

Berkshire Archæological Society

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Report of geophysics surveys at Ankerwycke 2019 and 2020



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Summary

These geophysics surveys were one of the first work packages undertaken by the National Trust as part of their programme to understand their site at Ankerwycke and improve the way they present to the public. The first survey took place from 13th - 28th July 2019. The second took place from 23rd October 2020 to 2nd November 2020. In all, some 100 20m x 20m grids (circa 4 hectares) were surveyed using a gradiometer and 90 20m x 20m grids (circa 3.6 hectares) were surveyed using a resistance meter. Almost 100 anomalies were identified during the work to interpret the results.

This document is structured into four parts:

An Introduction, chapters 1–5 cover the background to the project, an overview of the site and its location and the topological, historic and archaeological backgrounds.

Chapters 6 and 7 summarise the work carried out during the geophysics surveys. This concludes that there are four landscapes embedded in the land and features at Ankerwycke.

Chapters 8-11 use the results of the geophysics survey to expand our understanding of the four landscapes. They are:

- A medieval landscape with Ankerwycke priory sited on an island bounded by river channels and the River Thames. The priory was located south of the Ankerwycke yew and has been revealed to be a simple structure with a cloister with the Priory church to the north, an east range with a chapter house and other buildings and a two-storey south range. Vegetation and the remains of a Tudor mansion prevented the survey from identifying building to the west of the cloister. To the north of the priory church was another structure which may be the remains of an older church or a side chapel to the priory church. At the entrance to the island there may have been a tithe barn.
- A Tudor to Georgian landscape which developed following the dissolution of the Ankerwycke priory after which many of the Priory buildings were demolished. This landscape was centred on the Ankerwycke Tudor mansion which was built in the south west corner of the cloister and incorporated some of the Priory's south range of buildings. To the west of the Tudor mansion, in Priory Field, the Ankerwycke channel was dug. Over time this provided a supply of bulk water and a setting for the mansion. At the north end of the channel were structures, Ankerwycke building A, which may have been a farm and bridges across the Ankerwycke channel. To the south of the Tudor mansion, soil from the channel was used to construct a platform for an ornamental Ankerwycke garden.
- A Georgian to early 20th century landscape with at its centre, Ankerwycke House, a Georgian mansion built on land north of the priory. The then extant buildings of the priory and Tudor mansion were reduced to being garden features. The Ankerwycke garden seems to have been redeveloped to act as the kitchen garden for Ankerwycke house. The Ankerwycke channel was filled in, Ankerwycke building A was demolished and a new farm built to the north of Ankerwycke house. Along the River Thames boat houses and a Picnic house were constructed
- A 20th century landscape which emerged, probably in the late 1930s, when the Georgian mansion was used as a nightclub. The key feature in this landscape was the Ankerwycke Swimming Pool Complex with a pool, changing rooms and a boiler house. In the 1990s, Ankerwycke house, the Ankerwycke Swimming Pool Complex, the boat houses and the Picnic house were all demolished.

The last part of this paper, the appendices, provides the detailed information beloved by archaeologists and geophysicists.

Appendix B lists the monuments identified in the results of the geophysics survey and other work on the site. It is hoped it will help explain the site to visitors and improve official records of the site.

Acknowledgements

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The quality of the archaeology recorded in this report has been improved by comments from James Brown, Tom Dommett, Gary Marshall and Stuart Burgess of the National Trust and by recommendations made by members of the Berkshire Archaeological Society study group who reviewed the associated presentations. The quality of the report itself is due to work by Tim Lloyd who check the anomalies and by Anne Harrison who proof read the document.

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Andrew Hutt

0 Document control

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0.3 Change control

This document is under the control of the author.

0.4 Change history

Issue 07 addressed comments by Stuart Burgess, who was the National Trust's warden at Ankerwycke 2001 -2004. His input (Burgess 2021 pers. comm.) offered a new unseen geophysics plot from the Marshall and Burgess 2007 geophysics survey (Marshall 2007) and a significant amount of new evidence.

Issue 06 addressed comments by James Brown of the National Trust. This has led to change in the output from this survey insofar as the output recorded in issue 0505 was a set of anomalies whereas the output recorded in this issue is a list of anomalies (Appendix A) and a list of monuments (Appendix B) which includes the results of these surveys and results of the AOC scheduled monument survey (AOC 2017). Producing these lists is effectively interpreting the geophysics results; a transformation which is poorly explained in the geophysics guidelines (CIfA 2008 and Schmidt *et al.* 2015). This report includes an explanation of the method used for this interpretation work.

Issue 05 added details of the 2020 survey and revised the interpretation of the results

Issue 04 recorded the 2019 survey. It corrected an error in the position of the 2019 resistance survey in the north of Priory field by moving it 20m west. This resulted in changes to figures 6.6, 6.7, 7.1 and D1.

Issue 03 recorded the 2019 survey. It addressed comments by Tom Dommett and Gary Marshall of the National Trust and removed section 8: Recommendations for improving the site. This material was published separately (Hutt 2020).

Issue 02 recorded the 2019 survey. It was produced in response to comments by the National Trust, it included comprehensive changes to the interpretation of the geophysics results.

Issue 01 recorded the 2019 survey. It was the first draft.

0.5 Changes forecast

None; changes will be made in response to comments by reviewers.

1 This project

In 2018, Anne Harrison and Andrew Hutt had a meeting with Tom Dommett to discuss the possibility of the Society contributing to the National Trust's project to improve access to Ankerwycke Priory. As a result, in February 2019, they were invited to undertake a geophysics survey of the fields surrounding the priory.

In 2019, the first geophysics survey was timed to coincide with Council of British Archaeology (CBA) Festival of Archaeology: 13th to 28th July 2019.

In 2020, after the first Covid-19 lockdown, James Brown invited Andrew Hutt to continue the geophysics survey to address the area along the River Thames where the National Trust were planning to build a ferry landing and some paths. The work was timed to coincide with the CBA Festival of Archaeology: 24th -31st October 2020.

Ankerwycke Prior is registered as scheduled monument 1007943. This survey is registered as event ENA9676 on the National Trust Historic Environment Record.

2 Site location

The National Trust (NT) owns land on both sides of the River Thames at Runnymede (Figure 2.1). The land on the eastern bank is occupied by Ankerwycke priory.

3 Topographical and geological background

This land is an enclave of green space on the east bank of the River Thames opposite Runnymede.

The site is bounded to the east by the B376, reservoirs, motorways and industrial sites, to north by Wraysbury with its housing and to the west and south by the River Thames.

The site is crossed by river channels. They are shown on a succession of maps including the Wraysbury Enclosure map of 1800 (Figure 4.5), the Wraysbury tithe map dating to1840 (Figure 4.6), Ordnance Survey Map of 1944 (Figure 4.7) and the Royal Commission landscape survey undertaken in 1992 (Figure 5.1). These are fed from the north by a stream coming from Wraysbury. Burgess has called this the Wraysbury Beck (Burgess 2021 pers. comm.) (Figure 7.6).

The underlying solid geology is the London Clay Formation, a sedimentary bedrock of clay, silt and sand. This is overlaid with alluvium (clay, silt, sand and gravel).

4 Historical background

This site is a scheduled monument listed in 1993. In June 2017, AOC Archaeology Group carried out an assessment of the site (AOC 2017). Some of the information in this section has been taken from their report, some was taken from the Berkshire Archaeology Historic Environment Record.

One of the challenges of using this information is to distinguish between the sound evidence and interpretations of that evidence. The approach that has been used in this document is to not repeat interpretations in this section but to discuss them in the Interpretations section.

4.1 Prehistoric evidence

There is some evidence for early occupation including Palaeolithic, Mesolithic and Neolithic stone tools. Bronze Age and Iron Age metal artefacts including spear heads and a sword, have been recovered from the River Thames.

However, it should be noted that one of the problems with the recording of objects from the River Thames and their findspots is that many of the provenances are vague. A place name may cover several miles of river and traditional dredging practice simply allocated a find to a "reach" of river, until a more recent change to record finds to the nearest 100m' (York 1999: 9).

Prehistoric pottery was found during a watching brief from a paleochannel on the site.

Nearby excavations at Runnymede Bridge produced evidence of occupation in the Neolithic and the late Bronze Age, the latter being a complex settlement dated to 9th to 8th century BC, and now a Scheduled Monument (Langley 1980).



Figure 2.1. The National Trust's lands at Runnymede/Ankerwycke The red lines mark the Trust's boundary (Scale 100mm : 10m)

4.2 Roman and Early Medieval evidence

No evidence has been found of Roman occupation on the National Trust lands at Ankerwycke. However, Burgess reports a find of Roman pottery while digging a drain/sewage pump at a property along Magna Carta Lane in 2003 (Burgess 2021 pers. comm.). It is not recorded on the Berkshire Archaeology HER (Berkshire Archaeology pers. comm.). Down the River Thames from Ankerwycke, Roman Staines (Pontes) was established as a crossing point in the 1st century AD.

Finds dating to the Saxon period include spearheads and a sword dredged from the river in the vicinity and an axe found near Wraysbury.

It is possible that the name 'Ankerwycke' originated in the Saxon period. There are several alternative origins for the word. One offers a meaning of a place of quiet contemplation and/or clearing in the woods with spiritual connotations (Cookson and Tickner 2015: 24; AOC 2017:12). Another suggests it was derived from 'anchorite' meaning a solidary religious person (hermit) and 'wycke' meaning bend in the river (Burgess 2021 pers. comm.)

4.3 Medieval evidence

There is a comment to the effect that 'religious women gathered spontaneously together at Ankerwycke to form a community at Ankerwycke' (Gilchrist 1994: 91).

Documentary evidence shows that Ankerwycke priory was a Benedictine nunnery founded by the Knight Gilbert Montfitch around AD 1160 (Page 1925: 320-325). It was quite a small establishment with never more than 10 nuns.

The earliest evidence of the priory comes from a seal dated to 1194 and held in the British Library (Figure 4.1). Burgess has interpreted the text round the outside as being:

SIGILL : ECCLE : SCE M'RE : MAG : DE ANK'WIC

which he translated as: The Seal of the Church of St Mary Magdalene of Ankerwycke (Burgess 2006).

The seal depicts the priory church as a timber framed building with a tiled roof.



Figure 4.1. The Ankerwycke seal (Burgess 2006:13; taken from De Gray Birch 1876?)

The extant remains show that the priory buildings were made of chalk blocks and some fish ponds. The Ankerwycke Yew stands to the north of the ruins and may be 2000 years old. One of the earliest documents with details of Ankerwycke is the *Valor Ecclesiasticus* which Henry VIII commissioned in 1535 to provide an official valuation of ecclesiastical and monastic revenues in England and Wales. It contains the following details of the lands round the Ankerwycke Priory.

Ankerwycke Mede	Pasture	12 acres
Long Mede	Pasture	7 acres
Day Mede	Pasture	61/2 acres
More Mede	Pasture	4 acres
Bore mede	Pasture	5 acres
	Arable	1 acre
Redyng Fylde	Arable	12 acres
All Fylde	Arable	41 acres
Orchard, garden, and fruit about the house		

 Table 4.1. Details of the Ankerwycke record in the Valor Ecclesiasticus (Valor Ecclesiasticus; Burgess 2006: 15)

Stuart Burgess was the National Trust warden at Ankerwycke from 2001 to 2004 and he drafted a historical appraisal of the site which was never published (Burgess 2006). One of the interpretations he developed is shown in Figure 4.2. During a conversation in 2021, Stuart Burgess revealed to James Brown that this figure is an aggregation of the 20th century topology including a river channel based on the Royal Commission survey (Figure 5.1), a building shown on the Wraysbury enclosure map (Figure 4.5) and the field names listed in the *Valor Ecclesiasticus (Brown 2021 pers comm.)* This suggests that it has limited value as a historical resource.



Figure 4.2. The Burgess 2006 map of Runnymede and Ankerwycke (reproduced from Cookson and Tickner 2015: Figure 4.1)

4.4 Tudor to Georgian evidence

Following the Dissolution of the Monasteries between 1536 and 1541, the Priory was used as a farm until 1551 when it was leased to Sir Thomas Smith who built a mansion on the building platform incorporating some of the Priory buildings.

The extant evidence for the Tudor mansion is:

- A souvenir handkerchief dated to 1785 and attributed to woodcutter artist Charles Warren (V&A 228 -1879; Burgess 2021 pers. comm.) (Figure 4.3)
- A watercolour by Dominic Serres dated to 1790 (Figure 4.4), a view confirmed by the style of the picture which suggests it was painted around 1800 (John Sargent pers comm.). It was used by Lipscomb in a publication dated to 1847 (Burgess 2021 pers. comm.) and in Cookson and Tickner 2015 (Tom Dommett pers. comm.)
- The Wraysbury Enclosure map of 1800 (Figure 4.5) which shows the mansion, a building to the east and buildings to the north. It also shows river channels to the north and east of the site. it does not show the fish ponds



Figure 4.3. Ankerwycke Tudor Mansion from Warren's image dated to 1785 (Brown 2021 pers. comm.)



Figure 4.4. The Tudor mansion (Keevill 1993: Front cover)

4.5 Georgian and Victorian evidence

In 1803 John Blagrove bought the Ankerwycke estate and built Ankerwycke House to the north of the priory ruins. The tithe map of 1840 (Figure 4.6) shows the Georgian house, a pond constructed to the west of the house in a river channel, an avenue of trees leading over a bridge across the eastern river channel to the site of the priory and two fish ponds.

At this time, the Tudor mansion and parts of the Priory were demolished and incorporated into the Ankerwycke pleasure grounds.

Other features created in the grounds included 3 structures (2 boat houses and a landing stage or 3 boat houses), on the bank of the River Thames, at the confluence with a river channel (The North River Channel). They are not shown on the 1840 Tithe map (Figure 4.6) but one appears on an Ordnance survey map dated to 1897 (AOC 2017: 47, Figure 8) to be supplemented by a further boat house and a landing stage on an Ordnance Survey map dated to 1899 (AOC 2017: 48, Figure 9). The boat houses appear in an Ordnance Survey map dated to 1933 (Figure 4.7) and the Ordnance survey map dated to 1944 (Figure 4.8) which also shows, just to the south east, three rectangular structures on a white background which are probably the Swimming Pool Complex and the Picnic House (Figures 4.9 and 4.10).

4.6 The 20th century evidence

In the 20th century, in 1914 there was a fire at Ankerwycke House (Burgess 2021 pers. comm.). The building was then used as the Santa Monica night club. In the late 1930s, near the River Thames, a Swimming Pool Complex was built on the land between the boat houses and the Picnic House.

In circa 1937, when Magna Carta Lane was developed and the site was purchased by Buckinghamshire County Council to protect the green belt and leased as a farm, documentary evidence includes an aerial photograph of the estate (Figure 4.11). In 1946, the vacant property was used as a film set for the film *The Piccadilly Incident*, this gives the only images of the house's interior (Burgess 2021 pers. comm.). In 1974, ownership was transferred to Berkshire County Council. In 1993, Ankerwycke House was demolished and, in 1998, the land was transferred to the National Trust.



Figure 4.5. Wraysbury Enclosure map of 1800 showing the Tudor mansion (AOC 2017: Figure 5)(Scale 50mm : 250m)



Figure 4.6. Wraysbury tithe map 1840 showing Ankerwycke House (Scale 20mm : 80m)



Figure 4.7. 1933 Ordnance Survey map (AOC 2017: 29, Figure 10) (Scale 50mm : 250m)



Figure 4.8. Ordnance Survey Map 1944 (AOC 2017: Figure 11)



Figure 4.9. The Picnic House with the River Thames in the foreground



Figure 4.10. The Picnic House



Figure 4.11. The Swimming Pool Complex with Ankerwycke House in the background taken in the late 1940s (Britain from Above EAW002309)

5 Archaeological background

There have been two phases of fieldwork undertaken on the site.

5.1 In the 1990s

In 1992, while the land was under the control of Berkshire County Council, an earthwork survey was undertaken by the Royal Commission for Historic Monuments (Figure 5.1). This positions the priory ruins, and shows a number of landscape features including the building platform, the fish ponds and the probable site of a garden.

In 1993, Berkshire County Council commissioned work from the Oxford Archaeology Unit (OAU) to investigate the potential to develop the site as an archaeological historical amenity with particular emphasis on the fish ponds (Keevill 1993). The OAU commissioned Bevan and Tilney of the Archaeological Research Consultancy at the University of Sheffield (ARCUS) to carry out an auger survey. The OAU itself excavated 5 trenches along the eastern river channel and the fishponds. They identified two phases of deposition, the first at the time of the Dissolution and a later phase in the 19th century associated with the demolition of the Tudor mansion and landscaping of the grounds.

Also, in 1993, Thames Valley Archaeological Services excavated trenches in the priory ruins and uncovered chalk walls refaced with brick surviving to some 2m in height and a tile floor (Ford 1993). These findings were reinforced in 1994, when St Blaise Ltd excavated the collapsed material around the upstanding walls (St Blaise 1994).

5.2 In the 2000s

In 2006, Gary Marshall (National Trust archaeologist) and Stuart Burgess (National Trust warden) carried out a geophysics survey (Figures 5.2 and Figure 5.3) which identified a number of anomalies potentially representing the priory buildings and details of a garden (Marshall 2007; National Trust ENA3920; Burgess 2021 pers. comm.). From north to south, this survey highlights a possible chapel just south of the Ankerwycke yew, the priory church, the east and south ranges of the priory buildings and a garden.

In 2007, Oxford Archaeological Unit carried out a building survey of the upstanding remains (Underdown 2007). This report includes a reinterpretation of the results of the Marshall and Burgess geophysics survey and the TVAS excavations (Underdown 2007: 12–13).

In 2007, Oxford Archaeology undertook a watching brief over the excavation of post holes, Black Walnut Tree field (Oxford Archaeology 2007).

In 2012 Cliveden Conservation undertook a condition report of the ruins and made recommendations for their conservation.

In 2017, in order to inform proposals around the future use and development of the scheduled area, AOC Archaeology Group carried out a desk-based assessment and detailed walkover survey. This identified nine features not previously recorded in the site record as well as checking on those already known (AOC 2017: 19–20). This report contains a map and a gazetteer of the features found on the site (Figure 5.4 and Table 5.1).

5.3 Aerial evidence

Aerial photographs of the site dating from the 1920s to the 2000s in the Historic England Archives are listed in the AOC assessment (AOC 2017).

Finally, there are two significant aerial survey results, which throw light on this site. The first is a LIDAR survey (Figure 5.5) and the second is the Google Earth historical record which shows the site in 1945 and then some 20 images showing its development from 2006 to 2018.

5.4 Berkshire Archaeology HER records

There are 9 records relating to Ankerwycke in the Berkshire Archaeology HER records available on the Heritage Gateway website. Their details were all included in the AOC scheduling assessment.



Figure 5.1. Royal Commission landscape survey undertaken in 1992 (McOmish and Smith 1993) (Scale40mm : 100m)



Figure 5.3. Evidence from the 2007 resistance survey (Marshall 2007)(Scale 10mm : 10m)



Figure 5.4. Location of Assets at Ankerwycke (AOC 2017: Figure 14 (Scale 33mm : 100m))

Site Identifier	Site Name/Description	Significance
Site 2	Ankerwycke Priory (upstanding remains)	National
Site 3	Ankerwycke Priory; fish ponds	National
Site 4	Ankerwycke Priory, water feature/ ditch	National
Site 10	Ankerwycke Priory (buried remains identified during excavation	National
Site 11	Paleochannel and prehistoric pottery-Black Walnut field, Ankerwycke Priory, Wraysbury, Berkshire	Local
Site 13	Finds recovered from the grounds of Ankerwycke Priory (Scheduled Monument)	Regional
Site 26	Ankerwycke Yew	National
Site A	Ankerwycke Mead, Ridge and Furrow	National
Site B	Ankerwycke Building Platform	National
Site C	Ankerwycke Priory (buried remains identified through geophysical survey)	National
Site D	Ankerwycke House (Smith Mansion)	National
Site E	Outbuildings to Smith Mansion	Regional
Site F	Garden Building associated with Smith Mansion	Regional
Site G	Picnic House	Regional
Site H	Pond	Local/Regional
Site I	Possible Walled Garden	Regional
Site J	Steps associated with Picnic House	Local
Site K	Boat House	Local
Site L	Steps and walling near fishponds	Local/Regional
Site M	Boat House	Local
Site N	Boat House with Landing stage	Local
Site O	Modern buildings north of priory remains on 1933 OS	Negligible/Local
Site P	Swimming Pool and Changing Rooms	Local
Site Q	Ridge and Furrow (southern meadow)	National
Site R	Stairs associated with Ferry Crossing/Swimming Pool	Local
Site S	Concrete and Brick footing possibly associated with former Picnic House	Local
Site T	Curvilinear Brick Feature possibly associated with the Picnic House	Local/Regional
Site U	Possible circular manhole	Negligible
Site V	Possible square manhole	Negligible
Site W	Former Landing Stage	Negligible
Site X	Wall	Local
Site Y	Wall	Local
Site Z	Displaced section of brick	Negligible
Site AA	Wrought Iron gate post	Local
Site BB	Stone footbridge	Local
Site CC	Boundary Watercourses/ditches	National/Regional

Table 5.1. List of Assets (AOC 2017: 21–22)



Figure 5.5. LIDAR survey plot for Ankerwycke (<u>https://houseprices.io/lab/lidar/map?ref=TQ00397268</u>) downloaded 2019

6 The 2019 geophysics surveys

6.1 The objectives

The main aim of this fieldwork was to carry out a geophysics survey to assess whether there were more archaeological remains in the fields surrounding Ankerwycke Priory and to confirm and clarify the results of the geophysical survey undertaken in 2007.

The other objective was to provide a visitor event for people visiting the site during the CBA Festival of Archaeology.

The plan was to survey Priory field, then Black Walnut Tree field and in the event of there being anomalies which could lead northwards out of Priory field, the southern end of Orchard field (Figure 6.1).



Figure 6.1. The fields to be surveyed at Ankerwycke in 2019 1 Priory field, 2 Black Walnut Tree field, 3 Orchard field

6.2 Overview of the work

The visitor event consisted of four poster boards. One of the benefits of this work was that it required the creation of the narrative that four landscapes are embedded in the land at Ankerwycke.

Historic England granted section 42 licenses for these surveys. The geophysics surveys were conducted in accordance with the *EAC Guidelines for the use of geophysics in archaeology* (Schmidt *et al.* 2015). Within these guidelines, this was a level 1 prospection survey: to identify areas of archaeological potential and individual strong anomalies.

6.3 The survey grid

John Cook (Archaeology South-East) established 20m x 20m survey grids across Priory and Black Walnut Tree fields and into the lower part of Orchard field (see Appendix C for details).

This survey grid was aligned to the British National Grid which means that every point has a grid reference of the form 500320 172630. Such grid references are cumbersome to use in the text of a document like this to refer to specific grid squares, so a shortened form has been used. Each grid square has a reference of the form X32 Y63 where X32 is a short form of 500320 and Y63 is a short form of 172630 which is the BNG reference for the south-west corner of the grid square. Figure 6.2 shows the survey grid with these references.

6.4 The gradiometer surveys

In Priory field, the 20m x 20m grids were surveyed using a Bartington 601 gradiometer with two sensors on days of hot sunny weather. Readings were taken at 4 readings per metre along traverses 1m apart in a zigzag pattern. The results are shown in figures 6.3 and 6.4.

On this survey there were several areas which were not surveyed; they were:

- In grid X26 Y69 an area was not surveyed because it was occupied by a tree and vegetation
- In grid X30 Y65, an area was not surveyed because it was occupied by a large dead tree with surrounding vegetation and dead wood
- In grids X 32 Y63 and X 34 Y63, areas were not surveyed due to a large fallen tree trunk
- Grid X34 Y59 and part of X36 Y59 were not surveyed because it was occupied by a large tree with low hanging branches and an understorey of vegetation and dead wood

Near to the extant priory ruins, the scope of the survey was influenced by the fact the west–east grid line Y69 passed close the barbed wire fence running west from the priory ruins. The gradiometer survey was conducted to within 5m of this fence.

In Black Walnut Tree field all the complete 20m x 20m grids were surveyed using the Bartington 601 gradiometer. Again, readings were taken at 4 readings per metre along traverses 1m apart on a zigzag pattern.

The data from the two surveys was processed using Snuffler (Sussex 2006) to produce geophysics plots (Figures 6.3 and 6.4).

6.5 2019 Resistance surveys

In Priory field, key anomalies found in the gradiometer survey results (figure 6.6) were surveyed using a TAR-3 resistance meter. The area surveyed is shown in figure 6.10.

The big anomaly (G14) in grids X28 Y67; X28 Y65; and X30 Y65 was not surveyed due to lack of time.

In Black Walnut Tree field, none of the anomalies were surveyed with the resistance meter.

To the north of the priory buildings, the resistance survey started a few metres north of gridline Y69 and continued northwards each side of the north–south gridline X40. Figure 6.9 shows that several areas of grid X36 Y69; X36 Y71 and X36 Y73 were not surveyed due to dense vegetation, dead wood and fallen trees. The area round the priory ruins was left unsurveyed because barbed wire fencing and fallen masonry made access difficult and posed a risk to the equipment.

The work was undertaken during a period of hot dry weather; there was rain overnight after the survey in Priory field and before the survey north of the priory ruins. Readings were taken at 1m intervals along traverses 1m apart, surveyed in a zigzag pattern. The results were processed using Snuffler (Sussex 2006) to produce the geophysics plots (Figure 6.8 and 6.9). The meter setting and the use of Snuffler is discussed in appendix E.

6.6 Interpreting and recording the survey results

As outlined above the results from these surveys were processed using Snuffler to create geophysics plots.

These plots together with many of the maps and plots shown in sections 4 and 5 above were loaded into Adobe Illustrator and then aligned so they were effectively geo-positioned thereby creating the Ankerwycke image stack (Figures 6.5 and 6.10; see Appendix G). Additional layers were then created to highlight and assign identifiers to each of the anomalies found in the geophysics plots. The gradiometer anomalies were given identifiers in the range G01 to G27. The resistance anomalies were given identifiers in the range R01 to R21. The results are shown in figures 6.6, 6.7 and 6.11.

6.7 Comparison with the results of the Marshall survey

One of the objectives of this work was to compare the results of the above survey with the results of the survey undertaken in 2007.

The geophysics plot from the Marshall record of the 2007 survey was added to and geo-positioned in the Ankerwycke image stack (Figure 6.12) and the anomalies highlighted and labelled with anomaly identifiers in the range M01 to M10 (Figure 6.13).

Further to this, the geophysics plot from the Burgess record of the 2007 survey (Burgess 2021 pers. comm.) showed more detail than the Marshall plot so it was also added to the Ankerwycke image stack (Figure 6.14). The anomalies were highlighted and labelled with anomaly identifiers in the range B02 to B07 so that the B and M references for an anomaly matched plus an additional 5 anomalies labelled B11 to B15. (Figure 6.15).

A comparison of the three survey plots (Figure 8.1) shows that in 2007 there were fewer fallen trees than in 2019. This is not surprising because Burgess was responsible for managing the site and hence clearing the trees. The net result was that the Marshall and Burgess survey were able to access several areas which we could not access in 2019. The similarities and differences found in the survey results are discussed in sections 8 and 9.



Figure 6.2. The survey grid with the short grid references (Scale 5mm : 20m)



Figure 6.3. Gradiometer survey of Priory field results (Scale 1: 10mm : 20m)



Figure 6.4. Gradiometer survey of Black Walnut Tree field results (Scale 10mm : 20m)



Figure 6.5. The position of the gradiometer surveys The small green images mark the priory ruins and the Ankerwycke yew For grey scales see figures 6.3 and 6.4. (Scale 5mm : 20m)



Figure 6.6. Priory field gradiometer anomalies The small green images mark the priory ruins and the Ankerwycke yew (Scale 10mm : 20m)



Figure 6.7. Gradiometer anomalies in Black Walnut Tree field (Scale 10mm : 20m)



Figure 6.8. 2019 resistance survey of the Priory gateway results (Scale 20mm : 20m)



Figure 6.9. 2019 resistance survey of the Priory and Priory field results (Scale 10mm : 20m)



Figure 6.10. Position of the 2019 resistance surveys The small green images mark the priory ruins and the Ankerwycke yew For grey scales see figures 6.8 and 6.9. (Scale 5mm : 20m)


Figure 6.11. 2019 resistance survey anomalies (Scale 10mm : 20m)



Figure 6.12. The Marshall record of the 2007 survey plotted on the 2019 survey grid The small green images mark the priory ruins and the Ankerwycke yew (Marshall 2007; Figure 5.2) (Scale 5mm : 20m)



Figure 6.13. Anomalies found in the Marshall record of the 2007 survey results The small green images mark the priory ruins and the Ankerwycke yew (Scale 10mm : 20m)



Figure 6.14. The Burgess record of the 2007 survey results The small green images mark the priory ruins and the Ankerwycke yew (Scale 10mm : 20m)



Figure 6.15. Anomalies found in the Burgess record of the 2007 survey results The small green images mark the priory ruins and the Ankerwycke yew (Scale 10mm : 20m)

7 The 2020 survey

7.1 **Objectives**

In 2020, the National Trust firmed up their plans for developments in Priory field. The plans covered the provision of:

- A ferry landing so that ferries plying along the River Thames can bring visitors to the site
- Footpaths around the site
- Notice boards to explain the site to visitors

In support of this work, the Society was invited to extend their 2019 geophysics survey to include the areas affected by these developments (Figure 7.1). The work was timed to coincide with the Council for British Archaeology Festival of Archaeology 24th October to 1st November 2020.

7.2 Overview of the work

The geophysics survey was conducted in accordance with the *EAC Guidelines for the use of geophysics in archaeology* (Schmidt *et al.* 2015). Within these guidelines, this was a level 1 prospection survey to identify areas of archaeological potential and individual strong anomalies.

7.3 The survey grid

The 2019 survey grid was re-established by Cotswold Archaeology.

7.4 The resistance survey

This survey was carried out during a period of fairly wet weather with several days when we were unable to work due to rain. This meant the ground was fairly wet after recent rain.

The data was collected using a TAR-3 resistance meter. Readings were taken at 1m intervals along traverses 1m apart, surveyed in a zigzag pattern. The meter settling and how the readings were processed using Snuffler (Sussex 2006) to produce a geophysics plot (Figure 7.2) are discussed in appendix F.

7.5 The Royal Commission and LIDAR surveys

Several of the geophysics anomalies seemed to be associated with the river channels so both the Royal Commission landscape survey (Figure 5.1) and the LIDAR survey plot (Figure 5.5) were added to the Ankerwycke image stack, geopositioned and the river channels highlighted and labelled. The results are shown in figures 7.4 and 7.5

Note: there are more anomalies in both these surveys which need to be assessed, highlighted and labelled.

7.6 Interpreting the results

This geophysics plot was loaded into the Ankerwycke image stack and geopositioned (see Appendix G). An additional layer was then created to highlight and assign identifiers in the range to the anomalies found in the geophysics plot (Figure 7.3). The 2020 resistance survey anomalies were assigned identifiers in the range R31 to 41 to differentiate them from the 2019 resistance survey anomalies in the range R01 to R21.

Using this as a basis, all the anomalies were then recorded in a Gazetteer (Appendix A) which recorded each anomaly in terms of:

- Its anomaly identifier
- A geophysics description of the anomaly: in terms of the geophysics evidence: for example, shape and electronic signature etc.
- Its relationship with other anomalies and known archaeological features: which records relationships with anomalies found in all the other layers of evidence particularly, the other geophysics layers, the LIDAR survey layer and the AOC assessment.
- An archaeological interpretation of the anomaly

Appendix A shows that the survey had identified over 70 anomalies.

A review of the results of the AOC assessment (Table 5.1), this survey (Appendix A) and the existing Berkshire Archaeology HER records for Ankerwycke showed that this work had produced a long list of archaeological evidence but that this mass of information would not lead directly to an understanding of the site and how it developed over the last 900 years.

The UK standard for recording heritage sites in Historic Environment Records is the UK Historic Environment Data Standard published by Historic England (MIDAS 2012). This suggested that the way forward was to produce a list of MIDAS compliant monuments.

The first step towards identifying monuments was to assign names to some of the major areas of the site. A review of the available documents (see Chapters 4 and 5 above) suggested that there were very few named areas of the Ankerwycke site. This situation was confirmed at a meeting with a National Trust historian. Furthermore, it became apparent that the Burgess 2006 map offered the best graphic to use as a basis for this work. However, the water way running past the priory raises some questions. It is recorded on the Berkshire Archaeology HER as a ditch or moat (Berkshire Archaeology HER 00032.04.000). However, this does not necessarily reflect its purpose. A review of water courses near priories suggested that in medieval times it was probably both a source of bulk water and provided drainage from an area which flooded. For this reason, this water course has been labelled as the Priory Field Channel.

Figure 7.6 shows the key features of the site with the names assigned its features.

The next step was to identify groups of anomalies and features which separately or together could be treated as a monument or group of monuments. The criteria used for grouping anomalies and features were:

- They were geographically adjacent
- They probably dated to the same chronological period
- The group supported a narrative which could be used to explain the results to the public and maybe a focus for further archaeological fieldwork

Figure 7.7 shows that this work identified 13 areas of archaeological and historic interest. They are:

- Ankerwycke pleasure grounds: a collection of monuments in the area north of the priory ruins
- Ankerwycke Priory field monuments: a collection of monuments which include the Priory Field channel, bridges and the ridge and furrow
- Ankerwycke building A
- Ankerwycke yew
- Ankerwycke priory
- Ankerwycke Tudor mansion
- Ankerwycke house: this was outside the scope of these surveys but is significant
- Ankerwycke garden
- Ankerwycke Swimming Pool Complex
- Ankerwycke boat houses: and adjacent monuments
- Ankerwycke Picnic house: and adjacent monuments
- Ankerwycke priory woodland monuments: a collection of monuments which occupy the area of woodland south of the Ankerwycke ruins between Priory Field and the East River Channel
- Ankerwycke Black Walnut Tree field monuments

The magenta text above identifies areas which probably have more archaeological and historic significance than those shown in green.

Viewing Ankerwycke from the point of view of areas of archaeological and historic interest is important because they provide foci for visitors walking round the site. They also help identify areas where further archaeological work may improve our understanding of the site.

Viewing Ankerwycke as a succession of landscapes is important if you want to understand the development of the site. These two views are complementary.

The four chapters which follow each describe one of Ankerwycke's four chronological landscapes. Within each chapter the presentation is in the order of the areas of archaeological and historic interest.



Figure 7.1. Objectives of the 2020 resistance survey FL: ferry landing; Black dotted line: hard path; Green dotted line: green path; Yellow squares: grids to be surveyed (Scale 10mm : 20m)



Figure 7.2. The 2020 resistance survey results (Scale 10mm : 20m)



Figure 7.3. Anomalies identified in the 2020 resistance results (Scale 10mm : 20m)



Figure 7.4. LIDAR plot highlighting the Priory Field channel anomalies with the survey grid



Figure 7.5. LIDAR anomalies plotted on the Royal Commission landscape survey



Figure 7.6. The Ankerwycke landscape features shown 1933 Ordnance Survey map



Figure 7.7. Ankerwycke archaeologically significant areas The magenta indicates areas of significant archaeological and historical interest The green indicates areas with lesser significant archaeological and historical interest (the background has transparent copies of the 2019 and 2020 resistance results and 20m x 20m grid squares)

8 The Medieval landscape

8.1 Ankerwycke pleasure grounds

It is quite likely that the line of the modern drive through the avenue of poplar trees and across the bridge over the North River Channel represents the medieval drive into the Ankerwycke Priory.

This could be confirmed if a geophysics survey of the fields to the north of the priory failed to find any evidence of a track and/or a trench across the causeway found many construction layers.

South of the bridge, anomaly R01 (Figure 6.11) which is at least 22m long and 10m to 12m wide and M01 (Figure 6.13) which is some 50m long and 4m wide at the southern end, show the progression of this line south of the bridge over the North River Channel to the Priory. It is possible that part of R01 may represent the remains of buildings.

Note: Underdown interpreted M01 as a possible road into the Tudor Mansion (Underdown 2007: 12, section 4.1.21).

The rest of this paper assumes that the modern drive was the way into the Priory, the Tudor mansion and the later Georgian to 20th century landscape.

8.2 Ankerwycke Priory Field monuments

8.2.1 The Priory Field Channel

The Royal Commission survey (Figure 5.1) and the LIDAR survey (Figure 5.5) both show evidence of distinct ridge and furrow and the Priory Field channel. They both show that the ridge and furrow appears on both sides of the channel. The Royal Commission survey shows the ridge and furrow crossing the channel but this is not supported by the LIDAR.

This evidence suggests that the ridge and furrow pre-dates the Priory Field Channel. The most likely scenario is that the ridge and furrow is medieval and the channel dates to the Tudor to Georgian period. This view is supported by the AOC scheduling document which describes the channel as a moat (AOC 2017: site 4). It is unlikely that a small nunnery would warrant having a moat; a moat was a feature of many Tudor houses.

8.3 Ankerwycke building A

The results of the 2019 gradiometer survey (Figure 6.6), the 2019 resistivity survey (Figure 6.11) and the 2020 resistivity survey (Figure 7.3) all show anomalies in this area. These are:

- R33 is 30m long and 10m wide. It is overlapped by R21 which is 40m long and 2m wide and anomaly R32. This difference may be due to the difference in soil conditions. R21 was collected when the soil was hot and dry. R33 was collected when the soil was very wet.
- G02 is an area with a scatter of anomalies which corresponds to R33. It is suggested that R33 is the best definition of a structure, Ankerwycke building A, and that given its size and its position at the head of the island and the documentary evidence that Ankerwycke priory held surrounding lands (Burgess 2021 pers. comm.), it may have been a tithe barn.
- R34 is an area of high resistance to the south of Ankerwycke Building A. It is also at the end of the trackway coming across the bridge at the south end of the avenue of trees. This suggests that this may represent the remains of a yard. This view is strengthened by the existence of a concrete structure in the wood just to the east of this anomaly.

A comparison of this anomaly with the Royal Commission survey (Figure 9.1) shows that this anomaly corresponds with a wide bank found in the landscape survey. This evidence suggests that R34 probably dates to the Tudor to Georgian period (see section 9.3).

8.4 Ankerwycke priory

Figure 8.1 shows the anomalies identified in the resistance survey results. From north to south, those that relate to the medieval priory are:

- R01 and M01 represent the drive into the Priory
- R03, M02 and B02 represent a structure which is some 25m long by 8m wide. This was identified by Marshall as evidence of a church. Given its proximity to the Ankerwycke Yew this may be any of:
 - The remains of the church shown on the Ankerwycke seal (Figure 4.1)
 - A side chapel to the main church
 - An associated public church
- R04, M03 and B03 represent a structure which is 32m long and 10m wide. This is probably the Priory church
- M04, B04 and part of B03 represent a structure which is about 8m square and may be the remains of the chapter house with a range of buildings which continues to the south as far as a building represented by anymoly M06 and probably linked to the scar found on the priory ruins



Figure 8.1. The resistance survey results for Ankerwycke priory area From left to right: 2019 anomalies 2006 Marshall anomalies 2006 Burgess anomalies

- R15, M07 and B07 represent a structure which is 30m long and 8m wide with at least 2 subdivisions. At the western end, the results are indistinct because there is a layer of broken concrete lying on the surface which are probably the remains of building X (Figure 10.1). If it continues under the concrete it could be as long as 42m (Figure 8.2). This structure is aligned to the priory ruins. The ruins show that it was 2 storeys high Both Marshall and Burgess argue that this was a platform (Marshall 2007; Burgess 2021 pers. comm.) but this interpretation is not supported by the evidence from the ruins. The photograph taken in early 20th century (Figure 8.3) shows no evidence of having floor joists which suggests it shows the north wall of the south range of buildings. The Marshall and Burgess proposals may give us insights into the use of this structure in the Tudor to Georgian period.
- R14 and M05 are on the west side of the priory but the evidence suggests that these are more likely to represent the remains associated with the Ankerwycke Tudor mansion than the Priory.
- B18 is an 8m x 8m rectangular anomaly which may be all that remains of the west range of Priory buildings

There is a host of anomalies B13, B14, B15, B16 and B17 to the north and east of the priory ruins. These may be outbuildings associated with either or both of the priory and /or the Tudor mansion.

A review of plans of medieval nunneries (Gilchrist 1994: 92–127) shows that the key to understanding the priory buildings at Ankerwycke is to identify the likely location of the cloister. The evidence from other priory sites (Coppack 1990: 61–80; Gilchrist 1994: 91–127); shows that for most sites one side of the cloister abuts the church and the range of buildings on the eastern side includes a chapter house. Furthermore, it shows that the cloister can be on either the south or the north side of the church and that in the London area there is a cluster of priories with their cloisters on the north side (Gilchrist 1994: 132).

In his report, Marshall identified anomaly R03 (M02) as the priory church and suggested that M03 was the chapter house and offered a possible location of the cloister.

In his report, Underdown suggests the cloister was 20m square but does not show its position (Underdown 2007: 12, section 4.1.22). His survey of the extant remains confirms that they are medieval and notes that at 2m up the east facing elevation of the wall there is a 10cm horizontal offset which probably supported floor joists (Underdown 2007: 5–6).

The above evidence suggests that the cloister abuts the south side of the priory church (anomalies R04, M03 and B03), the east side of the Priory East Range (anomalies M04 and B04) and the north side of the south range (anomalies R15, M07 and B07). The most likely evidence of a west range of building is anomaly B18. This suggests the cloister was 26m x 28m.

8.5 Ankerwycke garden

To the south of the priory ruins is anomaly R17 (M09) which is circa 36m west to east and circa 29m from north to south with paths across it. There may have been a garden here in medieval times but in this report, it is dated as being created in the Tudor to Georgian period.

8.6 Ankerwycke priory woodland monuments

The fish ponds were probably a medieval creation often associated with religious foundations to provide food.

8.7 The Medieval landscape conclusion

The Ankerwycke priory was constructed on an island of land bounded by the River Thames and the North and East River Channels. Part of the island, Priory Field, shows evidence of ridge and furrow cultivation. The *Valor Ecclesiasticus* suggests that in 1537 part of it was used as an orchard.

The main evidence which can be firmly dated to the medieval period are the priory buildings (Figure 8.4). They consisted of a cloister with a priory church on the north side R04, M03), an east range with a chapter house and other buildings (M04, M06) and a south range including the extant ruins (R15, M07, B07). One anomaly (B18) may represent the remains of the Priory's west range.

To the north of the main church is an anomaly (R03, M02, B02) which may be the remains of an earlier church, as presented on the Ankerwycke seal dated to 1194, a side chapel to the priory church or a church used by the public.

To the north there was Ankerwycke building A on the edge of the island which may have been a gatehouse, barns or a farm associated with the priory but more work is required to show that it dates to this time period.



Figure 8.2. Members of the Berkshire Archaeological Society standing along the southern edge of anomaly R15 (M07) with the priory ruins in the background.



Figure 8.3. The Ankerwycke priory ruins in the early 20th century

Figure 8.4. The Ankerwycke Medieval landscape with selected anomalies from the 2019, 2020 and Burgess 2006 resistance survey results. The background is the 2019, 2020 and Burgess geophysics plots (Scale 10mm : 20m)

9 The Tudor to Georgian landscape

Figure 9.1 shows the anomalies which probably relate to this landscape.

9.1 Ankerwycke Pleasure Grounds

The Wraysbury enclosure map (Figure 4.5) dates to 1800 and shows that north of the Tudor mansion were 2 linear features which relate the modern drive from Ankerwycke house to the Ankerwycke yew and down to Black Walnut Tree field. This suggests that this route was laid out before 1800 and as suggested above may be medieval.

9.2 Ankerwycke Priory Field monuments

9.2.1 The Priory Field Channel

The evidence outlined in section 8 shows that in 1537, Ankerwycke was located on an island bounded by three river channels which I have labelled the North, South, East River Channels.

The Oxford Archaeology 1993 auger survey by Bevan and Tilney (Keevill 1993) augered 9 bore holes (1-9) across the line of the Priory Field Channel (Figure 9.2). Their report recorded that they established a temporary benchmark at 15.54m and positioned 9 bore holes at an average height of 15.79m and penetrated to 14.49–14.72m (a depth of between 1.07m and 1.3m) when they encountered gravel. In the East River Channel their bore holes (20–22) reached gravel at 13.05–13.18m way below the levels reached in bore holes 1–8. These insights suggest that the Priory Field Channel was man made and quite shallow when compared with the river channels. Its relationship with the ridge and furrow in Priory Field suggests it is post medieval in date.

Figure 9.1 shows a close relationship between the LIDAR anomalies and the geophysics anomalies. This evidence suggests that there may have been three phases of development for the Priory Field Channel.

- **Phase 1** was from the confluence of Wraysbury Beck and North River Channel along line L03 and L04. This would have created a leat probably to bring fresh water from the Wraysbury Beck (Figure 7.6) to the Tudor mansion
- **Phase 2** was to create new channel along the line L01, L02 to L04. This would have created a canal to bring water from the River Thames to fill the channel.
- The pair of anomalies 8m apart (G04) which run along the line of L02 may represent some form of embankment along both sides of L02. They coincide with 2 ridges shown in the Royal Commission survey results.
- Note: there is another bank shown in the Royal Commission survey results which suggests that the west bank of this canal had to be rebuilt to make the canal either wider or narrower.
- Further south, R16 may represent a similar feature along the eastern bank of the L04 section of the channel
- **Phase 3** was the result of filling in section L02 of the channel to give us the landscape we see today

These channels do not appear on the 1800 Enclosure map or later maps.

Anomalies G05 with a high magnetic signature and R35 with a high resistance lie along the line L03. These suggest that, as part of the phase 1 to phase 2 reorganisation, a pipe running from the North River Channel to near to the Tudor house was laid along L03 before it was filled (Burgess 2021 pers. comm.). This would have continued the supply of fresh water from the Wraysbury Beck to the Tudor mansion.

9.2.2 Bridges over the Priory Field Channel

Anomaly R32 crosses anomaly L03 which suggests it may represent the remains of a bridge (Ankerwycke Priory Field bridge 1)

Similarly, anomaly R20 spans the anomaly L02, which suggests a new bridge was built when the new channel (L02) was cut. Hereafter, this is called Ankerwycke Priory Field bridge 2. This understanding that R20 may represent the remains of a bridge is strengthened by the fact that anomaly R36 runs westwards from the end of R20 and probably represents a path. A comparison with the Royal

Commission landscape survey suggests that the junction between R20 and R36 probably coincides with the top of a ridge of the ridge and furrow.

G01 which is shown with a dotted line because it represents an area some 10m in diameter without a distinct boundary. It is an area with a high magnetic signature which is overlapped by both R32 and R20 and hence may represent a large dump of material to create the bridge footings.

G12 and R09 plus evidence of a bank in the Royal Commission survey suggests they may represent another bridge over the Priory Field channel.

Figure 9.1. The Tudor to Georgian landscape with the 2019 and 2020 resistance survey and Royal Commission survey results as background (Scale 10mm : 20m)

Figure 9.2. Positions of the Oxford Archaeology 1993 auger survey bore holes plotted on the Royal Commission survey results (Keevill 1993: 43, Figure 2) (Scale 40mm : 100m)

9.2.3 Priory Field garden?

The AOC assessment records the existence of a walled garden (AOC 2015: site I) associated with the Smith (Tudor) mansion. There is an area south of Ankerwycke Building A and east of anomaly G05 where the LIDAR plot (Figure 7.4) shows features which may represent a garden.

No evidence of a garden was found in the 2020 resistance survey results.

9.3 Ankerwycke building A

Section 8.3 proposed that anomaly R33 and G02 may represent the remains of Ankerwycke building A which at that time was probably a tithe barn. The Wraysbury enclosure map dated to 1800 (Figure 4.6) shows two buildings at this location which suggests this building continued in use throughout this period.

Anomaly R34 is an area of high resistance to the south of Ankerwycke Building A. It is also at the end of the trackway coming across the bridge at the south end of the avenue of trees. This suggests that this may represent the remains of a yard. A comparison of this anomaly with the Royal Commission survey (Figure 9.1) shows that this anomaly corresponds with a wide bank found in the landscape survey which may suggest that the track passed Ankerwycke building A and continued down to the Tudor mansion and hence could have been a track into the building

This evidence suggests that during the Tudor to Georgian period, there was a change of use of Ankerwycke building A. It may have been reused as a farm in the period after the dissolution of the priory and before the Ankerwycke Tudor mansion was built and continued in that role until it was demolished.

9.4 Ankerwycke Tudor mansion

In 1551, Sir Thomas Smith built a mansion incorporating some of the priory buildings.

In 1993, TVAS excavated three trenches adjacent to the Priory ruins. In trenches A and B, they found two layers of demolition material and wall foundations (Ford 1993). This suggests that there was some demolition of the priory buildings before the construction of the Tudor mansion.

There are several anomalies which may represent parts of the Tudor mansion:

- Anomaly R14 is a rectangular anomaly some 13m west to east and 7m north to south. The western part corresponds to anomaly B12. The western end overlaps M12. The north side of R14 aligns with the south side of B05 and the north side of B13. The south side of R14 aligns with the north side of anomaly R15 (the north wall of the Priory south range), the extant priory ruins and the south side of B13. This suggests that the Tudor mansion may have been 48m long x 6m wide
- To the west of R14 is anomaly R13 running towards the Priory Field channel (Figure 6.11). This probably represents the remains of a drain
- To the north of R14 is B05 which records a mix of high resistance and out of range readings. This overlaps M05 and hence B05 probably represents a drive to the Tudor mansion or an area of demolition

To gain more insights into the Tudor mansion, it is interesting to compare the geophysics results with the picture of the Ankerwycke mansion which is dated to c. 1800 (Figure 4.4)) and shows a wide two storey building with rooms in the roof space and structures on the side and with the 1800 enclosure map which shows the house with two wings on the south side and structures on the north side (Figure 9.3). There are several possible interpretations of this evidence.

One interpretation is that the picture was drawn from the north east with the East River Channel in the fore-ground. This shows the northern side of the Tudor mansion with 4 structures which are comparable with the anomalies R14 and M05 (Figure 6.10). It also shows that the priory buildings to the east of the cloister (M04 and M06) had been demolished by 1800.

The other interpretation is that the picture was drawn from the south west with the Priory Field Channel in the fore-ground. In this case the structure on the near corner of the building could relate to the part of anomaly R18 on the south side of the garden. The picture shows a comparable structure on the other end of the building. This was not detected in either of the resistance surveys but is shown on the Enclosure map. The picture also shows a third structure in the middle of the building which is not visible in either of the resistance survey results or on the Enclosure map.

Figure 9.3. Understanding the Tudor mansion of 1800; comparing the picture with the Wraysbury Enclosure map

9.4.1 The Tudor outbuildings

To the north of anomaly R14 are anomalies B05, R05, R06 and M05; they all lie within the bounds of the suggested medieval cloister. Underdown suggests M05 may represent a dump of demolition debris arising from the demolition of the Tudor mansion (Underdown 2007: 12–13, section 4.1.25). The resistance survey results suggest R05 and R06 may represent the remains of outbuildings associated with the Tudor mansion.

There are a host of anomalies B14, B15, B16 and B17 to the north and east of the priory ruins. These may be outbuildings associated with either or both of the priory and /or the Tudor mansion.

9.5 Ankerwycke garden

The Ankerwycke garden is on a platform recorded in the Royal Commission landscape survey ((McOmish and Smith 1993). The platform was probably created using soil moved when digging the adjacent Priory Field Channel. Details of the garden first emerged in the Marshall resistance survey (Marshall 2007).

To the south of the priory ruins is anomaly R17 (M09 (Figure 8.1)) which is circa 36m west to east and circa 29m from north to south with paths across it. Where the paths cross there is a low resistance anomaly which may represent an ornamental pond (Figures 9.1 and 8.1). On the north, west and south sides is anomalies R18 (M09) which may be a walkway some 3.5m wide with boundary walls.

Between the outer wall of the garden and the Priory Field Channel are anomalies R16 (M08) and a little further west and on the same alignment anomaly G17. These may represent the remains of retaining walls along the Priory Field Channel.

9.6 Ankerwycke Picnic House

The Wraysbury Enclosure Map (Figure 4.4) shows a building on the banks of the River Thames to the west of the Tudor Mansion. This could well be the Picnic House.

9.7 Tudor to Georgian landscape conclusion

The above has shown that during this period. significant changes were made to this landscape.

At the north end of Priory Field, Ankerwycke building A was constructed with what appears to be a yard to the south. This may be the farm that is recorded as occupying the site after the Dissolution of the Priory. However, there also the possibility that this building dates to the medieval period serving roles such as the Priory gateway or a tithe barn.

In Priory Field, the Priory Field Channel phase 1 was dug probably to provide a water supply to the Tudor mansion. In the north, alongside Ankerwycke building A, there is evidence that may be the remains of a bridge across Priory Field channel phase 1 (Ankerwycke Priory Field bridge 1).

The evidence shows that at some later date, a pipe was probably laid along Priory Field Channel phase 1 and it was then filled in and Priory Field Channel phase 2 was dug. This seems to have taken the form of a channel 8-10m wide with banks which leave a trace in the 2020 gradiometer survey (anomaly G04). Furthermore, at the northern end a new bridge over the channel was built (Ankerwycke Priory Field bridge 2).

Around the Priory buildings, there is evidence that many of Priory buildings were demolished and soil imported to the site to raise ground levels and, to the south, create a platform for the Ankerwycke garden. In the 1560s, Sir Thomas Smith built Ankerwycke Tudor mansion and created the Ankerwycke garden. This survey has provided detailed evidence of the position of the mansion and its relationship with the priory buildings and of the garden.

10 The Georgian to early 20th century landscape

Figure 10.2 shows the features and anomalies which probably date to this period.

10.1 Ankerwycke pleasure grounds

It is likely that the avenue of popular trees and the brick ha-ha date to this period.

10.2 Ankerwycke Priory Field monuments

The 2020 resistance survey identified two anomalies R36 and R37, which are shadows of high resistance, leading towards the Ankerwycke boats houses. R36 aligns with a ridge of a ridge and furrow. R37 crosses several lines of ridge and furrow. Their alignment with the Ankerwycke boat houses suggests they represent a path or paths leading to the boat houses and hence date to this period.

While surveying the area to the west of the south range of the Priory building, evidence was found of a scatter of lumps of concrete which may be the remains of an agricultural building (Figure 10.2: anomaly X1. This was later confirmed by photographs of the building (Figure 10.1) (Burgess 2021 pers. comm.). This photograph shows a timber framed building with a tiled roof and concrete floor. The similarities between this building and the Picnic House (Figures 4.9 and 4.10) suggest that it dates to this period.

10.3 Ankerwycke building A

This is represented on the Wraysbury Enclosure map dated to 1800 (Figure 4.5) and was not represented on the Wraysbury Tithe map dated to 1840 (Figure 4.6) which suggests it had been demolished between 1800 and 1840. It is not shown in Figure 10.2, because it played no part in this landscape.

There is a more modern farm to the north of Ankerwycke house which may provide dating evidence to clarify this change to the landscape.

10.4 Ankerwycke house

Ankerwycke house was built in 1803 (see section 4.5). It is outside the scope of this work.

10.5 Ankerwycke Tudor house

It is understood that when Ankerwycke house was built and the Georgian landscape was created the majority of the priory buildings and the Tudor house were demolished, with the remains left as garden features. Anomaly M05 (Figure 6.13) may represent the demolition debris; it is not shown on Figure 10.2.

10.6 Ankerwycke garden

There is a marked difference between anomalies R17, R18 and M09 (Figure 8.1) showing a garden with paths across the middle and round the edge and the handkerchief image dating to 1785 (Figure 4.3). The garden format of four segments separated by paths is a typical feature of many Georgian/Victorian walled gardens, for example the Reading University botanical garden and many others. This suggests that the garden may have been reorganised and used as the kitchen garden for Ankerwycke house.

This view is supported by the diversion of the path from Ankerwycke house to the fishponds (anomaly R07).

10.7 Ankerwycke boat houses

As presented in section 4.5, two or three boat houses and a landing stage were constructed on the bank of the River Thames near to the confluence with the North River Channel. One boat house was constructed before 1897 with a second boat house and a landing stage being constructed between 1898 and 1899 (AOC 2017).

Anomaly R38 is a group of 4 large circular anomalies which probably represent the foundations of a post-built boat house which was built in 1898 to 1899 and is shown on the 1933 Ordnance survey map (Figure 4.7), on the aerial photograph (Figures 4.9 and 11.1) and as site M in the AOC assessment (Figure 5.4).

10.8 Ankerwycke Picnic House

The Maps and the aerial photograph dated to the 1940s show that the Picnic House remained throughout this period. The name of this feature probably dates to this period and gives us an understanding that it was used as a place for entertaining Ankerwycke house residents and house guests.

10.9 Georgian to early 20th century conclusion

The section has shown that the construction of Ankerwycke house transformed this landscape, to leave it much as we see today. Ankerwycke building A was demolished as was all of the Tudor mansion. The evidence suggests that the Ankerwycke Garden was transformed into a typical Victorian walled garden. Boat houses were constructed on the bank of the River Thames and the Picnic House became a place for entertainment.

Figure 10.1 Agricultural building to the west of the Priory ruins taken in 1980 (Figure 10.2: X1; Burgess 2021 pers. comm.; Paul Cull)

Figure 10.2 Georgian to 20th century landscape with selected anomalies from 2019 and OAC surveys (Scale 10mm : 20m)

11 The 20th century landscape

This landscape was created in the 1930s when the Swimming Pool Complex in Priory Field was built.

Key evidence of this landscape includes an aerial photograph dating to the late 1940s (Figure 11.1).

11.1 Ankerwycke pleasure grounds

There are no changes to the pleasure ground that can be dated to this period.

11.2 Ankerwycke Priory Field monuments

Anomalies R36 and R37 which are probably the remains of paths leading to the boat houses were probably still in use at this time.

Between the boat houses and the Swimming Pool Complex are two gradiometer anomalies G06 and G07 (Figure 11.4) which show evidence of heat. There are no corresponding anomalies in the 2020 resistance survey which suggest that these are probably the result of fires, most likely burning dead wood or rubbish from the demolition of the boat houses and/or the Swimming Pool Complex. Ankerwycke house was demolished in 1993 and it is likely that these remaining features were demolished at around that time.

Another feature is an old ferry landing (OLS) which is made of concrete and brick and corresponds to AOC 2017 site R. In Appendix B this has been labelled as Ankerwycke landing stage 2 because there are three across the site. Landing stage 1 is adjacent to the boat houses (AOC 2017 site N) and Landing Stage 3 is in woodland to the south of Black Walnut Tree field (AOC 2017 site W).

The agricultural building to the west of the Priory ruins (X1) was probably demolished when the site was cleared in the 1990s.

Figure 11.1. Interpretations of aerial photograph (Britain from Above EAW002309)

11.3 Ankerwycke building A

There is a brick and concrete structure in the woodland which may date to this period.

11.4 Ankerwycke boat houses

By the 1940s, the only boat house which appears in the aerial photograph is the one which probably corresponds to anomaly R38 and AOC 2017 site M. The AOC assessment identifies two more boat houses and a landing stage (AOC 2017 sites K and N). The 1937 Ordnance Survey map (Figure 11.2) only shows one boat house which suggests the others had been demolished.

11.5 The Swimming Pool Complex

The Swimming Pool Complex is well known. During the 2019 survey, several local people told us of the fun they had in earlier times swimming in it. Figure 11.2 shows that the complex consisted of a swimming pool, with to the north east two buildings: the men's and women's changing rooms (Burgess 2021 pers. comm.). The photograph (Figure 11.1) shows a building with a chimney which was probably the boiler house for heating the water. Figure 11.1 shows a white line which Burgess records as a wall (Burgess 2021 pers. comm.). Had this been a wall then it should have appeared as an anomaly in the geophysics surveys, which suggests it may have been a path.

The complex does not appear on the 1933 map (Figure 4.7) but it does appear in the 1940s photograph which suggests it was built in the late 1930s.

Anomalies G14 and R40 show that the pool itself was 30m long x 12m wide on an alignment of N45°W some 20m from the Thames' river bank.

- On the north east side of the pool, there is a line of anomalies. R39 represents the remains of a building. probably a changing room, and shows some of the floor plan. This building is also visible on the ground as ruts in the grass and on Google Earth as a crop mark (Figure 11.3: GE1). GE1 shows the internal layout of the building. Alongside this building is anomaly G08 which is 30m in diameter and suggests that a great deal of heat was generated in the area. This suggests R39 probably represents the boiler house.
- To the south east of R39 are anomalies R08 and R41; they refer to the same area of high resistance. This may be the second changing room represented on Google earth as GE2 (Figure 11.4).
- Between R39 and R08/R41) and to the south are three areas with a high magnetic signature. These probably represent the remains of fires burnt during the demolition of the Swimming Pool Complex.

To the south of the swimming pool is a curved anomaly R42 and its continuation R11. The eastern end of R11 coincides with a round man hole and a rectangular man hole cover identified in the AOC assessment (AOC 2017 sites U and V). The fact that these man holes are adjacent to the Priory Field Channel (L4) suggests that these represent the swimming pool drain.

To the north and east of the Swimming pool buildings are two anomalies G03 and G16. They are some 60 m long and are parallel. They have been interpreted as being the boundary fences of the Swimming Pool Complex, placed so as to keep visitors to the complex out of the areas round the boat house and the Picnic House.

North east of the Swimming Pool Complex is anomaly G09; a 7m x4m anomaly. There is no corresponding anomaly in the resistance survey. Its position with relationship to the Swimming Pool Complex suggests it is an unexplained part of the complex.

11.6 Black Walnut Tree field

Anomaly G24 identified in the gradiometer survey results (Figure 6.7) was on a line 40m long on an alignment N30°E. This is on a similar alignment to anomalies G03 and G16 so has been assigned to this date period. Along this line are three anomalies G23, G25 and G26. This line corresponds to a faint anomaly shown in the LIDAR plot.

Anomaly G27 is probably the result of the gradiometer reading taken close to the barbed wire fence.

A comparison of the gradiometer results with the 1940s aerial photograph (Figure 11.1) suggests that G23 may represent the remains of the building shown in the photograph.

11.7 20th century conclusion

The above has shown that in the late 1930's a Swimming Pool Complex was built in Priory Field on the bank of the River Thames and that in the 1990s all the structures on the site except for the priory ruins were demolished.

Figure11.2. Maps of the Swimming Pool Complex and surrounding area (Burgess 2021 pers. comm.)

Figure 11.3. Goole Earth image of the cropmarks in Priory field, Ankerwycke Goole Earth Ankerwycke 201638)

Figure 11.4. The 20th century landscape (Scale 10mm : 20m)

12 Overall conclusion

This work started as a geophysics survey to identify anomalies in three fields, but it has achieved much more.

The surveys covered two of the three fields and the area north of the priory. Around 4 hectares were surveyed using a gradiometer and about 3.6 hectares surveyed using a resistance meter. Over 70 anomalies were identified in the results (Appendix A).

A comparison of these anomalies with the AOC scheduling assessment has resulted in 85 monuments which could be recorded in a Historic Environment Record and 13 areas of archaeological and historic interest which could be used to describe the site to the public.

Analysis of these anomalies has shown that there are four landscapes embedded in in the land at Ankerwycke. These landscapes were:

- A medieval landscape with Ankerwycke priory sited on an island bounded by river channels and the River Thames. The priory was located south of the Ankerwycke yew and has been revealed to be a simple structure with a cloister with the priory church to the north, an east range with a chapter house and other buildings, and a two-storey south range. One anomaly may represent the remains of the Priory's west range. To the north of the priory church was another structure which may be the remains of an older church or a side chapel to the priory church. At the entrance to the island there may have been a tithe barn
- A Tudor to Georgian landscape: which developed following the dissolution of the Ankerwycke priory after which many of the Priory buildings appear to have been demolished. This landscape was centred on the Ankerwycke Tudor mansion which was built in the south west corner of the cloister and incorporated some of the Priory's south range of buildings. To the west of the Tudor mansion, in Priory Field, the Ankerwycke channel was dug. Over time this provided a supply of bulk water and a setting for the Tudor mansion. At the north end of the channel were structures, Ankerwycke building A which may have been a farm and bridges across the Ankerwycke channel. To the south of the Tudor mansion soil from the channel was used to construct a platform for an ornamental Ankerwycke garden
- A Georgian to early 20th century landscape: with at its centre, Ankerwycke House, a Georgian mansion built on land north of the priory. The then extant buildings of the priory and Tudor mansion were reduced to being garden features. The Ankerwycke garden seems to have been redeveloped to act as the kitchen garden for Ankerwycke house. The Ankerwycke channel was filled in, Ankerwycke building A was demolished and a new farm built to the north of Ankerwycke house. Along the River Thames boat houses and a Picnic House were constructed
- A 20th century landscape: which emerged, probably in the late 1930s, when the Georgian mansion was used as a nightclub. The key feature in this landscape was the Ankerwycke Swimming Pool Complex with a pool, changing rooms and a boiler house. In the late 1990's Ankerwycke house, the Ankerwycke Swimming Pool Complex, the boat houses and the Picnic House were all demolished

This survey shows a close link between the geophysics survey results and the available documentary evidence.

Appendix B lists the monuments identified in the results of the geophysics survey and other work on the site. It is hoped it will help explain the site to visitors and improve official records of the site.

Appendix A. Gazetteer of anomalies

This is a list of all the geophysics anomalies and the anomalies relating to the river channels found in the LIDAR results and features found in an aerial image taken from Google Earth.

Each anomaly is recorded in terms of:

- Its anomaly identifier
- A geophysics description of the anomaly: in terms of the geophysics evidence: for example, shape and electronic signature etc.
- Its relationship with other anomalies and known archaeological features: which recorded the relationships with anomalies found in all the other layers of evidence, particularly, the other geophysics layers, the LIDAR survey layer and the AOC assessment layer.
- An archaeological interpretation of the anomaly

Anomaly Id	Anomaly description	Relationship with other anomalies	Interpretation
B02	A rectangular anomaly 25m x 8m, with an open west end	Corresponds to R03 and M02	This represents the remains of a church to the north of the Priory church.
B03	A rectangular partially defined anomaly 37m x 10m	Overlaps R04 and M03	The Priory church. B03 gives the length of this building. The south end of B03 may represent the east wall of the Chapter house.
B04	An L shaped anomaly	This corresponds to M04	This probably represents the front of the Chapter house and the north east corner of the cloister. It may also represent the corner of one of the out houses of the Tudor mansion.
В05	A rectangular anomaly 20m x 7m with areas of high resistance and unassigned (too high to record) values	It overlaps the south west part of M05 and lies to the north of R14	This was interpreted as demolition debris in the Oxford survey (Underdown 2007)
B06	A linear anomaly 15m long	B06 overlaps M06	This may be part of either the priory or the Tudor mansion's outhouses so not assigned to a period
B07	An anomaly 37m x 8m	Corresponds to R15 and M07	The Ankerwycke priory south range of buildings

Anomaly Id	Anomaly description	Relationship with other anomalies	Interpretation
B11	An L shaped anomaly 7m x 5m	This corresponds to R05 and overlaps part of M05	This probably represents part of the Tudor mansion buildings. It may also represent the west side of the cloister but since this would lead to a very constrained cloister this interpretation is ruled out
B12	A small rectangular anomaly 5m x 4m	This corresponds to the east end of R14 and is aligned to the north side of B07 and R15	This is the west end of the Tudor mansion on the edge of the Burgess resistivity plot. R14 shows this anomaly extended further to the west
B13	An L shaped anomaly	This aligns to R14, B12 and the south side of B05	This probably represents the eastern end of the Tudor mansion
B14	A rectangular anomaly 6m x 6m	This aligns to the east side of the Priory ruins	This may be part of the Priory or the Tudor mansion
B15, B16 and B17	3 anomalies between the Priory ruins and the East River Channel	Standalone anomalies	These may represent outbuildings of either or both of the Priory and/or Tudor mansion
B18	A rectangular 4m x 4m anomaly	Stand alone	This may represent the remains of the west range of Priory buildings
G01	Scatter of anomalies with a high magnetic signature	This is overlapped by R20 in the north and R32 in the south and abuts R21. It lies at the head of anomaly G05	G01 probably represents either an area of trample by cattle or material used to support the bridges across the Ankerwycke Channel (Ankerwycke Priory Field Bridges 1 and 2)
G02	Rectangle of scatter of anomalies	This is overlapped by R21 and R32	G02 probably represents the remains of Ankerwycke Building A
G03	A faint 60m line of small point anomalies	It is on the same alignment as G16 and G24 and does not align to the ridge and furrow	G03 may represent a 20th century boundary line
G04	A pair of 80m linear anomalies about 8m apart	These run parallel to and on each side of LO2	G04 may represent the banks of a canal L02

Anomaly Id	Anomaly description	Relationship with other anomalies	Interpretation
G05	A 120m linear anomaly	G05, R35 and L03 are all exactly placed on this alignment	This may represent the remains of firstly Phase 1 of the Priory Field channel and then a pipe laid in the channel bottom before it was filled in
G06	Half of a 15m x7m oval area with positive and negative magnetic signatures	One of the anomalies of R38 (a boat house) lies on the edge of this anomaly	G06 may represent the remains of a fire burning demolition debris
G07	A 20m x 9m oval area with positive and negative magnetic signatures	None	G07 may represent the remains of a fire burning vegetation or demolition debris
G08	An 8m diameter positive magnetic signature anomaly at the centre of a 23m diameter negative magnetic signature anomaly	The centre of this anomaly overlaps the building represented by anomaly R39 and cropmark GE1 (Figure 11.3)	G08 has clearly been the centre of enormous heat and probably represents the boiler house for the Swimming Pool Complex. Unfortunately, no foundations to support this proposition have been found in the resistance survey. It may represent the remains of a fire burning debris from the demolition of the Swimming Pool Complex
G09	A small 7m x 4m rectangular anomaly	None	A small building, on the same alignment as the Swimming Pool Complex and hence has been dated to the 20th C
G10	A 10m diameter anomaly with a negative magnetic signature	This is aligned to anomalies G10, G10a, G11, R39 and R41 and cropmarks GE1 and GE2	All these anomalies signify the remains of the changing rooms on the north east side of the Swimming Pool Complex
Anomaly	Anomaly	Relationship with	Interpretation
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Id	description	other anomalies	Interpretation
G10a	Between G10 and G11 (not shown on figures) a 7m diameter anomaly	Next to G10, this almost exactly matches R08 and R41	This is in the range of buildings in the line of changing rooms
G11	A 9m diameter anomaly	Next to G10a	This is a building in the G10-G11 range. It probably matches GE2
G12	An anomaly with a right angle and a positive magnetic signature surrounded by a 10m diameter negative signature	This corresponds to R09	G12 and R09 are located on the west bank of the Priory Field Channel. Given their position alongside the priory and Tudor mansion, they may represent the remains of a bridge (Ankerwycke Priory Field Bridge 3)
G13	A 13m x 10m rectangular scatter of small anomalies	This is in the same location as R13. It aligns with R14	G13 may represent the western end of the Tudor mansion
G14	A 27m x 14m anomaly	This is a match to R40 which is slightly smaller. R10 shows the corner of the pool	G14, R40 and R10 record the magnetic signature of the swimming pool
G15	An 7m x 5m anomaly	None	This is not visible in the resistance meter survey so it probably does not represent the remains of a building
G16	A 60m long linear anomaly with a succession of small circular point anomalies	None	This probably represents a boundary associated with the Swimming Pool Complex
G17	A 40m linear anomaly with a high magnetic signature	This exactly matches the eastern of the pair of R16 anomalies	G17 probably represents a wall on the west side of the Ankerwycke garden
G18	A series of anomalies 20m x 18m	This matches M09 and R17	These anomalies represent the magnetic signature of the Ankerwycke garden

Anomaly Id	Anomaly description	Relationship with other anomalies	Interpretation
G19	A 6m diameter circular anomaly. It overlaps L04	This is located in the middle of the Priory Field Channel L04	This is probably the remains of a fire burning timber
G20-21	2 circular anomalies on the south bank of the Priory Field Channel	None	These probably represent the remains of fires
G22	A circular anomaly which lies in the bed of the Priory Field Channel	None	This probably represents the footprint of a fire
G23	An 8m x 8m anomaly	None	This may be the magnetic signature of the house shown in the aerial photograph (Figure 11.1)
G24	A 50m linear anomaly with a negative magnetic signature	This runs parallel with anomalies G03 and G16	G26 probably represents the remains of a boundary
G25	A 4m diameter anomaly	G25 overlaps anomaly G24	This may be the results of a fire associated with the demolition of anomaly G24
G26	A 5m diameter circular anomaly	May correspond to AOC 2017 site H	AOC 2017 site H is recorded as a pond
G27	An anomaly	None	This has no archaeological significance. It was caused by surveying within 5m of a barbed wire fence
GE1	A cropmark seen on a Google Earth image showing the foundations of a building (Figure 11.3)	Not assessable because GE2 could not be geopositioned	A building at the west end of the range of buildings on the north east side of the Swimming Pool Complex

Anomalv	Anomaly	Relationship with	Interpretation
Id	description	other anomalies	•
GE2	A cropmark seen on a Google Earth image showing the ""T" shaped foundations of two walls (Figure 11.3)	Not assessable because GE1 could not be geopositioned	One of the walls aligns with GE1, this may represent the eastern end of the range of buildings on the north east side of the Swimming Pool Complex
L01	A linear feature seen in the Lidar plot (Figure 7.4, 7.5 and 9.1) and the Royal Commission survey. It crosses the field to the north of Priory Field	None	A canalised river channel, probably dating to sometime between 1537 and 1800
L02	A linear feature (Figure 7.4, 7.5 and 9.1). On the Royal Commission survey, it is 135m long by 12m wide. On the LIDAR, it is 112m long by 9.5m wide	The pair of anomalies G04 run either side of L02	This is a continuation of L01. This has been interpreted as Priory Field channel phase
L03	A linear feature (Figure 7.4, 7.5 and 9.1). On the Royal Commission plot this is 133m long by 9m wide. On Lidar plot it is 115m long and 12m wide.	Anomalies G05 and R35 exactly match this anomaly	This has been interpreted as Priory Field channel phase 1 dated to the Tudor to Georgian period. G05 and R35 have been interpreted as showing a pipe laid in the channel before it was filled in

Anomaly Id	Anomaly description	Relationship with other anomalies	Interpretation
L04	A linear feature seen in the Lidar plot ((Figure 7.4, 7.5, 9.1 and many maps)	None	This is the southern end of the Priory Field Channel.
M01	A linear area of high resistance	This matches anomaly R01	M01 and R01 correspond to the modern path but probably dates from the medieval period
M02	A rectangular 20m x 8m anomaly with at least one partition	This corresponds to anomaly R03 and B02	M02 represents a church. This is probably not the main Priory church. It may represent the remains of an earlier church, as seen on the Ankerwycke seal, or a medieval church for the local population.
M03	An 18m x 10m anomaly	This corresponds to anomaly R04	M03 probably represents the east end of the Priory church
M04	An 8m x 8m anomaly	This corresponds to part of anomaly R06	This probably represents the remains of the chapter house and the northern end of east range of buildings which extended southwards to the priory ruins
M05	A 30m x 26m anomaly showing high resistance	Corresponds to R14 at the south east corner and R05 and R06. It overlaps B05 and B11	Comparison with the results of the 2019 survey suggests this represents some combination of the Tudor mansion at the south east corner, and in the northern part of the anomaly either demolition debris (Underdown 2007) or a Tudor mansion outbuilding
M06	A 12m x 12m anomaly	This is in an area which the 2019 were not able to survey	This probably represents the southern end of the range of buildings stretching from M04 to the priory ruins. The cloister would have been to the west of this line and south of M03
M07	A 40m x 8m anomaly west of the priory ruin	This corresponds to part of R15 and B07	This is the Ankerwycke Priory south range of buildings.
M08	2 linear anomalies over occupying an area 20m x10m	Corresponds to R16 and G17	These are certainly remains associated with the Ankerwycke garden, most probably the

Anomaly Id	Anomaly description	Relationship with other anomalies	Interpretation
			garden wall and green houses or sheds
M09	A 40m x 30m anomaly	This corresponds to R17	It represents the remains of a garden with paths and a central water feature
M10	A 30m linear anomaly and at least one other anomaly	These correspond to R18	They probably represent the southern wall of the garden and at least one associated building
M11	A 9m long slightly curved anomaly	The east end overlaps M12	This may be a pipe. The dating probably relates to M12
M12	A 7m x 8m hollow anomaly	This abuts M07 to the south	This probably represents part of the Tudor mansion
R01	A large almost rectangular 30m x10m area of high resistance	This matches anomaly M01	Together, they correspond to the modern path which probably dates from the medieval period
R03	An 18m x 8m anomaly with a partition	This corresponds to anomalies M02 and B02	It represents a church. This is probably not the main Priory church. It may represent the remains of an earlier church, as seen on the Ankerwycke seal, or a medieval church for the local community
R04	A 12m x 10m showing a high resistance hollow rectangular anomaly	This corresponds to anomaly M03	These probably represent the walls at the east end of the Priory church
R05	A 4m x10m high resistance anomaly	This corresponds to B11 and overlaps part of anomaly M05	There is no clear understanding of this anomaly. It may represent parts of the priory or the Tudor mansion
R06	A hollow rectangle of higher resistance	Corresponds to part of M05	The north and east edges probably coincide with the walls of the Priory Church and the Chapter house. R06 itself may represent a Tudor mansion outbuilding.

Anomaly	Anomaly	Relationship with	Interpretation
Id	description	other anomalies	
R07	A linear low resistance anomaly	None	This corresponds to the modern path and probably dates to the Georgian to 20th C period
R08	A small 4m diameter high resistance anomaly	Overlays G10a	This is positioned in the line of buildings on the north east side of the Swimming Pool Complex
R09	A small 4m diameter high resistance anomaly	This is in the same location as G12	G12 and R09 are located on the west bank of the Priory Field Channel. Given their position alongside the priory and Tudor mansion, they may represent the remains of Ankerwycke Priory Field Bridge 3
R10	A small high resistance anomaly on the corner of the 2019 geophysics survey grid	This corner matches part of R40	The 2020 survey shows that this is the edge of the swimming pool
R11	A 30m curved linear high resistance anomaly	This links with anomaly R41	The eastern end of R11 / R41 terminates at the man holes found in the AOC assessment (Figure 5.4 and Table 5.1 sites U and V). Together, they may represent a drain out of the Swimming Pool Complex.
R12	A 20m curved linear high resistance anomaly	This coincides with an anomaly (a bank) in the Royal Commission survey	This may have been an early fence line but cannot be dated with certainty
R13	A 10m x 2m high resistance anomaly	This overlays G13 and lies to the west of R14 and is out of alignment with the R15. and heads towards the Priory Field channel L04	This may be a drain from the Tudor mansion to the Priory Field channel
R14	A 12m x 6m solid rectangular high resistance anomaly	This corresponds to B12, overlays the south west corner of M05 and abuts R15 to the south and R13 and G13 to the west	This probably represents the remains of the Tudor mansion. This has been confirmed by the Thames Valley Services excavation (Ford 1993)

		•	<u>.</u>
Anomaly Id	Anomaly description	Relationship with other anomalies	Interpretation
R15	A 30m x 8m rectangular anomaly with partitions	This corresponds to anomaly M07 and is aligned to the extant priory ruins	R15 and M07 represent the western end of southern range of priory buildings, some of which were incorporated into the Tudor mansion
R16	A pair of 40m linear high resistance anomalies	This corresponds to anomalies G17 and M08	These are on the west side of the garden and may represent the garden wall and buildings (green houses, sheds) and on its western side
R17	A 40m x 30m anomaly	This corresponds to M09	It represents the remains of a garden with paths and a central water feature
R18	3 high resistance anomalies in an area about 30m in length	These correspond to M10	They probably represent the southern wall of the garden and at least one associated building
R20	A curved 30m x 4m high resistance anomaly	This overlaps the south side of G01 and spans L02 and abuts R36	This suggests that R20 may represent the remains of Ankerwycke Priory Field bridge 2
R21	A 40 x 5 or 6m anomaly	This overlaps R32 and R33 and with R31 abutting its north side	Some of this corresponds to Ankerwycke building A
R31	A 20m x 20m parallelogram area of higher resistance	None	Metalling or trample at the modern gateway into Priory Field
R32	A curved 15m x 4m high resistance anomaly	This overlaps with L03 and G01 and abuts with R31, R33 and R20	Probably represents the remains of Ankerwycke Priory Field bridge 1
R33	A 30m x 10m area of high resistance	This corresponds to anomalies R21 and G02	This represents the remains of Ankerwycke building A
R34	A T shaped 15m x 15m anomaly to the south of R33	This lies at the end of a branch of the drive into the Priory and The Tudor Mansion	This may represent a yard to the south of Ankerwycke building A
R35	A 40m linear anomaly	Exactly matches G05 L03	This may represent a pipe placed in the bottom of channel LO3 when it was filled in

Anomaly Id	Anomaly description	Relationship with other anomalies	Interpretation
R36	a 50m linear shadow of an anomaly	This abuts R20	A path from Ankerwycke Priory Field bridge 2 to the boat houses
R37	A 40 m slightly curved shadow of an anomaly		This crosses the ridge and furrow and heads towards the boat houses which suggests it may be the remains of a path
R38	A rectangle of 4 high resistance anomalies forming a pattern 12m x10m	This corresponds to AOC 2017 site M	These are probably the foundations of boat house in the OAC scheduling document
R39	An 8m x10m pattern of anomalies which represent a building	This probably corresponds to GE1	This is probably one of the buildings of the Swimming Pool Complex
R40	A 24m x10m high resistance anomaly	This corresponds to anomalies G14 and R10	They represent the swimming pool
R41	A 50 curved high resistance anomaly	This links with anomaly R11 and terminates at the man holes found in the AOC assessment (Figure 5.4 and Table 5.1 sites U and V)	These anomalies and features probably represent a drain out of the Swimming Pool Complex

Appendix B Ankerwycke monuments

The UK standard for recording heritage sites is the *UK Historic Environment Data Standard* published by Historic England (MIDAS 2012). This standard uses the generic term 'monument' to refer to an archaeological site or a standing historic building. From the point of view of an archaeologist its use is quirky but it serves a purpose and hence is used here.

The MIDAS standard

This standard was developed by the Forum on Information Standards in Heritage (FISH). The standard defines the information needed to record the historic environment and criteria for assessing compliance to the standard; a matter of concern when you consider that the local authorities across the UK are supporting more than 60 Historic Environment Record Authorities.

Figure B1 shows the overall shape of the information covered by the standard and that its principal subdivisions are:

- Themes: which are areas of interest
- Information Groups: which represent bodies of information

A typical example is the *Heritage Asset Theme* which includes details which describe heritage assets. From an archaeological standpoint these assets are: Monuments which represent sites, structures, features and standing monuments, and artefacts and ecofacts which represent archaeological finds and evidence found in ecological samples.





Registering monuments

According to Berkshire's HER officers, Historic England have assigned to them the responsibility for identifying and registering monuments in Berkshire.

With this in mind, this appendix is best seen as a set of proposals to Berkshire Archaeology as to one way of bringing together the geophysics anomalies identified in this report and the sites identified in the AOC assessment (AOC 2017) and the existing Berkshire Archaeology HER entries to create a list of monuments.

The list of monuments

This list of monuments only identifies potential monuments and the geophysics and site evidence which supports it. Developing a full MIDAS compliant definition of each monument is outside the scope of this work.

The entries in the table below hold the following information

- Provisional monument identifier: which is assigned for use in this document only.
- Heritage asset name
- **Monument level**: this records the archaeological abstraction and detail of each monument. For example, it allows us to record a drain M15-04 as consisting of a drain pipe and two manholes M15-041, M15-042 and M15-043
- **Supporting evidence**: this lists the geophysics anomalies and AOC sites which support the identification of this monument

All references to this paper are listed as Hutt 2021, this has been done to simplify the conversion of the table into MIDAS compliant records.

MonId	Heritage asset name	Monument level	Supporting evidence
Mon01	Ankerwycke scheduled monument	1	AOC 2017, Berkshire Archaeology HER 00032.00.000
Mon02	Ankerwycke yew	1	
Mon03	Ankerwycke priory upstanding remains	2	AOC 2017 site 2: these are a mix of medieval and Tudor house remains
Mon04	Ankerwycke Northern river channel	2	Hutt 2021 Figure 7.6
Mon05	Ankerwycke Eastern river channel	2	AOC 2017 site CC; Hutt 2021 Figure 7.6
Mon06	Ankerwycke Southern river channel	2	Hutt 2021 Figure 7.6
	Ankerwycke Marshall survey	2	AOC 2017 site C: this is really an archaeological event
Mon07	Ankerwycke pleasure grounds	1	This is an area of monuments which postdate 1800
Mon07- 01	Ankerwycke wrought iron gatepost	2	AOC 2017 site AA

MonId	Heritage asset name	Monument level	Supporting evidence
Mon07- 02	Ankerwycke modern building near Tudor house remains on 1933 OS map	2	AOC 2017 site O:
Mon07- 03	Ankerwycke popular footbridge	2	AOC 2017 site BB
Mon07- 04	Ankerwycke modern building at west end of priory southern range of buildings	2	Hutt 2021: X1
Mon07- 05	Ankerwycke drive (the modern road/path)	2	This starts south of Ankerwycke house and includes the avenue of trees and the embankment with the modern road, the bridge and the modern path, past the Ankerwycke yew over the priory remains and on south into Black Walnut Tree field. Hutt 2021: M01, R01, R07
Mon08	Ankerwycke Priory Field monuments	1	Hutt 2021 Figure 7.7. These are all the monuments excluding those around the gateway, the boat house, the Swimming Pool Complex, and the Picnic House. This is a composite of the level 2 monuments
Mon08- 01	Ankerwycke Priory Field Channel	2	Hutt 2021 L02, L03, L04; Berkshire Archaeology HER 00032.04.000
Mon08- 011	Ankerwycke Priory Field Channel Phase 1	3	Hutt 2021 L01, L03, L04
Mon08- 012	Ankerwycke Priory Field Channel Phase 2	3	Hutt 2021 L01, L02, L04
Mon08- 013	Ankerwycke Priory Field Channel Phase 3	3	Hutt 2021 L01, L04
Mon08- 02	Ankerwycke Priory Field Ridge and Furrow	2	RCHME survey; LIDAR; AOC 2017 site A; Berkshire Archaeology HER 00032.00.001
Mon08- 03	Ankerwycke Priory Field bridge 1	2	Hutt 2021 R32
Mon08- 04	Ankerwycke Priory Field bridge 2	2	Hutt 2021 R20
Mon08- 05	Ankerwycke Priory Field bridge 3	2	Hutt 2021 G12, R09
Mon08- 06	Ankerwycke Priory Field garden	2	AOC 2017 site I: this is on top of a filled in river channel
Mon08- 07	Ankerwycke paths to boat houses	2	Hutt 2021 R36, R37

MonId	Heritage asset name	Monument level	Supporting evidence
Mon08- 08	Ankerwycke small building in Priory field	2	Hutt 2021 G05 no resistance survey of this area
Mon08- 09	Ankerwycke landing stage 2	2	AOC 2017 site R
Mon08- 10	Priory Field demolition sites	2	Hutt 2021 G06, G07
Mon09	Ankerwycke building A	1	Hutt 2021 This is a composite of the level 2 monuments
Mon09- 01	Ankerwycke building A	2	Hutt 2021 G02, R21 and R33
Mon09- 02	Ankerwycke building A yard	2	Hutt 2021 R34
Mon10	Ankerwycke priory	1	This is a composite of the level 2 monuments; Berkshire Archaeology HER 00032.01.000; MRM15785
Mon10- 01	Ankerwycke priory chapel	2	Hutt 2021 B02, M02, R03
Mon10- 02	Ankerwycke priory cloister	2	Deduced from other evidence; Hutt 2021 B04, M04
Mon10- 03	Ankerwycke priory church	2	Hutt 2021 B03, M03, R04
Mon10- 04	Ankerwycke priory chapter house		Hutt 2021 B04,
Mon10- 05	Ankerwycke priory eastern buildings	2	Hutt 2021 M04, R06, M06
Mon10- 06	Ankerwycke priory southern buildings	2	AOC 2017 site B; Hutt 2021 G13, M07, R15
Mon10- 07	Ankerwycke priory finds	2	AOC 2017 13 Berkshire Archaeology HER MRM18231
Mon11	Ankerwycke Tudor mansion	1	AOC 2017 site D. This is a composite of the level 2 monuments
Mon11- 01	Ankerwycke Tudor mansion house	2	AOC 2017 site 10, TVAS (Ford 1993); Hutt 2021 M05, R13, R14; Berkshire Archaeology HER MRM15785
Mon11- 02	Ankerwycke Tudor mansion outbuildings	2	AOC 2017 site E, Hutt 2021 R05
Mon12	Ankerwycke garden	1	This is a composite of the level 2 monuments
Mon12- 01	Ankerwycke garden paths	2	Hutt 2018 G18, M09, R17

MonId	Heritage asset name	Monument level	Supporting evidence
Mon12- 02	Ankerwycke garden water feature	2	Hutt 2018 M09, R17
Mon12- 03	Ankerwycke garden western wall and buildings	2	Hutt 2021 G17, M08, R16
Mon12- 04	Ankerwycke garden southern wall and buildings	2	Hutt 2021 M10, R18
Mon12- 05	Ankerwycke building platform	2	AOC 2017 site B; This is the garden platform
Mon13	Ankerwycke priory woodland	1	This is an area of wood land south of the extant priory ruins and between priory field and the Eastern River Channel
Mon13- 01	Ankerwycke fishpond 1	2	AOC 2017 site 3; maps and LIDAR; Berkshire Archaeology HER 00032.02.000
Mon13- 02	Ankerwycke fishpond 2	2	AOC 2017 site 3maps and LIDAR; Berkshire Archaeology HER 00032.02.000
Mon13- 03	Ankerwycke fishponds nearby steps and walling	2	AOC 2017 site L; Berkshire Archaeology HER 00032.02.000
Mon13- 04	Ankerwycke site Z	1	AOC 2017 site Z
Mon14	Ankerwycke boat houses	1	This is a composite of the level 2 monuments
Mon14- 01	Ankerwycke boat house 1	2	AOC 2017 site K
Mon14- 02	Ankerwycke boat house 2	2	AOC 2017 site M; Hutt 2021 R38
Mon14- 03	Ankerwycke boat house and landing stage	2	AOC 2017 site N
Mon15	Ankerwycke Swimming Pool Complex	1	AOC 2017 site P This is a composite of the level 2 monuments
Mon15- 01	Ankerwycke swimming pool	2	Hutt 2017 G14, R10, R40
Mon15- 02	Ankerwycke Swimming Pool Complex: boiler house	2	Hutt 2021 G08, R39, GE1

MonId	Heritage asset name	Monument level	Supporting evidence
Mon15- 03	Ankerwycke Swimming Pool Complex: north east buildings	2	Hutt 2021 G10, G10a, G11, R08, R39, R41, GE1 and GE2
Mon15- 04	Ankerwycke Swimming Pool Complex: drain	2	A pipe and two man holes
Mon15- 041	Ankerwycke Swimming Pool Complex: drain pipe	3	Hutt 2017 R11, R41
Mon15- 042	Ankerwycke Swimming Pool Complex: drain, man hole cover	3	AOC 2017 site U
Mon15- 043	Ankerwycke Swimming Pool Complex: drain, square man hole	3	AOC 2017 site V
Mon15- 05	Ankerwycke Swimming Pool Complex boundary 1	2	Hutt 2021 G03
Mon15- 06	Ankerwycke Swimming Pool Complex boundary 2	2	Hutt 2021 G16
Mon16	Ankerwycke Picnic House	1	This represents a collection of monuments
Mon16- 01	Ankerwycke Picnic House building	2	AOC 2017 site G
Mon16- 02	Ankerwycke Picnic House steps	2	AOC 2017 site J
Mon16- 03	Ankerwycke Picnic House concrete and brick footings	2	AOC 2017 site S
Mon16- 04	Ankerwycke Picnic House curvilinear brick feature	2	AOC 2017 site T
Mon17	Ankerwycke Black Walnut Tree field	1	This is a composite of the level 2 monuments
Mon17- 01	Ankerwycke Black Walnut Tree field paleochannel	2	AOC 2017 site 11; Berkshire Archaeology HER MRM16166
Mon17- 02	Ankerwycke Black Walnut Tree field building	2	Hutt 2021 G23
Mon17- 03	Ankerwycke Black Walnut Tree field boundary	2	Hutt 2021 G24

MonId	Heritage asset name	Monument level	Supporting evidence
Mon17- 04	Ankerwycke Black Walnut Tree field pond	2	AOC 2017 site H; Hutt 2021 G26
Mon17- 05	Ankerwycke Black Walnut Tree field landing stage	2	AOC 2017 site W
Mon17- 06	Ankerwycke Black Walnut Tree field paleochannel and prehistoric pottery	2	AOC 2017 site 11
Mon17- 07	Ankerwycke Black Walnut Tree Field ridge and furrow	2	AOC 2017 site Q: the AOC plot varies from the LIDAR plot
Mon17- 08	Ankerwycke Black Walnut Tree landing stage	2	AOC 2017 site W
	Not assigned to a monument Hutt 2017 G09, G15, G19, G20, G21, G22, G25, G26, G27, R12, R31, R36		

Appendix C The survey grid

In 2019, John Cook (Archaeology South-East) established a survey grid across Priory field and Black Walnut Tree field 2 and into the lower part of Orchard field using a Leica GPS with mm accuracy. Points were located every 20m apart south to north and 20m or 40m apart west to east. The results are shown in Figure C1. In 2020, this grid was re-established by Cotswold Archaeology.



Figure C1. Grid survey points overlaid on an Ordnance Survey map (Cook 2019)

Figure C1 shows grid references for identified grid points in pairs across the grid, but they are barely legible. These points are spelt out in Table C1 below

500160 172850	500280 172850				
	500280 172770		500400 172770		
		500320 172630	500400 172630		
			500400 172570		
				500420 172490	500480 172490
					500480 172430

Table C1. Grid points identified in Figure C1

Appendix D The 2019 Gradiometer surveys

The gradiometer surveys in Priory field and Black Walnut field were treated in the same way. The position of the gradiometer surveys is shown in Figure 6.5. The data was collected using a Bartington 601 gradiometer with 2 sensors using a zigzag pattern of traverses. The data was downloaded using the Snuffler software package (Snuffler 2006). Figures D1 and D2 show the filenames used to hold the raw data from Priory field and Black Walnut Tree field respectively.

- File names of the form G1_, hold data from the grids in Priory field and Black Walnut Tree field where we could collect all the data using traverses surveyed in a northerly direction starting at the bottom left-hand corner of a grid
- File names of the form G2N_n hold data that was collected from grids which were surveyed in a northerly direction starting at the bottom left-hand corner of a grid
- File names of the form G2S_n hold data that was collected from grids which were surveyed in a southerly direction starting at the top right-hand corner of a grid

Within Snuffler, maps which were created to integrate the files together and copies of maps (known as views) were then made for processing and viewing. The data was clipped to a range of -15.0 to +15.0 nano-teslas and processed using the following filters:

- Destripe vertically using a zero mean line algorithm
- Modify the data in 6 grids X24 Y69; X26 Y69; X28, Y 69; X24 Y71; X26, Y71 and X28 Y71 by subtracting 5.5 from the collected values and thereby bring them in line with the rest of the grid

The results are shown in Figures 6.3 and 6.4.

⊦ 5002	200	X	24	X2	28	Х	32	X	36	X	40
7									G25_31	G1_59	G1_6
								G25_30	G25_29	G1_57	G1_5
'								G25_28		G1_55	G1_5
							G25_27	G1_5 1	G1_52	G1_53	G1_5
65						G2S_26	G2S_25	G2N_24	G1_49	G1_50	
					G25_22	G1_43	G1_44	G2N_23	G1_47	G1_48	
9					G25_21	G1_1	G1_2	G1_3	G1_4		
, [G25_20	G25_19	G25_18	G1_5	G1_6	G1_7	G1_8		
			GR1_14	G1_15	G1_9	G1_10	G1_11	G1_12	G1_13		
, [G1_16	G1_17	G1_18	G1_19	G1_21	G1_22	G1_23		
			G1_24	G1_25	G1_26	G1_27	G1_28	G1_29	G1_30		
				G1_31	G1_32	G1_33	G1_34	G1_35	G1_36		
'[G1_38	G1_39	G1_40	G1_41			
1											

Figure D1. Priory field gradiometer survey filenames (Scale 10mm : 20m)



Figure D2. Black Walnut Tree field gradiometer survey filenames (Scale 10mm : 20m)

Appendix E The 2019 resistance surveys

These resistance surveys were conducted using a Frobisher TAR 3 resistance meter from RM Frobisher (1986) Ltd. It is fully digital and designed specifically to measure the resistance of the soil/ground. It does not use the "switched rectified voltage" method used in non-fully-digital meters, so users do not need to concern themselves with the settings for the internal resistance (internal impedance) of the meter. For this reason, readings for the meter's settings for gain, target current and frequency are not included in this report. For more details of the how this meter records resistance data please contact the manufacturer.

The position of the surveys is shown in Figure 6.10. The data was collected grid by grid using zig zag pattern of traverses. The data was recorded in two TAR-3 datafiles and downloaded into the Snuffler software package (Snuffler 2006).

Figure E1 shows the Snuffler file names used to hold the raw data.

- File names of the form R1_n hold data that was collected from grids which were surveyed in a northerly direction starting at the bottom left-hand corner of the grid.
- File names of the form R2N_n hold data that was collected from grids which were surveyed in a northerly direction starting at the bottom left-hand corner of the grid.
- File names of the form R2S_n hold data that was collected from grids which were surveyed in a southerly direction starting at the top right-hand corner of the grid

The data was downloaded using the Snuffler software package (Snuffler 2006).



Figure E1. 2019 resistance survey filenames (Scale 10mm : 20m)

Appendix F The 2020 resistance survey

This resistance survey was conducted using a Frobisher TAR 3 resistance meter from RM Frobisher (1986) Ltd. It is fully digital and designed specifically to measure the resistance of the soil/ground. It does not use the "switched rectified voltage" method used in non-fully-digital meters, so users do not need to concern themselves with the settings for the internal resistance (internal impedance) of the meter. For this reason, readings for the meter's settings for gain, target current and frequency are not included in this report. For more details of the how this meter records resistance data please contact the manufacturer.

Figure 7.3 showed the area which was surveyed. The individual grids were surveyed using a zigzag pattern of traverses. The data collected in three TAR-3 datafiles and downloaded into the Snuffler software package (Snuffler 2006). Figure F1 shows the Snuffler file names used to hold the raw data.

- File names of the form R3_n hold data that was collected from grids which were surveyed in a
 northerly direction starting at the bottom left-hand corner of the grid
- File names of the form R4N_n hold data that was collected from grids which were surveyed in a northerly direction starting at the bottom left-hand corner of the grid
- File names of the form R4S_n hold data that was collected from grids which were surveyed in a southerly direction starting at the top right-hand corner of the grid
- File names of the form R5_n hold data that was collected from grids which were surveyed in a northerly direction starting at the bottom left-hand corner of the grid

The data was downloaded using the Snuffler software package (Snuffler 2006).

 			R3_7	R3_8	R3_9	R3_10		
	R3_20	R3_19	R3_1	R3_2	R3_3	R3_5	R3_6	
	R3_18	R3_17	R3_11	R3_12	R3_13	R3_15	R3_16	
R3_23	R3_21	R3_22			R5_1	R5_2	R5_3	
R3_26	R3_24	R3_25						
R45_3	R4N_1	R4N_2						
	R4S_4	R45_6	R4S_5	R4N_9	R4N_10			
			R4N-11	R4N_12	R4N_13			
			R45_14	R4N_15	R4N_16			

Figure F1. 2020 resistance survey filenames

Appendix G The Ankerwycke image stack

The details from the survey were integrated together using Adobe Illustrator, which holds a series of map layers of information. They were created in Illustrator rather than a Geographic Information System (GIS) because while the facilities for handling the mapping information are similar the drawing facilities in Illustrator are much better.

This table (G1) lists the layers used to hold this mapping information. It is provided here because, at some point in the future, the layers are likely to be recreated in a GIS. There are two types of layers:

- Raster layers: that contain an image which has been geo-positioned in the stack
- Vector layers: which are points, lines and text

The order of the layers is significant because in both systems the layers higher in the table will overlay those lower down.

Layer identifier	Layer type	Layer contents
L22	Vector	New fence line
L34	Vector	NT Structures
L47	Vector	Old Landing stage
L10	Vector	Priory ruin
L10	Vector	Priory ruin and Yew
L23	Vector	20 th century landscape
L143	Vector	Georgian to 20th C landscape
L21	Vector	Tudor to Georgian landscape
L20	Vector	Medieval landscape
L25	Vector	Cloister
L48	Vector	Archaeological areas
L100	Vector	LIDAR anomalies
L103	Vector	Burgess 2007 resistance plot anomalies
L21	Vector	Marshall 2007 resistance plot anomalies
L40	Vector	Resistance 2020 survey anomalies
L20	Vector	Resistance 2019 survey anomalies
L19	Vector	Gradiometer anomalies Black Walnut Tree field
L18	Vector	Copy of G05 anomaly
L17	Vector	Gradiometer anomalies Priory field
L37	Vector	Resistance 2020 survey file names
L16	Vector	Resistance 2019 survey file name
L15	Vector	Gradiometer survey file names
L14	Vector	Survey grid points along X500400
L13	Vector	Survey grid points along Y172550
L12	Vector	Survey grid points (the X and Y values)
L11	Vector	Survey grid lines
L50	Vector	2020 survey objectives

L38	Raster	Resistance 2020 results
L9	Raster	Resistance 2019 result: Priory field north
L71	Raster	Burgess 2006 resistance plot
L99	Vector	Construction layer
L8	Raster	Resistance plot 2019: Priory field and priory
L7	Raster	Resistance plot; Marshall 2007 survey
L6	Raster	Gradiometer survey results: Black Walnut Tree field
L5	Raster	Gradiometer survey results Priory field
L4	Vector	100m grid on OS background
L101	Raster	LIDAR B&W
L2	Raster	Survey grid and OS data
L2	Raster	Walk over survey
L1	Raster	Royal Commission earthwork survey

Table G1. Layers in the Ankerwycke image stack

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