THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

Shrawardine Castle, Shropshire

ARCHAEOLOGICAL SURVEY

CPAT Report No 436

CPAT Report No 436

Shrawardine Castle, Shropshire

ARCHAEOLOGICAL SURVEY

N W Jones

January 2002

Report for Montford Parish Millennium Green Trust

The Clwyd-Powys Archaeological Trust
7a Church Street, Welshpool, Powys, SY21 7DL
tel (01938) 553670, fax (01938) 552179

CONTENTS

ILLUSTRATIONS

1 INTRODUCTION

1.1 The Contracts Section of the Clwyd-Powys Archaeological Trust (CPAT) was approached in August 2001 by Joanne Barnes, Shrewsbury and Atcham Borough Council, on behalf of the Montford Parish Millennium Green Trust, to produce a quotation and specification for detailed topographical and geophysical surveys of Shrawardine Castle, Shrewsbury, Shropshire (SJ 4007 1539). The proposals were duly accepted and the work was undertaken during the last two weeks of August 2001.

1.2 The surveys form part of a programme of works in connection with the Montford Parish Millennium Green Trust, with funding awarded from the Local Heritage Initiative, which has already included essential repairs to the castle masonry. The aim of the present phase of work, of which the surveys form a part, is the production of a Management Plan, an interpretative booklet and an exhibition.

2 LOCATION AND TOPOGRAPHY

2.1 The village of Shrawardine lies around 9km east of Shrewsbury, occupying higher ground to the north and east of the River Severn (SJ 400 153). The remains of the castle stand in an undulating pasture field on the east side of the village (Plates 1-2).

2.2 At the time of the survey, during late August 2001, the grass was generally fairly well-grazed, with the exception of the fenced enclosure surrounding the castle mound which had to be cut before work could commence. The only area where the vegetation was a problem was a steep bank to the east of the castle, with the result that the geophysical survey omitted the slope itself.

3 HISTORICAL BACKGROUND

3.1 The documentary history of Shrawardine has already been covered in some detail by Morriss (1998), and much of what follows has been drawn from this source. The exact origin of the settlement is uncertain, although there was certainly a manor here before 1086. The placename has undergone a number of changes, being recorded at Domesday as *Saleurdine*, in 1165 as *Shrewardine* and in 1166 as *Shrawurdin* (Ekwall 1977, 420) and more colloquially as *Shraden* or *Shraden Magna*. The second part of the name probably derives from the Old English *wordign*, meaning an enclosed settlement, while the first part has been attributed as a possible personal name (Gelling 1990, 266-7) or from the Old English *scræf*, meaning hollow, possibly referring to Shrawardine Pool (Ekwall 1977,40). The nature of any Saxon settlement is uncertain although an estate map of 1728 (SRRC 552/8/352; fig. 2) records land to the south of the lane to Montford as 'Old Camp' and shows a curving boundary with the words 'the inclosure for the (illegible) Camp of the Mercians of the Saxon Heptarchy'.

3.2 The settlement would appear to have developed in association with an important ford across the River Severn. Not unexpectedly there is no mention of any fortification in the Domesday Book, but a Norman motte was constructed here and another on the opposite bank at Little Shrawardine to defend the crossing. It is likely that the motte at Shrawardine was built during the mid 12th century and was held by the Crown, and there are records of money spent on repairs from 1165 to 1214. The following year, 1215, Llywelyn captured Shrewsbury and it is thought likely that he destroyed Shrawardine in the same offensive.

3.3 The rebuilding of the castle was ordered by Henry III in 1220, but in 1229 the castle-guard duties were transferred to Montgomery, suggesting that the Crown was no longer interested in refortifying the castle. At some point after this, the castle appears to have come into the possession of the Fitzalans who renamed it Castle Isabel. Although the Fitzalan estates were forfeited and later reinstated at various times over the following three centuries they were still held by Philip Howard, grandson of Henry Fitzalan, Earl of Arundel in 1583, at which point Shrawardine was sold to Sir Thomas Bromley, Lord High Chancellor to Elizabeth I. Shrawardine is depicted by Christopher Saxton in 1577 surrounded by a park pale, suggesting that the Fitzalans may have developed the castle into a country estate before it was sold. This depiction was later copied by John Speed in 1611 (fig. 1)

3.4 During the Civil War the castle was held by Sir Henry Bromley for the Royalists, during which time it may have been strengthened. Following the fall of Shrewsbury in February 1644 the chancel of

Shrawardine church was pulled down to prevent its use by Parliamentary snipers. In June 1645 more of the church was pulled down and it was later reported in the parish records that 'the outbuildings of the castle, the parsonage house and the greatest, fairest and best part of the Town were burnt for the safety (as it was pretended) of the garrison' (Auden 1895, 140). Despite this the castle was surrendered on the 29th June. Within two weeks of the fall of Shrawardine the castle was apparently burned, after which it became a convenient quarry for building stone, initially for repairs to Shrewsbury castle.

3.5 The earliest detailed cartographic evidence is provided by a map of the Bromley Estate in Shrawardine, dated 1728 (SRRC 552/8/306; fig. 2). The area of the castle is recorded as being Castle Court, let to Edward Parton. The map depicts the castle mound with three surviving masonry fragments and it suggests that the castle was roughly rectangular in plan. There is also interesting detail regarding parts of the castle defences and bailey, as well as details of houses to the west of the castle. A plan of 1824 (SRRC 552/8/352; fig. 3) shows the castle mound with three sections of masonry but in no real detail.

3.6 During the early 19th century the estate came into the possession of the Earl of Powis who began the construction of a new house called Shrawardine Castle to the north of the village. The 3rd Earl, Edward James Herbert, was responsible for undertaking excavations on the castle soon after he inherited the title in 1848. Much stonework was revealed as well as artefacts including an iron key, tiles and both human and animal bones.

3.7 19th-century cartographic evidence sheds little light on the form and extent of the castle. The Shrawardine Tithe survey of 1844 (fig. 4) shows the site of the 'Old Castle' with some remnants of masonry, as well as a house between the castle and the church, the pool to the north and an adjacent house. The Ordnance Survey 1st edition 25" of 1882 (fig. 5) and 2nd edition of 1902 (fig. 6) both show the castle mound with a surviving stretch on masonry on the west side, as well as the pond and a house to the north.

3.8 The expansion of the village during recent years has led to a series of archaeological evaluations being undertaken to the south of the castle mound (see fig. 7), the results of which have confirmed the presence of the bailey ditch as well as revealing a 12th-century pottery kiln (Hannaford 1991; Hannaford 1992; Hannaford and Phillpotts 1994).

4 TOPOGRAPHICAL SURVEY

4.1 The survey was conducted using a Wild TC500 total station in conjunction with Penmap survey software. The survey included the top and bottom of all visible earthworks together with outlines of surviving masonry and modern boundaries. In addition, readings were taken over the entire site on an approximate 3m grid to allow a contour model to be produced of the area. In all a total of 4764 points were recorded. The survey was related to Ordnance Datum and the data coded using a standard set of layers, a list of which is provided with the project archive.

4.2 Following the completion of the survey, post-survey processing employed AutoCAD13 to position the survey data against the Ordnance Survey National Grid, achieved as a best fit against surveyed boundaries.

4.3 A contour model (fig. 7) has been produced with contours at 0.2m intervals, clearly showing the surviving earthworks. This has been used as a basis for producing a hachured plan of the surveyed earthworks (fig. 8). Further processing of the data has also enabled the production of a relief shade model (fig. 9), which gives an impression similar to that of a vertical aerial photograph. The results from the survey have shed further light on the earthwork remains of the castle and surrounding landscape, details of which are presented in section 6.

4.4 In addition to the topographical survey, a rectified photographic survey (fig. 10) was undertaken of the surviving masonry on the west side of the castle mound, which has recently been reconsolidated. Although a similar survey had been undertaken by Morriss (1994) prior to the reconsolidation, the recent reconsolidation works had revealed significant new detail.

4.5 The surviving section of masonry, *c.* 14m in length, consists of a battered revetment with three relieving arches and a fourth, possibly half arch, at the north end, which may have terminated at a corner tower. At the southern end of the exposed section the stub of a corner tower survives. Between this and the first arch is the mouth of a drain constructed within the core immediately behind the facework. Also at this point a number of cut-backs are evident in the facework, immediately beneath the moulded string course, although their function is unknown.

5 GEOPHYSICAL SURVEY undertaken by Anne and Martin Roseveare, ArchaeoPhysica

5.1 The full results from the geophysical survey are contained in a separate report (Roseveare and Roseveare 2002) and the following section presents a summary of the methodology, techniques and results.

5.2 In order to collect information about a range of features two complementary geophysical survey methods were employed: magnetic gradient and multiple-depth electrical resistance. The majority of the potentially detectable archaeological features were expected to be located and identified using these techniques. In addition, the multiple-depth electrical resistance survey provides information about the depth extent and relative depths of some features. The lower depths of this survey can allow opportunities to 'see' beneath some surface deposits and help resolve the nature of more deeply buried features. The magnetic gradient survey was affected by the wire fencing in some areas, and also by services and surface debris. By using the two methods in tandem, the potential weaknesses of each can be counterbalanced to an extent, and the combined information analysed to best effect.

5.3 A 30 x 30m grid was set out using a Nikon DTM 821 total station over the whole area including the castle mound to ensure seamless data collection over the varied topography. The grid was tied into the topographical survey to allow later amalgamation of results. Work on the steeper parts of the site was particularly difficult in places, and progressed more slowly. As a result, electrical resistance survey of the northernmost section of the survey area could not be fitted into the time available. It was not practical to cover the motte with magnetic gradient survey due to the difficulties of handling the equipment safely on the steep slopes. The steep bailey bank to the east of the motte was included as extensively as possible, though a gap exists in both surveys. Other areas containing earthworks presented no particular difficulties. Significant local variations in the topography formed by extant earthworks must be considered when the data collected over them is analysed.

5.4 The magnetic gradient survey collected data along lines 1m apart with measurements on average approximately every 0.15m, ten times a second. The coverage was fitted to the boundaries along edges at angles to the set out grid, giving varying lengths of survey line. The electrical resistance survey collected data in 30 x 30m grids, every 1m along lines, with 1m between lines.

Data processing and results (figs 11-14)

5.5 To prepare the data for interpretation and further analysis, stages of data processing are required. These remove any instrument defects, minimise the effect of any survey defects, join separate grids into a seamless sheet of data and enhance anomalies of potential archaeological interest.

5.6 The magnetic gradient survey (fig. 11) revealed a generally low amplitude of anomalies, due to the underlying geology, so that in many cases individual anomalies were not well defined. Areas of thermomagnetic debris generally correspond to areas known to have been occupied by buildings, although one discrete anomaly on the western side of a broad bank (fig. 16), also showing as a large pit in the resistance data, may be a small kiln or hearth, possibly associated with the manufacture of lead shot during the Civil War. A number of linear ditches and banks were identified, generally corresponding with surviving earthworks. In particular, the survey clearly identified a trackway running from north-east to south-west along the western side of the area, defined by a series of flanking ditches which suggest that the course of the track has varied over time. A short section of a second trackway, also with flanking ditches, runs west to east to the north-east of the castle mound.

5.7 The electrical resistance survey was only intended in a purely reconnaissance role to determine the basic character of buried features rather than their detail. For this reason a 1m x 1m sampling strategy was chosen and this succeeded in providing a large quantity of information about the castle and its surroundings, although without resolving the smaller details of individual buildings.

The Castle

5.8 The area of the castle mound is extremely complex and clearly multiphase with numerous high resistance anomalies indicating the remains of walls and other structures. There are no signs of a ditch contemporary with the original motte, although this may in part be due to later reuse and accumulated rubble. This is particularly evident on the north and north-west sides where, although the motte has been quarried, its original size may be indicated by a sharp continuous curve to the inner edge of the rubble (fig. 16). To the north-east a large area of slightly higher resistance with a smooth curving edge seems to describe the outline of a former ovoid bailey around the motte, although no earthwork evidence survives. The deeper level of data hints at the presence of a broad ditch although this remains uncertain, and there is no suggestion of any remnant bank.

5.9 On top of the motte a complex set of anomalies are likely to represent the buried structural remains of buildings, including a prominent high-resistance feature near the north-east corner which might be the rubble-filled base of a tower, a small undercroft or well chamber, or possibly even the base of a wooden tower surmounting the original motte. The results suggest that in the interior of the castle original floor levels and basal courses of masonry may survive. A deep excavation trench, presumably that dug by the Earl of Powis, is associated with two high resistance anomalies suggesting that the excavation may have been following lines of masonry on either side.

5.10 To the south and east of the motte there are faint signs of multi-angular revetment to the broad ditch which survives as an earthwork. The ditch is now crossed by an irregular causeway and the survey does show possible structural masonry here, although it is uncertain whether this is an original feature or perhaps just spoil and rubble dumped from antiquarian excavations. A structure identified within the bailey opposite the south-west corner of the castle mound may be the base of a tower (fig. 16), possibly associated with a drawbridge. To the west of the motte there is no surviving earthwork ditch, although the geophysical survey has tentatively identified its outer extent which broadly coincides with the depiction on the 1728 estate map (fig. 2).

5.11 The resistance data correspond closely with the earthwork evidence for the defensive earthworks to the north-east of the motte, as well as the defences of the inner bailey and outer, southern bailey. A linear high resistance anomaly to the south-east of the motte, within the inner bailey, suggests the presence of a substantial wall (fig. 16). The feature is aligned south-west to north-east and has a distinct right-angle at the north-east end from where it extends up to, and possibly into the ditch. There is a clear break just south-west of the corner which coincides with a low resistance anomaly within the bailey. Although the feature would appear to be part of a substantial structure, its nature and dating are uncertain. Two resistance anomalies in the southern bailey may indicate the presence of buildings, although it is uncertain whether they might be contemporary with the bailey, or associated with the later farm complex.

5.12 At the base of the bailey bank close to the eastern boundary an area of lower resistance suggests a possible metalled surface or trackway (fig. 16), although this could be a result of stone in the upper fill of a ditch. Nearby, on the outer corner of the defensive earthworks the survey has identified the stone foundation of a rectangular building (fig. 16) set on a slight earthwork platform. Areas of high resistance to the east of the possible trackway may suggest the remains of further structures.

Other buildings

5.13 To the west of the castle there are several anomalies suggesting the remains of buildings along either side of the trackway (see 5.6; fig. 16). These include a large building or complex of buildings which may be that depicted on the Tithe map (fig. 4). A possible pond lies further to the east. Another building, further to the south-east, is likely to be one of two depicted on the estate map of 1728 (fig. 2). To the north of the motte the survey identified the possible foundations of a building, although this is by no means certain.

Miscellaneous features

5.14 In the northernmost part of the survey, a series of parallel small undulations in amplitude run in a north-south direction, comparable to that often shown by ridge and furrow. However, here the spacing of the variation suggests that this may be the remains of an orchard (fig. 16).

5.15 To the west of the castle, a curving ditch of unknown date or function was identified, which does not appear to be associated with the adjacent buildings and may be part of an earlier enclosure (fig. 16).

5.16 On the south side of the castle mound a series of parallel narrow linear high resistance anomalies were identified running across the ditch. These may coincide with areas of robbing at the base of the keep, and could be the remains of a set of livestock pens relating to the later farm buildings.

6 ARCHAEOLOGICAL INTERPRETATION (figs 15-16)

6.1 The following interpretation is based on the available evidence, drawing on the results from the surveys as well as documentary and cartographic sources. There is, however, little conclusive evidence for the layout of the castle itself, particularly with respect to the towers. What is proposed below is a conjectural reconstruction aimed at assisting the reader's understanding of one possible interpretation, rather than presenting a definitive account of the castle and its development.

12th-century Motte and Bailey

6.2 The original fortification is assumed to have been a motte and bailey castle constructed during the 12th century, which may have been destroyed by Llywelyn in 1215. Given the local topography it seems likely that this consisted of an artificial mound which was roughly circular and surrounded by a defensive ditch. Later rebuilding has left no clear earthwork evidence for the size of the motte, which presently survives to a height of perhaps 4m, although the geophysical survey has produced evidence to suggest a basal diameter of between 35 and 40m. The motte would presumably have been topped by a timber fortification with buildings constructed against the inner side, leaving an open yard in the centre. Evidence from the geophysical survey has suggested the possibility of a stone base for a tower which could date to this period, or may belong to a later masonry structure.

6.3 The bailey would have formed an outer defended enclosure containing, for example, the domestic buildings and stables. Results from the geophysical survey suggest that the original bailey may have been situated mainly on the east side of the motte. A resistance anomaly has been identified forming an oval *c.* 75m north-south and extending for up to 65m east of the motte (figs 12-13). It would appear that the northern section of the bailey was later abandoned as no earthworks survive, although the southern section seems to have been adopted in part during later phases. No evidence was revealed for any buildings within the early bailey.

13th-century masonry castle

6.4 Following the presumed destruction of the timber motte and bailey in 1215 the castle was refortified in stone during the mid-13th century. The circular motte appears to have been modified, possibly being reduced on the north-west side, to create a roughly rectangular mound measuring *c.* 35m east-west and 25m north-south and around 4m in height. Later disturbance, particularly the result of stone robbing, makes it difficult to determine the exact plan of the castle, although it appears to have been roughly rectangular with towers at the corners. The mound was revetted in stone to form a substantial keep, the only visible section of which lies on the west side. The masonry is of high quality with a battered plinth with relieving arches supporting the vertical walls of the keep, which appear to have been at least 2m thick. Fragments of the south wall also survive, although without any visible facing. A rough line of masonry towards the western end of the south wall has previously been interpreted as part of a possible postern (Morriss 1994, 24) although it appears to consist of no more than remnants of corework exposed by robbing.

6.5 The earthwork evidence suggests the existence of single towers on three corners, with a possible double tower on the south-east corner, although this is by no means certain. The surviving basal remains of one of the towers on the south-east corner, appear roughly circular and give an approximate diameter of *c.* 7.5m. To the east, an upstanding fragment of masonry up to 3.5m high may be part of another tower. Although mostly composed of corework, this fragment includes some ashlar blocks on the western corner. The south-west tower survives only as an earthwork mound, on the northern side of which a slight stub of wall projects from the west revetment wall. An upstanding masonry fragment survived until 1983, although the collapsed remains are all that survive today. The north-west tower also survives only as an earthwork. An upstanding fragment of masonry, *c.* 2.0m high at the northern end of the west wall of the keep, would originally have adjoined the tower. The earthworks of the north-east tower differ from those of the other towers and suggest a much more substantial structure, perhaps up to 10m across. With the exception of the south-east tower, which appears to have been round, the plan of the remainder are uncertain although for convenience they have been depicted as round on the interpretative plan (fig. 15).

6.6 Within the keep there is evidence for buildings against the inner side of the west wall and against the south-west tower, consisting of low stone foundations. It is probable that much of the interior was occupied by buildings constructed against the inner face of the curtain wall, with an open courtyard in the centre. A drain which survives within the west wall (fig. 10) may have been constructed to remove surface water from the yard. A large hollow at the eastern end of the interior has been suggested as a possible entrance (Morriss 1994), although this area has been disturbed by the excavations made by the Earl of Powis in the mid-19th century. Evidence from the geophysical survey suggests the presence of masonry on either side of the hollow.

6.7 The keep appears to have been defended by a substantial ditch, which is now only clearly evident on the south side, separating it from the bailey. Here, the ditch is now mostly infilled, surviving to no more than 1.2m deep and up to 8m wide. Evidence from the geophysical survey suggests that the outer, southern edge may have been revetted in stone. To the west of the keep the geophysical survey has tentatively identified the outer extent of a ditch which broadly coincides with what is depicted on the 1728 estate map (figs 2 and 16).

6.8 The position of the entrance and drawbridge is uncertain. A drawbridge appears to have remained part of the castle defences until the Civil War when there is a reference to the Royalist defender, Colonel Mytton, being captured by Colonel Sir William Vaughan and taken to the gates of the castle and ordered to surrender. He managed to escape, however, and ran into the castle and 'drew up the bridge' (Auden 1895; Farrow 1926, 74). The possible double tower on the south-east corner would suggest a gateway although there is no evidence for a crossing of the ditch at this location. An earthwork 'ramp' which blocks the ditch nearby may be the site of a causeway, although this does not align with the postulated double tower and may be the result of spoil dumped from the 19th-century excavations. A small earthwork platform projecting into the ditch opposite the south-west tower might provide more conclusive evidence for an entrance. The geophysical survey has revealed a substantial masonry structure on the edge of the bailey which may be the base of a tower. The earthwork platform coincides with a structure revealed by the resistivity survey and could be a masonry bridge pier set within the ditch. Although the geophysics and earthworks suggest a substantial tower at this corner of the keep there is no clear evidence for its plan.

6.9 It is unclear from the available evidence whether the postulated 12th-century bailey, identified by the geophysical survey, was retained in its entirety when the castle was rebuilt. The only section of this defensive circuit with surviving earthworks consists of a substantial bank to the south-east of the castle mound, up to 2.5m high and aligned roughly north-east to south-west. A slightly raised area (fig. 16) at the north-east end of this section may be the site of a tower, or possibly a later modification (see 6.13). The surviving earthworks appear to form a corner at this point with a linear bank 1.5m high running to the north-west, and a ditch up to 5.5m wide along the north-east side. There is a break in the bank at the point where it meets the ditch surrounding the keep. This feature does not appear to be contemporary with the bailey bank and could have been constructed to reduce the size of the bailey, although at what date is unknown (see 6.13). An earthwork platform cut into the slope below the north-east corner of the bailey earthworks has the foundations of a rectangular building upon it, revealed by the geophysical survey, although the nature and dating of the structure remains unknown. At the south-west end the bailey bank turns to the west and fades out. It is possible that at least this part of the early bailey may have been retained as an inner bailey, and low earthworks within could indicate the position of structures. Along the western side the bailey is defined by a pronounced scarp up to 0.5m high, with a projection at the northern end, possibly for a tower. The geophysical survey identified a significant anomaly within the bailey, to the south-east of the keep, which may be a substantial wall, a break in which coincides with a low resistance feature, also visible as a slight earthwork. The nature and dating of these two features is uncertain, although it may be significant that the latter is roughly aligned between the postulated double tower on the south-east corner of the keep.

6.10 It is clear from the surviving earthworks, and also from excavated evidence (Hannaford 1991 and 1992), that an outer bailey was appended to the south of the inner bailey, measuring roughly 70m east-west and perhaps 60m north-south. The western side survives in part as a scarp 1.1m high within a small orchard, but fades to the south and has been partly obscured by recent dumping. Excavations in advance of housing development in 1991-2 revealed a section of the bailey's western defences, which at this point consisted of a v-shaped ditch 3m wide and 1.6m deep together with the remains of a bank composed of material upcast from the ditch. The basal fills of the ditch contained pottery dating from the mid to late 13th century sealed by deposits which suggested that the ditch was relatively short-lived and rapidly infilled. The ditch was eventually levelled for a trackway with a pebbled surface, which is depicted on the Ordnance Survey 25" map of 1882 (fig. 5).

6.11 The exact position of the southern side of the bailey is unknown, and now lies beneath converted farm buildings, although further excavations in 1994 on the east side of the bailey again identified the defences, which at that time survived as slight earthworks. The excavation revealed a bank with timber palisade separated from an outer ditch by a berm 1.8m wide. The ditch was 3.6m wide and 1.9m deep with a steep V-shaped profile. To the south of this, and presumably outside the bailey, excavations revealed a two-chambered pottery kiln of 12th to 13th-century date (Hannaford and Phillpotts 1994). The geophysical survey has identified a second possible kiln to the north-east of the castle, although its function and date remain uncertain.

16th century

6.12 There is no clear physical or documentary evidence relating to the later history of the castle, although Shrawardine is depicted on Saxton's map of Shropshire in 1577, copied by Speed in 1611, which shows 'Shrawerden cast' surrounded by a park pale (fig. 1), presumably enclosing a deer park. It suggests that by this time the castle had developed into more of a country estate than a fortification. The extent of the park pale is unknown, although field-name evidence from the terrier accompanying the 1728 estate map of the Bromley estate (SRRC 552/8/30 and 306) suggests that it lay to the south-east and east of the castle. To the north-east of the castle are the low earthwork remains of a substantial, slightly curving, bank and ditch, aligned roughly north-south. The bank now survives as an earthwork up to 9m wide and 0.5m high, with the ditch being *c.* 6m wide. A boundary is depicted in approximately this position on the estate map of 1728, and may represent the eastern boundary of the deer park. Immediately to the west of the bank the geophysical survey has identified a linear anomaly which could also be the remains of a boundary (fig. 16).

6.13 It is possible that as well as modifications to the castle itself, the Fitzalans and later the Bromleys made changes to the surrounding landscape in order to improve the castle's setting, and that these changes were not just limited to the addition of the park pale. It is not known, for example, whether the pond which lies to the north of the castle is a natural or an artificial feature. It is clear, however, that the present extent of the pond is rather smaller than that depicted by the Ordnance Survey in the late 19th century (fig. 5). The lack of surviving earthworks for the north side of the original bailey could also be due to deliberate levelling of the area to create a parkland landscape. This is, however, merely speculative and it is not possible to attribute any of the earthworks or geophysical anomalies to this period with any certainty.

17th and 18th centuries

6.14 The relative stability of the century preceding the Civil War may well have resulted in a relaxing of the castle defences. If this were so it may have been felt necessary to refortify during the 1640s. The keep itself is likely to have remained as a strong defensive structure although the status of the bailey must be less certain. It is possible that the linear bank on the north-east side of the castle mound (see 6.8) dates from this period, having been constructed to strengthen the defences. If this were so the platform in the angle between this bank and the bailey could have been used as an artillery position, as could the south-east corner of the bailey bank.

6.15 The geophysical survey has revealed a number of structures to the west of the castle which appear to be the remains of buildings flanking a track or road (fig. 16). The track also survives as an earthwork, running north-east to south-west. Given their position it is tempting to suggest that the buried structural remains could relate to the 'greatest, fairest and best part of the Town' which was burnt to clear the lines of sight for defending the castle.

6.16 Although there appear to be no contemporary depictions of the castle at this time, the map of the Bromley Estates in 1728 (SRRC 552/8/306; fig. 2) provides some indication of what might have existed. Unfortunately, there is little detail of the castle itself, which had presumably already been substantially robbed by this time, although three sections of masonry are depicted. What is shown, however, is the eastern side of the inner bailey, together with the straight north-eastern side which joins a boundary leading to the pond. This boundary may be the earthwork which survives to the north of the castle, along the eastern side of the track. To the west of the castle two buildings (fig. 16) are depicted with gardens in between, apparently set within the enclosure of the castle defences. The southernmost building has been identified by the geophysical survey, which also identified a possible pond in this area. A third, two-storey building (fig. 16) is shown further to the west and this is depicted again on the Tithe Survey of 1844. By 1882, however, the building appears to have been demolished, surviving now as a series of low earthworks. The 1728 map also shows a row of buildings along the street front at the western edge of the survey area (fig. 16), the eastern side of which is now marked by a pronounced scarp within the field, running parallel to the road.

19th century

6.17 The purchase of the estate by the Earl of Powis in the early 19th century may have had some impact on the castle remains, as it is possible that the construction of a new house called Shrawardine Castle to the north of the village may have led to further stone robbing. The excavations conducted by the 3rd Earl soon after 1848 were not recorded in any detail and even the location is uncertain, although they seem likely to have been the cause of a deep hollow 14m long, 4.4m wide and over 1m deep on the eastern side of the castle mound.

6.18 The ruins of the castle are depicted on the Ordnance Survey 1st edition 25" map in 1882 (fig. 5), their appearance being little different than today. Field boundaries to the south of the mound appear to follow in part the line of the inner bailey, beyond which a farm building is shown in the area of the outer bailey. By the time of the 2nd edition survey of 1902 (fig. 6) further buildings have been constructed. A large rectangular building, now demolished, can still be identified as slight linear earthworks within the outer bailey, while a polygonal structure to the north-east has left no visible trace.

6.19 To the north of the castle a house is shown next to the pond, fronting onto the lane (fig. 16). Two small outbuildings are also shown, together with a well. There is no surviving trace of these structures.

Miscellaneous earthworks and geophysical anomalies

6.20 To the north of the castle the geophysical survey has identified a series of parallel anomalies aligned north-south. Although similar to the results which might be produced by plough-levelled ridge and furrow the spacing is rather broad and may indicate an orchard (fig. 16), although of what date remains unknown.

6.21 The geophysics has also identified a number of trackways which may have been surfaced with stone.

7 CONCLUSIONS

7.1 The project as a whole has not only revealed significant new information regarding the nature and history of the castle and its surroundings, but has also allowed a review of the existing data in the light of the new discoveries.

7.2 The topographical survey has enabled the site as a whole to be recorded in detail for the first time, allowing a better appreciation of the relationship between the various earthworks and resulting in a reinterpretation of the site. The geophysical surveys in particular have, by their nature, been able to reveal significant new information about what lies beneath the ground, often identifying features for which there is now no visible evidence. Informative as the individual surveys are in their own right, it is, however, the combination of the two surveys which has allowed us to look more closely into the history of Shrawardine Castle and provide further insight into how the castle may have developed and what form it may have taken.

7.3 The available evidence has been drawn together to present one interpretation of the castle remains, although this is by no means the only interpretation which can be made. The lack of surviving structure and the extent of robbing and subsequent rubble spreads has limited the interpretation of the castle itself and it would only be through excavation that many of the uncertainties could be resolved.

7.4 The project has generated considerable local interest and the results will be presented not only through this report, but also at public events and hopefully eventually in a published report.

8 ACKNOWLEDGEMENTS

8.1 Thanks are due to the following for their assistance during the project: Wendy Owen, CPAT, for assistance with the topographical survey; Richard Hankinson, CPAT, for assisting with the vegetation clearance; Anne and Martin Roseveare, ArchaeoPhysica, for undertaking the geophysical survey; Carl Stanton, for general co-operation, organisation and enthusiasm; Joanne Barnes, Shrewsbury and Atcham Borough Council; Mike Watson, Shropshire County Archaeologist; Penny Ward, Shropshire

County Sites and Monuments Records Officer; John Kenyon, National Museum of Wales, for assistance with the interpretation; and Shrewsbury Records and Research Centre for permission to reproduce the estate and tithe maps.

9 REFERENCES

Published sources

Auden, J E, 1895. Notes on the Church, Castle and Parish of Shrawardine, *Transactions of the Shropshire Archaeological Society,* 2nd Series Vol. 7.

Ekwall, E, 1977. *The Concise Oxford Dictionary of English Place-names.* Oxford: Clarendon Press.

Farrow, W J, 1926. *The Great Civil War in Shropshire (1642-49).*

Gelling, M, 1990. *The Place-names of Shropshire Vol I.*

Unpublished sources

Hannaford, H R, 1991. *An Archaeological Evaluation at Shrawardine Farm, Shropshire*. SCC Archaeology Service Report No. 7.

Hannaford, H R, 1992. *Excavations at Shrawardine Castle, Shropshire*. SCC Archaeology Service Report No. 20.

Hannaford, H R, & Phillpotts, C, 1994. *An Archaeological Evaluation at Shrawardine Farm, Shropshire*. SCC Archaeology Service Report No. 45.

Morriss, R K, 1998. *Shrawardine Castle, Shropshire: an outline analysis and survey*, Mercian Heritage Series No. 59.

Roseveare, A, & Roseveare, M, 2002. Geophysical Survey at Shrawardine Castle, Shropshire: Evaluation to inform the management and presentation of the castle. ArchaeoPhysica.

Cartographic sources

SRRC = Shropshire Records and Research Centre, Shrewsbury

Map of the area in Shrawardine including Bradley belonging to Henry Bromley Esq, 1728, surveyed by Joseph Dougharty of Worcester (SRRC 522/8/306) and "Terrier of the Mannors of Shrawardine & Montford with the townships of Little Ness, Felton Butler, Ensdon and Forton in the County of Salop belonging to the Right Honourable Henry, Lord Montfort. Taken from a survey made 1728 by Joseph Dougharty of Worcester" (SRRC 553/8/30).

Map of Shrawardine Castle Farm belonging to the Right Hon Earl of Powis by Chas. Mickleburgh, 1824, (SRRC 552/8/352)

Printed map of Shrawardine village and River Severn *c.* 1824 (SRRC 552/8/349)

Tithe Survey of Shrawardine Parish 1844

Ordnance Survey 1st edition 1:2,500, 1882

Ordnance Survey 2nd edition 1:2,500, 1902

Aerial photographic sources

Oblique aerial photographs held by CPAT

colour slide
83-c-311 to 314
94-c-1349
95-c-1167 and 1168

black and white print
83-13-31 to 33
86-MB-17 to 20
94-MB-296
95-MB-151 and 152

APPENDIX 1

SHRAWARDINE CASTLE, SHREWSBURY, SHROPSHIRE SPECIFICATION FOR A DETAILED ARCHAEOLOGICAL SURVEY BY CLWYD-POWYS ARCHAEOLOGICAL TRUST

1 Introduction

1.1 The Contracts Section of the Clwyd-Powys Archaeological Trust has been approached by Joanne Barnes, Shrewsbury and Atcham Borough Council, to produce a quotation and specification for a detailed topographical and geophysical survey of Shrawardine Castle, Shrewsbury, Shropshire (SJ 40071539).

1.2 The surveys form part of a programme of works in connection with the Montford Parish Millennium Green Trust, with funding awarded from the Local Heritage Initiative, which has already included essential repairs to the castle masonry. The aim of the present phase of work, of which the surveys form a part, is the production of a Management Plan, an interpretative booklet and an exhibition.

2 Objectives

2.1 The objectives are as follows:

to undertake a topographical survey to produce a detailed digital ground plan of the surviving castle earthworks and other associated features including elements of the shrunken village;
to undertake a geophysical survey to locate potential buried features and structures associated with the castle, its bailey and shrunken village;
to produce a report synthesising the results of the two surveys and including an interpretation of the results;
to provide illustrative material for an exhibition and open day.

3 Methods

Topographical survey

3.1 The survey will be conducted using a Wild TC500 EDM in conjunction with Penmap survey software. The survey will include the top and bottom of all visible earthworks together with outlines of surviving masonry and modern boundaries. Reading will be taken at appropriate intervals sufficient to produce the required detail, normally between 3-5m apart for earthworks, although possibly at wider intervals on level ground devoid of any visible earthworks, and will include sufficient points to allow a contour model to be produced of the area. If possible, the survey will be related to Ordnance Datum. The data will be coded using a standard set of layers, a list of which will be provided with details of the project archive in the final report.

3.2 Post-survey processing will use AutoCAD13 to position the survey data against the Ordnance Survey National Grid, achieved as a best fit against surveyed boundaries. The survey will be plotted to an appropriate scale and to include contours and a level of interpretation.

Geophysical survey

3.3 The recommended survey would be for a full coverage of the area using both caesium vapour magnetometry (1 x 0.25m grid) and resistivity survey (1 x 1m). Options have been provided, however, for a survey using one technique only, or a full magnetometer survey with up to 1ha of resistivity, concentrating on the areas of most significant potential.

3.4 A separate report will be produced by ArchaeoPhysica detailing the methodology adopted and summarising the results. The report will be fully illustrated to include black and white and colour images, together with an interpretative plan.

Reporting

3.5 A project report will be produced detailing the results of both surveys. This will include: site location; background; digitally generated A3 colour plans at an appropriate scale; a written description of the main features; interpretation and conclusions; references; site archive.

3.6 On completion of the project the client will be provided with five copies of the commissioned report together with a set of A2 digitally produced colour plans integrating the results from the topographical and geophysical surveys. The project archive will be retained be CPAT and will include: digital data in Penmap, AutoCAD13, DXF and Mapinfo formats; survey plots; list of digital layering.

3.7 The option has been included for commissioning a final drawing in the form of a A1 interpretative plan. This would include hachured detail of earthworks, contours, masonry remains and an interpretation of the geophysical survey results.

Open day

3.8 Members of staff from both CPAT and ArchaeoPhysica will be available to demonstrate the equipment used and present the results to the public at an open day on Saturday 1st September. The duration of the open day has yet to be determined, but a 10am start would be preferable.

4 Resources and Programming

4.1 The topographical survey will be undertaken by Nigel Jones, a member of CPAT's staff who is experienced in total station ground survey, together with a survey assistant. It is anticipated that the topographical survey will take up to 8 days in all.

4.2 The geophysical survey will be undertaken by ArchaeoPhysica, Newport Shropshire, a firm of experienced surveyors with a wide range of experience.

4.3 Initial results will be prepared for the open day to include digital graphics for demonstration purposes, as well as A2 colour plots illustrating the results.

4.4 Reporting will commence shortly after the completion of the fieldwork. The project report will be produced by Nigel Jones with assistance from ArchaeoPhysica. Five copies of the report will be presented to the client within two months of the completion of fieldwork.

4.5 Any commissioned artwork will be produced in consultation with the client, to be delivered along with the final report.

4.6 Requirements relating to Health and Safety regulations, together with the Institute of Field Archaeologist *Code of Conduct* will be adhered to by CPAT and its staff.

4.7 CPAT is covered by appropriate Public and Employer's Liability insurance.

4.8 It should be noted that the client will be responsible for obtaining any necessary permissions from English Heritage to undertake the surveys with respect to the current scheduled ancient monument legislation. Both surveys are also dependent on the cutting and removal of grass from the site and it would also be helpful if no stock were present for the duration of the surveys. It should also be noted that the fence surrounding the castle earthworks is likely to impact on the geophysical survey and temporary removal of this would be preferred if possible.

4.9 The start date has yet to be confirmed, but CPAT would be able to commence the topographical survey on 20 August 2001.

N.W.Jones
10th August 2001

APPENDIX 2

PROJECT ARCHIVE

Photographic archive
black and white negatives film 1093, negatives 12 to 25

colour slides cs01/20/13 to 32

Digital archive

Penmap survey data:
shraw1.pts
shraw1.dxf

layering:

botslope	base of slope
boundary	field boundaries
core	outline of corework on W elevation
facing	outline of facing on W elevation
geogrid	geophysical survey grid
masonry	outline of masonry
pole	telegraph poles
spots	spot heights
targets	rectified photography targets on W elevation
topslope	top of slope
tree	trees

AutoCAD13 (dwg and dxf)

shrwsurv	survey rectified to OS grid
shrwsurv	survey rectified to OS grid
elevation	rectified photography survey of W elevation
maps	early map detail
contour	survey contours rectified to OS grid

GIS files (Mapinfo)

1844	tithe survey
1882	OS 1st edition
1902	OS 2nd edition
apmap	aerial photo mapping
c12	conjectural interpretation of 12th-century castle
c13	conjectural interpretation of 13th-century castle
civilwar	conjectural interpretation of the castle during 17-18th centuries
contour	survey contours rectified to OS grid
interprt	conjectural interpretation of the castle and surrounds
modern	modern village plan
shrwsurv	survey rectified to OS grid
shrwspot	survey spot heights rectified to OS grid

Digital images

3d1.bmp	3d view
relieftrim.bmp	relief shade model

Plate 1 Aerial view of Shrawardine Castle. Photo CPAT 95-c-1168

Plate 2 Aerial view of Shrawardine Castle. Photo CPAT 94-c-1349

Fig. 1 Extract from John Speed's map of Shropshire 1611

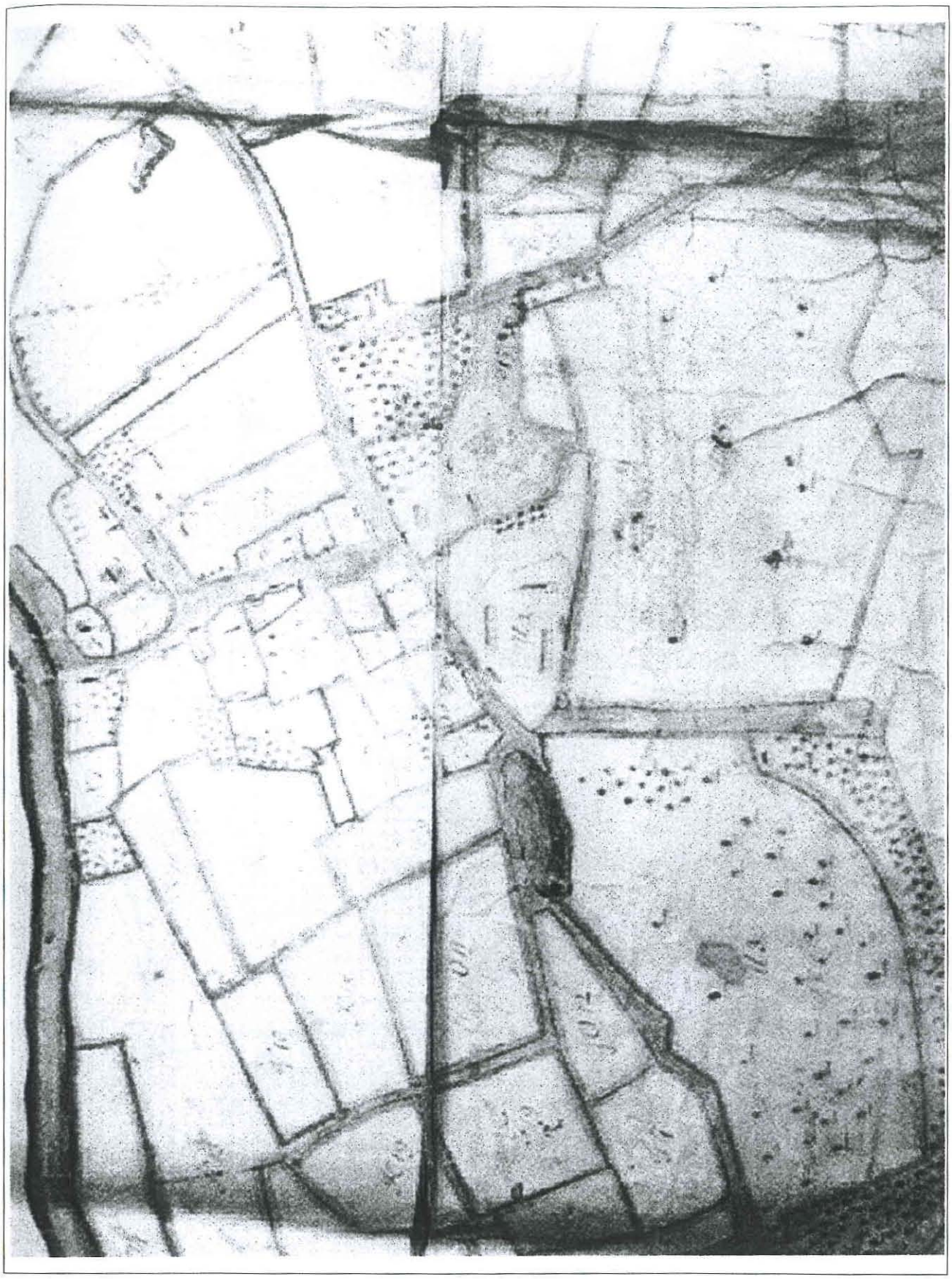


Fig. 2 Extract from 1728 map of Bromley Estate, Shrawardine

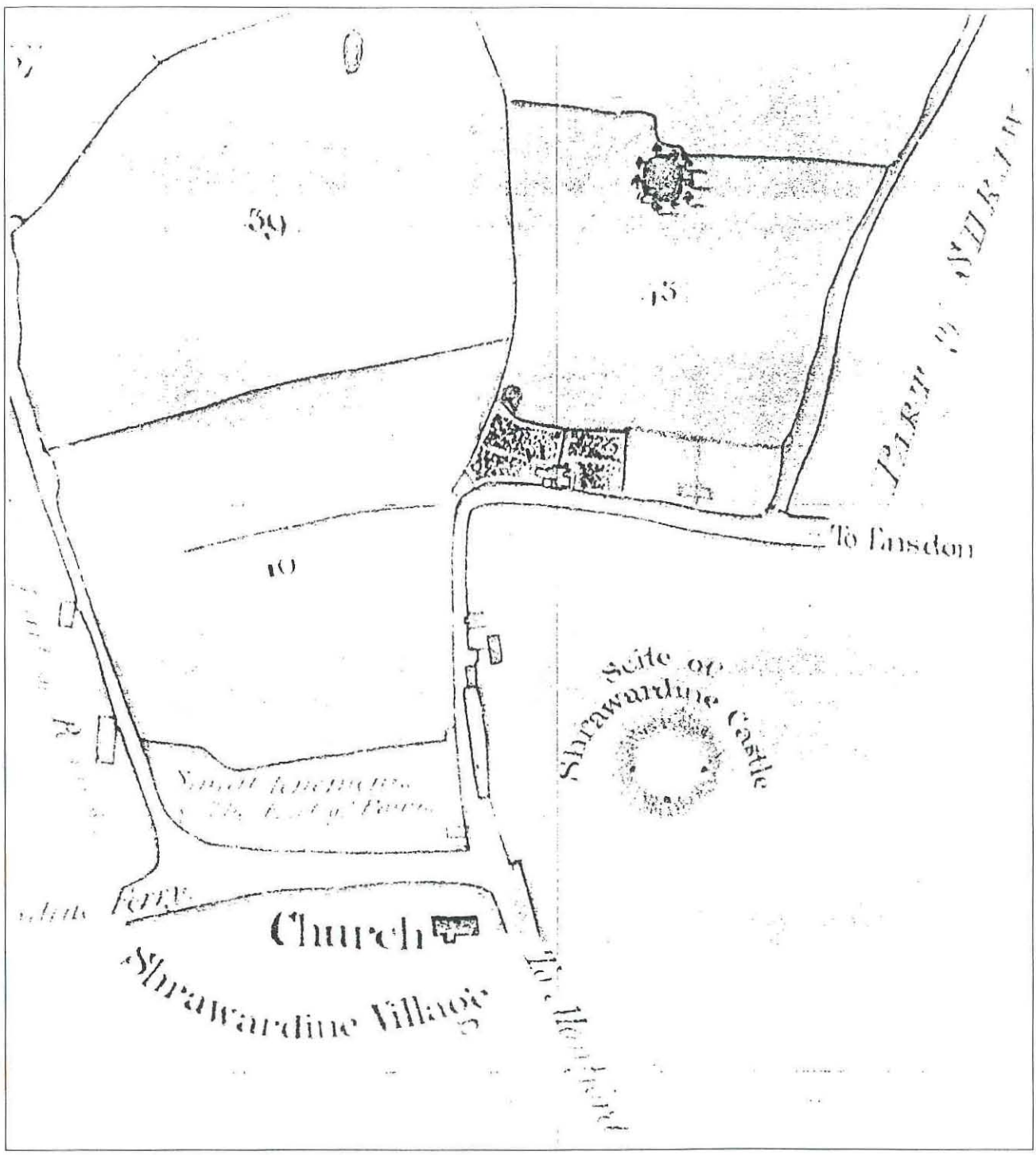


Fig. 3 Map of Shrawardine Castle Farm, 1824, (SRRC 552/8/352)

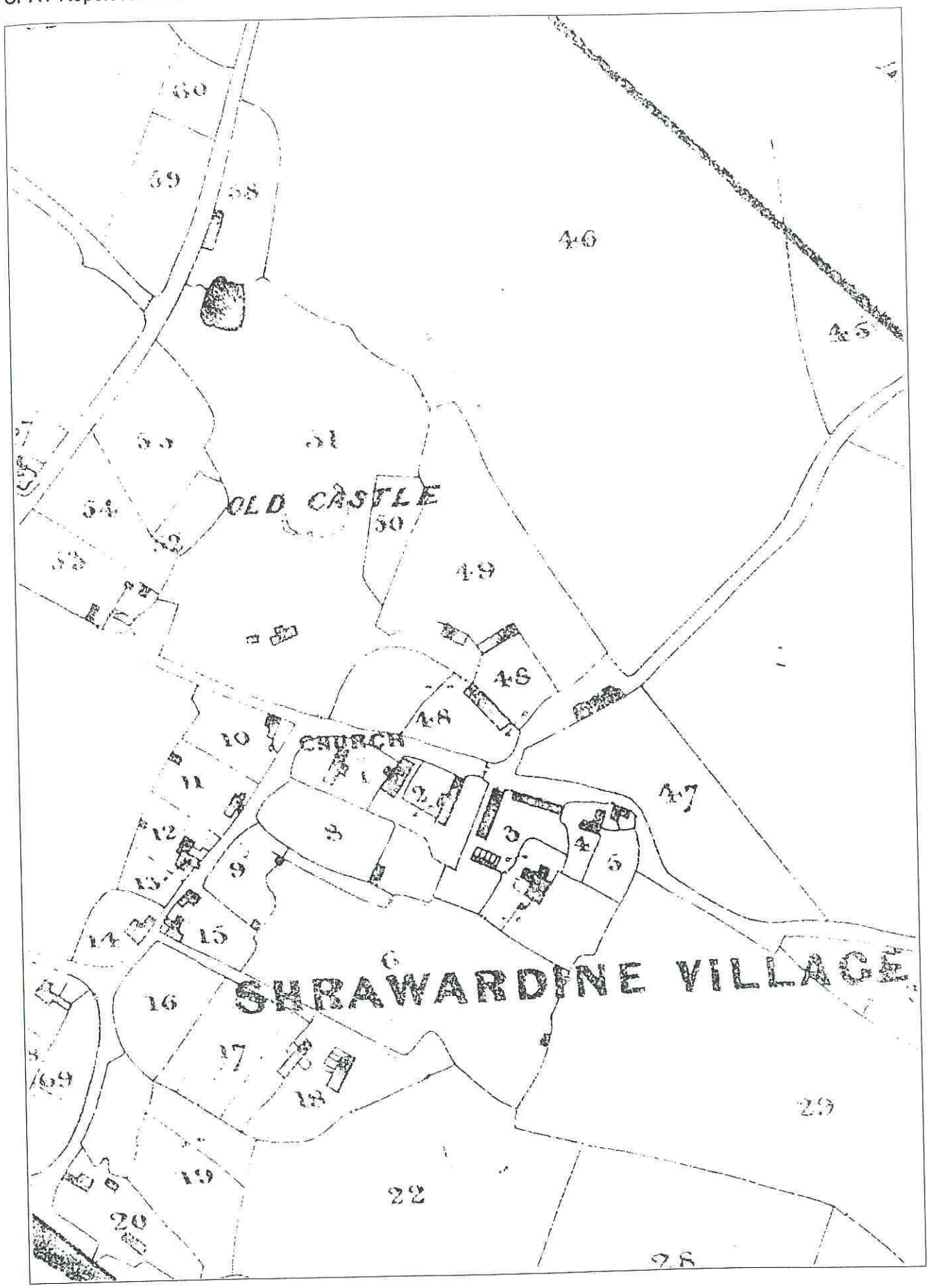


Fig. 4 Extract from Tithe Survey of Shrawardine Parish 1844

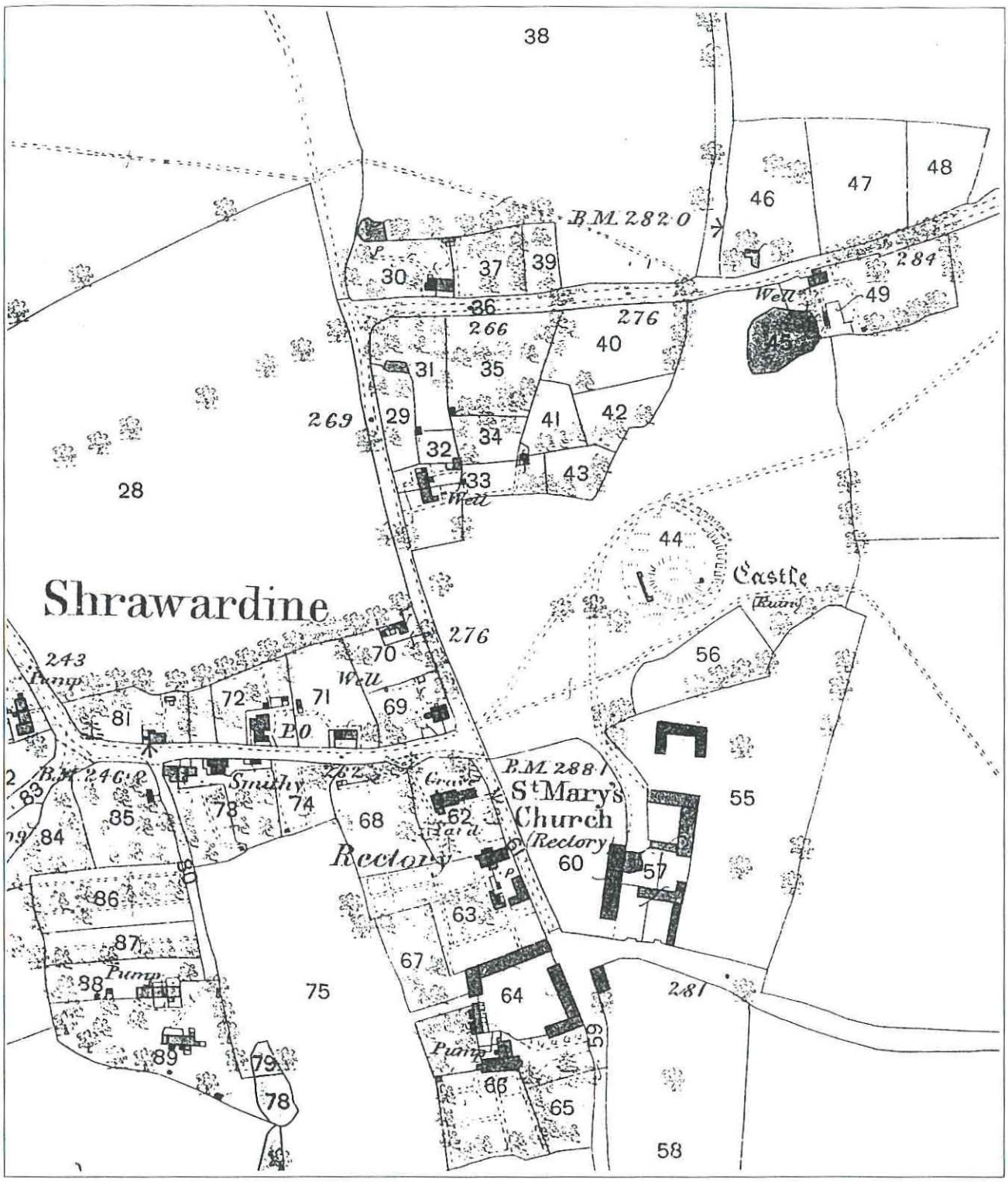


Fig. 5 Extract from Ordnance Survey 1:2,500 1st edition 1882

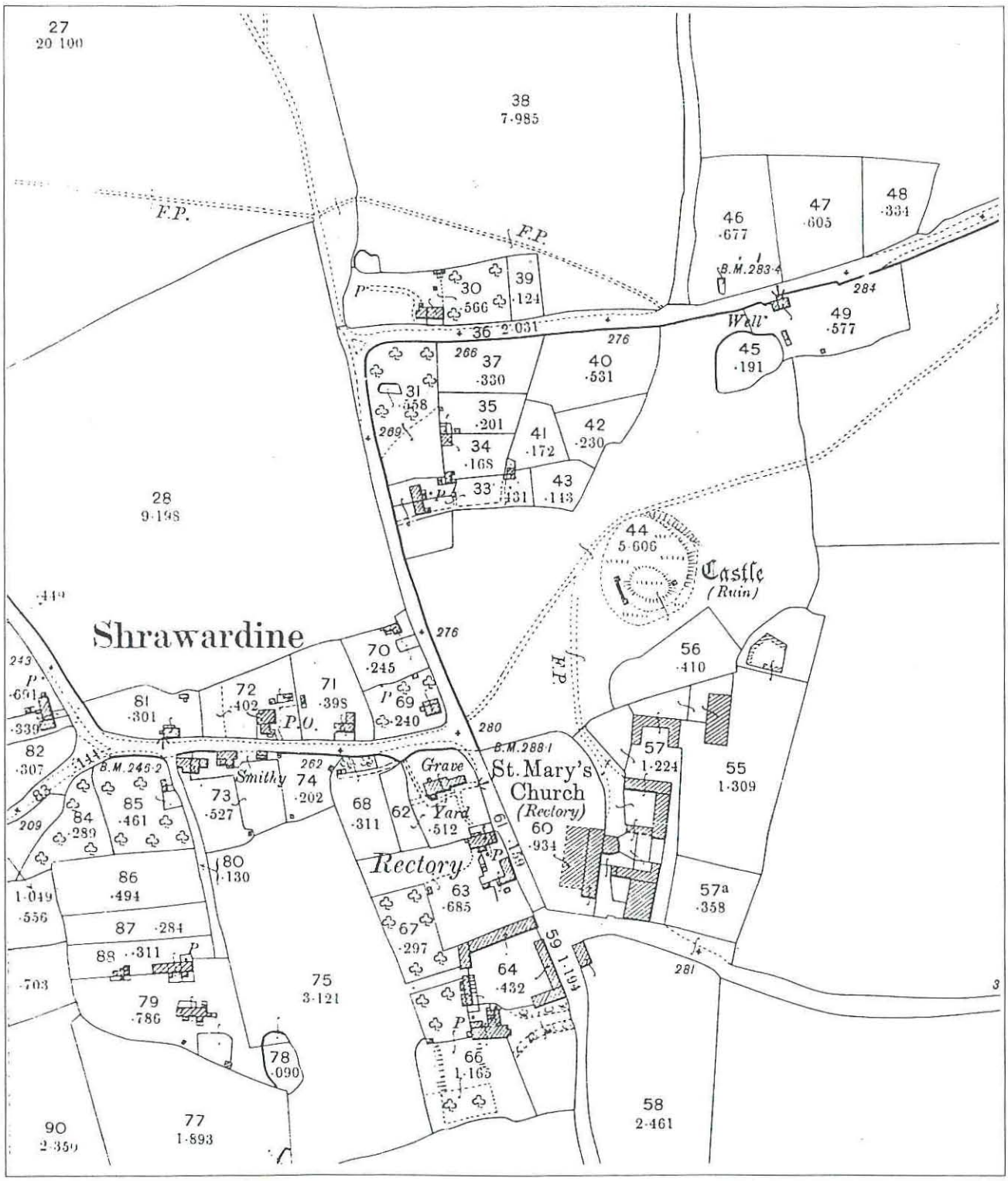


Fig. 6 Extract from Ordnance Survey 1:2,500 2nd edition 1902

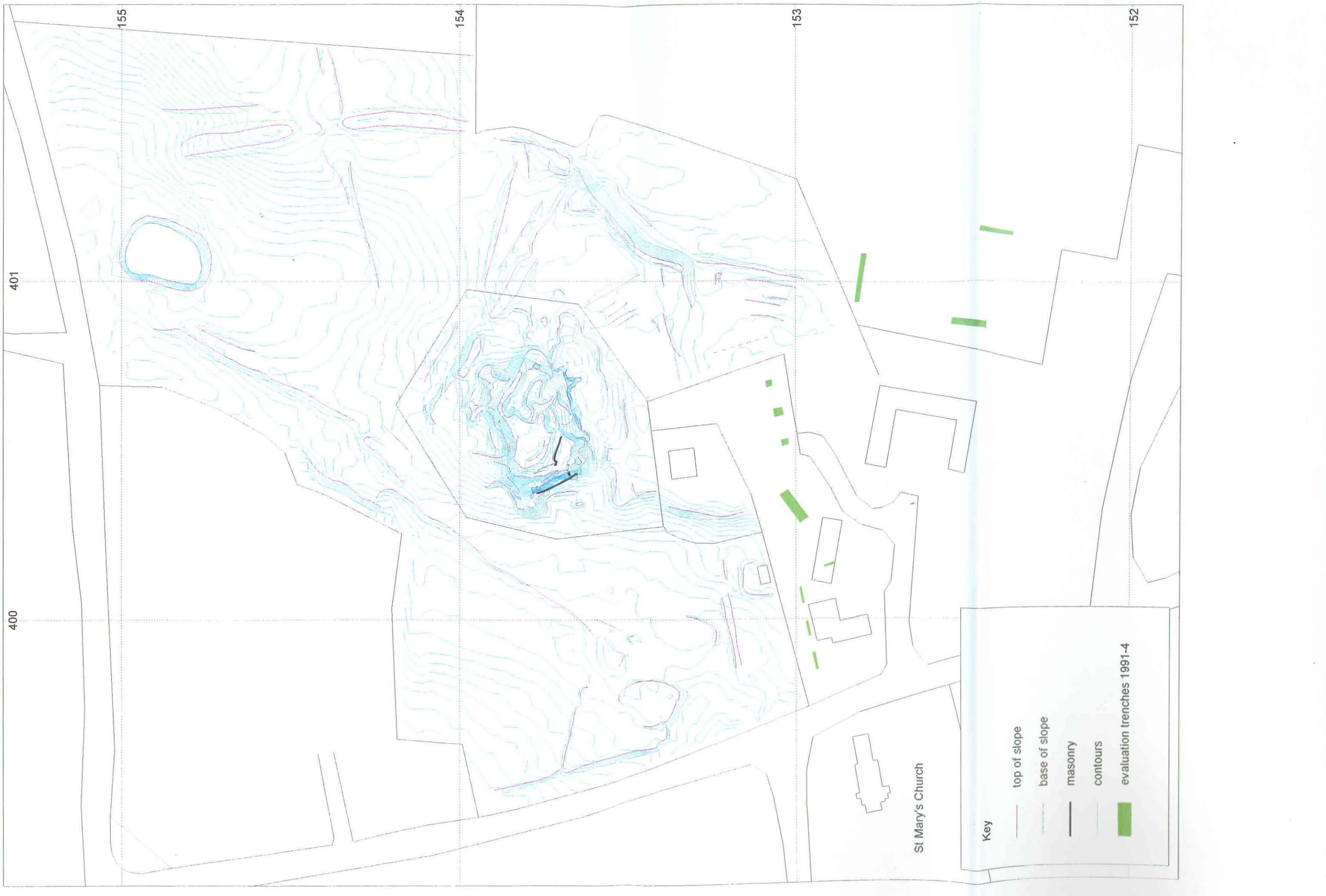


Fig. 7 Topographical survey, scale 1:1,000. Contours at 0.2m intervals

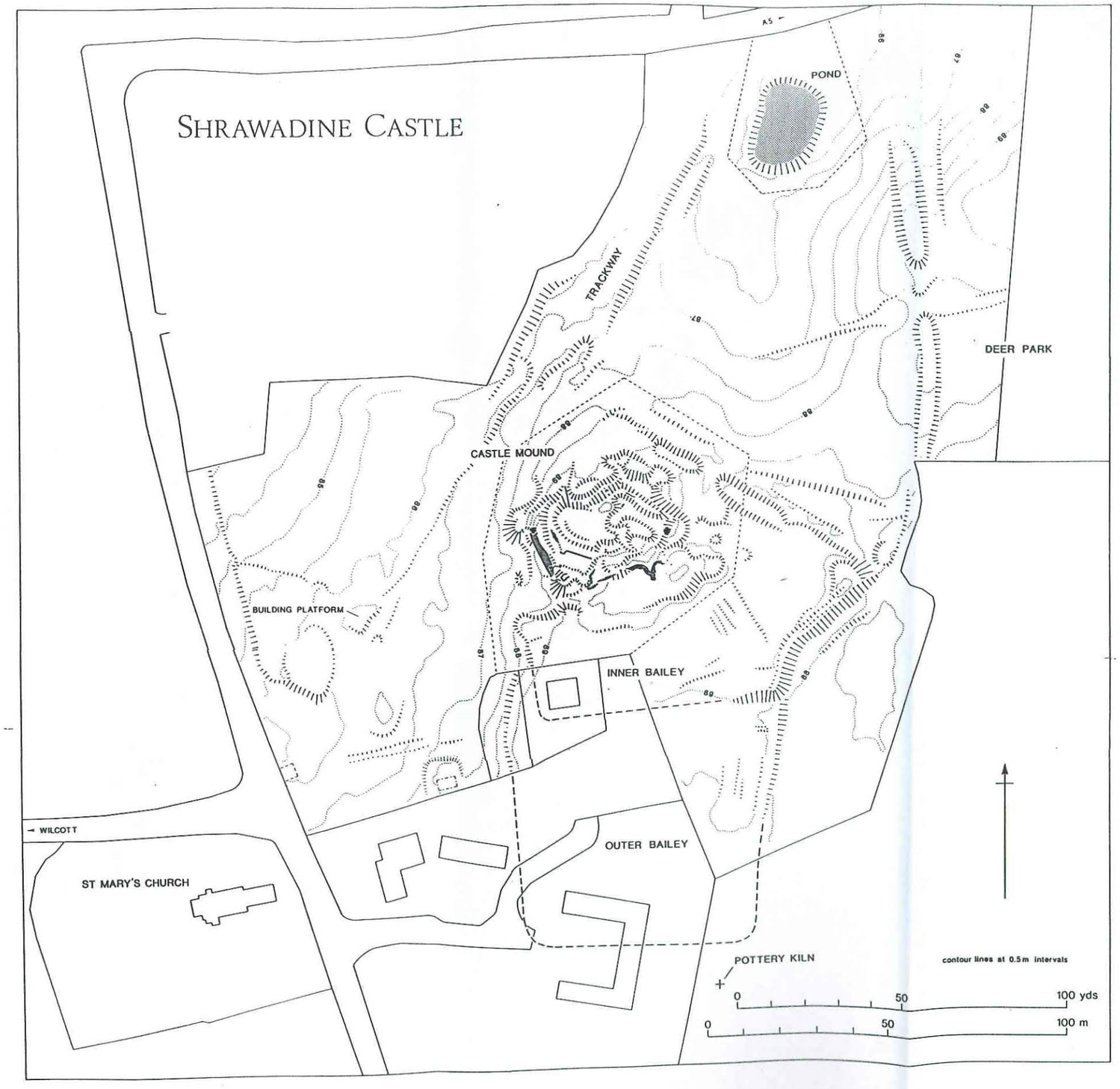


Fig. 8 Castle earthworks

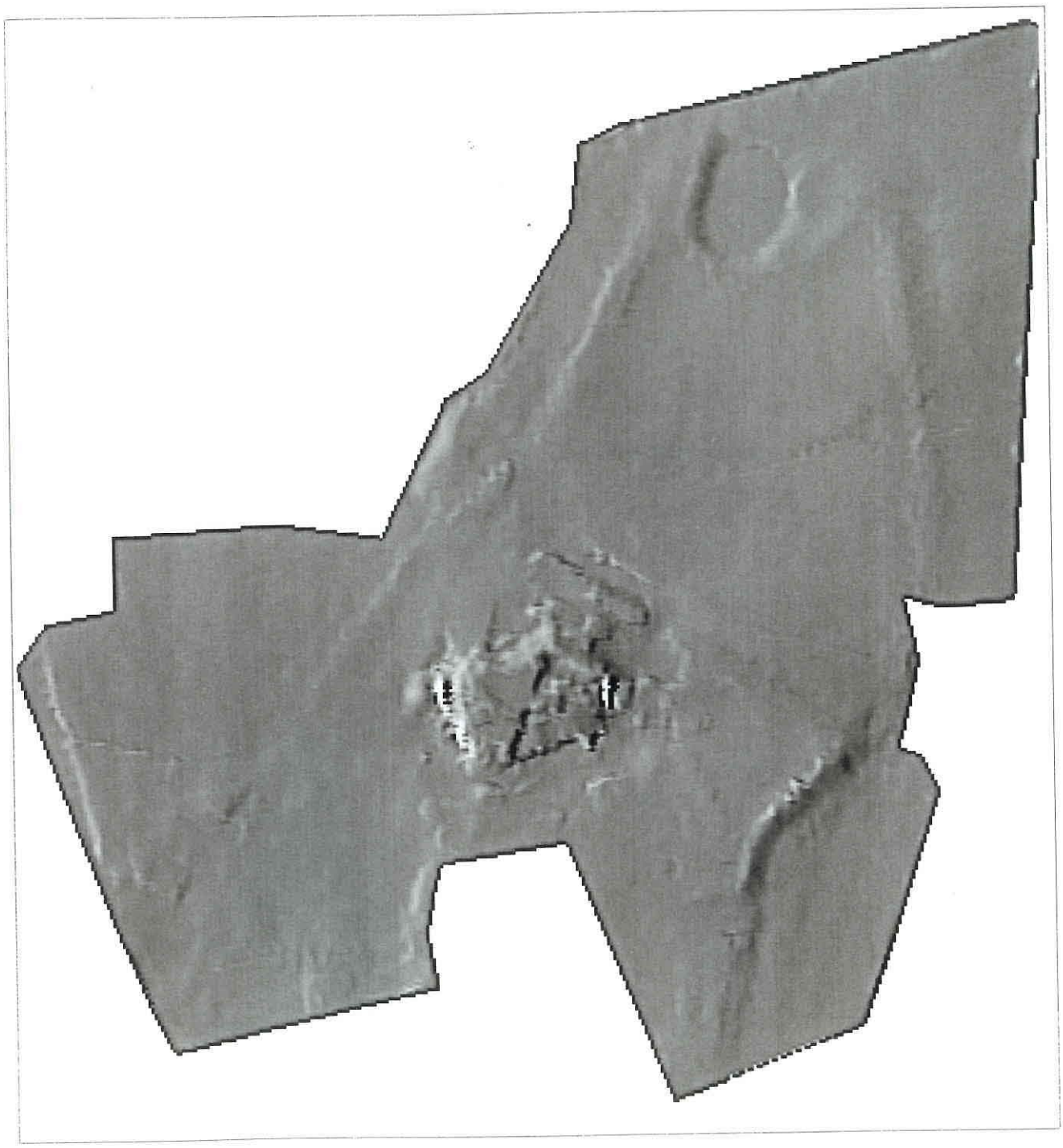


Fig. 9 Relief shade model

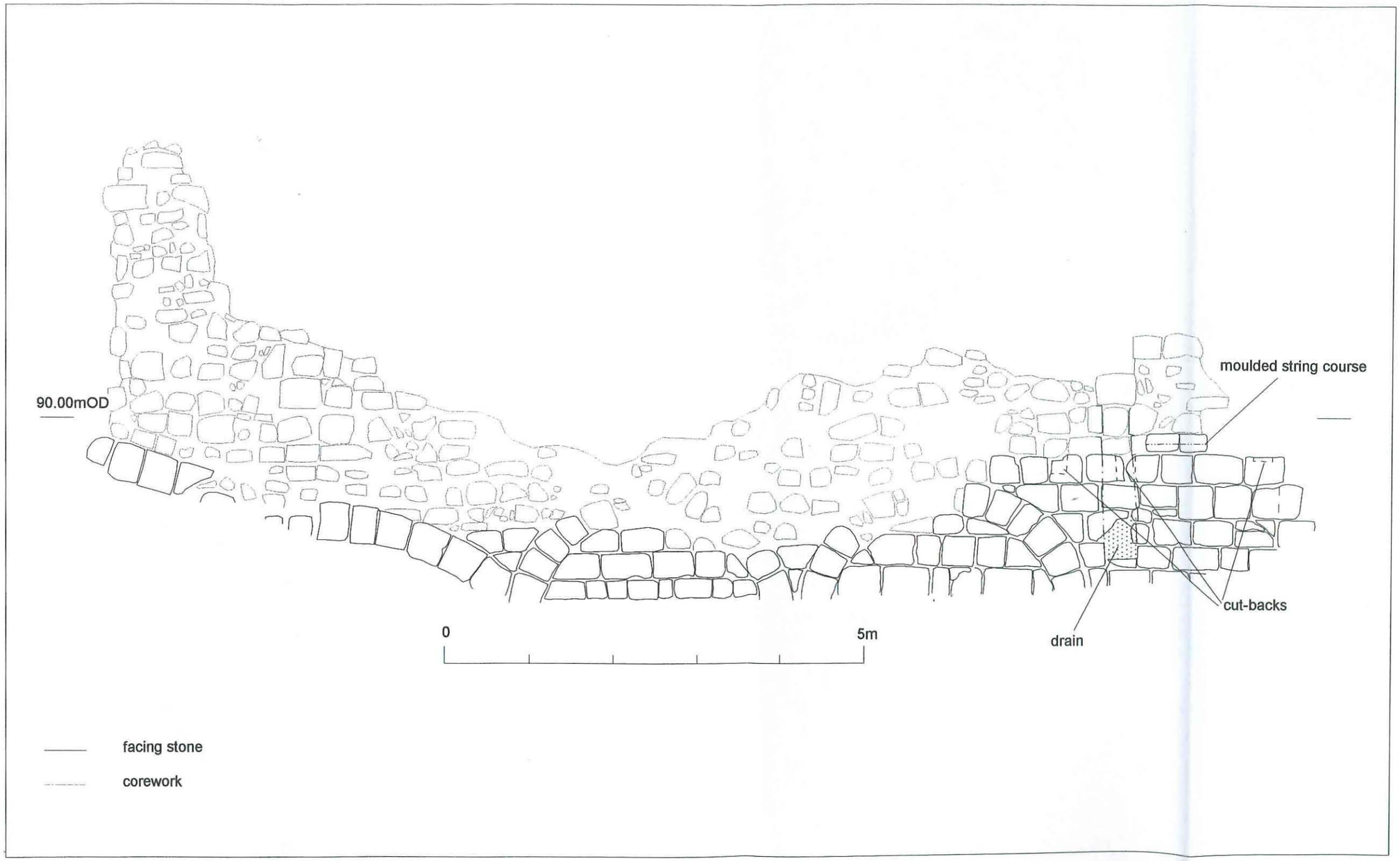


Fig. 10 Rectified photographic survey of south-west wall of keep, scale 1:50

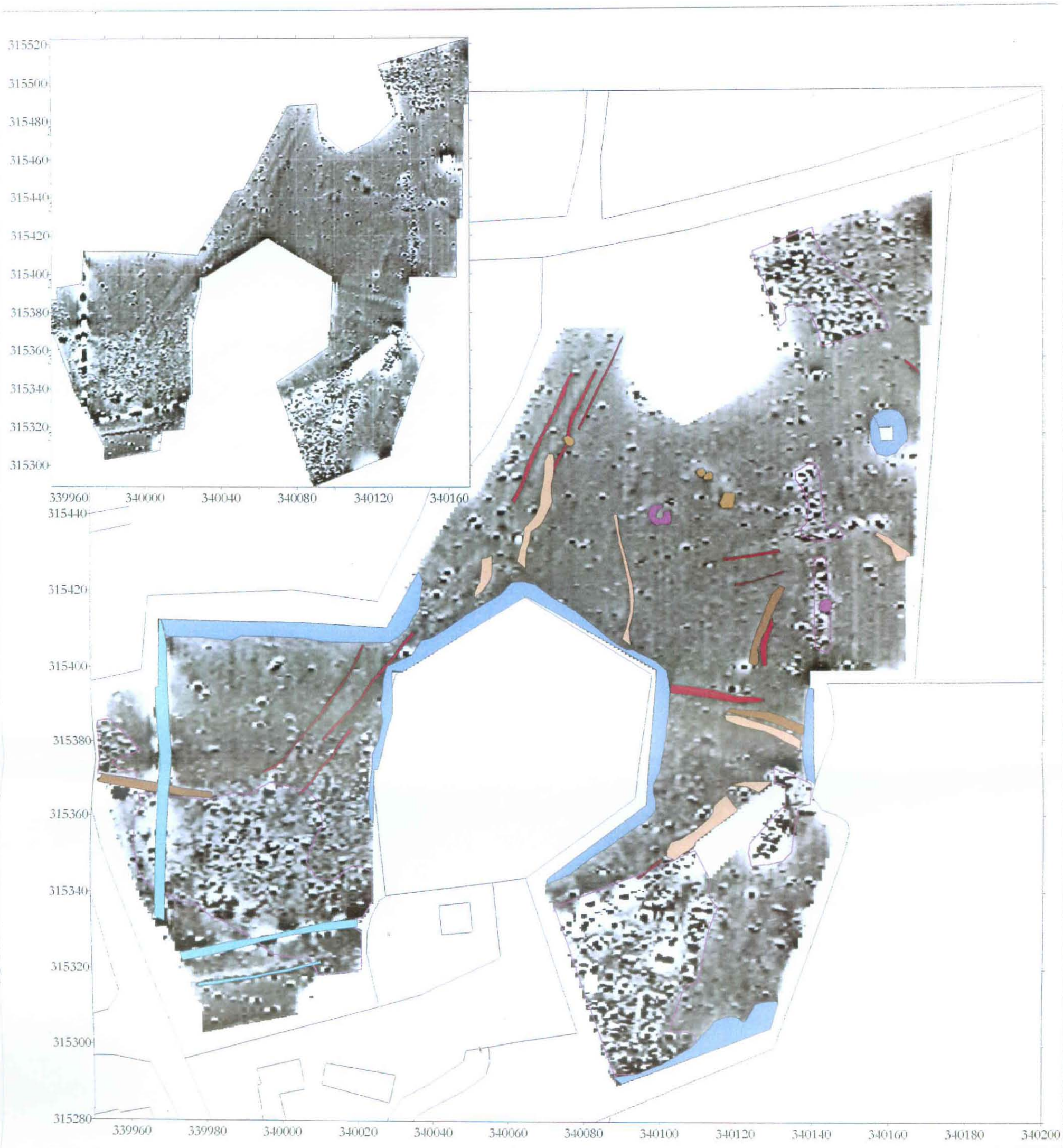


Fig. 11 Geophysical survey: Magnetic gradient data

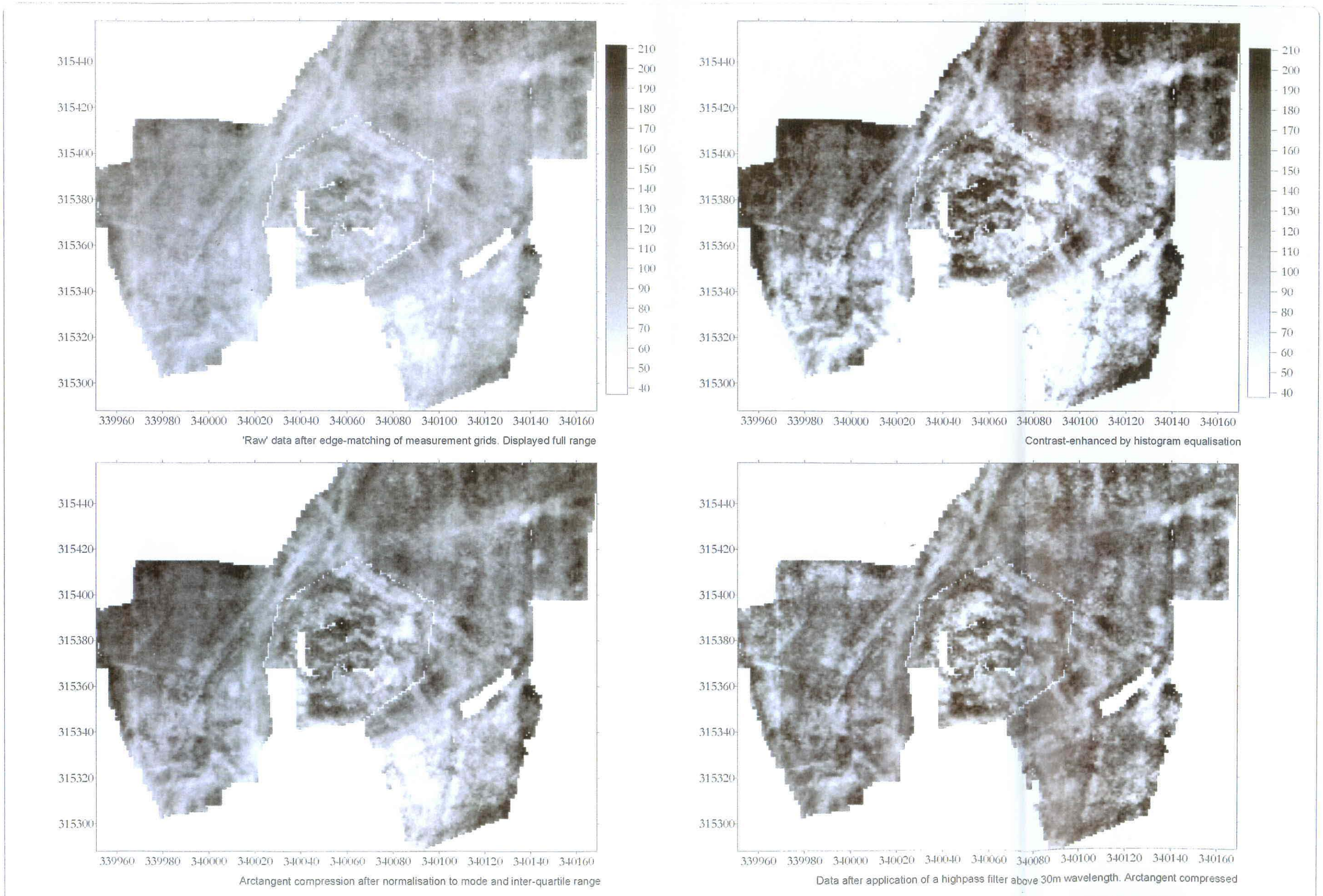
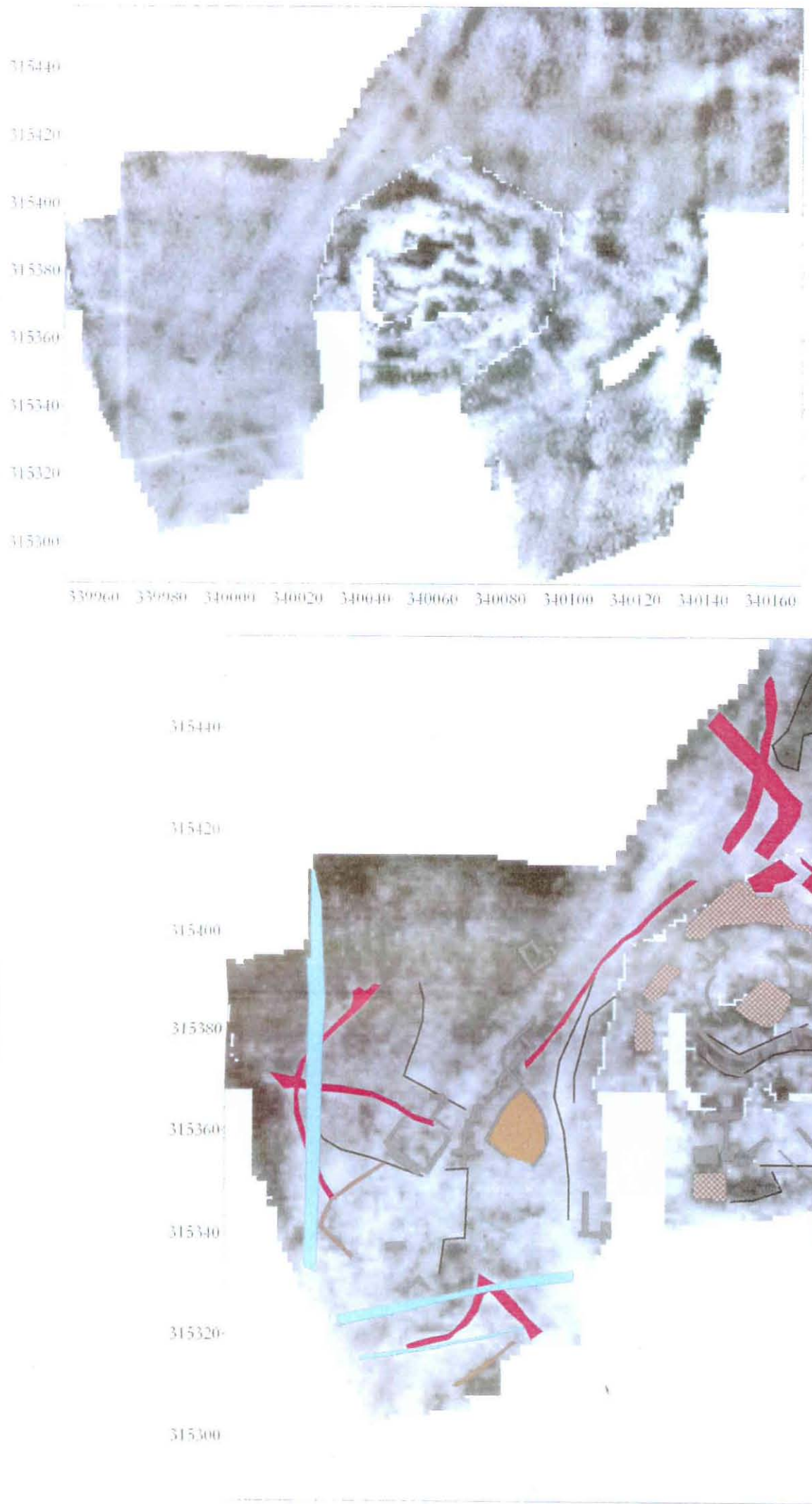


Fig. 12 Geophysical survey: Electrical Resistance data (uppermost 0.5m)

Fig. 13 Geophysical survey: Interpretation of Electrical Resistance data



Left. Highpassed data of layer 'B', showing pronounced anomalies within the motte, attributable to buried masonry and rubble deposits. Arctangent compressed data.

Below: Interpretative key overlaid on arctangent compressed data of layer 'A'.

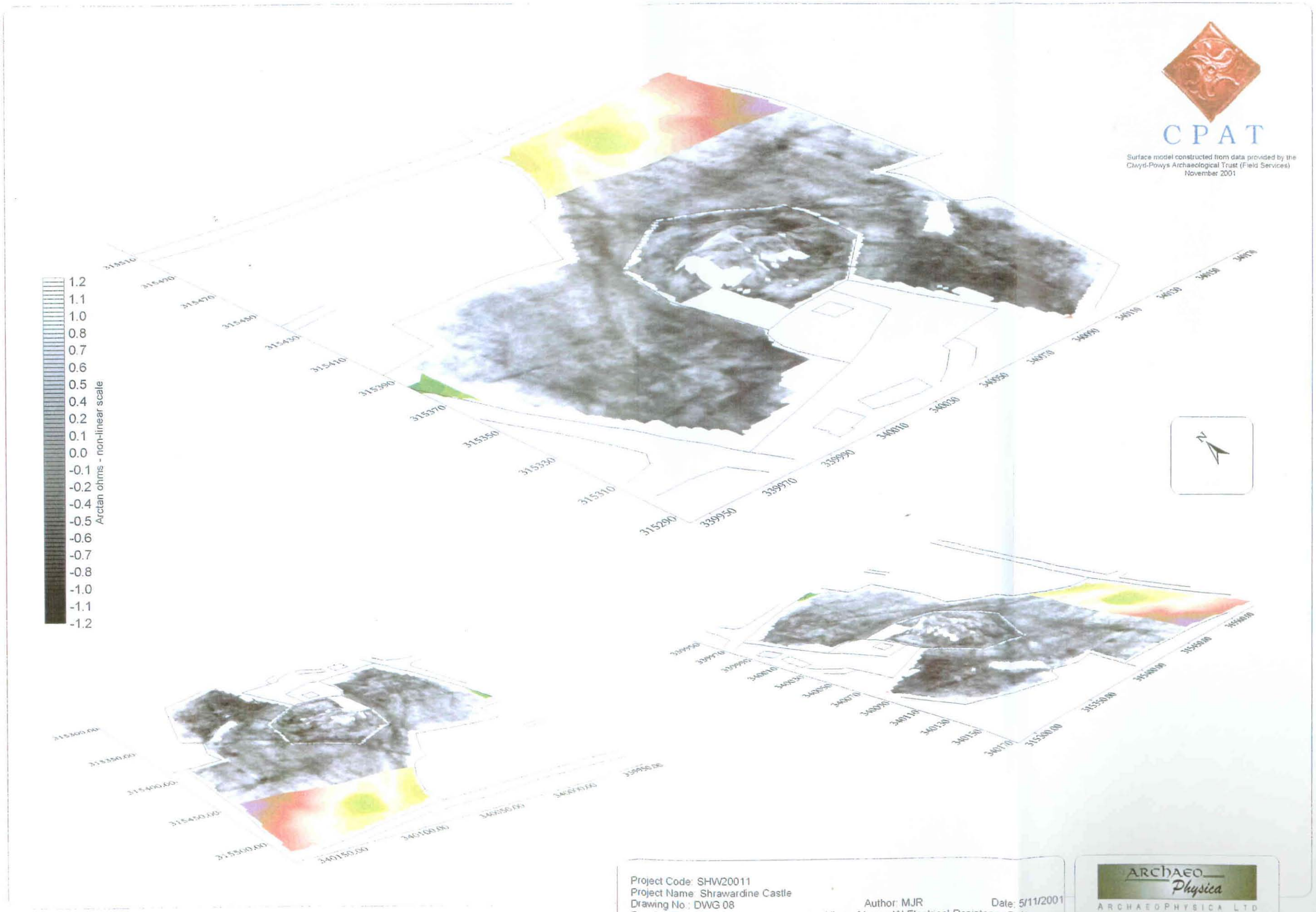
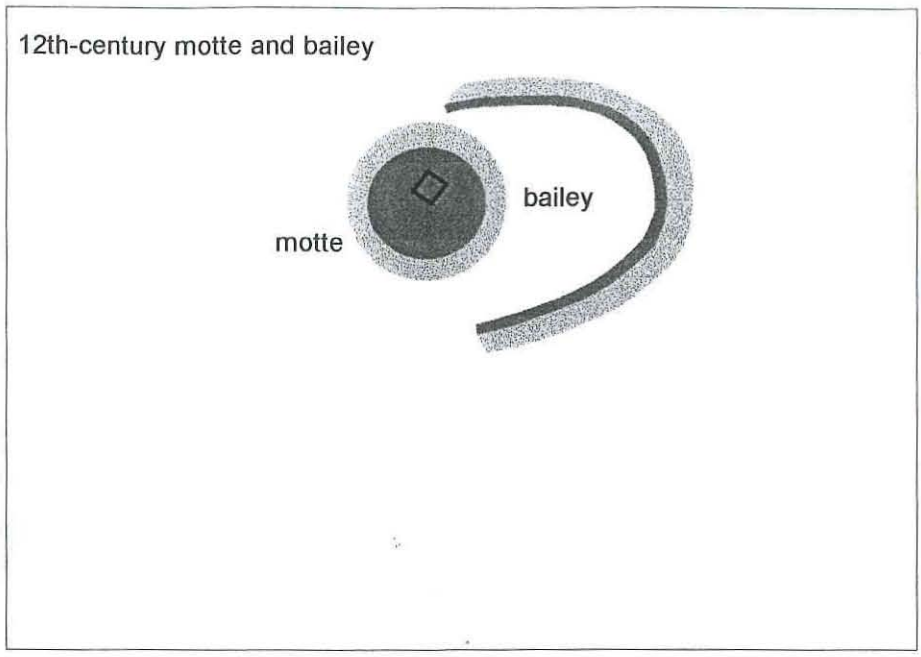
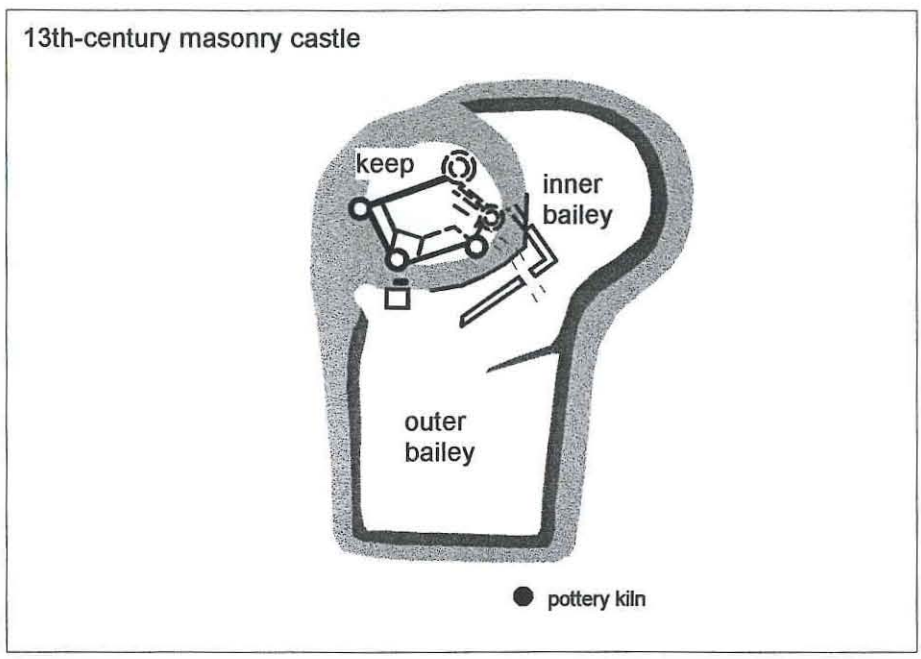


Fig. 14 Geophysical survey: Pseudo-aerial Perspective view of Electrical Resistance data





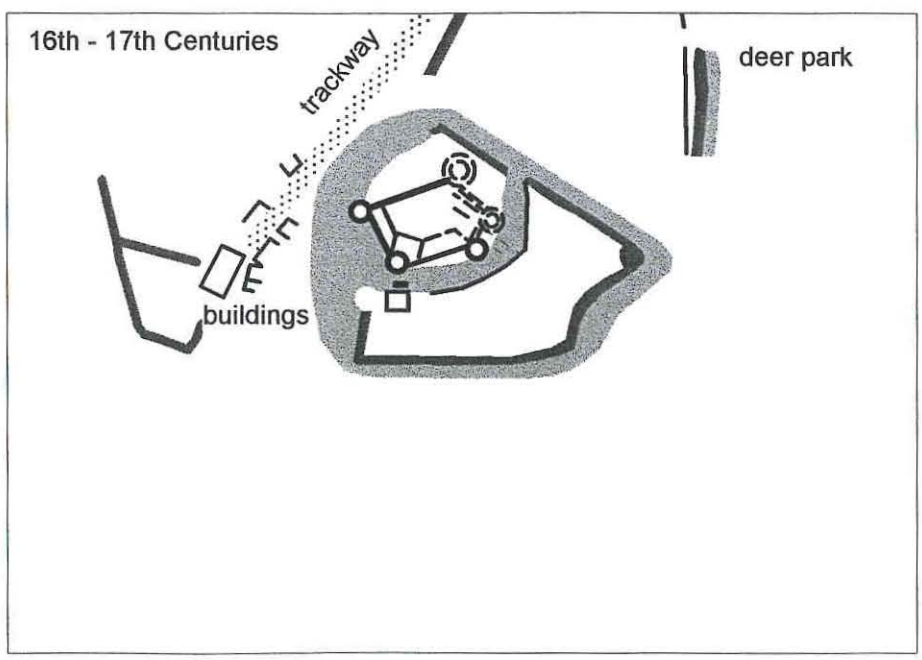


Fig. 15 Conjectural reconstruction and phasing

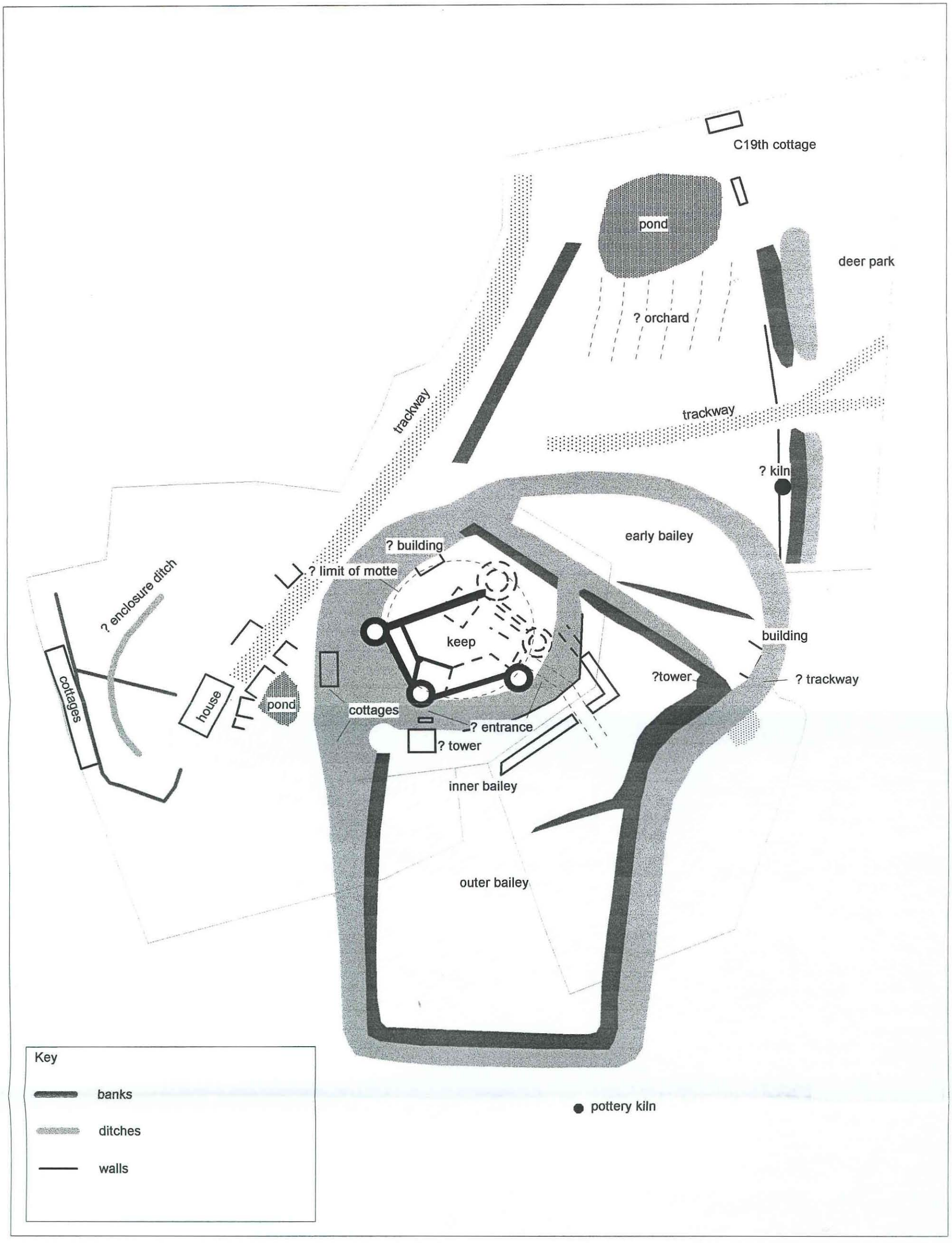


Fig. 16 Interpretative plan, scale 1:1000