

A LATE IRON AGE AND ROMAN SETTLEMENT ON LAND AT COLLEGE ROAD, ASTON CLINTON

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Illustrations by Izabella Jurkiewicz and Amir Bassir

A late Iron Age into Roman farmstead was examined in two adjacent areas (A and B) ahead of proposed development of a dairy facility. The settlement was established in the 1st century BC and was abandoned by the late 4th century. Initially the site comprised small enclosures which were defined by shallow ditches. Later enclosures became more formalised, defined by large ditches, and in this phase there were at least three timber buildings. The principal livestock produced on the site would have been cattle with small numbers of sheep and horse. A small localised area of cultivation ditches, probably for soft fruit or vegetables was found in Area A and this is of likely late Iron Age or early Roman date. Two distinct clusters of burials of 1st to 2nd-century AD date were excavated: together they comprised ten inhumations and three cremations.

Following the abandonment of the farmstead, a furlong boundary created by ploughing within the medieval open fields accentuated an existing ridge. This earthwork formed part of the parish boundary between Buckland and Aston Clinton.

INTRODUCTION

Excavations by Northamptonshire Archaeology (now MOLA Northampton) took place on land to the east of College Road, Aston Clinton, Buckinghamshire between November 2011 and February 2012 (NGR SP 877 135; Fig 1). The work comprised two separate areas of excavation, collectively 1.95ha in size. These were examined within a wider 55ha development area. The archaeological work was undertaken on behalf of Prospect Archaeology for Arla Foods, which had been granted planning permission to construct a dairy facility and associated works. The excavation followed on from a desk-based assessment (Rosenberg 2010), geophysical survey (Clements & Smith 2010) and subsequent trial trench evaluation (Walker & Maull 2011; Burke 2012). The evaluation work identified an area of Iron Age/Roman activity in the south-eastern part of the site which resulted in the Buckinghamshire County Council Archaeological Advisor stipulating the areas to be excavated. Assessment and

archive reports were produced after the excavations took place (Simmonds & Walker 2013; Simmonds 2015).

The site straddled the route of the Lower Icknield Way (a track which is thought to have prehistoric origins), with the main Icknield route located c.3km to the south-east. The course of the Roman road of Akeman Street, between *Verulamium* (St Albans) and Bicester, was close by with the pre-bypass route of the A41 being on its former alignment, c.1.5km to the south-east of the site. Several archaeological investigations have taken place in recent years in the area around the site including for the A41 bypass and these have found a number of Iron Age and Roman farmsteads which are comparable to the present excavations at College Rd (see Discussion).

The development area was situated in the Vale of Aylesbury at the base of the sharp inclined slopes of the Chilterns. Prior to the investigations the land had comprised rectangular fields defined by hedges and ditches, within which both arable and pasture farming had occurred. The development

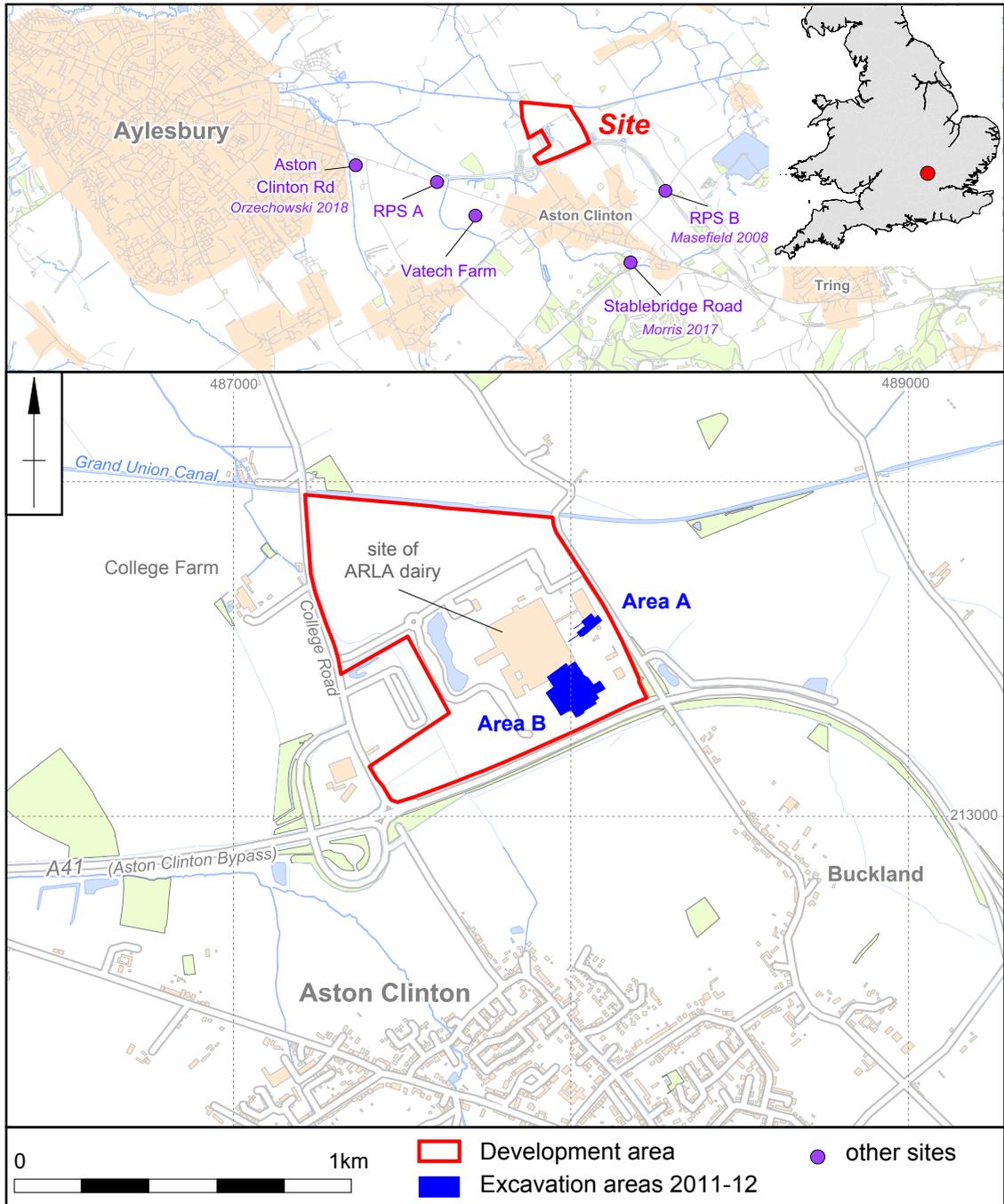


FIGURE 1 Site location



FIGURE 2 All features plan with relevant trial trenches located

area was bounded to the south by the A41 Aston Clinton bypass, to the west by College Road North and to the north by the Grand Union Canal. Open fields lay to the east, separated from the development area by Buckland Road.

The excavation sites were situated in the south-western corner of the development area on flattish ground at 88m aOD in Area A, rising southwards to approximately 89.5m aOD in the centre of Area B and then falling away to 88.5m aOD at the south-eastern extent of the area.

Bedrock geology has been mapped as consisting of mudstones, sandstones and limestones of the Gault and Upper Greensand formations (BGS 2019; Clements & Smith 2010). Following the excavations, a more detailed assessment of the geology was undertaken by Dr Michael J Allen, as it became clear that the topography and geology was a major influencing factor regarding the form and character of the Iron Age and Roman activity.

The author would like to thank Nansi Rosenberg who organised the project. Eliza Alqassar monitored the project on behalf of the local authority. This project was managed by Ant Maull and Adam Yates. Fieldwork was directed by Carol Simonds with site work carried out by Adrian Adams, Jim Burke, Chris Chinnock, Samuel Egan, Jonathan Elston, Peter Haynes, David Haynes, Laszlo Lichtenstein, Simon Markus, Rob Smith, Peter Townend and Simon Wood. Rob Atkins edited this publication report with proof reading by Claire Finn, Nansi Rosenberg and Stephen Parry.

The project archive is held by Buckinghamshire County Museum under the code AYBCM: 2010.223.

GEOARCHAEOLOGY

by Michael J. Allen

Calcareous marl and periglacial outwash channels

The main calcareous marls are deep deposits of glacial date, probably late Devensian, which seal extensive portions of this landscape and do not seal or contain archaeology, except in their uppermost facies where they have been re-worked in Holocene times. These deposits were profiled in the lowest part of the landscape and form two very large and almost totally infilled periglacial outwash channels at least 4m deep. Although largely infilled, they

can still be seen as slight topographical features running either side of the ridge.

Holocene channel

The glacial or periglacial channels give rise to shallower Holocene channels, particularly on the east side of the site, shown by an extent of greyish calcareous alluvium to the east of the occupation deposits (Fig 3). The channel was at least 2m deep, and differentiating between Holocene and late glacial deposits was difficult, but the former was considered to be at least 1.3m deep. Pottery and charcoal (the latter presumably derived from Roman settlement) was present near the base of the deposit at nearly 2.4m depth (from the stripped surface).

The calcareous marl is a slow water deposit, and represents a wide, slow-flowing, gradually silting channel. In its later phases it was prone to drying out, then soil formation, followed by rapid inundation of that soil by channel silts and a final phase of wetting and drying in its latter phases, as ultimately a deep soil formed over and in the infilled channel. In the upper parts slightly humic infills were seen, derived from the settlement, and were almost reminiscent of tip lines. This may suggest an expanding or shrinking lagoonal area in the Roman period, into which occupation deposits were slipping. This indicates that the Roman profile and topography was much more acute than the subtle rise seen today and that the ridge was a far more prominent feature flanked by seasonally if not permanent swampy conditions.

It is likely the ponds/wet areas on the eastern side of Area B throughout its use in the late Iron Age and Roman periods were localised areas of infilled Holocene channels (Fig 2).

Rural dark earth deposits

Occupying the ridge, now seen to be a routeway flanked by wetter deposits in the Roman period, was a large extent of moderately thick (180-240mm) rural dark earth, midden and occupation deposits. This deposit can be paralleled at an increasing number of late prehistoric to early medieval sites in southern England, and was the consequence of rural occupation and possibly of the demise of daub walled buildings and occupation debris (Fig 15).

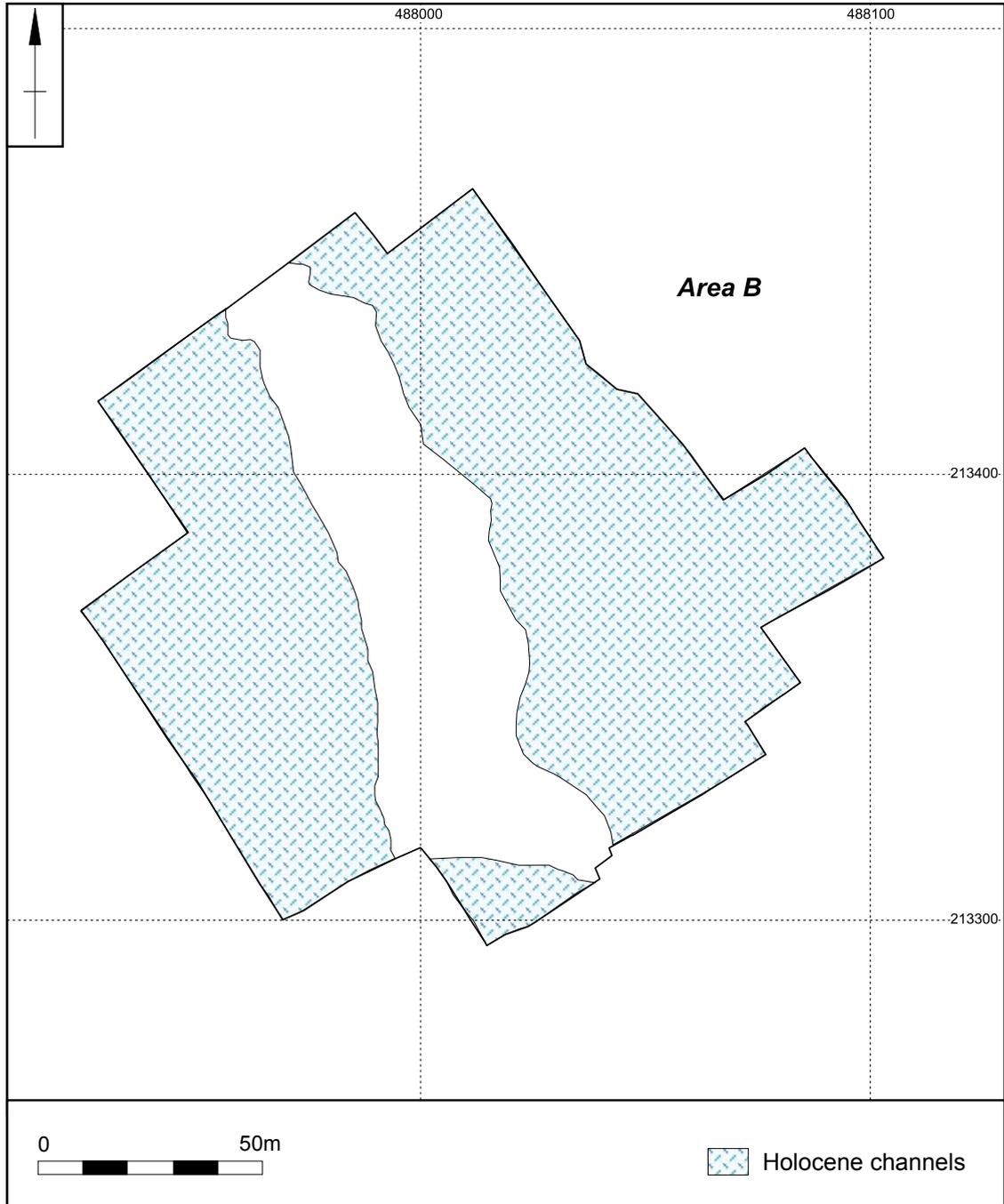


FIGURE 3 The Holocene channels and excavation areas

SUMMARY OF SITE CHRONOLOGY

Occupation developed initially during the late Iron Age. It was superseded by an enclosed rural settlement with periods of expansion between the 1st to 2nd centuries AD followed by a period of contraction and abandonment in the 4th century (Table 1; Fig 2). The features recorded comprised ditches defining enclosures and other boundaries, buildings, pits and postholes. Unless otherwise stated, the majority of the ditches had asymmetrical U-shaped profiles and the fills were brown-grey silty clays with chalk flecks.

PERIOD 1: LATE IRON AGE AND EARLY ROMAN ENCLOSURES AND CULTIVATION (late 1st century BC – middle 1st century AD)

The activity of the late Iron Age to early Roman periods within both excavation areas was seemingly agricultural. There were up to three phases of activity in Area A but only two in Area B, though none of these sub-phases seemed to have lasted for any significant period of time. Each of the three sub-phases of activity in Area A seems to have been very different and implies the land-use varied significantly. Relatively small quantities of artefacts and ecofacts were recovered, suggesting that occupation was nearby but probably not within the excavation areas in this period (Fig 4).

First sub-phase (late Iron Age)

The earliest phase seems to have comprised shallow ditches (and a few shallow pits) which did not in themselves produce a clear plan of activity or land use. In Area A there was a pit up to 0.20m deep as well as two ditches aligned north-west to south-east some 35m apart. The more substantial of the two ditches (D1), 1.1m wide and 0.34m deep, was recorded for more than 40m. Small quantities of Iron Age pottery were recovered.

Area B contained possibly 12 ditches which were aligned north-west to south-east or at right angles to this. These features were poorly defined and only survived for relatively short distances, with some ditches overlapping each other which may suggest they had been recut. The ephemeral and truncated nature of the ditches meant it was uncertain what they represented; possibly they were parts of minor field boundaries but no coherent plan has been obtained. There were two possible pits also recorded within the area, including pit [9098]. This was 1.65m in diameter and 1.43m deep. It contained 0.91kg of late Iron Age pottery and small quantities of animal bone including horse, sheep and cattle.

Second sub-phase (late Iron Age to early Roman)

The first sub-phase was followed later in the Iron Age by four enclosures, presumably to manage livestock. This second sub-phase comprised conjoining enclosures E1 and E2 in Area A and enclosures E3 and E4 in Area B.

TABLE 1 SUMMARY OF SITE CHRONOLOGY

<i>Period</i>	<i>Date</i>	<i>Key features</i>
1. Late Iron Age/early Roman	1st century BC to middle 1st century AD	Land division and creation of enclosures
2. Early Roman enclosure	Late 1st to early 2nd centuries AD	Enclosures, timber structures and burials
3. Middle Roman	2nd century AD	Land reclamation, redefinition and expansion of enclosures, further burials
4. Middle to late Roman enclosure and paddocks	Late 2nd to late 4th centuries AD	Re-organisation and contraction of enclosures
5. Abandonment	Late 4th-century AD	Midden and occupation layers
6. Medieval +		Parish boundary, ridge and furrow Post-medieval pasture

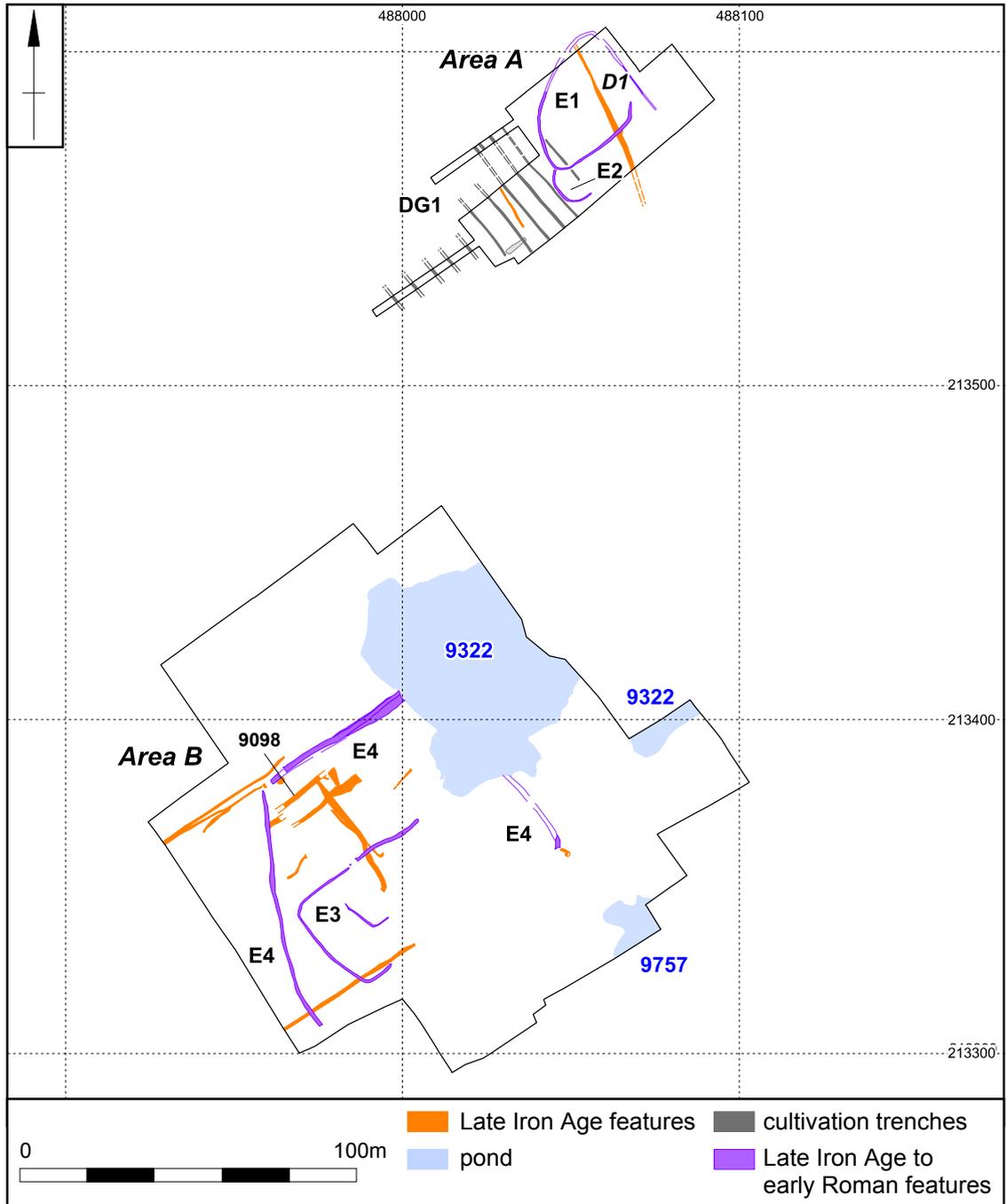


FIGURE 4 Period 1: Late Iron Age and early Roman activity

Enclosure E1 lay largely within the excavation area (Fig 4). The enclosure was roughly oval in plan and encompassed an area of at least 572m², measuring 33m by 28m north-east to south-west. It was defined by a ditch that measured up to 0.88m wide and 0.30m deep. Enclosure E2 was joined to E1 on its south-western side and encompassed a 66m² area measuring 7m north-west by 12m south-east. The gully measured 0.60m wide by 0.39m deep. These two fragmentary enclosures probably had entrances on their eastern or south-eastern sides.

In Area B were the remnants of enclosure E3, which was probably roughly rectangular in plan and measured at least 45m east to west by 30m north to south. Three sides of this enclosure were visible, the eastern and south-eastern sides being lost to later truncation. The ditch defining the enclosure was up to 0.62m wide and 0.29m deep. The access points for the enclosures, particularly in Area B (E3 and E4) respected the natural topography, utilising the ridge line which sat proud of the water table. There was a narrow entrance, c.3m wide, in the north-western arm of enclosure E3, defined by two opposing gully terminals. The entrance was likely gated, as a small circular post-hole lay near the western terminal.

Beyond enclosure E3 were other ditches to the north and west. These may be interpreted as either a larger trapezoid-shaped enclosure (E4) or an L-shaped boundary at least 70m north to south by 65m east to west. This possible larger enclosure was defined to the west by a ditch, 0.57m wide and up to 0.34m deep. The eastern portion of the enclosure ditch had been affected by continuous re-cutting later in the Roman period. The northern arm terminated at or respected the western side of pond [9322]. A narrow entrance, defined by two opposing terminals at the north-western corner, was c.3.5m wide. It is also likely that there was an access point from the south, although later truncation had destroyed this.

Pond [9757], located in the southern part of the area, may have formed a boundary to the Iron Age to the mid-1st century AD enclosures, although as the majority of finds were grog tempered wares dating from the late Iron Age it is clear that this area was being infilled at this date.

Third sub-phase (early Roman?)

In the western part of Area A was a localised area

of parallel cultivation trenches, probably dating to the 1st century AD (Fig 4). The twelve features, aligned north-west to south-east, were spaced on average at 6m intervals. The easternmost trench lay within former enclosures E1 and E2. It is likely that this group of trenches, DG1, occupied a small area encompassing no more than 0.35ha, measuring 42m north to south by 67m east to west, as similar features were absent in the evaluation trenches to the north and west (Walker & Maull 2011).

The DG1 trenches were between 0.29m and 0.90m wide and up to 0.51m deep, and the majority had well defined flat bases with near-vertical sides, a few having splayed weathered sides. Small amounts of heavily abraded pottery sherds dating to the 1st century AD, totalling 64g were recovered from the trenches presumably deposited during manuring of the cultivated crops.

PERIOD 2: EARLY ROMAN ENCLOSURES (late 1st–early 2nd centuries AD)

From the 1st century AD the evidence indicates that settlement developed within Area B; Area A was devoid of archaeological features of this period (Fig 5). This period can be divided into two sub-phases. In the former there seems to have been a large sub-rectangular enclosure (E5) with internal divisions. The enclosure encompassed at least 0.80ha and was situated on the slightly higher ground at 89–89.5m aOD.

The later sub-phase, dated to around the early 2nd century, is represented by the alteration and sub-division of E5. It is only in this sub-phase where domestic and other structures were uncovered including parts of three buildings and two small, separate groups of burials.

Sub-phase A

A possible large enclosure (E5) was roughly rectangular in shape, c.100m long by at least c.80m wide. Its enclosure ditch survived in three separate locations in the excavation area and a large pond [9322] may have partly formed its eastern boundary. The enclosure ditch survived best in the north-western corner where it was up to 1.30m wide by 0.96m deep. Internally E5 seems to have been sub-divided in the northern part by a ditch aligned north-east to south-west, at right angles to E5's western side. This ditch was fragmentary and

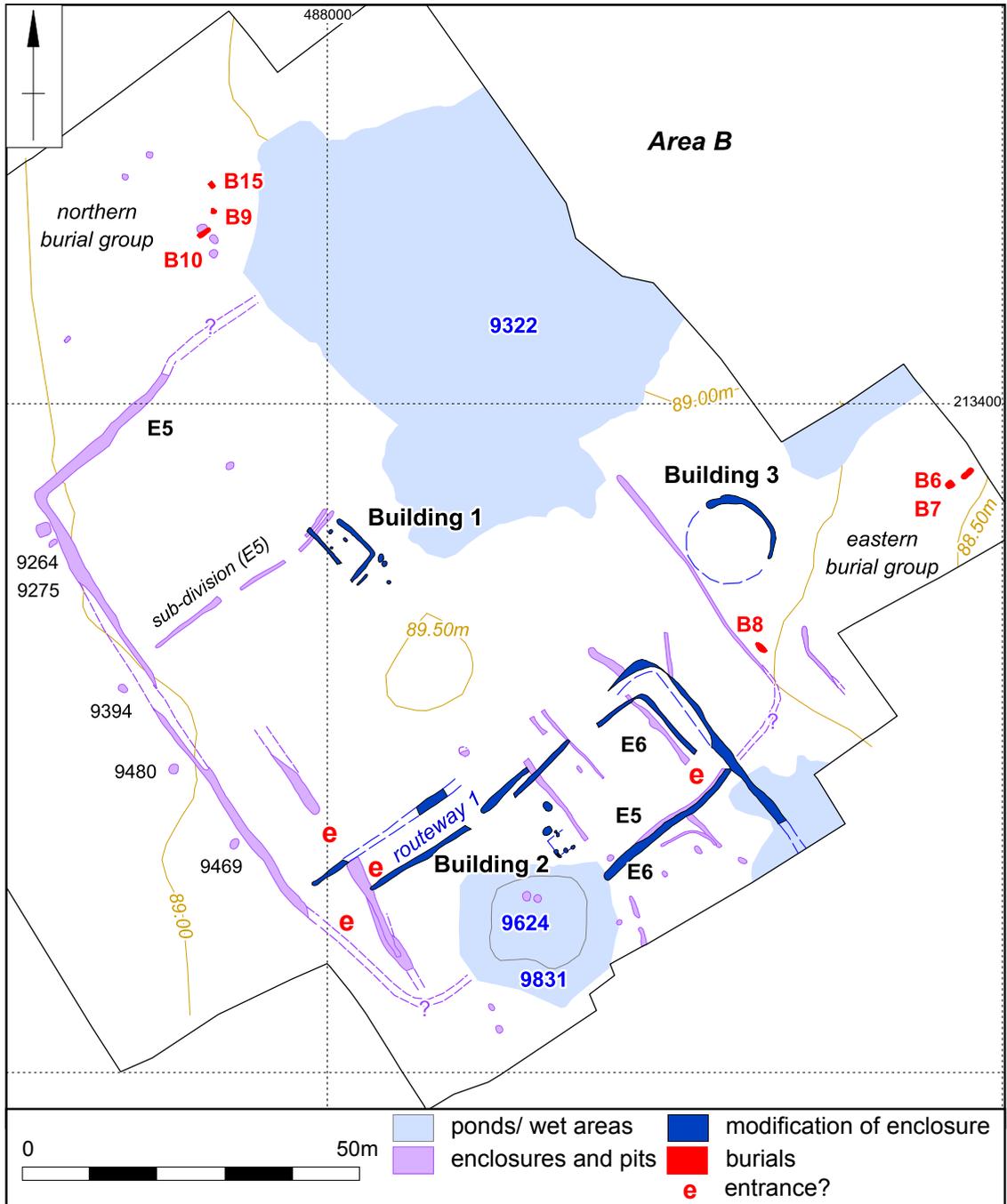


FIGURE 5 Period 2: Late 1st to early 2nd century AD settlement

survived in three sections over a 35m distance.

A ditch located within the enclosure's south-western side was parallel to and 8m to the north-east of the western boundary ditch of E5. It was recorded over a distance of 61m, and had a 9m-wide entranceway. In the south-eastern part of E5 and perpendicular to the enclosure ditch were at least five ditches, mostly aligned north-west to south east over a c.30m by 25m area. While they did not form a coherent plan, these ditches may have been remains of small plots or pens. More ephemeral ditches, one of which started at or butted up to E5 on its southern side, and three pits lay directly to the south of E5: these may have been fragmentary remains of further plots/pens (Fig 5).

Sub-phase B

Around the turn of the 2nd century AD a major reorganisation occurred. It is uncertain whether the majority of enclosure E5 continued in use: certainly at least one of its former sub-divisions went out of use, to be replaced by a building. Two other buildings may also have been constructed in this sub-phase and there was also evidence that people were being buried within the settlement for the first time.

Building 1

This was a rectangular timber building with an associated ancillary structure, constructed within the northern part of enclosure E5. Building 1 cut the former sub-division ditch of E5 and was isolated with no other contemporary feature within 30m of it (Figs 5 & 6).

Building 1 was aligned north-west to south-east, c.10m long and 5m wide. It was formed of slots on three sides; the north-western end was left open, with a posthole, [9424], perhaps forming a door post or roof support. A second entrance may have been located in the south-western corner although later features had severely truncated this area. The slots were between 0.30m and 0.70m wide and 0.18m deep with rounded profiles. The slots did not contain any surviving stone or wood and the fills generally comprised brown loamy clay. The pottery from the fills of this structure generally comprised grey wares though imported wares including samian were also present. This suggests either that the building had a domestic function or that the area was used for the deposition of domestic waste.

Within building 1 were two circular postholes [9420] and [9426], 0.28m-0.47m in diameter and up to 0.18m deep. Although the posts or post-pipes were not present each posthole had packing stones at the base. The postholes may have supported internal divisions for the building.

The ancillary structure was located 2m to the south-east of the main building. It was at least c.4m long, north-east to south-west, by c.4m wide. The walls were evidenced by a gully [9524] 2.0m long, 0.35m wide and up to 0.14m deep, and a circular posthole [9462], 0.40m diameter and 0.14m deep (Fig 6). The structure appears to have had an open north-western side. The function of the building and associated structure is uncertain as there was no evidence for hearths or other features related to domestic occupation. Building 1 was dated to the 1st to 2nd centuries AD on ceramic evidence.

Enclosure E6, building 2, pond [9624/9831] and routeway 1

Enclosure E5 was redefined on the southern part with a rectangular enclosure, E6, which was 57m east to west by at least 35m north to south. The ditches of E6 were of a similar size to those of E5, being largely 1.0-1.50m wide by up to 0.57m deep. An assemblage of 194 pottery sherds (3.4kg) dating to the 2nd century AD was found within the ditch. An environmental sample (Sample 49) produced a large quantity of charred cereals and moderate quantities of dry-land herbs (Table 12).

Enclosure E6 and routeway 1 were constructed together with a possible c.5m wide entranceway on the south-eastern side of E6 linked to the routeway. They shared a common boundary on the northern and eastern sides of E6. Routeway 1 was defined by two parallel ditches, c.4.8m apart, which cut across the former small plots and the western internal sub-division ditch of E5.

Within the central area of enclosure E6 was a small posthole structure, building 2, located between a pond [9624/9831] and routeway 1 (Figs 5 & 6). It was constructed of eight postholes forming a 3m square in plan, its corners to the four cardinal points. The large amount of domestic wares from nearby features and the presence of ceramic building tile suggests that there may have been other structures in this area. The postholes may represent the heavily truncated remains of a post-built structure. Pottery from building 2 suggested it had been in use during the 1st-2nd centuries AD.

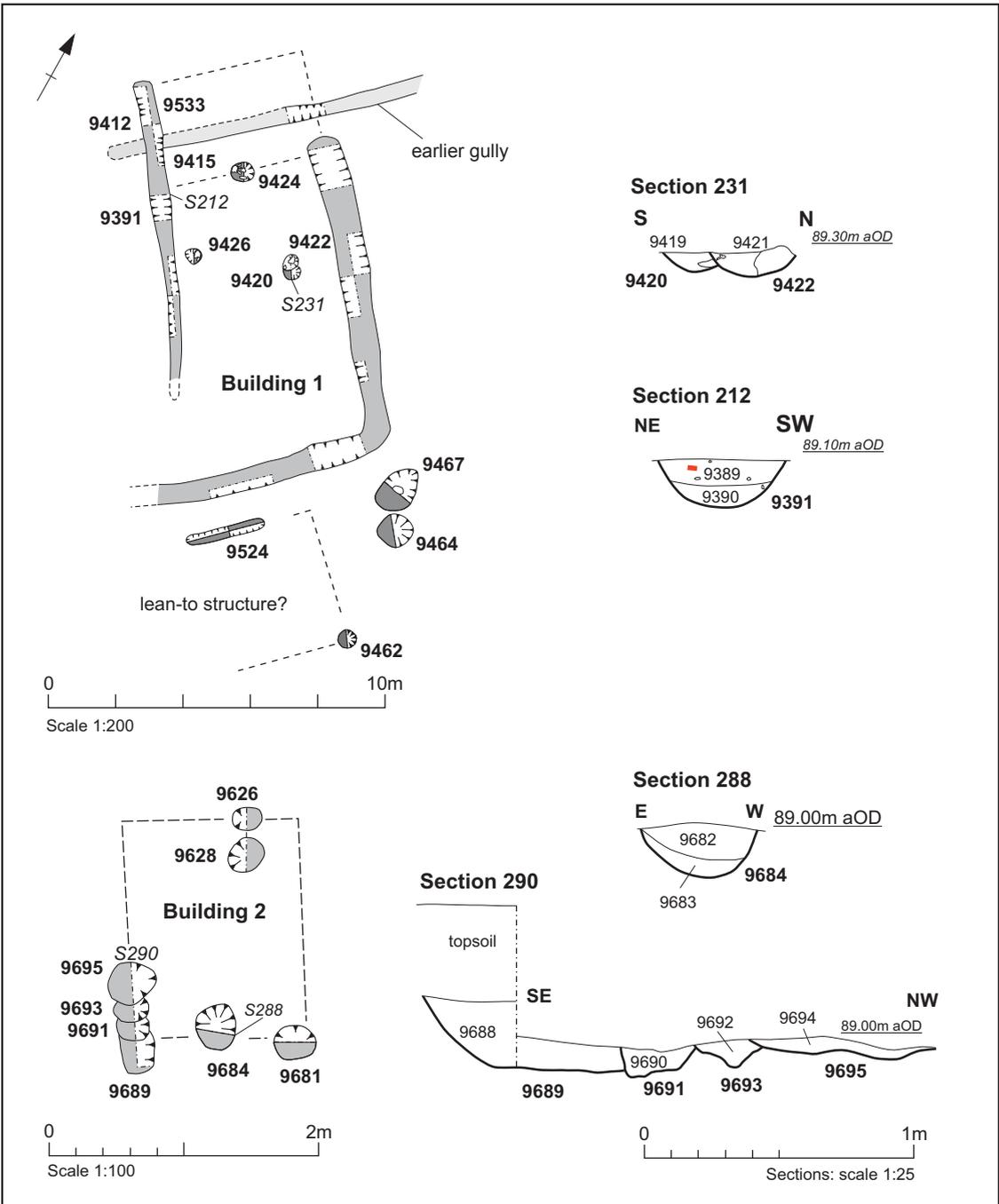


FIGURE 6 Buildings 1 and 2

Small-scale water management occurred during the early Roman period with ponds [9624/9831] possibly forming the western boundary side of E6. Pond [9831] may have been deliberately excavated despite its irregular shape. It measured 20m north to south and 23m east to west and was c.2.0m deep with a broad dish-shaped profile. A primary silting fill (9621) of firm light grey with yellow silty clay was overlain with a secondary silting fill of firm grey-brown silty clay. The pond was later recut on a smaller scale [9624].

Building 3

In the eastern part of the excavation area, 15m north-east of E6, was a penannular gully (building 3), which had a projected internal diameter of c.13m and had been recut on at least one occasion. There was one clear entrance facing north-west; the remaining western and southern portion of the circuit had not survived. The original gully was 1.10m wide and 0.32m deep with a U-shaped profile. A posthole, 0.70m diameter and c.0.32m deep, lay within the original western terminus, perhaps indicating the presence of an original entrance or a support timber. Both the earlier penannular gully and posthole had been superseded by a later penannular gully, 0.67m wide and up to 0.34m deep.

The Burials

Human remains, comprising both inhumations and cremations, were located in two separate areas away from the core of occupation to the north and east (Figs 5 & 7). The first (eastern) group, comprising three fragmented adult inhumations (B6, B7 and B8), were interred in the eastern part of Area B on lower, wetter ground at c.88.50m aOD, on land sloping slightly to the south-east. The second (northern) group was clustered to the north-west of pond [9322] and comprised a cremation deposit (B9) and two inhumations (B10 and B15).

Eastern Group

Burial B6 was interred in a rectangular grave with rounded corners measuring 1.90m by 0.72m, aligned north-east to south-west. The skeleton was an adult male aged between 35 to 50 years with osteoarthritis of the hands. The individual was in an extended position arranged so the arms were flexed at the sides of his body with the hands covering

their respective shoulders. A small bead-rim grog-tempered beaker with notched grooves and stamped rosette decoration had been placed above the right shoulder (82 sherds weighing 185g and with a rim EVE of 0.35). The backfill of the grave also contained a sherd of grog-tempered pottery as well as a nail fragment.

Burials B7 and B8 each comprised the remains of one adult. They were situated next to one another, but no grave cuts could be seen. B7 was aligned north-west to south-east, while B8 was aligned north-east to south-west. Both were very fragmentary, which prevented assigning gender, although B8 may have been male. Most of B7 had been removed by later ploughing, leaving only a portion of the lower left leg. Similarly the upper part (torso and skull) and left leg of B8 had also been ploughed away.

This burial group has been dated tentatively to the 1st century AD, although it is possible that the individuals were buried in the 2nd century, when the later enclosures and field system (see below) were in use.

Northern Group

The cremation burial, B9, had been interred in a shallow sub-circular pit [9290], c.0.70m in diameter. At its base were three pottery vessels. The upper two overlay a third vessel within which were the cremated remains (1223g) of an adult. The cremated bone from B9 was generally uniformly white, indicating that the pyre was at a constant heat and cremation was thorough. A cremated neonate sheep/goat was also found with B9: presumably it had gone on the pyre at the same time. Analysis of the pottery indicate there may have been at least two further vessels as grave goods.

In all, 170 pottery sherds weighing nearly 2.7kg and with a rim EVE of around 3.2 were recovered from the burial (see Perrin, below). Five vessels are in hard grog-tempered fabric. Two jars are substantially complete and were presumably grave goods. The other three may have been the remains of accessory vessels and consisted of two other possible jars which are represented only by bases. The other vessel is either a type of lid with a large central hole, or a shallow dish or bowl which has been trimmed after the base had broken off, though the reason for doing this is unclear. These vessels have certain common characteristics, other than the fabric, suggesting that they may have been

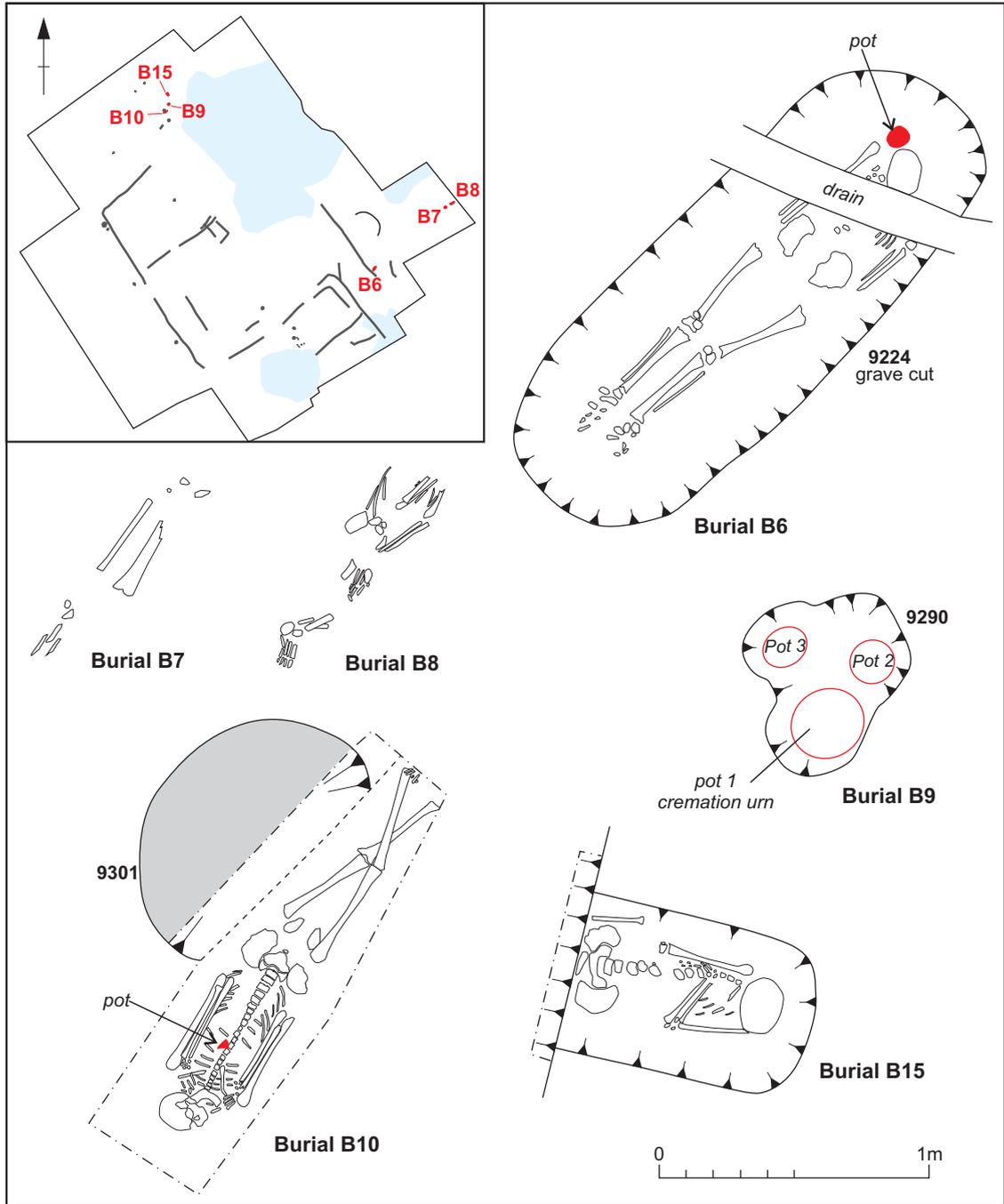


FIGURE 7 Burials B6, B7, B8, B9, B10 and B15

a 'set'. Their bases are pedestal-like, one also has a definite footing, the extant rims are all simple everted and lid-seated, and the two substantially complete jars have external bands of burnished close horizontal wavy lines.

Other vessels in other fabrics were present (grey, oxidised, grog and SGS; see Table 2). Most, if not all, were probably sherds accidentally deposited in the grave fill and were not accessory vessels. These comprised two jars and two carinated bowls with reeded rims. One of the latter is in a buff ware and the other a dark grey ware, though this is likely to be a burnt buff ware. Both could be Verulamium products. The two jars are in contrasting fabrics and forms. One is a grey ware with a pale core and the other is in a coarse dark reddish-yellow grog-tempered ware with buff-brown surfaces and a grey core. Its form and the incised shoulder notches and body scoring definitely place it in the later Iron Age. The SGS fragment is of uncertain form.

Burial B10 was that of an adult male, aged between 35 and 50, of robust stature. Aligned south-west to north-east, the arms tightly flexed with the hands covering the shoulders and lower legs crossed. The skeletal remains indicate that the individual was used to manual labour, demonstrating wear conditions of osteoarthritis and hypoplasia of the wrists and spine. The individual was buried in an ill-fitting grave, although the cut was not visible; the lower legs and feet were higher than the torso, which may have subsided into the earlier pit [9301] and underlying soft soils. In the backfill were six buff-ware sherds and one sherd of hard pink grogged ware with a grey core and a burnished wavy line decoration. The grave was overlain by the later deposit associated with cremations (B2 and B3).

Burial B15 was in a grave aligned east-west,

more than 0.91m long and 0.58m wide, which was disturbed by the ditch forming the northern boundary to a later enclosure. The burial was of an adult female aged between 35 and 50, laid supine, with her head to the east and her left arm folded across her chest. She had been afflicted by trauma associated with heavy manual work, as her spinal column had indicators of both spondylosis and spina bifida occulta. Wear patterns on her teeth suggested that she used her teeth to grip, as a third hand. Her legs had been truncated by the later enclosure ditch (E8).

Pits

Clustered around burials B9, B10 and B15 were at least five pits (Fig 4). Apart from two pits, one of which pre-dates B10, the others may be associated with this phase as two of the pits contained sherds of 1st to 2nd-century AD pottery. The burials and pits were sealed with a thin alluvial deposit which was in turn cut by the 2nd-century graves (see below).

Between 1.0-1.5m to the west, respecting the outer ditch of enclosure E5, were a further five pits [9264], [9275], [9394], [9480] and [9469] (Fig 5). The three southern pits [9394], [9480] and [9469] were evenly spaced at 12m apart and were between 0.25m and 0.84m deep with bowl or dish-shaped profiles. Within pit [9469] was a localised deposit of 75 individual hobnails, likely to have been the surviving remains of a complete shoe or a boot. In pit [9480] was a quantity of charred seeds (Table 12).

Of the two northern pits, located near to the north-western corner of the enclosure, pit [9264] was 1.92m square and at least 0.78m deep with a weathered asymmetrical profile. Its full depth could not be ascertained as a modern land drain cut through it.

TABLE 2 Pottery from B9

<i>Fabric</i>	<i>Number of sherds</i>	<i>%</i>	<i>Weight (g)</i>	<i>%</i>	<i>Rim %</i>	<i>%</i>
Grogs	82	48.2	2209	82.5	187	58.3
Greys	13	7.6	230	8.6	76	23.7
Oxidised	73	42.9	196	7.3	51	15.9
Grog +	1	0.6	38	1.4	7	2.1
SGS	1	0.6	4	—	—	—
Total	170		2677		321	

PERIOD 3: MIDDLE ROMAN SETTLEMENT (2nd century AD)

During the 2nd century AD there was a redefinition of the settlement. In this period the water table appears to have receded, enabling newly reclaimed land to be enclosed (Fig 8). Enclosures E7 and E8 were constructed in the same location as the previous settlement but had a more formal layout than previous enclosures. There was probably some continuity of features from Period 2, with buildings 2 and 3 perhaps being maintained into this phase. Building 1, however, appears to have been abandoned by Period 3. Clearly there were people living and working in the vicinity, as burials continued on the site. A further five inhumations and two cremation deposits were situated in the northern part of enclosure E8, continuing the use of this area as a burial ground.

The pottery from the enclosures was a mixture of grog tempered and wheel thrown wares with a small quantity of samian. The pottery in use comprised predominantly table wares as opposed to storage vessels, indicating that by the time the enclosure ditches had filled in towards the end of the 2nd century AD, the site had been under domestic occupation.

Routeways 2 and 3

The new enclosure system (E7-E8) was partly sub-divided either side of two routeways. Routeway 2 was aligned north-west to south-east and seemed to link to routeway 3 which was located to the west of it. Routeway 2 was 10m wide with its ditches up to 1.85m wide and 0.80m deep. Routeway 3 replaced the early Roman routeway 1. The routeway was formed by the ditched boundary of E8 on the southern side and a second ditch running roughly parallel on the northern side. Its width varied from 7.5m on its western side to 3m wide at its narrowest point, just before the parallel ditches could be seen to flare out into a funnel at the eastern end. Later, the funnel was blocked by a short length of ditch, 7.1m long, 1.03m wide and up to 0.30m deep. This deliberate blocking may have been a formal sign that the enclosures were no longer in use, or it may have been to divert access through the southern part of enclosure E8.

Enclosure E8

The northern enclosure E8 enclosed a rectan-

gular area of 0.5ha, measuring 89m north-west to south-east and 59m north-east to south-west. The enclosure was split into two; the northern third with the burial ground had two entrances in its north-eastern corner. The larger southern part was accessed from the south-west, its entrance adjacent to the funnel for the routeway. Its ditch was 1.60-1.85m wide and 0.30-0.80m deep.

Subdivision of enclosure E8

With the construction of the new pond [9408], the early Roman enclosure E5 ceased to function as a landscape unit. However, the ditch was still a visible landscape feature, although its function changed from defining an enclosure to forming both a subdivision and a means to drain water into the pond. It measured 1.85m wide and 0.60m deep, with dark, organic fills and had been recut on at least one occasion during the 2nd century AD. The new northern part of the enclosure measured 59m east to west and 28m north to south. It seems likely that the southern part of the enclosure would have been subdivided, although the four surviving internal ditches and gullies had been extensively truncated by later features. A quernstone fragment was recovered from the ditch and an environmental sample (22) produced small quantities of charred plant remains (Table 12).

Land Reclamation

Former pond [9322] was probably dredged to create new pond [9408], thereby facilitating drainage and reducing the risk of flooding. This work would have provided a greater area of usable land. Pond [9408] measured 39m north-west to south-east and at least 42m north-east to south-west. It was defined by a vertically cut western edge, probably indicating a timber revetment. The fill of the pond comprised a series of dumps of organic clay containing occupation debris (9321) interspersed with episodes of silting (9320).

Enclosures E10 and E7 and a possible field system

A small animal pen (E10) abutted the western ditch of routeway 2 and had an entranceway aligned westwards, presumably allowing access to pond [9624] located 20m away. It was defined by two mirrored L-shaped ditches *c.*12m north to south by *c.*8m east to west and with a *c.*4m wide entranceway. The ditches were up to 1.10m wide and 0.50m deep with

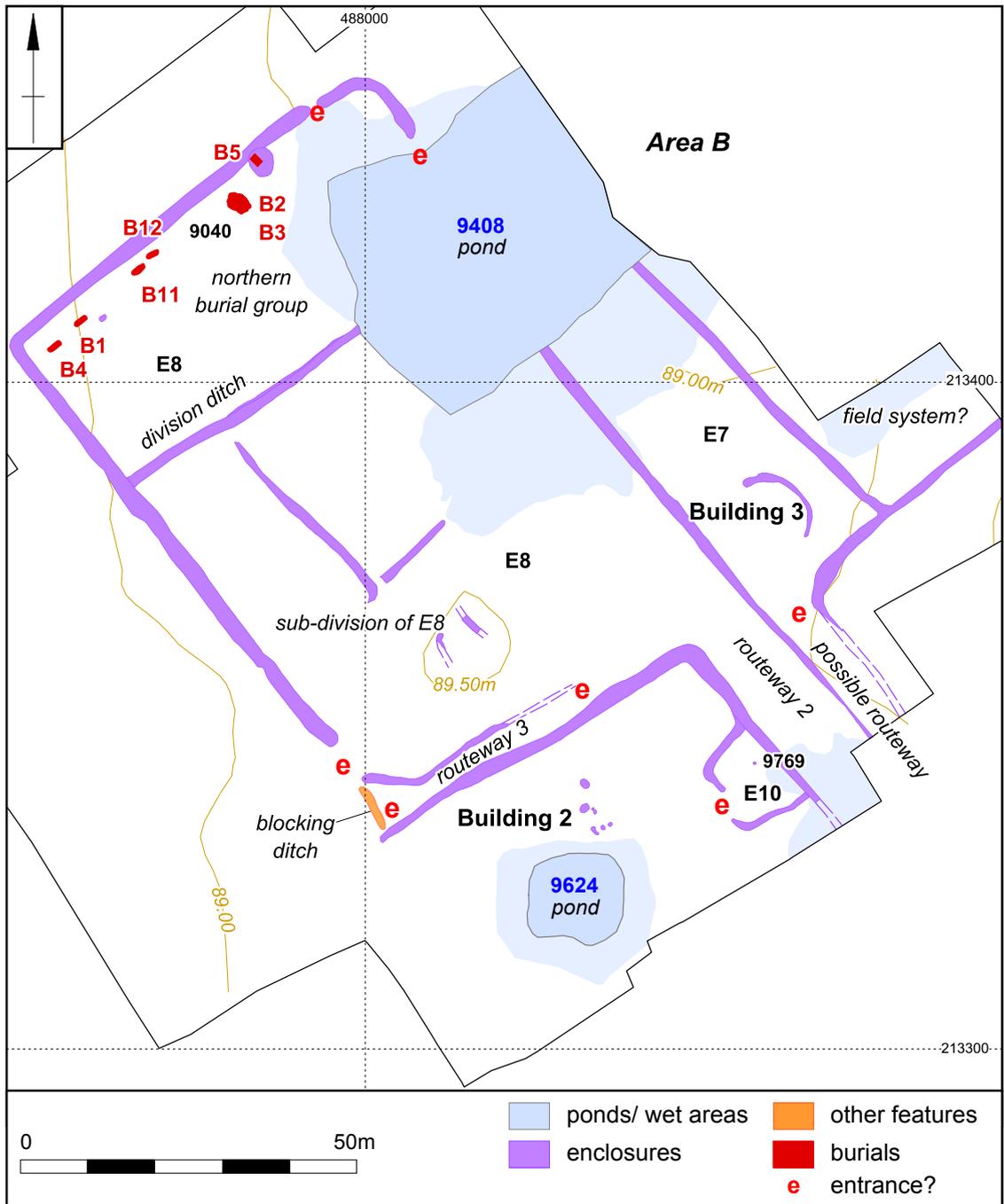


FIGURE 8 Period 3: 2nd century reorganisation of settlement

U-shaped profiles. A single posthole [9769] within the small enclosed area could be the severely truncated remains of a structure or a fence line.

Enclosure E7 covered a large area in the eastern part of the site, measuring 18m east to west and 50m north to south with its northern boundary defined by the southern revetment for pond [9408]. The enclosure would have been accessed from the south by a possible routeway, 4.9m wide, aligned parallel to routeway 2. Its ditch was on average c.1.10m wide and up to 0.47m deep and had been recut on at least two occasions, probably in response to the rapid silting in a wet area of the site. A total of 144 pottery sherds (2.7kg) were recovered from the ditch. A field system probably lay to the east and south of E7, but this suggestion is based on a single ditch extending eastwards beyond the excavation area.

Burials

The northern burial ground was enclosed within the northern division of E8, but remained separate to the main enclosure. The 2nd-century burial ground included five inhumations (B1, B4, B5, B11 and B12) and cremation burials B2 and B3. Four of the inhumations (B1, B4, B11 and B12) were laid out 1-4m from and parallel to the northern boundary of enclosure E8. The shared alignment and location of the burials suggests that there was a deliberate decision to respect the already existing enclosure boundary.

Cremations B2 and B3

Two cremation deposits, B2 and B3, had been placed in a rectangular, shallow pit [9040], overlying 1st/2nd-century inhumation B10 (Fig 9). The pit measured 3.55m north to south by 2.70m east to west and was 0.20m deep. Both cremation deposits were located in the south-eastern corner of the pit together with grave goods. Much of the burial B2 cremated bone (540g) was within a small urn which, though largely complete, was broken. The vessel was a jar in softish grog-tempered grey-reddish-brown fabric, with an everted rim and a cordon at the junction of the neck and shoulder. A small quantity of cremated bone recovered in the general backfill was presumably from the disturbed urn. The burial B3 cremated bone (272g) was not in an urn and the bone had been deposited in a cluster within the fill (9039) of the pit.

Cremated remains B2 and B3 are incomplete and may have been a token deposit. The two

cremations exhibited signs of variable pyre conditions; cremation B2 was cremated thoroughly and over a prolonged period, whereas the pyre for B3 was not allowed to burn for a sufficient time.

The burials were accompanied by a number of grave goods including two copper alloy brooches (an Aucissa and a Colchester type), both of which date to the mid to late 1st century AD (Fig 16d & 16e). A child's armlet (Fig 16b) and an iron tang, possibly from a knife, a strap fragment with forged terminal loop, a Manning type 1b nail and two possible nail shanks were found scattered in the pit. Small amounts of animal bone were present, comprising 0.4g of unidentifiable burnt bone and a further 6.4g of unburnt bone fragments.

Other pottery in the backfill of the pit included sherds in various cream, buff, reddish-yellow and grey wares, some possibly Verulamium products. There was also a sherd from a fine buff-pink ware beaker with a bead rim.

Inhumations B1, B4, B5, B11 and B12

Inhumations B4, B1, B11 and B12 were buried in rectangular graves with the upper part of the body at the south-western end of the grave cut. All had been disturbed to some extent by later activity including the compaction of the heavy alluvial clays and ploughing. Two of the four inhumations (B1 & B12) had been decapitated with their heads positioned between their legs (Figs 10 & 11) and a third (B4) had indications of trauma to the throat (see Inskip, below). Burial B1 (Fig 11) was that of adult male aged 35-50 who had been buried with the lower arms crossed over the abdomen.

Burial B12 (Fig 10) was that of a young woman, one of two females buried on the site, the other being the earlier burial B15. Two glass beads were recovered from the soil samples from B12 and presumably originate from an item of jewellery. Two small ferrous fragments recovered from B15 may represent nail fragments which had been redeposited within the grave fill.

Burial B4, a young male, was buried with his arms crossed over the abdomen. Over the right shoulder was a small pottery vessel, a buff-grey ware handled jar or beaker with a bead rim and external burnished lattice decoration. In the backfill were some pottery sherds in cream-buff ware, possibly Verulamium, and dark grey-brown ware with large flint inclusions. A 4th-century coin from burial B4 in this deposit may be intrusive.

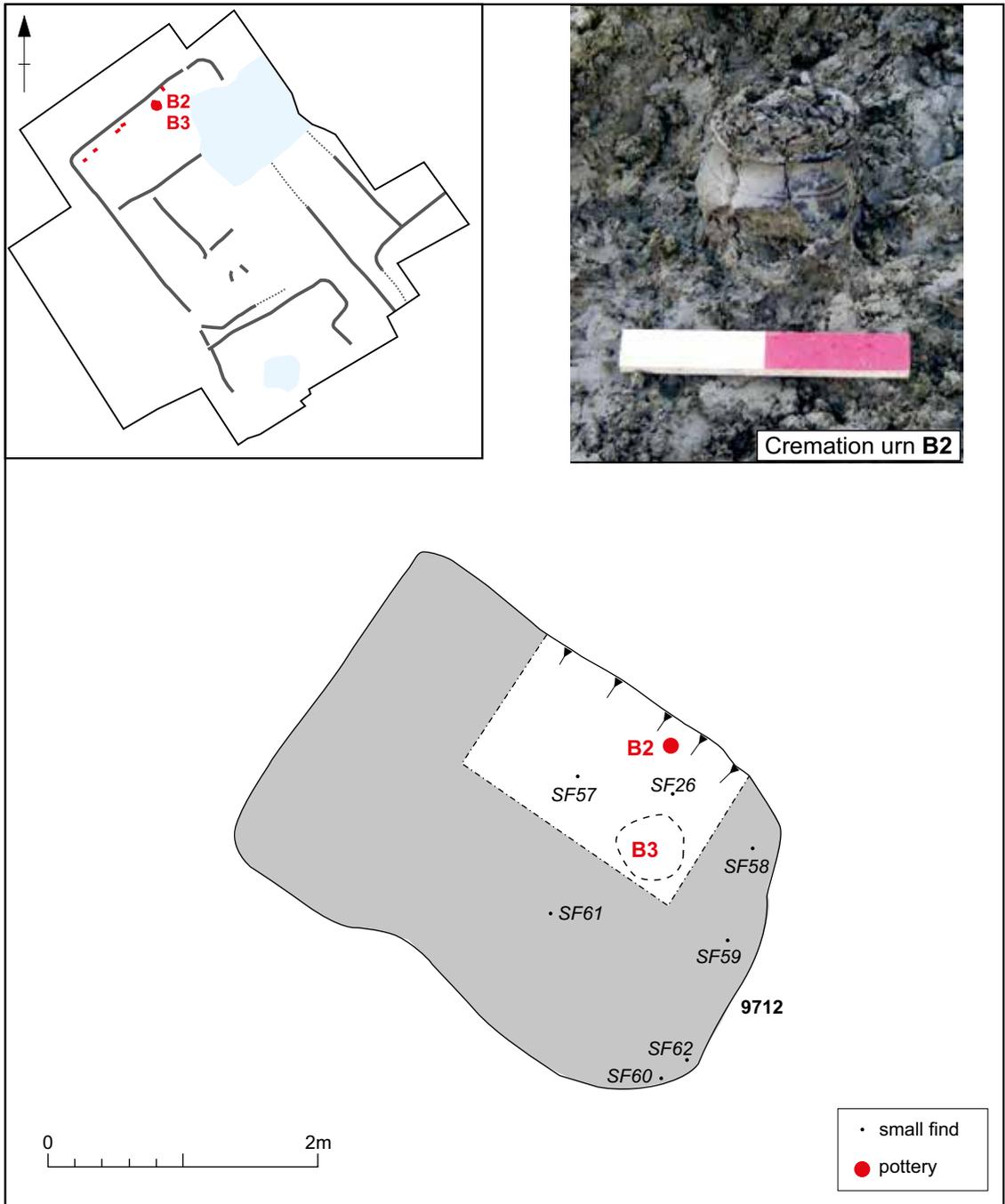


FIGURE 9 Cremation deposits B2 and B3 in plan

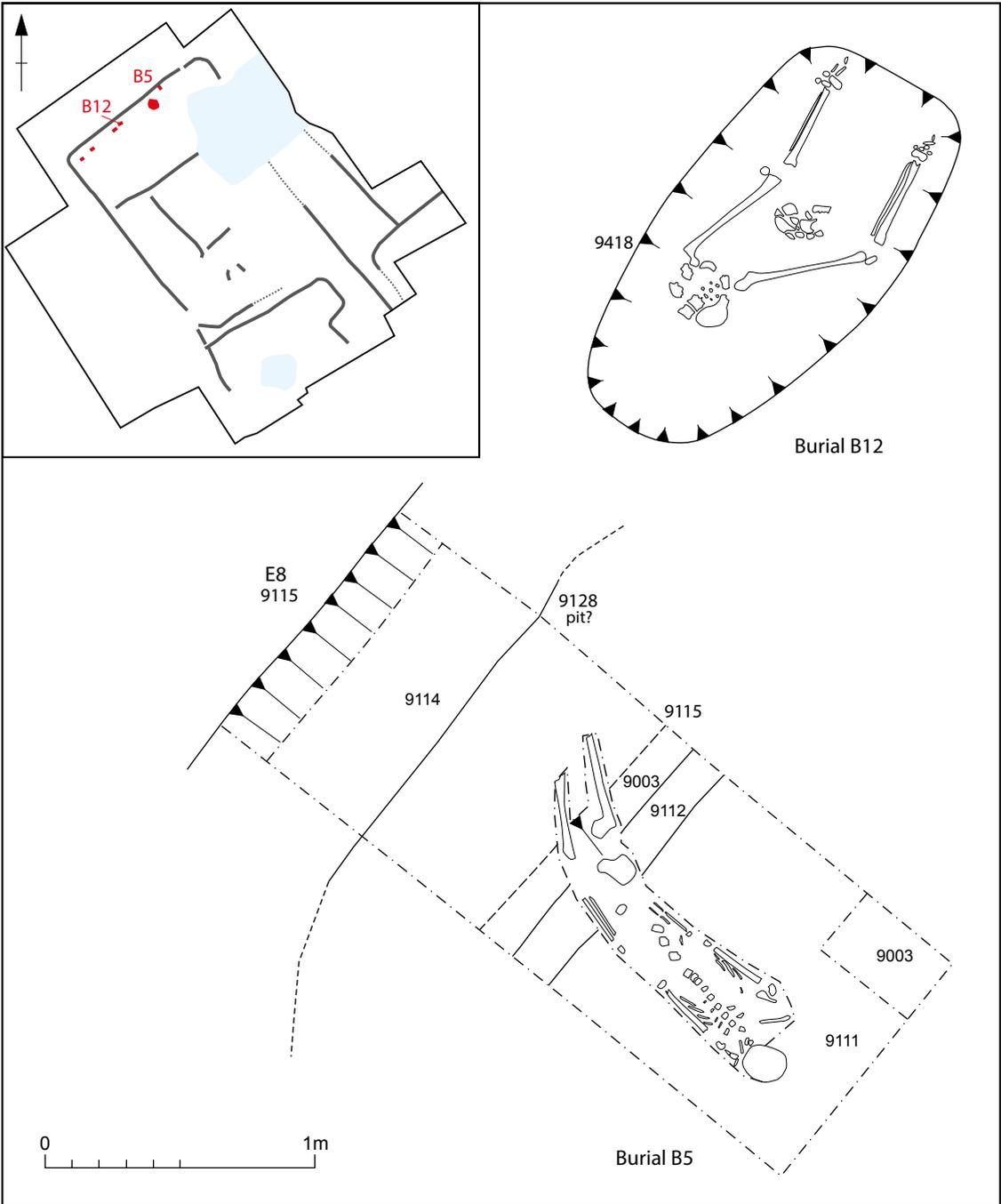


FIGURE 10 Burials B5 and B12

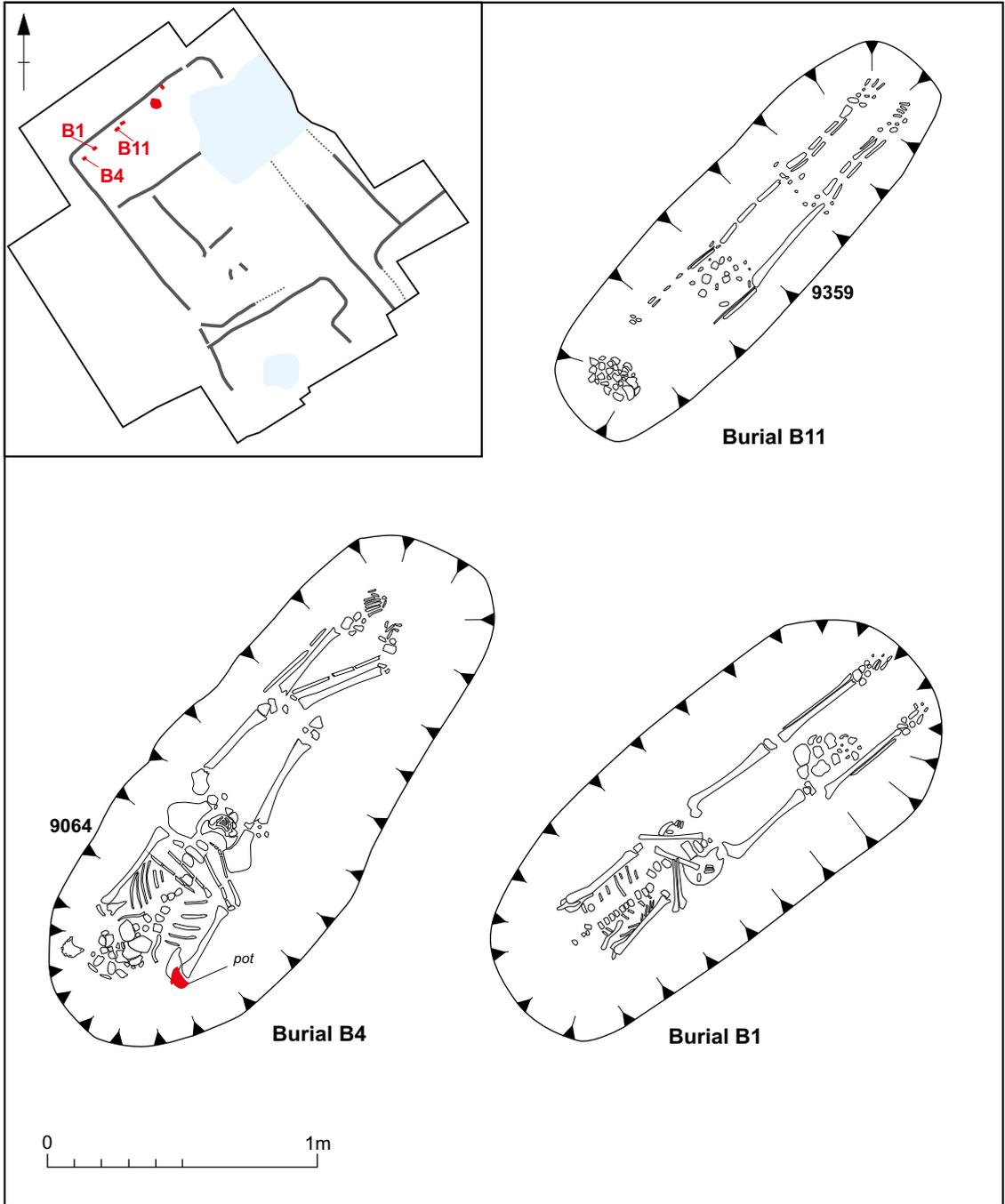


FIGURE 11 Burials B1, B4 and B11

Burial B5 was that of an adult male who appeared to have been buried towards the base of a large pit or hollow [9128]. No grave cut was visible and it is likely that the body was deliberately positioned as opposed to dumped in the pit as the arms had been arranged by the sides. The fill (9111) of the pit in which surrounded the body was green, organic clay. The fills of the pit had also slumped over time which caused the torso to sink, leaving the legs elevated. This backfill contained one sherd of grey ware and one of reddish-yellow ware.

PERIOD 4: MIDDLE TO LATE ROMAN ENCLOSURE (late 2nd to early 4th-centuries AD)

The later Roman activity comprised a period of contraction broadly assigned to two sub-phases between the 2nd to 4th centuries (Figs 12 & 13). It has not been possible to refine the chronology any further as much of the pottery comprised a mix of 1st to 4th-century wares, indicating a significant level of residuality.

a smaller area in the central and eastern parts of the excavation area. The focus remained around pond [9408] with enclosure (E9) respecting its position. The enclosure was set within a ditched field system, which reused the line of earlier boundaries (D7 recut and D11). The inhabitants continued to utilise the higher ground, perhaps in response to wetter, marshy ground conditions to the west.

The post 2nd-century settlement of the site suggests a continuation of the mixed-pastoral economy, albeit on a smaller scale. The remains of a dwarf hound from the fill of gully terminal G3 and the remains of a young male cow from pit [9458] within the enclosure, suggested that livestock were herded in and around the enclosure (Figs 12 & 13). The enclosures were therefore still a local centre for livestock management. Pit [9458] also produced moderate quantities of charred grain including cereals (Table 12) and D11 produced a large quantity of charred seeds including some cereals which had germinated prior to charring (Table 12).

Enclosure E9

Enclosure E9 was rectangular in plan and encompassed 0.25ha, measuring 78m north to south by 29m east to west. Its north-eastern boundary was defined by pond [9408] with an enclosure ditch

respecting the pond. Unlike the earlier enclosures with multiple entrances and main access from the south-east along a routeway, enclosure E9 had only one entrance, suggesting that access was more restricted. The north-western corner of the pond and the northern splayed arm of the enclosure formed the approach to the enclosure, which was 4.5m wide. The enclosure ditch was on average 0.90m wide by 0.52m deep with a steep sided U-shaped profile. It had a primary fill of firm grey-brown mottled with white clay silt and a secondary fill of firm grey-brown clay silt. A total of 167 pottery sherds (3.1kg) were found in the ditch.

Redefinition of enclosure E7

Redefining enclosure E7 and respecting the position of enclosure E9 were two narrow plots aligned north-west to south-east, D7 and E7. In contrast to enclosure E9 the plots were accessed from the south-east continuing the earlier trend of a routeway on higher ground from the direction of Akeman Street. The eastern 2nd century field system D10 continued in use.

Post-enclosure paddocks

Later, the site became less desirable for occupation, reverting back to pastoralism defined by paddocks and a loose arrangement of ditches (D5, G2, G3 and D8), similar to the late Iron Age and early Roman paddocks and enclosures (Fig 13).

The new field system, continuing the north-west to south-east trend, comprised an irregular-shaped paddock measuring 60m north to south by 60m east to west. Although the southern side appears to have been left open there was a very clear access point on the northern side, which may have funnelled livestock from the open low-lying pasture lands to the north-west and later occupation to the south. An environmental sample (47) from D5 produced a moderate to large quantity of charred seeds including some cereals which had germinated prior to charring (Table 12).

The paddock may have been superseded in turn by small fields defined by ditches G2, D8 and D9 (Fig 13). Gully G2 was 15m long and up to 1.3m wide and 0.25m deep. At right angles to this was ditch D8 which for much of its length was on the same alignment as the western boundary of early Roman enclosure E5. It was at least 43m long, 1.35 wide by 0.68m deep.

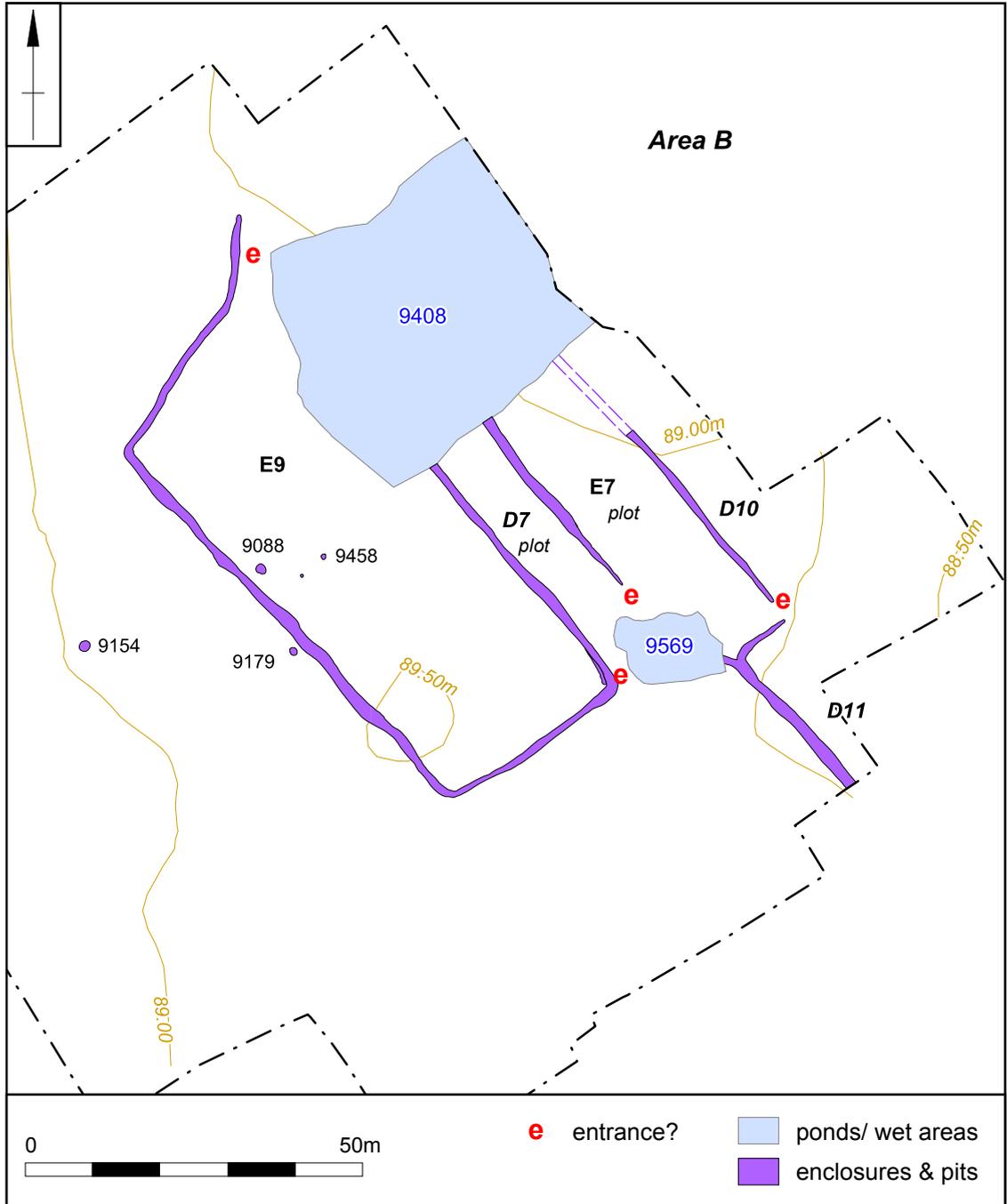


FIGURE 12 Period 4 sub-phase 1: Late 2nd to 4th century contraction

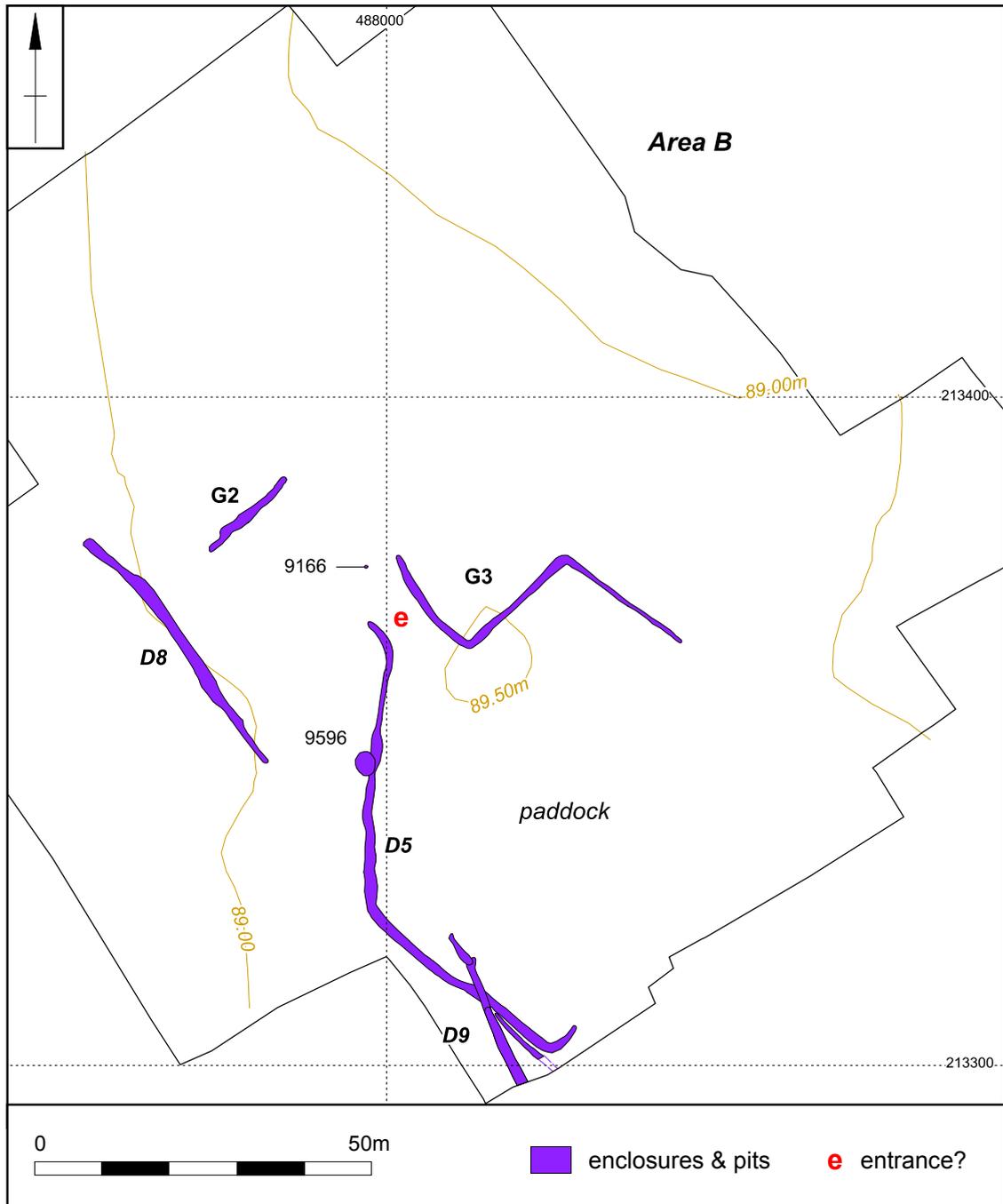


FIGURE 13 Period 4 sub-phase 2: Late Roman paddocks

Ditch D9 lay 41m to the south-east of ditch D8 and replaced ditch D5. It was aligned north-north-west by south-south-east, was at least 20m long, c.0.7m wide by 0.75m deep and extended southwards outside of the excavation area. It had steep, near-vertical sides and a narrow flat base. Immediately to the east of ditch D9 was gully [9492], aligned north-west to south-east, at least 20m long, also extending southwards outside the excavation area. It was 0.80m wide by 0.11m deep.

Settlement abandonment (late 4th century AD)

Towards the end of the 4th century, the settlement was abandoned and occupation presumably shifted elsewhere. This is a trend for many of the Roman farmsteads and villas in the Chilterns.

Abandonment deposits at Aston Clinton were defined by a gradual accumulation of material on the centrally located higher ground, which provided a *terminus post quem* for the building 1 and parts of the enclosure ditches (Fig 14). The significant deposits comprised a dark earth layer overlain in the northern part of the area by a layer of brown silty clay (9181).

The black earth layer, described as a ‘midden’ deposit, was defined by two localised areas (9180) to the north and (9685) to the south. It comprised very dark grey-brown silty clay, 0.18-0.24m thick, with flint and chalk inclusions. A significant quantity of pottery of 2nd to 4th-century date, comprising 69 sherds weighing 1,490g, was recovered from the midden deposits and included sherds from four samian vessels. A number of iron and lead objects were also recovered.

Medieval and post-medieval parish boundary

After the abandonment of enclosures in the 4th century the site was used as both pastoral and agricultural land. Although the excavations at Aston Clinton did not reveal any evidence for the origins of the parishes it did show how a small part of a parish boundary was formed (Fig 15). The earthwork formed by the 4th-century abandonment deposits was further enhanced by the continuous build-up of plough soils to create a pronounced headland within the medieval open fields along the parish boundary between Aston Clinton and Buckland. Pre-enclosure field names for the development area are shown on a 19th-century copy of a 16th-century map, which depicts two fields ‘Horestone Furlong’ and ‘Nether Widforow’ (Rosenberg

2010). The parish boundary dividing the parishes of Buckland and Aston Clinton was aligned north-west to south-east through the centre of the site. In Area B this was visible as an earthwork bank, c.200m long, between 25m and 50m wide and up to 0.8m high, with a slightly rounded top and very gradual slopes. A broad, shallow ditch augmented the headland as the parish boundary to the north of Area B. The ditch lay immediately beneath the topsoil (Walker & Maull 2011). This bank was respected by a post-medieval ditch which had been recut, perhaps indicative of a shift in the boundary over time.

From the early 19th century the local parishes were subject to Parliamentary enclosure. Aston Clinton was enclosed in 1816 and Buckland was enclosed in 1844. The new field layout respected the parish boundary with small rectangular fields either side of it. By 1881 the two areas of excavation in the south-eastern corner of the development area lay across three small fields. Between 1881 and 1981 the field layout changed little apart from the three fields being amalgamated into a single field by the end of the 20th century.

THE FLINT

by Yvonne Wolfram-Murray

Twelve pieces of worked flint were recovered as residual finds. The flint comprised nine flakes, two blades, of which one was broken, and an implement fragment. The technological characteristics of the assemblage are broadly Neolithic to Late Neolithic/Early Bronze Age.

THE IRON AGE AND ROMAN POTTERY

by Rob Perrin

Over 1,000 sherds were recovered from features revealed in the evaluation (Evans & Mills 2011): subsequent excavations of Areas A and B produced an additional assemblage of pottery totalling 3800 sherds, with a weight of around 62.75kg and a rim EVE of nearly 54.5. Less than one percent of the total came from Area A.

Fabrics

Three main fabric categories, grog-tempered wares, reduced grey wares and oxidised wares account for around 90% of the pottery by sherd count and



FIGURE 14 Abandonment

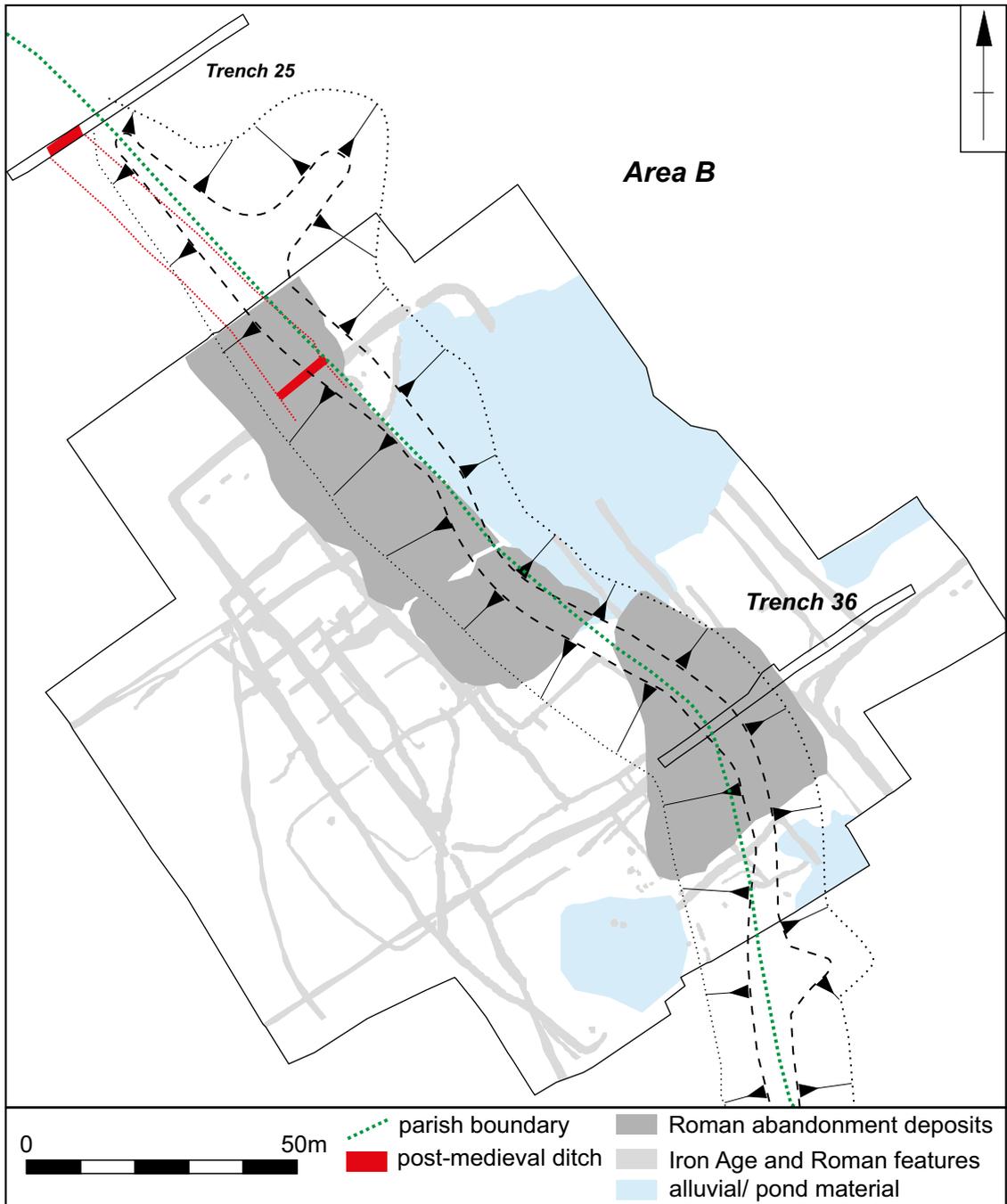


FIGURE 15 The parish boundary as an earthwork bank

weight. Continental samian ware comprises around a further 2% and flint and shell-tempered wares, the remainder comprising various regional imports (Table 3).

Grog-tempered wares

A few sherds are in fabrics where the grog occurs with pieces of shell and/or flint, or where the grog is in more than one colour. The grog in the majority of the sherds is black or dark-coloured, though it is obviously less easy to identify where the clay matrix is the same colour. The main differences within the wares appear to relate to the overall fabric colour. The main colour groups may either be the result of intentional oxidising or reducing firing conditions, or because it is not easy to control the firing conditions when pottery is fired in bonfires rather than kilns. Some of the other colours or colour combinations may be due to subsequent usage. Reduced grog wares account for at least half. Most of the grog-tempered wares are hard-fired, some being very hard.

Grey wares

The grey wares vary in colour from light grey through to dark grey which, together with the range of variations between surface and core colours, reflect different kiln firing conditions. The fabrics vary from coarse to fine. Some vessels have burnished external surfaces and a few sherds show traces of a possible light grey or cream slip.

Oxidised wares

While separate buff, cream and pink oxidised wares do occur, these colours often merge on certain vessels and different coloured cores, including reduced, can be found, especially on thicker-walled vessels. The light red, reddish-yellow and reddish-brown oxidised wares

are more consistent in colour, though these can also have a grey-coloured core. The fabric texture of all of the oxidised wares can vary from coarse to fine. Some vessels have burnished or slipped surfaces: one or two may have been mica-dusted.

Miscellaneous wares

Eleven different wares comprise the 'miscellaneous' category, together accounting for between only 5% and 8% of the total assemblage, depending on the quantification measure (Table 4). Sherds of Lower Nene Valley colour-coated ware (LNVCC), Dorset black-burnished ware (BB1), Verulamium ware (Ver) and Oxfordshire colour-coated and white wares (OXCC, OXWH) represent regionally traded pottery while Southern Spanish amphora and Lower Rhineland colour-coated ware (LRCC) are continental imports in addition to samian ware. Some sherds in a hard, fine reddish-yellow ware have traces of a red slip or colour-coat (RYCC). The flint in the flint-gritted ware occurs as either large or small fragments and some may have been crushed. The colour of the shell-gritted ware varies from dark brown through to buff and red. A few sherds are from vessels which appear to have limestone fragments in the temper.

Sources

No local kiln or other pottery production sites are known, but Aston Clinton is at the junction of two Roman roads, Akeman Street and the Icknield Way, so would presumably have been well placed to receive goods from further afield. The nearest known kiln site, producing late grey wares, is at Berkhamsted, 10km to the south-east (Swan 1984, 138). Grogged wares were being produced in the Milton Keynes area, some 20km to the north, in the mid-1st-century (Bletchley and Walton: Swan 1984, 134) and it is likely that much of the reduced

TABLE 3 Pottery fabric

<i>Fabric</i>	<i>No. of sherds</i>	<i>%site</i>	<i>Weight</i>	<i>%site</i>	<i>Rim%</i>	<i>%site</i>
Grogs	2015	53.03	34281	54.63	2078	38.17
Greys	761	20.03	14098	22.47	1753	32.2
Oxidised	672	17.68	8460	13.48	943	17.32
Misc	276	7.26	4692	7.48	481	8.84
Samian	76	2	1222	1.95	189	3.47
Total	3800		62753		5444	

TABLE 4 Miscellaneous wares

<i>Ware</i>	<i>No. of sherds</i>	<i>Weight (g)</i>	<i>Rim%</i>
Flint	46	269	44
Shell	51	1270	117
Amphora	7	782	–
LNVCC	5	54	12
OXCC	16	398	65
OXWH	30	1022	129
RYCC	108	537	94
LRCC	2	12	–
BB1	5	38	16
Limestone	5	108	–
Ver	1	202	20
Total	276	4692	477

grog-tempered wares from the site were locally produced. Pink grogged ware is common on sites in the Milton Keynes area and one probable source has been identified in the Stowe area (Booth 1999, Booth & Green 1989; Marney 1989; Taylor 2004). The fabric of this ware tends to be soft, however, and different from much of the Aston Clinton material. Although the assemblage may include some soft pink grogged ware, the hardness of the fabric suggests another source is likely. Some of the shell-gritted pottery may be products of the kilns at Harrold in Bedfordshire (Brown 1994).

Oxidised and grey wares were produced in the Milton Keynes area and in more distant kiln sites in South Northamptonshire and at Gerrards Cross, Fulmer, Luton, Toddington (Swan 1984, 133–4), Verulamium and Oxford. During processing, between a quarter (number of sherds) and a third (weight) of the oxidised wares and around 15% of the grey wares were noted as having coarser fabrics similar to those at both the Oxfordshire and Verulamium potteries and it is therefore possible that some of the other oxidised and reduced wares were made there. The vessels in a hard, fine reddish-yellow ware with or without traces of a red slip or colour-coat are similar to OXCC but may be from another source (C Young, pers. comm.). The flint-gritted pottery is likely to have been locally produced. The various regionally traded and continental wares have been noted above.

Forms

A rough count during processing, based mainly on separate rims and including samian ware, noted some 420 vessels (Table 5). The miscellaneous vessels comprise three rims in reduced grog-tempered ware which may be lids, a lid in cream ware and a grey ware colander or strainer with holes pierced pre-firing.

Dating

The flint-tempered wares, the mixed flint and shell or grog wares and some of the coarser quartz-gritted wares indicate activity in the early to mid-Iron Age. The large amount of reduced grog-tempered wares attests occupation at least in the late Iron Age/1st century AD and probably into the 2nd. 'Soft' pink grog-tempered ware appears to have had a long duration from the 2nd century AD in its core usage area (Booth & Green 1989, 82; Taylor 2004, 60), but Aston Clinton is in the outer zone where only the later types would be expected (Taylor 2004, 63–4, fig 3). Some of the vessels from the site are of the characteristic later storage jar types, but reduced and pink grog-tempered wares often occur together in contexts, suggesting they were in contemporaneous use on the site. Grey ware curved-rim jars with neck or girth grooves and cordons can be dated to the later 1st century and throughout the 2nd century AD. The carinated bowls with grooved or reeded rims in both grey

TABLE 5 Summary of pottery form

	<i>Jar</i>	<i>Bowl/ Dish</i>	<i>Beaker</i>	<i>Flagon</i>	<i>Mortarium</i>	<i>Misc</i>	<i>total</i>	<i>%</i>
Grogs	131	7	1	1	–	3	143	34
Greys	80	36	2	1	–	1	120	28.5
Oxidised	36	18	7	8	–	1	70	17
Shell/ flint	14	1	–	–	–	–	15	3.5
Misc	2	6	8		14	–	30	7
Samian	1	41				–	42	10
Total	264	109	18	10	14	5	420	
%	63	26	4	2.5	3.5	1		

and oxidised wares are a late 1st to 2nd-century type, while the bowls or dishes in grey ware with plain, triangular and bead rims are most likely to be of mid-2nd to 3rd-century date.

The grey ware vessels with lattice and barbotine dot decoration and the ring-necked flagon, the imitations of samian ware forms, the curved-sided flanged bowls and the campanulate bowl in oxidised ware are probably of 2nd-century date. The Verulamium mortarium is of 2nd-century date while the Oxfordshire white ware mortaria are types dated *c.*180–240 and *c.*240–300.

The samian ware ranges in date from the mid-1st century through to the early 3rd century AD. The samian assemblage suggests that activity appears to have increased markedly in the 2nd century, although possibly not until the second quarter of the century. The LRCC hunt cup is of mid to late 2nd century date.

The OXCC and LNVCC products are of 3rd or 4th-century date and buff-coloured shell-gritted ware wide-mouthed bowl with an inturned grooved rim is a 4th-century type. The sherd from an Oxfordshire parchment ware bowl or dish will be 4th century in date.

Assemblage Characteristics

Around half of the flint-tempered wares are from Area A, suggesting that this was the main focus for Iron Age activity. Jars comprise almost two-thirds of the vessels in the assemblage with over a third of the bowls and dishes occurring in samian ware. The overall amounts of samian ware and ‘table-ware’ vessels such as flagons and beakers are low, but mortaria are quite well represented. There is one colander or strainer base with holes

pierced pre-firing and a number of the jar bases have holes pierced post-firing. Three other pots have holes pierced just below the rim and three samian vessels have rivet repair holes. Apart from samian ware, the only pottery of continental origin comprises a few sherds from Southern Spanish amphorae and a hunt cup beaker from the Lower Rhineland. Almost all the regionally-traded wares in the assemblage are from the closer production centres at Verulamium and near Oxford, with only a few sherds, less than might have been expected, from other centres such as the Lower Nene Valley and Dorset. Overall, the impression is that the activity on the site was basically utilitarian agricultural and domestic and not of a particularly high status in terms of the amounts of fine wares and imported regional and continental wares.

THE SAMIAN WARE by J M Mills

The collection of samian from Aston Clinton is small (70 sherds weighing 1212g), but nevertheless interesting (Table 6). The vast majority of the sherds are in good condition, not abraded, not particularly worn, and with a quite large sherd size (mean sherd weight 17g). The assemblage includes sherds from most of the main production centres including South Gaul (La Graufesenque), Central Gaul (Les Martres-de-Veyre and Lezoux) and East Gaul (Rheinzabern). The sherds range in date from the mid-1st century through to the early 3rd century. Fragments of just four decorated (two of which have describable decoration) and three potters’ stamps were recovered.

The earliest material, from South Gaul (23

TABLE 6 Numbers of Samian vessels by form and fabric (production centre) (max numbers)

Vessel Form*	Fabric/Production Centre			
	SG	CG (Les Martres)	CG (Lezoux)	Rheinzabern
18	3	—	—	—
15/17 or 18	2	—	—	—
18/31	1	2	2	—
18/31R	—	—	1	—
18/31 or 31	—	—	—	—
27	1	—	—	—
33a	1	—	—	—
33	—	—	1	—
35	1	—	1	—
36	—	—	2	—
35/36	1	—	—	—
31	—	—	4	—
31R/Lud Sb	—	—	3	2
37	—	—	3	1
38	—	—	1	—
Curle 11	—	—	1	—
Cup	—	—	1	—
Dish	1	—	—	—
Bowl	—	—	4	—
Dec form	1	—	—	—
Jar	—	—	1	—
Total: max no. vessels	12	2	25	3
No form: no. of sherds & (wt)	2 (2g)	—	7 (12g)	—

*All Dragendorff (Dr) forms unless specified

sherds weighing 128g), forms just 10% of the samian assemblage by weight, or 7% by rim EVE. In general the sherds are small, with a mean sherd weight of less than 6g. Of a possible maximum of 12 vessels three are cups, one a decorated form (represented by a very small scrap), while the remainder are dish forms (Table 6). None of these vessels can be closely dated; there is only a tiny scrap of decoration (<1g) and no potters' stamps. A flake from a bowl or a dish base (9764) (fill of [9765], E6) has a

double groove inscribed in it which indicates that it might be from a pre-Flavian vessel, and may therefore be the earliest. The group includes one form 35 cup (9229) (fill of [9232], E9), another sherd from either a Drag 35 or 36 (9230) (fill of [9232], E9) as well a Drag 18/31 [9230], all forms introduced after *c.*AD70. On balance it is likely that most of the South Gaulish samian is Flavian.

There is little early 2nd-century samian; none of the South Gaulish material, with the possible

exception of the Drag 18/31, could be dated to the early 2nd century and just two sherds, from two separate Drag 18/31 dishes are from Les Martres-de-Veyre and of Trajanic-early Hadrianic date. Many assemblages have little samian dating to this time when imports from Southern Gaul were declining or ceased, and before the main period of production and export at the Central Gaulish kilns of Lezoux was under way. This was first noted in London (Marsh 1981) and is a feature of most samian assemblages throughout Britain.

The majority of the samian recovered was from Lezoux in Central Gaul (41 sherds weighing 954g); approximately 79% of the collection by weight and by rim EVE. In contrast to the earlier samian the mean sherd size is large (23g). The range of forms includes Hadrianic to early Antonine types such as Dragendoff forms 27, 18/31, 35 and Curle 11; the two Drag 37 bowls and one of the stamped bowls belong to this group. There are more form 31/31R than 18/31 or 18/31R dishes which usually indicates a bias within an assemblage towards the later part of the 2nd century. Care with interpretation must be taken here because the sample size is small. There are no other characteristically late 2nd-century vessels such as mortaria. As with the earliest material, dish and bowl forms predominate; only three cups forms were recognised in a possible maximum of 25 vessels.

The three East Gaulish bowls are also of a late 2nd or early 3rd-century date, although the Drag 37 (9163) (fill of [9164], part of midden layer (9180)) probably belongs to the 3rd century, but without surviving decoration it should be borne in mind that this vessel is dated solely on fabric and rim form. Again the mean sherd size is large (>30g).

The composition of the assemblage in terms of fabric and vessel forms as well as the increasing mean sherd size through time suggests that although there might be modest 1st-century occupation activity increased markedly in the 2nd century although possibly not until the second quarter of the century. It is probable that occupation continued into the 3rd and 4th centuries, when samian will not be of use for determining end dates. With such a small group, observations that there is samian from Rheinzabern but not Trier is likely to be meaningless. It does seem that there are very low levels of cups (14%) and of decorated wares (12%). Although both might be expected to be lower in rural sites than urban or military ones, these are exceptionally

low numbers and must, in part, be due to the sample size. Given a larger assemblage there might be more of both types of vessel, but perhaps still around 20% of the whole as would be expected for the site type (Willis 2004, 8.2.6).

The condition of the pottery has been noted above as basically good, generally without evidence for prolonged use, and not battered by deposition processes. Smaller sherd size might suggest some re-deposition or residuality for the 1st and early 2nd-century material. There is minimal evidence of post-depositional burning (3 sherds). The foot-ring of one South Gaulish dish [9229] appeared to be particularly worn. Drilled repair holes were observed in two South Gaulish vessels and one from Central Gaul. The heavy wear and the evidence for repair might suggest that samian was in short-supply.

CERAMIC BUILDING MATERIAL

by Pat Chapman

Tile

The assemblage of 57 tile sherds weighs 6.2kg. The sherds are small, the largest only 80 x 90mm, and many are abraded. There are eight roof tile sherds, seven *tegulae* and one *imbrex*. Of eight box flue tile sherds, seven come from one context, most likely from the same tile. Ten sherds, with fragments, come from thicker floor or hypocaust tiles. The remainder are undetermined body sherds.

The two main fabrics are F1, sandy clay, and F2, silty clay. F1, the predominant fabric, is hard fine sandy orange to orange-brown to red-brown, comprising 27 sherds including the roof tiles and some floor tiles. Eighteen sherds are made from hard fine silty fabric, F2, varying in colour from orange to pale grey, including some floor tile sherds and one box flue tile sherd. These two fabrics are very similar to the Type 1A and Type 1B from the Aston Clinton bypass (Slowikowski 2005, 190). The other seven box flue tile sherds are made in a distinctive hard fine silty sandy dark reddish-brown fabric, F3. One floor tile sherd is made from slightly soft fine silty white to pale orange to pale grey fabric, F4, similar to Slowikowski's Type 4 Gault.

The *tegula* sherds are 18-28mm thick with measurable flanges 38-60mm high. The floor tiles are between 30mm and 45mm thick. The remaining

body sherds are between 12mm and 28mm thick, so most of them are probably from roof tiles. One body sherd has a remnant nail hole 16mm in diameter.

The 219 tile sherds from the evaluation, weighing 5.5kg, are virtually all small fragments of floor tiles. However, a number of those fragments are most likely the type 1 fired clay as described below. The relatively small number of tile sherds in this assemblage include roof and box flue tile sherds.

Fired clay

There are 284 fragments of fired clay in two distinctive types, with very few exceptions, weighing 6775g and generally found in separate contexts.

Type 1, which comes from 35 contexts, comprises slightly less than half the assemblage, 47.5% by number, but is three-fifths, 59.8%, by weight. The fragments are made from hard silty clay in fine laminated layers, with a few small gravel inclusions, occasionally more. The pieces are typically buff to orange in colour, with a few having a white deposit on the surfaces, some also have wide black organic cores. Stem and seed impressions are on many surfaces, occasionally being very dense. The larger fragments are mainly structural in appearance. Some are brick-like, 30-45mm thick with flat slightly uneven surfaces and vertical edges which are often marginally wider than the body. Other pieces are slabs, the surviving straight edges suggesting that they were originally square or rectangular in shape, 15-23mm thick.

The fired clay from excavations along the Aston Clinton Bypass (Slowikowski 2005, 193-4) has close similarities in both fabric and thicknesses. The rectangular slabs and the 'bricks' were not interpreted as kiln furniture, due to the lack of any relevant structural remains in this area, rather that they could have been used in bread ovens, as surfaces near hearths, or for lining pits. This type of fired clay would appear to have a domestic function as suggested above, rather than a structural one. The distribution of the Type 1 fired clay, together with the tile, may suggest a possible focus for a building or buildings.

Type 2 fired clay comprises 145 typically small flattish plates, *c.*40 x 40 x 15mm and smaller, with smooth uneven surfaces. It is made from quite hard fine silty homogeneous clay with occasional small

sub-rounded gravel and is generally pale orange to grey in colour. There were no wattle impressions. There are also six fragments made from buff to hard red-brown coarse sand with small gravel which have been provisionally identified as Type 2 fired clay. These 151 small fragments together weighing 2123g, were scattered through 51 contexts.

QUERNS AND MILLSTONES

by Andy Chapman

Parts of three stones were recovered, two from hand-operated rotary querns, one a domed puddingstone quern and the other a flat quern with a raised rim in a fine-grained Millstone Grit. The third stone is a small fragment from a large diameter millstone, at least 130mm thick, in a coarse Millstone Grit, for use in a powered mill.

From the fill (9605) of ditch [9607], D6, there is just under a half (40%) of an upper rotary quern in Hertfordshire puddingstone. The stone is 320mm in diameter with a smooth, slightly concave grinding surface, and the upper surface has near vertical sides that curve smoothly into a domed top, up to 125mm high. The stone is fractured vertically, leaving a remnant of the lower part of the central eye, which was *c.*25mm diameter, but there is no handle socket on the surviving half.

From layer (9162) of midden [9164] (part of layer 9180), there is a fragment (15%) from the circumference of an upper flat quern in Millstone Grit, *c.*400mm diameter and 55mm thick at the circumference where there is a raised rim or kerb, 25mm wide and 5-8mm high. The upper surface and the circumference retain dimpled tool marks. The grinding surface is worn to a concavity centred on the surviving fragment, which is 140mm square, indicating that this piece was reused as a small grinding stone.

From the fill (9293) of ditch [9295], E8, there is a small fragment from the centre of a millstone in a coarse-grained Millstone Grit. The fragment has a large, vertical-sided central eye, 250mm, in diameter and the stone is 130mm thick. A small fragment of the heavily worn grinding surface survives, and retains faint remnants of tooled dimples. The size of the eye and the thickness of the stone indicate that the fragment comes from a large stone, perhaps approaching 1.0m in diameter, used in a powered mill.

THE OTHER FINDS
by Tora Hylton and Ian Meadows

In total, 83 individual and group recorded small finds in five material types were recovered, making a total number of 167 individual objects (Table 7).

TABLE 7 Small find material types

<i>Material</i>	<i>Total</i>
Copper alloy (ex. coins)	8
Iron objects	67
Lead	4
Bone	1
Glass	3
Total	83

Personal Possessions

This category comprises small portable items which would form part of a person's attire (jewellery or dress accessories) or held by an individual for personal use (toilet equipment). Items recovered include four brooches, two armlets, together with a cosmetic mortar and a toilet spoon. In addition, hob nails have been included in this section. 78 hobnails were recovered, including a group deposit of *c.*75 hob nails, which presumably originate from a shoe.

Jewellery

Brooches

Four brooches were recovered: two types of brooch are represented (bow and penannular brooches). A bow brooch was recovered from the fill (9280) of pit [9281]. It is a Colchester Derivative, with the axis bar of the hinge pin housed in the wings (Fig

TABLE 8 Small finds may be quantified by phase and functional category

<i>Functional category</i>	<i>Phase</i>					
	<i>LIA-1st</i>	<i>1st-2nd</i>	<i>2nd</i>	<i>2nd-4th</i>	<i>4th</i>	<i>U/S</i>
<i>Personal Possessions</i>						
Costume and jewellery	–	1	5	–	2	–
Personal equipment	–	–	–	1	1	–
Hobnails	–	1	1	75	1	–
<i>Equipment and furnishings</i>						
Building equipment – general ironwork	–	–	–	1	2	–
Building equipment – nails	1	7	10	4	19	3
Locks/keys	–	–	1	–	1	–
Tools – knives	–	–	–	–	2	–
Tools – wood working	–	–	–	–	2	–
Tools – misc (x 2)	–	1	1	–	–	–
<i>Miscellaneous and unidentified</i>						
Copper alloy	–	–	–	–	1	–
Iron	1	4	4	2	5	1
Lead	–	–	–	1	1	2
Bone	–	–	1	–	–	–
Glass	–	1	–	–	–	–

16a). The wings have a circular cross-section and are decorated with grooves, four on each side. The bow is tapered and humped over wings, and is decorated with a pair of vertical ridges on which traces of motif are visible in the central flute. The foot is pointed and the catch-plate has a single circular perforation which is counter sunk on both sides. The brooch dates to the 1st–2nd century AD.

An incomplete Colchester (Fig 16e) was recovered with burials B2 and B3 and dated to the early to mid-1st century. It had most of the spring, the catch-plate and the pin missing. It was a one-piece brooch, thin plain bow with D-shaped cross-section and tapered to a point, vestige of two piercings visible on catch-plate and represents Mackreth's Type 2, the commonest British Colchester (2011, plate 22).

An incomplete Aucissa with foot and lower section of pin missing was also recovered with B2 and B3 and dated to the mid to late 1st century (Fig 16d). It has an axis bar for winged pin housed in rolled over head with a single shallow transverse flute below head and base of upper bow. The upper bow has three vertical ridges separated by deep flutes. The lower bow plain, tapering to a point with vestige of catch plate behind but has a foot missing. The central ridge decorated with cross cuts resembles beading and the lower bow is separated from upper by two cross mouldings. Its pin survives to a length of 22mm. The brooch displays similarities to Mackreth's (2011) transitional type, 3.a.1 – plate 90, 12483.

An iron penannular brooch was recovered from a 4th-century 'midden' (9685). It is small, measuring just 15mm in diameter, it has a circular cross-section and the x-ray reveals that a vestige of the ?wire pin is still attached (SF72). The style of the terminals is difficult to define, but stylistically the brooch equates to Mackreth's Type c.2.d3 (2011, plate 11), a form to which a broad date range has been applied.

Armlets

A complete penannular armlet was recovered from a 4th-century layer (9181). The armlet is cast; it has a plain hoop with a D-shaped cross-section and slightly expanded terminals. The small size of the armlet (diameter c.56mm) suggests that it would have been for use by a child.

A complete penannular armlet was recovered near burials B2 and B3 (Fig 16b). It was incomplete

and damaged with one terminal missing. It was a plain parallel-sided hoop with slightly expanded terminal decorated with incised oblique grooves on the outside edge. A similar example was recovered from a mid – late 1st-century ditch at Bancroft Mausoleum, Milton Keynes (Hylton & Zeepvat 1994, fig. 140, 67). Width: 4–6mm (SF 26)

Personalia

Items for personal use are represented by a mortar from a cosmetic set and a toilet spoon.

The former is represented by a complete cast bronze mortar from a two-piece cosmetic set; it was recovered from a 'midden' layer (9180). The mortar measures 92mm, an example representing the large end of the scale (Jackson 1985, 168). It comprises a crescent-shaped bow with a U-shaped grooved channel and zoomorphic terminals (Fig 16c). The terminals are bovid in form (bull-like); the horns are furnished with close-set oblique grooves giving the impression that the horns are twisted in opposing directions; the snout/muzzle is decorated with faint chevrons. From the underside of the mortar an integral D-shaped suspension loop protrudes (off centre); the underside is simply decorated with c.4 close-set equidistant shallow grooves sited just behind the terminals.

Mortars of this type are known to have been in use from the pre-late Iron Age. They would have been used in conjunction with a pestle for the preparation of powdered mineral cosmetics (Jackson 2011, 266).

A copper-alloy toilet spoon 'ear-scoop' was recovered from enclosure E9 [9232], although incomplete (vestiges of both terminals are missing), enough survives to permit identification. Its small size suggests that it may have been part of a toilet set (Incomplete length 45mm). It has a D-sectioned shank and both terminals have been flattened; one is on the same alignment as the shank and it may have formed part of the suspension loop and the other end is set at an angle and presumably forms part of the scoop. Such items could have fulfilled any number of hygiene uses: similar examples have been recovered from Colchester (Crummy 1983, fig. 64, 1900) and Bancroft Villa, Milton Keynes (Hylton & Zeepvat 1994, fig. 145, 118).

Hobnails

In total there are 78 hobnails with domed heads and tapered square-sectioned shanks. Three nails

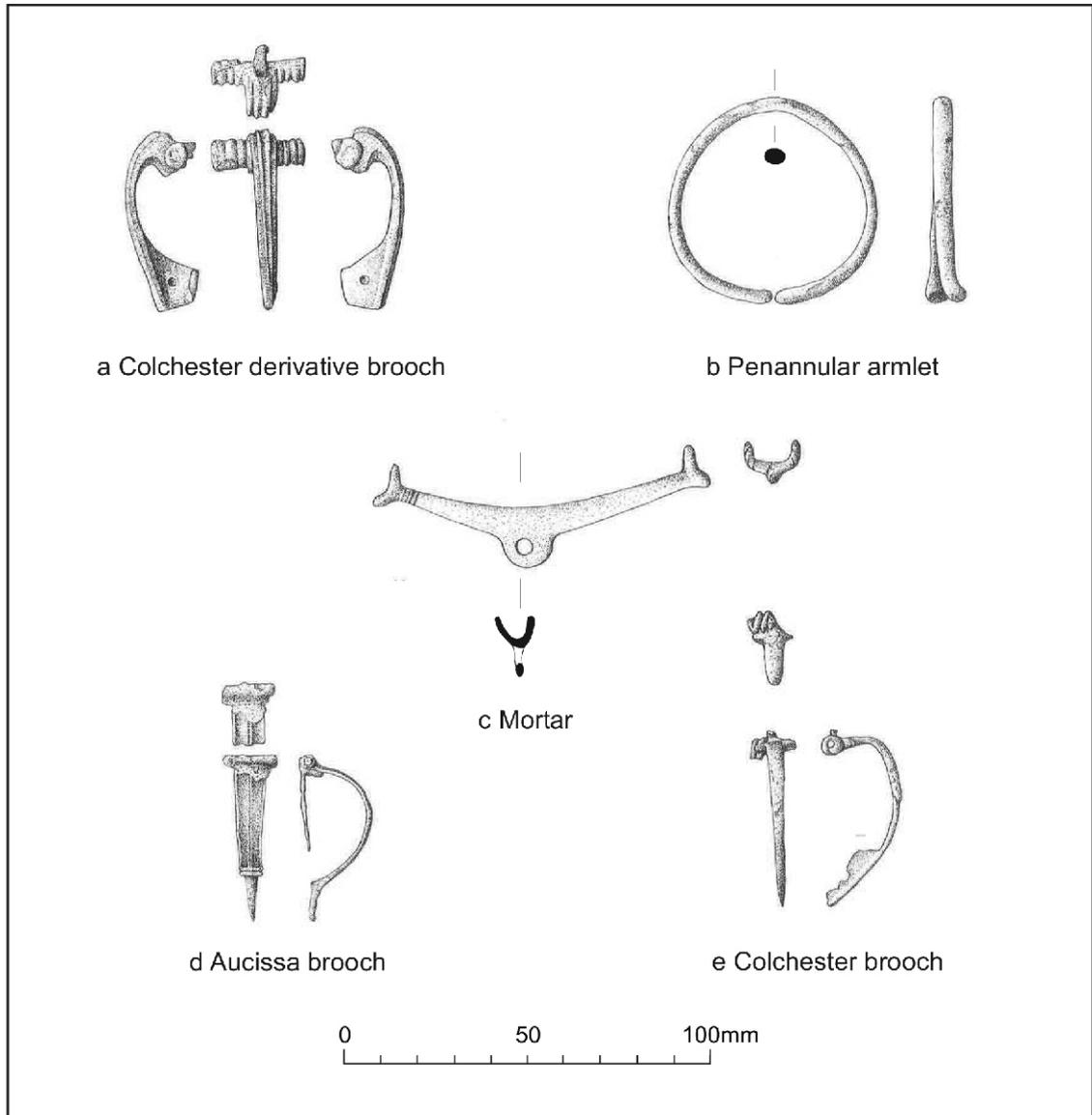


FIGURE 16 The small finds

were recovered as individual finds from the fills of ditches [9189, 9301] and a 'midden' layer [9685], while the remainder, a group of *c.*75 nails, was recovered as a single deposit from pit [9469]. The latter presumably represent the remains of a sandal or shoe, but the soil conditions prevented any of the leather or a soil stain surviving. The x-ray reveals that the heads of the hobnails measure *c.*10-11mm

in diameter and that the shanks generally measure *c.*20mm in length; some have clenched terminals. It is also evident that some of the hobnails have corroded together in pairs, side by side, presumably reflecting their position in relation to each other when in the sole of the shoe. There are seven pairs and on each pair the external edge of the domed heads touch and the shanks are parallel,

c.5-6mm apart; this perhaps suggests that the sole of the shoe/sandal may have been heavily studded.

Building equipment

Few objects reflect the nature of structures that would have been in existence. Although there are many small undiagnostic strap and rod fragments which may represent pieces of structural ironwork, the only identifiable objects are a double-spiked loop, a perforated binding/reinforcement strap and 44 nails. Other finds include a key and a terminal loop from a latch lifter.

The double-spiked loop (SF 77) was recovered from the fill of a ditch [9169], enclosure E9. It has been manufactured from a rectangular-sectioned strip which has been forged to form U-shaped staple-like object measuring 90mm long and 23mm wide. Such objects would have been driven into a timbers and the protruding end would have formed a fixing point for chains or rings etc.

A strap fragment (SF 74) measuring up to 300mm in length was recovered from 'midden layer (9685). A forged strap with a slightly curved profile, it has parallel sides and a D-shaped cross-section (width 35mm) which terminates in a rounded terminal. The X-ray reveals two circular perforations, one centrally placed through the terminal and one halfway along the shank. The size of the strap suggests that it must have been used for binding or reinforcement purposes.

Nails

There are 44 nails: with the exception of one nail from a ditch in Area A [8013], all were located within stratified deposits in Area B. The majority were recovered from the fills of ditches and enclosures (c.27), while nine nails with retrieved from a midden layer [9685] and three from burial deposits.

Of the total number, just eight are of indeterminate form, with their heads missing etc. The remainder have been classified according to Manning's Type series (1985, 134ff). The majority of the identifiable nail types are Manning's Type 1B (x 30), which range in recorded length from 23-81mm. The majority clustered between 60-80mm and were presumably used for furniture or light structural fixings. Other types represented include large structural nails with sub oval heads (Type 1A, x 2) and triangular heads (Type 2, x 1), the latter measuring up to 118mm in length. The dimensions suggest that if the head was not flush

with surface, the nail would have passed through wood measuring c.70mm thick; both types could have been used for securing major timbers. In addition, the assemblage includes nails with T-shaped heads measuring up to 100mm (Type 3, x 1), nails lacking a distinct head measuring up to 48mm (Type 5, x 2), and finally nails for upholstery measuring from 17-19mm in length (Types 8, x 3).

Security equipment

There are two objects related to security. A small slide-key for use with a tumbler lock was recovered from posthole [9769] (SF213). It has a rectangular handle plate which is perforated at one end and tapers slightly towards the bit, which is now missing. Typologically it displays similarities to Manning's Type 2 (*ibid*, fig. 25, 56) and a similar example has been recovered from Stonea, Cambridgeshire (Jackson & Potter 1996, fig. 120, 46). In addition, a relatively large terminal loop from a latch lifter was recovered from midden 9685 (SF70). The shank is square-sectioned with a flat/rectangular-sectioned terminal formed into sub-circular loop which is coiled around the shank.

Tools

Wood was an important material for the manufacture of items: although no wooden objects survive, the presence of tools required for wood working is evidence for carpentry. This small assemblage includes, an adze, a chisel and a wedge. In addition there are three knives.

Part of an adze blade for the cutting and shaping of wood was recovered from midden deposit (9180). The blade survives to a length of 82mm, the underside of the blade is flat and the upper surface is convex with a pronounced central rib (H: 8mm) which levels out towards the slightly convex cutting edge. The sides of the blade converge towards the socket, now missing (Width: 67-48mm Th: 8mm). A complete adze was recovered from a Roman cremation deposit at Wellwick Farm, Wendover (Zeervat 2003, fig 3, 1).

A tanged tool (SF 190) with a broad rectangular-sectioned shank surviving to a length of 105mm was recovered from ditch [9474] (enclosure E5). It may be part of a tanged mortise chisel (cf. Manning 1985, fig 4, 6); the shank has parallel sides and a broad rectangular cross-section (Width: 18mm Th: 6mm), the terminal of the chisel is missing. Mortise chisels would have

been used for cutting narrow joints (*ibid*, 24).

Finally there is an unstratified wedge-shaped object (SF28) with a burred rectangular head (22 x 15mm) and a rectangular shank (Length: 47mm) which tapers on both faces to the edge. Such objects may have been driven into the timber causing it to split along the grain, cleaving.

Knives

Two knife fragments were recovered from midden 9685. One (SF52) comprises just the tang and a vestige of blade: the square-sectioned tang is tapered, central to the blade and terminates in a looped terminal. The other (SF63) is a blade fragment (L:50mm): it tapers slightly and has a triangular-shaped cross-section. A complete knife was recovered from ditch [3707] during the evaluation (SF7). Typologically it displays similarities to Manning's Type 13 (1985, fig 28), regarded as a general-purpose knife for the period. It measures 160mm in length and it comprises a short, broad blade which curves down to the tip. The back of the blade is in line with the tang, which has a circular cross-section and terminates in an expanded knob. A knife with a similar tang and knob was recovered from Shakenoak Farm, Oxfordshire (Brodrigg *et al* 1973, fig 57, 381).

Lead

Only three pieces of lead were recovered from Roman contexts. One came from ditch [9248] and a melted fragment from midden (9685). An undiagnostic sheet fragment measuring 22 x 15mm was recovered from Trench 27 (2724). A further two fragments of sheeting, one with a perforation, are unstratified.

Worked Bone

A short conical plug/point was recovered from ditch [9501] (D5). It has a flat top, circular cross-section (Dia: 12mm) and tapers to a rounded point and measures 24mm high. The shank has been knife-trimmed and the top displays signs of wear.

Roman coins

Nine coins were recovered comprising small low-value issues of 3rd and 4th-century date. The condition of the coins precluded their precise identification and some of the flans showed signs of the struck surface flaking away from the core, indi-

cating active corrosion. The burial environment must have been very hostile to the preservation of metals. This assemblage is not unusual in Roman rural contexts and mostly represents casual loss, although the coin from burial B4 may have been deliberately deposited.

THE ROMAN BURIALS

by Sarah Inskip

The inhumations

The preservation of the material was generally good, five inhumations having good preservation and the remaining five being fairly preserved. However, the material suffered significantly from fragmentation. Later use of the site has resulted in four of the ten inhumation burials being significantly incomplete.

Age

It was possible to age six of the ten inhumations. None of the burials were juvenile as no unfused long bone epiphyses or deciduous teeth were present. Insufficient skeletal data existed to age the individuals in burials B5, B7, B8 and B11 beyond adult. This was due to significant fragmentation and incompleteness. Four of the six aged burials were classified as middle adults (35-50 years) and the remaining two individuals were aged as young adults (18-35 years). As the preservation is fairly good, it seems unlikely that old and juvenile individuals would be completely lost to taphonomic processes. The sample here potentially shows a bias in its age distribution but caution is required due to the small sample size.

Sex

It was possible to estimate sex in all but one individual, burial B7, which had no *os coxae* or skull. Six individuals were sexed as male or probably male and only two were sexed as possible females. In a normal population, where cultural sex selection is absent, even numbers of males and females would be expected.

The cremated deposits

A complete modern adult cremation weighs between 1.5-3.0kg (Mays 2010, 326; McKinley 2000, 404). It seems that the cremated deposits are a little underweight as none appeared to be juve-

TABLE 9 Summary of human burials

<i>Burial</i>	<i>Completeness</i>	<i>Condition</i>	<i>Age/Sex</i>	<i>Aligned</i>	<i>Arms</i>	<i>Skull</i>	<i>Legs</i>
B1	>75%	Good	M/M	NE-SW	Crossed on abdomen	Between legs	Extended
B4	>75%	Fair	Y/?M	NE-SW	Crossed on abdomen	Anatomical position	Extended
B5	50-75%	Good	A/M	NW-SE	Extended?	Anatomical position	Extended, superior out of grave?
B6	<75%	Fair	M/M	NE-SW	Extended?	Anatomical position	Extended
B7	<25%	Fair	A/?	NE-SW	No arms	No skull	Extended
B8	25-50%	Fair	A/?M	NE-SW	Disturbed	Disturbed	Disturbed
B10	>75%	Good	M/M	N-S	Flexed/tucked by shoulders	Anatomical position	Extended, superior out of grave
B11	50-75%	Fair	A/?M	NE-SW	Humerus only; extended	Anatomical position	Extended
B12	25-50%	Good	Y/?F	NE-SW	No arms	Between legs	Semi flexed, splayed
B15	25-50%	Good	M/?F	E-W	Crossed on abdomen	Anatomical position but ?moved	No legs

Key: A=adult, M=male,
F=female

nile (B2 was 540g and B3 was 272g). However, cremation B9, weighing 1223g, is approaching this quantity and could therefore represent a more complete adult cremation. During the cremation process bone increases in crystallinity and loses the organic component. Accordingly, cremated bone is more resistant to diagenesis than unburnt bone and tends to preserve well. As such, Cremations B2 and B3 are more likely to have been affected by incomplete deposition or excavation.

Importantly, McKinley suggests that all cremation burials are in fact 'token' (1997). It is very rare for the entire body to be collected from the pyre. Incomplete deposition therefore may have

occurred on initial burial. McKinley (1997, 71) indicates that if a certain quantity of bone, or group of bones had to be collected from the pyre, greater uniformity in quantity or bone type would be seen in cremated deposits. Great variation in cremated deposits is observed all over the England during the Roman period.

Bone colour varied in each deposit and between deposits. Cremation B2 is uniform in its white to grey colouration. The upper limbs and skull are predominately white on the internal and external surfaces whereas the lower limbs fragments have greyer endosteal surfaces. This is probably the result of the thicker bone in the lower limbs which

would have less exposure time to heat and oxygen than the thinner skull and upper limbs.

Cremation B3 is more mixed in colouration with black, brown (distal humerus), blue, grey and white fragments. The skull and long bones are predominately white on their external surfaces but are grey on the inner surfaces. This suggests that although the pyre temperature may have been high, it may not have been prolonged so that the inner surfaces were not as effectively cremated at the outer surfaces.

Cremation B9 is very uniform in colour with over 90% of fragments being white in colour. This suggests a more thorough cremation than cremations B2 and B3.

That all cremations have predominately white and grey fragments suggests that the pyres were reaching in excess of 600°C.

Discussion

In terms of the burial rites and general pathological conditions (OA, dental, infectious and general stress indicators) identified in the Aston Clinton material, parallels can be found both locally and nationally and Aston Clinton fits well within trends for the Roman period. Parallels for burial on the edge of a settlement or in ditches are found in many rural late Iron Age and Roman sites such as Market Harborough (Inskip 2012) and Wilcote, Oxfordshire (Hands 1993). This position may relate to the tradition of burials near boundaries as well as situating the deceased away from living areas and is thought to relate to Roman ideas of pollution. Mixed rite cemeteries are also common with similar examples being found at Watling Street in London (Mackinder 2000), at Tolpuddle bypass in Dorset (McKinley 1999) and Duxford, Cambridgeshire (Duhig 2011).

There appears to be a bias in the age and sex distribution of the group with most of the individuals being middle aged males.

It is interesting that with the exception of burial B15 where there may be a possible infectious disease, there was little evidence for significant trauma or infection during life. This may imply that individuals were dying early of disease or trauma that did not affect the skeleton.

Nearly all of the skeletal changes observable were related to physical activity. This includes Schmorl's nodes, osteochondritis, spondylolysis, os acromion and OA (particularly the high pre-

valence of spinal, hand and wrist OA). All these modifications suggest that the individuals were undertaking a significant amount of high impact or loaded activity that particularly affected the spine and the hands, possibly from early in their lives. Another indicator of hand activity could be the unusual striations found on the dental enamel of three individuals which implies that the teeth were used to aid some sort of manual task. Four individuals have unusual patterns of dental wear and chipping (burials B5, B10, B12 and B15). Grooving and chipping to the teeth is present as are striae on the lower premolars some of which are prematurely worn through to the dentine. The molars in these individuals are also unusually worn down in the corners (lingual cusps). Burial B12 has extensively worn lower incisors. These patterns are likely to be caused by the individuals using the teeth as a third hand in activity (Fig 17).

There were a number of foot pathologies in the collection. Two individuals appeared to have hallux valgus (bunions). Boots and sandals would both have the potential to cause or exacerbate this deformity and were known to be worn by Roman individuals. Two burials (B1 and B4) had fractures to the feet. This again suggests that the group was physically active.

The presence of decapitated burials is relatively common in Roman Britain (e.g. Anderson 2001, McKinley 1993, Philpot 1991, Taylor 2010). In a large study of Roman burial rites, Philpot (1991) noted that decapitated burials were more common on rural sites such as Aston Clinton rather than urban cemeteries. Taylor (2010) suggests that many of these decapitations were undertaken after death as well as during violent episodes and execution. While there may be a tendency to initially associate decapitated burials with capital punishment or low-status individuals, other hypotheses have been proffered for these more unusual burials. This has included sacrifice and ritual. These hypotheses are based on ideas that the head may have had significance in that it was the seat of the soul or life-force and interference with this around death could alter the transition to the afterlife both negatively or positively (Philpot 1991). It is difficult to ascertain the exact reasons behind the decapitation of burials B1, B12 and possibly B4, but it may be important that three other burials also have unusual treatment including burials B5 and B10, which appeared to

have been haphazardly placed into an ill-fitting grave. Burial B8, although partially disturbed, appeared to be oddly positioned in a pit, possibly being flexed or bound. In addition, burial B10's arms were tightly flexed with the hands at the shoulder. In addition to decapitation, burial B12 legs were splayed with the skull situated in between and a peri-mortem cut to the ribs was identified. This treatment may argue for a more negative outcome for the individuals involved. This could be execution or victims of a violent death which could be supported with the demographic and pathology results. Caution needs to be exerted however, as Philpot (1991) argues that it might be possible that decapitation was used to aid the transition to the afterlife as part of a religious ritual for individuals who died under unusual circumstances or those that were handicapped in some way. It should be noted in this argument that burials B12, B10 and B15 individuals appeared with unusual skeletal traits which may have soft tissue ramifications. Unfortunately it will never be known for certain reasoning behind the special treatment of these individuals.

The trends identified in the Aston Clinton cremated material fit well with other Roman sites. This includes colour, element representation and fragmentation. All of the cremated deposits are likely to be the incomplete remains of adult individuals. Unfortunately it was not possible to make any further comment on age or sex beyond suggesting that the remains were of adult individuals. All of the deposits appear to have been exposed to temperatures in excess of 600°C; however, some variation in exposure time or body position may be suggested due to the differences in the quantity of grey, black and brown fragments. There are a number of reasons why interburial colour variation may exist on the same site. Some individuals could have been hastily cremated resulting in grey inner surface fragments and inconsistent colour distribution throughout the burial. The weather could play a part, with rain having the potential to inhibit successful cremation and wind affecting the ability of the pyre to reach hot and consistent temperatures across the body (McKinley 2008). Greater research on the distribution of cremation colours is required on a regional and a national scale before something more meaningful can be said.

Cremations B2 and B9 both contained the

remains of very young animals. In the case of cremation B2, this was both burned and unburned material. It is common in the Iron Age and Roman periods for animals to be made as provisions for the afterlife (Jupp & Gittings 1999). These types of offerings may also represent symbols of deceased (Serjeantson 2009).

ISOTOPIC ANALYSIS OF THE ROMAN REMAINS

by Sarah Inskip and Jessica Palmer

Analysis of isotopes, which are used to study dietary and provenience differences between individuals and populations, might be able to shed some light on observed differences in the skeletal remains. Isotopes are atoms of the same element which have different atomic masses due to a difference in the number of neutrons. These can be both stable and radiogenic. The abundance of these isotopes varies between different substances and locations. Importantly, these isotopes enter the human body via consumption of food and water, and thus reflect the living circumstances of an individual. Analysis of the ratio of different isotopes in human tissue therefore provide a way of discriminating between groups with different lifeways, such as diet and mobility. Stable isotope results are presented as a ratio of the heavier to lighter isotope. These values are then compared to an isotope standard. They are reported in the delta (δ) notation which is measured in parts per thousand called per mil (‰) (Fuller *et al* 2006). Strontium results are presented as a ratio of the heavier to lighter isotope.

To assess whether any individuals from Aston Clinton had any isotopic values that could explain some of the unusual features of the site, it is important to know what isotopic values should be expected for the region and period. Fortunately there have been a significant number of isotope studies in the immediate area surrounding Aston Clinton (circa 30km) which provide valuable baseline data. In order to assess whether there was any variation in diet both between individuals from Aston Clinton, but also those from the surrounding regions, faunal and human $\delta^{15}\text{N}$ and $\delta^{13}\text{C}$ data were obtained from research undertaken at Yarnton (Lightfoot *et al* 2009), Eton (Stevens *et al* 2012) and Berinsfield (Privat & O'Connell 2002). Human data were also available from Queensford Farm

(Fuller *et al* 2006). Oxygen and strontium data was available from Berinsfield, some 20km south-west (Hughes *et al* 2014). In addition, it is also possible to use data from a number of maps which outline the general expected oxygen and strontium values for Britain. Accordingly, data from Aston Clinton were compared to these values. All isotope analyses were carried out at the Vrije Universiteit Amsterdam.

The results demonstrate that it is unlikely that any of the individuals were migrants from outside the immediate region, potentially ruling out outsider status as a cause for their treatment. In addition, all but two individuals, B5 and B10, who were placed haphazardly in the grave, had a diet similar to individuals at other Roman sites in the surrounding region (*c.*30km). In respect to B5 and B10, which had high nitrogen values, it is possible that they had a different diet, which could contain animal protein from a higher trophic level or freshwater fish. Such variance may indicate a difference in status to other individuals. It is also possible that these individuals had a pathological condition, as identified from cribra orbitalia that marked them out for having haphazard treatment at death. Unusual treatment of the sick has been noted at numerous sites in the Roman period.

Overall, the humans from Aston Clinton have similar, albeit slightly less negative $\delta^{13}\text{C}$ values than that of the surrounding animals, which suggests the consumption of C3 terrestrial material. The $\delta^{13}\text{C}$ values from the apatite also fall within the expected range for a C3-based diet (Tykot 2006). However, $\delta^{15}\text{N}$ values suggest that humans were consuming protein of a different trophic level to cattle and pigs, but not dissimilar to that of dogs at Yarnton.

THE ANIMAL BONE

by Philip Armitage

The hand-collected assemblage totalled 1,046 specimens, of which 735 (70.3%) are identified to species and anatomy. Ten mammalian, one avian and two amphibian species are represented: horse *Equus caballus* (domestic); cattle *Bos* (domestic); sheep *Ovis* (domestic); pig *Sus* (domestic); dog *Canis* (domestic); hare *Lepus capensis*; house mouse *Mus musculus* (domestic); *cf* field mouse *Apodemus sylvaticus*; water vole *Arvicola terrestris*; field vole *Microtus agrestis*; domestic fowl

Gallus gallus (domestic); common frog *Rana temporaria*; toad *Bufo bufo*. No bones of either fish or reptile are present.

The general condition/state of preservation of the hand-collected bones is assessed as fair (moderate) to good with relatively low numbers of poorly preserved bone which show evidence of leaching and/or weathering.

TABLE 10 Summary counts of identified animal bone elements/fragments

<i>Bone</i>	<i>Totals</i>
<i>Mammals</i>	
Horse	67
Cattle	479
Sheep/goat	161
Pig	11
Dog	48
Hare	4
House mouse	7
<i>cf</i> field mouse	2
Mouse/vole	5
Water vole	1
Field vole	5
Field/bank vole	2
<i>Birds</i>	
Domestic fowl	12
<i>Amphibians</i>	
Common frog	32
Toad	3

Body part distribution and Articulating/Associated Bone Groups (ABGs)

In general, all body parts are well represented by the disarticulated anatomical distributions of the main domesticates (food animals; see Table 11) which is indicative of the disposal of waste from local slaughtering, butchering and consumption of the cattle, sheep and pigs. The presence of partial skeletons (ABGs) of a young bull [9366], female chicken [9338] and small dog [9194] may originally have been disposed of as complete carcasses. but

owing to post-depositional processes and disturbances there was a loss of certain elements. ABGs such as the hind leg bones and vertebrae of a young bull or ox, and jawbones, part vertebral column, pelvis and hind leg bones of an adult horse and hind leg bones of a foal probably represent the products of butchering/cutting up of carcasses in the vicinity.

Conclusions and discussion

Overall, the animal bone evidence points to the existence of a local pastoral economy, which in the Iron Age was based principally on sheep with cattle of secondary importance. By the late Iron Age/early Roman and throughout the Roman period (1st to 3rd centuries), however, there appears by then to have been a shift in emphasis to a much higher proportion of cattle, with a corresponding reduction in the numbers of sheep.

For the Roman period, horses are also strongly represented. It is clear this animal was important to the livestock enterprise, and would have played an invaluable role during the movement of cattle and sheep between grazing areas and paddocks.

Dogs would additionally have been of service in livestock management. Although not entirely uncommon on Roman sites, the presence of the dwarf hound at the Aston Clinton site is noteworthy, given its rural rather than urban context. Commenting on the presence of very small dogs in the Roman period, Harcourt (1974, 164) suggested these animals were too small to have served any other purpose than as household pets or lap dogs; a view also held by Teichert (1987, 71) who believed they would have been bred as high-status, luxury pets. Baxter (2006, 19), whilst accepting some of these dogs were indeed kept as pets, makes the observation that at rural sites dwarf hounds may have been primarily used in herding cattle and sheep “in similar fashion to the recent Corgi”. This herding role would certainly provide the best explanation for the presence of such an animal at the Aston Clinton site.

Insight into the surrounding environment comes from the micro-fauna recovered from the sieved samples. The existence in the area of bodies of water and ditches with grassy banks explains the occurrence of water vole, common frog and toad, whilst the presence of rough, ungrazed grassland is indicated by the field voles. House mice show

that human habitation and/or farm buildings were nearby.

ANIMAL BONE FROM CREMATIONS by Sander Aerts

Cremation fill of B9 contained 19 fragments (2.3g) of cremated animal bone, including neonatal sheep/goat calcaneus. The other cremated fragments could not be identified to species, but are likely to derive from the same individual. One unburnt rodent maxillary fragment was identified from the same fill.

Two fragments, or 0.4g of unidentifiable burnt animal bone were associated with cremation fill of B2/B3 and a further 6.4g of unburnt animal bone fragments were retrieved from the same deposit. These included a number of unfused medium mammal vertebra fragments. These remains are too fragmented for identification purposes.

SOIL MICROMORPHOLOGICAL ANALYSIS by Charles French

Two block samples were taken from a rural dark earth sequence at the Roman settlement for micromorphological analysis (Courty *et al* 1989). The sample blocks were made into thin sections (Murphy 1986) and described using the accepted terminology of Bullock *et al* (1985) and Stoops (2003). The detailed descriptions and photomicrographs are in Archive.

The soil profile present at Aston Clinton is a relatively well developed and stable silt loam soil with little sign of anthropogenic inclusions or human activity in or on that soil. This soil is acting as the B horizon of the present day soil profile. Silt size material predominates, reflecting the underlying geological sources with the silty (dusty) clay fraction well integrated with the groundmass. This silty clay fabric is a shrink-swell fabric much affected by wetting and drying (Kuhn *et al* 2010; Lindbo *et al* 2010). There are also some redoximorphic features, mainly sesquioxide nodules and an iron-panned lens at the base of sample 1, which testifies to the alternating rise and fall of the ambient local groundwater table (Lindbo *et al* 2010). Unfortunately there is no sign of any real anthropogenic inputs or alterations to this soil.

TABLE 11 Summaries of anatomical distributions of the major animal species represented

	<i>Cattle</i>	<i>Sheep/goat</i>	<i>Horse</i>	<i>Dog</i>
Horn core	5	1	—	—
Horn core & skull	1	—	—	—
Skull	7	7	—	2
Premaxilla	3	1	—	1
Maxilla	3	—	—	6
Mandible	34	8	5	2
Incisor	1	1	1	—
Canine	—	—	—	2
Upper cheekteeth	33	15	6	—
Lower cheekteeth	31	7	6	—
Indet tooth frag.	—	—	1	—
Indet.vertebral frag.	9	2	—	—
Atlas	1	—	—	—
Axis	2	—	—	—
Cervical	7	2	3	1
Thoracic	22	1	1	1
Lumbar	15	—	1	1
Sacrum	3	—	—	1
Caudal	2	—	—	—
Rib	37	12	1	9
Scapula	26	3	—	1
Humerus	15	6	1	2
Radius	12	4	2	2
Ulna	2	1	1	1
Radius and ulna	—	—	1	—
Carpal	9	1	2	—
Metacarpus	13	6	7	—
Innominate	17	5	4	1
Femur	11	4	—	5
Tibia	8	13	3	4
Calcaneum	8	—	3	1
Fibula	—	1	—	—
Patella	—	1	—	—
Astragalus	6	—	2	1
Tarsal	1	—	4	—
Os centrotarsale	1	1	—	—
Metatarsus	22	7	6	2
Metapodial	—	1	2	1
Phalanx I	20	5	2	1
Phalanx II	11	2	1	—
Phalanx III	5	—	1	—
Sesamoid	10	—	—	—
Long bone shaft frag.	66	40	—	—
Totals	479	161	67	48

LAND SNAIL EVIDENCE

by Michael J Allen

Land snail preservation was low to moderate on the gleyic brown calcareous earths of the Block Association mapped and observed over the site. Shell preservation on the whole was not good (with less than 200 shells recovered in 40 litres (= *c.*5/kg), nor uniform. Overall terrestrial species predominate, but there is a significant freshwater (*Valvata* spp., *Galba truncatula*, *Radix balthica*, *Annisus*, *Gyraulus albus*) and slum (*Succinea*, *Oxyloma*, *Vertigo angustior*) component.

The site seems to contain a mosaic of dry open bare soils, mesic herbaceous vegetation, local marshy (but probably not reedy) vegetation, seasonal standing pools of water and muddy ditches subject to summer desiccation. The general damp conditions largely relate to locally high groundwater tables. There is no evidence of woodland or even carr habitats (wooded swamp/wooded marsh) locally, more of reedy marsh and pools of open deep still water. The locally wet and moist nature of the open lowland landscape is indicated by the presence of amphibious, true aquatic and slum species, as well as a mesic component to the terrestrial assemblages. There is, however, also evidence of dry herbaceous habitats (grassland), probably on the ridge, and possible hints of highly localised bare earth, trampling and occupation, but set within a mosaic of wet pools, water-filled ditches, and damp short herbaceous grassland (?pasture) wet longer herbaceous and marshy vegetation.

Overall, therefore, the snail evidence does not suggest an intensively farmed landscape. In fact, quite the reverse. The indication is of an area with low-level grazing and pasture, with the activity centred (possibly even seasonally) on the ridge where occupation, marketing and trade, rather than the farming and tilling the local land, took place.

CHARRED PLANT MACROFOSSILS

by Val Fryer

Forty-six samples were submitted for assessment (Allen 2015), of which six were selected for full quantification and analysis. Cereal grains, chaff and seeds of common weeds and wetland plants are present at varying densities within all six assemblages. Preservation is variable; most of the grains and some seeds are severely puffed and distorted,

whilst other seeds and most of the chaff elements are reasonably well preserved. The reason for this dichotomy is unclear, but it would appear that the poorly preserved cereals have been subjected to very high temperatures during combustion.

Oat (*Avena* sp.), barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains are recorded, wheat being predominant throughout. Of the wheat grains, most are of an elongated 'drop' form typical of emmer (*T. dicoccum*) or spelt (*T. spelta*), although occasional more rounded hexaploid type forms are also present. Bread wheat (*T. aestivum/compactum*) type chaff is entirely absent, but double keeled spelt glume bases are recorded within all but sample from the Roman enclosure ditch E8 [9686] (sample 22); occurring at a high density within the assemblages from early Roman southern enclosure E6 ditch [9573] (sample 49) and later Roman ditch D11 [9803] (samples 56). Although many of the grains are quite poorly preserved, specimens within samples from the middle to late Roman ditch D5 [9526] (sample 47), and samples from E6 ditches [9573] and D11 [9803] (samples 49 and 56) have distinct dorsal grooves and deeply concave sides, almost certainly indicating that they had germinated prior to charring. Detached sprouts and embryos are also present within all three assemblages and grains with intact sprouts are noted within sample from E6 ditch [9573]. Ditch D5 [9526] also includes a number of grains with transverse breaks displaying distinct convex surfaces, probably indicating that they had been gristed or roughly ground before they were burnt.

Seeds of common segetal weeds and/or grassland herbs are present within all six assemblages, although rarely at a high density. Taxa noted most frequently include orache (*Atriplex* sp.), brome (*Bromus* sp.), small legumes (*Fabaceae*), medick/clover/trefoil (*Medicago/Trifolium/Lotus* sp.), grasses (*Poaceae*, including meadow grass (*Poa* sp., dock (*Rumex* sp.) and scentless mayweed (*Tripleurospermum inodorum*). A limited range of wetland plant remains, namely sedge (*Carex* sp.) and spike-rush (*Eleocharis* sp.) nutlets and seeds of blinks (*Montia fontana*), is also recorded. Highly comminuted fragments of charcoal/charred wood are also present along with small pieces of charred root or stem and indeterminate culm nodes and inflorescence fragments.

Small fragments of black porous and tarry material, all of which are thought to be residues

of the combustion of organic remains (including cereal grains) at very high temperatures, are present throughout, but other remains occur less frequently.

WOOD CHARCOAL by Dana Challinor

Despite the quantity of samples taken during the excavations site, the preservation of charcoal was remarkably poor (Allen 2015). Five samples from the fills of ditches and pits were submitted for analysis, with the aim of examining the nature and composition of local woodland in the Iron Age and Roman periods.

A total of 54 fragments were examined, from which five discrete taxa were identified; *Quercus* sp. (oak), *Corylus avellana* (hazel), *Prunus* sp. (blackthorn/cherry), *Maloideae* (hawthorn, apple, rowan etc.) and cf. *Cornus* sp. (dogwood). The *Prunus* exhibited large rays in the transverse section consistent with *P. spinosa* (blackthorn) but since the material was too fragmented to examine in longitudinal section, the identification could not be confirmed at species level. Likewise, the probable *Cornus* fragment in sample 56, exhibited the diffuse pore structure and scalariform plates appropriate for the native *Cornus* (*C. sanguinea*, dogwood), but not all of the characteristics could be verified. The fragment derived from small roundwood (2 years with pith and cambial edge) and very immature stems can be difficult to distinguish from other taxa (such as *Viburnum*). The condition of the charcoal was generally poor, making positive identification difficult and inhibiting the determination of maturity. Only a few oak fragments could be positively ascribed to heartwood or sapwood (on the presence/absence of tyloses), even in sample 22 which produced an abundant charcoal assemblage. This appeared to consist entirely of oak fragments, which were heavily vitrified and exhibited large and frequent radial cracks.

DISCUSSION

The recent extensive archaeological work undertaken in advance of development to fulfil planning conditions has increased the data set and potential for understanding of the origins and development of the landscape during the late Iron

Age and Roman periods. This has been helped by comparing this work to excavations nearby at Coldharbour Farm, Aylesbury and at sites along the Aston Clinton Bypass (RPS A and B; Bonner & Parkhouse 1997; Masefield 2008) prior to the Aston Clinton College Road site being completed in 2012 (Fig 1). Further work around Aston Clinton and east of Aylesbury has been undertaken since, including at Stablebridge Road, Aston Clinton and at Aylesbury, Aston Clinton Road (M Morris 2017; Orzechowski 2018) and an overview of archaeology of the Icknield belt (Alqassar & Kidd 2018). These works provide the background to interrogate the origins, development and function of the landscape as well as the position of the site within it. It should be noted that over the next few decades the data set will expand significantly further with the results from forthcoming large-scale works.

The late Iron Age and early Roman occupation

Overview

Settlement at College Road was located on a 'greenfield' site with pre-existing natural ponds in the late 1st century BC. The start date here is similar to Stablebridge Road, Aston Clinton, which was also located on a 'greenfield' site in c.AD 30 next to a spring and palaeochannel (M Morris 2017, 18). Similarly, the location of a nearby watercourse to the site at Aston Clinton Road, Aylesbury was probably a factor in the settlement's establishment at this location in the early to middle 1st century AD. The location is similar to Coldharbour Farm, Aylesbury, where the settlement was also closely bounded to the west by the former course of the Southcourt Brook (Bonner & Parkhouse 1997, 79). At Biddenham Loop, Bedfordshire all the late Iron Age/Roman farmsteads were located on the gravel terrace immediately above the edge of the flood plain, within 160m of the present river (Luke 2016, 241). Meade (2010, 35) notes the preference for a riverside position for settlement in Central Bedfordshire throughout the late Iron Age and Roman periods. This is also true of Northamptonshire, for example at Bozeat Quarry, the southern and northern late Iron Age settlements dating from c.AD 10 were located c.250m west from the Grendon Brook and c.100m to the south of a tributary of the Grendon Brook respectively (Atkins 2018).

TABLE 12 Charred plant remains from selected samples analysed

<i>Date</i>	(<i>century AD</i>)	<i>1st-2nd</i>	<i>2nd-4th</i>	<i>1st-2nd</i>	<i>2nd</i>	<i>2nd-4th</i>	<i>2nd-4th</i>
	<i>Feature no and type</i>	<i>Pit</i>	<i>Pit</i>	<i>E6</i>	<i>E8</i>	<i>D5</i>	<i>D11</i>
	<i>Context no.</i>	<i>9480</i>	<i>9458</i>	<i>9573</i>	<i>9686</i>	<i>9526</i>	<i>9803</i>
	<i>Sample no.</i>	<i>9479</i>	<i>9455</i>	<i>9570</i>	<i>9183</i>	<i>9525</i>	<i>9801</i>
		<i>40</i>	<i>37</i>	<i>49</i>	<i>22</i>	<i>47</i>	<i>56</i>
Cereals	Common name						
<i>Avena</i> sp. (grains)	Oats	3fg	–	17	1cffg	90	1+1cf
(awn frags.)	–	4	–	4	–	2	1
<i>Hordeum</i> sp. (grains)	Barley	–	1cf	4cf	4+2cf	–	1+1cf
<i>Triticum</i> sp. (grains)	Wheat	3	90	129	6+2cf	203	65
(germinated grain with attached sprout)	–	–	–	2	–	–	–
(glume bases)	–	2	9	83	1	7	159
(spikelet bases)	–	–	–	22	1	4	37
(rachis internodes)	–	–	–	17	–	3+1cf	21
<i>T. dicoccum</i> Schubl. (glume base)	Emmer	–	–	–	–	1cf	–
<i>T. spelta</i> L. (glume bases)	Spelt	5	6	384	–	36	565
Cereal indet. (grains)	–	6	38	30	9+15fg	84	12
(detached sprouts)	–	–	–	44fg	–	4fg	25fg
(detached embryos)	–	2	–	8	–	4	1
Dry land herbs							
<i>Aphanes arvensis</i> L.	Parsley-piert	–	1cf	–	–	–	–
Apiaceae indet.	–	–	–	–	–	1fg	–
<i>Atriplex</i> sp.	Orache	–	1	7	–	2	7
Brassicaceae indet.	–	–	3+4fg	–	1	–	1fg
<i>Bromus</i> sp.	Brome	5+21fg	2+2fg	10+4fg	13+15fg	10+11fg	10+24fg
<i>Chenopodium album</i> L.	Fat hen	1	–	–	–	–	–
<i>C. ficifolium</i> Sm.	Fig-leaved goosefoot	–	–	10	–	–	–
<i>C. polyspermum</i> type	All-seed	–	–	28	–	–	1cf
Chenopodiaceae indet.	–	–	–	–	1tf	–	5
Fabaceae indet.	Small legumes	2cfcoty	10+20coty	1cf	1+5coty	1+1cotyfg	4coty
<i>Fallopia convolvulus</i> (L.) A. Love	Black bindweed	1cf+5tf	1	–	–	–	2
<i>Galium aparine</i> L.	Goosegrass	–	–	–	1fg	–	–
<i>Linum</i> sp.	Flax type	1cf	–	–	–	–	–
<i>Medicago/Trifolium/Lotus</i> sp.	Medick/clover/trefoil	1cf	–	4	–	2+2cf	3cf
<i>Papaver dubium</i> L.	Long headed poppy	–	–	–	–	–	1cf
<i>P. somniferum</i> L.	Opium poppy	–	–	1cf	–	–	1
<i>Plantago major</i> L.	Greater plantain	–	–	1cf	1cf	–	–
Small Poaceae indet.	Grasses	29+1cf	4	48	4	61	8
Large Poaceae indet.	–	–	–	7	3	1fg	–
<i>Polygonum aviculare</i> L.	Knotgrass	–	7+2cf	2	–	–	–
<i>Polygonaceae</i> indet.	–	–	3	–	–	1	–
<i>Ranunculus</i> sp.	Buttercup	1cf	–	–	–	–	–

<i>Date</i>	(<i>century AD</i>) <i>Feature no and</i> <i>type</i> <i>Context no.</i> <i>Sample no.</i>	<i>1st-2nd</i> <i>Pit</i> <i>9480</i> <i>9479</i> <i>40</i>	<i>2nd-4th</i> <i>Pit</i> <i>9458</i> <i>9455</i> <i>37</i>	<i>1st-2nd</i> <i>E6</i> <i>9573</i> <i>9570</i> <i>49</i>	<i>2nd</i> <i>E8</i> <i>9686</i> <i>9183</i> <i>22</i>	<i>2nd-4th</i> <i>D5</i> <i>9526</i> <i>9525</i> <i>47</i>	<i>2nd-4th</i> <i>D11</i> <i>9803</i> <i>9801</i> <i>56</i>
<i>R. acris/repens/bulbosus</i> type	Meadow/ creeping/ bulbous buttercup	–	–	1	–	–	1
<i>R. parviflorus</i> L.	Small-flowered buttercup	–	3	–	–	–	–
<i>Rumex</i> sp.	Dock	1+1cf	–	29+4fg	4	16+2fg	33
<i>Tripleurospermum</i> <i>inodorum</i> (L.)	Scentless mayweed	2	–	3	–	4	8
Schultz-Bip							
<i>Urtica dioica</i> L.	Stinging nettle	1cf	–	–	–	–	–
<i>Valerianella dentata</i> (L.) Pollich	Corn salad	–	1	–	–	–	1
<i>Viola</i> sp.	Pansy type	–	–	–	–	–	1cf
Wetland plants							
<i>Carex</i> sp.	Sedge	–	–	3	–	–	2+1cf
<i>Eleocharis</i> sp.	Spike-rush	1	5	–	–	–	4
<i>Montia fontana</i> L.	Blinks	1	12+3fg	–	–	–	–
Other plant macrofossils	–	–	–	–	–	–	–
Charcoal <2mm	–	xxxx	xxx	xxx	xxxx	xx	xxx
Charcoal >5mm	–	–	–	x	xx	–	–
Charred root/stem	–	–	xx	–	x	x	x
Indet. culm nodes	–	–	1	–	1fg	–	–
Indet. inflorescence frags.	–	–	–	xxx	x	–	xx
Indet. seeds	–	23	4	11	7	–	4
Other remains							
Black porous ‘cokey’ material	–	x	xx	x	x	x	xx
Black tarry material	–	x	xx	x	–	–	–
Bone	–	–	xx	–	xb	–	x
Burnt/fired clay	–	x	xxx	–	xxx	–	–
Burnt stone	–	–	–	–	x	–	–
Charred arthropod	–	–	–	1	–	–	–
Fish bone	–	x	–	–	–	–	–
Ostracods	–	xpmc	xpmc	–	–	–	–
Small coal frag.	–	–	–	x	–	–	–
Small mammal / amphibian bones	–	–	xpmc	–	xpmc	–	–
Vitreous material	–	–	–	–	x	–	–
Sample volume (litres)		10	40	40	40	40	40
Volume of flot (litres)		<0.1	0.2	<0.1	0.1	<0.1	<0.1
% flot sorted		100	100	100	100	100	100

Key:

x = 1–10 specimens; xx = 11–50; xxx = 51–100; xxxx = 100+.

fg = fragment; cf. = compare; coty = cotyledon; tf = testa fragment; b = burnt; pmc = possible modern contaminant

Of all the nearby excavated sites, only the Aston Clinton Bypass RPS Site B pre-dated College Road by some time, having been occupied from at least the early Iron Age (Fig 1; Masefield 2008). It is also interesting to note that those sites established on Gault and Greensand subsoil developed earlier (RPS Site B (Masefield 2008) and later College Road), whereas sites with a largely clay subsoil seem to be later in the sequence (Aylesbury, Aston Clinton Road (Orzechowski 2018) and Stablebridge Road, Aston Clinton (M Morris 2017).

The late Iron Age establishment of the site can be seen as typical for sites in the region. Analysis of excavation reports have shown that over 60% of Roman settlements within the Central Belt of England, which included the Aylesbury area, started in the late Iron Age (Smith *et al* 2016, fig 5.8). This phenomenon of new settlements starting just pre-Conquest has also been remarked on in neighbouring counties including Bedfordshire. Simco (1984, 12), for example, stated that there was “Belgic expansion across Bedfordshire” and she saw the new settlements occurring almost exclusively on the better soil with Belgic occupation hardly ever occurring away from the valleys (*ibid*, 14).

Landscape history

The site lies in a landscape character area referred to as the ‘Icknield Belt’, which takes its name from the Icknield Way. The Icknield Way is thought to be located *c.*3km to the south-east at the Stablebridge Road, Aston Clinton excavation area (M Morris 2017). It was probably an ancient trackway, one of the oldest within Great Britain, believed to run from Norfolk to Wiltshire, through the chalk escarpment including the Berkshire Downs and the Chiltern Hills, but may simply have been a series of unrelated medium and short-distance prehistoric trackways (Harrison 1993, 17–18). The Icknield Belt is sandwiched between the claylands of the Midlands and the Chilterns to the south-east. The site sits close to the base of the Chiltern scarp.

As part of attempt to start to refine a landscape history and to define a research framework, Eliza Alqassar and Sandy Kidd (2018) have drawn together the findings of some of those sites and have attempted to refine further E J Bull’s (1993) theory as to the origins and development of bi-axial trackways. Bull makes the case for the Bronze Age origins of the modern landscape and suggests that

the parallel routeways of College Road and the local Buckland to Puttenham road are Bronze Age in origin. Between them and on the same alignment there was another land boundary or routeway which corresponds with the slight ridge of high ground across the excavation area. If Bull’s conjecture is correct, then the ridge of ground must have been significant and visible enough to be both a land boundary and routeway. This ridge of high ground was demonstrably a by-product of the Holocene period. If this ridge extended for some distance between marshy ground it would provide a natural focus for occupation. Allen has made the case that the ridge was clearly more pronounced in the Iron Age and Roman periods than it was prior to the development of the site.

In the late Iron Age, the existing prehistoric trackway network, possibly based around the Icknield Way, was probably supplemented by new routeways in the late Iron Age as a result of newly established settlements needing access to each other, as well as to local and regional markets. A relatively nearby example of this expansion of the routeway network is the Avenell Way, where a new late Iron Age route was probably constructed to allow direct communications between the markets of Cambridge and Baldock. This routeway possibly extended on to Welwyn and St Albans (Atkins & Hurst 2014, 100). This development of new routeways and associated settlements in the late Iron Age should also be seen in its regional and national context. It is noticeable that within the eastern region and much of the rest of Britain, the later Iron Age witnessed increased population levels and establishment of new settlements linked by a network of tracks and droeways (Taylor 1979, 21; Cunliffe 1995, 113; Haselgrove *et al* 2001, 29), connecting into the pre-existing trackway network.

Continuation of occupation from late Iron Age to Roman

Until recently, it was noted and recorded that within the clay soils around Aylesbury the evidence for continuity of late Iron Age settlement into the Roman period was uncertain (Zeepvat & Radford 2010, 75). More recently, excavations have proven that there was considerable continuity of occupation from pre- to post-Conquest periods on the clay soils. This can be seen by the results of excavations at the College Road site and also at Aston Clinton Road (Orzechowski 2018), Stablebridge Road,

Aston Clinton (M Morris 2017), College Road and Aston Clinton Bypass RPS Site B (Masefield 2008, 193). The present site is therefore similar to the Vale of Aylesbury where, on Portland limestone soils, there is good evidence of continuity of late Iron Age settlement into the Roman period (Zeepvat & Radford 2010, 75).

In the Roman period, Akeman Street was established adjacent to the north of the Aston Clinton Road site. It was a major road that linked Watling Street with the Fosse Way (Copeland 2009). Near to Aston Clinton Road, an excavation through Akeman Street suggested a mid to late 1st-century AD date for its construction (Brady & Biddulph 2017, 5).

Akeman Street seems to have been imposed into a busy landscape of established farmsteads largely dating from the late Iron Age (Fig 3). Aston Clinton Road (Orzechowski 2018) and other farmsteads nearby including RPS Site 'A' (Masefield 2008) would have been affected by this road running through their field systems (Fig 1). Alqassar & Kidd (2018) noted that most of these rural settlements were aligned north-west to south-east and do not appear to reflect the alignment of Roman Akeman Street.

Settlement

At College Road the settlement seems to have been at least partly enclosed from its start in the late Iron Age and mostly enclosed in the early Roman period. By the late Iron Age and early Roman period the ridge was clearly defined and dry enough to enable the digging of drainage ditches, followed by the formation of small enclosed paddocks defined by shallow gullies and probably hedgerows. Settlement was probably located further away on higher ground to the south-east, the ridge forming a routeway linking the paddocks with settlement and grazing ground. The alignment of the drainage features and the enclosures respected the ridge, while the access/egress points for the enclosures were along the lower western slope of the ridge.

The Aston Clinton site has similarities with some other nearby settlements concerning when it was enclosed. At Stablebridge Road, Aston Clinton, the site was partly enclosed by the end of the 1st century AD before removing its enclosing boundaries (M Morris 2017, figs 8-11). Aston Clinton Bypass RPS Site B was enclosed in the late Iron Age/early Roman period (Masefield 2008,

fig 25). At Milton Keynes some sites seem to have been enclosed, including Broughton Manor Farm area 1, or partly enclosed, as in area 2 (Atkins *et al* 2014, figs 3.20 & 3.23) whereas Old Stratford, near Milton Keynes, was unenclosed (S Morris 2017). In the eastern region, partly or fully enclosed settlements were regularly established from the middle Iron Age and by the middle to late Iron Age these had become the norm (Brown forthcoming).

Evidence from College Road, Aston Clinton, was for a generally pastoral environment, comprising a mesic landscape of short grass and meadow with the naturally occurring, seasonally flooding pools forming rich grazing for sheep. Here small enclosures were of a size to manage small livestock animals although there would have been horses and some cattle. Arable land was elsewhere; the heavy alluvial clay soils were not generally suitable for growing crops. Secondary crop products were brought in to provide fodder for livestock. The Iron Age evidence indicates a wet environment resulting in seasonally standing water; here the lower fills tended to be silts caused by standing water. This is true of most sites in the area. Kidd (2007) says that the heavy clay soil around Aston Clinton was more suitable to pastoral farming.

Similarly, at Stablebridge Road, Aston Clinton, the evidence for animal bones indicated that sheep/goat predominated, with some cattle and pig, but no wild animals (M Morris 2017, 158). Here the site was mostly grassland but evidence pointed to a possible mixed-farming community but with pastoral farming more dominant (M Morris 2017, 159). A possible animal pen/stock corral was identified at the Aston Clinton Road site (Orzechowski 2018). Only a small quantity of animal bones, mainly cattle, were found at Aston Clinton Road and this has meant that no firm conclusions can be drawn.

Bedding trenches

At some point the local farming community began to augment their subsistence economy by growing of soft fruit or vegetables. The cultivation trenches DG1 in Area A formed the basis for the planting of crops in raised beds between the trenches (Fig 2). *Vitis* type pollen was absent from the sample taken from DG1 and no seeds were recovered from the sampled fills so the crop planted can only be broadly conjectured. It was not uncommon to have such bedding trenches in the late Iron Age and

early Roman periods with a number of other sites across the midlands and south-eastern England where similar bedding trenches have been found.

In the Nene Valley there have been three notable sites where comparable bedding trenches have been found: Wollaston (Meadows 1996), Wellingborough (Clarke & Bassir 2014) and Grendon (Jackson 1995), as well as other nearby sites such as Ampthill, Bedfordshire (Brown 2010). Based on the available evidence it appears that there would have been a major centre around Wollaston in Northamptonshire where at least 11ha of bedding trenches were recorded. Here there was firm evidence for vine planting; *vitis* pollen was recovered from samples (Brown *et al* 2001). There are examples of similar date further afield including at Waddesdon (Albion Archaeology 2006) and at Love's Farm, St Neots, Cambridgeshire (Hinman & Zant 2018). This tradition of planting soft fruit or vegetables continued into the 2nd century AD, although the bedding trenches at College Road appear to have gone out of use in the 1st century AD.

Routeways

College Road's routeway 2 was 10m wide and may have linked the settlement with Akeman Street, 1.5km to the south-east. It is worth noting that this routeway is also on the same alignment as the earlier boundaries and land divisions, suggesting a continuity of land division and routes pre-dating Akeman Street. In contrast, the earlier routeway 1 was far narrower and linked enclosures within the settlement, but with no evidence that it continued beyond the settlement to other settlements. It may be that Routeway 1 and the associated enclosures predate the construction of Akeman Street and that the subsequent realignment of enclosures and routeway 2 is a direct outcome of Akeman Street's construction.

The new Roman road of Akeman Street would have influenced the College Road site in other ways. For instance, along this road the roadside settlement or small town at Fleet Marston was established, some 9km north-west from the Aston Clinton Road settlement (Zeepvat & Radford 2007, 3; Zeepvat & Radford 2010, 80). This was probably the nearest market accessible to the settlement at Aston Clinton Road and was located within a day's journey, based on the estimation that one could walk 10–12km and back in a day (and travel further

distances in a day by horse, with pack animals or in a cart) (Burnham & Wachter 1990, 44).

The regional research framework for the area has highlighted that there is increasing evidence for an extensive network of trackways and drove roads linking fields, farmsteads and communal gathering places (Lambrick 2014, 146). Routeways tend to run between the higher ground of the Chiltern escarpment and the lower ground in the Vale of Aylesbury rather than running along the escarpment. Routeway 2 at College Road fits into this pattern, which also appears to predominate at other sites of a similar date within the Aston Clinton area including at Aston Clinton Road (Orzechowski 2018) and the Aston Clinton Bypass RPS Site B (Masefield 2008, 194), which was in use from the late Iron Age and throughout the Roman period. At Aston Clinton Road in the late Iron Age/early Roman periods there was a long boundary ditch aligned north-west to south-east as well as other less substantial features (Orzechowski 2018). It is unclear whether this ditch was a pre-routeway feature with the other extent of this routeway not defined, or whether the boundary ditch had only been part of an early field system. In the early Roman period, the Aston Clinton routeway may have been metalled. If that is the case it mirrors the 'rough metalling' of the trackway recorded at Aston Clinton Bypass RPS Site B (Masefield 2008, 194).

Slightly further afield, this orientation is also true of Coldharbour Farm, Aylesbury (Bonner & Parkhouse 1997), the enclosure orientation at Watermead Roundabout, 4km to the north-west (Dalwood & Hawkins 1988) and the Roman enclosures at Weedon Hill, 5km to the north-west (Wessex Archaeology 2007). The exception is at Stablebridge Road, Aston Clinton *c.*4.2km east-south-east of the site, where towards the end of the 1st century, or during the early 2nd century, a *c.*20m wide driveway was laid out, bisecting previous occupation as it traversed the site in a south-west to north-east alignment, parallel to the Chiltern escarpment (M Morris 2017, fig 10).

Economic status of the late Iron Age and early Roman farmstead

Pottery analysis suggests the settlement was at a basic utilitarian level with few fine wares, imported regional and continental wares, and with samian pottery comprising less than 2% of the total number of pottery recovered.

The small numbers of early Roman metal objects found at College Road, excluding artefacts placed in graves, supports this interpretation of a lower-status working farm. These consist of two brooches, a mortar and a few iron objects found within the settlement. The low numbers of objects and absence of coins, is striking, though not an unusually sparse picture for the area. Five copper-alloy brooches (as well as some nails) dating to the late 1st to 2nd centuries AD were found within the Aston Clinton Road site (Orzechowski 2018). At the Aston Clinton Bypass RPS Site B, a total of four brooches were found, although there were far more other metal objects recovered (Masefield 2008, 120–130).

The early Roman burials

Thirteen probable 1st to 2nd-century human burials were found, comprising three cremations and 10 inhumations (Table 13). It is possible that three of the inhumations were much later, possibly as late as the c.4th century, although the evidence for this is conflicting. The evidence for later interment comprises a 4th-century coin from burial B4 (Hylton & Meadows, above) and two glass beads in HB12, one of which has been generally dated to the 4th century. However, given that B4 may have been heavily disturbed (the torso and arms were not present) it is possible that the coin is intrusive from overlying deposits. The coin found with burial B4 was also accompanied by a pottery bowl of 2nd-century date found covering the right shoulder. Again, it is possible that the bead in B12 may be intrusive or it had been made much earlier than the 4th century. Burial B5 may also be later than the 2nd century as it was within a pit which cut the upper portion of the 2nd-century enclosure ditch (E8).

Although the number of burials involved is relatively low, it is the equal-seventh largest found in the county (not including the town of *Magiovinium*; Atkins *et al* 2014, table 4.24). However, all six of the larger burial grounds were in the Milton Keynes area, which led Atkins *et al* (2014, 233) to speculate that the Milton Keynes area may have had a different or more distinctive burial practice than elsewhere in Buckinghamshire. This means College Road is of more significance as the largest rural Roman burial ground in this sub-region.

The imbalance between the number of inhumations outnumbering cremations is unusual for

Buckinghamshire as a whole especially for burials in the 1st and 2nd centuries AD. Across Buckinghamshire in this period there have been at least 262 cremations identified (excluding barrows) but only at least 189 inhumations (*ibid*, table 4.24). This data seems to mask a difference in the county with the southern part of Buckinghamshire may have had more inhumations than cremations. The nearest comparison to College Road is West Wycombe, where thirteen inhumations (and no cremations) were probably dated to the 2nd century by two radiocarbon dates (Farley & Wright 1979). From Aylesbury itself, eight to ten inhumations were found in 1925 which may be late Roman in date (HER 0182500000).

In Milton Keynes, covering the northern third of the county, cremations dominate in five of the six rural settlements with the most human remains. The villa at Stanton Low is the exception with 17 inhumations and at least two cremations (Woodfield with Johnson 1989). The Stanton Low inhumations were a mixture of eleven dating to the late 2nd century and six which dated to the 4th century. From the town of *Magiovinium* there have been 47 inhumations (where dated, they were 3rd to 4th century) and 44 cremations (Atkins *et al*, table 4.24).

In contrast to College Road, archaeological work around Aston Clinton has produced the remains of four individuals at Stablebridge Road (M Morris 2017). The Aston Clinton Bypass produced up to three late Iron Age or early Roman cremations (Masefield 2008, 51) and in the 19th century a late Iron Age cremation was found south-west of Aston Clinton (Anon 1870, IV, 147). At the Aston Clinton Road site there were no burials, although two fragments of human bone were found in a ditch dating to the mid 1st to 2nd century AD (Orzechowski 2018, 95).

At College Road, the eastern group of two inhumations (B7 and B8) was located c.30m from any other feature. A single inhumation, B6, was located adjacent and parallel to the eastern enclosure ditch, just beyond the settlement. The northern burial group was located at the northern side of the settlement focus but within an enclosure. The deliberate location of burials at the periphery of sites and adjacent to enclosure ditches is common. At Wavendon Gate, Milton Keynes, 12 or 13 2nd-century cremations lay in the north-west corner of the eastern bay of an enclosure on the

TABLE 13 Human burials

<i>Burial</i>		<i>Age/ Sex</i>	<i>Grave goods</i>	<i>Other</i>
Eastern group (1st to 2nd century AD)				
B6	Inhumation	Adult male (35-50)	Grog-tempered Beaker	Other
B7	Inhumation	Adult	—	—
Isolated (1st to 2nd century AD)				
B8	Inhumation	Adult ?male	—	—
Northern burial group (1st to 2nd century AD)				
B9	Cremation	Adult	Five grog-tempered vessels. One (jar) + four accessory vessels (three jars and a bowl or dish); cremated neonatal sheep/ goat	1223g; urned (jar)
B10	Inhumation	Adult male (35-50)		
B15	Inhumation	Adult ?female (35-50)		?infectious disease
Northern burial group (2nd century AD)				
B1	Inhumation	Adult male (35-50)		Decapitated
B2	Cremation	Adult	Grog-tempered Jar (urn); Two brooches;	Urned; 540g
B3	Cremation	Adult	armlet; knife;	Unurned; 272g
B4	Inhumation	Adult ?male (18-35)	Grey ware Jar or a beaker; ?coin	Decapitated
B5	Inhumation	Adult male		
B11	Inhumation	Adult ?male		
B12	Inhumation	Adult ?female (18-35)	Two glass beads	Decapitated

periphery of the site (Williams *et al* 1996, 42). At Bancroft villa, Milton Keynes a cremation cemetery appeared to have respected the position of a driveway (Williams and Zeepvat 1994, fig. 30).

The ten inhumations at College Road included three with grave goods: two had single pottery vessels and the third had two beads (Table 13). The northern burial ground contained only adults, with no definite juveniles present. There was also a gender imbalance with seven males in comparison to only two females. There was a high percentage of decapitation burials with three (two male and

a female) all from the northern burial group of seven inhumations. The female decapitation had the two beads and one of the males a jar or beaker, whereas the other was unfurnished. Inskip (above) has raised the possibility that the northern burial ground may have been for social deviants or victims of violence but qualifies this by noting that recent interpretations suggest that there may be a ritual rather than a punitive element and this seems to have been supported by the accompanying grave goods. Burial B5 was slightly more unusual as it had been buried in a former large pit, and this may

therefore have suggested it had a less formalised burial, perhaps less respectful in nature. It is also significant that stratigraphically this burial clearly post-dates the abandonment of the enclosure ditch, respected by all the other burials in this group and is therefore almost certainly the final burial of the settlement after the retraction of the enclosure in the 3rd/ 4th century.

Three cremations were found in the northern burial group and were in Aylesford-Swarling style, in keeping with other local and wider geographic examples. No evidence for funeral pyres was found on the site, but this may be due to the rites being conducted beyond the excavated area. All three cremations were buried with grave goods collectively comprising two brooches, an armlet, knife, animal remains and six locally made pottery vessels. Two cremations were buried in urns with a third, unurned cremation (B3), perhaps being a secondary deposition to B2.

The practice of placing an urned cremation with other offertory vessels of 1st-2nd century date is not unknown in Aylesbury Vale. A cremation at Wellwick Farm, Wendover (Zeepvat 2003), c.4km to the south-west of the site, was placed in a wooden box with at least eight other vessels including two large Central Gaulish Samian (CGS) bowls, a lead lamp and the iron head of an adze-hammer. Zeepvat suggests that the individual buried at Wellwick Farm may have been connected with woodworking, and clearly the individual must have had some status locally to have been buried with high-status goods. By comparison, the three individuals at College Road may have been of a lower status with local wheel-thrown pottery placed with the burial.

The results of the isotope analysis determined that in all likelihood the thirteen individuals lived and worked locally and also originated from southern Britain. Their familial ties have yet to be determined, although with the increasing refinement of scientific techniques the potential for identifying genetic links and diseases in archaeological human remains is substantial. The gender and age bias towards middle-aged males may be a reflection of the inhabitants working and living on the site: alternatively, it is possible that the majority of the women and younger people were buried elsewhere.

The individuals buried at Aston Clinton had led physically demanding lives with many displaying a spinal condition (Schmorl's nodes) as well as

osteoarthritis in the spine, hands and wrists (see Inskip above). Inskip noted the individuals had been undertaking a significant of high impact or loaded activity, possibly from early in their lives. Two individuals had fractures to the feet suggesting the group were physically active. In four individuals there were unusual striations on the teeth perhaps indicating that the teeth were used as a knife to cut twine or hold thread (Figs 17-19). This use of a 'third hand' has been noted in a medieval inhumation from Kent (Turner & Anderson 2003) although further work on Roman cemeteries would help to provide comparative material.

It is uncertain whether the few cremated animal bones accompanying burials B2 and B3 were placed deposits or were accidental remains in the backfill. The cremated neonatal sheep/goat recovered with early Roman cremation adult in burial B9 at College Road seems to have been burnt on the same pyre. Neonate animal burials accompanying humans are very infrequent finds but include a neonate child inhumation accompanied by an articulated foal at East Stagsden (Bedfordshire; Dawson 2000). At Chippenham, Cambridgeshire a neonate was buried with an immature dog (Atkins 2013). For such an important occasion it would seem to have been deliberate policy to have a neonate sheep/goat placed on the pyre with an adult burial. It is perhaps therefore not too much a leap of faith to suggest that the College Road B9 adult had died in childbirth?

Middle to late Roman occupation

From the 2nd century AD until the 4th century AD there was a period of modification, expansion and intensification of the pasture land north of Aston Clinton and then later contraction, probably from the 3rd century.

The small enclosed paddocks for corralling livestock were replaced by a sequence of more formal, organised enclosure. The former Holocene channels on the eastern side formed a natural boundary to the enclosure and were later redefined and revetted to provide reclaimed land.

During the Roman occupation of the area, the dry ridge formed an access/egress point linking the enclosures with the higher ground to the south-east and grazing grounds to the north and west. Routeway 2 had been defined along the ridge linking with Akeman Street and the local network of routes.

It was clear that the enclosure ditches were constantly maintained and recut during the period they were in use; the lower fills tended to be silts caused by standing water and erosion of the ditch sides.

For the first time there was definite evidence for the enclosures being used for occupation. The fragmentary remains of at least three buildings indicate that there may have been a farmstead. The enclosures not only defined land for the management of livestock but were also living and working areas.

Buildings

The buildings were not substantial and probably comprised an open-sided byre or agricultural structure (building 1) and a circular corral/roundhouse (building 3). A possible domestic area with adjacent rubbish pits lay in the southern part of the enclosure (building 2). The range of pottery, including storage vessels as well as local and imported table wares, indicated that there were people living within or near to the enclosures.

The buildings had either sill beam foundations or were post-built. The supporting timbers were fixed with large structural nails and the walls are likely to have been wattle and daub/plaster. The presence of tile fragments including floor, roof and a small amount of box flue tile may suggest higher status buildings than those identified or they could have been brought onto the settlement as hardcore and such a use have been suggested elsewhere on other sites including at Wood Corner Milton Keynes (Mynard 1987).

The buildings found within the excavation were timber built but the distribution of tile and type 1 fired clay (Chapman above) show that, whilst there was a broad spread of this material in features on the higher ground, there were also concentrations around building 1 and building 2, suggesting they could have had at least partly tiled roofs and/or floors. The buildings may have been replaced by later structures which did not survive in the archaeological record, but certainly by the end of the 2nd-century, building 1 had been replaced by shallow gullies forming sub-divisions for later enclosure.

In the Chilterns area of the Central Belt most buildings were rectangular in plan, but the majority of these were masonry with timber buildings in a minority (Smith 2016, table 5.3). The reason for

this is that relatively few contemporary examples of rural buildings known in the Chiltern ridge area; many of the known buildings have been associated with larger and clearly defined farmsteads which were the centres of villa estates which were invariably of stone construction. The College Road buildings have some similarity to a site in Newport Pagnell where an open-sided farm building, probably a byre, was located within a clearly defined enclosure (Morris 2007, Morris & Carlyle 2011).

Middle and late Roman contraction

Around the late 3rd century the middle Roman buildings were abandoned and the site was used for paddocks located away from the pond areas and defined by a loose arrangement of ditches similar to the late Iron Age and early Roman paddocks/enclosures. The lower areas of the settlement perhaps became less feasible for occupation, whereas the higher ground continued to be utilised.

The College Road settlement contracted in overall area, but continued into the 3rd century and was not abandoned. This continuity is typical of most other settlements in this Central Belt area of England, where a study of settlements shows there was only a relatively slight decline in numbers in AD200–250 (Smith 2016, fig 5.6). The contraction may indicate some hardship experience at College Road, but not to the extent of some local sites which were abandoned in the late 2nd century, such as Brooklands, Milton Keynes (Atkins *et al* 2014, 360) and Fenny Lock, Milton Keynes in the 2nd/3rd centuries (Ford & Taylor 2001). Only a few late Roman metal artefacts were found, including an armlet, and only nine coins of 3rd to 4th-century date although the site was metal detected. The indications are that the settlement had little access to luxury items, but continued in use. The two sub-phases of use and re-organisation in this period show that, despite its diminished contracted state, the inhabitants thought it worth trying to continue its use, and even spent time re-planning the site.

Abandonment

By the end of the 4th century AD the enclosures had been abandoned with the clearly defined midden and occupation soils providing a demonstrable *terminus post quem*. The area may have continued to be farm or pasture land in the early medieval period although no traces of boundaries

or other features survived. The already clear ridge of higher, dry ground that was so evident in the Iron Age and Roman period was further enhanced by these deposits.

The reason for abandonment at the end of the 4th century is unknown but given the complex geological history it could be argued that there was greater risk of flooding rendering the area unmanageable. The climate in Roman Britain was generally favourable for agriculture and academics have argued that it was only cAD400 that temperatures declined by about 2.5° with a shift to wetter, colder weather (Jones 1996). However, it would be simplistic to argue that poor weather affected the continuance of the settlement as it does not consider the wider landscape evidence of nearly 90% Roman abandonment of settlement in the Central Belt during the 4th century (Smith 2016, fig. 5.8).

Medieval parish boundary

At the time of the Domesday Survey in 1086 there were nine Hundreds in Buckinghamshire with the parishes of Aston Clinton and Buckland located within the Hundred of Aylesbury (Page 1908). The position of the parish boundaries coincide with the bi-axial trackways identified by Bull (1993). The parish boundary between Buckland and Aston Clinton which bisected Area B is no exception, suggesting that although continuity of occupation is elusive there is the potential for a case to be made for the continuity of boundaries. However, this cannot be corroborated.

Within the development site, the parish boundary had been enhanced by the accumulation of deposits during ploughing which formed a headland. Clearly, during the medieval and post-medieval periods, the poor clay soils were not a hindrance to cultivate the land. However, the elongated shape of some of the 'strip' parishes of Buckinghamshire allowed for the even allocation of resources. The richer soils on the slopes gave way to meadows and grazing lower down on the clays as well as strips in poor furlongs.

In places the parish boundary was defined by an earthwork headland marking the boundary of the two open fields, augmented in some areas by a ditch. This ditch had signs of maintenance and its position had shifted over time. It appeared to stop short of the higher ground and this may have functioned as a drainage ditch channelling water away

from this part of the boundary to the wetter ground and river to the north.

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