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Power, Conflict and Ritual on the Fen-Edge: The Anarchy-Period Castle at Burwell, Cambridgeshire and its Pre-Conquest Landscape

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Michael Fradley is a landscape archaeologist with an expertise in archaeo-topographical survey. The re-interpretation of medieval castle sites has formed a notable section of his research career, with significant contributions made to sites such as Caernarfon, Wallingford, Newhall and Torpel. He is also the Honorary Treasurer for the Society for Landscape History

ABSTRACT

Burwell, Cambridgeshire is best known as possessing a castle constructed by King Stephen during the mid-twelfth century civil war commonly referred to as 'the Anarchy'. Documentary sources confirm that the king built a series of fortifications around the East Anglian fen-edge during A.D. 1144 in an attempt to restrict the activities of the rebellious baron Geoffrey de Mandeville, Earl of Essex, who was using the Isle of Ely as a base to raid the surrounding countryside. Written texts also reveal how de Mandeville was mortally wounded during a skirmish or siege which subsequently took place at Burwell. A combination of topographic and geophysical survey, supplemented by documentary analysis, suggests that the castle was constructed in a landscape with a complex earlier history. It is suggested that during the Romano-British period a temple complex was developed on the site, with a spring rising on the edge of the fens providing the likely focus for ritual activity. Burwell later developed into an important early medieval place and the castle itself may have been inserted into a the gnly enclosure - an act which probably sought to appropriate a recognised pre-existing centre of power. The current research provides the most comprehensive assessment of the site to date, and supports existing interpretations which consider the twelfth-century castle to be incomplete. Analysis also gives additional insight into the functional and symbolic significance of the castle at Burwell, and sheds important light on the character of power and conflict in the fenland during the mid-twelfth century.

Key Words: Anarchy, castle, conflict, fenland, King Stephen, Roman temple, thegnly enclosure, *burh-geat*.

INTRODUCTION

The village of Burwell, Cambridgeshire, is well known as the site of a castle built by King Stephen during the twelfth-century civil war known as 'the Anarchy'. Written sources confirm that the castle was constructed by the king as one of a network of fortifications around the fen-edge in A.D. 1144, as he attempted to restrict the military activities of the rebellious baron Geoffrey de Mandeville, Earl of Essex (see King 2010, pp. 197–9). The notoriety of Burwell was sealed when, according to documentary accounts, de Mandeville was mortally wounded at the site, presumably in an attempt to hinder the castle's construction (see below). Its impressive earthworks excellently preserved under pasture

(Fig. 1), the castle features prominently in discussions of castle-building in the civil war (e.g. Coulson 1994, pp. 198–199; Bradbury 1996, pp. 115–16; Creighton 2005, p. 59, 199–200). The archaeological significance of the site is especially high given the often ephemeral field remains of Anarchy-period fortifications, many of which were temporary, unfinished and/or slighted (Coulson 1994, p. 182, 196). Other scholars have commented on the castle's context within the village's complex morphology: it appears to have been superimposed within an early settlement core that subsequently developed northwards, expanding over its open fields by the mid-fourteenth century (Taylor 1974, pp. 130–132; 1983, pp. 152, 159, 167; see also Creighton 2004, pp. 26–27). Burwell is also recognised for its medieval canal system, which is among the most complete in the fens (Oosthuizen 2012, pp. 219–220).

The clear historic and archaeological potential of Burwell Castle and its landscape setting led to it being the subject of a detailed archaeological and historical investigation undertaken as part of the University of Exeter research project Anarchy? War and Status in Twelfth-*Century Landscapes of Conflict.*¹ The investigations intended to provide a comprehensive analysis of Burwell Castle, building on early detailed survey work by the RCHME (1972, pp. 40–2). Fine-level topographical survey, geophysical investigation and documentary and cartographical analyses aimed to enhance our knowledge of the functional and symbolic significance of the site and to illuminate the development of its landscape context. Analysis of Burwell Castle provides a rare opportunity to understand an Anarchy-period fortification which formed one element of a broader conflict landscape in the East Anglian fens during the middle of the twelfth century. That said, perhaps the most significant findings of the research in fact relate to the pre-castle landscape, with important new evidence emerging for the ritual, symbolic and administrative importance of a fen-edge site with enduring significance. This paper is divided into three parts. The first section summarises the castle's setting and documentary history. The second part details the results of new fieldwork and landscape analysis at Burwell. The third and final section presents a chronological outline of the area's development from prehistory to the post-medieval period.

SETTING AND BACKGROUND

The earthworks of Burwell Castle are located in the south-western part of Burwell village (centred TL58756605) (Fig. 2). Approximately 120 metres west of the parish church of St Mary's, the monument is located between five metres and ten metres above sea level in a paddock known as Spring Close. The paddock derives its name from a spring which rises in the churchyard of St Mary's, and sources a stream which flows in an easterly direction along the southern edge of the castle earthworks. The castle is located on the Mesozoic Lower Chalk of the West Melbury formation, but is immediately bordered to the east by the Upper Chalk of the Totternhoe Stone formation. Three kilometres south-east of the site the chalk rises to almost fifty metres above sea level where it is occasionally capped by sandy deposits. This relative upland is contrasted two and a half kilometres to the north-west of Burwell where the mudstones of the Gault formation are overlain by low-lying peat fen, deposited after the retreat of Quaternary glaciations. 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.

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The mixed resources provided by this fen-edge location proved attractive to early medieval communities. Human remains dating from the Anglo-Saxon period were first discovered in the nineteenth century during digging for lime pits in the eastern part of the village, around 500 metres 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 fifty 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 under the present village. In addition to the evidence from the cemetery, the probability that Middle Saxon settlement is present at Burwell is supported by evidence from excavations in other villages along the southern fenedge which demonstrate that the landscape was intensively-settled from the seventh century onward (Mortimer 2000; Wright 2010; Patrick and Rátkai 2011).

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 as early as 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 (VCH Cambs X 2002, p. 475). Around 170 metres north-east of the castle site the location of this church, which later became the site of a school, continued to be marked on maps well into the twentieth century. Some early maps of Cambridgeshire label the village as 'The Burwells'. Written sources indicate the existence of St Andrew's as early as A.D. 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, and appears to show 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 five kilometres to the east of Burwell, it is interesting to note that the parish church of Snailwell now dedicated to St Peter was also a church of St Andrew before the thirteenth century (VCH Cambs X 2002, pp. 475-9).

The presence of one or more churches located in close proximity as at Burwell was not unusual in medieval East Anglia (Warner 1986), and such multiple proprietorship reflects a burgeoning lordly class wishing to express their newly-found power (Blair 2005, p. 425). The ruins of St Andrew's, Burwell, were pulled down in A.D. 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, p. 2). The church was heavily rebuilt between A.D. 1450 and A.D. 1470, although surviving twelfth-century fabric is still present in the lower stages (Pevsner 1970, pp. 310–12).

HISTORIC MAP ANALYSIS

Dated to 1817, the enclosure map of Burwell depicts the castle as a rectilinear earthwork and is labelled 'Scite of Towers' (Fig. 3). Such a description is probably a reflection of the upstanding masonry then 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, although they were subsequently destroyed during a testing of the village's fire hose! (Lethbridge 1936, and see below). 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 (Fig. 4). 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. 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 600 metres to the north of Burwell Castle. The existence of a priory in the village was also hinted at by Pevsner (1970, p. 243) although he suggested that it was most likely sited in the area of the vicarage 100 metres 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 A.D. 1100 as an alien priory of La Grande-Sauve, Gironde (Knowles and Hadock 1953, p. 83).

BURWELL CASTLE: HISTORICAL CONTEXT

The catalyst for the construction of Burwell Castle is to be found in the sequence of events following the dramatic arrest of Geoffrey de Mandeville by King Stephen at court in St Albans during September A.D. 1143. Earl Geoffrey was forced to relinquish his castles of Pleshey and [Saffron] Walden (both Essex) as well as the Tower of London, of which he was the constable, in return for his life and liberty. Historians have debated the king's motives, but the strength and military value of the earl's castles was a key factor in Stephen's decision making. The Gesta Stephani (Deeds of Stephen) states that de Mandeville's castles were 'built round the city' [*circa ciuitatem constructa*] of London, in strategic locations which were of great value for exerting power over the capital, and indeed south-east England generally (*Gesta Stephani* 81, ed. Potter 1955, p. 106). De Mandeville's holdings could thus prove decisive in determining the balance of power in the tumultuous civil war conditions of the Anarchy, and the earl's habit of switching political alliances between the Angevin and Royalist cause made him a major liability to Stephen's authority.

Upon entering into open rebellion following his release from captivity in autumn A.D. 1143, de Mandeville took advantage of a vacuum of royal power on the Isle of Ely. Having

campaigned in the fenland on behalf of the king in A.D. 1142 the earl had a strategic understanding of the importance of Ely and, according to the *Liber Eliensis*, the men guarding the Isle 'gave admittance' to de Mandeville (*Lib Eli*, ed. Blake 1962, pp. 82–3). Ramsey Abbey, west of the Isle, was attacked early in the revolt (*Found. Walden Monastery* i, 6, ed. and trans. Greenway and Watkiss 1999, pp. 16-17). Taking advantage of a dispute between the newly installed royalist abbot Walter and the previous abbot, the Angevin sympathiser Daniel, Earl Geoffrey expelled the monks and after plundering the church of its treasure and relics, converted the abbey into a castle and raiding base. Other raids targeted Cambridge and perhaps St Ives, Huntingdonshire (Round 1892, pp. 212–13; RCHME 1959, pp. 304–5).

Following these raiding events, Geoffrey and his commanders sought to consolidate their position by militarising the district with fortifications and fortified positions. He garrisoned Benwick, eight kilometres north-east of Ramsey, 'at the very crossing point of the waters', and then usurped and secured Fordham, on the opposite (south-east) side of the Isle of Ely, with a 'strong band of knights' (Lib Eli, ed. Blake 1962, p. 328). It is after these actions by the earl that Stephen was pressed into action in A.D. 1144 as summarised by the Gesta Stephani which states: '... the king, in a judicious attempt to hinder his [de Mandeville's] wonted raids in the same region, built castles in suitable places [locis opportunis] 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, p. 109). Burwell Castle was therefore constructed as one of a number of royal campaign castles developed to contain de Mandeville's devastating attacks (Fig. 5). This group of royal castles, built as elements within a co-ordinated strategy, also probably included works at Rampton and Swavesey, both in Cambridgeshire; other less likely candidates as Stephanic campaign works are Lidgate, Suffolk, and Caxton Moats, Cambridgeshire (Renn 1968, p. 50; Creighton 2002, p. 59; for an overview of the campaign, see Davis 1967, pp. 84-85; see below for discussion of Caxton Moats).

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, as argued below, 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 Ely with the island village of Stuntney, after which it crossed further wetland and reached the fen-edge at Soham. This two-section causeway was one of only three overland routes onto the Isle of Ely before the draining of the fens (Smail 1972), and free access to it was probably the decisive factor in the garrisoning of Fordham by de Mandeville. Indeed, it must be considered that Burwell Castle was constructed in a direct response to the earl's action at Fordham, with Stephen hoping to wrestle back power over the transport network in the eastern part of the fens. Stephen's policy was similar to the sort of containment strategy that he employed elsewhere during the civil war, constructing and garrisoning castles which allowed the royal retinue to remain mobile while pinning down his adversaries. The scale of the king's castlebuilding project around the East Anglian fens was far more comprehensive, however, both in terms of the numbers of sites constructed and the scale and sophistication of individual fortifications.

The castle at Burwell and the events which took place in A.D. 1144 are recorded in detail by a handful of chroniclers who were primarily concerned with highlighting Burwell as the place where the excommunicated earl received a mortal wound before dying a few days later, in Mildenhall, Suffolk, rather than showing any interest in the construction or form of the castle per se. According to Gervase of Canterbury, 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); upon loosening his helmet, the earl was hit in the head by an arrow fired by a member of the garrison (Gervase of Canterbury, ed. Stubbs, Vol 1, 1867, p. 128). The Chronicle of Ramsey Abbey confirms that the castle of Burwell was newly built (de nova fuerat constructum) (Chronicle of Ramsey Abbey, ed. W.D. Macray, 1886, pp. 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' (Found. Walden Monastery i, 6, ed. and trans. Greenway and Watkiss 1999, pp. 16–17). The Waltham Chronicle has it that Geoffrey de Mandeville 'received a mortal wound outside the castle of Burwell which he had been assiduously attacking' (The Waltham Chronicle, ed. and trans. Watkiss and Chibnall 1994, p. 81). 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, p. 39). This interpretation has instead been based on the archaeological evidence, which is discussed below.

Built for a specific military purpose, the castle does not appear to have been abandoned after the A.D. 1140s but instead underwent a change from its original 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, p. 193). The post-medieval development of the 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 2002, p. 341). Beyond the destruction of building remains the castle seems to have changed little in the past century or so with the exception of increased vegetation, especially on the central island, and the area is currently used by local people for recreational purposes.

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 in detail by the RCHME in the early 1970s (Fig. 6) (RCHME 1972, pp. 40–2). The present survey also encompasses an area of additional earthworks to the north of the main castle complex which was not covered in the published RCHME survey. 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 thirty metres by sixty metres, orientated east-north-east by west-south-west on its long axis. It is surrounded by a large rectangular ditch up to thirty metres in width, with the platform standing four to six metres above the base of the ditch. The platform itself is marked by its irregular surface with raised areas at both its east and west ends, 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 (Fig. 7: 'a') may denote a former entrance on to the platform, as could two comparable breaks along the eastern face. 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 (Fig. 7: '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 castle ditch is a low, raised area (Fig. 7: 'c') which possesses evidence of platforms and a small pit. A narrow channel survives between this raised area and the central castle mound, and within the wider ditch on the north side of the castle are slight remains of a section of channel (Fig. 7:'d'). 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 (Fig. 7: 'e'; see also Fig. 1) 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 offers no evidence to the contrary. The notion that the original intention was to remove this spoil in a later phase of the castle's construction seems plausible as parts of the mounds overlook the central platform in some places. The irregular surface of these mounds may be the result of piecemeal quarrying 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 (Fig. 7: 'f') that runs roughly east to west, suggesting that the spoil was heaped within the limits of an existing boundary.

The boundary that marks the northern extent of the castle complex also functions as the southern boundary of at least four adjacent enclosures (Fig. 7: 'g') defined by small banks or scarps separated by shallow ditches. The rectangular enclosures measure from between forty metres by twenty metres and ten metres by twenty metres and have previously been suggested as former medieval tofts and crofts partially destroyed by construction of the castle (RCHME 1972, 42). 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 (see below). As a result, this research forwards three alternative interpretations of the earthworks (see below). Located to the west of the enclosures are two large rectangular pits (Fig. 7: 'h') measuring around one

metre to one and a half metres 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 overfilling.

On the northern side of the pits and enclosures is a large, curving bank measuring up to one metre in height and three metres in width. At its western end is a six metre wide break (Fig. 7: 'i') which is the probable remains of an entranceway through this boundary. At this end there is evidence of a shallow ditch running parallel to the bank's 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 (Fig. 7: '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 is a series of ill-defined scarps on differing orientations (Fig. 7: 'k'), some of which may predate the ploughing earthworks. At the western end of the ridge and furrow were the denuded remains of drainage ditches and quarry pits (Fig. 7: 'l'). The origin of the large, curving bank is uncertain but it may represent the boundary of a pre-Conquest thegaly precinct, used to define areas of activity in later periods, as argued below. Overall it was notable that the earthwork evidence north of the large boundary bank survived poorly, suggesting that this area has been damaged 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 earthworks.

The earthwork evidence east of the castle platform in the small triangular area defined by the natural scarp to the south, the castle to the west, and the modern house plot to the north, appears to relate to settlement activity. This includes a number of house platforms or hollows (Fig. 7: 'm'), and several linear banks that may define the settlement area (Fig. 7: '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 suggested that the excavated eastern range included a bridge-head over the castle ditch (Lethbridge 1936, p. 129).

GEOPHYSICAL SURVEY: METHODOLOGY, RESULTS AND INTERPRETATION

A magnetometer survey of just over two hectares of land to the north and east of the castle earthworks and an earth resistance survey of 1.2 hectares were undertaken as outlined in the project design submitted to English Heritage (Fig. 8–11). 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 thirty metre square 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 geo-referenced and interpolated.

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 every quarter of a metre, with traverses one metre apart walked in zigzag fashion. The data were downloaded from the instrument using the Grad601 application. The data were 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. Fig. 8 shows the results of the magnetometery survey. Fig. 9 illustrates the anomalies identified and Table 1 presents their description and interpretation.

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 (Fig. 7: '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 at 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 origin for this feature.

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 half a metre apart. The sample interval was half a metre and the traverse interval was one metre. 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 Fig. 10. The anomalies identified in the plot are highlighted in Fig. 11, and are described and interpreted in Table 2.

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.

In Area A, to the north of the castle ditch, anomalies r2 and r3 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 (Fig. 7 north of 'g'). In the southern part of Area A, a high-resistance anomaly was identified characterised by three very straight sides; two project north–south and one orientated east–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 examples. 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. They may denote 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, p. 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.

BURWELL CASTLE IN CONTEXT

THE PRE-CASTLE LANDSCAPE: PREHISTORIC TO ROMANO-BRITISH

It is possible that the spring which rises immediately east of the castle earthworks formed an early focus for prehistoric activity, although more impressive 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, p. 40). From at least the Romano-British period it seems that the future site of Burwell Castle acted a focus for activity as excavations by T.C. Lethbridge in 1935 identified a large Romano-British structure (Lethbridge 1936, p. 128). While some authors have associated the building with a domestic residence (e.g. Malim 2001, p. 7) the geophysical survey undertaken by this investigation has identified an apparent Romano-British building, the form of which most closely resembles a temple.

The likelihood that the site later to be occupied by Burwell Castle formed the focus of a religious complex 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 associated with 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, p. 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 in the 1970s of a lead tank in the field immediately adjacent to the castle. 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 (Guy 1978). 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. A hoard of bronze bowls also dating to the Romano-British period were found just over one kilometre north of the castle, which may further support the premise that the Burwell landscape in general was a ritual landscape worth of special offerings and votive deposits (Gregory 1976). 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 sixty metres north of the wall excavated by Lethbridge, it is unlikely that the surveyed anomaly represents part of the same single structure. Rather, it is more probable that two structures have been identified, and that both formed part of a more extensive complex of buildings. Polyfocal temple sites are wellattested in Roman Britain, and the premise that such a suite of buildings existed at Burwell is supported by the presence of further cropmarks in the field to the south-west where the lead tank was found (CHER: 06787). A further possibility is that Spring Close was indeed the site of a wealthy farmstead, the inhabitants of which were serviced by at least one temple within their complex of buildings. In addition to the evidence for Romano-British activity at Spring Close, a number of possible settlement sites have been found in the village of Burwell and wider landscape. Romano-British pottery and roof tiles have regularly been recovered close to Ness Road, for example, approximately two and a half kilometres north-east of Burwell Castle (RCHME 1972, p. 41). A further Romano-British site, located one and a half kilometres 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).

THE PRE-CASTLE LANDSCAPE: EARLY MEDIEVAL

It is not possible to determine how long the putative temple continued to be utilised, but if it did remain in use into the early medieval period it may not have been the sole centre of ritual activity in the area. The parish of 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, p. 187). Aundrey Meaney has demonstrated how such posts were probably used to furnish meeting places, in order to give locations greater prominence in the landscape (Meaney 1997, p. 211). In addition to their administrative role, hundred meeting places performed various other social and political purposes in Late Anglo-Saxon England, such as acting as muster points for the mobilisation of armies (Baker and Brookes

2013, p. 201). In Staploe Hundred it seems that the spur alluded to in the documents, and thus the meeting place of the hundred, was probably located in the parish of Burwell. From A.D. 1198 'the way of Stapelhoo' was used to refer to a routeway located in the area, and is also recorded numerous times in terriers dated to the late sixteenth century held by the Queen's College Archive, Cambridge (*Queens' Coll. Mun.*).

While it has been suggested that 'the way of Stapelhoo' led somewhere to the east of the High Street (VCH Cambs X 2002, p. 332), both the terriers and later estate maps of the area indicate that the course was instead located immediately north of Gravel Pit Farm in the south-east of Burwell parish. The historic maps record the remaining part of the route as approximately one kilometre in length, extending south-west to north-east from near Devil's Ditch towards Exning, and terminating on a noticeable rise at a distinctive kink in the line of the historic parish boundary. This point has previously been identified as the likely location of the Staploe hundred meeting place, forming a small but noticeable bump along a natural ridge in the landscape (Brookes pers. comm. 2015). 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 prominent spur of land overlooking the Devil's Dyke and the largely flat landscape to the north and west. Intriguingly, it is possible that before its use as an assembly place the pillar or post located at Stapolhoo may have functioned as a centre for cult activity. Collating the evidence for standing posts being used in such a way, John Blair (2005, p. 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, p. 489).

An increasing body of data from both Scandinavia and England is illustrating how public meetings were often held at such pre-Christian cult centres and the way in which these locations themselves were gradually assimilated into the administration of royal government (Sawyer and Sawyer 1993, pp. 80–1; Hedeager 2001, p. 478–81; Blair 2005, p. 57). Contrastingly liminal yet accessible locations such as the edges of parishes have been shown as especially favoured for public rituals and assemblies, as seen by the inaugural ritual for King Edgar which in A.D. 973 was held on the River Dee (Pantos 2003; Barrow 2003, pp. 81–93). At Burwell, it is possible that together with the earlier temple, the stapol meeting place may have formed a pre-Christian focal point, and in a pattern recognised elsewhere in East Anglia, subsequently lent the later hundred of Staploe its name (Meaney 1997, pp. 35–6). Without further archaeological investigations the idea that the Romano-British temple site at Spring Close continued in use into the early medieval period must remain speculative, however, and by the time Burwell first appears in the written record it is in the form of a private estate granted to Ramsey Abbey. Documentary sources suggest that by at least the tenth century Burwell was the site of a private thegaly residence which by this period were often referred to as burhs (Baker and Brookes 2013, p. 127–31). Distinct from the Late Saxon network of defensible places built by the Kings of Wessex, the term burh could also refer to an enclosed private residence, as alluded to by texts relating specifically to Burwell.

The Chronicle of Ramsey Abbey records how in the A.D. 990s the thegn Aelfgar donated to the minster his estate at Burwell comprising his house and court, along with three hides, forty acres and a virgate of land as well as the church (Chron Ram Abb, ed. Macray 1886, p. 51; Hart 1966, p. 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, p. 224) has noted how this grant comes close to the idealised thegaly residence detailed in the eleventh-century text known as Gebyncoo or the 'promotion law', which describes how a ceorl may aspire to theghhood (Eng Hist Docs, ed. Whitelock 1955, pp. 431–2). Exactly where the thegnly residence and enclosure are located at Burwell is difficult to determine but place-name and other evidence suggests Spring Close as the most likely candidate. The place name Burwell appears in various forms in early documents but all versions are generally interpretable as 'burh by the spring or well' (Reaney 1943, p. 188). The water source which gives Spring Close its name rises adjacent to the parish church, and data derived from this investigation suggest that the area now occupied by the church and castle were previously delineated by a large enclosing bank. It is suggested that the substantial sinuous boundary to the north of the castle visible in topography and geophysics represents the limit of the thegaly precinct, 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. Circumstantial evidence also suggests that the church of St Mary's includes within its fabric part of an early tower-nave related to the thengly residence, as the tower is clearly out of alignment with the rest of the church which lies within the putative early manorial complex (Shapland 2008 and pers. comm.). Even if the archaeological data are not taken into account, the written sources alone demonstrate that Burwell was a sizeable and important central place in the fen-edge landscape by the end of the early medieval period, and the listing in Domesday of an especially wealthy manor indicates that the estate continued to flourish (Darby 1971, p. 287). This status as an important central place on the fen-edge was almost certainly significant for the post-Conquest development of the site.

THE CASTLE AND ITS AFTERLIFE: ANARCHY ON THE FEN EDGE

By the time the castle at Burwell is next brought into focus by documents of the mid-twelfth century, Spring Close and the immediate vicinity was therefore 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 was not 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 in this way 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 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, 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, p. 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 ditch 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 while this survey dismisses 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 morphologically very similar 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, pp. 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 in some way derive from development of the castle itself, perhaps structures 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 originated as paddocks 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 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 the king's 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. Such features were presumably not part of the original campaign castle but instead represent domestic facilities, perhaps serving the abbot's camera on the first floor. In the same area of the central castle mound Lethbridge found painted glass, parts of a lead window frame and dressed stone — including one inscribed with the name 'MARIA' also suggesting this was the location of the later chapel (Lethbridge 1936, pp. 128–133). The earthwork complex in the castle ditch is also interesting in the context of this monastic residence, and warrants further brief consideration. It has previously been suggested that earthworks in the castle ditch represent the remains of fishponds (RCHME 1972, pp. 40–2), although it is also worth considering that the features may have functioned as a watermill complex. 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, p. 126).

In spite of this complicating later sequence of activity at the castle, Lethbridge nevertheless identified built structures on the central mound which he confidently associated with an Anarchy-phase of construction. Foundations of a narrow range were found running the length of the eastern side of the castle's central mound. Incorporated into the eastern range, the excavations 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. 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, p. 129). Given the moderate size of the rectangular building it is unlikely to be the remains of a keep/donjon but may instead represent the foundations of a mural tower — a premise supported by the later name of the site as recorded on eighteenth-century enclosure maps (see above).

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, given the later use of the site, it is arguable whether in the absence of its documented Anarchy-period context we would actually equate the field monument of Burwell castle with a 'castle' at all. On morphological grounds alone Burwell Castle closely resembles a moated site (Fig. 12). The rectangular-moated form in particular bears a striking comparison to another manorial site in Cambridgeshire at Caxton Moats. Situated around 700 metres west of the village of Caxton in South Cambridgeshire, this site comprises three contiguous moated enclosures. It has been proposed that the complex may have been developed as a Stephanic castle (e.g. Renn 1968, p. 50), yet the first clear documentary evidence for the site dates only to A.D. 1312, when Caxton Moats was the site of dower house, apparently furnished with fishponds and a rabbit warren (VCH Cambs II 1948, pp. 21–2; RCHME 1968, p. 41). Despite featuring three moats, the dimensions and rectangular form of the primary moat at Caxton (and the raised rectangular areas at each or its ends) are identical to 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. Such observations illustrate 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. While such caveats urge careful consideration of the archaeological material from Burwell Castle, the weight of evidence allows a chronological sequence of developments to be cautiously forwarded.

CONCLUSION

While the documentary and archaeological evidence from Burwell strongly support the idea that the castle was initially developed as an Anarchy-period campaign fortification, the comparable 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; 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 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 largely on documentary sources.

In addition to Burwell Castle's 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 the administrative importance of Burwell parish, being the site of the meeting-place for the large hundred of Staploe. They probably also recognised the earlier status of Spring Close as an earlier thegnly 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 sometimes developed from Late Saxon elite defended residences, many of which lay adjacent to estate churches (Creighton 2005, pp. 70–1; Baker and Brookes 2013, pp. 106–117). This mode of reuse seems especially characteristic of the Norman Conquest, but parallels for Anarchy-period upgrades to thegnly enclosures have also been revealed by excavation at Goltho, Lincolnshire (Beresford 1987, for summary of re-dating, see Creighton 2005, pp. 21–7) and Trowbridge, Wiltshire (Graham and Davies 1993).

In 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 and its environs. While 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 the landscape. While Burwell Castle was established as a short-lived royal campaign castle, this research has shown the continued impact that monument building had on Burwell, 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.

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TABLES

Anomaly	Description	Interpretation
m1	Curvilinear anomaly 144m long and <i>c</i> . 5m wide.	Bank also identified during earthwork survey.
m2	Negative north–south anomaly 30m long and <i>c</i> . 5m wide. Corresponds with ditch identified as a further boundary, although 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 <i>c</i> .65m long and <i>c</i> .5m wide.	Enclosure bank, possibly continuation of m3.
m5	North–south linear anomaly <i>c</i> .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 and <i>c</i> . 3m wide. Appears to terminate at linear anomaly m3.	Ditch using pre-existing m3 as a boundary.
m8	Linear anomaly 47m long and c. 3.5m wide.	Uncertain. Possibly similar to m7 in being later activity within pre- existing enclosure.
m9,m10,m11	Strongly positive curving anomalies <i>c</i> . 13m long.	Uncertain. Response suggests walls or ditches.
m12	Curvilinear positive anomaly <i>c</i> .20m long and <i>c</i> .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.
m14	Curvilinear weakly positive anomaly, 20m long and c.2m wide. Appears to terminate with m7.	Ditch associated with m7.
m15	m15 is a visible curving 'edge' in the geophysical response.	A former enclosure of uncertain 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.

Anomaly	Description	Interpretation
r1	High-resistance anomaly 73m long and <i>c</i> .4m wide.	Bank. Possibly thegnly precinct
	Corresponds with bank depicted in topographic plan.	also used in later periods.
r2	Curvilinear high-resistance anomaly c. 27m long and	Ditch.
	c.1.5m wide. Corresponds with ditch surrounding	
	earthwork as identified in topographic plan.	
r3	Straight low-resistance anomaly 30m long, 1m wide.	Substantial ditch.
	Corresponds with magnetic anomaly m2 and ditch	
	drawn on topographic plan.	
r4	High-resistance area spatially corresponding with	Spoil heaps.
	mounds interpreted as spoil heaps of the castle	
	construction.	
r5	High-resistance rectangular response, c.20m across,	Wall footing of building, possibly
	aligned on the compass points.	Romano-British.
r6	High-resistance rectangular response, c.10m across,	Internal wall of building, probably
	aligned on the compass points.	Romano-British.
r7	Sub-rectangular high-resistance area, c.19m across,	Possible Romano-British building.
	similar in shape and alignment to r5/r6.	
r8	Amorphous higher-resistance zone. Appears natural in	Natural geology.
	lower contrast shade plot.	
r9	Amorphous higher-resistance zone. Appears natural in	Natural geology.
	lower contrast shade plot.	
r10	Circular high-resistance anomaly 5m across, identified	Footing of circular structure.
	as a hollow by this topographic survey, and appearing	-
	just west of a building platform identified by	
	Lethbridge.	
r11	Bulbous linear anomaly 15m long and c.1.5m wide,	Wall, perhaps western curtain
	shares alignment with castle mound.	wall.
r12-r14	High-resistance area comprising spatially connected	Buried masonry, possibly walls
	linears on a similar alignment.	denoting cells in a structure.
r15	High-resistance area comprising a rectangular area with	Buried masonry of same phase as
	distinct linears. Similar alignment to r12-r14. Lethbridge	structures on the castle mound.
	identified a building platform in this area.	
r16	Low-resistance halo around r15.	Enclosure around structure
		suggested by r15.

Table 2: Description and interpretation of earth resistance anomalies.

FIGURE CAPTIONS

Figure 1: Photograph of topographical GPS survey in progress at Burwell Castle, looking south-eastward towards St Mary's Church. Earthworks probably representing the remains of spoil from the castle ditch are clearly visible. Photograph: Oliver Creighton

Figure 2: The location of Burwell in southern Britain (inset) and the survey area in the local landscape (shaded). © Crown Copyright and Database Right 2015, Ordnance Survey.

Figure 3: 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 (Cambridgeshire Records Office Ref: P18/26/3).

Figure 4: 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 (National Archives, Kew Ref: IR 30/4/10).

Figure 5: Reconstruction of the twelfth-century fenland, with locations and topographic features mentioned in the text. Ely at this time was an island only accessible by land in three places, making it a good defensible location from which de Mandeville launched his military campaign.

Figure 6: Hachured earthwork plan of Burwell Castle.

Figure 7: Annotated earthwork plan of Burwell Castle.

Figure 8: Results of magnetometry survey, overlaid on earthwork plan.

Figure 9: Interpretive plan of anomalies identified by magnetometry survey.

Figure 10: Results of earth resistance survey (Areas A, B and C) overlaid on earthwork plan.

Figure 11: Interpretive plan of anomalies identified by resistance survey.

Figure 12: View of Burwell Castle looking south-east. Taken during the excavations in the 1930s, the figure in the foreground is presumably Lethbridge. The wide ditch and square central mound are clearly visible (Cambridgeshire Collection, Photo Ref: I.8c0001).