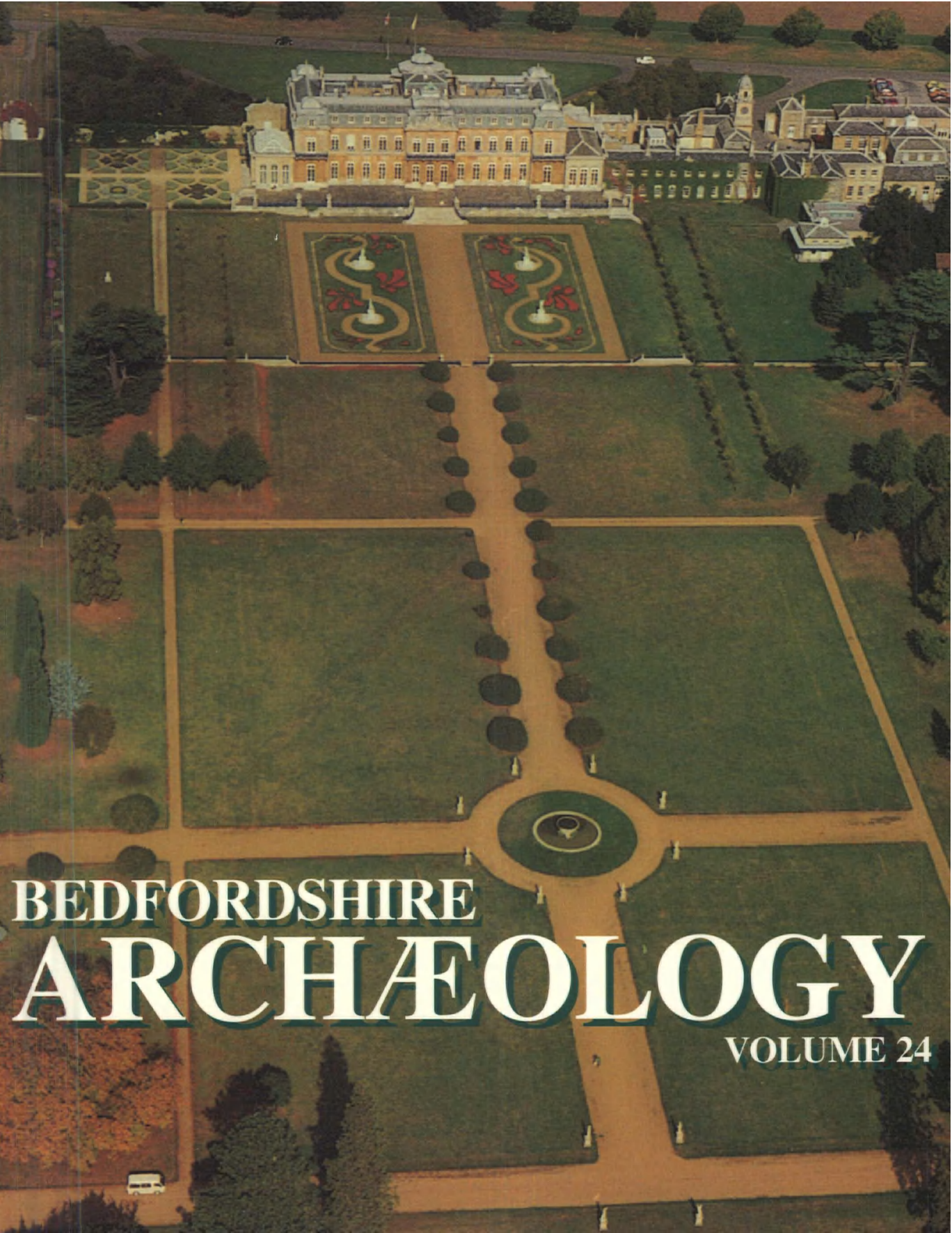




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VOLUME 24

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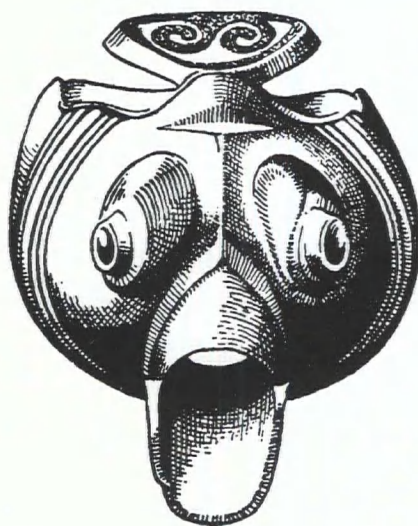
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VOLUME 24 2001

BEDFORDSHIRE ARCHAEOLOGICAL COUNCIL



Edited by Stephen Coleman

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Contents

An Iron Age and Romano-British farmstead at Norse Road, Bedford By Matt Edgeworth	1
Harlington Roman cemetery By Michael Dawson	20
Bedford - an Alfredian burh? By Alan Crawley and Ian Freeman	40
Archaeological investigations at Church End Lower School, Marston Moretaine By Gary Edmondson and Sean Steadman	47
The development of the medieval buildings adjoining the Abbey at Elstow By John Bailey	57
The late medieval origins of the "Town House" at Kempston Church End By Jonathan Edis	76
A brief introduction to the archaeology of Wrest Park, Bedfordshire By Michael Dawson	81
Notes from Luton Archaeological Group By Ren Hudspith	97

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An Iron Age and Romano-British Farmstead at Norse Road, Bedford

MATT EDGEWORTH

With contributions by Anna Slowikowski, Holly Duncan
and illustrations by Cecily Marshall

SUMMARY

Archaeological investigations at Norse Road, Bedford, in advance of residential development, revealed a small-scale rural settlement/farmstead dating from the middle Iron Age to the Romano-British period. A densely interwoven pattern of enclosures, droveways and boundary ditches occupied a low promontory overlooking the floodplain of the River Great Ouse. No clear focus of settlement within the complex of cropmarks could be identified; rather all the enclosures are indications of compounds renewed successively within the same general area. Evidence suggests a primarily pastoral and mobile economy and a possible relationship with another site known from cropmarks nearby. Excavation of the large eastern enclosure, which represents an early phase of activity, was undertaken as part of a mitigation strategy. It was truncated on its western side by a boundary ditch which probably enclosed the Romano-British focus of settlement to the west. On the basis of the archaeological evaluation, this latter area was set aside as a designated public open space.

INTRODUCTION

The archaeological work at Norse Road was carried out in two broad, but distinct, stages by the Bedfordshire County Archaeology Service (BCAS). The first stage of evaluation consisted of a desktop study and topographical survey followed by field artefact collection, extensive geophysical survey and the excavation of a series of trial trenches across the field as a whole (BCAS 1993). This enabled a mitigation strategy to be devised (Cambridge Archaeological Unit 1996) whereby the greater extent of cropmarks could be protected from development. The second stage of work consisted of an excavation, carried out by BCAS in 1996, which focused on the large enclosure to the E of the main cluster of cropmarks. This report summarises the evidence from all stages of the archaeological investigations.

SITE LOCATION AND DESCRIPTION

The study area comprises a large field of 23 hectares bordered on the W by Norse Road and on the S by

the A428, 4km to the E of the centre of Bedford (Fig 1). The complex of cropmarks occupies the top of a low hill (at up to 31m OD) which slopes away to the S, W and N. The site overlooks the valley of the River Great Ouse, the present course of which is only 1km to the S, while a small tributary, Renhold Brook, runs along the W side of the field. The solid geology of the site is Oxford Clay, overlaid in places by patches of glacial gravels. Deposits of alluvium and colluvium up to 2m thick were noted in the land adjacent to the brook. The crest of the hill provides a natural spur of higher ground on the edge of the flood plain, and this partly explains the suitability of the site to Iron Age and Romano-British farmers. The height of the hill was accentuated by a medieval headland running ENE-WSW across the middle of the field.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Evidence for activity in the Neolithic and Bronze Age is plentiful in the surrounding area. Recent work has identified a complex ritual landscape stretching from Cople and Willington in the S, right across the river to Goldington and Howbury in the N (Clark and Dawson 1995). Comprised of mortuary enclosures, a cursus, henge monuments and ring ditches, much of this landscape would have been visible from the hill at Norse Road, assuming that tree cover was not great. Recent excavations of Neolithic and Bronze Age enclosures and ring ditches have taken place at Willington (Pinder 1986, Dawson 1996) and Goldington (Mustoe 1988). Further sites of these periods have been located along the course of the Bedford Southern Bypass (Shepherd *et al.*, forthcoming).

The Iron Age and Romano-British periods are also well represented in the landscape around Norse Road. The hillfort at Mowsbury Hill probably dates from the early Iron Age. In the middle to late Iron Age a transition from defended hilltop settlements to lowland enclosures seems to have occurred. Rural settlements and field systems, situated mainly on the edge of the gravel terraces just above the flood plain, have been investigated at Riverside Meadows (BCAS 1994), Willington (Pinder 1986, Dawson

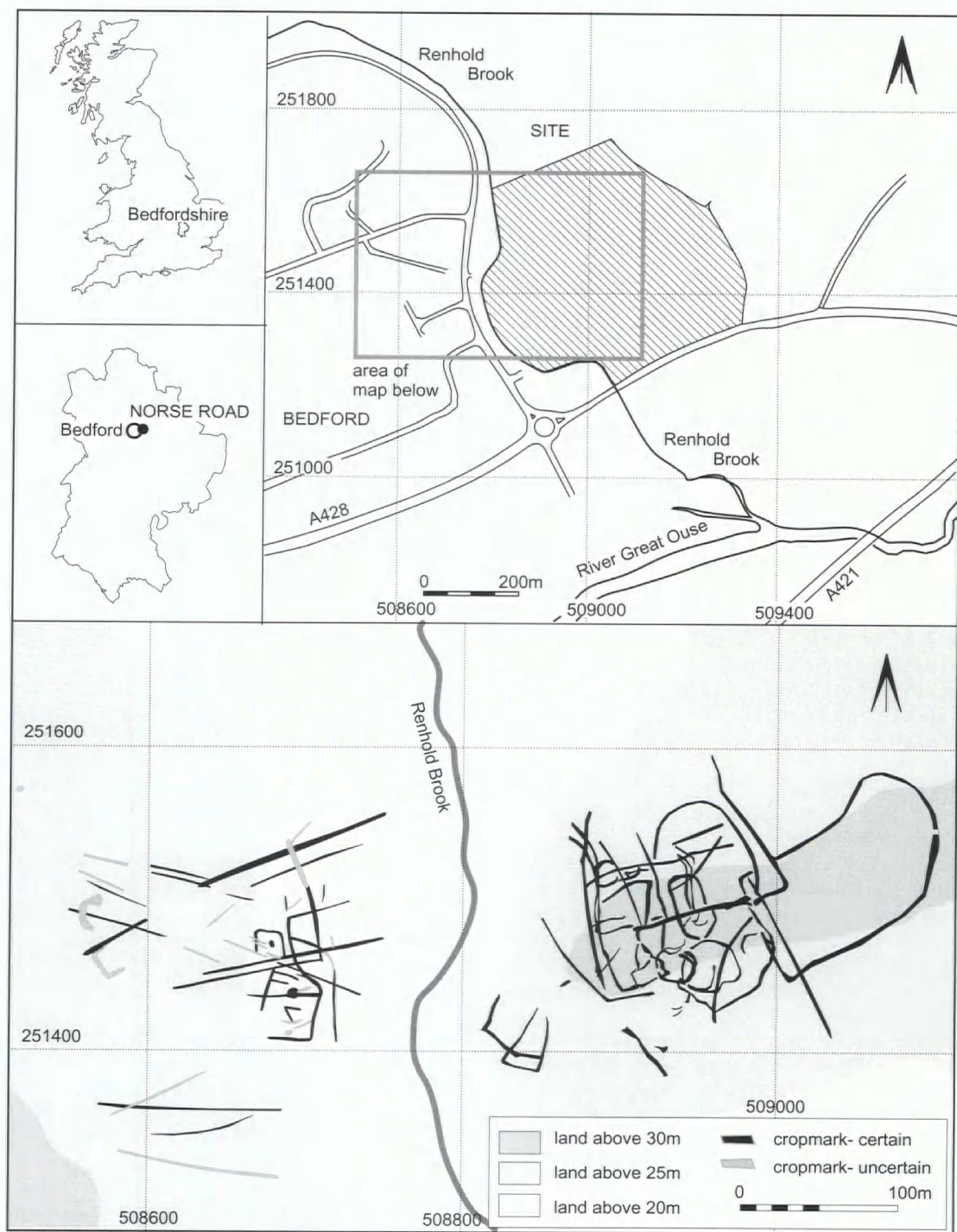


Figure 1 Location of study area and nearby cropmarks

1996), Cople, Eastcotts, Octagon Farm, and Mill Farm (Shepherd *et al*, forthcoming), all within 3km of Norse Road. A late Iron Age settlement and Romano-British villa is known to have existed at Newnham. Taken together, these sites indicate a shift from a mainly ritual landscape in the preceding periods to much greater use of the river valley for settlement and agricultural purposes during the Iron Age, intensifying further in Roman times.

The landscape was altered significantly in the medieval period, when much of the surrounding land was divided into furlongs to be ploughed in strips. Even the very poorly drained soil of Norse Road was brought under cultivation. Norman activity nearby is indicated by the site of Risinghoe Castle, 0.5km to the S, thought to be the remains of a Norman motte and bailey castle of the 11th-12th centuries. The first historical reference to the land at Norse Road is in the de Basco Roll, a document surviving from the 13th century. At this time the field formed part of a large common field, West Campus, in Renhold parish. Renhold Brook was called Athines Broc and

formed the parish boundary between Renhold and Goldington as well as the W boundary of the field.

By 1680 the field was reduced to its present shape and called Drinkwater Hill. It was part of the Manor of Howbury up until the 19th century, when the field was sold. The medieval headland was used as a trackway running ENE-WSW across the field. The course of Renhold Brook was straightened in 1858.

THE ARCHAEOLOGICAL INVESTIGATIONS

THE 1993 EVALUATION

Aerial Photography

Cropmarks photographed in October 1968 (HSL UK BED 68 806: 11/5982-3) and June 1970 (CUCAP BBW 17, 31-33: 5/6/1970) revealed the existence of archaeology at Norse Road on either side of Renhold Brook. The cropmarks visible to the W of the brook (Plate 1) were lost to development in the 1970s, but may well have been associated with the main site on the higher ground (Fig 1).



Plate 1 Aerial photograph showing nearby cropmarks (BBW 17, 5/6/1970: Cambridge University Collection of Air Photographs, copyright reserved). East at top.

Field Artefact Collection

Two phases of fieldwalking were undertaken. The first phase, a coarse walkover, gave a 10% sample of the total survey area and enabled the targeting of artefact concentrations. The second phase was an intensive walkover which provided a 20% sample in those areas of artefact density.

Flint Artefacts

A total of 98 pieces of worked flint was found. Two concentrations, either side of the medieval headland, could be discerned in the pattern of flint distribution. Neither were related to the cropmarks. The concentration to the north of the headland appeared much denser and contained a wider range of artefacts, including blades, notched tools, piercers, knives and scrapers probably dating from the Neolithic and Bronze Age, as well as a small range of possibly Mesolithic artefacts.

Pottery

A total of 60 sherds of pottery have a date range which spans the Romano-British period. The earliest sherds are mainly greywares. A small quantity of shell tempered pottery could date from the 2nd-4th

centuries. The presence of Nene Valley colour coat wares indicates activity into the 4th century. The greatest concentration of Romano-British pottery was found in the area of dense cropmarks, immediately below the highest point of the site. By way of contrast, very little pottery was recovered from the area of the large cropmark enclosure to the E. A few sherds of Romano-British and Iron Age pottery were recovered from ground downslope of the cropmarks.

Geophysical Survey

The survey covered a 9 hectare area centred on the cropmarks to the E of the brook. Detailed accounts of the survey are given elsewhere (Geophysical Surveys of Bradford 1993, Dawson and Gaffney 1995). Here it is sufficient to note that the survey succeeded in locating accurately the majority of features visible on the aerial photographs, as well as identifying many that were not previously known, including linear features on the downslope, away from the main cluster of cropmarks. For the purposes of this report the aerial photograph and geophysical evidence has been combined (Fig 2), and no further distinction is drawn between them on the plans of the site presented here.

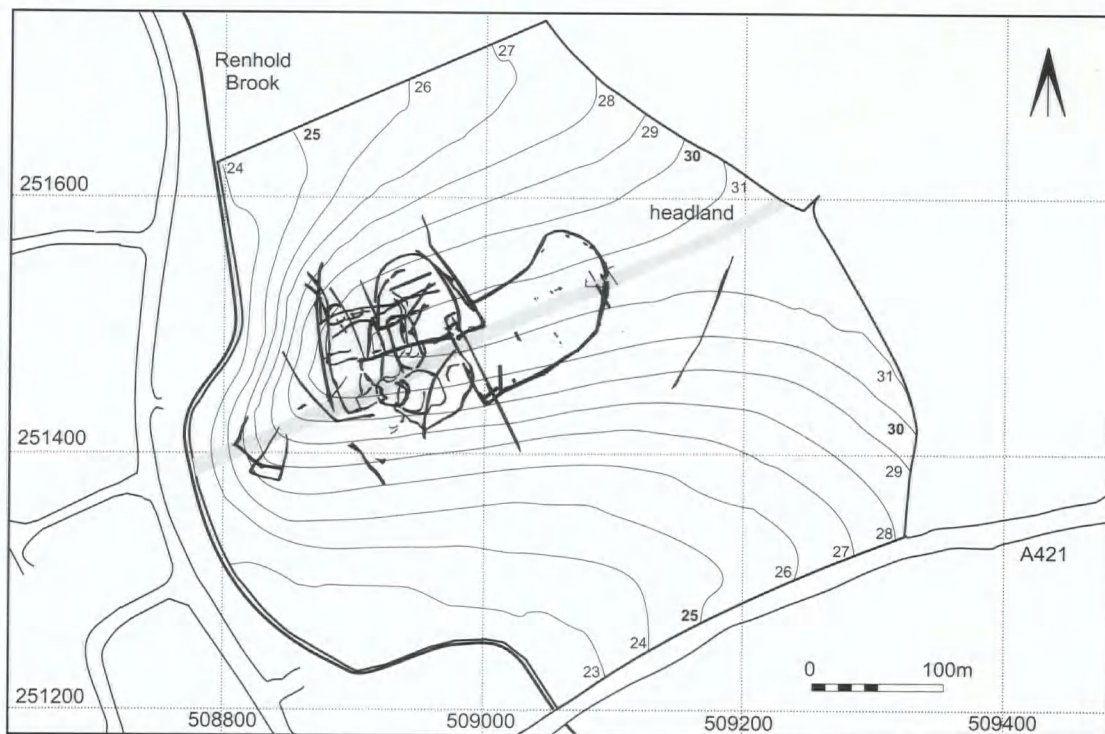


Figure 2 The study area, showing enclosures and contours

Evaluation Trenches

Ten trial trenches, varying from 45 to 60m in length, were excavated by machine across the study area (BCAS 1993). The trench design was based upon the results of the desktop study, field artefact collection and geophysical survey. Trenches were located with the primary aims of both defining the extent of the main cropmark site and exploring areas for which no archaeological evidence existed but where significant deposits might be masked by alluvium or colluvium. Six of the trenches in outlying parts of the field produced no features of archaeological interest, although a depth of up to 2m of alluvium was found in the vicinity of Renhold Brook. The four trenches that did produce significant archaeological evidence were all located within the area of dense cropmarks on or around the crest of the hill. The results of these trenches have been incorporated into the analysis of the 1996 excavations below.

THE EXCAVATION RESULTS

EXCAVATION STRATEGY

In line with the mitigation strategy, which specified that the western part of the area of dense cropmarks was to be retained and preserved in the development plan, the 1996 excavation focused on the eastern enclosure. This meant that the evaluation trenches provided the only excavated evidence for the densest area of cropmarks to the W, while the relatively sparse interior of the eastern enclosure received much greater attention - an imbalance which is reflected in this report. A series of 18 trenches were positioned on the line of the eastern enclosure ditch, with a particular focus on possible ditch terminals and areas where entrance structures might exist. The interior of the enclosure was sampled by a 32m long trench and a series of 5m square test pits staggered axially across the interior, with the aim of determining the nature and density of any settlement evidence.

POST EXCAVATION METHODOLOGY

A structural hierarchy of subgroups, groups, landscapes and phases was applied to the results of both the 1993 and 1996 excavations, as a means of combining the two sets of data. This report is arranged in order of phase (P), landscape (L) and subgroup (S) as a direct result of the method of analysis employed. Subgroups represent the archaeological evidence for a distinct event or activity, and can be regarded as the basic unit of interpretation. Groups were used in analysis as a fluid means of organising data and are

not reproduced here. Landscape numbers were accorded to boundaries and enclosures only if they had been sampled by excavation - i.e. if their existence (indicated by geophysical survey or aerial photography) had been confirmed by direct observation on the ground. Where stratigraphic evidence was lacking, phasing was done largely by dating of pottery and other finds from the fills of landscape features. While a few landscape features were grouped together into phases on the basis of spatial relationships (for example, the two 'droveway' ditches L8 and L9), this method was not greatly used because of the lack of corroborative evidence from excavated stratigraphy, and also because of the large number of phasing interpretations possible.

THE ARCHAEOLOGICAL SEQUENCE

PHASE 1: EARLY IRON AGE

Pits L16

The earliest activity is represented by three pits or post holes, spatially unrelated to each other but all situated roughly on or near the course of the later eastern enclosure ditch, L1. Two of the pits can be dated to the early Iron Age from pottery finds. The other is stratigraphically earlier than the enclosure.

Pit S23 was sub oval in shape and measured 0.5-0.7m. Its fill was a dark grey brown silty clay with moderate small stones and occasional chalk and charcoal fragments, producing one sherd of early Iron Age pot. This feature was unexcavated.

Pit S31 was cut by enclosure ditch L1. What survived was sub-circular in shape, with vertical sides and flat base, filled by a firm mid grey brown silty clay. Its original diameter is estimated to be about 0.8m. It was 0.5m deep.

Pit S33 was sub-circular in shape and 1m in diameter. It was filled by a compact dark grey brown clay silt with charcoal flecks. Although unexcavated it produced several sherds of early Iron Age pottery.

PHASE 2: MIDDLE-LATE (PRE- 'BELGIC') IRON AGE

Boundary Ditch L14

This ditch is known from geophysical evidence to be about 70m long, curving slightly and oriented roughly NNE-SSW (Fig 3a). It appears to respect/be respected by enclosure ditch L1, although the pottery evidence suggests that L14 is earlier. Only one segment of the ditch was excavated.

Ditch segment S24 revealed a 2m wide ditch with sides gently sloping to a concave base 0.33m deep. It contained two fills.

The primary fill was a yellow brown silty clay. The upper fill was a grey brown silty clay. Both fills contained sherds of pre-Belgic pottery. Another linear feature running E-W was also present in this segment, though its relationship with S24 was unclear.

Structure L10

This cluster of post holes and a possible hearth (Fig 3a) is situated inside the NW corner of eastern enclosure L1 and within the southern limits of driveway L8/L9, which may also form the SE corner of a large enclosure to the W. The possibility that a post-built structure was sited within the enclosure(s) has to be weighed against the alternative possibility that the enclosures were constructed around an already existing focus of settlement. The latter explanation is favoured here on the basis of pottery evidence which dates the post holes to the pre- 'Belgic' late Iron Age. The relative profusion of structural evidence from this small area stands in marked contrast to the lack of evidence for settlement from the rest of the interior of L1.

Post hole cluster S21 consisted of 12 post holes, circular or sub-circular in shape and 0.31- 0.75m in diameter. The three post holes excavated were shown to be very shallow, with a maximum depth of 0.22m and no evidence of post-pipes. Fills were a fairly uniform dark grey brown silty clay with moderate charcoal flecks and occasional burnt clay nodules and small burnt stones. There is no clear pattern to their distribution, but their fairly even spacing and close proximity to each other indicates contemporaneity. Almost certainly other structural features from this group survive either side of the evaluation trench.

Hearth S22 was situated within the cluster of post holes S21. It was circular in shape with a diameter of 0.35m and a depth of 0.15m. The sides sloped at an angle of 30 degrees to a flat-tish base, which was partly covered by a large burnt rounded pebble of sandstone measuring 0.15 x 0.15m. The fill consisted of a compact reddish grey silty clay with moderate burnt clay fragments.

PHASE 3: LATE ('BELGIC') IRON AGE

The eastern enclosure L1

This enclosure, with its elongated 'D'-shape, was the largest and the most extensively excavated of the cropmarks (Fig 3b). It measured 130 x 80m, with an entrance in the middle of its NE side. Another possible entrance on the SW side was suggested by geophysical evidence but was not tested by excavation. The enclosure was apparently constructed in three separate lengths, with S1 and S3 being constructed first, followed by S2. A large quantity of late Iron Age pottery and animal bone was found in the ditch fills. Vestiges of an internal bank were preserved in

places beneath the medieval headland L2. Inside the NW corner was Structure L10, which could have been standing when the enclosure was constructed. Other internal features were sparsely distributed throughout the interior - see L6 below. The relationship of L1 with ditches L8 and L9 is unclear, and it is possible that these represent a driveway leading into the enclosure from the N, or alternatively a quite separate landscape feature representing a different phase of activity.

The SE enclosure ditch S1 (cut and primary fill) was the best preserved part of the enclosure. Ten segments were excavated. The shape and proportions of the ditch were variable. Section 38 (Fig 4) shows the ditch to have survived to a width of 3.2m and a depth of up to 1.25m, with a distinctive step-like profile on the inside face and a central almost V-shaped slot. In other segments the profile was more rounded. Six of the segments had primary fills associated with the cut. These consisted of silty clays similar to the natural, varying from greenish grey to light blue grey in colour, and represent erosion of the ditch sides in the immediate aftermath of ditch construction. The ditch terminated to form an entrance at its NE end.

The NW enclosure ditch S3 (cut and primary fill) was not as well preserved as S1, but mirrored its shape and profile in many respects and can be regarded as part of the same phase of construction. Five segments were excavated. Section 23 (Fig 4) shows the ditch to be 2.4m wide and 1m deep, and to have the same stepped slope on the inside face and central V-shaped slot as noted in S1. To the NW, however, the profile changes to a more rounded concave base. Four of the segments had primary fills; these were greenish grey silty clays taken to represent primary erosion of the ditch sides. The terminal of the ditch to the E formed one side of the entrance to the enclosure.

The SW enclosure ditch S2 (cut and primary fill) was much shallower and narrower than S1 and S3. The three segments excavated showed the ditch to be up to 1.8m wide and 0.6 m deep with a rounded profile. Primary fills were identified in two of the segments. These were silty clays varying from light greenish grey to light orange grey. It was established by sectioning that the terminal of S1 was cut by S2, which represents the final phase of construction of the enclosure. The possibility that this occurred some time after the construction of the curvilinear ditches, and that the enclosure was originally open to the SW, must be considered. The northern part of S1 was not investigated by excavation.

Secondary fills of enclosure ditches S4, S5, S6. The pattern of stratigraphy within the ditches was for the most part fairly symmetrical and gave little indication either of deliberate tipping or of collapse of an internal or external bank. Fills consisted mainly of silty clays varying in colour from dark greenish grey to mid orange brown, containing moderate small-medium rounded stones and charcoal flecks. Where slippage of material did occur (Sect 38, Fig 4), this was probably due to animal activity or ploughing activity on the outside of the enclosure. Late Iron Age pottery sherds were fairly uniformly distributed throughout the enclosure ditch fills with concentrations near the SW corner and either side of the entrance.

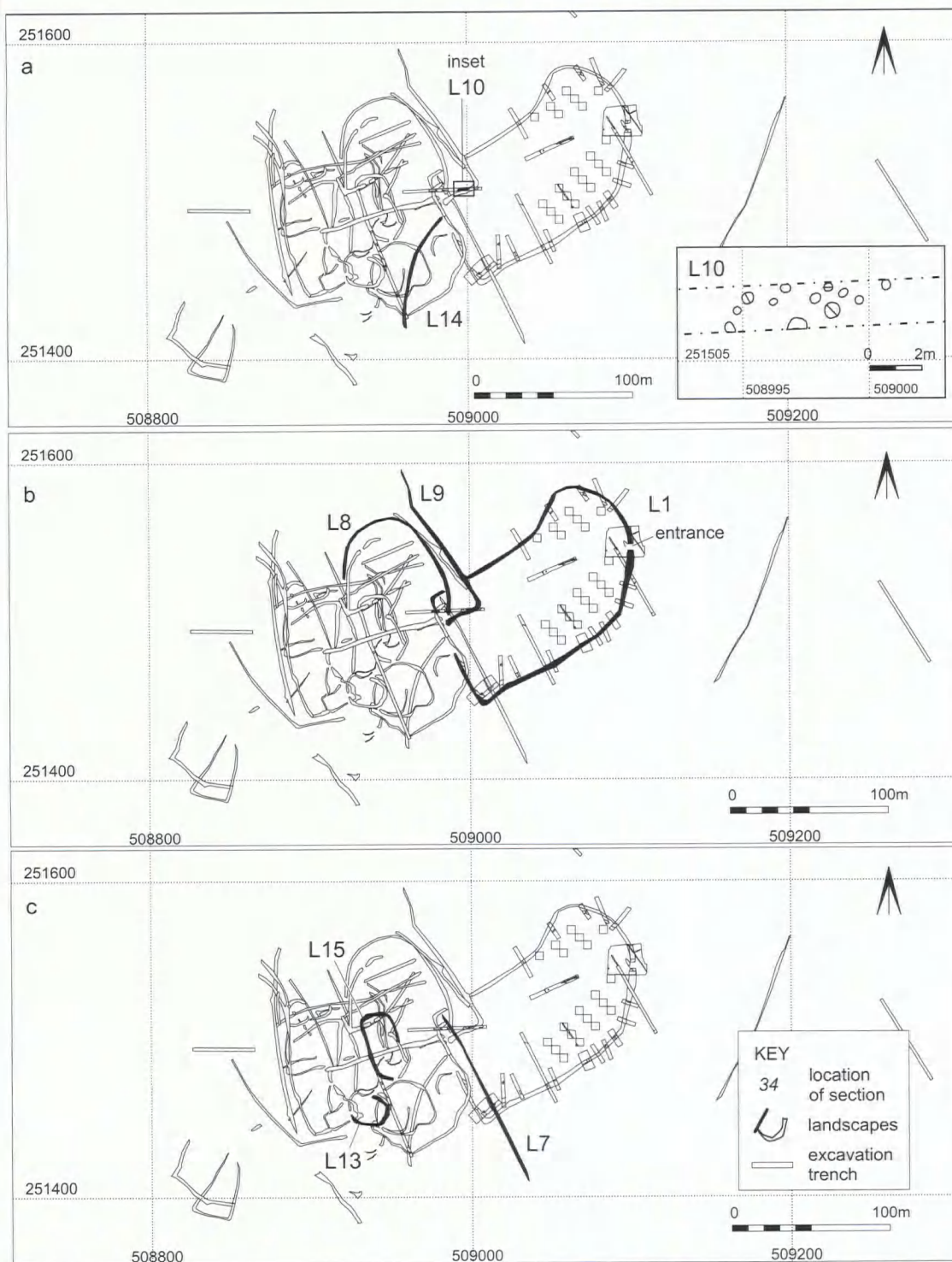


Figure 3 Phasing of enclosures

The entrance to the enclosure on the NE side was defined by the terminals of curvilinear ditches S1 and S3. It was 3.2m wide. The area around the entrance was devoid of post holes or other remains of entrance structures, even though this area was partially sealed and protected by the medieval headland L2. Sect 21 (Fig 4) shows the section through the terminal of ditch S1 on the S side of the entrance. A particularly large quantity of Late Iron Age pottery was found in the upper fills of this excavated segment.

Internal bank S11: Remains of the internal bank were located just to the S of the entrance, preserved at this point because sealed and protected by the medieval headland L2. It consisted of a layer of compact dark brown clay loam, with frequent small stones and occasional charcoal flecks, directly overlying the natural immediately adjacent to the enclosure ditch and partially overlaid by the top fill of the ditch. It was 2.3m wide and up to 0.2m deep (Sect 36, Fig 4). The bank was constructed out of the material excavated from the ditch, and therefore the two features can be regarded as components of the same landscape feature, constructed simultaneously.

Internal features L6

These five pits or post holes are spatially unrelated to each other apart from being situated within the interior of enclosure L1. The assumption is that these features are contemporary with the enclosure, and possibly represent the remains of settlement activity. One post hole produced pottery, which was similar in fabric and date to sherds from the surrounding enclosure ditch. The others, however, are undated.

Pit S13 was sub-oval in shape and measured 1.6m x about 2m (only 1.4m visible in trench). It had near vertical sides and was 400mm deep. There were three fills. The lower layer was a plastic light yellow brown sandy clay, similar to natural and likely to have been formed by erosion of the sides. The middle fill was a mid blue brown sandy clay. The top fill was a dark brown silty clay with moderate small stones, slightly disturbed by ploughing. Both the lower and upper fills produced late Iron Age pottery.

Pit S14 was situated just inside the SW corner of the enclosure. It was oval in shape and measured 0.8 x 0.4 x 0.14m. Sides sloped down gently to a flat base. The only fill was a firm light grey green silty clay, with moderate small stones and charcoal flecks. The function of this shallow pit or scoop is unknown, and there were no finds.

Post hole S17 was sub-oval in shape and measured 0.5 x 0.36 x 0.25m, with near vertical sides and concave base. The primary fill was a firm mid grey brown silty clay with moderate medium stones and charcoal flecks, 0.15m deep. The secondary fill consisted of a dark orange grey clay with frequent charcoal flecks and lumps, depth up to 0.17m. Charcoal staining was greatest at the top of the fill and decreased downwards, possibly indicating that the post was burnt *in situ*. No visible post-pipe.

Post hole S18 was situated near the centre of the enclosure. It was circular in shape, measuring 0.5 x 0.5 x 0.27m, with a concave profile. The only fill was a mid green brown silty clay with frequent small stones.

Post hole S32 was circular in shape and 0.5m in diameter, filled by an orange brown clay silt. It was unexcavated.

Ditch L8

This curvilinear ditch may form part of a droveway with L9, running for about 80m in a NNW-SSE direction, and/or the NE side of a large D-shaped enclosure measuring approximately 70 x 70m. Its relationship with L1 was not tested by excavation. In the absence of pottery dating evidence, L8 has been allocated to this phase on the assumption that it is contemporary with L9.

Ditch segment S19 was excavated at a point where ditches L8 and L7 crossed, but no clear stratigraphic relationship was established. L8 was between 1.8m and 3m wide, with the E side not conclusively located and the W side sloping in at 45 degrees. The top fill consisted of a firm dark grey silty clay. It was excavated only to a depth of 0.27m, so the lower fills were not encountered.

Ditch L9

This rectilinear ditch is oriented NNW-SSE for about 100m, turning to run in a ENE-WSW direction for a further 25m, with a possible extension of 75m to the W. In part it runs roughly parallel to the curvilinear ditch L8, and it is assumed that together these features comprise a droveway or double-ditched track, roughly 80m long and closed at its S end. L9 may also form the E side of a large square or rectangular enclosure. Either way L9 encloses post hole structure L10. Its relationship with L1 was not tested by excavation.

Ditch segment S20 was located close to the right-angled turn. The ditch was 3.4m wide and was only partially excavated to a depth of 0.5m. Two fills were encountered. The lower fill was a mid yellow brown clay silt with no finds. The upper fill was a mid grey brown clay silt with moderate small stones in bands. This produced fragments of bone and a single sherd of pottery.

PHASE 4: EARLY ROMANO-BRITISH (1ST - 2ND CENTURY)

Boundary ditch L7

This shallow ditch, running NNW-SSE, was shown by excavation to truncate the eastern enclosure ditch L1 near its SE corner. Geophysical evidence showed the ditch to extend on the same alignment to a total length of at least 120m, with other ditches orientated perpendicular to it on the W side. L7 also runs parallel to the possible droveway formed by ditches L8 and L9, as well as the SE side of the enclosure L1, suggesting some continuity from Phase 3. Dated by pottery and other finds to the early Romano-British period, the

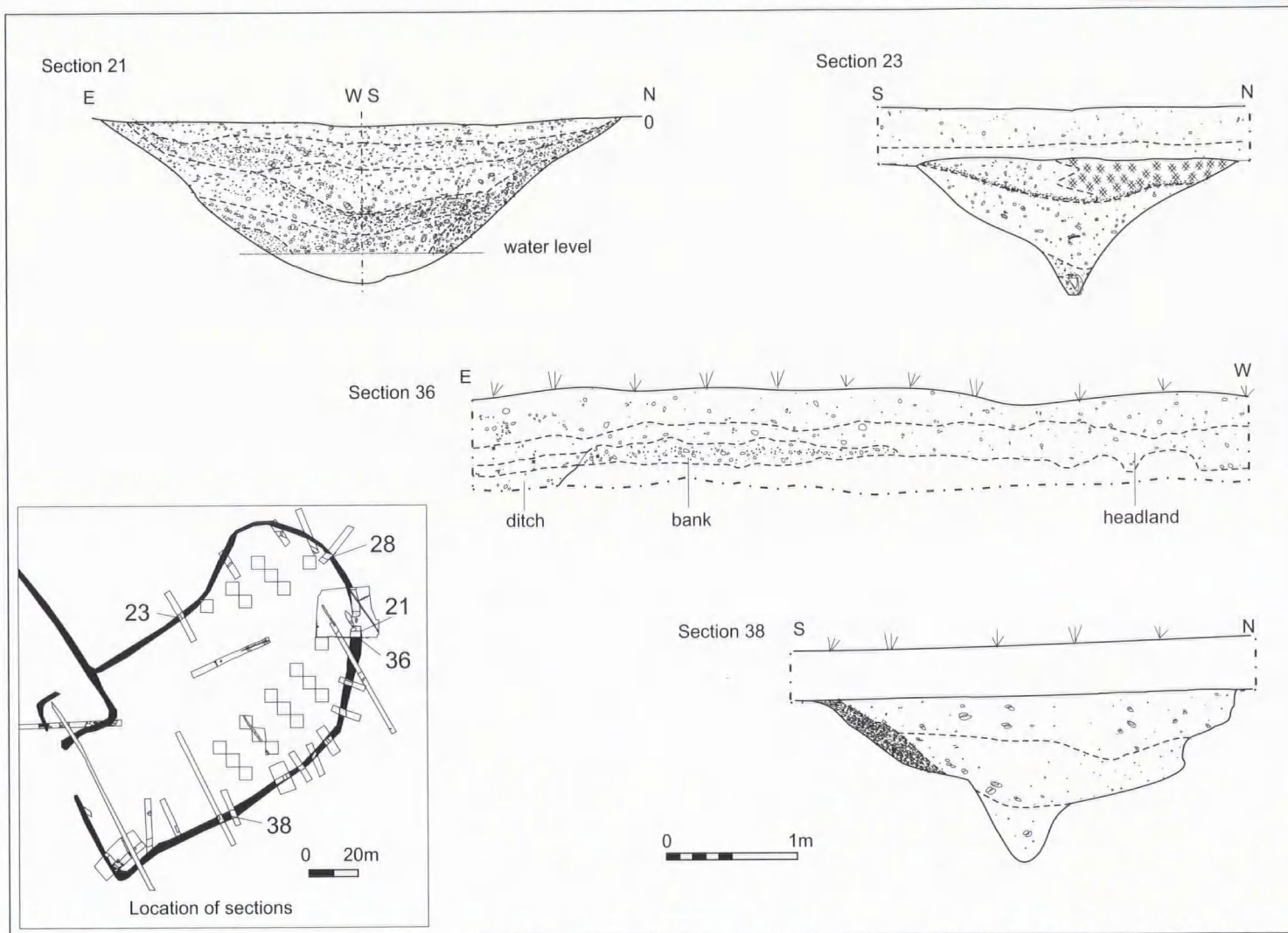


Figure 4 Sections from enclosure ditch L1

construction of this ditch marks the end of use of the enclosure L1, and a shift in the focus of activity towards the W. The mundane function of the ditch was probably to provide drainage, hence its alignment down the slope. But its more important function was to mark the boundary of the new area of use, which from then on occurred to the W of this line. As with all ditches on this site, the associated bank/hedge may have been more significant than the ditch itself, as well as a more enduring landscape feature.

Ditch segment S15 was excavated at a point where L7 and L8 crossed, but as the features were only excavated to a depth of 0.27m, no conclusive stratigraphic relationship was established. The width of L7 was uncertain but can be estimated to be between 1 and 2m. The W side was not found. The E side sloped in gently, as if the base was 0.4-0.5m from the surface. There were two fills. The lower fill was a firm mid grey silty clay next to the side. The top fill was a firm dark grey silty clay with frequent charcoal flecks and occasional pieces of burnt clay up to 0.04m, and it was here that the multiple fragments of a bone comb, dating to the 1st-2nd centuries, were discovered.

Ditch segment S35 was excavated at the point where L7 and L1 crossed, and the section demonstrated that L7 clearly truncates L1. The ditch has a concave profile and measures 0.9m wide and 0.4m deep. There were two fills. The primary fill was a mid blue grey sandy clay with red brown mottling, with inclusions of moderate small to medium stones and charcoal flecks. The secondary fill was a mid grey brown sandy clay. A sherd of early Iron Age pottery was thought to be residual.

Ditch segment S36 revealed a similar concave profile. Here L7 was 0.6m wide and 0.4m deep, with two fills virtually the same as those described above. In this case the primary fill contained a grog and shell tempered sherd dated to the early Romano British period, which can be taken to date the cutting of the feature.

Circular Enclosure L13

The overall shape of this smaller enclosure, measuring approximately 25 x 22m, was mainly determined from geophysical data. A small gully-like feature appears to link L13 and L15. There are possible entrances to the W and N. There is no evidence to indicate which of the two circular enclosures, L11 and L13, cuts the other. L13 is also overlapped to the E by the corner of a sub-rectangular enclosure.

Ditch segment S28 was 0.5m deep. Only the E side of the cut was located. There were two fills. The lower fill was a compact grey brown silty clay with some sherds of early Romano-British pottery. The upper fill was a slightly lighter compact grey brown silty clay, which also produced early Romano-British pottery as well as a quern fragment.

Oval Enclosure L15

This enclosure measures approximately 40 x 20m and is situated at the very centre of the area of crop-

marks to the W of enclosure ditch L1. The prevalence of pottery and animal bone in the ditch fills indicate that this may have been the focus of settlement in the early Romano-British period. Two possible entrances to the S and E are indicated by the geophysical evidence. The spatial arrangement of enclosures suggests that L15 may be contemporary with L13. Relationships with overlapping linear features are not known.

Ditch segment S30 was excavated on the SE side of the enclosure. The ditch was 2.9m wide and well preserved at this point because partly sealed by the later medieval headland L2. It was only partially excavated to a depth of 0.6m. Two fills were encountered. The lower fill was a compact green grey silty clay. The upper fill was a dark grey brown silty clay with frequent charcoal flecks. Both fills produced much 2nd-century pottery and animal bones.

UNPHASED DITCHES AND ENCLOSURES

Geophysical survey of the area to the W of L7 revealed a number of linear features, including boundary ditches, enclosures and droveways, which (apart from L11) were not confirmed by excavation and accordingly have not been given landscape numbers. Analysis and phasing of these is problematic without the stratigraphic or pottery dating evidence which excavation might have provided. However, it seems likely from the field artefact collection data (see above) that many are of Romano-British date, with some perhaps dating to the later Romano-British period. Others probably date from the late Iron Age and were related to the large enclosure L1 and the droveway L8/L9. The use of some of these earlier landscape features may have continued into later phases. The overall pattern of interwoven ditches indicates a small farmstead successively renewed over time within the limits of space provided by the top of a small hill.

Circular Enclosure L11

Geophysical survey picked up this 30m wide circular enclosure, with a curving linear feature leading inwards from a possible entrance in the SW. In the absence of more detailed information these are treated here as a single landscape feature. Both were encountered in an evaluation trench but not excavated. L11 appears to respect/be respected by oval enclosure L15, which may well be contemporary. The relationship between L11 and L13 has not been established.

Gully S25 was 0.3m wide. The upper fill was a dark grey silty clay. It truncated a small pit, S26. Neither feature was excavated.

Ditch segment S27 was 1m wide. Its upper fill was a medium grey silty clay with occasional charcoal flecks and some fragmentary bone. The ditch was not excavated.

PHASE 5: MEDIEVAL

Headland L2

The headland was visible on aerial photographs as a straight linear band roughly 12m in width, running across the field in an ENE-WSW direction for a distance of 500m (Fig 2). It ran perpendicular to and was clearly associated with the medieval furrows L5. The headland was encountered in several trenches as a compact mid yellow brown silty clay, up to 0.33m thick, directly below the modern ploughsoil. In some cases the headland directly overlaid archaeological deposits from earlier phases.

In later medieval and post-medieval times, the headland was used as a trackway across the field, linking up with tracks and field boundaries to the W and E. At some time after the system of ridge and furrow had fallen into disuse, a shallow gully was cut running parallel to the headland on its N side. Two stretches of 12m and 8m were found, and S16 showed it to cut the furrows. Most of this feature has been ploughed out in recent times.

Furrows L5

Nine furrows were encountered. These were orientated NNW-SSE, generally spaced about 7m apart, and situated mainly to the N of the headland L2. The characteristic fill was a mid green brown silty clay, with moderate small stones and flecks of charcoal. The only find was a sherd of early medieval pottery.

THE POTTERY

A M Slowikowski

METHODOLOGY

A total of 284 vessels (542 sherds; 6.965kg) was recovered. An additional 60 sherds were found in the course of the fieldwalking survey. The fabric types were identified according to the Bedfordshire Ceramic Type Series and recorded by fabric type and form. The units of quantification are a minimum vessel count (by sherd families, as defined by Orton, Tyers and Vince (1993, 58), sherd count, estimated vessel equivalents (EVEs) and weight. Evidence of use (residues, soot-ing, wear, holes or other secondary alterations) manufacturing techniques, and decoration were recorded. Five fabrics were thin-sectioned by K Knowles and R Winterbottom, Southampton University. The full petrological report is in the archives.

FABRIC TYPE DESCRIPTIONS

All the fabric types found on the site have been fully described elsewhere; therefore, only brief descriptions and references are given below.

F01A Coarse flint tempered (2.5% of the total assemblage)
A single fragment of a possible carinated vessel was identified; all other sherds are undiagnostic.
(Dawson *et al* 1988, 10, with a fuller description in Slowikowski forthcoming).

F05 Grog and shell (12.1% of the total assemblage; thin-sectioned)
A single neck sherd from a cordoned jar was identified.
(Dawson *et al* 1988, 11, with a fuller description in Slowikowski 2001)

F06 Grog tempered *Fig 5, 2-3*
F06A Fine grog (less than 1.1% of the total assemblage); **F06B** Medium grog (22.8% of the total assemblage); **F06C** Coarse grog (15.7% of the total assemblage).
Cordoned jar in fabric F06A and everted-rimmed jars and a possible butt beaker in fabric F06B, both fabrics wheel-thrown; undiagnostic sherds in hand-made fabric F06C.
(Thompson 1982)

F07 Shell (15.3% of the total assemblage) *Fig 5, 4-5*
In addition to lid-seated jars, a rounded shallow bowl or platter was also recovered on the site.
(Dawson *et al* 1988, 11, with a fuller description in Slowikowski 2001)

F08 Shell and grog (3.9% of the total assemblage; thin sectioned)
Related to F05, differing only in the proportion of inclusions. Body sherds only were recovered on the site, although elsewhere forms similar to those in F07 are known.
(Dawson *et al* 1988, 11)

F09 Sand and grog (11.4% of the total assemblage; thin sectioned)
A single jar was identified among the generally undiagnostic body sherds.
(Dawson *et al* 1988, 11)

F14 Fine mixed inclusions (39.5% of the total assemblage; thin sectioned) *Fig 5, 1*
Mainly undiagnostic body sherds, although some jar rims were found.
(Slowikowski 2001)

F15 Coarse mixed inclusions (3.9% of the total assemblage)
Body sherds only.
(Slowikowski 2001)

F16 coarse shell (4.3% of the total assemblage)
Body sherds only.
(Slowikowski 2001)

F19 Sand and organic (3.2% of the total assemblage; thin sectioned)
Body sherds only.
(Slowikowski 2001)

F20 Limestone inclusions (less than 1% of the total assemblage) *Fig 6, 6*

A likely regional import, possibly from Cambridgeshire. A single vessel was found on the site.
(BCAS 1999; Slowikowski 2001)

F24 Buff shelly (14.47% of the total assemblage) *Fig 6, 8-11*
Forms are comparable to early Romano-British types described by Brown (1994).

R01 Samian (3.2% of the total assemblage)

Of the recognisable forms, only two bowls, Dr. 30 and Dr. 37, were identified. A base fragment from an indistinguishable vessel was stamped [NO-].

R03B Cream ware (3.6% of the total assemblage) *Fig 6, 7*

Forms are indistinguishable, although they may be flagons; Verulamium region.

R04B Fine white Gallo-Belgic import (less than 1% of the total assemblage)

A single rim sherd from a butt beaker.

R06A Nene Valley greyware (11.0% of the total assemblage) *Fig 6, 12-14*

Forms in this type recognised on the site are large 'poppy-head' jars with dot decoration, everted-rimmed jars and narrow-necked jars.

(Howe, Perrin and Mackreth 1980, 7)

R06B Coarse greyware (7.8% of the total assemblage) *Fig 6, 15-16*

Identifiable forms are jars, lid-seated jars and a flat-topped bowl.

R06C Fine greyware (less than 1% of the total assemblage)

Forms in this type include lid-seated jars and plain bowls.

R07B Sandy black ware (2.8% of the total assemblage) *Fig 6, 17-18*

The only identifiable form is a plain-rim bowl.

R12A Nene Valley mortarium (less than 1% of the total assemblage)

A single mortarium of this type was found.

(Howe, Perrin and Mackreth 1980, 10)

C01 Early medieval sandy ware (less than 1% of the total assemblage)

Described by Baker and Hassall (1979, 171)

PETROLOGICAL SUMMARY

K Knowles and R Winterbottom

The five fabrics which were thin sectioned formed two distinct petrological groupings.

Group 1 Fabrics F14 and F19

This group bears a close petrological resemblance to the clay matrix of a pottery thin section from Wandlebury, South Cambridgeshire, excavated in 1995 (although there are perhaps more coccoliths in

the Wandlebury section). For this reason, examination of the geological outcrops around the site at Wandlebury was undertaken and it was found that the site is located on the border between the Upper Greensand and Gault and the Chalk. A precise provenance has not been pinpointed but it may have originated from a geological outcrop of the Upper Cretaceous Chalk Group. The larger aplastic inclusions in the fabric reveal very little since they are commonly found in both Bedfordshire and Cambridgeshire. The presence of calcareous and fossiliferous deposits in the local geological outcrops around Bedford (Cornbrash, Blisworth Clay and Oxford Clay) means that local origins for this fabric cannot be wholly excluded from consideration.

Description: a clay matrix containing tiny, abundant, fossiliferous, calcareous inclusions (0.1mm and smaller in size).

Group 2 Fabrics F05, F08 and F09

This group appears to be more certainly local to the area around Bedford. The aplastic inclusions commonly occur in this area in the local outcrops (Blisworth Clay, Cornbrash, Oxford Clay) and also in the glacial drift deposits. The Oxford Clay is the least likely origin, because it tends to feature ammonites, which are absent from the Norse Road sections. Although it cannot be proved, it is likely that the argillaceous inclusions in this fabric may well have been deliberately added.

Description: a cleaner, less calcareous clay matrix containing tiny occasional to moderate cryptocrystalline quartz grains and limestone (0.1mm and smaller).

DISCUSSION

The pottery assemblages of phases 1 and 2 are small and, although used to define these phases, are indicative only of peripheral activity in the early and middle Iron Age. Most of the pottery recovered from the site comes from phases 3 and 4.

Phase 3:

Pottery from the eastern enclosure ditch, L1, makes up 61% of the total site assemblage by sherd. It is of late Iron Age date with a mix of 'Belgic' wheel-made types (e.g. *Fig 5, 2*) and hand-made wares of native tradition (e.g. *Fig 5, 1*). Decoration is sparse, although a jar (*Fig 5, 3*) has a deeply combed body, a decorative motif whose ancestry lies in the scored ware tradition of the middle Iron Age. The fabrics are also mixed, with 'Belgic' grog (F06A-C) and grog and shell (F05) fabrics found with fine mixed (F14) type.

Phases	1	2		3			4			5
	L16	L10	L14	L1	L6	L9	L7	L13	L15	L5
Ware										
F01A	2:3:11			3:4:20						
F14	2:2:8		2:2:93	31:91:532	1:3:76	1:1:2	3:8:73	1:1:5	1:1:2	
F15				1:8:40				1:1:3	2:2:19	
F16				5:7:53						
F19				4:7:91					2:2:11	
F20									1:1:40	
F05				11:31:208				1:1:28		
F06A				2:2:26						
F06B				30:63:384		1:1:1		1:1:1		
F06C				11:42:692			1:1:12		1:1:12	
F07				6:42:324			2:2:32	3:4:75		
F08		5:8:64		1:4:50	2:3:2					
F09				18:32:270						
R04B								1:1:20		
F24									59:79:2090	
R01							1:1:1		6:8:238	
R03B									7:10:241	
R07B							1:1:6		3:7:88	
R06A								1:1:5	21:31:527	
R06B									18:22:276	
R12A									1:1:183	
C01										1:1:11

Table 1 Pottery fabric types by phase and landscape (vessel:sherd:weight g.)

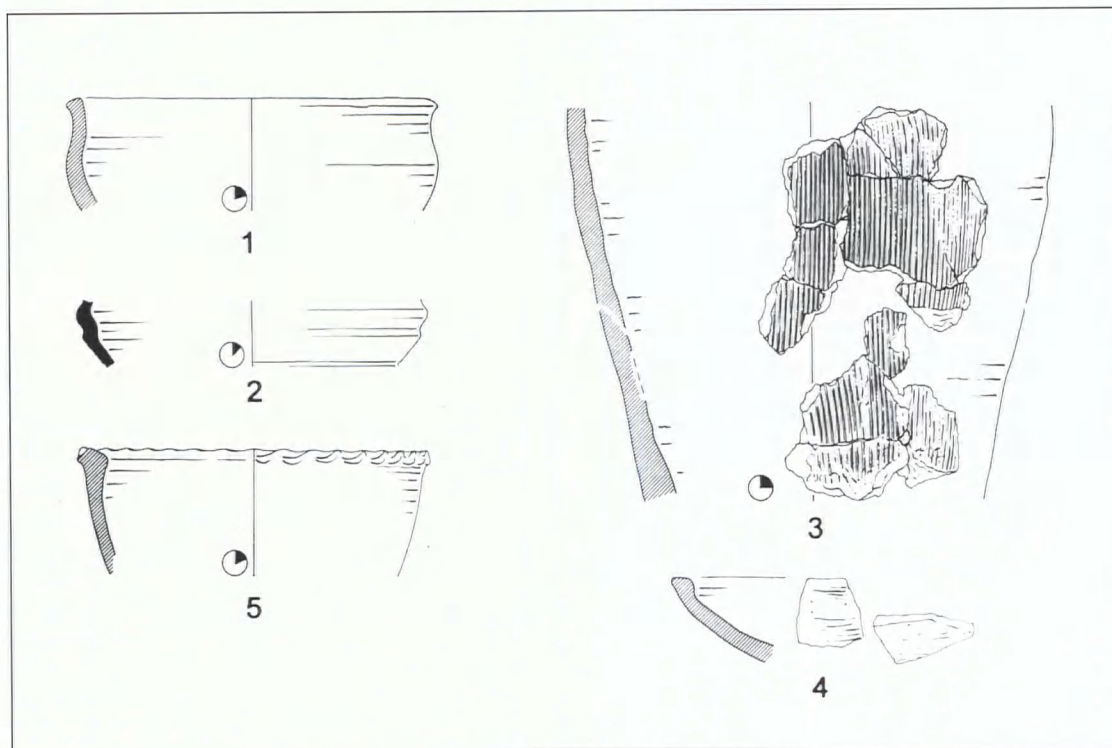


Figure 5 Pottery from enclosure ditch L1 (scale 1:4)

F14 is generally found in middle Iron Age forms although here it clearly continues into the late Iron Age. The same situation pertains at Stagsden, north Bedfordshire, where hand-made copies of 'Belgic' forms are found with hand-made vessels of fabric F14, showing longevity of a middle Iron Age potting tradition (Slowikowski 2001).

The large percentage of F14 vessels precludes them from being residual in this ditch. In addition, the lack of any abrasion and the not infrequent presence of more than one sherd belonging to the same vessel suggests contemporaneity.

Forms are generally unrecognisable, but there is a wheel-thrown, shallow bowl or platter (Fig 5, 4), in a shelly fabric F07, whose closest parallel is Thompson's type G1-10. This type is a copy of Gallo-Belgic rounded bowls or platters, and can be dated to AD5-50 (Thompson 1982, 469, no.5).

There is a relatively high percentage, 54.96% by sherd, of shelly wares or fabrics with a shelly component. The site is some distance from the main shelly manufacturing area of north Bedfordshire, suggesting a preference for these vessels.

There is an element of residuality in the presence of early Iron Age sherds of F01A, flint-tempered type, and three abraded handle sherds of middle Iron Age date.

Phase 4:

The early Romano-British phase comprised three landscapes which produced finds. The primary fill of the linear ditch L7 produced a single sherd of F14 fabric, which is likely to be residual. The upper fills contained a bone comb and pottery dating the final disuse of this ditch to the 2nd century.

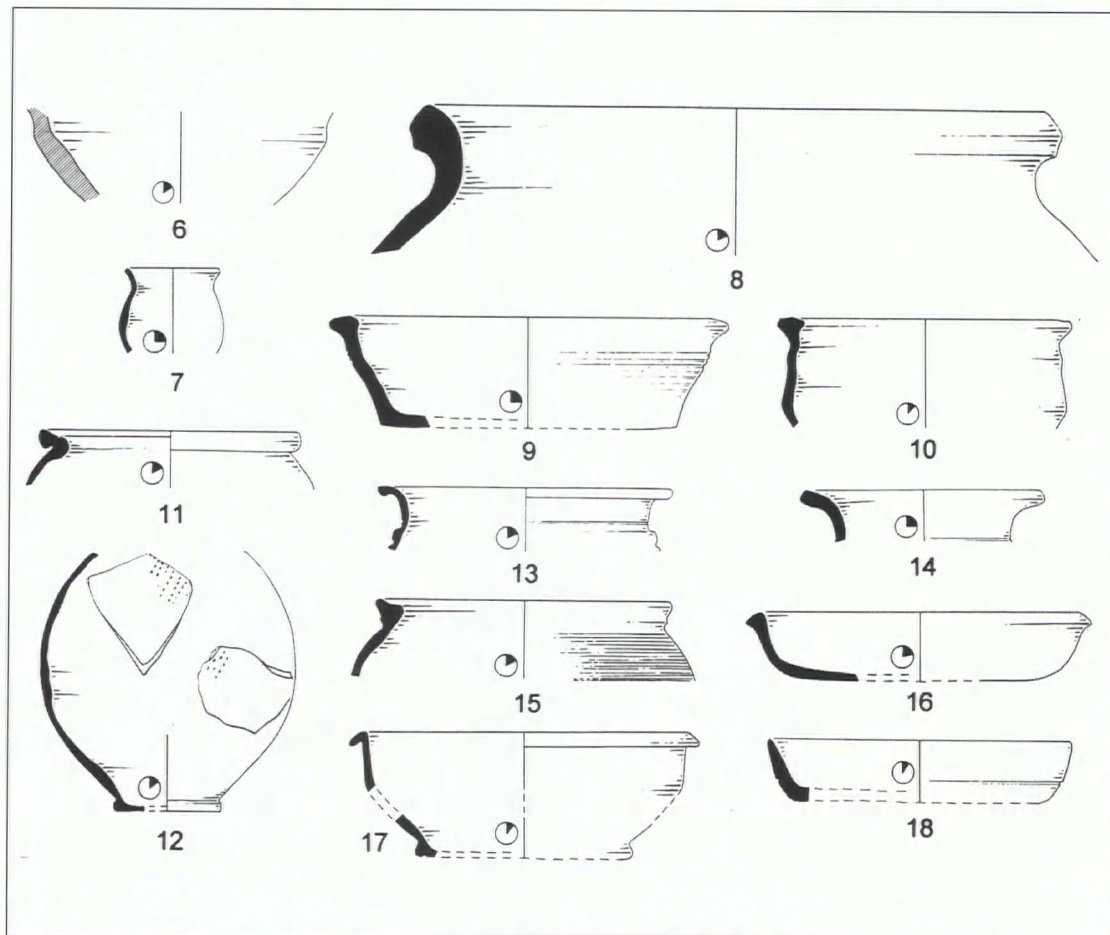


Figure 6 Pottery from enclosure ditch L15 scale (1:2)

The ditches of the oval enclosure L15 were filled with Romano-British pottery whose suggested date may be in the mid-2nd century. The pottery was unabraded with large fragments surviving (Fig 6, 6-18). Most of the pottery consisted of shell tempered pottery and greywares. A shelly ware industry was based at Harrold, North Bedfordshire, with production beginning in the early Romano-British period and flourishing particularly in the 4th century. A number of vessels are paralleled at Harrold in the second half of the 2nd century: lid-seated/channel rim jars, which have by now lost the deep groove in their rim so common in the 1st century, simple out-curved rimmed jars, and bowls (Brown 1994, 62). The giant storage jar (e.g. Fig 6, 8) is dated to the 3rd century at Harrold but its presence in the 1st century at, for example Stagsden, where it was manufactured, indicates that it is a long lived type (Slowikowski 2001). Individual examples of a number of forms were found in the upper fill: a mortarium from the Nene Valley, a flagon and a possible ring vase (Fig 6, 7) from the Verulamium region, and a small quantity of samian. Samian was recovered only from this upper fill. A single stamped fragment was found [NO—]. Evidence of samian use was seen in the external and internal burning on a single base sherd, clean on the breaks, and a post-firing drilled hole just under the rim of a plain bowl. These holes are common on samian and indicate attempts at repair. The lower fill contained fewer vessels but these were of the same date, and included a poppy head jar (Fig 6, 12).

The forms of both the grey wares and shelly wares are basic utilitarian types, possibly kitchen wares; no fine wares besides the samian were found. Exteriors of the shelly wares are sooted while the grey wares are clean indicating a difference in function, possibly

the use of shelly pottery for cooking and greyware vessels for storage and tablewares.

A single identifiable open vessel in a middle Iron Age fabric, F20, was recovered (Fig 6, 6). It was residual in this ditch, but indicates the presence of earlier activity.

THE NON-CERAMIC FINDS

H Duncan

The non-ceramic assemblage derived from Phase 4 deposits. Of the four 'small finds' recovered from the trial trenches, two provide some evidence of date. The presence of a flat rotary quern from the enclosure ditch L13 indicates a post-Roman Conquest date, flat querns having superseded the beehive form early in the Romano-British period. Trade in mill-stone grit from the Derbyshire/Yorkshire area appears to have begun during the 2nd century AD (Buckley and Major 1990, 117) and continued throughout the Romano-British and later periods. It seems likely therefore that the quern fragment dates no earlier than the 2nd century AD.

The introduction of the construction technique of the composite bone comb from the enclosure ditch L7, several tooth-plates sandwiched between a pair of connecting plates, is thought to date towards the end of the 2nd century AD (MacGregor 1985, 83). The fragmentary nature of this comb (Fig 7) is unfortunate, making it impossible to be certain of its original form. If single-sided it could date from the 2nd/3rd centuries AD, while double-sided composite combs do not appear in the archaeological record until the 3rd century AD, continuing in use into the 12th century AD. The ceramic evidence from this ditch would seem to indicate an earlier rather than later date.

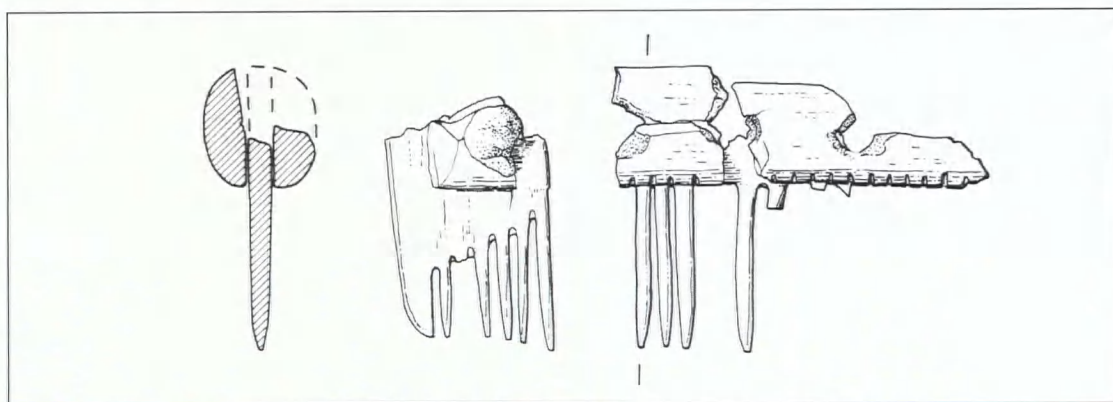


Figure 7 Bone comb from boundary ditch L7 (scale 1:1)

The condition of survival of the two iron 'rods' precludes certain identification. If they are nails, as tentatively identified, their size suggests they belong to Manning's Type 1A (1985, 134-7) possessing lengths of greater than 150mm.

Despite the limited nature of the assemblage, the presence of items associated with food processing and personal appearance is indicative of domestic occupation.

CATALOGUE

SF 1 Bone. Comb. Fragmentary remains (12 pieces plus 22 detached teeth) of a composite bone comb with evidence for at least four iron rivets (one in situ). Portion of only one side survives, plain straight-sided end-plate, teeth all relatively coarse. Connecting plate displays teeth cut-marks on one side, opposite unmarked. Phase 4; L7; Context 13.

SF 2 Iron. ?Nail shank. Rod, 177mm in length, rectangular in cross-section (11 x 7.6mm). Both ends incomplete. Phase 4; L15; Context 63.

SF 3 Iron. ?Nail shank. Rod, 136mm in length, square in cross-section (12.5 x 12.5mm), both ends incomplete. Phase 4; L15; Context 63.

SF 4 Millstone grit. Quern. Fragment of a flat rotary quern (upper stone?) of medium coarse millstone grit. Portion of grinding surface survives. Remains of rough outer edge too small to determine diameter. Greatest surviving thickness 33.5mm. Phase 4; L13; Context 59.

FAUNAL REMAINS

(Summary of report by A F Roberts)

Of the 37 contexts which contained animal bone, nearly half were contexts from the late Iron Age enclosure L1. These were in a very fragmentary condition. Five species were identified: horse, cattle, pig, sheep/goat and dog. Cattle bones were the most frequent, followed by sheep and horse. Pig bones were infrequent, while only two bones of dog were found. Faunal remains from later phases were well preserved and included two long bones as well as broken fragments. In particular, large quantities of bone were found in the early Romano-British boundary ditch L7 and oval enclosure L15. These assemblages showed roughly the same percentages of different species as L1, with cattle bones by far the most frequent in number and distribution. Two bones of deer were found in L15. Both were pieces of antler, one with evidence of working, and the other shed and probably collected.

ENVIRONMENTAL EVIDENCE

(Summary of reports on plant macrofossils by R Scaife and snails by M J Allen)

Soil samples were taken from a range of ditches, pits and other features; some of these produced charred plant remains and land snails for analysis. Both kinds of remains were extremely sparse. A single grain of wheat was identified from the fills of the late Iron Age enclosure L1. The assemblage of snail shells found in L1 is dominated by *Trichia hispida*, which indicates an open pastoral or possibly arable habitat. Moisture conditions are suggested by the presence of a few shells of fresh-brackish water species *Lymnaea truncatula*. The early Romano-British oval enclosure L15 produced a number of wild grass seeds and a seed of *Fallopia convulvus* (black bindweed), a plant typical of arable habitats, disturbed and waste ground. However, the general absence of grain seeds from features of all phases is unusual and might suggest a primarily pastoral economy.

DISCUSSION

The results of the archaeological evaluation and subsequent excavation combine to give an understanding of the development of a small-scale rural settlement at Norse Road, dating from the Iron Age and Romano-British periods. While evidence of earlier activity is provided by the assemblage of worked flints of Neolithic or Bronze Age date found during field artefact collection survey, and by the few features which can be dated to the early Iron Age (as well as the background of residual early Iron Age pottery found in later features), the first substantial evidence for occupation/use of the high ground dates from the middle-late Iron Age. The construction of a large eastern enclosure and possible driveway towards the end of the Iron Age was followed in the early Romano-British period by a shift westwards in the use of the site and the construction of a series of smaller enclosures. Here limited evidence precludes a detailed discussion but the abundance of pottery from the few ditch segments excavated, together with fragments of a bone comb and quernstone, shows occupation may have become more permanent in this phase. That some of the unexcavated features in this area may be of late Romano-British date is indirectly suggested by the scatters of 4th-century pottery found during fieldwalking. The absence of Saxon finds indicates that the farmstead was abandoned by the end of the Romano-British period, but some longevity of field boundaries and

continuity in agricultural practices is suggested by the fact that the medieval furrows share exactly the same orientation as the Romano-British ditch L7 and other landscape features from earlier phases. However, the excavated evidence is principally from the late Iron Age, and this will be discussed in detail below.

PHASE 3: LATE IRON AGE

Extensive excavation of the late Iron Age eastern enclosure L1 was successful in revealing the form of the enclosure ditch with its internal bank and entranceway, as well as the order of construction of its component ditches. Investigation of the interior, however, did not reveal the anticipated evidence of settlement structures (with the exception of the cluster of post holes L10, which may be earlier than the enclosure). Some domestic activity is indicated by the evidence of pottery in the ditch fills, but this does not specify whether such activity took place inside or outside the enclosure. The absence of settlement structures may be partly due to the destruction of features by deep ploughing in medieval times, but perhaps should be taken as evidence that the enclosure was constructed primarily for agricultural rather than settlement purposes - in which case huts might be expected to be found just outside the enclosure.

Indeed, looking at the complex of cropmarks as a whole, the existence of at least two droveways leading into and out of the enclosures (with droveway ditches forming integral parts of the enclosures themselves) is strongly suggestive of a system of ditches and banks for controlling and moving animals around. The sparse distribution of pottery outside the main cluster of cropmarks might be taken to indicate that the farmers who made use of the low hilltop were principally engaged in pastoral rather than arable farming (Hayes 1991, 83). No recognisable storage pits were found, and there was a marked absence of grain seeds. Faunal remains and other environmental evidence suggest that the agricultural economy centred around cattle, with some sheep and horse and a limited number of other animals. The predominance of cattle bones in ditch fills carried over into Romano-British times. This naturally leads to the question of whether the eastern enclosure in particular, and perhaps some of the associated enclosures immediately to the W, were stockyards or corrals for penning cattle (and/or sheep), and whether the site could perhaps best be conceived of as a kind of ranch.

Ranch is a term rarely used in the context of British Iron Age and Romano-British studies but it usefully

conveys the idea of a farmstead with the principal function of cattle-rearing and husbandry. The small promontory of high ground at Norse Road is ideally situated in this respect because it overlooks and gives easy access to the lush pastureland of the floodplain of the River Great Ouse, which would have provided the optimum grazing for cattle in the summer, as well as meadows for the production of hay for winter fodder. The nearby brook would have met the constant watering needs. Most importantly, in view of the fact that the enclosures were obviously deliberately sited within the top contours, the site would have provided convenient refuge from floods which, in wet winters, would have half-encircled the low hill. As Cunliffe (1992, 381) points out, cattle were much more difficult to look after than sheep; from December to March they would have needed protection from the weather in corrals or other enclosures.

The situation of the complex of enclosures on the high ground in relation to other cropmarks nearby, and the character of pastoral economies in general, also leads to the question of whether the site was occupied on a seasonal basis. It is well known, for example, that the tradition of medieval cattle fairs, often held on hilltops, probably had origins in pre-history, with 'seasonal round-ups' sometimes being the occasion for social gatherings (Cunliffe 1995, 30). A possible scenario is that the enclosures were used principally in the winter or at times of flood. Alternatively, the site could have served as a semi-permanent base from which herds were taken onto the floodplain in the summer, with some of the family or group staying behind. Either way, the undated cropmarks on low ground on the other side of the brook - including a droveway that if extended could have linked the two sites - may well have been part of the same complex, possibly used in the summer and abandoned during the winter floods for the higher ground (Fig 1 and Plate 1).

Consideration of former flooding conditions can be important for understanding river valley sites. Prior to the existence of flood banks and large scale artificial drainage systems, rivers were much more liable to flooding than today. Occasional severe floods can give some idea of what may have been an annual occurrence in Iron Age and Roman times. For example, when the River Great Ouse burst its banks in Cambridgeshire in March 1947 the floodwaters halted on a line which bounded the known distribution of Romano-British settlement sites (Wilson 1982, 37). Annual flooding probably imposed a mobile way of life on farmers seeking to exploit the rich grassland resources of the floodplain.

It is often assumed that mobile pastoral economies were largely confined to the N of the country. The model of sedentary cultivation or mixed farming usually applied to sites in the S is rarely challenged, even when evidence for arable crops is lacking. However, the middle Iron Age riverside enclosures at Farmoor in Oxfordshire provide a useful comparison. Here several groups of enclosures on the floodplain were interpreted as seasonal pastoral farm units, established for the prime purpose of tending the grazing herds. These were occupied in the summer in order to make use of the rich pasture, but were subject to flooding in the winter and abandoned for the higher ground. This implied the existence of a winter encampment and, although none was located, various hills overlooking the floodplain were thought to be likely candidates (Lambrick and Robinson 1979).

At Norse Road the opposite situation pertains. The group of enclosures on the high ground represents the winter encampment, or perhaps the base from which summer excursions with cattle were made (bearing in mind that severe flooding, and therefore the use of the upland site, would occasionally occur in summer too). Here the cluster of cropmarks is especially dense because successive encampments - sometimes using existing enclosures and sometimes constructing new ones - were limited by topography to the same small area of ground on top of the hill. This presupposes the existence of summer steadings or pastoral camps on the floodplain of the kind found at Farmoor. Unrestricted by limitations of space, these would probably have shifted from one part of the floodplain to another, so several sites would be expected. The cropmarks formerly visible on the low ground on the other side of Renhold Brook may represent one such site.

NOTE

The Norse Road archive is deposited in Bedford Museum (Accession No 2000/29).

ACKNOWLEDGEMENTS

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Harlington Roman Cemetery

MICHAEL DAWSON

SUMMARY

Part of a late Iron Age and Roman cremation site at Maskell's Quarry, Harlington, was excavated during the early 1990's. This report catalogues the evidence and provides a brief discussion.

INTRODUCTION

Sheepwalk Hill is a prominent sand deposit, a southerly remnant of the Greensand Ridge in an area of boulder clay and chalk in the Icknield Belt west of the Bedfordshire village of Harlington. The soil types on the southern hillslope are a mix of gleyed brown earths of the Flitwick Association and heavier non-calcareous gley soils of the Oak Series over the clays. The hill itself is a prominent feature in the landscape, providing extensive views over the surrounding countryside (Fig 2).

The Roman cemetery, which is the subject of this report, lay on the north face of Sheepwalk Hill in a field known as 'wickhern'. In 1861, on the south facing slope, the first skeleton of what was subsequently recognised as an Anglo-Saxon cemetery was recovered (VCH 1904, 185 (R A Smith)). The evidence from this site was collated in 1962 and was referred to in Meaney's Gazetteer as Toddington I (Morris 1962, 74; Meaney 1964). The location of one of the skeletons found in the 19th century "lying on a bed of concrete" was interpreted by Simco as the remains of a substantial Roman building (Simco 1984, 120).

In 1960 planning permission was granted to Mr G Maskell to extract sand at Harlington (February 1960, No. 1889). The quarry, which is now owned by J Murphy & Sons of Highgate, has been operated since 1960 by Mr Maskell.

In April 1990, archaeological material was recovered from spoil heaps in the quarry by Stephen Castle of Harlington, who brought his findings to the attention of Bedfordshire's County Archaeologist and Luton Museum. Initially, it was material of predominantly Iron Age date that was recovered, but, in August 1990, two Roman period cremations were identified *in situ* in the quarry area.

Negotiations with the quarry owners led to the recovery of the two cremations and in 1991, a small scale evaluation was mounted, funded by Murphy & Sons, to determine the extent and quality of archaeological survival at the site. Eight cremations were

recovered during the evaluation and the results of this work were used as the basis of a voluntary strategy to preserve *in situ* whatever remained of the cemetery. The site was covered over with sand and topsoil and isolated from the active quarry area.

However, by 1994, the condition of the site had begun to deteriorate as heavy winter rain eroded the edges of the preserved island, and some slippage took place. The salvage of what remained of the cemetery was undertaken with County Council funding and with machinery provided by the operator. Rescue excavation began on 5th October 1995 when the remains of the cemetery, a single cremation, and several surviving features were cleared.

THE REPORT AND BACKGROUND TO THE EXCAVATION

The following report is based on the discoveries made at Maskell's Quarry from April 1990 until April 1996. During this period finds were made at 32 locations in the area of quarrying by Mr Stephen Castle and colleagues. Of these, only four were *in situ*; the remainder constituted displaced material recovered from individual spoil heaps. In some cases it was clear that the spoil heaps may have been moved more than once. The four *in situ* assemblages were small, but it has been possible to characterise them as an area of 4th century Roman activity; a late Iron Age assemblage; an early Roman period cremation cemetery (the subject of this report), and several other miscellaneous features including a Saxon period pit close to the cemetery.

The principal focus of this report is the early Roman period cremation cemetery investigated in 1991, 1992 and 1995. The earliest cremation was discovered shortly after it had been disturbed by the earthmover during topsoil stripping. Initially designated CS (cremation from spoil heap), it was soon clear there may have been up to three cremation groups in this area. At almost the same time two cremations, initially designated C1 and C2 were found still *in situ*.

Formal assessment and excavation followed with cremations assigned context numbers and designated project codes H91, H92 and H95. For the purposes of this report, the cremations have been numbered sequentially, with their original context numbers noted to ease access to the archive. The finds from

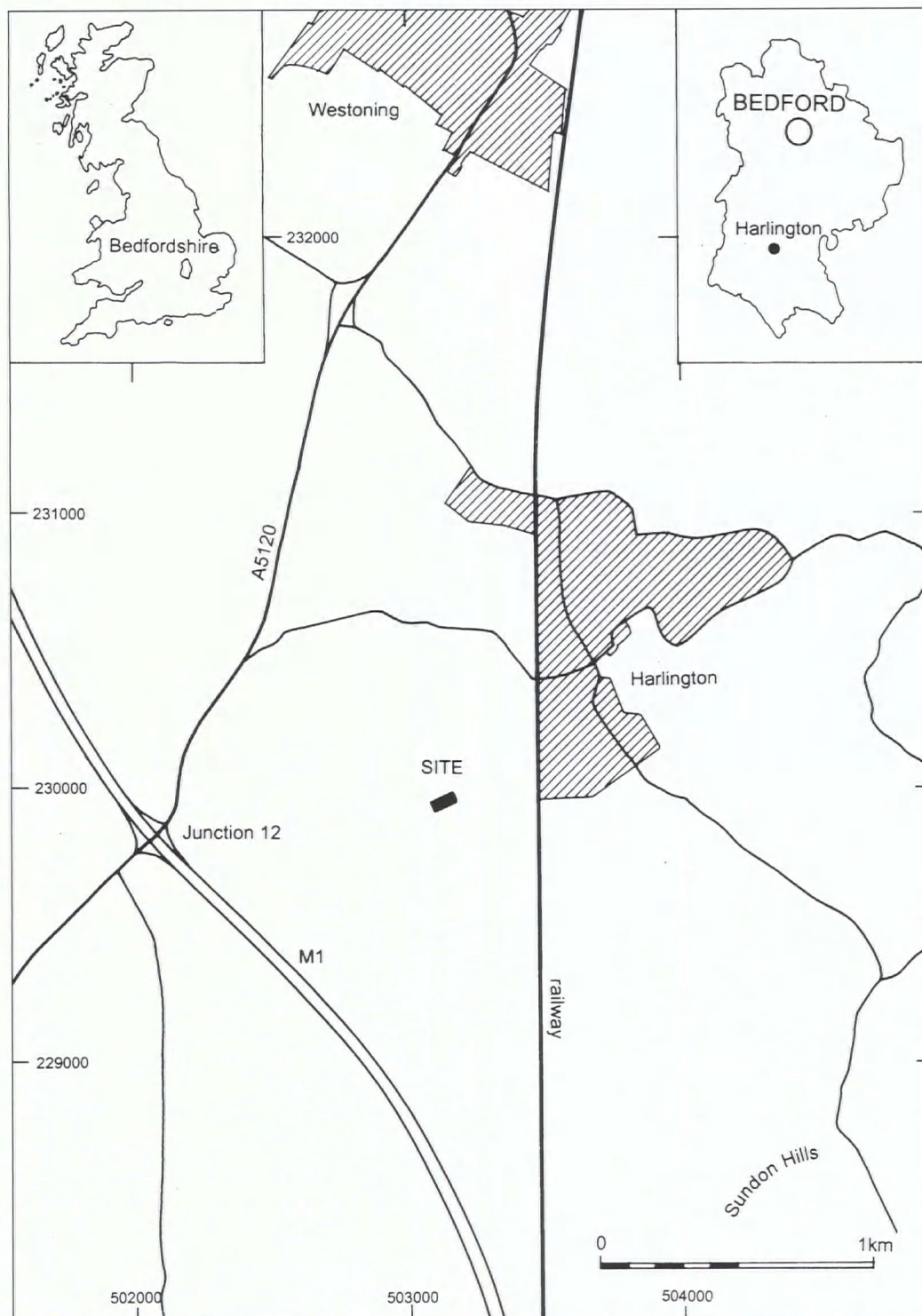


Figure 1 Location plan – Harlington

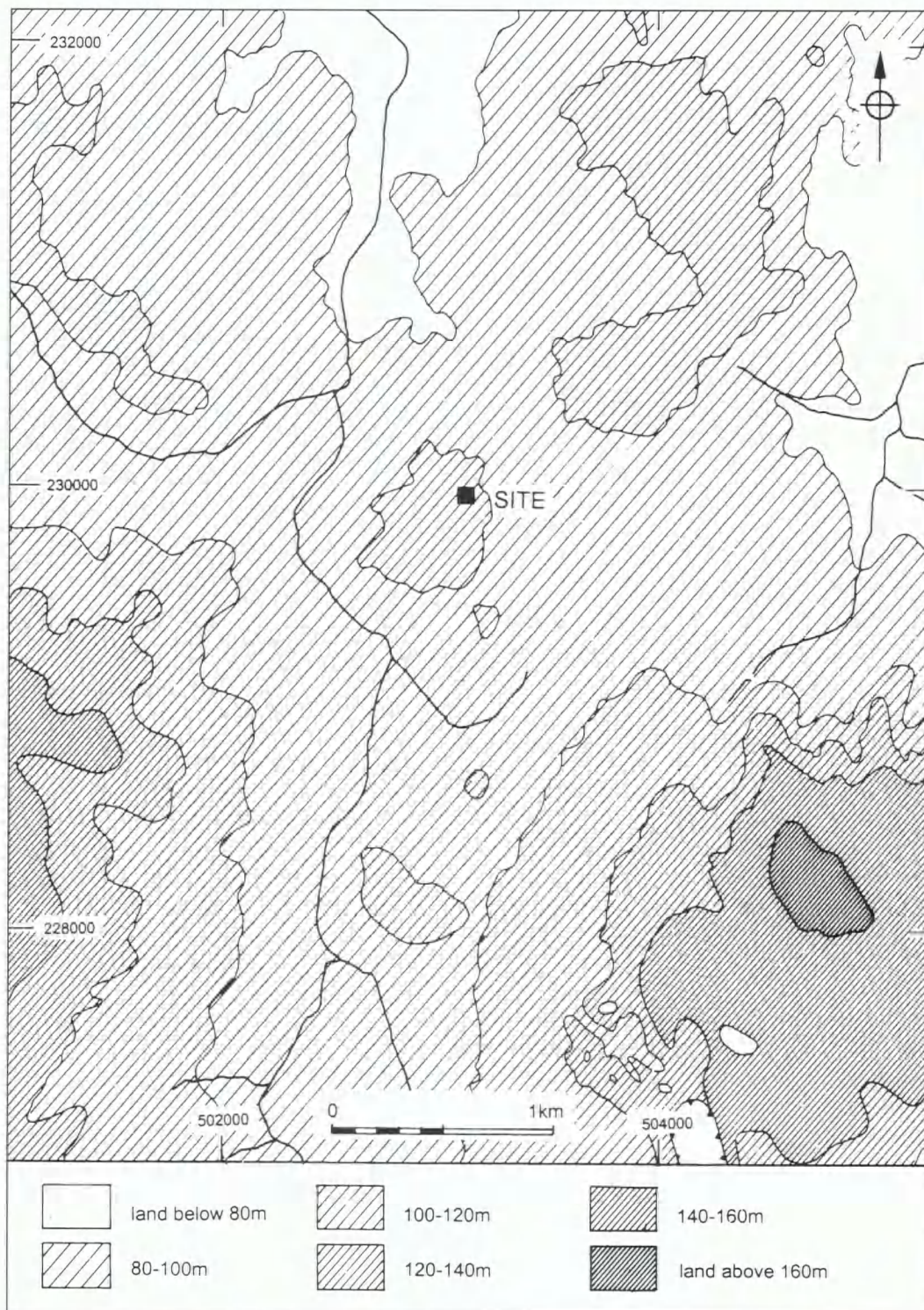


Figure 2 Topography

Harlington made by Stephen Castle and his colleagues have accession nos 1990/69 and 1991/3, those by Bedfordshire County Archaeology Service have been assigned 1991/3 and all the material is now lodged with Luton Museum.

THE CEMETERY

The Roman period cremation cemetery at Harlington was located on the south east facing slope of Sheepwalk Hill in Harlington parish at TL 030 300 (Fig 1).

Although the cemetery was discovered during quarrying, the diligence of Stephen Castle and his colleagues, as well as the sharp eyes of the machine operator, Willy Cuthbertson, were such that it is unlikely any significant numbers of burials were lost. It seems, therefore, that the cemetery was small, comprising up to 13 cremations, in an area less than 15m across. The area was not enclosed.

The individual cremations were very shallow, located immediately below topsoil and most had been crushed by machine movements during quarrying. The majority of the cremations were grouped closely together with one outlier to the north. The latter may have been the last *in situ* survivor of a northern group, the majority of which were recovered from the spoil heap.

SPOILHEAP FINDS (CS)

In August 1990 ceramic material and fragments of burnt bone were found in the upper layers of a long spoil heap just to the south of the then quarry face. This spoil heap was subsequently referred to as the 'cremation spoilheap' (Fig 3). The method of topsoiling, removal by a single earthmover, meant that the soil in which the archaeological material was found had travelled only a short distance. It is reasonable to assume, therefore, that the ceramics and human bone came from the same cemetery assemblage as the *in situ* cremations. The distribution of the otherwise unstratified material, retrieved from the spoilheap, indicated more than one cremation. Subsequent analysis of the complete ceramic assemblage from this area suggested three possible cremation groups:

Group 1

Central Gaulish samian bowl [Form Drg 18/31] 2 vessels (early 2nd century).

South Gaulish samian dish [Form Drg 36] 2 vessels (1st century).

South Gaulish samian platter [Form Drg 18] (1st century).

South Gaulish samian cup [Form Drg 27g] (1st century), Fig 6.1.

Gritty pinkware flagon (1st-2nd century).

Gritty pinkware flagon (1st-2nd century).

Fine whiteware ring necked flagon (1st-2nd century).

Lead-glazed flagon (mid-late 1st century).

Group 2

Sand tempered flagon (1st-2nd century), Fig 6.2.

Orange sandy jar (1st-2nd century).

Group 3

Fine whiteware flagon (1st-2nd century).

Micaceous carinated jar (1st century), Fig 6.3.

Sand tempered cordoned cup (1st century), Fig 6.4.

Sand tempered platter (1st century), Fig 6.5.

Human bone

In addition to the ceramic evidence 405g of adult human bone was recovered.

THE CREMATIONS

Cremation 1

Cremation Vessel: Hadham jar (2nd century), Fig 6.6.

Human bone:

Age: adult.

Sex: indeterminate.

Grave goods: fine whiteware flagon (1st-2nd century), Fig 6.7, Central Gaulish samian bowl [Form Drg 18/31] (2nd century), Fig 6.8, iron paring chisel (RA8), Fig 6.9, glass vessel fragment (RA9) and fourteen iron nails.

Description: cremation assemblage deposited in shallow pit immediately below topsoil.

Cremation 2

Cremation Vessel: none

Human bone:

Age: -

Sex: -

Grave goods: fine orange beaker (2nd century), Fig 6.10.

Description: a single beaker was recovered in a shallow hollow immediately below topsoil. A tiny assemblage of burnt bone extended to the north.

Cremation 3

Cremation Vessel: hand-made sand tempered jar (1st century), Fig 7.11.

Human bone:

Age: adult.

Sex: indeterminate.

Grave goods: Central Gaulish samian bowl [Form Drg 18/31] (2nd century), Fig 7.12, eleven iron nails and two hobnails.

Description: complex cremation deposit in shallow hollow [3]. The hollow was filled by a sandy material reflecting the background soils (4), Fig 5.

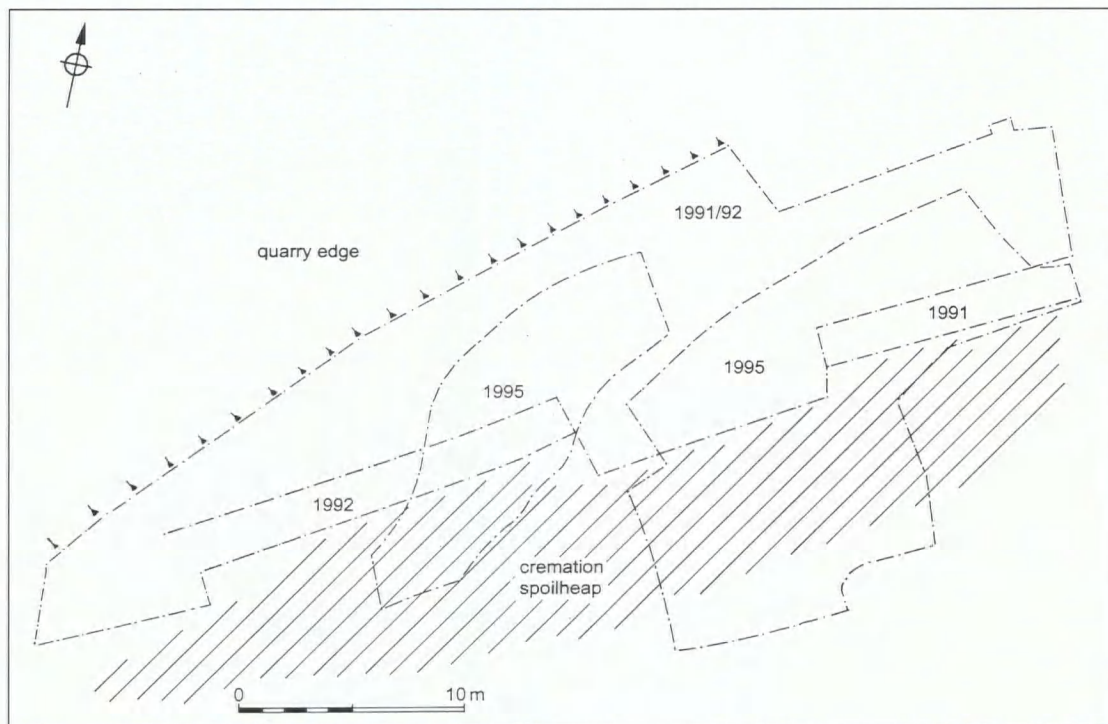


Figure 3 Area of Excavation

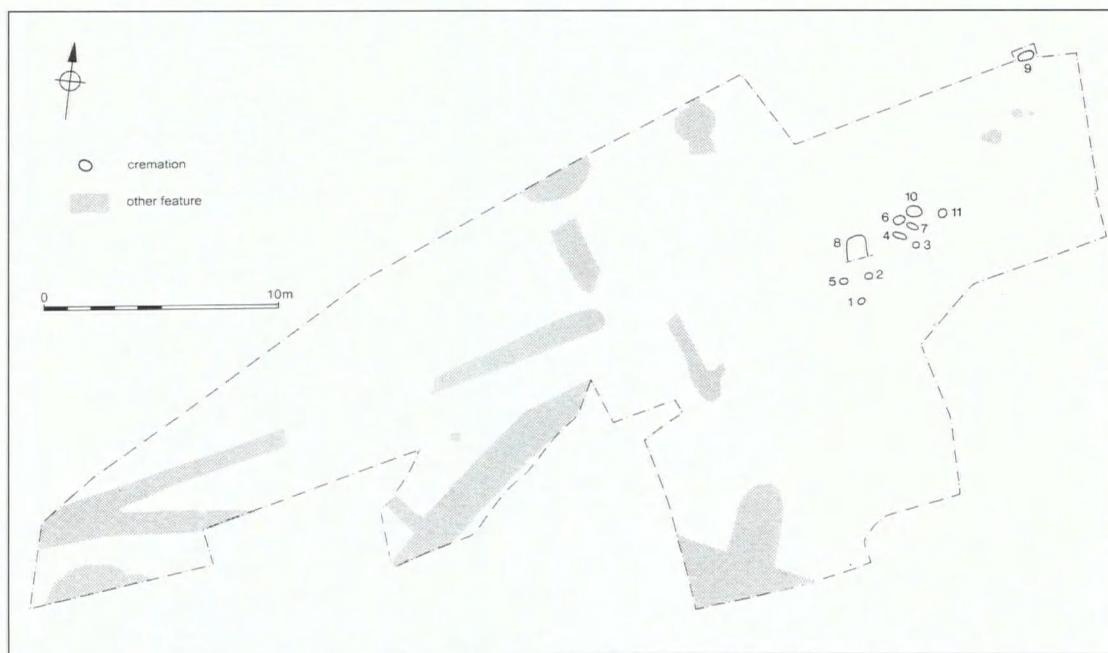


Figure 4 All archaeological features

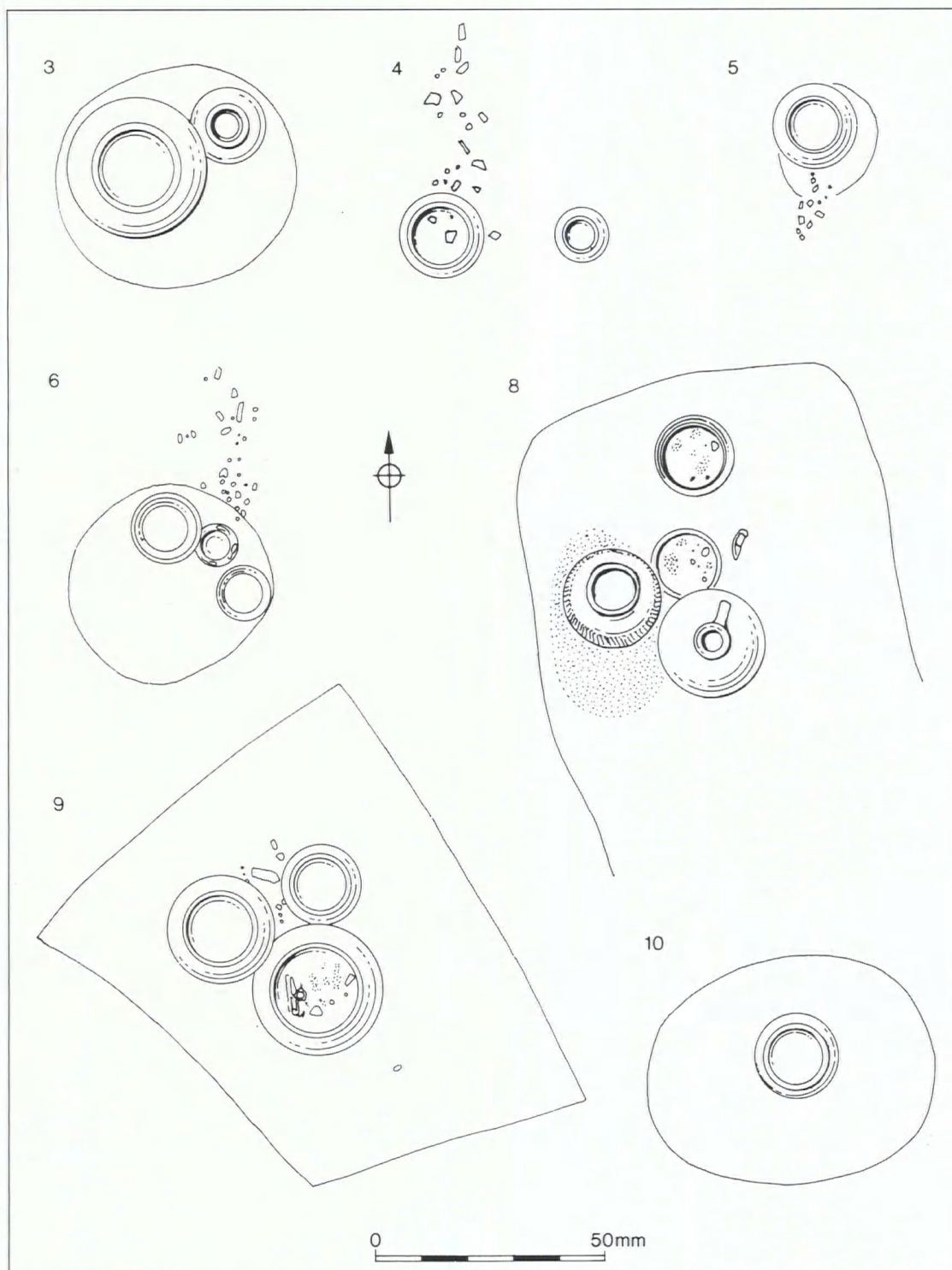


Figure 5 Cremation Groups

Cremation 4

Cremation Vessel: Shell tempered vessel (1st-2nd century). Not Illus.

Human bone:

Age: indeterminate.

Sex: indeterminate.

Grave goods: gritty pinkware vessel (1st-2nd century). Not Illus.

Description: very disturbed cremation in shallow hollow [5], filled by sandy material (6), Fig 5.

Cremation 5

Cremation Vessel: none.

Human bone:

Age: indeterminate.

Sex: indeterminate.

Grave goods: South Gaulish samian platter [Form Drg 18] (1st century), Fig 7.13.

Description: small shallow hollow [7] filled by sandy silts which contained some charcoal (8), Fig 5.

Cremation 6

Cremation Vessel: none

Human bone:

Age: indeterminate.

Sex: indeterminate.

Grave goods: Central Gaulish samian bowl [Form Drg 18/31] (2nd century), South Gaulish samian cup [Form 35] (1st-2nd century), sand tempered bowl (1st century), Fig 7.14, 15, 16 and three iron nails.

Description: shallow hollow [9] containing sandy material with some small stones (10), Fig 5.

Cremation 7

Cremation Vessel: gritty pinkware vessel (1st-2nd century). Not Illus.

Human bone:

Age: indeterminate.

Sex: indeterminate.

Grave goods: none.

Description: shallow hollow [11] filled by sandy material (12).

Cremation 8

Cremation Vessel: none.

Human bone:

Age: young adult.

Sex: indeterminate.

Grave goods: whiteware flagon and butt beaker (1st century), Fig 8.17, 8.18, respectively, sand tempered lid (1st century), Fig 8.19, and stamped Terra Nigra platter (1st century), Fig 8.20, and copper alloy Colchester brooch (RA2), Fig 8.21.

Description: complex cremation group of 4 vessels laid in a line north to south in a rectangular shaped hollow [17] filled by sandy material (18). The cremation was deposited in the western half of the hollow with a brooch on the opposite side, Fig 5.

Cremation 9

Cremation Vessel: two hand-made grog and sand tempered jars (1st century), Fig 9.22, 9.23. The cremated bone had been placed inside the jars together with a pair of brooches which had become attached to bone fragments by their corrosion products.

Human bone:

Age: adult.

Sex: indeterminate.

Grave goods: grog and sand tempered jar (1st century), Fig 9.24 and two iron La Tene III developed brooches, iron chain and iron lugged ring (RA 6), Fig 9.25.

Description: cremation complex comprising three vessels laid in a shallow hollow [42], Fig 5.

Cremation 10

Cremation Vessel: gritty whiteware jar (2nd century), Fig 9.26.

Human bone:

Age: child.

Sex: indeterminate.

Grave goods: none.

Description: the cremated bone had been placed in a single cremation vessel buried in a small sub-circular cut [43]. The hollow was filled with sandy material (45), Fig 5.

Cremation 11

Cremation Vessel: none.

Human bone:

Age: juvenile and adult.

Sex: indeterminate.

Grave goods: none.

Description: simple unaccompanied cremation buried in shallow, sub-square pit [46], in a matrix of sandy material (46).

THE CERAMIC ASSEMBLAGE**J Wells**

The ceramic assemblage comprises 37 vessels of late 1st to early 2nd century AD date. Of these 22 are cremation urns or accessory vessels recovered from ten discrete burials; the remainder derive from the area of the "cremation" spoilheap and represent an unknown number of cremations.

With the exception of the most fragmentary examples, all vessels from the cremation groups have been illustrated, as have those of intrinsic interest from the cremation spoilheap. Standard drawing conventions have been used, with vessels shown at one quarter size, external view on the right and a section and internal view on the left. Hand-made vessels are illustrated with hatched sections and wheel-thrown vessels with solid sections. The pie diagram at the base of each illustration indicates the proportion of the vessel recovered.

TYPE SERIES

Fifteen fabric types were identified, using common names and type codes from the Bedfordshire Ceramic Type Series. These are listed below in broadly chronological order. Full fabric descriptions are given only for those types not previously published.

Belgic Iron Age

F09 Grog and sand tempered.

Fabric - fully described in Dawson (1988, 13).

Forms - hand-made, otherwise undiagnostic jars.

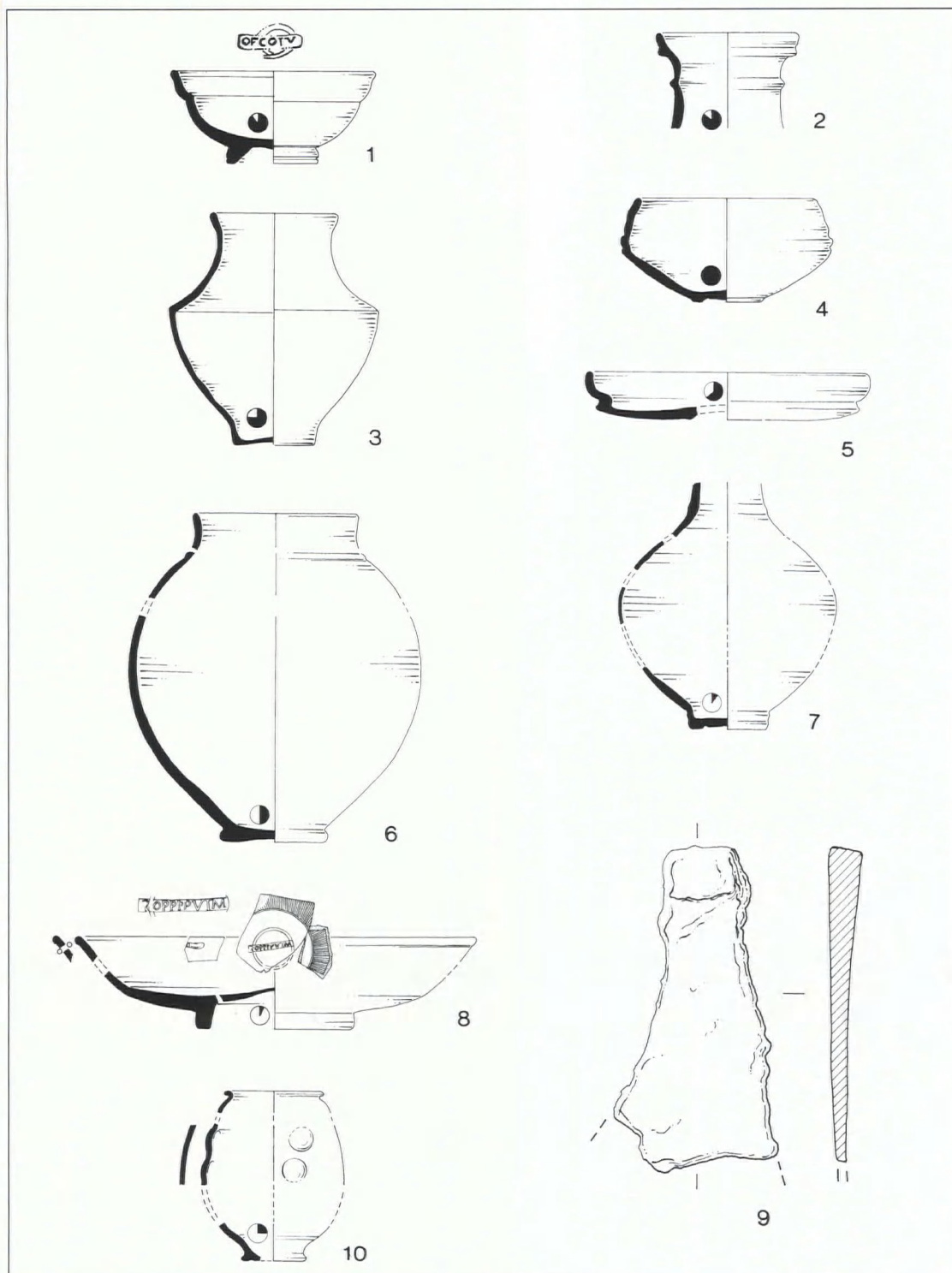


Figure 6 Artefacts from Cremations CS 1 and 2 (pottery scale 1:4, 9 scale 1:2)

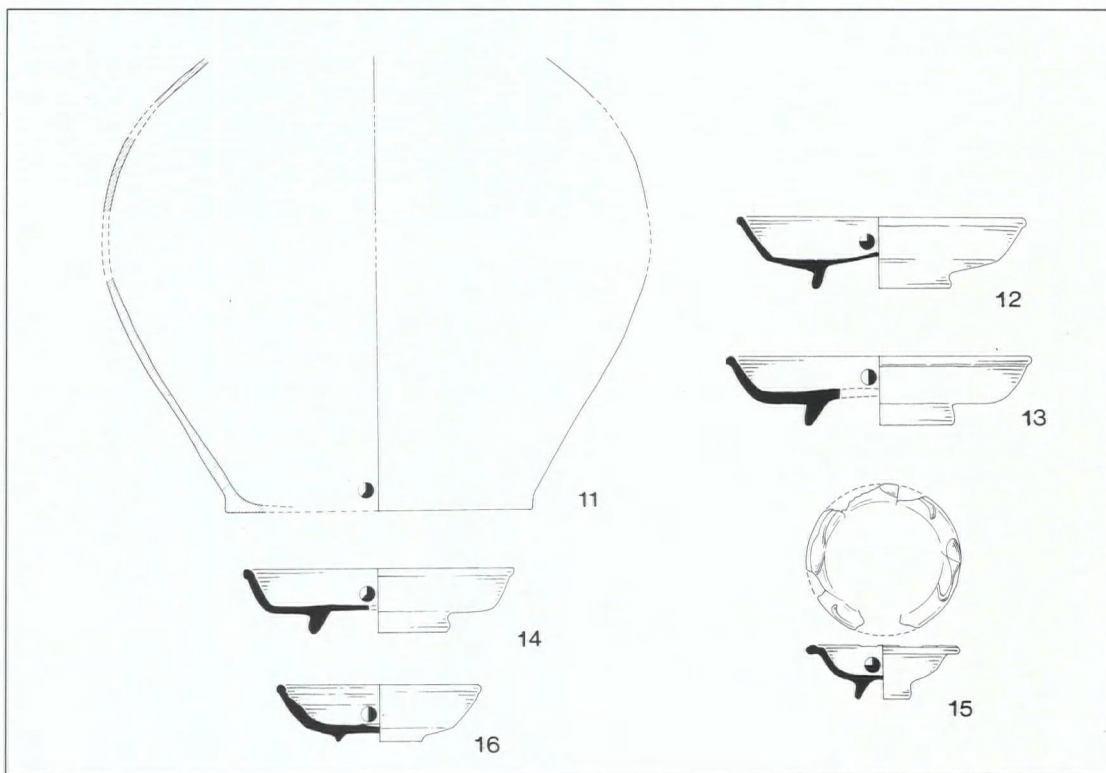


Figure 7 Pottery from Cremations 3, 5 and 6 (scale 1:4)

Dating - late Iron Age, in the Belgic tradition.

Illustrations - Fig 9.22, 23, 24.

F34 Sand tempered.

Fabric - generic grouping for sand tempered vessels in the Belgic tradition. Examples at Harlington are reduced and range from smooth, finely tempered vessels with quartz inclusions of >0.1mm to harsh, coarsely tempered vessels with inclusions of c.0.5-1.0mm.

Forms - cordoned cup, lid, bowl, platter, and undiagnostic jars.

Dating - late Iron Age, in the Belgic tradition.

Illustrations - Fig 6.4, 5, Fig 7.11, 16, Fig 8.19.

Early Roman

R01A Central Gaulish samian ware.

Fabric - fully described by Webster (1996, 13).

Forms - bowl [Drg18/31].

Dating - see specialist report.

Illustrations - Fig 6.8, Fig 7.12, 14.

R01B South Gaulish samian ware.

Fabric - fully described by Webster (1996, 13).

Forms - platters [Drg18], dish [Drg36], cup [Drg27g], and cup [Drg35].

Dating - see specialist report.

Illustrations - Fig 6.1, Fig 7.13, 15.

R03A Verulamium Region fine whiteware.

Fabric - fully described by Marney (1989, 182: fabric 18g).

Forms - flagon.

Dating - late 1st-2nd centuries.

Illustrations - Fig 6.7.

R03B Gritty whiteware.

Fabric - fully described by Parminter (forthcoming).

Forms - flagons and jar.

Dating - uncertain; ?2nd century.

Comments - Similar to type R03A and to Milton Keynes fabric 39 (Marney 1989). Sources are uncertain; Oxfordshire has been suggested for the Milton Keynes fabric, although the Verulamium region is also a possibility.

Illustrations - Fig 9.26.

R04B Gallo-Belgic whiteware.

Fabric - generic grouping fully described by Parminter (forthcoming).

Flagon - fine grained smooth fabric containing sparse red quartz <0.1mm.

Butt beaker - fine buff/white powdery fabric with few visible inclusions.

Forms - flagon and butt beaker.

Dating - 1st century.

Illustrations - Fig 8.17, 18.

R05A Orange sand tempered.

Fabric - fully described by Parminter (forthcoming). One vessel from Harlington varies in being extremely coarse and gritty.

Forms - flagon and jar.

Dating - 2nd century.
Illustrations - Fig 6.2.

R05B Fine orange sand tempered.
Fabric - fully described by Friendship-Taylor (forthcoming).
Forms - beaker.
Dating - 2nd century.
Illustrations - Fig 6.10.

R08 Micaceous blackware.
Fabric - fully described by Parminter (forthcoming).
Forms - carinated jar.
Dating - uncertain; ?1st century.
Illustrations - Fig 6.3.

R13 Shell tempered.
Fabric - fully described by Brown (1994).
Forms - undiagnostic vessel.
Dating - 1st-4th centuries: given its association with 1st-2nd century gritty pinkware, the Harlington vessel is likely to derive from the earlier Roman period.

R18 Gritty pink/redware.
Fabric - fully described by Parminter (forthcoming).
Forms - flagon and undiagnostic vessel.
Dating - 1st-2nd century.

R22A Hadham oxidised.
Fabric - fully described by Marney (1989, 186: fabric 37).
Forms - jar.
Dating - 2nd century.
Illustrations - Fig 6.6.

R26 - Terra Nigra.
Fabric - fully described by Stead and Rigby (1989, 126: fabric TN).
Forms - platter stamped 'BENTO' (c. 20-65AD), with severe post-deposition lamination. Paralleled by vessel from King Harry Lane, St Albans - Burial 6.1 (Stead and Rigby 1989, 129/Burial 6.1).
Dating - 1st century.
Illustrations - Fig 8, 20.

R32B Lead glazed ware.
Fabric - fully described by Marney (1989, 179: fabric 13c).
Forms - flagon (c.f. Swan 1975, 25, plate 3).
Dating - mid-late 1st century.

SAMIAN WARE

B Dickinson

Excavation produced 205 samian sherds from a maximum of 12 vessels, with 79 sherds from one vessel. Erosion of the sherds made it generally impossible to estimate whether new or used vessels had been selected for deposition, but one dish (Fig 6.8) had been riveted in several places. The sherds themselves varied considerably in size.

The vessels ranged from the Claudian to the Trajanic or early-Hadrianic period, and it is noticeable that they included two dishes of form 36 and a

cup of form 35, further evidence of the popularity of these two forms as grave goods.

There is no certain evidence of the use of samian in the cemetery in the later 2nd century.

Catalogue

Cremation Spoilheap (Group 1)

Form Drg 36, about half-complete in 4 pieces, South Gaulish. Neronian or early Flavian.

Form Drg 36, about half-complete in 11 pieces, South Gaulish. Neronian or early Flavian.

Form Drg 18, South Gaulish, almost complete in 12 pieces, stamped OF[MA]CAR (with MA ligatured) (Glasbergen 1955, 140, 249); Maccarus of La Graufesenque, Die 13d. Maccarus's career began in the Tiberian period, but this stamp has not been noted on any of the earlier samian forms, although it is certainly pre-Flavian. The earliest examples are a form 15/17 from Lake Farm, Wimbourne, and a form 16R from La Graufesenque, c. A.D. 40-55.

Form Drg 27g, South Gaulish, almost complete, in 2 pieces, stamped OFCOIV: A. Cosius Iucundus of La Graufesenque, Die 3a. A stamp of a Flavian potter, noted from Rottweil-Hochmauren and Ulpia Noviomagus at Nijmegen. Stamps from other dies occur at Catterick, Chester and Newstead. c. A.D. 75-100. Fig 7.1.

Form Drg 18/31, (4 sherds) Central Gaulish. Trajanic or early Antonine.

Form Drg 18/31, (5 sherds) Central Gaulish. Trajanic or early Antonine.

Cremation 1

Form Drg 18/31R (32 sherds and 47 scraps and flakes), Central Gaulish; riveted in five places and with a hole for a sixth rivet. The stamp ROPPI.RVT.M comes from the Die of Roppus ii-Rut(us?) of Les Martres-de-Veyre (Dickinson 1984, Fig 70.44). This stamp presumably records the names of two potters, since the cognomen Roppus was used separately at Les Martres. There are two examples of this stamp from the London Second Fire deposits c. AD 105-30.

Cremation 3

Form Drg 18/31 (25 sherds), Central Gaulish (Les Martres-de-Veyre), stamped [V+]ALISMSF (Hartley 1972a, 233, S58). A stamp noted in the London Second Fire deposits, and at Corbridge and Malton. It was used on form 15/17, which was rarely made in Central Gaul after the Trajanic period. c. A.D. 100-120. Fig 7.12.

Cremation 5

Form Drg 18, South Gaulish, half-complete in 4 pieces. Flavian. Fig 7.13.

Cremation 6

Form Drg 18/31, (23 sherds), Central Gaulish (Les Martres-de-Veyres). Trajanic. Fig 7.14.

Form Drg 35, South Gaulish, almost complete, in 19 pieces. Flavian or Flavian-Trajanic. Fig 7.15.

The ceramic assemblage comprises a range of late

1st to early 2nd century vessels of local, regional and continental origin. The latter are represented by Central and South Gaulish samian ware, Gallo-Belgic whitewares, Terra Nigra, and a St Remy ware flagon of Central Gaulish origin. Samian vessels were accessories in four cremations (1, 2, 5 and 6) and a further six vessels were recovered from the spoilheap (CS, group 1). A single lead glazed flagon base was also recovered from the spoilheap (CS,

group 1), while the remaining continental imports, a whiteware flagon (Fig 8.17), butt-beaker (Fig 8.18) and stamped Terra Nigra platter (Fig 8.20), derived from cremation 8. To some extent continental influences are visible in locally manufactured vessels which copy imported forms; for example the sand tempered flagon (Fig 6.2) and platter (Fig 6.5), recovered from the spoilheap (CS, group 2 and CS, group 3 respectively).

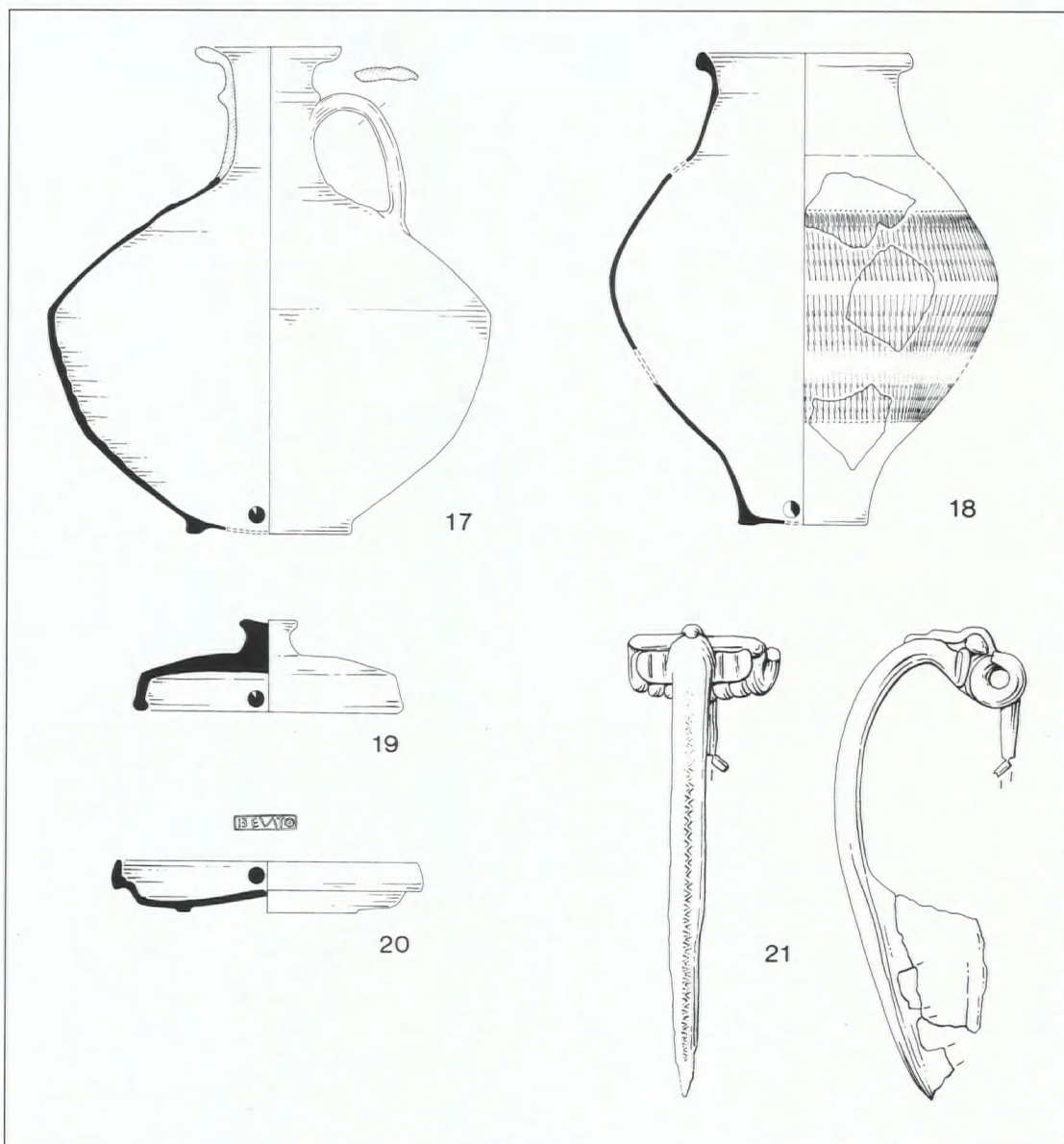


Figure 8 Artefacts from Cremation 8 (pottery scale 1:4, 21 scale 1:1)

Regional imports are predominantly represented by fine sandy flagons and jars (cremation 1, 4, and 7), the products of kilns at Brockley Hill and Radlett, and by a sand tempered jar from Hadham, Herts (cremation 1, Fig 6.6). The gritty whiteware jar (Fig 9.26) recovered from cremation 10 may derive from Oxfordshire (Marney 1989).

Of the local wares several 'Belgic' sand tempered vessels were recovered, amongst which were a cordoned cup (Fig 6.4) and platter (Fig 6.5) (CS, group 3) whose appearance and fabric suggests they were products of the same kiln and probably the same potter, although the source remains unknown. It is possible that these vessels were deposited in the same cremation. A fine walled carinated jar (Fig 6.3) in micaceous sandy fabric of unknown source was also recovered from this group, paralleled by vessels from Baldock (Stead and Rigby 1986, Fig 138/459) and the Roman settlement at Kempston (Parminter forthcoming).

An undiagnostic shell tempered vessel from cremation 4 is likely to be an early product of kilns at Harrold (Brown 1994).

Extensive post-depositional vessel damage resulting from quarrying makes it impossible to determine the presence or extent of any deliberate modification or damage to the cremation vessels. However, a single samian dish from cremation 1 has been extensively repaired using lead rivets (Fig 6.8).

Although only a small assemblage, the functional character and range of the vessels broadly conforms to a recognisable set of standard vessels. Jar, flagon, beaker/cup and platter/dish, are commonly represented in rural cemeteries of the south-east, and clearly this combination, with the deliberate addition or omission of some elements, is of symbolic importance in the pre- and post-conquest cremation ritual (Philpott 1991, 35). Given this 'standard' assemblage, it is probable that the pots from the spoilheap (CS, group 3) represent the full vessel complement of a single cremation.

A second group of burials, cremations 2, 3, 4 and 5, contained only one accessory vessel. However, there appears to be no marked preference for drinking vessels (beakers or flagons) over food vessels (dishes or platters). The apparent absence from these burials of a cinerary vessel does not necessarily indicate that these cremations were originally unurned, as they may have been placed in perishable organic containers.

Cremation 9 is, however, different from the other cremations. Firstly it contained only jars in contrast to the standard set identified above. Furthermore the

jars, both hand-made, grog and sand tempered, were probably local wares. These vessels were associated with two La Tene III iron brooches which might suggest this group represents an earlier burial. However, in cremation 3 a similar hand-made jar to those in cremation 9, was associated with an early 2nd century samian bowl. As it is unlikely that such a vessel could have survived unbroken for several generations it may be the brooches which represent heirlooms. The absence of ironwork from early burials at King Harry Lane (Rigby *pers comm*) seems to support the contention that the brooches were heirlooms which had been curated and were eventually deposited in later vessels in the early 2nd century.

The presence of continental finewares in the cremation 8 assemblage indicates that this grave too may be significant, for it contained a locally manufactured sand tempered lid (Fig 8.19), with no matching vessel. At the King Harry Lane cemetery, lids were recovered only from comparatively rich burials, containing an average of four pots per grave (Stead and Rigby 1989, 189). The inclusion of samian accessory vessels in other graves and their absence from cremation 8 may also be important, suggesting occasionally deliberate exclusion of readily available samian in favour of less accessible continental imports.

THE NON-CERAMIC ASSEMBLAGE

H B Duncan

FASTENERS AND FITTINGS

The nail assemblage recovered from Harlington is small and fragmentary, with the majority in fair to poor condition. Two forms were represented, Manning's Type 1b, a general purpose nail less than 150mm long and flat, sub-rectangular or rounded heads, and Type 10, hobnails from sandals and boots with short stems and small domed or pyramidal heads (Manning 1985, 133-7). The Harlington nails derived from the fills of cremations in variable quantities outlined below (Table 1).

At least two activities, the deposition of boxes or of wooden objects from the pyre, may be represented by the Harlington nails, both suggested by evidence from contemporary cemeteries. At King Harry Lane, six groups of five or more nails, of Type 1b, in cremations appeared to be from the remains of boards or wooden boxes, whilst five nails or fewer in 43 cremations may have represented wooden objects that had been burnt on the pyre (Stead and Rigby 1989, 111). Nails occurred in graves of all phases at King Harry Lane but with greater frequency in Phase 3 (AD 40-60), representing 55.5% of the phased graves producing nails. In contrast, at Westhamphnett, Type

1b nails were recovered from 17 of the 26 pyre and pyre-related features and these were thought, in the main, to have been in the timbers which fuelled the pyre (Montague 1997, 106). Finds of single hobnails in graves occurred in two instances at King Harry Lane, both from Phase 3 deposits (Stead and Rigby 1989, 111).

Cremation	Context	Nail type	Quantity
3	4	Manning Type 1b	3
		Manning Type 10	2
		nail shank fragments	8
6	10	Manning Type 1b	1
		nail shank fragments	2
1	501	Manning Type 1b	14

Table 1 Nails by context

HOUSEHOLD

A single glass vessel recovered from cremation 1 is represented by a small fragment of rim of pale blue/green glass (RA9). The rim, which appears to have been fire-rounded, may derive from a spouted jug, the curvature suggesting that the fragment formed part of the spout. The sherd is slightly distorted from exposure to high temperatures and this, combined with its fragmentary survival, precludes certainty as to original form.

Spouted jugs are never found in the same quantities as jugs with circular mouths. Jugs with pinched-in spouts, as opposed to pulled-out spouts, were in use in the 1st and 2nd centuries AD, but the form does not appear to have continued in the north-western provinces of Roman Britain much after the early 3rd century AD (Cool and Price 1995, 131).

The sherd recovered from within the fill of a cremation urn, together with evidence of fire distortion, suggests that the vessel may have been placed on the funeral pyre. From the late 1st century onwards, glass vessels are increasingly common in cremations, and during the 2nd century the increasing popularity of glass as grave offerings led to a greater diversity of forms being included. The distribution of glass vessels as grave goods clusters in the south east of England, with the majority occurring in rural or small town cemeteries (Philpott 1991, 117).

PERSONAL ADORNMENT

Brooch [RA2, cremation 8] (Fig 8.21). Copper alloy (brass with traces of lead). Colchester brooch with damaged eight coil spring, external chord, side wings and tapered, curved bow sharply angled under the head. The bow, tip damaged, retains cast 'zigzag' decoration down its centre and remains of ribbing on the wings. The hook is long and may originally have been zoomorphic in form. The catchplate is broken and damaged but retains the edges of two rectilinear perforations. Present length 65mm.

Brooches (2) [RA6, cremation 9], chain and linking ring (Fig 9.25). Iron. Two paired brooches, heads surviving and remains of one fretted catchplate. The brooches are of similar form, of one-piece construction with four coils, internal chord and head of bow expanded into a trumpet-shape. The bows of these brooches bear three ribs or mouldings at the point at which the bow turns sharply inwards towards the expanded head. These equate with Stead's developed Aylesford type (1976, 410), a variant of the Knotenfibel, and Feugere's Type 8a (1985). Both brooches have a head loop formed from iron wire that was passed through the coils, to which an iron chain of oval links, was attached. A flat circular ring of iron, each side decorated with a central line of shallow circular depressions, has three equally-spaced, projecting perforated lugs each carrying the remains of an iron chain of the same dimensions and form to that attached to the brooches. Several lengths of detached chain were also present. A dark red corrosion layer, removed during conservation, was probably haematite which is formed on iron that has been heated above 200°C; its presence is consistent with the objects having been subjected to the cremation process.

La Tene III brooches with a boss or moulding on the bow have been defined by Stead (1976) as a type fossil for his Welwyn phase of the Aylesford culture, dating to the second half of the 1st century BC. He identified three sub-divisions of this brooch type:

- two-coil spring with external chord and simple head (early);
 - four- to six-coils with internal chord and simple head (intermediate);
 - brooches with the head of the bow expanded into a trumpet shape with internal chord (developed);
- but noted that there was little to suggest that this typological sequence had any chronological significance in Britain (Stead 1976, 410). Brooches of the developed form in iron are rare, more commonly occurring in copper alloy or silver (Stead and Rigby 1989, 96). The Harlington brooches are similar to examples from Hitchin (Stead 1976, 408 Fig 3 No. 4) and the King Harry Lane cemetery (Stead and Rigby 1989, Fig 110 grave 124 No. 4; Fig 141 grave 270 Fig 4).

More refined dating of the Stead developed form is problematic. The King Harry Lane examples derived from Phase 1 (AD 1-40) and Phase 3 (AD 40-60) graves. Mackreth has suggested, on the basis of the striking absence of well-known post-Conquest brooch types at the King Harry Lane cemetery, that the start date would sit more happily at c.15BC (Mackreth 1995). Indeed, Stead and Rigby acknowledge that the first graves in the cemetery could be this early (1989, 83). Such a revision of the dating of King Harry Lane cemetery would then place Stead's developed form brooches in cremations of 15BC-AD 25 and AD 25-45.

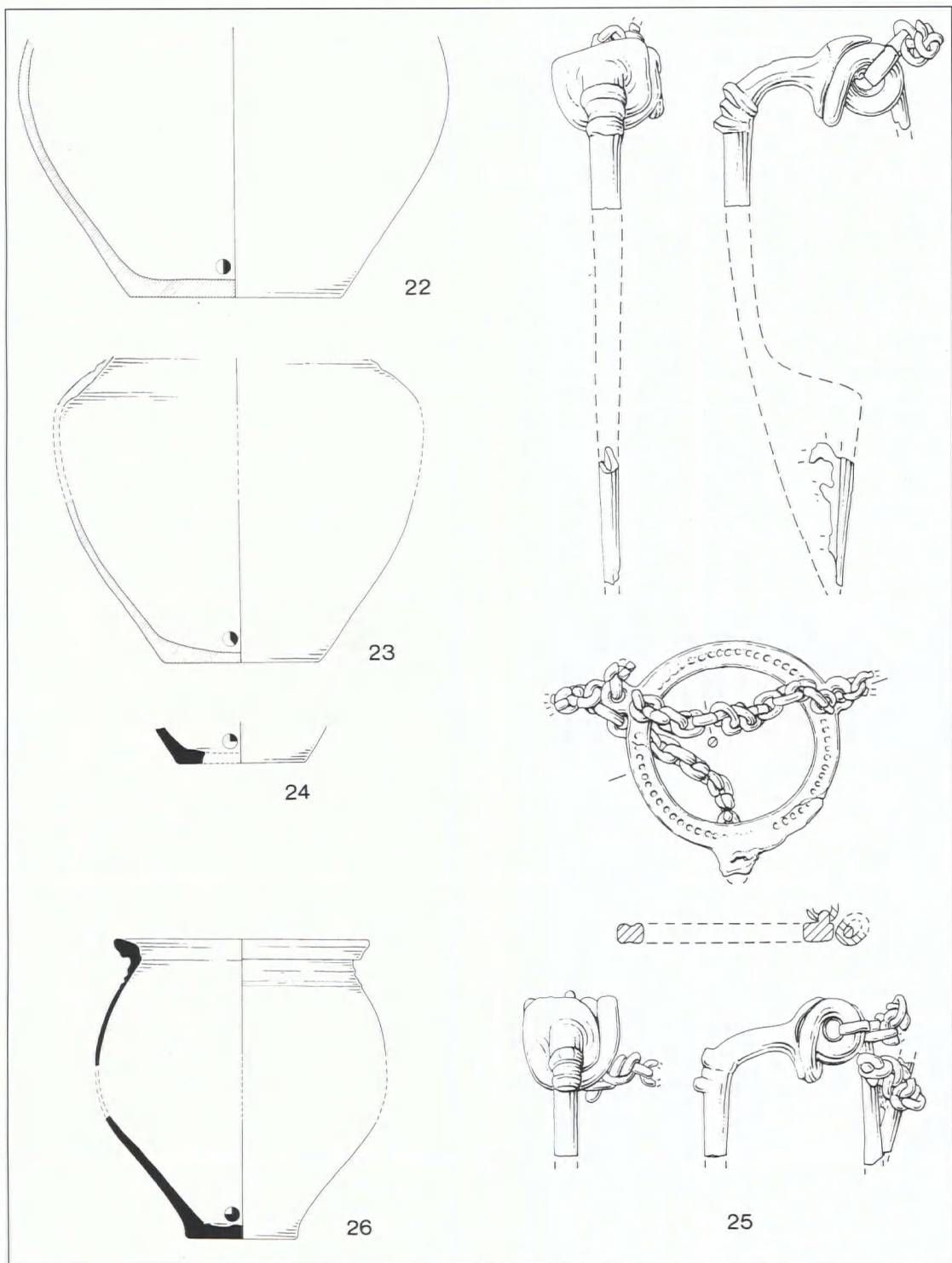


Figure 9 Artefacts from Cremations 9 and 10 (pottery scale 1:4, 25 scale 1:1)

The cemetery at Westhampnett (Montague 1997, 95-6, Fig 47), tentatively dated to 100-40BC, produced a sizeable assemblage of Feugere's 8b/Stead's early brooches (two to four coils with external chords). This brooch form is thought to start as early as 75BC, certainly passing out of manufacture before the end of the century, by 20BC if not earlier (Montague 1997, 96; Fitzpatrick and Megaw 1987, 436-8). No intermediate or developed forms were present. Excavations at Foxholes produced a group of six brooches, including a Feugere 8a/Stead intermediate, but none of Stead's developed form. Mackreth argues that this is a closed group, with a start date of c.100BC and a date limit of c.25BC (1989, 129). A small cemetery at Salford, Beds., also yielded examples of Feugere's 8a in association with Nauheim, Alesia and Feugere's 11a types. None of these brooch types would appear to date much later than c. 25BC, and it may be noteworthy that no developed forms were recovered.

These instances would appear to suggest a chronological difference at least between Stead's developed form and his early/intermediate forms. More examples, however, are needed before determining whether this is a consistent pattern. On the basis of these preliminary findings, a suggested start date for the developed form of the last quarter of the 1st century BC might be proposed. How long this form continued in circulation remains unclear. Certainly one example from King Harry Lane (grave 124, Fig 110) was associated with a post-Conquest Colchester brooch (Stead and Rigby 1989, 102), but how great a role curation played in its survival cannot be determined.

Boon and Savory describe the wearing of paired and linked brooches as a female Celtic fashion dating back to La Tene I on the continent, appearing in Britain during La Tene III and persisting into the Roman period (1975, 45). In addition to those noted by Boon and Savory a regional example at Salford, Beds., contained a pair of copper alloy Feugere's type 11a brooches linked by a chain of the same material (Duncan, McSloy and Mackreth in prep), and at Westhampnett, West Sussex four pairs of brooches were linked by chains (Montague 1997, 97). Two of the pairs at the latter site were of iron (Feugere 2a and Almgren 65/Feugere 8b). The Harlington brooches, rather than being joined directly to each other, appear to have been joined to the accompanying lugged ring. A third object is assumed to have been attached to the third lug of the ring. Snape in discussing wear on the head loops of Roman brooches, suggests that some of these

brooches may have had a pendant or chatelaine suspended from them. She notes two possible examples from Carlisle and a sawfish brooch retaining a short length of silver chain with the remains of a silver disc attached (Snape 1993, 6). The Harlington brooches and accompanying ring may represent an earlier, and perhaps more elaborate, manifestation of this fashion.

An alternative interpretation is that the third lug on the iron ring was linked to another brooch. Several examples of three brooch groups in late Iron Age cremations are known. At Salford, Beds., one group retained the remains of copper alloy chain (Duncan, McSloy and Mackreth, in prep), while King Harry Lane produced 10 instances of three brooches, and 10 instances of four or more brooches, one of the latter retaining the remains of a linking chain (Stead and Rigby 1989). The King Harry Lane examples occurred in cremations of Phases 1-3 (AD 1-40 to AD 40-60) in roughly equal numbers. The late Iron age cemetery at Alkham Kent also has at least one instance of three brooches, together with quantities of brooch chain and associated rings (*pers comm* Val Rigby) and Hinxtion Rings, Cambs., produced a cremation containing four brooches, two with the remains of chains (Hill *et al* forthcoming). This may indicate a change in the way in which brooches were worn in the late Iron Age. This change may be an early example of Romanising influences from continental Europe where three brooches in a grave is a common element of female costume (Fitzpatrick 1997, 109).

A third possible function for the ring may be that of a headdress, late Iron Age examples of similar form (Type III) being known from Stony Stratford, Bucks, Wansborough, Surrey and Newnham Croft, Cambs (Parfitt 1995, 81-3, Fig 31). Central rings or top pieces on headdresses, however, normally have four places of attachment, as opposed to the three lugs on the Harlington ring.

As noted above, it is rare to find an instance of this brooch type in iron, and even more unusual in what appears to be a set of jewellery. With the exception of coins, objects of precious metal are rare in later Iron Age Europe (Fitzpatrick and Megaw 1987, 438). It may be that this jewellery was specifically made for deposition with the burial.

Olivier (1988, 39-44), following on from Hull (Hawkes and Hull 1947, 310) has carefully distinguished the differences between the Simple Gaulish brooch, exhibiting features of Continental form, and the more numerous British variants which presumably developed in Britain from continental proto-

types. RA2 would appear to be a true 'Colchester' distinguishable by its bow with a curved profile and a triangular catch-plate. This brooch form commonly possesses a catchplate with three rectilinear perforations, although examples with four or more perforations are known (*c.f.* Stead and Rigby 1989, Fig 48). The Harlington example falls between the defined King Harry Lane Colchester sub-types Ca, sharply angled under the head and Cb, decorated bows of a much more rounded profile (Stead and Rigby 1989, 89-90). Seriation of the King Harry Lane brooches suggests that types Ca and Cb were current during the early phases of the cemetery, but that type Cb had a long currency, continuing into Phase 3 (AD 40-60). It was suggested that the decoration on the bow may be a late trait, not occurring on brooches until Phase 2, AD 30-55 (Stead and Rigby 1989, 100). Olivier notes that what he terms standard Colchesters occur in both pre- and post-Conquest contexts, but comments that excavated parallels indicate that a catchplate with four slightly elaborate perforations are almost exclusively found in deposits of early to mid 1st century AD (1988, 44). The damage and incomplete nature of the catchplate on RA2 prohibits certainty as to its original form.

OBJECTS OF UNCERTAIN USE

Paring chisel? [RA8, cremation 1]. (Fig 6.9). Iron. Sub-triangular in plan, thin and flaring at one end, which is now damaged, opposing end tapers in width but thickens. Possibly remains of wide paring chisel, or perhaps part of small adze blade? Length 100mm, width 47mm, maximum thickness c.10mm

The damaged condition of RA8 precludes certainty as to its function. The flaring blade-like end suggests a wide-bladed paring chisel (Manning 1985, Fig 4 no.1). The concurrent tapering and thickening of the opposing end may have originally formed the start of a solid handle or tang. Paring chisels, finishing tools, were operated with hand or shoulder pressure and have light, thin flexible blades, frequently splayed to give a wide edge (Manning 1985, 21). A tanged example is known from Housesteads (Manning 1976, Fig 15, No. 59). Alternatively RA8 may have been the remains of a small adze blade (Manning 1985, Plate 8, No. B13).

Whichever identification is correct, RA8 functioned as a tool. Its recovery from the fill of a cremation urn is unusual, tools and domestic equipment occurring infrequently in Romano-British cremations (Philpott 1991, 186).

HUMAN REMAINS

T A Jackman

Of the eleven cremations from Harlington, five contained the remains of one individual each and four contained fragments of bone that are too small to distinguish the number of individuals. The cremated material recovered from the CS may represent more than one individual. All the cremations from Harlington represent incomplete individuals. The remains of an adult normally weigh approximately two kilograms; in comparison the heaviest cremation from Harlington, cremation 3, was 780g and the least amount of bone, just 25g, came from cremation 5. Only one cremation, 3, contained animal bones and they were from a small rodent.

The identification of four adults is based on the size of the bones. Cremation 8 is a young adult. The epiphysis from the distal end of the radius is present and this normally fuses by the age of 23 years. Skull fragments from cremation 10 are from a child. Only one cremation could be sexed and that is the bone from the spoilheap; it is possibly female. The supra-orbital border is blunt and the occipital bone is smooth without any protuberance.

All the cremations appear to have been well burned. The majority of the bone is buff coloured and well calcined. Blue coloured fragments of bone are from the interior surfaces of the skull, tibia and other fragments of cancellous bone and show that these parts were furthest away from the hottest part of the fire.

Cremation 3 had the smallest fragments in the bottom of the vessel either deliberately placed or the result of shaking. The remains of cremation 9 were divided between two grog and sand tempered vessels.

BONE CATALOGUE

Cremation spoilheap: 1991/3 CS.

Age: Adult.

Sex: ?F.

Colour: Mostly buff. Some fragments of the interior surface of the skull are blue as are the inside surfaces of fragments of tibia.

Maximum length: 67.9mm (fibula).

Total weight: 405g.

Identified bone: Shafts from ribs, fibula, clavicle and femur, head of radius, acromion- right supra-orbital margin, fragment of occipital bone and other skull fragments.

Comments: As these fragments were collected from the spoilheap, it is possible that there are bones from more than one cremation. All the bone is well preserved most of the fragments have transverse cracks and the fragments are twisted and distorted.

Cremation 1: 1991/3 C1.

Age: Adult.

Sex: ?

Colour: Mostly buff. Very few fragments are blue.

Maximum length: 37mm (rib).

Total weight: 540g.

Identified bone: Roots from 2 teeth and fragments from skull, right trapezoid, humeri and femora fragments, ulna, coccyx and rib.

Comments: The fragments are very small and some long bones have transverse cracks and are twisted and distorted.

Cremation 2: C2 1991/3.

No identifiable bone.

Cremation 3: H91 (4) C I.

Age: ?Adult.

Sex: ?

Colour: Mostly buff with some blue cancellous bone.

Maximum length: 49.3mm (long bone).

Total weight: 780g.

Identified bone: Fragments from the skull, ribs, long bones, vertebrae, head of a phalanx and the roots of three teeth.

Comments: The smallest fragments came from the bottom half of the cremation vessel. The fragments have transverse and longitudinal cracks.

Cremation 4: H91 (6) C2.

Age: ?

Sex: ?

Colour: Buff with approximately 2% of fragments blue.

Maximum length: 30.2mm (rib).

Total weight: 55g.

Identified bone: Skull.

Comments: All the fragments are very small and undiagnostic.

Cremation 5: H91 (8) C3.

Age: ?

Sex: ?

Colour: Buff.

Maximum length: N/A.

Total weight: 25g.

Identified bone: None.

Comments: Very tiny fragments.

Cremation 6: H91 (10) C4.

Age: ?

Sex: ?

Colour: Buff.

Maximum length: 33.9mm (clavicle).

Total weight: 125g.

Identified bone: Clavicle, rib, condyle of tibia, skull.

Comments: Some of the fragments have transverse and longitudinal cracks, all the fragments are small.

Cremation 7: H91 (12) C5.

Age: ?

Sex: ?

Colour: Buff.

Maximum length: N/A.

Total weight: 35g.

Identified bone: None.

Comments: Very small fragments.

Cremation 8: H92 (19).

Age: Young Adult.

Sex: ?

Colour: Mostly buff with some white fragments and some tiny of blue coloured bone.

Maximum length: 31.5mm (rib).

Total weight: 160g.

Identified bone: Tibia, other long bone fragments, rib, skull, proximal end of a phalanx and epiphysis from the distal end of a radius.

Comments: All four vessels contained bone that is uniform in colour, size and quantity.

Cremation 9: H92 (42).

Age: Adult.

Sex: ?

Colour: Buff, white, some small blue and blue-black fragments.

Maximum length: 34.5mm (humerus).

Total weight: 320g.

Identified bone: Vertebrae, skull, humerus and other long bone fragments; rib, clavicle, scapula and right upper molar.

Comments: Some fragments have cracked. Vessel 1 (Fig 9.22) contained the most bone (235g) while vessel 2 (Fig 9, 23) contained 14g. The lowest spit excavated in vessel 1 contained large fragments of bone weighing 140g with the brooch, RA6. The bone size and weight became progressively smaller, the higher up the vessel it was placed.

Cremation 10: H92 (44)

Age: Child.

Sex: N/A.

Colour: Buff and blue.

Maximum length: 43.9mm (radius), vessel 2.

Total weight: 130g.

Identified bone: Skull, vertebrae, rib, radius and humerus.

Comments: The bone fragments are very small, the thickness of the skull and prominence of the sutures show that it came from a child.

Cremation 11: H95 (46).

Age: Juvenile and adult.

Sex: N/A and ?

Colour: White/buff and blue/black.

Maximum length: 29.6mm unidentified long bone.

Total weight: 352g.

Identified bone: Pelvis, cranium, tooth roots, long bone, rib, phalanges.

Comments: Very small fragments of cremated material which appear to come from two individuals.

DISCUSSION**CHRONOLOGY**

The eleven burials at Harlington may form two groups in a small unenclosed cemetery. The groups comprise cremations 1-8 and 11, with possibly a second group made up of the remains found on the cremation spoil heap and cremation 9. Identification of the latter group, somewhat to the north, is based on the supposition that the spoil heap cremations had been removed by machine from the quarry face,

where cremation 9 was located.

The date of burial in the Harlington cemetery is early in the Roman period. From cremations 3, 5 and 6 samian accessory vessels indicate a date in the 1st century AD (Flavian) and cremation 1 was buried, at the earliest, in the Trajanic/Hadrianic period. This date range is confirmed by the presence of Gallo-Belgic whitewares and the St Remy ware flagon. The late La Tene III brooches, from cremation 9, may be heirlooms.

The status of the Harlington cemetery is difficult to assess. There are few contemporary cemeteries to provide detailed comparisons. The cemetery is clearly part of the continuing late Iron Age burial tradition which is characterised by several small cremation cemeteries in the region. These include those excavated at Biddenham Loop, near Bedford, at Maulden, on the Amptill bypass (Fadden pers comm) and Salford (Dawson, forthcoming) as well as those recently published from Toddington (Pollard 1991) and catalogued by Simco (1973). In the post conquest period the tradition continued with examples of small cremation cemeteries known at Kempston, at Deepdale (Dawson and Slowikowski 1988), close to Sandy and at Fairfield Hospital, Stotfold (BCAS Report 97/12). Of the latter only the Fairfield example contains the same level of material wealth comparable with the samian collection at Harlington. A second, possibly significant factor is that the Harlington cemetery draws the majority of its ceramics from the south. This contrasts with the record of ceramic use at sites north of the greensand ridge where ceramic sources are noticeably oriented to east and west and, with the growth of the Harrold and Nene Valley industries, to the north. Although beyond the immediate scope of this report it may be that the greensand ridge was a more significant territorial division in the late Iron Age than the Great Ouse valley.

LANDSCAPE CONTEXT

It is tempting to see the Harlington cremations deposited over a relatively short period, however the burials probably span a period which extends from the beginning of the Flavian period to beyond the end of Hadrian, possibly three generations. The landscape context in which these burials took place therefore includes much evidence which is only just being analysed and published by Bedfordshire Archaeology Service. A preliminary model of the developing landscape in this area during the early Roman province has been proposed in which late Iron Age settlements continued to exist for a time

before the development of villa estates. The latter brought about a revolution in the countryside as emparkment led to settlement agglomeration and a decline in the number of small farmsteads. The effects of the Roman province are clearly visible in the reduced number of settlements known from the Roman period in comparison to those in the Iron Age. Harlington thus should be seen as part of a late Iron Age tradition still alive in the late 1st century close to a settlement which may have evolved or developed to become the centre of a villa estate on the south facing slope of Sheepwalk Hill.

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Bedford - An Alfredian Burh?

ALAN CRAWLEY AND IAN FREEMAN

SUMMARY

The origin of Bedford's town plan north of the river has stimulated much debate. This contribution argues that it was laid out as an Alfredian burh and highlights four points to support this: the name Aldermanbury as an urban place name is shared by Bedford and London but no other towns; the boundary set up by the treaty between Alfred and Guthrum shows an otherwise unexplained diversion north to Bedford away from its general north west to south east diagonal; there is a close parallel between the street plan of Bedford and known Alfredian burhs; and the length of the perimeter of Bedford's northern burh and the hidage of Bedfordshire agrees with the specification for defensive garrisons laid down in the Burghal Hidage.

BEDFORD'S EARLY HISTORY

The evidence for the early history of Bedford town is very limited with few hard facts. The placename itself is of Saxon origin and derives from Beda's Ford indicating that there was a river crossing here from early Saxon times (Mawer and Stenton 1926). Archaeology, so far, has not been very helpful. The surrounding area is rich in sites of Bronze Age, Iron Age and Roman origin and there was an early Saxon cemetery in Kempston, now a suburb of Bedford, but the town itself has yielded nothing pre-dating the ninth century (Baker et al 1979).

Documentary evidence of the early town is even more limited and debatable. For some time it was thought that the Battle of Bedcanford took place at Bedford. The geographical position of Bedford fits well with the story of the battle as reported in the Anglo-Saxon Chronicle for 571 AD:- "Cuthwulf fought the Brito-Welsh at Biedcanford and took four villages: Limbury, Aylesbury, Bensington and Eynsham". Thus we can imagine that Cuthwulf fought his way across the Ouse at Bedford and was then free to advance down the line of the Icknield Way and the Ridgeway to occupy Limbury and the other settlements, all of which were well established locations. The place name experts, however, are adamant that "Bedford" could not have derived from "Biedcanford" as the "c" would have been more dominant than the "d" in any scheme of derivation (Gelling 1988). Alternative arguments have been put forward; that "Bedca" is a diminutive form of

"Beda"; that the "c" has crept in as a transcription error, etc (Rutherford Davies 1982). But until, and unless, further evidence becomes available, the argument has to be ceded to the place name experts.

Suggestions of possible connections with King Offa of Mercia are on slightly firmer ground. Matthew Paris relates how King Offa, while returning from a visit to his newly founded abbey of St Alban, was taken ill and died, at Offley, near Hitchin, in Hertfordshire. His body was taken to Bedford and interred in a chapel on the bank of the River Ouse. Unfortunately, the river flooded and the chapel, together with Offa's remains, was washed away and lost forever (Luard 1872). Paris was writing some six centuries after the event and there is no confirmatory report. On the other hand, as a monk at St Albans, Paris would have had access to early archives which could have included a more contemporary account. In another chapter of his chronicles, Paris chides an Abbot of St Albans for not taking more care of King Offa's body (Riley 1867). So he, obviously, took the story seriously. Also there are more prestigious places where one might expect Offa to be buried but none of them claim the remains; St Albans itself for instance, or Lichfield which was the seat of Offa's archbishopric, or even Repton where two other Mercian kings are buried (Ethelbald AD 757 and Wiglaf AD 840).

Whatever the truth of his burial, as Bedford was situated in Mercia, Offa must have recognised the importance of Bedford as a river crossing. Haslam (1987) has put forward the hypothesis that Bedford was part of a defence system set up by Offa: a series of fortifications placed, with Viking invasions in mind, to block the main rivers penetrating into Mercia. The triple obligation of service in a defence force and maintenance of fortresses and bridges goes back at least to Offa's reign (Stenton 1971, 289) so it is reasonable to surmise that the ford at Bedford was replaced by a bridge as part of such a defence scheme.

BEDFORD'S STREET PLAN

Haslam (1983) extended his hypothesis to suggest that the street plan of Bedford was also due to Offa. This is based on the assumption that Bedford was in Danish hands continuously from the time of the collapse of Mercia until the town was re-occupied by

Edward the Elder. The wording of the relevant entry in the Anglo-Saxon Chronicle makes it clear that there was already a burh before Edward arrived. A Danish origin can be ruled out on the basis of style so, following Haslam's assumption, the burh must go back to pre-Danish Mercia. We argue below that there was a period, before Edward, when Bedford was under the control of Wessex. So Haslam's assumption is not necessarily correct. Moreover, as no street plans have survived of towns which were known to be burhs from Offa's time, we cannot assume that Bedford's street plan goes back to that period. On the other hand, Bedford's street plan is closely parallel to those of known Alfredian burhs.

The earliest extant street plan of Bedford is that of John Speed (Fig 1). This was published in 1610 but most of the streets shown on that map can be traced back to the early medieval period (Crawley and Freeman 1988, 1991). The plan shows a rectilinear arrangement of the streets with the High Street forming a central spine running north to south down

to the river crossing. Lateral east/west streets branched off to either side. There also appears to have been, as part of the original plan, other streets parallel to the High Street placed symmetrically to the east and west of it. The line of the eastern street is marked on Speed's map by property boundaries but this street must have ceased to be a thoroughfare when the Norman Castle was imposed on the town. The western street has survived as the southern part of modern Harpur Street. It is shown clearly on Speed's map as "Sheps Chepping" but a document of 1507 names it as Aldermanbury (Henman 1947).

ALDERMANBURY AND THE ELDERSHIP OF BEDFORD

Earlier documents indicate that there was once a 'territory' in Bedford which carried the name Aldermanbury (Herbert 1935). Thus an item in the Harrold Cartulary, dated 1240/50, refers to a message "of the fee of Aldermanbury" which lay between "the water called Severne and the message

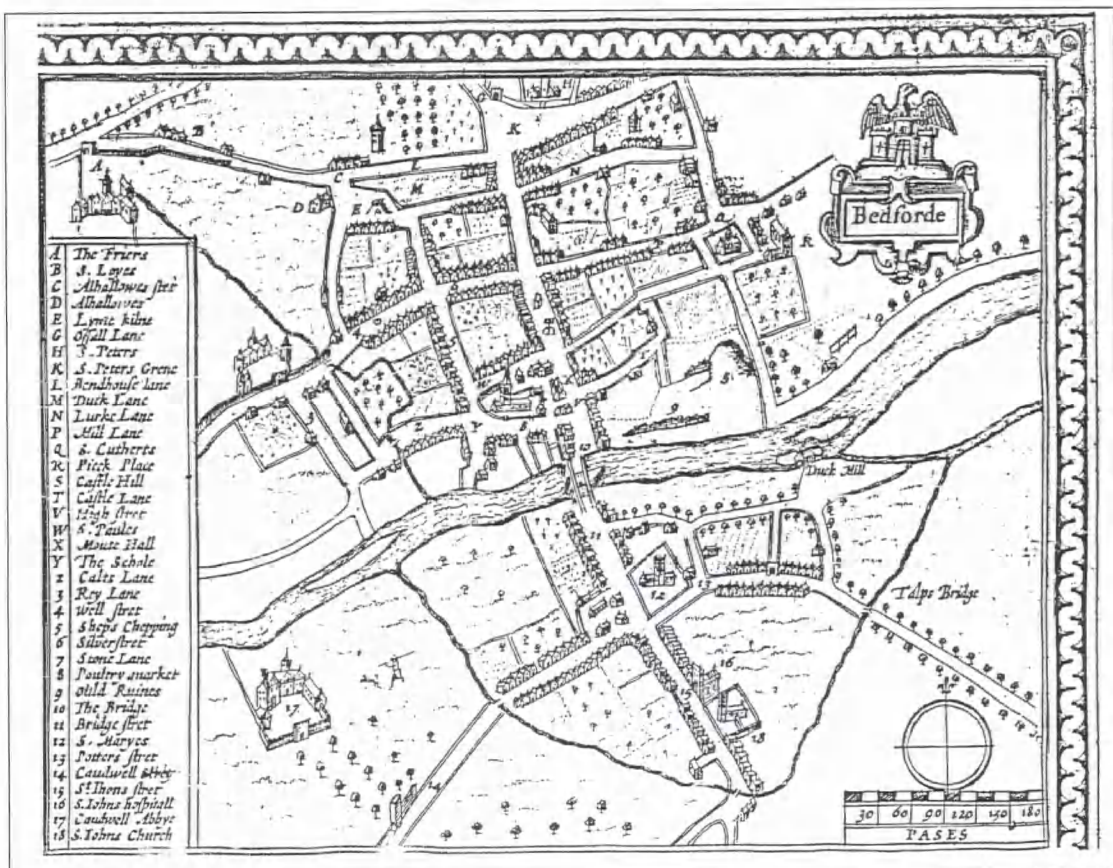


Figure 1 Map of Bedford by John Speed, 1610

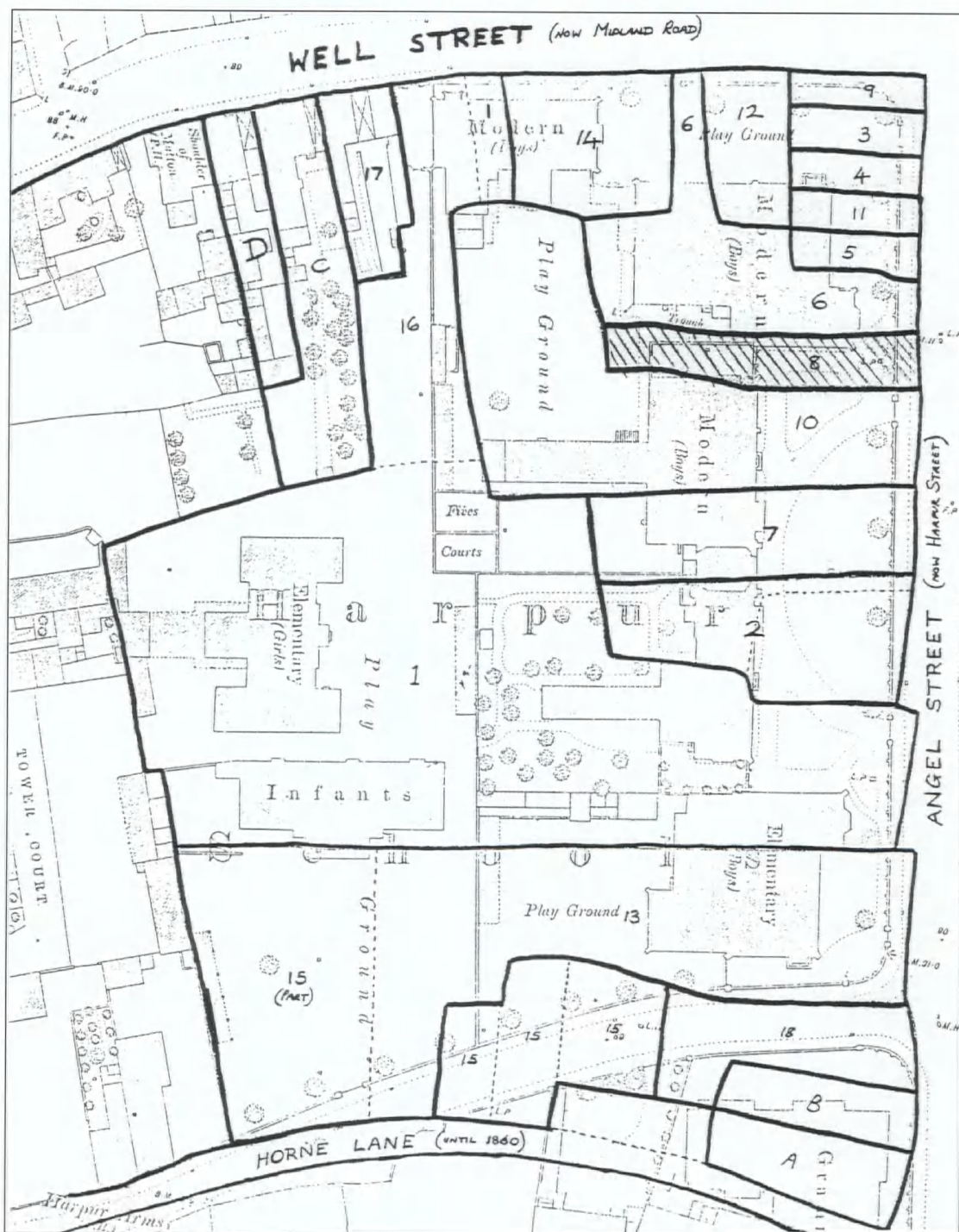


Figure 2 Area now occupied by the Harpur Centre, Bedford, showing boundaries of 1795 superimposed on Ordnance Survey map of 1884 (from C. Pickford 'A Forgotten Quarter of Bedford', unpublished, BLARS: HT/1)

of John Hanslape....". Another, dated 1260/70, refers to a message in the "territorium" of "Aldermannesberi" which abutts on one side on "the way which leads from the cemetery of All Saints towards "Colleswelle". The "water called Severne" or Saffron Ditch as it is more commonly known, is well defined and was the result of the confluence of two streams, one from the northeast and one from the northwest of Bedford town. These joined near the southern end of what is now Allhallows. This street was previously known as Colles Lane and ran from the cemetery of All Saints Church to the Colleswell in Well Street (now Midland Road). So these two deeds place the "territory of Aldermanbury" in the north western quartile of old Bedford town. Another reference, to the property of the Abbess of Elstow, enables us to link the territory directly to the street called Aldermanbury. An analysis of the area west of Harpur Street (alias Aldermanbury) showed that, at one time, it was divided up into a number of small properties, one of which had deeds going back to pre-Dissolution times (Pickford n.d., Fig 2, Plot 8). This carried a note that the tenant was paying rent to the Abbess of Elstow. The abbess had received the territory of Aldermanbury from Malcolm, King of Scotland (Wigram 1885). He had inherited it from his father-in-law, Waltheof, as part of the Earldom of Huntingdon. Negative evidence from the Rental of Newnham Priory in Bedford gives us a strong indication of where this territory of Aldermanbury was located. The Rental shows a good distribution of Priory property on the eastern and western sides of Bedford town but there is an area virtually free of Priory property in between. This is bounded on the east by properties on the western side of the High Street and on the west by the Saffron Ditch and Allhallows Lane. The three properties mentioned above, i.e. the two properties listed in the Harrold Cartulary as being in "Aldermanbury" and the property paying rent to Elstow and abutting on Harpur Street, are situated at opposite ends of this area which is free from Priory property. We can deduce therefore that this area represented the "territory of Aldermanbury" and that Newnham Priory had no property there as it was held by Elstow. The name Aldermanbury translates as "the fortified homestead of the elderman" (Ekwall 1954). Most parts of England were under the jurisdiction of an elderman in Saxon times, so one would expect there to be numerous instances of the name Aldermanbury. In fact, only one other example is known. This is in the City of London. This raises the question of why Bedford should share this exclusive name with

London? London's Aldermanbury is associated with Ethelred, Elderman of Mercia under King Alfred (Dyson 1990, 99-110). It is reasonable to pursue the possibility, therefore, that Bedford's Aldermanbury was also associated with Ethelred. There are a number of factors which reinforce this idea and which bring Bedford into the period of Alfred's wars against the Danes.

THE DANISH WARS

The history of these wars is well known in broad outline but requires careful perusal of such documents as are available to work out the details. The Danes had conquered most of England, including East Anglia, Northumbria and Mercia and were well on the way to complete subjugation of Alfred's kingdom of Wessex. Alfred had his back to the wall and was defending Wessex by a strategy of guerrilla warfare. With the help of his allies, though, Alfred was able to fight back and eventually was in a position to confront Guthrum, the Danish leader, in open battle at Edington (Ethandune) in AD.878. Guthrum was decisively defeated. He submitted to Christian baptism, under the sponsorship of Alfred, in a ceremony which took place at Wedmore. He eventually withdrew to consolidate a Danish kingdom in East Anglia. The war against the Danes in general continued although according to the Anglo-Saxon Chronicle, the focus moved to the Continent. However, according to the author of Asser's Life of Alfred, "after many towns had been burned and so many people slaughtered" Alfred occupied London and, according to the Anglo-Saxon Chronicle, "all the Angles and Saxons- those who had formerly been scattered everywhere and were not in captivity with the Vikings turned willingly to King Alfred and submitted themselves to his lordship" (Keynes and Lapidge 1983).

That was in the year 886 AD. Sometime between then and Guthrum's death in 890 AD, Alfred and Guthrum attempted to stabilise the situation by means of an agreement known variously as the Treaty of Wedmore or The Treaty of Chippenham (Hodgkin 1952). This defined a boundary between English and Danish territories. The boundary line ran from the Thames, up the Lea to its source, then in a straight line north to Bedford, then along the Ouse to Watling street and so on to the north west (Fig 3). For the most part, this line follows a simple SE to NW diagonal along well defined topographical features, except for one significant deviation. The authors of the treaty could have chosen a line much closer to the simple diagonal and one which fol-

lowed well defined topographical features all the way, (except for a gap of some five kilometres) if they had taken the line directly from the source of the Lea across to the Watling Street, near Houghton Regis. Instead they chose to take the line some thirty kilometres north, across country with no obvious topographical features, to Bedford. This must have been a deliberate decision to include Bedford in the treaty boundary. It is the only town to be named therein. One can only conclude that Alfred was determined to keep Bedford under Saxon control because of its strategic importance. The second part of the treaty shows that Alfred was in a strong enough position to do this as it laid down rules governing the status of Englishmen and Danes on both sides of the boundary.

The northern diversion to Bedford implies that the town was in Saxon hands during the period immediately following the treaty. This is contrary to Haslam's and, perhaps, most people's assumptions. In fact, the treaty boundary was not very successful as a military demarcation line. After a short interval, possibly as little as seven years the Danes had crossed the line and had re-occupied Bedfordshire

and Buckinghamshire (Davis 1982). Bedford was then to remain in Danish hands until 915 AD when it was reoccupied by Edward the Elder as part of his campaign to push the Danes further north. The boundary did, however, define what came to be known as the Danelaw and this survived as a legal concept to occupy the minds of lawyers and land agents till well into the Norman period.

ETHELRED OF MERCIA AND THE PLANNING OF BEDFORD

The boundary line ran across the old kingdom of Mercia, which in pre-Danish times, had extended down to the Thames valley. Alfred decided to allow some autonomy to this newly acquired part of Mercia and appointed Ethelred, his future son-in-law, as a sort of Viceroy (or subregulus as he is styled in some documents) over the territory (Stenton 1971, 259). In particular, Ethelred was charged with building up the defences of London. This he did by building up an area, west of the old Roman city but east of the earlier Saxon settlement of Lundenwic (Dyson 1990, 102). He did this by laying out streets on a rectangular network along the lines apparent in the

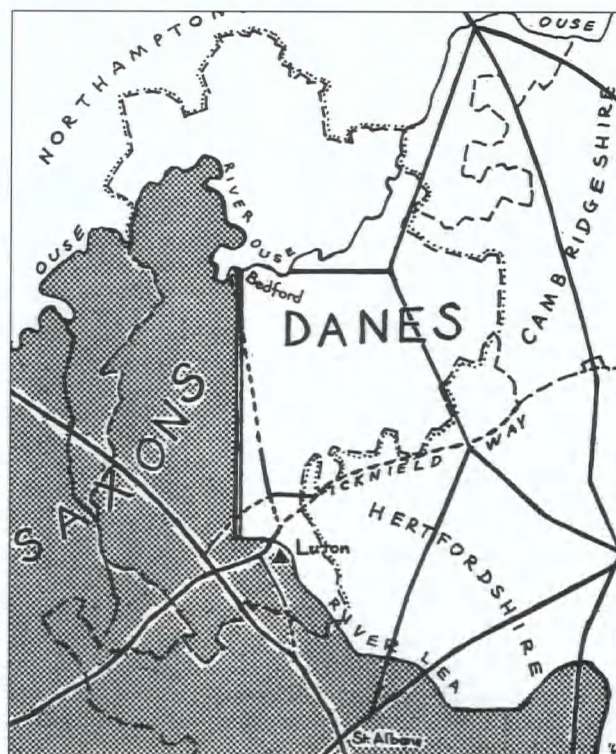


Figure 3 The Danelaw Boundary and Bedfordshire

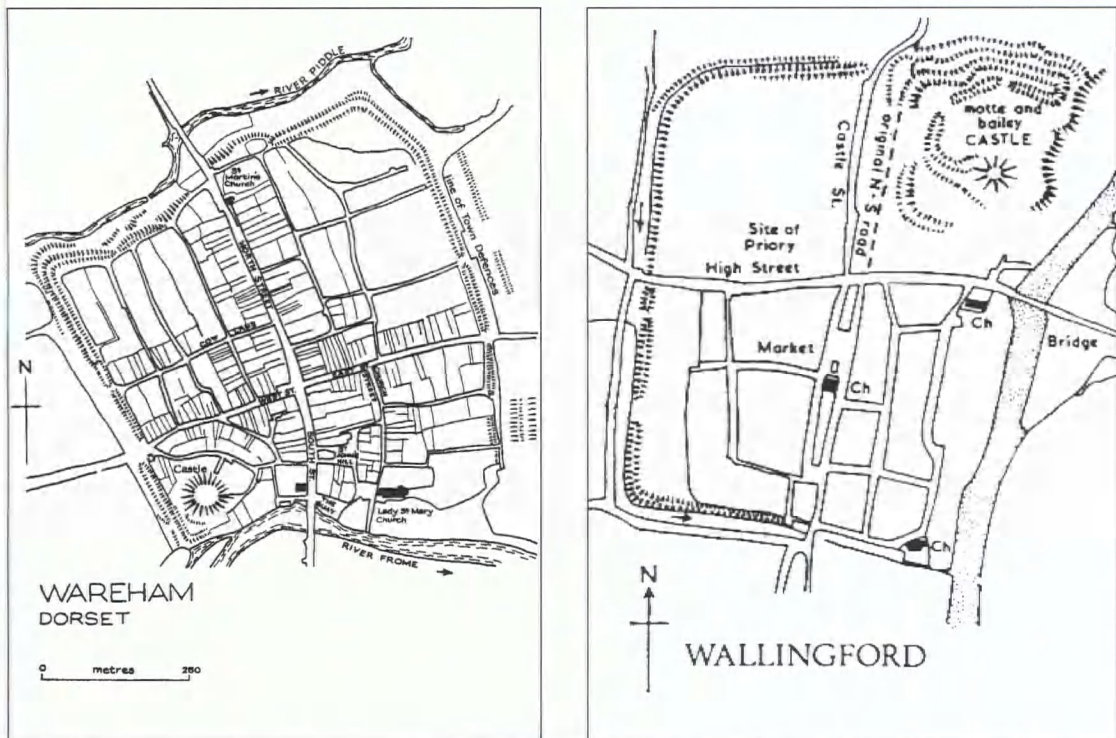


Figure 4 Plans of two Alfredian burhs at Wareham (after Aston and Bond, 1976) and Wallingford (after Aston and Rowley, 1974)

many burhs with which Alfred peppered the country as a defence in depth against the Danes. Ethelred was also involved with the fortification of Worcester so it is more than likely that he was responsible for the re-fortification of Bedford (Whitelock 1953). A comparison of the street plans of such well preserved Alfredian burhs as Wareham and Wallingford with that of Bedford shows a strong resemblance (Fig 4). A similar street plan is found in Warwick which was built by Ethelfreda, Alfred's daughter and Ethelred's wife according to the Anglo-Saxon Chronicle for 913.

THE BURGHAL HIDAGE

Although it is not listed in the Burghal Hidage document, Bedford fits in well with the specifications laid down for the defence and support of the Hidage burhs: every pole of defensive perimeter was to have four men and every man was to have the support of one hide of land (Loyn 1991). Two previous suggestions concerning the burh of Bedford have been published and, although they differ in detail, and indeed in date for the establishment of the burh, they agree that the defence perimeter would extend to

between 250 and 350 poles (Hill 1970, Haslam 1983). This would require c.1200 men on the basis of the Burghal Hidage specification and would imply 1000 to 1400 hides for back up. The Domesday Book assessed the County of Bedford at 1200 hides (Morris 1977).

Thus there is good reason to believe that Bedford's street plan was laid down by Ethelred and that Bedford formed part of the system of burhs which Alfred and Ethelred set up to provide defence in depth against the Danes.

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Archaeological investigations at Church End Lower School, Marston Moretaine

GARY EDMONDSON AND SEAN STEADMAN

With illustrations by Cecily Marshall

SUMMARY

Archaeological investigations in advance of building work at Church End Lower School provided the first opportunity to investigate an area of land adjacent to the postulated core of the medieval settlement around the 14th century church of St Mary. Traces of cross-ploughing indicated early cultivation. Although residual Saxon pottery provides the first evidence of this date from Marston Moretaine, a Saxo-Norman hall and associated buildings defined the first structural evidence for the occupation of the study area. The hall underwent modifications before the area was abandoned. During the later medieval period the area was used for the conversion of felled trees to planking. Two saw-pits were identified, one of which had been subjected to flooding and pre-

served clear evidence of the measures undertaken to overcome this problem. Subsequently the area was divided into a number of fields running parallel to a lane known as Church End.

INTRODUCTION

Bedfordshire County Archaeology Service (BCAS) was commissioned by Bedfordshire County Council's Property Services Consultancy to undertake an agreed programme of archaeological works prior to the construction of new classrooms, car parking and associated access at Church End Lower School, Marston Moretaine.

Three trial trenches excavated in January 1998 indicated that surviving archaeological remains of medieval date were situated close to the Church End

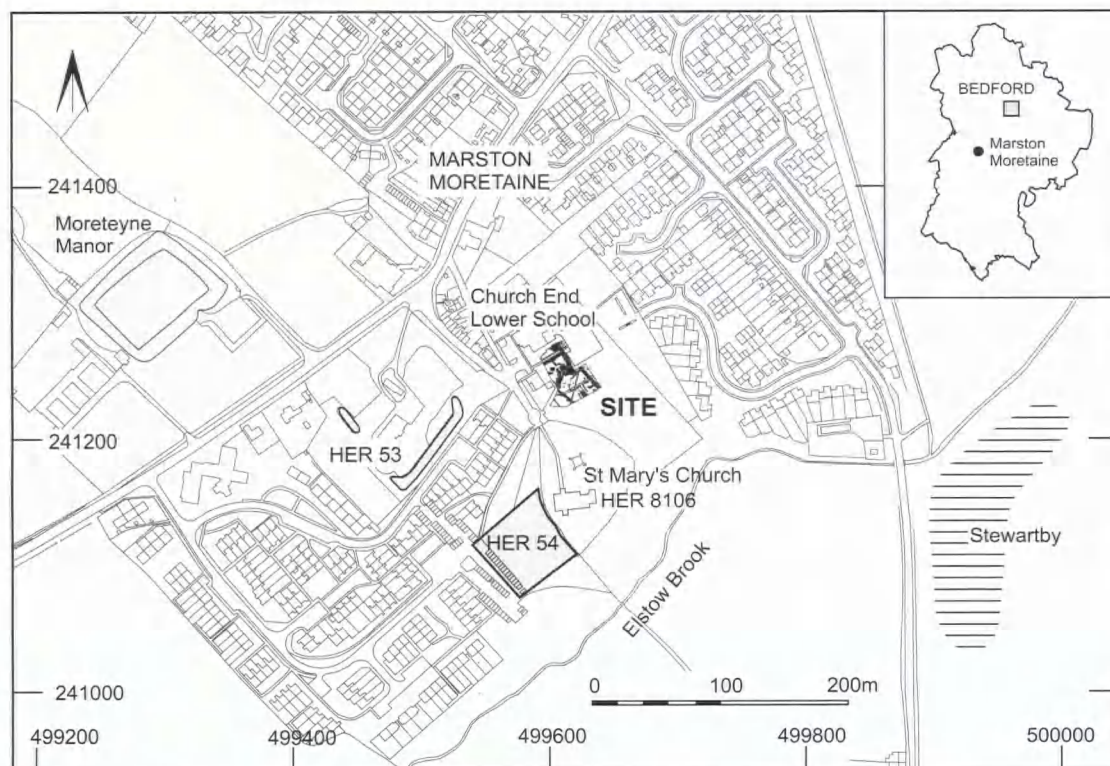


Figure 1 Site location

frontage. Subsequently, an archaeological excavation was undertaken in this area and a watching brief was carried out to monitor building work in the area of the proposed car park and the proposed site of the temporary classrooms to the east.

TOPOGRAPHY AND GEOLOGY

Marston Moretaine is situated 10km to the south-west of Bedford in the Vale of Marston (Fig 1). The village is located in the bottom of a river valley on a level plain at c.41m OD. The site was located at the southern edge of the present village, centred at NGR SP 9960 4128, on gently sloping ground immediately to the north of the church of St Mary on the Church End frontage.

The superficial geology of the valley floor is characterised as non-calcareous gley soil overlying Oxford clay. However, within the excavated area, orangey-brown silty clay was encountered in the northern and eastern parts of the site, while to the south and west, the underlying sandy gravel had been exposed.

HISTORICAL BACKGROUND

Marston Moretaine is recorded in Domesday, indicating at least a late Saxon origin for the settlement. Its name is derived from the Old English '*merston*' meaning settlement by the marsh (Crick 1999, 118) which suggests that the area was poorly drained in the medieval period. The village contained three medieval moated sites. The nearest moat (Historic Environment Record (HER) 53) is situated adjacent to the churchyard c.100m to the west while another moat (HER 54) immediately to the south has now been filled in. Moreteyne Manor (HER 4800) is situated c. 300m to the north west. The Tithe Map of Marston Moretaine dating from 1840 indicates that the excavated area was sited within a large land parcel known as '*Garricks*', which was grassland at that time (BLARS: MAT 31).

THE FIELDWORK

The watching brief for the car park, associated access and cable trenches was undertaken during several visits in February 1998. The excavation was carried out during a three week period from March to April 1998. An area of 1230 square metres was stripped of topsoil using a mechanical excavator. In the north of the site compact modern deposits associated with the construction of the present school covered an area of c.400 square metres. These deposits, which were at least 0.6m deep, masked archaeological features surviving below the forma-

tion level for the new building. As these features were not threatened by the development, the cost of removing the overlying deposits could not be justified and so they were left intact. Archaeological features were exposed in the southern part of the site which was then cleaned by hand in order to define all possible archaeological features (Fig 2).

Excavation and recording was carried out in accordance with BCAS procedures, in which all archaeological features and deposits (contexts) are assigned individual numbers in a single sequence, with each context recorded on a *pro-forma* sheet.

The excavation archive has been deposited in Bedford Museum, Accession No. 1999/68.

Structure of the report

The structure of the report reflects BCAS' hierarchical approach to post-excavation analysis. The initial stage of analysis involved the assignment of contexts which were directly related stratigraphically or processually to a *Subgroup*. In the site narrative subgroups are identified by the prefix S. Subgroups which were considered to be associated either spatially or functionally were amalgamated into *Groups*. These are identified by the prefix G in the site narrative. All Groups were subsequently assigned to *Phases*.

The phasing was devised using a combination of spatial and stratigraphic relationships, with datable finds being of very limited assistance. Phases were assigned in a chronological sequence with Phase 1 being the earliest activity on the site and Phase 11 identifying modern activity. As this article is primarily concerned with the early medieval occupation, the phases which define the later medieval enclosures are only discussed briefly in the site narrative. In cases where evidence for small scale development or alterations occurred, the changes are discussed within a sub-phase.

Only 72 sherds of pottery and 65 fragments of late/post-medieval flat roof tile were recovered from the excavated area. The small size of the ceramic assemblage precludes detailed statistical treatment and therefore a detailed report is not included here. Discussion of the significance of the finds by Jackie Wells is included in the Phase discussion. The site archive also contains a full report on the ceramic assemblage. All pottery types are previously recognised and have been fully described elsewhere. One hundred and twenty-two fragments of animal bone were recovered. Again owing to the poor nature of the assemblage a full report is not included. Palynological assessment was undertaken by Dr Gill

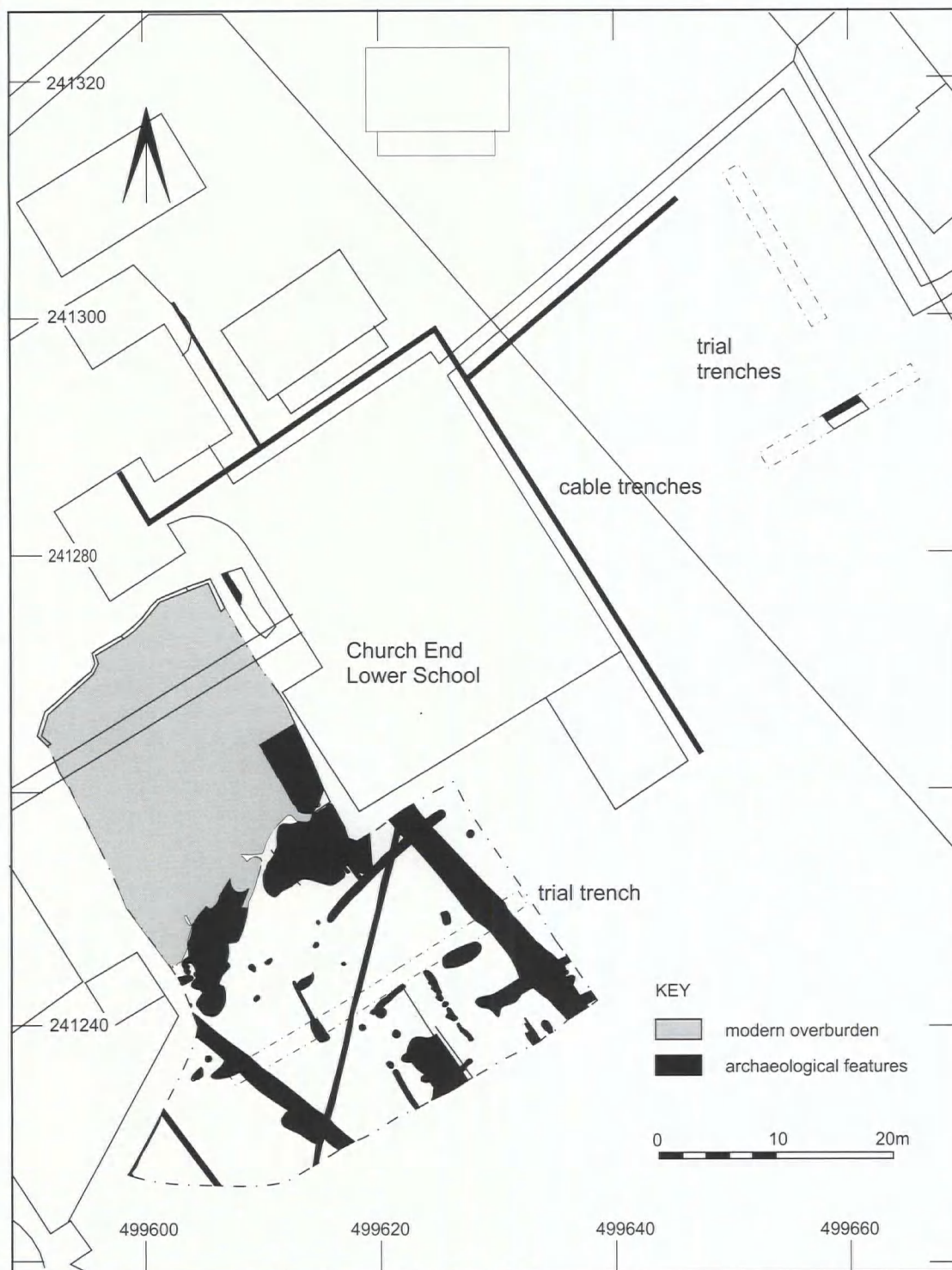


Figure 2 All features plan

Cruise, the wood samples were identified by Rowena Gale and an assessment of the charred plant remains was carried out by Ruth Pelling. Their respective reports are included in the site archive with significant points of interest included in the description of the finds from the saw-pit in Phase 4.

Phase One: Undated Cultivation

A natural hollow situated at the southern margin of the site preserved traces of two sequential episodes of cross ploughing. The well defined linear scars had characteristic V-shaped profiles. A light-brown silty sand deposit separating the two ploughing episodes was probably part of an old soil profile.

Unfortunately, full excavation was prevented by flooding and no dating evidence was recovered from these features. Cross ploughing indicates the use of an ard without a mouldboard to assist in the breaking of the soil. Deep scars have been interpreted by Mercer (1981, 102) as the initial ploughing of a cleared area, which survived below the level of subsequent cultivation. This type of cultivation may be prehistoric in date, although ards continued to be used into the Roman period.

Phase Two: Unenclosed Settlement (Saxo-Norman c.10th-12th century, Fig 3A)

The first dateable occupation on the site consisted of at least one timber building and associated activity, located on an outcrop of sandy gravel in the south of the excavated area.

Only the northern bay of the main building (G32), measuring 8m north-west to south-east by 6.4m wide, was exposed within the excavated area. The walls of the building were defined by intermittent slots with vertical sides and flattened bases, between 0.4 and 0.5m wide and a maximum of 0.38m deep. Facets extending below the general level of the slots were interpreted as settings for vertical posts which were often located close to the ends of the slots. Two postholes (S63) located in the north-west corner of the building defined a possible external doorway, at least 3.3m wide. A second possible doorway was defined by a c.1.8m wide interruption in the northern wall-slot in the east. A short north-east to south-west slot (S54) with a squared profile, probably defined a partition within the building rather than a cross-passage. An opening of uncertain width connected the two rooms.

The partition was subsequently removed to create a single room. A sub-rectangular pit (S56), 0.3m deep, dug through the western end of the infilled partition contained occupation debris in its upper silty

clay fill. The lack of erosion of the edges of the pit suggests that it was only open for a short period of time but its function was not apparent.

The nature of the foundations suggests timber-laced clay walling, with an entrance in the north-west corner of the building. The absence of roof tiles suggests that an organic material was used for roofing. The apparently marshy nature of the surrounding area in the medieval period would have provided reeds for thatching. Alternatively, the building may have been roofed with wooden shingles secured by pegs.

An undated structure (G38), measuring at least 7m by 4m, was defined by an L-shaped arrangement of postholes aligned perpendicular to and 4m to the north of the building. Its orientation suggests that it was associated with the main building. There was no evidence to indicate if this was the remains of an ancillary building or animal pen. The partial remains of a second post and slot structure (G41) were uncovered in the west of the site. No indication of form or function could be identified.

Phase 2A: Alterations to the Main Building G32 (Saxo-Norman c.10th -12th century, Fig 3B)

A number of alterations, including the replacement of the north wall and the insertion of an aisle (G33) were carried out during the life of building G32.

The northern wall (S59) of the original building was dismantled and the wall-slot was backfilled prior to the insertion of an aisle, c.2m wide, defined by a wall (S60) in the western half of the building. The wall comprised four post pits spaced 2m apart and measuring 0.64m to c.0.9m across and up to 0.21m deep. Evidence of packing in one of the pits indicated the presence of a substantial timber post 0.68m wide. The construction of this wall probably coincided with the laying down of a silty clay surface (S58), at least 0.1m thick, in the south of the room.

It does not appear that the building was rebuilt during the alterations, rather it seems likely that some, if not all, of the original structural elements were retained. The posts forming the aisle, probably supported an upper floor rather than the roof. The northernmost aisle post appears to have been incorporated into the northern end wall but the replacement of this wall indicates that it was not structural. The silty-clay surface was apparently laid to level undulations in the natural strata and consolidate the floor in the area of the former partition. It is not certain if the surviving extent defined the original limits of the flooring or if the spread was only preserved

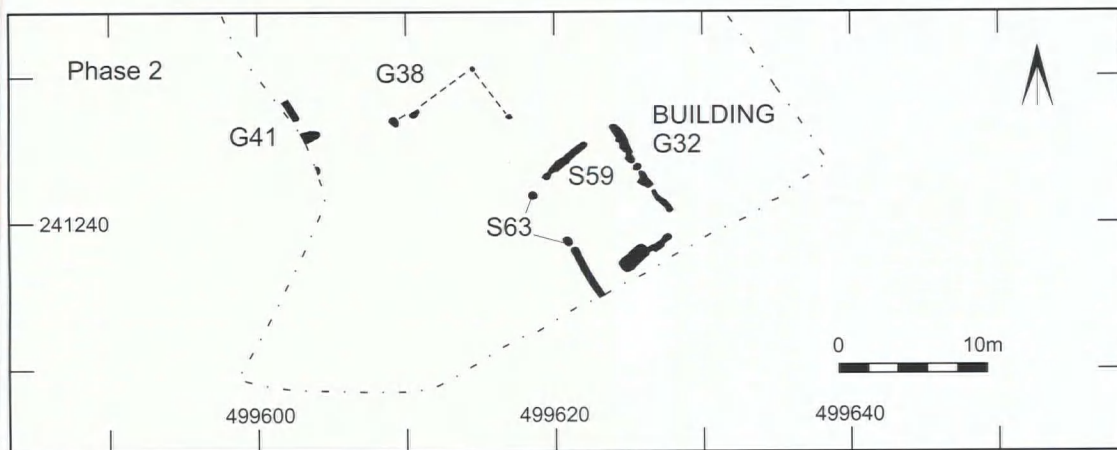


Figure 3A Phase 2: Unenclosed Saxo-Norman settlement

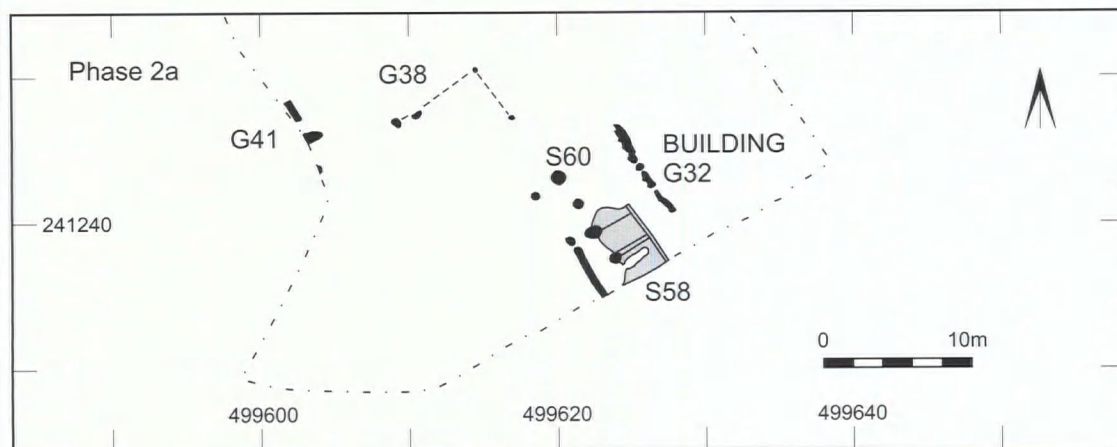


Figure 3B Phase 2A: Alterations to the main building G32

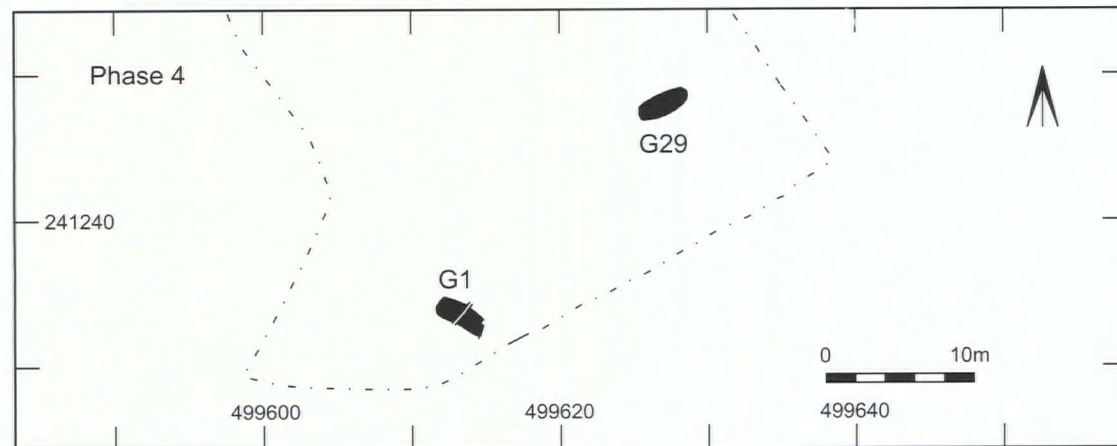


Figure 3C Phase 4: Processing of timber

within the undulations in the natural strata. Although the relationship between the posts and the silty-clay was uncertain, it seems likely that they formed part of the same modifications.

Phase Three: Abandonment of the Area (Saxo-Norman 10th - 12th century)

The main building (G32/G33) was deliberately demolished and the wall slots were backfilled with gravel. A silty deposit accumulated in the upper portion of the eastern wall slot and the aisle postholes included charcoal, burnt clay and domestic refuse.

No artefacts were recovered from deposits associated with the construction of building G32, the alterations G33, or the associated structures G38 and G41. A small assemblage of pottery comprising St Neots and Stamford wares dating from the 9th - 11th centuries was recovered from deposits (G34) associated with the demolition of building G32. Vessels were generally represented by single small sherds, which would indicate that the material had been reworked from earlier deposits. Small fragments of animal bone were concentrated in the upper fills. A single small fragment of tile recovered from the fill of the eastern wall slot was probably intrusive.

Phase Four: Processing of Timber (Later medieval 14th-16th century, Fig 3C)

Two medieval saw-pits, dated to the 14th century at the earliest, were discovered in the vicinity of building G32. If the Saxo-Norman date is accepted for the construction and use of this building, then a period of abandonment or a change in the use of the site to one which did not leave any archaeological evidence is indicated.

A large sub-rectangular saw-pit (G1) was dug into the gravel to the west of the abandoned building (G32). It was at least 3.55m long, 1.45m wide and survived to a depth of 1.16m below the natural gravel. A stakehole (S2) driven vertically into the base of the pit close to the western side may have held a vertical timber provided with foot/handholds to assist access during its initial use.

Clear evidence of the problems encountered during the use of this saw-pit, and the methods employed to overcome them, was recovered. It appears that once the lower part of the pit penetrated the natural clay underlying the sandy gravel, water flowed along the interface and collected in the base of the pit. This would have quickly resulted in churning of the basal clay. Lenses of sawdust incorporated in the basal clay demonstrate that sawing continued while the initial inundation occurred. Subsequently, four poor

quality timber offcuts were laid in the centre of the pit to provide a firmer footing. The uninterrupted accumulation of a band of trampled and compacted sawdust, 49mm thick, above the planks indicate that this measure was successful.

Waste material, including a plank fragment, was dumped into the disused saw-pit. The presence of bran and *brassica sp.* seeds strongly suggests the presence of sewage which may indicate that the pit was subsequently used as a latrine. A compact deposit of clay could have been a step providing access to the base of the partly infilled pit. Water inundation must have continued intermittently. Initial erosion of the upper edges of the pit clearly occurred during dry conditions, whereas an extensive grey silty clay deposit overlying the primary weathering deposits probably accumulated in water. Continued occupation in the vicinity was attested by material (G3) containing charcoal and burnt clay, dumped into the pit from the east.

A second saw-pit (G29) was located to the north east of building G32. The sub-rectangular pit was 3.55m long and 1.45m wide with generally vertical sides and a flattened base at least 0.73m deep. The lower part of the pit penetrated the clay underlying the sandy gravel. There was no evidence of water inundation but churning of the basal clay probably accounts for the stepped profile of the lower part of the cut. Large stones and a piece of waste oak timber planking, mainly consisting of bark, were laid down to create a firmer footing in the western part of the feature. A round log which had been debarked and sawn at both ends was probably discarded waste.

No dateable finds were recovered from the deposits associated with the saw-pits. The majority of the wood recovered was identified as oak (*Quercus sp.*), with one worked piece of ash (*Fraxinus sp.*). Several fragments of an unidentified, possibly imported, hardwood were also identified. Examination of the sawdust identified slivers of oak, which confirms that the planks were produced on site. The pollen from the saw-pit included spruce (*Picea*) which was not introduced into this country until c.1600. Pollen cannot provide an identification for the wood itself, but the pollen assemblage, comprising pine, spruce, birch and aspen, is consistent with the boreal forests of Europe which may provide a provenance for the unidentified hardwood. Imports from Norway, the Baltic and Europe are known from the medieval period (Rackham 1995).

Phase Five: Infilling of the Saw-pits (Later medieval 14th - 16th century)

The western saw-pit (G1) was backfilled with a mixture of grey brown and orangey brown deposits (G4). Three waste fragments of timber were incorporated into the lower fill. A substantial portion of a late medieval reduced ware jar dating from the 15th-16th century was recovered together with small quantities of Saxo-Norman pottery which were clearly residual in this context.

In contrast, the eastern saw-pit (G29) appears to have been abandoned to silt up naturally with its silty clay fill being derived from an unstable upper soil profile. Several large animal bone fragments recovered from the lower fill probably indicate deliberate dumping of rubbish. The pottery from this fill, however, mainly comprised single small sherds of early medieval sandy wares, dating from the 12th - 13th centuries and probably residual in this context. The timber species were more varied than those from the western saw-pit (G1) and included four fragments of box (*Buxus*) or apple/pear/hawthorn (*Pomoideae*) and a small quantity of oak (*Quercus* sp.).

Phases Six to Ten: Enclosure of the Area (Late medieval/early post-medieval, Fig 4)

A series of enclosure ditches, defining at least four fields, was dug in the later medieval period. These were aligned parallel to the Church End frontage, with access to the eastern fields gained from the west, an arrangement which suggests that they were owned by the same person. The eastern fields were modified a number of times, resulting in alterations to the access. At a later date the enclosure ditches were rationalised with a single ditch (G18) recutting an old boundary to define two large fields. Following a period of abandonment, possibly in the early post medieval period, a new enclosure system with a north-east to south-west alignment was established (G20). This would have improved access as both of the land parcels then bounded Church End in the west. The northern field was the focus for clay pitting, which may have occurred over an extended period of time. Following extraction of the clay, presumably for use in local buildings, the area was abandoned with the quarries infilled naturally (Phase 10). The low potential of the land is indicated by the fact that no attempt was made to reclaim the area following abandonment of the quarries.

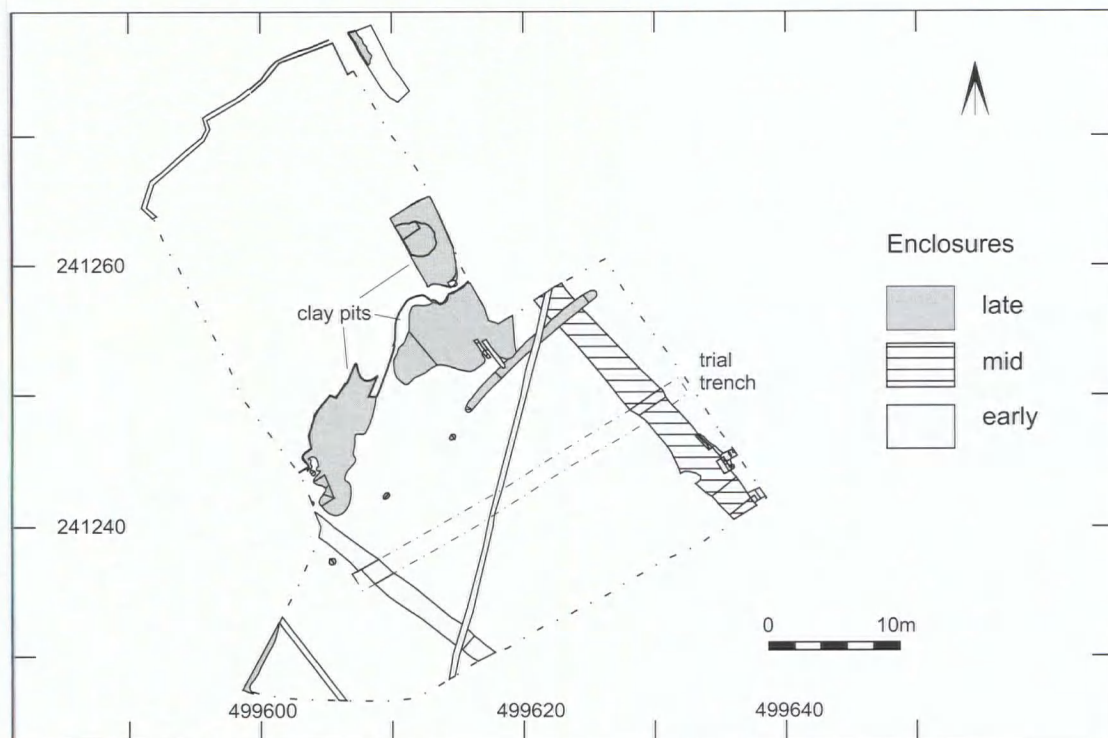


Figure 4 Phases 6 - 10: Enclosure of the area

Phase 11: Recent Disturbance

Extensive dumps of non-local material including sand and stiff brown clay with a maximum combined thickness of 0.71m were identified in the excavation and cable trenches to the north. This had resulted in a significant rise in the ground surface to the north of the site and was probably associated with the construction of the modern school.

DISCUSSION

The cross-ploughing could indicate land clearance and cultivation in the prehistoric period. There is little definite evidence for early prehistoric activity in the area, although a Mesolithic flint adze was recovered from the 'Stewartby Millennium Park' access road c.350m to the east (Steadman and Edmondson 1998). However, substantial evidence for Iron Age and Roman occupation was uncovered at the same site and there is a growing body of evidence for later prehistoric activity in the area (Shotliff and Crick 1999). Bearing in mind the longevity of the use of the arid, an Iron Age or Roman date may be more appropriate for the cross-ploughing.

Two residual Saxon pottery sherds, dated to the 5th - 7th centuries, recovered from Phase 8/9 ditches provide the first evidence for Saxon occupation in Marston Moretaine. Extensive evidence for Saxon settlement recovered from Stewartby suggests that the Elstow brook was a focus of early-middle Saxon activity (Steadman and Edmondson 1998). A similar pattern of settlement situated close to a water course has been identified at Raunds, Northamptonshire (Parry 1989, 40) where extensive fieldwalking identified paired sites located across tributary valleys. Often one site was larger than the other which may indicate a dependent or functional relationship. The current limited state of knowledge for the Saxon settlement pattern in the Marston area prevents any significant conclusions being drawn. However, this focus of activity adjacent to the Elstow Brook may explain the detached position of the church away from the core of the medieval settlement to the north.

Poor drainage may have hindered the utilisation of this area and occupation continued to be intermittent. The location of the buildings appears to have been carefully selected to take advantage of an area of relatively free-draining sandy gravel. Its orientation would suggest that the main building was aligned on Church End, situated 35m to the west. The site of St Mary's may have been a focus of activity in the Norman period as Richards (1969, 19) argues that the lower part of the detached tower dates

to that period. The farmstead may have been part of a larger focus of activity, which utilised an area that had not previously been occupied in the medieval period. Residual Saxo-Norman pottery found adjacent to the moated site of Moreteyne Manor, 240m to the north-west, suggests that the dispersed early medieval settlement was extensive (Crick 1999).

The Phase 2 building (G32) probably defined the focus of a Saxo-Norman 'farmstead' incorporating a range of buildings, the only surviving traces of which were the poorly preserved 'structures' G38 and G41. Dating evidence is slight, and relies on residual pottery sherds from the disused post settings. A similar building discovered at Goltho was tentatively dated in its original form to c.1080 (Beresford 1987, 107) but an alternative mid-12th century date has also been suggested (Everson 1990). The function of building (G32) remains uncertain. No definite domestic fittings were identified and the wide entrance to the north may suggest that this part of the building was used to house animals. The narrow doorway through the partition could indicate a contrasting activity to the south. Domestic debris recovered from the pit dug through the disused partition slot indicates occupation in the vicinity.

The insertion of the aisle, which may have supported a floor, possibly indicates a change of status in Phase 2A. The Goltho building, which was partitioned longitudinally into a nave and aisle from its inception, was identified as a hall, albeit not a manorial residence (Beresford *op. cit.*). The paucity of finds from the Marston building was mirrored at Goltho and suggests that the area of the buildings was kept clean. It is possible that the 'farmstead' was unenclosed as no boundaries could be associated with the buildings.

The deliberate demolition of building G32 suggests that the area was cleared although there was no evidence to indicate what the area was subsequently used for. The posts of ancillary structure (G38) rotted *in situ*, indicating that it was abandoned rather than demolished.

The presence of the saw-pits indicates a readily available supply of timber in the vicinity and their location, away from the main routeways, suggests that the timber was to be used nearby rather than prepared for transport to other areas. The church of St Mary 50m to the south or the moated site (HER 54) 100m to the west provide possible destinations for the sawn timber. The high water table clearly hampered the use of the pits although effective measures appear to have been adopted to overcome this. The

saw-pits may have been sequential, with the shallower eastern pit (G29) representing an attempt to reduce water inundation. As this pit was only c.0.7m deep some kind of superstructure would probably have been required to provide an adequate working height.

The contrasting backfilling of the two pits may be significant. With the exception of a dump of animal bone, the eastern pit (G29) appears to have been left to silt up naturally. The western pit however, may have been used temporarily as a latrine before it was backfilled. The discarded plank fragments suggest that it was left open until the carpentry being carried out on the site was completed. Ultimately, the deliberate infilling of this deep pit suggests that it posed a potential hazard, but to whom? The near complete pottery vessel dumped in the top of this pit and the animal bones dumped in the other saw-pit suggest occupation in the vicinity. Was this 'occupation' associated with the saw-pits and does the dumping of rubbish, therefore, merely represent tidying-up following the completion of the carpentry on site? The positioning of the saw-pits, both of which respect the location of the Saxo-Norman hall (G32) may also be significant. The pit saw was not re-introduced into England before AD1450 and was not commonly used before the 17th century (Goodburn, 1992). The pollen from the saw-pit included spruce (*Picea*) which was not introduced into the UK until c.1600. Pollen cannot provide an identification for the wood itself, but the pollen assemblage, comprising pine, spruce, birch and aspen, is consistent with the boreal forests of Europe and may provide a provenance for the unidentified hardwood. If the 12th century Goltho halls are used to provide a possible date, and the finds assemblage does not contradict this, then it seems unlikely that the 'hall' (G32) could have been associated with the saw-pits over 300 years later. It seems likely that the sawyers chose the site of the disused hall, which may have still been partially standing or at least have retained its floors intact, for the same reason that it was initially chosen as the site for the building: its well drained aspect.

The use of the area in the later medieval period for the production of planking would indicate that a waste area was utilised. In the absence of contemporary buildings within the excavated area, the church would seem to be a likely destination for the timber, though there is no supporting evidence to confirm that the planking was for either construction or refurbishment of the present church. The poorly drained land hampered the use of the saw-pits and

probably contributed to their abandonment.

In the late medieval period the establishment of moated sites in the vicinity may have exerted control over the surrounding area, with the site being used for agricultural purposes. A similar pattern of activity was identified in the area to the east of Moreteyne Manor Moat where the closes were replaced by arable cultivation in the 12th-13th centuries, which continued until the late medieval period (Crick 1999, 133). The difference in the dating of the change in land-use between the two areas may be significant, possibly emphasising the role of the *principal manor*. It is possible that the moats in Church End may have exerted a less powerful influence on the adjacent area. Alternatively, the later change may reflect a later date for the establishment of the Church End moats. The change in the use of the land to pasture may have been a response to a changing economic conditions and a rising water table in the medieval period. By the mid 19th century the site formed part of a single large land parcel.

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The Development of the Medieval Buildings Adjoining the Abbey at Elstow

JOHN BAILEY

SUMMARY

This paper discusses a recently surveyed medieval shop at 204 High Street, Elstow, but also relates it to other shops and the Moot Hall previously recorded by the writer. In addition other buildings previously surveyed are described and discussed and put into context. The writer's research carried out during his measured surveys in 1976 and in the intervening years to the present, has provided information from a unique large group of timber framed standing buildings associated with an Abbey which have survived in remarkably good condition.

INTRODUCTION

During 1999 Whitbread Estates carried out a refurbishment of 204 High Street, Elstow which comprises a group of three medieval and later timber

framed buildings. Whitbread kindly allowed the writer to carry out a detailed measured survey during this work. The building is on the west side of the High Street abutting on the south side of the Swan Public House, which is also a medieval timber framed building (Fig 2). Directly behind the property is the churchyard of the 12th century Nunnery of which the nave, tower and cloister garth survive as the parish church for Elstow. To the north west is the 15th century Moot Hall and, to the south, the Elstow Brook.

Along the High Street, and on plots around the Green, are a number of surviving timber framed medieval and later buildings. The majority of these were surveyed in detail by the writer during an extensive restoration carried out by North Bedfordshire Borough Council in 1976 and several have been published (Bailey 1978, 1979, 1998).

The medieval buildings developed around the Benedictine Nunnery of Elstow and were residences, inns, shops and workshops for the community, making them historically important in the Abbey's history. The earliest surviving building is the early 13th century remains of a base cruck hall at 5 to 8 Bunyans Mead.

BRIEF HISTORY OF THE ABBEY

Elstow Manor was held by four freemen of Edward the Confessor prior to the Norman invasion in 1066. William the Conqueror gave Waltheof, a Saxon Earl, the hand of his niece Judith in marriage and created him Earl of Northumberland. In 1076 Waltheof was beheaded by William, following which Countess Judith founded the Nunnery of Elstow upon land given to her by William. The Abbess and Nuns held the Manor at Elstow in Free Alms of the Honour of Huntingdon until the Dissolution of the monasteries. This was confirmed by Charters of Henry I and Henry II. The Abbess had a gallows, pillory and ducking stool at Elstow and enjoyed the right to free Warren under a charter of Henry I.

The Abbess surrendered the Manor to the crown in 1539 when it was valued at £30 17s 3d. Henry VIII attached it to his newly created Honour of Ampthill, that is a manor under the administration of a lord and honorial court. Although the manorial



Figure 1 Location Map

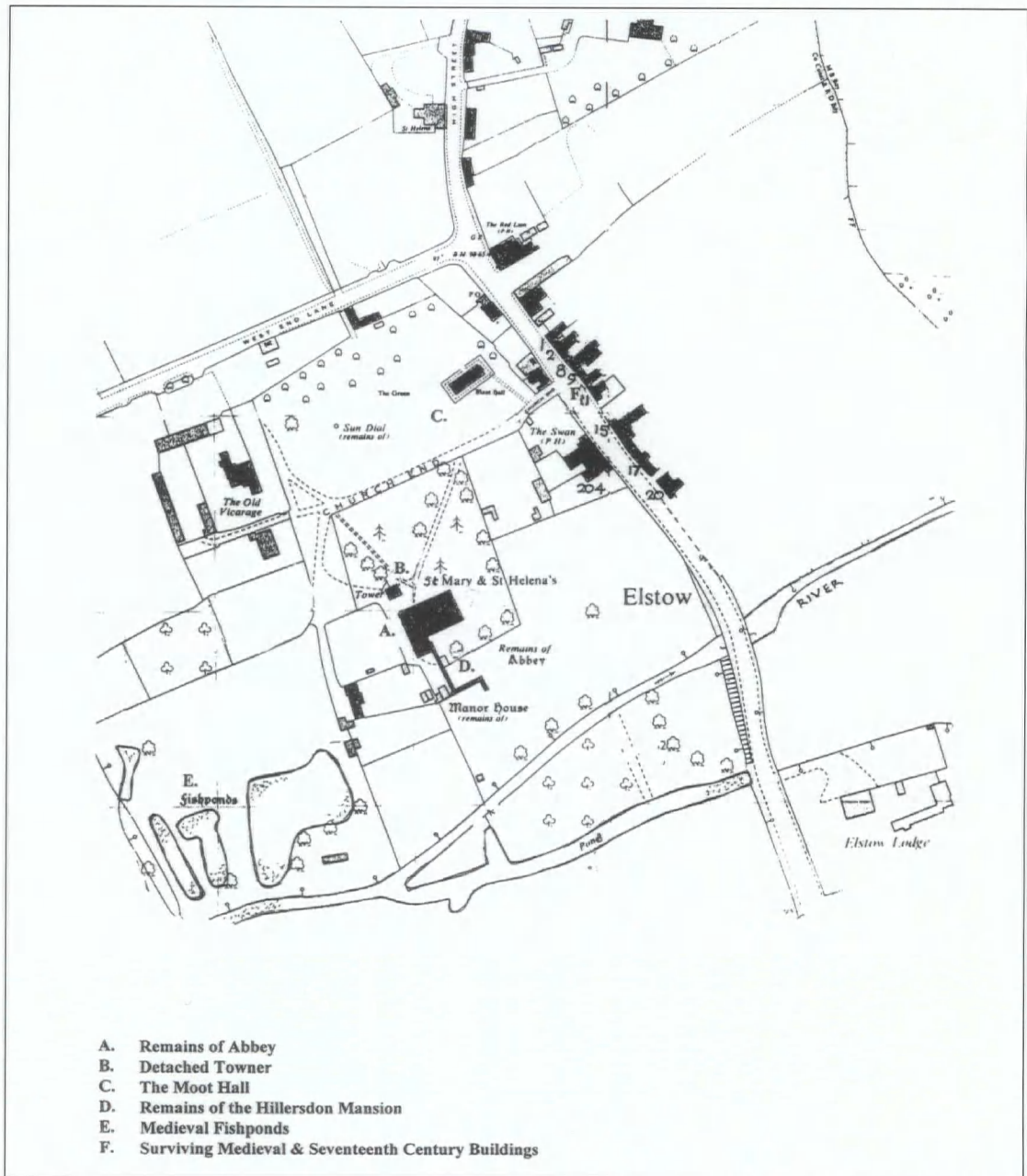


Figure 2 Key Plan of Elstow Village

rights remained in the hands of the Crown until the reign of Edward VI, the site of the monastery and its lands were granted by Henry VIII to Edmond Harvey in 1541. In 1616 the property was in the hands of Sir Thomas Hillersden who built a mansion incorporating the remains of the cloisteral buildings south of the church, some of which still stand, in ruins. The grand Norman Abbey was, at the Dissolution, being considered as a Cathedral for Bedfordshire. This was not to be and in 1580 it became the parish church of Elstow. At this time, the east end of the church, including part of the nave, were destroyed. However, there still survives several of the Norman bays, together with two of Early English construction. The rare detached tower also survived the Dissolution. Archaeological evidence shows that on the site of the Abbey lands there was prehistoric, Romano-British and pre-Christian occupation; part of the Abbey buildings were found to overlie a Saxon graveyard during excavations in 1960.

THE MOOT HALL

On the green, adjoining the church, is the timber-framed Moot Hall built in the late 15th Century and comprising of an upper hall running the full length of the building with six shops underneath at ground floor level. The shops were arranged such that there were three either side of the building in the three western most bays. In the fourth bay, at the eastern end, was a separate ground floor room which served as the access to the upper hall. The shops were separated off from each other such that access to each shop was only through its own front doorway which opened out onto the Green. Every shop had its own unglazed window through which the shopholder would sell his wares, the windows being secured by wooden shutters. The hall above the shops was originally used for the assembly of courts. In the late 16th Century the Moot Hall was extended eastward and a chimney with fireplace at each floor added. The building is jettied on three sides, with 'dragon beam' construction at the south west and north west corners. Dragon beam construction is not common in Bedfordshire.

Henry II granted the nuns an annual fair, which was held on the Green by the Moot Hall. The Abbey was positioned adjacent to the Elstow Brook in order that water could be diverted to serve ablutionary needs, as necessary in all Abbeys. Water from the Brook was also channelled to fish ponds surviving as earthworks south west of the church which no doubt kept the Abbey well supplied (Fig 2).

DESCRIPTION OF 204 HIGH STREET, ELSTOW

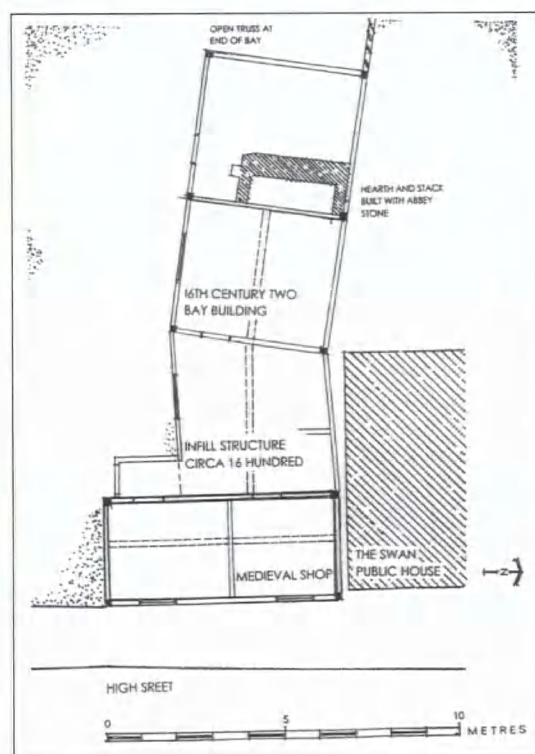


Figure 3 204 High Street Elstow - Site Plan

Figure 3 shows the plan of the site and adjoining building, the Swan Public House. The building has three elements: a two bay medieval timber framed structure fronting on to the road with a continuous jetty, a much later post-medieval single bay infill behind linking to another two bay timber-framed medieval building to the rear. The truss at the west end of this building was originally not infilled, suggesting that it abutted onto a further building to the west.

THE FRONT BUILDING (Fig 4)

This is of two bay timber frame construction with a continuous jetty onto the road. It has fairly wide spaced studs and the roof is of clasped purlin form with windbracing. The bressumer is moulded and has a castellated detail running its length, unusual in Bedfordshire (Fig 5). The two bays were separated at both ground and first floor level by a stud partition, each bay with separate access at ground floor.

The northern bay has a doorway at the front with

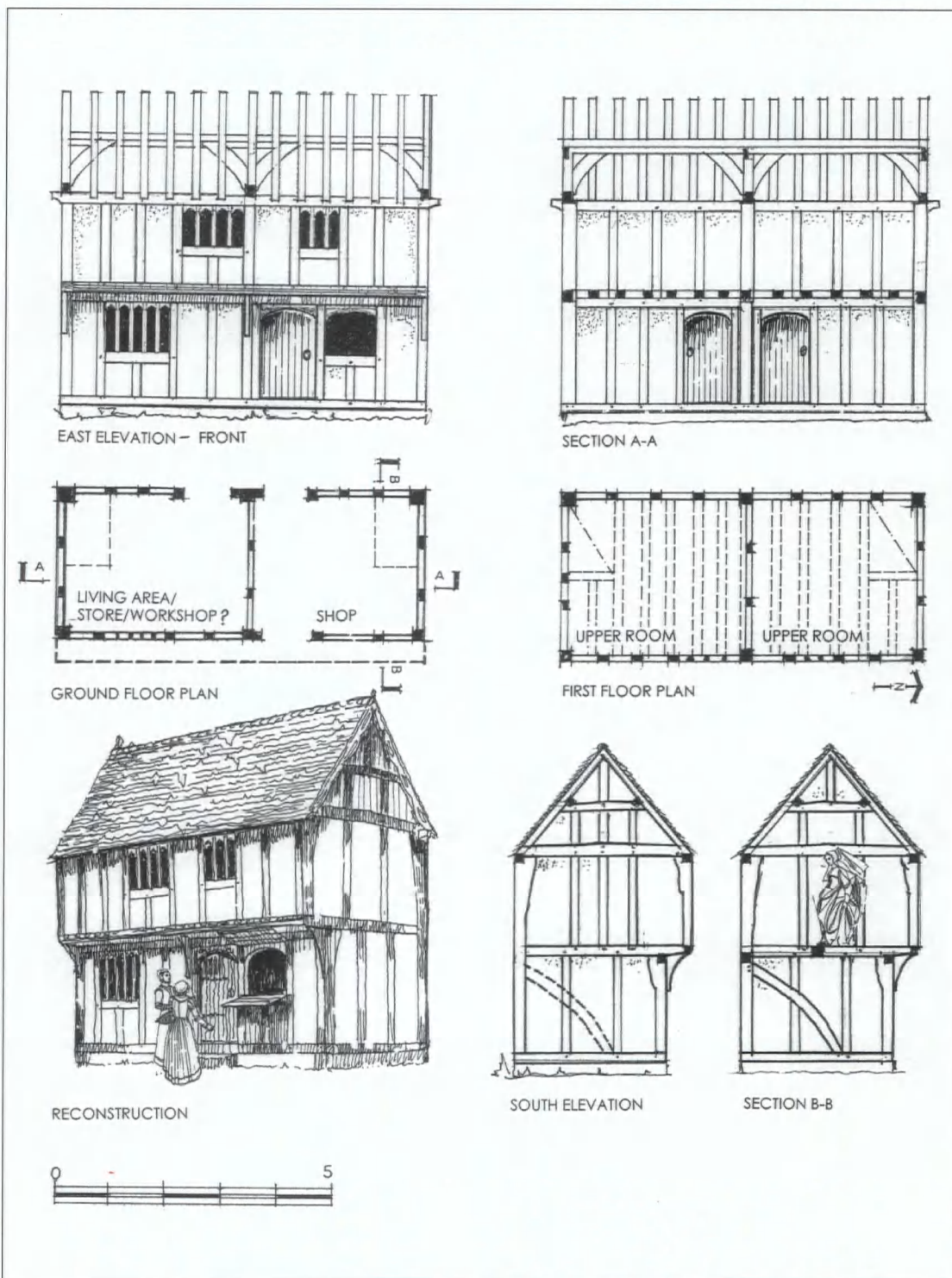


Figure 4 204 High Street Elstow - Reconstructed Plans and Elevations

a moulded and carved two centred spandrel panel. Adjacent to this door is a shop window also with firm evidence of a spandrel panel. To the rear of this bay is a doorway which also originally had spandrel panels. At first floor level there is a window in the front elevation only. The southern bay only has access through a spandrel headed door at the rear. At ground floor level there is a five light moulded window, with a further window at first floor level on this elevation. Each bay had a stair for access to first floor level.

The framing has downward internal windbracing. The southern end of the building has additional studs to that of the north, presumably because the northern end of the building was built abutting onto an existing building.

The building's front elevation originally had an overhang to the jetty of some 500mm. However, at some later date, the entire ground floor facade had been moved forward tight to the rear of the bressumer, as it now stands, to give additional floor space.

In the southern bay, at the northernmost wattle

and daub panel of the ground floor front wall there was, beneath loose plaster, a small surviving element of a wall painting, in poor condition. Its preliminary dating is circa 1600 and is quite an elaborate design of black on white. As its condition made it impractical to be kept in situ the Whitbread Estates kindly donated it to Bedford Museum in 1999. This building fronting onto the road was clearly originally built with a shop in its northern bay with access at both front and rear. There is no positive evidence for the use of the divided off southern bay, which may have been used as workshop, store or accommodation, indeed it may have been a combination of uses. The size of the shop floor area is similar to that of each of the six shops within the ground floor of the Moot Hall on Elstow Green. There are also similarities to the mouldings and spandrel panels to those on the shop fronts of the Moot Hall.

THE REAR BUILDING

For convenience the rear of the three structures is better described before the later central building that joined together the front and rear. This two bay timber



Plate 1 204 High Street Elstow

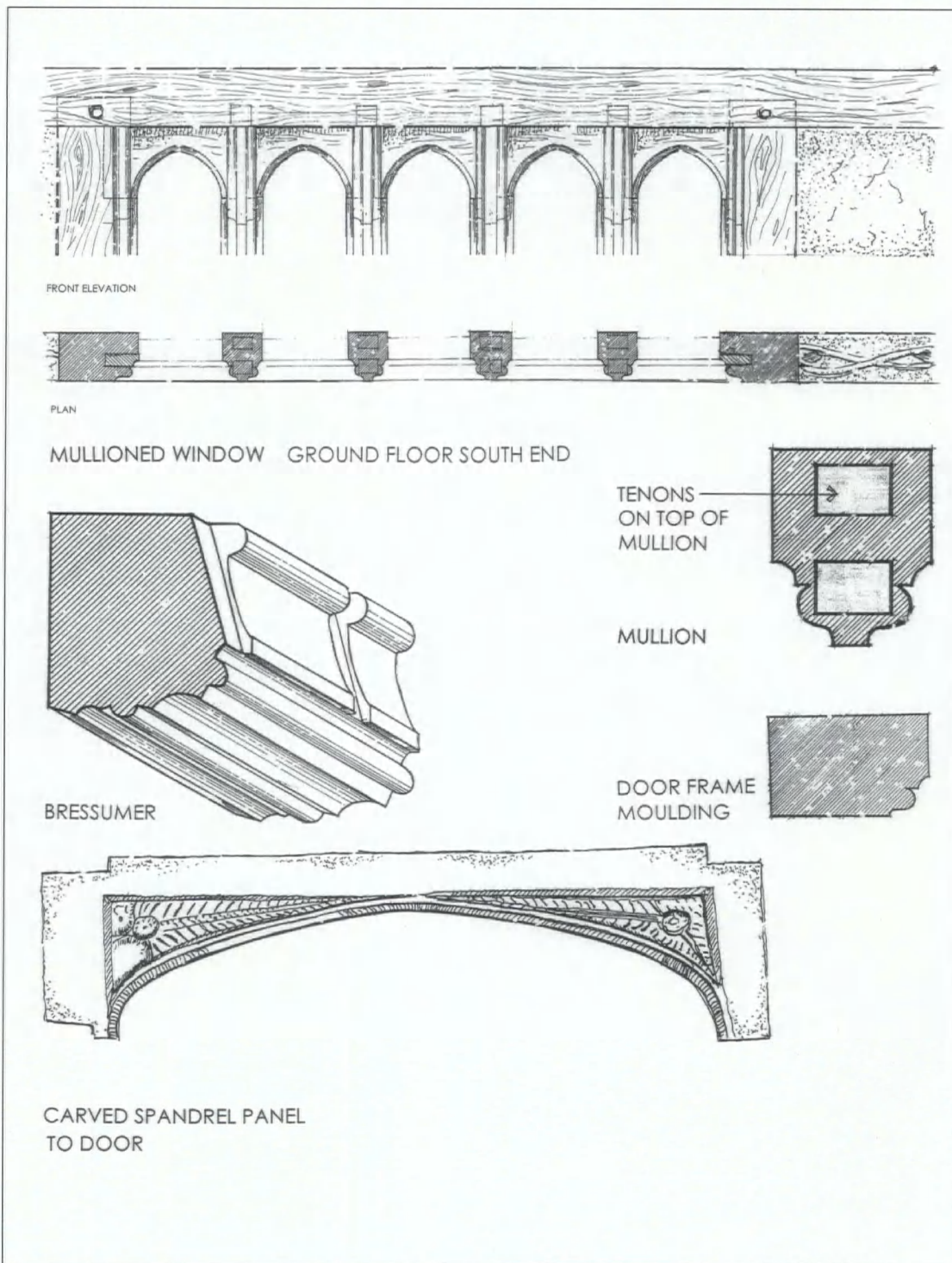


Figure 5 204 High Street Elstow - Details

framed building is on an east-west axis, and originally was of single storey construction. It was built primarily from re-used timbers and has been much altered, in particular by a later floor over the eastern bay. The building is shown in Figure 3. The stone fireplace, inserted to serve the eastern bay, projected through into the east end of the western bay. The stone chimney, constructed of material from the Abbey ruins, ran up inside the east end of the western bay. A brick chimney was later run up inside the stone chimney, and the lintel replaced. As previously noted the western end of this building had an open truss and presumably butted on to the adjoining building. The studding is quite widely spaced and has long, fairly straight, down braces on the external faces of the walls. The roof is of clasped sided purlins construction with principal rafters reducing above the collars. It has large wind braces rising from the principal rafters up to the collars. The rafters of the Western bay appear to be sooted. The only surviving indication of door and window openings are in the eastern bay on the southern side. The first of two scarf joints is on the south side of the building and this is an edge halved scarf with bridle butts. On the north side is a top splayed scarf joint with undersquared square butts, but this is in a reused wallplate and therefore from an earlier building. The walls were originally infilled with wattle and daub but now have brick panels.

The original use of this building may have been for domestic purposes but the evidence is not clear. Until this recent restoration the west bay was used as a farm barn and the whole building has been used as a farm house for several centuries. This rear building is, from its construction, later than the shop fronting the road.

THE CENTRAL SECTION OF THE BUILDING

This element was most likely built in the late 16th century to join the rear and front buildings together to form a whole. It is of timber frame construction and of two storeys. Little detail of the wall construction can be seen.

DEVELOPMENT OF THE SITE OF 204 HIGH STREET

There is no detailed documentary or archaeological information for the site so it is unknown what, if any, buildings predated the existing structures. Dendrochronological work has not been carried out on the buildings so we have to rely on typographical assessments of the structures. From the general details of the framing, joints, moulding and the door

and window details the shop wing fronting onto the road is most likely to be of mid to late 15th century date. This is perhaps of similar date to the first phase of the Moot Hall, although this building has also not been tree ring dated.

The front building has two doors leading from the rear. These could have led onto a courtyard or directly into another building which may have been an open hall, but these are assumptions without specific evidence. Sometime in the 16th century the rear two bay single storey building was erected. This may or may not have replaced existing buildings and was constructed in part from reused timbers, and a fireplace and chimney was added later, using post Dissolution material. From the open truss at the west end it would appear that the building butted against an existing or contemporary building. Sometime in the late 16th century the central section of the existing building was added, linking the shop to the 16th century building at the rear of the plot.

FURTHER SHOPS IDENTIFIED AT ELSTOW (Fig 6)

There are two buildings which can clearly be shown to have had a shop originally built into the structure. They are 2/3 and 20 Bunyans Mead. There are other buildings which, by their construction, may be considered to have been workshops or perhaps had a use other than a dwelling. In addition there is the Moot Hall which contained shops.

2/3 BUNYANS MEAD (Fig 7)

This is quite a spectacular building of 14th Century or perhaps late 13th Century date. It is in two parts: a continuous jetty two bay wing fronting onto the road containing the shop, with the rear a two storey height hall. The wing fronting the road is virtually complete except for damage caused by the insertion of later windows and modifications internally to the studding. This wing is divided into two bays by a timber frame studded partition. Each bay has independent access from the front by two adjacent doors with pointed arches, which are of substantial construction. It can be seen from the reconstruction drawing that the front elevation is liberally embellished with ogee braces, a most uncommon feature in Bedfordshire. In the northern bay are two shop windows at ground floor level, one wider than the other but both with steep arching plain spandrels and without mullions. These would have been open but shuttered. At first floor in this bay is a single six light diamond mullion window. In the southern bay at ground floor is a four light diamond mullion window

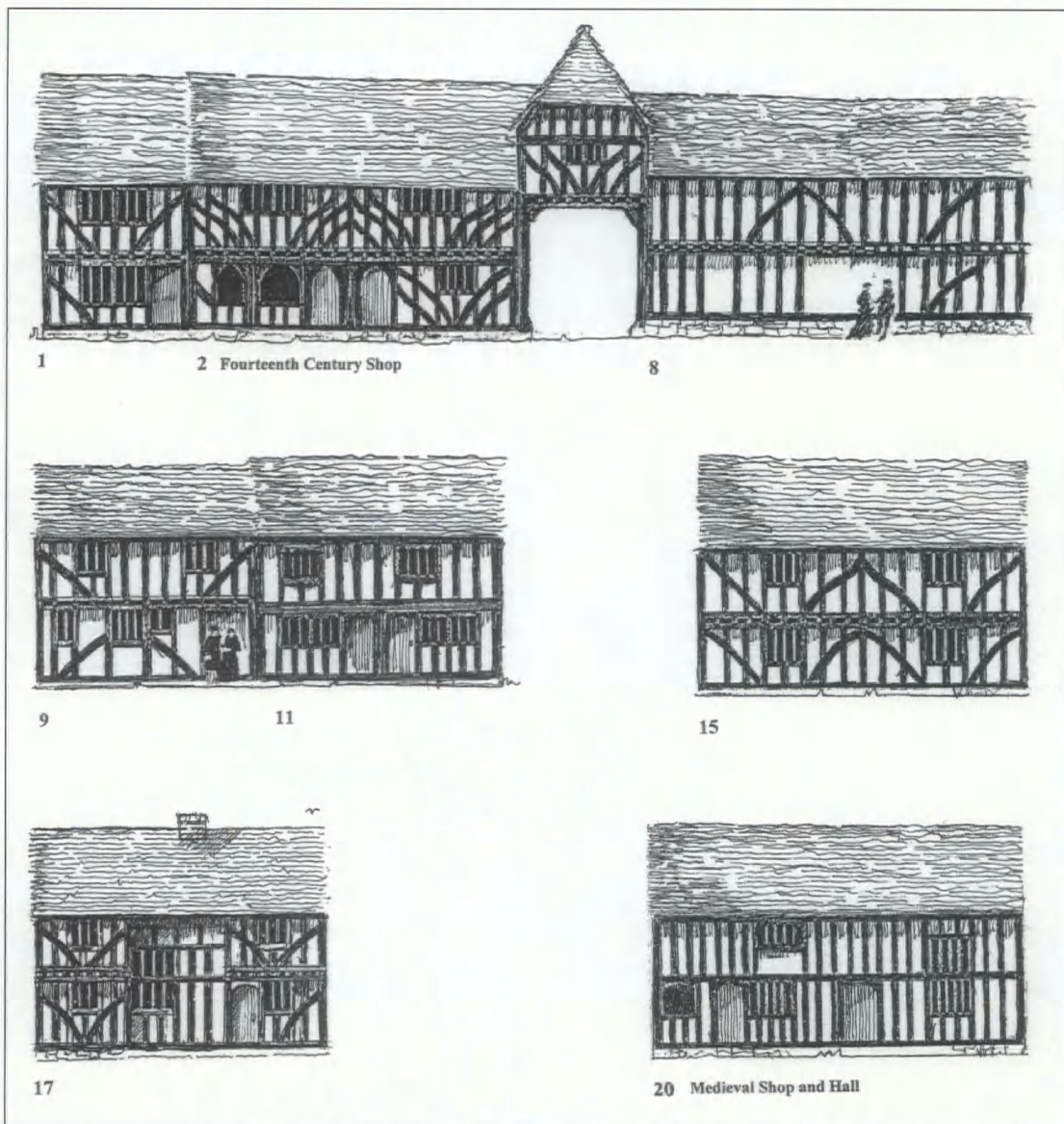


Figure 6 Reconstructed Elevations of Buildings to the East Side of Elstow High Street

and above this a six light window similar to that in the northern bay.

The roof of this wing is crown post and of particularly archaic construction, having lap joints on the braces and collars of the common and principal rafters. The crown post in the southern bay is tall and is square in section with slight chamfers on the corners. The crown post braces are only slightly curved and fairly square in section, being the same width as the collars and purlin respectively. In the

crown post purlin there is an archaic form of scarf joint which is a stop splayed scarf with undersquinted square butt and having a traverse key.

The southern bay has an additional tie beam dividing the bay into two equal halves on which the only crown post described above is located. This was not structurally necessary but was provided, no doubt, to enhance the status of this wing and, in particular, the upper room. The braces to the principal trusses are of early form and those on the central

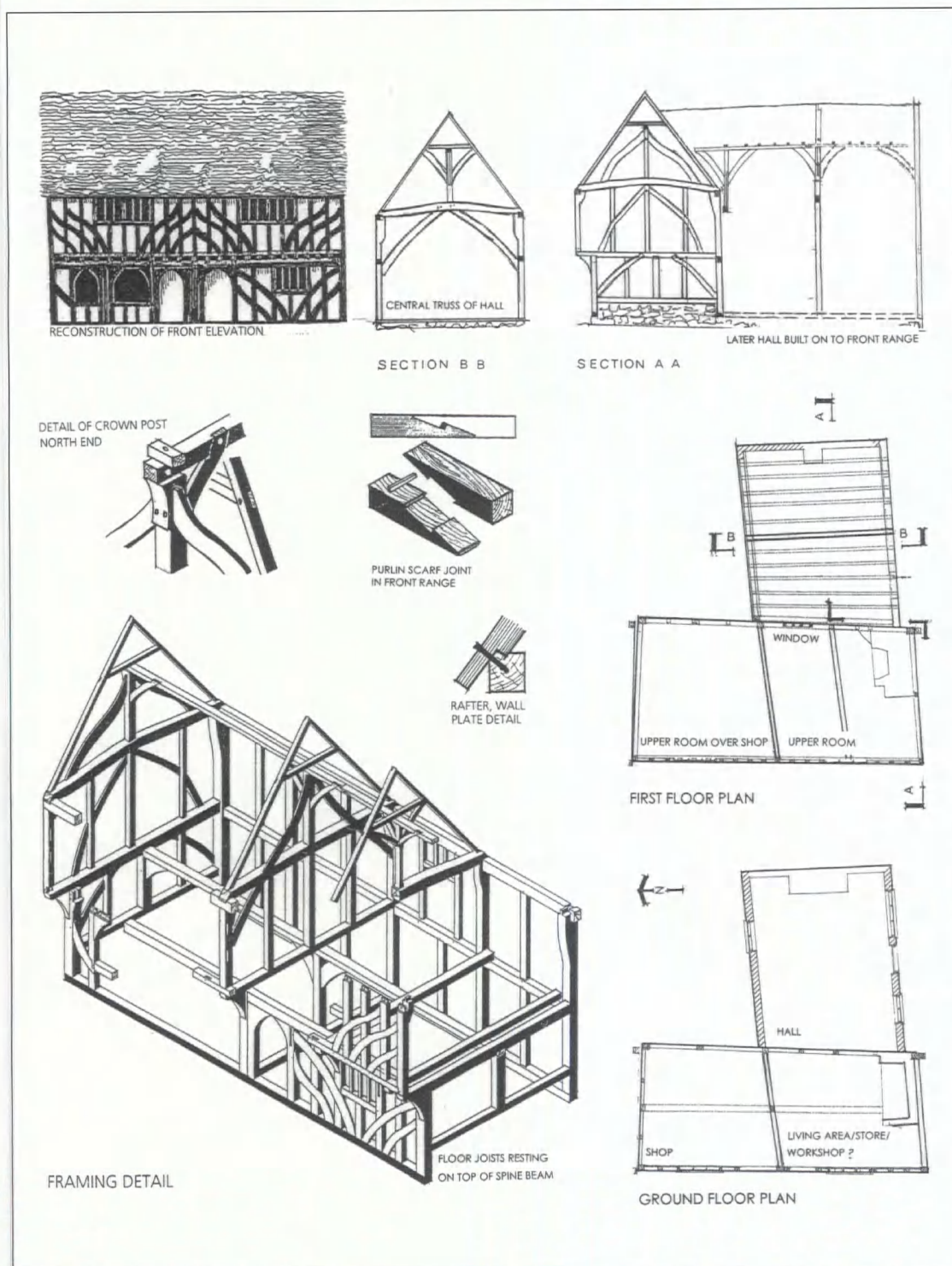


Figure 7 Nos 2/3 Bunyans Mead



Plate 2 Nos 1,2 and 8 Bunyans Mead

truss run from the purlin level passing tie beam to terminate in the frame of the front and rear elevation at first floor level halfway down the posts. A further archaic method of construction is that of lodged floor joists on the axial beam or bridging joist. That is to say, the floor joists were lodged in place resting on top of the bridging joist and they only stay in place through gravity. The bridging joist runs from one end of the building to the other and is supported on knees at the end walls and at the central partition line. This is a particularly long timber, as is the bressumer and the front plate supporting the end of the joists, which also run the length of the building. A slightly earlier example of lodged floor joist construction with samson post datable to the early 13th century is at Little Chesterford Manor, Essex (Hewitt 1969). The carpenters' marks are unusual and are more common in the 13th and 14th century (Fig 8). Similar marks are found on the 13th century crown post roof at Bushmead Priory. Running at right angles to and abutting onto the front wing is a two storey two bay hall with a much smoke blackened roof of crown post construction. The majority of the hall below roof level has unfortunately been

destroyed. This hall was most likely added shortly after the front wing. A scarf joint in the wall plate of the hall is similar to that in the front wing roof. There is also a scarf joint in the purlin of the hall which is unusual and of an early form, being a simple edge halved scarf with square vertical butts and two face pegs.

The exact usage of the various rooms of the front range cannot be certain other than that of the shop in the north bay. The room above the shop may have been used for storage, a workshop or, in part, for

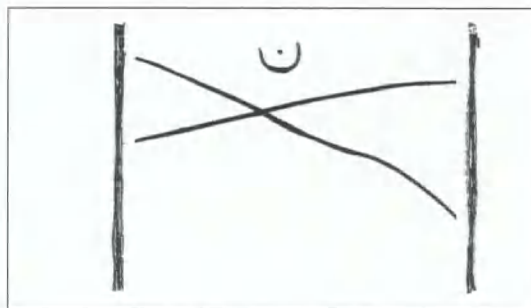


Figure 8 Carpenters Marks at No 2 Bunyans Mead

accommodation. The upper room to the south bay has an additional window at the rear and of course the extra tie beam with the crown post. Perhaps this was a sleeping chamber or for business or reception use. The ground floor room in the south bay may either have been for accommodation by the owner of the shop or business relating to the shop. The hall to the rear, presumably, related to the front range and there would most likely have also been a further wing and other buildings to the rear.

20 BUNYANS MEAD (Fig 9)

This building is on the eastern side of the High Street and is of four bays, the main axis parallel to the road. It is not jettied and is close studded on the front elevation, with wider studded panels to the sides and rear. The building is divided into two principal halves, each of two bays.

The southern two bays form an open hall two storeys high. At the front of the hall, onto the road, is a window running almost full height, divided by the mid plate into two and having four lights at the upper half and five lights in the lower. There is a door to the front onto the road at the north end of the

hall, which has a moulded spandrel panel with a two centred arch, with the mouldings continuing down the side of the door frame. A corresponding door is on the rear of the hall at the other end of the cross passage. In the late 16th century a floor was added in the hall to give a room at first floor level.

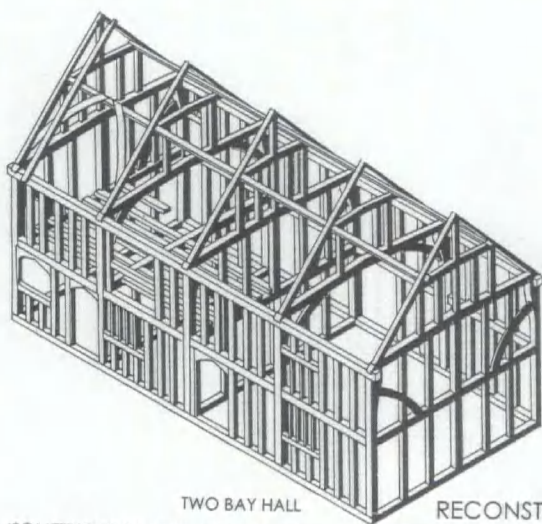
The northern two bays are both floored to give a two bay open room at first floor level. To the front of this upper room there is firm evidence of an original oriel window. At ground floor level of the most northerly bay is a shop with a door of similar detail to that in the front of the hall. Adjacent to this door is an open unmullioned shop window with moulded reveals and spandrel panels between the shop and hall. At ground floor there is a further single bay room entered from the cross passage in the hall, with access to the two bay room above by a stair at the rear of the room.

The roof is of clasped side purlin construction with windbracing and there is downbracing to the frame of the building.

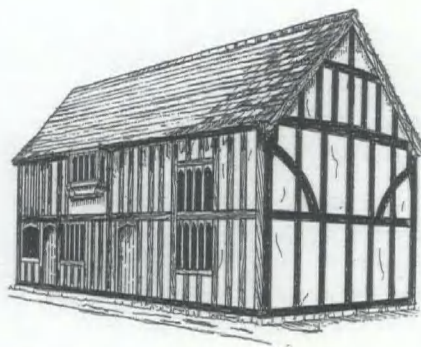
This building is the house of a 'Merchant' of some wealth and standing, having a substantial dwelling and shop combined. There is a large hall of



Plate 3 Nos 17 and 20 Bunyans Mead



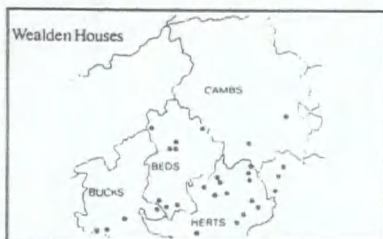
TWO BAY HALL
ISOMETRIC RECONSTRUCTION OF FRAMING



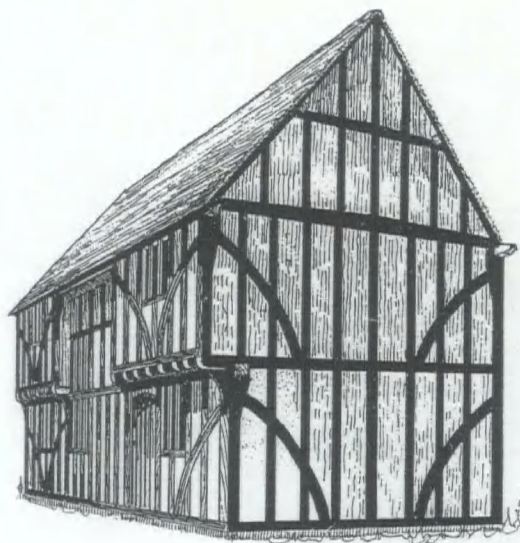
RECONSTRUCTION OF THE "MERCHANTS HOUSE" AT
20 BUNYANS MEAD, ELSTOW



RECONSTRUCTED FRONT ELEVATION



PART OF DISTRIBUTION MAP SHOWING WEALDEN
HOUSES IN THE REGION



RECONSTRUCTION OF THE WEALDEN HOUSE
AT 17 BUNYANS MEAD, ELSTOW

Figure 9 Nos 17 and 20 Bunyans Mead

two bays, with a parlour entered from the cross passage. Above this parlour is an upper room, enhanced by an oriel window, which may have been for sleeping or storage. The shop at the north end was self contained and entered through the front door. The evidence suggests a late 15th or early 16th century date.

It is probable that there were outbuildings and an external kitchen, but there is no evidence to substantiate this suggestion.

BUILDINGS WHOSE PRECISE PURPOSE IS UNCLEAR

There are three buildings in this category, 1, 9 and 17 Bunyans Mead.

1 BUNYANS MEAD (Fig 10)

Fronting onto the High Street this is a very narrow two bay building jettied on the front faVade. Structurally, the central truss is hardly necessary but it did, perhaps, enhance the single upper room. The treatment of the clasped purlin roof is unusual in that it is not stiffened by the conventional form of wind braces, rising from principal rafters to the purlins. In

this instance downward braces drop from either side of the central truss principal rafters down to the top of the wall plates. There are doorways to front and rear at the south side of the building forming a passage at this side, with a partition running across the building tenoning into the underside of the central spine beam. From the evidence at the front of the building there were windows at first and ground floor with square mullions. As the mullions had been removed details of any mouldings that may have decorated them are unknown.

There is clear evidence that the original stair was located at the north east corner of the building. The bressumer is plain and unmoulded and rests on the ends of protruding floor joists. The continuous spine beam, unusually, is secured at either end by posts with 'jowls'. At the first floor ends and at both levels of the front faVade the building is stiffened by downward bracing. There is no surviving evidence of another building abutting onto the rear.

This building would appear to have stood alone and was built for a specific reason. It is similar in form to other buildings in the complex, very narrow at the frontage being only some three metres wide,

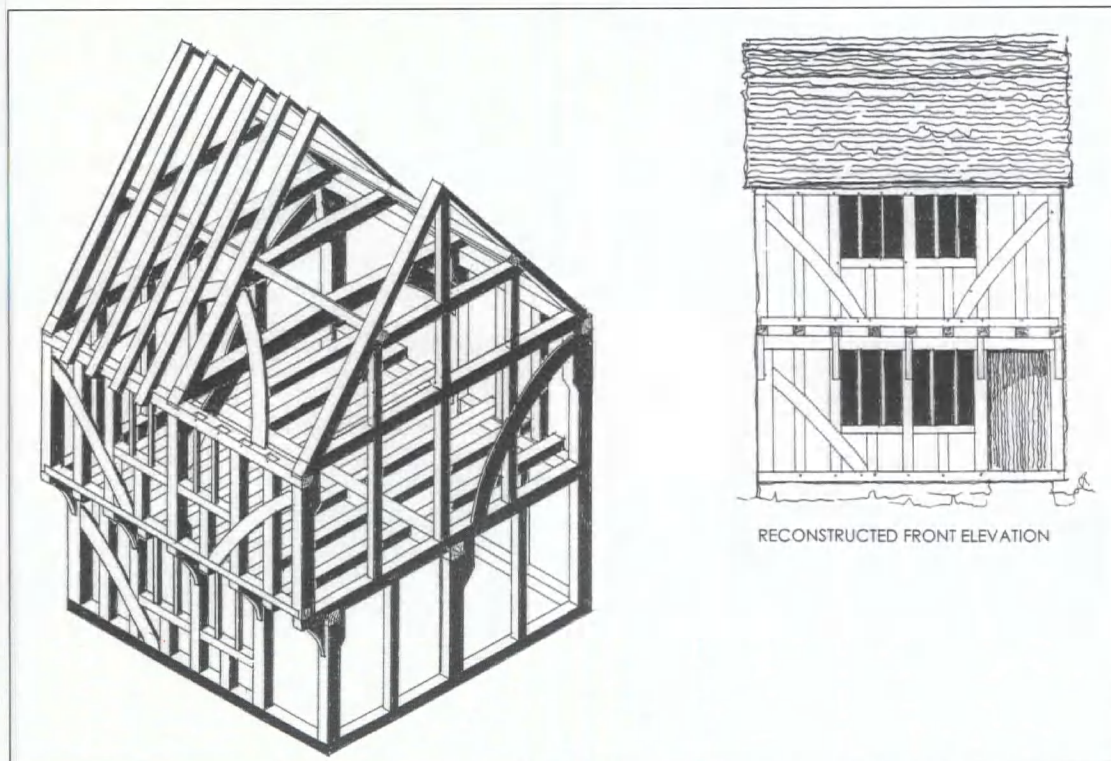


Figure 10 No 1 Bunyans Mead

and somewhat less in depth. Its use cannot be ascertained, but it may have served as a workshop, shop or even, perhaps, as guest accommodation for the Abbey.

9 BUNYANS MEAD (Fig 11)

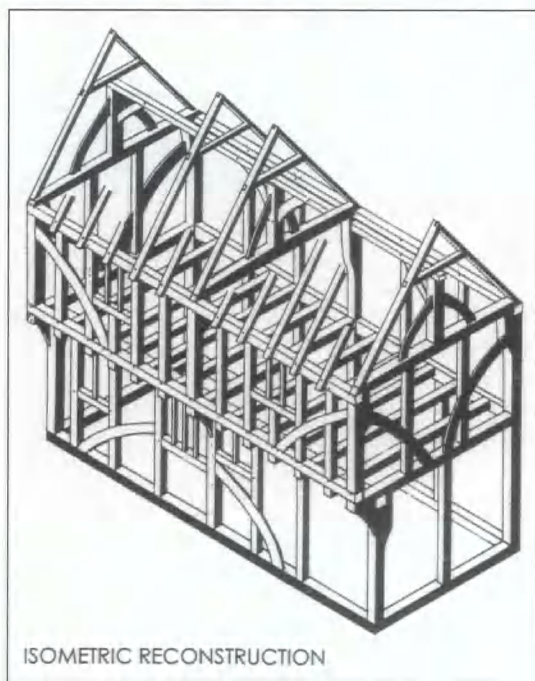


Figure 11 No 9 Bunyans Mead

A two bay building jettied onto the road, it has a single room at both ground and first floor level. At ground floor there is a passage running across the building from front to back at the extreme south end. The building depth is less than two metres from front to back which is unusually shallow, and a spine beam has therefore not been necessary in the construction. The floor joists span from front to back. The frame is stiffened at both levels with downward bracing.

The roof is of crown post construction with plain square posts. Thin braces curve up to the purlin from the post and there are braces on either side of the post dropping down to the top of the tie beam. There are three mullion windows at ground floor in the front elevation, the two outer ones being inserted. At first floor each bay has a three light mullioned window. The building at the rear is post medieval and there is insufficient evidence to determine whether there was originally a contemporary building to the rear.

It is an extremely narrow building and hardly, on its own, suitable for accommodation unless relating to an adjoining building. Could this be some form of workshop?

17 BUNYANS MEAD (Fig 9)

This is of considerable interest, as it is a much altered example of a Wealden house. These are uncommon in Bedfordshire and there are only seven other known examples in the county (Bailey 1977). Following purchase by the Whitbread estate, the building would appear to have been "squared off" and pebble dashed, thus concealing its true identity.

It is a most unusually small Wealden with a single bay hall which is under 3m wide, and with an overall depth to the building of 5m. The narrowness of the hall has, in fact, made it unnecessary to add the ubiquitous braces to support the overhanging hall wall plate. The cross passage is within the south wing which leaves very little accommodation when the stair to the first floor has also to be taken into account. There is a single three light window at both first and ground floor. The Hall has an almost full height diamond mullion window set at the far north end on the front elevation. The north wing has a three light window at first and ground floor. The studding is fairly close spaced, and the frame is stiffened at front, rear and sides by external downward braces at both levels. The roof is of clasped side purlin construction with the principal rafters reducing above the collar.

As with the previous building we cannot be sure if this building was used solely for living accommodation. A list of known Wealden houses in Bedfordshire has been published (Bailey 1977).

HALL AND CROSS WING BUILDINGS

Two hall and cross wing buildings were surveyed by the writer in 1976: 8 and 15 Bunyans Mead. A further building, "Green Corner", was surveyed in the 1990's.

8 BUNYANS MEAD (Fig 12)

The building is orientated east-west at right angles to the road with access through a passage on its north side. It was considerably altered during the medieval period, the earliest surviving element being sections of the hall.

The hall, which is of two bays, was originally aisled and of early 13th century date. The aisles were removed in the 16th century and floored. Any other elements of the early building that were at either end of the hall were also removed and rebuilt as cross wings.

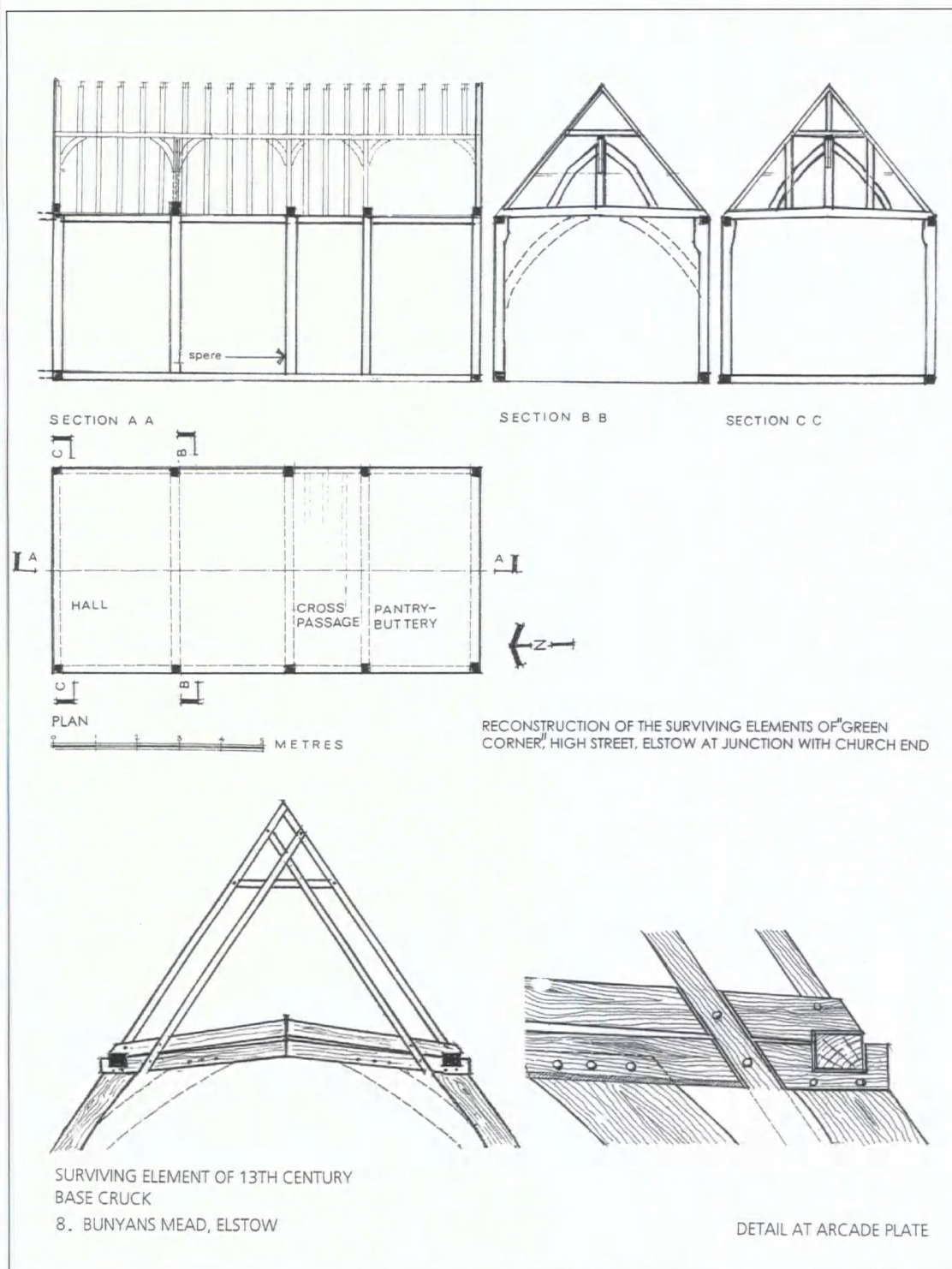


Figure 12 No 8 Bunyans Mead and "Green Corner", High Street

The hall was of base cruck construction, the only elements to survive being the roof of the two bays, the main central truss of which is illustrated. The arcade plates are intact, as are the double tie beams which clasp the plates. A short section of the top half of both cruck blades are also still in position.



Plate 4 13th Century Base Cruck Roof at No 8 Bunyans Mead

Following the removal of the aisles, and the insertion of the floor, a stair turret was built at the south side of the hall to give access to first floor level. The original stair which had been repositioned was restored and relocated in the stair turret during the 1976 refurbishments. At this time sections of painted stair banisters were found on the walls around the turret. These have been protected by transparent material and can be viewed.

Fire places were built at the west end of the hall using post Dissolution stone from the Abbey. Following the remodelling of the hall and the insertion of the fireplaces and chimneys the entire walls at ground floor level were decorated with wall paintings dated by Clive Rouse to circa 1600 (Fig 13). Early in the 17th century the wall painting was covered when the ground floor was oak panelled. The cross wings at the west and east ends of the hall were added in the 16th century, replacing the earlier struc-

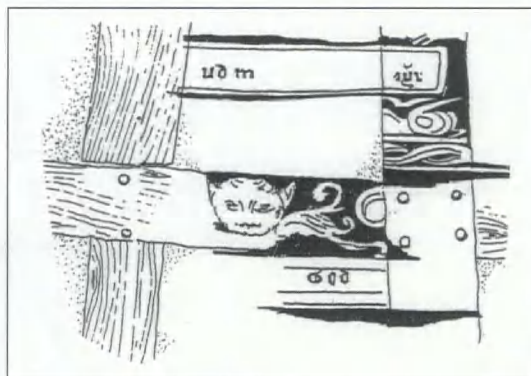


Figure 13 Wall Painting at No 8 Bunyans Mead

tures relating to the original hall. The west wing, running at right angles to the alignment of the hall, is jettied onto the road. It is of two bays with a clasped purlin roof. Access to this wing was from the hall. The front elevation has been much altered and the evidence of windows or possible doors in this elevation has either been destroyed or covered over.

It can be seen that there was originally a passage between the wing and No 9 of approximately 1m wide and also that the north end of No 9 had been shortened when the later wagon way was inserted. There are surviving elements of wall painting on the inside of this rebuilt north wall that date to circa 1600. Inserted chimneys and fireplaces in this wing have been built from post Dissolution stone and include elements of carved tracery which are clearly visible. The ground floor fireplace lintel is plain, but at first floor the lintel is moulded and a cross has been carved on the front face.

The east wing has its main axis running at right angles to the hall. In this instance the wing is jettied to the north onto the access way between this and the adjacent building approached through the wagon way. The wing is of two bays with a clasped purlin roof. At ground floor level there is a door with a carved spandrel panel giving access to the hall. It can be seen that the c.1600 wall paintings in the hall were carried over the door frame.

The northern jettied façade has a fine moulded bressumer, with evidence of oriel windows at both ground and first floor. This elevation of the wing has close studding to emphasise its importance, the other elevations have wider spaced studs. There are two rooms at ground floor level in the wing. As with the Hall and west wing, fireplaces were inserted at first and ground floors using dissolution materials. During the restoration the external chimney to this

wing was exposed to show that it was built with random stone rubble, which included elements of tracery. The ground floor rooms were, as with the Hall, panelled over in the 17th century.

15 BUNYANS MEAD (Fig 14)

Fronting onto the road is a continuous jettied cross wing, which relates to a hall to the rear running at right angles to the wing. The wing is of two bays, with a roof of clasped purlin construction with principal rafters reducing above the collars. The frame is stiffened by external downward bracing. The majority of these braces have a gentle curve throughout their length but those at first floor level on the front elevation have an ogee form. Interestingly, there are additional ogee downward braces above the tie at the northern end of the building as shown on the isometric drawing. This gives the appearance that the roof is of crown post construction. There are four diamond mullion windows on the front elevation each of which has four lights. In the north elevation there is a four-light diamond mullion window at both ground and first floor. There is a door to the hall which is now blocked.

The two bay hall to the rear of the wing was

much altered with the majority of evidence either destroyed or covered up. The central truss of the hall survived and this has clasped side purlins sitting on an arch braced collar. There is evidence of the wind braces. The tie beam has short arch braces.

"GREEN CORNER" (Fig 12)

This building is on the west side of the High Street, at the junction with the Church End lane running down to the Green. It is a surviving section of a 15th century hall house. The external façade is pebbledashed and most of the internal walls are plastered: few details can be recorded of the frame at first and ground floor. However, access could be made to the roof space to record the roof. There remains the basic elements of a two bay hall, the spere truss and the lower bay (the upper bay being destroyed by previous rebuilding). The roof is of crown post construction, with posts that are square and plain. Braces run from the posts down to the tie beams, and there are upward braces from the posts to the purlin. There is evidence for the curving braces up to the underside of the hall central truss. Basmead Manor, in north Bedfordshire has a crown post roof of almost identical construction.



Plate 5 No 15 Bunyans Mead

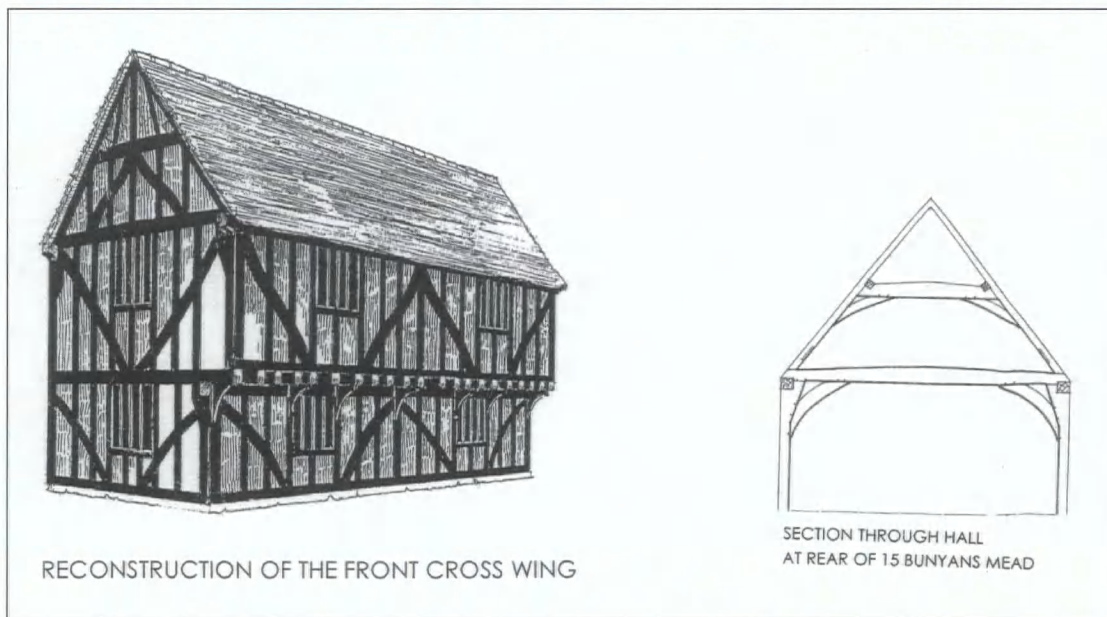


Figure 14 No 15 Bunyans Mead



Plate 6 "Green Corner", High Street

CONCLUSION

The Abbey provided a focal point for the development of the village, and it is most likely that many of the buildings were built and owned by the Abbey to house lay persons who supported their every day life. There are shops and small buildings which may have been workshops or had other specific functions, rather than being purely residential, which would be expected. The position of the Abbey would have raised the status of Elstow above that of a pure village to that, in effect, of a small market town. Some of the larger hall homes may have served as guest houses for the Abbey.

The architecture is invasive in many instances, being of unusual form to that generally common in Bedfordshire. For example, the number of crown post roofs, as a group, is exceptional: they are extremely rare in the county, side purlin roofs being very much the norm. The use of ogee braces in 2 Bunyans Mead is unusual in Bedfordshire, being more common to the east towards and in the Essex region.

The survey of the roof to a base cruck hall, at 8 Bunyans Mead, gives important evidence on early 13th century roof rooms in Bedfordshire.

There is some documentation referring to the occupants of the buildings in the medieval and post-medieval periods which is being researched by the writer. Useful information will be incorporated in a further paper on Elstow buildings which is in the course of preparation. A group of 16th century wills have also survived and have been published by the

Bedfordshire Historical Record Society to provide some indication of post Dissolution life. Unfortunately they do not relate to specific houses.

There is positive evidence of improvement to the buildings following the Dissolution, and a revitalisation of the village. This can be seen by the flooring of halls and stone from the Abbey being extensively used for the building of chimneys and walls. Rooms were also enhanced with wall paintings and panelling. Buildings on the High Street were not demolished and there appeared to be a continuity in the village life. The Hillersden Mansion was built in 1616 incorporating parts of the Abbey cloisters and the Moot Hall was extended eastward.

ACKNOWLEDGEMENTS

The author would like to thank Whitbread Estates for permitting access and allowing the detailed survey of 204 High Street.

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The Late Medieval Origins of the "Town House" at Kempston Church End

JONATHAN EDIS

SUMMARY

Recent observation and survey has confirmed that the timber framed building known variously as the "Town House", or 1-4 Church End, Kempston, has late medieval origins. The entry in the Statutory List of Buildings of Special Architectural or Historic Interest incorrectly claims that it is a 17th century range of houses, but it is in fact a 15th or early 16th century building associated with the adjacent parish church of All Saints. Post-Reformation uses, notably the conversion to cottages, have altered the appearance of the building to the extent that its original purpose is no longer immediately apparent.

INTRODUCTION

Kempston Church End lies on the west bank of the River Great Ouse, 4 km south west of Bedford. Its focus is the medieval church of All Saints, which stands in a spacious churchyard next to the garden of the mid-19th century former vicarage. The southern boundary of the churchyard is defined by a long timber framed building known as the "Town House" from the 17th century, now converted to houses and called 1-4 Church End. In the 17th and 18th centuries the recorded uses of the building included a school, a wood-store, and a workhouse (BLARS: PE 358, PE 466/2, and X 47). This report concentrates on the original function and construction of the building in the late medieval period, not the later uses and changes which have been discussed elsewhere (Carnell *et al* 1966).

External examination of the western gable shows that the structure was originally jettied on the north and south elevations. Modern renovations have exposed other parts of the timber frame, from which it has been possible to reconstruct much of the original internal plan, indicating that it was not a normal domestic building and that its two very large internal chambers or rooms probably performed communal functions.

DESCRIPTION OF THE SURVIVING MEDIEVAL FRAME

Numerous post-medieval alterations have occurred, which have to be discounted in order to understand the original form and plan of the structure. These

include three chimney stacks, the brick underbuilding to the former jetties, an inserted second floor at eaves level, and a large number of internal walls and staircases. When these are ignored, the primary frame is found to consist largely of a roof and first floor structure containing eight bays (Fig 1). The majority of the ground floor frame was lost in 18th or 19th century alterations.

Each bay contained five common rafters, five studs, and five joists, except for bay 8 which was slightly narrower and contained four of each of these members. Bays 1-7 were open from first floor level to the roof ridge as one large chamber. These open bays had two sets of clasped purlins, with curved windbraces to the lower set. The upper collars were unsupported, but the lower collars were held up by queen posts. Each tie beam had arched braces rising from splayed and jowled wall posts. The tie beams had chamfers and stops, but the rest of the roof was plain.

The east and west gable walls were fully studded, with curved braces, and the cross-frame between bays 7 and 8 formed an original internal partition throughout its full height. Like the east gable, this frame had a form of king strut, rising from the upper collar to the ridge. A plain doorway provided access through this partition at first floor level, immediately south of the axial beam.

Although the ground floor frame has been almost wholly destroyed, enough evidence survives from the presence or absence of mortises to be able to piece together its basic plan and form. Bays 1-6 were open to form another long room or chamber, similar in arrangement on the first floor, and double ogee chamfers on all the beams advertised that this part of the building was highest in terms of status. Bays 7 and 8 were separated from this chamber, and divided from each other, by cross-walls. A further axial partition separated narrow bay 8 into two small units. Bay 7 had a double ogee chamfered axial beam, but its transverse beams were undecorated and formed parts of the internal cross-walls. An even lower status was afforded to bay 8, where the axial beam had only a plain chamfer.

The jetty construction survives best at the south east corner of the building, where it is encased in a

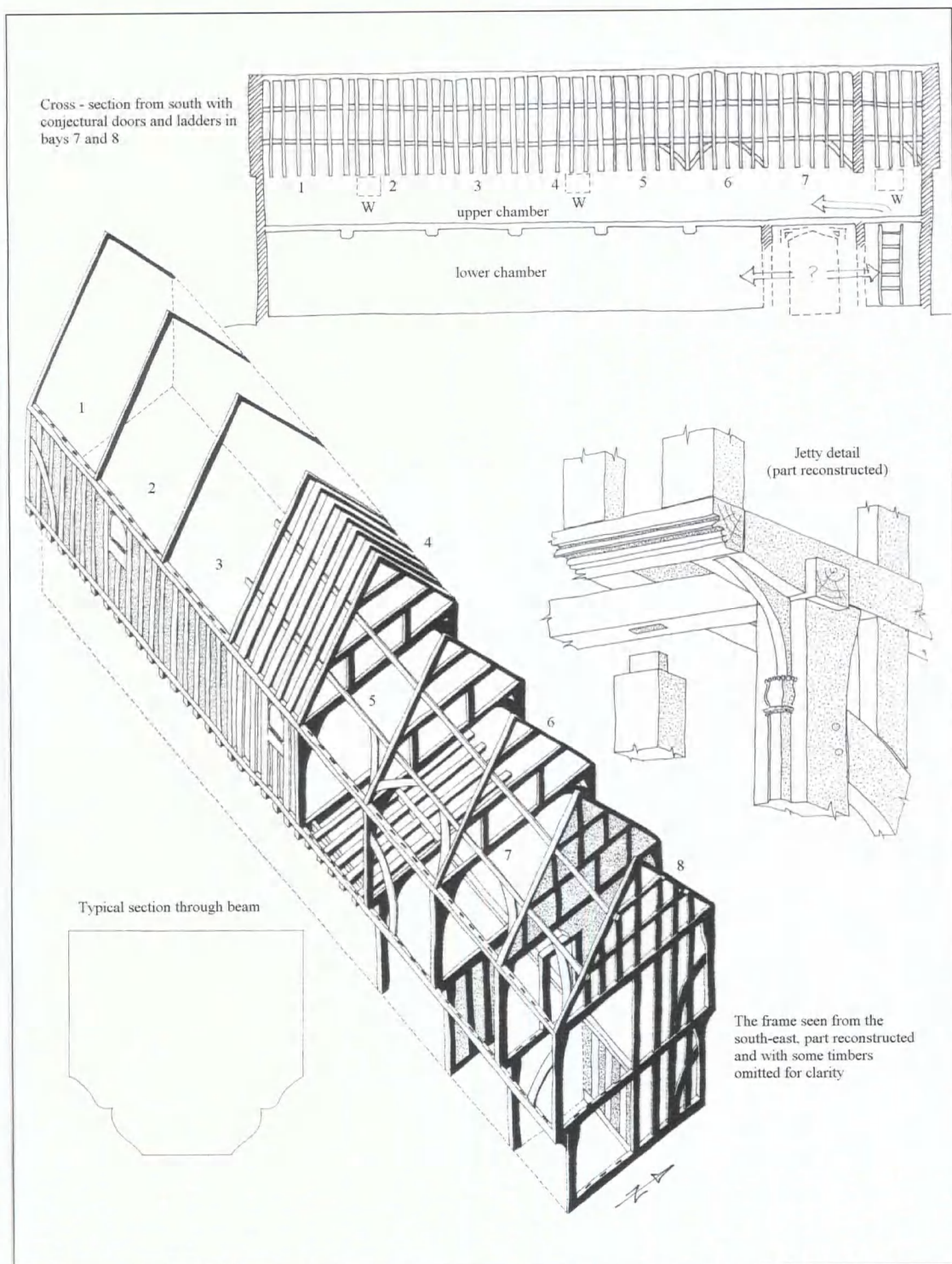


Figure 1 Timber Frame and Details at the "Town House", Kempston Church End

19th century outbuilding. It is of Type 2 as described by Harris, with the intermediate joists tenoned into the back face of the bressummer (Harris 1990). An eroded fragment of the moulding on the bressummer survives, and the corner post retains a semi-octagonal wooden shaft applied to the front face, with a capital shaped like a vase or barrel near the top (Fig 1).

Traces of three original window frames survive at first floor level, two of these being on the south elevation. They have four-centred arched heads and cusps in the spandrels. Only the cill remains of the third window, on the north side in bay 8. There is no certain evidence of any other windows, doors or stairs.

PRELIMINARY INTERPRETATION AND DATING

The clue to understanding this building lies in its two large internal spaces, a utilitarian upper chamber with a floor area of 131 square metres, and a high status lower chamber of some 96 square metres (Fig 1). It could easily have accommodated one hundred and fifty standing people at one time, or a hundred people seated at benches and tables, or twenty or thirty sleeping people. Alternatively, the upper floor could have been used for storing large quantities of materials. There is no evidence that the building was originally heated, or that it had a kitchen or any other domestic facilities. It is possible that there was once a detached kitchen of the type found in other southern counties (Martin 1997, Roberts 1997), but this is conjectural. Bay 8, which is narrower than the others, must not be misinterpreted as a smoke bay.

Insufficient evidence has survived to tell whether the original "front" of the building faced north or south, or whether both were accorded equal status. There may have been doors leading into the sides of the main chamber from the north or south, but it is also possible that there was access to this part of the building through the cross-wall from bay 7. If so, bay 7 may have acted as an entrance and circulation area, providing a choice of entry into the principal chamber at ground floor, or into the two smaller rooms in bay 8. Speculatively, a ladder or stair could have occupied the northern room in bay 8, landing on the spine beam to link with the door into the upper chamber, and lit by the window on the north wall (Fig 1). This appears to be the only possible location for a stair, but it is also the only part of the first floor that cannot be examined from above or below.

The relationship of the "Town House" to the parish church is relevant here, because bay 7 is

directly in line with the church porch. Nowadays, the path from the church goes through bay 8, but this must be a later alteration involving the removal of the original stud wall under the axial beam here. In fact, the path is on an alignment with bay 7, and appears to have been adjusted at the southern end to enter bay 8. There is no conclusive evidence of a western path to the church before the 19th century (BLARS: MA 18 and ME 25), so it seems possible that the building was planned with a dual function, partly as a southern boundary and entrance to the churchyard, and partly as a communal facility for the parish.

The date of construction is not known exactly, and has not been the subject of tree ring analysis, but some general guidelines can be established. For a start, the presence of jetties, king struts, queen posts, arched braces and curved windbraces implies a 15th or 16th century date (Mercer 1975). Details like the cusped windows, the barrel capitals on the jetty posts, and double ogee chamfers, are all broadly Perpendicular, and fall into a similar date range. Double ogee chamfers for example, are known from the late 14th century, but continue for at least another hundred years (Hislop 1997). King struts are also found in other Bedfordshire buildings of c.1500, for example Lancotbury in Totternhoe. Indirectly, a late medieval date is implied by the existence of the two-storey 15th century church porch (VCH 1912), that has an undeniable axial relationship with the "Town House".

While there are no direct parallels in Bedfordshire, the building may be compared with the Town Hall at Toddington, 2-6 High Street, Biggleswade, the Feoffee Almshouses at Ampthill, and the Moot Hall at Elstow, all of which are 15th or 16th century buildings near to churchyards, and some of which may have performed public functions. Taking all the evidence together, it seems that the "Town House" at Kempston was built between the late 14th and 16th centuries.

FURTHER EVIDENCE: GILDS AND FRATERNITIES

The high quality of the framing and the layout of the chambers are not consistent with the recorded functions of the building in the 17th century. However, the very name "Town House" suggests a history of parish use, and it has been noted that the building could have held a large, if perhaps selective, proportion of Kempston's population. The two chambers could have been used simultaneously, by two separate groups of people engaged in similar pursuits, or

the upper chamber could have been used as a dormitory or subsidiary area by those permitted to use the high status lower chamber. Such an arrangement is well suited to the activities of pre-reformation gilds, or fraternities. Although these were originally an urban phenomenon with a craft connection, hundreds of rural examples are known across the country. They were responsible for maintaining torches, lights or candles in the church, obtaining prayers and alms from all the members for the benefit of the souls of deceased brothers, arranging funerals and burials, and promoting charity and a sense of community. Gilds might have their own alderman and chaplain, and a light-warden to maintain a "stock" or "store" of wax for the lights, and they brewed their own ale, raising money by holding "drinkings", as well as providing dinners and feasts at appointed times of the year (Whiting 1983, Hutton 1987, Duffy 1992). Unfortunately, no such gild is recorded in Kempston, but it should be noted that the survival of documents relating to these organisations is haphazard. There are several Kempston wills from the period 1498-1528 naming typical gifts to the parish church, the high altar, the sepulchre light, bells, torches, trentals of masses, St Ann's light and the light of Our Lady of Pity (Cirket 1957, Bell 1966, McGregor 1979, Bell 1997), and it is possible that these intercessory transactions were at least partly controlled through a parish gild or fraternity that has not survived in the historical record.

Potential benefactors who may have contributed towards such a gild, or the construction of a gild-house, include John Baron Wenlock, and Thomas Rotherham, Bishop of Lincoln, who held land in Kempston during the periods 1461-1471 and 1471-1500 respectively (VCH 1912). This fits neatly into the middle of the time-range suggested above, but it need not necessarily point to a late 15th century date for the building itself. Gilds and fraternities were often supported within the parish at a fairly humble level, and capital may have been obtained by a more general subscription. From a structural viewpoint, the apparently idiosyncratic positioning of windows may indicate that each bay was separately funded by an individual or a group, according to their means, but there are of course other possible explanations for this.

After the suppression of gilds in 1538, their functions were discontinued or absorbed into other parish functions. No longer needed as "stores", or for parish entertainment and "drinking", buildings like the "Town House" would probably have become redundant or under-used for long periods in the 16th

century. This may account for the fact that this example came to be part of the Kempston Charity Estate, and it may explain why few, if any, subsequent alterations can be dated before c1700.

CONCLUSIONS

Taken together, the archival evidence, the design of the original building, and its topographical relationship with the church all point towards gild origins for the "Town House". It acted as a boundary and entrance to the churchyard, and as a place of communal activity at the physical and spiritual heart of the late medieval parish. A construction date in the late 15th or early 16th centuries seems probable, followed by a period of disuse after 1538. It is a remarkable example of what may once have been a relatively common building type, its lucky survival brought about by reuse as a workhouse and cottages.

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A brief introduction to the archaeology of Wrest Park, Bedfordshire

MICHAEL DAWSON

SUMMARY

Restoration of the main water bodies, paths and rides in Wrest Park was assisted between 1988 and 1991 by archaeological excavations and geophysical survey. The work enabled much of the garden's underlying drainage to be mapped and confirmed the orientation and layout of several lost features. The present garden was also shown to result largely from 19th century landscaping which obscures the formality of the Great Garden created in the early 1700's with its regular subdivisions marked by yellow sand paths, wrought iron fencing and low brick walls.

INTRODUCTION

Archaeological techniques have been used to investigate gardens since the 1930s, but until the mid 1980s garden archaeology was largely restricted to ground and earthwork survey, supplemented by aerial photography and documentary research (Taylor 1991). However, in the middle of the 1980s a series of excavations at Audley End, 1985-7 (Cunningham 1988), Kirby Hall, 1987-91 (Dix 1991), and Castle Bromwich, 1989-90 (Currie, Locock 1991) established a role for excavation in the investigation of garden history. At the same time geophysical survey was added to the list of techniques applied to garden research. Despite these advances the expense of large scale archaeological investigation has limited the application of such techniques to gardens of historical significance and generally to those in the care of the state. Wrest Park was such a garden.

This report is intended as an introduction to the archaeological investigations carried out at Wrest Park between 1988 and 1991 by Bedfordshire County Archaeology Service (BCAS). The archaeology in this report is, of course, only one of many contributions to the garden's history, it has nevertheless contributed both to the management of the gardens (Land Use Consultants 1993) and in the preparation of a recent Wrest Park guidebook by Nicola Smith (1995).

A brief history of Wrest Park

Wrest Park probably originated with estates held by Heafriht in the late Saxon period (Fowler 1922). By

1658, when a formal garden at Wrest was described as 'new' (BLARS: 228/12), Wrest house had been in the ownership of the de Grey family since the 13th century.

The 'new' garden was constructed by Amabel the second wife of Henry Grey (d1651), her son Antony and his wife, Mary, daughter of Baron Lucas. Using money inherited on the death of Marys' father in 1671 and Amabel's personal wealth the garden was substantially expanded during the period from 1670-80. This episode of development, which lasted until 1702, is regarded as the 'Williamite landscape'. It was recorded by Kip in 1705 (Plate 1) and is generally referred to as the first of the major gardening campaigns (Godber 1963).

In the early 18th century works at Wrest included the construction of a banqueting house by Thomas Archer in 1705, and from 1710-1720 the gardens were extended and altered to designs by Thomas Ackres with influences evident from Hawksmoor, Gibbon and Kent (Plate 2). This period has been described as the first phase of the Great Garden (1702-20s).

In the 1730s a third campaign established the garden in a form which has largely endured to the present day. The designs were recorded by Rocque in two engravings of 1735 and 1737 and these gardens reflect the influence of Batty Langley as well as Thomas Wright the family tutor (Plate 3).

In the latter part of the 18th century the formality of the English garden was being swept away as the Romantic landscape dominated fashion. Lancelot Brown was involved in alterations to the grounds and made a series of visits in 1758-60 and 1778-9. However, Jemima, Marchioness de Grey, out of affection for the old garden limited his influence to alterations to the water bodies surrounding the gardens. By softening the lines of these water bodies and other works Lancelot Brown nevertheless continued the development of the Romantic Landscape which characterised the period from 1740-1797.

From the later 1770s until the end of the Napoleonic wars the garden at Wrest was maintained but not significantly altered. In 1834 Thomas, Earl de Grey, pulled down the old house (Collett-White 1991a & b) and built a new French style mansion house further to the North. Thomas

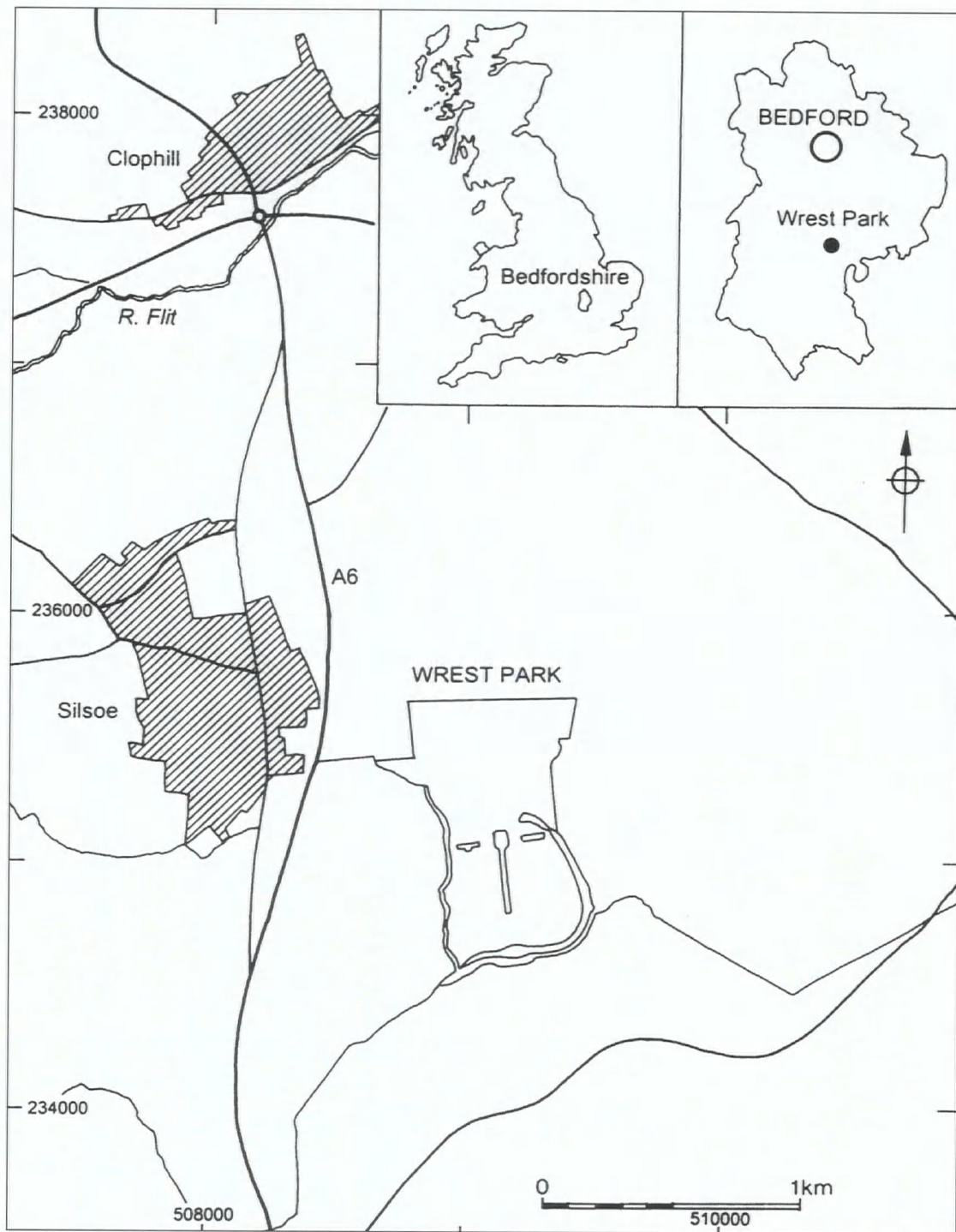


Figure 1 The location of Wrest Park, Bedfordshire

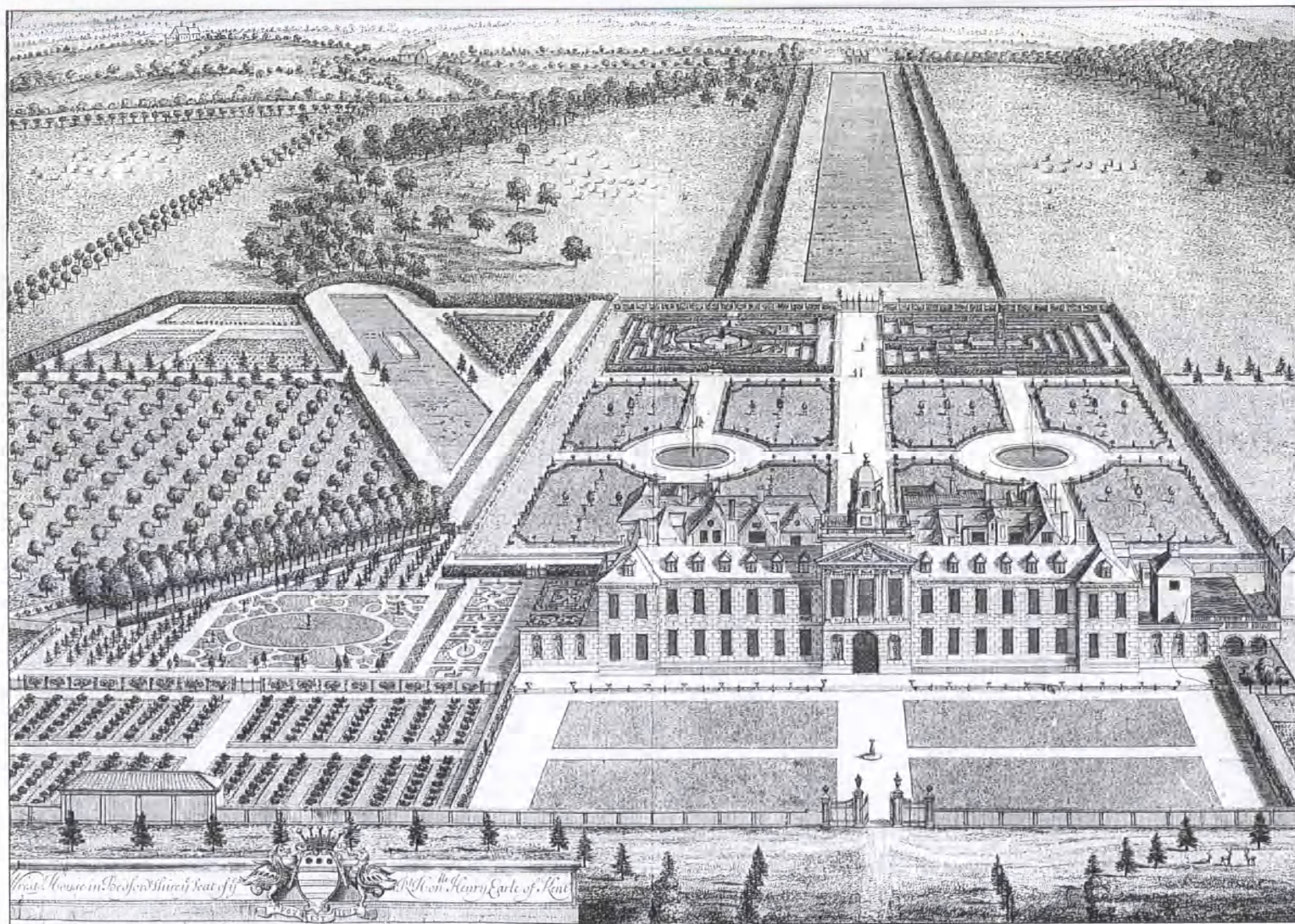


Plate 1 Kip 1705

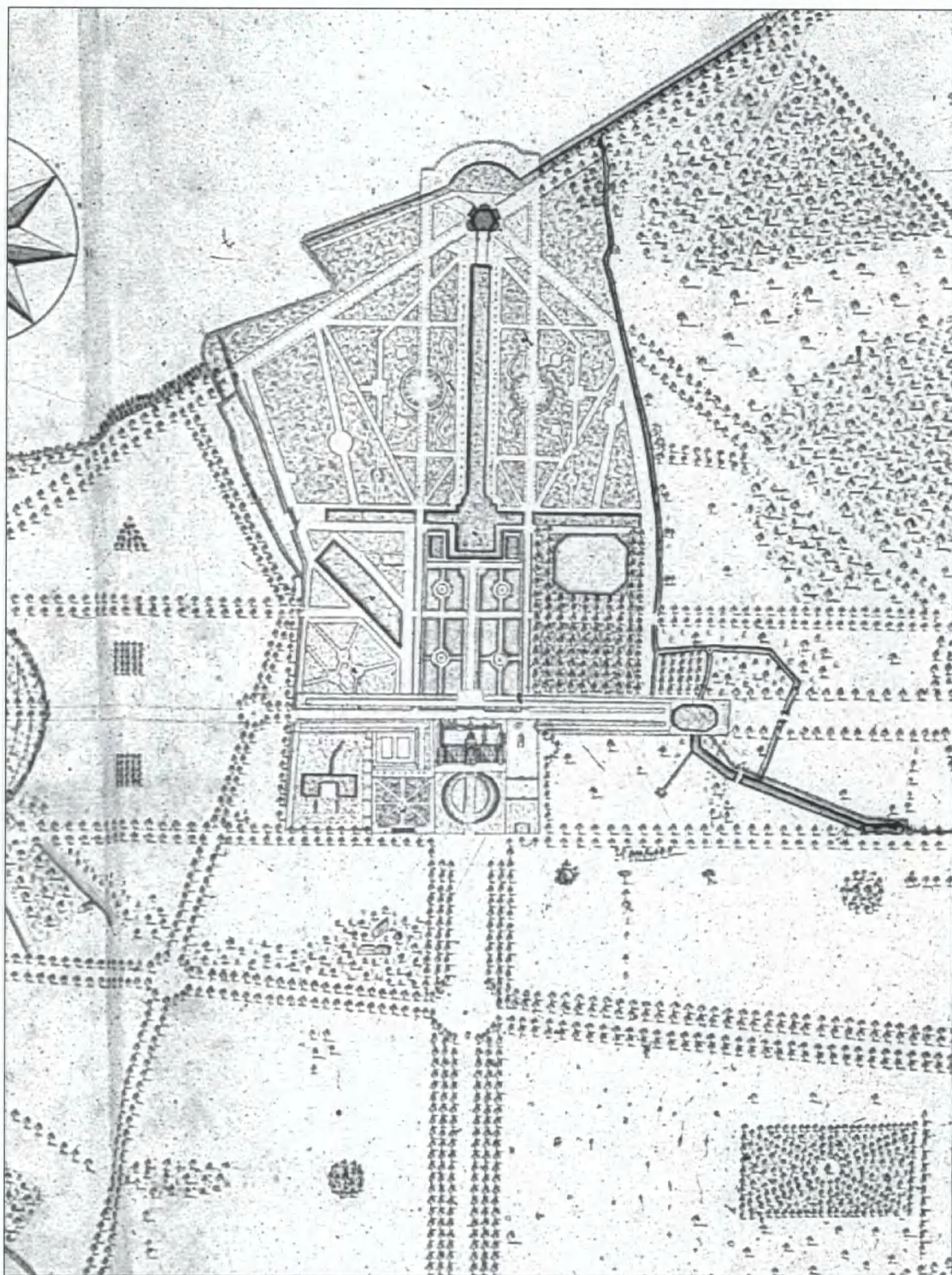


Plate 2 Laurence 1719

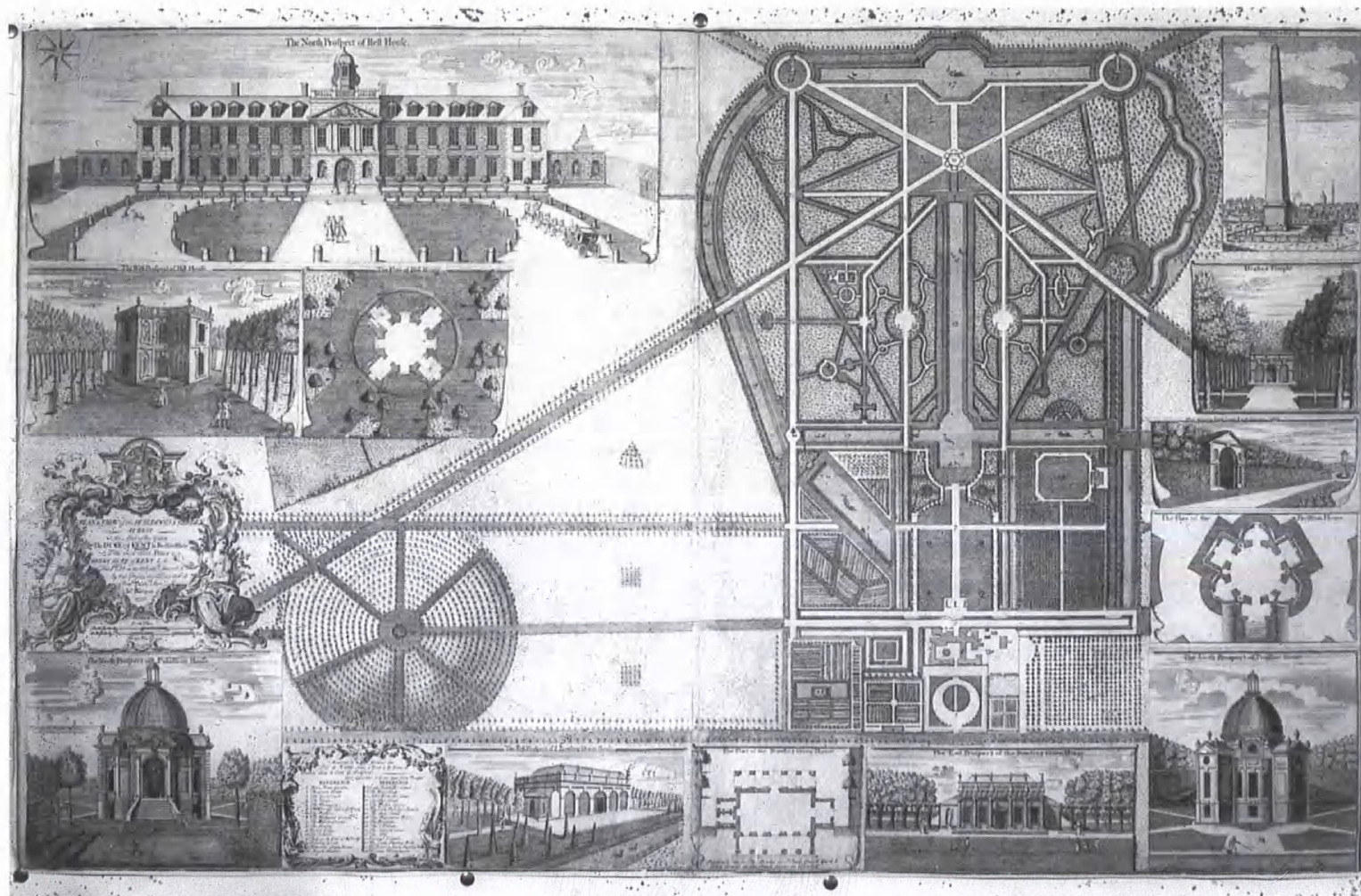


Plate 3 Rocque 1735

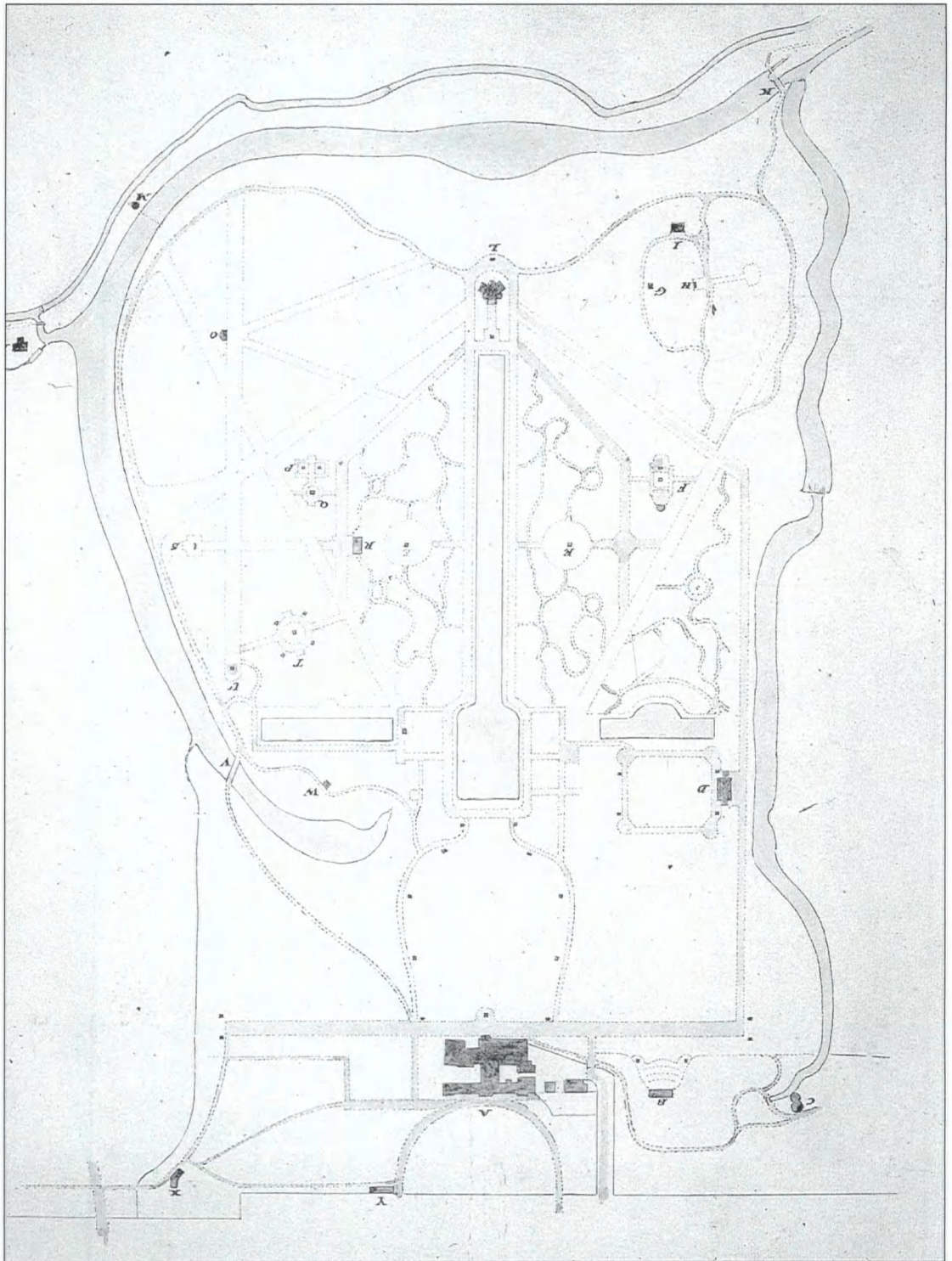


Plate 4 Earl de Grey 1834

kept extensive records of this period and the changing balance of the garden has been captured in a series of water colour sketches (Plate 4). Parterres were created around the new house and in 1835 an orangery was constructed in the development of the French landscape (1797-1839). The remainder of the 19th century was a period when minor changes and additions took place, and by the early 20th century the gardens were at their most magnificent. The 'Victorian garden' (1859-1916) was recorded in 1904 in a series of photographs by Country Life (9th and 16th July).

In 1916 Wrest Park became a military hospital and in 1917 was sold following the death of Lord Lucas in the Royal Flying Corps. Many of the trees were felled and sold. Statuary from the garden was subsequently disposed of in 1934 and the estate purchased by the Essex Timber Co. In 1946 the Ministry of Public Buildings and Works bought the Park but leased it to the National Institute of Agricultural Engineering in 1947. At this time the gardens were neglected and in poor condition. Most of the lakes were silted up and the grand paths overgrown with grass. In 1947, "the Bath House spa was dry the lakes were overgrown with reeds"

From 1947 a series of restorations and ad hoc improvements took place until, in 1983, the Department for Ancient Monuments and Historic Buildings commissioned an historical survey of Wrest and began to develop a management strategy for the continuing restoration of the gardens (LUC 1983, 1993, 57). The management plan identified the periodisation quoted above and the following has provided the framework for the gardens' restoration throughout the 1990s.

- Williamite Landscape 1671 - 1702
- Great Garden First Phase 1702 - 1720
- Great Garden Second Phase 1720 - 1730
- Great Garden Third Phase 1730 - 1740
- The Romantic Landscape 1740 - 1800
- Earl de Grey, The French Landscape 1797 - c.1859
- Victorian Landscape 1859 - 1916

ARCHAEOLOGICAL BACKGROUND

In 1983 Land Use Consultants' report provided a detailed survey of the gardens and recommendations for the management and, where appropriate, restoration of Wrest Park. A reference framework was established in which a numerical sequence identified tree panels and other areas as the basis for planning and management. Following the completion of the

survey a programme of improvement works was initiated. By 1988 restoration of several tree panels had taken place, including replanting, drainage works and re-seeding of rides based on maps and evidence on the ground. This approach reflected the prevailing attitude to garden restoration in the 1980s. However Dominic Cole of LUC had been involved in excavations at Audley End and it was his initiative which led to the inclusion of archaeological techniques in the restoration of Wrest Park.

GEOLOGY AND TOPOGRAPHY

Wrest Park is located on the southern margins of the greensand ridge on a gentle south facing slope. The soil is a calcareous gley type of the Wicken association over gault clay. In most parts of the garden the soil is shallow with tree roots forming extensive, shallow networks. However in the area between tree panels 13 and 14 silt up to 4ft deep, cleared from the lakes in 1948, has made a considerable impact by raising the level of the ride.

ARCHAEOLOGY AT WREST PARK

Archaeological techniques of investigation were introduced to Wrest Park in 1988 after the programme of restoration works had been determined. The archaeological investigations, therefore, had to be integrated with current works: this obviously limited the scope of the archaeology so that the principal objectives became the investigation of features such as path forms, drainage patterns and erosion in the water bodies rather than broader historical issues.

In the 1988 season the restoration included the main water bodies. In this first archaeological season the pattern of drainage and features relating to the 'Williamite' (1705) garden (Plate 1) as well as the amphitheatre on the south bank of the Leg O'Mutton lake (Fig 2, Plates 3 and 4) were investigated (BCAS 1988). In the late summer of the same year the lack of rain resulted in the appearance of parch marks on the parterre south of the fountain, M2, and on the lawns south of the Archer pavilion; this provided an opportunity to map the foundations of the old house and some of the gardens' drainage (Fig 2).

In 1989-90 (BCAS 1990) restoration continued in tree panels 4, 6, and 10, around the Atlas Pond and in the Long Canal (BCAS 1989). In 1990-91 (BCAS 1991) paths in tree panels 6, 11, and 12, and the site of a new woodshed were investigated using a combination of trial trenching and geophysical survey (Fig 2). In both seasons drainage patterns were

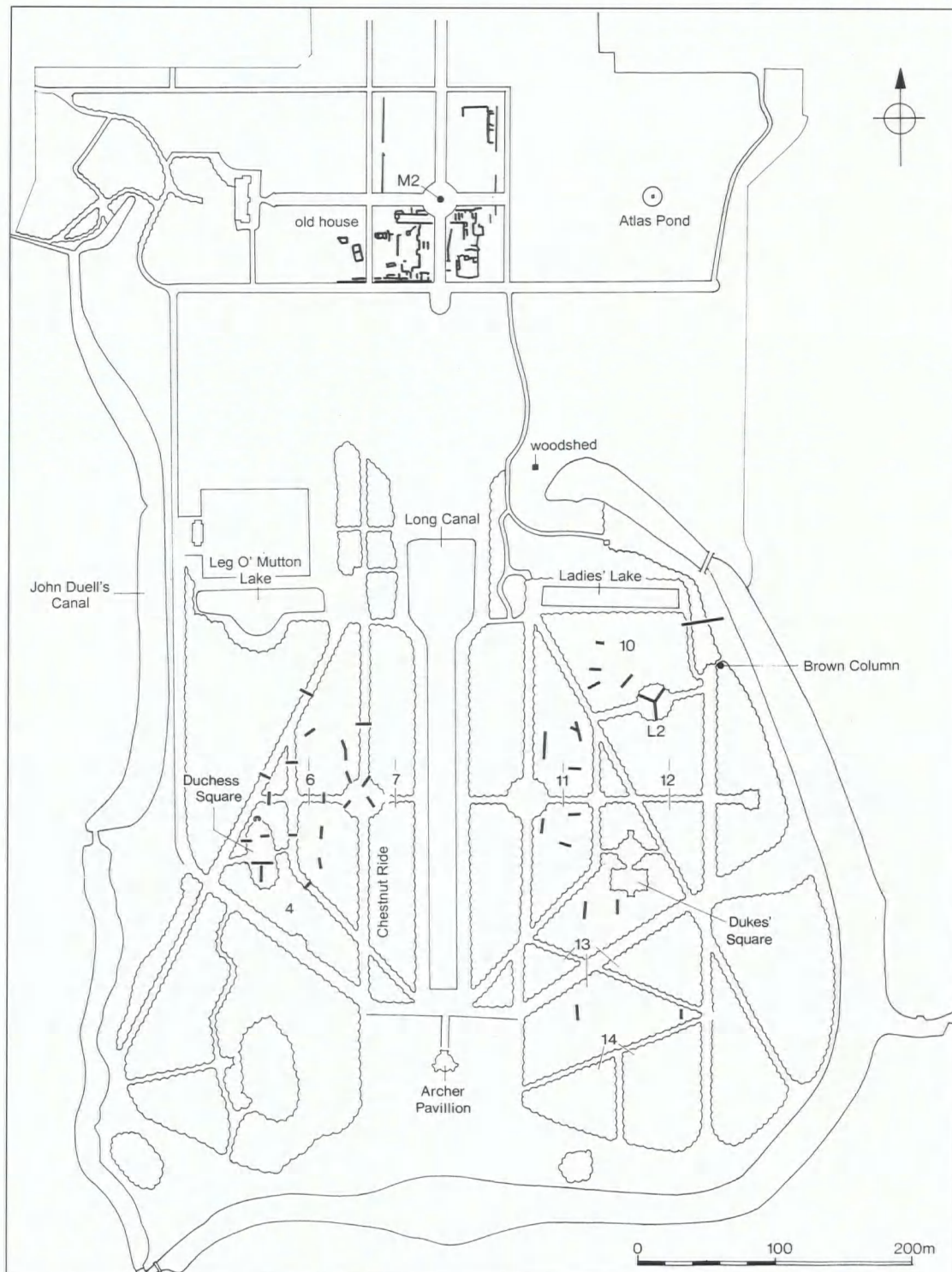


Figure 2 Wrest Park showing areas referred to in the text

recorded as new ditches were dug and during the desilting of the central waterbodies. In the four seasons from 1988 to 1991 39 trenches were excavated and 11,400m² of geophysical survey undertaken (GSOB 1991).

TREE PANELS, PATHS AND RIDES

The overgrown tree panels and paths at Wrest Park provided particular problems for the restoration of paths and rides. Many of the paths were clearly identifiable on the early plans by Rocque and until 1990 their restoration had taken place in three panels on the west and one on the east side of the garden based on the evidence of these maps. The restored rides and pathways had been established with grassed surfaces. However, drainage works which cut through several lateral rides exposed hoggin surfacing which suggested their historical character had not been retained by the restoration.

To investigate the extent of such surfacing a series of shallow hand dug archaeological sections were excavated across the line of paths, rides and walks in the Great Garden. The sections were first targeted on paths still in use in tree panels 4 and 6 but soon included panel 10, where no paths currently exist. The trenches in panels 4 and 6 quickly established that the major rides of the first phase of the Great Garden had been surfaced with sand. The material was a local orange mix with a little sandstone that derived from quarries on the Greensand Ridge less than a mile to the north. The sections in panel 10 were more experimental insofar as they were intended to examine whether paths, shown by Laurence in 1719 and Rocque in 1735 and 1737, had ever been constructed. Geophysical survey was unable to identify any surfaces but trenches across the line of paths suggested that they had been grassed and were flanked by shallow drainage gullies. The gullies had soon silted and gone out of use, although not before some had accumulated small fragments of bricks and tiles. In contrast, however, the round shown by Rocque (Fig 2, L2) on the southern edge of this panel was found to have been covered by sand. Further trenching established that sand had been used to surface paths in panels 11 (Fig 3), but in panels 13 and 14, like panel 10, the paths were predominantly grass.

In addition to the early 18th century original sand surfacing the archaeological sections showed that in panel 6 some path surfaces had been renewed using a finer sand, with no sandstone.

In 1770 a column had been erected on the west side of the garden to commemorate Lancelot

Brown's work in the gardens. This had been later moved to the eastern side of the garden. Today, north of the Brown column, at the east end of the My Lady Duchesses Walk, there is a pinch point at the east end of My Ladies' lake. It was here that the second type of surfacing, a yellow hoggin, was exposed. It was over 300mm thick and attested the presence of several paths which had been here from 1706 onwards. The hoggin, made up of yellow sand and flint gravel, probably derived from river valley quarries, possibly the nearby Flit.

Such surfaces clearly provide a striking contrast with the predominantly green Great Garden of today. Furthermore, investigation of a section through the central path between the old house and the top of the Long Canal, illustrated by Kip in 1705, showed the surface to have been laid with sandstone pavements. Aerial photographs taken in 1990 indicate the continued survival of brick drains that had once flanked this path despite its replacement in 1735. Any more surviving paving beneath the later gardens, however, was probably destroyed when the lawns were ploughed during and after the Second World War.

ROUNDS AND SQUARES

Four rounds or squares were also examined during the course of the recent restoration. Two squares which had been 'recreated' within enclosing beech hedges in the late 1950s, in panels 4 and 13, were subject to geophysical survey and archaeological section (Fig 2). Of particular interest was the Duchess' Square. It no longer reflected the early angular design illustrated by Rocque and had evolved into an eccentric oval shape. In addition the West Half House at the head of this 'square' had suffered from subsidence, whilst a large chestnut tree, that had dominated the southern part of the oval in the early 20th century, now remained as a ground down trunk of approximately 1m across just below the grass surface. Geophysical survey, restricted by the current planting, only hinted at the below ground survival of the earlier plan whilst trenching at least demonstrated the presence of a sand surface. Further migration of garden features in this area was evident from sections across the western chestnut ride. First established by 1710 the rides were still in place in the mid 18th century but no longer existed in 1834 on the Earl de Grey map. These rides had been restored in 1967 but the archaeological sections located the earliest surface and showed the restored ride surface to be half a metre east of the original. Further sections across the round in the centre of this path showed that this too had been dis-

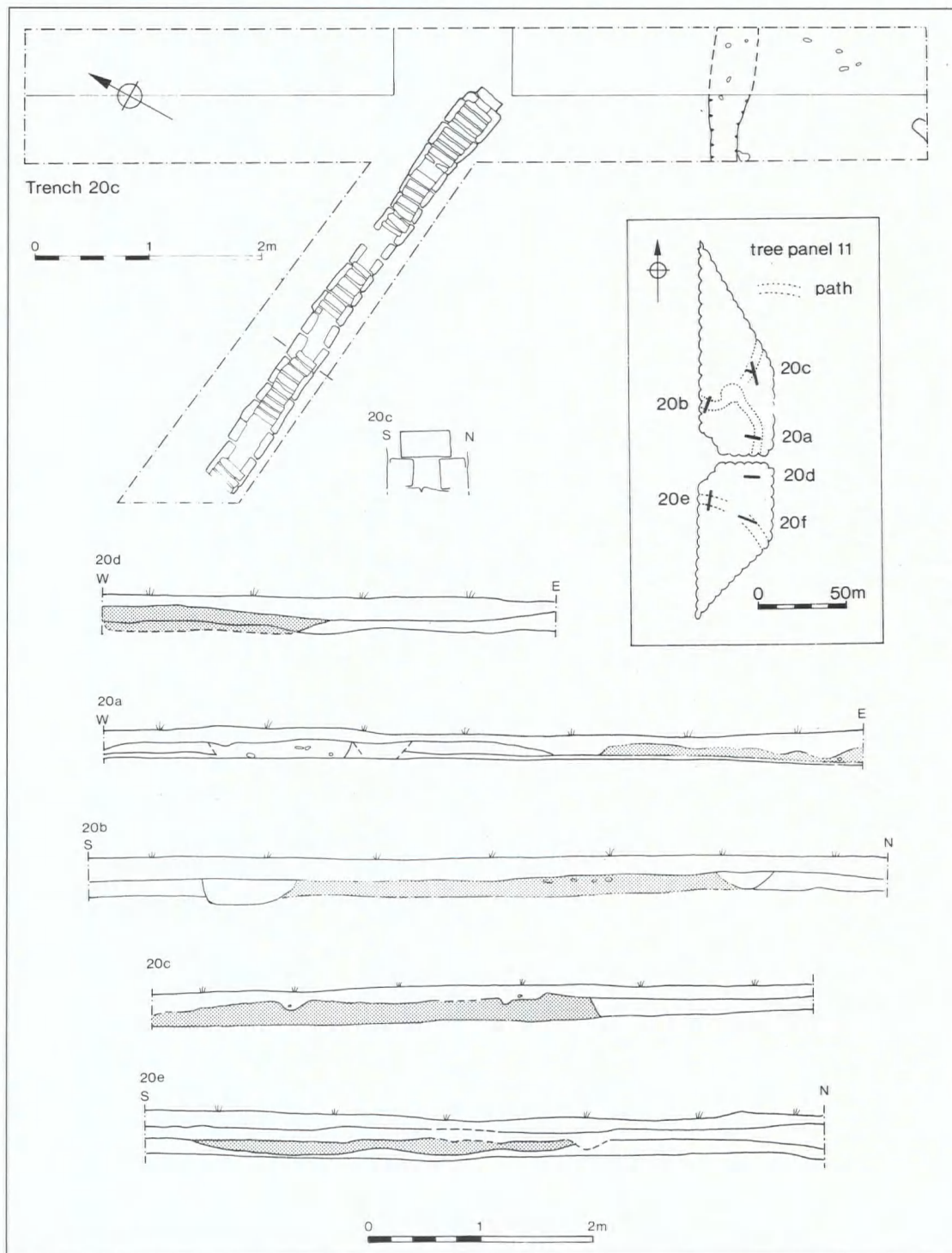


Figure 3 Representative sections through paths in tree panel 11, showing the evidence of sand surfacing (sections 20a-e), and a brick drain where the path crossed a drainage run (20c).

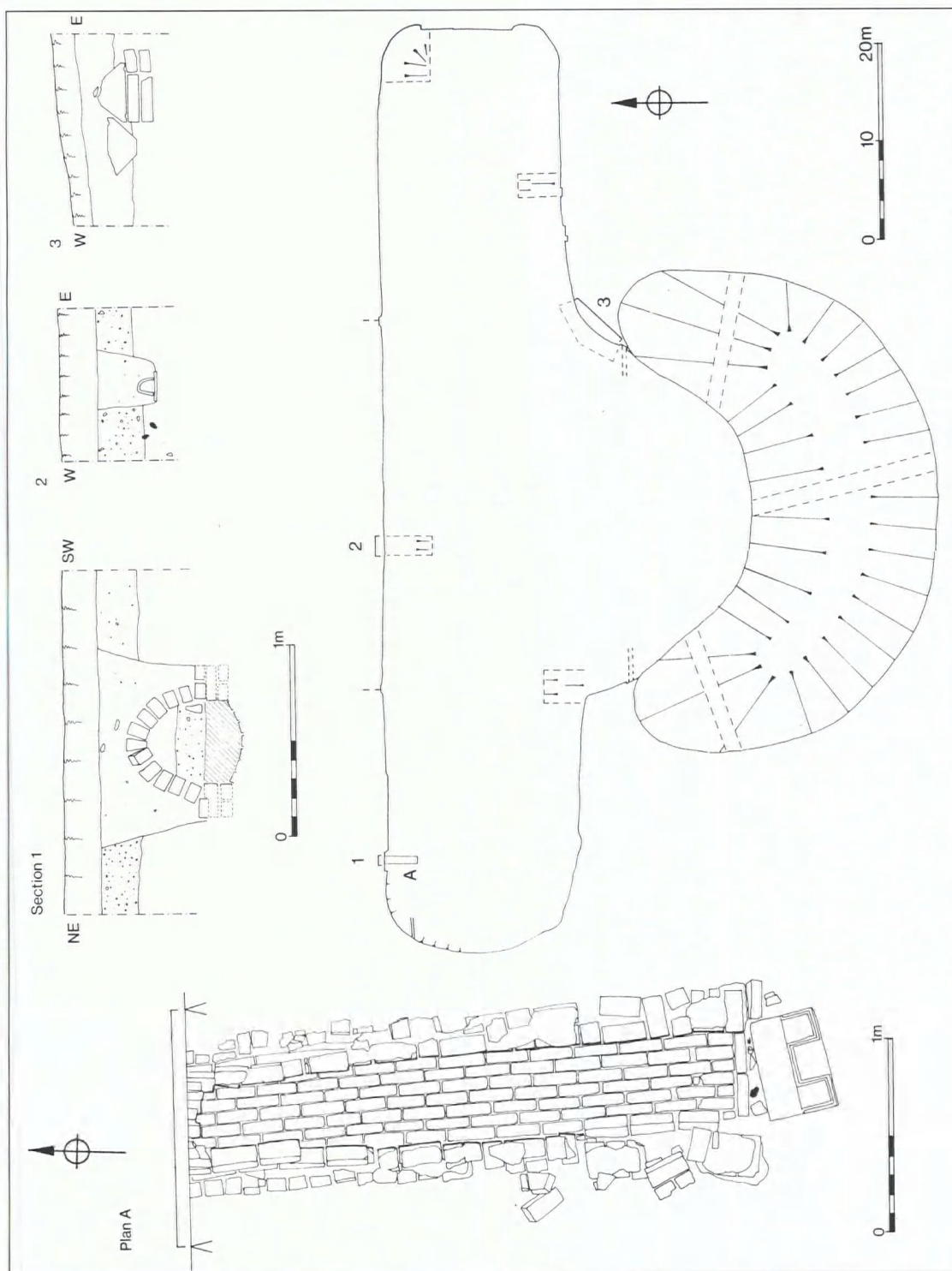


Figure 4 Drainage pattern around the Leg O' Mutton Lake

placed towards the East as well as once having been covered in sand.

Opposite, on the eastern side of the garden, the Dukes' Square seemed to have been less affected by recent restoration although it too had been enclosed by a beech hedge, probably in the 1950s. Here geophysical survey confirmed that not only had it been originally sand covered but was in the same position as today.

WATERBODIES

It was the investigation of the waterbodies that had initiated the archaeological investigations at Wrest Park. By late 1987 the Leg O'Mutton lake had largely silted up and in 1988 a large oak had blown down across the western end. Desilting and tree clearance therefore provided the opportunity not only to investigate further the hydrology of the garden, but also the construction of the amphitheatre and D-shaped extension to the Leg O'Mutton itself.

At the start of the restoration campaign in 1988, it was clear that the lake had also been severely eroded, and was no longer a well-defined rectangle. A section along the banks exposed the variety of drains that flowed into the lake from beneath the bowling green, demonstrating that, locally, the land drainage pattern was predominantly from north to south. Further archaeological sections revealed the extent of drainage (Fig 4). Perhaps the most surprising discovery was a large brick built culvert draining from the north west which may have been used to take rainwater off the Bowling Green House (BLARS: L31/289) in 1705.

Significant damage, however, was revealed when checking the profile of the lake. Erosion had been caused by the through flow of water from west to east, from a slightly offset pipe originating in John Duells' canal. This had created a sinuous erosion pattern directed towards the south, which had also undercut the south bank. Stones, initially thought to have been refuse dumped conveniently in north corner of the D shaped extension of the lake, were now recognised as an attempt to counter this erosion.

On the south side of the Leg O'Mutton three sections were excavated through the amphitheatre using a JCB. Intended to investigate the structure of the bank, the sections showed only that the north face, on which Rocque in 1735 had shown shrub lined terraces, had probably never been completed to this design. Instead it seems Rocques' 1737 form had been preferred. Further probing and limited sections revealed the remains of a low brick wall capped by limestone coping and surmounted by iron

railings. This was one of the few instances in which archaeology had been able to characterise minor features shown by Rocque in 1735 and 1737 for which there is otherwise no key. In this case the lines which separated the Leg O'Mutton from the amphitheatre behind, if fully implemented with low walls and iron railings, may have partially enclosed both the Leg O'Mutton and Ladies Lakes.

Investigation of the Long Canal (Fig 5) confirmed the flow of water from west to east provided the source of water for both the Long Canal and Ladies Lake. The earliest water pipes had been constructed from a combination of terracotta pipes and planked channels. This type of pipe was referred to as early as 1703 (BLARS: L31/289) although the lateral canals were not constructed until 1706. In the centre of the broad end of the Long Canal was a rectangular brick plinth, surviving only as a single course of brickwork. This was subsequently identified with a pedestal for Neptune referred to in 1716 (BLARS: L30/33/22) and seemed to confirm that his statue had once stood at the north end of the canal. Lastly, on the western side of the canal four brick built land drains flowed into it: further confirmation of the west to east drainage pattern.

The final water body to be investigated was the Atlas Pond (Fig 6). Constructed in an area once occupied by Mr Ackres Canal, though this was filled in 1716, it had never been clear how the Atlas Pond had been supplied. Investigation revealed the pond had once been flanked by a sand path but yielded no details of a spring or water pipe, as only stone lined field drains emptied into it from all sides.

THE 'OLD' HOUSE

In the hot dry summer of 1988 parch marks began to appear on one of the parterres. These are often the result of shallow soil drying out above levelled foundations to leave a brown area of dry grass. The parch marks at Wrest were soon recognised as those of the earlier house for which only the general location had been known. It was an opportunity to map the foundations of the 17th century structure and to locate the structure accurately within the garden (Fig 7). A combination of geophysical survey and parch marks revealed details of the north front, including rainwater conduits, as well as plans for the rear of the structure. The collective evidence suggests the remains of the house were not extensively removed below ground level and that survival can be expected to be good. Furthermore the survey hinted at differences between the original foundations and the reconstructions of Collett-White (1991a & b).

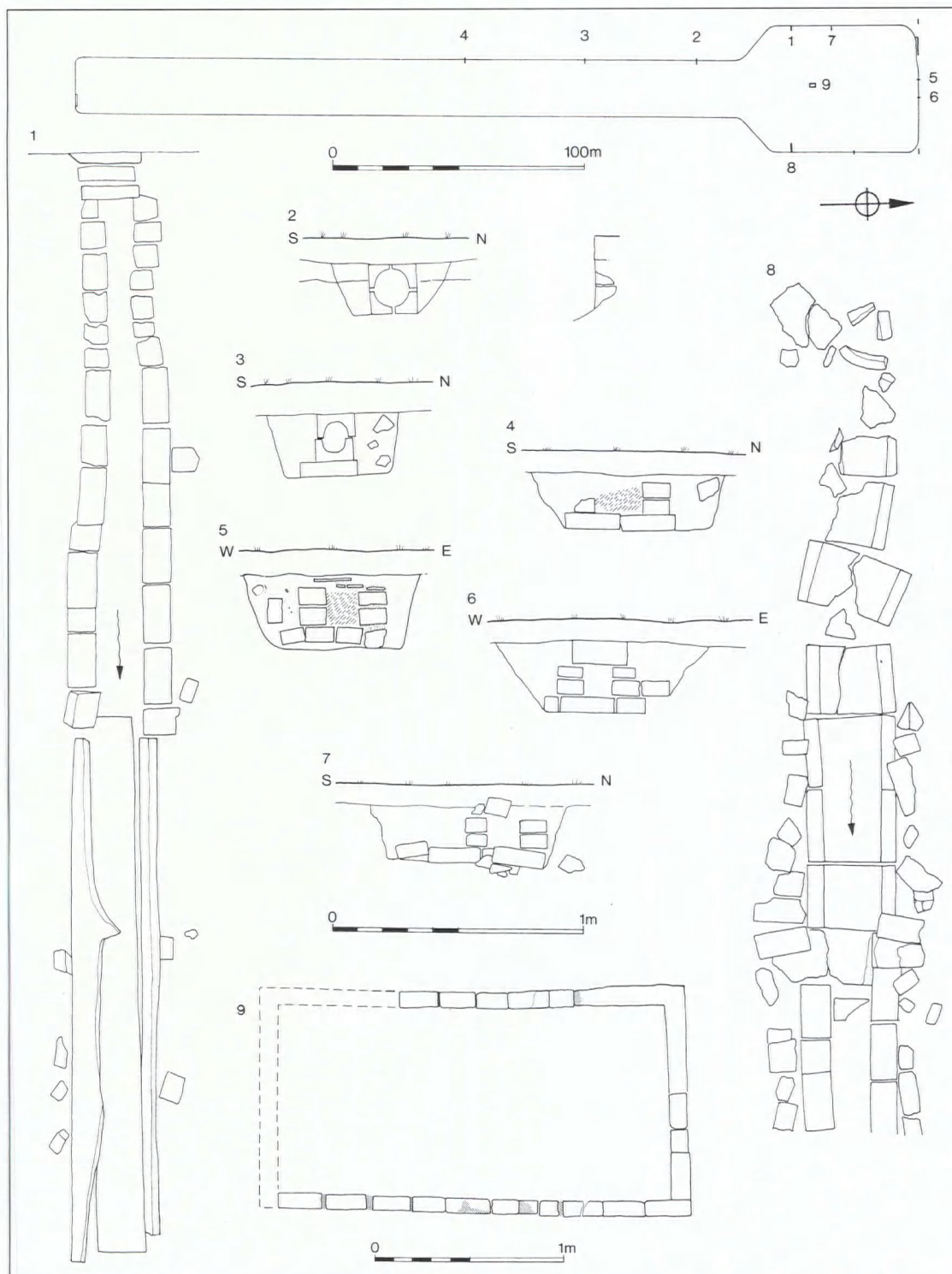


Figure 5 Drainage pattern and the Neptune Plinth in the Long Canal.

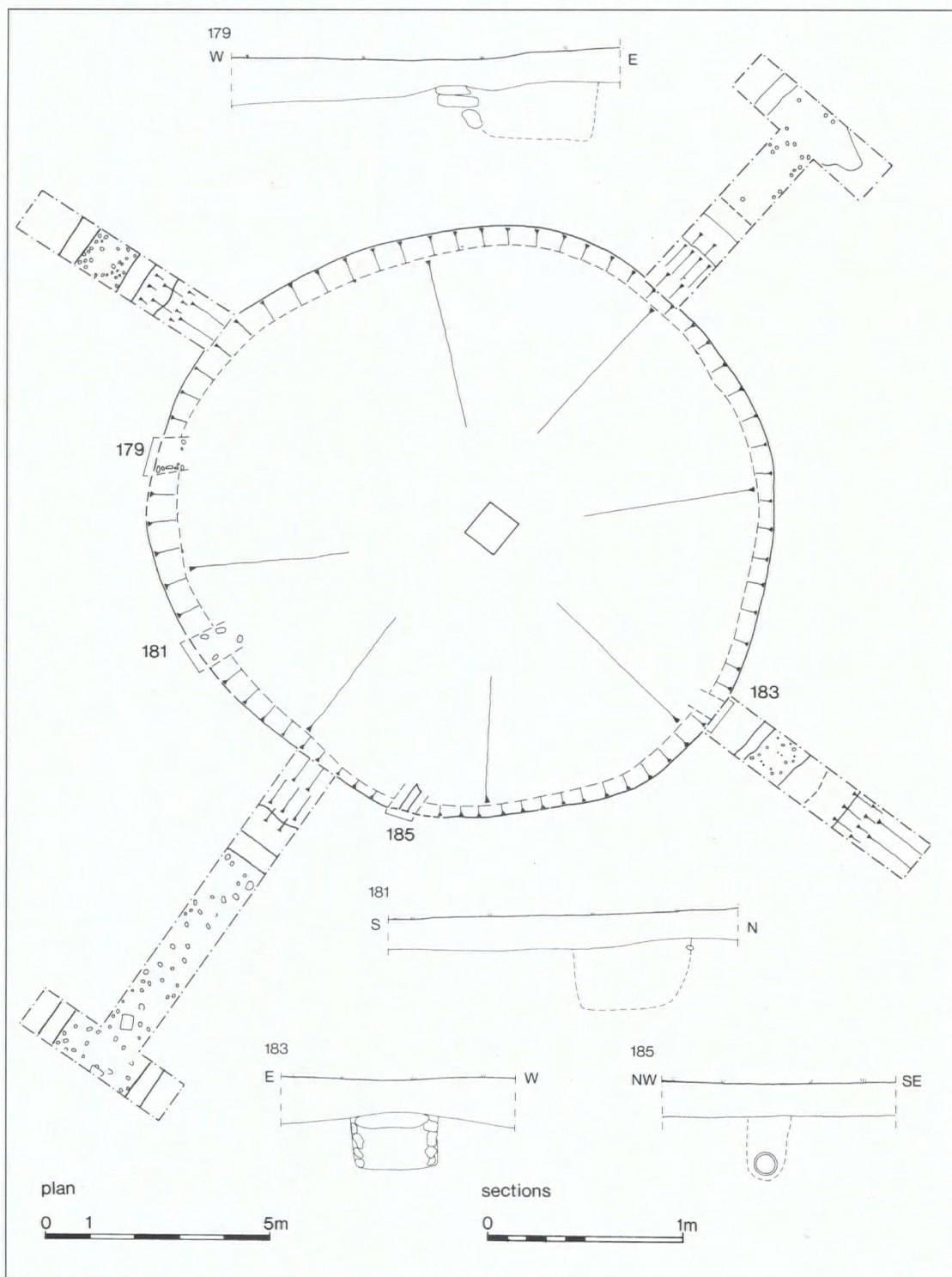


Figure 6 The Atlas Pond and drains



Figure 7 Comparative plans of the old house at Wrest Park, based on geophysical survey, parch marks and the reconstruction of Collett-White (1991a & b).

CONCLUSIONS

The contribution of archaeology to the restoration of the gardens at Wrest Park was of significance in three areas. The first was in gaining a deeper insight into the visual impact of the early garden. The restoration programme had acknowledged the historical development of the garden and LUC had firmly established that, although the present garden at Wrest retained the form of the Great Garden originating in the early 1700's in its planting and visual impact, what survived was a garden of the 19th century. The underlying principle of restoration, therefore, was not to attempt to restore to a particular period but to enhance and retain the historic character of the existing garden. The result of this approach is that many visitors leave with an impression of a magnificent but predominantly green garden. This image is clearly at odds with what is now known as the early garden, and the three phases of the Great Garden. The archaeological investigation has served to record how the formality of the earlier gardens had been expressed through colour and the sub-division of garden elements. The impact of yellow sand paths, wrought iron fencing and low brick walls, together with some areas of sandstone paved surfaces, must have been tremendous in the first quarter of the 18th century. Details like these are often absent from the birds eye views of Kip (Jaques and van der Horst 1988) and of the later Rocque plans.

A second area of concern for the investigations had been the practical detail underlying the garden fabric. To this end the extensive drainage runs, flowing west to east, confirmed the importance to the garden of field drains. Furthermore the use of covered field drains, indicates a remedy that avoided the problems of erosion and leaf fall faced by more recent open drains in extensively planted areas. Similarly, although primarily visual in impact, the metalling of paths with sand or pavements must have made a significant contribution to improved drainage leaving the garden more or less accessible throughout the year.

The final contribution of archaeological investigation was not only to confirm the orientation and layout of several lost features, such as rounds and paths, but to establish more precisely the orientation of several rides. By locating the position of the old house, archaeology provided the basis for re-assessing in detail the balance of the early garden before the 1830s, helping to re-create not only the geometric plan underlying the garden but also to further clarify the visual impact of sight lines for those who visited and enjoyed the garden (Hunter 1997).

ACKNOWLEDGEMENTS

Bedfordshire County Archaeology Service would like to thank the Bedfordshire and Luton Archives and Records Service for permission to reproduce Plates 1-4.

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Notes from Luton Archaeological Group

REN HUDSPITH

LUTON ALLOTMENT SURVEY

During February 1998, the writer (with the permission of Mr B Clarke, Parks Manager) carried out a sample surface survey of most of the available Council owned allotment land in Luton (c.20 hectares in area).

Several small scatters of Neolithic-Bronze Age flints were identified: at Wigmore Lane (TL 126223), Stockwood Park (TL 089201) and Lewsey Farm (TL 052249). Only a few worked flints were found on allotments at Toddington Road (TL 052249), Limbury (TL 067243, TL 078242, TL 078241), Round Green (TL 095228), Wigmore Valley Park (TL 112232) and New Bedford Road (TL 087234). At Stockwood Park allotments scatters of fire fractured flints were observed.

A small scatter of late Iron Age/Early Romano-British sherds was found near the River Lea behind Willow Way (TL 064245) and to the north of the 14th Century Moat House at Limbury: a scatter of medieval sherds and pegtile fragments may indicate the site of further medieval buildings.

ROMANO-BRITISH FINDS FROM PARK STREET

In March 1999, native Belgic and Romano-British sherds of probable first century date were noted on a spoil heap from a soakaway drain dug in the garden of a property on the corner of Park Street and Seymour Road, Luton (TL 098205). Further evaluation of the site, with the permission of the owner, showed that the one metre deep soakaway had cut through the edge of an archaeological feature, possi-

bly a Romano-British rubbish pit or shallow ditch, at 0.7m deep below the surface. It contained potsherds, pot boiler stones, charcoal and dark organic material. Other material from the site included fragments of tiles, imbrex and flue tile, iron nails and a possible corroded barrel lock as well as animal bone fragments.

About 100 sherds were recovered, mainly from the spoil heap, with 12 sherds found in context, including several conjoining fragments of 2 cordoned jars. The sherds represent 17 different vessels including fragments of a thin walled decorated beaker (possibly imported) and Samian ware from Gaul. The assemblage may represent domestic material discarded in a pit or ditch over time or a mixture of material from the late pre-Roman Iron Age and Roman periods deposited following site clearance. The style of the pottery may suggest evidence for the continuation of native pottery of Belgic type well into the Roman period.

The finds suggest material from a Romano-British domestic occupation site close by, with the possibility of a reasonably substantial building including a tiled roof somewhere in the Park Street area in the Roman period.

Roman pottery was found at Brache Farm in 1858; the site of the Brache farmhouse was close to the current findspot (Simco 1984).

BIBLIOGRAPHY

Simco, A. 1984, Survey of Bedfordshire: The Roman Period, 111.

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Contents

An Iron Age and Romano-British farmstead at Norse Road, Bedford By Matt Edgeworth	1
Harlington Roman cemetery By Michael Dawson	20
Bedford - an Alfredian burh? By Alan Crawley and Ian Freeman	40
Archaeological investigations at Church End Lower School, Marston Moretaine By Gary Edmondson and Sean Steadman	47
The development of the medieval buildings adjoining the Abbey at Elstow By John Bailey	57
The late medieval origins of the "Town House" at Kempston Church End By Jonathan Edis	76
A brief introduction to the archaeology of Wrest Park, Bedfordshire By Michael Dawson	81
Notes from Luton Archaeological Group By Ren Hudspith	97

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