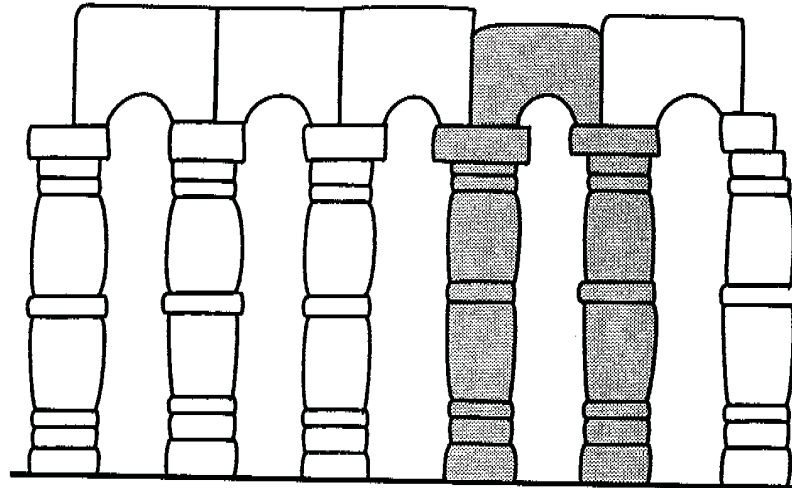


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NORTHAMPTONSHIRE ARCHAEOLOGY

**EXCAVATION OF A MEDIEVAL MOATED ENCLOSURE
IN TEMPSFORD PARK, TEMPSFORD,
BEDFORDSHIRE**

1999

**ASSESSMENT REPORT AND
UPDATED RESEARCH DESIGN**

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ABSTRACT

A total area of 0.9ha, taking in approximately half of a medieval moated enclosure and adjacent land to the north and south was excavated in advance of a new highway. Evidence of prehistoric, Roman and early/middle Saxon activity was also recovered. Neolithic and Bronze Age activity is represented by a flint scatter and a single sherd of Neolithic pottery. Roman and early to middle Saxon occupation is denoted by shallow, linear and curvilinear ditch systems and associated finds, but in each instance the main focus of occupation appears to lie beyond the excavated area. In the late Saxon period a series of linear ditches, running either N-S or E-W and frequently recut, define a system of rectangular plots, but any associated buildings must lie beyond the present excavation.

In the 13th century a large moated enclosure was imposed onto the existing plot system. The remains of a major timber-framed manor house lay within the north-western corner of the enclosure and was fully excavated. It comprised a central hall flanked to the north by a parlour and to the south by service rooms. Metalled paths approached it from both the west and the east, and an open gravel yard lay to the east. The associated finds, which include a bone chess piece, are appropriate to the status of the building. It may well be the documented Manor of Brayes.

The manor house and the moated enclosure were in use through the 14th century. There may have been a decline or short-term abandonment in the later 14th century, but the final refurbishment of the building occurred in the 15th century shortly before the final desertion of the moated enclosure. However, there was evidence for later scouring of the moat ditches, and a partial deliberate filling with brushwood and domestic debris occurred in the late 19th century.

The excavations have produced a wide range of evidence for previous activity and occupation in this area. Of particular significance is the recovery of a sequence of middle Saxon, late Saxon and medieval occupation, which may perhaps indicate continuity of settlement. However, the linear ditch systems of late Saxon origin, also indicate that there was a major episode of settlement reorganisation in the 11th century or earlier. The location of a substantial timber hall within the medieval moated enclosure, and the associated finds and animal bone assemblage, have shown that this was certainly a manorial site, and most probably it was the Brayes Manor known from surviving documentary evidence. The analysis and publication of the results of this work will therefore make a significant contribution to the study of medieval rural settlement in general and to our understanding of manorial sites and moated enclosures in particular.

1. INTRODUCTION

1.1 Background

Tempsford is situated on the A1 road in north-east Bedfordshire, between the towns of Sandy and St. Neots, Cambridgeshire. Tempsford Park lies at the junction of the A1 and Station Road, Langford End. Sir Gillies Payne established Tempsford Hall and grounds in the late 18th century; they are now the corporate headquarters of the Kier Group Ltd. The medieval moated enclosure is located within the north-west corner of the park (Fig 1: NGR: TL 1630 2537). It was identified as of archaeological interest following evaluation within the footprint of a proposed road scheme (Bedfordshire County Council Archaeology Service (BCCAS) 1993).

The A1 Trunk Road Tempsford Junction Improvement Scheme was designed to allow for the closure of a number of gaps on the A1 by providing for a system of link roads and an overbridge for local traffic. Following a Public Inquiry in 1989 the route between Station Road and Everton Road was re-sited along the western margins of Tempsford Park. The revised route would seriously affect an archaeological site that survived as an earthwork in the north-western corner of Tempsford Park (HER 9726). Accordingly an archaeological evaluation was undertaken in 1993 (BCCAS 1993); the work was commissioned by the Department of Transport, and was required for inclusion in its Environmental Impact Statement.

The 1993 evaluation, which included earthwork survey, geophysical survey, trial excavation and historical research, established that the earthworks represented a medieval moated enclosure containing one or more buildings. It also located a pre-moat phase of occupation that extended well beyond the confines of the moated area to the north and south. The evaluation recognised the site to be of national importance, and provision was made to protect its archaeology. The preferred option was full archaeological investigation of the road footprint and associated works, and the preservation of the remainder to the east of the proposed road.

In March 1994, the overbridge scheme was withdrawn following a review of the national roads programme. In 1998 the road scheme was re-initiated by the Secretary of State for the Environment, Transport and the Regions, and tenders were sought for the archaeological investigation and recording of the moated site and associated areas for the summer and autumn of 1999. Northamptonshire Archaeology was commissioned by the Highways Agency to carry out the excavation. The work commenced in July 1999, and was completed by mid December 1999.

1.2 Location, topography and geology

Tempsford lies within the valley of the River Great Ouse, which runs approximately 200m to the west of the site, close to its confluence with the River Ivel. It is situated towards the northern end of a low north-south aligned ridge formed from a localised deposit of Boulder Clay. The immediate ground surface slopes gently from east to west, and towards the River Ivel, at between 19.2m aOD in the south to 17.4m aOD in the north. The underlying geology is glacial drift and river valley deposits (British Geological Survey 1949).

The park is largely under grass, presently used for sheep pasture, although the western arm of the moat lies within the tree belt alongside the A1. A small tree-lined pond, recorded as a "Stew Pond" (HER 9726), has been formed from part of the southern moat.

1.3 Original objectives

The broadly stated objective of the excavation, as defined in the brief, was to investigate the nature of the pre-moat settlement and to determine the character of the moated enclosure through to its abandonment.

The research themes included: the study of the impact of the construction of the moat on existing settlement; confirmation of the possible manorial status of the site; the nature of the moat occupation, including its internal organisation and function; and the settlement and landscape context of the moat. Other themes included building construction techniques; the abandonment of the moat; subsequent landscape development; and environmental studies, and regional artefactual and settlement studies.

These themes were to be explored within a framework of open area excavation and selective sampling of features as defined in the brief and further specified within the Project Proposal prepared by Northamptonshire Archaeology (1999).

1.4 Methodology

1.4.1 Site grid and survey

A site grid and temporary benchmarks related to Ordnance Datum were established at the commencement of work. The location of the grid was determined to both the local topography and with respect to the Ordnance Survey national grid.

1.4.2 Topsoil stripping

A 360° excavator fitted with a toothless ditching bucket was used for all topsoil and subsoil stripping. Stripping commenced at the beginning of July 1999 and continued for three weeks. It proceeded from north to south, apart from the extreme northern end as this area was initially used as the site compound and was only excavated in November 1999. On the northern and southern areas both topsoil and subsoil were removed to expose significant archaeological deposits, while in the central area only the topsoil was removed, as this directly overlay the demolition deposits of the manor house. The upper fills of the moat were also excavated by machine at the same time.

The spoil was removed by dumper truck to temporary topsoil and subsoil spoil heaps to the south of the excavated area. Tracking of plant across the sensitive area of to the immediate east of the excavations was kept to a minimum to safeguard the upstanding earthworks. However, due to the soft ground conditions, the temporary infilling of some earthwork features was undertaken. These were later reinstated.

1.4.3 Excavation strategy

The overall aim was to achieve a consistent level of feature sampling across the site. This included the investigation and recording of relationships between all features and deposits. All discrete features were sectioned, and those forming parts of recognisable structures or containing significant artefactual or environmental assemblages were fully excavated.

The strategy was based on a 5% sample, excluding intersections, of linear features interpreted as boundaries or drainage ditches to retrieve uncontaminated artefactual assemblages. For linear features associated with settlement or industrial structures the provision was for a 20% sample, expanding by an additional 20% if significant patterns of deposition were encountered.

Deep features, including the north and south moat ditches, and all other ditches and pits were excavated to their full depth, following standard health and safety procedures. The stratified deposits within the interior of the moated enclosure, were planned, recorded and removed in sequence. With the exception of some retained baulks, they were fully excavated. The inhumation burials were excavated under a Home Office licence for the Removal of Human Remains, dated 22 July 1999 and valid until 31 December 1999 (Licence No. A1985).

Environmental samples were taken following advice from Peter Murphy, English Heritage environmental advisor for East Anglia and Helen Keeley, consultant environmental advisor. Initially, 10 litre soil samples were recovered but this was later increased to 20 litres. A small number of column samples were collected from the southern moat and adjacent late Saxon ditches for potential pollen analysis.

In general, the high level of the local watertable hampered excavation of the site. During periods of heavy rainfall this led to flooding, so that it was necessary to bail out partially excavated features. At best the watertable fell to c 0.8-1.0m below ground level, so that only the deeper ditches were constantly wet. At its worst the site was waterlogged, with the silty clay natural taking on the consistency of jelly, and excavation became difficult. The excavation of the moats required constant mechanical pumping. However, apart from the moats, even the deeper features had only been seasonally waterlogged and they did not contain preserved organics.

The site was planned by hand at a scale of 1:50 in areas of non-intensive deposits and 1:20 in areas of intensive occupation within the moated enclosure. Sections of excavated features were generally drawn at a scale of 1:10, apart from those through the moats and running sections within the moat interior, which were drawn at 1:20 scale.

Each discrete feature and layer was given a unique context number, in a single continuous sequence. Each context is described on a pro-forma record sheet, which include details of stratigraphic relationships, finds, and relevant plan, section, and sample numbers. Pottery, animal bone, ceramic and stone building materials, fired clay, metal working debris and shell were recovered as bulk finds allocated to context. Other finds were individually plotted, numbered and separately bagged as special finds.

2. SUMMARY OF RESULTS

2.1 Prehistoric activity

At the northern end of the site there was a sinuous shallow water channel, running NE to SW, filled with sterile dark grey-black silt clay (Fig 2a and Plate 1). It was undated, but it clearly pre-dated all recorded man-made features. Other natural features included a series of irregular crescent shallow hollows, interpreted as tree throw holes; these were especially prevalent in the area to the south of the moated enclosure.

Human activity in the prehistoric period is denoted by the recovery of 196 struck flints that can be broadly dated to the Neolithic to early Bronze Age. These were recovered as residual finds in later contexts. A single sherd of Neolithic pottery was recovered from an otherwise undated ditch and it is uncertain whether it was residual in this context. The feature lay immediately adjacent to the edge of excavation in the southern area and could not be further investigated.

2.2 Roman occupation

The Roman activity was confined to the southern area, and comprised linear and curvilinear ditches (Fig 2a and Plate 2).

The earliest feature was a linear ditch aligned NW to SE with evidence of re-cutting. It probably defined a land or property boundary. Further linear ditches and a curvilinear ditch superseded it, with evidence of re-cutting and a 4m wide opening to the east, which may define the northern part of a sub-circular enclosure.

The fills produced few artefacts, suggesting that they were not in use for very long, and much of the Roman material that was recovered was residual in later contexts. The residual finds include 10 coins. There are two dating to the mid-2nd to late 3rd centuries and the remainder are all of mid-4th century date. One of the coins is perforated for suspension, possibly indicating its later reuse.

2.3 Early/middle Saxon settlement

The early/middle Saxon activity extended for the length of the site, but there was a particular concentration in the southern area, where it overlay the focus of Roman activity (Fig 2a and Plate 2). The features comprised multiple linear and curvilinear ditches with the occasional pit and posthole.

In the southern area there was a more complex arrangement of linear and curvilinear ditches. These may represent elements of two sub-rectangular or oval enclosures, both with evidence of re-cutting. Within the southernmost enclosure an area of cobbled surface had survived, and there were several pits and post-holes found in this vicinity. This may be the eastern margin of an occupation area that lies largely to the west beyond the excavation area.

The hand-made early/middle Saxon pottery may be residual, but several features produced primary groups of middle Saxon Maxey-type ware, and sherds of Ipswich ware were also recovered (see pottery assessment). Fragments of lava quern were also recovered from many of these features, and in later contexts.

2.4 The late Saxon boundary system

The late Saxon occupation comprised multiple linear ditch systems, with isolated concentrations of pits and postholes (Fig 2b).

In all parts of the site there were shallow ditch and gully systems that were similar in form and alignment to the preceding middle Saxon ditches, and this suggests that there may have been continuity of occupation between the middle and late Saxon periods.

However, this was later superseded by the imposition of a more regular pattern of linear boundary ditches aligned E-W and N-S and defining a system of rectangular plots. This suggests that a major re-planning of the site was initiated during the late Saxon period. The ditches were typically broader and deeper, at up to 1.00 m deep, and more frequently recut. The main plot system occupied the same limits as the subsequent moated enclosure, but probably also extended to the north, but not to the south, of the moated enclosure.

In the central area the ditch system was maintained and reworked through to the end of the 12th century (Fig 3a). There were scattered pits and postholes, but no evidence of any timber buildings could be resolved. However, the domestic debris recovered from the

ditches, and as residual finds in later contexts, attests to the nearby presence of domestic buildings.

2.5 Medieval refurbishment of the boundary system

In the central area the final phase of activity that pre-dated the construction of the moated enclosure is dated to the late 12th to early 13th century (Fig 3b). The linear ditches probably represent a partial refurbishment of the existing plot boundaries. To the north of these there was a major hearth or oven, and many of the adjacent group of pits contained debris from it. A scatter of postholes to the west of the area included one well-defined fence or wall line.

A further three ovens lay at the southern end of the central area. They either belong with the final phase of pre-moat activity or with the use of the moated enclosure, and this will be resolved by further analysis of the stratigraphic sequence and the pottery assemblage.

2.6 The medieval moated enclosure

In the early 13th century a dramatic change in the use of the site occurred with the establishment and construction of the moated enclosure and its attendant buildings (Figs 2c and 5).

2.6.1 The moated enclosure

The placement of the moats northern and southern arms upon boundaries of the existing late Saxon/early medieval plots indicates a deliberate establishment within their parameters, suggesting continuity in land organisation.

The moated enclosure measures 70.0m N-S, but its eastern limit is uncertain. A ditch survives as an earthwork and this would define a sub-rectangular enclosure measuring 100m E-W, and enclosing an area of approximately 0.65 ha. However, a survey conducted by Geophysical Surveys of Bradford in 1993, recorded a low resistance anomaly that has been tentatively interpreted as the possible eastern arm of the moat (GSB 1993). If correct, this would define a square enclosure measuring 60m E-W, and encompassing an area of 0.36 ha (Fig 2c). This uncertainty could only be resolved by further fieldwork, but this was not within the requirements of the current project.

The material extracted during the original excavation of the moat was utilised to level the ground surface within the interior. At the same time, or later, similar material was used to form a bank in the south-western corner of the enclosure.

The southern moat ditch measured c.9.0m wide by 1.5m deep, and had a broad flattened U-shaped profile (Fig 6 and Plates 3-5). It contained a sequence of waterlogged fills but was devoid of datable artefacts or other domestic debris. The northern moat, which measured 12.0m wide by 2.3m deep, had a steeper U-shaped profile. It contained substantial quantities of 19th century material, almost down to its base (Fig 6 and Plate 6). There is therefore no evidence that any of the surviving fills of the moat are contemporary with the medieval use of the site. In fact, the evidence strongly suggests that the moat had been recut and scoured out in the post-medieval period, see below, with this removing most if not all of any medieval deposits.

2.6.2 The earliest structural features

The earliest features within the moated enclosure comprised a scatter of pits and postholes, a small bowl-shaped kiln or furnace, and lines of postholes slightly offset from the east and north walls of the overlying manorial hall (Fig 4).

The pits, the kiln or furnace and a layer of blackened soil attest to some industrial use of the area prior to the construction of the manor house. The lines of post-holes may relate to a contemporary timber structure, some 11.0m long by 7.0m wide, but some may relate to the construction of the manor house itself.

The large square hearths and the gravel path to the west were deeply founded features that belong with the early use of the manor house (see below).

Also of interest, was the recovery of three inhumation burials. They occurred as individual, isolated burials, but they were all aligned E-W, and two had been partially lost to later disturbances. Their graves were cut into the soil horizon that sealed the late Saxon features, so they might have been contemporary with the earliest use of the moated enclosure. However, they might also be later in date. If a date contemporary with the use of the manor house is excluded, as it is unlikely that adult inhumations would have been placed in the vicinity of this building, then the alternative is that they are 15th century or later in date. However, the appearance of three such burials in unconsecrated ground is difficult to account for.

2.6.3 The medieval manor house

A major timber building lay fully within the excavated area and can be identified as a manor house comprising a central hall with a parlour wing to the north and service rooms to the south (Fig 5 and Plates 7-9). It was constructed in the 13th century and was in use through the 14th century, the date of the majority of the associated pottery. The small quantity of late 14th century pottery may denote a period of decline and abandonment. However, the final clay floor and a single length of recut wall foundation trench contained 15th century pottery, perhaps resulting from a major refurbishment of the abandoned, but evidently not fully derelict, building. The details of the abandonment of the building and the dating of this event from the pottery evidence will require further consideration during the detailed analysis leading to report preparation

The walls were defined by shallow foundation slots, 0.50m to 0.60m wide by 0.20m to 0.30m deep. Along the northernmost wall the slot was filled with compacted grey/blue clay containing cobbles within its upper surface, perhaps as a remnant of a stone footing for a timber sill beam. However, around most of the building the slots were filled with stone-free sandy-silt, probably a post-demolition fill, but they still contained several large sub-circular post pits, up to 0.40m deep, and limestone post-pads, up to 0.5m in length and set either in their own individual pits or in the slots. This evidence indicates that the building was either a timber-framed or cruck structure, with the ends of the frames or crucks set on pad stones. The bay structure can be partially reconstructed, but evidence for the locations of all the major posts had not survived.

The nature of the roof is indicated by the fragments of perforated limestone roof tiles and ceramic ridge tiles recovered from the demolition rubble and make-up layers around the manor house. The latter suggesting re-use of material removed from the roof during periods of renovation or re-build.

At the centre of the building there was a large rectangular open hall, 9.0m long by 7.0m wide. The mortar and ceramic tile bases of two successive central hearths, each 1.6m

square, are likely to belong with the earlier use of the hall, but any trace of a contemporary floor had been lost (Plate 12). The final floor of yellow clay, and remnants of a central hearth base of ceramic tile, were preserved beneath the demolition debris.

To the north of the hall an E-W range, 12.0m long by 4.0m wide, would have formed a parlour, probably with a solar above (Plate 7). A break in the wall slot to the north suggests the presence of an external doorway. The room was clay-floored and, apart from a short length of slot to the west, there was no clear evidence for a partition wall between the parlour and the hall, although some features sealed beneath the final clay floor may relate to a partition wall (Fig 4). Access to the solar above may have been from an external staircase, situated at the south-western corner of the parlour and defined by two large pad-stones set 2.0m beyond the wall line.

A small room abutted the western end of the parlour/solar range and had a similar clay floor. There was a corner doorway into the parlour, and an external door to the west was set within a projecting porch.

A service wing was attached to the south side of the hall. Its west wall continued the line of the hall wall, but the eastern wall was offset, so that the service wing was wider than the hall, with a slightly trapezoidal plan (Plate 9). It was therefore of a separate build, and the walls' foundation slots provided little evidence for the former positions of any post-pads. A clay floor partially survived, the rest had perhaps been largely lost through erosion.

Openings in both the east and west walls, with stone thresholds (Plate 11), defined the opposed doorways of a cross-passage separating the hall from the service rooms, although there was little evidence for internal partition walls. The western doorway was the more complex of the two. It may have comprised two adjacent doorways, one opening directly into the hall, and approached by a gravel path, and the other opening into the cross passage.

A small rectangular chamber, with a clay floor, was attached to the south-western corner of the service wing. To its south there was a substantial C-shaped stone foundation, measuring 3.0m by 1.5m with possible post-pits set 2.0m to the west. The function of this structure is uncertain, although one possibility is that it could represent a foundation for an external stairway.

2.6.4 Other activity within the moated enclosure

To the east of the manor house there was gravel yard surface, including a distinct path leading to the cross-passage doorway.

At a later stage a line of narrow slots and associated postholes were cut through the yard surface to the east of the manor house (Fig 5 and Plate 10). They were all filled with clay and were subsequently sealed beneath a later gravel yard surface. The function of this structure is presently unknown.

To the south and south-east of the service range there was a considerable depth of soils that produced substantial quantities of finds contemporary with the use of the manor house. The density of finds might suggest that midden heaps of domestic rubbish had stood in this area. The ovens in the south-western corner of the enclosure may also be contemporary with the use of the medieval manor (Plate 13).

No other traces of contemporary buildings were recovered. These would have included detached kitchen ranges and brew houses, dovecotes, farm buildings and barns. Such ancillary buildings would have to lie to the east of the excavated area.

2.6.5 The demolition of the manor house

The final clay floor was overlain by a demolition layer that included numerous fragments of stone and ceramic roof tiles, indicating that the roof was stripped off presumably prior to the systematic dismantling of the timber-framed building. The associated pottery is largely 14th century material residual from the main period of use, but the later 15th century wares from the final floor suggest that the actual demolition occurred in the later 15th century.

2.7 **Post-medieval activity**

Towards the end of the 18th century the moated site and surrounding land became the property of Sir Gillies Payne, who enclosed the moat within the grounds of Tempsford Park. This included the establishment of a Mansion House, enclosure wall and various landscape features, including extensive tree planting. It is also likely that the moat was periodically scoured and cleaned, with the up-cast spread in adjoining areas to form low external banks. This would suggest that the moat ditches were deliberately enhanced to form a garden feature, while the creation of the "Stew Pond"(HER 9726) along part of the southern moat may have been a later introduction.

During the late 19th century, the northern arm of the moat was deliberately backfilled with Victorian rubbish, which was capped with clay. A substantial layer of timber and brushwood, previously interpreted as a 16th-18th structure (BCCAS 1993 and 1996), probably representing tree fall from the adjacent tree belt, was deposited in the open moat. Within and above this there were large quantities of domestic artefactual debris, principally china, earthenware and glass bottles and jars. These are dated to the late 19th century and represent the use of the moat as a rubbish dump for Tempsford Hall itself, as is confirmed by the presence of a plate bearing the halls crest and coat of arms.

2.8 **Quantification of the site archive**

The excavation produced the following quantities of records and finds:

SITE RECORDS

Plans:	76 on A1 or A2 sheets
Sections:	667 (almost exclusively at 1:10)
Contexts:	2166 individual contexts recorded on pro-forma record sheets
Photographic records:	411 colour transparencies, 320 B/W negatives, comprising c. 100 individual views

FINDS

Pottery:	17 boxes
Post-medieval finds:	5 boxes
Small finds:	1112 individually numbered items
Worked flint:	196
Ceramic tile:	8 boxes
Stone tile	3 boxes
Fired clay:	3 boxes

Slag:	4 boxes
Animal bone:	34 boxes, c 165kg
Shell:	2 boxes

ENVIRONMENTAL SAMPLES

Bulk soil samples	67
Column samples	7

3. FINDS ASSESSMENTS

3.1 Prehistoric finds *Andy Chapman*

3.1.1 The assemblage

A total of 196 worked flints were recovered as residual finds in later contexts. They are usually of fresh appearance, and the raw material is typically a vitreous flint of good quality. The group includes some large flakes and blades, c. 60-80mm in length, considerably larger than any of the small group of cores recovered.

The overall composition of the assemblage is summarised below.

Table 1: Composition of the flint assemblage

Cores	5
Shattered pieces	6
Flakes	103
Blades/bladelets	6
Scrapers	15
Knives (plano-convex)	1
Cutting flakes	11
Cutting blades	14
Leaf Arrowheads	2
Transverse Arrowheads	4
Barbed-and-tanged Arrowheads	2
Serrated blades	1
Fabricator	1
Notched flakes	6
Piercers	2
Burnt	2
Misc. retouch	14
Flint Axe (fragment)	1
TOTAL	196

None of the material has characteristics of Mesolithic flint industries. An early Neolithic component is represented by the presence of soft hammer struck blades, including a high proportion of utilised blades with extensive edge damage, the cutting blades. There is also a single large, and very finely made, serrated blade and two leaf arrowheads, although leaf arrowheads can appear in later Neolithic contexts. The remainder of the group is characteristic of the later Neolithic and early Bronze Age. It includes hard hammer struck flakes, both transverse and barbed-and-tanged arrowheads, a plano-convex knife and a discoidal scraper. The other implement types

cannot be so closely assigned to a date, but all are broadly characteristic of Neolithic and early Bronze Age industries.

The small number of cores indicates that flint knapping was not being carried out on the site to any significant degree. The assemblage is therefore largely indicative of casual loss during exploitation of the local resources.

The single sherd of pottery recovered was a large body sherd from a later Neolithic impressed ware decorated with fingertip impressions, most probably a Mortlake style Peterborough vessel.

3.1.2 The importance of the assemblage and proposals for further analysis

The flint assemblage, although residual, provides a useful addition to the understanding of early exploitation of this part of the Ouse valley. The assemblage should be fully classified, quantified and described, and set within a chronological framework. Length/breadth analysis for the flakes and blades is not necessary given the small size of the assemblage and its residual nature. A selection of implements should be illustrated and described.

A single sherd of Neolithic pottery was recovered, it should be described and illustrated.

3.2 **The Roman pottery** *Tora Hylton*

3.2.1 Introduction

A total of 48 sherds (weighing 773g) of Roman pottery was recovered from the site. Twelve sherds (weighing 160g) were retrieved from features of probable Roman date, and the remainder was residual in later contexts. The material from all contexts typically comprises small, abraded sherds.

There are three fabric types Samian, Nene Valley Colour Coated wares and shell-gritted coarse wares. Diagnostic forms include, a Type 35 Samian cup (Webster 1996, 46) with curved wall and over hanging rim, decorated with a barbotine decoration of "trailed leaves". Such vessels date to the mid/late first century. Nene Valley wares are represented by a large jar dated to the second century (Howe et al, fig 8, 90) and a fourth century dish with plain rim (Ibid, fig 7, 87).

The assemblage dates from the mid-first to late third/fourth centuries, a date range that is consistent with the recovered coinage.

3.2.2 Proposals for further analysis

Given the small quantity of pottery recovered its potential is severely limited, and the following analysis is proposed:

Full quantification of the assemblage.

A summary report detailing types represented and the indicated date range for Roman activity on the site. The pottery dating will complement the dating available from the coin assemblage.

3.3 The Saxon and medieval pottery *Paul Blinkhorn*

3.3.1 Introduction

The pottery assemblage comprises some 9000 sherds with a total weight of c.116kg. The minimum number of vessels, by measurement of rim sherd length, was 87.35. The range of pottery types present, indicate activity at the site from the early/middle Saxon period through to the middle-late 14th century, with later disturbance during the 15th and 16th centuries.

3.3.2 Fabrics

The fabrics represented in the assemblage are catalogued and quantified below. General comments on forms are only provided for the non-type series fabrics. Full analysis of the forms represented will form part of the further analysis leading to full reporting. Where appropriate, the codings and chronology of the Bedfordshire County Archaeology Service type-series were used. However, the following wares, were not covered by this:

Early/Middle Saxon Handmade wares: Undecorated, handmade wares, in a variety of sandy and/or mineral-tempered fabrics. 108 sherds, 1338g, MNV = 0.32.

Ipswich Ware: Slow-wheel made ware, manufactured exclusively in the eponymous Suffolk wic. The material probably had a currency of AD 725/740 - mid 9th century at sites outside East Anglia (Blinkhorn in print a). There are two main sandy fabric types, although individual vessels, which do not conform to the groups, also occur. 53 sherds, 990g, MNV = 0.23.

Maxey-type Ware: Exact chronology uncertain, but generally dated c. AD650-850 (eg, Hurst 1976). Wet-hand finished, reddish-orange to black surfaces. Soft too fairly hard, with abundant Jurassic fossil shell platelets up to 10mm. Vessels usually straight sided bowls with simple rims, and/or 'bar-lugs' (Plate 14). Differs from Lincolnshire Maxey-types, which tend to have upright, triangular, rim-mounted pierced lugs. 155 sherds, 4507g, MNV = 2.50.

?South Lincs Oolitic Ware: c.AD1100-1300. Slow-wheel made. Pale grey fabric with abundant greyish limestone ooliths up to 2mm, rare to moderate limestone up to 1mm, sparse flint and/or haematite up to 0.5mm. Ooliths on surface often white in colour. Vessels, usually jars with thickened everted rims. Fabric tends to be grey with brown, red or orange surfaces. Main form jars with simple everted, sometimes triangular rims, sometimes thumb-impressed. Wavy line decoration is not uncommon. Some bowls known, usually shallow, often with internal wavy line decoration (Blinkhorn in print b). 19 sherds, MNV = 0.58

Lyveden/Stanion 'A' Ware (McCarthy 1979). c. AD1150-?1400. Handmade/Wheel finished. Moderate to dense, ill-sorted shelly limestone platelets up to 3mm, sparse to moderate red ironstone up to 10mm, occasional quartz, ooliths, black ironstone. Produced at numerous kilns in the villages of Lyveden and Stanion in NE Northants. Fabric usually grey with blue-grey or brown surfaces, although other surface colours, such as buff, red, purple or orange not uncommon. 599 sherds, 11838g, MNV = 5.04.

Sandy buff ware I. Fine, quartz-tempered fabric, buff with a grey core. Occasional calcareous inclusions. 9 sherds, 201g, MNV = 0.

Sandy buff ware 2. As sandy buff I, but considerably coarser. 13 sherds, 256g, MNV = 0.15.

Calcareous Sandy ware. Grey sandy fabric with sparse to moderate calcareous material. Later medieval? 44 sherds, 1796g, MNV = 0.40.

Lyveden/Stanion 'D' ware: c. AD1400-?1500. Later medieval, wheel-thrown version of the 'B' ware (Beds fabric B09), but with far sparser inclusions, less non-calcareous material and clearly wheel-made. Slip decoration less common, usually plain olive green glaze externally. Mainly jugs, but bifid jars known from Stanion kiln-site (Blinkhorn in print b). 4 sherds, 47g, MNV = 0

The following are coded according to the BCAS system: (*It should be noted, however, that the St. Neots ware is dated according to the system defined by Denham (1985), a more refined and up-to-date system than that used in the BCAS type-series*)

- B01: *St Neots Ware (Northampton fabric T1(1))* c. AD900-1100. 1319 sherds, 11051g, MNV = 12.79.
- B01A: *St. Neots Ware (Northampton fabric T1(2))* c. AD1000-1200. 1711 sherds, 17967g, MNV = 20.59.
- B07: *Medieval Shelly Ware:* AD1100-1400. 1531 sherds, 23623g, MNV = 20.81.
- B09: *Lyveden/Stanion 'B' Ware.* c. AD1225-?mid14th C. 54 sherds, 1478g, MNV = 1.05.
- C03: Fine sandy reduced ware, 12-13th C. 842 sherds, 7517g, MNV = 6.03.
- C04: Coarse sandy ware, 12-13th C 471 sherds, 4767g, MNV = 3.91.
- C05: Sandy reduced ware, red margins, 12th-13th C. 10 sherds, 54g, MNV = 0.04.
- C08: Thetford-type ware, 10th - 12th C. 225 sherds, 4374g, MNV = 0.55.
- C09: Brill/Boarstall Ware: mid 13th - 15th C. 97 sherds, 1447g, MNV = 0.48.
- C10: Potterspury Ware: mid 13th - 15th C. 125 sherds, 1361g, MNV = 1.48.
- C12: Stamford Ware c. AD900-1200. 11 sherds, 64g, MNV = 0.
- C12a: Developed Stamford Ware, 12th C. 2 sherds, 18g, MNV = 0.
- C17: Hedingham-type ware, 13th - 15th centuries. 3 sherds, 312g, MNV = 0.
- C18: Grimston Ware: 13th - 15th C. 59 sherds, 1213g, MNV = 0.
- C57: London Ware, 12-14th C. 13 sherds, 90g, MNV = 0.06.
- C58: Hertfordshire Glazed ware, 13th-15th C. 3 sherds, 76g, MNV = 0.
- C59a: Coarse sandy ware, 12-13th C. 22 sherds, 969g, MNV = 0.74.
- C59b: Sandy ware, 12-13th C. 376 sherds, 5503g, MNV = 3.10.
- C60: Hertfordshire-type greyware, 13th-15th C. 91 sherds, 1637g, MNV = 0.66.
- C70: Gritty glazed ware, 12-?14th C. 6 sherds, 33g, MNV = 0.
- C71: Grey-cored buff ware, 12-14th C. 234 sherds, 2477g, MNV = 2.23.
- E01c: Vesicular late medieval reduced ware, M14th - 16th C. 280 sherds, 2550g, MNV = 1.66.
- E2: Late medieval Oxidised ware, M14th - 16th C. 267 sherds, 2824g, MNV = 1.33
- P01: Glazed Red Earthenware, 16th C? 1 sherd, 169g, MNV = 0.25.
- P12: Cistercian Ware: c. AD1470-1550. 1 sherd, 2g, MNV = 0.
- P13: Tudor Green Wares. c AD1380-1500. 31 sherds, 142g, MNV = 0.22.

3.3.3 Chronology*Table 1: Pottery occurrence by number and weight of sherds per ceramic phase, all fabrics*

Date	No.	Wt. (g)	MNV
E/MS	21	183	0.07
MS	61	1544	0.64
LS	162	2219	1.63
11thC	925	11013	12.05
12thC	1126	13438	8.22
L12thC	599	9763	8.12
13thC	1133	19203	13.88
L13thC	543	6511	5.01
M14thC	2490	29927	26.10
L14thC	381	3549	2.13
L15thC	1228	14588	9.28
Total	8669	111938	87.13

The data in table 1 offer a general picture of activity at the site. The small quantities of stratified handmade wares could date to either the early or the middle Saxon period, as it is only generally possible to identify early Anglo-Saxon pottery by the presence of decorated wares. None were found at this site, but as such pottery only usually comprises less than 5% of a domestic assemblage, its absence in a group as small as this cannot be taken as conclusive. However, the mean sherd weight of such pottery during the Saxon phases was as follows:

Early/middle Saxon:	8.5g
Middle Saxon:	3.5g
Late Saxon:	16.3g
11th century:	11.2g

This would strongly suggest that the handmade pottery in the middle Saxon features is residual, and that the material dates to before the use of Ipswich ware and Maxey ware at the site, i.e. to the seventh century or earlier.

The relatively small amounts of the earlier St. Neots ware fabric at the site suggests that there was relatively little activity at Tempsford before the Saxo-Norman period, but this may be something of a false picture caused by a high degree of later disturbance (see below). Over half the T1(1) St. Neots ware was re-deposited in later contexts, although around 40% of the T1(2) type, which was first used c AD1000, is also re-deposited, and both wares were used during the 11th century. It is possible that some of the features, which are dated to the 'late Saxon' phase, i.e. before the 11th century, may be later groups lacking contemporary wares. These groups will need to be examined in relation to the site matrix to clarify their dating at report stage.

There is little doubt that an intensive period of activity starts during the 11th century, even allowing for the large-scale re-deposition of the pottery of the period. This continues throughout the medieval period until between the middle and late 14th centuries, when the amount of pottery deposited goes rapidly declines. However, there appears to have a period of more intensive activity in the late 15th century immediately preceding the total abandonment of the site.

As with the late Saxon pottery, it is likely that a significant number of medieval contexts do not produce contemporary pottery. These will require a similar re-dating at report stage, based on the evidence of the stratigraphic matrix.

3.3.4. Residuality

Table 2: Fabric occurrence per ceramic phase, major fabrics only, expressed as a percentage of each phase assemblage (shaded cells = residual)

Date	E/ MS	Maxey	B01	B01A	B07	C3+ C4	Lyve 'A'	C10	E01c/ E2	total % residual	Total MNV
E/MS	0	-	-	-	-	-	-	-	-		0
MS	0	100	-	-	-	-	-	-	-		0.55
LS	3.5	26.2	70.2	-	-	-	-	-	-	3.5	1.41
11thC	0	2.7	23.0	74.3	-	-	-	-	-	2.7	11.12
12thC	0	1.8	29.5	35.8	31.0	2.0	-	-	-	1.8	5.62
L12thC	0	0.6	5.1%	25.8	52.1	1.3	15.1	-	-	0.6	6.89
13thC	0.7	2.5	11.8	19.4	43.0	16.3	6.3	-	-	15.0	11.82
L13thC	1.7	0	9.7	11.2	52.7	10.2	8.6	5.8	-	11.4	4.63
M14thC	0.5	3.0	12.1	18.9	23.1	19.9	7.6	4.5	10.4	54.4	23.89
L14thC	0	0	26.8	31.3	8.4	30.7	0	0	2.8	88.8	1.79
L15thC	0	1.5	19.2	8.4	29.1	26.1	10.9	0	4.8	95.2	7.77
Total											75.49

The data in Table 2 show the high degree of residuality in the pottery groups dating to the mid-14th century and beyond. Over 50% of pottery from groups of that date is residual, with the proportion rising to over 95% by the mid-15th century. This suggests that there was a decline in activity in the later 14th century, but the presence of 15th century pottery in the final floor of the hall indicates that there was a subsequent revival, and that desertion and demolition only occurred in the later 15th century. A majority of the pottery represents re-deposited yard middens, with a particular concentration in the deep soil deposits to the south-east of the service wing, an area that also produced the highest density of small finds. It is the large proportion of the assemblage that derives from these amorphous and much reworked soil deposits that accounts for the high level of residuality.

3.3.5 Fragmentation Analysis

Table 3: Mean sherd wt (in g) for major fabrics per ceramic phase (shaded cells = residual)

Date	Maxey	B01	B01A	B07	C3/C4	Lyve 'A'	B09	C10	E01c/ E2
MS	28.1	-	-	-	-	-	-	-	-
LS	74.1	9.6	-	-	-	-	-	-	-
11thC	18.4	10.8	11.6	-	-	-	-	-	-
12thC	18.5	2.7	8.2	17.7	14.1	-	-	-	-
L12thC	19.8	12.1	12.1	17.8	10.8	21.4	-	-	-
13thC	65.1	7.7	10.6	18.3	12.1	21.5	50.3	-	-
L13thC	8.5	7.3	15.6	15.3	7.4	13.0	24.3	10.6	-
M14thC	32.6	7.1	13.8	13.8	9.1	17.6	18.1	12.1	10.1
L14thC	16.3	7.8	6.9	8.9	8.5	17.0	3.0	6.2	7.5
L15thC	20.5	8.5	10.9	14.1	8.9	18.9	19.7	7.1	9.6

The data in Table 3 offer a useful insight into the degree of disturbance to which the site was subjected. In the majority of cases, all the pottery shows very little change in its mean sherd weight through time, including when residual. The exception to this are the Maxey and St. Neot's wares from the 12th century phase, which show a considerable drop in their mean sherd weights, indicating a high degree of disturbance, such as that caused by a major rebuilding phase at the site.

Otherwise, it appears that most of the pottery was the result of secondary deposition, even when current, and that the suggested disposal policy of middening was in place from at least the late Saxon period. This also shows that most of the post-abandonment disturbance was, in the main, a series of separate single events; if the pottery had been subject to a continuous series of repeated disturbances, such as ploughing, the residual material would have had considerably lower mean sherd weights.

3.3.6 Vessel Use

Table 4: *Vessel Occurrence per phase, expressed as a percentage of each phase assemblage (excluding residual fabrics)*

Phase	Jars	Bowls	Jugs	Curfews	Cups	Other*	Total MNV
LS	57.9%	42.1%	0	0	0		1.21
11thC	70.4%	29.6%	0	0	0		11.7
12thC	70.1%	21.3%	8.6%	0	0		6.43
L12thC	62.4%	23.7%	12.3%	1.9%	0		7.73
13thC	64.7%	17.6%	15.9%	1.8%	0		9.74
L13thC	69.3%	11.4%	19.4%	0	0		3.87
M14thC	53.2%	23.4%	21.6%	1.8%	0	Bottle	13.09
L14thC	35.2%	31.5%	33.3%	0	0	Bottle	0.54
L15thC	42.2%	12.7%	23.5%	0	21.6%	bottle, skillet	1.02
						MNV	55.33

The data in Table 4 show a fairly typical pattern for medieval domestic settlements. During the late Saxon and early medieval periods, jars and bowls dominate the assemblage, with jugs gradually becoming more common over time. This continues up to the late 14th century, after which there is a change, with jars increasing again, and cups being a significant factor for the first time in the history of the site. The increase in the proportion of jars is, doubtless, due to the high degree of residuality. For despite the fact that all the fabrics which are known to be residual were not included in the analysis, many long-lived fabrics (such as Shelly wares and Lyveden 'A' wares) were included. A significant proportion of these assemblages are likely to be residual, as such wares were generally in sharp decline by this time.

It is worthy of note that the assemblage completely lacks specialised cooking and tablewares, such as dripping dishes, used for collecting the fat from spit-roasting meat, and aquamaniles, which contained water with which diners could wash their hands during the meal. Such vessels were noted in small quantities at West Cotton, and may be a reflection of the different status of the two settlements. West Cotton was a peasant hamlet, whereas this site appears to have been a manor. Thus, the absences of the pottery vessel types noted above from the site at Tempsford are most likely to be due to metal versions having been used.

The presence of relatively large numbers of late 15th century cups is curious, as the site was almost certainly abandoned by that time. They may relate to the actual demolition of the building or material deposited sometime after demolition. The skillet fragment may have been a vessel used by the same people for re-heating food, although residuality cannot be ruled out.

3.3.7 Cross-fits

The following cross-fits were noted during the initial quantification of the pottery:

2 (U/S) = 1052 (12thC) = 135 (L13thC) = 135 (13thC) = 798, (M14thC) = 890 (L13thC) = 907 (L15thC) = 978 (M14thC). Grimston ware curfew.

770 (M14thC) = 770 (L14thC). Sandy ware jar.

809 (M14thC) = 771 (L14thC). Sandy Oxidized ware jar.

1052 (11thC) = 1052 (12thC) = 1053 (11thC) = 1056 (12th) = 1058 (12thC) = 1110 (11thC). Sandy ware curfew.

It seems very likely, from the large number of cross-joins made during quantification, and the large degree of re-deposition, that more cross-joins are likely to be made, and so it is intended that such analysis will be carried out in rigorous fashion at the report stage. This has the potential to enhance the understanding of the site taphonomy. The analysis will be carried out concentrating on distinctive vessels, such as Thetford Ware storage jars, decorated unglazed jars and glazed jugs. Cross-fitting for other "less-distinctive" vessels are generally impracticable given the difficulty in matching sherds from large numbers of vessels with similar characteristics, and this will not be attempted.

3.3.8 The significance of the assemblage and proposals for further analysis

The pottery assemblage from Tempsford could be said to be highly significant for a number of reasons. It is one of the few sites in the region, which may have had continuous occupation from the early/middle Saxon period until later medieval times, and offers an opportunity to examine the changes in pottery use during that period. The site also has an exceptionally large range of pottery types present, showing contacts with East Anglia, Essex, London and the south midlands.

Direct comparata are somewhat difficult, as few sites in the region of this type and date have been published. A large assemblage of medieval pottery was recovered from the excavation of a moated settlement at Wintringham in Huntingdonshire (Beresford 1977). But the nature of the pottery report, although adequate by the standards of the period, makes comparisons impossible on all but the most superficial of levels, as quantification is non-existent, and the fabric descriptions cannot be related to the modern type-series except in the vaguest of terms.

A large assemblage of pottery of similar date-range to that from this site has also been excavated from the Saxon and medieval site of Stratton, near Biggleswade, Bedfordshire, but this remains at the time unpublished. And as excavations are still taking place, making comparisons would again prove difficult on all but the most superficial of levels.

Early and Middle Saxon

The pottery from the period c AD650-850 is one of the largest excavated in the region in recent years, and forms part of a small but growing corpus of sites of the period from the south and east midlands. In addition, the Ipswich and Maxey ware assemblages bear comparison in scale with those from North Raunds in Northamptonshire (Blinkhorn in print c). Other sites of this type in the region, such as Pennyland, Bucks have also produced such material, but not in these quantities (Blinkhorn 1994), but the assemblages will nevertheless bear comparison.

The handmade pottery will also need to be examined, and microscopic analysis of the fabric carried out, as this may offer information relating to the pottery sources for the site at that time. At least one sherd appears to be of Charnwood Forest type, which is thought to have been made in that region of Leicestershire (A Vince pers. comm.).

Work required:

Fabric analysis, discussion of results, selection of sherds for illustration, and examination of the assemblage in its regional context

Late Saxon and Saxo-Norman Pottery

One of the main problems with the pottery of this period is identifying groups that have been dated too early due to them lacking contemporary wares. At this time, it is impossible to be certain if there was any activity at the site between the middle Saxon and the 11th century. It is extremely rare to find sites in the region which show continuity from the middle to early late Saxon periods, and so resolution of this can be seen to be of importance to our understanding of the archaeology of the period in the south-east midlands. Examination of the site matrix with respect to this has the potential to allow clarification, with the end product of allowing a recalculation of the relevant parts of Tables 1-4 (above).

Work required:

Analysis of chronology from the site matrix, discussion of results, selection of sherds for illustration and examination of the assemblage in its regional context:

Medieval Pottery

The medieval pottery will also need to be reanalysed with respect to the matrix, and the chronology, occurrence tables, discussion etc adjusted accordingly. As noted above, cross-fit analysis will also be of value, as this has the potential to provide a better understanding of the site formation processes.

Work required:

Reanalysis of chronology with respect to the matrix
 Adjustment of data tables
 Discussion of results of the above
 Cross-fit analysis and discussion of the results
 General discussion, including the assemblage in its regional context
 Selection of sherds for illustration and illustration catalogue

3.4 Post-medieval pottery and glass

3.4.1 The assemblage

Five boxes of post-medieval finds, comprising pottery, glass bottles and jars and clay tobacco-pipes, were recovered from the fills of the northern moat. It was collected to provide a representative sample of the material encountered during excavation, which formed a single assemblage of domestic debris dating to the end of the 19th century. The presence of a plate bearing the coat of arms of Tempsford Hall itself indicates the source of this debris.

The material includes a range of domestic china, earthenware beer bottles and glass wine bottles, and a range of jars and bottles for condiments, preserves and medicines.

3.4.2 The importance of the assemblage and proposals for further analysis

This assemblage can provide an interesting view of late Victorian domestic life at Tempsford Hall, as represented by its rubbish disposal.

The material will be catalogued and identified. A report will be prepared giving emphasis to the significance of the material as an indicator of the sources for, and the types of, household wares and foodstuffs being acquired for use at the hall.

3.5 Other finds *Tora Hylton*

3.5.1 Introduction

The excavations produced a large collection of finds spanning the Roman to post-medieval periods, although a majority falls within the late Saxon to medieval periods.

Within the medieval settlement, the quantity and range of finds is such that it may be possible to define internal organisation and function. A small number of objects reflect building/structural fittings. In particular the large number of nails may provide information regarding local building traditions. The presence of artefacts which represent industrial and agricultural activity are of particular interest.

3.5.2 Quantity of material

The excavations produced over a thousand (1109) individually recorded small finds, together with large quantities of fired clay/daub, tile and slag, which have been recorded under the bulk finds system. All the common materials are well represented. There are no objects of gold, although some of the copper alloy artefacts are gilded.

Bulk finds comprise:

- 3 boxes of fired clay
- 8 boxes of ceramic roof tile
- 3 boxes of limestone roof tile
- 4 boxes of metal working debris (slag)

The small finds may be quantified by material type as follows:

MATERIAL	TOTAL
Silver	10
Copper alloy	126
Iron objects	818
Lead	48
Stone	79
Bone/antler	22
Glass	1
Ceramic	1
Plaster	4
Total	1109

3.5.3 Data collection

All finds were recorded on site manually following NA guidelines. The majority were recovered by hand, while smaller numbers were located by metal detector survey. The use of a metal detector increased the recovery of metal objects particularly copper alloy and lead objects, and it doubled the recovery of coins. Metal detecting was carried out at regular intervals through the excavation by the systematic scanning of the exposed surface of the site and the scanning of spoil heaps. The positions of all excavated finds were recorded by three-dimensional co-ordinates, and metal detected finds were given co-ordinates where possible.

All the individually recorded finds have been entered on to a computerised database (ACCESS) A basic catalogue has been compiled, comprising, material type and object identifications, together with context information. All finds have been boxed by material type, in numerical small find order.

3.5.4 Condition

The copper alloy is in a stable condition, but a small number of objects may require cleaning to reveal forms of decoration. The ironwork is in a poor state of preservation, much of it is encrusted in corrosion products, and a small number of objects are impossible to identify. Worked bone objects are all in a good condition and require no further work. No waterlogged organic material was found.

3.5.5 Summary of material recovered

Roman

Ten copper alloy coins, three brooch fragments, 12 sherds of pottery and a small collection of ceramic roof tile was recovered as residual finds.

The coins were all in residual contexts. With the exception of two coins, which date to the second and third centuries, the remainder all date to the mid-fourth century, as catalogued below:

Identification	Date	Context
Antonius Pius, (sestertius)	AD 138-161	Clay floor
Tetricus I, (barbarius radiate)	AD 270-273	Unstratified
Antoninianus, (radiate head)	mid-late 3rd C	Sub-soil
Constantine I, (commemorative issue)	AD 330-346	Ditch fill
Constantine I, (commemorative issue)	AD 330-346	Gravel feature
Constantine I	AD 334-337	Moat interior, cleaning layer (770)
Theodora, (2nd wife of Constantius I)	AD 337-340	Sub-soil
Constans, (pre-reform bronze issue)	AD 337-348	Subsoil
Valens	AD 365-378	Moat interior, cleaning layer (770)
Illegible	3rd/4th century	Moat interior, cleaning layer (770)

There is a small quantity of Roman roof tile comprising abraded fragments of tegulae, imbrex and undiagnostic fragments in a very hard-fired sandy fabric.

Early-Middle Saxon

A small number of finds were retrieved from early-middle Saxon deposits. A small number of items are indicative of domestic textile manufacture; these include heckle-teeth and a double-pointed bone pin-beater for used with warp-weighted looms. In addition there were two knives, fragments of lead and a large number of lava quern fragments. Further lava quern fragments were found in later contexts.

Of particular interest is the presence of a decorated strap-end, which was located as a residual find in the floor of the medieval manor house. Although crudely executed, the strap-end is furnished with an interlace motif which displays stylistically similar characteristics to the Scandinavian Borre-style interlace.

Late Saxon and medieval

The majority of artefacts date to the late Saxon and medieval periods and form an assemblage comparable with those from other settlements of a similar date. All the finds have been assigned functional groups.

FUNCTIONAL CATEGORY	NUMBER
<u>Personal Possessions</u>	
Costume and jewellery	48
Personal equipment	6
Recreational objects	3
<u>Equipment and furnishings</u>	
Building equipment	
General ironwork	16
Nails	426
Worked stone	1
Household equipment	11
Locks and keys	16
Knives	24
Hones/sharpeners	8
<u>Tools</u>	
Agricultural tools	1
Fishing equipment	2
Metal working	8
Textile working	14
Wood working	8
<u>Weapons</u>	4
<u>Horse furniture</u>	
Fittings	14
Horseshoes	31
Nails	44
<u>Coins</u>	9
<u>Querns</u>	59
<u>Miscellaneous and unidentified</u>	
Copper alloy	44
Iron	210
Lead	30
Antler and bone	11
Ceramic	1
Stone	2

Coins

There are nine hammered silver coins. The earliest stratified example, which can provide a TPQ is a coin of Aethelred II, dated AD 978-1016; it was located in a late Saxon ditch in the central area.

The coin identifications can be summarised as follows:

Identification	Date	Context
Eadred	946-955	Subsoil
Aethelred II (Lincoln mint)	c.991-997	Ditch fill
Short cross penny	c. 1180-1247	Layer
Henry III - quarter cut (London mint)	1217/18-1247	Gravel yard surface
Henry III	c. 1246-72	Pebble/cobble surface
Edward I (Durham mint)	c. 1272-1307	Clay floor, medieval manor
Edward III	c. 1327-1377	Post-occupation layer
Half-cut coin	Not dated yet	Pebble/cobble surface
Short-cross farthing (Moneyer: WIL..)	Not dated yet	Moat interior, layer

Copper alloy

Identifiable objects fall into three main functional categories, costume, toiletry equipment and horse-fittings. Perhaps surprisingly there is a noticeable dearth of items associated with personal ornament. Possibly indicating complete clearance and retrieval of useful objects either during abandonment or after demolition. There is a range of miscellaneous objects, these include sheet fragments, rings (for attachment) and objects which are at present unidentified.

Objects associated with costume include; buckles, pins, mounts, strap-ends and lace chapes. Other items include a small collection associated with toiletry and represented by tweezers, and a combined earscoop/toothpick.

There are very few objects that represent domestic activity. This may indicate that all interior fittings were removed when the property was deserted. The only objects worthy of note are two fragments from cauldrons, a small casket key and a handle.

Objects associated with horse equipment include pendants, bells and a suspension mount.

Iron

In total 818 iron objects have been recorded, over half that number (426) is made up of nails, most probably for use with buildings etc. The remaining assemblage is varied and provides an insight into aspects of life at the settlement.

Of particular interest is a small collection of tools indicative of metal working, wood working and wool preparation for spinning. A small number of objects represent structural and domestic fittings. These include: staples, hinges, studs and pintles, together with barrel padlocks, mounted locks, lock plates, hasps and keys. Other objects include knives and arrowheads; and a range of horseshoes and nails, prick and rowel spurs, buckles and strap distributors represents horse equipment and furnishings. The chronological and spatial distribution of horseshoes may help to provide an insight into land use after the demise of the manor. The presence of later forms may indicate

that the land was used for pasture. Identifying nail forms and observing their spatial distribution may provide evidence for structural techniques, including the presence of floorboards.

There are a large number of miscellaneous unidentifiable fragments and objects. It may be possible to identify some of these once they have been X-rayed.

Lead

The quantity has been increased by the use of metal detecting. Although much of it is undiagnostic, there is a small collection of weights, a lead plug for repairing ceramic vessels and a spindle whorl. A quantity of lead was retrieved from a smelting pit contemporary with the earliest use of the moated enclosure.

Worked Bone and antler

There is a small collection of objects associated with textile manufacture comprising pinbeaters and a needle. In addition there is a skate and a fishhook, together with three utilised or partially manufactured objects of indeterminate use. There is a fine, stylised chess piece with elaborate ring-and-dot decoration, recovered from an external yard contemporary with the medieval manor house (Plate 15). From its bifurcated top it can be identified as a rook. Pieces in antler include a handle, and the presence of off-cuts and a sawn tine may be suggestive of on-site antler working on a small scale.

Glass

The only object manufactured from glass is a bead.

Stone

There are several hones (sharpening stones), a fish-net weight, a mortar and a pestle. The latter has possibly been utilised from a carved finial. In addition, there is a sample collection of limestone stone roofing slates from the demolition layers of the medieval manor; only pieces with perforations were retained.

Ceramic tile

In total there is over 50 kg of ceramic building material. Most of this was retrieved from yard deposits and demolition layers associated with the medieval manor house. Therefore analysis of fabric and form should provide an indication of the range of roof furniture in use during the lifetime of the manor. There are at least five different fabric types and various tile forms have been observed, including glazed louvres and ridge tiles, the latter with applied crest decoration (cocks comb).

Fired clay/daub

A total of 31.7 kg of fired clay was recovered from the site. Approximately half of this came from two specific feature groups; an oven and surrounding features in the central area predating the moated enclosure, and the group of ovens in the south-west corner of the moated enclosure. The remainder came from features and layers ranging in date from the late Saxon to the late medieval.

The fired clay from the central area was typically well fired with frequent inclusions of gravel, shell and flint. The occasional fragment of swan mussel suggests that some of the raw material used came from river deposited silts and clays. There were many

large pieces, measuring 70mm or more in length, with one side containing well preserved wattle impressions of between 10mm to 20mm in diameter, and the other side smoothed, indicating that they came from the demolished fired clay structure, presumably a superstructure to the excavated oven.

The fired clay from the oven group in the south-west corner comprised two distinct types. There were pieces up 60mm long, with a few measuring up to 100mm, with occasional inclusions of shell fragments and gravel, which had occasional wattle impressions and smoothed surfaces with grass impressions. The other type consisted of amorphous lumps of fired clay and, in addition, there were quantities of scorched and reddened earth and clay, which were not recovered. This group therefore presumably comprised a mixture of below ground oven lining and above ground superstructure.

Metalworking debris *Ivan Mack and Dr G McDonnell (Bradford University)*

A total of 4 boxes of slag, weighing in total 55.14 kg, were recovered from a wide range of contexts, from ditch fills to external yard deposits. It ranges in date from late Saxon to medieval. The slag is highly heterogeneous and fragmented with morphological characteristics merely indicative of general ironworking. The presence of hearth bottoms would suggest that secondary smithing occurred on the site. Some slags are denser and fluid looking, though there were no slags that could be confidently attributed to bloomery smelting. A large relative quantity of hearth lining had survived to be recovered suggesting that ironworking activity occurred in the near vicinity of the excavated area.

A dense, non-porous grey coloured slag recovered from context (794), a late Saxon pit fill, was highly unusual morphologically, and similar to material from Saxon ironworking at West Heslerton, Yorks. Research is attempting to attribute this type of material to a particular process (G McDonnell pers com). Further examples need to be analysed to provide conclusive results, and it is recommended that the slag recovered from the late Saxon context (794) be sent to Bradford University for further analysis, at no cost to the project, as part of this ongoing research programme.

3.5.6 Proposals for further analysis and reporting

Stage 1: Object analysis

- a) Prepare iron objects for X-ray. This will aid identification, highlight features of interest (e.g. copper alloy coatings etc.), and provide a permanent record. Nails and small undiagnostic fragments will not be X-rayed.
- b) A small number of copper alloy artefacts will need to be X-rayed and/or cleaned to reveal decorative detail.
- c) Buckinghamshire County Museum Conservation Service will X-ray the objects and undertake any necessary conservation. A total of 259 objects will be submitted for X-raying.
- d) Full cataloguing, including object descriptions, measurements and references to parallels.

Stage 2: Synthetic analysis:

- a) Finds based studies:
 - Further researching of parallels for individual finds or finds groups.
 - Quantitative and qualitative analyses of functional categories.
 - Liaison with specialists as necessary (e.g. re coinage, slag and roof-furniture)
 - Ceramic tile: create fabric typology, and compare to Bedfordshire type series.
- b) Site based studies:
 - Analysis of gross finds distributions, chronologically and spatially
 - Analysis of distributions of individual finds types, chronologically and spatially

Stage 3: Report preparation

- a) Selection of finds for illustration
- b) Illustration of selected finds
- c) Catalogue descriptions of illustrated finds
- c) Preparation of summaries for individual finds groups
- d) Preparation of overview
- e) Integration and editing of final report

3.6 **Human bone** *Andy Chapman*

3.6.1 The burials

Three inhumation burials were recovered. They were all in earth-cut graves, supine, extended and aligned W-E, with the head to the west, indicating that they were all Christian burials. They are believed to be of either 13th century or perhaps 15th century of later in date.

Burial 1 is a small adult, probably female. All body parts are at least partially represented, and from the degree of wear on the teeth and the lipping of the vertebrae the individual is likely to have been over 30 years of age.

Burial 2 is in poor condition and very fragmentary, it is largely represented by the vertebrae and ribs. It is a small adult. A few teeth survive and these are not heavily worn, suggesting that the individual was probably of no more than 30 years of age.

Burial 3 is in good condition and complete, with minimal breakage or crushing of the bone. It is a small adult, probably female, and there is slight wear on the teeth and no lipping of the vertebrae, indicating an individual 20-30 years old.

3.6.2 Proposals for further analysis

The inhumation burials should be submitted for examination by an osteoarchaeologist to fully examine the sex, age at death and pathology of the individuals.

Bone from two burials should be submitted for radiocarbon analysis to determine whether they pre- or post-date the use of the medieval manor house.

3.7 *Animal bone Eden Hutchings*

3.7.1 Methodology

Thirty-four boxes of animal bone, with a total weight of 165kg, were collected. The assemblage comprises hand-collected bone. No bone dumps were located, so no specific bulk samples for wet-sieving for bone content were taken. However, small bone was recovered by wet sieving from the bulk soil samples.

Six boxes were chosen at random and have been examined in some detail, while the remainder was rapidly scanned in order to determine the general character of the assemblage and to ensure that the six random boxes were a representative sample. The small animal bone recovered from the bulk soil sampling has also been examined. It has not been possible to make any chronological distinctions at this stage of analysis.

3.7.2 Results

The assemblage is generally in a moderate condition, and most of the remains are fragmentary. The surface condition is generally good, with cut marks, knife-scrapes and pathological features clearly visible. Most of the remains have undergone trampling, rolling and a great deal of dog gnawing and chewing. A few pieces have been charred. This having been said, some remains, especially those of the dogs, are in a better general condition, with no gnawing or trampling, and fewer breakages.

A number of species are apparent. Cattle are clearly the most common, with a large relative proportion of Pig, Horse and Dog. There is a surprisingly small amount of Sheep/Goat. More interesting was the incidence of birds (small domestic geese like a Brent Goose, small domestic fowl, and Blackbird or Rook), as well as some Hare and other small mammals.

The small bone obtained from the processing of the bulk soil samples was rapidly scanned. It is dominated by amphibian bone, but small quantities from small mammals are also present. Only two samples contained fish bone, and then only in small quantities.

The most common body parts for cattle, pig, sheep/goat and horse from the six sample boxes are tabulated below.

For cattle the most common body parts were the humerus and metapodials, as well as digits and ankle bones (phalanges, astragali and calcanei). Mandible and skull fragments were also fairly common.

Cattle

Skull/ Mand.	Hum.	Fem.	MP	Scap.	Rad.	Tib.	Digits/ Ankles	Ulna	Pelv.
15	11	2	18	2	6	4	20	2	4

NOTE: Only the sturdier cattle bones such as the digits and ankles, metapodials and humeri had undamaged individual bones. The various taphonomic processes of trampling and chewing will have reduced the number of fragile bones recovered, and increased the relative apparent proportions of sturdy bones.

Pig

Skull/ Mand.	Hum.	Fem.	MP	Scap.	Rad.	Tib.	Digits/ Ankles	Ulna	Pelv.
5	3	1	2	0	0	1	0	0	1

Sheep/Goat

Skull/ Mand.	Hum.	Fem.	MP	Scap.	Rad.	Tib.	Digits/ Ankles	Ulna	Pelv.
9	3	1	8	4	3	5	2	1	2

NOTE: The remains from both these species were particularly fragmentary. Most of the remains had been heavily chewed and trampled. Several pieces had been partially digested. As a result, most of the longer bones were missing one or both epiphyses, making identification more difficult, and ageing almost impossible. Because of the various processes affecting the assemblage, the smaller and more delicate bones may well be under-represented.

Horse

Skull/ Mand.	Hum.	Fem.	MP	Scap.	Rad.	Tib.	Digits/ Ankles	Ulna	Pelv.
1	0	1	1	0	1	0	3	0	2

NOTE: All of the remains of horse came from particularly old individuals, which exhibited signs of porotic bone, as well as osseous surface growths.

3.7.3 Conclusions

Cattle remains, particularly the high-meat portions like the Humerus, dominate the assemblage, and sheep/goat remains are surprisingly scarce. The large number of cattle phalanges and ankle bones may be a result of some sort of hide processing, or it may be an artefact of the durable nature of these bones. The presence of bird remains is of particular interest, and the indication is that the diet included beef and a variety of domesticated fowl. This would contrast with the more common diet of pork and mutton that the majority of people would have consumed in the medieval period. The bone assemblage would therefore appear to confirm the manorial status of the site.

The non-food animals such as horse and dog are equally interesting. The Horse appears to be highly prized and probably heavily worked. The ossification on the anterior dorsal surface of the Atlas (from context 1993) is often a feature of horses that have constantly carried heavy loads, or drawn a heavy plough or cart. Leading or constantly pulling a horse can cause pressure on this part of the spine. The high incidence and good condition of dog bone may be indicative that ownership of dogs was common, and that the dog skeletons were not subjected to the trampling and chewing common to all the other remains on the site. This may be because the dogs were deliberately buried, although no intact burials were located. Measurement of the

dog bones to determine animal size would indicate whether the dogs were larger, working animals or smaller 'lap' dogs with no practical function.

3.7.4 The importance of the material and proposals for further analysis

The animal bone assemblage is of significance for the following reasons:

- 1) There have been relatively few studies of late Saxon and medieval bone assemblages from rural sites.
- 2) The site contains two distinct assemblages, one from the late Saxon and early medieval occupation, and another from the medieval moated enclosure. This contains the potential for period comparisons, although residuality will be a complicating factor in the later assemblage.
- 3) The assemblage from the medieval manor can be contrasted with rural assemblages from contemporary sites of either the same and lower status.

The animal bone requires full cataloguing to species to provide a clearer picture of the range of animals exploited at this site. An analysis by period should contribute to an understanding of animal husbandry, butchery practises and diet. The spatial distribution of the bone may also contribute to the understanding of site activity areas.

The bird remains are particularly interesting, and further analysis might reveal further additions to the present list of species. It would appear that fish bone remains are scarce, although this may well reflect a poor survival rate.

Although most of the remains are damaged in some way, many of the bones are in a good enough condition for meaningful measurements to be obtained, in order to calculate the size of various individuals. The cattle and dogs provide the best material for size analysis. Although several cattle mandibles were obtained, most are fragmentary or damaged. The amount of age-at-death information that could be obtained through this means is therefore limited. The general state of the other remains for other species would produce limited ageing data, as the epiphyses of many of the remains are damaged or missing due to the extensive chewing, although this would still be a worthwhile exercise.

Proposed analysis:

- 1) Full cataloguing to species
 - 2) Tabulation of species by period and spatial analysis of bone distribution
 - 3) Species by species summary, including, where possible, animal size, age at death and chronological trends
- 4) The following specific investigations will be involved:
- Determination of the kill pattern for the cattle and sheep/goat remains, where possible.
 - Body-part analysis
 - Butchery mark analysis, particularly on the sheep and cattle remains.
 - Identification of the bird remains to species level
 - Measurement of the Dog remains, to determine animal size

- Closer investigation of the horse bone pathologies

5) Preparation of report

3.8 Environmental evidence *Eden Hutchings*

3.8.1 Methodology

Sixty seven bulk soil samples, typically of 20 litres, were taken for ecofact collection. They represent all periods of activity from Roman to post-medieval, although a majority came from contexts of late Saxon and medieval date. During excavation advice on sampling procedures was obtained from Helen Keeley, independent environmental consultant, and Peter Murphy, the English Heritage regional advisor.

The darker, charcoal rich fills of the ditches and pits that offered the best potential for the recovery of carbonised plant remains were sampled preferentially. Samples were not taken from the waterlogged fills of the northern moat as these were clearly shown to be of recent date during excavation. The waterlogged fills of the southern moat were bulk sampled, but they have subsequently proved to be undated and may be of post-medieval date.

Seven column samples were taken from the waterlogged fills of the southern moat and from the wet, but not waterlogged fills, of an adjacent late Saxon ditch. Given the lack of dating evidence for the southern moat, sub-samples were not submitted for assessment.

3.8.2 Results

All of the bulk samples have been processed, and a sub-sample of 16 was submitted for assessment. These were chosen to represent the full range of period and feature types. The small group of Roman features were sampled, but produced no significant results.

The flots from the sample group were examined by microscope. The results are presented in tabular form and are discussed below.

Key to tables

Phase		Feature Type
EMS	Early/middle Saxon	D Ditch
LS	Late Saxon/early medieval	H Hearth
M	Medieval	P Pit
PM	Post-medieval	L Layer
		M Southern Moat
		S Slot

Quantification

+	One specimen present
1	2-10 specimens present
2	11-100 specimens present
3	100-1000 specimens present

The indicated environment,
D= Dry, W= Wet, V= Varied

Charred seeds

Sample number	1	2	3	5	6	8	9	10
Context	40	60	327	526	524	611	655	708
Phase	EMS	EMS	EMS	EMS	EMS	EMS	LS	LS
Feature type	D	D	D	D	H	D	P	P
Triticum sp.	2	3		3	3	2	3	2
Hordeum sp.	1	1		1	1	1	1	
Avena sativa		+		1	+	1	1	1
Vicia sp.		+	+	1		1	+	1
Lathyrus								+

Sample number	13	19	20	21	22	23	24	25
Context	771	874	627	1052	1060	867	872	868
Phase	M	PM	M	LS	LS	PM	PM	PM
Feature type	L	M	H	S	P	M	M	M
Triticum sp.	2		+	1	+			1
Hordeum sp.				1				
Avena sativa	1			2				
Vicia sp.				1				
Lathyrus								
Corylus nut fragments					+			

The charred seeds comprise mostly wheat seeds with some barley, mostly of the hulled variety. Some oat seeds were also present, being the majority of seeds in sample 21. A number of weed species were also present. Fragments of hazelnuts were present in samples 9 and 22. No chaff was observed in the samples examined, although it may be present in other samples.

It should be noted that it is the pits and ditches of the early-middle Saxon and the late Saxon/early medieval deposits that have produced the larger assemblages, while medieval deposits producing good assemblages are scarce once the deposits in the southern moat are excluded.

Charred wood

Sample number	1	2	3	5	6	8	9	10
Context	40	60	327	526	524	611	655	708
Phase	EMS	EMS	EMS	EMS	EMS	EMS	LS	LS
Feature Type	D	D	D	D	H	D	P	P
Charcoal	1	3	2	3	2	2	1	2

Sample number	13	19	20	21	22	23	24	25
Context	771	874	627	1052	1060	867	872	868
Phase	M	M	M	LS	LS	M	M	M
Feature Type	L	M	H	S	P	M	M	M
Charcoal	1	1	0	2	0	0	1	0

Mollusca

Sample number	1	2	3	5	6	8	9	10
Context	40	60	327	526	524	611	655	708
Phase	EMS	EMS	EMS	EMS	EMS	EMS	LS	LS
Feature type	D	D	D	D	H	D	P	P
Trichia sp.	2	2	+	1	2	1	1	2
Vallonia sp.	1	2		1	1	1	1	1
Cochlicopa lubrica		1		1	+		1	
Oxychilus alliarius		+						
Pupilla muscorum		1			+	1	1	

Sample number	1	2	3	5	6	8	9	10
Context	40	60	327	526	524	611	655	708
Phase	EMS	EMS	EMS	EMS	EMS	EMS	LS	LS
Feature type	D	D	D	D	H	D	P	P
Cepea nemoralis								
Helix aspersa								
Vitrea crystallina								
Planorbis planorbis								
Bithynia sp.								
Pisidium amnim								
Ena obscura								
Catinella								
Sp./Succinea sp (?)								
Ceciloides acicula	2	2	+	1	1	1	2	+
Oyster fragment					+			
Indicated environment	D	D	?	D	D	D	D	D

Sample number	13	19	20	21	22	23	24	25
Context	771	874	627	1052	1060	867	872	868
Phase	M	PM	M	LS	LS	PM	PM	PM
Feature type	L	M	H	S	P	M	M	M
Trichia sp.	2	3	1	1	+	1	1	1
Vallonia sp.	2	3		1	1	1	1	1
Cochlicopa lubrica	+	2		1		1		+
Oxychilus alliarius	+	1						1
Pupilla muscorum				1				
Cepea nemoralis		1	+				+	+
Helix aspersa		1						1
Vitrea crystallina						1		
Planorbis planorbis		1						
Bithynia sp.								
Pisidium amnim						1		
Ena obscura	+							
Catinella						1		
Sp./Succinea sp (?)								
Ceciloides acicula	+	1		2			1	
Oyster fragment								
Indicated environment	D	W	?	D	D	W	V	W

Samples 19 and 23 contain snails from 'wet' environments. *Vitrea crystallina* is a catholic species, but is most often found in damp, vegetated habitats. *Planorbis*, *Bithynia* and *Pisidium* all live in ponds, slow flowing rivers and other deep water. *Ena obscura* is found in shaded places, such as woods or hedges. *Catinella/Succinea* lives in damp areas with sparse vegetation, such as floodplain, mud and marshes. *Helix* and *Cepea*, while both common in varied habitats, are frequently associated with damp, vegetated areas, particularly gardens. The 'dry' samples contain such species as *Pupilla* which lives on dry scree slopes, and other exposed areas, and *Vallonia*, which also prefers dry open calcareous habitats. Some species of *Trichia* are also found in dry calcareous habitats.

From the samples examined it is evident that the preservation and quantity of both the charred plant remains and the snails are good enough to warrant detailed analysis. However, it is the early middle Saxon and late Saxon/early medieval deposits, comprising ditches and pits, that offer the best potential as it is these contexts that produced the greater quantities of material. The deposits contemporary with the medieval moated manor comprise wall construction slots and post-pits, remnant floor and external surfaces, and mixed soil layers within the open yards to the rear of the excavated building. Once it had been demonstrated that the moat fills were not contemporary with the manor, there was a lack of cut features such as ditches or pits that could contained sealed and undisturbed environmental material.

Given the uncertainty of the dating of the southern moat, the column samples were not submitted for assessment. Once it was established that the southern moat could

not be reliably dated, the remaining samples from the adjacent late Saxon ditch were similarly not assessed as the small quantity of material involved can be dealt with during the stage of further analysis.

3.8.3 Proposals for further analysis

A total of 40 samples will be examined, with a representation by period as follows:

Period	No. of samples
Early/middle Saxon	8
Late Saxon/early medieval	20
Medieval	12

The larger assemblages of charred plant remains will be selected for full quantification, with a particular emphasis on the presence of crop and weed seeds as an indicator both of the agricultural processes and of the immediate environment of the site.

The analysis of the snail remains will provide a more detailed picture of the immediate environment, giving an idea of the dampness of various parts of the site, and changes in these through time. The shell collected by hand will be included in this study.

The bulk samples and the column samples from the southern moat will not be subject to any further analysis as these deposits cannot be reliably dated and may, like the northern moat, be largely of post-medieval date.

The column samples from the late Saxon ditch adjacent to the southern moat will be submitted for pollen and insect analysis to provide a range of additional environmental data that is not present within the majority of the excavated contexts.

The results of the analysis will be grouped by period and site zones, to determine changes through time and to identify, if possible, specific activity areas. The results will be compared and contrasted with the results obtained from the excavation of other contemporary sites.

4. SUMMARY OF POTENTIAL AND PROPOSALS FOR ANALYSIS

The excavations have produced a wide range of evidence for previous activity and occupation.

The prehistoric and Roman evidence is sparse, and little can be said in detail about these aspects of the site. Of particular significance is the recovery of a sequence of middle Saxon, late Saxon and medieval occupation. Although no middle or late Saxon buildings were recovered it may still indicate continuity of settlement. However, the linear ditch systems of late Saxon origin, also indicate that there was a major episode of settlement reorganisation in the 11th century or earlier.

The location of a substantial timber hall within the medieval moated enclosure, and the associated finds and animal bone assemblage, have shown that this was certainly a manorial site, and most probably it was the Brayes Manor known from surviving documentary evidence. The analysis and publication of the results of this work will therefore make a significant contribution to the study of medieval rural settlement in general and to our understanding of manorial sites and moated enclosures in particular.

4.1 Review of the original research objectives

The potential of the recovered evidence to address the original research objectives as stated in the project design is briefly assessed below.

- **Objective 1 - Nature of pre-moat occupation**

A sequence of middle Saxon, late Saxon and early medieval occupation has been recovered. This has the potential in respect to two main aspects of medieval settlement studies. Firstly, continuity of occupation from the middle Saxon to late Saxon periods and secondly, the appearance of regular plots systems in the late Saxon period. This latter may denote a Saxon reorganisation of a Viking settlement, although the only physical evidence is a single copper alloy strap end stylistically Viking in form, recovered as a residual find.

- **Objective 2 - Impact of the construction of the moat on existing settlement.**

The archaeological evidence shows that the moated enclosure was inserted into and with respect to, the late Saxon plot system, suggesting reorganisation within a fixed settlement pattern.

- **Objective 3- Nature of occupation within moat: its internal organisation and function.**

The excavation recovered the remains a timber-framed manor house with associated yards and paths, and has produced finds, such as the chess piece, appropriate to its manorial status. The status and the nature of the use of the enclosure have therefore been demonstrated.

The environmental and faunal data indicate that crop processing was not being carried out within this part of the enclosure, and the high incident of bird bone may also relate to the high status of the site.

- **Objective 4- Settlement and landscape context of the moat.**

As the scope of the project is limited to the below ground archaeology within the road corridor there is limited potential for establishing the broader context of the moated enclosure. Although for earlier periods it is evident that the excavated areas are only marginal parts of larger occupation areas.

- **Objective 5- Building construction.**

As only a single complete building was recovered it will not be possible to comment on changes in construction techniques through time. However, the construction technique and even the roofing of the excavated manor house has been established and can be compared to the known construction techniques of other excavated contemporary buildings. For instance, there are clear similarities to buildings excavated at the moated site at Wintringham, Huntingdon (Beresford 1977).

- **Objective 6- Abandonment of the moat and subsequent landscape development.**

Determining any direct evidence for the cause of abandonment is likely to be difficult. However, if further analysis of the ceramic evidence can determine more precisely the date of abandonment, this will assist in placing the site within its local and broader historic context.

There is evidence for subsequent recutting of the moat and for its deliberate backfilling in the later 19th century when it was part of the park attached to Tempsford Hall. There is therefore evidence to show how the presence of these earthworks was utilised through the life of the park and hall.

- **Objective 7- Environmental information.**

The animal bone, charred seeds and molluscs should provide a good understanding of the agricultural activity related to the site, and of the local environment. However, it is unfortunate that the post-medieval recutting of the moat has removed any waterlogged contexts of medieval date that could have produced a wider range of environmental data. In fact in general a broader environmental picture will be obtained for the late Saxon/early medieval occupation as the related ditches and pits have produced a better assemblage than that obtained from the floors and yards pertaining to the moated enclosure.

- **Objective 8- Regional artefact studies.**

The pottery assemblage will enhance the understanding of the local ceramic tradition. It is one of the few sites in the region with uninterrupted occupation from the middle Saxon to late medieval periods. This includes one of the largest assemblages for the period c AD650-850 excavated in the region in recent years, forming part of a small but growing corpus of sites of the period from the south and east midlands. The medieval assemblage comprises an exceptionally large range of pottery types demonstrating contacts with East Anglia, Essex, London and the south midlands.

The other finds include a range of items to be expected on sites of this date and status. One exceptional item is the bone chess piece, the first to be recovered from the county.

- **Objective 9- Regional settlement patterns**

The determination of the development, character and status of the Saxon and medieval occupation of the site will feed into and enhance studies of the character and development of regional settlement patterns.

4.2 **Additional research objectives**

- **Prehistoric activity**

The recovery of a small residual flint assemblage will make a small additional to the study of earlier prehistoric exploitation of the Ouse valley.

- **Roman activity**

The evidence of Roman activity will add to the understanding of local settlement distribution, and will enhance the known context of other contemporary settlements, such as Warram Villas to the south and at St. Neots to the north. It also adds to the understanding of the rural hinterland serving the local Roman towns, such as at Sandy, only 5km to the south.

4.3 **Proposals for analysis**

4.3.1 The documentary evidence

Consultation with Steve Coleman, who prepared the account of the documentary evidence that accompanied the evaluation report (BCCAS 1993), indicates that the principal sources have already been examined. Further work on other possible sources would be time consuming, expensive, and might produce no further data of significance.

It is therefore proposed that the final report will include a synthesis of the documentary study carried out by Steve Coleman, who will be given the opportunity to compile or edit this contribution. This should include a discussion of the evidence relating to Brayes Manor with reference to its probable confirmation as being the moated site at Tempsford.

To be carried out concurrent with the analysis of the structural evidence.

4.3.2 Analysis of the structural evidence

The structural evidence from the site comprises several elements, spanning the Roman to medieval periods. The analysis of this evidence will comprise two major stages of work, as listed below.

1) *General analysis of the stratigraphic sequence*

This will comprise a full assessment of the stratigraphic sequence for the entire site. It will involve the definition of context, feature and structural groups. Context matrices will be produced for all areas, but a full site matrix will only be produced at feature or structural group level.

A full context database will be produced, and will form the major reference for context grouping in relation to specialist reporting and the analysis of finds distributions. Plans will be digitised to create a digital archive and the aid the production of consistent phase plans and general plans.

2) *Preparation of the site narrative*

Preparation of summary descriptive texts and illustrations for the defined feature and structure groups. These will be written to form the basis for the final descriptive text with a minimum of further editing. Illustrations will be prepared so as to form drafts for the final illustration requirements.

4.3.3 Finds and environmental analyses

The requirements for each category have been detailed within the individual finds assessments.

This work will need to take place concurrently with the analysis of the structural evidence.

4.3.4 Period syntheses and overview

This will comprise the following:

- the integration of the results of the finds and environmental analyses with the site narrative texts
- illustration of finds
- the preparation of a summary descriptive texts, and illustrations, for each period of activity
- an overview of the development of the settlement, and morphological changes through time

4.3.5 The site within its local, regional and national context

For each period the site will be set within its local, regional and national context. This will be achieved by reference to available published information and information available from the county Sites and Monuments Record.

Among the subjects to be considered will be:

- the nature of middle Saxon settlement sites
- continuity of occupation from the middle to late Saxon periods
- the introduction of regular plot systems in the late Saxon period
- parallels for the moated enclosure
- local medieval building traditions

4.3.6 Compilation of the final report

The arrangement and content of the final report is outlined below in the detailed report synopsis. Analysis will be targeted towards fulfilling the project objectives within the framework of this synopsis.

This will comprise:

- integration of existing texts to form a single report
- integration of illustrations and plates, and preparation of any further illustrations
- editing and proof reading of text
- It may also be appropriate to commission the production of a couple of colour reconstructions of the site. Perhaps a general view of the moated enclosure and a closer view of the manor house. The production of these would certainly be desirable if a popular leaflet and public presentation of the results was to be undertaken (see below).

The last stage of report preparation will comprise final editing and amendments resulting from external refereeing.

4.3.7 Publication and archiving

This will comprise at least two separate stages, while the preparation of a popular leaflet and a public presentation is an optional third stage :

- 1) *Publication of technical report*
 - Liaison with Journal/monograph editor
 - Proof reading of text
 - Costs will include a grant to cover the cost of publication, this will be based on a cost per page
- 2) *Archiving*
 - Microfiching of the site archive
 - Preparation of site archive for museum submission
 - Costs include box money for museum accession
- 3) *Popular leaflet and public presentation*
 - Preparation of popular leaflet
 - Preparation and running of public presentation
 - Note: production of colour reconstruction's (as already mentioned)

5. REPORTING AND ARCHIVE

5.1 Reporting

A summary note, with a general site plan, will be submitted for publication in South Midlands Archaeology. A full site report will be prepared for publication through the Bedfordshire Archaeological Council.

The site has produced evidence that contributes to various aspects of medieval archaeological studies. However, for each period only a part of the occupation area has been studied, including the excavation of the moated enclosure where only the main residence has been located. Given the incomplete nature of the evidence pertaining to each period, it may be more appropriate to publish the site as a major contribution to the journal series rather than as a separate monograph report. Provisional costs have been

based on producing a monograph report, and it is suggested that a final decision is made once the initial integrated version of the report is compiled.

A cost has also been provided for the production of a small popular leaflet and for the preparation of a public display and lecture presenting the results of the excavation. St. Neots museum and/or Tempsford parish Hall would be suitable venues for such a presentation, while a small display produced for these presentations could also go to Bedford Museum.

5.2 Report synopsis

1. Introduction

Background
 Acknowledgements
 Location and topography
 Methodology

2 The documentary evidence

3 The excavated evidence

Summary of chronology and phasing
 The palaeochannel and tree holes
 Prehistoric activity
 Roman occupation
 Early-middle Saxon occupation
 The late Saxon and early medieval settlement
 The boundary ditches
 Other features
 Pits and ovens in the central area
 The medieval moated enclosure and manor house
 The moated enclosure
 The early pits and postholes
 The manor house: construction, form, refurbishment and demolition
 External surfaces and other contemporary features
 Post-medieval activity
 The recutting of the moat
 The landscape of Tempsford Park
 The Victorian filling of the moat

4. The Finds

The worked flint
 Prehistoric pottery
 Roman pottery
 Saxon and medieval pottery
 Post-medieval finds from the northern moat
 Other finds

5 Faunal evidence

The human bone
 The animal bone

6 Environmental evidence

- Introduction
- Charred plant remains
- Molluscs
- Analysis of samples from the late Saxon ditch

7 Discussion

- The prehistoric and Roman landscape
- The early/middle Saxon settlement
- Continuity of settlement into the late Saxon period
- The late Saxon reorganisation of the landscape
- The medieval moated enclosure
- The medieval manor house, construction, arrangement and use
- Tempsford Hall

Schedule of illustrations

- 1 General location plan
- 2 General phase plans
- 3 Roman features; general plan
- 4 Roman features; detailed plans and sections
- 5 Early-middle Saxon features; general plan
- 6 Early-middle Saxon features; detailed plans and sections
- 7 Late Saxon features; general plan
- 8 Late Saxon features; detailed plans and sections
- 9 Early medieval features, the central area; plan and sections
- 10 The moated enclosure, general plan including earthwork evidence
- 11 The moated enclosure, the early pits and postholes; plan and sections
- 12 The moated enclosure, the medieval manor house; general plan
- 13 The moated enclosure, the medieval manor house:
detailed plans and sections
- 14 The moated enclosure; moat sections
- 15 onward Worked flint and prehistoric pottery
Roman pottery and other finds
Early-middle Saxon pottery
Late Saxon and medieval pottery
Other Finds
- Location plan, moated enclosures in Bedfordshire and its environs
- Comparative plans of moated enclosures
- Comparative plans of medieval manor houses

5.3 The site archive

A microfilm copy of the site archive and the site narrative will be made to RCHME standards and submitted to the National Archaeological Record.

The site archive will comprise all written, drawn and photographic records, and all material finds and processed sample residues recovered from the excavation. The site archive will be accompanied by the research archive, which will comprise the text, tabulated data, original drawings and all other records generated in the analysis of the site archive.

The archive will be fully catalogued and deposited in Bedford Museum in a format agreed with that institution. The Bedfordshire County Sites and Monuments Record will be notified of the arrangements. The deposition and disposal of artefacts will be agreed with the legal owner.

6. RESOURCES

6.1 Work completed

The site archive has been consolidated and all finds have been processed. The pottery, animal bone, environmental data and the small finds have been assessed.

6.2 Proposed work

6.2.1 Staffing

TASKS	PERSONNEL
1) The documentary evidence	A Maull with Steve Coleman
2) Stratigraphic analysis	A Maull and Steve Morris
3) Finds analysis	
Worked flint & prehistoric pottery	A Chapman
Roman pottery	T Hylton
Saxon and medieval pottery	P Blinkhorn
Post-medieval pottery and glass	I Soden
Other finds	T Hylton
Metalworking evidence	G McDonnell
Human bone	T Anderson
Animal bone	E Hutchings
Environmental evidence	E Hutchings
Pollen analysis	R Scaife
4) Period syntheses	A Maull and Steve Morris
Illustrations	NA illustrators
5) Overview and discussion	A Maull and A Chapman
6) Integration of report	A Maull and A Chapman
7) Final editing after refereeing	A Maull and A Chapman
8) Publication of report	A Maull with A Chapman
9) Preparation of archive	T Hylton with NA assistants
10) Popular leaflet and presentation	A Maull with A Chapman

6.2.2 Key Personnel

Andy Chapman	Senior Project Officer, Northamptonshire Archaeology
Anthony Maull	Project Officer, Northamptonshire Archaeology
Steve Morris	Project Supervisor, Northamptonshire Archaeology
Paul Blinkhorn	Independent pottery consultant
Iain Soden	Senior Project Officer, Northamptonshire Archaeology
Tora Hylton	Finds Officer and Archives Manager, Northamptonshire Archaeology
Gerry McDonnell	Metallurgical specialist, Bradford University
Eden Hutchins	Independent faunal and environmental consultant
Rob Scaife	University of Southampton
Trevor Anderson	Independent Osteoarchaeologist
Steve Coleman	Historic Environment Information Officer, Bedfordshire County Council

6.2.3 Costs

As required, the cost estimates for the post-excavation analysis are based on the Year 1 Priced Staff Cost Schedule, as included in the original Project Design for the year 1999/2000. All costs will therefore include an inflation factor based on Treasury forecasts. All costs are also exclusive of VAT, which will be charged at the standard rate.

WORK STAGE	DAYS	COST
1) Documentary Evidence	7.5	£ 915.00
2) Analysis of Structural Evidence	119.0	£12,120.00
3) Finds:		
Prehistoric	4.0	£ 480.00
Roman pot	2.0	£ 240.00
Saxon and medieval pot	35.0	£ 4,450.00
Post-medieval pot & glass	6.0	£ 735.00
Other finds	48.0	£ 7,950.00
Animal Bone	29.0	£ 3,750.00
Human Bone (+C14 date)	3.0	£ 1,310.00
Environmental Evidence:		
Main analysis	22.0	£ 3,950.00
Other specialist analysis	7.0	£ 1,500.00
KEY POINT 1:	SUB-TOTAL	£37,400.00
4) Period Synthesis	22.0	£ 2,520.00
5) Overview of evidence	10.0	£ 1,400.00
6) The context of the site	20.0	£ 2,450.00
7) Report compilation	19.0	£ 2,190.00
Preparation of colour reconstruction's		£ 1,250.00
8) Refereeing and final editing	5.0	£ 1,100.00
9) Publication (proof reading, liaison and publication costs: estimate 125 pages)	8.0	£ 6,250.00
KEY POINT 2:	SUB-TOTAL	£ 17,160.00
10) Popular leaflet and presentation	17.0	£ 2,050.00
11) Archiving	13.0	£ 4,050.00
KEY POINT 3:	SUB-TOTAL	£ 6,100.00
TOTAL		£ 60,660.00

Note: the total number of days per task includes both the key personnel and support from project assistants, illustrators and other staff as appropriate. Allowance in the costs has been made for expenses, materials, administration and leave.

6.2.4 Timetable

WORK STAGE (KEY POINTS)	COMMENCEMENT/ COMPLETION DATE
1) Documentary Evidence	Dec 2000-Mar 2001
2) Analysis of Structural Evidence	Dec 2000-June 2001
3) Finds analysis	Feb 2000-June 2001
(KEY POINT 1: END OF JUNE 2001. COMPLETION OF SITE AND FINDS ANALYSES)	
4) Period Syntheses	July-Aug 2001
5) Overview of the evidence	Aug 2001
6) The context of the site	Sep-Oct 2001
7) Report compilation	Nov-Dec 2001
8) Refereeing and final editing	Jan-Feb 2002
9) Publication	submission July 2002
	(Publication date dependent on Bedfordshire Archaeological Committee)
(KEY POINT 2: END OF FEBRUARY 2002. SUBMISSION OF REPORT FOR PUBLICATION)	
10) Popular leaflet and presentation	Feb- Mar 2002
11) Archiving	Apr- Jun 2002

(KEY POINT 3: END OF JUNE 2002. COMPLETION OF ARCHIVING)

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Fieldwork and text:	Anthony Maull Cert Brit Arch
Illustrations:	Mark Roughley MA and Steve Morris
Text editing:	Andy Chapman
Saxon and medieval pottery:	Paul Blinkhorn B. Tech
Other finds assessments:	Tora Hylton and Andy Chapman
Metalworking debris	Ivan Mack and Gerry McDonnell
Environmental and faunal remains:	Eden Hutchings

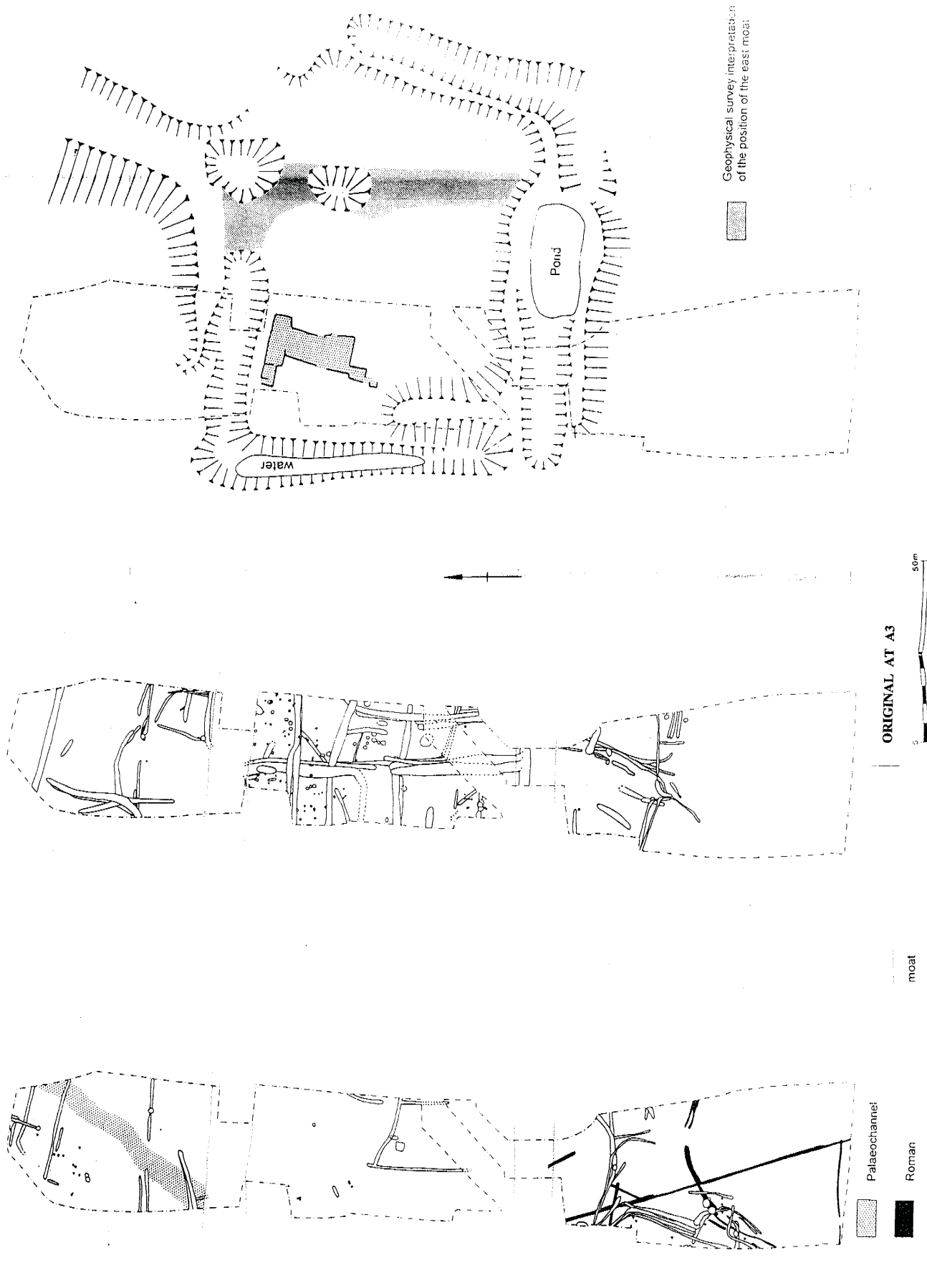
Northamptonshire Archaeology
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Environment Directorate

Revised September 2000



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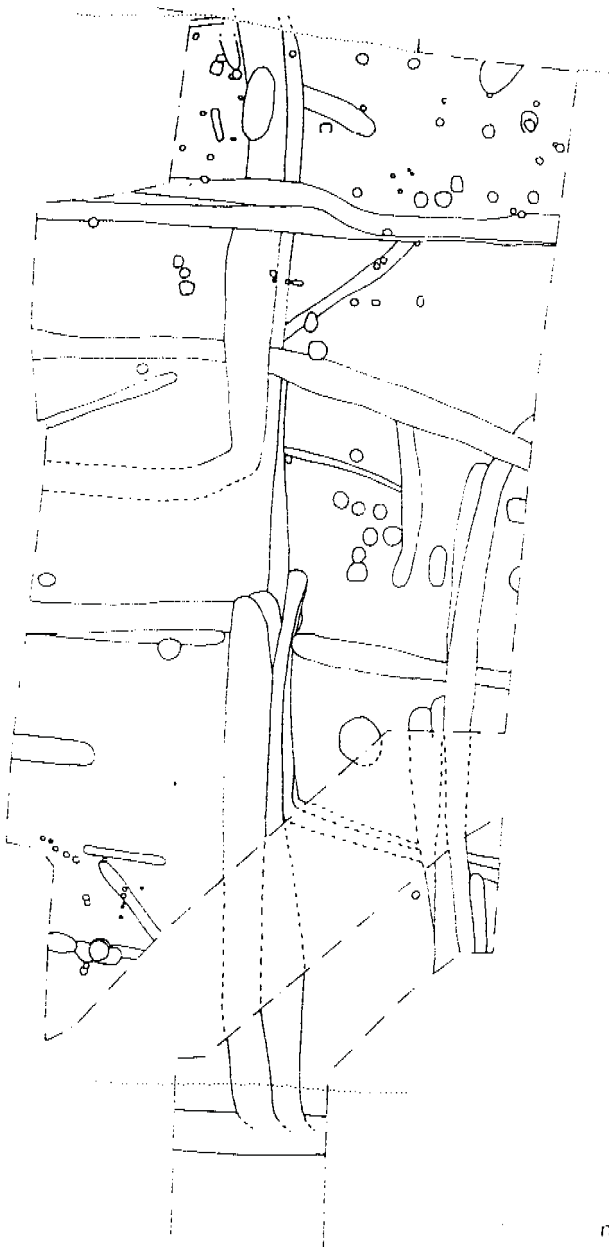
Fig 1 Site location



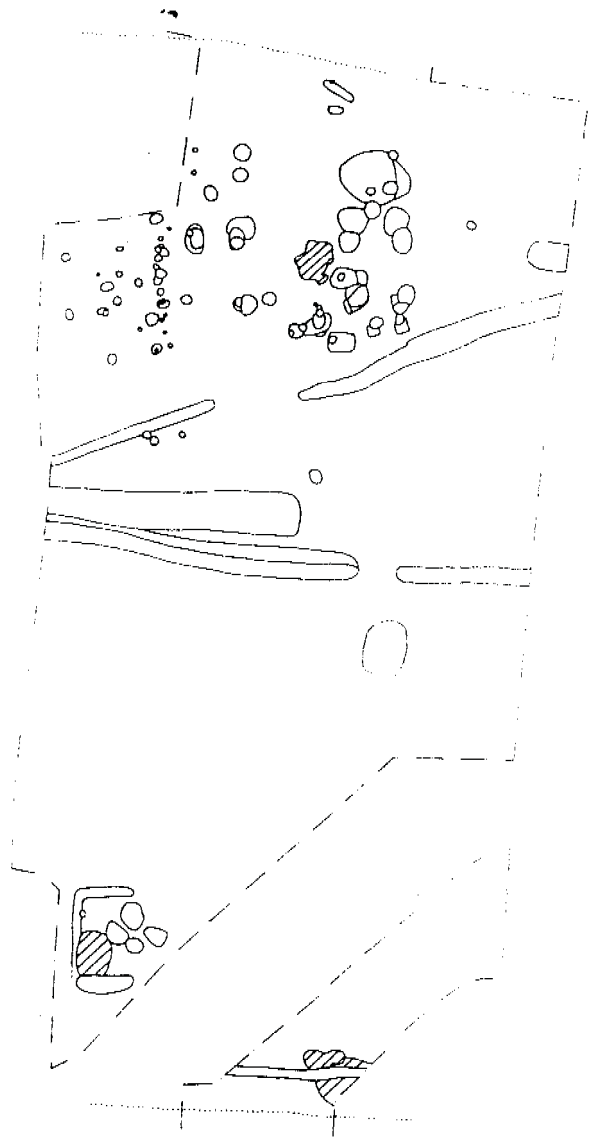
a) ROMAN AND EARLY TO MIDDLE SAXON

b) LATE SAXON

c) MOAT EARTHWORKS SURVEY AND 13TH TO 14TH CENTURY MANOR HOUSE



a) LATE SAXON



b) EARLY MEDIEVAL

meat edge

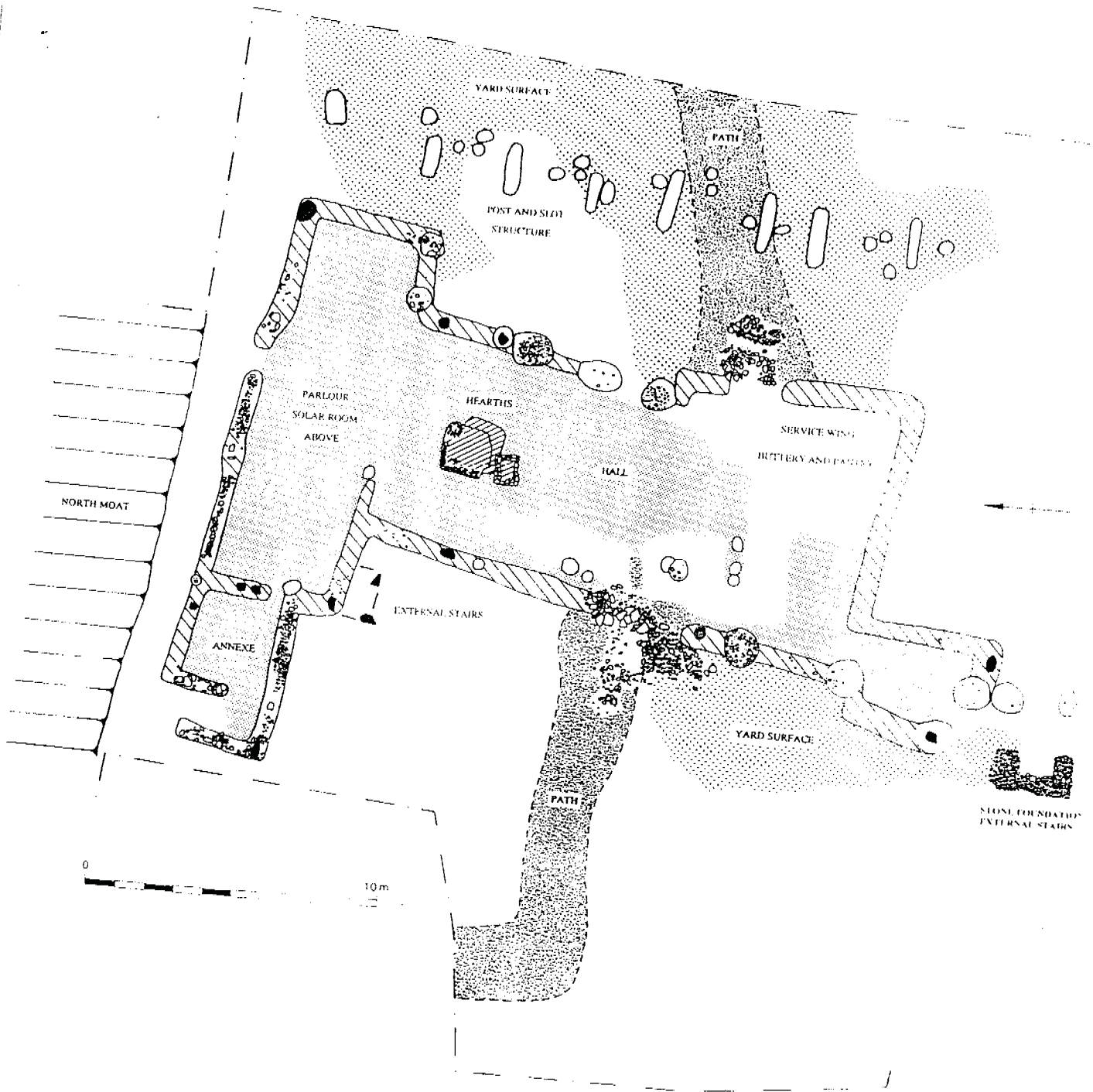


ovens





13TH CENTURY MANOR



13th TO 14th CENTURY MANOR HOUSE

North moat

SOUTH

NORTH

18.02m aOD

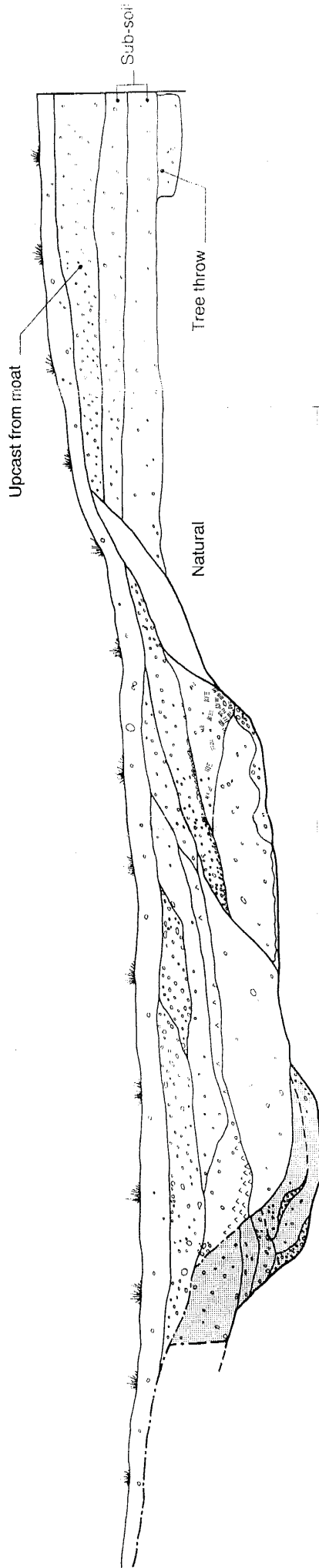


South moat

SOUTH

NORTH

19.27m aOD



- Late 19th Century Brushwood
- Clay
- Clay and silt
- Saxon feature

10m



ORIGINAL AT A3

Fig 6