

BURWELL CASTLE, CAMBRIDGESHIRE

Geophysical and Topographical Survey Report

December 2014



By Duncan Wright, Michael Fradley, Steven Trick, and Oliver Creighton,
Department of Archaeology, University of Exeter

SUMMARY

The site of Burwell Castle and the surrounding landscape were the subject of a detailed geophysical and topographic archaeological survey carried out as part of the University of Exeter research project 'Anarchy? War and Status in Twelfth-Century Landscapes of Conflict'. The methodology comprised an analytical survey of the archaeological earthwork remains, in addition to magnetometer and earth resistance survey. These assessments have demonstrated that the castle was constructed on the site of a Romano-British temple complex and the area was probably subsequently developed into a pre-Christian ritual site and early medieval assembly place. The castle itself appears to have been inserted into a pre-existing thegnly enclosure which had developed on the site by at least the tenth century. This work has also built upon existing interpretations of the castle itself, which have generally interpreted it as an unfinished campaign fortification of the mid-twelfth century. Survey has confirmed the existence of a curtain wall extending the sides of the raised castle mound, the eastern projection of which had previously been excavated. The premise that the castle was constructed upon earlier settlement is questioned, however, and a number of alternative scenarios for surrounding earthworks are offered. It is shown that the current form of Burwell castle is probably largely a result of the later use of the site as a manor of Ramsey Abbey when the mound was furnished with buildings and the castle ditch was used for water management.

INTRODUCTION

The earthworks of Burwell Castle are located in the south-western part of Burwell village, Cambridgeshire (centred TL58756605) (Figure 1). Approximately 120m west of the parish church of St Mary's, the monument and the majority of the village are located between 5m and 10m above OD in a paddock known as Spring Close. The monument and surrounding landscape were subject to a topographic and geophysical survey as part of the University of Exeter research project *Anarchy? War and Status in Twelfth-Century Landscapes of Conflict*. The survey was undertaken in three stages during 2014; between 18th and 22nd January, between 2nd and 5th June, and finally between Wednesday 29th and Thursday 30th October. The earthworks of the castle and associated features are classified as a Scheduled Monument (National Monument No: 29382). Situated on the south-eastern edge of the Cambridgeshire fens, Burwell and its surrounding landscape are an area of significant archaeological potential. Located approximately 1.5km south-west of the site are the remains of an Iron-Age settlement and Roman corridor villa (National Monument No: 374665). In the southern part of the village of Reach, 1.8km west of Burwell Castle, the linear bank and ditch monument known as the Devil's Dyke or Devil's Ditch extends in a south-easterly direction for around 12km (National Monument No: 1003262). The Devil's Dyke probably dates to the early medieval period, one of several such earthworks which were constructed in the Cambridgeshire region apparently in order to control movement along the pre-existing road network (Taylor 1978, 33).

GEOLOGY

Burwell Castle is located on the Lower Chalk of the West Melbury formation, but is immediately bordered to the east by the Upper Chalk of the Totternhoe Stone formation. Both chalk groups date to the Cretaceous and Mesozoic eras. Three kilometres south-east of the site the chalk rises to almost 50m aOD where it is occasionally capped by sandy deposits. This relative upland is contrasted 2.5km to the north-west of the site where the mudstones of the Gault formation are overlain by low-lying peat fen, deposited after the retreat of Quaternary glaciations (British Geological Survey, Cambridge Sheet 188). Burwell Castle therefore lies at a geological interface which dramatically shapes the local and regional landscape, conditions which have also been a central factor in the history of land use in the area.

HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

A number of prehistoric stone tools have been recovered from in and around Burwell, including a Palaeolithic hand axe which was found within the Scheduled area of the castle itself (CHER No: 01775B). It is probable that the spring which rises immediately east of the castle earthworks formed an early focus of activity, although more impressive early prehistoric flint assemblages have been found to the west of the site, where from the Neolithic period the development of the fens attracted increased human activity (Wymer and Bonsall 1977). In the Bronze Age the chalk slopes of the southern fen-edge became a focus for funerary monuments, attested by numerous ring-ditches identified on aerial photographs (RCHME 1972, 40). From at least the Romano-British period it seems that the site later occupied by Burwell Castle acted a ritual focus; excavations at the castle by T.C. Lethbridge in 1935 identified a Romano-British structure, which the results of this research suggest may be part of a temple complex (see below). The Spring Close site was possibly one of several contemporary Romano-British foci in the area. For example, Romano-British pottery and roof tiles have regularly been recovered close to Ness Road, approximately 2.5km north-east of Burwell Castle (RCHME 1972, 41). A further Romano-British site, located 1.5km to the south-west of Burwell Castle has been investigated more comprehensively. Excavated in the early 1890s, the corridor villa was apparently built over an earlier Iron-Age settlement (Atkinson 1894).

Contrary to the Romano-British archaeology from in and around Burwell, which predominantly consists of evidence for domestic activity, the most significant material from the earliest medieval centuries derives from funerary contexts. Human remains dating from the Anglo-Saxon period were first discovered in the Victorian period during digging for lime pits in the eastern part of the village, around 500m north-east of the site. The full extent of the cemetery was not fully realised until 1925, however, when excavation by the Cambridge Antiquarian Society identified 127 skeletons in 123 graves. Some of the burials were furnished, although not richly, and over 50 graves contained no grave goods. The majority of the datable material apparently belonged to the seventh and eighth centuries, and nearly all of the burials were orientated in an east-west direction (Lethbridge 1926). This collection of

attributes is typical of what have become known as ‘Final Phase’ cemeteries, dating to the Middle Saxon period (e.g. Welch 2011). Contemporaneous Middle Saxon settlement has not been found in Burwell itself, but is likely to exist under and around the present village — in addition to the evidence from the cemetery, the probability that Middle Saxon settlement is present at Burwell is supported by the evidence from excavations in other villages along the southern fen edge which demonstrate an intensively-settled landscape from the seventh century onward (Mortimer 2000; Wright 2010; Patrick and Rátkai 2011).

Written sources also suggest that by at least the tenth century Burwell formed the site of a private thegnly residence, which by this period were often referred to as *burhs*. Distinct from the Late Saxon network of defensible places built by the Kings of Wessex, the term *burh* could also refer to fortified residence as alluded to by texts relating specifically to Burwell. *The Chronicle of Ramsey Abbey* records how in the 990s the thegn Aelfgar donated to the minster his estate at Burwell comprising his house and court, along with three hides, 40 acres and a virgate of land as well as the church (*Chron Ram Abb*, ed. Macray 1886, 51; Hart 1966, 238). The precise meaning of the ‘court’ is difficult to determine, but it is likely that the residence stood within a private enclosure or *curia*. Ann Williams (1992, 224) has noted how this grant comes close to the idealised thegnly residence detailed in the eleventh-century text known as *Gebyncðo* or the ‘promotion law’, which describes how a ceorl may aspire to thegnhood (*Eng Hist Docs*, ed. Whitelock 1955, 431-2). Exactly where the thegnly residence and enclosure is located at Burwell is difficult to determine but place-name and other evidence suggests Spring Close as the most likely candidate. Burwell appears in various forms in early documents but all versions are generally interpretable as ‘*burh* by the spring or well’ (Reaney 1943, 188). The water source which gives Spring Close its name rises adjacent to the parish church, and the data derived from this investigation suggests that the area now occupied by the church and castle area may previously have been delineated by a large, enclosing bank (see below). Circumstantial evidence also suggests that the church of St Mary’s includes within its fabric part of an early tower-nave related to the former-thengly residence, as the tower is clearly out of alignment with the rest of the church which lies within a probable early manorial complex (Shapland 2008 and pers. comm.).

It is likely that ownership of Burwell by a wealthy minster helped sustain its development as an important central place, and sources indicate that it was also probably the site of an assembly point by at least the eleventh century. Burwell lies within the hundred of Staploe, an administrative entity first recorded in Domesday Book. The name Staploe is derived from Old English (OE) ‘*stapol hoh*’, probably referring to a spur of land with a pillar or post located on it (Reaney 1943, 187). Audrey Meaney (1997, 35-6) has shown how *stapol* place-names were utilised to indicate focal or landmark posts at early medieval meeting places, and in Cambridgeshire it is likely that the promontory alluded to was located in Burwell parish; from 1198 ‘the way of Stapelhoo’ was used to refer to a route thought to have run just to the east of the village, presumably on the opposite side of the High Street to Spring Close (VCH Cambs X 2002, 332). In addition to their administrative role, hundred meeting places performed various other social and political purposes, such as functioning as muster points

for the mobilisation of armies (Baker and Brookes 2013, 201). The naming of a hundred after a meeting place, usually isolated from populated centres of royal and seigneurial authority, was common in East Anglia and at Burwell it seems that the assembly point was situated on a spur of land projecting from the power base located nearby to Spring Close. The findings of John Blair (1995; 2013) that *stapol* place-names referred not only to landmarks or meeting places but also early medieval cult sites is also extremely significant for Burwell given the identification by this survey of a probable Romano-British temple (see below).

The existence of the hundred meeting-place in Burwell parish suggests that it at least remained an important focal point into the Late Saxon period and the listing in Domesday of an especially wealthy manor indicates that settlement continued to flourish (DB REF). It has been suggested that Late Saxon settlement in the village is also identifiable archaeologically; at Spring Close a series of low banks previously claimed to extend beneath the earthworks of the castle have been identified by some previous researchers as housing plots (e.g. RCHME 1972, 42), although this survey suggests a number of alternative interpretations (see below). Regardless of the archaeological data, the written sources alone demonstrate that Burwell was a sizeable and extremely important settlement by at least the twelfth century, and probably for several centuries previously.

The context for the construction of Burwell castle itself is King Stephen's 1144 fenland campaign against Geoffrey de Mandeville, the rebellious earl of Essex immortalised in J. H. Round's *Geoffrey de Mandeville: A Study of the Anarchy* (1892; for Burwell, see 220–1). Burwell castle was one of a chain of royal campaign castles constructed to contain de Mandeville's devastating raids from his bases on the Isle of Ely. This group of royal castles, which were unusually built as elements within a co-ordinated strategy, also probably included works at Rampton and Swavesey in Cambridgeshire, while on or near the Isle of Ely Geoffrey de Mandeville had fortified Ramsey Abbey and also held fortifications at Benwick, Fordham and Wood Walton (Renn 1968, 50; Creighton 2002, 59; for an overview of the campaign, see Davis 1967, 84–85). Contemporary conditions in the Cambridgeshire region are described somewhat obliquely by the most comprehensive source for King Stephen's reign, the *Gesta Stephani* (Deeds of Stephen) in the entry for 1143:

“... the king, in a judicious attempt to hinder his [Geoffrey de Mandeville's] wonted raids in the same region, built castles in suitable places and, after garrisoning them adequately for resistance to the devastators of the country, turned in another direction to deal with other affairs of the realm” (Gesta Stephani ii. 84, Potter 1955, 109)”.

The castle at Burwell is also recorded in more detail by other primary sources, most notably by *Gervase of Canterbury* (ed. Stubbs 1867–69) and more fleetingly in the *Chronicle of Ramsey Abbey* (ed. Macray 1886) and in *The Book of the Foundation of Walden Monastery* (ed. and trans. Greenway and Watkiss 1999). Chroniclers of both volumes were primarily concerned with highlighting Burwell as the place where Geoffrey de Mandeville received a

mortal wound before dying a few days later, in Mildenhall, Suffolk, as an excommunicate, rather than showing any interest in the appearance of the castle *per se*. Nevertheless, the references are worth examining in detail for the light they shed on the fortification and on the skirmish or siege that took place there.

Gervase of Canterbury describes how King Stephen moved on Geoffrey de Mandeville late in the summer of 1144 after the earl had occupied the monastery at Ramsey and made it into a 'den of thieves' (*speluncam fecit latronum*); Geoffrey's death occurred after he had hurried to the siege (*obsidionum*) of the castle of Burwell (*castelli de Burwelle*), which had been built by the king (*quod rex construxerat*) (Gervase of Canterbury, ed. Stubbs, Vol 1, 1867, 128). Gervase recounts how before reaching Burwell, Geoffrey rested due to the heat and the green grass (*herba viridissima*) wilted beneath him and did not recover for another year. This detail perhaps alludes to the earl's armies devastating the region's crops, the language derived from Mark 4:6 '...when the sun came up, the plants were scorched, and they withered because they had no root'. Such terminology also emphasises the illegal nature of de Mandeville's rebellion and justifies his status as outlaw and excommunicate. The events which led directly to Geoffrey's death as described by Gervase are clear:

"Hic cum multas pro rege et contra regem Stephanum exercuisset militias, tandemque in obsidione supradicti castelli de Burwelle in scuto et lancea contra adversaries viriliter decertasset, obnimum calorem cassidem deposuit, et loricae ventilabrum solvit, sicque nudato capite militavit. Aestus quipped erat. Quem cum vidisset quispiam de castello et adversarium agnosceret, telo gracili quod ganea dicitur eum jam cominus positum petiit, quo testam capitis ipsius male nudati perforavit". (Gervase of Canterbury, ed. Stubbs, Vol 1, 1867, 128)

"In this place, when he [Geoffrey de Mandeville] had exercised many troops for and against King Stephen, and, at length, in the siege of the aforementioned castle of Burwell he had fought manfully to the end with shield and spear against his enemies, in an act of impetuosity loosened his helmet, so that he fought with an uncovered head. There was now, to be sure, a great ferment. When he had been seen by someone from the castle and recognised as an enemy, a slender missile was discharged called an arrow by which he [the assailant] badly pierced the skull of his uncovered head".

The Chronicle of Ramsey Abbey provides little additional detail but confirms that the castle of Burwell was newly built (*de nova fuerat constructum*) and that the archer (*sagittarius*) who fired the fatal arrow at Geoffrey de Mandeville was one of those 'inside the castle' (*ex his qui intra castellum*) and presumably therefore part of a garrison (*Chronicle of Ramsey Abbey*, ed. W.D. Macray, 1886, 331–2). *The Book of the Foundation of Walden Monastery* describes Geoffrey's death in almost identical terms but styles the place he received his fatal wound as *oppidulum in Burwella*, translated as the 'small castle of Burwell' (*The Book of the*

Foundation of Walden Monastery i, 6, ed. and trans. Greenway and Watkiss 1999, 16–17). It is also important to note that while it is clear from these historical sources that the castle at Burwell was a *de novo* construction, no chronicler makes any reference to the fortification being unfinished or that it was attacked while still being constructed, as is sometimes asserted (see, for example, King 1983, 39). This interpretation has instead been based on the archaeological evidence, which is discussed below. The choice of Burwell as a castle site is likely to have been partly influenced by its status as a significant pre-existing power centre, but the village is also located in a strategically important place on the fen-edge, astride the main approach from the south toward the Stuntney Causeway — a fenland routeway connecting the villages of Stuntney and Soham and one of only three overland routes onto the Isle of Ely before the draining of the fens (Smail 1972). The *Liber Eliensis* suggests that nearby Fordham may have been garrisoned by de Mandeville, and it must be considered that Burwell castle was constructed in as a direct response to this activity (*Lib Eli*, ed. O.E. Blake 1962, 328).

Apparently built for a specific military need, Burwell Castle does not appear to have been abandoned after the 1140s but instead underwent a change from its military function. Burwell Castle next appears in the written record a century later, when the Abbot of Ramsey is licenced by the Bishop of Ely to erect an oratory on the site (*Chronicle of Ramsey Abbey*, ed. W.D. Macray, 1886, 193). During his 1935 excavation, Lethbridge identified structural remains which may be related either to castle buildings or the Abbot's development, or indeed maybe both. Foundations of a narrow range were found running the length of the eastern side of the castle's central mound (or 'island', as Lethbridge referred to it) (Figures 2 and 3). Incorporated into the eastern range, the excavator also located a rectangular building which projected slightly over the line of the moat, possibly serving as a bridge-head, and supported by diagonal buttresses (Figure 4). Lethbridge interpreted this building as a small castle keep or gatehouse, and the eastern range as a curtain wall built during the Anarchy (Lethbridge 1936, 128-133). Given the slight size of the rectangular building it is unlikely to be the remains of a donjon but may instead represent the foundations of a tower (a premise supported by the later name of the site, as recorded on an eighteenth-century enclosure map: see below).

While Lethbridge's twelfth-century attribution for the initial construction of the range is entirely possible, caution is required when the later use of the site by Ramsey Abbey is considered. It is significant that in the same area of the mound Lethbridge also found painted glass, parts of a lead window frame and dressed stone — including one inscribed with the name 'MARIA' suggesting this was also the location of the later chapel. The most convincing evidence that the eastern range was developed as part of the Abbot of Ramsey's residence, however, is the identification along the wall of the northern range of two garderobe chutes (Lethbridge 1936, 129). Such features were clearly not part of the original siege castle but instead represent domestic facilities, perhaps serving the Abbot's *camera* on the first floor. It therefore appears that following the construction during the 1140s of a curtain wall which perhaps incorporated an interval tower within its length, the extant structures in the

eastern part of the castle mound were used as the focus for the Abbot of Ramsey's chapel complex. Indeed, earthworks in the castle ditch previously identified as fishponds may also be contemporary with occupation of this later residence (see below) (RCHME 1972, 40-2). Excavation at Burwell therefore illustrates some of the complexities of attempting to identify 'Anarchy'-period archaeology, especially the lack of diagnostic dating material which makes phasing of sites and sequences difficult.

Part of the clunch (an East Anglian tradition of mixed limestone composition) walling of the medieval complex survived long enough to be recorded on early photographs, but were apparently destroyed when testing the village fire hose in the 1920s (Figure 5). Throughout the medieval and post-medieval periods occupation in Burwell was restricted to the elongated High Street although some separate settlement elements were connected by causeways. The area around the castle was known as 'High Town', and from the twelfth century featured two churches. In addition to the presumably earlier foundation adjacent to the castle, which by the thirteenth century was known as St Mary's, a second church dedicated to St Andrew was situated on a slight rise in a rectangular churchyard east of the street opposite the north end of the enlarged St Mary's churchyard. Around 170m north-east of the site, the location of the church which later became the site of a school continued to be marked on maps well into the twentieth century. Burwell St Mary and Burwell St Andrew were distinctive parishes, and on some early maps of Cambridgeshire the village is marked as 'The Burwells'.

Written sources indicate the existence of St Andrew's as early as 1170, but by the time the church was visited by the Reverend William Cole in the 1740s it had fallen into disrepair. Cole made a sketch of the church which is extremely informative of its architectural features (Figure 6), and apparently shows St Andrew's as featuring a round tower. Generally dated to the eleventh and twelfth centuries in England, round towers were part of a broader North Sea tradition (Fernie 1988; Heywood 1988) and are particularly common across East Anglia, although only two are known from Cambridgeshire, at Bartlow and Snailwell. Located only 5km to the east of Burwell, it is interesting to note that the parish church of Snailwell now dedicated to St Peter was before the thirteenth century also a church of St Andrew (VCH Cambs X 2002, 475-9). The presence of one or more churches located in close proximity as at Burwell was not unusual in medieval East Anglia, with multiple proprietorship reflecting a burgeoning lordly class wishing to express their newly-found power (Blair 2005, 425). The ruins of St Andrew's, Burwell, were pulled down in 1772 but St Mary's continued as a demesne holding of Ramsey Abbey until the dissolution when the right of advowson passed to Cambridge University (VCH Cambs II 1948, 2). The church was heavily rebuilt between 1450 and 1470, although surviving twelfth-century fabric is still present in the lower stages (Pevsner 1970, 310-12).

The post-medieval development of Burwell Castle is more difficult to characterise, but once the manorial site had fallen into disrepair the monument and surrounding landscape appear to have been used as common land for animal grazing. The land known as 'Spring Copse' or 'Spring Close' was acquired by Burwell parish council in 1983 for the recreation of the

villagers — the castle had been used for motorcycle scrambling until 1976 when it was ceased in order to preserve the archaeology (VCH Cambs II 1948, 20). Beyond the destruction of building remains the castle seems to have changed little in the past century or so (Figures 7 and 8) with the exception of increased vegetation, and the area is currently used by local people for recreational purposes.

MAP ANALYSIS

Dated to 1817, the enclosure map of Burwell depicts the castle as a rectilinear earthwork and is labelled 'Scite of Towers' (Figure 9). Such a description is probably a result of the upstanding masonry visible on the site, and the footings of a structure which survived to at least first-floor height were excavated by Lethbridge in the 1930s. The enclosure map also provides evidence of the historic street and tenement plan of Burwell village, and shows the High Street as forming a distinctive curved enclosure surrounding the parish church of St Mary's. The site of the castle is similarly illustrated as a rectilinear enclosure on the tithe map of 1842, although the area is not labelled and is shown as covered in vegetation (Figure 10). The tithe assessment also confirms the former location of St Andrew's Church to the north-east of the site, as plot 440 is recorded as 'Old Church Yard' on the apportionment. The Ordnance Survey (OS) First Edition 25" Revision depicts Burwell Castle as a rectilinear mound surrounded by a wide ditch on all sides (Figure 11). The ditch is shown as extending in the south-western part of the monument, bounded by the stream immediately to the south. A small break in the middle of the southern part of the mound is also illustrated, as is a raised terrace immediately west of the castle ditch. Immediately to the north of the ditch a bank is depicted, and terracing to the east of the castle. The OS First Edition also records 'Remains of the Priory of St John' at Parsonage Farm, located around 600m to the north of Burwell Castle. The existence of a priory in the village was also hinted at by Pevsner (1970, 243) although he suggested that it was most likely sited in the area of the vicarage 100m south-east of St Mary's Church. No reference is provided for this assertion, however, and it appears that both the OS and subsequently Pevsner have erroneously associated the Benedictine priory at Burwell in Lincolnshire with its village namesake in Cambridgeshire. Whereas there is apparently no written reference to a medieval priory at Burwell in Cambridgeshire, in the Lincolnshire village a house was founded in 1100 as an alien priory of La Grande-Sauve, Gironde (Knowles and Hadock 1953, 83).

On the Second Revision of the OS First Edition in the 1920s two further earthwork banks are depicted extending from the north-western part of the castle. By the 1970s the castle earthworks are illustrated by the OS in much greater detail, particularly the raised mound in the centre of the complex. Modern OS mapping provides an even more accurate plan of the earthworks, and includes the series of banks which apparently form a network of enclosures to the north of the castle ditch.

EARTHWORK DESCRIPTION AND INTERPRETATION

The earthwork remains at Burwell Castle offer a rich and diverse dataset for archaeological analysis, and the present survey represents the first major reappraisal of the site since it was mapped by the RCHME in the 1970s (Figure 12) (RCHME 1972, 40-2). The castle is situated on the north side of a deep escarpment overlooking a small stream course. The site can be roughly broken down into three distinct areas: the castle earthworks; an area of probable settlement evidence to the east; and a large area of enclosures to the north of the castle ditch.

The enclosure of Burwell Castle consists of a raised sub-rectangular platform measuring around 30m by 60m and is orientated east-north-east by west-south-west on its long axis. It is surrounded by a large rectangular ditch up to 30m in width, with the platform standing 4–6m above the base of the ditch. The platform itself is marked by its irregular surface with raised areas at both its east and west end, although there is no clear evidence of the layout of structures in the earthworks. Short sections of low earthwork banks survive along the north, south, and eastern edges of the platform which may be the remnants of a former perimeter or curtain wall. A break in the southern section of the perimeter bank (Figure 13: ‘a’) may denote a former entrance on to the platform, as could two comparable breaks along the eastern face. The layout of the raised area at the eastern end of the platform exhibits the most rectangular traces of earthwork layout, and the bulging projection at the north-eastern corner of the platform, which has been omitted from earlier surveys of the castle, may be part of this built form. A large pit (Figure 13: ‘b’) in the western section of the platform may be part of an earlier well structure, or alternatively the result of the excavations undertaken in the 1930s.

In the western section of the ditch is a low, raised area (Figure 13: ‘c’) with internal evidence of platforms and a small pit. A narrow channel survives between this platform and the central castle platform, and within the wider ditch on the north side of the castle are slight remains of a section of channel (Figure 13: ‘d’) which appears to lead to this platform area. This complex seems unusual, set low in the deep castle ditch, but appears to form part of a water management system of indeterminate function. Large irregular mounds (Figure 13: ‘e’) were recorded on the outer side of the ditch on its western and northern sides, which give the impression of a greater depth to the ditch. These earth mounds have previously been interpreted as spoil heaps derived from material excavated from the castle ditches, and the present survey can offer no evidence to the contrary. The conclusion that the original intention was to remove this spoil as part of the castle construction seems plausible as sections of these mounds overlook the central platform in some places. The irregular surface of these mounds may be the result of piecemeal quarrying of this material later in the medieval and post-medieval periods. One additional piece of evidence is that the northern mound seems to have been largely limited to the southern side of an extensive, curving boundary (Figure 13: ‘f’) that runs roughly east to west, suggesting that the spoil was heaped within the limits of existing boundary or property rights.

The boundary that marks the northern extent of the castle complex also functions as the southern boundary of at least four adjacent enclosures (Figure 13: ‘g’) defined by small banks

or scarps separated by shallow ditches. The enclosures measure from between 40m and 20m to 10m by 20m and have previously been suggested as former medieval toft and croft complexes that were partially destroyed by construction of the castle. The earthwork forms are not typical of such medieval settlement arrangements, however, and the lack of topographical evidence for internal occupation is paralleled by the data from geophysical survey — as a result, this research has forwarded three alternative interpretations of the earthworks (see below). Located to the west of the enclosures are two large rectangular pits (Figure 13: ‘h’) measuring around 1–1.5m deep, probably the result of quarrying rather than fishponds, as they are not fed by running water. Small channels running between the two pits and on to the west are probably drainage channels to prevent the pits overflowing.

On the northern side of the pits and enclosures is a large, curving bank measuring up to 1m in height and 3m in width. At its western end is a 6m wide break (Figure 13: ‘i’) which is the probable remains of a gateway through this boundary. At this end there is evidence of a shallow ditch running parallel on its northern side and also in the area between the boundary and the enclosures to the south. To the north are a number of low, wide scarps (Figure 13: ‘j’) running north-east to south-west which are the denuded remains of medieval ridge and furrow ploughing. At the north-eastern end of this complex are a series of ill-defined scarps on differing orientations (Figure 13: ‘k’), some of which may pre-date the ploughing earthworks. At the western end of the ridge and furrow were the denuded remains of drainage ditches and quarry pits (Figure 13: ‘l’). The origin of the large, curving bank is uncertain but may represent the boundary to the thegnly precinct, used to define areas of activity in later periods. Overall it was notable that the earthwork evidence north of the large boundary bank survived poorly, suggesting that this area has suffered in the post-medieval period from ploughing and a greater level of agricultural activity than south of the boundary. Additionally, the adjacent lane (Spring Close) to the north-east appears to be a later addition cutting at an angle through the earthwork evidence in this area.

The earthwork evidence east of the castle platform in the small triangular area defined by the natural scarp to the south, castle to the west, and modern house plot to the north, appears to relate to settlement activity. This includes a number of house platforms or hollows (Figure 13: ‘m’) arranged around this area, and several linear banks that may define the settlement area (Figure 13: ‘n’). It is not out of the question that this zone of settlement, lacking the traditionally-defined enclosures of medieval peasant settlement, may be part of an outer court to the castle complex or to the site associated with Ramsey Abbey that succeeded it. This interpretation would suggest that the primary access to the castle platforms was from the east side, which seems plausible as there is no earth mound on that side of the castle, and would likely link it directly to the settled area around St Mary’s Church. Such an assessment complements the conclusions reached by Lethbridge who advanced that the excavated eastern range included a bridge-head over the castle ditch (Lethbridge 1936, 129).

GEOPHYSICAL SURVEY: METHODOLOGY, RESULTS AND INTERPRETATION

A magnetometer survey of 2.1 ha of land to the north and east of the castle earthworks and an earth resistance survey of 1.2 ha were undertaken as outlined in the project design submitted to English Heritage (Figure 14-18). The standards used to complete the geophysical survey were informed by those defined by English Heritage (2008) and the Institute for Archaeologists (2009) codes of approved practice. The survey was conducted using 30m by 30m grids set out using Differential GPS. The collected geophysical data were processed using TerraSurveyor software, and exported to ESRI ArcGIS 10.2 where they were georeferenced and interpolated.

Magnetometry

The magnetometer survey was completed using a Bartington Grad 601-2 (dual sensor) fluxgate gradiometer and automatic data logger. The survey methodology comprised a sampling interval of 0.25 metres of traverses 1.0m apart walked in zigzag fashion. The data were downloaded from the instrument using the Grad601 application. The data were cleaned by clipping to ± 10 nT and applying de-stripping. The data were further clipped to give better contrast to the plot. Due to restrictions of local topography and vegetation, magnetometer survey was not possible in the area of the castle mound and surrounding ditch, but was instead focussed in the more open land to the north of the monument. Figure 15 shows the results of the magnetometry survey. Figure 16 illustrates the anomalies identified and Table 1 presents their description and interpretation.

Anomaly	Description	Interpretation
m1	Curvilinear anomaly 144m long and c. 5m wide.	Bank also identified during earthwork survey.
m2	Negative north-south anomaly 30m long c. 5m wide. Corresponds with ditch identified as a further toft boundary, however the geophysical response is unique. Also detected by resistivity.	Substantial ditch, possibly associated with pre-castle occupation.
m3	East-west linear anomaly 82m long and c.4m wide.	Enclosure bank
m4	East-west linear anomaly c.65m long and c.5m wide	Enclosure bank, possibly continuation of m3.
m5	North-south linear anomaly c.16m long and c 5m wide.	Possible corner of bank.
m6	Faint block of positive magnetism, c.24m across. Also detected by resistivity.	Structural remains (see below).
m7	Curvilinear positive anomaly 40m long, c. 3m wide. Appears to terminate at linear anomaly m3.	Ditch using pre-existing m3 as a boundary.
m8	Linear anomaly 47m long, c. 3.5m wide.	Uncertain. Possibly similar to m7 in being later activity within pre-existing enclosure.
m9,m10,m11	Strongly positive curving anomalies c. 13m long.	Uncertain. Response suggests walls or ditches.
m12	Curvilinear positive anomaly c.20m long c.2m wide.	Uncertain. Response suggests wall or ditch.
m13	Linear Anomaly. Similar to m9-m11.	Uncertain. Lethbridge's plan depicts an apparent building platform in this area see Fig.4 , 'f'.
m14	Curvilinear weakly positive anomaly, 20m long, c.2m wide. Appears to terminate with m7.	Ditch associated with m7.
m15	m15 is a visible curving 'edge' in the geophysical	A former enclosure of uncertain

	response	date or use.
m16-m18	Linear edges visible in the geophysical plot, spatially matching the ridge and furrow identified by the topographic survey.	Ridge and furrow.

Table 1: Description and interpretation of magnetometry anomalies.

The results of the magnetometer survey indicate the presence of several features of likely archaeological origin. Most obvious in the plot are a number of linear anomalies extending across the survey area in a broadly east-west orientation. Anomaly m1 corresponds with the bank identified during earthwork survey and apparently delineates the extent of enclosures to the south (Figure 13: ‘g’). Linear anomalies m3, m4, and m8 detected by magnetometry were not visible as earthworks. These may be features of similar function to m1, but their lack of preservation may hint toward an earlier provenance. The east-west alignment of anomalies m3 and m4 may indicate that they are related in some way to the probable structural remains of anomaly m6, characterised more comprehensively by the earth resistance survey (see below). The curving anomaly m7 appears to abut m6, and hints at a later phase of origin for this feature.

Earth Resistance

The earth resistance survey was undertaken using a Geoscan RM15-D Resistance Meter in a twin-probe configuration, the mobile probes set at a fixed distance of 0.5m apart. The sample interval was 0.5m and the traverse interval was 1m. Earth resistance survey targeted three discrete areas. Area A comprises land to the north of the castle ditch, Area B is a section of the castle mound, and Area C is land to the east of the castle ditch. The results of the resistance survey can be seen in Figure 17. The anomalies identified in the plot are highlighted in Figure 18, and are described and interpreted in Table 2.

Anomaly	Description	Interpretation
r1	High-resistance anomaly 73m long and c.4m wide. Corresponds with bank depicted in topographic plan.	Bank. Possibly the gully precinct also used in later periods.
r2	Curvilinear high-resistance anomaly c. 27m long and c.1.5m wide. Corresponds with ditch surrounding toft as identified in topographic plan.	Ditch.
r3	Straight low-resistance anomaly 30m long, 1m wide. Corresponds with mag anomaly m2 and ditch drawn on topographic plan.	Substantial ditch.
r4	High-resistance area spatially corresponding with mounds interpreted as spoil heaps of the castle construction.	Spoil heaps.
r5	High-resistance rectangular response, c.20m across, aligned on the compass points.	Wall footing of building, possibly Romano-British.
r6	High-resistance rectangular response, c.10m across, aligned on the compass points.	Internal wall of building, probably Romano-British.
r7	Sub-rectangular high-resistance area, c.19m across, similar in shape and alignment to r5/r6.	Possible Romano-British building.
r8	Amorphous higher-resistance zone. Appears natural in lower contrast shade plot.	Natural geology.
r9	Amorphous higher-resistance zone. Appears natural in lower contrast shade plot.	Natural geology.
r10	Circular high-resistance anomaly 5m across, identified as a hollow by this topographic survey, and appearing	Footing of circular structure.

	just west of a building platform identified by Lethbridge (see Fig 4).	
r11	Bulbous linear anomaly 15m long and c.1.5m wide, shares alignment with castle mound.	Wall, perhaps western curtain wall.
r12-r14	High-resistance area comprising spatially connected linears on a similar alignment.	Buried masonry, possibly walls depicting cells in a structure.
r15	High-resistance area comprising a rectangular area with distinct linears. Similar alignment to r12-r14. Lethbridge identified a building platform in this area.	Buried masonry of same phase as structures on the castle mound.
r16	Low-resistance halo around r15.	Enclosure around structure suggested by r15.

Table 2: Description and interpretation of earth resistance anomalies.

The earth resistance survey at Burwell was successful in detecting a number of anomalies of likely archaeological origin. As a caveat it should be noted that survey in Area A was carried out in very wet conditions and as a result readings were characterised by very low resistance. These circumstances leave little margin for subtle low-resistance anomalies to be identified, and thus the earth resistance survey may not have detected features in an area considered of significant archaeological potential. As a result the higher, drier areas of land in Area A appear dark in the survey plot. Areas B and C were surveyed in drier conditions.

The survey identified a number of features also visible as earthworks and identified by the topographic survey. North of the castle ditch, anomalies r2 and r3 probably represent visible interleaved ditches, perhaps used for drainage. Anomaly r1 corresponds with the east-west bank defining the southerly enclosures, identified by magnetometer survey (m1) and topographic survey (Figure 13 north of 'g'). In the southern part of the survey area a high-resistance anomaly was identified, characterised by three very straight sides; two projecting north to south and one orientated east to west (r5). Within the interior of r5 a slighter anomaly of similar orientation but characterised by higher resistance was located (r6). The responses of r5 and r6 suggest the presence of structural features, perhaps three sides of a rectilinear building the form of which appears consistent with Romano-British forms. The distinctive layout of the anomalies, suggesting a rectilinear structure with an internal subdivision bears close resemblance to Romano-British temples recognised through excavation; an interior structural *cella* surrounded by a walkway known as an ambulatory or veranda. Numerous examples of temples with such layouts have been excavated in Britain, such as Lamyatt Beacon, Somerset and Caerwent, Monmouthshire (Leech 1986; Brewer 1993). During excavation of the castle mound at Burwell, Lethbridge identified the probable remains of a Romano-British building, and this probably either relates to the southerly extension of the same temple structure or more likely another building in part of a more extensive complex. An alternative interpretation is that the building identified by this survey is the northern extension of a corridor villa, although contextual evidence compellingly supports its interpretation as a temple (see below).

Survey Area B located on the castle mound identified four anomalies of possible archaeological significance. These consisted of high-resistance linear anomalies of comparable alignment. These may be buried masonry and perhaps elements of the curtain

wall and other structures identified by Lethbridge during excavation in the 1930s (Lethbridge 1936). In Area C, there were again high-resistance linears in an area previously identified as a building platform by Lethbridge (1936, 129). These were in a similar alignment to structures on the castle mound and the possibility that they represent part of the same complex or phase of building cannot be disregarded.

DISCUSSION/CONCLUSION

The combination of geophysical and earthwork survey, in addition to documentary and historic map analysis undertaken by this research provides new insights into the historic development of Burwell Castle and its environs. Whilst the primary motivation of the work was to investigate the archaeology of the twelfth-century, research has also recognised important elements of the pre-castle history of Burwell. Spring Close was already recognised as the site of a Romano-British building following excavations by Lethbridge on the western side of the castle mound which recovered the course of a wall, along with considerable quantities of Romano-British pottery, roof tiles, wall plaster and animal bone. The excavator surmised that 'we were clearly on the site of an extensive Romano-British building' (Lethbridge 1936, 128) and researchers have generally interpreted the structure as a wealthy farmstead or villa (e.g. Malim 2001, 7). Geophysical survey undertaken by this investigation, however, has identified an apparent Romano-British building the form of which most closely resembles a temple.

The likelihood that the building identified represents a temple is supported by the wider landscape context of Spring Close and other supporting evidence. Watery locations with intermediate topographic identities such as marshes, tidal islands and fens subject to seasonal inundation were of special significance in the late prehistoric and Romano-British periods and were regularly used as places for ritual activity (e.g. Rodwell 1980; Scarre 2002). At Burwell, the likely religious significance assumed by the fen-edge location of Spring Close was heightened by the presence of a spring. Springs have long been recognised as draws for human activity over many millennia, but they are also known to have played a central role as foci for Roman temple construction, as at *Aquae Sulis* (Bath) and *Aquae Arnemetiiae* (Buxton), where the waters were deemed both therapeutic and worthy of votive offerings (Green, 1986; Davies and Robb 2002, 181). In addition to the landscape setting of Spring Close, the interpretation of the Romano-British structure at Burwell as a temple is supported by the recovery through metal detecting of a lead tank in the field immediately adjacent to the castle (Guy 1978). The object is datable both by the Romano-British pottery found in the same context, and its close resemblance to similar tanks from Late Roman sites (CHER: 06787) (Figure 19). The purpose of such tanks has been a point of some discussion, with Dorothy Watts (1988) suggesting that they may have been used during baptismal ceremonies for the foot-washing rite.

The precise interpretation of the object aside, the recovery of the tank further supports the hypothesis that Spring Close acted as a ritual focus, and indeed was the site of a temple during the Romano British period. Located approximately 60m north of the wall excavated

by Lethbridge, it is difficult to tell whether the structure was part of the same large building or was just one part of a more extensive complex, although the presence of cropmarks in the field to the south-west where the tank was found may support the latter view (CHER: 06787). Intriguingly, later place-name evidence suggests that at the end of the Roman period the temple was not only recognised by early medieval communities but that Burwell may also have continued to act as a location of special religious significance. The 'way of Stapelhood' recorded from the late twelfth century onwards seems to describe a route leading to a peninsular of land to the east of the High Street, perhaps somewhere opposite the church of St Mary's. The OE *stapol* element of the place-name hints that the one-time spur of land was furnished with a tree or post that may have acted as cult focus, perhaps referencing its close proximity to the earlier temple.

The identification of pre-Christian ritual places in England is notoriously difficult, but the fragmentary material available does suggest that earlier Roman temples were utilised as foci for religious rites (e.g. Semple 2007). Collating the evidence for standing posts being used in such a way, John Blair (2005, 185) has also highlighted a passage of the scholar Aldhelm who writing in the 680s rejoiced in witnessing churches being constructed where previously the 'crude pillars (*ermula cruda*) of the...foul snake and stag were worshipped with coarse stupidity in profane shrines' (*Aldelmi Opera*, ed. Ehwald 1919, 489). An increasing body of data from both Scandinavia and England is illustrating how public meetings were often held at such pagan cult centres and the way in which these locations themselves were gradually assimilated into the administration of royal government (Sawyer and Sawyer 1993, 80-1; Hedeager 2001, 478-81; Blair 2005, 57). Contrastingly liminal yet accessible locations such as Burwell have been shown as especially favoured for public rituals and assemblies, as seen by the inaugural ritual for King Edgar which in 973 was held on the River Dee (Pantos 2003; Barrow 2003, 81-93). This evolution from pre-Christian religious site to administrative centre is likely to have occurred at Burwell, where the earlier *stapol* location later acted as the hundred meeting place and, in a pattern recognised elsewhere in East Anglia, subsequently gave the hundred its name (Meaney 1997, 35-6).

We cannot determine precisely when the first church at Burwell was constructed, but if the site was developed as a Middle Saxon royal estate centre as seems possible, such a building would have been integral. Presumably on the site of St Mary's but possibly a predecessor to St Andrew's, an early church could also have been established in a deliberate attempt to Christianise an earlier focus for ritual activity as alluded to by Aldhelm. By the time Burwell first appears in the written record, however, it is in the form of a private estate granted to Ramsey Abbey, and elements of this thegnly residence may have been detected by this survey. The sinuous boundary to the north of the castle visible in topography and geophysics may delimit the extent of the thegnly precinct known from documentary material, and the earthworks forming the enclosure network to the south may also date from this phase. Stratigraphic relationships certainly support the premise that the east-west boundary is either contemporary or earlier than the enclosures to the south, as the larger feature appears to define the limit of the other earthworks. Thus, by the time the castle at Burwell is next

brought into focus by documents of the twelfth century Spring Close and the immediate vicinity was already a long-lived power centre of some significance.

The broad historic narrative of the castle's origins are provided by the documentary evidence, which suggests that Burwell was initially constructed as one of a number of fortifications around the fenland in order to restrict the activities of Geoffrey de Mandeville. The written sources also inform us that de Mandeville was killed while attacking the castle, a premise complemented by the apparently unfinished state of the fortification. Losing its *raison d'être* following the death of de Mandeville, the archaeology suggests that construction ceased — for example, the earthwork survey indicates that the castle ditch may not have been completely cleared and that spoil remained heaped in areas adjacent to where it was excavated. Located to the north and west of the castle, these spoil heaps are something of an enigma. Although there is no alternative explanation for their development, there is no obvious rationale why they were formed during castle construction rather than the material being carted away directly (or indeed piled onto the castle mound rather than on the outside edge of its ditch). Their formation would have only made removal of further spoil from the ditch more difficult, and given that Burwell was subsequently the site of a manorial complex belonging to Ramsey Abbey, the lack of removal is yet more perplexing.

The excavations by Lethbridge demonstrate, nevertheless, that the campaign castle was probably already been furnished with a stone curtain wall and possibly a tower when construction ceased. This was clearly not a hastily built and expedient earth and timber siegework, but something grander and more defensible. While siegeworks of the mid-twelfth century were mainly built as ringworks, or else as small motte and baileys, it seems that Burwell Castle was designed as a small rectangular enclosure castle. Earthwork survey by this research has identified low banks which probably relate to other elements of masonry, demonstrating that the curtain wall likely extended around all sides of the castle mound. Earth resistance survey undertaken by this research has identified anomalies which may also represent elements of this curtain defence — anomaly r11 mirrors the orientation of structures excavated by Lethbridge, and anomalies r12-14 may represent the southern projection of the same complex. Similarly orientated anomalies were identified in earth resistance survey area C, suggesting that here too may have been structures related to a similar phase of development, if indeed the anomalies represent masonry. Indeed, the surviving earthworks in this area of the survey have been interpreted as likely settlement features and it is plausible that extra-mural occupation was linked by to the eastern part of the castle complex. Lethbridge (1936, 129) had previously argued that the rectangular structure excavated along the eastern range formed part of such a bridge-head, and identification of settlement to the east of the castle adds weight to such an interpretation.

Although the date of the earthwork enclosures to the north of the castle is difficult to determine, this survey has shown that they are defined by a boundary to the south and do not extend beneath the fortification as previously believed. The castle-builders therefore seem to have respected the extent of the enclosures and whilst this survey has dismissed their

interpretation as a 'classic' toft and croft arrangement, three alternative explanations are forwarded here. The first possible scenario is that the enclosures represent the remains of early medieval settlement elements similar to those recognised through excavation in other fenland sites in Cambridgeshire. The investigations at West Fen Road, Ely, for example, identified a network of enclosures arranged around a central trackway, some but not all of which possessed structures (Mortimer *et al.* 2005; Mudd and Webster 2011). It is thought that the paddocks were used for a combination of domestic and agricultural purposes within a settlement which acted as a surplus-producing farm for the minster community at Ely (Mortimer *et al.* 2005, 144–8). It is therefore possible that the enclosures at Burwell derive from a similar origin, perhaps related either to the thegnly residence or other pre-castle occupation of the site.

Another alternative is that the enclosures are in some derive from development of the castle itself, perhaps settlement for construction workers that were not levelled. A final interpretation is that the earthworks are the result of Spring Close's later use as a manorial centre by the Abbot of Ramsey. On balance, perhaps the most likely scenario is the first — that the enclosures rather than building plots are more likely paddocks originating in the early medieval period— this view is supported by the lack of apparent contemporary structures within the earthworks, implying the units were more likely used as stock pens rather than tenement units. It is impossible to be sure that these adjacent features were abandoned upon construction of the castle but the probability that similar features exists beneath the monument cannot be disregarded. Any activity in such close proximity to the castle would have obviously have been deserted on commencement of the fortification. There can be little doubt that the sudden burst of military activity caused significant disruption to daily life of local people, and the presence of an army would have created pressure on local food supply and other resources. Tractable land for growing crops is restricted around the fen edge, but the likelihood that arable farming was being utilised is demonstrated by the presence of ridge and furrow immediately north of the settlement focus. These two zones of activity were apparently delineated by the east-west bank which may have earlier acted as a boundary to the thegnly precinct.

Assigning absolute dates to any of the features and anomalies recognised by this research is challenging, and is a situation complicated at Burwell by the later use of the castle as the site of the Abbot of Ramsey's chapel and associated buildings. The excavations by Lethbridge hint that from the thirteenth century the pre-existing structure of the castle was developed for residential purposes — the construction of latrine chutes in particular demonstrates that the complex was being adapted for high-status use. The earthwork complex in the castle ditch is also unusual in this regard and warrants further consideration. It seems likely to have had a water management role, although it is not possible to be certain of its function. The most obvious interpretation would be that it functioned as a watermill complex, and although there is no evidence of dams or sluices, the survival of a narrow ditch within the base of the castle ditch indicates that water was intended to be channelled around the north side of the castle platform. This may even be one reason for the unusual depth and width of the castle ditch

relative to the size of its central platform, in order to allow the flow of water around to this complex, and would also suggest that it was never intended to fill the castle ditch with water — this assessment is supported by the evidence from excavations undertaken in the ditch, which located no freshwater deposit showing that it had not held water for any length of time (Lethbridge 1936, 126). It would be particularly interesting if a watermill was built in this location during the original construction of the castle, as the twelfth century is a period prior to the known development of the windmill in England, and only limited locations for watermills were available around the fens of Cambridgeshire. Richard Holt (1988, 22–3) has even argued that the post-mill may have been developed in East Anglia itself during the late twelfth century, which would suggest a fertile period of technological innovation in which the engineering of mill complex at Burwell was attempted.

More broadly speaking, the sequence of activity noted at Burwell Castle and the current form of its earthworks probably most closely resembles a later medieval moated residence. Indeed, the square-moated form of the monument in particular bears a striking comparison to another manorial site in Cambridgeshire at Caxton Moats. Situated around 700m west of the village of Caxton in South Cambridgeshire, the site comprises three contiguous moated enclosures arranged in an inverted L-shaped plan. It has been proposed that the complex may have been developed as early as the twelfth century by the de Scalers family (e.g. Renn 1968, 50), yet the first clear documentary evidence for the site dates only to 1312. By this time Caxton Moats was the site of dower house, apparently furnished with fishponds and a rabbit warren (VCH Cambs II 1948, 21–2; RCHME 1968, 41). Despite featuring three moats, the square form of the enclosures at Caxton resembles that at Burwell Castle and it is notable that both sites share a common later medieval history. With little documentary evidence supporting a twelfth-century origin for Caxton Moats, it is probable that the complex dates predominantly from the thirteenth century onward.

While the documentary and archaeological evidence from Burwell strongly support that idea that the castle was initially developed as an ‘Anarchy’-period campaign fortification, the comparative site at Caxton Moats raises reasons for caution. It demonstrates in particular, that we should not interpret the present form of Burwell Castle as purely the result of a twelfth-century military encounter, but instead the site should be viewed as a product of protracted phases of activity which varied in character over time. Despite being perhaps the most well-known ‘Anarchy’ site in the country, the evidence from Burwell Castle thus equally illustrates the complexities of assessing the period through archaeology — the lack of diagnostic material culture together with the reuse use of sites and landscapes in later periods requires the critical approach adopted by this research, incorporating all available sources of data. Indeed, this study represents a good example of what can be achieved by assuming such a methodology, as the archaeological evidence can go beyond previous studies which have relied purely on documentary data.

In addition to its later medieval use, this investigation has also demonstrated some significant developments at Spring Close before construction of the fortification and it is interesting to

speculate which elements of this inheritance were recognised by the twelfth-century castle builders. Stephen and his entourage would almost certainly have been aware of Burwell's administrative importance, being the site of the meeting-place for the large hundred of Staploe. They may have even recognised the earlier status of Spring Close as an important ritual and political power centre and, in addition to the clear strategic value of Burwell these symbolic implications may well have played a part when selecting the site of the castle. There is a rapidly expanding body of archaeological data demonstrating the way in which Norman castles were often developed from Late Saxon elite defended residences, such as at Goltho, Lincolnshire and Trowbridge, Wiltshire (Beresford 1987; Graham and Davies 1993). This mode of reuse seems especially characteristic of the Norman Conquest, but the written sources and archaeological evidence from Burwell demonstrate the same process in action during the 1140s, with a royal castle established within a pre-existing thegnly enclosure. Established as an ultimately short-lived campaign castle, this research has shown the likely impact that monument building had on the daily lives of ordinary members of the twelfth-century village community, and the way in which the site was subsequently used throughout the medieval and later periods. Further work will undoubtedly supplement this picture, and can only add to our understanding of an 'Anarchy'-period castle with an illustrious and important earlier history.

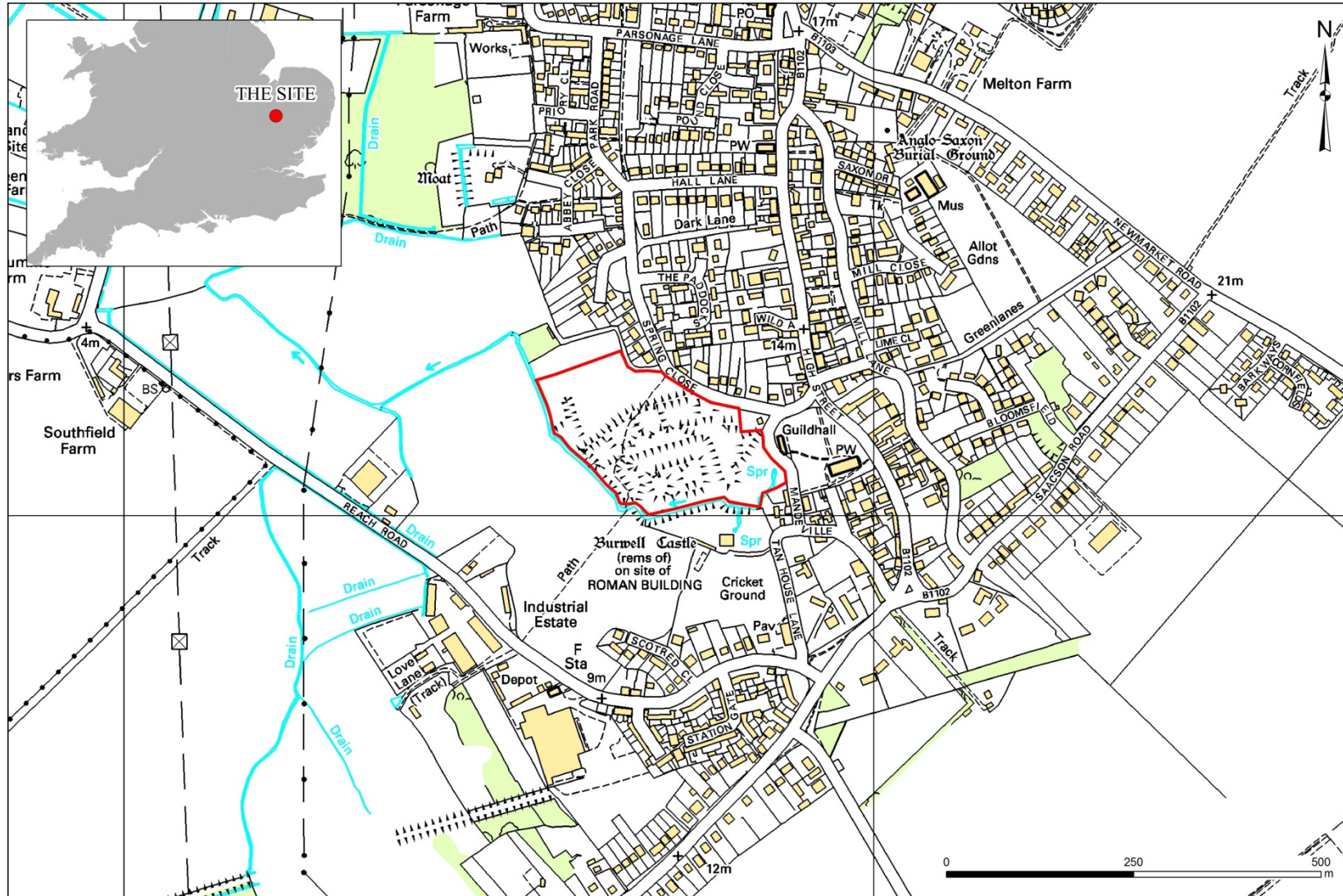


Figure 1: The location of the site in southern Britain (inset) and the survey area (red outline) in its local landscape.



Figure 2: T.C. Lethbridge leading excavations in the castle ditch at Burwell, 1935.



Figure 3: Stone building foundations, apparently of medieval date, excavated by Lethbridge in the 1930s.

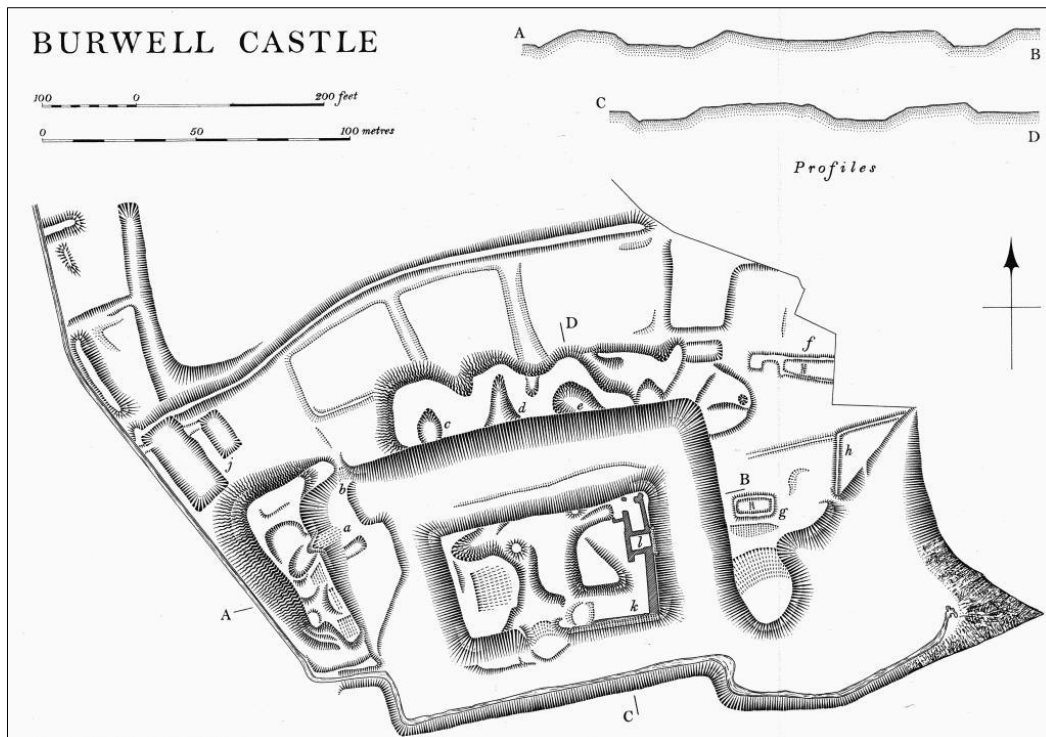


Figure 4: Lethbridge's plan of excavations at Burwell with trenches marked. Note the structural remains in the eastern part of the mound, probably representing a curtain wall and perhaps incorporating a tower (Lethbridge 1936, Fig 3).



Figure 5: Burwell Castle in the 1920s, looking south-east. This photograph shows the remains of clunch building masonry standing at least to first-floor height, and likely represents part of the structural remains later excavated by Lethbridge. Photo courtesy of the Cambridgeshire Archive.

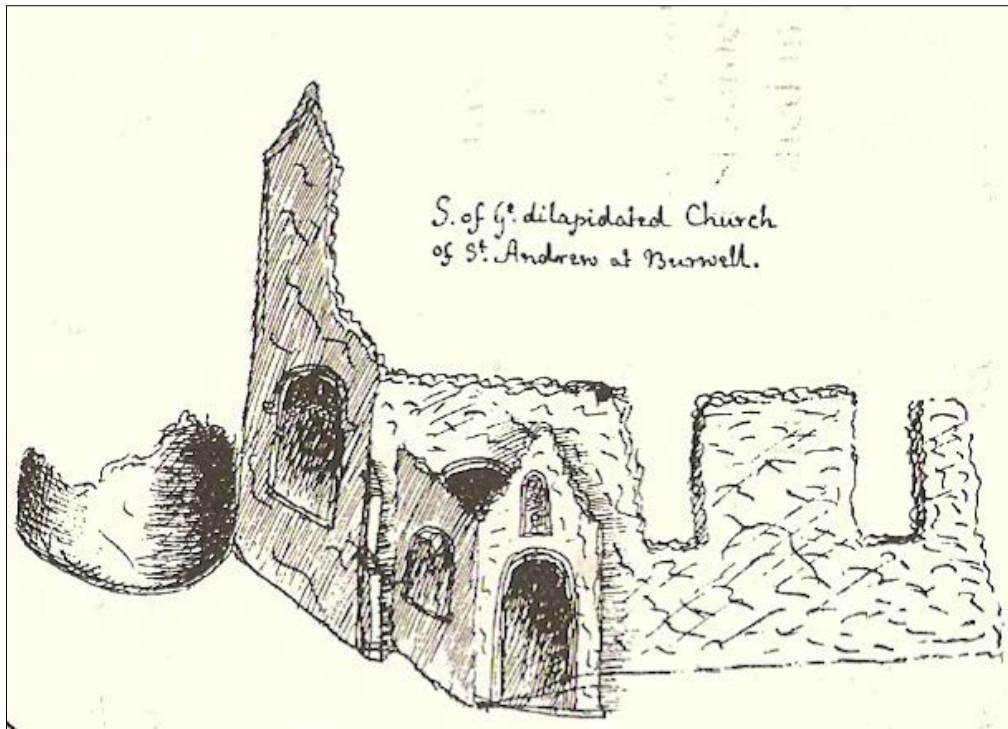


Figure 6: 1745 sketch of the remains of St Andrew's Church, Burwell, by the Reverend William Cole. The church, which appears to have featured a round tower, is first mentioned in the twelfth century. Image courtesy of Burwell Museum of Fen Edge Village Life.



Figure 7: Photograph of Burwell Castle looking south east. The figure is presumably Lethbridge.



Figure 8: Burwell Castle as it looks today. Photo taken a similar location as Figure 6.



Figure 9: Enclosure map of Burwell Castle and the surrounding landscape (dated 1817). The castle is labelled 'Scite of Towers', probably due to the presence of upstanding masonry remains. Source: Cambridgeshire Records Office.



Figure 10: Tithe map of Burwell (dated 1842) showing the site of the castle as a rectilinear enclosure covered in vegetation. To the north-west of the site tenement plot 440 recorded as 'Old Church Yard' denotes the location of the former St Andrew's Church. Source: Cambridgeshire Records Office.

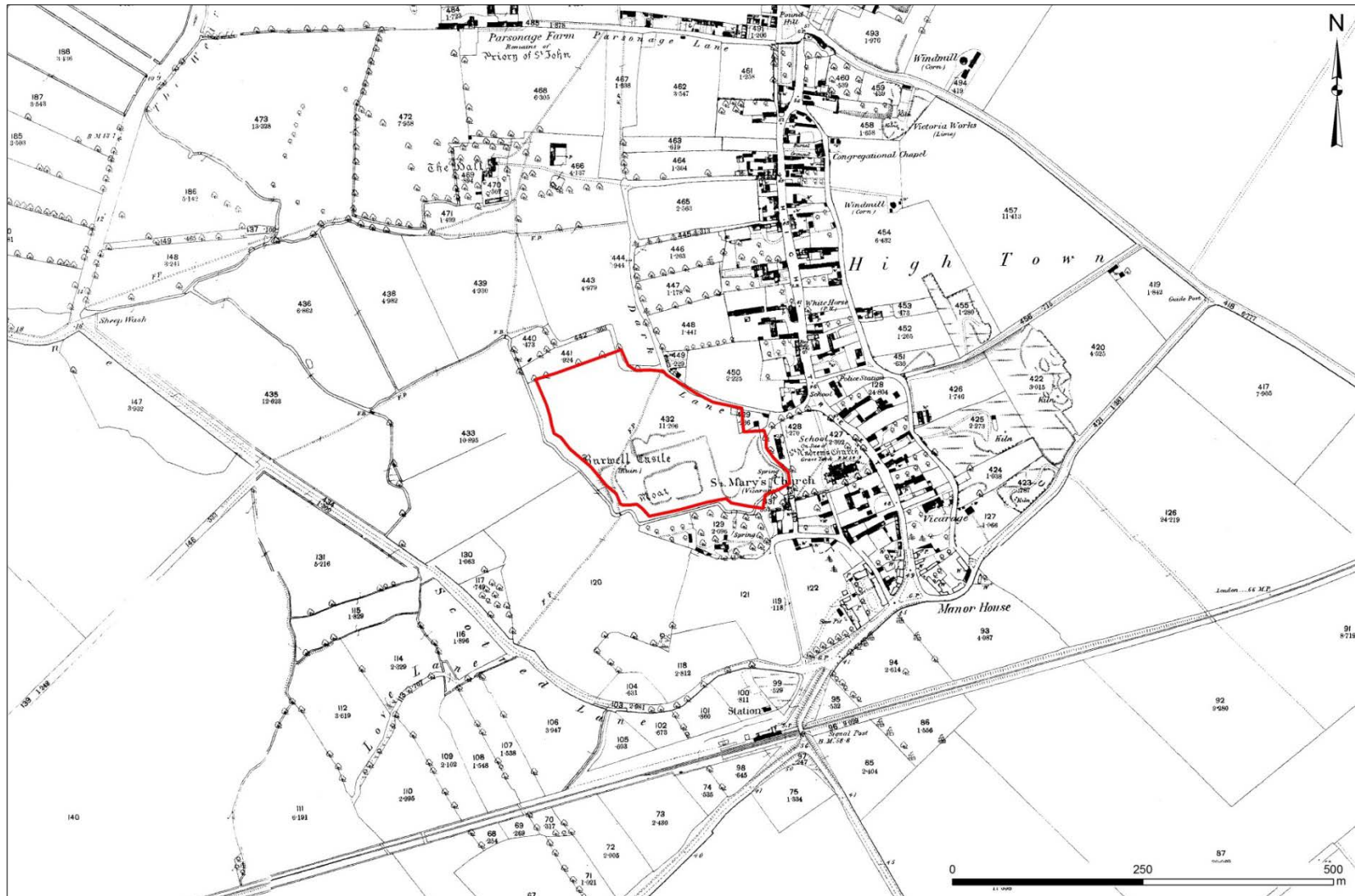


Figure 11: 1871 Ordnance Survey First Edition Revision showing Burwell Castle and the surrounding landscape-the survey area is outlined in red. To the north of the site Parsonage Farm is illustrated as the site of the Priory of St John. There is no archaeological or historical evidence to support the existence of a priory here, but instead it appears previous authors have confused the site with Burwell in Lincolnshire.

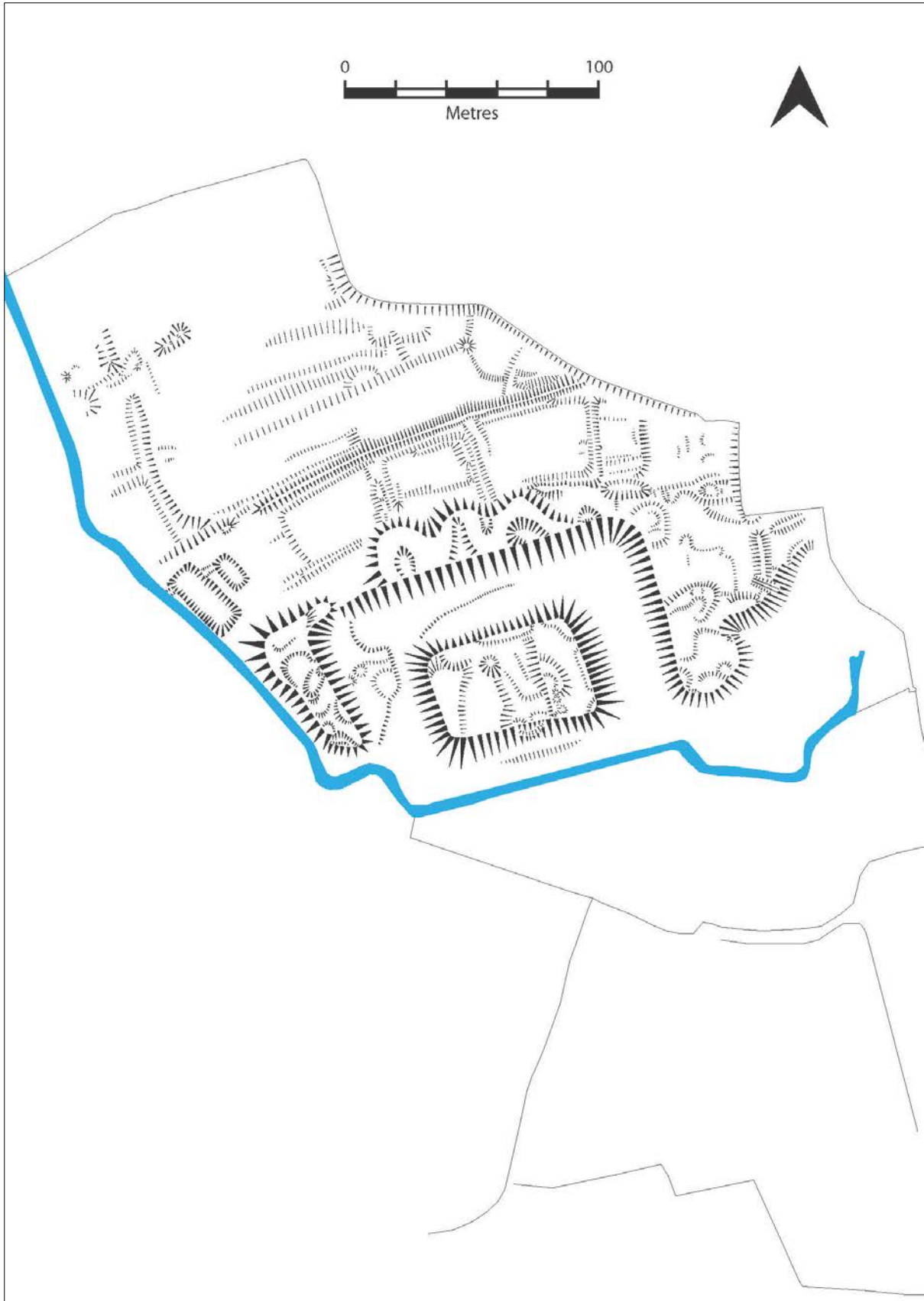


Figure 12: Hachured earthwork plan of Burwell Castle

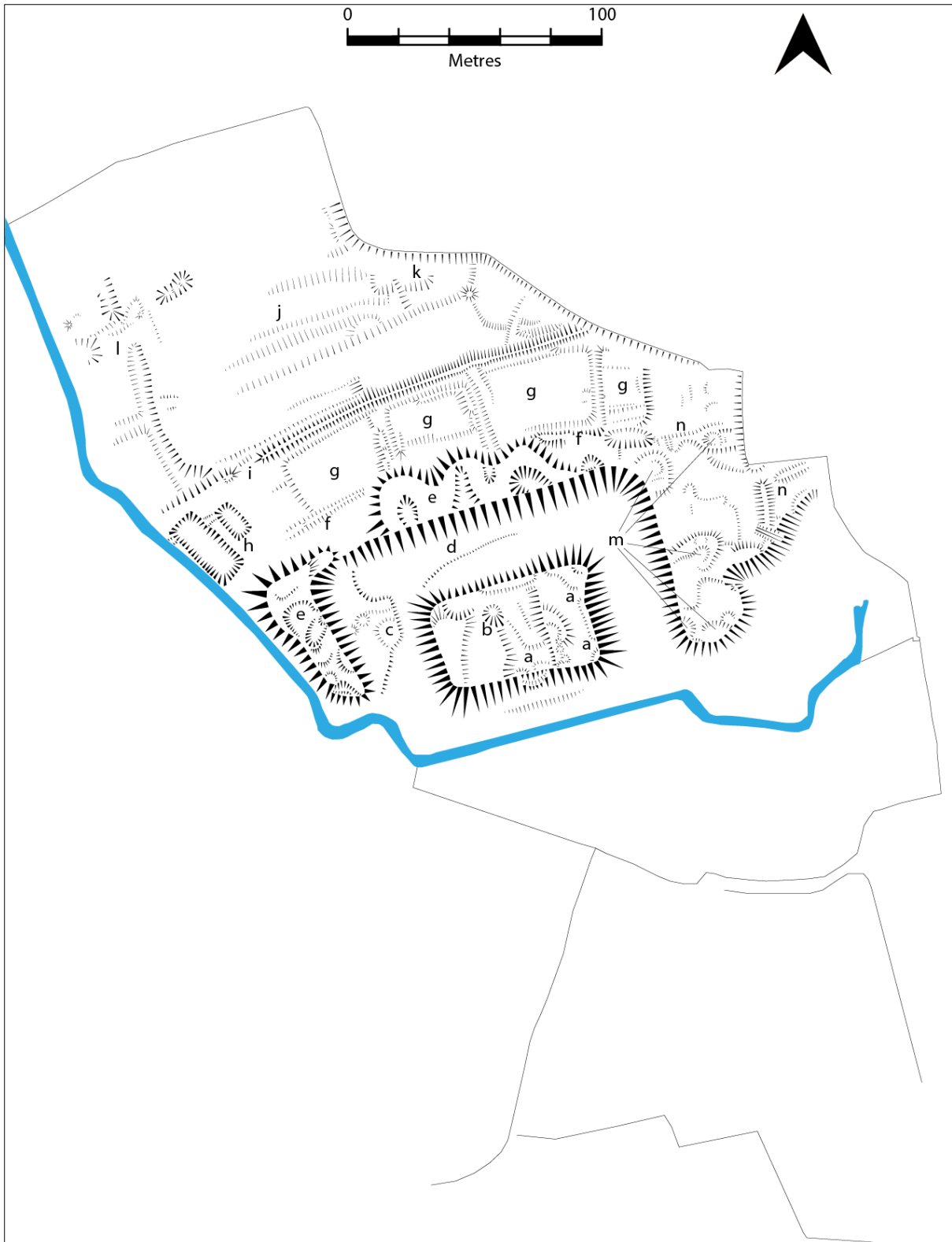


Figure 13: Annotated earthwork plan of Burwell Castle.



Figure 14: Earth resistance survey being undertaken at Burwell Castle.

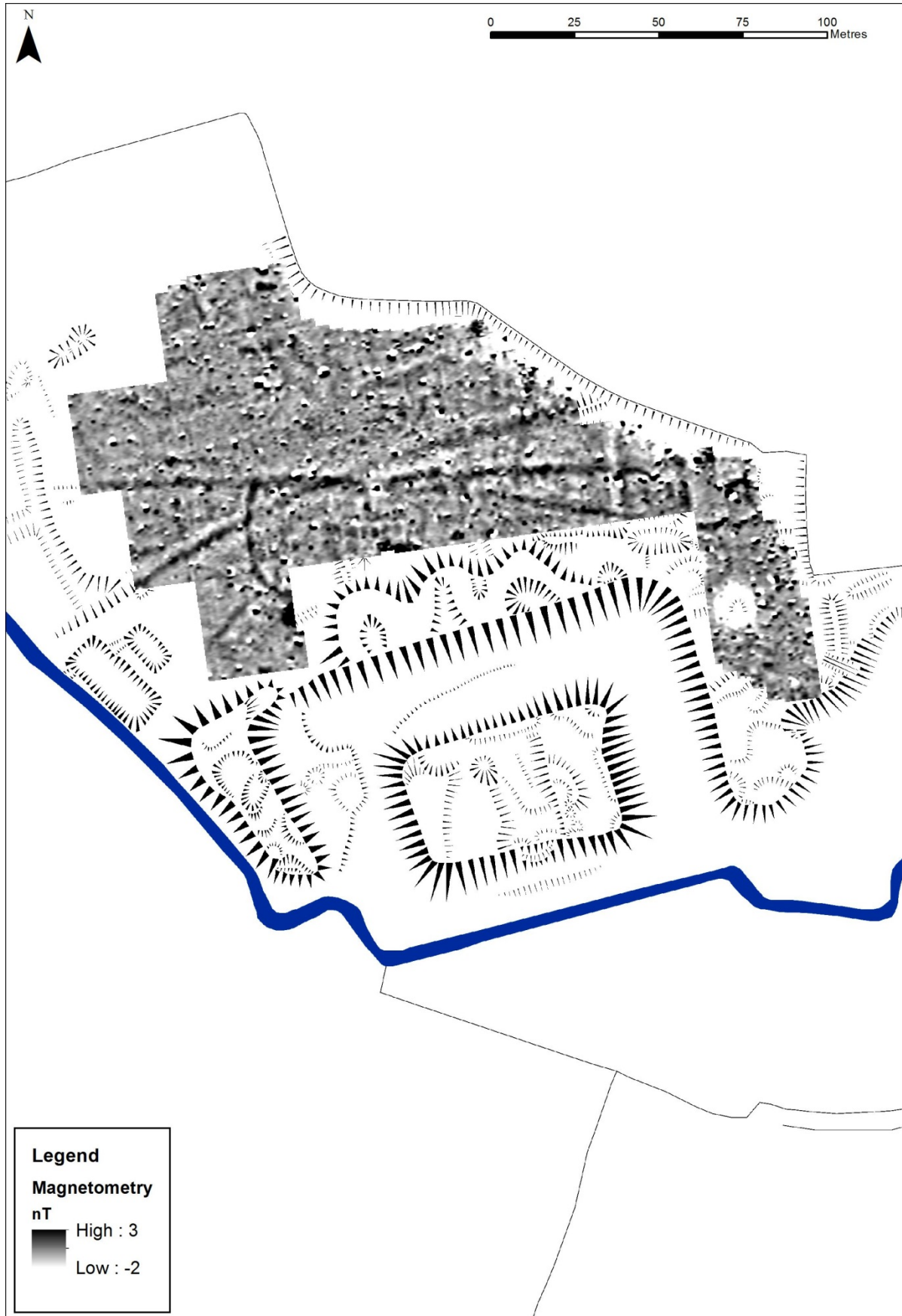


Figure 15: Results of magnetometry survey, overlaid on earthwork survey.

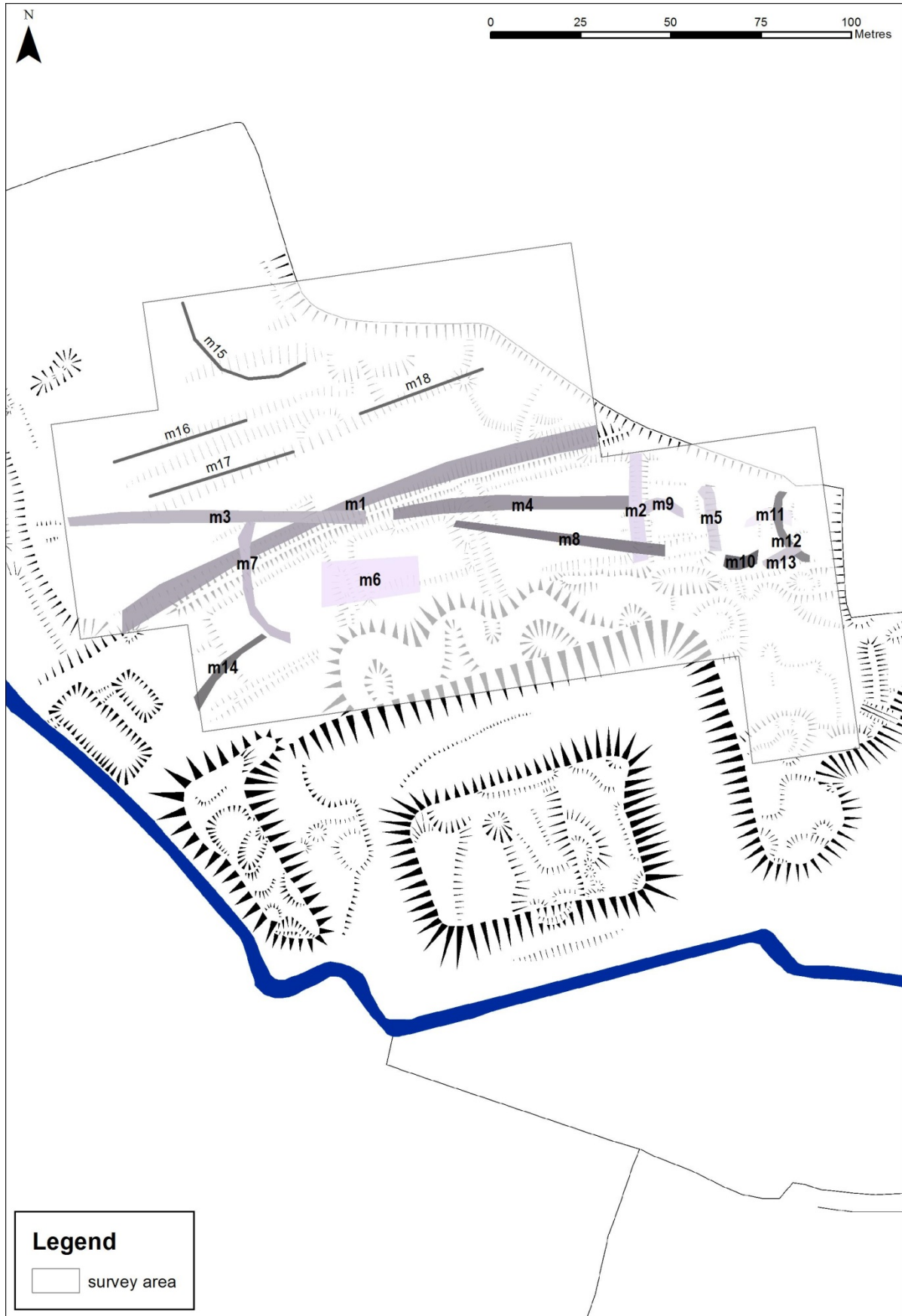


Figure 16: Interpretive plan of anomalies identified by magnetometry survey.

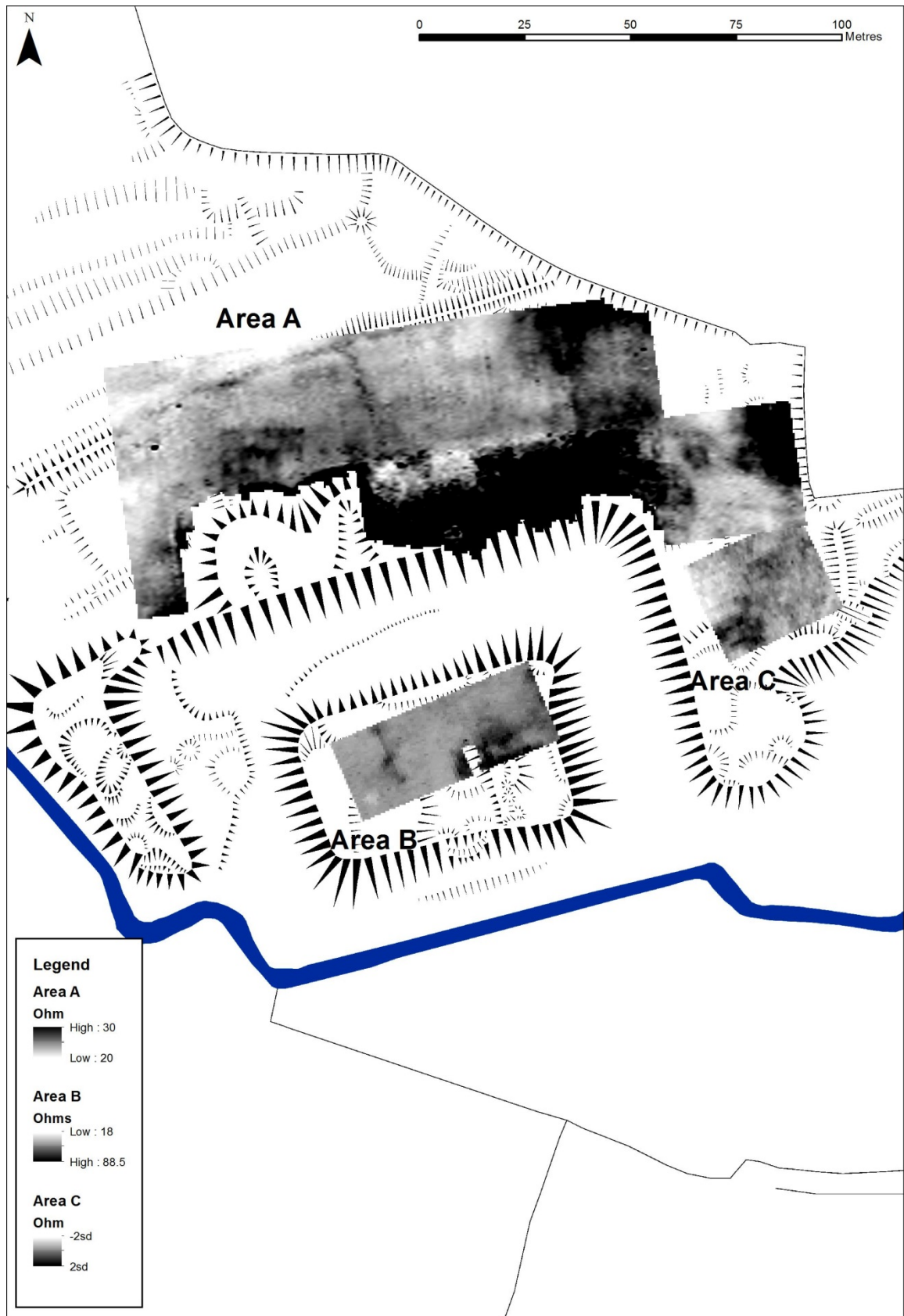


Figure 17: Results of the earth resistance survey in Areas A, B and C.

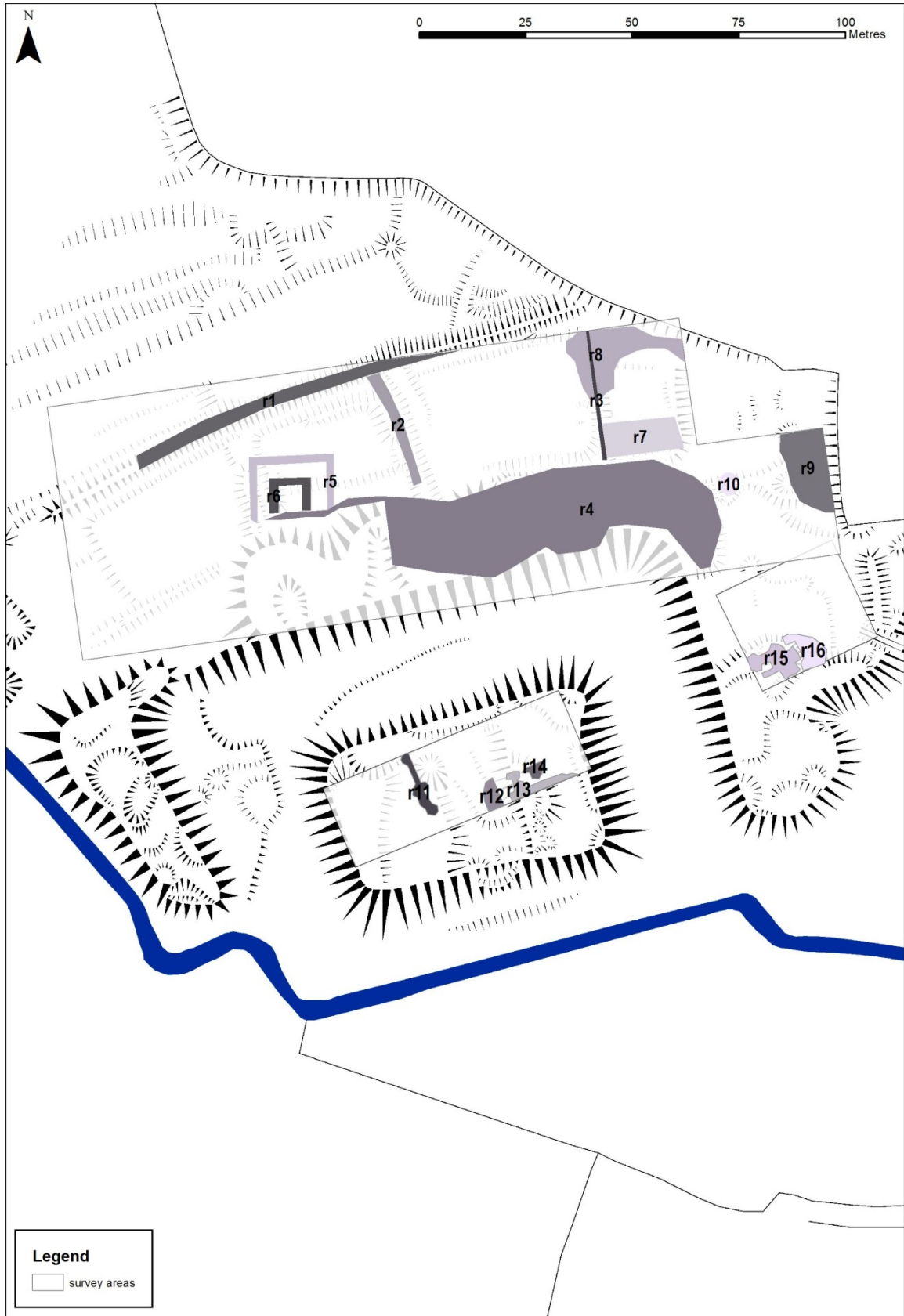


Figure 18: Interpretive plan of anomalies identified by resistance survey.



Figure 19: Lead tank found by a metal detectorist in the field immediately adjacent to Burwell Castle.

PRIMARY SOURCES

Chronicon Abbatiae Ramesiensis (The Chronicle of Ramsey Abbey), ed. W.D. Macray, (Rolls Series **83**), London: Longman (1886).

Gervase of Canterbury, Historical Works, ed. W. Stubbs, The Historical Works of Gervase of Canterbury, 2 vols (Rolls Series **73**), London (1867-69).

Gesta Stephani (The Deeds of Stephen), trans. K.R. Potter, London: Thomas Nelson and Sons Ltd (1955).

Liber Eliensis, ed. E.O. Blake. London: Royal Historical Society (1962)

Sancti Aldhelmi Opera, ed. E. Rudolf, Bern (1919).

REFERENCES

Atkinson, T.D. 1894: 'On a Roman house at Swaffham Prior; on the hall of Michael House; on excavations at Ely Cathedral', *Proceedings of the Cambridge Antiquarian Society* **8**, 229–243.

Baker, J. and Brookes, S. 2013: *Beyond the Burghal Hidage: Anglo-Saxon Civil Defence in the Viking Age*, Brill: Leiden/Boston.

Barrow, J. 2003: 'Chester's earliest regatta? Edgar's Dee rowing revisited', *Medieval Europe* **10 (i)**, 81-93.

Beresford, G. 1987: *Goltho: the development of an early medieval manor c.850-1150*, London: Historic Buildings & Monuments Commission for England.

Blair, J. 1995: 'Anglo-saxon pagan shrines and their prototypes', *Anglo-Saxon Studies in Archaeology and History* **8**, 1-28.

Blair, J. 2005: *The Church in Anglo-Saxon Society*, Oxford: Oxford University Press.

Blair, J. 2013; 'Holy Beams: Anglo-Saxon Cult Sites and the Place-Name Element *Bēam*', in M.D.J. Bintley and M.G. Shapland (eds) *Trees and Timber in the Anglo-Saxon World*, Oxford: Oxford University Press, 186-210.

Brewer, R.J. 1993: *Caerwent Roman Town*, Cardiff: Cadw.

British Geological Survey, 1981: *Cambridge. England and Wales Sheet 188 (Solid and Drift)*, 1:63 360 Geology Series, Keyworth: British Geological Survey.

Creighton, O.H. 2002: *Castles and Landscapes: Power, Community and Fortification in Medieval England*, London/New York: Continuum.

Creighton, O.H. 2005: *Castles and Landscapes: Power, Community and Fortification in Medieval England*, London: Equinox,

- Creighton, O.H. and Higham, R. 2003: *Medieval Castles*, Princes Risborough: Shire.
- Davies, P. and Robb, J.G. 2010: 'The Appropriation of the Material of Places in the Landscape: The case of tufa and springs', *Landscape Research* **27**, 181-185.
- Davis, R.H.C. 1967: *King Stephen 1135–1154*, London: Longmans.
- English Heritage, 2008: *Geophysical Survey in Archaeological Field Evaluation*, Swindon: English Heritage.
- Fernie, E. 1988: 'The Church of St Magnus, Egilsay', in B.E. Crawford (ed.), *St Magnus Cathedral and Orkney's Twelfth-Century Renaissance*, Aberdeen: Mercat Press, 140–161.
- Graham, A.H. and Davies, S.M. 1993: *Excavations in the Town Centre of Trowbridge, Wiltshire 1977 and 1986-1988: The Prehistoric and Saxon Settlements, the Saxo-Norman Manorial Settlement, and the Anarchy Period Castle*, Salisbury: Wessex Archaeology.
- Green, M, 1986: *The Gods of the Celts*, Gloucester: Alan Sutton
- Greenway, D. and Watkiss, L. (ed. and trans.) 1999: *The Book of the Foundation of Walden Monastery*, Oxford: Clarendon Press.
- Heywood, S. 1988: 'The Round Towers of East Anglia', in J. Blair (ed.), *Minsters and Parish Churches: The Local Church in Transition 950-1200*, Oxford: Oxford University School of Archaeology 169-177.
- Hart, C.R. 1966: *The early charters of Eastern England*, Leicester: Leicester University Press.
- Hedeager, L. 2001: 'Asgard Reconstructed? Gudme-a "Central Place" in the North', in M. de Jong and F. Theuvs (eds) *Topographies of power in the early Middle Ages*, Leiden: Brill, 467-507.
- Holt, R. 1988: *The Mills of Medieval England*, Oxford: Blackwell.
- Institute for Archaeologists, 2009: *Standard and Guidance for Archaeological Geophysical Survey*, Reading: Institute for Archaeologists.
- King, D.J.C. 1983: *Castellarium Anglicanum*, 2 Vols, London: Kraus.
- Knowles, D. and Hadock, R.N. 1953: *Medieval Religious Houses: England and Wales*, London: Longmans, Green and Co.
- Leech, R. 1986: 'The Excavation of a Romano-Celtic Temple and a Later Cemetery on Lamyatt Beacon, Somerset', *Britannia* **17**, 259-328.
- Lethbridge, T.C. 1926: 'The Anglo-Saxon Cemetery, Burwell, Cambridgeshire', *Proceedings of the Cambridge Antiquarian Society* **27**, 72–79.

Lethbridge, T.C. 1936: 'Excavations at Burwell Castle, Cambridgeshire', *Proceedings of the Cambridge Antiquarian Society* **36**, 121–133.

Malim, C. 2001: *Burwell Castle, Cambridgeshire: Information Pack*, Cambridge: Cambridgeshire County Council

Meaney, A. L. 1997: 'Hundred Meeting-places in the Cambridge Region', in A.R. Rumble and A.D. Mills (eds) *Names, Places and People: An Onomastic Miscellany in Memory of John McNeal Dodgson*, Stamford: Watkins, 195-240.

Mortimer, R. 2000: 'Village Development and Ceramic Sequence: The Middle to Late Saxon Village at Lordship Lane, Cottenham, Cambridgeshire', *Proceedings of the Cambridge Antiquarian Society* **89**, 5–34.

Mortimer, R. Roderick, R. and Lucy, S. 2005: *The Saxon and Medieval Settlement at West Fen Road, Ely: The Ashwell Site*, East Anglian Archaeology **110**, Cambridge: Cambridge Archaeological Unit.

Mudd, A. and Webster, M. 2011: *Iron Age and Middle Saxon Settlements at West Fen Road, Ely, Cambridgeshire: The Consortium Site*, British Archaeological Report, Brit Series **538**, Oxford: Archaeopress.

Pantos, A. 2003: 'On the edge of things: the boundary location of Anglo-Saxon Assembly-Sites', *Anglo-Saxon Studies in Archaeology and History* **12**, 38-49.

Patrick, C. and Rátkai, S. 2011: 'Chapter 3: Hillside Meadow, Fordham', in R. Cuttler, H. Martin-Bacon, K. Nichol, C. Patrick, R. Perrin, S. Rátkai, M. Smith and J. Williams (eds), *Five Sites in Cambridgeshire: Excavations at Woodhurst, Fordham, Soham, Buckden and St Neots, 1998–2002*, British Archaeology Reports British Series 258, Oxford: Archaeopress, 41–122.

Pevsner, N. 1970: *The Buildings of England: Cambridgeshire (2nd Edition)*, Penguin: Harmondsworth.

RCHME, 1968: *An Inventory of the Historical Monuments in the County of Cambridgeshire, Volume I: West Cambridgeshire*.

RCHME, 1972: *An Inventory of the Historical Monuments in the County of Cambridgeshire, Volume II: North-East Cambridgeshire*.

Reaney, P.H. 1943: *The place-names of Cambridgeshire and the Isle of Ely*, Cambridge: Cambridge University Press

Renn, D.F. 1968: *Norman Castles in Britain*, London: John Baker.

Rodwell, W. 1980: 'Temple Archaeology: Problems of the Present and Portents for the Future', in W. Rodwell (ed) *Temples, churches and religion : recent research in Roman*

Britain, with a gazetteer of Romano-Celtic temples in continental Europe, Oxford: British Archaeological Reports Series **77**, 211-218.

Round, J.H. 1892: *Geoffrey de Mandeville: A Study of the Anarchy*, London: Longmans, Green & Co.

Sawyer, B, and Sawyer, P. 1993: *Medieval Scandinavia: from conversion to Reformation, circa 800-1500*, Minneapolis: University of Minnesota Press.

Scarre, C. 2002: 'Coasts and cosmos: the Neolithic monuments of northern Brittany', in C. Scarre (ed.) *Monuments and Landscapes in Atlantic Europe*, London: Routledge, 84-102.

Semple, S. 2007: 'Defining the OE hearg: pa preliminary archaeological and topographic examination of hearg place names and their hinterlands', *Early Medieval Europe* **15** (iv), 364-385.

Shapland, M. 2008: 'St Mary's, Broughton, Lincolnshire: a thegnly tower-nave in the late Anglo-Saxon landscape', *The Archaeological Journal* **165**, 471-519.

Smail, R. 1972: 'The Aldreth Causeway', *Cambridgeshire Local History Council Bulletin* **27**: 10-19.

Taylor, A. 1978: *Anglo-Saxon Cambridgeshire*, Cambridge: Oleander Press.

VCH, 1948: *The Victoria County History of the County of Cambridge and Isle of Ely, Volume II*, London: Oxford University Press.

VCH, 2002: *A History of the County of Cambridge and the Isle of Ely, Volume X*, London: Oxford University Press.

Watts, D. 1988: 'Circular Lead Tanks and their Significance for Romano-British Christianity', *The Antiquaries Journal* **68** (ii), 210-222.

Welch, M. 2011: 'The Mid Saxon "Final Phase"', in H. Hamerow, D.A. Hinton and S. Crawford (eds), *The Oxford Handbook of Anglo-Saxon Archaeology*, Oxford: Oxford University Press, 238-265.

Whitelock, D. (ed) 1955: *English Historical Documents: Volume One, c.500-1042*, London: Eyre and Spottiswoode.

Williams, A. 1992: 'A bell-house and a burh-geat: lordly residences in England before the Norman Conquest' *Medieval Knighthood* **4**, 221-240.

Wright, D.W. 2010: 'Restructuring the 8th Century Landscape: Planned Settlements, Estates and Minsters in pre-Viking England', *Church Archaeology* **14**, 15-26.

Wymer, J.J. and Bonsall C.J., (eds) 1977: *Gazetteer of Mesolithic sites in England and Wales*, Council for British Archaeology Reports British Series 20, Archaeopress: London.