

# WATERSMEET, MILL COMMON, HUNTINGDON CAMBRIDGESHIRE

ARCHAEOLOGICAL EXCAVATION FINAL REPORT



## ARCHAEOLOGICAL SOLUTIONS LTD

# WATERSMEET, MILL COMMON, HUNTINGDON CAMBRIDGESHIRE

# ARCHAEOLOGICAL EXCAVATION ARCHIVE REPORT

Authors: Kate Nicholson MS	ic .
NGR: TL 241 175	Report No. 1780
District:	Site Code:-
Approved: Claire Halpin	Project No.1994
Signed:	Date: Nov 04

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# Excavations at Watersmeet, Mill Common, Huntingdon, Huntingdonshire.

By Kate Nicholson, MSc

With contributions by Jane Cowgill, Nina Crummy, Tom McDonald, Andrew Peachey, Carina Phillips. Hillary Cool and Val Fryer. Illustrations by Jerry Drake.

## **Summary**

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During June to August 2003, archaeological excavation was carried out by Archaeological Solutions ltd at Watersmeet, Mill Common, Huntingdon, Huntingdonshire (NGR TL 241 175). Archaeological features at the site dated from the early Roman period through to the tenth to twelfth century, but were concentrated in the late Roman period. Residual finds of flint tools attested earlier (Mesolithic to Bronze Age) activity in the area. An early Roman enclosure occupied an area of the site which became a late Roman inhumation cemetery, yielding 68 skeletons most of which were buried on a west to east alignment and in an extended supine position. Four skeletons were found buried outside of the cemetery in the eastern part of the site, which was dominated by a system of late Roman field ditches. In Saxo Norman times large pits were dug to the south of the Roman cemetery.

#### **BACKGROUND**

#### Introduction

Between June and August 2003, Archaeological Solutions Ltd carried out archaeological excavation of land at Watersmeet, Huntingdon, Huntingdonshire (NGR TL 241 175) in advance of the redevelopment of the site for residential use (Hounsell and Nicholson 2003). The archaeological potential of the site had been demonstrated by a desk based assessment and trial trench evaluation carried out by Cambridge County Council Archaeological Field Unit (Spoerry 1999, Cooper and Spoerry 2000). All archaeological work was commissioned by Campbell, Melhuish & Buchanan. The trial trench evaluation revealed evidence for activity at Watersmeet during Late Iron Age, Roman and Saxo Norman (10<sup>th</sup> to 12<sup>th</sup> century) / medieval times. Several of the 10<sup>th</sup> to 12<sup>th</sup> century features were interpreted as being defensive and associated with the nearby castle (see below). A single, undated human inhumation was found in the southern part of the site (Cooper and Spoerry 2000).

### The Site

The town of Huntingdon (Fig 1) is situated approximately 30km north-east of Bedford, 25.5km north-west of Cambridge, and 28km south-south-east of Peterborough, to the north of Alconbury Brook. St Ives lies approximately 7km to its east and St Neots 14km to its south south west; Godmanchester (Roman Durovigutum) lies approximately 1km south of the site. The site was sub trapezoidal in shape and measured 4170m<sup>2</sup> (Fig 1). It was located on Mill Common, to the south of the town. The excavated area was bounded to the South by the floodplain of Alconbury Brook, and to the north by the embankment of the A14. The confluence of Alconbury Brook and the Great Ouse lies approximately 50m east of the site, and a

trackway (which become Princes Street further north) roughly 45m west of the site leads to a foot bridge across the brook.

## Topography and Geology

The A14 bridges the Great Ouse at its confluence with Alconbury Brook, and a 14<sup>th</sup> century bridge is located slightly further downstream; it is thought that Ermine street also crossed the river at the river confluence, close to the Watersmeet site. Two medieval windmills (the White Mill and the Black Mill) and water mill are known to have been located on Mill Common, which is shown on maps of the 17<sup>th</sup> to 19<sup>th</sup> centuries as being undeveloped. The embankment of the A14 was originally created for the 19<sup>th</sup> century railway line which followed the same course; also in the 19<sup>th</sup> century a gas works was built on land immediately west of Watersmeet. Houses were built on Mill Common to the west of the foot bridge during the early 20<sup>th</sup> century. The area between the site and the trackway to the west was the location of a 19<sup>th</sup> century saw pit and boat houses and a 20<sup>th</sup> century coach depot. Although a few small 19<sup>th</sup> and 20<sup>th</sup> century structures had encroached on the development area, only one lay within the area of the open area excavation.

Watersmeet is located within a narrow strip of stoneless, clayey, in some places calcareous, alluvial river deposits; to the north the soils are Jurassic/ Cretaceous clayey soils/ fine loams over clayey soils, and to the south gravel river terraces are overlain by fine loams. A natural scarp of Pleistocene (probably Devensian) gravels traversed the site on an east-west alignment, sloping downwards towards Alconbury Brook; the presence of a probable palaeochannel in the western part of the site caused the land to slope downwards to the west (Fig 2). The highest ground on the site lay at c, 12m AOD.

A common stratigraphy was present across the site, comprising a thin, dark brown, loose and rooted topsoil (L2000) and a sub soil of clayey silt (L2001) which was this on the higher ground but much deeper in the south and west of the site. This may indicate the backfilling and deliberate levelling of the scarp for arable agriculture during the Roman and medieval periods, a theory supported by the identification of hillwash of Roman and medieval date in trench five of the CCC AFU evaluation (Cooper and Spoerry 2000). The palaeochannel in the west of the site also appeared to have been levelled by ploughing in the Roman period. On the higher ground, the subsoil directly overlay the river terrace gravels (L2002), but to the south of the scarp, towards Alconbury Brook, an increasingly complex series of alluvial clay deposits, derived either from phases of intermittent flooding or from levelling caused by ploughing, were stratified between the subsoil and river gravels. The gleyed nature of these clay deposits in the south of the site attest the long term susceptibility of the southern part of the site to flooding.

### Archaeological and historical background

Stray finds of late Neolithic date have been found in the Huntingdon area and ceremonial complexes of this date or slightly later are known at Godmanchester to the south and Brampton to the west. Iron Age activity is well attested at Godmanchester and Iron Age pottery was recovered during gravel extraction south of the Great Ouse

(SMR 1538; 10158); closer to Watersmeet, la Tene pottery has been found in Huntingdon's St Mary Street (SMR 2597a) (Fig 2).

The Roman town of *Durovigutum* was located on the edge of modern Godmanchester, on Ermine Street, roughly 1km south of Watersmeet (Fig 2). The Parks cemetery, excavated by Birmingham University Field Archaeology Unit (BUFA) in 1998 (Jones 2003) lies less than 1km south east of Watersmeet. The line of Ermine Street north of Godmanchester is not known, but it is thought to have forded the Great Ouse at its confluence with Alconbury Brook (Inksipp Ladds 1932, 1937; Greene 1977), just east of Watersmeet (Fig 2).

During the late 1960s excavations at Whitehills, approximately 200m west of the western edge of the Watersmeet site, found evidence of 3<sup>rd</sup> to 4<sup>th</sup> century Roman corridor villa, preceded by a 2<sup>nd</sup> century timber building on flint footings and earlier (1st to 2nd century) pits and ditches (Davison and Rudd unpublished; Scott 1993, 39). The villa had a mosaic on the floor of one of the rooms, and another room, where ashy deposits and hearths were found, appeared to have been deliberately constructed below ground level (Scott 1993, 39). Trial trench evaluations by HAT (now AS) at Edward House (Grant and Wilkins 2003) revealed a series of mid 1st to late 2nd century pits and gullies between Whitehills and Watersmeet. West of the villa, coins of 4<sup>th</sup> century date have been found on Mill Common (SMR 2602, 2603). To the north of the site, on the other side of the A14 late 2<sup>nd</sup> century cremation burials with accompanying pottery have been excavated (Garrood 1947, 97; SMR 2635, 868). Other possible burials of Roman date from Huntingdon are a "sepulchral urn" found close to the projected course of Ermine Street in 1824 (SMR 869) and a stone coffin found close to the Norman castle, also close to the projected course of Ermine Street. in the early 19<sup>th</sup> century (SMR 2638). Coins, pottery and a bronze key, all of Roman date, have also been found along the projected course of Ermine Street (SMR 2613, 867, 2597, 2637). On the site itself Roman coins, including those of Constantine and Valentinian, have been recovered (SMR 2607, 2608). Human remains were recovered on the site in 1921 but could not be dated, and a single undated inhumation was recovered from trench 7 during the CCC AFU trial trench evaluation (Cooper and Spoerry 2000).

The continuing occupation of this region in the late and immediate post Roman period is evidenced at Godmanchester. Although the infrastructure of the Roman town had fallen into disarray, excavations by HAT (now AS) revealed early/middle Saxon (5<sup>th</sup> to 9<sup>th</sup> century) occupation, comprising enclosures, trackways, six *grubenhäuser* and several post built structures, on the eastern edge of the Roman town (Last 1999) and at Rectory Farm the robbed out footings of a Roman villa were used in Anglo Saxon burials (Prosser 1998).

Huntingdon first appears in the historical record in the Late Anglo-Saxon period, described as a trading centre at the intersection of road and river communications routes. Saxon pottery recovered from the town is of 8<sup>th</sup> to 9<sup>th</sup> century date, suggesting a hiatus in activity in early/ middle Saxon times.

Huntingdon was held by the Danes from approximately AD880, when Danish forces occupied East Anglia (Savage 1983, 97), but was retaken by Edward the Elder in c. AD917. The location of the Danish settlement is not known, though a D shaped

enclosure around the river confluence and crossing point is considered likely (Spoerry 1999). The precise location of the burgh built by Edward the Elder is similarly unknown, but the two are likely to have been similarly placed for the requirements of defence; the Anglo Saxon chronicles state that during the Autumn of AD917 Saxon forces "took over the borough at Huntingdon [and] repaired and restored it where it had been broken down, at King Edward's command" (Savage 1983, 117).

The Domesday book makes reference to twenty properties being cleared when the Norman castle was built, thus attesting Anglo-Saxon occupation immediately north east of Watersmeet. The local distribution of 8<sup>th</sup> and 9<sup>th</sup> century pottery, and the locations of two churches (St Andrew's and St Mary's; SMR 2599 and 4248) known to have pre-conquest origins suggests that the settlement extended northwards from this area, along the projected line of Ermine Street; properties between the 14<sup>th</sup> century bridge and Market Hill are known to have been assessed for a Saxon land tax (Cozens 2000, 80). Archaeological investigation has led to the identification of a late Saxon Church and burial ground at Whitehills, on the west of Mill Common, on the same site as the earlier Roman villa (Davison and Rudd unpub). Beyond the Church, an earthwork known as bar dyke may represent part of the Saxon burgh's defences (Cooper and Spoerry 2000).

Huntingdon's Norman motte and bailey castle was built in AD1068, on the orders of William the Conqueror as he marched south from York (Taylor 2000, 33, and was destroyed in 1174 (Taylor 2000, 33; Conzen 2000, 80). The castle would have obstructed the line of Ermine Street, and may have been the cause for the construction of s wooden bridge further down stream at about this time. The castle lay immediately north-east of Watersmeet. During the CCC AFU trial trench evaluation (Cooper and Spoerry 2000) it was thought that certain excavated features may have been defensive, perhaps even forming part of a second bailey of the castle; no evidence was found to support this theory during open area excavation (see below).

Huntingdon was a prosperous town in the later Saxon and medieval period, having a market and a mint by the mid 10<sup>th</sup> century (Miller 2000, 29; Cozens 2000, 80) and being the head of the administrative shire of Huntingdonshire from pre conquest times (Page et al 1932; Ridout 2000, 44). The lengthy entry devoted to Huntingdon at Domesday reflects its continuing size and importance (Morris 1975). Early Medieval Huntingdon had 16 parishes and 6 religious houses. Although its own market and fair were never particularly successful, Huntingdon exerted considerable influence over St Ives' market and internationally renowned Easter Fair, being granted the tolls on commercial activity there in 1252 (Redstone 1932, 215). The 14<sup>th</sup> century saw a sharp decline in the town's prosperity, owing to the combined effects of reduced traffic on the Great Ouse, war with Scotland and the Black Death. The failure of the medieval town to expand beyond its traditional confines may be explained by the economic importance of the common land which surrounded it; traces of ridge and furrow agriculture can still be seen (Fig 2).

Huntingdon was not prosperous in post medieval times, and the situation was exacerbated when the Dissolution removed charitable institutions from the town. Despite this, Huntingdon expanded northwards during the 16<sup>th</sup> century. The Cromwell family benefited from the Dissolution and rose to prominence in Huntingdon. Oliver Cromwell represented the largely Puritan borough of Huntingdon

in parliament until 1628. The effects of the Civil War were acutely felt in Huntingdon, which suffered siege and occupation by both sides; the area of the Norman castle was remodelled for defensive use at this time. The 18<sup>th</sup> and 19<sup>th</sup> centuries saw the rapid expansion of Huntingdon; the town's first railway arrived in the 1830s, on the line of the present day A14. The town continued to expand north eastwards in the 20<sup>th</sup> century, losing its craft and industrial base.

## **Excavation and recording**

The site was excavated in two phases using a 360° mechanical excavator fitted with a smooth bladed ditching bucket. Topsoil and undifferentiated overburden were mechanically excavated under close archaeological supervision. Exposed surfaces were cleaned by hand and examined for archaeological features. Deposits were recorded using *pro forma* recording sheets, drawn to scale, and photographed as appropriate. Excavated spoil and the trench bases were scanned by metal detector and searched for finds.

Features judged to be intrinsically interesting, such as the human burials, merited full (100%) excavation. Pits and post holes were 50% excavated. Ditches were excavated in segments measuring up to 2m in length and positioned to provide adequate (at least 25%) coverage of the ditches, to determine the stratigraphic interrelationships of features, and to recover finds and samples. Stratified sequences were hand-excavated in sequence from the uppermost archaeological horizon. Home Office and environmental health regulations were followed when dealing with human remains. The CAO and the local coroner were informed when human remains were discovered.

Purposive environmental sampling was undertaken to examine the palaeoenvironmental evidence to contribute to the understanding of the climate and economy of the area. Principal contexts were bulk sampled directly from the excavation for seeds and associated plant remains. Where possible, samples were 10 litres. Six slots/ trial pits were dug (four in the area of the palaeochannel in the west of the site and two in the south of the site, close to Alconbury Brook) in order to investigate the geoarchaeology of the site (see above).

### **DESCRIPTION OF RESULTS BY PHASE**

#### Overview

Excavations at Watersmeet revealed evidence for activity in all parts of the site to the east of the palaeochannel. Activity at Watersmeet dates to the Roman and medieval periods, concentrated in the late 1<sup>st</sup> to mid 2<sup>nd</sup> centuries AD (early Roman), the mid 4<sup>th</sup> to early 5<sup>th</sup> centuries AD (late Roman) and the 10<sup>th</sup> to 12<sup>th</sup> centuries AD (Saxo Norman). By far the best represented is the late Roman period, during which a ditched field system was present in the east of the site and a cemetery in the northwest. Saxo Norman activity was almost entirely confined to the south western area of the site and does not appear to have been more significant than the disposal of waste.

## The early Roman enclosure

The earliest phase of activity at Watersmeet comprised a rectangular ditched enclosure in the north western part of the site. All features described here can be seen in Fig 3, and described in more detail in the site interim narrative (Hounsell and Nicholson 2003).

Ditches F2139 and F2141 (Fig 9) ran approximately north to south, the former being an earlier cut of the latter, by which it was truncated to the south. The southern terminus of Ditch F2141 was unclear, owing to the presence of Pit F2127. stratigraphic relationship of Pit F2127 to Ditch F2141 clear, but the fact that conjoining fragments from two pots (a Camulodunum 392 beaker and a ring necked flagon, see pottery report below) were distributed within both features suggests that they were contemporary. An unusual pedestal base jar which may have a parallel/ antecedent at Verulanium (see pottery report below) and a Hofhiem type flagon were also recovered from F2127. F2127 also contained the iron tooth of a wool comb (see small finds report below). F2139 contained no finds. An environmental sample taken from the ashy fill of F2141 was found to contain domestic waste including winnowed cereal grain (see environmental samples report, below). To the north-west of these ditches, running parallel to the river, were Ditches F2323 and F2325. F2325 cut F2323 where the two converged at their western ends, and ran beyond the limits of the excavation to the north. A decorated rilled cooking pot was among the pottery recovered from F2325 (see pottery report below).

This area of the site continued to be used throughout the Roman period. In the middle Roman period Ditch F2094 ran approximately parallel to, and just east of, Ditches F2139 and F2141. Ditch F2132 ran parallel to the river, just south of F2323 and F2325; at some time during the 4<sup>th</sup> or 5<sup>th</sup> century F2132 was back filled in, and this area of the site was levelled using what was to become L2260 (see below) before being used as a cemetery.

#### The late Roman cemetery

A total of 72 identifiable skeletons were recovered, in varying states of completeness during AS excavations at Watersmeet (Hounsell and Nicholson 2003). A further, undated, skeleton was recovered during the CCC AFU trial trench evaluation (Cooper and Spoerry 2000) and it is known that human bone has been recovered from the site in the past (see above). The inhumations are described in Appendix A, and the layout of the cemetery can be seen in Fig 4.

In the north western part of the site, in the area of the early Roman enclosure, a cemetery in was identified; a total of 68 individuals were identified within the cemetery. In the north western part of the cemetery earlier features cut into the natural were sealed by L2260, a brownish grey clayey silt, from which the skeletons of 45 individuals were recovered. This area of the cemetery had been severely disturbed by rooting, resulting in the obliteration of individual grave cuts, and the homogenisation of their fills with the surrounding sediment; L2260 was the label applied to the resultant stratigraphic unit. The skeletons in this part of the cemetery were significantly disturbed. Two fragmented skulls also found within L2260 may represent further individuals, though they could belong to already identified skeletons.

An environmental sample taken from L2260 but was found to contain only wind blown/ scattered detritus (see environmental samples report, below). Additional disturbance to some of the skeletons in this area was caused by the cutting of Pits F2329 and F2327, both of which contained significant quantities of human bone. An environmental sample taken from F2327 indicated the disposal of domestic waste, including winnowed cereal grain (see environmental report, below).

In the south and east of the cemetery, 19 graves were cut directly into the natural; Grave 23 contained the skeletons of an adult and a newborn infant, the others each contained just one individual. To the south of the southernmost identified graves lay a large 10<sup>th</sup> to 12<sup>th</sup> century pit (F2205), three human skulls were recovered from the base of this pit, and other human bone was found in its fill. It is considered most likely that this area had been within the cemetery, and that the Saxo Norman pit had disturbed Roman graves, the bones from which were redeposited within it.

A further four graves were located outside of the cemetery area, in the eastern part of the site; a fifth outlying grave was initially identified in this area, but post excavation analysis showed the bone within it to be animal bone, and so it is likely that it would be better interpreted as a pit than as a grave. The single human burial recovered during the trial trench evaluation (Cooper and Spoerry 2000) came from the floodplain, immediately south of the excavated area and so should be seen as an additional outlying burial. An environmental sample was taken from the fill of outlying Grave 20, but was found to comprise only wind blown/ scattered detritus (see environmental samples report, below).

Where they could be identified, graves were typically sub-rectangular. All but one of the burials within the cemetery, infant Sk2261, were aligned approximately west to east, and were parallel with Alconbury Brook; the outlying burials were more varied in their orientation (see Appendix 1).

In over half of the burials at Watersmeet the skeleton was too fragmentary or too disturbed for the burial position to be determined. Of the remaining skeletons, the majority were buried in an extended supine position with several variations in the precise positioning of the arms and legs (see table 1). The skeleton recovered during the CCC AFU trial trench evaluation was also buried in an extended supine position.

Position		No. of skeletons
Undetern	nined	35
Prone		2
Lying on	right side	22
Charnal d	leposit	2
Extended		323
supine	Feet or ankles crossed, left over right	2
	Feet turned to right	1 (Sk2116)
	One femur(s) angled inwards	2
	One or both hands over groin	9
	Right elbow at 90°, lower arm across torso	1 (Sk2221)
	Hands under pelvis	1 (Sk2315)
	Both elbows bent to right at 45°, left lower arm across torso, right wrist turned back towards rib	1 (Sk2255)

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Table 1 Burial positions at Watersmeet

Despite the regular alignment of the burials, no consistent, regularly spaced rows of graves could be identified at Watersmeet (though it is possible that identification was hindered by the eradication of grave cuts in the north western part of the cemetery). A single, irregularly spaced and, in places, intercutting row may be formed by Graves 11, 13, 15, 14, 17 and Sk2281, but it is also possible that the positions of these graves result from the random distribution of graves on a similar alignment within a confined area. In the north western part of the cemetery, some skeletons (e.g. Sk2316, Sk2293, Sk2289) were truncated by pits or ditches within the lifetime of the cemetery (see There were several instances of intercutting graves, and the arrangement and proximity of skeletons in the north western part of the cemetery make it likely that the same had been true there. In some cases the damage done to an earlier grave by the cutting of a later one was minimal, but in others the later grave had partially (e.g. Grave 8 cutting Grave 6, Grave 9 cutting Grave 8) or almost completely (Grave 15 cutting Grave 14) obliterated the earlier one (Fig 4). In several cases it seemed that later graves were deliberately dug through the head or foot of earlier ones. The most extensive example of this is the line formed by Graves 9, 8, 6 and 7, but other examples can also be seen (e.g. Graves 1 and 5, Graves 3 and 4) (Fig. 4). In the north western part of the cemetery, the positioning of some skeletons suggests head to foot lines (e.g. Sk2284, Sk2289, Sk2315 and Sk2312; Sk2316 and Sk2293; Sk2281, Sk2309, Sk2301, Sk2298, Sk2302, Sk2301, Sk2297, Sk2259 and Sk2261), but the fragmentary and scattered nature of skeletons in this part of the cemetery precludes the definite identification of such lines.

There is a large amount of human bone in the Watersmeet cemetery, especially in the north western area, which is not in its original burial context. The disturbance of L2260 by rooting makes it likely that the majority of the 'loose' human bone was moved from its original position by natural processes within the burial environment, but it is possible that some elements were deliberately deposited in a new burial context. The three Sk2249 skulls in the base of Pit F2205 represent the charnel reposition, albeit at a much later date, of human remains from disturbed graves.

The two clear cases of charnel redepostion within Graves are the remains of Sk2220 arranged at the head of Grave 12, and the mandible and humerus of Sk2116 deposited at the foot of Grave 8 after the digging of this grave truncated the upper body of Sk2216 in earlier Grave 6. In other cases, however, skeletons disturbed by later burials are severely truncated and the disturbed bone does not appear to have been placed within the new grave (e.g. Sk2122, Sk2224); the missing bone in the north eastern area of the cemetery may have similar causes. It is possible that this bone was disposed of somewhere outside of the site boundaries, or that it was thrown back into the fill of the new graves and has subsequently removed by ploughing.

The only definite grave goods in the cemetery area were a refrozen puddle of lead and iron nail (see small finds report below) found inside the skull of Sk2280, and a copper alloy coin of Tasciovanus (see small finds report below) found inside the skull of

See below

<sup>&</sup>lt;sup>2</sup>One of these was infant skeleton Sk2269, lying across the abdominal area of adult skeleton Sk2268.

<sup>3</sup>Including pine cases in which the position was probably extended supply but either the lower or the

<sup>&</sup>lt;sup>3</sup>Including nine cases in which the position was probably extended supine but either the lower or the upper body was not recovered.

Sk2293. The positions of thee finds suggests that they were placed on the eyelids or in the mouths of the corpses at burial. Sk2255, in outlying Grave 20, wore a copper alloy bracelet on her right wrist (see Fig 5 and small finds report below). A finger ring and two coins found within L2260 (see small finds report below) may originally have been deposited as grave goods, but it is also possible that they were chance losses. Pottery and animal bone were found throughout L2260 as well as in several of the graves, as were smaller quantities of slag, oyster shells and struck flint; these are best explained as background finds, present across the site.

Ditch F2241 lay at the western edge of the cemetery area, it ran approximately north to south and truncated skeletons Sk2294 and Sk2316; thus post dating the inhumations. Ditch F2170 may have been contemporary with the cemetery, or it could be slightly later. Ditches F2241 and F2170 both contained large amounts of animal bone and 4<sup>th</sup> to 5<sup>th</sup> century pottery; F2241 also contained part of a triangular fired clay loom weight (see small finds report below). Ditches running west of and approximately perpendicular to F2170 indicate some form of land division immediately east of the cemetery (see Fig 3).

## The late Roman field system

In the eastern part of the site a field system, or drainage system, was represented by a series of north to south and east to west ditches. Features described below can be seen in Fig 3; details of their stratigraphic interrelationships, dimensions and fills can be found in the site interim narrative (Hounsell and Nicholson 2003).

The only clear evidence for earlier activity in the eastern part of the site was Ditch F2369 which yielded middle Roman pottery and was an earlier cut of F2367 (Figs 3 and 9). The majority of these ditches ran north to south (F2341, F2360, F2339, F2353, F2303, F2335), down the slope towards the river, and probably facilitated the drainage of the site. The east to west ditches (F2367, F2359, F2357) were shorter and narrower than the north to south ones. Two large ditches (F2276 and F2347; Fig 3) may have been part of the same field system, or they may have been part of a slightly later enclosure, bounded to the south by Alconbury Brook.

The animal bone in the ditches consisted mainly of cattle and sheep/ goat remains; pig and horse were also present in several, and other species such as domestic fowl in some of them. Wild species were poorly represented. The largest animal bone assemblage came from Ditch F2367, from which a sheet lead offcuts, an iron fitting which may have been part of a lock (see small finds report below), and a large quantity of iron smithing slag was also recovered. The slag is not likely to be in primary deposition context (see slag report below) and there is no evidence to suggest metal working on site. Pottery of 4<sup>th</sup> to 5<sup>th</sup> century date (mainly Romano British shell-tempered ware and Lower Nene Valley colour coated ware) was recovered from most of these ditches, though residual samian ware was present in F2276 and F2303 (see pottery report below). A complete copper alloy Hod Hill brooch was recovered from F2303 (see small finds report below). Other finds from the field ditches included nails and loomweights.

Other Roman features in this part of the site included three similarly sized circular pits (F2335, F2403, F2391) which may have been used for gravel extraction; F2403

contained a significant amount of animal (mainly cattle and sheep/ goat) bone. The four outlying graves were located in this area of the site (see above).

## The 10th to 12th century AD pits

F2205, mentioned above as having disturbed the southern part of the late Roman cemetery was one of four large pits dug in the western part of the site during the 10<sup>th</sup> to 12<sup>th</sup> centuries AD. The other three (F2156, F2066 and F2034) are all located to the south east of F2205, and are all connected to other, smaller intercutting pits. (Fig 3). Among the finds from Pit F2066 were three round section iron spikes which would have been used in fibre (probably wool) processing (see small finds report below). All of the large pits contained abraded pottery and animal bone. Residual pottery and glass of Roman date was recovered from F2156. Deposits within the pits included layers of ashy or apparently organic deposits from which environmental samples were taken, in Pit F5156 these deposits comprised burnt domestic waste, including winnowed cereal grain (see environmental samples report, below).

#### SPECIALIST FINDS AND ENVIRONMENTAL REPORTS

## The Pottery

By Andrew Peachey

#### Introduction

A total of 2 956 sherds of pottery weighing 38 291g were recovered from excavations at Watersmeet, Huntingdon. The assemblage is composed of 2 494 sherds (33 384g) of Romano British pottery, of which 505 sherds (4 755g) is present as residual material in post-Roman contexts. There are 460 sherds (4 907g) of post-Roman pottery present comprising Saxon, Saxo - Norman, and early medieval pottery (no later than the 13<sup>th</sup> century). The post-Roman pottery is predominantly present as abraded body sherds with a low quantity of forms present. The bulk of the Roman pottery is abraded and present in late Roman (4<sup>th</sup>to early 5<sup>th</sup> century) contexts with a high degree of residual early Roman material. There are well-preserved groups of early Roman pottery from ditches F2323 (L2324), F2325 (L2326), ditch F2141 (L2142) and terminus F2127 (L2150), and very late Roman (mid / late 4<sup>th</sup> to early 5<sup>th</sup> century) pottery from the cemetery enclosure (F2132 (L2133), F2147 (L2148), F2166 (L2167) and F2241 (L2242)) and the ditch system at the East of the site (notably ditches F2367 (L2368) and F2276 (L2277)).

## Methodology

The pottery was examined at x20 magnification and recorded on *pro forma*. The details recorded were fabric type, sherd count, weight, form type (including comparable forms from other site assemblages), r.EVEs (Orton, Tyers, and Vince 1993, 21) and state of preservation.

Romano British pottery fabric codes are based on the national system (Tomber and Dore 1998). If a fabric did not conform to this system it was designated a code based on the same system (*ibid*, 4). Post-Roman fabric codes have been designated

according to the Suffolk post-Roman fabric series used previously in the quantification of pottery from the Cardinal Distribution Park, Godmanchester (Anderson 2003). Fabric descriptions have been referred to existing publications or type series unless the existing description was not sufficient. A list of all fabric names, codes, and descriptions/references is included in Appendix 2). All quantified data and form comparisons from this pottery assemblage have been recorded on a Microsoft Excel database and will be deposited with the site archive. Pottery sherds selected for illustration were chosen to represent stratified groups of pottery or pieces of intrinsic interest. As a result the illustrations are largely limited to the Romano British pottery, as the post-Roman pottery was mixed with Saxon and Saxo - Norman pottery occurring alongside sherds of Late Saxo - Norman / early medieval date.

## Pottery by period

#### **Early Roman**

The early Romano British assemblage consists of jars (cooking pots and storage jars), flagons, and a single beaker. The early Romano British assemblage is drawn from two groups of contexts in close proximity to one another. The two groups are well preserved and contain a relatively high amount of pottery (229 sherds, 4087g, total r.RVE: 3.58, minimum number of vessels: 18). The first group consists of ditches F2323 (L2324) and F2325 (L2326), and the second of ditch F2141 (L2142) and pit / ditch terminus F2127 (L2150). Although the second group consists of two features, the inter-linking nature of the ditch with the pit/ditch terminus is emphasised by the fact that joining fragments from at least three separate vessels are present in Ditch F2141 (L2142) and Pits F2127 (L2150) Segs. A, B and C. These features do not appear to contain any residual late Iron Age or prehistoric pottery and the pottery groups were probably deposited in the late 1st to mid 2nd centuries.

Fabric group	Sherd Count	Weight (g)	r.EVE	Minimum No. of vessels*
Cherry Hinton oxidised ware	10	46	0	1
Other fine ware	1	4	0	1
West Stow cream ware	34	444	0.10	1
Verulamium region white ware	1	27	0.30	1
?Godmanchester white- slipped ware	3	20	1.00	1
Dorset black-burnished ware 1	4	60	0.18	2
Horningsea reduced ware	18	1226	0.40	2
Lower Nene Valley grey ware	1	272	0.30	1
Romanising grey ware	119	1588	1.15	6
Romano British shell-tempered ware	17	185	0.08	1
Other coarse wares	21	215	0.07	1
Total	229	4087	3.58	18

Based on rim sherds, italics denote where body sherds only were present.

Table 2 The ceramic composition of the late  $1^{st}$  to mid  $2^{nd}$  century features F2127, F2141, F2323 and F2325

The presence of a near complete pedestal base jar in Lower Nene Valley 'slipped' grey ware (Fig 10.1) in F2127 (L2150) Seg. A and the absence of any Lower Nene Valley colour-coated ware, despite the close proximity of *Durobrivae* (Water Newton) and the kiln sites may be indicative of a date early in this range. The use of a grey slip to achieve a smooth even colour and texture on grey ware vessels in the Lower Nene Valley has preciously been considered (Perrin 1996, 118). However, there are still many uncertainties about this branch of production with antecedents and parallels often difficult to find (Perrin 1999, 78). The closest parallel (and possible antecedent) to the vessel in F2127 (L2150) Seg. A is Verulamium 2202, a Belgic jar of a near identical form dated to c. AD10-70 (Wilson 1984, 225).

The only fine wares present in the early Romano British assemblage are fine oxidised ware from the Cherry Hinton kilns, and mica dusted ware. The Cherry Hinton oxidised ware is present as a Camulodunum 392 beaker with rouletted decoration in both F2127 (L2150) and F2141 (L2142) Seg. A. The mica-dusted ware is present as body sherds only, but the fabric is very fine and silty with occasional limestone inclusions possibly origins at the West Stow kilns in Suffolk. The West Stow kilns are certainly the origin of a cream ware, single-handled, ring-necked flagon (West 1990, type 1.4, fig 57.197) that occurs in F2141 (L2142), F2127 (L2150) Segs. A, B and C. The most characteristic element of the form assemblage in these groups is the presence of two 'Hofheim' type flagons. The first occurs in Verulamium region white ware in Ditch F2325 (L2326) and is comparable to Verulamium 1946 (Wilson 1984, 205), and the second occurs in F2127 L2150 Seg. C in a white-slipped ware (Fig 10.2) comparable to 'pulley rim' types found at Colchester (Symonds and Wade 1999, fig 5.46.70) and Chelmsford (Going 1987, type J1). The fabric is comparable to the coarse white-slipped ware produced in Kiln 1 at Godmanchester (Evans 2003, fabric P. 05.1) that corresponds loosely with the traditions of the Verulamium region kilns. Flagons were not one of the common forms produced in the Godmanchester kilns so this vessel may have been produced at the Verulamium region kilns or in the Lower Nene Valley where similarly influenced cream ware was also produced (Perrin 1999, 108-112). Parchment ware (LNV PA) reed-rimmed bowls (Perrin 1999, type 344-5; Evans 2003, fig 25.14-15) are present in Pit F2335 (L2336) and Grave F2103 (L2105), but are probably residual. Perrin (1999, 111) identified these as products of a source to the west or south of Water Newton, and Evans (2003, 47) as potential products of the Godmanchester kilns.

The coarse wares in the early Romano British assemblage were with the exception of the Horningsea wares, probably all used as cooking pots judging by the high levels of soot that are present on the exterior of the Romanising grey ware, black burnished ware, and shell tempered ware. Romanising grey wares are dominant in all forms of quantification in the early Romano British pottery assemblage, however due to the Lower temperature used in their firing and possibly also their heavier use, the fabric occurs in a more heavily abraded state than any other type. The notable forms present in this fabric are rilled cooking pots with everted rims. An example in F2127 (L2150) Seg. C has rilled decoration on the lower half of the body (Fig 10.3) and an example in F2325 (L2326) has rilled decoration on the upper half of the body and vertical incised decoration upon the lower half (Fig 10.4). The difference between these forms and cooking pots in other fabrics is considerable. The single cooking pot in Romano British shell-tempered ware in F2141 (L2142) Seg. B has a short angular lid

seated rim (Brown 1994, fig 25.43) and was almost certainly imported from the Harrold kilns, Bedfordshire. Two further cooking pots in Dorset black-burnished ware 1 were present in F2323 (L2324) Seg. A. These forms have long, slightly everted plain rims and correspond to Types 20 and 22 at Exeter (Holbrook and Bidwell 1991, 102-103). Black burnished ware is present in very low quantities (<2%) at both the London Road (Evans 2003) and The Parks (Hancocks 2003) including utilitarian forms such as cooking pots. The occurrence of Horningsea reduced ware storage jars is to be expected in this region. The example in F2127 (L2142) Seg. A corresponds with Evans (1991, fig 2.9 and 3.10-11) and examples have been found in Godmanchester (Evans 2003, fig 26.3) and Castle Hill, Cambridge (Hull and Pullinger 1999, type 425). The vessel in F2127 (L2150) is comparable to with type 401 at Castle Hill, Cambridge (Hull and Pullinger 1999).

#### Late Roman

The late Romano British pottery at Watersmeet reflects occupation and use from the mid 4<sup>th</sup> to early 5<sup>th</sup> century, and apart from the back filled residual sherds exhibits no relationships with the early Romano British pottery. The late Romano British pottery is abraded and present in many contexts in relatively low quantities often hindering dating. Due to this nature this analysis focuses on groups that contain relatively high quantities of late Romano British pottery, notably the ditch system at the east side of the site (notably Ditches F2367 (L2368) and F2276 (L2277)) and the cemetery enclosure (including the graves within).

The Ditch System (comprising F2276, F2303, F2339, F2341, F2347, F2359 and F2367)

While the series of inter-cutting ditches at the eastern side of the site were probably not all contemporary, they contain a late Romano British pottery assemblage comprising 488 sherds (6 843g) that are homogenous in composition and date.

Fabric group	Sherd Count	Weight (g)	r.EVE	Minimum No. of vessels*
Romano British shell-tempered ware	171	2815	2.41	23
Lower Nene Valley colour-coated ware	120	1534	3.22	20
Much Hadham oxidised ware	12	116	0.19	3
Oxfordshire red-slipped ware	3	82	0.15	2
Other Late Romano British fine wares	1	5	0	1
Early Romano British fine wares	2	135	0.1	1
Eastern Gaulish samian ware	6	35	0.18	2
Lower Nene Valley white ware	7	45	0.07	1
Lower Nene Valley white ware (mortaria)	3	117	0.15	1
Mancetter-Hartshill white-slipped ware	1	70	0.30	1

Grog-tempered wares	8	53	0.05	2
Much Hadham reduced wares 1 and 2	10	208	0.35	3
Romanising grey wares	72	568	0.56	8
Other coarse wares	64	681	1.02	11
Storage jar fabrics (Horningsea ware)	7	321	0	1
Baetican (late) amphorae	1	58	0	1
Total	488	6843	8.75	80

Based on rim sherds, italics denote where body sherds only were present.

Table 3 The ceramic composition of the mid/late 4<sup>th</sup> to early 5<sup>th</sup> century ditch system (F2276, F2303, F2339, F2341, F2347, F2359 and F2367)

The mid / late 4<sup>th</sup> to early 5<sup>th</sup> century ditch system group is dominated by Romano British shell-tempered ware (35.04% sherd count, 41.14% weight) and Lower Nene Valley colour coated ware (24.59% sherd count, 22.42% weight). The samian ware in this group comprises a form 79 dish from Trier in F2276 L2277 Seg. I, and a form 31 dish from Rheinzabern in F2303 (L2305) Seg. E. Although it is possible that both these examples could still have been in use in the mid/late 4<sup>th</sup> to early 5<sup>th</sup> century it is probable that, like the Baetican (late) amphorae and Horningsea reduced ware, that these vessels are residual. The Romanising grey wares may contain a small residual element but belong stylistically to this period with locally produced triangular and ledge rim jars and cooking pots probably influenced by the shell-tempered regional imports (see discussion below). The remaining coarse wares comprise locally produced sherds, nine sherds of grey ware from Kiln 4, The Parks, Godmanchester (Evans 2003, fabric G06.2) including a flanged bowl (Evans 2003, fig 31.14), and residual sherds in Lower Nene Valley and West Stow reduced wares.

The range of forms in the late Romano British shell-tempered ware is limited to jars / cooking pots and a platter. With the exception of the platter and one jar / cooking pot in F2341 (L2342) Seg. D the vessels all belong to the range of jars with triangular drooping rims (Figs 10. 5 and 10.6) or simple everted rims described by Brown (1994, 74) at the Harrold kiln site in Bedfordshire: the likely source of these vessels. The range of forms at Harrold does not include the platter (Fig 10.7) in F2339 (L2340) Seg. C. This vessel is a close match to a platter found at Castle Hill, Cambridge (Hull and Pullinger 1999, type 267) in grey ware and may be a locally produced, shell-tempered copy of this form.

The cooking pot in F2341 (L2342) Seg. D has a ledge rim and soot on the exterior. Ledge rim cooking pots (Fig 10.8) are common in the Watersmeet pottery assemblage as a whole with a minimum number of 21 vessels (total r. EVE: 1.62). These vessels occur in a (late) Romano British shell-tempered ware that has a brown to light red surface colour and may be a product of the Lower Nene Valley, however this fabric may be indistinguishable from coarse shell tempered fabrics made locally in the 5<sup>th</sup> century and possibly later. Ledge rim jars / cooking pots in shell-tempered ware have not been widely identified at sites in the Lower Nene Valley. Similar vessels have been identified at Godmanchester (Evans 2003, fig 31.8) and Water Newton (Perrin 1999, type 467). Romano British forms of ledge rim jars or cooking pots have also been noted in small amounts at Castle hill, Cambridge (Hull 1999, type 133; Hull and Pullinger 1999, types 361, 468, 487 and 976). The variation of the ledged rim (or

devolved channel rim (Evans 2003, 57)) on shell-tempered cooking pots does not appear on the range of wares at the Bedfordshire kiln site of Harrold (Brown 1994, 77), that probably supplied the high quantities of triangular rimmed cooking pots to the site. The ledge rimmed cooking pots may be a very late development in one of these industries or a trait of shell-tempered ware production at the Godmanchester region kilns. Rilling occurs on only occasional body sherds and does not appear to be a main feature of the shell-tempered vessels at Watersmeet, differing in this respect from the medium mouthed jars at Godmanchester (Evans 2003, 57). The vessels date to the mid/late 4<sup>th</sup> to early 5<sup>th</sup> centuries and possibly later, and alongside the Much Hadham stamped red-ware bowls, reduced ware cooking pots, and unsourced grog tempered wares (see discussion below) should perhaps be regarded as 'Romano-Saxon'.

Romano-Saxon wares are well attested for in the ditch group (F2367 (L2368) Seg. C) with a Camulodunum 278 wide mouthed jar/bowl (Fig 10.9) and a small everted rim jar (Fig 10.10) imported from the Much Hadham kilns, Hertfordshire. This form was widely traded and has previously been found at Colchester (Symonds and Wade 1999, fig 6.99.21). Both vessels are in reduced ware 2 and are highly burnished with black exterior surfaces. Neither vessel shows any sign of being used for cooking, and both were probably used as high quality storage vessels alongside Lower Nene Valley colour-coated jars and grog-tempered table wares.

The grog-tempered table wares are present as only 1.64% of the ditch assemblage by sherd count (0.77% weight) but are highly distinctive because of the high quality finish and firing of these vessels. A pink grog - tempered platter in F2367 (L2368) Seg. C is highly burnished to a reddish yellow (Munsell value 5YR7/8) and is comparable to a platter recovered from Castle Hill, Cambridge (Hull and Pullinger 1999, type 266). Pit F2437 (L2437) adjacent to the ditch system contained a funnel-necked beaker or small jar with a burnished neck (Fig 10.11). The vessel is conspicuous because it was not burnished on a wheel but by hand using small strokes (c. 2cm), and was probably hand made. The beaker was tempered with black/dark grey grog and fired to a high temperature that is very hard with a distinctive reddish yellow colour (Munsell value 5YR6/6).

Form type	Minimum No. of Vessels	Total r.EVE
Beaker	4	0.49
Dish	1	0.12
Bowl	5	0.67
Small Jar	5	0.83
Wide-mouthed	6	1.03
Jar		
Lid	2	0.17
Total	23	3.31

Table 4 Form types of Lower Nene Valley colour coated ware in the ditch system (F2276, F2303, F2339, F2341, F2347, F2359 and F2367)

The presence of 'highly finished' table ware vessels in 'lower' quality wares than the colour-coated vessels from the Lower Nene Valley is particularly apparent compared

to the relative lack of colour-coated beakers and dishes. The beakers all have cornice-type rims (Perrin 1996, type 512) but the fragments present are not of a sufficient size to assign a form. Dishes are limited to one shallow, plain-rimmed vessel (Perrin 1996, type 512) in F2367 (L2368) Seg. D, and a comparable form in burnished oxidised ware from Much Hadham in F2367 (L2368) Seg. B. Colour coated-bowls have a higher frequency but consist of only two forms. The first is a straight sided, flanged bowl (Perrin 1999, type 259) characteristic of the 4<sup>th</sup> century, in F2303 (L2304 and L2304) Seg. E, and F2367 (L2368) Seg. B. This type of bowl is also present in F2330 (L2340) Seg. D in Oxfordshire red-slipped ware (Young 1977, type C100.3 – but with no trituration grits). The second type is an imitation of samian form 38 present in both Lower Nene Valley colour-coated ware (F2303 (L2305) Seg. E and F2367 (L2368) Seg. B) and Much Hadham oxidised ware (F2276 (L2277) Seg. E).

The small colour-coated jars may have acted as bowls similarly to the Much Hadham reduced ware vessel (Fig 10.10). Like the beakers the small jars are mainly represented by small rim sherds, and appear to have curved rims. exception to this is a small jar in F2303 (L2304) Seg. E with a sharply everted rim and a trace of painted decoration on a cordon (Fig 10.12). This vessel is similar to the undecorated type 92 (Howe et al 1981) but with a more sharply pointed rim, and may be based on this form type. Body sherds of Lower Nene Valley colour-coated ware with white painted decoration also occur in F2303 (L2304) Seg. F and F2367 (L2368) Seg. B, and the style appears to be confined to scroll patterns bordered with parallel lines of dots. The wide-mouthed jar forms (Fig 10.13) concur with those described by Perrin (1999, types 280-282). An exception to this in F2367 (L2368) Seg. C is a very large jar (rim diameter: 26cm) with a grooved neck (Fig 10.14) that is similar in form to a vessel found at Orton Hall Farm (Perrin 1996, type 596). A further jar in Lower Nene Valley cream or self-coloured ware was present in F2347 (L2348) Seg. B (Fig. 10.17). This vessel would have complemented the colour-coated vessels. The pulley rim is similar to Howe et al's (1981) type 90 self coloured jar but this form seems deliberately exaggerated with an elongated rim and stronger curve to the shoulder.

The production of Lower Nene Valley colour-coated lids with rouletted decoration (Fig 10.18) such as those in F2276 (L2277 and L2277) Seg. E is well recorded at kiln sites in the Lower Nene Valley (Perrin 1999, type 209). Also found in F2367 (L2368) Seg. D were fragments of a highly burnished, Much Hadham oxidised ware beaker with an impressed cordon similar to a vessel identified at Colchester (Going 1999, fig 5.54: 78-80). The composition of the fine ware and Much Hadham reduced ware forms in the ditch group indicates that all functions of domestic 'table ware' are catered for, including large jars that could be displayed in 'open' areas of a property. Where as the range of coarse ware forms is tightly focused on cooking pots that are consistently sized (14-22 cm) and undecorated for utilitarian use in cooking or 'service' areas only. Well used mortaria with highly worn trituration grits were also present in the ditch group assemblage, including body sherds of Lower Nene Valley white ware and Oxfordshire red-slipped ware mortaria. The only form that could be assigned was a vessel in F2367 (L2368) Seg. D in Mancetter-Hartshill white-slipped ware that matches a vessel found at Orton Hall Farm (Hartley 1996, type M183).

The Cemetery Enclosure Ditches (comprising F2132 L2133, F2147 L2148, F2166 L2167 and F2141 L2142) and Subsoil (L2260, including graves L2102-2126, L2222-2226 and L2245-2258)

The cemetery enclosure ditches contained 474 sherds (4 286g) of Romano British pottery, and the cemetery subsoil 155 sherds (4 800g). Two sherds of Saxo - Norman, glazed Stamford ware was present (one in each group) and are probably intusive. Late Romano British pottery (4<sup>th</sup> to early 5<sup>th</sup> century, if not solely in the latter half of this range) comprises 95.39% of this group by sherd count (94.30% by weight). The pottery recovered from the fill of the graves in the enclosure has been grouped together with that found within the cemetery sub-soil as it all appears to be redeposited from this layer. There is no evidence to suggest that any pottery vessels were deliberately placed in any of the graves. The early Romano British pottery also appears to have been redeposited during the cutting/recutting of the ditches rather than residual from continual use of the features from the early Romano British period.

The composition of the assemblage is very similar to that of the Ditch System Group in that Romano British shell-tempered ware and Lower Nene Valley colour-coated ware comprise a large percentage of the group (25.91% by sherd count (31.06% by weight) and 10.49% (12.81%) respectively). Romanising grey ware is also present in high quantities (26.39% by sherd count, 40.19% by weight) but like the Ditch Group is highly abraded with a low r. EVE and minimum number of vessels compared to other fabric groups. The few rim sherds that are present are either triangular or ledge rim jars in the same style as their shell-tempered equivalents, or plain rim dishes (occasionally with a small bead rim).

Fabric type Subsoil		oil	Cemetery		Total	Total
			Enclosure			
			Ditches			
	Sher	Wgt	Sherd	Wgt	r.	Min. No.
	d	(g)	Count	(g)	EVE	of
	Cou					Vessels
	nt					
Romano British shell-	60	1566	103	1256	0.87	16
tempered ware	<u> </u>					
Romanising grey ware	24	2334	142	1294	0.22	6
Sandy grey ware	11	55	27	269	0	1
Lower Nene Valley colour-	25	477	41	687	0.91	9
coated ware						
Oxfordshire red-slipped ware	6	75	3	14	0.15	2
Much Hadham oxidised ware	1	14	7	52	0	I
Samian ware	1	2	1	1	0	1
White/cream ware	2	13	10	64	0.05	1
Storage jar fabrics	0	0	1	352	0.1	1
Other late Roman fine ware	7	12	1	4	0.05	2
Other late Roman coarse ware	11	169	16	137	0.67	7
Other early Roman fine ware	0	0	5	32	0	1
Other early Roman coarse	7	83	14	124	0.23	2
ware						

Total	155	4800	474	4286	3.25	50

Based on rim sherds, italics denote where body sherds only were present.

Table 5 Late 4<sup>th</sup> to early 5<sup>th</sup> century pottery group from the Cemetery Enclosure Ditches (comprising F2132 L2133, F2147 L2148, F2166 L2167 and F2141 L2142) and Subsoil (L2260, including graves L2102-2126, L2222-2226 and L2245-2258)

The range of forms for the Romano British shell-tempered ware comprises the same common triangular rim jars, accompanied by sparsely occurring ledge rimmed jars/cooking pots, that are present in the Ditch system but there are some notable additions. These include a jar with a decorated rim (Brown 1994, type 253) in F2147 (L2148) and a flanged bowl (Brown 1994, type 334) in L2260, both of which are associated with shell-tempered ware production at the Harrold kilns in Bedfordshire.

Flanged bowls and jars dominate the Lower Nene Valley colour-coated wares. The flanged bowls comprise Perrin's (1999) types 222, 258, 259 and 261. The jar forms (Fig 10.15 and 10.16) conform to Perrin's (1999) range of wide-mouthed jars or bowls (types 280-282) and have a tendency to be overfired giving the fabric a pinkish tinge and the colour-coat a metallic lustre. This slightly poorer standard of manufacture is widely associated with 4<sup>th</sup> century production at the Lower Nene Valley kilns, and the production of these forms is considered to continue until the very end of the industry in the first quarter of the fifth century (Howe et al 1981, 8-10).

The dating of these features to the mid/late 4<sup>th</sup> to early 5<sup>th</sup> century if further emphasised by the presence of Oxfordshire red-slipped wares. A rosette stamped bowl of Young's (1977) type C84.7 (Fig 10.19) is present in F2132 (L2133) Seg. F and a fragment from a similar vessel with graffiti on the interior (Fig 10.20) is present in L2260. Also imported from the Oxfordshire kilns is a white-slipped mortaria (Young 1977, type WC7.3) in F2147 (L2148).

At the London road site in Godmanchester Lower Nene Valley colour-coated ware accounted for a similar proportion of the assemblage (c.10%) but comprised a wider range of forms including beakers, samian imitation bowls, flanged bowls and castor boxes (Hancocks 2003, 137-8). No wide mouthed jars of the type recovered from Watersmeet are present at London road. A single waisted jar is present in the London Road assemblage, and is distinctively different from the jar forms at Watersmeet. Both sites contained low quantities of Oxfordshire red-slipped but no comparison of form is possible. The contrast in forms between the mid/late 4<sup>th</sup> to early 5<sup>th</sup> century Watersmeet assemblage and phases 4A (first half of the 4<sup>th</sup> century) and 4B (mid to late 4<sup>th</sup> century) at London road, Godmanchester may be a good indicator of the changes of forms in use in the very latest stages of Roman activity in the region.

#### Post-Roman

The post-Roman pottery recovered from Watersmeet is not homogenous and the bulk of it was probably deposited by farm and weather processes. The average sherd size is 10.67g and the general condition of the pottery poor. All the post-Roman sherds occur as small proportions of groups dominated by Romano British pottery.

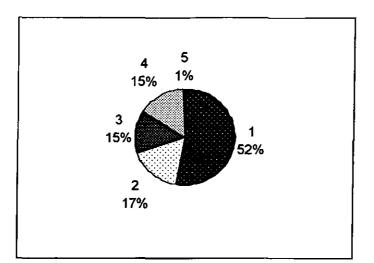


Chart I Pottery types in post-Roman contexts.

- 1: Romano British
- 2: Early mid Saxon (5th-9th C)
- 3: Saxo Norman (10<sup>th</sup>-12<sup>th</sup> C)
- 4: Medieval (13<sup>th</sup>-16<sup>th</sup> C)
- 5: Post-medieval (17<sup>th</sup>-19<sup>th</sup> C)

The distinctions between the early - mid Saxon fabric groups are better viewed as a sliding scale and a guide to the dominant inclusion. The fine sand, coarse quartz, sparse and coarse shell-tempered fabrics are all hand made and clearly linked. The bulk of the fragments from this period are highly abraded body sherds, however some forms are apparent. Pit F2020 (L2021) contained a S-shaped cooking pot with a crudely burnished exterior similar to a vessel previously found in Godmanchester (Anderson 2003, fig 31.4), and Pit F2038 (L2039) contained a thumb impressed rim of a jar (Fig 10.21) as well as the rim and handle of a jug/handled jar (Fig 10.22). Both these examples are hand made in 'fine sand tempered ware' but probably date to the late Saxon period (c. 10<sup>th</sup> century) rather than earlier.

The Saxo - Norman pottery consists of small quantities of body sherds in St. Neots ware, Stamford ware, and Thetford ware. St. Neots ware forms are present only in the unstratified layer L2001 and consist of four flanged bowls in the range identified by Hurst (1956). Stamford ware forms are confined to two globular cups (Hurst 1958, fig 1.6) in unstratified layer L2001 and Ditch F2006 (L2007). The glaze on the Stamford ware body sherds is well preserved and largely intact, giving a uniform exterior colour of yellow (Munsell value 5Y7/8-8/8). The only Thetford ware from present is a spouted pitcher in Pit F2069 (L2070), however this appears to be intrusive. A body sherd with a characteristic applied, thumb impressed strip is also present in Pit F2038 (L2039). The medieval and post medieval pottery is all highly abraded with only small and highly abraded patches of lead glaze surviving. The medieval coarse wares contain very small rim sherds from necked jars and square rim dishes, but the assemblage is too limited for further comparison.

## Supply to Watersmeet

The early Romano British (late 1<sup>st</sup> to mid 2<sup>nd</sup> century) assemblage from Watersmeet is too small to properly assess the nature of activity on the site or the impact of Godmanchester on the area. During this period supply was limited to products from the surrounding region including the Cambridgeshire kilns of Cherry Hinton, Godmanchester, Horningsea and the Lower Nene Valley, as well as West Stow in Suffolk. The presence of the 'Hofheim' flagons suggests a relatively high status, but the absence of any samian ware is conspicuous. The flagons also confirm the link

between the Verulamium pottery industry and the Godmanchester kilns with vessels from both centres occurring together in similar forms.

The late Romano British (mid / late 4<sup>th</sup> to early 5<sup>th</sup> century) pottery assemblage is dominated by jar and cooking pot forms in shell tempered wares and coarse Romanising grey wares. The Romanising grey wares were probably produced very locally to the site for purely utilitarian purposes. This appears unusual given the presence of the Godmanchester kilns to the south of the site and may indicate that the Godmanchester kilns had either ceased production or that by this period the output was only sufficient to cater for the immediate town. Alternatively this may be further evidence of the skewed distribution of these wares. Products from The Parks kilns, Godmanchester comprise an exceptionally small percentage of the assemblage with reduced ware, white slipped ware, and black burnished type ware products counting for only 1.48% by sherd count (1.57% by weight) of the Romano British pottery. The main parallels for these types of ware come from sites to the south of Godmanchester (Evans 2003, 61) and Watersmeet lies to the North. The main suppliers of pottery to Watersmeet appear to have been the Harrold kilns, Bedfordshire and the Lower Nene Valley kilns. Consumption of Harrold products appears to be mainly limited to triangular rim shell-tempered jars alongside, possible local production of shelltempered ledge rim jars although the fabrics may be indistinguishable. The pottery assemblage from London Road, Godmanchester (Hancocks 2003) contained only c. 5% shell tempered ware, hence there may be a distinct difference in pottery supply to sites North and South of Godmanchester, influenced by The Parks kilns to the south The Northern influence may also include and the Harrold kilns to the North. unknown closer kilns producing shell-tempered ware in the Godmanchester hinterland and the Lower Nene Valley. A highly burnished, reduced ware jar with a cupped rim from the Much Hadham kilns is highly suggestive of this, as this type of product would not have been easily able to compete in the market if local products still dominated. This type of vessel occurs more commonly on sites such as Baldock (Rigby 1986, type 452).

The late Romano British assemblage from Watersmeet appears to be a high quality domestic assemblage with two purposes. The first is focused on food preparation attested to by the high proportion of cooking pots, and the second on relatively high status domestic activity. This level of activity is attested to by the colour-coated table wares, accompanied by high quality colour-coated or burnished jars that would complement them. This dual focus may indicate that this pottery was utilised in a villa (Whitehills villa: Davison and Rudd unpub) or similar establishment where the preparation and consumption of food were clearly segregated. The late Romano British pottery assemblage was probably deposited as rubbish from such an establishment and does not appear to be associated with deliberate deposition in the cemetery.

#### Illustrations

Fig 10.1. LNV GW. A pedestal base jar with a plain grey slip. Late 1<sup>st</sup> to mid 2<sup>nd</sup> century. F2127 (L2150) Seg. A

Fig 10.2. GOD WS. A white-slipped 'Hofheim' type flagon. Late 1st to mid 2nd century. F2127 (L2150) Seg. C

- Fig 10.3 BSW. Jar with rilled decoration on the lower half of the body. Late 1<sup>st</sup> to mid 2<sup>nd</sup> century. F2127 (L2150) Seg. C
- Fig 10.4. BSW. Jar with rilled decoration on the upper half of the body above vertical incised decoration. Late 1<sup>st</sup> to Mid 2<sup>nd</sup> century. F2325 (L2326)
- Fig 10.5. ROB SH. A jar/cooking pot with a drooping, triangular rim. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2367 (L2368) Seg. D
- Fig 10.6. ROB SH. A jar/cooking pot with a drooping, triangular rim. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2367 (L2368) Seg. D
- Fig 10.7. ROB SH. A platter. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2339 (L2340) Seg. D
- Fig 10.8. ROB SH. A ledge rim jar/cooking pot. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2109 (L2111).
- Fig 10.9. HAD RE2. A highly burnished wide mouthed jar/bowl with a mid body groove. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2367 (L2368) Seg. C
- Fig 10.10. HAD RE2. A highly burnished small jar. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2367 (L2368) Seg. C
- Fig 10.11. UNS GT. A funnel neck beaker or small jar with a burnished neck. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2437 (L2437)
- Fig 10.12. LNV CC. A small jar with a pointed everted rim and a trace of white painted decoration. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2303 (L2304) Seg. E
- Fig 10.13. LNV CC. A necked, wide-mouthed jar. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2367 (L2368) Seg. C
- Fig 10.14. LNV CC. A large, necked, wide-mouthed jar with a grooved neck. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2367 (L2368) Seg. D
- Fig 10.15. LNV CC. A wide-mouthed jar or bowl. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2166 (L2167) Seg. A
- Fig 10.16. LNV CC. A wide-mouthed jar or bowl. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2166 (L2167) Seg. C
- Fig 10.17. LNV WH. A jar with a pulley rim. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2347 (L2348) Seg. B
- Fig. 18. LNV CC. A lid with rouletted decoration. Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2166 (L2167) Seg. C
- Fig 10.19. OXF RS. A stamp decorated bowl (Young 1977, type C84.7). Mid/late 4<sup>th</sup> to early 5<sup>th</sup> century. F2132 (L2133) Seg. F
- Fig 10.20. OXF RS. A small fragment from a roulette decorated bowl with graffiti on the interior. Mid/late 4<sup>th</sup> to Early 5<sup>th</sup> century. L2260
- Fig 10.21. ESFS. The rim of a jar with thumb impressed decoration. ?10<sup>th</sup>to12<sup>th</sup> century, possibly residual from the mid-Saxon period. F2038 (L2039)
- Fig 10.22. ESFS. The rim and handle of a jug/jar with fingernail decoration above the handle. ?10<sup>th</sup>to12<sup>th</sup> century, possibly residual from the mid-Saxon period. F2038 (L2039)

## The small finds and bulk metalwork

By Nina Crummy

#### Discussion

The objects are catalogued in three groups: coins, grave deposits, and general site finds. The latter are listed by material and within material by site phase.

All the coins are late Roman, apart from one, an Iron Age copper-alloy unit of Tasciovanus found inside the skull of a juvenile (Sk2293). This coin would have been originally deposited within the mouth of the dead child or on one of the eyelids. The obverse shows a bearded head, the reverse is a horse to left above VIR. The coin is worn, but not excessively so considering its age at the time of its deposition with Sk2293. There is good evidence that in many cases coins deposited in the graves of children were deliberately selected for their imagery, which in this case could be considered particularly apt (see discussion below). The plain penannular armlet found on the right wrist of the elderly female Skeleton 2253 cannot be closely dated but is a typical late Roman form. The nail and lead fragment found within the skull of the young male adult Skeleton 2280 are less easily identifiable as grave goods, but the good state of preservation of the nail suggests deliberate selection and the use of two different metals matches the inclusion of a wide range of materials, particularly iron and white metal, in graves at Colchester and St Albans (Crummy et al 1993, 41, 137, 141; Anthony 1968).

The presence of two Hod Hill brooches among the general site finds suggests an early Roman military presence in the area. One of the brooches is complete and came from the basal fill of ditch F2303; both condition and context may point to this being a selective placement. The only items stratified in an early Roman context are a nail and a wool-comb tooth or flax heckle from the Phase 1 pit F2127. Though the majority of toothed fibre-processing combs from Britain have been interpreted as used for wool, the close association of this example with a reliable source of water may link it to linen manufacture, as flax needs to be retted in ponds, ditches or running streams before it can be heckled (Manning 1985, 33-4; Bitenc 2002; Walton Rogers 1997, 1725). The recovery of similar spikes from 10th-12th century contexts (see below) demonstrates the suitability of the site for this craft. A fragment of a fired-clay slab from the fill of ditch F2241 may be part of a triangular loomweight, used on a warpweighted loom, but the piece has unusual characteristics and the identification is not certain.

Items from late Roman contexts include two finger-rings of characteristically late form, while metal-working, again an activity that requires a supply of water, somewhere in the vicinity is shown by at least wo punches. Though the metal on which these punches were used cannot be positively identified, offcuts of sheet lead attest to the manufacture of lead items close by. Sheet lead was used for lead coffins and coffin-liners, as well as for tanks and water-pipes, for example. Late Roman features also produced small fragments of quernstones, one of Millstone Grit and the rest of Mayen lava. The latter were very weathered and abraded and may be residual, but the gritstone fragment is probably of late Roman manufacture.

The fills of two Phase 3 features contain objects likely to be of 5th-century or later date. The ditch terminus F2217 contained a small tanged knife with straight edge and slightly curved back, a form as likely to be Anglo-Saxon as Roman, and ditch F2276 contained fragments of one or two annular loomweights. The later occur frequently on Early, Middle and Late Saxon occupation sites, but not in the Roman period.

In Phase 5 pit F2066 produced iron spikes from fibre-processing, and one also came from the unphased medieval or later pit F2373. Other items typical of the medieval period are two nails with narrow rectangular heads from pit F2156 and from the medieval sinkage layer in pit F2386, and a candleholder of cupped stick type from the subsoil (Egan 1998, 142-3; Ottaway & Rogers 2002, 2856). Several medieval features produced small fragments of Mayen lava querns, which were imported not only during the Roman period but also from the Middle Saxon period to the 16th or 17th century. The condition of these pieces suggests they could be residual Roman, but, as there is little residual material in general, they are probably more likely to be medieval.

#### Coins

- SF 5. (L2260). Cemetery subsoil. Phase 3. Fragment of a copper-alloy corroded. and illegible late 3rd- or 4th-century coin. Diameter 15 mm; weight 1.17 g (unconserved).
- SF 8. (L2260). Cemetery subsoil. Phase 3. Copper-alloy coin of Valentinian I; reverse: Gloria Romanorum (8). Reference: CK 1017. Mint of Aquileia; AD 367-75. Diameter 17.5 mm; weight 2.04 g (unconserved).
- SF 10. (L2277) F2276. Ditch fill. Phase 3. Fragment of a copper-alloy corroded and illegible 4th-century coin. Diameter 19 mm; weight 1.26 g (unconserved).
- SF 12. (L2277) F2276. Ditch fill. Phase 3. Copper-alloy copy of coin of Magnentius/Decentius; reverse: two Victories supporting shield inscribed VOT V MULT X, shield not supported on column. Reference: as CK 58. AD 351-60. Diameter 14 mm; weight 1.4 g (unconserved).
- SF 1. (L2082) F2081. Pit fill. Unphased; medieval. Copper-alloy coin of Magnentius; reverse: Gloria Romanorum (3). Reference: CK 215. Mint of Lyon; AD 350-1. Diameter 21.5 mm; weight 4.19 g (unconserved).

See also coin deposited with Skeleton 2293.

### Grave goods

- Fig 11.1. SF 7. (L2254) F2253. On right wrist of elderly female adult. Phase 3. Copper-alloy penannular armlet, with plain elliptical-section hoop tapering to flat pointed terminals. Maximum dimensions: diameter 54 mm, height 5.5 mm, thickness 4 mm.
- Fig 11.2. (L2260). Found inside skull of Skeleton 2280 (young male adult); perhaps originally deposited in mouth or on eyelid. Phase 3. Refrozen puddle of lead. Maximum dimensions 39 by 25 mm.

- Fig 11.3. (L2260). Found inside skull of Skeleton 2280 (young male adult); perhaps originally deposited in mouth or on eyelid. Phase 3. Iron nail with small flat rectangular head, similar to Manning's Type 5 which consists of a shank with no distinct head (1985, 135).
- SF 18. (L2260). Found inside skull of Skeleton 2293 (child); originally deposited either inside mouth or on eyelid. Phase 3. Copper-alloy unit of Tasciovanus; obverse: head to right, corrosion obscures details; reverse: horse to left, VIR below horse. Reference: as Hobbs 1996, 1706-8. Diameter 16 mm; weight 2.49 g (unconserved).

#### General site finds

- Fig 11.4. SF 4. (L2194) F2193. Pit fill. Phase 3. Fragment of a copper-alloy Hod Hill brooch. Most of the head and the lower part of the foot are missing, as well as one of the knobbed lugs set at the centre of the bow. The bow has four vertical knurled mouldings; the foot is plain. Length 34.5 mm.
- Fig 11.5. SF 15. (L2305) F2303. Basal fill of ditch. Phase 3. Complete copper-alloy Hod Hill brooch, with traces of tinning on the head, bow and foot. A moulded and knobbed lug is set on either side of the top of the bow, which has marginal mouldings and a raised central panel showing a knurled line between mouldings. The whole length of the foot is decorated with transverse mouldings and there is a prominent terminal knob. The catchplate is solid. Length 47 mm.
- Fig 11.6. SF 17. (L2260). Cemetery subsoil. Phase 3. Penannular finger-ring with expanded terminals and hoop decorated with vertical grooves. A decorative bezel may originally have been attached to the terminals to form a continuous hoop. Internal diameter 18 mm, height of main part of hoop 2 mm, thickness 1 mm. A finger-ring of similar form with one terminal soldered on top of the other, and with no sign of an attached bezel, came from the fill of a late Roman grave at Colchester (Crummy 1983, fig 50, 1765).
- Fig 11.7. (L2001). Subsoil. Penannular finger-ring with overlapping pointed terminals and lozenge-shaped section. Internal diameter 16.5 mm, maximum height 2.5 mm, maximum thickness 2 mm.
- (L2370) F2369. Ditch fill. Phase 2. Corroded fragment, in two pieces, of a copperalloy tapering strip. Length 23 mm, maximum width 8 mm.
- SF 11. (L2277) F2276. Ditch fill. Phase 3. Refrozen puddle of lead. Maximum dimensions 96 by 24 mm.
- Fig 11.8. (L2362) F2359. Ditch fill. Phase 3. Offcut of thick sheet lead; one end is folded back on itself. The face on the opposite side has a pair of lightly scored guidelines running into the one (original) corner. Maximum dimensions 31 by 19 mm.
- Fig 11.9. (L2368) F2367. Ditch fill. Phase 3. Two offcuts of thin sheet lead. One has an irregular original edge and a clipped edge; maximum dimensions 77 by 35 mm. The other has an original edge, and a cut edge. The two sides have been folded

towards the centre, obscuring details of the other edges; maximum dimensions 56 by 20.5 mm.

Fig 11.10. (L2150) F2127. Basal fill of pit. Phase 1. a) Iron square-section spike, probably a tooth from a wool comb (Manning 1985, 33-4). Length 70 mm. b) Not illustrated. Iron nail with round flat head and clenched shank. Length 50 mm (bent).

Fig 11.11. (L2260). Cemetery subsoil. Phase 3. a) Iron punch. Length 67 mm. b) Not illustrated. Narrow ?punch. Length (bent) 54 mm. c) Not illustrated. Two iron nails, each with damaged flat round head. Lengths 34 mm, 26 mm (bent).

(L2254) F2253. Grave fill. Phase 3. Tapering iron strip fragment. Length 42 mm, maximum width 9 mm.

(L2277) F2276. Ditch fill. Phase 3. Iron nail shank fragment. Length 34 mm.

(L2304) F2303. Ditch fill. Phase 3. Small iron hook of rectangular section. Length 23.5 mm.

(L2366) F2365. Ditch fill. Phase 3. Curved iron rectangular-section strip fragment with one rounded terminal surviving. Length 90 mm, width 8 mm, thickness 5 mm.

(L2368) F2367. Ditch fill. Phase 3. a) Fragment of an iron fitting with one recessed face; possibly part of a lock. Maximum dimensions 48 by 20 by 13 mm. b) Iron nail with round flat head. Length 35 mm.

Fig 11.12. (L2133) F2132. Ditch fill. Phase 3. Iron square-section punch with damaged tip. Length 50 mm.

(L2218) F2217. Fill of ditch terminus. Phase 3. Small iron tanged knife; the blade is narrow and has a straight edge and slightly curved back. Length 79.5 mm, maximum width 11 mm.

(L2338) F2337. Pit fill. Unphased; late Roman or later. Iron rectangular-section shank with tapering and slightly bent ends; possibly a punch or awl. Length 137 mm. Probably post-Roman.

(L2021) F2020. Pit fill. Unphased; Roman. Iron shank (untapered) with one bent end. Length 90 mm.

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Fig 11.13 (L2067) F2066. Upper pit fill. Phase 5. a) Three round-section spikes from fibre processing. Lengths 99, 98, and 110 mm. b) Not illustrated. Two iron shank fragments, probably also from fibre processing spikes. Length 87 mm. c) Not illustrated. Iron nail with round flat head. Length 60 mm.

(L2157) F2156. Upper fill of pit. Phase 5. Iron T-shaped nail with small rectangular head no wider than the shank. Length 84 mm.

(L2388) F2386. Medieval sinkage in Phase 3 pit. Iron T-shaped nail with narrow rectangular head only slightly wider than the shank. Length (bent) 19 mm.

- (L2080) F2079. Pit fill. Unphased; medieval. Iron nail with round flat head. Length (bent) 38 mm.
- (L2374) F2373. Amorphous pit. Unphased; medieval or later. Fragment of an iron round-section spike fibre processing. Length 53 mm.
- (L2384) F2373. Amorphous pit. Unphased; medieval or later. a) Iron nail fragment with part of the round flat head surviving. Length 22 mm. b) Iron nail shank fragment. Length 49 mm.
- (L2358) F2357. Ditch fill. Unphased. Iron nail with round flat head. Length 31 mm.
- Fig 11.14-15. (L2001). Subsoil. a) Iron joiner's dog. Length 52 mm, maximum width 28 mm. b) Socketed candleholder with the tang bent back at right angles to the socket, which consists of two rounded flanges. Length (bent) 42 mm, internal diameter of socket 11 mm.
- (L2001). Subsoil. Two iron nails with round flat head and a shank fragment. Lengths 64, 43, and 46 mm.
- Fig 11.16. (L2242) F2241. Ditch fill. Phase 3. Corner fragment from a fired clay slab, probably from a triangular loomweight, but with three unusual characteristics. It is fairly thin, it has one straight and one slightly curved side, and the sides and one surface have been wiped smooth. Despite the latter, the sides are not flat. The other surface, the underside when the weight was drying, is more typical of loomweights and has irregular hollows from lying on a rough surface. Some of the hollows have been made by vegetation. The fabric contains no grit, pebbles, or other tempering and is hard-fired to grey-buff. Maximum height 94 mm, maximum width 115 mm.
- Fig 11.17. (L2277) F2276. Ditch fill. Phase 3. Fragment of an annular loomweight in a fabric containing only one visible piece of flint grit and fired to buff with patches of pale grey and a streak of dark orange. The core is partly reduced. Diameter approximately 120 mm.
- Fig 11.18. (L2277) F2276. Ditch fill. Phase 3. Fragment of an annular loomweight as above, but fired externally to patchy brown and black. Diameter approximately 100-120 mm.
- SF 13. (2304) F2303. Ditch fill. Phase 3. Seven weathered small fragments and many tiny pieces from a Mayen lava quernstone. No original surfaces remain. Total weight 202 g.
- (L2260). Cemetery subsoil. Phase 3. Fragment of Millstone grit quernstone. The grinding surface has worn smooth. Thickness 48 mm. Weight 129 g.
- (L2260). Cemetery subsoil. Phase 3. Small fragment of weathered Mayen lava quernstone. No original surfaces remain. Weight 15 g.

(L2039) F2038. Pit fill. Phase 5. Small fragment (in seven pieces) from the lowerstone of a Mayen lava quernstone; the grinding surface has worn smooth. Thickness 14 mm. Weight 70 g.

(L2157) F2156. Pit fill. Amorphous pit. Phase 5. Fragment from the rim of a Mayen lava quernstone with traces of vertical tooling on the edge. Weight 71 g.

(L2157) F2156. Pit fill. Amorphous pit. Phase 5. Small fragment of weathered Mayen lava quernstone. No original surfaces remain. Weight 13 g.

(L2206) F2205. Pit fill. Amorphous pit. Phase 5. Small fragment of weathered Mayen lava quernstone. No original surfaces remain. Weight 10 g.

(L2374) F2373. Amorphous pit. Unphased; medieval or later. Five weathered small fragments and many tiny pieces from a Mayen lava quernstone. Two of the pieces retain part of the grinding surface, now worn smooth. Total weight 93 g.

## The Ceramic Building Materials

By Andrew Peachey

#### Introduction

A total of 24, 392g of ceramic building materials were recovered from excavations at Watersmeet, Huntingdon. With the exception of a single fragment (169g) of medieval floor tile in L2001 Sample Slot A the assemblage is entirely of Romano-British date. The assemblage is fragmentary with highly varying degrees of preservation probably resulting from considerable redeposition. The ceramic building materials are probably derived from a nearby Romano-British building with a tiled roof and hypocaust, possibly Whitehills villa (Davison & Rudd unpub), and not associated with activity on the site.

## Methodology

The ceramic building materials were examined at x8 and x20 magnification to define fabric types and quantified by weight (grams). Colour references used in fabric descriptions defined using a Munsell colour chart (2000). Romano-British form types were classified according to Brodribb (1977). Contexts with diagnostic forms were recorded on *pro forma*. All contexts were entered in to a Microsoft Excel spreadsheet that recorded fabric type (and where present, form) by weight. The *pro forma* and spreadsheet will be deposited as part of the archive.

## **Fabric Types**

Fabric 1: A very hard fabric with abundant fine (<0.1mm) and sparse medium (<0.5mm) white and clear quartz, sparse red/black iron rich inclusions and cream/orange clay inclusions (both <0.5mm). The surface is oxidised yellowish red (5YR5/6), the margins (and sometimes the core) light red (10R6/6), and the core a reduced dark bluish grey (GLEY2.4/1). Date: Romano-British.

Fabric 2: A hard sandy fabric dominated by common medium (<0.5mm) multi-coloured quartz, with sparse red/black iron rich inclusions (<1mm), sparse streaks of buff/brown clay and flecks of chalk (<5mm). Forms are generally oxidised red (2.5YR5/8-6/8) throughout. *Date*: Romano-British.

Fabric 3: A medium-soft fabric with either abundant or common crushed shell temper (<3mm). In the latter case sparse to common grog (crushed CBM, pot, or clay pellets) may also be present. The core and margins are oxidised reddish yellow (5YR6/6-7.5YR6/6) and the core is a reduced dark bluish grey (GLEY2.4/1). When the fabric is well preserved it has a soapy feel and a hackly fracture. *Date*: Romano-British.

Fabric 4: A hard fabric with common medium (<0.5mm) quartz and common crushed shell/calcareous (<1.5mm) inclusions. The surface is oxidised reddish yellow (7.5YR6/6) and the core is inconsistently reduced. The single example of this fabric is a floor tile with patches of mottled olive green lead glaze in L2001 Sample Slot A. Date: Medieval (12<sup>th</sup>-14<sup>th</sup> century)

Fabric Type	Tegula	Imbrex	Box Flue	Other	Total
			Tile	CBM	
Fabric 1	2310	349	2422	13939	19020
Fabric 2	0	1225	0	1657	2882
Fabric 3	102	232	512	346	1192
Daub	-	-	-	681	681
Mortar	T -	<b>-</b>	-	34	34
Opus	-	-	_	414	414
Signinum			}		
Total	2412	1806	2934	17071	24223

Table 6 Quantification by weight (g) and form of Romano-British ceramic building material fabric types from Watersmeet, Huntingdon.

### **Roof Tiles**

Roof tiles that could be defined as tegula or imbrex with certainty account for 17.41% of the assemblage by weight, however the bulk of the material in the 'Other CBM' category probably originates from these forms but is too small or abraded to be defined as such. All fragments of tegula and imbrex tiles ranged between 17-24mm thick as did the majority of miscellaneous fragments. None of the examples of tegula of imbrex were complete enough to provide dimensions for the original roof tile, however 95.77% of tegula were manufactured in fabric 1 and 67.83% of imbrex were manufactured in fabric 2. This suggests that the tiles were supplied from either different manufacturers or locations, and not made on the site of the building they were associated with.

#### **Box Flue Tile**

Box flue tiles comprise 12.11% of assemblage by weight. Although 4 right-angled corners from box flue tiles were present none were substantial enough to indicate the

size or dimensions of a complete tile. All the examples in this assemblage ranged between 25-30mm thick. 7 Examples exhibited soot on their interior surfaces indicting that they were used in a hypocaust and were probably situated near to the fire/furnace that provided the heat. Comb or key marks to aid the application of plaster are common on fragments but are rarely complete. These marks are often indicative of a shared manufacturer if they are recurring. Those present in this assemblage are described below.

- 1.) Fabric 1. Width: 43mm. No. of teeth: 9. Pattern: Straight comb stroke. Occurrence: F2132 L2133 & L2260 (upper area)
- 2.) Fabric 1. Width: 47mm No. of teeth: 9. Pattern: Straight comb stroke. Occurrence: F2353 L2354 Seg. D
- 3.) Fabric 3. Width: 37mm. No. of teeth: 11. Pattern: Straight comb strokes forming a right-angled lattice. Occurrence: L2260 (upper area)

## Other form types and materials

Small fragments in Fabric 1 that are 40-50mm thick are sparsely distributed throughout the assemblage indicating that Romano-British bricks were also manufactured in this material, but no suggestion can be made about type or dimensions. The fragments of *opus signinum* are abraded but have smooth surfaces still intact. There is no consistency in the fabric or manufacture of the fragments of mortar or daub that occur in the assemblage.

#### Conclusion

There are no Romano-British building materials present in early Roman contexts at Watersmeet, and it appears that the assemblage would have originally been deposited before the cemetery when some of the material is redeposited. Although the size of the assemblage is limited, its 'character' is consistent with the materials used in a well-constructed Romano-British building such as a villa, or a bathhouse associated with such a building. The nearby 'Whitehills' villa (Davison & Rudd unpub) is a potential source but this cannot be confirmed.

## The slag

By Jane Cowgill

#### Introduction

An archaeological investigation was undertaken in advance of residential development. Evidence for human activity at Watersmeet was found from the early Roman period through to the medieval, but with a concentration in the mid 4<sup>th</sup> to early 5<sup>th</sup> centuries. A Roman cemetery was revealed containing at least 72 individuals, lying west to east and, for the most part, unaccompanied by any grave goods. On the eastern side of the site was a late Roman field enclosure system comprising a number of re-cut and intercutting ditches. The majority of the slag was recovered from this side of the site.

## Recording methodology

A total of 5179g (81 pieces) of slag and associated materials were submitted for recording. The slag was washed when necessary with a toothbrush, dried and identified solely on morphological grounds by visual examination, sometimes with the aid of a x10 binocular microscope. It was recorded on *pro forma* recording sheets and this information was entered into a Microsoft Access database using the following encoded fields: Context; Segment; Type; Count; Weight; Craft; Fuel; Condition; Comments. A note of probable fuel type has been recorded when fragments were incorporated within the slag. Any soil in the bags that contained the slag was checked with a magnet for the presence of hammerscale, but only a small amount of this was noted. The full catalogue can be seen in Appendix 3.

## Description of the slags

The slag from this site is a disparate group and probably the by-product of numerous iron-smiths. Both coal and charcoal were used as fuel; as smithing using coal and charcoal require different techniques (H. Cole, pers. comm.), it is likely that the two were used by different smiths. Some of the slag is clearly abraded (that in F2250, F2337, F2339 and F2367), indicating that it has either been redeposited a number of times and/ or suffered from weathering on the ground surface. This latter group will be a minimum number because much of the surface of some pieces is missing (it also accounts for a high percentage recorded just as slag and not given a more specific identification). Only two pieces of slag were noted as being in a fresh condition. Both were recovered from the cemetery sub-soil (L2260); one was a proto-hearth bottom while the other was a piece of smithing slag lump.

The iron slags are all probably a by-product of iron smithing. There are just two pieces that could be associated with smelting: the very small 'blob' of tap slag from F2079 and the furnace slag from L2339, the later resembling slag that has cooled within the base of a furnace. However, given the lack of other smelting slags from the site, both are likely to be smithing by-products. Tap is occasionally formed in smithing hearths, and the furnace slag is probably a hearth bottom with an exceptionally high number of charcoal inclusions.

The plano-convex slag accumulations (commonly called hearth bottoms) from the site are particularly variable. They range in size from small proto-hearth bottoms (for example one in L2260 which weighed 27g) to the two very large examples in F2367, the larger of which weighed 1615g despite being incomplete. There is a thin plate example (from F2024), two have very round d bases (from F2339), another is dense and chunky (from F2359) and one complete example (from F2367) is square. The byproducts of a single smith are usually fairly consistent because they depend on his manner of work and his skill.

#### Discussion

All of the slag is from Romano-British features, most of which have been dated to the mid 4<sup>th</sup> to early 5<sup>th</sup> centuries. There is a single possible piece of tuyere from 10<sup>th</sup> to 12<sup>th</sup> century Pit F2034. The largest group is from Ditch F2367, and most of this (42

pieces, 3844g) came from segment D. In the site interim report (Hounsell and Nicholson 2003) it was postulated that this may indicate iron smelting in the vicinity of the site; post excavation analysis has revealed the slag to have been a by-product of smithing, not of smelting, and the lack of consistency in slag type and lack of associated hammerscale suggest that this slag has been redeposited and it not a primary dump direct from a smithy.

The second largest group is from L2260. Although this includes two pieces described as being 'fresh', they are the only two by-products of iron-smithing from this context, the other pieces being clinker (partially burnt coal), fused sand and a piece of fuel ash slag.

## The Roman Glass

By H.E.M. Cool

Two vessels can be identified as to form. No. 1 is most likely to be from a ribbed conical jug (Price and Cottam 1998, 152-7), and can thus be dated to the later 1<sup>st</sup> to mid 2<sup>nd</sup> century. No. 4 is a conical beaker with a fire rounded rim and would have been in use during the later 4<sup>th</sup> and into the 5<sup>th</sup> century (Price and Cottam 1998, 129). The other fragments can only be dated broadly depending on the colour of the glass. The colourless fragment no. 3 would have been in use during the 2<sup>nd</sup> and 3<sup>rd</sup> centuries, and the bubbly light green fragments (nos. 5 and 6) came from 4<sup>th</sup> to 5<sup>th</sup> century vessels. Blue/green glass of the type used for no 2 was in used from the 1<sup>st</sup> to 3<sup>rd</sup> centuries, but the pontil scar on the base would suggest it was of 2<sup>nd</sup> to 3<sup>rd</sup> century date because the use of the pontil iron does not appear to be a feature of 1<sup>st</sup> century glass-making practise.

## Light yellow/brown

1 F2024, L2025: pit fill.

Body fragment; straight sided with vertical ribs. Dimensions 24 x 19, wall thickness 2mm.

This is most likely to be possibly from a conical jug of Is

#### Blue/green

F2156, L2157 Seg B: upper fill of pit
Base fragment; central part of thickened concave base with pontil scar.
Dimensions 30 x 24mm.

#### **Colourless**

F2303, L2304 Seg F: ditch fill Body fragment.

#### Light bubbly green

- L2260: mixed deposit in cemetery area
  Conical beaker; rim fragment. Out-turned rim, edge fire-rounded; straight side
  sloping in. Rim diameter 70mm, wall thickness 1mm, present height 15mm.
  EVE 0.2.
- 5 F2303, L2304 Seg F: ditch fill

Body fragment.

6 L2260: mixed deposit in cemetery area Body fragment.

## The Struck Flint

By Tom McDonald

A small quantity of residual struck flint was collected from the Roman and later features. Much of the material was found within the fills of ditches and cemetery soil (L2260). The condition of the flint is lightly abraded. A single blade from L2260 is in 'fresh' condition. The colour varies between hues of brown, grey and black with some yellow and green chert pebble flint. Much of the material is derived from small surface nodules and pebble flint. A few pieces are derived from chalk deposits. No primary flakes are present, and the majority of the collection comprises small secondary flakes. The remainder of the material comprises mostly tertiary blades.

## Several pieces are retouched

L2001 Possible retouch on a small snapped tertiary flake

F2205 Point on a small secondary flake

F2205 Point/notch on a small secondary flake (re-use of patinated flint)

F2205 Notch on a small chert pebble flake

L2260 ?Axe fragment re-used as a long blade core

L2260 End scraper on a tertiary flake

L2260 Misc retouch on a secondary flake

L2260 Misc retouch on a secondary flake

F2329 Button scraper on a small secondary flake

F2359 Possible retouch on a tertiary flake (utilized as an end scraper?)

The fragment of a possible tranchet axe (re-used as a blade core) dates to the later Mesolithic period. It is possible that the axe was found elsewhere, imported to the site, and re-used as a core. The blades, including a few backed blades, are derived from an early Neolithic blade industry. The majority of the pieces are derived from a later Neolithic flake-dominated industry; awls notches and points are typical of this period. The button scraper is typical of the early Bronze Age. It is probable that the Mesolithic axe fragment was re-used during this period to produce long blade blanks for plano-convex knives.

## The Human Bone

By Carina Phillips BA MA

#### Introduction

Both separate inhumations and disarticulated material were recovered from part of this Roman cemetery at Watersmeet. Disarticulated human bone has been excluded from the analysis. Disarticulated human bone was recovered during excavation; Skeleton numbers were assigned to some disarticulated bone recovered from L2260 and from Graves 5 and 11 in which no other Skeleton was found (see Appendix 1).

The disarticulated material from the graves has been included in the overall count of individuals (72) but none of the disarticulated material is included in the human bone analysis. Of the remaining 69 individuals, (46%) were less than 25% complete, and with most of these age and sex assignments were not possible, these remains have therefore been categorised as infant, juvenile or adult and any pathologies have been noted. The majority of the discussion of this report is therefore based on the Skeletons complete enough to gain more substantial information from. Thus the Skeletons discussed here only represent part of the cemetery.

#### Method

Each Skeleton was examined in order to determine sex and age, stature and pathological evidence. Sex estimates were assigned based on sexual traits present in the pelvis and cranium (see Buikstra & Ubelaker 1994 for details). Sex estimations are not possible for the immature Skeleton.

Age estimations for adult Skeletons were based on the pelvic features of the auricular surface and pubic symphysis and cranial suture closure and are supported by any degenerative changes in the Skeleton such as osteoarthritis. Dental wear ages for adults were considered following Miles (1963), but as discussed later this was not seen as a reliable indicator of age in this population. Immature remains were assigned ages based on dental eruption (Buikstra & Ubelaker 1994), bone fusion (Buikstra & Ubelaker 1994) and long bone length (Ubelaker 1999 & Scheuer et al 1980). For ease of analysis and discussion the age estimates established have been categorised as infant (0-5 years), juvenile (6-17 years), young adult (18-35 years), middle adult (35-49 years) and older adult (50+ years).

Measurements were taken of complete bones and have been converted to stature estimates for the adult remains following Trotter and Gleeser (1952 in Brothwell 1972). Non-metric traits were recorded when possible (following the data of Buikstra & Ubelaker 1994). Dentition was recorded, including details of dental pathologies. Other Skeletal pathologies have also been recorded and will be discussed. All data is available in the site archive.

# Age and Sex

Table 7 display's the age and sexes of the Skeletons considered in this study, illustrating the high number of adult Skeletons (36%) that were unageable due to the poor survival of the remains.

The majority of the assemblage (78%) consists of adult remains. 22% of the assemblage is made up of under 18 year-olds, a high number of these are infants (most aged at new-born). Similar numbers of middle and older aged adults are present in the aged sample, with a slightly lower number of young adults.

This age at death pattern is as would be expected of a population with a higher number of deaths falling in the middle and older adult categories. The high number of infant deaths, the majority consisting of new-borns, is likely to reflect the high risk in survival of the child during labour. The burial of these neo-nate's and young infants in the cemetery reflects a Christian influence. Before this influence, infants under 6

months old were not buried in cemeteries and infanticide was a common practice (Watts 1989).

	Male	Female	Unknown	Total	1%
Infant (0-1.5 years)	0	0	7	7	10%
Child (1.5 – 5 years)	0	0	3	3	4%
Juvenile (5-17 years)	0	0	5	5	7%
Young adult (18-34 years)	3	3	2	8	12%
Middle Adult (35-49 years)	4	4	3	11	16%
Older adult (50+ years)	2	6	2	10	14%
Adult (unknown age)	0	2	23	25	36%
Total	9	15	45	69	100%

Table 7 Estimated age and sex of the Watersmeet skeletons

There were more females than males in the assemblage giving a male/female ratio of 0.6. Young and middle aged males and females were present in the same numbers, however over 50% more older adult females were present compared to males, this could indicate an older age of death for females, or a higher number of females in the cemetery population, but based on the small size of this sample these suggestions are tentative.

#### Stature

An estimation of stature based on the measurements of long bones was possible for twelve Skeletons in the assemblage (six male, six female) following the regression formulae by Trotter (1952). The results (chart 2) show some small overlap within the heights of the sexes. The mean height for males at 1.74m is the same as that of modern British males; the female mean height at 1.58m is lower than the modern British equivalent (1.61) (Gardner n.d.). These differences in height emphasis a sexually dimorphic population. Molleson (1993 in Conheeney 2000) suggests that a lack of sexual dimorphism can reflect a society with poor nutrition, a low male stature reflecting a society with low protein. Based on this the Watersmeet sample therefore had an adequate diet, however the small size of this sample may have biased the stature estimates given here.

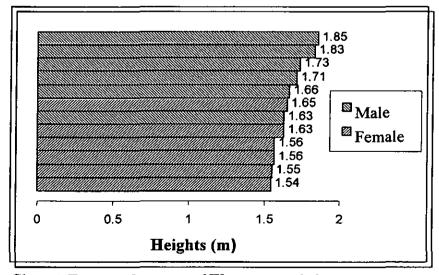


Chart 2 Estimated stature of Watersmeet skeletons

#### Dentition

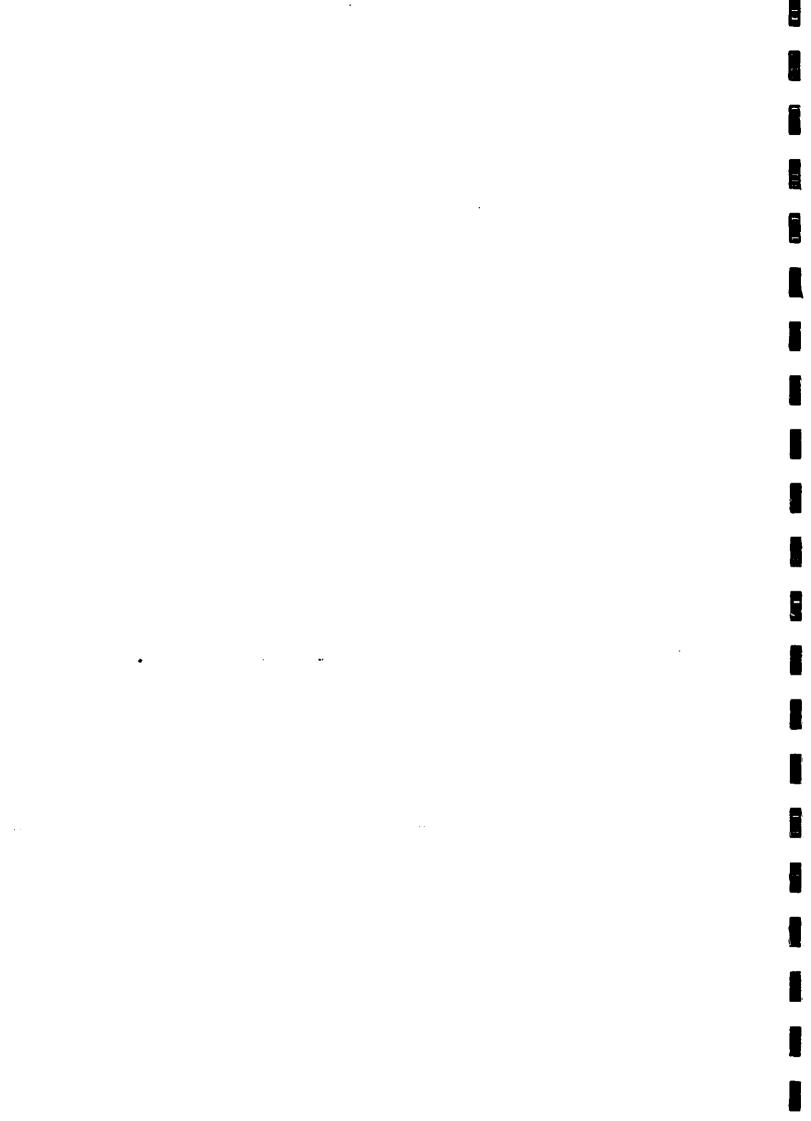
Only seventeen adult Skeletons within the assemblage had teeth present for examination (109 teeth in total). This number is lower than expected due to the usually high survival rates of teeth (because of their dense composition) and is probably influenced by the poor survival of the cranium in a majority of the Skeletons. Unfortunately a larger number of females than males had teeth present for analysis, inhibiting the comparison of dentition between the sexes.

Overall the dental health was relatively poor. Dental caries have been related to genetic factors (caries can be more common in certain families), dental hygiene and diet. Dental caries were present on the teeth of 10 individuals, 23% of the total number of teeth examined (chart 3). This percentage is much higher in comparison to other Romano-British sites such as, Cirencester at 5.1%, Trentholme Drive at 4.6% and a survey of five Romano-British sites at 13% (Harman & Molleson 1981, in Conheeney 2000). A number of the caries were so large their origin could not be established. Those which were observable were mainly situated on the molars at the cemento-enamel junction and some on the occlusal surface. Studies suggest that before the 17<sup>th</sup> Century in Britain the most frequent site for carious lesions was at the cemento-enamel junction (Moore & Corbett 1978, in Mays 2000).

Abscesses were present in two individuals, both associated with the presence of a carious lesion. This is 12% of the total number of individuals with teeth examined, which is a lot higher than the 1.2% found in the Romano-British period (Roberts & Manchester 1997). This high percentage is likely to be biased by the poor survival of teeth and craniums.

Seven individuals had some degree of ante-mortem tooth loss, present mainly in middle and older aged adults. Three old aged adults had all or most of the teeth in their mandible loss and reabsorbed. Due to the age and amount of caries present this is likely to be the result of caries or primary gum disease; however it is not possible to distinguish tooth lost from other causes such trauma and deliberate removal (Waldron, n.d, Roberts & Manchester 1997).

Deposits of calculus (mineralised plaque) were present in 11 (61%) of adult individuals whose teeth were examined (chart 3). These amounts are likely to be an under-representation due to the fragile nature of calculus in archaeological material (Hillson 1996). Calculus was present on all teeth, indicating that poor hygiene was probably a main factor, which is also likely to account for the high frequency of caries.



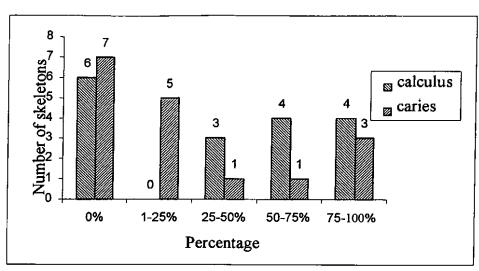


Chart 3 Percentage of teeth with calculus and caries

Skeleton no.	Sex	Age	No of teeth present	Lost post- mortem	Lost ante- mortem	With calculus	With caries	No. of abscesses
2301	Female	Adult	19	2	0	18	0	0
2116	Female	Middle Adult	7	3	5	2	4	0
2130	Female	Middle Adult	16	8	0	9	0	0
2259	Female	Middle Adult	6	2	0	5	1	0
2281	Female	Middle Adult	16	15	3	11	1	1
2255	Female	Old Adult	16	0	0	15	2	0
2265	Female	Old Adult	0	0	2	0	0	0
2284	Female	Old Adult	6	8	15	0	6	1
2289	Female	Old Adult	7	0	16	0	7	0
2317	Female	Old Adult	17	0	10	11	14	0
2221	Female	Young Adult	10	6	0	4	2	0
2283	Female	Young Adult	3	0	6	0	0	0
2290	Male	Middle Adult	18	5	0	0	4	0
2280	Male	Young Adult	14	0	0	9	2	2
2101	Unknown	Adult	7	7	1	2	3	0
2257	Unknown	Middle Adult	4	6	0	0	0	0
2244	Unknown	Young Adult	24	0	0	18	0	0

Table 8 Details of teeth present

# Dental Attrition

The age assignment based on dental attrition (following Miles 1963) is noted to be approximately 10 years younger than ages based on pelvic and skull characteristics.

Due to this and the small number of mandibles with suitable molars present ages based on dental wear have not been used in this analysis.

This low level of wear suggests that the Watersmeet population were consuming a diet that caused less dental wear than the 'pre-medieval' population used by Miles in forming the ageing data.

# Dental Hypoplasia

Hypoplasia (termed as a 'stress indicator') is defined as 'deficiencies in the enamel matrix composition' (Roberts & Manchester 1997). Such deficiencies in the enamel are due to a metabolic disruption during growth which only occur during childhood, but continue to be evident in adults.

Dental hypoplasia was evident on one juvenile skeleton, aged between 10-15 years old. This individual was aged at 12-15 years by dental eruption, but had very small long bones (the size expected for an individual aged 10 years, Ubelaker 1999). During periods of nutritional stress physical growth is affected before tooth development (Conheeney 2000:205). The small size of this individual is therefore likely to be linked to the metabolic disruption also causing dental hypoplasia.

#### Joint Disease

Joint disease was found on 22 of the Skeletons, which is 33% of the 69 Skeletons analysed. This number is likely to have been higher due to the fairly large number of the Skeletons that were less than 25% complete and because of their poor survival are likely to have pathological evidence missing.

#### Osteoarthritis

Osteoarthritis (degenerative joint disease) is the most common disorder found in archaeological Skeletons, particularly in the spinal column. It is caused by the destruction of the articular cartilage in a joint and the subsequent formation of new bone in the form of bony lipping and spur formation (osteophytes) around the edges of the joint (White & Folkens 2000, Waldron n.d). Porosity and eburnation of the bone are also traits of osteoarthritis. Eburnation is an area of polished bone that forms when complete degradation of cartilage and friction of the two opposing bone surfaces occurs (Rogers 2000). The disease occurs mainly at the load bearing joints, such as the spine, knees and hip. Its causes are mostly mechanical although it is also an inherent part of the aging process.

Osteoarthritis was the most commonly found pathology in the Watersmeet assemblage. It was found most frequently on the vertebrae, but was also exhibited on the hips, knees, shoulders, elbows, wrists, hands and feet. Arthritis of the hips and knees was found in similar numbers in males and females. However, interestingly it was only exhibited in the shoulders, elbows, wrists and hands of females (aged mostly at old adult). This may indicate a difference in activity of the two sexes, where women performed an activity, stressing the joints of the arms and hands; that was not carried out by men.

	Young Adult	Middle Adult	Old Adult	Adult, unknown age	Total
Vertebrae	4	6	7	1	18
Hips	2	0	4	0	6
Knees	1	1	1	2	5
Shoulders	0	0	3	0	3
Elbows	0	1	5	0	6
Wrists	0	0	1	0	0
Hands	1	1*	1	1	4
Feet	0	0	1*	1	2

<sup>\*</sup> one case of Rheumatoid arthritis

Table 9: Number of aged individuals exhibiting osteoarthritis

1	Female	Male	Unknown	Total
Vertebrae	11	7	0	18
Hips	3	2	1	6
Knees	2	2	1	5
Shoulders	3	0	0	3
Elbows	6	0	0	6
Wrists	1	0	0	1
Hands	3*	0	1	4
Feet	1	0	1*	2

<sup>\*</sup> one case of Rheumatoid arthritis

Table 10 Number of sexed individuals exhibiting osteoarthritis

### Rheumatoid Arthritis

A middle-aged female Skeleton exhibited rheumatoid arthritis in the hand, resulting in the ankylosis (fusion) of a metacarpal and carpal. Middle-aged women have a tendency for this arthritis, hence this finding is not unusual (White & Folkens 2000). An unageable old adult also exhibited rheumatoid arthritis of the foot, evidence in ankylosis of a metatarsal and tarsal.

#### Ankylosing Spondylitis

Ankylosing spondylitis is a chronic and usually progressive disease that affects the vertebral column. The associated ligaments of the spine ossify resulting in fusion (ankylosis) and immobility of the joint. This was found in two individuals (SK2289, SK2290), both exhibiting ankylosis of the sacrum and 5<sup>th</sup> lumbar and SK2290 also having ankylosis of the 3<sup>rd</sup> and 4<sup>th</sup> lumbar (see plate xx).

# Schmorl's Nodes

Schmorl's Nodes were present on the vertebrae of eight individuals. They are associated with vertebral osteoarthritis and the degeneration of the intervertebral discs, occurring when the disc contents exert pressure in the vertebral body surfaces (Roberts & Manchester 1997). These are therefore seen as degenerative, although trauma is thought to be one of the major causes, due to excessive weight bearing

during adolescence or later herniation of the disc and is therefore initially of traumatic origin (Conheeney 2000, 282).

#### Trauma

#### Fractures

A fracture of the distal shaft of the right ulna was present in the Skeleton of an old adult female (SK2265). It is a complete, simple fracture (consisting of a clear complete break), resulting in the formation of callus (consisting of sclerotic bone), indicating the fracture took place earlier in life. Nonunion of the fracture has led to a false joint / pseudoarthrosis (see plate xx). The nonunion of this fracture will have been caused by continued movement at the broken surface. These types of fractures are commonly found in the forearm, as in this case.

The Skeleton of a middle aged man (SK2224) had a partial or 'greenstick' fracture on a rib. This type of fracture is where breakage and bending of the bone is combined (White & Folkens 2000). Greenstick fractures commonly occur in juveniles and on adult ribs (Buikstra & Ubelaker 1994).

#### Dislocation

The dislocation of the left femur from the left actetabulum has occurred in the middle adult male Skeleton Sk2278. A trauma is likely to be the cause of this hip dislocation, rather than a congenital cause, based on observations of the actetabulum.

A dislocation of the left femur (associated pelvis is missing) was found on Sk2302, unfortunately this Skeleton was less than 25% complete, and so is of unknown adult age and sex. Extensive lipping has occurred on the femur head, particularly on the distal side. Eburnation is also present on the head, although to what extent is unobservable due to erosion of the bone surface. Osteoarthritis as a secondary disease is also evident

# Abnormal bone formation

A myositis ossifican was present on a clavicle of a young adult female (SK2244). This is the formation of bone within the muscle tissue and can be of traumatic origin (Buikstra & Ubelaker 1994).

# Other conditions

#### Cribra orbitalia

Cribra orbitalia (porotic hyperostosis) was found on one juvenile Skeleton, aged approximately 10 years (Sk2291). It is recognisable as porosity on the orbital lesions and is often found in immature Skeletons. The causes of this condition are thought to be due to an iron-deficiency in the diet, other suggestions include nutrient losses due to diarrhoeal diseases, or infection (White & Folkens 2000). However, an iron-deficient diet is thought to have had more of an impact on prehistoric populations

(Klepinger 1992 in Schwartz 1994). The presence of this disorder on only one individual may be affected by the poor survival of craniums and in the assemblage.

# Spina bifida occulta

Spina bifida occulta is the exposure of the spinal cord due to an open posterior sacrum. Although the spinal canal is exposed by the sacrum, in life the area would have been covered by cartilage or membrane, and therefore would not have known by their possessors (Roberts & Manchester 1997). It is a congenital defect, found in varying numbers in different populations but with an incidence of around 2.7% in some early British skeletons Roberts and Manchester 1997, 36). Two instances of partial spina bifida occulta (the partial exposure of the spinal cord) were found (Sk2221, Sk2279).

#### Non-Metric Traits

Only 13 Skeletons had craniums over 50% complete, which has made the recording and analysis of non-metric traits for the cranium difficult. Due to a majority of the non-metric traits recorded being on the cranium, further discussion of these is not carried out (data available in archive).

#### The Burials

All human remains were inhumations, rather than cremations, with all, but two observable burials lying in a west-east orientation, and most lacking grave goods, indicative of Christian burials. The burial of new-born and young infants amongst the adult burials in the cemetery is a pattern influenced by the growth of Christianity and is noticeable in Roman cemeteries from the 4<sup>th</sup> Century (Watts 1987, 1991, 1993).

A majority of the burials were in the position extended, supine, a number of burials were observed to have their left foot crossing the right foot. Sk2265 (Fig 5 and Plate 3) was the only burial to be laying face-down, which like most other prone (face-down) burials have no obvious explanation (Taylor 2001), although they do seem to have been a late Roman and Anglo Saxon phenomenon (Watts 1993).

F2250 contained the disarticulated remains of at least three individuals, including three Skulls (Sk2249). Two Skulls were aged at middle adults (one female, one unknown adult) and one probable male aged at old adult.

#### Conclusions

The poor survival of a number of burials has hindered analysis and conclusions of this assemblage. However a few tentative points can be made. A majority of the Skeletons were adults, the ageable ones falling mainly into the middle and old adult categories, as would be expected in a population. The dentition of those individuals with teeth present illustrates relatively poor dental health. Carious lesions and calculus were common, and surprisingly dental attrition was lower than expected, these suggest a diet that was not too abrasive to the teeth. These high amount of calculus and caries indicate poor dental hygiene.

The most significant trait seen in this assemblage is the differences between males and females in the areas affected with osteoarthritis. Osteoarthritis was present in the arms (shoulders and elbows) of females only, suggesting an activity that put a strain on these joints was carried out by women and not men.

The position and ages of the individuals buried in this cemetery indicate a Christian influence which would only have taken place after the 4<sup>th</sup> Century; this fits well with the date assigned to the cemetery on the basis of finds analysis.

#### The animal and bird bone

By Carina Phillips BA MA

#### Introduction

A total of 4482 fragments of animal and bird bone were recovered from the excavation at Watersmeet. 3955 of these fragments were separated into the phases early to mid Roman, late Roman, early Saxon, late Saxon and Medieval. The first four phases are discussed below; only two fragments were recovered from the medieval phase and have therefore been excluded from the discussion. 527 fragments remain unphased.

The assemblage was moderately fragmented, which is likely to affect the identification of the bone to species and/or element, and may bias the assemblage in favour of larger bones. The assemblage appears to consist of a mixture of domestic and butchery waste.

#### Method

Where possible the bones were identified and recorded to species and element. Due to the difficulty in separating goat from sheep bones the category sheep/goat (Ovis/Capra sp.) was used. Tooth wear was recorded using the method of Grant (1982) and ages assigned using the method of (Hambleton 1999). Measurements were taken when viable following the method of von den Driesch (1976), and are available in the site archive. When available the fusion of identifiable bones was also recorded and ages were assessed following Silver (1969), however these are seen to be less reliable than tooth wear ageing and have therefore only been considered when there is sufficient fusion data and there are small numbers of tooth wear ageing. Fragments, unidentifiable to a particular species, were recorded under the categories of 'cattle size', consisting of cattle (Bos sp.), deer and horse (Equus sp.) sized fragments and 'sheep size' consisting of sheep/goat, pig (Sus sp.) and dog (Canis familiaris) sized bone fragments. The unidentifiable bone fragments were recorded as so. Evidence of burning, chopping, knife-cutting and gnawing was also recorded, as was smashed bone.

The data was separated into phase and analysed separately. The minimum number of individuals (MNI) of a species was calculated from most frequent element of a left or right bone.

# Results

	Early-N Roman		Late R	oman	Early S	Saxon Late		axon
	NISP	MNI	NISP	MNI	NISP	MNI	NISP	MNI
Sheep/goat	36	2	191	13	119	11	163	8
Cattle	7	1	180	8	49	3	89	5
Pig	4	1	76	4	47	3	44	4
Horse	2	1	26	2	4	1	6	1
Dog	0	<b>-</b>	5	1	3	1	3	1
Cat	0	-	0	-	0	-	1	1
Goat	0	-	1	1	0	-	0	-
Red Deer	0	<b>-</b>	1	1	0	-	0	-
Roe Deer	0	-	4	1	1	1	0	-
Hare	0	-	0		1	1	1	1
Rabbit	Ō	-	2	1	0	-	0	-
Water Vole	1	1	0	-	0	-	0	-
Bird	0	-	51	[	9	-	43	
Fish	0	-	1	-	0	-	3	-
Sheep sized	54	-	380	<b>]</b> -	254	-	366	
Cattle sized	29	-	336	_	144		142	-
Unidentifiable	47	-	433	-	284	-	312	
Total	180		1687		915		1173	

Table 11 Total number of fragments (NISP) and minimum number of individuals (MNI)

	Early Roma			Late	Roma	n		Early	y Sax	on		Late	Saxon		
	S/G	C	P	S/G	C	P	H	S/G	C	P	H	S/G	C	P	H
Phalanx 1	2	1	-	4	13	1	3	-	5	2	1	7	3	-	1
Phalanx 2	-	-	-	-	3	-	2	-	2	-	-	1	2	<b>-</b>	-
Phalanx 3	-	T-	-	-	-	-	-	<u> </u>	1	-	-	-	3	<u> </u>	[-
Astragalus	-	-	1	1	4	1	2	[ <del>-</del>	1	1	<b> </b> -	1	2	<u> </u>	-
Calcaneum	-	-	3	1	6	1	1	1	1	2	1	3	3	1	1
Carpals/tarsals	-	1	-	-	2	-	1	_	-	-	-	-	-	-	-
Metapodials	8	-	-	34	13	11	1	18	5	7		30	20	8	Γ-
Tibia	3	-	-	23	5	6	-	7	3	5	-	14		3	1
Femur	-	1	-	4	4	2	1	9	3	-	-	8	6	2	1
Pelvis	1	-	-	8	7	1	-	5	-	-	-	8	4	Ŀ	<b> </b> -
Sacrum	-	-	-	-	1	-	l	-	-	-	-	-	1	Ŀ	<b>[</b> - <u> </u>
Vertebrae	-	-	-	4	8	2	2	3	-	5	-	3	-	3	-
Scapula	1	1	-	4	9	8	1	3	2	4	1	4	2	5	-
Humerus	4	-	-	12	9	7	3	8	3	-	-	14	3	2	-
Radius	1	-	-	13	17	4	-	8	1	2	l	10	4	1_	-
Ulna	-	-	-	1	16	2	-	3	3	4	-	5	4	4	[-
Skull	ļ-	Ī-	-	3	2	2	-		-	-	-	2	1	-	-
Horn core	] -	-	-	9	5	-	-	-	-		-	-	1		-
Teeth	10	2	-	39	34	8	9	28	11	6	-	23	20	5	2
Mandible	4	1	3	23	18	12		21	6	3	-	14	7	8	-

Table 12 Skeletal elements per species (S/G=sheep/goat, C=cattle, P=pig, H=horse)

# Early-Mid Roman

A small total of 180 bone fragments, were recovered from this earliest phase (table 11). Sheep/goat fragments were identified in the highest numbers, also producing the highest MNI of 3, indicating the disposal of more sheep/goat remains in this phase than other animals. A mixture of both meaty elements (discarded as domestic waste) such as the humerus and scapula and non-meaty elements (usually discarded at the butchery stage), such as the metapodials and phalanges were present, indicating the disposal of both domestic and butchery waste, however with such a small assemblage this is suggestion is tentative (table 12).

Small numbers of cattle (7 fragments), pig (4 fragments), horse (2 fragments), and water vole (Arvicola terrestris) (1 fragment) were also present, all producing an MNI of 1. Water voles are not an unusual find and presence of running water provides an ideal habitat for this species, such as at Watersmeet (Yalden 1999). Based on the small numbers of identified fragments, further analysis is limited. Unfortunately age based on tooth wear and fusion for all species was not possible due to the lack of mandibles and small numbers of bone with observable fusion state. Chopped, cut, smashed and gnawed bone was all present in the early-mid phase assemblage, but in small numbers.

#### Late Roman

A total of 1687 bone fragments form the late Roman assemblage (see table 11).

Sheep/goat

Sheep/goat and cattle fragments were identified in similar numbers. However, the MNI calculated for sheep/goat was 13, in comparison to the MNI of 8 for cattle. The ages based on tooth wear show more frequent ages of death falling between 2-6 years (chart 1). Four horn cores fragments were positively identified to sheep, one of which came from an old ram correlating with the older age range. An interesting method of butchery was found on the sheep skull (in F2050) in which the skull was chopped through the eye-sockets and the horn cores were smashed off. A single horn core was identified to goat, chopped at the base the mid shaft of the horn core appears to have been broken in life. This is unusual and may have been carried out to remove the risk horns could have posed to other animals or humans. The mid-older ages of these animals suggests a main use of sheep for wool, the meat of these animals providing a secondary product. A mixture of both meaty and non-meaty skeletal elements were identified in the sheep/goat assemblage (table 12).

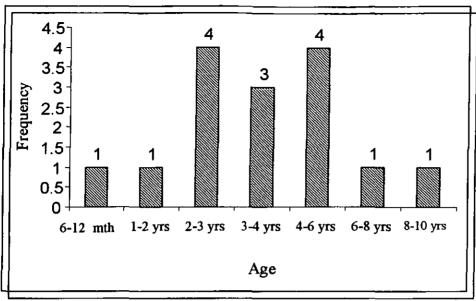


Chart 4 Ages of sheep from the late Roman phase

#### Cattle

An MNI of 8 for cattle suggests the disposal of fewer cattle than sheep/goat; however it should be taken into account that a single cow carcass will produce a lot more meat than a single sheep. Unfortunately only two cattle mandibles were ageable, coming from two young animals aged approximately 8-18 months and 18-30 months. These ages are similar to the ages suggested by fusion data (see table 13) indicating a fairly young age at death. This implies that cattle were most likely to be exploited for meat. Degeneration of a cattle pelvis is noted through the presence of eburnation on a fragment of the acetabulum, a possible indication of osteoarthritis (Baker & Brothwell 1980). Slight to moderate ligament ossification is also noted on the posterior side of a cattle 1st phalanx, possibly indicating that cattle were also used as traction animals.

	UF	FG	FUS	%UF
Glenoid	0	0	5	
Acetabulum	0	0	0	
P.Radius	0	0	4	İ
D.Humerus	1	1	2	
Phalanx 1	1	0	11	
Early Fusing (at 7-18 mths)	2	1	22	12%
Subtotal	<u></u>		<u> </u>	
D.Tibia	0	0	2	ļ
D.Metapodial	4	0	2	
Mid Fusing (at 2-21/2 yrs)	4	0	4	50%
Subtotal				
Calcaneum	1	0	1	
P.Femur	1	0	0	
P.Ulna	0	0	0	ĺ
P.Humerus	0	0	0	
P.Tibia	0	0	0	ĺ
D.Radius	1	1	3	

D.Femur	0	0	0	
Late Fusing (at 3-4 yrs) Subtotal	3	1	4	50%

Table 1 3: Table illustrating fusion stages of cattle bones in Late Roman Phase

UF- number unfused

FG- number fusing

FUS- number fused

%UF- UF &FG forming percentage of unfused bones

# Pig

76 pig bone fragments produced an MNI of 4. Six pig mandibles were ageable, 4 aged at 7-14 months and 2 at 14-20 months, suggesting a fairly young age at death for this species. The primary use of pigs is for meat (skins and bristle being secondary uses) and consideration of the identified fragments illustrates a combination of both meaty and non-meaty elements suggesting the disposal of both domestic and butchery waste.

#### Horse

A total of 26 horse bone fragments were recovered producing an MNI of 2. Two of the fragments were smashed splinters of long bones indicating some manipulation of the bone after death. One fragment was charred slightly, indicating its presence near to a fire and two bones were gnawed. Two instances of pathology were noted on the posterior aspect of two 1<sup>st</sup> phalanges, each exhibited ossification of both medial and lateral oblique distal sesamoid ligaments. These pathological changes would have produced some lameness (Getty 1975) and may indicate the use of these animals for transport.

#### Other

The five dog (Canis familiaris) bones produced an MNI of 1. No butchery was recorded. An MNI of 1 was produced for rabbit (Oryctolagus cuniculus), red deer (Cervus elaphus) and roe deer (Capreolus capreolus). No evidence of butchery was recorded for rabbit. A chopped red deer humerus was present along with two chopped roe deer antler; one also had cut marks on it.

# **Early Saxon**

The early Saxon phase contains a total of 915 bone fragments (table 11).

# Sheep/goat

Sheep/goat bone fragments were present in much higher numbers than any other identified species. A MNI of 11 was calculated. Butchery and preparation of the carcass was evident through the chopped, cut and smashed bone fragments. A mixture of both meaty and non-meaty elements is present (see table 12), however the lack of phalanges may indicate that these were left attached to the skin when it was removed. Nine mandibles had teeth sufficient enough for ageing (chart 2), a fairly wide range of ages was present, however a majority were aged over 2 years,

indicating a primary use of these animals for wool, rather than meat. Periodontal disease was noted on one sheep/goat mandible (Baker & Brothwell 1980).

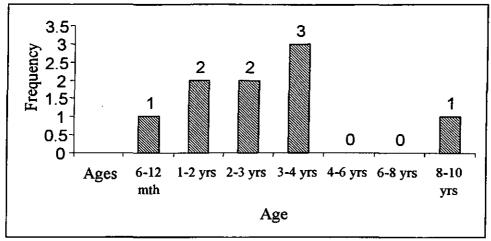


Chart 5 Ages of sheep/goat based on teeth wear from the early Saxon phase

#### Cattle

Only 49 cattle bone fragments were present in the early Saxon phase producing a small MNI of 3. Chopped and smashed bone was present, in smaller numbers than the sheep/goat fragments. A single cattle mandible was aged at 18-30 months; the fusion data was too sparse for comparison. A mixture of both meaty and non-meaty elements were present suggesting a deposit of both domestic and butchery waste. Some ossification of the medial and lateral ligaments was found on the posterior aspect of a cattle 1<sup>st</sup> phalanx (Getty 1975). A possible indication of an animal used for traction.

# Pig

Pig bone fragments were found in similar numbers to cattle, producing the same MNI of 3. Single examples of chopped, cut and smashed bone were present. The skeletal elements suggest a presence of more butchery waste than domestic. A single mandible was ageable at 21-27 months, this young age correlates with the fusion data, which indicated a majority of the bones (that had fusion state observable) were under the age of two years (see table 14).

	UF	FG	FUS	%UF
Glenoid	1	0	1	
Acetabulum	0	0	0	
P.Radius	0	0	2	
D.Humerus	0	0	0	
Early Fusing (at 1 yr) Subtotal	1	0	3	33%
Phalanx 1	0	0	2	
D.Tibia	2	1	0	
D.Metapodial	3	0	1	
Calcaneum	1	1	0	
Mid Fusing (at 2 yrs) Subtotal	6	2	3	73%

Subtotal				
Late Fusing (at 31/2yrs )	1	0	0	100%
D.Femur	0	0	0	
D.Radius	0	0	0	
P.Tibia	0	0	0	
P.Humerus	0	0	0	
P.Ulna	1	0	0	
P.Femur	0	0	0	1

Table 14 Fusion details of early Saxon pigs

# Other

Small numbers of roe deer (1 fragment), dog (3 fragments), hare (1 fragment) and horse (4 fragments) bone were also identified, each producing an MNI of 1. A chopped horse calcaneum is noted.

# Saxo-Norman

A total of 1173 bone fragments were recovered from the Late Saxon phase at Watersmeet. Sheep/goat bone fragments were identified in the highest numbers, producing the highest MNI of 8. Of the seven ageable mandibles, the most frequent age at death falls between 4-8 years (chart 6). This older age of animals suggests the main exploitation of sheep is likely to be for wool. The fusion data of the sheep/goat bones suggests a higher number of individuals aged less than 21/2-3 years; however this method of ageing is not considered as reliable as teeth wear ageing, which may therefore account for the discrepancies in results.

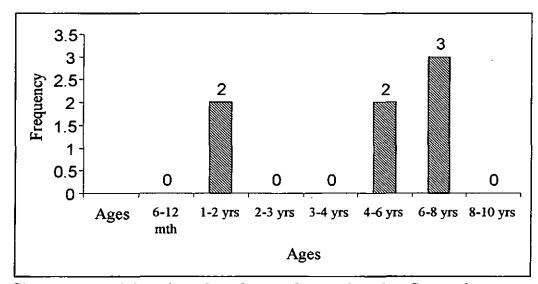


Chart 6 Ages of sheep/goat based on teeth wear from late Saxon phase

Sheep/goat	UF	FG	FUS	%UF
Glenoid	1	0	2	
Acetabulum	0	0	0	
P.Radius	1	0	3	
D.Humerus	3	_ 1	6	
Early Fusing (6-10 mths) Subtotal	5	1	11	35%
Phalanx 1	0	0	7	
D.Tibia	0	0	4	1
D.Metapodial	5	0	10	
Mid Fusing (1-2 yrs) Subtotal	5	0	21	24%
Calcaneum	1	0	2	
P.Femur	2	0	0	
P.Ulna	1	0	0	
P.Humerus	0	0	0	
P.Tibia	0	0	0	
D.Radius	0	0	0	!
D.Femur	1	0	0	
Late Fusing (at 21/2-3 yrs) Subtotal	5	0	2	71%

UF- number unfused

FG- number fusing

FUS- number fused

%UF- UF &FG forming percentage of unfused bones

Table 15 Table illustrating fusion stages of sheep/goat bones in late Saxon phase cattle

89 fragments were identified to cattle in the late Saxon phase, producing an MNI of 5. A single cattle mandible was aged to 30-36 months; the paucity of observable fusion bones has limited the assessment of fusion ages. A mixture of both butchery and domestic waste is indicated from the presence of meaty and non-meaty skeletal elements.

# Pig

The MNI of 4 calculated for pig suggests they were disposed of in similar numbers to cattle. Meat is the primary use of pigs and the mixture of meaty and non-meaty skeletal elements suggests a mixture of both butchery and domestic waste. Four mandibles were ageable, three at 21-17 months and one at 7-14 months.

### Other

Six fragments were identified to horse, producing an MNI of 1. One fragment was charred. An MNI of 1 was calculated from the three fragments identified to dog. A single unfused cat humerus also produced an MNI of 1.

#### All Phases

The numbers of cattle sized and sheep sized bone fragments are likely to be cattle and sheep/goat fragments based on the domination of these species in all phases.

The assemblages from all phases appear to consist of a mixture of domestic and butchery waste. Chopped, cut and smashed bone was present in all phases in similar percentages, relating to the disposal of butchery and domestic waste (table 6). Gnawing was present in all phases, indicating the presence of dog in all phases and suggesting that some of the assemblage was either given to the dogs or left in an area which they had access too.

	Early-Mid Roman		Late F	Roman Early		Saxon	Late Saxon	
	Total	%	Total	%	Total	%	Total	%
Chopped	6	3%	88	5%	21	2%	23	2%
Cut	3	2%	35	2%	12	1%	44	4%
Smashed	20	11%	162	10%	69	8%	87	7%
Burnt	3	2%	83	5%	27	3%	38	3%
Gnawed	2	1%	41	2%	2	<1%	10	1%

Table 16 Total and percentage of taphonomy present in each phase

# Unphased

Species	No. of fragments
Sheep/goat	72
Cattle	50
Goat	1
Sheep	1
Pig	18
Dog	5
Horse	1
Наге	4
Rabbit	1
Red deer	1
Bird	9
Cattle sized	100
Sheep sized	152
Unidentifiable	112
Total	527

Table 17 Unphased animal bone fragments.

A number of different species were identified from the unphased features (table 17). Most significantly is the identification of a goat horn core, confirming the presence of goat on site. This particular horn core was chopped and had a congenital indent on its base, possibly caused by damage during its growth.

The Bird Bone

	Late Roman	Early Saxon	Late Saxon	'Roman'
Unidentifiable Bird	6	5	4	4
Domestic Fowl	16	1	27	3
Duck	0	2	2	0
Wigeon	1	0	0	0
Goose	2	0	7	1
Swan	0	0	1	0
Red Kite	1	0	0	0
Raven	25*	0	0	0
Crow/Rook	0	1	2	0
Jackdaw	0	0	0	1

<sup>\*</sup> all bones from a single skeleton

Table 18 Bird bone recovered from Watersmeet

Bird bone was absent from the early-mid Roman phase. The late Roman phase yielded the highest number of bird bones, but this was biased by the partial raven (Corvus corax) skeleton, which is likely to have died in situ or been disposed of as a complete carcass. Like the crow/rook (Corvus corone/ Corvus corax) and jackdaw (Corvus mondeula) (present in the later three phases) ravens are a widespread species and thus are not an uncommon find.

Domestic duck (Anas sp.) was identified in the three later phases in small numbers, four bones were indeterminate duck, one was identified to Wigeon (Anas Penelope). Goose (Anser sp.) was present in the late Roman and in the late Saxon phases (as well as unphased Roman) however it cannot be ascertained if the bones came from domestic or wild goose. A single swan (Cygnus sp.) humerus was identified in the latest phase. An ulna from a Red Kite was recovered in the Late Roman phase. The Red Kite (Milvus milvus), known as 'Barcud' in Ancient Britain, nests in trees, usually in wooded hills, but has also been found to live in lowland and open country with scattered trees (Peterson 1965). Morris (1903) states that the Red Kite was abundant on the streets of London and very tame at one time which suggests that it may not be an unusual finding in an area with human occupants, as at Watersmeet.

Domestic fowl (Gallus sp.) was identified in the three latest phases, forming 1.4 % of the late Roman assemblage. The numbers of domestic fowl then appear to drop slightly in the early Saxon phase, forming 0.5% of the overall assemblage and recover in the late Saxon phase to 1.6% of the assemblage. Domestic fowl bones were recovered in the highest numbers (excluding the partial raven skeleton), the disposal of these bones suggests some use of these animals after death, the primary use is likely to be meat, with the feathers providing a secondary resource. In life the production of eggs would also have provided another use.

#### The Fish Bone

Three fish bone fragments were recovered from the Late Saxon phase, two fragments were of cod (gadus sp.) sized, one is unidentifiable. A single unidentifiable fish bone fragment was recovered from the Late Roman phase.

#### Discussion

Only five horn core fragments were positively identified to sheep and two to goat, the rest of the assemblage remain categorised as sheep/goat. Archaeological evidence suggests that goats were of very little importance in both the Romano-British and Anglo-Saxon periods, playing a very small role as meat producers (Maltby 1981). It is therefore conceivable that they were kept in small numbers mainly for their milk and skins, meat providing a secondary resource, the smaller numbers of identified goat horn cores support this. Based on this it is likely that the sheep/goat bones identified at Watersmeet are mainly sheep.

Sheep/goat dominate the assemblages across all the phases. This is not the typical pattern expected on Romano-British sites, at which cattle are usually found in the highest numbers (King 1978) such as found at Godmanchester, Cambridgeshire (Jones 2003). Similar numbers of cattle and sheep have been found at Ermine Street (Albarella 1989). Higher numbers of sheep were recorded at Ware in Hertfordshire next to Ermine Street (Phillips n.d.) and at Braughing in Hertfordshire, and have been related to the substantial woollen manufacturing industry in the area (Fifield 1988). The older age at death of these animals (the early-mid Roman phase, contained no ageable mandibles) indicates the primary exploitation of sheep was for wool. The lack of phalanges in the early Saxon phase may indicate a removal of the skins with the foot bones attached. This pattern correlates with the published data that sheep were principally exploited for wool in the Roman and Saxon periods in Britain (Maltby 1981). The importance of wool production on sheep rearing in the Romano-British period has been emphasised by Rivet (1964) and Applebaum (1972) (cited by Maltby 1981). The large numbers of sheep kept in the Anglo Saxon period has been suggested by Clutton-Brock (1976) to be to provide enough wool for profitable trading.

Cattle were kept in the second largest numbers. Ageable elements indicated a common age at death of 2-3 years, based on this meat is likely to be the primary exploitation of cattle, however some pathological changes suggest the use of these animals for traction. A single cattle carcass will provide a lot more meat than a sheep carcass, in which case, although more sheep/goat remains were present in the assemblage cattle are likely to have been the primary meat producer.

Pigs were present in smaller numbers than sheep and cattle in the Roman phases. In the Saxon phases, the numbers of pigs appear to increase, being found in similar numbers to cattle. As pigs are primarily meat producing animals, this suggests that in the Saxon period an increase in the consumption of pig meat took place.

Horses are present in small numbers across all phases, which is a common trend in the Roman and Saxon period in comparison to the larger numbers of horses found in the Iron Age (Maltby 1981). Butchered horse bone has appeared by evidence of

smashing and chopping in the Late Roman and Early Saxon phases. Butchered horse bone has been found occasionally on other Roman and Saxon sites however, like the bone from Watersmeet, adult horses have dominated the samples, indicating their value as transport and pack animals.

Dogs were evident in small numbers in the later three phases. However, dog gnawing occurred in all phases, indicating dogs were present in all phases and that some of the assemblage was left exposed in an area that dogs had access too. No evidence of cut and chop marks were present.

Roe deer is present in the three later phases, chopped and smashed bone indicates the likely consumption of roe deer meat in these phases. Use of the antler is also probable due to evidence of the removal of the antler on some skull fragments. Red deer was only evident in the Late Roman phase, in the form of a chopped humerus fragment. Rabbit was identified in the first two phases and hare in the later two phases, although no evidence of butchery was present, it is likely that rabbit meat was consumed.

Domestic fowl appear to have been utilised in the later three phase, their primary use would probably be for eggs and meat. A mixture of wild and domestic bird bones were also present and are also likely to have been exploited for food.

# Summary

11

The Watersmeet assemblage is made up of both butchery and domestic waste based on the combination of skeletal elements identified to the domestic species in all phases. The species present in the Watersmeet assemblage appear to reflect a Romano-British and Anglo Saxon husbandry pattern with a domination of sheep. The exploitation of sheep for wool production as is likely here is a characteristic trend in these periods. Cattle and pigs appear to have been kept predominately for meat, with an increase in the numbers of pigs in comparison to other domestic animals taking place in the Saxon phases. Although it is also likely that cattle were used for traction. Horses were kept in small numbers as is usual for these periods and are likely to have been used as transport or pack animals. Dogs were kept in small numbers and had access to the animal bone in all phases. Wild animals, consisting of roe deer, red deer, hare, rabbit and some bird species were evident in all phases and are likely to be exploited for meat. However, manipulation of the deer antler (by chopping and cutting) indicates that antler was probably the primary reason for hunting of this species.

# The environmental samples By Val Fryer

# Introduction

Excavations at Watersmeet, Huntingdon were undertaken by Archaeological Solutions in June 2004. The work revealed features of Roman, Early Saxon and medieval date including pits, ditches, layers and grave fills. Samples for the extraction

of the plant macrofossil samples were taken from across the excavated area, and thirteen were submitted for assessment.

#### Methods

The samples were bulk floated by a member of the Archaeological Solutions team, collecting the flots in a 500 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains noted are listed on Tables 1 and 2. Nomenclature within the tables follows Stace (1997) and identifications were made by comparison with modern reference specimens. All plant macrofossils were charred. Modern contaminants including fibrous roots and arthropod remains were present throughout.

#### Results of assessment

The density of material within each assemblage is expressed in the tables as follows: x = 1 - 10 specimens, xx = 10 - 100 specimens and xxx = 100+ specimens.

b = burnt ss = sub-sample

Material has been categorised as cereals and other crop plants, herbs, wetland plants, other plant macrofossils and other materials.

Sample No.	3	4	7	8	9	10	11	12	13	
Context No.	L2142	L2158	L2245	L2254	L2263		L2277	L2304	L2328	L2263
Feature No.	F2141	F2156	F2243	F2253	F2262	L2260		F2303	F2327	F2262
Feature type	Ditch	Pit	Grave	Grave	Pit	Layer		Ditch	Pit	Pot
Cereals & other crop	į									
plants	<u> </u>				<u> </u>	<u> </u>				
Avena sp. (grains)	<u> </u>		<u></u>		x	ļ		<u></u>	x	,
Large Fabaceae indet.	}								x	
Hordeum sp. (grains)	xcf	X	x		x			. * .	x	,
Secale cereale L.										]
(grains)		xcf								
Triticum sp. (grains)		х			x	x		x	х	
(glume bases)					x					
(rachis internodes)	xcf				l					
Cereal indet. (grains)	xx		x	х	x	х	x	x	xx	-
Herbs										-
Bromus sp.	xcf									
Caryophyllaceae										1
indet.				<u> </u>	<u> </u>	х				
Galium sp.					xcf					
Lithospermum										
arvense L.	x				х					
Plantago lanceolata										•
L.								X		
Small Poaceae indet.	X				Х					
Polygonum aviculare										
L.						X				
Vicia/Lathyrus sp.	X				X	х			x	
Wetland plants										
Eleocharis sp.					x					

Other plant	F	-	~  <del></del>		-1	-		·   <del> </del>		
macrofossils				}			1			
	<del> </del>	301510	+	+	1	1	<u> </u>		<del> </del>	1
Charcoal <2mm	XXX	XXX	XX	X	XXX	XX	X	XXX	XXX	XXX
Charcoal >2mm	XX	<del> </del>	x	X	XX	х	<u> </u>	X	X	XX_
Charred root/stem	x	X	X		X			<u>l</u>	x	
Mineral replaced	T	T		T	Ī		T	Γ	T	
wood frags.						<u></u>	x			<u> </u>
Indet.culm nodes					x	<u></u>			T	
Indet.seeds	X		<u></u>		x			Γ	I	
Other materials										
Black porous 'cokey'										
material	<u> </u>	<u> </u>	<u> </u>		x	<u> </u>			x	<u> </u>
Black tarry material	x	x							х	
Bone	x xb	x	x					х	x	xb
Eggshell	xb									
Fish bone		x								
?Industrial residues	x									
Mineralised soil										
concretions	xxx					<u> </u>	!			
Pottery								х		
Vitrified material	х								х	
Sample volume							[			
(litres)	15	15	25	15	15	15ss		25	15	1
Volume of flot						!				
(litres)	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.2
% flot sorted	100%	100%	100%	100%	100%	100%	100%	100%	100%_	50%

Table 19 The Romano-British samples

Sample No.	2	5	6
Context No.	L2159		L2204
Feature No.	F2156	L2001	F2203
Feature type	Pit	Subsoil	Pit
Cereals			
Avena sp. (grains)	x	x	
Triticum sp. (grains)	x	<u> </u>	X
Cereal indet. (grains)	x	x	<u> </u>
Herbs			
Bromus sp.	X		
Small Poaceae indet.	x	<u> </u>	
Wetland plants			
Carex sp.	x		
Eleocharis sp.	x		
Other plant macrofossils			
Charcoal <2mm	XX	XX	x
Charcoal >2mm	x		x
Charred root/stem	x		
Indet.seeds		x	
Other materials			J
Black porous 'cokey' material		x	xx
Black tarry material		X	X
Eggshell	x		
Fish bone	х	X	
?Industrial residues			x

Small coal frags.	x		xx
Sample volume (litres)	15	22.5	15
Volume of flot (litres)	<0.1	<0.1	0.5
% flot sorted	100%	100%	12.50%

Table 20 The post Romano-British samples

#### Plant macrofossils

Cereal grains/chaff and seeds of common weeds were present at a low to moderate density in all but one sample (fill of pot in Pit F2263). Preservation was poor to moderate, with a high density of the grains being puffed and distorted, probably as a result of high temperatures during combustion.

Oat (Avena sp.), barley (Hordeum sp.), rye (Secale cereale) and wheat (Triticum sp.) grains were recorded, with wheat being slightly more common than the other cereals. Although most wheat grains were rounded and probably of bread wheat (T. aestivum/compactum) type, occasional elongate forms typical of spelt (T. spelta) were also noted. Other crop plant remains were extremely rare, but a cotyledon fragment of a large pulse (pea/bean type) was noted in sample 13.

Seeds of common weed plants were recorded as single specimens from only six samples. Although the assemblages were small, segetal and grassland species appeared to be predominant, with taxa noted including brome (*Bromus* sp.), corn gromwell (*Lithospermum arvense*), ribwort plantain (*Plantago lanceolata*), knotgrass (*Polygonum aviculare*) and vetch/vetchling (*Vicia/Lathyrus* sp.). Wetland plant macrofossils were rare, but nutlets of both sedge (*Carex* sp.) and spike-rush (*Eleocharis* sp.) were recovered from samples 2 and 9.

Charcoal fragments were present throughout along with pieces of charred root or stem. Mineral replaced wood fragments were noted in sample 11.

### Other materials

The fragments of black porous 'cokey' material and black tarry material are probable residues of the combustion of organic remains at very high temperatures. Possible dietary refuse included fragments of bone, eggshell and fish bone. Other remains were rare, but the coal fragments noted in two of the three post-Roman contexts may be derived from the use of steam ploughs in recent times.

# **Discussion**

# Roman features (Table 19)

A total of ten samples were taken from contexts of Roman date. Of these, three (samples 3, 9 and 13) produced assemblages which may be consistent with small deposits of domestic waste. Grains are moderately common in all three, but chaff elements are rare, possibly indicating batches of cereal at an advanced stage of processing. This hypothesis is supported by the weed assemblages, where large seeds of similar size to the grains (for example brome, corm gromwell and vetch) predominate. As these were too dense to be removed by winnowing, they would have

remained with the grain until an advanced stage of processing, at which point most would have been separated out by hand, although some were invariably overlooked. Small amounts of other dietary refuse in the form of bone and eggshell are also present in samples 3 and 13. The remaining assemblages are too insubstantial for accurate interpretation. However, it would appear most likely that some or all of the charred plant remains are derived from low densities of scattered and/or wind-blown detritus, which probably became accidentally incorporated within the features.

# Post-Roman features (Table 20)

Only three small assemblages of post-Roman date are recorded. Sample 2, from the fill of a fifth to seventh century pit (F2156) is very similar to the above mentioned Roman assemblages and may also be derived from a low density scatter of domestic refuse. The two remaining assemblages are too small to be interpreted.

#### **Conclusions**

In summary, although the assemblages are all very small, it would appear most likely that a proportion of the material from both the Roman and post-Roman contexts is derived from domestic refuse. However, as there is insufficient material in any one assemblage to indicate systematic deposition of rubbish in pits or other available open features, much of this material is probably derived from either scattered or wind-blown detritus.

#### DISCUSSION

### The early Roman enclosure

The ditches bounding the early Roman enclosure in the north western part of the site were found to contain animal bone including cattle, horse and pig, but dominated by sheep/goat. The assemblage is too small to determine the products for which these animals were exploited, but the presence of the tooth of a fibre processing comb in F2127 suggests that sheep were kept for wool.

The enclosure was approximately contemporary with evidence for early Roman activity on land adjacent to Edward House (Grant and Wilkins 2003) and with the first phase of activity at Whitehills (Scott 1993, 39; Wilson and Hurst 1967, 175) (Fig 2). Evidence for activity at both of these sites was in the form of pits and ditches yielding datable pottery. It is possible that Ditch F1023 at Edward House was aligned approximately parallel to Ditches F2339/ F2141 at Watersmeet, but there are no further similarities to be seen; the alignment of phase 1 features at Whitehills remains unknown. The pottery assemblages from the Edward House and the early Roman phase at Watersmeet included broadly similar fabrics, but were not directly comparable (A. Peachey, pers. comm.). The Edward House assemblage had a higher proportion of fine wares than the Watersmeet Early Roman assemblage, and both the Edward House and Whitehills assemblages included samian ware which was absent at Watersmeet except as residual finds in 4<sup>th</sup> to 5<sup>th</sup> century contexts (see pottery report above). There is no evidence linking the early Roman enclosure at Watersmeet to the late 2<sup>nd</sup> century cremations found to its north west.

# The late Roman field system

The 4<sup>th</sup> to 5<sup>th</sup> century field system and cemetery at Watersmeet may have been contemporary with the 3<sup>rd</sup> to 4<sup>th</sup> century villa at Whitehills. It is likely, especially given the lack of other late Roman evidence from the Huntingdon area, that the land at Watersmeet was part of the Whitehills estate. The extent of the field system is unknown as it extended beyond the northern and eastern limits of the excavation. The animal bone assemblage suggests that cattle and sheep were kept at the site, the former for meat (though pathologies indicate the use of cattle for traction as well) and th latter for wool (see animal bone report above). Pig and horse remains were present in smaller numbers, and the horse bone bore pathologies suggesting use for transport. Though it remains possible that F2267 and F2347 formed part of a slightly later enclosure than the other ditches (see above), the animal bone assemblages from these two ditches are not significantly different to those from the other ditches of the field system, implying that land use did not change.

Ditch F2367, in the northern part of the field system as excavated on the site, yielded particularly large amounts of animal bone and pottery, metal finds, and iron smithing slag (see specialists' reports above). The slag did not appear to be in its original depositional context and did not suggest metal working on site (see slag report above), but was present in a large quantity, and so indicates iron smithing somewhere close to Watersmeet (J. Cowgill, pers. comm). At the Whitehills villa, one room was found to contain hearths and ashy deposits, leading to suggestions that it had been put to some industrial use (Scott 1993, 39); it may be that the slag in ditch F2367 originated with iron smithing in that room. The ceramic building materials recovered from the site is thought to have been deposited before the cemetery came into use in the 4<sup>th</sup> to 5<sup>th</sup> century (see ceramic building materials report above). It is possible that the deposition of this material could coincide with the restructuring of the Whitehills villa known to have taken place in the late 3<sup>rd</sup> or early 4<sup>th</sup> century (Scott 1993, 39).

# The Roman cemetery and outlying burials (Figs 4, 5, 7 and 8; Plates 1-6)

The cemetery was in an area of the site in which human activity was attested from early Roman times onwards. The cemetery extended northwards beyond the excavated area, and so beyond the area of the early Roman enclosure. The southern extent of the cemetery was disturbed when pits were dug in Saxo - Norman times. The lack of archaeologically attested boundaries to the cemetery is surprising, especially when it is considered that the cemetery was positioned quite precisely within the area enclosed by later ditches. It seems likely that the cemetery was originally enclosed by features whose archaeological traces have not survived.

The west to east alignment of burials, the lack of grave goods, the extended supine position of the skeletons, the apparent use of shrouds, the presence of infant burials, and the late 4<sup>th</sup> to 5<sup>th</sup> century date of the cemetery all suggest that the people buried in it were Christians. However, the lack of evidence for coffins and the high degree of intercutting between graves is inconsistent with this. Cemeteries characterised by west to east orientation and lacking in grave goods but otherwise not obviously Christian are a well known phenomenon in late and immediately post Roman Britain

(Rahtz 1977, 53). The question of whether or not the Watersmeet cemetery was a Christian one will be considered throughout the discussion below.

The outlying burials differed from those within the cemetery in their less consistent orientation, the more variable positions of the skeletons, and the presence of an item of jewellery in one of them. The finds recovered from the outlying graves could not be dated precisely enough to determine whether or not they were contemporary with the cemetery. The pottery assemblages recovered from the cemetery (L2260 and the graves) was, however, very similar to that recovered from the field ditches in the eastern part of the site (see pottery report above), both suggesting a late Roman, 4<sup>th</sup> to 5<sup>th</sup> century, date. Two of the outlying graves were cut by the field ditches, implying that they predate the cemetery. If, however, the cemetery slightly post dates the field ditches and is contemporary with the outlying burials then the differences between the outlying and cemetery burials may be explained in social terms.

#### **Burial** position

Burial in an extended supine position is the norm in Christian cemeteries, the original reasoning for this possibly being to do with the need of the dead to rise in immediate response to the Last Trumpet (Crummy and Crossan 1993, 193). This burial position is, however, also found in pre-Christian Roman cemeteries (Philpott, 1993). The positioning of the arms at the side of with the hands over the groin is the most common burial position at Watersmeet and more generally in late Roman Britain (Jones 2003, 34). The variation seen in the positioning of the limbs of extended supine burials at Watersmeet (see table 1) has also been recognised at several other sites (Philpott 1991, 53; Crummy and Crossan 1993, 119-120; McWhirr et al 1982, 84) but its significance, if any, remains unknown. There was no obvious correlation between burial position and age or sex of the skeletons (Figs 4, 7 and 8), although the two prone burials and the one with the most distinctive arm position were all female.

Prone burials are now well attested in late Roman (and Anglo Saxon) cemeteries, having been found for example at Lankhills (MacDonald et al 1979, 138), Butt road (Colchester, Crummy and Crossan 1993, 194), the Bath Gate cemetery (Cirencester; McWhirr 1982, 82), Poundbury (Farwell and Molleson 1993, 226-227) and The Parks, Godmanchester, less than 1km from Watersmeet (Jones 2003, 21). They appear sporadically throughout the Roman period but are most commonly found in 4th century and later contexts (Philpott 1991, 71), and are more common at rural than at urban sites (Watts 1994, 194). 2.8% of all burials at Watersmeet were in a prone position; the percentage all burials within a cemetery made up by those in a prone position seems to vary (e.g. 0.6% at Poundbury, 9.7% at The Parks, Godmanchester; Jones 2003, 34) but this variation has not been linked to any other cemetery characteristics.

The two prone burials identified at Watersmeet are quite different to each other. Sk2259 was buried within the cemetery, face down and extended. This burial probably falls into the category described by Philpott (1991, 72) as 'formal prone burials': apart from its facing downwards there is nothing distinguishing between this burial and any other in the cemetery area. The burial of Sk2265 (Fig 5 and Plate 3) is quite different: in addition to having been placed face down in the grave, the skeleton's limbs are bent at unnatural angles (see Appendix 1). This burial may fall

into Philpott's (1991, 72) category of 'coerced burials', a category which also includes skeletons whose hands seem to have been bound, decapitated skeletons and skeletons weighted down with rocks. Such burials tend to occur outside of formal cemeteries, as in this case, sometimes making use of existing pits or ditches rather than having a deliberately dug grave.

The reason for burying some skeletons in this manner is unknown. One explanation for burials such as that of Sk2259 could be carelessness or error by an undertaker dealing with a shrouded corpse (Taylor 2001, 123; Philpott 1991, 73), but this explanation is considered by some to be unlikely given the frequency with which such burials are found (Watts 1993, 194). It is possible that in some cases irregular positioning of the limbs was the result of rigour mortis having set in, preventing the formal laying out of the body (McWhirr et al 1982, 78), but this does not explain the face down positioning of Sk2265. It is possible that some corpses were buried face down to spare the living the sight of facial features contorted by a painful death (Philpott 1991, 75). Another explanation for the contorted positions and/ or mutilation of some corpses could be the deliberate display of dishonour to the deceased or even an attempt to confine the spirit of the deceased to the grave (Philpott 1991, 74; Black 1986, 225).

# Burial alignment

West to east alignment is considered to be the norm in late Roman cemeteries, and is usually considered to be the result of the spread of Christian belief, though west to east alignment alone is not sufficient evidence for identifying a Christian cemetery (Watts 1989, 379; Rahtz 1977, 54). West to east aligned graves are known in pre-Christian, pagan Roman cemeteries (e.g. Cannington), and it is possible that this orientation was a pagan practice which was adopted by the Christian church and thus came to dominance in late Roman cemeteries (Rahtz 1977, 54). Burials within the cemetery at Watersmeet are consistently aligned west-south-west to east-north-east, parallel to Alconbury Brook. The uniformity of this alignment in the burials in the cemetery area rules out explanations such as the changing position of the sunrise throughout the year, as seen at Cannington, Somerset (Rahtz 1977, 58), for the 'not quite west to east' alignment. The alignment of burials approximately west to east, but oriented parallel/ perpendicular to major topographic features perceived as being aligned west to east/ north to south is seen at several late Roman cemeteries (Farwell and Molleson 1993, 230; Jones 2003, 33): for example at Ospringe cemetery E graves are aligned parallel to Watling street (Black 1986, 212), and at Lankhills graves in the eastern part of the cemetery are aligned perpendicular to a large ditch while those in the west are perpendicular to the road to Cirencester (MacDonald in Clarke1979, 131-132).

There was only one exception to the west to east, 'Alconbury Brook' alignment of burials in the Watersmeet cemetery: infant skeleton Sk2261 was buried, still parallel to Alconbury Brook, with its head to the east. A similar situation is seen at Butt Road, Colchester, where the only burial within the period 2 (4<sup>th</sup> century) cemetery to be aligned east to west instead of west to east is an infant (Crummy and Crossan 1993 119). These cases of east to west alignment may reflect a lack of appreciation of the importance of west to east alignment in a Christian cemetery or a deliberate decision by non-Christian families not to conform to Christian burial practice (Crummy and

Crossan 1993 119). Another possibility is that infants were buried differently to adults because they were not felt to deserve full burial rites; however, at both Watersmeet and Butt road, other infants were buried on west to east alignments. Given that in both cemeteries only one skeleton, in both cases an infant, was buried on a east to west alignment, it may be that the most fitting explanation is simply that an error occurred and a small coffin (at Butt road) or shrouded body (at Watersmeet) was accidentally buried the wrong way around.

The orientation of the outlying burials at Watersmeet was more varied than that of those in the cemetery: one being aligned like those in the cemetery, two south west to north east, and one north-west to south-east. This may indicate that they predated the cemetery and the Christian requirement for west to east alignment, or it may be that they were contemporary with, but deliberately excluded from the cemetery. The prone position of Sk2265 favours this latter explanation.

# Cemetery organisation

The apparent lack of organisation at the Watersmeet cemetery is noteworthy, but by no means unique. The cemetery at Cirencester is similarly disorganised, with intercuting of graves and no clear order to the positioning of graves (McWhirr et al 1982, 101). At 4<sup>th</sup> century cemetery at The Parks, Godmanchester, which was close to and of a similar size to the Watersmeet cemetery, possible rows of graves similar to that tentatively identified at Watersmeet (see above) have been identified, though it is admitted that these could result from the random distribution of similarly aligned graves (Jones 2003, 32). In parts of the Watersmeet cemetery, however, graves seemed to be arranged in head to foot lines (see above); a similar arrangement of graves was seen at Lankhills (MacDonald 1975, 185).

The skeletons in Graves 7 to 9 are a middle adult male, a middle adult female, an child and a third adult (Fig 7); it is tempting to see a family group in this, but the large degree of damage done to Grave 6 by the cutting of Grave 8 and to Grave 8 by the cutting of Grave 9 argue against this. Another apparent head to foot line of skeletons comprised Sk2284, Sk2289, Sk2315 and Sk2312. All but the last of these (a newborn infant) were older women, as was Sk2317 which lay immediately west of the line; Sk2283, immediately to the east, was a young woman (Fig 7). (Sk2293 and Sk2316) were also positioned head to foot, though a small pit was stratified between them, and juvenile Sk2291 lay close by. A further line of women and infants may have been made up by Sk2281, Sk2309, Sk2301, Sk2302, Sk2295, Sk2259 and Sk2261 (Fig 7), but these skeletons and those around them were too disturbed and fragmentary for definite identification of such a line. It may be that graves at the Watersmeet cemetery were grouped according to the gender and/ or age of the deceased (though this cannot be more than speculation given the disturbance and fragmentation of the human remains); a similar situation is seen at Lankhills, where head to foot lines of graves were loosely organised by the gender of the deceased (MacDonald in Clarke 1979, 185).

Tombstones are rarely recovered during the excavation of Romano British cemeteries, and most of those which are known come from military graves (Taylor 2001, 115-116, de la Bedoyère 2002, 99). The lack of intercutting between graves at most Roman cemeteries indicates that, despite the lack of tombstones, the location of

graves remained apparent for significant periods of time (Taylor 2001, 115). At Poundbury post holes remain to mark the positions of stone or wooden grave markers (MacDonald 1979 184-185), but literary evidence tells us that grave markers were often as ephemeral as tiles, pots and pot sherds (Taylor 2001, 118, de la Bedoyère 2002, 101).

There were several instances of intercutting graves, and of graves being cut by other late Roman features (see above and Fig 4) at Watersmeet. The degree of intercutting between west to east aligned graves at Watersmeet is unusual for a Romano Christian cemetery and suggests that, at this site, the graves were not clearly marked and that their positions were known only vaguely. Possible explanations for intercutting between graves include burial within a family plot, whereby graves are grouped closely together, making intercutting more likely (Farwell and Molleson 1993, 70), and limitations of space meaning that the disturbance of a grave was acceptable after a lapse of 20 years (Clarke 1979, 119). The degree of disturbance to earlier skeletons at Watersmeet makes the former explanation seem unlikely, and there does not appear to have been a lack off space in the cemetery area. At The Parks, intercutting graves and a lack of definite rows of graves were suggested to be the result either of overcrowding within the cemetery, or (more likely) a simple lack of cemetery management as seen at larger urban cemeteries (Jones 2003, 32)

# Charnel deposits

Although there were two clear cases of charnel redeposition of bone from a disturbed grave within the grave which disturbed it (see above), the severe truncation of some skeletons and the large amount of human bone 'missing' from the cemetery imply a lack of respect for the deceased which is inconsistent with Christian belief. This contrasts with the care taken in other Romano Christian cemeteries to avoid the disturbance of other Christian graves.

# Infant burials

The presence of seven infants in the cemetery at Watersmeet (Fig 7) makes it likely that the cemetery was a Christian one, as according to pre-Christian Roman beliefs, infants did not possess fully developed souls and so were not accorded full burial rites or burials within formal cemeteries (Watts 1989, 373). The presence of infant burials in a late Romano British cemetery is considered a good indication, though not definitive proof, that the cemetery was a Christian one.

Several of the child and infant burials in the Watersmeet cemetery seem to be closely associated with adult female skeletons; in some cases infant skeletons are associated with adults of undetermined gender (Fig 7). The clearest example of this is in Grave 23, in which infant Sk2269 lies across the abdomen of adult Sk2268 (Fig 5 and Plate 4). Child Sk2125 is buried in Grave 9 which cuts through Grave 8 in which an adult male was buried. It is tempting to see Sk2268 and Sk2269 as a mother and infant pair, the young age of Sk2269 perhaps indicating the death of both during childbirth. It is not, however, unusual for males o have been buried with infants in Roman cemeteries (Philpott 1991, 97) and so the sex of Sk2268 remains undetermined.

# Grave furniture

There was no evidence to suggest the use of coffins at Watersmeet, although it is acknowledged that the large degree of truncation in many of the burials could have hindered their identification. The lack of any dress fittings suggests the use of shrouds for burial, as was the norm in late Roman times.

# Grave Goods

Only three of the 72 burials at Watersmeet were identified as having including grave goods. Pre-Christian Roman burial practice often included the deposition of grave goods in the form of items which would be of use to the spirit of the deceased in the afterlife (Taylor 2001, 101). The Christian belief in a physical resurrection caused the deposition of such items to become theoretically obsolete from the mid 4<sup>th</sup> century onwards, and early Christian cemeteries are characterised by a lack of grave goods. A lack of grave goods is not, however, necessarily evidence of a Christian cemetery, nor is the presence of grave goods necessarily inconsistent with Christianity (Rahtz 1977, 55).

Sk2255, an elderly woman who suffered in life from arthritis, was buried with her arms in a distinctive position (see above) and around her right wrist she wore a copper alloy armlet (see small finds report above). At Butt road, Colchester, a very similar bracelet was found on the wrist of a middle aged woman (G126) buried in the period 1 phase 3 cemetery, also with her arm bent in a distinctive position (Crummy and Crossan 1993, 39). It may be that the distinctive positioning of the arms of these skeletons was aimed at optimum display of these items of jewellery, though in both cases the armlets were quite plain. Jewellery is not commonly found in Romano Christian burials, and usually occurs only in association with children and young girls (Taylor 2001, 125), but an elderly arthritic woman may also have been considered vulnerable and so been buried with an item of personal adornment. Another possible reason for this woman having a bracelet on her wrist could be that, being buried outside of the cemetery area, her death either predated Christian burial practice or she herself was not Christian (hence her exclusion for the cemetery). Alternatively, both the distinctive position of the arms and the presence of the armlet would be explained if the position in which the skeleton was found was the position in which the woman died, and if rigour mortis had set in before she was discovered, meaning that her arms could not be lain at her sides and the bracelet could not easily be remover from her inturned wrist.

A coin was recovered from inside the skull of Sk2293. The positioning of a coin on the eyelid or in the mouth of a corpse was a product of the belief in the need for the deceased to pay Charon's fee for passage across the river Styx (Taylor 2001, 101; Philpott 1991 214-215). The practice is known from as early as the 5<sup>th</sup> century BC in Greece, but had become rare in Britain by the 3<sup>rd</sup> century AD (Taylor 2001, 103). The deliberate deposition of coins in graves became more common in the 4<sup>th</sup> century, with in the mouth being the favoured position, but the meaning of the practice may have changed or been forgotten by this time (Philpott 1991, 212, 214).

The coin in the skull of Sk2293 was minted at Verulanium by the Catuvellauni ruler Tasciovanus, in the 1<sup>st</sup> century BC to early 1<sup>st</sup> century AD (see small finds report

above), and was thus at least 300 years old at the time of inhumation. How such an old coin became available as a grave offering in the 4<sup>th</sup> century is uncertain. The deliberate conservation and use of old coins as votive offerings (and even their marketing for this purpose) is a recognised practice of the 4<sup>th</sup> century (Philpott 1991, 211: de la Bedovere 2002, 100), but the lack of excessive wear on this coin suggests that it may have been lost during the 1st century AD and recovered during the late Roman period, shortly before being buried with Sk2280 (Crummy, pers. comm). It is thought that the imagery on a coin was important in its selection for deposition in a 4th century burial (Crummy pers. comm). This particular coin shows a horse and the letters VIR on its reverse side. A coin bearing the legend VIR (which would originally indicated the mint at Verulanium) could be seen as a particularly apt accompaniment to this corpse if it is assumed that the deceased juvenile was male and on the point of attaining the status of a vir (man) (Crummy, pers. comm.). The horse could have been chosen to represent the Celtic goddess Epona, who was closely associated with horses, but also seen as a motherly figure and as having connections with death and the underworld, making her a suitable guardian for the spirit of a deceased youth (Crummy, pers. comm; Crummy 2001; Green 1997, 91-94, 171-175). Neither original beliefs associated with the placing of a coin in the mouth of the deceased, nor the imagery on the coin in question are consistent with Christian practice or belief. Coins deposited in this way are, however, known in burials at other cemeteries otherwise considered to be Romano Christian (e.g. Barber and Bowsher 2000, 120, Crummy and Crossan 1993, 198).

Inside the skull of Sk2280 were found an iron nail and a puddle of refrozen lead. It is hard to conceive of a post depositional process which would allow these items to enter the skull of this well preserved and articulated skeleton from the burial environment. The position of these finds suggests that they were originally placed on the eyelids or in the mouth of the corpse. No direct analogue has been identified for these peculiar offerings, but iron nails have been found in Roman cremation urns (e.g. at Chalkwell, Kent, and at Welwyn, Hertfordshire) and it has been suggested that these were deliberate inclusions seen as being somehow connected to gaining access to the underworld or to confining the dead (Black 1986, 223-224). If such an explanation can be applied to the iron nail recovered from inside the skull of Sk2280 it implies beliefs other than Christian ones among the population.

# Demography

The demographic makeup of the cemetery was typical of a resident population, the best represented age group being middle to old adults and the male / female ratio 0.6. The regular orientation and positioning of the burials and the consistent use of the cemetery area support this in showing that this cemetery was used by a resident community, and was not a haphazard group of people buried beside a major thoroughfare. Two of the 72 individuals were diagnosed as having spina bifida occulta (see human bone report); the low overall incidence of this congenital defect makes it unlikely that these two individuals (Sk2221 and Sk2279) were not related. A further suggestion of family relationships within the cemetery is the presence of infants, some in close association with female skeletons which could have been their mothers.

Of the outlying burials, only two (Sk2255 and Sk2265, both older females) were complete enough for their age and sex to be determined. This is not enough information for any conclusions to be drawn as to possible social reasons for the burial of certain individuals outside of the cemetery area.

Given the lack of other settlement evidence from Huntingdon, it is possible that the people buried at the Watersmeet cemetery were the inhabitants of the nearby Whitehills villa. From the little information available about the Whitehills villa, it appears to have been a high status building, with a mosaic floored room, and a corridor layout. It is most likely that the inhabitants of such a building would have had a large number of dependents, and the presence of a cemetery within the villa's estate would be consistent with this. The question arises of where the villa's earlier occupants were buried; it is possible that some of them are represented by the late 2<sup>nd</sup> century cremations known from just north of Watersmeet. The small size of the known burial 2<sup>nd</sup> century burial group as compared to the 4<sup>th</sup> century cemetery can be tentatively related to the growth of the building at Whitehills from a flint footed timer building to a fully fledged corridor villa. If the people buried at Watersmeet did live at/ around the Whitehills villa site, then this cemetery conforms with the pattern rural cemeteries being located on the fringes of settlements, as noted by Collis (1977, 34).

The frequent occurrence of osteoarthritis in females as compared to males, especially in the arms and upper bodies (see human bone report) suggests a division of labour between males and females in the Watersmeet population, whereby some task was performed by females, causing particular wear on these joint surfaces, but not by males. The nature of this activity remains unknown, but one possibility is grinding grain using a hand quern, a repetitive and physically demanding task which would have caused considerable wear on the joints of the upper body.

# The 10th to 12th century evidence and the Norman castle

The majority of features encountered during the CCC AFU trial trench evaluation at Watersmeet (Cooper and Spoerry 2000) were of 10<sup>th</sup> to 12<sup>th</sup> century date. It had previously been hypothesised (Inksip Ladds 1937, Dickinson 1972) that the curtialge of the Norman castle had originally been larger than was apparent by post medieval times, and that the area to the west of the motte (i.e. the Watersmeet site) may have formed a second bailey to the castle in addition to the bailey already recognised to the east. The proximity of the castle's motte, along with this theory of a second bailey extending across the Watersmeet site, made it seem likely at the time of the evaluation that the features excavated were closely related to activity in the Norman castle. Two pits and a gully located on the edge of the scarp in the west of the site were identified as post holes and a beam slot of timber defensive structure (Cooper and Spoerry 2000, 12, 15).

It was, however, noted during the CCC AFU evaluation that archaeological finds were less common than would usually be expected within a castle bailey (Cooper and Spoerry 2000, 13); this was accounted for by the fact that the castle was not functional for a long period of time (about 100 years), and suggested that this Bailey may have been abandoned before the eastern one and deliberately kept clear to provide a clear line of fire from the castle (Cooper and Spoerry 2000, 13), or simply that the second bailey was sparsely occupied.

Open area excavation revealed very few 10<sup>th</sup> to 12<sup>th</sup> century features at the site, and none of those which were found could be related to the defensive features of a castle bailey or to the castle itself. The four pit complexes and single ditch fragment of this date revealed during the excavation did not appear to be defensive in nature, and no further evidence was found of the hypothetical defensive structure identified during the evaluation. As no evidence of the palisade boundary of the hypothetical second bailey was found on the high ground of the Watersmeet site, it can be hypothesised that if such a feature existed it must have been located on the lower ground of the flood plain, but the liability of this ground to flooding would make it unsuited to this purpose. It could be argued that the southern boundary of such a bailey was formed by Alconbury Brook itself, but no evidence was found of its western edge during either excavations at Watersmeet or the trial trench evaluation at Edward House (Grant and Wilkins 2003).

The function of the 10<sup>th</sup> to 12<sup>th</sup> century pits a Watersmeet remains unclear, as both the pottery and animal bone assemblages were smaller than might be expected for rubbish pits of their size, but neither of these assemblages suggest the disposal of waste from the presumably high status kitchens of the castle.

#### CONCLUSIONS

The earliest archaeological features at the Watersmeet site date to the early Romano-British period. Earlier activity in the area is, however, evidenced by residual finds of flint tools dating from the Mesolithic, Neolithic and Bronze Age.

In Roman times the Watersmeet site appears to have been a part of the Whitehills villa estate, lying on the flood plain and the slightly higher ground to the north of Alconbury Brook. It must be noted, however, that there has been little excavation in the area of the modern town of Huntingdon to the north of Mill Common, and this may cause the association of the features on Mill Common to seem stronger than in fact it is. The site lies close to the projected course of Ermine Street, the major south to north routeway of Roman Britain, and would have been visible from the road. The residual presence of two Hod hill brooches in late Roman contexts at Watersmeet is probably explained by the nearness of the site to Ermine Street, initially constructed during the conquest, and the presence of forts at nearby *Durovigutum*. Given the propinquity of Watersmeet to Ermine Street it is interesting that none of the finds recovered at Watersmeet are of discernibly non regional origin.

The Watersmeet cemetery was located too far from *Durovigutum* to be classed as an extra mural roadside burial ground associated with the town, and is best understood as a small rural cemetery serving the population of a wealthy villa estate. The cemetery cannot be said definitely to be Christian: although the most obvious characteristics of the cemetery (west to east alignment, the presence of infants, extended supine positions and the lack of grave goods) would support this interpretation, other factors (the presence of some grave goods, the beliefs which could be associated with those grave goods, the intercutting graves and the associated damage to earlier burials by later ones) argue against it.

The proximity of the Whitehills estate to Ermine street would have allowed easy access to the small town of *Durovigutum*, the outer edge of which lay less than 1km away. Occupation at *Durovigutum* was originally in the form of roadside crofts close to two military forts, and the town retained agricultural features throughout the Roman period (Jones 2003, 3, 188). Walls were built around the core of *Durovigutum* in the 3<sup>rd</sup> century, but much of the town remained outside of these defences (Jones 2003, 188). Although close by, Watersmeet and the Whitehills villa definitely fall outside of the area of the town of *Durovigutum*; another villa is known approximately 1km to the east of *Durovigutum* (Green 2000, 22). Villas are commonly found near to small Roman towns, where they may function as working farm estates, providing for the towns' population, and/ or as luxurious country residences for the towns' wealthier citizens. The agricultural nature of the town at *Durovigutum* perhaps makes it more likely that the primary function of the Whitehills villa was as a country residence, though the animal bone and environmental assemblages show that the land at Watersmeet was in agricultural use.

The nature and scarcity of 10<sup>th</sup> to 12<sup>th</sup> century evidence at the site were contrary to earlier theories that this part of Mill Common had formed the second bailey of the Norman castle to the north west. If such a bailey did exist it must have been, as suggested by Cooper and Spoerry (2000, 15) sparsely occupied, and no evidence was found of its boundaries.

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### **APPENDIX 1: CATALOGUE OF INHUMATIONS**

The cemetery layout is shown in detail in Fig 4; the position of the outlying graves and Pit F2205 can be seen in Fig 3.

All alignments described as west to east are in fact between west to east and west-south-west to east-north-east, parallel to Alconbury Brook.

Age categories: Infant

up to 18 months

Child

18 months to 5 years

Juvenile Young adult 5 - 17 years 17 - 34 years

Middle adult Old adult

35 - 49 years

50 years and over

## Graved inhumations in south and east of the cemetery

Grave 1	F2100, L2102
Shape	Sub rectangular
Alignment	west-east, 266°
Dimensions	$1.50 \times 0.50 \times >0.02$ (m) (machine truncation)
Profile	Shallow sloping sides, flat base
Relationships	Cut by Grave 5 to west
Skeleton	Sk2101
Position	-
Age/ sex	Adult
Stature (est)	
Pathologies	-
Condition	>25% complete (limbs and cranial fragments)

Grave 2	F2103, L2105	
Shape	Sub rectangular	
Alignment	west-east, 273°	
Dimensions	>1.34 (rooting) x 0.50 x $>0.04$ (m) (machine truncation)	
Profile	Steep concave sides, flat base	
Relationships	-	
Skeleton	Sk2104	
Position	Extended supine, ?hands over groin	
Age/ sex	Young adult ?female	
Stature (est)	•	
Pathologies	Arthritis of right hand	
Condition	<50% complete	
Notes	Animal bone recovered from among skeletal material during post excavation analysis.	

Grave 3	F2106, L2108	
Shape	Sub-rectangular	
Alignment	West to east, 270°	
Dimensions	$>1.00 \times 0.45 \times >0.00$ (machine truncation)	
Profile	Shallow sloping sides, flat base	

Relationships	Cuts Grave 4 to east, cut by modern pipeline	
Skeleton	Sk2107	
Position	-	
Age/ sex	Juvenile	
Stature (est)	-	
Pathologies	-	
Condition	<25% complete	

Grave 4	F2109, L2111	
Shape	Sub rectangular	
Alignment	West to east, 275°	
Dimensions	>1.40 x 0.76 x 0.05 (m) (machine truncation)	
Profile	Sloping sides flat base	
Relationships	Cut by Grave 3 to west and by modern pipeline	
Skeleton	Sk2110	
Position	-	
Age/ sex	Young adult	
Stature (est)	-	
Pathologies	•	
Condition	<25% complete	
Notes	Sheep/ goat bone recovered from among skeletal material during post excavation analysis.	

Grave 5	F2112, L2114
Shape	Sub rectangular
Alignment	east to west, 95°
Dimensions	1.82 x 0.47 x 0.30 (m)
Profile	Sloping sides, flat base
Relationships	Cuts Grave 1 to east, cut by modern pipeline
Skeleton	Sk2113
Position	-
Age/ sex	-
Stature (est)	•
Pathologies	
Condition	Fragmented
Notes	Not included in human bone analysis

Grave 6	F2115, L2117	
Shape	Sub-rectangular	
Alignment	West to east, 270°	
Dimensions	>1.00 x 0.06 x 0.12 (m)	
Profile	Vertical sides, flat base	
Relationships	Cut by Grave 8 to west and by Grave 7 to east	
Skeleton	Sk2116	
Position	Extended supine, lower arms and hands over groin, feet turned to right	
Age/ sex	Middle adult ?female	
Stature (est)	1.63m	

Pathologies	-	
Condition	<50% complete (lower body only)	
Notes	Plate 5	

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Grave 7	F2118, L2120
Shape	Sub-rectangular
Alignment	West to east, 267°
Dimensions	>1.69 x 0.50 x >0.08 (machine truncation)
Profile	Vertical sides, flat base
Relationships	Cuts Grave 6 to west
Skeleton	Sk2119
Position	Extended supine, skull facing east
Age/ sex	Adult
Stature (est)	-
Pathologies	-
Condition	<25% complete
Notes	Plate 5

Grave 8	F2121, L2123	
Shape	Sub-rectangular	
Alignment	West to east, 260°	
Dimensions	>1.14 x 0.50 x 0.11 (m)	
Profile	Vertical sides, flat base	
Relationships	Cut by Grave 9 to west, cuts Grave 6 to east	
Skeleton (I)	Sk2122	
Position	Extended supine, hands over groin, left foot crossed over right	
Age/ sex	Middle adult male	
Stature (est)	1.71m	
Pathologies	Arthritis of vertebrae	
Condition	<50% complete	
Skeleton (II)	Sk2116	
Position	-	
Age/ sex	Middle adult ?female	
Stature (est)	1.63m	
Pathologies	•	
Condition	Charnel deposit, mandible and humeri only	
Notes	Charnel remains of Sk2116 probably redeposited in Grave 8 after being removed from Grave 6, where the rest of Sk2116 was found, when Grave 8 was cut through it. Plate 5.	

Grave 9	F2124, L2126	
Shape	Sub-rectangular	
Alignment	West to east, 260°	
Dimensions	1.12 x 0.52 x 0.08 (m)	
Profile	Near vertical sides, flat base	
Relationships	Cuts Grave 8 to east	

Skeleton	Sk2125
Position	Extended supine
Age/ sex	Child
Stature (est)	-
Pathologies	-
Condition	<50% complete
Notes	Sheep/ goat bone recovered from among skeletal material during post excavation analysis. Plate 5.

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Grave 10	F2129, L2131
Shape	Sub-rectangular
Alignment	West to east, 266°
Dimensions	2.15 x 0.53 x 0.12 (m)
Profile	Sloping sides, flat base
Relationships	-
Skeleton	Sk2130
Position	Extended supine, left ankle crossed over right
Age/ sex	Middle adult ?female
Stature (est)	-
Pathologies	Arthritis of vertebrae, ankylosis of metacarpal, schmorl's nodes
Condition	>75% complete

Grave 11	F2214, L2216	
Shape	Sub rectangular	
Alignment	West to east, 270°	
Dimensions	2.20 x 0.40 x 0.05 (m) (machine truncation)	<u> </u>
Profile	Flat base	
Relationships	Undetermined relationship to Grave 13	
Skeleton	Sk2215	
Position	-	
Age/ sex	-	,
Stature (est)	-	
Pathologies		
Condition	Fragmented	
Notes	?Charnel. Not included inhuman bone analysis.	

Grave 12	F2219, L2222
Shape	Roughly circular, poorly defined
Alignment	-
Dimensions	0.60 x 0.65 x 0.10 (m)
Profile	Concave
Relationships	See notes
Skeleton	Sk2220
Position	-
Age/ sex	Old adult
Stature (est)	1.7.lm (female) 1.75m (male)
Pathologies	Arthritis of pelvis

Condition	>25% complete
Notes	The exact relationship between Graves 12 and 13 is unclear, owing to the ephemeral nature of the cut and fill of Grave 12; Grave 12 may be the remnant of an earlier grave truncated by Grave 13, or Sk2220 may represent the charnel redeposition of bone from an earlier grave obliterated during the digging of Grave 13. Cattle and sheep/ goat bone recovered from among skeletal material during post excavation analysis

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Grave 13	F2232, L2222
Shape	Sub-oval
Alignment	West-east, 270°
Dimensions	2.20 x 0.70 x 0.20 (m)
Profile	Sloping sides, concave base
Relationships	Overlies grave 12, undetermined relationship to Grave 11
Skeleton	Sk2221
Position	Extended supine, right arm bent at elbow and lying across abdominal area
Age/ sex	Young adult ?female
Stature (est)	-
Pathologies	Arthritis of vertebrae and hip, spina bifida, schmorl's nodes
Condition	>75% complete
Notes	See notes on Grave 12.

Grave 14	F2223, L2226
Shape	Sub-rectangular Sub-rectangular
Alignment	West to east, 270°
Dimensions	2.24 x 0.50 x 0.20 (m)
Profile	Near vertical sides, flat base
Relationships	Cut by graves 15 and 16
Skeleton	Sk2224
Position	Undetermined, left arm extended as if at side, collection of disarticulated bone at foot of grave
Age/ sex	Middle adult ?male
Stature (est)	1.66m
Pathologies	Arthritic vertebrae and hand, fractured rib, schmorl's nodes
Condition	<50% complete

Grave 15	F2230, L2231
Shape	Sub-rectangular Sub-rectangular
Alignment	West to east, 270°
Dimensions	2.14 x 0.49 x 0.11 (machine truncation)
Profile	Sloping sides, flat base
Relationships	Cuts Graves 14 and 16
Skeleton	Sk2225
Position	Extended supine, hands over groin
Age/ sex	Young adult male
Stature (est)	1.73m
Pathologies	Arthritis of vertebrae, schmorl's nodes
Condition	<75% complete

Notes	Animal bone recovered from among skeletal material during post excavation analysis.
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Grave 16	F2227, L2229
Shape	Sub-oval
Alignment	West to east, 262°
Dimensions	1.45 x 0.70 x 0.10 (m)
Profile	Sloping sides, flat base
Relationships	Cuts Grave 14, cut by Grave 15
Skeleton	Sk2228
Position	?Extended supine
Age/ sex	Adult
Stature (est)	-
Pathologies	
Condition	<25% complete (lower legs only, no feet)

Grave 17	F2243, L2245
Shape	Sub-rectangular
Alignment	West to east, 267°
Dimensions	2.23 x 0.72 x 0.13 (m)
Profile	Concave sides, flat base
Relationships	-
Skeleton	Sk2244
Position	Extended supine, skull facing north, left femur angled inwards
Age/ sex	Young adult
Stature (est)	1.65m
Pathologies	Arthritis of vertebrae, myotosis of clavicle, schmorl's nodes
Condition	>75% complete
	•
Notes	Cattle and sheep/ goat bone recovered from among skeletal material during post excavation analysis. Charcoal present in grave fill, environmental sample taken (see environmental report).

Grave 18	F2246, L2248
Shape	Sub-rectangular
Alignment	West to east, 270°
Dimensions	2.03 x 0.73 x 0.18
Profile	Sloping sides, slightly concave base
Relationships	Partially overlies upper L2260 inhumation Sk2259.
Skeleton	Sk2247
Position	?Extended supine
Age/ sex	Adult
Stature (est)	•
Pathologies	-
Condition	<25% complete
Notes	Sheep/ goat bone recovered from among skeletal material during post excavation analysis.

Grave 23	F2267, L2270
Shape	Sub-rectangular Sub-rectangular
Alignment	West to east, 250°
Dimensions	1.92 x >0.47 (extends beyond baulk) x 0.09 (m)
Profile	Sloping sides, flat base
Relationships	Extends beneath northern baulk
Skeleton (I)	Sk2268
Position	Extended supine, left arm bent inwards at elbow, hand over groin
Age/ sex	Adult
Stature (est)	-
Pathologies	
Condition	<75% complete
Skeleton (II)	Sk2269
Position	Lying on right side, right arm extended to north.
Age/ sex	Infant
Stature (est)	
Pathologies	-
Condition	>75% complete
Notes	Sk2269 found across abdominal area of Sk2268; see Fig 5 and Plate 4.

# Inhumations in the north east of the cemetery

Skeleton	Sk2259
Alignment	West to east, 253°
Position	Exended, face down
Age/ sex	Middle adult female
Stature (est)	-
Pathologies	-
Condition	<50% complete
Grave goods	See notes
Notes	Coin of Valentinian I (see small finds report) found just south of this skeleton, may originally have been deposited within the skeleton's grave. Cattle bone recovered from among the skeletal material during post excavation analysis.

Skeleton	Sk2261
Alignment	East to west, 72°
Relationships	
Position	Extended supine
Age/ sex	Infant
Stature (est)	•
Pathologies	-
Condition	<50% complete

Skeleton	Sk2278
Alignment	West to east, 249°
Relationships	-
Position	On right side, hands over groin.

Age/ sex	Middle adult ?male
Stature (est)	1.83m
Pathologies	Arthritic vertebrae, dislocated femur
Condition	<75% complete
Notes	Animal bone recovered from among skeletal material during post excavation analysis.

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Skeleton	Sk2279	
Alignment	West to east, 258°	
Relationships	Partially overlies Sk2314	
Position	•	
Age/ sex	Adult	
Stature (est)	-	
Pathologies	Spina bifida occulta	
Condition	<25% complete	

Skeleton	Sk2280
Alignment	West to east, 248°
Relationships	Partially overlies Sk2314
Position	Extended supine, skull facing south, femurs angled inwards to meet at knee
Age/ sex	Young adult male
Stature (est)	1.63m
Pathologies	
Condition	<75% complete
Grave goods	Iron nail and refrozen puddle of lead.
Notes	Grave goods found within skull, suggesting that they were originally placed in the mouth or on the eyelids of the corpse. See small finds report. Animal bone recovered from among skeletal material during post excavation analysis.

Skeleton	Sk2281a	
Alignment	•	
Relationships	Recovered with partial remains of 3 other individuals (Sk2281 b, c, d)	
Position	Extended supine	
Age/ sex	Adult female	
Stature (est)	ļ -	
Pathologies	-	
Condition	<25% pelvis only	

Skeleton	Sk2281b
Alignment	-
Relationships	Recovered with partial remains of 3 other individuals (Sk2281 a, c, d)
Position	-
Age/ sex	Infant
Stature (est)	•
Pathologies	•
Condition	<25% complete

Skeleton	Sk2281e
Alignment	

Relationships	Recovered with partial remains of 3 other individuals (Sk2281 a, b, d)
Position	
Age/ sex	Child
Stature (est)	-
Pathologies	-
Condition	<25% complete
Skeleton	Sk2281d
Alignment	
Relationships	Recovered with partial remains of 3 other individuals (Sk2281 a, b, c)
Position	-
Age/ sex	Middle adult female
Stature (est)	1.54m
Pathologies	-
Condition	<50% complete
	<u> </u>
Skeleton	Sk2282
Alignment	-
Relationships	-
Position	-
Age/ sex	Adult
Stature (est)	-
Pathologies	-
Condition	<25% complete, feet only
Skeleton	Sk2283
	<del> </del>
Alignment	South-west to north-east, 229°
Relationships	Extends beneath northern baulk
Relationships Position	Extends beneath northern baulk Extended supine
Relationships Position Age/ sex	Extends beneath northern baulk
Relationships Position Age/ sex Stature (est)	Extends beneath northern baulk Extended supine Young adult ?female -
Relationships Position Age/ sex Stature (est) Pathologies	Extends beneath northern baulk Extended supine Young adult ?female -
Relationships Position Age/ sex Stature (est)	Extends beneath northern baulk Extended supine Young adult ?female -
Relationships Position Age/ sex Stature (est) Pathologies Condition	Extends beneath northern baulk Extended supine Young adult ?female <50% complete
Relationships Position Age/ sex Stature (est) Pathologies	Extends beneath northern baulk Extended supine Young adult ?female - <50% complete  Sheep/ goat bone recovered from among the skeletal material during post
Relationships Position Age/ sex Stature (est) Pathologies Condition	Extends beneath northern baulk Extended supine Young adult ?female <50% complete
Relationships Position Age/ sex Stature (est) Pathologies Condition Notes	Extends beneath northern baulk Extended supine Young adult ?female <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton	Extends beneath northern baulk Extended supine Young adult ?female - <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment	Extends beneath northern baulk Extended supine Young adult ?female <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284 West to east, 258°
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships	Extends beneath northern baulk  Extended supine  Young adult ?female  -  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position	Extends beneath northern baulk  Extended supine  Young adult ?female  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk  Extended supine
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex	Extends beneath northern baulk  Extended supine  Young adult ?female  -  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex Stature (est)	Extended supine Young adult ?female <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258° Extends beneath baulk Extended supine Old adult female -
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex Stature (est) Pathologies	Extends beneath northern baulk  Extended supine  Young adult ?female  -  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk  Extended supine  Old adult female  -  Arthritis of vertebrae and elbow
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex Stature (est)	Extended supine Young adult ?female <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258° Extends beneath baulk Extended supine Old adult female -
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex Stature (est) Pathologies Condition	Extends beneath northern baulk  Extended supine  Young adult ?female  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk  Extended supine Old adult female  - Arthritis of vertebrae and elbow <50% complete
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex Stature (est) Pathologies Condition	Extends beneath northern baulk  Extended supine  Young adult ?female  -  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk  Extended supine Old adult female  -  Arthritis of vertebrae and elbow  <50% complete
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex Stature (est) Pathologies Condition  Skeleton Alignment	Extends beneath northern baulk  Extended supine  Young adult ?female  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk  Extended supine Old adult female  - Arthritis of vertebrae and elbow <50% complete
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex Stature (est) Pathologies Condition  Skeleton Alignment Relationships	Extends beneath northern baulk  Extended supine  Young adult ?female  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk  Extended supine Old adult female  - Arthritis of vertebrae and elbow  <50% complete  Sk2285  West to east, 257°  -
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex Stature (est) Pathologies Condition  Skeleton Alignment Relationships Position	Extends beneath northern baulk  Extended supine  Young adult ?female  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk  Extended supine  Old adult female  - Arthritis of vertebrae and elbow  <50% complete  Sk2285  West to east, 257°  - ?Extended supine
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex Stature (est) Pathologies Condition  Skeleton Alignment Relationships Position Age/ sex	Extends beneath northern baulk  Extended supine  Young adult ?female  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk  Extended supine Old adult female  - Arthritis of vertebrae and elbow <50% complete  Sk2285  West to east, 257°  - ?Extended supine Adult
Relationships Position Age/ sex Stature (est) Pathologies Condition  Notes  Skeleton Alignment Relationships Position Age/ sex Stature (est) Pathologies Condition  Skeleton Alignment Relationships Position	Extends beneath northern baulk  Extended supine  Young adult ?female  <50% complete  Sheep/ goat bone recovered from among the skeletal material during post excavation analysis  Sk2284  West to east, 258°  Extends beneath baulk  Extended supine  Old adult female  - Arthritis of vertebrae and elbow  <50% complete  Sk2285  West to east, 257°  - ?Extended supine

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Condition	<25% complete, legs only
Skeleton	Sk2286
Alignment	West to east, 251°
Relationships	
Position	?Extended supine
Age/ sex	Adult
Stature (est)	_
Pathologies	-
Condition	<50% complete, no upper body Aso in duly left hand. (a 17/9/04
Skeleton	Sk2287
Alignment	-
Relationships	-
Position	-
Age/ sex	Adult
Stature (est)	-
Pathologies	-
Condition	<25% complete
Skeleton	Sk2288a
Alignment	-
Relationships	Recovered with infant femur (Sk2288b)
Position	
Age/ sex	Adult
Stature (est)	
Pathologies	•
Condition	<25% complete, skull only
01 1	GI COON
Skeleton	Sk2288b
Alignment	- 1 ::1 1 !! (01 0000 )
Relationships	Recovered with adult skull (Sk2288a)
Position	
Age/ sex	Infant
Stature (est)	-
Pathologies	
Condition	<25% complete, femur only
01 1 .	C1 0000
Skeleton	Sk2289
Alignment	Wet to east, 253°
Relationships	Cut by Pit F2327
Position	Extended supine
Age/ sex	Old adult ?female
Stature (est)	1.56m
Pathologies	Arthritis of vertebrae, hip, elbow and shoulder, ankylosis of sacrum
Condition	>50% complete
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Notes	Sheep/ goat bone recovered from among the skeletal material during post
	excavation analysis
G1 1 :	
Skeleton	Sk2290
Alignment	West to east, 254°
Relationships	-

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Position	Extended supine, legs slightly bent
Age/ sex	Middle adult male
Stature (est)	1.85m
Pathologies	-
Condition	>75% complete
Notes	Sheep/ goat and ?cattle bone recovered from among the skeletal material during post excavation analysis
Skeleton	Sk2291
Alignment	West to east, 255°
Relationships	West to east, 233
Position Position	Extended gunino
	Extended supine Juvenile
Age/ sex	Juvenile
Stature (est)	Cribra orbitalia
Pathologies Condition	
Condition	>75% complete
Skeleton	Sk2292
Alignment	_
Relationships	_
Position	-
Age/ sex	Old adult male
Stature (est)	-
Pathologies	-
Condition	<25% complete, skull, mandible and finger bone only
Skeleton	Sk2293
Alignment	West to east, 270°
Relationships	Partially overlying Sk2316, cut by Pit F2327
Position	Extended supine, left arm bent inwards at elbow, hand over groin
Age/ sex	Juvenile
Stature (est)	Juvenine
Pathologies	Hypoplasia
Condition	>50% complete
Condition	250 % Complete
Grave goods	Copper alloy unit of Tasciovanus (see small finds report).
Notes	Coin found inside skull, suggesting that it was originally placed on the eyelid of in the mouth of the corpse.
Skeleton	Sk2294
Alignment	West to east, 254°
Relationships	Overlying Sk2316, truncated by Ditch F2241
Position	Extended supine
Age/ sex	Adult
Stature (est)	- Auut
	Arthritis of hand, feet and knee
Pathologies	I AMMINING VA HUHUL IVVLUMIU MIVV
Pathologies Condition	
Pathologies Condition	<25% complete, legs only
	<25% complete, legs only Sk2295
Condition	<25% complete, legs only

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Position	-
Age/ sex	Adult
Stature (est)	
Pathologies	•
Condition	<25% complete

Skeleton	Sk2296
Alignment	-
Relationships	•
Position	-
Age/ sex	Adult
Stature (est)	-
Pathologies	•
Condition	<25% complete
Notes	Sheep/ goat bone recovered from among the skeletal material during post excavation analysis

Skeleton	Sk2297
Alignment	West to east, 260°
Relationships	-
Position	Extended supine
Age/ sex	Child
Stature (est)	_
Pathologies	•
Condition	<50% complete
Notes	Animal bone recovered from among the skeletal material during post excavation analysis

Skeleton	Sk2298a
Alignment	- ,
Relationships	Recovered with partial remains of another individual (Sk2298b)
Position	-
Age/ sex	Adult
Stature (est)	-
Pathologies	-
Condition	<25% complete

Skeleton	Sk2298b
Alignment	-
Relationships	Recovered with partial remains of another individual (Sk2298a)
Position	•
Age/ sex	Adult
Stature (est)	•
Pathologies	•
Condition	<25% complete

Skeleton	Sk2299a
Alignment	-
Relationships	Recovered with partial remains of a child (Sk2299b)
Position	-
Age/ sex	Adult

Stature (est)	-
Pathologies	-
Condition	<25% complete
Notes	Cattle, ?sheep/ goat and pig bone also recovered from among the skeletal
	material during post excavation analysis
Skeleton	Sk2299b
Alignment	-
Relationships	Recovered with partial remains of an adult (Sk2299a)
Position	•
Age/ sex	Juvenile
Stature (est)	
Pathologies	-
Condition	<25% complete
Notes	Posible charnel deposition
Skeleton	Sk2300
Alignment	_
Relationships	Above Pit Sk2327
Position	•
Age/ sex	Adult
Stature (est)	•
Pathologies	
Condition	<25% complete, right femur and partial pelvis only
Notes	Deal able district of the district of F2227 and node sited when the feature
Notes	Probably disturbed by digging of F2327 and redposited when the feature was filled
	was micu
Skeleton	Sk2301
Alignment	West to east, 260°
Relationships	-
Position	
Age/ sex	Adult female
Stature (est)	
Pathologies	Arthritis of knee and vertebrae
Condition	>50% complete
Skeleton	Sk2302a
Alignment	West to east, 250°
Relationships	Recovered with partial remains of another adult (Sk2302b) and a child
-	(Sk2302c)
Position	-
Age/ sex	Adult
Stature (est)	-
Pathologies	Dislocated femur
Condition	<25% complete
	<del>-</del>
Skeleton	Sk2302b
Alignment	-
Relationships	Recovered with partial remains of another adult (Sk2302a) and a child
	(Sk2302c)

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Position	-	_
Age/ sex	Adult	
Stature (est)		
Pathologies	•	
Condition	<25% complete	

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Skeleton	Sk2302c
Alignment	
Relationships	Recovered with partial remains of two adults (Sk2302a and b)
Position	-
Age/ sex	Infant
Stature (est)	-
Pathologies	-
Condition	<25% complete

Skeleton	Sk2308
Alignment	-
Relationships	-
Position	•
Age/ sex	Adult
Stature (est)	•
Pathologies	-
Condition	<25% complete
Notes	Found in upper part of L2260. Noted as redeposited and not shown on plans.

Skeleton	Sk2309
Alignment	
Relationships	
Position	-
Age/ sex	Adult ?female
Stature (est)	-
Pathologies	-
Condition	<25% complete

Skeleton	Sk2312
Alignment	West to east, 253°
Relationships	
Position	?extended supine, legs disturbed
Age/ sex	Infant
Stature (est)	-
Pathologies	Dislocated femur
Condition	>75% complete

Skeleton	Sk2313a
Alignment	West to east, 254°
Relationships	Recovered with partial remains of an infant (Sk2313b
Position	Extended supine
Age/ sex	Adult
Stature (est)	-
Pathologies	
Condition	<25% complete

Claristan	Cl 22421
Skeleton	Sk2313b
Alignment	- 1 tr (01 02 12 )
Relationships	Recovered with partial remains of an adult (Sk2313a)
Position .	
Age/ sex	Infant
Stature (est)	-
Pathologies	•
Condition	<25% complete
Skeleton	Sk2314
Alignment	West to east, 251°
Relationships	Overlain by Sk2279 and Sk2280
Position	Extended supine, right hand over groin
	Old adult male
Age/ sex	Old adult male
Stature (est)	A 41 141 C 44 1 4 4 1 1 1 1 1 1 1 1 1 1 1
Pathologies	Arthritis of vertebrae and hip, schmorl's nodes
Condition	>50% complete
Skeleton	Sk2315
Alignment	West to east, 254°
Relationships	-
Position	Hand beneath pelvis, very disturbed by rooting and burrowing
Age/ sex	Old adult female
Stature (est)	- Old addit foliation
Pathologies	Arthritis of vertebrae
Condition	>50% complete
Skeleton	Sk2316
Alignment	West to east, 250°
Relationships	Overlain by Sk2293 and Sk2294, truncated at feet by Pit F2329 and at shoulders by Ditch F2241.
Position	Extended supine, right arm bent at elbow, lover arm over groin.
Age/ sex	Juvenile
Stature (est)	-
Pathologies	-
Condition	>75% complete
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Notes	Sheep/ goat and? cattle bone recovered from among the skeletal material
<u>-</u> -	during post excavation analysis
Skeleton	Sk2317
Skeleton Alignment	Sk2317 West to east 254°
Alignment	West to east, 254°
Alignment Relationships	
Alignment Relationships Position	West to east, 254° Extends beneath northern baulk -
Alignment Relationships Position Age/ sex	West to east, 254°
Alignment Relationships Position Age/ sex Stature (est)	West to east, 254° Extends beneath northern baulk - Old adult ?female -
Alignment Relationships Position Age/ sex Stature (est) Pathologies	West to east, 254° Extends beneath northern baulk  Old adult ?female  Arthritis of vertebrae and elbow
Alignment Relationships Position Age/ sex Stature (est)	West to east, 254° Extends beneath northern baulk - Old adult ?female -
Alignment Relationships Position Age/ sex Stature (est) Pathologies	West to east, 254° Extends beneath northern baulk  Old adult ?female  Arthritis of vertebrae and elbow
Alignment Relationships Position Age/ sex Stature (est) Pathologies Condition	West to east, 254° Extends beneath northern baulk  Old adult ?female  Arthritis of vertebrae and elbow  <50% complete

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Position		
Age/ sex	Young adult male	
Stature (est)	-	
Pathologies	Arthritis of hip	
Condition	<50% complete	
Notes		

## Other human bone in the north east of the cemetery

Skeleton numbers were assigned on site to a fragmented infant skull (Sk2310) and a partial adult skull (Sk2311), no other remains were associated with either of these. They may represent additional individuals buried in this part of the cemetery, but the may belong to already identified skeletons, from which they could have been separate by rooting. A total of 916g of disarticulated human bone was recovered from Pits F2327 and F2329 which were cut within L2260.

## Inhumations in the south of the cemetery: skeletons from Pit F2205

Skeleton	Sk2249a	
Alignment	•	
Relationships	Recovered with two other skulls (Sk2249b and c) and other human bone fragments from base of Pit F2205.	
Position	•	
Age/ sex	Middle adult female	
Stature (est)	-	
Pathologies	·	
Condition	<25% complete, skull only	
Notes	Cattle bone also recovered from among skeletal material during post excavation analysis.	

Skeleton	Sk2249b
Alignment	-
Relationships	Recovered with two other skulls (Sk2249a and c) and other human bone fragments from base of Pit F2205.
Position	-
Age/ sex	Middle adult ?male
Stature (est)	•
Pathologies	-
Condition	<25% complete, skull only

Skeleton	Sk2249c
Alignment	-
Relationships	Recovered with two other skulls (Sk2249a and b) and other human bone fragments from base of Pit F2205.
Position	-
Age/ sex	Old adult
Stature (est)	-
Pathologies	•
Condition	<2%% complete, skull only

Further fragmented human remains recovered from the base of F2205 were also labelled Sk2205. Other human remains were recovered from higher up in the fill of Pit F2205 and labelled as Sk2211, Sk2212, Sk2213 and Sk2234; these were extremely fragmented and could have belonged to the same individuals as the Sk2249 skulls.

## The outlying graves

?Grave 19	F2250, L2252	
Shape	Sub rectangular	
Alignment	North to south	
Dimensions	1.85 x 0.75 x 0.08 (m)	
Profile	Sloping sides, concave base	
Relationships	-	
Skeleton	Sk2251	
Position		
Age/ sex	•	
Stature (est)	•	
Pathologies	-	
Condition	-	
Notes	Post excavation analysis found all skeletal material to be sheep/ goat, cattle, pig and domestic fowl bone.; no human bone.	

Grave 20	F2253, L2254	
Shape	Sub-rectangular Sub-rectangular	
Alignment	South west to north east, 226°	
Dimensions	1.63 x 0.64 x 0.25 (m)	
Profile	Concave side and base	
Relationships	-	
Skeleton	Sk2255	
Position	Extended supine, arms bent to right at c. 45° angle so that lower left arm lies across chest, right wrist turned back towards rib cage.	
Age/ sex	Old adult female	
Stature (est)	1.56m	
Pathologies	Arthritis of knee, hip, shoulder, elbow, hand and vertebrae, schmorl's nodes	
Condition	>75% complete	
Grave goods	Copper alloy bangle (see small finds report)	
Notes	Bangle found on right wrist. Environmental sample taken from grave fill (see environmental report). See Fig 5 and Plate 6.	

Grave 21	F2256, L2258	 
Shape	Sub-rectangular	 
Alignment	West to east, 251°	
Dimensions	2.13 x 0.88 x 0.15 (m)	 <del></del>
Profile	Slopig sides, concave base	 
Relationships	Truncated by Ditch F2357 to south	 

Skeleton	Sk2257
Position	Extended supine, left hand over groin
Age/ sex	Middle adult
Stature (est)	1.7.1m (male), 1.66m (female)
Pathologies	Ankylosis of tarsal, schmorl's nodes
Condition	<50% complete, right side of skeleton truncated by ditch

Grave 22	F2264, L2266
Shape	Sub-oval Sub-oval
Alignment	South-west to north-east, 226°
Dimensions	1.15 (pit truncation) x 0.46 x 0.13 (m)
Profile	Concave sides and base
Relationships	Truncated by Pit F2271 to north-east
Skeleton	Sk2265
Position	Face-down, right arm flexed over back, left arm extended at right angle to torso with elbow flexed back towards torso and left hand under throat; right leg crosses over left at knee.
Age/ sex	Old adult female
Stature (est)	1.55m
Pathologies	Arthritis of shoulder, elbow, wrist and vertebrae, fractured ulna, schmorl's nodes
Condition	<75% complete, lower legs truncated by pit. See Fig 5 and Plate 3.

Grave 24	F2273, L2275	
Shape	Sub-rectangular Sub-rectangular	
Alignment	North-west to south-east, 330°	
Dimensions	0.98 (ditch truncation) x 0.60 x 0.05 (machine truncation)	
Profile	Concave sides, flat base	
Relationships	Truncated to north-west by Ditch F2276	
Skeleton	Sk2274	
Position	Extended supine	
Age/ sex	Adult	
Stature (est)	-	
Pathologies	-	
Condition	<25% complete, upper body truncated by ditch	

# APPENDIX 2: FABRIC CODES USED IN THE POTTERY ARCHIVE AND FABRIC DESCRIPTIONS (References)

# Romano-British Pottery

Fabric Code	Fabric Name	Fabric Reference/Description				
LEZ SA2	Lezoux samian 2	Tomber & Dore 1998, 32; Webster 1996				
MON SA	Montans samian	Tomber & Dore 1998, 29; Webster 1996				
RHZ SA	Rheinzabern samian	Tomber & Dore 1998, 39; Webster 1996				
TRI SA	Trier samian	Tomber & Dore 1998, 41; Webster 1996				
LNV CC	Lower Nene Valley colour-coated	Tomber & Dore 1998, 118; Perrin 1999, 87-108				
	ware	15				
OXF RS	Oxfordshire red-slipped ware	Tomber & Dore 1998, 174; Young 1977, 123-				
	<u></u>	176				
HAD OX	Much Hadham oxidised ware	Tomber &Dore 1998, 151; Going 1999, 297-303				
WES FR	West Stow fine reduced ware	Tomber & Dore 1998, 185; West 1990, 76				
GOD WS	Godmanchester white-slipped ware	Evans 2003, 209, fabric P05.1				
CHH OX	Cherry Hinton oxidised ware	Evans 1990, 24				
JES RE	Jesus Lane, Cambridge reduced ware	Hartley 1960, 26				
ROB MD	Romano-British mica-dusted ware	Tomber & Dore 1998, 211				
MAH WS	Mancetter-Hartshill white-slipped	Tomber & Dore 1998, 190				
	ware					
OXF WS	Oxfordshire white-slipped ware	Tomber & Dore 1998, 176; Young 1977				
LNV PA	Lower Nene Valley parchment ware	Tomber & Dore 1998, 118				
LNV WH	Lower Nene Valley white ware	Tomber & Dore 1998, 119; Perrin 1999				
LNV WH(M)	Lower Nene Valley white ware	Tomber & Dore 1998, 119				
- Idean	(mortaria)					
VER WH	Verulamiun white ware	Tomber & Dore 1998, 154				
WES CW	West Stow cream ware	West 1990, 76				
ROB SH	Romano-British shell-tempered ware	Tomber & Dore 1998, 212; Brown 1994				
BSW	Black surfaced/Romanising grey	Description: Black-grey/brown surfaces with				
	ware	dark grey core. Inclusions are dominated by				
		poorly sorted quartz, with sparse grog. Other				
•	A. A	sparse/occasional inclusions vary. Locally				
GRS	Sandy grey ware	produced. Roman.  Description: Medium grey surfaces, with a core				
UKS	Sandy grey ware	in varying shades of grey. Inclusions are				
		dominated by quartz (0.3-0.7mm) with sparse				
		mica and iron rich grains (<0.5mm). Locally				
		produced. Roman.				
HAD RE1	Much Hadham reduced ware 1	Tomber & Dore 1998, 152				
HAD RE2	Much Hadham reduced ware 2	Tomber & Dore 1998, 153				
LNV GW	Lower Nene Valley grey ware	Perrin 1996, 118				
GOD RE	Godmanchester (Kiln 4) reduced	Evans 2003, 207, fabric G06.2				
	ware					
HOR RE	Horningsea reduced ware	Evans 1991				
WAT RE	Wattisfield reduced ware	Tomber & Dore 1998, 184				
DOR BB1	Dorset black-burnished ware 1	Tomber & Dore 1998, 127; Holbrook & Bidwell				
		1991				
BB2	Black-burnished ware 2	Tomber & Dore 1998, 131 & 135				
BBt	Black-burnished type ware	Symonds & Wade 1999, 372				
WES CR	West Stow coarse reduced ware	West 1990, 76				
PNK GT	Pink grog-tempered ware	Marney 1989, 64				
UNS GT	Unspecified grog-tempered ware	Tomber & Dore 1998, 214				
UNS FL	Unspecified flint-tempered ware	Description: Black/Dark grey reduced fabric,				
	- -	with common calcined flint inclusions (1-5mm).				
		Prehistoric.				
BAT AM2	Baetican (late) amphorae 2	Tomber & Dore 1998, 85				

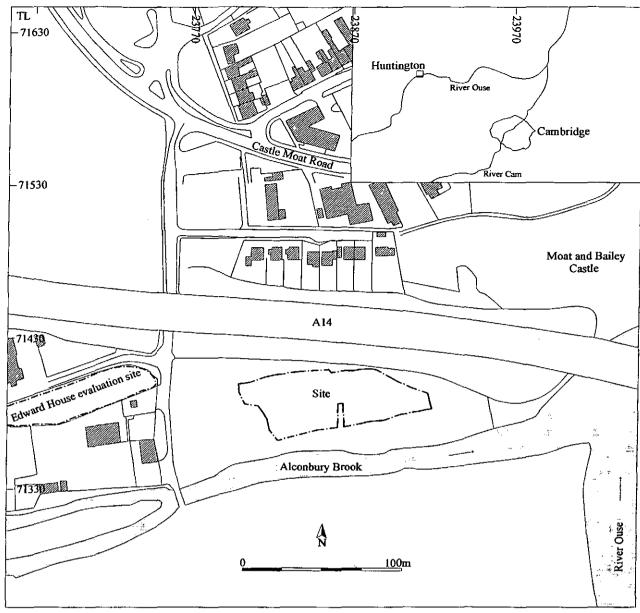
# **Post-Roman Pottery**

Fabric Code	Fabric Name	Fabric Reference/Description			
ESFS	Early Saxon fine sand tempered ware	Anderson 2003			
ESSS	Early Saxon sparse shell-tempered ware	Anderson 2003			
ESCS	Early Saxon coarse shell-tempered ware	Anderson 2003			
ESCQ	Early Saxon coarse quartz-tempered ware	Anderson 2003			
STAM	Stamford ware	Hurst 1958			
THET	Thetford ware				
STNE	St. Neots ware	Hurst 1956			
LYVE	Lyvenden ware	McCarthy & Brooks 1988, 286			
MGL	Medieval glazed ware	Description: Oxidised, sand tempered fabric with an exterior lead glaze (olive-dark green).  Too abraded/small for better classification.			
MCW	Medieval coarse ware	Anderson 2003			
PME GL	Post-Medieval glazed ware	Description: Oxidised earthen ware fabric with interior/exterior lead glaze (clear-olive).			

# APPENDIX 3: CATALOGUE OF SLAG AND ASSOCIATED FINDS

Feature	Segment	Туре	No.	Weight	Craft	Fuel	Condition	Comments
(Context)								
F2024 (L2025)		HB	1	34	Fesmith	Charc		Very thin plate; recent breaks - most missing
F2079 (L2080)		Тар	1	1	Fesmelt			Blob
F2034 (L2088)		Tuyere	1	14				Rim- straightish edge
F2115 (L2117)		Coal	1	12				Slagged
F2217 (L2218)		Coal	1	2				Slagged
F2217 (L2218)		Fecind	1	3	Fesmith	Coal		
F2217 (L2218)		Slag	1	1				Blob
F2250 (L2252)		Slag	1	125	Fesmith	Charc	Abraded	HB? Part magnetic, totally encrusted.
F2253 (L2254)		Tuyere	1	37				Back odd colour – greenish cream
(L2260)		Clinker	2	15				
(L2260)		ProtoHB	1	27	Fesmith	Coal	Fresh	40x40x20mm
(L2260)		Sand	1	2				Fused
(L2260)		Slag	2	2				Cream/ grey, fuel ash slag
(L2260)		SSL	1	6	Fesmith	Coal	Fresh	
F2303 (L2304)	F	HB	1	11	Fesmith			Magnetic; recent breaks - most missing
F2335 (L2336)		Slag	1	13				Very sandy; flint inclusions; recent breaks, most missing
F2337 (L2338)	В	HB	1	14	Fesmith	Charc	Abraded	Dense; cracking; recent breaks
F2339 (L2340)		Slag	1	338	Fewking	Charc	Abraded	Mass charc – looks like furnace slag; recent breaks – some
			\	<b>1</b>				missing
F2339 (L2340)	D	HB	2	101	Fesmith	Charc	Abraded	Very rounded; dense; odd shapes; recent breaks – most
								missing
F2339 (L2340)	D	VitHL	1	23				Odd tuyere? But orange back and odd shape
F2349 (L2350)		Slag	1	6	Fesmith	<u> </u>		HB fragment; dense; recent break
F2359 (L2362)	С	Slag	1	1		<u> </u>		VitHL?
F2359 (L2362)	D	ProtoHB	1	59	Fesmith			Dense; chunky; 30mm thick; recent breaks – some missing

F2367 (L2368)	A	Slag	1	6			<del></del>	Sandy – glassy; some missing
	A	Slag	1	16	Fesmith?			7 smashed pieces; frequent flint and sand inclusions; cracking;
F2367 (L2368)	A	Siag	1	10	resining			some missing
F2367 (L2368)	В	Cinder	1	6				Light grey; sandy – glassy
	В	ProtoHB	1	25	Fesmith	Charc	Abraded	Recent breaks – some missing
F2367 (L2368)	C		1	328	Fesmith	Charc	Abraded	
F2367 (L2368)		HB	2	328	resimin			Part magnetic; probably large; dense; cracking; recent breaks  - most missing
F2367 (L2368)	C	SSL	1	11	Fesmith	Charc		
F2367 (L2368)	D		0	0				Lots soil but few plate and 2 spheroidal hammerscale
F2367 (L2368)	D	CBM	1	47				Brick' tile, 1 side thickly vitrified and distorted
F2367 (L2368)	D	Cinder	14	59				Smashed glassy fragments; some and HL; black/ grey some colourful
F2367 (L2368)	D	Fecind	1	16				VitHL? Complete
F2367 (L2368)	D	HB	1	100	Fesmith	Charc		60x60x25mm; square; encrusted
F2367 (L2368)	D	HB	1	113	Fesmith	Charc		Part magnetic; cindery; recent breaks - some missing
F2367 (L2368)	D	HB	1	122	Fesmith	Charc		60x75x25mm; fairly flat; encrusted
F2367 (L2368)	D	HB	1	308	Fesmith	Charc		60x80x40mm; lots HL/ tuyere; recent breaks - some missing
F2367 (L2368)	D	HB	1	1055	Fesmith	Charc		120x150x110mm; 2 layers; large classic example; rounded base
F2367 (L2368)	С	HB	1	1615	Fesmith	Charc		Large classic; rounded base; recent breaks
F2367 (L2368)	D	HB	17	295	Fesmith	Charc		4x magnetic; fragments of the others?
F2367 (L2368)	D	Slag	1	31	Fesmith			+ reduced HL
F2367 (L2368)	D	Slag	1	46	Fesmith	Charc		Hb fragment? Lots charc; encrusted - rust coloured
F2367 (L2368)	D	Slag	1	68		Coal		HB? Very cindery – glassy – colourful
F2367 (L2368)	D	VitHL	1	16				Not tuyere; greenish cream; recent breaks - most missing
F2369 (L2370)		Slag	1	37	Fesmith			HB fragment? Dense; recent breaks - some missing
F2369 (L2370)	A	Slag	1	1	,			Fecind?
F2369 (L2370)	A	Slag	1	1				Light grey – glassy
F2391 (L2392)		Slag	1	9	Fesmith			HB fragment? Recent breaks - most missing



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Fig. 1 Site location

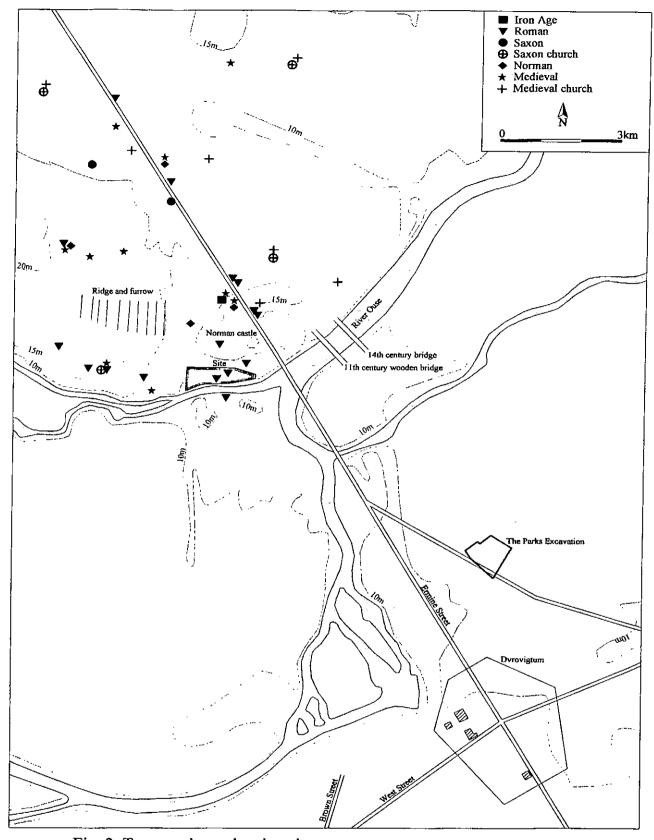
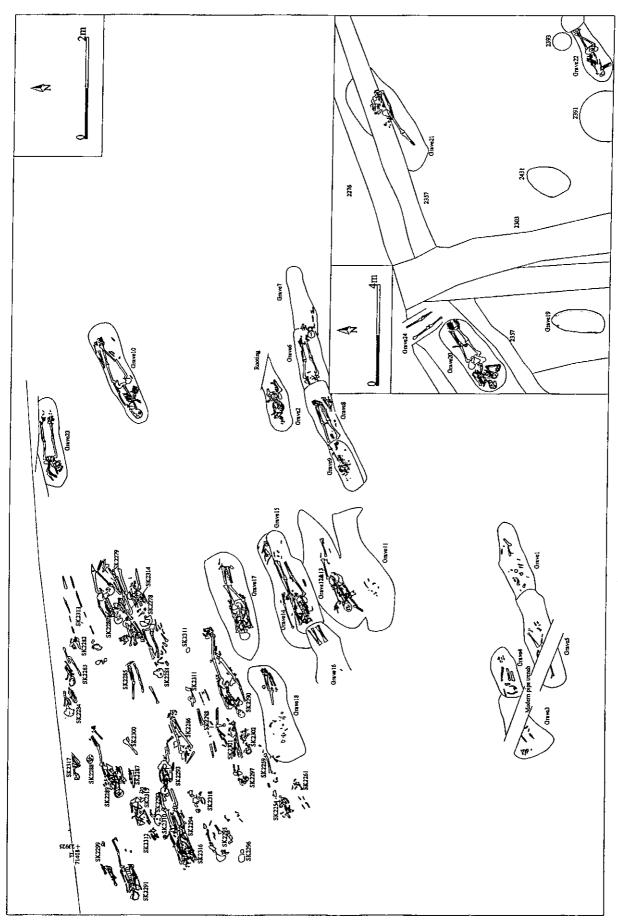


Fig. 2 Topography and archaeology (SMR points from the Huntington area only)



Fig. 3 Site plan

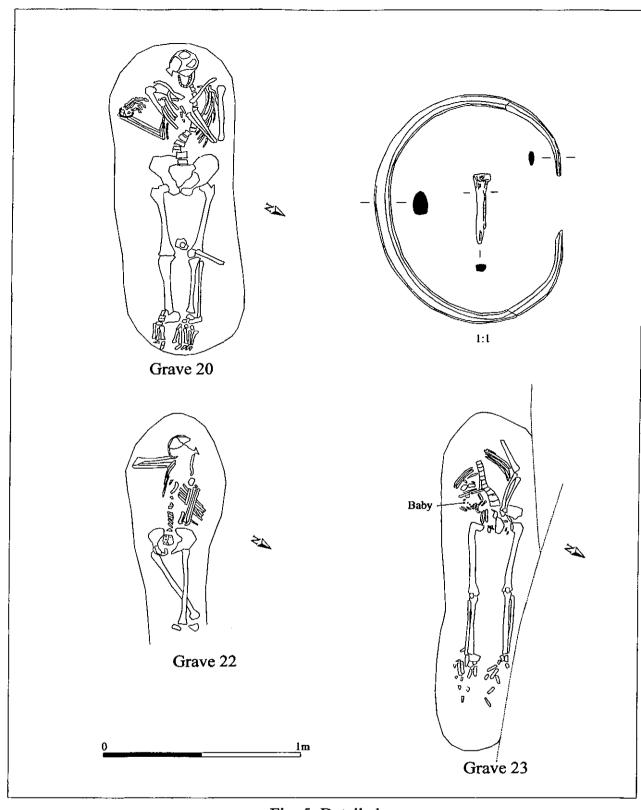


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Fig. 4 Detailed plan of cemetery



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Fig. 5 Detailed graves

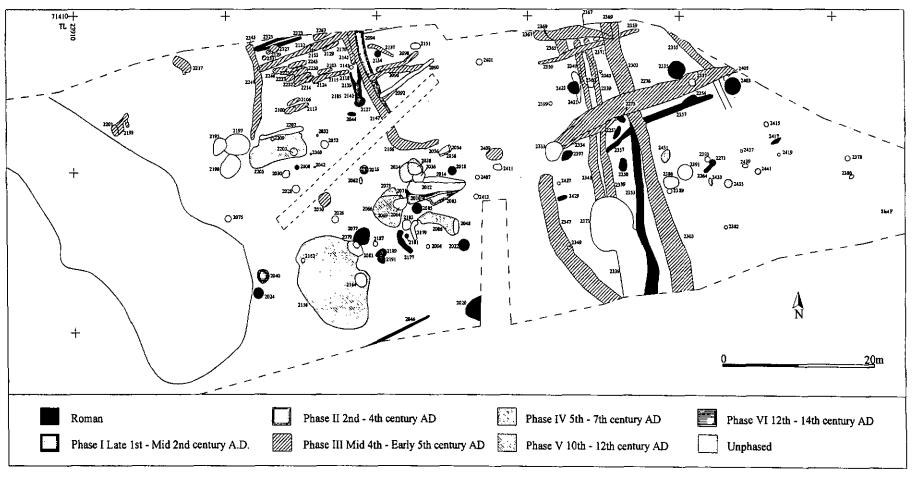
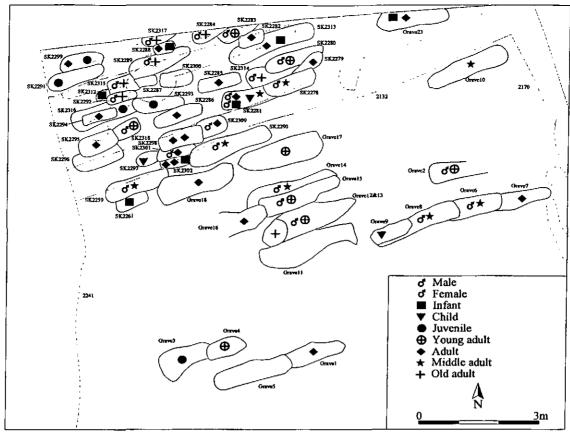
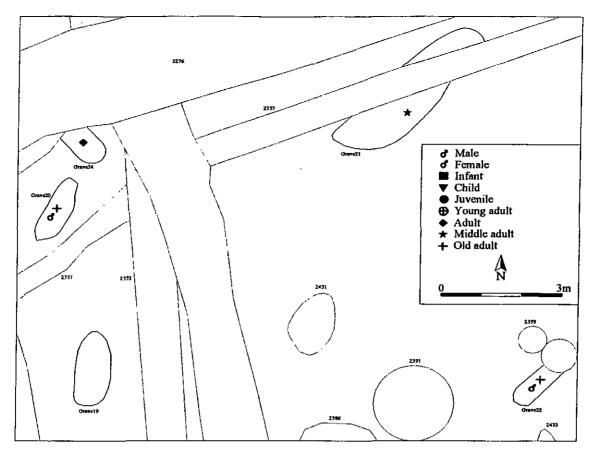


Fig. 6 Phase plan



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Fig. 7 Sex and age distribution of cemetery



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Fig. 8 Sex and age distribution of outlying burials

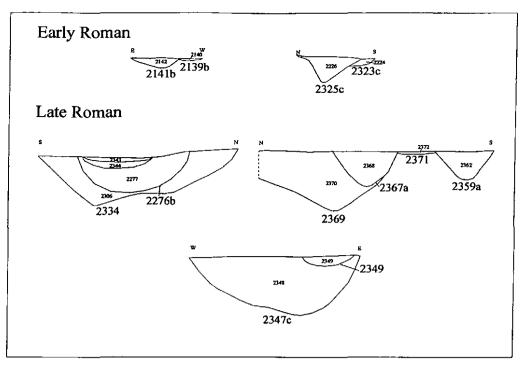


Fig. 9 Selected sections

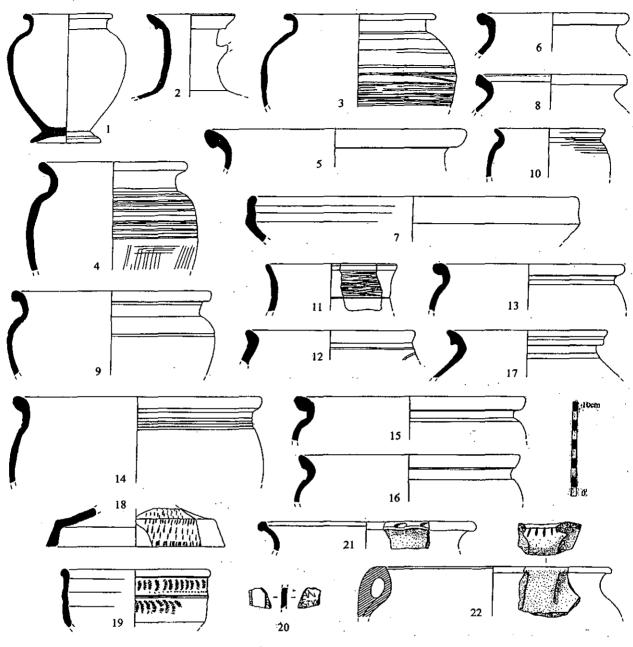
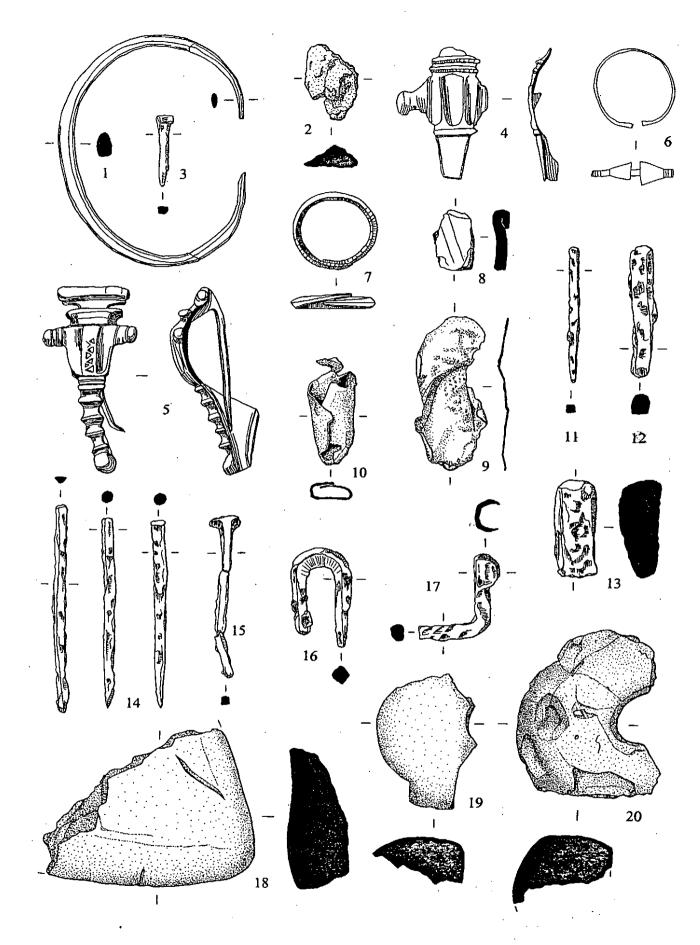


Fig. 10 Pottery



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STREET,

Fig. 11 Small finds





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