MEDIEVAL SETTLEMENT REMAINS, PART OF A MEDIEVAL CEMETERY AND LATER STRUCTURAL REMAINS ASSOCIATED WITH CHICHELEY HALL

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with contributions by
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Archaeological investigations were undertaken by Albion Archaeology at Chicheley Hall during a programme of building refurbishment in 2009. These revealed early–late medieval, post-medieval, 18th-century and 19th-century remains. Early medieval (1150–1250) remains included part of the cemetery of the adjacent church of St Lawrence, and pits and ditches which may have formed part of a manorial centre. Finds from one of the pits included wall plaster and a stirrup, suggesting high status occupation. A small number of features indicated continued use throughout the medieval period. Documentary evidence suggests these remains formed part of a grange belonging to Tickford Priory. To the south a number of pits and ditches appeared to form part of an area of shrunken settlement. Post-medieval and later remains relating to the development of the site as a country house included evidence for the internal arrangement of stables.

Introduction

A programme of repairs and refurbishment was undertaken during 2009 by the Royal Society at Chicheley Hall to convert the former private residence into a conference centre. A planning condition requiring a programme of archaeological works was attached to planning approvals for refurbishment, listed building consent and change of use. RPS Planning & Development were appointed by The Royal Society to manage these works. Albion Archaeology was commissioned by RPS to undertake the archaeological mitigation works. The fieldwork was carried out between May and November 2009 and monitored by the Milton Keynes Archaeological Officer (MKAO). The project archive has been deposited with Buckinghamshire County Museum (accession number AYBCM: 2009.258).

Location, Topography and Geology

Chicheley Hall is located at SP 9055 4585, 4km northeast of Newport Pagnell (Fig. 1). The site lies at around 77m OD within an undulating landscape which slopes gradually down towards the river Great Ouse 2km to the southeast. Chicheley Brook runs close to the eastern side of the site, flowing southwards to join the Great Ouse downstream of Newport Pagnell.

The geology around Chicheley consists of Oxford Clay covered by Boulder Clay with localised alluvial deposits associated with the Chicheley Brook. The central part of the site lay on a localised deposit of sand which was encountered in a number of the excavated trenches.

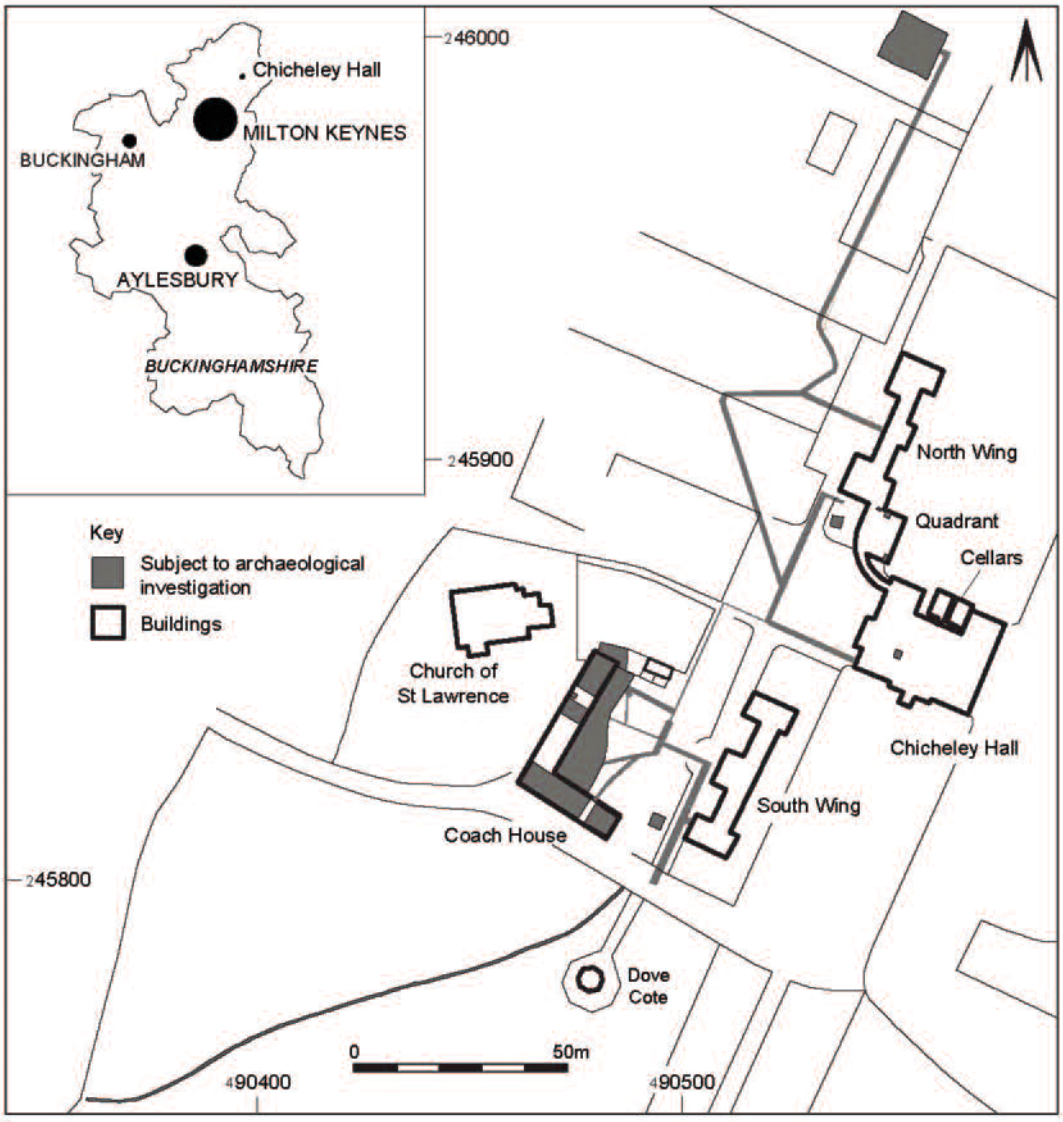


FIGURE 1 Site location

ARCHAEOLOGICAL BACKGROUND

Evidence dating from the prehistoric and Roman periods has been recorded in the wider area around Chicheley Hall but not from the site itself. A well-preserved bowl barrow of probable late Neolithic or early Bronze Age date is located 1km to the west at Sherington (Scheduled Ancient Monument No 19045). Evidence of Iron Age activity was found in at least three locations along the route of the Newport Pagnell bypass (Farley and Knight 1986, 148–62). Chance finds of Roman coins (HER4859) have been recorded from the adjacent churchyard of the Church of St Lawrence (Fig 1) and 500m to the northeast of the site. Evidence of Middle Saxon occupation was investigated 2km to the southeast during the construction of the bypass. A ditch contained sufficient occupation debris to

suggest the presence of a small settlement or farmstead (Farley 1980, 92–104).

Medieval evidence in the vicinity of the site includes the Church of St Lawrence immediately to the west, and earthworks of probable medieval date situated in fields to the north and south. Within the fabric of the church the earliest datable features are early 14th century. However, the proportions of the nave and thickness of its walls could indicate a 12th-century date (Pevsner and Williamson 1994, 245). Earthworks and chance finds in the field to the south of the Hall (HER 485) have been interpreted as the remains of a shrunken medieval settlement, and ridge and furrow earthworks have been noted in the fields to the north (RPS 2009, 16).

Evidence of foundations and cellars belonging to earlier buildings has been recorded close to the present Chicheley Hall. It was noted that the line of foundations could be traced in the grass during dry summers (Jeudwine 1875, 331), and 'foundations have been found under the grass towards the 'canal' between the ilexes' (*Recs*. *Bucks*. 1940, 452–3).

Two cellars which extend beneath the garden on the north side of the house appear to have formed part an earlier building (Fig. 1). One is linked by a short passage to the basement of the existing house. An adjacent cellar was discovered when partial collapse of its roof created a hole in the garden. The cellars are 6m long by 4m wide and were originally longer, as evidenced by the cross walls which currently form their northern end. The construction of the cellars differs from that used in the rest of the basement. Investigation of the previously unknown cellar showed that it had been blocked prior to the construction of the basement (Northamptonshire Archaeology 1997).

Historical Background

During the medieval period two of the three manors in the parish, Chicheley Manor and Thickthorn Manor, belonged to Tickford Priory which was situated 3km to the southwest of Chicheley Hall. It has been suggested that a 2-acre piece of land called *Home Close*, situated east/southeast of the vicarage in Chicheley would have been a grange belonging to the priory. Home Close may have originated as the 'capital messuage' in land given to the priory by Ralf Maunsell during the later 12th century (Chibnall 1979, 68–70). It is likely that this close corresponds to part of the area which is now occupied by Chicheley Hall.

Following the suppression of Tickford Priory in 1525 the manor of Chicheley was granted to Cardinal Wolsey. It reverted to the Crown in 1545 and Anthony Cave successively petitioned to be granted the manors of Chicheley, Thickthorn (VCH 1927, 311–16). He built a new house which was probably completed by 1550. An inventory of his property, compiled when he died in 1558, gives some details. The two-storey house comprised hall, parlour, counting house, kitchen, nursery, six bedrooms and an armoury over the porch. There was a gatehouse with a loft. Service buildings included a brew house, buttery, dairy, storehouse, wool house and bolting house (Chibnall 1979, 74). In 1874 the Rev. W Jeudwine, vicar of Chicheley, wrote of a local tradition that the house was in the form of a hollow square. This suggests it could have been a courtyard house, a common form of house for the gentry in the 16th century.

On the death of Anthony Cave's wife, Elizabeth, in 1577, the Manor passed to Anthony Chester, son of their daughter Judith, wife of William Chester. In 1619/20 he became Sir Anthony Chester when he was created a baronet.

In 1645 when the manor was held by the second Sir Anthony Chester, a Royalist, the house was plundered and sacked by Parliamentary soldiers (VCH 1927, 311–16). The Buckinghamshire Hearth Tax returns for 1662–1672 (PRO E179/80/349) list the third Sir Anthony Chester's house in Chicheley as having 14 hearths which gives an indication of the size of the house, although not every room would have had a hearth.

The current buildings and gardens, constructed by Sir John Chester, date from the early 18th century. Details of the works at this time are recorded in account books and correspondence between Sir John, his friend Burrell Massingberd and their protégé William Kent (Tanner 1961). The initial plan was to develop the existing house and gardens. There are payments in 1700 and 1701 for the three-sided canal on the east side of the house (Binney 1975). In 1716 work is recorded on setting out the ground for a stable and stonework for a garden door case (Tanner 1961, 43). By 1719 Sir John had decided to build a new house. He contracted a builder in October of that year to begin demolition and by 1720 the construction of its

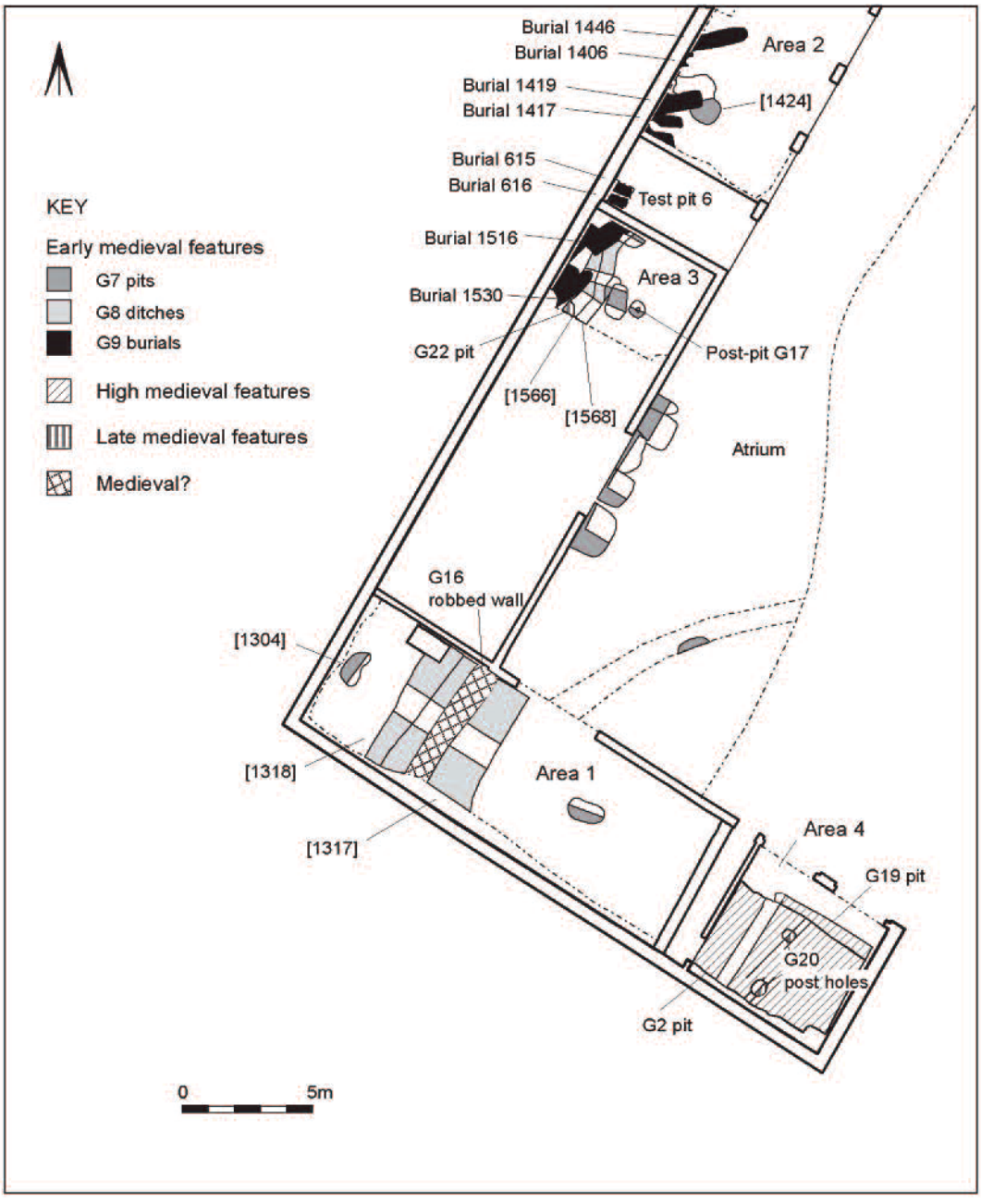


FIGURE 2 Medieval remains within and adjacent to the Coach House

replacement had begun. The construction of the south wing consisting of coach house and stables was under way in 1723.

In 1725 Sir John Chester was in discussion with Charles Bridgman concerning plans to redesign the garden, including the infilling of the canal. Sir John died shortly afterwards and the house and gardens have since remained largely unaltered.

Methodology

The recent programme of archaeological work began with the monitoring and recording of geotechnical test-pits. These were opened adjacent to foundations for the Coach House, Quadrant building and within the basement of the main house. The results of these investigations were presented in an interim client report. The most significant result was the location of human burials in Trench 6, inside the Coach House (Albion 2009, 4).

A subsequent programme of archaeological mitigation works took place during the repairs and refurbishment works, which affected archaeologically sensitive parts of the site. Their full extent is shown in Figure 1. Strip, map and sample excavations were undertaken in the Coach House, in the adjacent Atrium Area and at the north end of the gardens, where a square trench 12m by 12m was investigated. Inside the Coach House archaeological deposits were investigated down to the formation level. Significant archaeological deposits continuing below this level were preserved *in situ* in accordance with a methodology agreed with RPS Planning & Development and the MKAO. Watching brief monitoring was undertaken on service trenches and soakaway pits close to the house and a service trench to the south of the house.

During the initial post-excavation analysis the contexts were assigned to a structural hierarchy consisting of Groups, Land-use Areas and Phases. The Groups represent functionally related features of a similar date. These were amalgamated into Land-use Areas, representing activity on a wider scale. The Land-use Areas were assigned to Phases which encompass all of the activity on the site within a chronological period.

The results below are described by Phase, Land-use Area and Group, respectively abbreviated to P*, L* and G*. Context numbers referring to cut features are written as [**]; layers or deposits within cut features are written as (**).

Phase 1: Medieval (*c.*1150–1500)

This phase includes all features dated to the medieval period. These were identified within, and adjacent to, the Coach House (Fig. 2), in land adjacent to the South Wing (Fig. 3) and in land adjacent to the North Wing (Fig. 4).

L2: Early medieval features

L2 comprises all remains dated to the early medieval period (1150–1250) and represents the majority of remains in Phase 1. These included traces of settlement activity in the form of pits and ditches, and part of the cemetery belonging to the adjacent churchyard (of the church of St Lawrence).

Pits G7

Eleven pits dated to the early medieval period were found in and adjacent to the Coach House (Fig. 2). They were generally rounded or oval in plan, with bowl-shaped profiles.

Two pits of similar size and shape were found in Area 1. Pit [1320] contained a single deposit 0.16m deep. Pit [1304] contained three deposits which produced significant amounts of occupation debris. Finds included pottery, animal bone (much of it burnt), limestone fragments and plaster, including some with whitewash, and an iron spur (RA1) dated to the late 12th to mid 13th century. The charcoal-rich, middle fill contained ashy lenses and large numbers of cereal grains (Sample 6, Table 10).

In Area 2 a single irregularly shaped pit [1424] contained a small amount of animal bone and pottery with dark lenses of charcoal with fragments of fired clay. Plant remains include a significant amount of cereal grains (Sample 5, Table 10). The pit was partially truncated by a later grave.

Area 3 of the Coach House contained three pits, two of them partially truncated by a ditch dated to the early medieval period. A single sherd of pottery dated to the 11th or 12th century was recovered from the southernmost pit.

In the Atrium Area a cluster of five pits formed a partially inter-cutting row aligned NE-SW. These differed from those described above, being more regular in shape. Some were square in plan with

steep sides and flat bases. They contained a small amount of pottery. It is likely that the alignment of the pits respects a boundary, probably associated with the contemporary churchyard to the north-west.

Post pit G17

A single structural feature [1510] was found in Area 3 of the Coach House (Fig.2). It consisted of a sub-circular pit with a shallow concave profile 0.16m deep with a darker deposit at its centre, interpreted as a post-pipe. The deposit within this pit contained a small amount of pottery (6g).

Ditches G8

Ditches dated to the early medieval period were found in Areas 1 and 3 of the Coach House (Fig. 2).

In Area 1, a NE–SW aligned ditch [1318] was truncated by a re-cut on the same alignment. The first ditch contained a single mixed deposit with patches of green mottling. It produced fragments of limestone, a small amount of animal bone and pottery. It was re-cut by a larger ditch [1317] up to 3.5m wide and 0.8m deep, which contained limestone fragments and small amounts of animal bone and pottery.

In Area 3, NE–SW aligned ditch [1568] was partially re-cut on the same line by ditch [1566]. [1568] appeared irregular in plan with quite wavy edges. It was up to 1.15m wide and 0.3m deep. The subsequent re-cutting was shallow at the north and became deeper and wider towards the south. Deposits within the ditches produced a small amount of animal bone and pottery.

Cemetery G9

Inhumation burials were found inside the northern part of the Coach House, close to the rear wall which forms the modern boundary with the churchyard (Fig. 2). Eight inhumations were confirmed by excavation and three more possible graves were identified in plan. Six of the inhumations were excavated and lifted. The remainder were preserved *in situ*, as they lay below the level of the construction work. The burials are summarised below (Table 1). Detailed analysis of the six excavated burials appears below in the section on human bone.

The eastern and northern extent of the cemetery lay within Areas 2 and 3 of the Coach House. Excavation in the Atrium Area and to the north of Area 2 uncovered no further burials. The southern extent of the burials could not be examined as it lay beneath an existing concrete floor slab which was retained in the new development.

The alignment of the graves varied between ESE–WNW and NE–SW. The greatest divergence from the conventional (Christian) E–W alignment occurred in Area 3, where the graves lay on a NE–SW alignment. These graves were partially cut into ditches [1566] and [1568], on the same alignment. It is possible that the graves respected an adjacent boundary which was still maintained in some way, perhaps as a hedge or bank. In general, adjacent burials lay on similar alignments, with minimal inter-cutting of the graves. Both factors suggest they were broadly contemporary.

The graves were mostly narrow with rounded ends, *c.*0.6m wide and 0.2–0.5m deep (Fig. 5).

TABLE 1 Summary of inhumation burials

Location	*Grave*	*Remains*	*Description*
Area 2	[1444]	(1446)	Complete female adult burial
Area 2	[1404]	(1406)	Lower half of child burial c.4-5yrs
Area 2	[1418]	(1419)	Lower half of male young adult burial
Area 2	[1415]	(1417)	Lower half of child burial c.9-11 yrs
Area 2	[1416]		Probable grave, not excavated
Test pit 6	[605]	(616)	Lower half of adult burial, left *in situ*
Test pit 6	[607]	(615)	Partial neonate skeleton
Area 3	[1514–50]	(1516)	Skull observed, left *in situ*
Area 3	[1528–35]	(1530)	Poorly preserved infant burial c.1-2yrs
Area 3	[1560]		Possible grave, not excavated
Area 3	[1531–33]		Possible grave, not excavated

Originally they would have been deeper as some truncation has taken place since the medieval period. The shape and size of the graves together with the posture of the skeletons and lack of post-depositional bone tumbling indicate that most of the burials were not coffined but were wrapped in shrouds. Confirmation of the use of shrouds came *via* the small fragments of linen textile recovered from a soil sample taken around the feet of burial (1417) in grave [1415] (see below).

The grave cut for one of the burials (1516) was noticeably different from the others; it was wider at 0.8m with a square cut end and vertical sides. Only a small section of this burial was exposed, as it was preserved *in situ*; the positioning of the body within the grave is therefore unknown. Grave [1418] partially truncated an earlier pit [1424], which contained occupation debris including small quantities of animal bone and pottery.

Three of the burials were radiocarbon dated. Two produced calibrated dates spanning the early 11th to the early 13th century (burial 1419, 1020–1210 cal AD, 95.4% confidence, 920 ± 35 BP, SUERC-28698 and burial 1530, 1030–1210 cal AD, 95.4% confidence, 905 ± 35 BP, SUERC-28697). The third date spanned the mid 11th to the later 13th century (burial 1417, 1040–1100 and 1110–1270 cal AD, 95.4% confidence, 850 ± 45 BP, SUERC-28699).

Pottery dated to the 12th or 13th century was recovered in association with burials (1419) and (1530). Combined with the radiocarbon dates, this would suggest a 12th-century date for these burials. The edge of the grave for burial (1415) appeared to have been partly truncated by the grave of burial (1419) suggesting a mid 11th- or 12th-century date for burial (1415).

The presence of graves on differing alignments suggests the burials represent more than a single phase. However, the absence of inter-cut burials or significant charnel deposits in graves suggests that this part of the cemetery was not subject to intensive use over an extended period of time.

L3: Later medieval features

L3 comprises a small number of features which were dated to the high medieval (1250–1400) and late medieval (*c*1400–1500) periods. Robber trench G16 contained no dating evidence but has been tentatively assigned with the later medieval features.

High medieval pits G2 and G19

In Area 4 (Fig. 2) a large cut feature G2 contained pottery dated to the high medieval period (1250–1400). The northern edge of the feature was straight in plan, aligned NW-SE. The upper part of the cut was steep-sided; the base lay below the level of construction works and was not investigated. The deposit within the feature was mixed, suggesting deliberate backfilling. It consisted of grey brown sandy loam with occasional patches of red-brown sand and lumps of light yellow brown clay throughout. It produced a moderate amount of animal bone (180g) and pottery (287g). The absence of erosion in the steep, upper edge of G2 shows it was open for a limited time and the mixed deposit suggests that it was deliberately infilled.

The remains of an earlier feature G19 were truncated by the northern edge of pit G2. The parallel arrangement of these features suggests that G19 could have been a precursor of G2 or that these features respected a contemporary boundary. The function of these features is uncertain; they may have been quarry pits.

Late medieval features G20 and G22

A small number of features are assigned to the late medieval period (1400–1500) (Fig. 2). In Area 4, two postholes, G20, of similar size and shape were excavated; one produced late medieval pottery. The postholes were sub-rectangular in plan with steep sides and flat bases. The larger of the two was 0.45m deep with possible post-packing in the form of a block of sandstone. In Area 3, a single pit G22 produced a small amount of animal bone and a sherd of late medieval pottery. These features demonstrate continued activity during the late medieval period, but provide little evidence as to its character.

Robber trench G16

Robber trench G16 was located in the northwest part of Area 1 (Fig. 2) and is tentatively assigned to L3. It consisted of a linear feature aligned broadly NE-SW, with a square-cut profile, 0.9m wide and 0.27m deep. It was filled with loose silty sand containing limestone fragments. This feature appears to be the remains of a wall foundation which was dug out for its re-usable stone. No datable artefacts were recovered. Stratigraphically, it post-dates an early medieval ditch [1317] and

was truncated at its southern end by the foundations of the Coach House.

L9: Medieval remains adjacent to the South Wing

A number of features were identified during the cutting of a service trench in the field to the south of Chicheley Hall (Fig. 3). Pit G35 contained a small amount of medieval pottery in its lower deposit, the latest dating from the high medieval period (1250–1400). The other archaeological remains in the trench, G36, comprised seven ditches, a pit and a possible gravel surface or path. These were mainly clustered in the middle part of the trench with a single pit and ditch located at its northeast end. The ditches were 0.75-3m wide and 0.28-0.85m deep. Most of those found in the middle part of the trench were aligned broadly NW-SE. No dating evidence was recovered from these features. They are assigned to the medieval period by association with G35 but it is likely that they represent more than one phase of activity. Documentary evidence suggests a row of house plots existed to the south of the church during the mid 16th century (Chibnall 1979, map 5, 180–1).

L12: Medieval remains adjacent to the North Wing

A ditch and a furrow (G45) aligned NW-SE were recorded in the northernmost part of the site (Fig. 4) beneath a subsoil layer. Documentary evidence shows that this area formed part of the medieval open field system. It lay in a furlong named 'Super le Madelond furlong' *c*.1330 and 'Maydlond furlong begynnynge at Claye pyttes' in 1557 (Baines 1997). It was later under woodland established as part of landscaping during the 18th or 19th century.

Phase 2: Post-Medieval (*c*.17th Century)

L4: Construction of the Coach House G3

During this phase the buildings which form the present Coach House were constructed. The building consists of two ranges forming an L-shape on the southern and western sides of a yard area. The southern range is aligned broadly NW-SE and is 24.8m long and 6.4m wide. The western range is aligned broadly NE-SW and is 30m long and 6.1m wide (Fig. 6). The building was not subjected to detailed fabric analysis, although structural elements of the foundations uncovered during the works were recorded.

Limestone walls forming the rear and end walls of the two ranges are likely to be part of the original structure, whilst the front was subject to rebuilding in the 18th century (Phase 3). These walls are constructed in roughly coursed limestone rubble. The west wall of the south range contains a blocked ventilation slit. Rectangular window openings in its south wall are likely to be later insertions. The walls were constructed on substantial limestone foundations which were 0.6-0.8m deep.

A reused architectural fragment was identified in the foundations at the west end of the southern range. It came from the corner of a rectangular opening with an ovolo moulding, a type which was in use during the 17th century.

Remnants of cobbled floor surfaces (G15) were found in Areas 1, 2 and 3 beneath the modern floor make-up deposits. These are not closely datable and it is possible that they were related to later use of the building. The remains of an iron and bone knife handle (RA3) were found within the cobbled surface in Area 3.

Although the Coach House was not subjected to detailed fabric analysis as part of the archaeological works, some details of the building sequence were recorded during the archaeological works adjacent to the foundations. The rear walls of the building appear to be the earliest surviving fabric. The two ranges could have been built in separate construction phases, although no obvious evidence for this was observed. A fragment of reused masonry built into the foundations suggests a construction date in the 17th century or later.

Phase 3: 18th-Century Remains

L5: Modification of Coach House

During this phase the Coach House was re-fronted in brick G4. Some internal features, postholes G5 and two stone-lined pits G10, though not closely dated, are included in this phase. In the yard area in front of the Coach House was a row of postholes G11 and a stone and brick structure G12 (Fig. 6).

The brick front included a series of wide arched openings, enabling the building to be used as a coach house and stables. The brickwork is set on

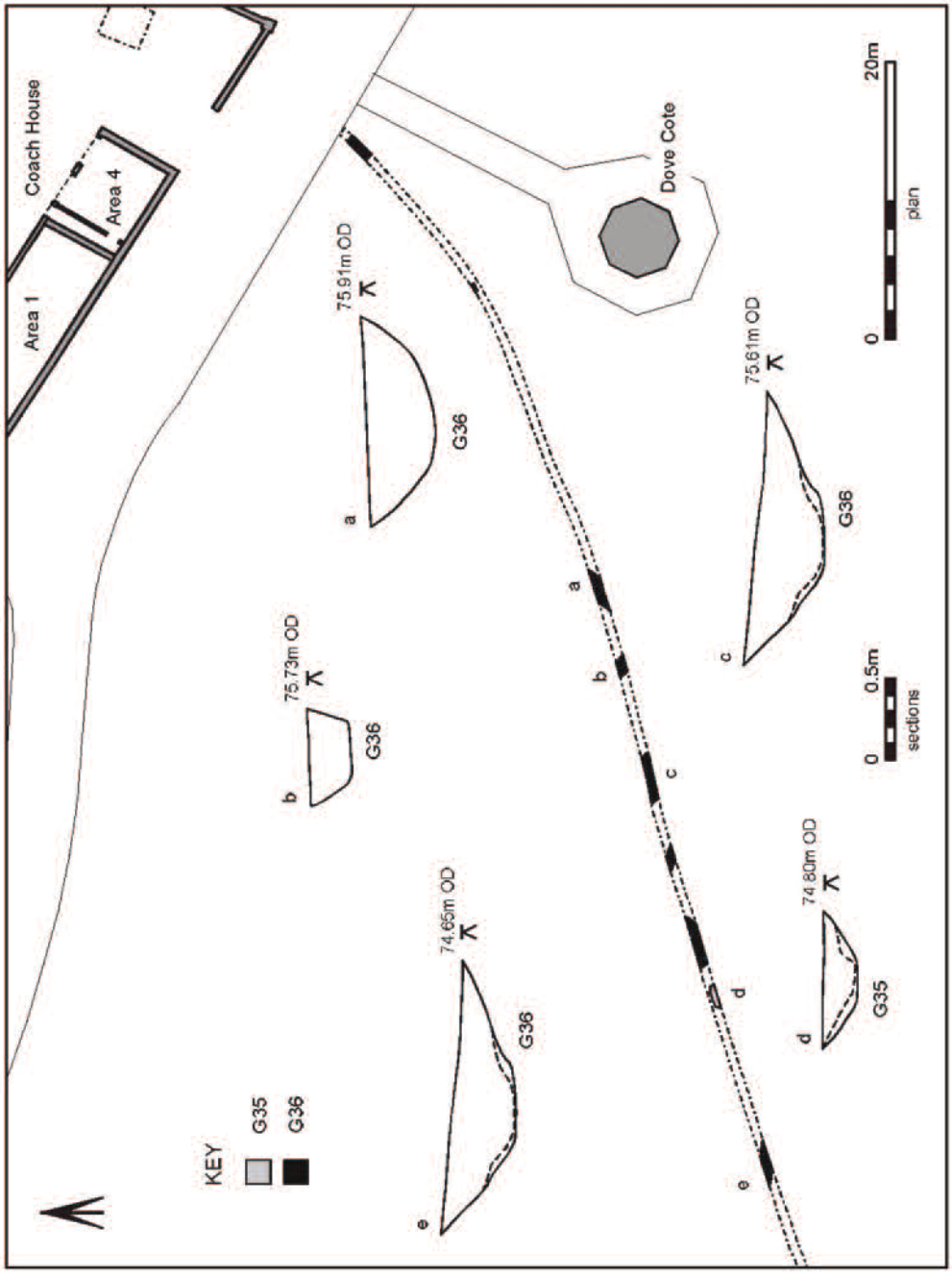


FIGURE 3 Medieval remains adjacent to the South Wing

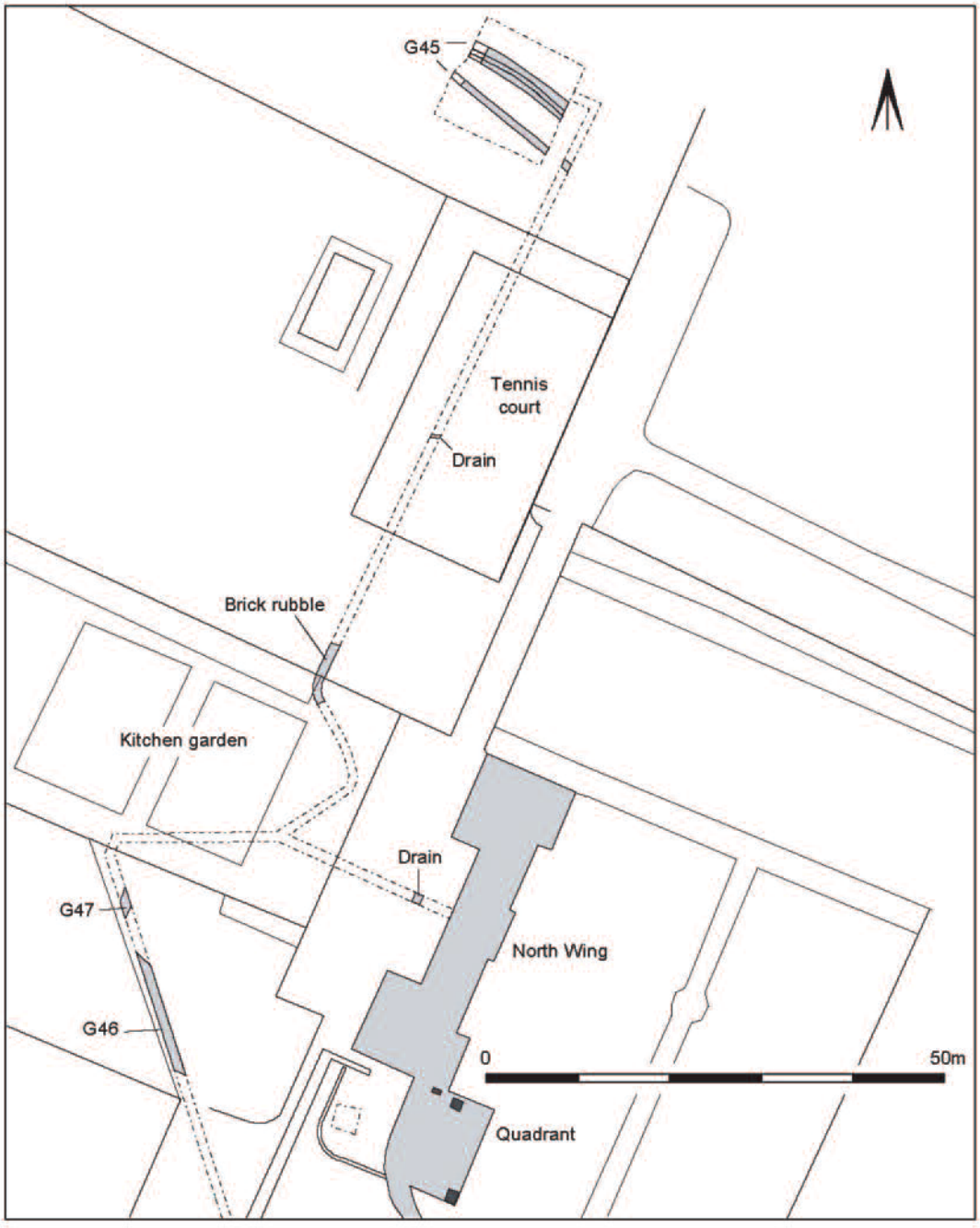


FIGURE 4 Medieval and eighteenth-century remains adjacent to the North Wing

limestone foundations, 0.65-0.4m deep. The roof construction consists of collar and tie-beam trusses with queen posts and tenoned purlins. At least one of the tie-beams in the western range has been reused from an earlier structure. This slightly curved tie-beam has redundant mortises in its lower face for braces at each end which suggests it formed part of a building with timber-framed walls.

Internal walls assigned to this phase may belong to more than one phase of construction but all post-date the original construction of the building, meeting the rear wall in straight joins. The brick wall which divides the south and west ranges is constructed in a variety of reused brick.

A number of internal postholes G5 (Figures 5 and 6) were found in Areas 2 and 4. These formed rows adjacent to the rear walls with three smaller postholes in the middle part of Area 2. The post-holes adjacent to the walls were up to 0.5m in diameter and showed evidence of re-cutting. They probably held posts which supported animal stalls. Artefacts recovered from these postholes included a small amount of flat roof tile and brick which is broadly datable to the post-medieval period.

Two stone-lined pits G10 were found in Area 2 (Fig. 6). It is uncertain when these were first constructed, although since one appeared to post-date the construction of the Coach House and remain open during this phase they are described here. The easternmost of the pits [1457] was intentionally infilled with limestone rubble prior to the construction of a foundation for a brick pier in the front of the Coach House. The pit was on the same alignment as the Coach House buildings. Internally it was 2.17m long on its NE-SW axis, more than 2m wide and more than 0.4m deep. It was constructed in roughly dressed limestone masonry. Blocks were laid at the southern end to form a row of at least three steps descending into the pit. The other pit [1454] occupied the northwest corner of Area 2. It had internal dimensions of 1.7m square

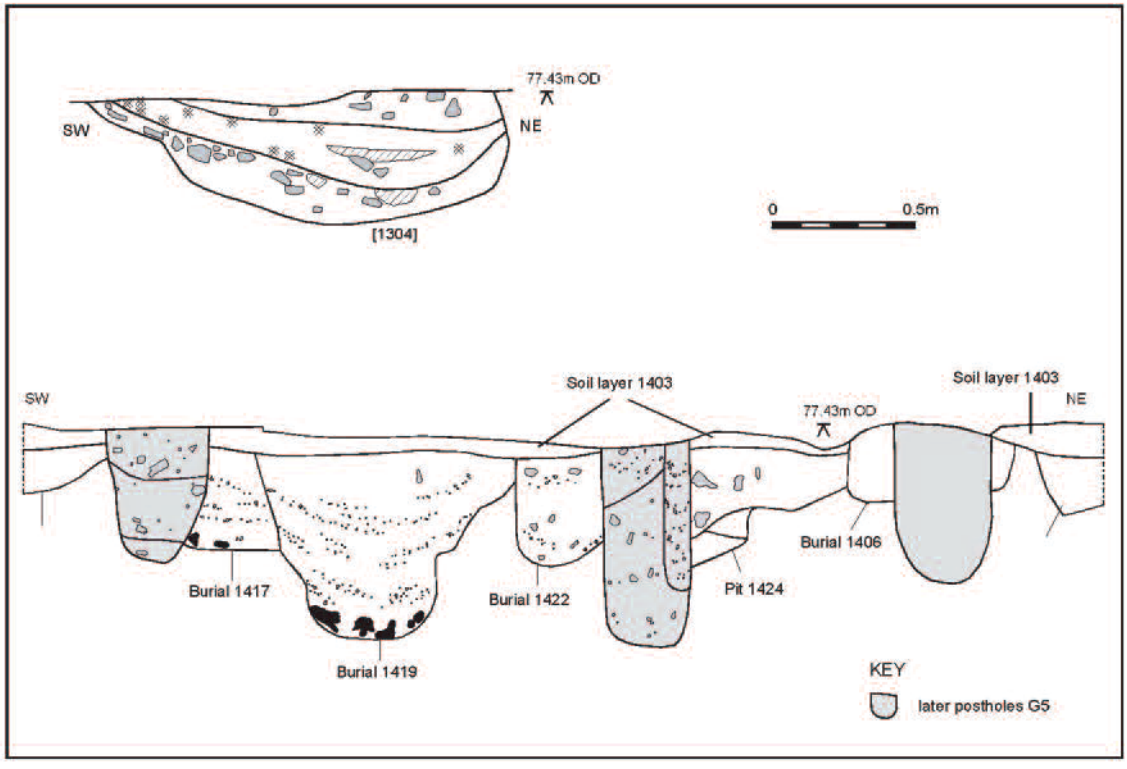


FIGURE 5 Selected section drawings

and at least 0.63m deep. A small test hole following its southern wall suggested that it continued beneath the rear wall of the Coach House, which had no foundation below ground on that side. Where its east wall met the end wall of the Coach House it was partly keyed into the foundations of the building. Deposits within the pit consisted of loose rubble with some occupation debris, glass and decayed wooden planks. It is likely that it was deliberately infilled during the 19th century and the planks may have been the remains of covering boards. The function of these pits is uncertain. It is possible that [1454] was a replacement for [1457] which was deliberately infilled during the alteration of the Coach House.

Structural features were found immediately north of the Coach House in Area 5 – a row of four postholes G24 which were succeeded by a limestone foundation G25. These features may have been the foundations of a precursor to a brick lean-to building.

In the Atrium area, a row of four square postholes overlapping a row of three circular postholes with an isolated posthole to the north (G11) were identified (Fig. 6). The function of the posts is unclear; they could have held scaffolding used in construction work (on the Coach House) or possibly supported a fence or barrier.

The foundations of a rectangular structure G12 were situated immediately in front of the southern range of the Coach House (Fig. 6). It was at least 3.8m long, 2.25m wide and lined with limestone with an internal brick facing. The function of the structure is uncertain; it may be a watering trough or mounting block. It appears on the 1st edition 25-inch Ordnance Survey map which was surveyed in 1881.

L14: Remains adjacent to the North Wing

A large feature G46 was observed in the service trench to the west of the north wing (Fig. 4). It measured *c.*13m N-S and was more than 1m deep. Deposits within it included limestone rubble and occasional brick fragments. This large depression may have been a pond, quarry pit or perhaps an infilled basement, although no structural remains were found to confirm this.

Wall foundations G47 recorded a short distance to the north of G46 appear to correspond to a garden wall which is shown on the 1st edition Ordnance Survey map.

L14: Remains adjacent to the South Wing

A stone wall or foundation G49 was uncovered 1.5m below the ground surface during excavation of a soakaway pit between the Coach House and the South Wing (Fig. 6). It consisted of a limestone rubble wall aligned E-W. The deposits found to the south of the wall consisted of soil with occasional fragments of limestone, brick, tile and glass. G49 appears to be the north side of lined pit or cellar, from which most of the masonry had been robbed before it was deliberately filled, probably during the 19th century.

Phase 4: 19th- and 20th-Century Remains

Modern features and deposits included internal features inside the Coach House (G6), and recent refuse pits or disturbance G13 within the Atrium Area (Fig. 6).

Postholes and drains G6 found in Area 1 of the Coach House relate to its use for stabling in the modern period. Many of the postholes retained traces of decayed timber posts. The arrangement of the posts shows that they supported horse stalls along the west and south walls and an internal division at the east end. Extensive areas of pitting G13 in the northern part of the Atrium Area contained small amounts of 19th- or 20th-century occupation debris.

Pottery by Jackie Wells

Introduction and methodology

For each context, pottery was recorded by fabric type and quantified by minimum sherd count and weight. It was also spot dated by individual fabric type and the date of the latest sherd used in the provision of an overall context date. A total of 183 sherds, weighing 2.1kg, were recovered, the majority deriving from early medieval features in the Coach House area.

Pottery type series

Fabrics are listed (Table 2) in chronological order, using common names and type codes in accordance with the Bedfordshire Ceramic Type Series, currently maintained by Albion Archaeology. Fabrics have been correlated, where possible, with existing pottery type series for Milton Keynes (Marney 1989: Mynard 1992).

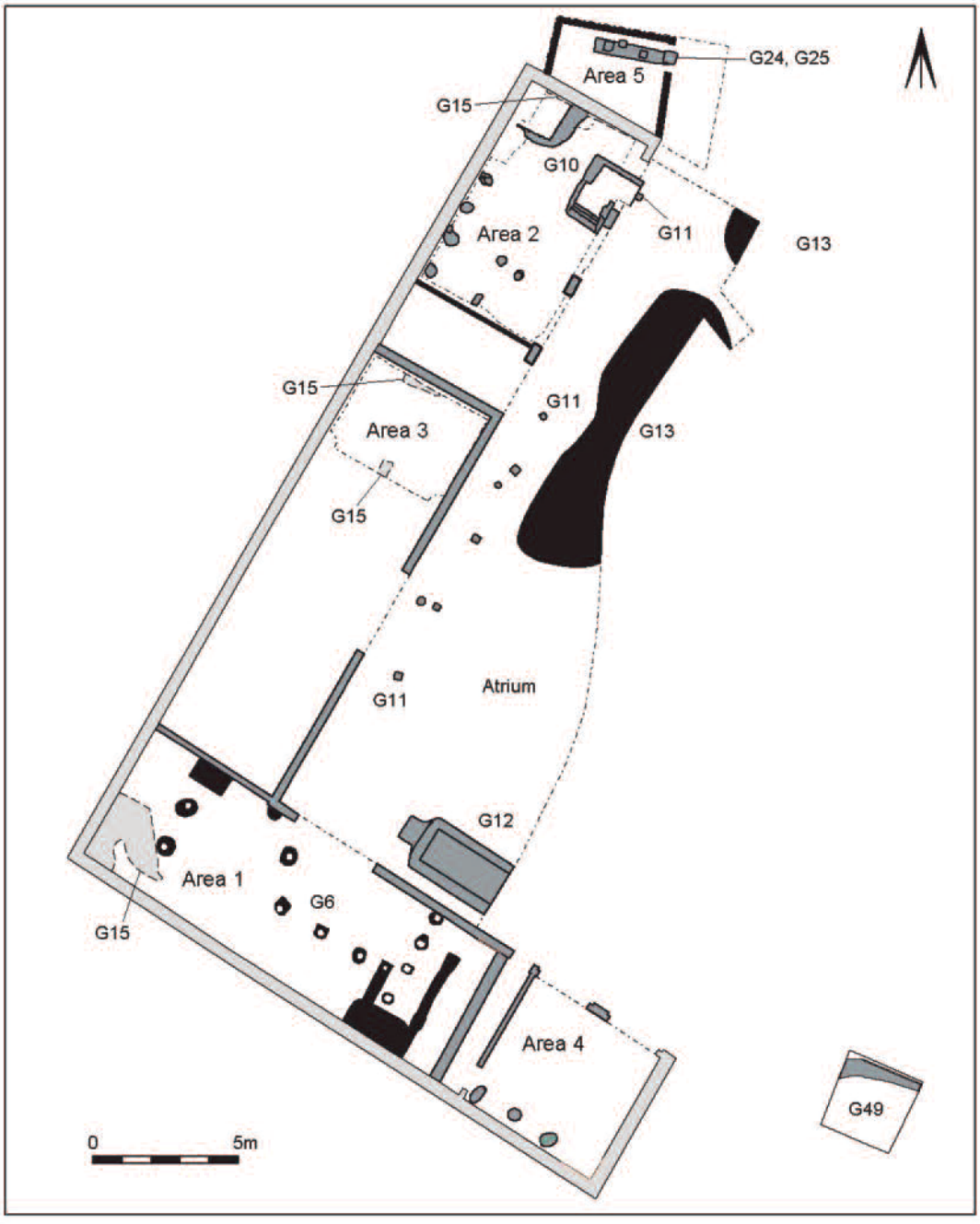


FIGURE 6 Post-medieval remains within and associated with the Coach House

TABLE 2 Pottery type series

Fabric type	*Common name*	*Sherd No.*
Late Iron Age		
F06B (Fabric group 46)	Medium grog	**1**
Saxon		
A23 (Fabric group A7)	Sandstone	**1**
Saxo-Norman		
B01 (SNC1)	St Neots-type	**22**
B01A (SNC1)	St Neots-type (orange)	**17**
B01B (SNC1)	St Neots-type (fine)	**2**
B01C (SNC1)	St Neots-type (mixed)	**4**
Medieval		
B07 (MC1)	Shell	**78**
C01	Sand	**10**
C03	Fine sand	**7**
C10 (MS6)	Potterspury ware	**13**
C59A	Coarse sand	**6**
C59B	Harsh sand	**9**
E01 (TLMS3)	Late medieval reduced	**1**
E02	Late medieval oxidised	**1**
Post-medieval		
P07 (PM5)	Coarse slip-decorated earthenware	**3**
Modern		
P35 (PM27)	English porcelain	**2**
P45	Transfer-printed ware	**1**
P50	Stoneware	**2**
P55 (PM25)	White earthenware	**2**
MOD	Miscellaneous mass-produced ware	**1**

Provenance, phasing and date range

Approximately 68% of the assemblage (by sherd count) is datable to the 12th–13th centuries, and derives from features assigned to L2 (Table 3). Sherds survive in fair condition, although they are small with an average weight of only 11g. Few vessels are represented by more than one sherd. Of the thirty-eight features containing pottery, only six (15%) yielded over 100g.

The earliest material comprises a late Iron Age grog tempered sherd (1g) recovered from ditch G45 (L12). An undiagnostic sherd (1g) datable to the Saxon period derived from pits G7 (L2). Both are highly abraded and occur as residual finds in more recent features.

The Saxo-Norman assemblage comprises 45 shell-tempered sherds, weighing 427g. Vessels are wheel-thrown, in the St Neots-type tradition (fabric SNC1) and its variants. Most appear to fall at the later end of the St Neots range and are datable to the 11th–12th centuries. Forms are mainly bowls with inturned or simple upright rims, ranging in diameter from 260–360mm (Fig. 7; 3). The exterior surfaces of a number of vessels are sooted, indicating their use as cooking pots. The majority derived from pits G7 and ditches G8 (L2), with the remainder occurring as residual finds in later features.

One hundred and twenty-three sherds, weighing 1.3kg, are datable to the medieval period. Sixty-two percent (by sherd count) are shell-tempered vessels of 12th–13th-century date (fabric MC1), likely to derive from production centres on the Beds/Bucks/Northants. borders. Vessel forms are wheel-thrown jars with simple everted or hooked rims, ranging in diameter from 140–240mm; bowls, and a single jug (Fig. 7; 1, 4, 6) The medieval phases are also characterised by locally manufactured fine and coarse sand-tempered fabric types (C01, C03, C59A / C59B), occurring in a similar range of forms to the shell-tempered

TABLE 3 Pottery quantification by land-use area and Group

L	*G*	*Description*	*Sherd No.*	*Wt (g)*
		Coach House area		
2	7	Pit	60	906
	8	Ditches	45	282
	9	Graves	19	213
	17	Post pit	4	6
3	2	Pit	31	286
	20	Post holes	3	11
	22	Pit	1	4
5	11	Post hole alignment	2	9
	12	Stone-built structure	2	5
	29	Yard	2	3
6	6	Post holes and drains	2	6
	13	Pit/disturbance	6	175
	26	Soil layers	2	166
		Service trench		
9	35	Pit	3	81
14	44	Ditch and furrow	1	1
			183	**2,154**

TABLE 4 Catalogue of illustrated pottery

Illust. No.	*Description*	*G*
1	Shell-tempered jar (fabric B07 / MC1)	2
2	St Neots-type bowl (fabric B01 / SNC1)	2
3	Sand-tempered jar (fabric C01)	2
4	Shell-tempered bowl (fabric B07 / MC1)	2
5	Potterspury ware jug handle (fabric C10 / MS6)	3
6	Shell-tempered bowl (fabric B07 / MC1)	2

vessels (Fig. 7; 2). Sooting on both shell- and sand-tempered sherds confirm that a proportion of these types represent kitchen wares. High medieval fine wares comprise thirteen sherds of Potterspury ware (MS6), a regional import from Northamptonshire. Forms include a slashed strap handle from a jug (Fig. 7; 5), the latter deriving from pit G2 (L3).

The largest early medieval assemblage derived from G7 pit [1304] (Fig. 5), which contained 386g. Nineteen early medieval sherds (213g) were associated with the infilling of G9 graves [1415], [1418], [1514], [1528] and [1531]. The pottery is likely to derive from either pits G7 or ditches G8, or the topsoil through which the graves were cut.

Late medieval pottery comprises two undiagnostic reduced and oxidised sand-tempered sherds (10g), datable to the 14th–early 16th centuries, recovered from postholes G20 (L3). The reduced sherd is consistent with the broad South to East Midlands reduced ware tradition.

Three sherds (118g) from a post-medieval, slip-decorated, earthenware bowl derived from pit/disturbance G13 (L5). Seven sherds (224g) dating from the 18th century onwards were recovered from L5 stone-built structure G12, and from L6 cut features G6, G13 and layers G26. Fabrics represented are earthenware, stoneware, transfer-printed ware, English porcelain and miscellaneous mass-produced wares. Vessel forms include a decorated earthenware plate rim and two stoneware beer bottles.

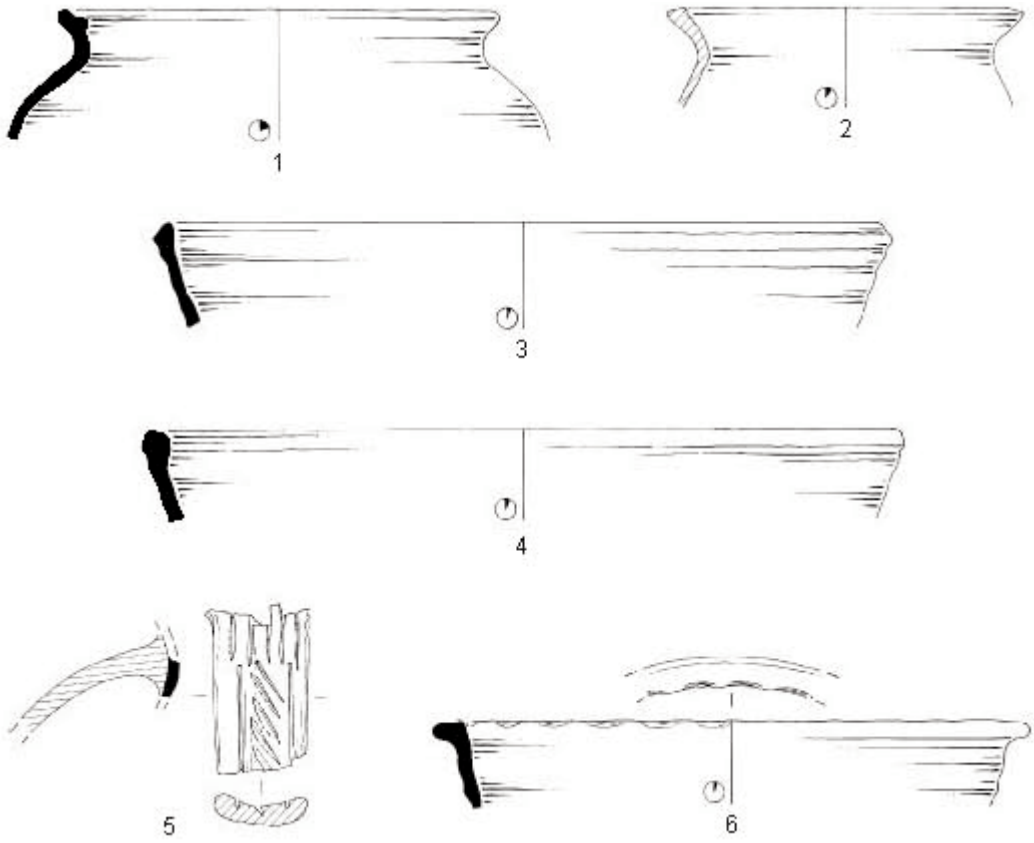


FIGURE 7 Selected pottery sherds (scale 1:4)

BRICK AND TILE by Jackie Wells

For each context, brick and tile were recorded by fabric type and quantified by minimum fragment count and weight. The assemblage, weighing 1.2kg, derived exclusively from features assigned to L5.

Internal postholes G5 in the Coach House yielded four pieces of late medieval/post-medieval peg tile (292g) and two fragments (92g) with worn surfaces, possibly deriving from an unglazed paviour or hearth tile of similar date. An abraded piece of post-medieval brick (205g) and three fragments of peg tile (628g) derived from G11 posthole alignment (L5). The peg tiles have round fixing holes and range in thickness from 12–15mm; one has a width of 140mm. All are likely to be locally manufactured.

OTHER ARTEFACTS by HB Duncan

Methodology

Each object was assigned an identification and functional category and quantified by number and/or weight. All ironwork was x-rayed by Lincolnshire County Council Heritage Service's Conservation Department. An assessment of the condition of the metalwork was carried out at the same time and any required stabilisation and repackaging undertaken.

Quantification, date and provenance

The small assemblage comprised fifteen objects and 122.7g of plaster/mortar. The provenance of the other artefact assemblage is presented in Table 5 by Phase, Land-use Area and Group. Half of the assemblage is not closely datable either due to fragmentary survival or to the fact that basic forms did

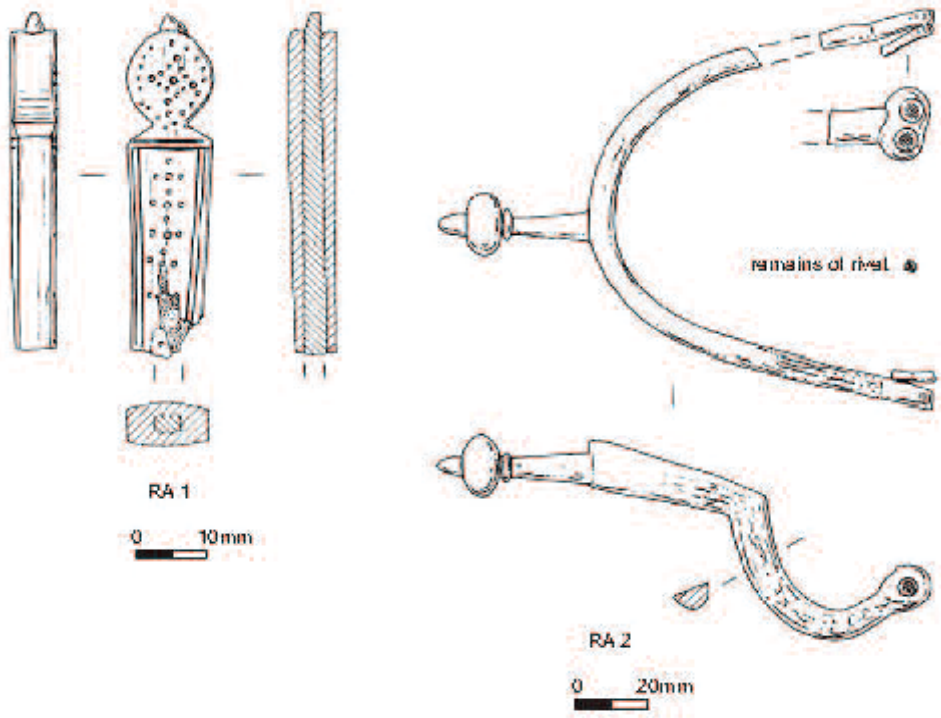


FIGURE 8 Knife Handle (RA1) and spur (RA2)

TABLE 5 Provenance of the 'other artefacts' assemblage

Phase	*L*	*G*	*Narrow Term*	*No.*	*Wgt*
1	2	7	Iron prick spur	1	
1	2	7	White washed plaster fragment		72
1	2	7	Plaster or mortar?		50.7
1	2	7	Iron strip fragment	1	
1	2	9	Linen shroud(?) remains	1	
1	2	9	Iron shoeing nail	1	
1	2	17	Iron shoeing nail shank	1	
1	9	35	White metal plated sheet iron fragment	1	
2	4	15	Bone handle and iron knife	1	
3	5	5	Iron nail	1	
3	5	5	Sawn antler off cut	1	
3	14	49	Iron nail	1	
4	6	6	Wooden carpenter's pencil	1	
4	6	26	Stone floor tile	1	
4	6	26	Glass bottle (egg-shaped Hamilton)	1	
4	10	37	Perforated iron sheet fragment - binding?	1	
4	15	38	Machine moulded decorative clear glass	1	

not change over time. For this reason this report will concentrate on the more closely dated assemblage; a catalogue of all the objects forms part of the project. The shroud remains (P1, L2, G9) from inhumation burial [1415] are reported on separately (see below).

Medieval deposits (Phase 1)

The assemblage from the fill of pit [1304] in the vicinity of the Coach House yielded a small quantity of plaster/mortar, only one piece having a white-washed flat surface. This was too small to determine if it derived from a wall or floor. About three-quarters of a prick spur was found in the upper fills of the same pit (RA1, Fig. 8). Although one side of the spur has broken off, both terminals survive. The terminals are of simple bolted or riveted variety; B(i) (*in situ* on spur) B(ii) (detached), by which the missing spur leather was attached between the terminal and a small inner retaining plate (surviving). The spur is almost horizontal round the back of the wearer's heel but the front part is strongly curved under the ankle. The goad conforms to LMMC type 11, orb with point at apex and collar below (Ward Perkins 1940, fig. 28).

Prick spurs have a long history, starting in the Roman period. It was not until the late 11th century, however, that spur sides began to curve, as opposed to being horizontally straight. During the 12th century sides which curved strongly under the ankle became increasingly popular (Ellis 2002, 2). An early example of a prick spur with curved sides from Castle Acre was found in a deposit dated to no later than 1140 (Ellis 1982, 233 cat. no.142), while two examples from Goltho were from deposits of 1080–1150 (Ellis 1987, no. 166, fig. 160). The sides on these examples, however, are not as strongly curved as the Chicheley spur, which could suggest a slightly later date. Ellis comments that the disappearance of rivet terminals coincided with the invention of the rowel, which occurred in the early 13th century (Ellis 2002, 2). The curve of the sides, combined with the presence of rivet terminals on the Chicheley spur could suggest a date of perhaps late 12th to mid-13th century. A fairly close parallel was found in late 12th- to early-mid 13th-century deposits at Tempsford Park, Beds. (Hylton 2005, fig 6.9, no. 37).

The skeleton in burial [1415] (L2 G9) has been radiocarbon dated to 1110–1270 (80.8% probability). The fill, however, contained a single shoeing nail of Goodall's type D, thought to date in the main to the 15th to 16th centuries (1980, 183). This more than likely originated from the later use of this area as a stable.

Post-medieval (Phase 2)

Too little of the blade survived on knife RA3, found within cobbled surface G15 (L4), to determine its form. The junction of the blade and handle is also damaged, but it is clear that it had a whittle, as opposed to scale, tang. The knife had a short, decorated bone handle of narrow rectangular cross-section, with a channel running the length of the handle to accommodate the tang. The terminal of the handle forms a flat rounded disc with an iron 'knop' protruding from the end (the end of the tang handle). A deep notch occurs on either side of the disc, creating a waist. The handle widens below the notch into a tapering rectangular field. The handle is decorated with a series of dots both on its terminal and down the centre of the handle (Fig. 8). The same decorative pattern is repeated on the reverse face of the handle.

Rectangular-sectioned knife handles begin to occur in the 14th century in London (Cowgill *et al* 1987, 25). The shape of the Chicheley handle is very similar in outline to composite strap-ends with forked spacer plates, which were in vogue in the 14th century, perhaps continuing into the early 15th century (c.f. Egan and Pritchard 1991, fig. 92 for examples). During the 14th century a fashion for decorating handles with a series of inlaid metal pins occurs (MacGregor, Mainman and Rogers, 1999, 1973). Although the decorative dots on this example never held pins, it is possible that the handle decoration was imitating this fashion. The narrowness of the tapering handle suggests its length could not have extended much beyond 60mm and still have housed the widening iron tang. This would make a fairly short handle. It could have been a composite handle, the space between the end of the bone handle and the start of the knife blade perhaps having rings of organic material: alternatively, a bolster may have occupied the space. The latter is was an innovation in hafting, thought to have been introduced in the mid-16th century (Hayward 1957, 4) and in widespread use in the 17th century (Goodall 1993, 130).

Catalogue

RA1 Spur. Iron. Prick spur, incomplete, comprising

about three-quarters of a spur. Although one side of the spur has broken off, both terminals survive. The terminals are of simple bolted variety B(i) (in situ on spur) B(ii) (detached) by which the missing spur leather was attached between the terminal and a small inner retaining plate (surviving). The sides of the spur are D-shape in cross-section. The spur is almost horizontal round the back of wearer's heel but the front part is strongly curved under the ankle. The goad conforms to LMMC type 11, orb with point at apex and collar below. The neck is obscured by corrosion by-products. Neck and goad c.43mm long (goad c.21mm); total length c.140mm. RA1 (1315) Pit 1304; G7; L2; P2.1

RA3 Knife. Iron and bone. Three, possibly joining, pieces of a knife blade and start of junction with tang. Tang has been bent and broken off. Associated with the blade fragment is a shaped and decorated whittle tang handle of narrow rectangular cross-section, with remains of iron tang running the length of the handle. The terminal of the handle forms a flat rounded disc with an iron 'knop' (end of tang) protruding from the end. The handle has a deep notch on either side of the circle, creating a waist, before expanding into a tapering rectangular field. Opposing end broken off. The circular terminal is decorated with a border of small dots enclosing a field with a larger central dot and four dots placed north, south, east and west, with two smaller dots forming a diagonal between each of the 'compass' points. The rectangular field below the notched waist has a double line border, lines set 1mm apart, and a row of dots down the centre of the handle. Two dots occur either side of each alternate dot. The decorative pattern is repeated on the reverse face (damaged). The handle is currently 48.4mm long (including the iron 'knop'). Its widest point (terminal) measures 12.6mm, tapering to 10mm just before the break. Thickness 6.8mm. RA3 (1501) Internal Surface; G15; L4: P3

TEXTILE by Penelope Walton Rogers, The Anglo-Saxon Laboratory

Remains of a linen tabby-weave textile were found in soil sample <4>, taken from the area of the hands and feet of skeleton 1417 (burial [1415] G9, L2 in Phase 1). The fragments, of which the largest are only 6 × 5mm and 5 × 5mm, are partially calcified, but immersion of some threads in dilute aqueous hydrochloric acid allowed fibres to be released for microscopy. When viewed by transmitted light at ×400 magnification, with a microscope fitted with a polarising analyser, they proved to be mostly around 15 microns diameter (range 7–22 microns), each with a fine lumen and well-spaced cross-markings. These features indicate flax, from the plant *Linum usitatissimum L.* (Catling and Grayson 1982, 12–17, 73). The textile itself is a medium-coarse fabric, rather unevenly spun and woven, with 12-14/Z x 8-12/Z threads per cm.

This is likely to represent the material of the shroud. The two shrouds used to wrap a man in a 13th/14th-century burial at St Bees Priory, Cumbria, were of this quality (information provided by the conservator, Jean Glover, Whitehaven Museum) as were textile fragments found in a 14th to 15th-century burial in St Peter's churchyard, Barton-on-Humber, Lincs. (Walton Rogers in Rodwell 2011, 638–9), and there are somewhat finer examples from 12th/13th-century St Mary's Abbey, Winchester (Grave F125, unpublished report provided by Frances Pritchard) and 13th-century graves at the hospital of St Mary Spital, London (Gilchrist and Sloane 2005, 106). Linen shrouds were in use from the Anglo-Norman period until the later 17th century, when parliamentary acts designed to support the wool textile industry made them illegal (Gilchrist and Sloane 2005, 106–7; Litten 1991, 71–4).

HUMAN REMAINS by Harriet Jacklin

Methodology

Analysis of the six articulated medieval inhumations included the assessment of age, sex, dentition and dental health. Cranial and post-cranial metrics, non-metric traits and stature were also recorded where possible. Pathological analysis was also undertaken. The results were recorded using a standardised recording form created by Jacklin (2005), in line with Brickley and McKinley (2004). References used during skeletal analysis include Bass (1995), Buikstra and Ubelaker (1994), Brothwell (1981) and McKinley and Roberts (1993). All fusion data within this report are based on Scheuer and Black (2000). Additional record data in the form of pictorial sheets, skeletal inventories and photographs is appended to the full analysis report which is filed with the site archive.

Results

Burial 1406, Area 2

Burial 1406 was found in a supine position. The skeleton was in a very fragmentary condition with only 0 < 25% of the remains available for analysis. The rest of the individual was truncated by a wall foundation and posthole. SK1406 was aligned approximately W–E (head to foot). SK1406 has been classed as a 'child' aged between 4 and 5 years. Age estimation has been on epiphyseal fusion and overall size of the surviving skeletal material. No pathological signs of ill-health were present on the surviving skeletal material; there was no evidence of pathology or trauma, metabolic or endocrine disorders and no congenital/ developmental variants.

Burial 1417, Area 2

Burial 1417 was found in a supine extended position with the left hand by his/her left side (Figure 9a). The skeleton was found to be in good condition with 50 < 75% of the remains available for analysis. The rest of the individual was left *in situ* where it extended beyond the limits of excavation beneath a wall foundation. SK14017 was aligned approximately W–E (head to foot). SK1417 has been classed as a 'child' aged between 9 and 11 years. Age estimation has been based on epiphyseal fusion and long bone length. No pathological signs of ill-health were present on the surviving skeletal material; there was no evidence of pathology or trauma, metabolic or endocrine disorders and no congenital/ developmental variants.

Burial 1419, Area 2

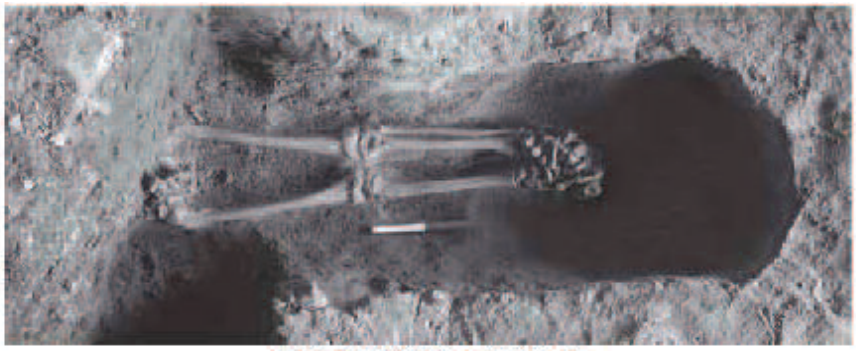
Burial 1419 was found in a supine, extended position with his hands originally resting on his thighs (Figure 9b). The skeleton was found to be in good condition with 50 < 75% of the remains available for analysis. The rest of the individual was left *in situ* where it extended beyond the limits of excavation beneath a wall foundation. SK14019 was aligned approximately W–E (head to foot). SK1419 has been classed as a 'young adult' male aged between 25 and 34 years. Sex estimation was based on assessment of the left and right os coxae (left and right sciatic notch, ventral arch, sub-pubic concavity and ischiopubic ramus ridge) and measurements of the left and right femoral heads. Age estimation was based on epiphyseal fusion and the assessment of the left and right os coxae (left and right pubic symphysis). The young appearance of the bones was also noted, with no age-related changes visible.

Post-cranial metrics and non-metric traits were able to be recorded including the *platymeric*, *platycnemic* and robusticity index for his left and right leg. Full details can be found in the archive. Metric analysis indicates that the male was between 1.67m and 1.73m (5' 5.7" to 5' 8.1") in height.

During pathological analysis two separate pathological conditions were recorded. SK1419 showed a healed, localised area of periostitis, affecting his right tibia (mid-lateral diaphysis). Periostitis is a term used to describe an inflammation of the bone membrane (periosteum). The condition can form part of a localised event (for example as a result of trauma) or as a secondary condition indicative of an underlying condition (such as an infectious disease). SK1419 also showed evidence of early stage destructive lesions affecting his lower (lumbar) vertebrae. The lesions were located on the superior surfaces of L4 and L5. Unfortunately the extent of condition is unable to be established due to a lack of other vertebrae available for analysis. It is possible that these lesions may represent an early stage of spinal tuberculosis (Pott's disease) but due to the lack of severity of the lesions, and the lack of the other lumbar and thoracic vertebrae, and of the ribs, any such diagnosis, is mere speculation and should be regarded with caution. No other pathological signs of ill-health were present on the surviving skeletal material.

Burial 1446, Area 2

Burial 1446 was found in a supine, extended position with her right hand by her side (Figure 9c). The left hand was not present due to truncation by a posthole. The skeleton was found to be in very poor condition, with the vertebrae very damaged by previous disturbance. SK1446 was orientated approximately W-E (head to foot) and 75 < 100% of the skeleton was available for analysis. SK1446 has been classed as a 'middle to older' female aged from 42.5+ years. Sex estimation was based on assessment of the right os coxae (right sciatic notch), the cranium (left and right supra-orbital ridge, left and right mastoid process, the supra-orbital margin and the nuchal crest) and the mandible (mental eminence). Measurements of the right femoral head and the right humeral head were



A: Burial 1417 (scale 20cm)

B: Burial 1419 (scale 40cm)

C: Burial 1446 (scale 40cm)

FIGURE 9 Photographs of selected burials

also used. Age estimation was based on dental eruption, dental attrition, *ante-mortem* tooth loss and epiphyseal fusion. Age-related changes were also present and taken into account.

A full list of cranial metrics and cranial non-metric traits was able to be recorded including the cranial index. Post-cranial metrics and non-metric traits were able to be recorded including the *platymeric*, *platycnemic* and robusticity index for her right leg. Full details of all metrics and non-metric traits can be found in the archive. Metric analysis indicates that the SK1446 was between 1.49m and 1.56m (4' 10.7" and 5' 1.4") in height.

During pathological analysis it was discovered that SK1446 had suffered a trauma to her lower left leg. Two healed spiral fractures were found affecting the left tibia (distal diaphysis) and the left fibula (distal diaphysis). Both fractures occurred at the same time, possibly as a result of a severe fall. Although not pathological, SK1446 also had a remarkably severe under-bite. The surviving dentition was found to be in fair condition with no caries and mild dental calculus. Hypoplasia lines (hypoplastic defects in the dental enamel) are an indicator of biological stress, and were found to be present on the majority of the surviving teeth. Measurements were taken of two teeth (9 and 10) believed to be representative of the others. The results indicate periods of ill-health (nutritional deficiency, childhood illness or both) between 2 to 3 years, 3.5 to 4 years and again, between 5.5 to 6 years of age (Rose, Condon and Goodman 1985). No other pathological signs of ill-health were present on the surviving skeletal material; there was no evidence of any other pathology or trauma, metabolic or endocrine disorders and no congenital/ developmental variants (with the exception of the severe under bite).

Burial 1530, Area 2

Burial 1530 was found in a supine, extended position and was aligned approximately SW–NE (head to foot). The skeleton was found to be in good condition, although only 0 < 25% of it was available for analysis. The rest of the individual was truncated by previous disturbance. SK1530 has been classed as an 'infant' aged between 1 and 2 years. Age estimation was based on epiphyseal fusion and long bone length. No pathological signs of ill-health were present on the surviving skeletal material; there was no evidence of pathology or trauma, metabolic or endocrine disorders and no congenital/ developmental variants.

Burial 1615, Area 2

Burial 1615 was found in a supine position. The skeleton was in fair condition, although only 25 < 50% of it was available for analysis. SK1615 has been classed as an 'infant' aged between 2 and 4 months. Age estimation was based on epiphyseal fusion and long bone length. No pathological signs of ill-health were present on the surviving skeletal material; there was no evidence of pathology or trauma, metabolic or endocrine disorders and no congenital/ developmental variants.

Conclusion

The Chicheley Hall skeletons represent two adults, two children and two infants, one of which passed away shortly after birth. No cause of death has been found, although the pathological conditions presented by the male and female adults are conditions, common to the late medieval period.

Animal Bone by Jennifer Browning

Methodology

Bones were identified with reference to the skeletal collection housed at the School of Archaeology and Ancient History, University of Leicester. Information on element, completeness, species, state of fusion and condition was recorded for each specimen, while butchery, burning, pathologies and tooth eruption and wear were noted where present. A zoning method (Serjeantson 1996) was employed to assess the parts of bones present: as a general principle, each element is divided into eight diagnostic zones, the presence or absence of which can quickly be determined. Joining fragments were counted as a single specimen. Measurements were taken when bone completeness permitted, following von den Driesch (1976) and Payne and Bull (1988). Recording of tooth eruption and wear for cattle, sheep and pig followed Grant (1982), but assignment of age categories followed O'Connor (2003). Where fragments were not sufficiently diagnostic to identify to species, they were assigned to one of the following categories, based on characteristics such as size and thickness of the cortical surface. 'Large mammal' represents indeterminate fragments, likely to derive from animals

such as cattle, horse or possibly red deer, while 'medium mammal' bones belonged to sheep, goat, pig or possibly roe deer or dog. The remainder were classed as indeterminate mammal or bird.

Condition and taphonomy

The assemblage was fragmented, whole bones were rare and both old and modern breaks were present. The condition of the bone surfaces was generally good enabling examination for butchery and other modifications. Gnawing occurred rarely in the assemblage suggesting that bones were rapidly buried.

Results

The bones were recovered from features dating from the medieval to the modern period. Bones were recovered both by hand-collection and sorting of sieved residues. Medieval features produced the largest quantity of bone. The largest group of material was recovered from L2 (early medieval features in the Coach House area). Bone was both hand-collected and recovered through sieving of pits G7 and ditches G8. The small amounts of Phase 4 and 5 bone came from deposits likely to contain residual material and are, therefore, not detailed below; they are quantified in the analysis report in the site archive.

TABLE 6 Hand-collected bones from Groups and features within Landscape 2

G	*Feature*	*Cattle*	*Sheep /Goat*	*Pig*	*Equid*	*Domestic fowl*	*Goose*	*Avian*	*Med mml*	*Lge mml*	*Indet.*	*Total*
7	1304	1	2			1	2	8	11	2	5	32
	1424		1	1						1		3
8	1324		1						3			4
	1330								2			2
	1333								1			1
	1506								1			1
	1537	1										1
	1539							1	1			2
	1546						1					1
9	605								1			1
	1415									1		1
	1418		2		1			2	1	2	4	12
	1444		1			1						2
	1514									2	1	3
	1528		2						3	1	1	7
	1531	1		1				1	3		8	14
	1533		1									1
Total		3	11	2	1	4	3	12	27	9	53	130

(Key: lge mml= large mammal; med mml= medium mammal; Indet= indeterminate)

TABLE 7 Sieved bones from Groups and features within Landscape 2

G	*Feature*	*Sample*	*Sheep/ goat*	*Domestic fowl*	*Bird*	*Indet.*	*Total*
7	1304	6	1	2	4	15	22
7	1424	5				4	4
8	1324	7				12	12
8	1326	8				4	4
Total			1	2	4	35	42

(Key: lge mml= large mammal; med mml= medium mammal; Indet= indeterminate)

G7 produced the largest quantity of bones (n=61). The majority of specimens from [1304], both sieved and hand-recovered, were burnt. The variation in colouration indicated scorching through to partial and complete calcination, therefore suggesting exposure to different temperatures. During heating experiments on bones, it was observed that colour changed through pale yellow/brown to pink/brown before taking on the characteristic black/brown of charred bone (Gilchrist and Mytum 1986, 31). Temperatures within a fire are variable but it has been noted that even a campfire would be capable of becoming hot enough for calcination to occur, characterised by shrinkage and a white 'porcelain' appearance (Nicholson 1993, 427). Bird bones were most common in the assemblage, and both domestic fowl and goose were identified. The range of elements included posterior phalanges, femora, coracoid and vertebrae, indicative of both preparation and consumption of the carcass. The sheep/goat elements included a metapodial and a mandible fragment, which had evidently been exposed to fire, as well as an un-burnt metapodial. A burnt cattle phalanx was also present. Both the cattle and sheep/goat bones are more suggestive of slaughter waste than consumption.

Of 28 fragments retrieved from G8, only a sheep/goat tibia, a cattle phalanx and a goose coracoid were identified. The remainder consisted of medium mammal, indeterminate and indeterminate bird shaft fragments measuring less than 50mm. Forty-one specimens, hand-recovered from G9 graves, included isolated fragmentary elements from sheep/goat, cattle and pig, which have probably been incorporated accidentally during the backfilling of the graves. It was only possible to identify a quarter of the specimens to species. A sheep/goat hyoid had fine cut marks, which probably occurred during decapitation or removal of the tongue. An equid metatarsal recovered almost complete from Feature 1418 had been butchered, bearing an oblique chop halfway up the shaft on the posterior face. This was a fairly small and slender bone, providing an estimated withers height of 1.35m from a greatest length of 253mm (Kiesewalter 1888).

Later medieval features in the Coach House area produced a small faunal assemblage, in which cattle sheep/goat, pig and horse were present. A small number of bones were hand-recovered from high medieval feature G2, robber trench G16 and late medieval feature G22. Exostosis was noted on the proximal end of a fragmented horse metatarsal from G22. A cattle metatarsal had two shallow chop marks on the posterior face.

No identifiable bones were recovered from G35, a pit with medieval pottery, located to the south of the house.

Discussion

The medieval features, especially those in L2 (early medieval) produced an assemblage in which cattle,

TABLE 8 Hand-collected bones from Landscape 3

G	*Feature*	*Cattle*	*Sheep/goat*	*Pig*	*Equid*	*Lge mml*	*Med mml*	*Total*
2	1621	3		2		1		6
	1625		1				3	4
16	1322					1		1
22	1552				1			1
	Total	3	1	2	1	2	3	12

(Key: lge mml= large mammal; med mml= medium mammal; Indet= indeterminate)

TABLE 9 Sieved bones from Landscape 9 (residues)

G	*Feature*	*Sample*	*Lge mml*	*Med mml*	*Indet.*	*Total*
35	2103	11	1	1	3	5
	Total		1	1	3	5

(Key: lge mml= large mammal; med mml= medium mammal; Indet= indeterminate)

sheep/goat, pig, equid, goose and domestic fowl were identified. While the small assemblage size precludes a discussion of the use of animal resources at the site it does confirm the presence of the main domestic species, typical for the medieval period. Domestic bird bones were relatively common in feature [1304]; the consumption of birds was more common at high status sites (Serjeantson 2006, 133). Most of the bones are likely to represent the waste products of processing and consumption associated with domestic refuse.

Plant Remains by Angela Monckton

Methods

Samples were processed from 11 contexts with the potential to produce plant remains. The selected samples were processed by wet sieving in a York tank with a 0.5mm mesh and flotation into a 0.3mm mesh sieve. The residues were air dried and the fraction over 4mm sorted for all remains which are included in the relevant sections of the report. The flotation fractions (flots) were air dried and packed in self-seal polythene bags; this work was carried out at Albion Archaeology.

All the flots were examined and the first part of each flot was sorted for plant remains using a ×10-30 stereo microscope, for the rich samples a proportion of the flot was sorted. The plant remains were identified by comparison with modern reference material at University of Leicester Archaeological Services. The remains were counted and the most productive samples tabulated (Table 10): the plant names follow Stace (1991) and are charred seeds in the broad sense unless described otherwise. In order to interpret and compare the charred plant remains in the samples the proportions and ratios of cereal grains, chaff, seeds and other remains were considered: samples rich in grain represent cereal product, those rich in chaff and weed seeds include cereal cleanings. Some of the samples also contained waterlogged plant remains which were also investigated in the possible cesspit and are described in the text below.

Results

The cereals: From the medieval periods the majority of the identified grains were of wheat (*Triticum* sp), mainly of the characteristic short broad shape of free-threshing wheat. Wheat chaff fragments (rachis segments which form the central axis of the cereal ear) were found, some of these could be identified as bread wheat (*Triticum aestivum* s.l.), and some were of a second type of free-threshing wheat which is known as rivet wheat (*Triticum turgidum* type). These were found together in most of the samples particularly abundant in two of the samples from pits. Occasional barley grains (*Hordeum vulgare*) and chaff fragments were present, much less numerous than wheat. Oat grains (*Avena* sp.) were also found in some of the samples, these were probably cultivated oats from the size of the grains but this could not be confirmed in the absence of chaff, some of the grains were small in size possibly of weedy species, some identified as cereal or grasses may have included small oat grains. Rye (*Secale cereale*) was present very sparsely as a possible additional cereal on the site.

Legumes: Other food plants were legumes which were present although not numerous perhaps because legumes do not require parching in their processing. These included probable beans (*Vicia faba*) of small size, and some fragments were identifiable only as either peas or beans (*Vicia/Pisum*). Cultivated vetch (*Vicia sativa*) was possibly present, although a few fragments may have been small peas, this crop was usually used as fodder. The presence of legumes suggests that crop rotation may have been carried out.

Fruits and nuts: These were represented by an uncharred fig seed (*Ficus carica*) often found in cesspits and so was possibly from sewage in the ditch sample 7. Elder pips were present, and although ubiquitous on such sites because the plant grows in neglected areas near rubbish pits as well as in hedgerows, the fruit is likely to have been consumed. A small plum or sloe stone (*Prunus* sp.) was present in one of the graves, sample 3, with hazel nutshell and a few other charred remains. Nutshell was also present showing that hazel nuts (*Corylus avellana*) were gathered and used as food.

Wild plants: Numerous charred weed seeds were found which were mainly weeds of disturbed ground or arable land included stinking mayweed (*Anthemis cotula*) which was common in medieval times and is a plant of heavy and poorly drained soils. Weeds particularly associated with autumn

sown cereals such as wheat included corn cockle (*Agrostemma githago)* and cleavers (*Galium aparine*) were found. Other weeds of disturbed ground, such as is found in settlements, garden-type cultivation or of spring sown crops included goosefoots (*Chenopodium* sp), docks (*Rumex* sp) and chickweed type plants (*Stellaria* sp.). Leguminous plants included vetches or vetchling (*Vicia/ Lathyrus)* and clover type plants (*Medicago, Melilotus* or *Trifolium*) which can occur as arable weeds but also grow on grassland. Others plants of grassy vegetation included hay rattle (*Rhinanthus* sp.) and self-heal (*Prunella vulgaris*). Plants of damp or wet ground were represented by sedges (*Carex* sp) perhaps from poorly drained areas of the fields or from ditch sides. Seeds were of the large grasses (Poaceae) including brome grass (*Bromus* sp.), which was a common arable weed, and most of the plants here can occur in cultivated fields as arable weeds. Additional plants and waterlogged remains are mentioned below.

Results by period

Charred plant remains were found in all the samples and were very abundant in two pits.

Early medieval (c.1050–1250)

Two pits were sampled which contained very productive samples with densities of 33.4 and 14.8 items per litre of soil from pit sample 6 (1315) and sample 5 (1426) respectively. The remains were mainly of free-threshing wheat with some chaff including identified bread wheat in both and a little rivet wheat in (870) which also contained a smaller amount of barley grains and chaff. In the ear of wheat there are three grains to each rachis segment so in sample 6 there are more grains than chaff and this may represent threshed and partly cleaned grain. Sample 5 contains more chaff than grains so is likely to represent cereal cleaning waste. Weed seeds were relatively numerous in both samples although more grains than weed seeds were present in sample 6, also suggesting that this was may be partly cleaned cereal product. However grains can become mixed with cereal cleaning waste because waste chaff was a favoured fuel for cereal processing and was also used for kindling. Some domestic waste may also be present represented by legumes and nutshell. The relatively high density samples with cereal grain, and cereal waste including both chaff and seeds, suggests production or processing nearby.

Ditches samples 7 and 8 contained a scatter of charred remains at densities of 8.6 and 5.0 items per litre of soil. Charred grains of wheat and chaff of both bread wheat and rivet wheat were present with weed seeds representing a scatter of the same type of waste as found in the two pits above. Occasional segments of fish scales were found, probably of freshwater fish of the carp family as possible food waste. A single fig seed in the former such as has been found in cesspits elsewhere such as in Leicester (Monckton 1999), although no other mineralized plant remains were found to suggest the presence of sewage here. Uncharred seeds of elder and a few other seeds were found which may have been from plants in the surroundings possibly as the survival of the more robust seeds which can survive in some deposits. The charred plant remains are similar to those from the pits and may represent a scatter of remains from the same activity of cereal processing.

Four samples from Grave 1419, samples 1-4, were examined and all contained charred cereal remains, samples 4 contained a moderate number of charred plant remains with cereal grains, a few chaff fragments including rivet wheat as well as bread wheat with weed seeds (Table 10). Samples 1 and 2 were similar and may be part of the scatter of cereal processing waste as found in the pits mentioned above. Sample 3 contained a plum stone and a nutshell fragment with only a couple of cereal grains which may be part of a scatter of domestic waste. A second Grave 1416 samples 9 and 10 also contained a moderate amount of charred plant remains including cereal grains with chaff of both types of wheat and weed seeds.

High medieval period (c.1250–1400)

Possible cesspit, sample 11, contained a few charred plant remains similar to those above but with only cereal grains and weed seeds in small numbers (Table 10). In addition the sample contained a few uncharred seeds probably preserved by waterlogging. The water plants included duckweed (*Lemna* sp.) and water-crowfoot (*Ranunculus* subgen. *Batrachium*) which indicate standing water. Plants of shallow water included celery-leaved buttercup (*Ranunculus sceleratus*), with wetland plants including sedges (*Carex* sp.) and gypsywort (*Lycopus europaeus*). Plants of nutrient rich soils included nettles which

grow where rubbish as well as sewage or animal waste is deposited. As well as the duckweed which suggests standing water, a shell of a water snail (*Anisus leucostoma*) and encysted waterfleas (*Daphnia* sp.) suggest that the pit contained water prone to drying. There is nothing from the remains to suggest that this was a cesspit because food remains are absent and no mineralized plant remains were found to suggest the presence of sewage such as those found elsewhere (Monckton 1999). Only remains of natural vegetation were found. However, the pit did contain water in the past.

Discussion

The medieval deposits from the site contained quite abundant cereal remains compared with some sites in the midlands (Monckton 2004). The type of cereal waste found here is from free-threshing wheat in which the grain is easily separated from the ear by first threshing. After threshing the straw would be raked away and then winnowing is carried out to remove small light weed seeds and the light chaff. The grain could then be coarse sieved to remove the larger chaff fragments and then fine sieved, in a sieve which retains the grains, to remove small weed seeds (Jones 1990). The waste found here in sample 5 could be from this latter process which would be preserved if it was burnt as waste or fuel and preserved by charring. Straw remains are rarely found as it is useful for thatching and bedding, only a few fragments were found here. Although chaff is easily removed it was quite abundant here to suggest the cereal was produced nearby.

Sample 6 contains abundant charred wheat grains and charred grains can be present with waste chaff and weed seeds possibly burnt accidentally during parching, this may have been carried out for a number of reasons for example, to dry it for storage if gathered damp, or to facilitate milling. Oats are also present and it is now known that wheat and oats were used together in brewing in the medieval period and grain was roasted during preparation of malt: here there is very little evidence of germination except for a few of the oats insufficient to suggest malting (Moffett 1994). Also there is no evidence for kilns or ovens on this site (although elsewhere some kiln bases only survive as shallow pits with in situ burning, this is not reported here). It is possible that grain was being cleaned here for use, storage or milling with the waste burnt for disposal. There is quite a large amount of grain in sample 6 so this may represent accidental burning of grain during drying or storage, this appears to be a partly cleaned crop. The abundant chaff suggests that this represents agricultural activity carried on in the vicinity.

The find of identifiable free threshing wheat chaff (rachis) of not only bread wheat but also rivet wheat is an addition to our knowledge of this crop. Rivet wheat is now known from an increasing number of sites in the midlands from the early medieval period onwards (Moffett 1991), the earliest find being from Higham Ferrers in Northamptonshire and having a pre Norman Conquest date (L. Moffett pers comm.). The evidence at present suggests that this crop spread in use during the medieval period. It is known from a number of sites in the region such as at Long Causeway, Peterborough from deposits of 13th to 14th-century date (Monckton 1996). It has also been found recently at Castle Quay, Castle Lane, Bedford in deposits possibly of Saxo-Norman date (Hill 2009), and here in possible 11th – 12th-century deposits. Rivet wheat is a productive cereal with long straw useful for thatching, it also has long awns which protect the grain from insect attack (Moffett 1991). It is less favoured for bread making than bread wheat, but could be mixed with bread wheat or used in other cereal foods.

The crops include wheat and oats with a little barley and rye. Bread wheat and rivet wheat are present in similar amounts. Other foods are represented by beans, with hazel nutshell present as a gathered food. Fruits are represented by plum and possibly elder berries were consumed. A single fig seed may represent an imported fruit if not intrusive. The most common weed is stinking mayweed, thought to be associated with cultivation using the mould board plough. The weeds suggest that wheat was autumn sown, but weeds of garden and spring-sown crops such as oats are also present. All these plants have also been found in medieval samples elsewhere such as at Long Causeway, Peterborough (Monckton 1996). However, there is much less variety of foods found here than in the towns which is in common with other villages sampled in the midlands (Carruthers 1995) where there is a lack of fruits and herbs in comparison with the towns.

The samples from the pits indicate cereal processing activity, possibly cereal cleaning or

processing grain by heating somewhere else on the site. The charred cereal remains were also found in the graves, perhaps because the grave disturbed a previous pit containing charred cereal remains. Burials including charcoal are recorded elsewhere: charcoal may sometimes have been included because it absorbs odours, but there is no suggestion of this here so the remains are thought to be incidental from the presence of cereal processing remains on the site. Some of the remains in the ditches may represent a low density scatter of domestic waste from cereals, probably from food preparation on the site. A possible cesspit contained no evidence of food remains other than a few charred cereal remains, so was thought to be a pit which had contained water and wet ground vegetation with a scatter of cereal remains from domestic waste.

Conclusions

Abundant cereal remains were found in medieval samples from two pits containing cereal cleaning waste of chaff and weed seeds with charred cereal grains of free-threshing wheat including bread wheat and rivet wheat, with barley. The medieval samples were interpreted as containing abundant cereal cleaning waste, indicating this was an important activity on the site. The presence of chaff and weed seeds may suggest the local cultivation of the wheat including both bread wheat and rivet wheat, and barley with some oats and a trace of rye. It is possible that cereals brought to the site from local fields were being cleaned of contaminants for use, milling or storage. Some samples were also thought to contain domestic waste from food preparation. Some waterlogged plant remains from a possible cesspit suggested a pit containing water. Other crop remains over the phases of the site are of charred legumes, including possibly beans. Hazel nutshell, small plum or sloe, and possibly elder were evidence for gathered food consumed on the site: a fig seed may represent an import unless intrusive. The site provides evidence for rivet wheat outside the town of Bedford where it was present in possibly Saxo-Norman deposits. The site compares with other rural sites in the midlands, having more cereal waste and little variety of fruits and other foods such as are found in the towns.

Charcoal by Graham Morgan

Charcoal was retrieved from three samples (5, 6 and 7), taken from contexts (1426), (1315) and (1325) respectively, and are identified below in Table 11.

Species present:

Oak	*Quercus* spec.
Field maple	*Acer campestre*
Hazel	*Corylus avellana (also noted in the plant macrofossil report)*
Plum	*Prunus* spec.

Although a very small sample, the range of species would be typical of open country at this time and from the size of the fragments and their age probably represents brush wood derived from hedgerows in the vicinity and used as fuel.

Synthesis of Results

Medieval settlement

Evidence for medieval settlement was found in both the Coach House area and in land adjacent to the South Wing. Settlement evidence in the Coach House area consisted of boundary ditches and pits; these were mostly datable to the early medieval period (1150–1250). A limited number of high medieval (1250–1400) and late medieval (1400–1500) features were also identified. Pits and ditches in the Coach House area may have lain towards the periphery of an activity area as the features mainly contained low quantities of occupation debris.

Two pits [1304 and 1424] contained significant amounts of cereal cleaning waste and charred cereal. The cereal included both bread wheat and rivet wheat. The two types have different properties and uses. Rivet wheat produces long straw suitable for thatching, is resistant to rust fungus and produces weak flour more suitable for gruel or porridge than bread (Campbell 1994, 67–69). Rivet wheat was first introduced during the early medieval period. It was in use at Chicheley by the late 12th century; pit [1424] which was truncated by burial (1419) radiocarbon dated to 1020–1210. At Wing in Buckinghamshire rivet wheat was recovered from features associated with 13th-century domestic activity (Carruthers 2008, 99–102 in Holmes and Chapman *et al*.).

TABLE 10 Plant remains

Sample	**6**	**5**	**7**	**8**	**11**	**9**	**4**	
Group	**7**	**7**	**8**	**8**	**35**	**9**	**9**	
Context	**1315**	**1426**	**1325**	**1327**	**2104**	**1445**	**1416**	
Feature	**1304**	**1424**	**1324**	**1326**	**2103**	**1444**	**1415**	
Feature type	**Pit**	**Pit**	**Ditch**	**Ditch**	**Pit**	**Grave**	**Grave**	
Cereal chaff								
Triticum turgidum/durum rachis	28	21	2	1	–	1	–	Rivet wheat
Triticum aestivum s.l. rachis	25	35	4	1	–	2	3	Bread wheat
Triticum free-threshing rachis	17	37	2	1	–	2	1	Wheat, free-threshing
Secale cereale rachis	–	–	–	–	–	1	–	Rye
Hordeum vulgare L. rachis	1	–	–	–	–	–	–	Barley
Cereal rachis	11	11	–	–	–	–	2	Cereal
Culm nodes, large	11	3	–	–	–	–	1	Straw
Awns	+	+	–	–	–	–	–	Cereal barbs
Cereal grains								
Triticum free-threshing grains	187	68	15	12	6	10	7	Wheat, free-threshing
Triticum sp grains	10	2	–	–	–	–	–	Wheat
Hordeum vulgare L. grains	6	3	2	2	–	2	–	Barley
Secale cereale L. grains	2	2	–	1	–	–	–	Rye
Avena sp. Grains	27	16	12	2	–	2	–	Oat
Cereal grains	179	21	14	11	1	5	4	Cereal
Cereal/Poaceae grains	66	7	7	5	–	2	–	Oat/Grass
Collected/Cultivated								
Corylus avellana L.	8	–	–	–	–	–	–	Hazel nutshell
Ficus carica L. (u)	–	–	1u	–	–	–	–	Fig
Sambuccus nigra L.	1	2u	3u	–	–	–	–	Elder
Legumes								
Vicia faba L.	–	1	–	1	–	–	–	Bean
Vicia/Pisum	1	2	2	1	–	–	–	Bean/Pea
Vicia sativa L.	–	1	–	–	–	–	–	?Cultivated Vetch
Wild plants								
Urtica dioica L.	–	–	2u	–	11u	–	–	Nettles
Chenopodium sp.	4	3	1u	1	4u	–	–	Goosefoot
Stellaria media L.	–	1	–	–	1u	–	–	Chickweed
Silene sp.	–	–	1	–	–	–	–	Campion
Agrostemma githago L.	–	1	–	–	–	–	–	Corn-cockle
Rumex sp	2	5	1	–	–	–	–	Docks
Polygonum sp	–	1	–	–	–	–	–	Knotweed
Fallopia convolvulus (L).	–	–	1	–	–	–	–	Black bindweed
Lythospermum arvense L.	1	–	–	–	–	–	–	Field gromwell
Malva sp.	–	–	–	1	1	–	–	Mallow
Vicia sp.	–	8	–	–	–	2	1	Vetch
Vicia/Lathyrus	1	2	–	1	1	–	1	Vetch/tares
Medicago/Melilotus/Trifolium	–	–	1	–	–	–	–	Clover type
Lamiaceae	–	–	3u	3u	1u	–	–	Dead nettles
Prunella vulgaris L.	–	2	–	–	–	–	–	Self-heal
Apiaceacea	–	2	–	–	–	–	–	Carrot family
Rhinanthus sp.	1	–	–	–	–	–	–	Hay-rattle
Galium aparine L.	–	1	–	–	–	–	1	Cleavers
Asteraceae	–	1	–	–	1u	–	–	Daisy family
Anthemis cotula L.	35	12	3	–	–	3	1	Stinking Mayweed
Carex sp.	–	2u	–	3u	2u	–	–	Sedges
Bromus sp	4	2	–	–	–	–	–	Brome grass
Poaceae (large)	7	1	3	1	2	–	1	Grasses large
Poaceae (small)	11	2	1	–	3u	–	–	Grasses
Indeterminate seeds	7	10	6	2	–	1	–	Indeterminate seeds
Uncharred seeds	4	8	2	8	11*	–	–	Uncharred seeds
Fish scale, freshwater	–	(1)	(1)	(1)	–	–	–	Fish scale
Total	667	296	86	50	45	35	23	Total
Volume sample	20	20	20	20	9	5	4	Litres
Flot volume	200	30	7	10	5	5	4	Mls
items per litre of sediment	33.4	14.8	4.3	2.5	5.0	7.0	5.8	items per litre

(Key: Remains are seeds in the broad sense unless stated.
(Key: u = uncharred possibly waterlogged, * = water plants see text)

TABLE 11 Charcoal

Sample	*Group*	*Context*	*diam*	*rings*	*age*	*species*	*comment*
5	7	1426	15	12	12	maple	
6	7	1315	30	10	15	oak	
6	7	1315	20	3	10	maple	
6	7	1315	10	8	8	maple	
6	7	1315				oak	fragments
6	7	1315				hazel	nutshell
6	7	1315				plum	fruit stone
7	8	1325				oak	fragments

Pit [1304] also contained moderate amounts of animal bone, much of it burnt, with skeletal elements suggestive of slaughter waste of cattle sheep and goat and preparation and consumption of domestic fowl and goose. The assemblage recovered from pit [1304] has components associated with higher status sites of this period such as the food waste from domestic birds, whitewashed plaster and a stirrup.

Documentary evidence suggests that the site of Chicheley Hall was originally the manorial centre for the manor of Chicheley and later became a grange farm of Tickford Priory (Chibnall 1979, 68–70).

Ditches and pits observed during machining of a service trench in the field to the south of Chicheley Hall indicate an area of settlement. A minimal artefact assemblage was recovered under watching brief conditions. Pottery dating from the high medieval period (1250–1400) was found in one pit. A reconstructed map of Chicheley, based on surveys of the 1520s and 1550s, shows a row of tofts in approximately this location with the remainder of the field to the south forming part of the demesne land (Chibnall 1979, 180–82, map 5). It is likely these house plots fell out of use in the post-medieval period as a result of settlement shrinkage as happened at nearby settlements in Hardmead, Ekney and Petsoe, the last two being depopulated by the Tudor period (Chibnall 1979, 129–34, 154–9).

The medieval cemetery, consisting of up to eleven graves found along the western side of the Coach House area, represents part of the cemetery of the church of St Lawrence. Spatial distribution of the burials suggests they represent the easternmost limit of the churchyard. The alignment of some of the burials appears to respect a NE–SW aligned ditch which may have formed a boundary between the cemetery and settlement areas. One of the graves was cut into a pit containing occupation related debris, which suggests that the graveyard partially encroached upon the adjacent settlement area.

The presence of graves on differing alignments suggests that the burials represent more than a single phase of burial. However, the absence of inter-cutting burials or significant charnel deposits suggests this part of the cemetery was not in use for an extended period. The combined evidence from radiocarbon and pottery dating indicates use possibly beginning in the second half of the 11th century continuing into the 12th century.

It is not known when the church was first established in Chicheley. It is unlikely that a church with burial rights would have existed at Chicheley from an early date, given its proximity to a minster church at Great Crawley, 2.5km to the southeast. The minster of St Fermin is mentioned in Domesday and also within an extent of tenants and their services made by Ramsay Abbey in *c.*1135 when it was already in decline and the priests dispersed (Chibnall 1975, 18). The final decline of the minster churches as a distinct group occurred by the end of the 11th century (Blair 2005, 367), their functions being taken over by parish churches. The small churches that replaced the minsters are often found in association with manor houses, many of them being founded by estate proprietors from the late 10th and 11th centuries onwards (Blair 2005, 385–96).

The first documentary references to a church in Chicheley date from the 12th century and the proportions of the existing nave could indicate a 12th-century date (Pevsner and Williamson 1994, 245). Whitewashed plaster and fragments of lime-

stone were found in pit [1304] and fragments of limestone observed in an adjacent ditch [1317]. The plaster and limestone rubble could be derived from construction work on the church which is located only 30m to the northwest. These remains contained pottery dated to the 12th or 13th centuries. It is of course possible that the white-washed plaster came from another high status building.

Both the church and the land on which Chicheley Hall stands were given to Tickford Priory. The Maunsell family who are recorded in Chicheley from 1135 gifted land to the priory between 1153 and 1166 (Bains 1999, 2). It is interesting to note that the boundary between the churchyard and the adjacent close has remained virtually unchanged since the 12th century with only a slight adjustment to the west by no more than 2m. In Area 3 of the Coach House the boundary appeared to be formed by a relatively slight ditch which was later cut by graves on the same alignment. In Area 2 no evidence was found of a physical boundary in the medieval period. This contrasts with the earlier minster churchyard at Wing, Buckinghamshire, which by the 13th century had contracted in line with its smaller burial requirements as a parish church, despite the existence of a substantial boundary ditch. (Holmes and Chapman 2008, 61–123).

Post-medieval remains

The investigations produced little securely dated evidence for activity during the post-medieval period (16th and 17th centuries). The construction of the Coach House is tentatively dated to this period. A fragment of masonry observed in the foundations is likely to be 17th century in date, suggesting a construction date in that century or later. It remains possible that the Coach House was the product of a single phase of construction during the early 18th century (see below).

No archaeological remains were found relating to the house built in the mid 16th century by Anthony Cave, either during mitigation works or in test pits dug against the foundations of the current buildings. Documentary records (Tanner 1961, 43) show that the old building was demolished immediately before construction started on the present house, suggesting clearance of the building plot. If the house had been relocated, it seems likely that the previous house would have been retained until construction was complete. Two cellars located below the north side of the house appear to predate the present house and may be part of the earlier building. The location of the three-sided canal, which was constructed in around 1700 while the earlier house was still in use, is likely to preserve the relationship between the formal garden and the earlier house. The cumulative evidence suggests that the present house occupies the same location and alignment as part of the earlier building.

18th-century remains

Evidence of this period relates to the construction and use of the Coach House. In the description of the results it is suggested that this building was constructed in stone in the post-medieval period and was re-fronted in brick during the 18th century. It is, however, possible that the Coach House is the product of a single phase of construction in the early 18th century. In a letter written at Chicheley in August 1716 to his friend Burrell Massingberd, Sir John Chester stated: "I have this morning been very buissy in setting out ye ground for ye stables" (Tanner 1961, 43). It is possible that this refers to the present Coach House. It cannot refer to the hall and its flanking service wing and stables which were not started until 1719.

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