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Westbury Moated Sites 2012

Volume 1

Penleigh

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Abstract

The moated site at Penleigh Farm, Westbury,Wiltshire has been subject to a geophysical survey. The ground was not responsive to magnetometry, but the results of the twin – probe resistance survey, although limited in area, revealed a number of features both inside the moat and outside.

Results provided evidence of a double moat, with an inner moat immediately around a building towards the north of the enclosed platform as well as the much larger, more definite, moat now visible. This latter moat appears to have been revetted. The platform also has a smaller, sub – circular structure at its south – east corner. To the south of the moat is a watercourse, a building and a small enclosure. There is a connection between the watercourse and the moat, which appears to cut through the enclosure. There is no definite chronological evidence. Supplementary surveys using radar and resistivity profiling indicate that the footings of the building enclosed within the moat are shallow, extending only to about 0.5 m. There is a strong recommendation that the twin – probe resistance survey be extended to cover a greater area around the outside of the moat.

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Acknowledgements

Sincere thanks go to Mr Bill Singer in giving permission and access to his land in order to undertake the geophysical survey.

Thanks goes to Wiltshire Archivist Mr Steve Hobbs, Ivan Clark, and English Heritage for their continued support as well as the granting of a Section 42 license.

Thanks also go to the Bath and Camerton Archaeological Society volunteers led by Dr John Oswin, Owen Dicker and Keith Turner as well as the Westbury Heritage Society and members of Westbury U3A.

Special thanks to Dr Richard Haddley for his support, encouragement and interpretation.

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1 Introduction

1.1 Background

This survey is one of a trilogy undertaken on moated sites in the vicinity of Westbury, Wiltshire in summer 2012. The survey was undertaken by Mat Charlton and members of the Westbury Heritage Society, along with members from the Westbury U3A Archaeology Group in conjunction with the Bath and Camerton Archaeological Society.

The project was organised and coordinated by Mat Charlton. John Oswin MA PhD CSci FGS provided the technical supervision

The survey was undertaken with the permission of English Heritage, under section 42 licence number SL00027886.

1.2 Location and Conditions

Penleigh lies to the west of the town of Westbury which is situated within the district of West Wiltshire, and lies 5km from the Somerset border between the towns of Trowbridge and Warminster. The town lies on historic north-south and east-west trade routes, now respectively the A350 Chippenham to Poole road and the lowland route along the northern edge of Salisbury Plain.

The site described here is on Penleigh Farm, Westbury, shown in figure 1.1 centred on ST 861 509. It lies on gravels and clay drift overlying the Gault Clay below the chalk and greensand of the northern edge of Salisbury Plain, on the southern side of Trowbridge Vale (BGS sheet 281). Such soils would be good for retaining water.

The geology of Westbury and its surrounding area changes as the terrain moves from uplands in the south-east to low-lying ground in the north-west, passing through Lower Chalk, Upper Greensand, Head Deposits, Gault and Kimmeridge Clay (British Geological Survey 1965), where the great chalk escarpment of Salisbury Plain, divides the chalk uplands from the clay country. Numerous springs and wells rise at the foot of the chalk escarpment, the two largest of which are the Wellhead spring to the south-west, whose waters flow to join the Biss Brook – later the River Biss; and to the east an unnamed spring feeds the Bitham Brook, known locally as Bit-ham Stream which passes through the town to join the Biss ((CRITTALL 1965) 8 1965).

At the time of the survey, the field was laid to grass being prepared for stock feed. Very wet conditions left it unfit for mowing, so it had grown very long, and this did impede the survey. The bottom of the moat was very wet, and the moat could only be crossed safely at certain points.

Fig 1.1 showing the moated site at Penleigh, Westbury.

1.3 History of the Site

The ancient parish of Westbury was co-extensive with the hundred, stretching some seven miles from east to west, and approximately four miles from north to south, and included within its bounds the later civil parishes of Bratton, Dilton Marsh, Heywood, and part of Chapmanslade. It remained a single parish, with the town of Westbury in the centre, until the late 19th century. In 1334 there were besides the town of Westbury, eleven vills or tithings liable for taxation, these were Bratton, Melbourne, and Stoke in the east, Hawkeridge and Heywood in the north, Brook, Penleigh, Bremeridge, Dilton Marsh, and Westbury Leigh in the west and south, and Chapmanslade in the extreme southwest corner. From these Melbourne and Stoke became merged in Bratton.

The manors of Westbury

In 1086 the king, as successor to Queen Edith, held Westbury, and the royal manor was assessed at 40 hides. The division of this large manor by royal grant began before 1086, when William Scudet, the king's cook, held an estate of 4½ hides which later formed the manor of Dilton. Further grants of land in the manor were made in the 12th century and later included unrecorded grants by Henry II or his predecessors which gave rise to the manors of Leigh, Penleigh, and Bratton.

In 1256 Walter Pavely was holding land in Penleigh and Walter's son, Reynold, held it in 1274, but by 1288–9 it was described as a ⅓ of Penleigh being held directly of the king.

By 1340 Penleigh had passed to Sir Adam de Shareshull and Alice his wife, and in 1350 the land was given to Sir Thomas, son of Maurice Berkeley, and his wife Katharine, whose heirs were Sir John Moigne, son of Joan de Veel. Sir John Moigne passed the manor to his daughter, Elizabeth, who married William Stourton passing it on to their son John who died in 1462 passing the manor to his son and heir William Stourton. William married Margaret, daughter of Sir John Chidioc. Penleigh manor then followed the same descent as the part of the capital manor called Westbury Stourton until it was forfeited in 1557 by Charles, Lord Stourton.

In 1580 Penleigh was granted by Elizabeth I to Lord Burleigh, This grant was apparently made with the purpose of restoring it to John, Lord Stourton, son of Charles. The manor descended with the title until around 1704 when Lord Stourton sold it to George Turner, on whose death it passed under his will to his widow Martha Turner. Martha Turner left it to her nephew, Gilbert Trowe Beckett, who was in possession in 1791. He afterwards assumed the name Turner, and it passed from him to his brother, the Revd. Thomas À Beckett Turner, The estate remained in the Beckett Turner family until the last decade of the 19th century. Since the beginning of the 20th century Penleigh House has had various occupiers (Crittall 1965).

Penleigh House

Penleigh House is a late 17th century country house which was sold by Lord Stourton in 1704 and purchased by George Turner (Crittal 1965). The house faces east and consists of two ranges of different heights, the southern range has stone mullioned and transomed windows and may be the older of the two, whilst the other, and higher range has a two-storied front of 7 bays. This front has a deep parapet surmounted by four vases and the roof has a central bell-turret with a weather cock. In the gable-end is a stone inscribed '1710 G.T.' The central stone doorway, surmounted by a broken pediment and a shield of arms, possibly those of the Turner family, may be original, or alternatively the stone doorway which now forms the gateway in the garden wall may have been transferred from the house. The walls of the house are cement-rendered giving the appearance of ashlar, but they were originally wholly or in part of brick. The house contains two staircases of c. 1710. The principal one is lit by a Venetian window. A red-brick stable block to the

west is of much the same date as the house, and the farmhouse to the north is of red brick with stone mullioned and transomed windows and has the inscription '1716 G.T.' (Pugh and Crittall 1965).

The Moated site

The site consists of earthworks of a rectangular moat and ridge and furrow identified at Penleigh Farm. The moat is thought to be the site of Penleigh Manor House (ST 85 SE 2).A field survey by RCHME staff in 1993 found the moat to be well-preserved, comprising a U-shaped ditch approximately 12 metres wide and 2 metres deep, and still partly water-filled. Slight banks running parallel to the ditch were thought to be formed by debris from periodic scourings. Evidence of recutting was also visible within the ditch. There was no indication that the entrance causeway was original. The island had no apparent raising - this was demonstrated by two profiles taken by RCHME across the axes of the site. The island formerly contained a large central depression, probably a recessed building platform, which had been filled in by the farmer, Mr Singer, as had much of the surrounding ridge and furrow (Wiltshire SMR 2012). The site is shown on map of 1793 as 'Court Garden' see figure 1.2

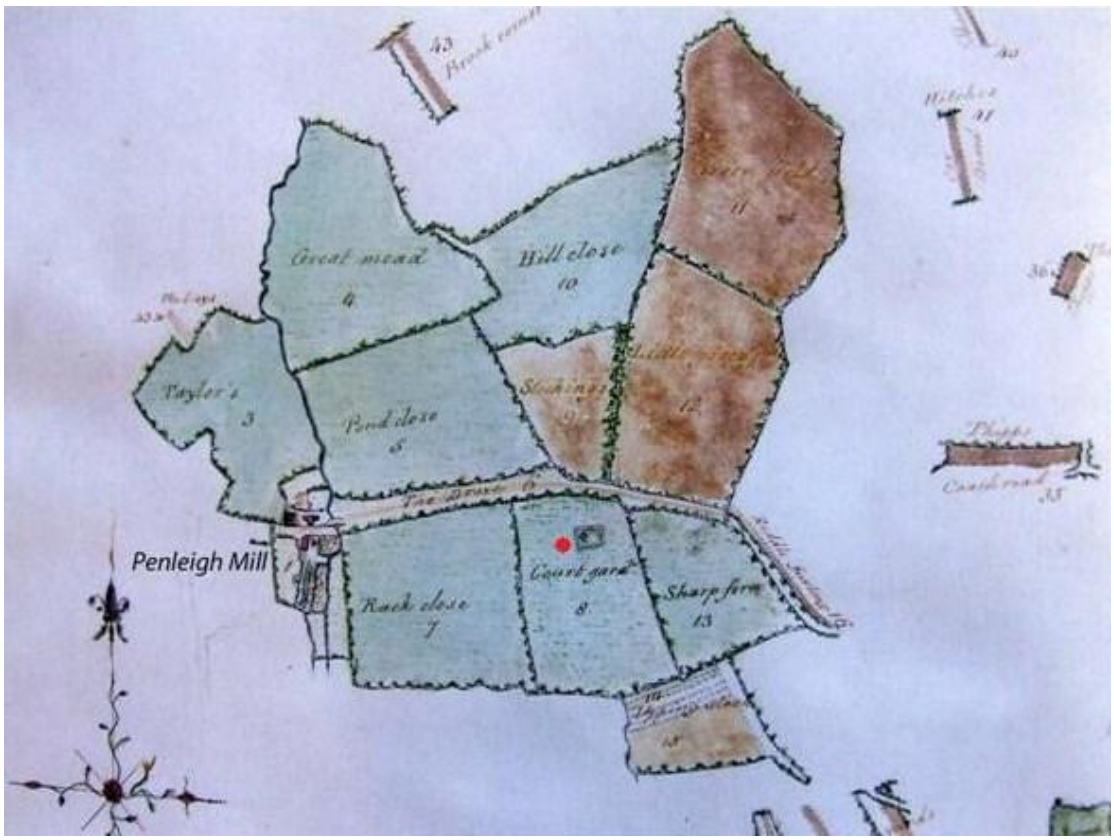

Figure 1.2 . The 1793 map showing the site as Court Garden WSA 417/1 copyright Wiltshire and Swindon History Centre 2012.

2 Method

2.1 Gridding

The field was divided into 20 m squares for surveying each in turn. The base line was set up 5 m north of the wire fence which now forms the southern boundary of the field. A line 100 m long was drawn up, which finished about 5 m short of the eastern hedge of the site. This provided a line of five squares, and this was continued up the field to form a block of seven lines, 35 grid squares in all, just fitting within this portion of the field. An area of the field to the west, approximately 40 m wide, was not gridded out.

This grid fitted the platform within the moat very well, so that a 40 m square was formed which covered a good 90% of the platform. This left eight partial squares along the edges, which also had counterparts on the outside of the moat, and also four corners which had the majority of the grid square on the outside of the moat. Although it is possible to stitch together two part grid squares providing they are of the same data density and orientation, in this survey, part grids were only surveyed either on the edge of the platform within the moat or on the outside of the moat.
The field is flat apart from the moat itself and a watercourse to the north.

All 35 grids were surveyed by magnetometer, only a limited number were completed using resistance.

2.2 Magnetometer

The magnetometer survey was done with a Bartington 601-2 dual fluxgate gradiometer, which is illustrated in figure 2.1. This instrument allows 2 lines one metre apart to be surveyed simultaneously. Readings were taken at 4 per metre along lines 1 m apart, requiring 10 traverses per grid square and providing 1600 data points per grid square.

2.3 Twin-Probe Resistance

Both TR/CIA and Geoscan RM15D twin probe resistance metres were used, but were kept well separated to avoid any cross talk. Both used a moving probe separation of 0.5 m and both were set to take 2 readings per metre along lines 1 m apart, giving 800 data points per grid square.

The TR meter automatically sorted the data points to parallel rows even though a zig-zag pattern was walked. The RM meter output was in the form of zig-zag data.

The RM meter experienced some reliability problems, and one day's worth of its survey had to be discarded. Those grids were re-surveyed using the TR device. The number of grids in total on the plot was 18 including partial grids. Large areas

beyond the moat were not surveyed. The TR device is shown in figure 2.2, The RM device is shown in figure 2.3

Figure 2.1 Bartington 601-2 dual fluxgate gradiometer

Figure 2.2 The TR device

Figure 2.3 The RM Device

.2.4 Resistivity Profiling

The TR meter has an attachment which enabled it to be used with a set of 30 probes in a line and a distribution box to obtain vertical resistivity profiles. This was used to obtain three profiles on the platform within the moat. Two of these were north-south, one was east-west.

The TR device with profiling attachment is illustrated in figure 2.4.

2.5 Ground – Penetrating Radar.

A MALA X3M radar was fitted with a 250 MHz and used to survey an area 30 m east-west by 40 m north-south on the platform within the moat. The western portion of the platform was not surveyed by this instrument.

The radar is shown in figure 2.5.

2.6 Software

Results were downloaded to a bacas laptop running Windows XP professional. The Bartington magnetometer was downloaded via Bartington proprietary software, which automatically sorted the data to parallel. The data was then processed by a bacas proprietary zero-median de-striper and then mapped in INSITE v4.

The twin probe resistance data were downloaded by a bacas proprietary package to folders within the computer and then processed using INSITE v4.

The TR device was downloaded via TR proprietary software when used for profiling. These files were then converted within that software package and processed using RES2DINV freeware to show the pseudosections.

The radar data were downloaded to REFLEXW software. The rainbow1 colour scheme has been adopted for showing the results.

Figure 2.4 The TR device with profiling attachment

2.7 Constraints

Resistance readings were low, and the RM15 was not set for low-value, high resolution reading, so some fine detail was lost. Nonetheless, results are sufficient to see the archaeology. There was some problem with cable reliability with the RM on one day, and its output had to be scrapped, but the faulty results were replaced by using the TR device later, and there was no overall loss of quality, even if extra time was used on the survey. Ideally, more time would need to be available to complete

the survey, but such needs have to be overridden in the short term by farming needs.

The principal constraint on the quality of the results was the very long grass and vegetation which made for difficulties in maintaining straight lines and seeing all markings on the rope. However, there were no other major problems.

Radar wavespeed has not been calculated, but a low value of 0.04 m/ns has been assumed as the ground was wet. The real figure may have even been lower.

The data are usually best seen on the computer screen during processing, and there may be some loss of definition once output is transposed into a document.

Figure 2.5 The Radar

3 Results

3.1 Magnetometer

All 35 available grids were subjected to magnetometer survey. However, responses were poor. The soil was not responsive to magnetic measurement. Where the moat split grid squares, those parts within the moat were surveyed. Only faint signs of a water channel were visible, these in the southernmost grids of the field, to the south of the moat. Other responses were mainly spurious, probably discarded metal. The Response is shown in figure 3.1

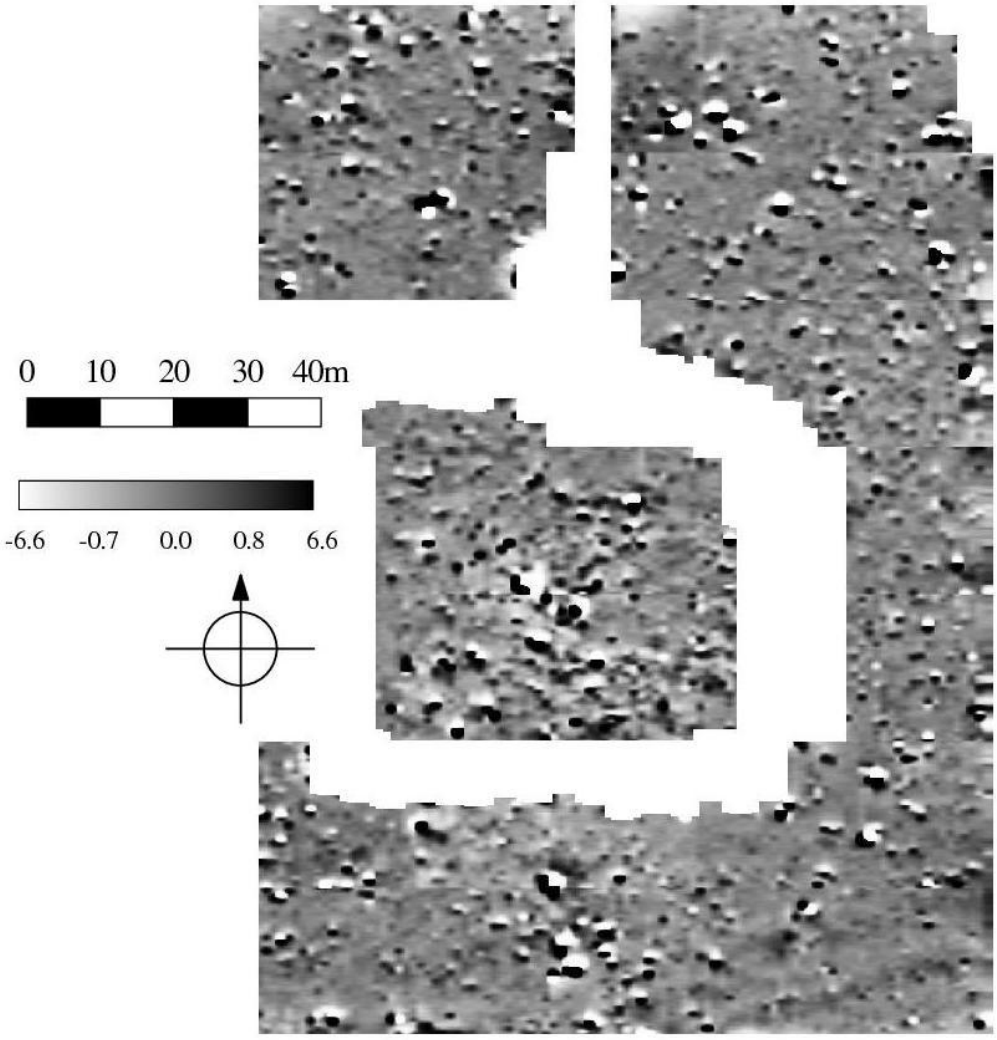

Figure 3.1Magnotometer survey

3.2 Twin – Probe Resistance

The three most south – eastern grids were surveyed by the RM15 and are seen to be less well defined than the other grids. All others were surveyed by the TR/CIA.

The output is shown in figure 3.2

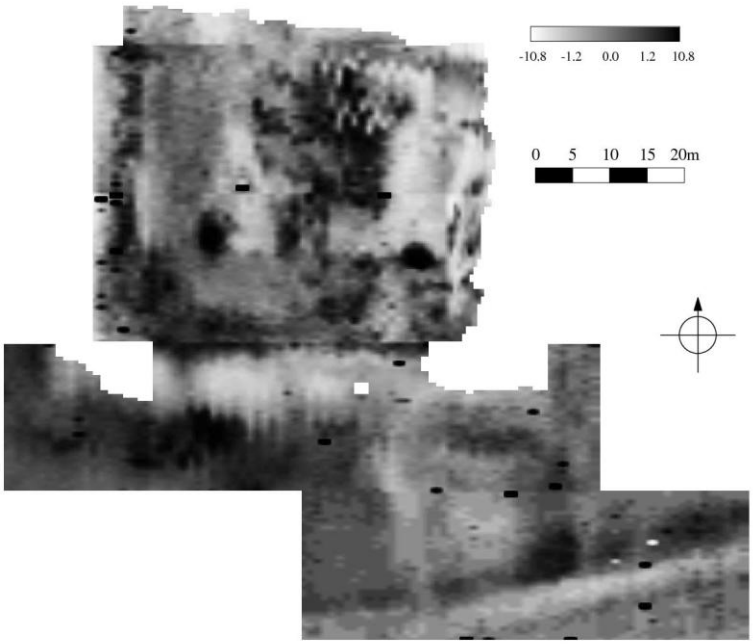

Figure 3.2 Twin Probe Resistance Output

Features can be seen both within the moat and also in the area to the south.
features are annotated in figure3.3
these are:-

1. A water channel, which may be later in date than the moat, or may be a water feed to it.
2. This water course has a revetment on its northern bank. The wall of this revetment curves round to the north and back to form a trapezoidal enclosure, possibly with a more substantial feature at its south – western corner.
3. A water course heads north to connect this southern water course with the moat. It appears to break through the revetment and enclosure, so may well be later. Alternatively it may be feeding the moat.
4. A large stone feature on the southern bank of the south part of the moat appears to be the footings of a substantial building.

5 A wall appears to go on from this building west and then north, apparently forming an outer revetment, although there is insufficient length surveyed to allow a definite statement.
6 There also appears to be a revetment on the internal side of the moat, certainly going round most of the platform.
7 The principal feature on the platform inside the moat appears to be the masonry footings of a substantial building. The footings are approximately 15 m square, and there is further stonework to the south of it.
8 This building seems to be surrounded by its own moat: we appear to have a moat within a moat which is not obvious on the ground. The stonework to the south of building (7) may be a bridge to cross that small moat.
9 There appears to be a small (5 m diameter) sub – circular building in the far south – east corner of the platform, and there is a central stone feature, possibly a column support. This might be a dovecote.

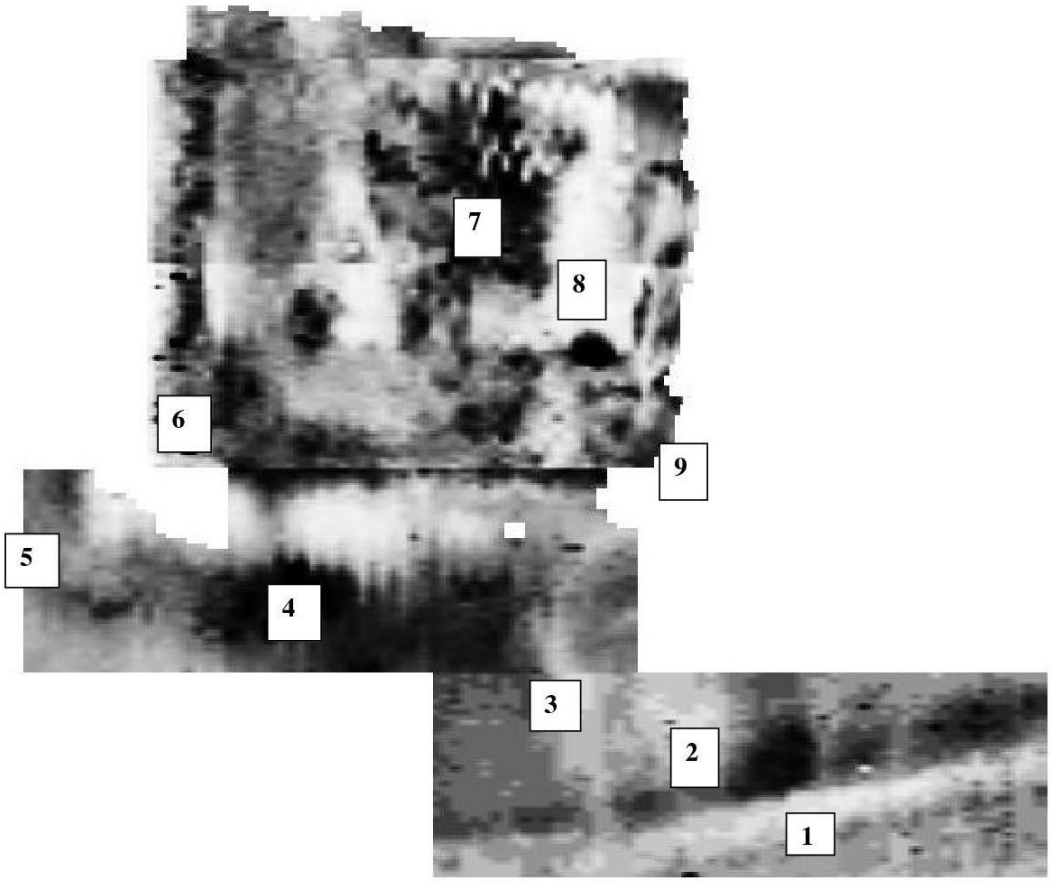

Figure 3.3 annotated features

Although the resistance survey crossed through the southern portion of the moat, which was drier than the other sections, there was no obvious sign of a bridge here, although there is an earthen causeway which is currently used for pedestrian and tractor access.

As there is a lot of activity within the moat, the four grid squares which comprise the majority of the platform have also been processed in XL to provide a high definition

colour display of the 40 by 40 m area, and this is shown in figure 3.4. The building, which may be in the form of three bays, shows as yellows to red, high resistance, as does the possible bridge. The inner moat shows as blues and pale greens. The revetment area in the south – west, the possible dovecote in the south – east, also show as yellows and reds.

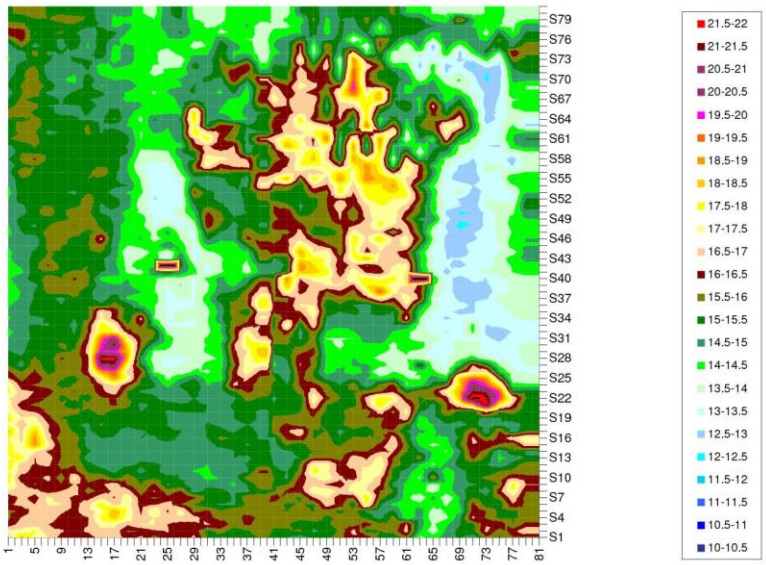

Figure 3.4 XL High definition colour display

3.3 Resistivity Profiles

Three profiles were taken. Each used 30 probes spaced 1 m apart, giving a line length of 29 m. The two north – south profiles were started on the northernmost gridline, heading south, and were called 8n and 10n respectively, being 8 and 10 m respectively east of the centre of the gridlines on the platform. The east west line started on the eastern line heading west was called 8e as it was 8 m north of the centre of the gridlines on the platform. Their locations are shown in figure 3.5. Their identifiers are placed against the starting end of the line.

Figure 3.6 shows the two north – south profiles placed side by side, 2 m apart to scale. The 10e plot has been reversed in direction so that they do not overlap. In both cases, the masonry features extend down less than 1 m and correspond with those seen in plan in figure 3.4.

Figure 3.7 shows the east – west profile, which again corresponds well to the plan in figure 3.4. Note, this is seen from the north, so that east is towards the left side, and that the inner moat can be seen as low readings. Note that the colour scales of figures 3.6 and 3.7 are the same, but these do not correspond with those in figure 3.4, as different software packages have been used.

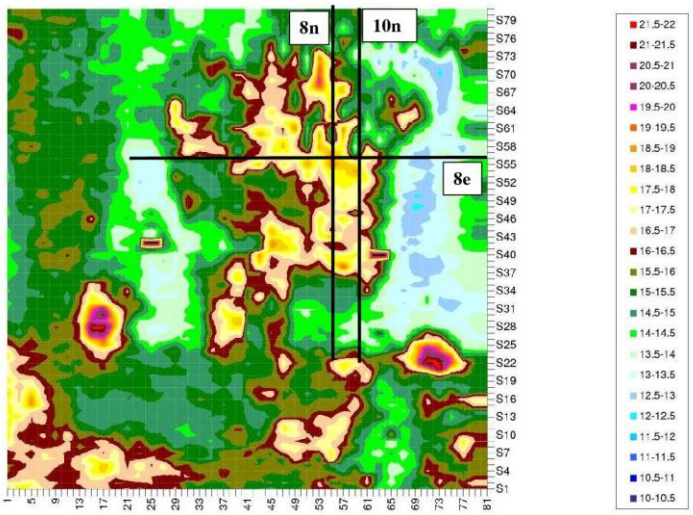

Figure 3.5 Profile locations

3.4 Ground – Penetrating Radar (GPR)

The radar was towed over the eastern 30 m of the 40 m square corresponding to figure 3.4, so it provided a rectangle 40 m north by 30 m east, which covered the building. The 250 MHz head was used to get as much penetration as possible, but conditions were very wet, and limited depth was obtained. However, the radar output confirmed that all the archaeological detail was contained within the top half metre or so.

Figure 3.8 shows the radar slice at 0.04 m (assuming a wave speed of 0.06 m/ns), very close to the surface, and figure 3.9 shows the slice at 0.34 m. In the first, the masonry can just be seen as red against the yellow background, in the second, it appears purple against a yellow/red background.

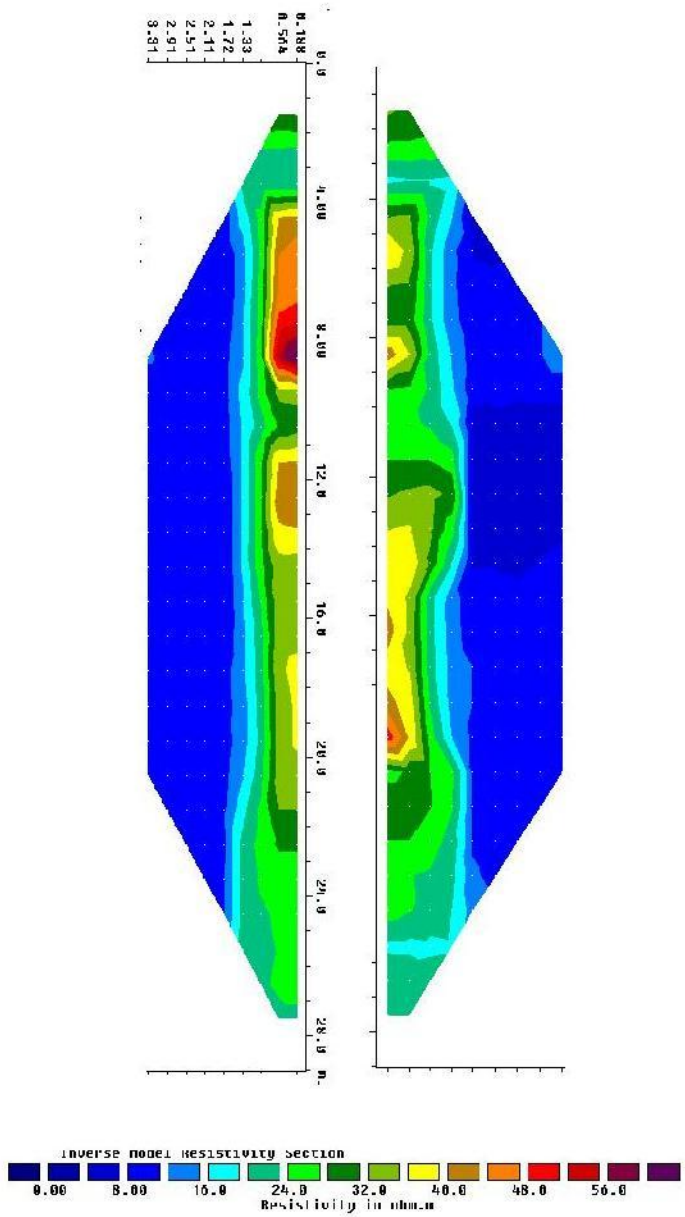

Figure 3.6 North South profiles placed side by side

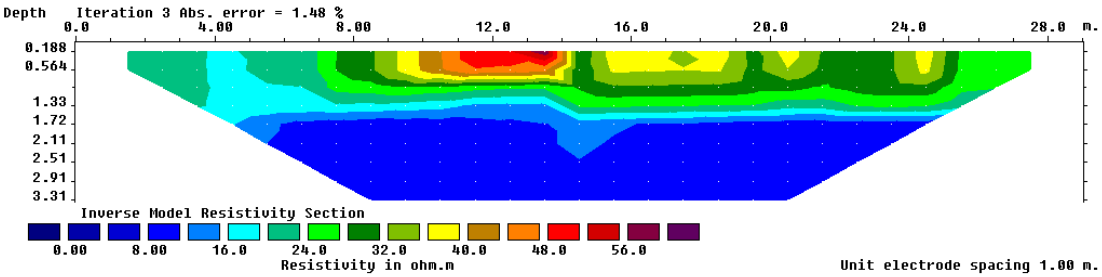

Figure 3.7 The East/West profile

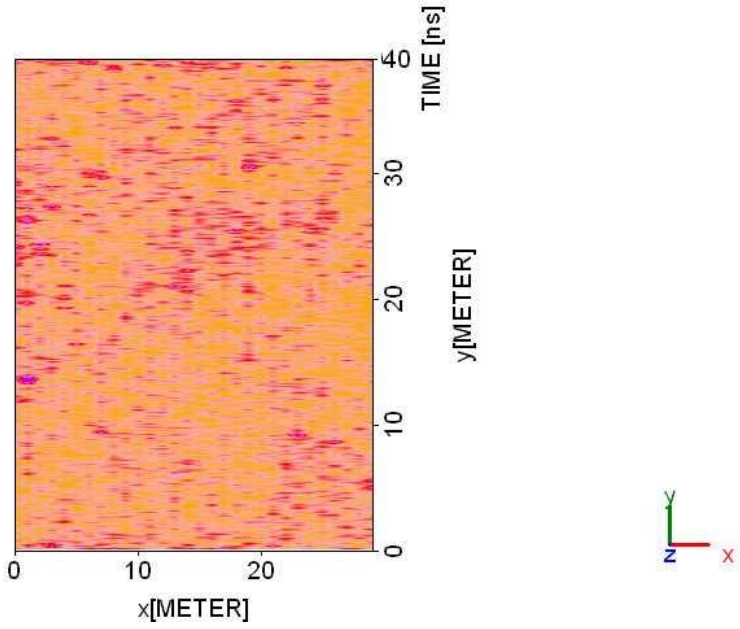

Figure 3.8 The radar slice at 0.04 m

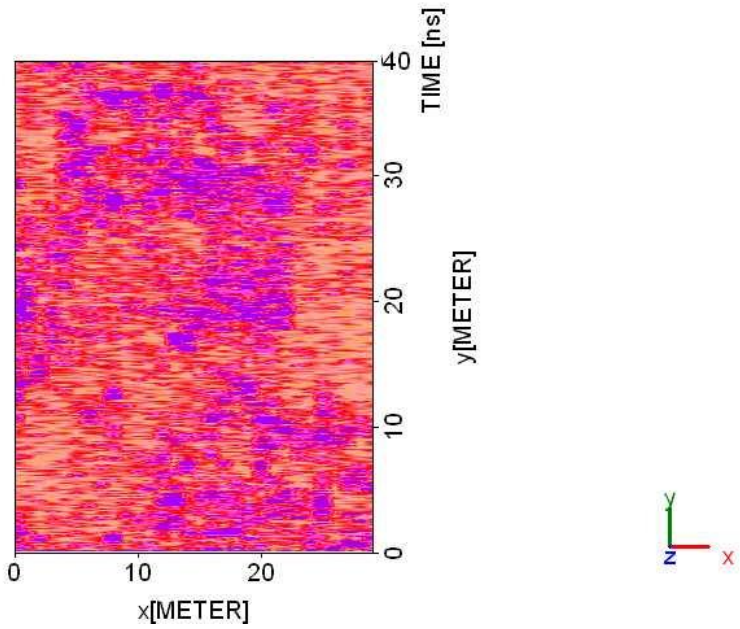

Figure 3.9 The radar slice at 0.34 m.

4 Discussion

Moated Sites

After the church, the medieval manor house would normally be the most substantial building in a village and often marked by one or more moats (Wilson 2000). Moated sites generally consist of one or more ditches, which in most cases were intended to be water-filled, and performed a number of purposes from assisted drainage, serving as a fishpond, although moats are often accompanied by separate fishponds, water for animals, and as a source of water if fire broke out in the timber buildings it surrounded. These buildings ranged from manor houses, monasteries, monastic granges, farmsteads, chapels, medieval hospitals and windmills (Wilson 1985).

The earliest phase for the construction of moated sites took place between the 12th and 14th centuries, with the heyday for moat building being the first half of the fourteenth century (Platt 2010) and then again during the 16th and 17th centuries with the renewed fashion for formal gardens (Creighton 2009). If the moat is post medieval then it may have formed part of this formal garden layout along with the associated fishpond, suggesting that it may have been constructed in order to keep out herbivorous animals such as deer, from causing damage to domestic gardens (Wilson 1985)

The main reasons for constructing a moat around a house during the medieval period was for prestige or possibly defensive reasons, and it surrounded an area occupied by buildings or other structures. The earth created by digging the moat was often placed into the area enclosed to form a raised platform on which the buildings were then constructed. The size and shape of the area enclosed by the moat varies, from rectangular enclosures as well as circular or trapezoidal, sometimes with more than one enclosure, and often accompanied by fishponds. There are often channels to carry water into and away from the moat.

As archaeological sites, moats consist of three parts: the moat itself, the surface of the area enclosed by it, and an earlier surface under the platform derived from upcast from the moat. Under the platform, there may be remains of land use before the moat was constructed, such as cultivation or remains of earlier buildings. The structures enclosed by the moat could include a dwelling consisting of a great hall and cross wing, accompanied by ancillary buildings. The moat, even if it is now apparently dry, may still contain deposits in which conditions are suitable for the preservation of remains of the past environment such as seeds, and objects made of organic materials such as wood and leather.

Moated sites are unusual in the West Country, and are rare in Wiltshire with only 48 examples recorded (Aston and Lewis 1994), although Aberg recorded 53 (Aberg 1978). Few of these sites are on chalk such as West Chisenbury with a moat-like feature, and former water meadows (Wiltshire RCHM 1976 & 1991 1976). The majority of these moated sites tend to be placed on the fringes of the clay vale**.** It is

therefore surprising to have three together just close to Westbury, and it may not be a coincidence that they are all on similar geology.

Although there is nothing to see on the surface bar the moat itself, it is clear from the geophysics, particularly resistance, that there was a lot of activity on this site. Indeed, it seems to have grown from a small moat cut around the building to a large moat enclosing a large platform, with space for other buildings. Indeed, there appears to be significant activity outside the moat to the south. Geophysics cannot tell whether they are contemporary or later features. Either condition would make this a particularly interesting site.

Whereas the results of the magnetometer at Penleigh were rather inconclusive, the resistivity survey provided evidence of a previously unknown stone building, surrounded by a smaller moat and associated entrance, providing evidence of a double moat, possibly with an enclosed garden which may well indicate status and showcased the wealth and social exclusivity of their owners. Manorial court rolls provide details of building and other structures within these complexes, such as dovecotes, as well as gardens containing herbs, vineyards as well as plots for vegetables (Creighton 2009).

In 1577 the English antiquarian Wiliam Camden began work on a topographical and historical survey of all of Great Britain and Ireland entitled '*Britannia',* with the first edition published in 1586, and a later edition in 1607. A section of the book covers part of the Wiltshire area, with a possible reference to the site at Penleigh.

'*Near Westbury a village call'd Leigh or ,Ley. which is most probably the place where King Alfred encamp'd, the night before he attack'd the Danes at* Eddington. *Here is also a field call'd* Courtfield. *and a garden adjoyning, encompass'd with a mote; and a tradition goes, that here was a Palace of one of the Saxon Kings'. (Gibson 2001).*

It is possible that this is the site at Penleigh in which Camden makes reference to the field name of *'Court field'*, the word 'Court' suggesting a reference to its earlier manorial past, but he does not suggest a contemporary settlement on the actual site itself.

Camden writes of a garden surrounded by a moat, in the present tense, implying that the garden itself was still visible, which suggests that it was still recognisable as a garden feature, therefore possibly not long abandoned or even still maintained.

The later 1793 map of Penleigh shows the moated site south of the original drove way, and its moat still surviving within the field now called '*Court Garden'*. Both of these names now suggest the earlier association of medieval manorial complex and within it a garden feature of some description.

Documentary evidence makes it quite clear that gardens were found in close association with the majority of medieval residences, and that these gardens

typically formed part of an inner core of aristocratic space (Creighton 2009). The use of a moat would also serve to keep out wild animals such as deer, which might damage planned domestic gardens (Wilson 20), with smaller ditches or hedges being used to protect these spaces by individuals of moderate wealth.

It should be noted that gardens were not only for those with wealth, peasant plots also supported the household diet supplementing their diet of pottage with vegetables such as leeks, cabbages and turnips and from the fourteenth century onwards, crops such as flax and hemp could provide a valuable source of income.

It was not only the planning and design of medieval domestic buildings that helped to display social status, but also the design and arrangement of garden spaces which reflected hierarchy, in which these gardens became an outside extension to the house impressing the social values of the individuals and their position within society, which could be viewed by others (Creighton 2009).

It is possible that sometime during the early 16th century the original moated manor house was abandoned by the Stourton family in favour of a site closer to the original moat. In later periods, when moated structures had ceased to be regarded as status symbols or defensive purposes, they were sometimes wholly or partly filled in and new dwellings constructed in a more convenient location outside the moated area (Pastscape 2012). It was sometime during the 17th century that Penleigh House was lived in by the Stourton family before being sold to the Turner family in 1704..

Desertion of moated sites could take place before the seventeenth century for a number of reasons such as the abandonment of a nearby settlement which ceased to exist, or the possibility that a moated site was either no longer needed or simply not fashionable (Wilson 1985:55).

Further research

Given the amount of detail shown in the limited area covered by resistance, and the lack of detail in magnetometry, a full survey of the field by resistance, all 35 grids is recommended, and those grids which are split by the moat should have both parts surveyed in order to gauge the amount of the revetment.

Features to further investigate

1. The water course which has a revetment on its northern bank. The wall of this revetment curves round to the north and back to form a trapezoidal enclosure, possibly with a more substantial feature at its south – western corner.

2. A large stone feature on the southern bank of the south part of the moat appears to be the footings of a substantial building.

3. A wall appears to go on from this building west and then north, apparently forming an outer revetment, although there is insufficient length surveyed to allow a definite statement.

Appendix A Gridding Details

The raw data for the surveys with any of the instruments can be provided if required. It is still necessary to know how the grid squares need to be assembled to obtain the right picture.

The co ordinates for the baseline were logged from the south western point at
ST 86035 50834
ST 86055 50839
ST 86074 50842
ST86094 50845
ST86114 50848
ST86134 50855
(see figure A1).

The main co-ordinates for the platform baseline starting off in the south western corner are
ST 86052 50878 ST 86065 50880 ST 86086 50884 ST

The next row running north, east to west direction
ST 86080 50903 ST 86061 50901 ST86042 50897 ST

Final row running north-west to east direction
ST86038 50916 ST86058 50919 ST86076 50922

A1 Magnetometry

In all grids, the start point was the south-western corner, heading north, as shown by the arrows in figure A1. Each is a 20 m square, containing readings at 4 per metre along lines 1 m apart. The data are already sorted to parallel. Files prefix ‘m’ are raw data, those prefixed ‘d’ have been de – striped and are those recommended for use. Figure A1 shows the order in which the grid squares need to be assembled. North is to the top.

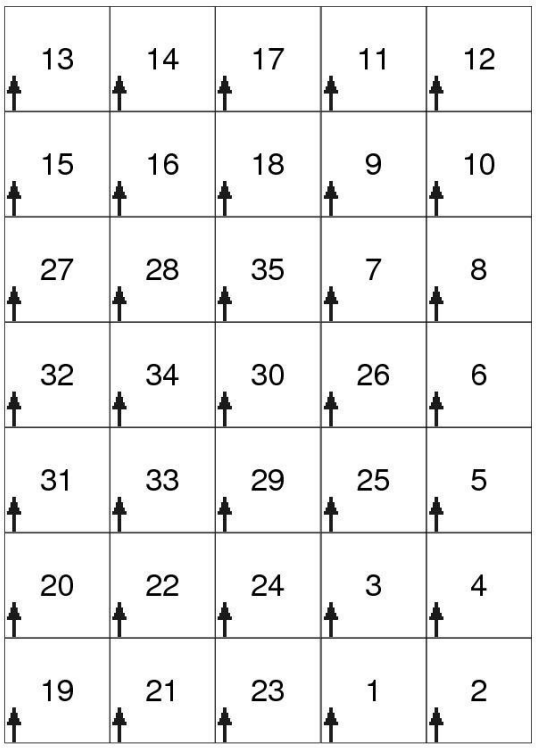

Figure A1 The magnetometry grid

A2 Twin – Probe Resistance

Figure A2 shows the plan of the resistance survey. The numbering seems strange, but some of these grids were re-measured after the survey was officially over, and while in the midst of work at the other moated sites.

The red arrows with crossbars are the squares surveyed by RM15D, and the raw data for these is in zig – zag form. The blue arrows are data taken with the TR/CIA and is already sorted to parallel, although a zig – zag pattern was walked.

For both instruments, 2 readings per metre were taken along lines 1 m apart. The general start was at the south – west, heading north on the first traverse.

Note that in two of the grids on the eastern edge of the platform, the direction first traversed was changed to east, and the grids started in the north – west corner, to provide easier working on a difficult slope.

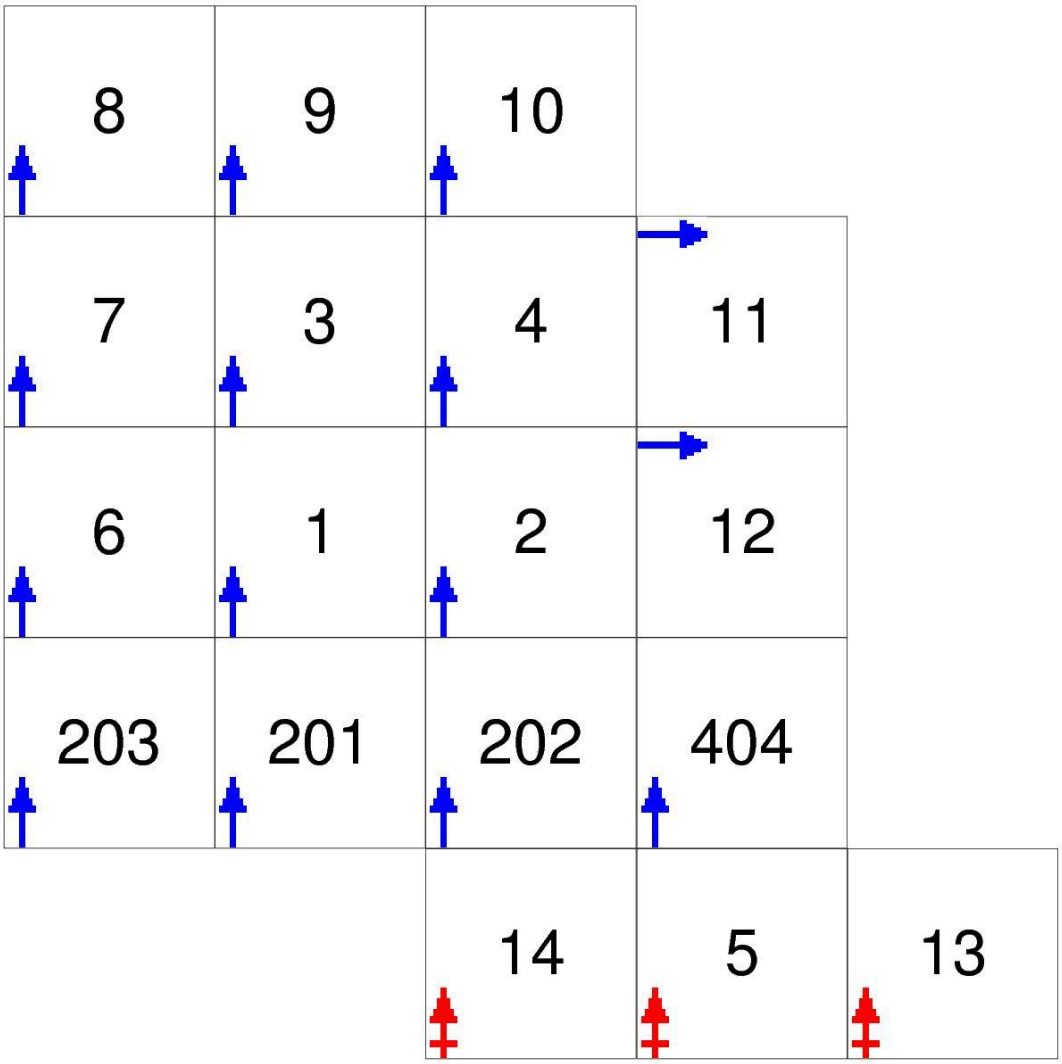

Figure A2 The plan of the resistance survey

Bibliography

British Geological Survey 1965 http://archives.bgs.ac.uk/CalmView/

Camden, W. 1586..*Britania. A Chronological description of Great Britain, Ireland and the adjacent island.* Revised by Edmund Gibson 1722.

Creighton, O, H. 2009. Designs Upon the Landscape, Elite Landscapes of the Middle Ages. Suffolk. The Boydell Press.

Crittall,E. 1965. *Victoria County History - A History of Wiltshire vol 8*. University of London.

Platt, C. 2010. The Homestead Moat: Security or Status. London. The Archaeological Journal Volume 167.

Pugh, R.B and Crittall, E. 1965. The Victoria History of the County of Wiltshire Victoria History of the Counties of England - *Volume:* 4. University of London.

Wilson, D. 1985. Moated Sites. Princes Risborough . Shire Publications.

Wilson, D.R. 2000. Air Photo Interpretation for Archaeologists. Stroud. Tempus Publishing Ltd.

Wiltshire County Council. 2012 *Wiltshire sites and monuments register.*

Wiltshire County Archaeological Service 2004. *The Archaeology of Wiltshire's towns: an extensive urban survey.* Unpublished Project Design, Wiltshire County Council.

Moats, it would seem, were first added to existing sites in the twelfth century (Williamson 2010, 93). By the end of the Saxon period the manorial hall, with accompanying church, were already features of the general Southern-English landscape and another characteristic medieval site is the homestead moat. The type of which it would appear we have at Penleigh. In addition to the castles and great houses that were moated, there also grew up a whole class of smaller, rural, defended settlements that tend to get classified together under the general term 'medieval moated sites'. These sites of which there are over 5,000 in England alone tend to fall into the period from the very early 13th century to about the mid-14th century. Gerrard suggests only 12% of English medieval moated sites have in some way been excavated (Gerrad 2003, 211). Stamper posits that the majority of those excavated have shown that the moats were often quite shallow with a thorn hedge providing a deterrent for thieves – both human and animal (Stamper 1991, 255). Therefore, projects like the one outlined above show the importance of continued research in this area to expand our understanding of the moat's use and social importance. For instance, we know that during the early 14th century, lesser Lords were under pressure to enforce their social status by increasing expenditure on their properties by carrying out large scale building works and surrounding them by moats (Dyer 2002, 148). Dyer suggests that often cost more than a year's income (*Ibid*). What we don't know however, is the moat's true purpose.

From the geophysics survey alone, it is difficult for me to suggest a definitive period of construction without further analysis or archaeological investigation. From the geophysical outputs published in the above document, a late 13th to early 14th century construction for the external moat is most likely in my opinion. However, the density of the results within the inner moat would suggest a 17th century brick/stone built manor house as opposed to a timber-framed 14th century one. I would imagine a 14th century open hall manor house did exist prior to a 17th century rebuilding. This is based on the dimensions and the appearance of extensive solid foundations. The foundations would appear to be too substantial to bear the load of a timber-framed medieval open hall. The presence of these foundations also rule out the likelihood of a Saxon dwelling as that would produce rather more post-holes and no rectangular footings. Although timber-framed buildings of the 14th century were built on stone foundations, the amount indicated by the geophysics would suggest stone/masonry walls rather than timber. It is possible that they represent brick in fill panels to a timber-frame, only further archaeological investigation can provide the evidence needed. However, due to the historic evidence given in the above report, it is highly likely that the moated site is at least early medieval in origin and almost certainly had a timber-framed manor built here in the early 14th century. Clearly, further archaeological investigation needs to be done in order to fully understand both the historic and geophysical evidence.

It remains unclear the purpose of adding a moat to a site, but the general assumption is to provide modest means of defence coupled with a desire to project wealth and status at a time of over population and civil unrest during the late 13th and early 14th centuries (Dyer 1998, 106-7). Again, this further emphasises the importance of continued research of moated sites such as the one described in this report.

It is therefore my opinion that the site would indicate an extensive progression of wealth and status during the early medieval period (12thC) right through to the post-medieval period (17thC) evidenced in the moats and building phases indicated in the geophysics. It is difficult to interpret any evidence of a central hearth within the geophysics results which would also indicate a later Tudor house with chimneys – again this emphasises the need to investigate the site further through archaeological investigation.

My findings are based on an archaeological background and should be used in tandem with any desk based historical research carried out by the authors of this report. My interpretation then is based on a solid background in the field, but is to serve only as an interpretation and not fact.

Brunskill R W. 2003 *rev ed*. "Traditional Buildings of Britain: An Introduction to Vernacular Architecture. VG. London. 133

Dyer C. 1998 *rev ed*. "Standards of Living in the Later Middle Ages: Social Change in England c. 1200-1520". Cambridge Uni Press. 106-7.

Dyer C. 2002. "Making a Living in the Middle Ages: The People of Britain 850-1520". Yale, London. 148

Gerrad C, 2003. "Medieval Archaeology: Understanding Traditions and Contemporary Approaches". Routledge, Oxon.

Stamper P, 1991. "Landscapes of the Middle Ages: Rural Settlement and Manors" in *The Archaeology of Britain* (Eds Hunter & Ralston). Routledge, London. 247-63