EXCAVATION OF A MID-SAXON SETTLEMENT AT WATER EATON, BLETCHLEY, MILTON KEYNES

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with contributions by
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Excavation on land adjacent to Stoke Road, Water Eaton, Bletchley, Milton Keynes revealed a single early-mid Iron Age pit and a small assemblage of later prehistoric residual artefacts. Residual Roman pottery and ceramic building material was also present in small quantities, perhaps derived from manuring. However, as an earlier evaluation had suggested, the principal discoveries were two enclosures, a trackway and a sunken-featured building of a mid-Saxon settlement. The settlement was abandoned during the ninth century, possibly shifting or relocating slightly north to the site of the Domesday village of Etone. The former settlement site seems to have been used as pasture until brought into arable use, conceivably from the twelfth century. One of the mid-Saxon enclosure ditches may have remained as a boundary during the early medieval period until the area was subsumed into the open-field system of Etone between the thirteenth-fifteenth centuries.

INTRODUCTION

In 2006 Archaeological Services and Consultancy (ASC) completed open-area excavation of land east of Stoke Road, Water Eaton, Milton Keynes. The excavation was undertaken in advance of housing development after archaeological evaluation had identified an area containing mid-Saxon ditches and pits (Hancock 2005a). Under separate commission, ASC had previously evaluated an area of 0.7 hectares immediately to the south with negative results (Hancock 2004).

The archaeological investigations were commissioned by RPS Planning, Transport and Environment on behalf of Lovell Partnerships Ltd for English Partnerships and were required under the terms of *Planning Policy Guidance Note 16* (PPG16). Full copies of the evaluation (Hancock 2005a) and excavation reports (Hancock 2006) are included in the site archive, which will be deposited with Buckinghamshire County Museum, Aylesbury (Acc. No: 2006.15).

Topography and Geology

The evaluated area consisted of two pasture fields adjacent to the southeast margin of Water Eaton, Bletchley (Fig. 1). The area subsequently designated for excavation was 200m west of the river Ouzel in the most southerly of the pasture fields, which gently descended from 76m OD next to Stoke Road at the west, to 73m OD next to the Grand Union Canal at the east. The underlying geology comprised river-terrace gravels overlain by slowly permeable subsoils and loamy soils of the Bishampton 2 Association (Soil Survey 1983, 572t).

ARCHAEOLOGICAL BACKGROUND

By the middle-late Iron Age there had been extensive clearance of woodland across the Buckinghamshire landscape (Kidd 2009). Environmental evidence from Iron Age sites in Milton Keynes has indicated that the landscape here was predominantly open grassland with small farmsteads operating a mixed agrarian economy (Zeepvat 1991). Investigation of two early-middle Iron Age farm-

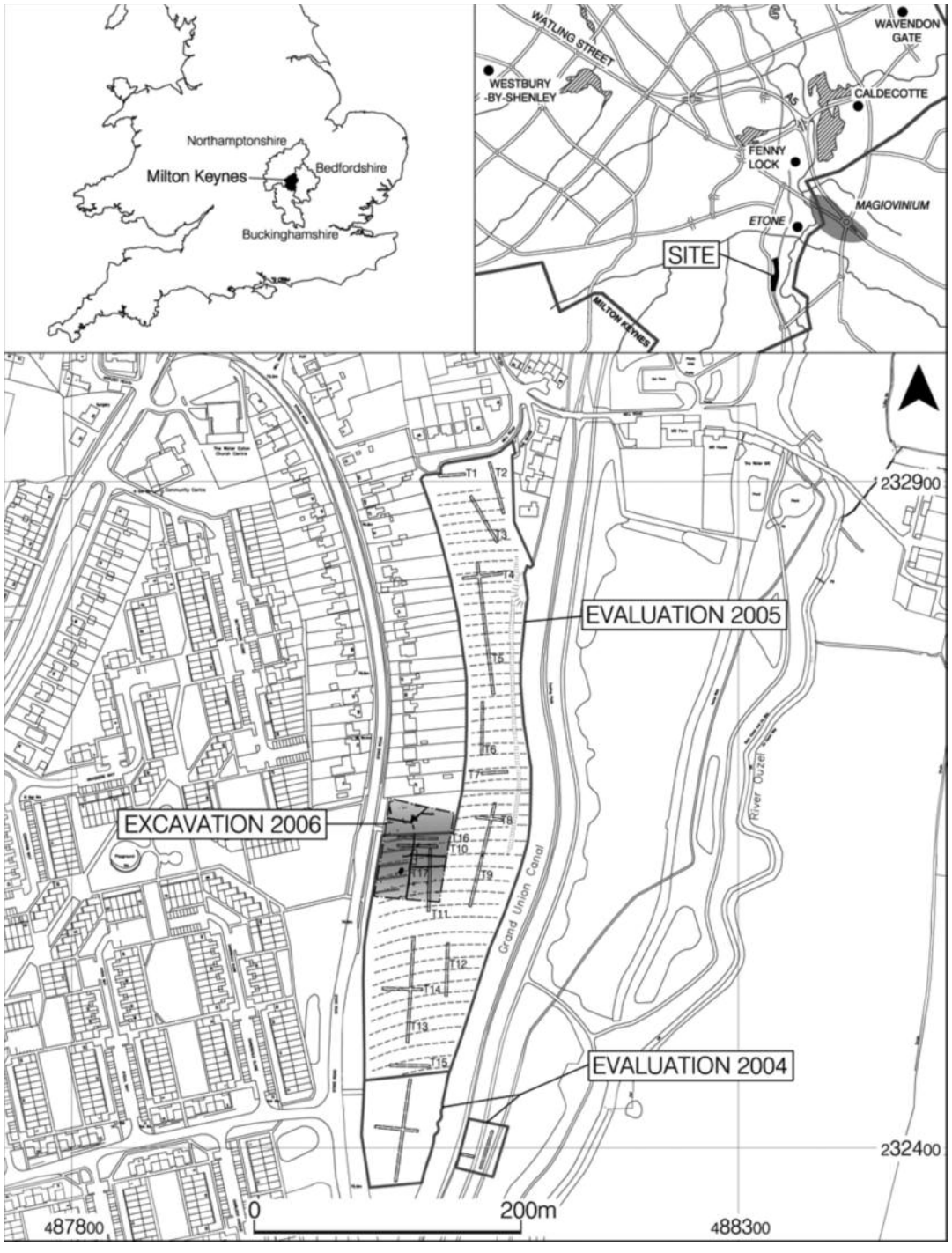

FIGURE 1 Location of archaeological evaluations and the excavated area. Dashed lines are the apex of ridges of the medieval open-field system

FIGURE 2 Excavated area showing all features

steads close to the excavated area (Brown 2008, Edgeworth 2006) has confirmed a local landscape of fairly open grassland and it has been suggested that Iron Age activity in the Ouzel valley may have had a largely pastoral focus (Kidd 2009, 41). The hillfort of Danesborough, located 4.5km ENE of the excavation, is one of a limited number of Iron Age sites in the region that could be interpreted as proto-urban.

The small Roman town of Magiovinium (Neal 1987, Hunn *et al.* 1995) and the Roman road now known as Watling Street, lie 1.3km north of the excavation. A fort constructed to protect a crossing over the River Ouzel may lie immediately southeast of the town (Woodfield 1977). During this period the local landscape remained largely open and in mixed agricultural use, but some villa estates were established (Radford and Zeepvat 2009).

The Roman-Saxon transition in the Milton Keynes area is poorly understood and evidence of continuity is scant (Farley 2009). However, in general terms, early Saxon settlement appears to have been dispersed, periodically shifting location or focus (Hamerow 2002, 121). In the Milton Keynes area dispersed early-Saxon settlement has been recorded at Pennyland and Hartigans (Williams 1993), Caldecotte (Zeepvat *et al.* 1994), Fenny Lock (Ford and Taylor 2001), Wolverton Turn (Preston *et al* 2007) and recently at Broughton (OAU 2008).

The mid-Saxon period saw a move toward enclosed settlement (Reynolds 2003). The abandonment of the earlier dispersed settlement pattern is thought to coincide with the growth and consolidation of a more rigidly hierarchical society (*ibid*). Two models have been suggested; an abrupt transition during the late seventh century (Arnold and Wardle 1981), or a gradual process which occurred during the eighth and ninth centuries (Hamerow 2002 121–24). A small number of enclosed settlements of the mid-Saxon period have been investigated locally, notably at Pennyland (Williams 1993) and Wolverton Turn (Preston *et al*. 2007).

The Domesday Survey village of *Etone* (Croft and Mynard 1993) was *c.*300m north of the excavated area. Limited investigation of a small part of the village has recovered St Neots ware pottery of the late-Saxon period and Olney Hyde pottery of the medieval period (Millard 1967). The Domesday Survey lists 35 villagers, 6 small holders, 12 slaves and 1 mill at *Etone* and the estate was valued at 10 hides. The evaluated area was covered by surviving ridge and furrow earthworks of the open-field system of the village. Construction of The Grand Union Canal in the late eighteenth century bisected the ridge and furrow earthworks, which were partially destroyed by housing constructed during the twentieth century at the north and west of the evaluated area.

Methodology

In 2005 ASC recorded the surviving ridge and furrow earthworks and evaluated the 3.5ha development site (SP 8810 3269, site centre). The evaluation comprised detailed magnetometer survey and trial trenching (Hancock 2005a). The magnetometer survey was hampered by very strong magnetic responses from the ridge and furrow and other archaeological features could not be determined using this method. The trial trenching identified mid-Saxon ditches and pits in five (T9, T10, T11, T16 and T17) of fifteen trial trenches (Fig. 2). On the basis of these results an area of 0.35ha (SP 8805 3262, site centre) was subject to open area excavation during December 2005 and January 2006. The excavation was undertaken in compliance with a brief prepared on behalf of the local planning authority, Milton Keynes Council, by their Planning Archaeologist (Giggins 2005) and in accordance with an approved methodology (Hancock 2005b). An excavation report (Hancock 2006) was produced and included recommendations for publication of the results.

Results

The excavation revealed finds and features, which are interpreted as defining six phases of use. The majority of dated features were mid-Saxon, but earlier and later periods were also represented. The following sections describe the evidence in chronological order.

Phase 1: Late Bronze Age/Early – Mid Iron Age

The evidence for this phase consisted of an isolated pit (Fig. 3). The single fill (215) of the ovoid, 1.7m × 1.0m and 0.2m deep truncated pit [214] produced early-mid Iron Age (EIA/MIA) flint-tempered pottery, burnt stone, abundant comminuted charcoal

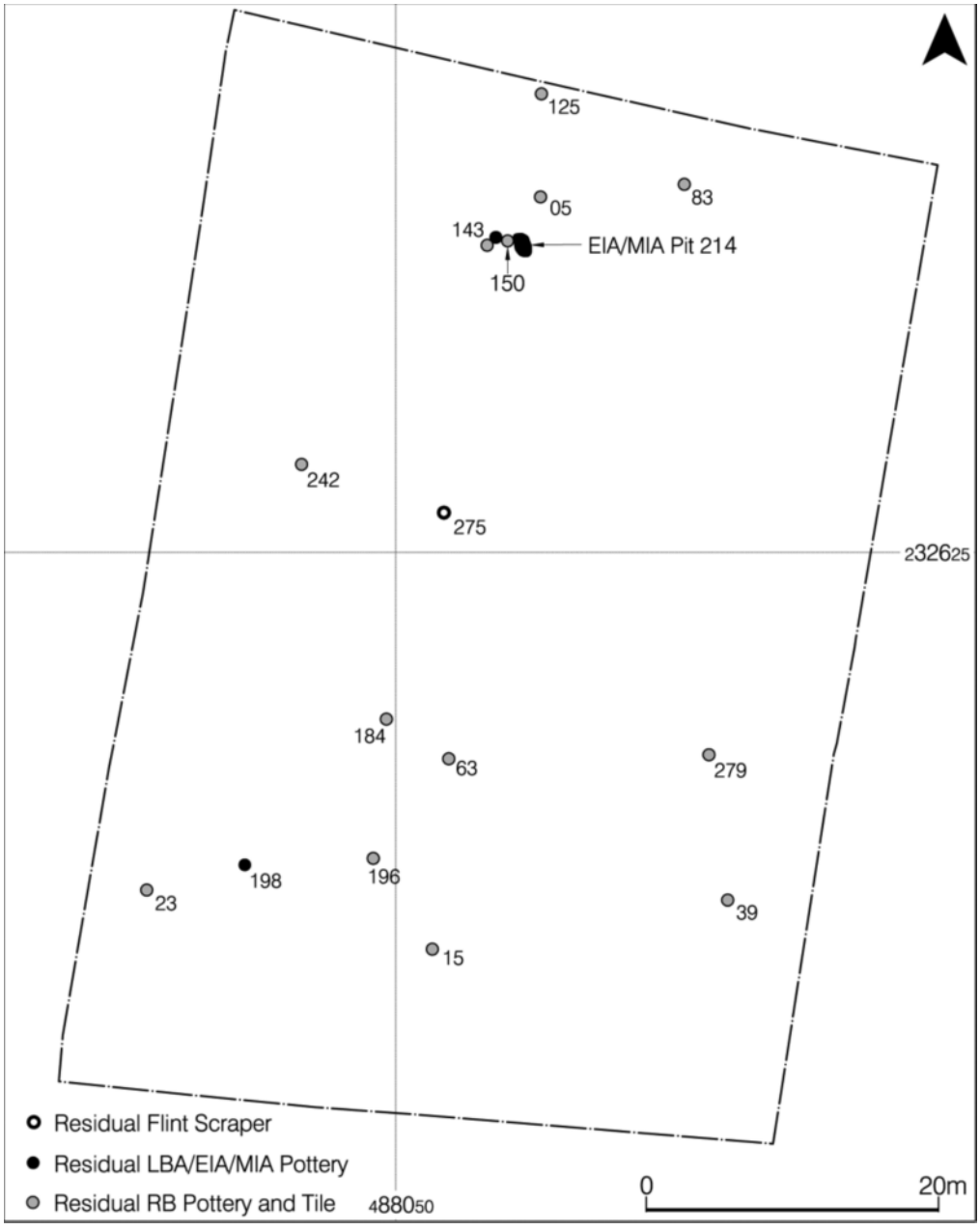

FIGURE 3 Phases 1 and 2: Single prehistoric pit and distribution of residual prehistoric and Roman finds

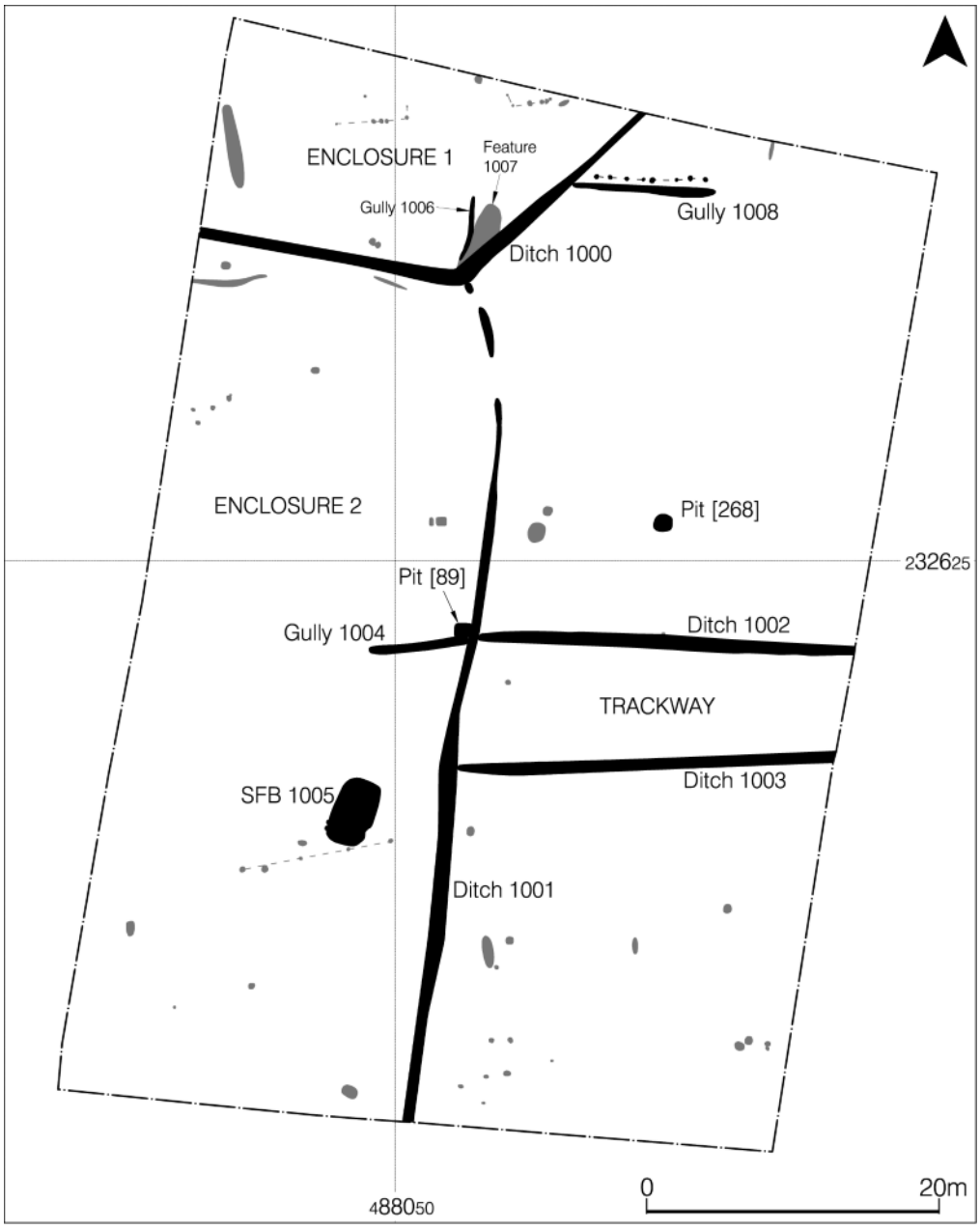

FIGURE 4 Phase 3 and unphased features (grey shaded)

and a single poorly-preserved wheat grain. A small, probably residual assemblage of late Bronze Age – early Iron Age pottery and a flint end-scraper was recovered from other features. This limited evidence suggests that early prehistoric activity was transient or of a type that left little artefactual evidence.

Phase 2: Roman

The evidence for this phase consisted of a scatter of eight sherds of Roman pottery and six fragments of clay tile (Fig. 3). The sherds suggest little more than manuring of arable fields but the fragments of tile, in particular an almost complete hypocaust pila tile, were relatively large and could indicate that a building of this period was nearby.

Phase 3: Saxon

The principal evidence for this phase was a sunken-featured building (SFB), two ditches-delimiting agricultural or settlement enclosures, and two parallel ditches that may have bounded an unmetalled trackway (Fig. 4). All of these features had been damaged to varying degrees by the medieval ridge and furrow. Few stratigraphic relationships could be determined and the pottery assemblage was only broadly dateable.

Enclosure 1

Enclosure 1 was defined by ditch 1000, which ran ESE from the western limit of excavation then returned to run NE beyond the northern limit of excavation (Fig. 5). The ditch was mainly *c.*1.0m wide and *c.*0.35m deep with an irregular V-shaped profile that had a single fill (Fig. 6: Sections 5 and 6), which produced one sherd of Ipswich ware , one of Maxey ware, one goat horn core and a small quantity of cattle, sheep, pig, and horse bone. In contrast, a short section of the ditch located slightly north of its return (Fig. 6: Section 8) had a 0.5m deep concave profile which contained two fills (146 and 147) and tentatively identified evidence of a recut [144]. The upper fill (143) of the recut produced a small quantity of residual Roman pottery, magnetised sediment, slag, wheat grain and wheat chaff.

Enclosure 2

The eastern boundary of Enclosure 2 was defined by N-S aligned ditch 1001. The ditch extended 57m south from the return of the ditch of Enclosure 1 and passed beyond the southern limit of excavation (Fig. 4).

The area where the enclosure ditches met was severely truncated and as the fill of both ditches was identical, it was not possible to define the relationship of the two enclosures. The northern half of the ditch of Enclosure 2 was generally 0.84m wide, 0.35m deep with an irregular V-shaped profile with a narrow steep sided slot at its base. The southern half of the enclosure ditch was generally 1.0m wide and 0.25m deep with a contrasting concave profile lacking evidence of a basal slot. The contrasting profiles of the northern and southern parts of the ditch suggest that it had been dug in two segments or that the original profile of part of the ditch was removed by later recutting. Two breaks were evident near the northern end of Ditch 1001 but these were almost certainly the result of truncation. The ditch contained a homogeneous single fill throughout, which produced a small assemblage of animal bone dominated by cattle although sheep, pig, horse and dog was also present. A few grains of wheat, oat and barley were also recovered. There was Maxey ware pottery in sections excavated at the north (272) and south (16, 18) of the ditch.

On the western side of the ditch of Enclosure 2 was 7m long × 0.58m wide Gully 1004 (Fig. 7). It had a shallow concave profile with a maximum depth of 0.15m and contained a single fill. There was no dating evidence recovered from its fill but its eastern end appeared to respect the western side of the ditch of Enclosure 2.

A sub-rectangular pit [89], 1.25m × 0.95m and 0.3m deep, cut both gully 1004 and the western side of the ditch of Enclosure 2. It contained a primary fill of mid brownish-grey clayey-silt (90), a lens of dark clayey-silt (91) and an upper fill of mid brownish-grey clayey-silt. The primary fill (90) contained bones of cattle, sheep/goat, pig, chicken and a single oyster shell. Charred wheat, barley and oat grain was also present. The primary fill also contained a small molluscan assemblage suggestive of an open, slightly damp, grassland environment. The dark lens (91) produced a small amount of cereal grain, possibly barley; plus five burnt flints and a large amount of comminuted charcoal. A single sherd of early-mid-Saxon hand-built pottery came from the upper fill (92).

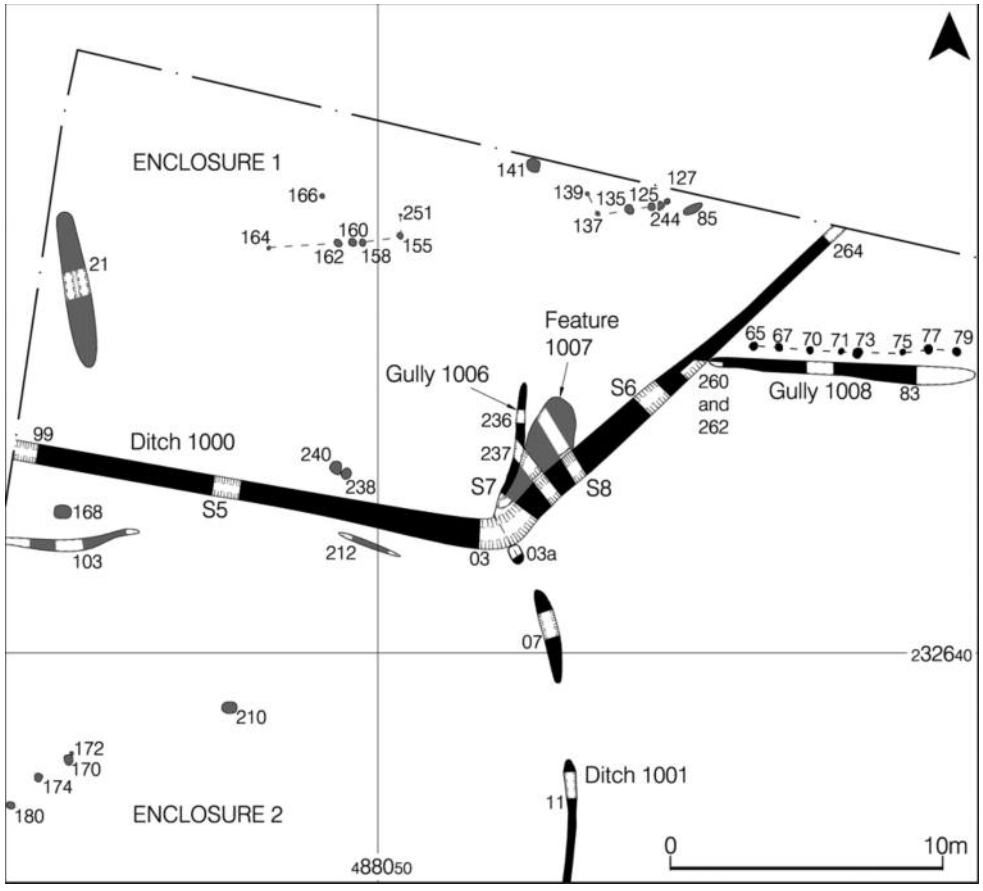

FIGURE 5 Enclosure 1 and nearby features

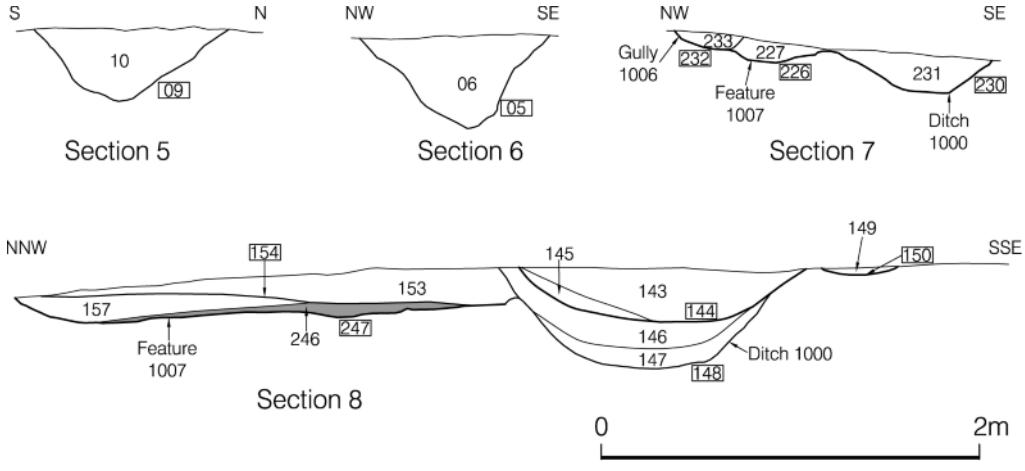

FIGURE 6 Sections through the ditch of Enclosure 1

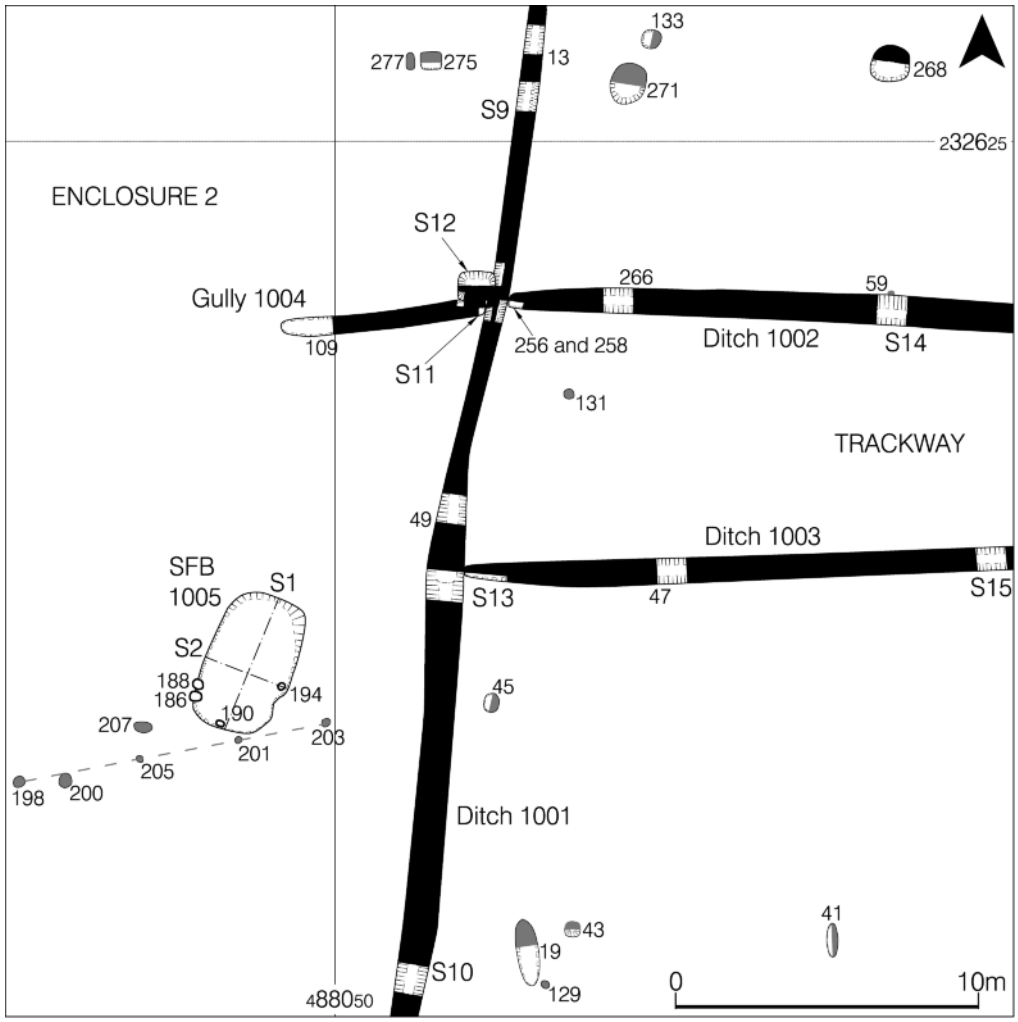

FIGURE 7 Sunken Featured Building 1005 and nearby features

The Sunken-Featured Building

A sunken-featured building (SFB) 1005 was identified at the southwest of the excavated area (Fig. 4). Its pit was sub-rectangular in plan with dimensions of 4.6m × 3m and its longest axis was aligned SSW-NNE (Fig. 7). The sides of the pit sloped gradually and broke gently to a relatively flat base. Its fills, an upper mid greyish-brown clayey-silt (193) sealing a sub-rounded/sub-angular gravel within a matrix of mid greyish-brown silty-clay (250), had a combined depth of only 0.12m (Fig. 8: Sections 1 and 2).

A post hole with a shallow concave profile [194] was cut into the base of the pit, slightly to the south of the centre of its longer eastern side; two adjacent post holes with shallow concave profiles [186 and 188] cut the sloping side of the pit at the southern end of the longer western side. There was a further post hole with a shallow concave profile [190] in the base of the pit at the centre of the southern gable end, but no evidence of an opposing post hole was found at the northern gable end despite full excavation. The diameter of the post holes was 0.2m-0.25m and

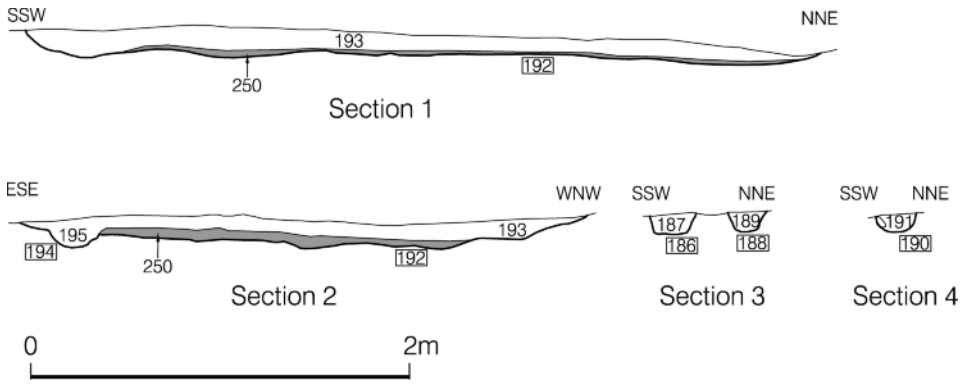

FIGURE 8 Sections through Sunken Featured Building 1005 and its post holes

their bases were cut 0.05m at most, below the base of the SFB pit. The presence of one gable post could suggest that the SFB was a two-post or two-post derivative form (West 1985 113–15). The upper fill of the pit (193) produced only four cereal seeds and one grass seed. No artefactual evidence was recovered from the fills of the pit or the post holes.

The Trackway

The trackway was defined by two east-west aligned ditches, which ran for 25m from the eastern side of Enclosure 2 and extended beyond the eastern limit of excavation (Fig. 4).

The western ends of both trackway ditches shallowed and terminated adjacent to the eastern side of the ditch of Enclosure 2. The ditch of Enclosure 2 extended unbroken across the proposed entrance to the trackway, suggesting that it fell out of use and that the enclosure ditch was extended, probably to restrict the movement of livestock.

The northern ditch (1002) of the trackway had a maximum width of 0.7m and was 0.25m deep with a shallow concave profile. Its single fill produced a small assemblage of animal bone dominated by cattle. A small amount of wheat grain plus smithing slag and hammerscale (including a single spheroidal example) was also present.

The southern ditch (1003) of the trackway had a maximum width of 1.0m and was 0.32m deep with a broad concave profile. Its single fill produced a small amount of hammerscale, wheat, barley and oat grain, plus a small assemblage of animal bone, which included the remains of a house mouse, a species synonymous with settlement.

The trackway ditches were slightly convergent, lying 8m apart adjacent to Enclosure 2 and 6m apart at the eastern limit of excavation. Sherds of both early-mid-Saxon hand-built and mid-Saxon Maxey ware pottery were recovered from the fill of ditch 1003.

During the evaluation a single E-W aligned ditch [902] was identified 22m beyond the eastern limit of excavation in trial trench 9. Its position and alignment suggest a continuation of one of the trackway ditches, perhaps 1002. The ditch had a shallow concave profile containing a single fill (901), which produced a single sherd of Maxey ware pottery. Whether the other trackway ditch returned to run at a different orientation or had been obliterated by the ridge and furrow of the later open-field system was not determined.

Other Features

Feature 1007 (Fig. 5) was within the return of the ditch of Enclosure 1, it was 4.6m × 1.4m and was 0.2m deep. It had a primary fill of sub angular gravel (246) and a secondary fill of sandy clay (157). The primary (246) and secondary (157) fills may have been recut [154] before an upper fill (153) accumulated. The feature was cut by the ditch of Enclosure 1 on its eastern side and by a shallow gully (1006) along part of its western margin (Fig. 6: Sections 7 and 8). Gully 1006 was 3m long and 0.35m wide and was 0.10m deep, it contained a single fill. Its southern end terminated to respect the northern side of the ditch of Enclosure 1. The fills of feature 1007 and gully 1006 were devoid of

artefacts or other forms of evidence.

At the eastern side of the ditch of Enclosure 1 lay a 7.76m long E-W alignment of eight shallow post holes. They had diameters of between 0.15m – 0.27m, possessed shallow concave profiles with a maximum surviving depth of 0.1m., and all contained a single fill. One complete and two fragmentary mid-Saxon clay loomweights, apparently reused as post packing, were recovered from the fill of post hole [67]. The post holes ran parallel with and were located slightly north of an E-W aligned shallow gully (1008), which was 9.78m long. (Fig. 5). It had a single fill, was a maximum of 0.6m wide and had a very shallow concave profile no more than 0.05m deep.

Seven metres north of trackway ditch 1002 was a sub-circular pit [268], diameter 1.3m, depth 0.27m (Fig. 7). It had steep, almost vertical, sides that broke sharply to a flat base. It contained a single fill (267), which produced one sherd of early-mid-Saxon hand-built pottery.

Phase 4: Medieval Ploughing

WSW-ENE aligned furrows ran diagonally across the stripped surface of five of the ridges of the open-field system, and extended for a maximum distance of 20m into the excavated area from its western margin (Fig. 9). The widths of the furrows varied between 0.7m – 1.7m; their profiles were irregular, they were generally less than 0.1m deep and all contained a single sandy fill. A similarly-aligned shallow feature at the northwest corner of the excavation is also tentatively interpreted as a furrow of this phase. Sherds of twelfth-fifteenth century pottery were present in the fills of two of the furrows.

The furrows did not extend east of Saxon enclosure ditch 1001; either they had been obliterated by the ridge and furrow earthworks of the open-field system, or the enclosure ditch formed a relict boundary respected by this phase of ploughing. The truncation of the furrows by the earthworks of the open-field system or the use of the mid-Saxon enclosure ditch as an agricultural boundary later destroyed by the open-field system indicates that the furrows belong to a brief period of pre open-field system medieval arable activity. Evidence confirming that the mid-Saxon enclosure ditch may have remained in use during later periods was not recovered during the excavation.

Phase 5: Medieval Open-Field System

The open-field system was defined by extant ridge and furrow earthworks, which ran approximately east west across the site (Fig. 1). The alignment of the ridge and furrow earthworks and two sample profiles were recorded during the evaluation (Hancock 2005a). The distance between the tops of the ridges reduced from *c.*10m to *c.*7m south to north, and the distance between the base of the furrows reduced from *c.*12m to *c.*8m. south to north. The apex of the ridges generally stood *c.*0.6m above the base of the furrows at the west of the evaluated area, although they gradually reduced in height to *c.*0.2m adjacent to the Grand Union Canal. The ridge and furrow turned to run in a more southerly direction adjacent to Stoke Road. The change in orientation suggests that a plough headland lay a short distance west of the modern field boundary.

Phase 6: Post Medieval

One sherd of nineteenth century pottery was recovered from the fill (217) of a WNW-ESE aligned linear gully [216] located west of the centre of the excavated area (Fig. 2). It had a very shallow concave profile; its base lay only 0.05m below the stripped surface.

Unphased

Many of the undated features described in this section probably belong within the Saxon phase; some could originate with early Saxon dispersed settlement although most are probably fence lines and ephemeral post built structures located within the mid-Saxon enclosures.

A 17.6m long alignment of ten shallow post holes was present within Enclosure 1 and is interpreted as a fence line. There was a 7m gap between two of the post holes [137 and 155] which were accompanied by two offset adjacent post holes [139] and [251], perhaps suggesting an entrance way (Fig. 5). There was a 10m long alignment of four shallow post holes [198, 201, 203, 205] interpreted as a fence line, and two truncated and probably unrelated post holes or pits [200 and 207] south of SFB 1005 (Fig. 7). The differing orientations of the fence line and SFB could suggest that they were not contemporary. Other clusters of trun-

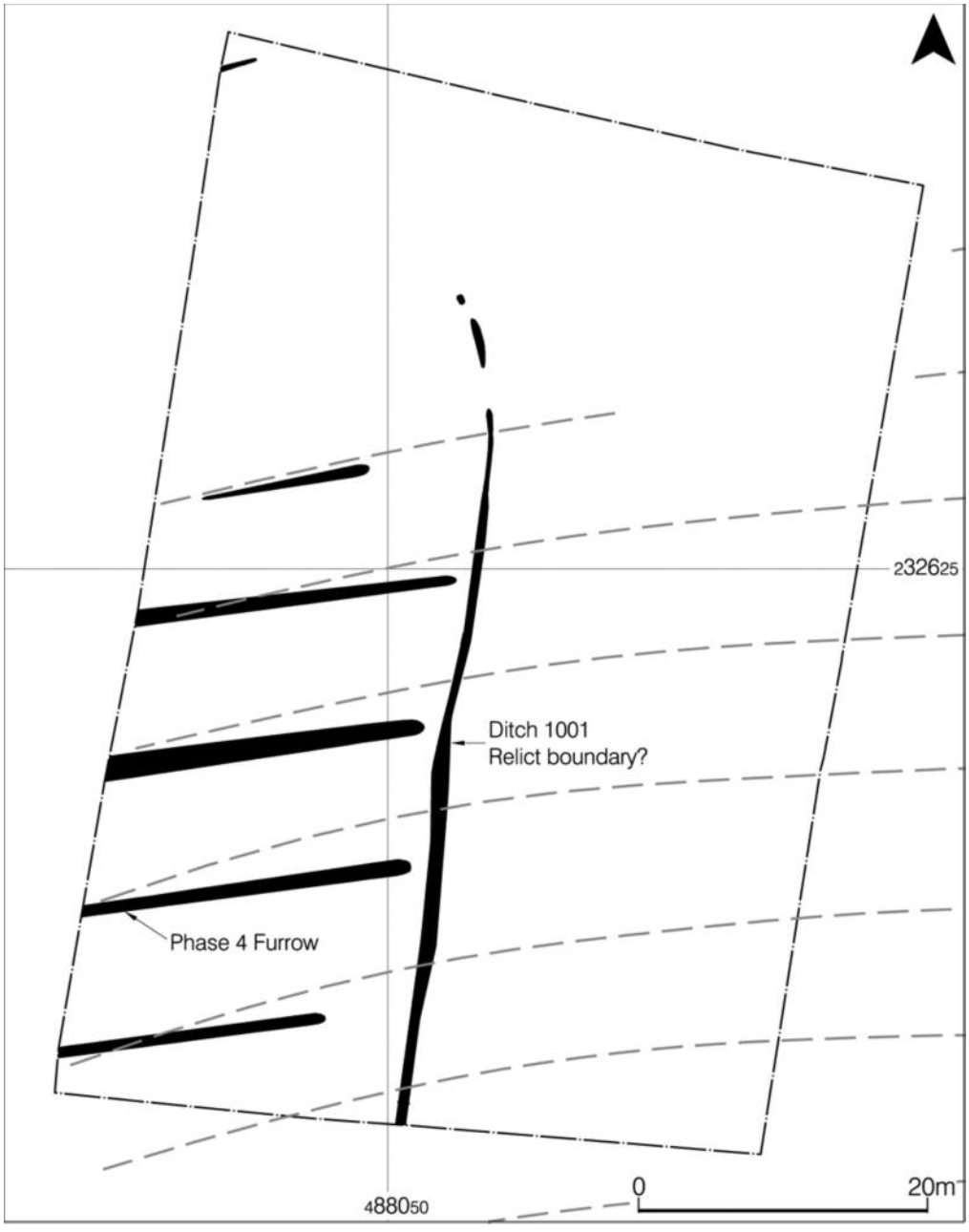

FIGURE 9 Phases 4 and 5

cated post holes or pits are evident but coherent patterning cannot be discerned.

Seven metres west of Saxon pit [268] was a sub-circular 1.4m × 1.1m undated pit [271]. It was 0.65m deep with steep sides that broke sharply to a flat base. It had a primary fill of dark grey clayey-silt (270) which was sealed by a mid yellowish-brown silty-clay (269). A shallower pit [133] with a 0.15m deep concave profile lay 0.6m north of pit [271]. Its fill (134) was a mid brownish-grey clayey-silt that included occasional charcoal flecks; a large sub angular stone had been placed at its base.

The Artefacts

Pottery

Summary of report by Paul Blinkhorn

The pottery assemblage recovered during the evaluation and excavation comprised 41 sherds with a total weight of 1371g. Late Bronze Age/Early Iron Age (LBA/EIA), Early – Mid Iron Age (EIA/MIA), Roman (RB), Saxon and medieval sherds were recovered. The terminology used in the following sections conforms to that defined in the Bedfordshire Ceramic Type series for the LBA/EIA and EIA/MIA pottery, the Milton Keynes Archaeological Unit type series for the RB pottery (Marney 1989) and the Medieval Pottery Research Group's *Guide to the Classification of Medieval Ceramic Forms* (MPRG 1998).

Fabric Descriptions

Prehistoric

F01A: off to medium fired, fairly harsh fabric, ranging in colour from buff through orange to grey-brown or dark grey. Cores may be various shades of grey. Inclusions are frequent, ill-sorted sub-angular flint, 0.4mm to 3.5mm, visible on the surfaces and in the jagged break, and frequent, medium sub-rounded to sub-angular quartz, 0.2mm to 0.4mm, occasionally ranging up to 1.0mm. Grog may be found rarely, giving the surface a soapy texture. Early to middle Iron Age (La Niece and Slowikowski 1999). 10 sherds, 102g.

FO1C: Patchy orange-buff-brown. Hard, very coarse and rough with an uneven fracture. Inclusions are frequent, poorly-sorted, milky, sub-angular quartz, 0.3mm to 2.5mm; moderate amounts of poorly-sorted, white, angular flint, 0.5 to 2.5mm. Late Bronze Age or early Iron Age (La Niece and Slowikowski 1999). 2 sherds, 64g.

Roman

Fabric 1a: Shelly ware. 1st – 4th centuries. 5 sherds, 88g

Fabric 2a: Clay pellets. Later 2nd – 4th century AD. 1 sherd, 65g

Fabric 28: Local greyware. 2nd century AD. 1 sherd, 5g.

The fabrics are all very common finds in the Milton Keynes region.

Early/Mid-Saxon

F1: Granite. Sparse to moderate sub-angular granite up to 2mm, free flakes of biotite mica and dense, fine, sub-angular quartz inclusions < 0.5mm. 2 sherds, 48g.

F2: Sandstone. Sub-angular lumps of sandstone up to 2mm, some with ferrous cement, free quartz grains up to 1mm, rare to sparse sub-rounded calcareous material up to 2mm. 2 sherds, 27g.

Middle Saxon

Fabric 95: Group 1 Ipswich ware. Hard and slightly sandy to the touch, with visible small quartz grains and some shreds of mica. Frequent fairly well-sorted angular to sub-angular grains of quartz, generally measuring below 0.3mm in size but with some larger grains. Slow-wheel made ware, manufactured exclusively in the eponymous Suffolk *wic*. Probably *c.* AD725 – 850 at sites outside East Anglia. 1 sherd, 67g.

Fabric 97: Maxey-type ware: Wet-hand finished, reddish-orange to black surfaces. Soft to fairly hard with abundant fossil shell platelets up to 10mm. Vessels usually straight-sided bowls with upright, triangular, rim mounted, pierced lugs. Generally dated AD650 – 850 (*e.g.* Hurst 1976). 14 sherds, 887g.

Medieval

MC1: Shelly Coarse ware. AD1100–1400. 2 sherds, 18g.

Results

Prehistoric

Twelve sherds, representing three vessels (166g), of coarse flint-tempered pottery, with fabrics analogous to F01A and F01C of the Bedfordshire Type Series, were recovered. The fabrics are atypical of the majority of prehistoric pottery from Milton Keynes which is more frequently shell tempered (Williams 1993). Two LBA/EIA sherds from the upper fill (143) of a recut [144] of the ditch of Enclosure 1 are residual. Two EIA/MIA sherds from the fill (199) of post hole [198] are also residual. However, one base sherd with a flat profile, one rim sherd and an undiagnostic body sherd from pit [214] are unabraded and suggest an EIA/MIA *terminus post quem* for this feature (Fig. 12: 1).

Roman
Eight sherds of RB pottery were recovered. All are residual.

Early/Mid-Saxon
Four sherds of undecorated early/mid-Saxon handbuilt-ware in fabrics typical of the region were recovered. This type of pottery was used between *c.*AD450 – 850 and it is impossible to further refine its dating. One of the sherds of handbuilt pottery was recovered from the upper fill (92) of pit [89] and one sherd was recovered from pit [268]. These sherds were unabraded and provide broad *termini post quem* for the two pits.

Middle Saxon
Fourteen sherds of Maxey Ware, AD650 – 850, were recovered from excavated features. Four large rim sherds of bar-lug vessels were present and are characteristic of the tradition in this region (Fig. 10: 2). All of the Maxey Ware sherds were largely unabraded and appear to be primary deposits. A single unabraded sherd from the base of an Ipswich Ware vessel was recovered from ditch 1000. This type of Saxon pottery is dated AD725 – 850 at sites outside East Anglia (Blinkhorn1999. Blinkhorn in prep) and provides a *terminus post quem* for this ditch.

Medieval
Two sherds of Shelly Coarse ware, AD1100 – 1400, were recovered from the fills (24, 85) of two of five plough scars located on the stripped surfaces of the ridges of the medieval open-field system. The sherds provide *termini post quem* for these agricultural features.

Discussion
The sherd of Ipswich ware is worthy of note. It is one of a small number of finds of such pottery in the Milton Keynes area, with the biggest group coming from Pennyland (Blinkhorn 1993). Small assemblages have also been noted at Wolverton Turn (Blinkhorn 2007) and Westbury-by-Shenley (Hurman and Ivens 1995, 240). It shows that a number of settlements in the area were linked into the trade routes of the emporium at Ipswich. This site, with its extensive field boundaries, has parallels with Pennyland, and it may be that it represents another example of a possible stock-rearing centre, which was producing meat in sufficient quantities for trade (Blinkhorn 1999).

Loomweights
By Alastair Hancock

A complete fired-clay loomweight (Fig. 10: 3) and one near complete clay loomweight (Fig. 10: 4) were recovered from the fill of post hole [67], apparently reused as post packing. A small fragment of another clay loomweight was recovered from the same posthole (Fig. 10: 5). The following discussion use the classifications proposed by Hurst (1959, 23–25), who defined an "intermediate" loomweight as having a clay ring of greater diameter than the diameter of the central perforation.

The loomweights are made of poorly-fired clay containing rare angular flint inclusions. The surfaces are buff/red-orange/brown and the fragmented examples exhibit black cores. The complete loomweight is an intermediate form with an external diameter of 115mm, the diameter of the central perforation is 43mm and its weight is 377g. The near-complete loomweight is also an intermediate form with an external diameter of 115mm, the diameter of the central perforation is 38mm and its weight is 237g. The cross sections of the weights do not compare easily with those shown by Hurst (1959, 23–25). For example, the exterior of the complete weight has been hand smoothed into a form that lies somewhere between mid-Saxon intermediate and late Saxon bun shaped. The near complete weight is very crudely finished and its cross section bears limited similarity to the typological example (*ibid,* 24).

Hurst's (1959) typological dating of loomweight suggests that annular = early, intermediate = mid and bun shaped = late Saxon. Secure typological classification of swiftly made utilitarian objects such as loomweights is difficult, although a mid-Saxon date is suggested.

Building Material
By Alastair Hancock

One fragment of possible limestone roofing tile and six fragments of residual Roman fired clay tile were recovered during the evaluation and excavation. The fabric classifications are in accordance with Zeepvat (1987, 119–20).

A 115mm × 90mm and 12mm thick (284g) laminar fragment of sandy, calcareous limestone roofing tile(?); possible remnant of nail hole along

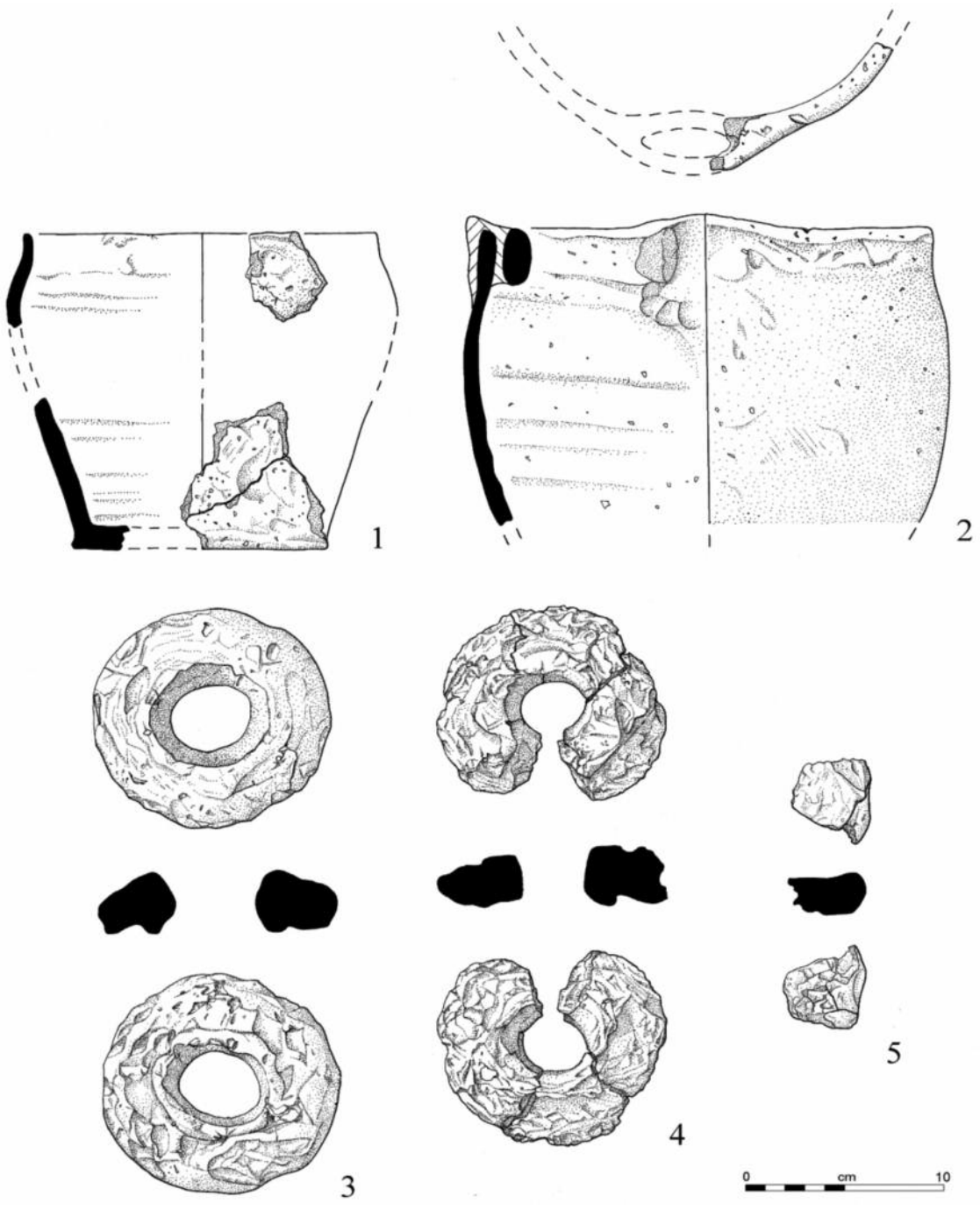

FIGURE 10 Early-Mid Iron Age Pot (1); Saxon Bar Lug Pot (2) and Saxon loom weights

one broken edge. Recovered from fill (08) of enclosure ditch 1000. A 170mm × 140mm and 30mm thick (1120g) fragment of *Bessalis, Pedalis* or *Lydion* hypocaust pila tile was recovered from the surface of trackway ditch 1003 during the evaluation (Trench 17). It had a red-orange oxidised surface and a dark grey core that approximates to Milton Keynes Fabric 2. A 90mm × 75mm and 15mm thick fragment of RB tile exhibiting slight curvature (*imbrex?*) and an orange oxidised outer fabric with a dark-grey core approximating to Milton Keynes Fabric 2 was recovered from fill (04) of enclosure ditch 1000. A 90mm × 70mm and 15mm thick (157g) fragment of RB shell tempered tile (*imbrex?*) with red-orange surface and buff core consistent with Milton Keynes Fabric 1, was recovered from fill (40) of pit/posthole [39]. A 110mm × 50mm and 25mm thick (159g) fragment of the raised flange of a *tegula* in a shell-tempered fabric with red-orange surface and buff core consistent with Milton Keynes Fabric 1, was recovered from the surface of fill (84) of gully 1008. A 70mm × 70mm and 22mm thick (184g) fragment of RB shell-tempered tile (*tegula?*) with pale orange surface and buff core consistent with Milton Keynes Fabric 1, was recovered from fill (16) of enclosure ditch 1001. A 70mm × 50mm and 14mm thick (63g) fragment of RB tile exhibiting slight curvature (*imbrex?*) and an orange oxidised outer fabric with a reduced dark-grey core consistent with Milton Keynes Fabric 2, was recovered from fill (197) of furrow [196].

The Environmental Evidence

Summary of report by Gemma Martin and James Rackham

A program of bulk environmental sampling was carried out during the excavation. A sub-sample of eight of the bulk samples was sent for archaeobotanical assessment. A small assemblage of animal bone was recovered by hand during the excavation and was also assessed alongside further bone recovered from the bulk environmental samples.

Archaeological Finds

Twenty-eight small sherds of undiagnostic pottery were retrieved from the bulk samples. The greatest quantity was recovered from samples <1> and <11>, respectively collected from the fills of pit [89] and the upper fill (143) of a recut [144] of the ditch of Enclosure 1. A small fragment of green, vesicular, probably ancient, glass was also present in sample <11>.

Charcoal

Small and fragmentary examples of charcoal were present in all of the bulk samples although particularly abundant in the upper fill (143) of a recut [144] of the ditch of Enclosure 1, a fill (64) of the ditch of Enclosure 2, and fills of pits [89] and [214].

Technological Residues

A small quantity of magnetised sediment, ironstone and slag was present in five samples. A small amount of hammerscale was present in sample <6>, collected from a fill (48) of trackway ditch 1003 [47], but the greatest concentration of hammerscale and smithing slag, including a single spheroidal example, was present in sample <9> collected from a fill (58) of trackway ditch 1002 [57].

Charred Plant Material

A small amount of charred plant material was present in all eight samples. Unfortunately, overall preservation was poor, and identification to species level was problematic. The majority of the charred material consisted of cereal grains, predominantly wheat (*Triticum* spp), with several possible examples of bread wheat (*T. aestivum*). Barley (*Hordeum* spp.) and possible oat (cf. *Avena* spp,) also present in three flots. Two fragments of chaff from a glume wheat species were present in sample <11>, collected from the upper fill (143) of a recut [144] of the ditch of Enclosure 1.

The weed seeds provide limited ecological information; in most cases, no more than two seeds per species (including buttercup, goosefoot, orache, knotgrass, dock, mallow, plantain/madder, bedstraw, stinking mayweed, sedge and small grass) were present.

Molluscs

A small assemblage of terrestrial snail shells was recovered from four of the samples. The identified taxa, particularly from the primary fill (90) of pit [89], included *Vallonia pulchella*, *Vallonia excentrica*, *Vertigo pygmaea* and *Trichia hispida* and *V. pulcella* and indicate an open, slightly damp, grassland environment.

Animal Bone

A small assemblage of 86 animal bones was recovered by hand during the excavation and a further 278g was recovered from the bulk samples. Identification indicated that the predominant domesticated species were cattle then sheep/goat. One fragment of a male goat horn-core was recovered from fill (04) of the ditch of Enclosure 1. The sheep/goat bones were almost exclusively from adult animals, whilst the cattle bones were from both immature and adult animals. A dog mandible from a fill (64) of the ditch of Enclosure 2 was from a large, robust animal. Other species identified include horse, pig, chicken and oyster although these species may have played a minor role in the occupants' diet. Butchery was evident in the form of knife-cut marks on several bones and dog gnawing was also evident on a small number of the bones. The remains of a house mouse were present in sample <6> collected from trackway ditch 1003, other natural fauna of the area included shrew, small bird, frog or toad and snake.

Discussion

Artefacts and ecofacts were particularly sparse in the earliest feature in the sample group – an EIA/MIA pit [214]. The sample yielded a single possible wheat grain, along with a moderate quantity of comminuted charcoal and four undiagnostic fragments of flint-tempered pottery. The hammerscale and small amount of smithing slag, recovered from trackway ditches 1002 [57] and 1003 [47] illustrate that iron smithing was carried out within the Saxon settlement. The snail assemblage, although small, suggests an open grassland environment. The remains of a house mouse in sample <6> are indicative of the presence of nearby buildings and it is noted that the sample was collected in relatively close proximity to SFB 1005. Sample <4>, which was collected from the SFB, was particularly disappointing, only four poorly-preserved cereal grains and one grass seed were present. Despite the generalised cereal identifications, those recovered appear consistent with Saxon activity, as hulled barley (*Hordeum vulgare* L.) and bread wheat are amongst the principal crops during this and the later medieval period. Domesticated oats (*Avena sativa* L.) also emerge as an important crop from the Saxon period onwards. The cultivation of glume wheats such as spelt and emmer peters out by the Saxon period. It is unclear whether the two identified fragments of glume wheat chaff are residual material incorporated into the fills of later features or if a small amount of this species may have persisted as a contaminant in Saxon crops. The plant remains are indicative of preparation for consumption rather than the earlier phases of crop processing. However, the recovered assemblage was too limited to truly define the economic strategies employed by the inhabitants of the settlement or to successfully characterise the local environment.

Conclusions

The presence of a single truncated EIA/MIA pit and a small assemblage of residual prehistoric artefacts suggests that activity of this period may be consistent with pastoral use of the area as suggested by excavation of an EIA/MIA enclosure located *c.*1km to the southwest (Edgeworth 2006). A scatter of residual Roman pottery and clay tile could indicate that the excavated area was manured and in arable use during this period. The large fragments of tile may suggest that some of the manure was transported to the site from Magiovinium, although it could derive from the site of a building located in closer proximity to the excavated area

Settlement was definitively established here during the mid-Saxon period. Unphased post holes, pits and feature 1007, which was cut by the ditch of mid-Saxon Enclosure 2, could indicate dispersed early Saxon settlement. However, diagnostic fifth-seventh century artefacts were not recovered and it seems probable that many if not all of the unphased features are contemporary with the enclosed mid-Saxon settlement. Ceramic finds show that the ditch of Enclosure 1 was infilling AD725 – 850 and the ditches of Enclosure 2 and the trackway were infilling *c.*AD650 – 850. The layout of the enclosure ditches indicates that the main part of the settlement was probably located west and north of the area excavated. A small amount of tentatively identified evidence, such as the blocking of the trackway entrance, indicates reorganisation of the enclosure layout and some continuity of settlement. Hamerow (2002 54) and Reynolds (2003) have proposed categories of Anglo Saxon settlement based on form and size of enclosed area. Unfortunately, insufficient was revealed by the excavation to allow such characterisation.

Structural evidence was limited. Substantial post

holes were absent and it seems probable that if post built buildings were present, they lay beyond the excavated area. The excavated sunken-featured building adds little to the debate concerning the varied form and function (Tipper 2004) of this type of structure due to damage caused by the ridge and furrow of the later open-field system.

Tentative conclusions are possible regarding the economy and environment of the Saxon settlement. The presence of hammer scale and a small amount of smithing slag in the fills of the trackway ditches shows that a smithy was present. The fired clay loomweights illustrate that weaving was also taking place. Little evidence of early stages of crop processing was discovered; this absence combined with the presence of cattle and sheep bone and the tentatively interpreted open grassland environment, could indicate that the enclosures delimited areas of infield pasture. The proximity of the settlement to the river Ouzel is consistent with the riverine focus of other mid-Saxon settlements within the Milton Keynes area (Williams 1993 215) and is analogous to the pattern noted by the Raunds Project in Northamptonshire (Parry 2006, 94). The trackway leading from the settlement toward the river could illustrate use of the floodplain for seasonal grazing and conditions may have been particularly suitable for cattle rearing if part of the floodplain was managed as hay meadow, as has been suggested at Yarnton, Oxfordshire (Hey 2004, 47). However, the evidence is too fragmentary to truly determine either the settlements immediate environment or to put the case for specialised production of surplus livestock for trade, as has been proposed for a number of contemporary sites including Pennylands (Blinkhorn 1999). Nonetheless, the recovery of a sherd of Ipswich ware does indicate that the settlement was perhaps integrated into the eighth-ninth century trade routes of the emporium at Ipswich.

The absence of late Saxon artefacts indicates that the settlement was abandoned by the late ninth century. Its inhabitants may have relocated 300m northward to the site of the late Saxon and medieval village of *Etone*. The reasons for relocation are unclear although *Etone* may have been more attractive because it was close to an established crossing over the river Ouzel and near the site of a precursor to the watermill recorded by the Domesday Survey. The area of the abandoned settlement may have been used as pasture in the late Saxon and early Medieval periods until brought under the plough during the twelfth-thirteenth centuries. One of the mid-Saxon settlement's enclosure ditches may have formed a relict boundary respected by the ploughing for a short time until the area was incorporated into the open-field system of *Etone* sometime during the thirteenth-sixteenth centuries.

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