once have rested in a ground level socket. The unexcavated post-holes were approximately 0.2m in diameter and also filled with decayed wood. The second excavated post-hole 223 contained a brick fragment dating to the mid to late 18th century and which appeared to have been used as packing. This suggests the post-hole was later in date and should perhaps be associated with Phase 2.

The cellar (Figs 20, 22 and 24)

4.4.6 A large subterranean feature was identified below the eastern part of the demolished 18th-century farmhouse. Excavation revealed a small stone-built cellar that was bisected by an external wall of the later 18th-century property and backfilled during its construction. The cellar has been included in Phase 1, with its later abandonment assigned to Phase 2.

4.4.7 The cut for the cellar (230) was orientated north-west to south-east, was 3.55m in length, 3.2m in width and 1.3m in depth. The internal walls (231) were constructed from unshaped slabs of sandstone laid in rough courses and bonded with lime mortar. The cellar wall was faced internally, and smaller packing stones and mortar had been used to fill in the rear of the wall where it abutted the cut. The internal dimensions of the cellar were 2.05m by 1.75m. A thin layer of grey white lime plaster survived on the internal face of the cellar walls in places (Fig. 24, S.64). The level of the original ceiling was not evident, although it was probably vaulted, and the original floor had been removed. The point of access may have been above the alcove (278) in the south corner as the wall is wider here, but any possible step base was removed by the later wall. Internal features included a narrow 0.4m wide keeping shelf (277) in the north-east wall that was originally defined by a flat sandstone slab sill (272) of which only one stone survived (Fig. 24, S.64). The small alcove (278), 0.37m in width, 0.37m in height and 0.4m in breadth, was also recessed into the inner face of the south-east cellar wall (Fig. 24, S.62; Plate 6). No internal floor survived and it is assumed that this was removed before the later wall was constructed and the cellar abandoned. Unfortunately this precluded the survival of deposits relating to the use of the structure.

4.4.8 This cellar appears to represent the only remains of an earlier farmhouse, which was probably contemporary with the late 17th-century barns. The abandonment of the cellar, consisting of the construction of a large wall (238) through the centre and its backfill, has been dated to the mid to late 18th century (Plates 5, 6 and 7). This suggests that the original farmhouse was replaced in the second half of the 18th century (Phase 2) and is this is consistent with the mid 18th-century date proposed as a result of the building survey (Swann 2005).

Phase 2: 18th century

4.4.9 Phase 2 comprises the abandonment of the Phase 1 farmhouse (represented by the cellar) and the construction of a new dwelling on the same site, farmyard boundary walls, a culvert, and a gulley (Fig. 20).

Abandonment of Phase 1 cellar and new farmhouse (Fig. 22)

4.4.10 The cellar (230), associated with the Phase 1 farmhouse and barns, was abandoned by the late 18th century when a large stone built wall (238) was built through the centre of the cellar (Plates 5 to 7). This appeared to form part of an external wall for the later 18th-century farmhouse extension (Rooms G6 and F11, Swann 2005) that was constructed on to the side of the original core of the 18th-century farmhouse (Rooms C1, G7, G8, F12, F13, S15 and S16, Swann 2005). The wall was constructed from thinly coursed sandstone slabs bonded with lime mortar and was 1.32m in height, up to 0.75m in width and was bedded directly onto natural sandstone rock in the base of the cellar (Fig. 24, S.64). The floor slabs had been removed prior to the construction of wall 238. The later wall bisected the cellar and also turned at a right angle into the west corner of the cellar (Fig. 24).

4.4.11 Layers of backfill material filled the voids on either side of wall 238. These included relatively clean layers of mixed orangey clay material containing frequent small to medium sandstone fragments (240A and B). Above this on the north-east side a thin lens of black gritty charcoal-rich material (234) was overlain by a thin layer of light brown silt with occasional charcoal fragments, mortar flecks and moderate sandstone fragments. Above this was a more substantial 0.5m thick layer (232) of mixed light brown and grey gritty sandy clay material with frequent brick, sandstone, lime mortar and charcoal fragments. Similar deposits were encountered in the south-west part of the cellar, although lacking the thin intermediate layers.

4.4.12 All of the layers abutted wall 238 suggesting that they were tipped into the cellar after the wall was constructed. Both the upper layers 232 (on the north-eastern side of the wall) and 239 (on the south-western side) yielded a large assemblage of mid to late 18th-century pottery (Section 5.1). Clay tobacco pipe fragments recovered from layer 232 have a deposition date of between 1680-1880, while those from layer 239 date between 1640-1800 (Section 5.2). A copper half penny issued in 1694 with a loss date in the region of the mid to late 18th century (Section 5.7) was also recovered from layer 232. A forbuck scale tang table knife handle from layer 232 appears to date to the late 19th century (Section 5.5), although the popular design may be earlier in date. An upper cleaning layer for the cellar area (189) yielded clay pipe stem fragments dating to between 1800-1900.

4.4.13 The mid to late 18th-century date for the deposits that abutted wall 238 provide a *terminus ante quem* for the Phase 2 farmhouse. This is supported by the late 18th-century date proposed for an extension to the main farmhouse (Rooms G6 and F11, Swann 2005).

The farmhouse and associated walls (Fig. 22)

4.4.14 The farmhouse walls were reduced to the lowest course of stone or completely removed during demolition. Few sections survived and these are shown in Figure 22. A vaulted cellar below the central core of this building was

completely removed by machine during demolition and the area backfilled with made ground. The remains of two external walls within an area of former walled garden were recorded to the south-west of the farmhouse (244 and 251). Wall 251 was 0.9m in width, consisted of un-bonded slabs of sandstone and was unexcavated. Wall 244 was 0.55m wide and constructed from angular sandstone fragment bonded with a white flecked greyish purple clinker-based mortar (Fig. 27, S.48). The wall survived up to three courses high and was set within a square cut (243). The wall was abutted by a deposit of purple clinker (247) on the south-west side which may have been left over from making the mortar. The clinker is likely to have been a by-product from the Sheffield steel industries and imported onto the farm site. The deposit also contained late 19th-century pottery (Section 5.1). Interestingly, Wall 244 was originally topped with crozzle (Swann pers. comm.), a slag-like by-product from the cementation process in steel making. A small area of cobbles (252) survived to the south-west of wall 251, perhaps representing a path. Whilst undated, these structures have been included in Phase 2 due to their association with the 18th-century core of the farmhouse and the depiction of a walled area on the late 18th-century map (Fig. 4).

Farmyard walls (Fig. 22)

4.4.15 The remains of the foundations of several farmyard walls were identified (172, 174 and 176). The general location of these is shown in Figure 22 and a detailed sample plan and sections are shown in Figure 26. Walls 172 and 174 were dry stone walls, 0.74m wide and a maximum of 0.27m high, with up to four courses of angular sandstone slabs surviving (Fig. 26, S.35; Plate 8). The walls formed a corner and represented the boundary wall for the farmyard depicted on the late 18th-century map of the farm (Fig. 4). The corner was abutted by the remains of a less substantial stone boundary wall that appeared to have been robbed of stone material (176/211, Fig. 26, S.32) that continued to the south-east. This was also depicted on the early map. The walls appeared to fall out of use in the 19th century as the remains of the wall footings were overlain by a 0.1m thick layer of topsoil material which contained a George III halfpenny dating to the early 19th century (Section 5.7). The coin could well be residual, but the wall was not extant, especially the south-west section (174), when the building survey was undertaken (Swann 2005, Photograph 68). It is possible that the wall was demolished along with a small building that is depicted on the 19th-century maps (Fig. 6) in the east corner of the farmyard, which survived only as a scoop (178) in Phase 3 (Fig. 22). This may indicate that the farmyard was extended at some point in the 19th or 20th century and the original boundaries neglected.

Surface 229 (Figs 22 and 25)

4.4.16 An area of sandstone paving 3.95m in length and 1.6m in width was exposed to the north-east of the farmhouse. It consisted of squared sandstone flags 0.05-0.07m thick that were laid onto natural clay. The surface would have formed part of a yard area that was probably contemporary with the 18th-century farmhouse.

Culvert (Fig. 22)

4.4.17 A culvert (227) aligned north-west to south-east was exposed to the north of the farmhouse (Fig. 22, Plate 9). The culvert was exposed for a length of 9.8m, was cut by a modern drain and continued to the north-west outside the excavated area. It was set within a square, vertically-sided cut (227) with three courses of sandstone blocks laid along the sides to form walls (226) creating a central 0.23m wide channel (Fig. 25, S.50). Large sandstone slabs were used to cap the culvert and upon removal they revealed that the central channel was almost fully silted up. The fill (228) of the culvert yielded pottery dating from the late 18th century (Section 5.1). A layer of firm dark brown silt clay, which over lay the capping stones also contained 18th-century pottery. The pottery suggests that the culvert was constructed and in use during the 18th century and was contemporary with the Phase 2 farmhouse. The culvert sloped down to the north-west, draining waste water away from the house.

Gulleys 217 and 198 (Fig. 23)

4.4.18 A small linear gulley (217) was excavated in the east corner of the farmhouse garden (Fig. 23, Plate 10). A section revealed that the gulley had a concave profile, was 0.38m in width, 0.19m deep and filled by a single firm mid orange brown clay silt fill (218) and sherds of late 18th-century pottery (Fig. 25, S.37). Clay tobacco pipe fragments with a likely deposition date of between 1680-1780 were also recovered (Section 5.2). These suggest that the gulley dates to the late 18th century and may have been contemporary with the Phase 2 farmhouse. The gulley was orientated east to west and was truncated at the west end. It may represent a former boundary within the garden of the farmhouse.

4.4.19 A second linear gulley (198) was excavated in the central garden area and was similar in character to Gulley 217 (Fig. 23). At 0.47m wide and 0.11m deep, the concave cut was filled with a single light brown sandy silt fill (Fig. 25, S.24). The gulley was truncated at the north-west end and was undated, but is included here due to its similarity to Gulley 217. It too most likely represents a garden boundary.

Post-hole 223 (Fig. 21)

4.4.20 A single oval post-hole (223) was excavated within Barn 1. A section revealed a shallow concave cut 0.1m deep and a maximum of 0.32m wide, which contained a single fill (224) of decayed timber (Fig. 30, S.43). The post-hole was obviously truncated but the fill did yield sherds of 18th-century pottery (Section 5.1) and a fragment of a late handmade brick dating to the mid to late 18th century (Section 5.3). Due to the shallow nature of the feature the finds could be intrusive, but equally the post-hole may represent later structural additions to the late 17th-century barn.

Phase 3: 19th century+

4.4.21 This final phase is represented by features in the garden and farmyard (Fig. 20), including a cold store (191), waterhole (209, Fig. 23), scoop (178) and a spread of domestic waste (195, Figs 21 and 22).

Cold Store 191 (Figs 22 and 28)

4.4.22 A large circular subterranean structure immediately to the south-east of the farmhouse was investigated. The structure had two distinct phases. Firstly, it consisted of a large stone-built circular feature that was 3.9m in diameter and 1.76m in depth that may have functioned as a below ground cold store (Plate 11). The structure was then converted into a rectangular brick-built soft water tank (Plate 12) before its infilling in the late 19th century.

4.4.23 The cold store consisted of a circular internal stone wall of unbonded roughly coursed unshaped sandstone blocks and slabs (192, Fig. 28, S.26 and 57). The wall was set around a vertical cut (191), was 0.3m in width and 1.76m in height, and was constructed to lean slightly inwards. This may suggest that the store was covered by a dome or vaulted ceiling, although no evidence of this survived. The floor of the store (270) consisted of thin sandstone slabs up to 0.06m thick. Both the wall and floor were sited directly onto the natural sandstone. There was no evidence of any internal features to the cold store, such as a stone slab or keeping places, but these were likely to have been removed when the structure was converted.

4.4.24 Subsequently, the feature was used as a soft water tank (Fig. 28). This consisted of a rectangular brick constructed tank that was 2.8m in length and 2.4m in width (261). The walls survived to between 0.23m and 0.6m in height and consisted of two to five courses of mortared bricks. The walls were truncated so the original depth of the tank was unclear. The base of the tank (271) was firmly cemented to the floor of the earlier cold store. The internal faces of the tank walls and the base were covered in cement render that was commonly used in water tanks as a sealant. The bricks are machine made and date to after the mid 19th century (Section 5.3). The voids at the sides of the tank walls were backfilled with firm dark greyish brown sandy silt deposits (264, 265, 266 and 267) that yielded pottery dating to the late 19th century and clay pipe fragments dating to 1790-1900 (Sections 5.1 and 5.2). As a result, a construction date of the late 19th century is proposed for the water tank.

4.4.25 The final phase of the cold store consists of the infilling of the water tank with layers of stony backfill material (260, 259, Fig. 28, S.57). Both these layers contained pottery sherds dating to the late 19th century and clay pipe fragments dating to between 1780 and 1900 (Sections 5.1 and 5.2). The final infilling of the feature consisted of dark brown silty clay containing large significant assemblages of pottery, metalwork, glass and some animal bone and clay tobacco pipe fragments (194). The pottery assemblage contains a wide variety of domestic wares dating to the later 19th century (Section 5.1). The clay tobacco pipe assemblage contains a single bowl and stem fragments dating to between 1790-1880 (Section 5.2). The metalwork included galvanised buckets (Section 5.4) and leather objects indicated the moist conditions of the burial environment (Section 5.9). The glass items consist mostly of bottle fragments (Section 5.8). The animal bone assemblage consists of cattle and pig bones, indicative of food waste, as well as a cod mandible (Section 6.1).

4.4.26 The cold store has been included in Phase 3 due to the late 19th-century conversion into a water tank and backfilling. The original structure, although undated in terms of construction, may have been built in the 18th century and

have been contemporary with the second farmhouse (Phase 2), rather than a later addition.

Waterhole 209 (Fig. 23 and 29)

4.4.27 A sub oval feature was excavated in the south-east area of the farmhouse garden. The cut was 2.85m in length, 1.8m in width and excavated to 1.15m in depth and was lined with stone walls and slabs (Plates 13 and 14). These formed a roughly rectangular internal space with a slab floor and steps down at the south-west end. The feature was initially thought to represent a privy, but palaeo-environmental analysis found no evidence for cess (Section 6.2), and a waterhole is proposed.

4.4.28 The internal walls at the north-east end (202, 206 and 207) were roughly constructed from thin pieces of sandstone with no bonding (Fig. 29). The walls were between 0.2-0.29m in width and 0.79-0.85m in height. Smaller stones had been used as packing between the walls and the construction cut. The floor at this north-east end was formed from a single large sandstone slab. The south-west end of the waterhole was defined by a series of large 0.05m thick inverted sandstone slabs (205) that were arranged vertically to form the wall. Smaller stones were also used to pack behind them. Two steps (269) were constructed from similar slabs. Two additional smaller stone slab steps (204) afforded access from the north-west side. A ceramic drain (215) ran from the north-west corner of the feature at the top of the cut down towards the farmyard.

4.4.29 The feature was filled by two deposits. The lower fill (258) was a 0.5m thick waterlogged layer of dark orangey brown humic material containing high quantities of organic matter. This overlay the stone base (268) and lower steps (269) and abutted the lower face of the internal walls. This layer was formed during the use of the feature and was originally thought to represent cess. Finds include pottery dating to the mid to late 19th century (Section 5.1) and some 19th-century glass (Section 5.8). Finds preserved due to waterlogged conditions consist of three groups of textile from a wool garment (A), some fragments of silk (B) and a pad (C). These are undiagnostic but the 'chain' stitching in Group A may indicate an early to mid 18th century date (Section 5.10). A single offcut of leather with stitching was also recovered, as well as seven pieces of ash (Section 5.9). Four samples were assessed for their bioarchaeological potential and produced appreciable quantities of plant macrofossils and variable but generally poorly preserved invertebrate remains (Section 6.2). Most striking was the absence of food plants, macroscopic invertebrates characteristic of faecal material and eggs of intestinal parasites, which would have been indicative of cess. Instead, as the feature filled regularly with water when under excavation, it may have tapped a small spring and formed a shallow well or waterhole. Evidence for a roof was lacking.

4.4.30 The upper fill of the waterhole (203/182) consisted of dark grey brown silty clay with frequent sandstone fragments. This was capped at ground level by a layer of sandstone slabs (181). The upper fill represents the disuse of the feature and its final infilling, and the stones may have derived from the above ground part of the structure. The layer was 0.76m thick and contained pottery which dates to the late 19th century (Section 5.1), two iron objects including a latch door handle (Section 5.4), and four leather objects including a fragment

of a shoe heel and a fragment of boot upper (Section 5.9). The presence of leather indicates that anaerobic conditions must also have occurred within the upper fill.

4.4.31 The finds from the waterhole suggest that the feature was in use during the mid to late 19th century, although it may have been routinely cleaned out. It is also possible that the feature was first used as a privy, cleaned out, and then infilled naturally. A more satisfactory suggestion, however, is its use as a waterhole, which drew on a natural spring. No other waterhole or well was located adjacent to the farmhouse and none were depicted on contemporary maps. A possible well, however, is marked in this area on the 1906 Ordnance Survey map (Swann 2005, figure 9).

Scoop 178 (Fig. 22)

4.4.32 An oval scoop (178) with a concave profile was machine excavated within the corner formed by boundary walls 172 and 174. The scoop was 6.2m in length, 4.2m in width and 0.5m deep. It appears to be the disturbed remains of a structure, probably that depicted on the 1850 OS map (Fig. 6), and perhaps even on the late 18th century map (Fig. 4). Nothing of the foundations survived, but later 18th and early 19th century pottery was recovered.

Spread 195 (Fig. 21)

4.4.33 A thin spread of 19th-century domestic waste (195) was discovered whilst machine stripping the farmyard area. The material was probably used to fill a depression within the yard. The remainder of the yard was made up from mixed rough hardstanding.

Undated features

4.4.34 Four undated features were excavated. A post-hole (219) with a stepped profile (Fig. 21, Inset B; Fig. 30, S.40) was located to the east of Barn 2. At 0.4m in diameter and 0.27m deep, it contained a single fill (220). An elongated pit (245, Fig. 21, Inset B; S.51, Fig 30) 2.62m long and 0.48m wide on a north-south alignment was excavated to the south-east and found to contain a single firm clay silt fill (246). A second elongated pit (253, Fig. 23, Inset B) was excavated in the far eastern corner of the farmhouse garden. The concave feature was interpreted as a tree bole and contained a single fill (254, Fig. 30, S.54). A section of a narrow stone-constructed culvert (241) on a north-south alignment was also exposed in the garden area (Fig. 30, S.49).

5. Artefact Record

5.1 Pottery by Chris Cumberpatch

Introduction

5.1.1 The pottery assemblage consisted of 959 sherds of pottery and related material (wall tile and sewer pipe) weighing 41,802g and representing a maximum of 818 vessels. The data are summarised in Appendices VIII and IX.

5.1.2 The assemblage consisted of two distinct components. The earliest group consisted of 18th-century wares, predominantly of utilitarian or vernacular tableware type. The latter included Mottled ware, Late Blackware and Slipware while the former included Brown Glazed Coarse and Fine wares.

Formal tableware (Creamware, Pearlware, White Salt Glazed Stoneware) made up only a very small proportion of the total. The greater part of the assemblage was of later 19th-century date. This group included both tablewares and utilitarian wares.

Type series

5.1.3 The range of wares identified amongst the Ash House farm assemblage is similar to that from other sites excavated in Sheffield (e.g. Cumberpatch 2005a) and it is in the overall character of the assemblage rather than its constituent parts that the group is distinctive, as discussed in greater detail below.

Brown Glazed Coarseware

5.1.4 Brown Glazed Coarseware is one of the commonest types of pottery recovered from sites in Sheffield. Typical vessel forms include large open pancheons, jars (often with lateral handles just below the rim) and cisterns. The fabrics are generally red to orange oxidised earthenware, sometimes with white streaks or sparse to moderate inclusions. One of the cisterns from Ash House farm (unstratified) contained inclusions suggesting the use of Coal Measures clay, a common and easily accessible resource in South Yorkshire. No fabric or typological series exists to assist in the classification of these vessels although the variety of rim forms and variations in the fabrics suggests that the creation of such a type series would be possible and might allow the development of a chronological scheme for vessels of this type. The pattern of glazing and stacking scars suggests that the vessels were fired upside down and the numbers recovered implies that their manufacture was a major part of the economy of the local pottery industry although to date only one pottery has been excavated (and that only partially). The assemblage from this site (located in Rawmarsh) remains unexamined and unpublished.

5.1.5 With the exception of number of vessels from the Leadmill and Shoreham Street sites (Cumberpatch 2005b, c) which may have been used in the extraction and refinement of red and white lead, the majority of the Brown Glazed Coarsewares were most probably intended for domestic use, although this does not rule out use in any context in which a large, open vessel was required. This may account for the presence of a small number of the vessels from industrial sites, but it seems probable that the majority were derived from the same contexts as were the tablewares and other domestic wares found on industrial sites in Sheffield, a conclusion borne out by the evidence from Ash House farm.

Brown Glazed Fineware

5.1.6 Brown Glazed Fineware is an unusual and not particularly common category of utilitarian earthenware, a sub-division of the Brown Glazed Coarseware group. It is similar in appearance to a fine version of the far commoner Brown Glazed Coarseware and is distinguished by its orange to light red fabric with brown glaze internally and externally, often rather patchily applied and far less even and well finished than the late Blackware types. The distinction between Coarse and Fine variants is mainly in the size and form of vessels, with the latter being generally smaller hollow wares, often with handles and glazed both inside and out. Very few vessel profiles have been identified and the

range of vessel types produced in this ware is unclear, beyond the fact the most appear to have been hollow wares.

Yellow Glazed Coarseware

5.1.7 Yellow Glazed Coarsewares are rare on sites within Sheffield as compared to rural sites. A small number of sherds were identified in cold store fill 194 and cellar fill 232 and all appeared to be from pancheons similar in form to the Brown Glazed Coarseware examples. Such vessels are characterised by light firing fabrics or, more commonly, a layer of white slip internally and on the rim which, when glazed appears to be a bright yellow colour. The distinction between Brown and Yellow types, in terms of vessel function, is unknown.

Mottled ware and Mottled Coarseware

5.1.8 The 18th-century Mottled wares from Ash House farm vary considerably in colour from a light honey shade with black mottling to a much darker colour scarcely distinguishable from some of the later Blackwares. The characteristic which distinguishes the latter type (described in greater detail below) would seem to be the use of dark red glaze on a dark orange to red body. In contrast, the Mottled wares generally have a lighter, buff fabric and were not slipped. Mottled wares are known to have been manufactured at Sheffield Manor between *c*.1708 and *c*.1715 and at other potteries in South Yorkshire throughout the 18th century (Cumberpatch 2004: Table 5) and, while it was not possible to compare examples from Ash House farm and the Manor pottery directly, it seems likely that the Manor was at least one of the sources of the vessels identified at Ash House farm.

5.1.9 The term Mottled Coarseware has been applied to larger vessels (jars, bowls, pancheons) which are distinguished from other coarser earthenwares by the presence of mottled glaze internally. Although known from a number of sites, this type is not a common one and appears to have been a minor component of the 18th-century pottery industry.

Blackware and Late Blackware

5.1.10 Seventeenth century Blackware was represented by only one sherd of pottery (cellar fill 232) but 18th-century Late Blackware was considerably commoner. Defined by the use of black glaze on a dark red body, often with a layer of red slip under the glaze, Late Blackware appears to have been a widely manufactured ware. The typical form appears to have been a globular handled vessel with a small footed base, glazed entirely internally and partially externally, with the glaze ending about two thirds of the way down the vessel. Technically, Late Blackware resembles other 18th-century vernacular tablewares and there is evidence for its manufacture at both Silkstone and Bolsterstone (Cumberpatch 2004, 7). It is a very common ware on sites of 18th-century date and it is probable that it was one of the standard products of the numerous ‘country’ potteries in South Yorkshire.

Eighteenth-century Slipware

5.1.11 Slipware was an important category of domestic pottery and was produced widely in the later 17th and throughout the 18th century. A number of potteries are known to have been producing slipwares in South Yorkshire and it is clear that the terms often applied to these wares (Staffordshire Slipware and Metropolitan Slipware) are inaccurate in implying a form of centralised

production. Manufacture appears to have been in the hands of potters working in family-run 'country' potteries such as Swinton, Midhope, Bolsterstone and Silkstone (Cumberpatch 2004b, table 5). The origin of the sherds from Ash House farm is unclear but is likely to have been local. Two variants were identified at Ash House farm; press moulded dishes with layered and trailed slip decoration on a buff body and Type 1 slipware, a variant of Redware distinguished by the presence of trailed while slip decoration which appears yellow under the clear glaze.

Brown Salt Glazed and other Stonewares

5.1.12 The stonewares from the site fell into a number of categories. Eighteenth century stoneware was present in relatively small quantities in cellar fill 232, but the overwhelming majority of the stonewares were of 19th-century date. The vessels formed two distinct groups, kitchen wares and vessels designed for the transport and sale of beverages.

5.1.13 The kitchenwares included the normal range of storage jars (including lidded jars) and cooking pots (stew pots, souse pots, pie dishes), as described by Walter (1999) and it is probable that the majority were of local manufacture (north Nottinghamshire and north-east Derbyshire). Many were decorated with bands of rouletted lines and stamped 'star' or 'wheel' motifs and short wavy lines forming bands of decoration around the body of the vessels.

5.1.14 Containers included both bottles and flagons. Small utilitarian bottles (for ink, blacking etc) were rare and the majority of vessels seemed to be bottles and flagons used for the transport and sale of beverages. An unusual form, not hitherto encountered on a site in Sheffield, is shown in Plate 17.

5.1.15 Two of the flagons from cold store fill 194 bore applied and impressed plaques on the shoulder. The legends read as follows (numbers 1 and 2 relate to the data in Appendix VIII):

Number 1
Greaves & Co
Wine & Spirit Merchants
Norfolk Brewery
Sheffield
1 Gall.

Number 2
W. Wilson & Co
Sheffield
851

5.1.16 Greaves and Co were a long-established Sheffield firm and are mentioned in mid 19th-century commercial directories (White 1852), in insurance claims arising from the Sheffield Flood in 1864 (SFCA nd). The firm appears to have been taken over by the larger Gilmour's brewery in 1910. This adds weight to the suggestion made on the basis of other evidence that the material from cold

store fill 194 is of later 19th-century date, although it is possible that the flagon remained in domestic use for sometime after the closure of the brewery.

5.1.17 The second marked flagon bears the name of W. Wilson & Co. The Wilson Brothers are named as brewers in the 1889 reprint of the 1787 Gales and Martin directory of Sheffield (Gales and Martin 1889). It is not known when this brewery closed. The significance of the number, 851, is unclear.

5.1.18 Other marked stonewares were rare and maker's marks were absent. A bottle from cold store fill 194 bore the words '…xtra Stout' on the shoulder and such stout bottles are a common find across the city. A pie dish from the same context had the figure '6' stamped on the underside but the significance of this is unclear.

Creamware

5.1.19 The general date range for Creamware, the first of the refined lead-glazed earthenwares, is taken to be *c*.1740 – *c*.1820, based on the evidence from Staffordshire (Barker and Ford 1999). Production at the Swinton Pottery was underway by June 1770, although the first documentary reference to the ware and the earliest marked piece dates to 1771 (Cox and Cox 2001, 34). Creamware appears to have been a major element in the earlier phases of manufacture at the Don Pottery (established in 1801) where production continued until well into the 1820s (Griffin 2001, 104) and at the Leeds Pottery from its establishment in 1770 (Griffin 2001, 2005). This apparently later date may be the result of a lack of information pertaining to mid 18th-century potteries in the Don valley - Castleford - Leeds area. Barker and Ford have suggested that the popularity of the ware began to decline after *c*.1780 when transfer printed Pearlwares became popular, but the continuation of production at the Don Pottery into the 19th century suggests that such changes in fashion took place at different times and perhaps at different rates in different places throughout the country. In his discussion of the relative dating of Creamware at the Leeds pottery, Griffin has noted that creamware continued to be made, alongside pearlware, well into the third decade of the 19th century (2005, 193).

5.1.20 It should not be assumed, therefore, that the Creamwares from Ash House farm necessarily predate the Pearlwares, as production of the latter appears to have begun, at the Don Pottery at least, in the first decade of the 19th century (Griffin 2001, 104).

5.1.21 Quantities of Creamware at Ash House farm were extremely low (six sherds from cellar fills 232 and 239 and cold store fill 265) and all but one sherd were from plates or similar flatwares.

Pearlwares and Edged wares

5.1.22 A general date range of *c*.1780 – *c*.1830 has been ascribed to the Pearlwares on the basis of Barker's dating of the industry in Staffordshire. While this gives a useful broad indication of the longevity of the type, the evidence from the documented South and West Yorkshire potteries allows a little more precision. It should be noted that Pearlwares are somewhat more difficult to identify precisely than are either of the two earlier types of formal tableware (the reason for doubt over the identification of a series of ring foot bases from cold store fill 194 and the ascription of the sherds with the distinctive 'Italian

Scenes' border to the Whiteware category; Plate 16). The chief characteristic, a blue-white tint to the glaze, obtained by including small quantities of cobalt and copper in the glaze (Barker 1999), is not one which is particularly distinctive as later whitewares occasionally appear to have been subject to slight 'bluing' as the colour from the transfer printed designs can leach into the surrounding glaze. Conversely, Pearlwares can be extremely light in colour. As Griffin has noted:

> 'Don Pearlware ranges from a very obvious addition of cobalt, one may at times be tempted to say 'over generous' to a glaze where it is hardly discernable at all (2001, 104).'

5.1.23 In other cases weathering and discolouration, sometimes enhanced by the crazing of the glaze, can discolour the sherds to the extent where it obscures the original finish.

5.1.24 The first reference to transfer printed wares at Swinton (later the Rockingham pottery) dates to 14th July 1788 (Cox and Cox 2001, 70-2). Production of Pearlwares continued after the pottery was taken over by the Bramelds in 1806 with transfer printed patterns in blue, brown and black. After 1820 a wider range of printed designs were manufactured and individual pieces continue to be described as Pearlware by Cox and Cox up until *c*.1830, although production of transfer printed wares continued up until the closure of the pottery in 1842, presumably with a progressive whitening of the glaze, as seen elsewhere. Production at the Don Pottery began in 1801 and seems to have continued into the earlier part of the mid 19th century under the proprietorship of the Barkers (1839-1893).

5.1.25 Pearlwares were identified in cold store fills 194 and 265 and post-hole fill 224, although quantities were extremely small. Identifiable vessel types included bowls, plates and cups.

5.1.26 *Edged wares* form a distinctive group within the wider Pearlware category. The distinctive characteristics of this group of wares is the moulded 'grass' edge emphasised with blue or, less commonly, green paint. Barker has suggested that the type, which was easy and cheap to manufacture, was popular from *c*.1810 to the early 1830s. It was manufactured widely and as vessels are rarely marked is virtually impossible to ascribe to particular potteries.

5.1.27 Edged wares were identified in cold store fills 194, 259 and 265. All examples were from flatware vessels, the majority larger plates or servers.

Whitewares and White Ironstone wares

5.1.28 As noted above, the distinction between Pearlware and Whiteware is by no means a straightforward one and this is reflected in the fact that some transfer printed designs are recorded as appearing on both Pearlwares and Whitewares, notably in the case of Ash House farm, the sherds with the 'Italian Scenes' borders from cold store fill 194 (Plate 16). The ring foot bases mentioned above are another example of the difficulty of distinguishing between the two types. In general, however, the situation was clearer on this site than on some others in Sheffield (Cumberpatch 2005a) and there is little or no doubt that the overwhelming majority of the sherds described as Whitewares (plain and transfer printed) are of this type and date to the latter half of the 19th century.

In one particular case it was possible to be certain about this. The only legible maker's mark, an Asiatic Pheasant cartouche with the initials TF & S (from cold store fill 194, Plate 15) identifies it as a product of Thomas Forester and Sons of the Phoenix Works in Longton Staffordshire (Godden 1991). The style of the mark suggests that it dates to between 1883 and 1891, a late date which is consistent with evidence from other sites which indicates that Staffordshire products are rare in Sheffield before the late 19th century. Although not wholly reliable as an indicator of date, the fact that designs other than Asiatic Pheasants and Willow are rare within the assemblage is a further indication of a late date, the diversity (and quality) of transfer printed designs being more limited in the later period after the exuberance of the earlier period.

5.1.29 A wide variety of Whiteware vessels were identified, particularly within the group from cold store fill 194. Tablewares were the commonest types (plates, soup plates, cups, servers and tureen lids) but other domestic wares were also identified, including kitchen wares (notably pie dishes), large jugs (part of jug and bowl washing sets), chamber pots and the rim of a small toilet box. Transfer printed Whitewares were somewhat commoner than plain whitewares, but, as noted above, the range of designs was extremely limited when compared to other, earlier, assemblages from Sheffield.

5.1.30 *White Ironstone* or *White Granite* wares are distinguished by a dense white body and very white finish. The original Ironstone body, Mason's Patent Ironstone China appeared in 1813 (Barker 1999), but the examples from Ash House farm appear to be much later than this, given that certainty on this point cannot be definitely established in the absence of marked sherds. The similarity between some of the later Whitewares and the White Ironstone sherds means that the distinctions between the two types was not always clear and some Ironstone sherds may have been classified as Whitewares. The White Granite vessels identified as such were predominantly kitchen wares, notably pie dishes and also included fragments from large jugs.

Slip Banded Whitewares and Cane Coloured wares

5.1.31 Banded wares, both blue painted and decorated with a variety of coloured slips, are a common find on sites in Sheffield and, as one of the cheapest decorated hollow wares available during the 19th century, clearly represented a significant part of many domestic ceramic assemblages. Banded decoration is found on both whiteware and cane coloured ware bodies (the former being commoner at Ash House farm) and the combination of band and line widths and colours is variable. Inevitably, given the fragmentation of the vessels, it is not always possible to determine the precise combination of lines and bands which make up individual motifs or, indeed the extent to which there were regular patterns shared by particular vessel types or sets of complementary vessels.

5.1.32 Amongst the commonest types were *Blue Banded Whitewares*, principally bowls with ring foot bases. These occur in two forms, a simple rounded form and the carinated or 'London' form. Both forms have simple rounded rims with those on the carinated bowls being slightly everted. The examples from Ash House farm were, with a single exception, of the rounded form and the rims were simple rounded shapes with no thickening and were not everted. A third bowl form (pudding bowl) has a folded rim which gives a distinctive

external bulge (e.g. cold store fill 194). According to Barker and Ford (1999) slip decoration first appears on Staffordshire Creamwares and Pearlwares around 1775 and on whitewares from the 1830s/1840s. Banded wares continued in production into the 20th century (and are still manufactured as 'Cornish wares'), but as the 19th century progressed the numbers of banded mugs declines and the number of bowls, particularly the carinated or 'London' form, increased. Barker and Ford suggest that the rounded bowls are generally pre-1815 in date with the carinated bowls becoming popular subsequently. This having been noted, it should be said that the rounded bowls from Ash House farm and other sites in Sheffield (notably London Road; Cumberpatch 2005a) generally do not seem to be as early as this; the vessels lack the thin, fine finish which seems to be characteristic of Pearlwares and the ring-foot bases have a thick, rounded profile which is a trait perhaps more commonly associated with Whitewares. Two blue banded mugs were identified in context 194, a small proportion of the total which conforms to the expected pattern of a decline in this form in the latter half of the 19th century.

5.1.33 Other slip banded wares were identified in cold store fill 194. A maximum of seven vessels were noted with varying combinations of blue and brown slip bands. All appeared to be from bowls.

5.1.34 *Cane Coloured wares*, which Barker and Ford suggest become common from the 1830s/1840s onwards, were present in both slip banded and plain varieties. The name 'Cane Coloured ware' has been preferred to 'Yellow ware' (as used by Barker and Ford 1999) to avoid confusion with 16th and 17th-century Yellow wares and the later Yellow Glazed Coarsewares. Contemporary 19th-century names included yellow ware, yellow cane ware and Derbyshire ironstone cane ware. It was made very widely but is often associated particularly with Sharpe's pottery at Swadlincote and other Derbyshire potteries, although excavations on sites in the Don Valley have produced numerous examples of wares manufactured locally (e.g. Griffin 2001, 212; plate 300).

5.1.35 The plain wares consisted predominantly, although not exclusively, of dishes and bowls. Dishes were represented by a pie dish from cold store fill 265 with bowls commoner in cold store fill 194.

5.1.36 A relatively small number of slip decorated sherds were present when compared with other sites in Sheffield. Decoration was limited to white slip lines with none of the diversity of colours seen elsewhere.

5.1.37 *Mocha ware* forms a particularly distinctive part of the banded ware group. Mocha decoration is particularly common on cane coloured bodies, but does also occur on whitewares (e.g. Griffin 2001, 212; plate 300). The technique flourished between *c.*1795 and *c.*1895 (Barker and Ford 1999) and has recently been revived. As with the Cane Coloured wares, there has been a tendency to link the technique with the Derbyshire potteries, but it was certainly far more widespread as the evidence from the Don and Top Potteries has established. Blue and green mocha decoration were both present at Ash House farm, in each case on white slip bands.

5.1.38 An unusual vessel was noted in cold store fill 194. This was a cane coloured ware jug with a rilled band above the ring foot base and a band of white

sprigged vine and grape decoration around the upper body. No definite date could be ascribed to it other than a general later 19th-century date derived from the associated material.

Relief Banded wares

5.1.39 Relief Banded wares form a distinctive group within the larger banded Whiteware category, distinguished by the alternating raised and recessed bands around the body of the vessel. Jugs are a typical example of the type (cold store fill 194 and possibly scoop fill 179) although other hollow wares were also represented (cold store fill 265). These wares would appear to be of later 19th-century date, although production continued into the 20th century and, like Blue Banded wares, the type is still manufactured, albeit as a self-consciously 'period' ware.

Bone china

5.1.40 Bone china is a type of soft paste porcelain which became the standard type of Staffordshire porcelain body by *c*.1810 (Barker 1999). It consists of china clay, china stone and up to 50% calcined bone and was normally lead glazed. The result is a distinctive very white body with a 'crystalline' appearance in cross-section. Bone china was in widespread production by 1810 and was used for vessels which could be moulded as it lacked the characteristics needed for a body which could be thrown. A variety of decorative techniques were employed on bone china. The commonest seen at Ash House farm were lustre (discussed below), over- and under-glaze painting as well as transfer printing. The Two Temples design was the commonest transfer printed pattern but simple gold lines and lustre decoration were somewhat commoner.

5.1.41 Lustre decoration is formed by applying a thin metallic film to the glazed surface of a vessel to give a silver or copper-coloured finish either over the whole surface or to form decorative designs. It was developed between 1790 and 1805 and widely used thereafter. Between 1840 and 1870 a series of wares totally covered in silver lustre were produced as 'poor man's silver' and various other combinations of body and coloured lustre wares were also produced (Barker and Ford 1999). Local manufacture is attested at the Don Pottery where the technique appears to have been applied to refined earthenware bodies rather than bone china (e.g. Griffin 2001, 167; plate 230) as it was at the Rockingham Pottery (Cox and Cox 2001).

5.1.42 Examples of Lustre ware from Ash House farm were all on bone china bodies and had all suffered considerably from abrasion, to the extent than some motifs were virtually impossible to identify. The majority appeared to be abstract or stylised floral designs and were generally simple in comparison with some of the more elaborate earlier 19th-century designs known from collections and from other sites.

Other wares

5.1.43 Small numbers of sherds of types other than those described above were also identified. Cellar fill 232 included two sherds of *Tin Glazed Earthenware*, neither decorated, dating to the 18th century. Tin Glazed Earthenware is a regular component of assemblages from Sheffield, but no substantial groups have yet been recovered and it can at best be described as of Anglo-Dutch type.

5.1.44 A large and unusual sherd of *Porcelain* was noted in scoop fill 179. This appeared to be the base of a large vessel, probably of a decorative character. The sherd is shown in Plate 18.

5.1.45 A sherd of *19th-century slipware* occurred in cold store fill 194. This was a whiteware decorated with marbled slip externally. Teapots with *Rockingham style* glaze were also identified in cold store fill 194. This distinctive shiny brown finish was developed at the Rockingham Pottery in the early 19th century (Cox and Cox 2001:116) and rapidly achieved widespread popularity, particularly for teapots. The style was widely copied and it is extremely unlikely that the examples from Ash House farm were produced at Rockingham as the pottery closed in 1845.

Discussion

The Cold Store (fills 194, 259, 260, 264 and 265)

5.1.46 The largest group of pottery was recovered from the upper backfill of the cold store (194) with smaller quantities of pottery from the lower fills (259, 260, 264 and 265). The details are summarised in Appendix VIII.

5.1.47 The group includes a small amount of earlier material (Edged ware, Pearlware, Slipware, Mottled ware) but this is insignificant beside the quantities of later 19th-century wares. Cold store fill 194 includes the only closely datable item, the marked Staffordshire plate described above, together with the marked stoneware flagons. Taken together with the character of the bulk of the pottery, a later 19th-century date should be ascribed to this group.

5.1.48 A wide range of vessel types is represented in the group (Fig. 31), and it would appear that the deposit consists of a cross section of the tablewares, kitchen wares and utilitarian wares used by the household, as described above. Further work, drawing on the results of a number of excavations in Sheffield, will be required in order to achieve the kind of inter-site comparisons that are needed to establish this beyond doubt (Cumberpatch in prep). Other features on the site did not produce assemblages of sufficient size to make comparisons significant in this respect.

The waterhole (fills 181, 182, 258)

5.1.49 Fills within the waterhole (181, 182 and 258) produced a mixed group of sherds which included 18th as well as 19th-century material (Appendix IX). The quantities of 18th-century material are sufficient to suggest the disturbance of an earlier deposit, but the mid to later 19th-century sherds indicate a date for the filling of the feature comparable with that for the cold store.

Scoop 178 (fill 179)

5.1.50 Fill 179 produced a mixed group of material with later 18th to early 19th-century sherds alongside much later material (including a piece of plastic). A notable item was the base of a large, thick walled porcelain vessel (Plate 18) of an unidentified type and origin. The later 19th-century date for the fill of the feature links it chronologically with the Cold Store and the waterhole.

Gulley 217 (fill 218)

5.1.51 The pottery from fill 218 was of exclusively 18th-century date. Vernacular tablewares dominated the group but utilitarian wares were also present with formal tablewares notable by their absence. This is one of a group of deposits which appears to represent an early (later 18th-century) deposition horizon on the site.

Post-hole 223 (fill 224)

5.1.52 The contents of post-hole 223 resembled those from gulley 217 in terms of the date range, although the post-hole also included a sherd of transfer printed Pearlware alongside a group of utilitarian wares, with vernacular coarsewares absent.

Culvert 226 (fill 228)

5.1.53 Fill 228 produced a single sherd of Late Blackware. Dating the fill on the basis of a single sherd of pottery is perhaps a questionable procedure, but it would suggest that the fill forms part of the earlier horizon of activity on the site.

Cellar (fills 232 and 239)

5.1.54 The pottery from fills 232 and 239 formed the largest group of 18th-century wares from the site. All categories of material were represented, including formal tablewares (Creamware, Tin Glazed Earthenware), although whether the assemblage represents a true cross-section of the wares in use in the mid to later 18th century cannot be resolved without extensive comparisons with comparable sites from the area. The presence of a crucible fragment cautions against assuming that the assemblage is derived from Ash House farm itself. Evidence from elsewhere in Sheffield has shown that refuse was used for a variety of purposes, particularly the preparation of ground prior to building and while there does not seem to be any evidence of that at Ash House farm, the presence of a crucible fragment should caution against assumptions about the nature of individual deposits.

Boundary wall (deposit 247)

5.1.55 Deposit 247 produced a small group of later 19th-century material consisting principally of Whitewares with a single sherd of Brown Glazed Coarseware. This would seem place it in the later horizon, contemporary with the fill of the Cold store and waterhole.

Topsoil (100), machining (195) and unstratified deposits

5.1.56 The unstratified material is listed in Appendix IX. It consists largely of Brown Glazed coarsewares with smaller quantities of pottery representing the two principal horizons of deposition on the site. Individual sherds have been described, where relevant, above.

Conclusion

5.1.57 Two distinct horizons of deposition can be distinguished in the pottery assemblage from Ash House farm. The earlier of these, which probably dates to the later 18th century, includes the Gully 217 (fill 218), post-hole 223 (fill 224), the cellar deposits (fills 232 and 239) and possibly the culvert (fill 228). The later horizon dates to the late 19th century and was recovered from the

cold store, the waterhole, scoop 178 and the boundary wall. The assemblage alone is of considerable interest in that it appears to represent two dumps of domestic refuse which have not been subject to the kind of reuse which is a prominent feature of other pottery assemblages from Sheffield (Cumberpatch in prep.). When used comparatively with these other assemblages it may well prove to be of greater significance, given the different history of deposition that it represents.

5.2 Clay tobacco pipes by Susie White

Introduction

5.2.1 The pipe fragments from the excavations have been individually examined and details of each logged on an Excel spreadsheet. The layout of the spreadsheet has been based on a draft pipe recording system, which has been developed at the University of Liverpool (Higgins and Davey 1994). A Context Summary, giving the total count for each context and the overall date range, and an overall inventory appear in Appendix X. Stem bores for the bowl fragments and the single marked stem have been measured to the nearest 64^{th} of an inch using a ruler. In the case of the plain stems, only the surface treatment and a count have been given, i.e., the bores have not been measured.

5.2.2 A total of 33 clay pipe fragments were recovered from the excavations comprising three bowls and 30 stems; no mouthpiece fragments were recovered. These finds came from nine stratified contexts and one unstratified group. The pipes recovered range in date from the 17th century through to the last quarter of the 19th century.

Description of the Clay Tobacco Pipes

5.2.3 Clay tobacco pipes are probably the most useful dating tool for archaeological deposits of post-medieval date. They are found almost everywhere, were short-lived and were subject to rapid change in both size and shape. They can often be tied to a specific production site or, at the very least, to a regional centre.

5.2.4 The excavations produced a relatively small pipe assemblage with seven out of the nine stratified deposits producing only one or two plain stem fragments. Plain stems are difficult to date accurately. The use of stem bore dating techniques presents a number of difficulties as they are based on the unrealistic assumption that all pipe makers from any given period used the same diameter wire in the pipe making process. These methods also require samples of several hundred fragments in order to produce a reliable date. The dates for the plain stems are therefore given simply as broad date ranges within which the fragments are likely to have been produced. Stem dates should be used with caution since they are much more general and less reliable than the dates that can be determined from bowl fragments.

5.2.5 One of the stems, from the unstratified group, is stamped with the makers mark THO WILD. There are three separate references to a Thomas Wild of Rotherham, which relate to at least two and possibly three separate makers of the same name, rather than one individual. The first reference is in 1716 when the son of Thomas Wild of Rotherham, pipemaker, was apprenticed to a William Smith, file smith at Attercliffe (White 2004, 185). The second reference is to a marriage in Rotherham of Thomas Wild to Elizabeth

Wainwright on the 14th April 1718 (*ibid*). The third and final reference is in 1777 when Thomas Wild of Rotherham appears in the Quarter Sessions Records for Sheffield *(ibid*).

5.2.6 In a recent survey of the clay tobacco pipes from Yorkshire (*ibid*) a total of at least seventeen Thomas Wild roll-stamp marks, including four from Sheffield, were recorded. At least five different dies are known - three of which are illustrated (*ibid*, 116 Nos. 5, 6 and 7). The fourth is a much more elaborate mark and includes a stag flanked by a pair of flower motifs, all above the lettering. The fragment recovered from Ash House farm appears to be an example from the fifth die. It is very similar to Die No. 1513 (*ibid*, No. 5) but has an additional line above the lettering (Plate 19).

5.2.7 Cellar fill 239 included a stem with a ground end. There are two main ways in which this type of re-shaping could occur. The first was by grinding or scraping of a broken stem, after the original mouthpiece has broken off, in order that the pipe can be reused. This type of modification is characterised by even grinding or smoothing around the end and, occasionally, by the appearance of tooth wear on the stem. The second type of modification was when the stem has been used as a medium with which to draw or write graffiti resulting in the formation of distinct facets on one, or both, ends of the stem. The stem fragment from Ash House farm appears to be of this second type.

5.2.8 Just three bowl fragments were recovered from the excavations, only one of which came from a stratified deposit, cold store fill 194. This bowl is complete and dates from *c*.1830-1880 (Plate 20). Around the top of the rim is a clear mould line suggesting that the mould has been altered or repaired during its lifetime. During the manufacturing process a knife was pushed across the top of the pipe, whilst it was still in the mould, in a slot specially designed for this purpose. This gave the pipe its clean-cut rim, but the continual action of the knife on the slot itself eventually caused the mould to become slightly dished at this point. This wear was repaired by inserting a new piece of metal into the mould, but often this new insert left a tell-tale line around the top of any pipes that were subsequently produced from it. Either side of both seams are a series of very crude ring marks. These appear to have been punched into the mould very rapidly resulting in some of the rings either being double struck, or out of alignment with the others. It is interesting to note that these marks continue above the mould line round the rim, suggesting that these marks were added to the mould at the time of the repair. The style of the decoration, with the rings flanking the seams, is reminiscent of the leaf-decorated seams that were popular at this same period.

5.2.9 The two remaining bowl fragments are both from the unstratified group. The first fragment is a piece from the bowl seam facing the smoker. It is very small and therefore it is difficult to determine is original form. The surface is abraded but it is possible that it was originally burnished. A very broad date range of *c*.1680-1780 has therefore been given to this fragment. The second bowl fragment is a spur dating from *c*.1700-1800.

Conclusions

5.2.10 The clay tobacco pipes provide a small but interesting assemblage. The complete bowl fragment from cold store fill 194, dating from *c*.1830-1880,

and the stamped Thomas Wild stem from the unstratified group, dating from *c*.1720-1780, are the most dateable fragments from the assemblage.

5.2.11 The bowl fragment gives further information about the manufacturing processes employed in the 19th century particularly with regard to the repair and modification of the moulds used. The Thomas Wild mark is interesting as it provides further evidence for the market area of this particular Rotherham pipemaker as well as evidence for another die type that he was using.

5.3 Ceramic building material by John Tibbles

Summary

5.3.1 The brick assemblage shows typical evidence of hand and machine-made brick manufacture varying in date between the 18th and 19th centuries. The latter displayed evidence of waterproofing/sealing in the form of Lias? Cement coatings.

5.3.2 The land drain or tile pipe was common throughout most of England by the mid to late 19th century and was easily manufactured using simple machines. By the late 19th century, they were 'exported' to various parts of the country by canal and by railway.

5.3.3 The more substantial pipe (215) from the waterhole has been manufactured to a higher standard than the land drain and is more likely to represent a sanitary drain for light sewage. The porosity stamp suggests that the tile be of a 'late' manufacture.

Introduction and methodology

5.3.4 A visual scan of the building material assemblage recorded a total of four fragments weighing 11765g. It should be noted that the diversity of size and colour within brick and tile caused during the manufacturing process must be taken into consideration when comparing examples within collected assemblages and local typologies. The varying sizes and colours can be attributed to the variation in the clays used, shrinkage during drying, firing within the kiln or clamp and the location of the brick/tile within the kiln. The dating of ceramic building material can be highly contentious due to its re-usable nature.

5.3.5 Bricks and tiles alone cannot provide a firm date because of their re-usable nature but it is possible to date types of brick and roof tile by their earliest occurrence within dated contexts. The identification of new brick or tile types would supplement the existing regional typology and there is potential for comparison with ceramic building material (CBM) assemblages from elsewhere in the region. The presence or absence of hip and ridge tile suggests a variety of roof forms.

5.3.6 The assemblage was examined using a x15 magnification lens were applicable to aid dating, though fabric analysis was not undertaken. Information regarding the dimensions, shape and fabric (were applicable) was recorded and catalogued accordingly and a Munsell colour code has been incorporated where appropriate. The presence of the original surfaces was also taken into consideration to aid identification

The Assemblage

5.3.7 The assemblage comprised of two fragments of post-medieval brick, a land drain and a complete sanitary drain. The assemblage is summarised in Table 1 and catalogued below.

Table 1. Summary of the ceramic building material

Material	Fragments	Weight g
Brick	2	5140
Land drain	1	1625
Sanitary drain	1	5000
Total	**4**	**11765g**

Bricks

5.3.8 Of the two examples of brick within the assemblage, one complete brick from the tank wall (261), with dimensions of 235mm x 105mm x 73mm (9 ¼" x 4 ⅛" x 2⅞), displayed over one stretcher an 8mm thick coating of Lias Cement? a quick drying cement often used in the lining of water tanks (Rivington 1919). A thin skim of cement-wash or cement paint overlies the Lias Cement as a possible additional sealant (Scott 1964).

5.3.9 The part brick from post-hole fill 224 with residual dimensions of ? mm x 115mm x 64mm (?"x 4 ½"x 2 ½") displays typical characteristics of a late hand-made brick. Such widths and thicknesses were generally manufactured in the mid to late 18th century, however, without the length dimension, more precise dating is not possible.

Land drains

5.3.10 The part land drain recovered from the backfill of the water tank (259) was identified as a 'tile-pipe', type 2b (Tibbles in prep). Although initially manufactured by hand, simple machines were in use by the early 19th century. The extrusion mark along the sample indicates it was a product of one of these machines.

Sanitary drains

5.3.11 Although similar in shape and size to land drains the sample tile (215) from the waterhole is manufactured to a much higher standard. The fabric, although coarse, appears to be substantially denser and has a burnished finish. The stamp of '20 WELL' on the exterior is likely to be the porosity (rate of absorption) of the tile. Although generally sewage pipes were manufactured from stoneware or fireclay by the mid to late 19th century, and were impervious, it is possible that this sample may be of 20th-century date.

Discussion

5.3.12 The diversity of brick colour and size caused during manufacture must be allowed for when making comparisons with typologies. The sample brick is machine-made and is therefore of post mid 19th-century date. Cement coatings are indicative of water sealing methods in the 19th century. The brick fragment

recovered from post-hole fill 224 does not show evidence of casual deposition or abrasion and is likely to have been broken during its deposition within the post-hole as packing. At the time of deposition, however, it may have been residual or reused elsewhere.

5.3.13 This type of land drain (2b) is common throughout England and was easily manufactured by tileries using simple machines. By the late 19th century, land drains were 'exported' to various parts of the country by both canal and by railway.

5.3.14 Pipe 215 that formed the waterhole overflow has been manufactured to a higher standard then a land drain and is more likely to represent a sanitary drain for light sewage. The porosity stamp suggests that the tile be of a 'late' manufacture.

Catalogue

1. Complete brick. Dimensions 235mm x 105mm x 73mm (9 ¼" x 4 ⅛" x 2⅞) Hard black/grey mortar adhesions. One stretcher surface displays a grey (cement?) coating 8mm thick. Machine-made. Provisional date: Mid 19th century. Weight 4900g. *Context 261*
2. Part land drain Type 2b (Tibbles in prep). Dimensions 215+ mm x 104 mm (ED) x 70-76mm (ID) (8 ½+" x 4⅛" x 2 ¾"-3"). Diameter slightly flattened due to pressure during initial drying. Fabric is a light Red (10R/6/8) with occasional pebbles to <1mm. Lens' of under-fired clay. Extrusion marks. Machine-made. Provisional date: Early 19th century+. Weight 1625g. *Context 259*
3. Complete cylindrical sanitary drainpipe. Dimensions 306mm x 133mm (ED) x 98mm (ID) (12" x 5 ¼" x 3⅞" x 20mm thick). Fabric is a coarse hard-fired Red (7.5R/4/6) fabric with occasional lithics to <1mm and '*grog*'. External surface displays an impressed stamp '20 WELL'. This stamp probably represents the porosity of the tile fabric. Extrusion marks. Machine-made. Provisional date: Late 19th- 20th century. Weight 5000g. *Context 215*
4. Part brick. Dimensions ? mm x 115mm x 64mm (?" x 4 ½"x 2 ½"). Dense hard-fired weak red (5R/4/4) fabric with frequent angular lithics and pebbles <10mm. Moulding lip and residual moulding sand. Mortar adhesions. Provisional date: mid to late 18th century. Weight 240g. *Context 224*

5.4 Ironwork (excluding tools) by Daniel Lee

5.4.1 A total of fifty-two ferrous (iron) objects were recovered during excavations. The hand tools and edged tools are described separately (Section 5.5). Some of the iron objects have been grouped together to form a catalogue entry to simplify the analysis and discussion (Appendix XI). Artefacts referred to in the text are cited by catalogue number.

5.4.2 Nine selected iron objects were X-rayed prior to examination. It was deemed unnecessary or impractical to X-ray the remainder of the assemblage and sufficient information could be gained from examining the artefact. In general, most iron objects are in moderate condition with high corrosion in only a few

examples. The galvanised objects had suffered less corrosion. Ninety percent of the assemblage was derived from a single deposit (194) from the cold store. The iron assemblage has been characterised into eight categories: buckets, horseshoes, handles, fixing plates/brackets, nails/bolts, bars/rods, strips and other.

Galvanised Buckets and Tubs

5.4.3 The largest category of iron objects is the collection of buckets and tubs all derived from cold store fill 194. These differed from the rest of the iron assemblage as they are galvanised. The remains of seven buckets were identified (44-50, Plates 21-27) which survived in part or near complete condition. Other bucket parts were also identified including strengthening hoops (34, 35 and 41), body sections (36 and 43), rims (37 and 42) handles (13, Plate 28) and bases (38, 39 and 40). These represent the corroded remains of one or more other galvanised buckets. The assemblage contains two main types of container: circular buckets and oval tubs. A glossary of terms devised to describe the bucket assemblage is included in Appendix XI.

Round buckets

5.4.4 The round buckets consist of the remains of four small circular buckets (44, 46, 47 and 48, Plate 21) and one small oval bucket (45, Plate 24). These are all galvanised, although all are in poor to moderate condition. It appears all the examples have a wider rim than base in the classic bucket style, but corrosion may inhibit the identification of straight-sided buckets. Catalogue numbers 44 and 48 are fragmentary with many parts missing and both have a base of 9 inches (230mm) in diameter, but differ in depth between 9 and 10 inches (254mm). This suggests a similar form, although other features such as the base kick up are also differ slightly. Size estimations are limited due to corrosion and distortion. The oval bucket has a similar 10-inch depth. The buckets were probably used for domestic or farm related activities for carrying water or animal foodstuffs. Davies Brothers 1910 catalogue shows that tapered buckets were most commonly used as fire buckets or for coal, and straight-sided buckets were for stable or diary use (Plate 29). Other items similar to the standard buckets shown in the catalogue include galvanised earth closet pans, but these appear not to be present here.

Oval tubs

5.4.5 Two large oval tubs (49 and 50) survived in part and are 7.5 inches and 8 inches deep respectively. These had side handles as opposed to the top handles on the buckets and had no kick up on the base that is strengthened by metal strips or hoops passing underneath. The Davies catalogue (1910) describes this style as galvanised washing tubs (Plate 30), round or oval and up to 36 inches long.

5.4.6 The buckets and tubs have a variety of parts and features including wired rims for strength, folded joins between their segmental iron sheet construction and bases strengthened with hoops and kick ups. They were made from sheets of iron and wire that were cut into shape, folded, and riveted together. The greatest variety was noted in the style of handles and handle fixing plates. The latter is a plate that is riveted to the body of the bucket or tub onto which the handle was either looped or riveted. Handles for buckets are typically at the

top and on the sides in the case of the tubs. The fixing plates for the side handles were often hammered from the rods used to form the smaller single hand-sized handles and riveted to the body. Many parts of heavily corroded buckets were recovered and include sections of the strengthening hoops (34, 35 and 41), side parts (36 and 43), fragments of rim (37 and 42) and parts of bases (38, 39 and 40). These are likely to have originated from more than one bucket. The Davies 1910 catalogue has illustrations of fire buckets with top handles looped onto spade-shaped fixing plates, whilst the coal bucket handles appear riveted to the same style fixing plate.

Galvanising

5.4.7 Galvanising was patented in Britain in 1837 and is a process that coats iron by dipping it in molten zinc. Commonly known as hot dip galvanising, this process prevents oxidation of the iron by forming a weatherproof barrier lasting for 30 to 40 years or more if not damaged. By the mid 19th century, the process was common place and the galvanising industry produced products ranging from kitchen hollowares to corrugated iron sheeting. The occurrence of galvanised objects from cold store fill 194 suggests a mid 19th century to early 20th-century date of deposition, and fits well with the late 19th-century date from the pottery assemblage.

Horseshoes

5.4.8 One horseshoe was recovered from cold store fill 194 (Plate 31). This large iron shoe displays heavy wear to the right side and has a pronounced toe clip. The shoe probably represents a hind shoe due to its slightly pointed toe. Horseshoes are most commonly made from mild steel, although wrought iron can be used and is very hard wearing (Hickman 1977). They were fixed to the base of the horse's hoof with a series of square headed nails which passed through pre-cut holes in the quarter, or sides, of the shoe. White's 1895-6 trade directory of Sheffield and Rotherham lists only one horseshoe manufacturer, James Brothers Limited of Wadsley Bridge, Sheffield, which probably made shoes on an industrial scale. Horseshoes were most commonly made by Blacksmiths or Shoesmiths who operated from small forges commonly found in the small industrial courts in and around the town in the 19th century. The listings for this trade in the 1895-6 White's directory number more than 150.

Handles

5.4.9 The metalwork assemblage contains four handles all derived from cold store fill 194. The best example is the latch door handle (3, Plate 32) that is 150mm in length and 23mm in width with a curved handle and fixing plate at one end. A handle fixing, perhaps from a hand tool, consists of two curved plates riveted around the burnt remains of wood (6). The other two examples are curved pieces, one with beaded edging, which may represent the remains of implement handles (2 and 7).

Fixing Plates and Brackets

5.4.10 The assemblage of brackets that was recovered from cold store fill 194 includes an 'L' shaped bracket with various fixing holes (14) and one formed from a large tapered rod that is curved to the side (30, Plate 34). The three fixing plates include a pole fixing plate (8) used to attach a wooden shaft, a rectangular fixing plate (24) and a domed fixing plate with a central 'T' shaped

attachment hole (Plate 33). The brackets and plates clearly have specific functions and may be related to agricultural or mechanical activities.

Nails and Bolts

5.4.11 Two nails and one example of a bolt were recovered from cold store fill 194. The nails include one heavily corroded small square headed example (22) and part of the shaft of a round wire nail (18). A large coach bolt is square-headed.

Bars and Rods

5.4.12 Five rods and bars were between 97mm and 432mm in length, and 6mm and 17mm thick. The seven iron bar fragments that comprise (7) are heavily corroded and undiagnostic. The other three examples of bars have a square cross section (19, 31 and 33) with one round example (32). The later displays a distinctive notch at one end. The function of the bars and rods is unclear: all derived cold store fill 194.

Strips

5.4.13 The metal strips consist of three small fragments of heavily corroded iron material that are the remains of larger unknown objects (9, 21 and 28).

Other iron objects

5.4.14 The other iron objects in the assemblage that do not readily fall into the main categories above include a small split pin (1), a circular ring (5), a large washer (10), a buckle from a belt or strap (11), a strap or handle end clamp (15), a tube or rim piece (17), the lid from a tin (25), a conical furniture spring (51) and possible heavily corroded half round file or rasp (52). A possible hammerhead consists of a tapered piece with one flat end and the other rounded, although identification is limited by heavy corrosion.

Conclusion

5.4.15 Two iron objects were recovered from the lower fills of the soft water tank (fills 259 and 260), but 90% of the assemblage derived from cold store fill 194. Following the disuse of this structure, it appears that it was used to dump large quantities of iron waste, as well as other materials. The presence of galvanised objects provides a deposition date for fill 194 of between the mid 19th to the early 20th century, which fits well with the late 19th-century date for the pottery (see Section 5.1).

5.5 Tools and Knives by Joan Unwin and Ken Hawley

Introduction

5.5.1 The finds examined are derived from cold store fill 194 and cellar fill 232. Ferrous metal has a poor survival rate in the ground and anything that does survive, is often very corroded. There are two groups of incomplete artefacts. One group consists of three non-ferrous knife handles and the other consists of six parts of spades or shovels (Table 2). The metal blades from the knife handles have disappeared and the spade and shovels are broken, with only the junction with the shaft giving an indication of the object.

Table 2. Listing of tools and knives

Context	Object	Material	Plate	Recommendation
194	scale tang table knife handle	bone	36	discard
194	round tang table knife handle	bone	38	clean and preserve
194	shovel blade one	wrought iron ?	41	clean and preserve
194	spade blade (?) one	wrought iron ?	44	discard
194	spade blade (two pieces) two	wrought iron ?	45	clean and preserve
194	spade blade three	wrought iron ?	46	clean and preserve
194	spade blade (?) four		47	discard
232	forbuck scale tang table knife handle	bone	37	clean and preserve

The table cutlery handles

5.5.2 There were three handles recovered, which have probably come from table knives. All were of bone; two are scale tang handles (Plates 36 and 37) which means the handle is in two parts, attached to each side of the flat scale tang of the knife and held in place with three rivets along the mid-line. The third handle is designed for attaching to a round tang (Plate 38).

5.5.3 One of the scale tang handles is badly corroded and the scales are partly missing (knife one). They appear to be thin sections of bone, judging by the length of the rivets, but hard to see if they were decorated. The other scale tang handle is attractive, being tapered along the length towards the blade end and with a diamond or chequered decoration on the surface, known as 'forbuck' (knife two). This pattern is made by a file with evenly spaced ridges, which produces several parallel grooves at a time. The scales have been cut diagonally in one direction and then overcut in a 'V' shaped pattern. The end of the handle would have a metal 'plate' or endcap pinned to the ends of the scales.

5.5.4 The third handle is made to fit a short round tang for a table knife (knife three) The handle is broken to reveal the hole drilled down the centre of the handle made to receive the tang. It does not show any corrosion, which suggest it came apart very early in its life, or it was never attached to the knife, being broken during assembly. The traits of the central hole indicate that it was made using a parser drill. The accuracy of the work is admirable.

5.5.5 These handles are common and late 19th and early 20th-century trade catalogues from Sheffield manufacturers show similar types (Plate 39) and Plate 40 shows a complete example of a similar knife and fork in the Hawley Collection, dated to the late 19 or early 20th century.

The spade and shovel parts

5.5.6 These finds were all from cold store fill 194. They are badly corroded, broken and would benefit from further cleaning. They do demonstrate, however, the methods of manufacture, showing how two sheets of iron were welded together to form the blades, leaving a 'pocket' in the top for the shaft insertion and some fragments of wood can be seen.

5.5.7 Shovel One. The largest find is from a 13-inch (330mm) wide shovel, which would have been 12 inches (305mm) long with a round nose (Plate 41). There is a riveted plate to take the shaft but a large stone corroded to one side prevents further examination. The design is similar to a riveted steel coal shovel, examples of which are shown in late 19th and early catalogues (Plates 42 and 43). Spades One to Four are fragmentary and are shown in Plates 44 to 47.

Conclusions

5.5.8 These finds are typical of 19th-century domestic finds and the spades and shovels could have been put to agricultural use.

5.5.9 *Table knife handles*: The handles are typical of the later 19th and early 20th centuries. Being made of bone and not ivory, they were for the 'mass-market'. The handles are not rare, but are attractive. The study of tools and edged tools has recently seen increased emphasis on the methods and stages of manufacture, as well as the finished implements themselves. The bored bone handle is revealing in that it shows the method of manufacture.

5.5.10 *Spade and shovel parts*: These finds are badly corroded and only a broad 19th-century date for these implements is possible. They show the method of manufacture and therefore are significant. It is also worth noting that one of the shovel and spade manufacturers in Sheffield – CT Skelton - had a large factory in Heeley by the River Sheaf. The factory still exists, though the firm does not.

5.6 Copper alloy objects by Daniel Lee

5.6.1 Copper alloys have the advantage of more limited degradation compared to iron objects, unless galvanised, and can be cast and in some cases worked cold (Cronyn 1990, 213). The two objects from Ash House farm are generally in good condition with some surface decay in the form of green coloration and thin crusts indicative of malachite and other mineral crystal formation, and patinas formed mainly by oxidation in the burial environment (Cronyn 1990, 216). The assemblage consists of a circular furniture handle and a small escutchion plate (Plate 35).

Catalogue

1. Handle, circular ring fixed to attaching plate with bolt threaded rear. Length (max) 84mm, width (max) 58mm, average thickness (max) 6.5mm, weight 96g. *Context 194*
2. Escutchion plate, key aperture 14 by 6mm, inverted cross decoration at base, stamped from sheet metal. Length (max) 48mm, width (max) 22mm average thickness (max) 3mm, weight 6g. *Context 264*

5.7 Coins by Craig Barclay and Daniel Lee

5.7.1 Two coins are heavily worn (1 and 2). The William and Mary halfpenny is of a type that continued to circulate (often in an extremely worn state) up until about 1800. The George III coin was struck by Matthew Boulton in Birmingham. It shows heavy wear but is unlikely to have been lost post 1860, as a major coinage reform in that year replaced the old copper coinage with new lighter coins struck in bronze. The English shilling is dated 1961 and

depicts Elizabeth II and the 'three lions' shield. The shilling was replaced in 1968 with the five new pence coin, although they remained in circulation until 1990.

1. Copper halfpenny; George III. Issued 1806-07; heavy wear; mid C19th loss. *Context 180; sf 1*
2. Copper halfpenny; William and Mary. Issued 1694; heavy wear; mid-late C18th loss. *Context 232; sf 3*
3. Copper shilling; Elizabeth II. Issued 1961; no wear; late C20th loss. *Context 200*

5.8 **Glass** by Daniel Lee

5.8.1 Forty-four pieces of glass were recovered and are described in Appendix XII. Artefacts referred to below are identified by a catalogue number. None of the artefacts warranted illustration.

The assemblage

5.8.2 The assemblage can be divided into four main categories; bottles, jars, window glass and other. Of the 44 fragments, 30 (68%) are from bottles, four (9%) are window glass, and two (5%) derive from jars. The remaining eight fragments (18%) are from ornamental, drinking and medical vessels. Sixty-one percent of the assemblage was from a single deposit (194) within the cold store.

5.8.3 South Yorkshire was famed for its glass industry that was centred on Barnsley, but was also found in the Rotherham district and Sheffield (Ashurst 1991). Initially, the South Yorkshire glass industry was concerned with crown window glass production in the 17th and 18th century, only later diversifying to mass bottle production in the 19th century. The 19th century saw an explosion in glass bottle production with improved manufacturing techniques and increased demand (Ashurst 1991, 82-85). Window glass, and especially glass bottles, were often recycled to provide the 'cullet' (old glass) that was essential in the process of melting new glass, although much glass was discarded. No glass production is known on or in the near vicinity of the site.

The bottles

5.8.4 The oldest bottle fragments (41-3) from cold store fill 260 may derive from a hand blown wine bottle due to the characteristic rounded base, although they are very heavily abraded.

5.8.5 The assemblage consists mostly of neck, body and base fragments from wine, beer and soft drinks bottles dating from the mid to late 19th century. Two embossed small syrup bottles were recovered from cold store fill 194 (1 and 13) and a near whole Codd bottle (17) was retrieved from deposit 195. The latter was embossed 'C. Gillott & Son, 23, Earldom Street, Sheffield' which, according to the Sheffield trade directories, were a mineral water firm operating from these premises in Burngreave from around 1888 to 1896. White's 1898 directory shows that they then moved to premises in Ellesmere Road. This suggests a narrow deposition date for the bottle of approximately ten years. A large bottle base fragment from fill 194 was embossed 'RCB'

(also noted on two vessels from Sheaf Square excavations, Lee 2006), which is likely to represent a late 19th-century regional bottle maker.

Window Glass

5.8.6 The four window glass fragments recovered from the site were all small sherds of clear metal between 0.8mm and 1.6mm thick (35, 36, 39 and 44). The production method (i.e. crown glass or later blown cylinder or rolled techniques) is not clear from such a small assemblage.

Other Glass finds

5.8.7 The remainder of the assemblage consisted of two fragments of glass jars (10 and 11), fluted decoration drinking tumblers (22-25), a decorative small oval pot (26), the rim/body sherd of a possible ornamental vase rim with no decoration (12), and part of a medical vile (27).

Conclusion

5.8.8 The glass assemblage recovered from the site is typical of domestic glass waste in the late 19th century. Exceptions to this are the possible hand blown bottle fragments recovered from cold store fill 260. Whilst heavily abraded and non-diagnostic they do display the characteristic rounded base of vessel formed from this process, indicative of an 18th-century date. The majority of the assemblage (68%) was derived from cold store fill 194 and includes bottles, press moulded decorative pieces and drinking glasses, and some medical type vessels. A late 19th-century date for deposition is likely.

5.9 Wood and leather by Steven Allen

5.9.1 Six pieces of waterlogged wood, one waterlogged fruit stone and seven pieces of waterlogged leather were investigated. Catalogues of the two assemblages are shown in Tables 3 and 4.

Method

5.9.2 Most of the artefacts were delivered to the Wet Wood Laboratory wet packed, wrapped in self-seal finds bags, with the two joined pieces of leather from cold store fill 194 laid flat inside a clear polythene bag and sealed with drafting tape, and attached to a short length of plywood. Each object was removed from its packaging, washed under cold running water to remove adhering burial deposits and returned to its packaging after examination, and species identification where the wood was concerned.

Condition

5.9.3 The wood has been preserved through burial in a waterlogged anoxic environment. Though it appears that these conditions were maintained in all deposits in which the material survived up to the time of excavation, there are some indications that this has recently changed. The cores of the four roundwood pieces were very tough and incompletely waterlogged. This suggests that these pieces had been placed into a waterlogged deposit relatively recently and had not yet degraded. Yet the outer surfaces of these same pieces had fissured longitudinally, a pattern resulting from rapid uncontrolled drying. This drying had taken place during burial as particles of the same burial matrix adhering to the outer surfaces of the pieces had stained

the more recently exposed surfaces created by the cracking and shrinkage of the wood.

5.9.4 The leather was generally in good condition, though some of the thicker pieces had suffered from mineral absorption from their surrounding burial deposits, leaving them stiff and in some cases, brittle. Some heavy mineral concretion was present in one case where corrosion products from the buckle attached to a strap had migrated into a neighbouring piece of leather sheet, holding the strap, buckle and sheet together as one object.

Discussion

5.9.5 All of the organic material assessed in this report appears to be waste or rubbish, either intentionally thrown away or caught up in the disposal of other material.

5.9.6 By context, the wall of the waterhole (182) was associated with four scraps of leather (i-iv). The only two identifiable pieces are derived from footwear, probably part of a boot upper and part of a heel. The technology on no. (ii) implies the use of a sewing machine which might argue for a late date for the deposit it was found in.

5.9.7 The upper backfill of the cold store (194) produced two pieces of leather, a tunnel stitched sheet and part of a strap with buckle. The former was intended to be attached to another piece of leather, lost prior to burial but it is not possible to say what it was part of. Its direct association with the strap is probably a coincidence as there is no evidence to show that they were originally part of the same object.

5.9.8 The two chippings from the upper fill (258) are both offcuts, waste from the cutting of Elm timber. Neither piece has suffered especially from exposure prior to their burial and appear to have arrived in their burial context almost immediately. Apart from the obvious indication that such timbers were being prepared at the time the deposit was formed, little more can be said. The roundwood has probably arrived in this same context by the same mechanism and does not appear to be related to a lining or revetment of the pit sides.

5.9.9 The 'fruit stone' has proved to be a highly eroded and distorted radially faced chipping. Its resemblance to a large fruit stone is purely fortuitous.

Table 3. Catalogue of wood finds (species identifications follow Schweingruber 1982)

Identification	Description	Species identification
258 (i)	Section of roundwood, no bark present. Multiple longitudinal shrinkage cracks present along grain. Both ends broken and missing. 154 l, 31 dia.	*Fraxinus excelsior* L. (Ash) Very slow grown, cannot distinguish individual annual rings.
258 (ii)	Section of roundwood, no bark present. Multiple longitudinal shrinkage cracks present along grain. Both ends broken and missing. 92 l, 27 dia.	*Fraxinus excelsior* L. Very slow grown. More than 12 annual rings.
258 (iii)	Section of roundwood, no bark present. Multiple longitudinal shrinkage cracks present along grain. Both ends broken and missing. 75 l, 26 dia.	*Fraxinus excelsior* L. Very slow grown. More than 20 annual rings.

Identification	Description	Species identification
258 (iv)	Halved section of roundwood, no bark present. Start of single hewn facet towards one end truncated by breakage. Other end also broken and missing. 45 l, 28 w, 12 th.	*Fraxinus excelsior* L. Very slow grown. More than 30 annual rings.
258 (v)	Boxed radial heartwood chipping, cut to size. 20 l, 36 w, 20 th.	*Ulmus* spp. (Elm)
258 (vi)	Radially faced heartwood chipping. Both ends cut to length. 20 l, 29 w, 11 th.	*Ulmus* spp.
258 (vii) "Fruit Stone".	Large teardrop shaped fragment of radially faced wood. Not a fruit stone (Allan Hall, pers. comm.) Highly eroded surfaces, fragile and delaminating. Resemblance to a fruit stone is simply coincidental. 45 l, 41 w, 25 th.	*Fraxinus excelsior* L.

Table 4. Catalogue of leather finds

Identification	Description	Condition.
182 (i)	Fragment from heel of sole unit. Edge/Flesh stitching around curved edge, further rows of edge/flesh stitching also present. 59 l, 36 w, 02 th.	Some light mineralisation present on surface. Stiff and brittle.
182 (ii)	Fragment from boot upper. Two original edges present forming rounded corner, remaining edges torn. Remains of machine stitched border present around original edge with parallel line of stitching c. 15mm further in. Three grain/flesh rivet holes 04 dia., punched through leather parallel to original edge for ?laces or thong. 57 l, 32 w, 02 th.	Good condition.
182 (iii)	Small scrap with two complete and two partial holes made by square section implement or fitting. All edges torn with some hints of stitching possibly present. 33 l, 32 w, 03-01 th.	Partly mineralised- very stiff and brittle.
182 (iv)	Small scrap from corner of artefact. Four edge/flesh holes present in varying sizes, no obvious pattern. 24 l, 16w, 02 th.	Stiff, otherwise good condition.
194 (i)	Thick sheet. One original cut edge and corner present, other edges torn. Three large tunnel stitches on flesh side forming row parallel to cut edge intended for cord or thong. 351 l, 104 w, 03 th.	Stiff, otherwise good condition. Joined by corrosion products to 194 (ii).
194 (ii)	Part of strap with attached fe buckle. Strap has three parallel rows of small punched holes running along length. Appears to be folded over the buckle pin and stitched but arrangement obscured. Single retaining loop for strap end passes around the strap behind the buckle. Buckle formed from simple flat sub rectangular plan loop with tongue attached to pin. Very corroded surfaces but metal still present. Corrosion products join the buckle and strap to the grain side of 194 (i) above. Strap 60 l, 19 w, 02 th., loop 12 w, 03 th. Buckle 23 l, 28 w, 03 th.	Leather stiff, otherwise good condition. Corrosion products join this piece to 194 (i)

Identification	Description	Condition.
258	Offcut. One cut edge, with opposing edge roughly trimmed. Single row of grain/flesh stitch holes along cut edge. Both ends torn. 95 l, 19 w, 01 th.	Slightly stiff, some delamination of flesh side.

5.10 Textile by Penelope W. Rogers

5.10.1 Three groups of textile were recovered from the waterhole (258). The first (A) represents parts of a wool garment, the second (B) some fragments of silk and the third (C) a small compacted pad, possibly the remains of a fabric button. These are simple textiles which had a broad period of use from the 16th century onwards and they have no diagnostic technical features to provide a closer dating. They have also been examined by J. Sheppard, Curator of Costume and Textiles at the Castle Museum, York, who was unable to identify the garment from which the fragments come, although the oval-circular shape of a piece in Group A suggests the crown of a hat. Only the imprint of decorative stitching on a rectangular fragment in Group A offers a date: the crossing wave pattern, known as a 'chain', is one which was most popular in the early-mid 18th century, although it became a long-lasting motif and it still appears today in traditional bed quilts (J.Sheppard pers. comm.). The technical features of the fragments have been recorded below.

5.10.2 **Group A** is made up of two complete garment pieces, of which one is oval, 210 x 175 mm, and the other a rectangle, 540 x 75-80 mm. Regular lines of stitch-holes in a crossing wave pattern or 'chain' run along the length of the rectangular piece and suggest that there was once an embroidered or quilted decoration, although the thread is now absent. Both the rectangle and the circle have folded edges and stitch-holes parallel to the folded edge. The stitching is very neat and regular, but minor inconsistencies indicate that it is hand- rather than machine-stitched. The textile is a wool union, with 16-18/Z threads per cm in the wool system and the imprint of 16 threads per cm in the other. A union is a fabric in which the warp is a different fibre from the weft. In this instance, the opposing yarn must have been cellulosic (cotton or linen) and, like the sewing thread, it has decayed away during burial.

5.10.3 **Group B** includes two fragments of silk tabby repp, measuring 310 x 120 mm and 230 x 190 mm. The thread count is 90 per cm in the warp and 36 per cm in the weft, and the yarn is without twist. The pieces are both torn rags, although a selvedge with remains of stitch-holes has survived along the edge of one. Microscopy of the fibres showed that the silk had not been fully de-gummed (when exuded by the silk moth, the filament lies in pairs within a sleeve of gum, which has to be removed by boiling). This gives a less lustrous fabric than when the silk is completely degummed and, combined with the solid repp weave, it makes for a relatively stiff material. This is most likely to be some form of garment lining, or perhaps a fine upholstery fabric.

5.10.4 **Group C** <17> is a small item made up of several layers of textile which have been folded into an approximate circle, 23 mm in diameter, perhaps the remains of a fabric button. The outer layer on front and back is a dark blue

wool twill, almost certainly a 2/1 twill, 40-46/Z x 24-30/? per cm, and tucked inside this is another coarser textile, also made from Z-spun yarn.

6. Environmental Record

6.1 Animal bone by Jane Richardson

6.1.1 In total, eighteen animal bones and one marine shell fragment were recovered (Table 5). The bone fragments were typically well preserved, with few eroded surfaces and only scant evidence for gnawing by rodents.

6.1.2 The majority, if not all, of the animal bones represent food waste. These are the bones of cattle, sheep, pig and fish, and certainly butchery marks on cattle, sheep and pig bones attest to the reduction of their carcasses. Unfortunately, too few bones and shells were recovered to facilitate further interpretation.

6.1.3 The fish bone is from a Ling (*Molva molva*), a member of the Cod order (James Barrett pers comm.). It is an elongated marine food fish common around Greenland and northern Europe that was often salted and dried.

Table 5. A summary of the fauna by context

Context	Species	Element	Quantity
194	Cattle	Humerus fragment (sawn)	1
	Cattle-sized	Rib fragments (sawn)	3
	Cattle-sized	Vertebral fragment	1
	Pig	Skull fragment	1
	Pig	Radius barrel (gnawed)	1
	Pig	Femur barrel (cut)	1
	Pig-sized	Long bone fragment	1
	Fish (Ling)	Right mandible body	1
218	Cattle	Humerus fragment	1
	Sheep-sized	Rib fragment (sawn)	1
224	Cattle-sized	Rib fragment (sawn)	1
232	Sheep	Distal tibia (fused)	1
	Sheep	Femur barrel (rodent gnawed)	1
	Pig	Metatarsal (not fused)	1
239	Undiagnostic	Marine shell fragment	1
258	Undiagnostic	Burnt fragments	2
Total			19

6.2 Plant and invertebrate remains by Alexandra Schmidl, John Carrott and Stewart Gardner

Introduction and summary

6.2.1 Plant and invertebrate remains from four bulk sediment samples ('GBA'/'BS' *sensu* Dobney *et al*. 1992) were submitted for an assessment of their

bioarchaeological potential. The samples were all collected from the same fill (258) of a putative privy feature.

6.2.2 Each of the samples gave appreciable quantities of well-preserved plant macrofossils, including numerous remains of yew and a wide range of other wild plants, presumably deriving from vegetation growing in the vicinity of the feature. The invertebrate remains recovered were very variable preserved, but were predominantly in poor condition and unidentified. There were no taxa of value for the interpretation of human activities in the vicinity or the specific use of the feature.

6.2.3 The distinct absence of remains of food plants, macroscopic invertebrates characteristic of faecal material (e.g. fly puparia), and eggs of intestinal parasites casts some doubt on the archaeological interpretation of this feature as a privy. If this was the original function of the feature then it would appear that it had been thoroughly cleaned of 'cess' prior to the formation of the deposit reported here. The presence of artefactual (e.g. pot sherds) and other (e.g. slag, coal, cinder and charcoal) remains, however, precludes the possibility that the deposit was an entirely 'natural' accumulation, and the composition of the wild plant assemblages suggested an environment strongly modified by human activity.

6.2.4 No further study of the plant and invertebrate remains from these deposits is warranted.

Method

6.2.5 The submitted sediment samples were examined and their lithologies recorded using a *pro forma* prior to the processing of a sub-sample, broadly following the methods of Kenward *et al*. (1980, 1986). The sub-samples were disaggregated in water for 24 hours or more before processing and latterly their volumes were recorded in a waterlogged state. A small number of insect remains recovered from other samples processed by the excavator were also submitted.

6.2.6 Plant, invertebrate and other biological remains (and the general nature of the residues and washovers) were recorded briefly by 'scanning', identifiable taxa and other components being listed on paper. Notes on the quantity and quality of preservation were made for each fraction. The residues were primarily mineral in nature and were dried, weighed and their components recorded in brief.

6.2.7 Nomenclature for plant taxa follows Stace (1997) and for beetles Kloet and Hincks (1964-77).

6.2.8 One of the samples (Sample 12, from the lower part of the fill in the main area – 268 – of the ?privy) was examined using the 'squash' technique of Dainton (1992). This was undertaken to assess the content of eggs of intestinal parasitic nematodes but routinely reveals other microfossils, such as pollen and diatoms, and these were noted where present. The assessment slide was scanned at 150x magnification with 600x used where necessary.

Results

6.2.9 The results from the GBA samples are presented in sample number order by context, with notes on the separately submitted insect remains given at the

end. Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the volume of sediment remaining follows (in round brackets) after the sample numbers. A summary of the plant remains is shown in Appendix XIII.

6.2.10 **Context 258** [lower, humic fill of 18th-20th century ?privy]

Sample 11 (3 kg/3.1 litres sieved to 300 microns with washover and paraffin flotation; approximately 1 litre of unprocessed sediment remains)

This sample was taken from the upper part of the fill within the main area (268) of the ?privy.

Moist, mid grey-brown to mid grey (with occasional patches of light to mid orange), stiff and sticky to crumbly (working soft), clay silt (some areas of more or less pure clay). Stones (2 to 6 mm), ?pottery, 'seeds' and roots and rootlets were present.

The flot (8 ml) and washover (200 ml) were both largely of waterlogged plant remains including fibres, leaf and wood fragments, and modern rootlets and rhizomes. The preservation of the plant material was mostly good. There were large amounts of leaves and some seeds of yew (*Taxus baccata* L.), suggesting that these trees grew close to the feature. Numerous seeds of bladder campion (*Silene vulgaris* Garcke), chickweed (*Stellaria media* (L.) Vill.), achenes of common nettle (*Urtica dioica* L.), knotgrass (*Polygonum aviculare* L.) and sheep's sorrel (*Rumex acetosella* L.) reflect anthropogenic habitats such as grassy places and, in particular, open, rough ground. Additionally, seeds and fruits of deciduous shrubs, such as blackberry (*Rubus fruticosus* L. agg.) and elder (*Sambucus nigra* L.), were recovered; most likely derived from nearby hedges. Other wild plant taxa – black-bindweed (*Fallopia convolvulus* (L.) Á. Löve), fat-hen (*Chenopodium album* L.), fool's parsley (*Aethusa cynapium* L.), orache (*Atriplex*) and petty spurge (*Euphorbia peplus* L.) – indicated waste places or waysides, generally places with significant human influence and usually with nitrogen-rich soil. The presence of some small fragments of slag was noted.

There were appreciable numbers of invertebrate remains in the flot, including some which were clearly of very recent origin (egg capsules, some containing developing earthworms). Most of the invertebrate remains consisted of highly fragmented and heavily eroded fragments of beetle sclerites – largely unidentified, but including some pieces of ground beetle (Carabidae) and rove beetle (Staphylinidae) elytron. There were also some mites (Acari) and a few ?ant (cf. Formicidae) heads.

The small residue (dry weight 0.38 kg) was mostly stones (to 30 mm), with traces of sand, brick/tile (to 18 mm; 2 g), pot (two sherds to 40 mm; 8 g), slag (two fragments to 8 mm; <1 g), coal (to 20 mm; 6 g), cinder (to 28 mm; 13 g), glass (two pieces to 10 mm; 1 g) and root/bark (<1 g).

Sample 12 (3 kg/3.4 litres sieved to 300 microns with washover and paraffin flotation; approximately 1 litre of unprocessed sediment remains)

This sample was taken from the lower part of the fill within the main area (268) of the ?privy.

Moist to wet, mid grey-brown, stiff and sticky (working soft and somewhat plastic), clay silt (to silty clay), with some small lumps (to 15 mm) of clay. Stones (2 to 6 mm and over 60 mm), twigs and roots and rootlets were present.

Waterlogged plant remains again dominated both the flot (12 ml) and the washover (200 ml) and included pieces of modern rootlets and rhizomes, plant fibres, and fragments of leaves and wood. Once again, leaves and seeds of yew formed a significant component of both fractions, confirming the importance of this species at this site. Most of the identifiable plant remains were well preserved and included a number of grassland and open ground taxa (notably bladder campion, chickweed, greater plantain (*Plantago major* L. ssp. *major*) and smooth/rough meadow-grass (*Poa pratensis* L./*P. trivialis* L.)). Numerous plant remains (e.g. of black-bindweed, fat-hen and petty spurge indicated waste places. A single fig (*Ficus carica* L.) stone was the only definite food plant recorded from any of the samples. Small fragments of slag were noted.

Invertebrate remains in the flot again included earthworm egg capsules of very recent origin. The assemblage of beetle remains was also similar to that from Sample 11, though the remains

were somewhat better preserved being both less eroded and less fragmented. As well as fragments of ground and rove beetles, the remains of several *Cercyon analis* (Paykull) – common in decaying organic matter of various kinds –were identified, ants were definitely represented and mites were also present.

The small residue (dry weight 0.38 kg) was of stones (to 38 mm), with traces of sand, brick/tile (to 20 mm; 4 g), pot (one sherd to 13 mm; 1 g), slag (to 8 mm; <1 g), coal (to 23 mm; 6 g), cinder (to 20 mm; 11g), glass (one piece to 10 mm; <1 g) and fragments of root/bark (1 g) and 'seeds' (two fragments; <1 g).

The microfossil 'squash' was mostly inorganic, with a little organic detritus (further macroscopic plant fragments were also present). No eggs of intestinal parasitic nematodes were recorded, but there were some well-preserved pollen grains/spores (of at least three forms) and a single live soil nematode was seen.

Sample 21 (3 kg/3 litres sieved to 300 microns with washover and paraffin flotation; approximately 1.5 litres of unprocessed sediment remain)

This sample was taken from the upper part of the fill within the access area (269) of the ?privy.

Moist, light to mid grey to mid grey-brown, stiff and sticky (working soft and somewhat plastic), slightly sandy clay silt (to silty clay). Stones (2 to over 60 mm), fragments of ?brick/tile, 'seeds' and roots and rootlets were present.

The flot (9 ml) and washover (185 ml) consisted entirely of organic material, mostly plant remains – modern rootlets, twig and wood fragments, plant fibres, bud scales and leaf fragments. The plant remains were well preserved by waterlogging, with leaves and seeds of yew again forming the principal component of the assemblage. Most of the other taxa represented were wild plants of waste places and grasslands – e.g. lesser hawkbit (*Leontodon saxatilis* Lam.), meadow/creeping buttercup (*Ranunculus acris* L./*R. repens* L.), perennial yellow-woundwort (*Stachys recta* L.) and shepherd's-purse (*Capsella bursa-pastoris* (L.) Medik.).

There were rather fewer beetle remains in the flot from this sample than were seen from either of the two preceding samples and were mostly small and eroded unidentified fragments. Very recent remains in the form of earthworm egg capsules were present and there was also a weevil (*Otiorhynchus* ?*sulcatus* (Fabricius)) head which retained parts of both antennae and was, perhaps, also of modern origin. No ant remains were seen and there were only a few mites.

The medium-sized residue (dry weight 0.99 kg) was of stones (to 80 mm), with trace amounts of sand, brick/tile (to 12 mm; 4 g), pot (seven sherds to 42 mm; 8 g), slag (to 10 mm; 2 g), coal (to 15 mm; 4 g) and cinder (to 22 mm; 6 g).

Sample 22 (3 kg/3 litres sieved to 300 microns with washover and paraffin flotation; approximately 1.5 litres of unprocessed sediment remain)

This sample was taken from the lower part of the fill within the access area (269) of the ?privy.

Moist to wet, light to mid grey to mid grey-brown, stiff and sticky (working soft and somewhat plastic), silty clay. Fragments of ?brick/tile and roots and rootlets were present.

The flot (10 ml) and washover (190 ml) were both mostly of waterlogged plant remains, including modern rootlets, fragments of twig, wood, culm and leaves – leaves of yew forming the major part of the assemblage. Typical grassland and waste ground species such as black-bindweed, chickweed, fool's parsley, orache, petty spurge, shepherd's-purse and small nettle (*Urtica urens* L.) were all identified. Deciduous shrubs and trees species, rose (*Rosa*) and cherry/dwarf cherry (*Prunus avium* (L.) L./*P. cerasus* L.), again indicated hedges or similar habitats in the area.

The invertebrate assemblage seen in the flot was very similar in preservation and composition to that from Sample 11 (see above), with, subjectively, rather more mites present and the addition of numerous cladoceran (water fleas) ephippia (resting eggs), including some of *Daphnia*. The last were rather poorly preserved being eroded and very pale in colour.

The rather small residue (dry weight 0.63 kg) was of stones (to 75 mm) and sand, with traces of brick/tile (to 70 mm; 64 g), ?pot (one sherd to 8 mm; 1 g), slag (to 6 mm; 1 g), coal (to 16 mm; 5 g), cinder (to 18 mm; 4 g), charcoal (to 6 mm; 1 g) and a little root/bark (1 g).

Other samples

6.2.11 Small numbers of insect remains were recovered from samples processed by ASWYAS and submitted separately. All of the remains were recovered from additional samples from a fill (258) of the putative privy feature and were identified as follows: Sample 7 – a single ground beetle head; Sample 17 – one ground beetle head and a, probably modern, weevil (*Otiorhynchus* ?*sulcatus*) 'body' (various body parts still joined together, including both elytra, the underside and some of the abdominal segments); Sample 18 – two ground beetle heads and a pronotum fragment (also of a ground beetle).

Discussion

6.2.12 The preservation of plant remains was excellent in all four of the samples and each contained numerous remains of yew. The samples also gave a wide range of wild plant taxa (Appendix XIII), presumably from the vegetation growing in the vicinity of the feature.

6.2.13 The only definite evidence of food plants was the single fig stone from Sample 12 and, consequently, no information regarding crops consumed or processed at the site was obtained. There was also a marked absence of other 'useful' plant taxa.

6.2.14 The invertebrate remains recovered were very variable preserved, but were predominantly in poor condition and unidentified. There were no taxa of value for the interpretation of human activities in the vicinity or the specific use of the feature. The presence of cladoceran ephippia in the lower fill represented by Sample 22 indicates standing, though probably temporary, water at the time of the formation of this part of the deposit. The insect remains were mostly of ants and ground and rove beetles. The first being of no value for ecological interpretation and the beetles could not be identified sufficiently closely to provide such information.

6.2.15 The distinct absence of remains of food plants, macroscopic invertebrates characteristic of faecal material (e.g. fly puparia), and eggs of intestinal parasites, casts some doubt on the archaeological interpretation of this feature as a privy. If this was the original function of the feature then it would appear that it had been thoroughly cleaned of 'cess' prior to the formation of the deposit reported here. The organic material from this deposit can be interpreted as primarily of plant 'litter', derived from the natural habitats of the site itself, with associated invertebrate fauna.

6.2.16 There were good indications of nearby occupation, however, as the composition of the wild plant assemblages suggests an environment strongly modified by human activity, and some of the charred remains and inorganic material clearly derived from human waste disposal (e.g. pot sherds, slag, coal, cinder and charcoal). The inclusion of these remains precludes the possibility that the deposit is an entirely 'natural' accumulation.

6.3 Carbonised plant material by Diane Alldritt

6.3.1 A total of eight sample flots, together with seven small bags of charred material and four of possible seeds sorted from the retents, were subjected to identification and analysis of carbonised plant macrofossils including charcoal.

Method

6.3.2 Bulk environmental samples were processed by ASWYAS using an Ankara-style water flotation system (French 1971). The flots were subsequently dried and forwarded to the author, where they were sorted with the aid of a low powered binocular microscope at magnifications of x4-45. Flot sizes varied from between <5ml to 30ml of charred remains and modern root fragments. Retents were sorted by ASWYAS and potential charcoal and seeds sent for examination. Occasionally the sorted retent material also included coal and this has been recorded briefly where present.

6.3.3 All charcoal suitable for identification was examined using a high powered Vickers M10 metallurgical microscope. The majority of charcoal was poorly preserved, some with iron panning obscuring the vessels, however a few pieces could be identified to type. The reference photographs of Schweingruber (1990) were consulted for charcoal identification. Plant nomenclature utilised in the text follows Stace (1997) for all vascular plants apart from cereals, which follow Zohary and Hopf (2000).

Results

6.3.4 All results are presented in Appendix XIV and are discussed below.

Discussion

6.3.5 The samples overall consisted mostly of small fragments of wood charcoal, most too small or poorly preserved to be identified, and small pieces of coal. Identifiable charcoal types included oak (*Quercus*), hazel (*Corylus*), cf. *Betula* (cf. birch) and indeterminate Coniferous type. All these types may have been growing locally in the deer park, the Coniferous charcoal in particular may reflect deliberately planted trees, rather than a naturally occurring type. Oak, hazel and birch suggest mixed deciduous woodland with some lighter, more open areas, such as woodland edges were present, forming an ideal habitat for deer. As a resource for use around the farmstead, these would also have proved extremely valuable, for instance, oak to produce sturdy construction timbers and as fuel for industrial activities. Indeed, conifers could also have been used for fuel as the resin contained within these trees burns very well, and hazel and birch would be useful for smaller projects such as hurdling and fuel for domestic fires. Interestingly, a few fragments of possible burnt peat were present in sample 5 (228). This was preserved as a highly vesicular material, organic in nature, and whilst it is most probably burnt peat, it could potentially be dung or another organic material. It suggests that other fuel stuffs were in use at the time, not just charcoal and coal, and most likely in this case it was peat cut from surrounding moorland.

6.3.6 Occasional carbonised plant macrofossils were also recovered, most notably a single well preserved six row hulled barley (*Hordeum vulgare* var. *vulgare*) in sample 4 (218). Evidence for possible industrial activity such as smithing, was found in the form of small hammerscale bubbles, present in samples 1 (116),

7, 17 and 18 (all 258). The occurrence of industrial remains does not seem to form any particular pattern of association with wood charcoal in these samples and probably reflects background 'noise' from activities occurring around the site. Other important pieces of evidence consisted of whole buds and beetle fragments recovered from the waterlogged privy samples (all from context 258). Although now in a dried state, the buds in particular appeared of some antiquity, and were most likely originally preserved under waterlogged conditions. The presence of the buds suggests that the feature may have been open to the elements for some time.

Conclusion

6.3.7 The samples from the site produced a small amount of carbonised material, mostly charcoal fragments. Tentative evidence for the consumption of cereal grains, in this case a single barley, and industrial activity, were also suggested. The use of peat for fuel was also a possibility, although this is trace evidence only. Overall, the charcoal from the samples proved the most revealing in terms of use of the local environment, suggesting exploitation of forest and more open woodland for fuel and construction purposes. Coniferous charcoal also suggested that planted or introduced types of trees were present within the area.

7. Discussion

Trial trenching

7.1 The results from the trial trenching showed evidence of modern activity. Trenches 1, 3 to 5 and 7 to 9 all revealed layers of modern made ground that overlay previous topsoil layers. The land drains and modern services cut the buried subsoil, but not the made ground above. The bank adjacent to Trench 2 was also identified as a modern bund of demolition material. Trench 9 revealed two phases of modern landscaping, the lowest of which was cut by modern services. The only remains of significance were exposed in Trench 1. Here a wall, probably formalised in the 18th or 19th century, represented a boundary associated with Ash House farm.

Strip and record excavation

Phasing and dating

7.2 Datable artefacts, chiefly pottery and clay tobacco pipes, have been used to phase the features investigated as part of the strip and record exercise. Further inferences have been made based on dating evidence from the building recording survey (Swann 2005), but no stratigraphic relationships occurred between features. A summary of contexts that yielded datable artefacts are shown in Table 6.

Table 6. Table of contexts by phase, based on dateable artefacts

Context	Area	Description	Date		Phase
			Pottery	Clay Pipe	
179	A	Fill of scoop 178	L. 19th C	-	3
181	A	Capping stones of well 209	L. 19th C	-	3

Context	Area	Description	Date		Phase
			Pottery	Clay Pipe	
182	A	Upper fill of well 209	L. 19th C	-	3
189	A	Cellar general number	-	1800-1900	2
194	A	Upper fill of tank 191	L. 19th C	1790-1880	3
195	A	Finds deposit (machining)	L. 19th C	-	3
218	A	Fill of gulley 217	L. 18th C	1680-1780	2
224	A	Fill of post-hole 223	L. 18th C	-	2
225	A	Fill above culvert 226	18th C	-	2
228	A	Fill of culvert 226	L. 18th C	-	2
232	A	Fill of cellar	M-L. 18th C	1680-1880	2
239	A	Fill of cellar	M-L. 18th C	1640-1800	2
247	A	Layer butting wall 244	L. 19th C	-	3
258	A	Lower fill of well 209	L. 19th C	-	3
259	A	Mid fill of well 209	L. 19th C	1780-1900	3
260	A	Lower fill of tank 191	L. 19th C	1780-1900	3
264	A	Lower fill of tank 191	L. 19th C	1800-1900	3
265	A	Same as 264	L. 19th C	1790-1880	3

7.3 The first phase of activity was identified during the building recording survey (Swann 2005) when dendrochronology dated timbers from the barns to 1665-70. This suggested that the farmhouse, demolished in 2004 but identified as 18th century in date during the survey, was not contemporary with the barns. This was confirmed during excavation with the exposure of an earlier cellar below the building. This cellar, presumed to be the only surviving remains of the first farmhouse, was subsequently backfilled and built over in the mid to late 18th century when an extension to the second farmhouse (Phase 2) was constructed. The early cellar was succeeded by a vaulted cellar recorded in the south-west part of the Phase 2 farmhouse (Swann 2005). The early cellar, associated farmhouse and barns, therefore, represent Phase 1 and are dated to the late 17th century.

7.4 Phase 2 represents activity associated with the barns and later farmhouse during the 18th century. This includes the construction of the new farmhouse in the mid 18th century. This was one of the buildings surveyed prior to demolition in 2004 (Swann 2005) and was subsequently represented during excavation by walls 238, 243 and 251. The building recording survey also identified the addition of a new wing in the late 18th century (Swann 2005) and it is this extension that bisected the earlier Phase 1 cellar. Associated with the farmhouse was a culvert (236) draining waste water away from the house and two gulleys (217 and 198) of unknown function in the area to the south-east of the farmhouse. Post-hole 223 within Barn 1 may indicate later 18th-century alterations to the barn, although on the evidence of a single post-hole, this remains tenuous. Finally, walls 172, 174 and 176/211 represent the

remains of farmyard walls that are assigned to Phase 2 on the basis of historical mapping.

7.5 Phase 3 represents 19th-century and later activity including the conversion of the cold store (191) into a water tank (261), the waterhole (209), the destruction of a building to the south-west of the farmhouse (represented by scoop 178) and a spread of domestic waste (195). The cold store itself may have been contemporary with the 18th-century farmhouse (Phase 2), but this could not be clearly demonstrated. All that could be stated is that the tank within the cold store was probably constructed in the late 19th century. The cold store and waterhole are discussed in more detail below. The building recording survey also identified alterations to the 18th-century farmhouse prior to its demolition, including a two-storey extension in the early 19th century, a cottage attached to the house in the mid 19th century and a stair tower added to the house in the late 19th century (Swann 2005).

The cold store

7.6 The circular subterranean feature immediately to the south of the 18th-century farmhouse appears to have been used as a cold store or ice house, before being converted into a water tank in the late 19th century. Below-ground ice houses were common in the 18th and 19th centuries before the advent of refrigeration. They generally consisted of a brick-lined chamber, often with a domed roof, that was set into the ground or underneath a mound of earth (Crossley 1990, 72). Access was generally through a side passage and sealed by one or more doors. They varied greatly in form from complex multi-chambered structures to simple shafts that were loaded from the top (Dennison 1989). The circular type is typically 2 to 4m in diameter and between 4.5 to 6m in depth, although other below ground stores and vegetable clamps can be similar. As ice houses required a drain, however, the example from Ash House farm is more likely to be a simple form of cold store. The side walls leant slightly inwards at the top which is indicative of a domed roof, although no roof structure survived due to truncation. No evidence of a drainage system, side passage or any other internal features such as shelves or hooks were located. In the absence of a side passage, the store was probably loaded from the top. The floor originally consisted of thin sandstone flags. The proximity of the cold store to the farmhouse may suggest domestic use and the simplicity of the structure may reflect its vernacular setting.

The waterhole: foul or fresh?

7.7 At the time of excavation, this stone-built subterranean feature to the south-east of the cold store was interpreted as a small privy. It was an appropriate size, with steps down to a lower level to facilitate cleaning. The main lower fill (258) was waterlogged, rich in organic remains and malodorous. It was not until the palaeo-environmental samples from the fill were analysed that it became apparent that the faunal and floral indicative of cess were absent. Instead, plant material, especially yew, suggested a slow accumulation of material over time. It is possible that the privy was cleaned out of cess before being allowed to silt up again, but this would have had to have been thorough to remove all palaeo-environmental evidence. It is more likely that the feature was a shallow well deliberately sited on a spring. The presence of an overflow pipe (215) also suggests that water frequently rose to the top of the feature and

again suggests fresh water rather than foul. The ephippia (water-resting eggs) from Sample 12, however, do suggest periodic rather than permanent water (John Carrott pers. comm.).

The local environment and resources

7.7.1 The analysis of the palaeo-environmental and bulk environmental samples has provided some indications as to the local environment around Ash House farm in the 19th century. The plant and animal remains reflect the surrounding environment, and indicate one strongly modified by human activity. The numerous remains of yew from the waterhole suggest this was growing in the vicinity. Food plants, in contrast, were few in number with only a single waterlogged fig stone and a single charred barley grain present. This suggests that crop processing was carried out in areas away from the farmhouse, perhaps closer to the barns. The charcoal remains indicated that oak, hazel and birch probably grew nearby. A small quantity of burned peat suggests that this fuel may have been burnt on the farm for domestic heating and would have been imported from the moors to the west.

8. Conclusions

8.1 The programme of archaeological investigation by ASWYAS at Ash House farm included a building recording survey and watching brief (Swann 2005), geophysical survey, trial trenching and excavation. These revealed a multi-phase site beginning with the construction of late-17th century barns and a farmhouse following the break up of Sheffield Deer Park in the mid 17th century. The original farmhouse was replaced in the mid 18th century and this building was not demolished until 2004. The cold store may have also have been constructed during the 18th century, but certainly by the late 19th century it had been converted into a water tank. A waterhole, added to the garden area, may have been another 19th-century addition, although again the origin of this structure may have been earlier. During the 19th century, a number of additions were made to the farmhouse including an extension and cottage (Swann 2005).

8.2 Ash House farm was an important post-medieval vernacular site within the city of Sheffield. Unfortunately, little attention has been paid to such agricultural sites, with previous studies of timber-farmed buildings in the region tending to focus on earlier and more grand structures (Ryder 1979). More recent work on farmsteads (Barnwell and Giles 1997) has focused on mid 18th century and later examples, again to the exclusion of earlier properties such as Ash House. The farmstead was established during an important period in the history of Sheffield when the medieval deer park was being fragmented into various farms. Ash House was one of these original farmsteads and maintained its integrity, as with much of the former park area to the east of the town, until the construction of large housing estates in the early 20th century. The farmstead buildings themselves survived within a vastly reduced plot of land until re-development in 2004.

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Modern digital OS map (NTF file converted in CAD, used under license)

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