

Geophysical Survey and Archaeological Test pit Excavation

Ramsey Abbey Cambridgeshire



Archaeological Report



July 2012

OA East Report No: 1368
OASIS No: oxfordar3-129881
NGR: TL 291 850

Ramsey Abbey, Cambridgeshire

Geophysical Survey and Archaeological Test pit Excavation

By Nick Gilmour MA AIfA

*With contributions by David Crawford-White BEd, Adv Dip, MSc , Rachel Fosberry HNC
AifA, Peter Masters BA HND PlfA MEAGE*

Editor: Stephen Macaulay BA MPhil, MiFA, Chris Thatcher BA

Illustrator: Severine Bezie BA MA

Report Date: July 2012

Report Number: 1368
Site Name: Ramsey Abbey
HER Event No: ECB 3784
Date of Works: May 2012
Client Name: Abbey College, Ramsey
Client Ref: n/a
Planning Ref: n/a
Grid Ref: TL 291 850
Site Code: RASABC12
Finance Code: RASABCOUT
Receiving Body: CCC Store
Accession No: RASABC12
Prepared by: Nick Gilmour
Position: Project Officer
Date: July 2012
Checked by: Stephen Macaulay
Position: Project Manager
Date: July 2012
Signed:

Disclaimer

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

Oxford Archaeology East,

15 Trafalgar Way,
Bar Hill,
Cambridge,
CB23 8SQ

t: 01223 850500
f: 01223 850599
e: oaeast@thehumanjourney.net
w: <http://thehumanjourney.net/oaeast>

© Oxford Archaeology East 2011
Oxford Archaeology Limited is a Registered Charity No: 285627

Table of Contents

Summary.....	5
1 Introduction.....	7
1.1 Location and scope of work.....	7
1.2 Geology and topography.....	7
1.3 Archaeological and historical background (Spoerry et al 2008).....	7
1.4 Acknowledgements.....	11
2 Aims and Methodology.....	13
2.1 Aims.....	13
2.2 Methodology.....	13
3 Results.....	14
3.1 Introduction	14
3.2 Test Pits 1, 2, 3 and 4 (Fig 2 & 5).....	14
3.3 Test Pit 5 (Figs 4 & 5).....	14
3.4 Test Pits 9 and 10 (Fig 2 & 5).....	15
3.5 Finds.....	15
3.6 Environmental Summary.....	19
4 Discussion and Conclusions.....	20
4.1 Post medieval features.....	20
4.2 Abbey Layout.....	20
4.3 Artefacts.....	20
4.4 Significance.....	20
Appendix A. Test Descriptions and Context Inventory.....	22
Appendix B. Finds Quantification.....	25
Appendix C. Environmental Remains	29
Appendix D. Bibliography	30
Appendix E. OASIS Report Form	32
Appendix F. Report on Monks Down Under HLF Project.....	34
Appendix G. Geophysical Survey Report.....	74

List of Figures

- Fig. 1 Site location map
- Fig. 2 Ramsey Abbey: interpretive plan showing surviving buildings and archaeological interventions (after Spoerry et al 2008, 175)
- Fig. 3 Interpretive map, showing possible elements of the Ramsey abbey precinct enclosure and lodes, in relation to the 1891 Ordnance survey map (1st edition) (After Spoerry et al 2008, 176)
- Fig. 4 Test Pit Plan
- Fig. 5 Selected sections

List of Plates

- Plate 1 Test Pit 5, from the south
- Plate 2 Test Pit 9, from above
- Plate 3 Test Pit 10, from the north

Summary

As part of a Young Poots project, funded by the Heritage Lottery Fund, a geophysical survey and test pit archaeological excavation was carried out at Ramsey Abbey College, Cambridgeshire by Oxford Archaeology East with the permission of English Heritage. This aimed to shed some light on the layout of the principal buildings of Ramsey Abbey. Ramsey was a Benedictine Abbey and was one of the wealthiest medieval religious houses in Britain, known as 'Ramsey the Golden' and yet little is known of the original layout due to the total demolition of the monastery after the Dissolution.

The geophysical survey and excavation were carried out primarily by pupils at Ramsey Abbey College, with adult volunteers and supervision from archaeologists at Oxford Archaeology East and geophysicists from Cranfield University. This survey revealed possible buildings to the east of Abbey House.

The test pit excavation targeted geophysical anomalies to determine if they represented parts of the original Ramsey Abbey buildings. These test pits showed that if archaeology survives on the site (as suggested by the geophysics) it is buried by more than 0.60m of post-medieval demolition and levelling layers. Finds from the test pits shed some light on the medieval abbey, with pottery, ceramic and stone building material, painted glass, lead window came and vessel glass among the material recovered. Overall, the project has shown that it is extremely likely that at least some major buildings were located to the east of Abbey House.

1 INTRODUCTION

1.1 Location and scope of work

- 1.1.1 A geophysical survey and archaeological test pit excavation was conducted at Ramsey Abbey, Cambridgeshire (TL 291 850). The work took place within a scheduled area (SM 141) and as such scheduled monument consent was obtained from English Heritage prior to commencement of work (Ref S00035774).
- 1.1.2 The geophysical survey and test pit excavation was part of a broader project within the school, entitled 'Monks Down Under' (see Appendix F for full details). This was a Young Roots Project, funded by the Heritage Lottery Fund. The primary aim was to involve pupils in the search for the original position of the main buildings of Ramsey Abbey and to engage them in their local heritage whilst developing their skills and interest.
- 1.1.3 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

1.2 Geology and topography

- 1.2.1 Ramsey lies on March gravels (British Geological Survey 1995), on what was effectively an island surrounded by Bury Fen to the south and Stocking Fen to the north. Visitors approached it, as the chroniclers note, by a causeway on one side. The line of the streets has changed little since originally laid out (Page et al 1932, 188–9). The monks built the abbey and its precinct on a very slight rise, the abbey lying at between 5m and 6m OD and the town between 4m and 5m OD, although there is a drop in level towards the north-west and west edges of the historic town. Most of the extensive fenland in the parish is near to sea level (Hall 1992, 41).

1.3 Archaeological and historical background (Spoerry et al 2008)

- 1.3.1 This section is taken from Spoerry *et al* 2008, pages , with very minor alterations.

Historical background

- 1.3.2 The historic town of Ramsey owes its existence to the Benedictine abbey created by Oswald, bishop of Worcester from AD960, and Aethelwine, the aeldorman of East Anglia. At Oswald's suggestion, Aethelwine founded a small wooden chapel for three hermits, reputedly after a vision of St Benedict appeared to his fisherman in Ramsey Mere. A bull was to indicate the position of the church (DeWindt and DeWindt 2006, 11). Being suitably impressed by the story, Oswald sent 12 monks and a prior from the Benedictine house at Westbury; he made the journey to inspect Ramsey and described it as an island 'surrounded by marsh and bogs; with meadow, woods, and ponds; with all kinds of fish and a wide variety of birds; and cut off from the outside world'(Ibid; quoting Macray (ed) 1886, 38). Oswald's investment in the site continued with the construction of a stone church and other buildings, which began in AD969 (De Windt and DeWindt 2006, 11.)
- 1.3.3 A series of substantial endowments made the house one of the richest in the fens — Ramsey the Golden. Its wealth enabled it to acquire an extensive library and the abbey rapidly developed a reputation for learning that continued until the Dissolution.
- 1.3.4 The estates were reorganised c.1100 with certain manors providing supplies to the cellarer while others, usually the more distant ones, provided money instead. Many of the detailed estate documents survive and the published records are extensive. The

abbey not only supported almost 80 monks, a number that remained constant during the 13th century, but also daughter houses. In the 11th century, Ramsey bought a stone quarry from Peterborough Abbey and used it to rebuild the monastery, refashioning the church during the 12th century. In Stephen's reign, the house suffered severely and was overtaken by Geoffrey de Mandeville in 1143 — he fortified the house and expelled the monks (Page et al 1932, 191). The abbey was badly damaged and impoverished.

- 1.3.5 The late 13th and 14th centuries saw a succession of wealthy and worldly abbots — John of Sawtry, Simon of Eye and William of Godmanchester — each of whom embarked on costly building programmes. The Black Death added to these financial problems and by 1349 the house owed 2,500 marks (£1,666/13/4d). The visitation returns at the end of the 14th century suggest that the abbey was both financially and morally decayed, but by 1431 all was restored. In 1535 Thomas Bedyll visited and reported to Thomas Cromwell that the monks would acknowledge the Supremacy and in 1538 they surrendered without complaint, receiving high pensions as a reward. The house was valued in 1535 at £1,715/12/3d, which included the abbey and the cells at Modney (Norfolk) and Slepe (St Ives, Cambridgeshire). They assessed the house at Chatteris (Cambridgeshire) separately.
- 1.3.6 The abbey was dissolved in 1539, when the Cromwell family bought its land, titles and buildings and saw to its destruction. We know that several Cambridge Colleges (Kings, Trinity, Gonville and Caius), as well as the gatehouse at Hinchingsbrooke House (Cambridgeshire), used much of the abbey stone.
- 1.3.7 The earliest cartographic depiction of Ramsey is the very small-scale 1646 county map of Huntingdonshire by Blaeu, although this gives no indication of the layout of the abbey itself. Jonas Moore's map of 1684 is the first to show the town to any scale — it illustrates the general shape of the settlement along two main roads, linked to Ramsey Mere via two artificial watercourses (or lodes). The map records the Great Whyte but not its subsidiary, the Little Whyte: the Great Whyte, now a wide road, once incorporated a lode that discharged into the High Lode and thence the Nene further north. Dating back to at least the 13th century, it was culverted in the 19th century and survives beneath the present road. The first detailed map of Ramsey Abbey itself is the Silius Titus estate survey c.1704–9, which is a wonderfully eccentric depiction, showing the surviving parish church within the former abbey precinct and a few other buildings, probable ponds and many small fields, some of which may have been orchards (HRO 1737 RB 2/1).

Archaeological background

- 1.3.8 Present understanding of the archaeology of the abbey is very poor. We do not know the accurate location of the monastic buildings, including the cloisters, abbey church and inner/outer court boundaries, such was the scale of the destruction after the Dissolution. Various theories persist, based upon interpretation of the surviving buildings (Fig 2; see 'The Monastic Buildings'). The RCHME recorded the most obvious earthworks within the abbey environs (RCHME 1926, 210).
- 1.3.9 Ramsey Abbey is known from documents to have produced decorated and undecorated tiles and a tile kiln was discovered in the grounds of the Ailwyn School in 1966 — the following year Elizabeth Eames, John Cherry and the master and pupils of the school excavated it (DeWindt and DeWindt 2006, 188; Eames 1980). The precise location of the kiln is not known but it evidently lay close to the small copse along Hollow Lane to the south-east of the school buildings (Fig 1).

- 1.3.10 Various finds have been retrieved from a field between 300 and 500m to the north of the surviving abbey buildings (Hall 1992 site 17, 42; fig 25). When surveyed in March 1978 the ploughed field showed soilmarks and remains of earthworks (Fig 3). This location appears from documentary references to have been where the abbey disposed of much of its refuse (E DeWindt and A DeWindt pers comm, as noted in Hall, 1992, 42). Pottery recovered from this area is accessible through Ramsey Rural Museum and includes a range of recognisable high and late medieval fabrics and some additional sherds in a fabric like that of Ramsey's decorated tiles. The sherds exhibit characteristic wheel-stamped decoration that is also seen on ceramic objects and decorated tiles found in the area around the Ailwyn School (which lies in the southern part of the former abbey precinct), perhaps suggesting that pottery production took place here.
- 1.3.11 Until recently, the limited archaeological work conducted elsewhere in Ramsey has all occurred to the north-west of the abbey. Excavations at 52 High Street found Saxo-Norman occupation (Nicolson 2006), while high medieval activity located on several sites demonstrates the levelling and reclamation of wet, low-lying areas (Atkins 2004a and 2004b; Cooper 2003 and 2005; Hickling 2006; O'Brien and Crank 2002; Membery and Hatton 1996; Pearson and McDonald 2000). Remains of structures lie above some of these levelling layers (eg Atkins 2004b); archaeological work demonstrates repeated flooding and late peat formation with resultant problems for settlement. Further ground levelling occurred in the post-medieval period (Atkins 2004a).

The Monastic Buildings

- 1.3.12 Supposition is the basis of most previous interpretations of the layout of Ramsey Abbey and hypotheses about the position and arrangement of the monastic buildings. The exact location of the abbey church itself has yet to be pinpointed, although a multi-disciplinary project undertaken by CAM ARC in 1999 provided sufficient new data for one of the previously published models, that of Dickinson, to be discounted in favour of an interpretation akin to one suggested by the late Tony Baggs (Dickinson 1967, 245–47; Baggs, pers comm; Spoerry and Cooper 2000). This places the abbey church's north wall along the surviving dog-legged southern wall of the churchyard of St Thomas a Becket (where *in-situ* high medieval fabric has now been identified; Fig 2). It implies that the extant 13th-century fabric in the basement of part of Ramsey Abbey School (No 3) is more likely to represent an infirmary chapel or chapter house located to the south-east of the cloistral range, rather than a lost Lady Chapel as indicated in some previous publications (Spoerry and Cooper 2000).
- 1.3.13 The only other above-ground and *in-situ* elements from the monastery are various wall fragments (Nos 4 and 5), the surviving half of the late 15th-century gatehouse and the parish church itself. This was originally the abbey's hospital, infirmary or guesthouse c.1180–90, converted into the church for the new parish of Ramsey c.1222 (Haigh 1988). If Baggs' model for the position of the abbey church is indeed correct, then the parish church cannot be the original infirmary that we would normally anticipate east of a cloistral range positioned to the south of the church. As already indicated, the 13th-century fabric in the school basement is a good candidate for the infirmary chapel, suggesting that the parish church's origins are as a guesthouse placed appropriately within the outer court to the north of the abbey church. Baggs' suggestion that the surviving gatehouse fragment is analogous to the 'Abbot's Gate' at Peterborough (Cambridgeshire) (linking the outer and inner courts and not forming the main gate to the monastery) then follows logically, at least for an initial phase of the layout. The main gate must originally have lain further to the north-west, leading into the area of the

outer court that contained the guesthouse. One can argue that the change in function of the guesthouse to parish church in the early 13th century led to the withdrawal of the main gate to permit access by the townspeople to the church: the inner gate may have then become the new main gate. Whichever arrangement is correct, a two-phase model is implied.

- 1.3.14 The 1999 survey project provided further important evidence through geophysical surveying of the area to the south and east of the 13th-century 'chapel'. Although access was restricted to grassed lawns, high-resistance anomalies were mapped and ground-penetrating radar transects were taken across these providing confirmation of their depth and substance. These anomalies clearly indicated the wall lines of three further masonry structures positioned to the east of the chapel (No 10), aligned ordinarily with it and with the surviving wall foundations located beneath the churchyard wall some 80m to the north. In addition, an area of generally enhanced resistance to the south of the chapel may have signalled a further stone structure, while further geophysical surveying suggested former structures well to the north-west, south of the churchyard wall.

The Abbey Precinct

- 1.3.15 The RCHME identified the more obvious earthworks within the abbey environs, with a large oval enclosure representing the abbey precinct itself (RCHME 1926, 210). These earthworks are, however, more complex than they appear at first glance. The line of the enclosure ditches is clear to the north-east and south-east, where they cut across the high island ridge, but they are not visible in the eastern part of the circuit across a bay of low-lying fenland (Figs 3 and 4).
- 1.3.16 To the extreme north is a cluster of very large rectangular 'pits' or earthworks (Fig 3), one of which the RCHME show as a pond. These lie at the north-western terminus of a large ditch that curves around to the east and south and which forms the north-eastern part of the monastic enclosure. Westwards of this point (running to the junction of New Road with Great Whyte) the enclosure ditch is replaced by the line of a ditch or channel that runs below and parallel to the 5m contour (at approximately 3m OD), and has the effect of flattening off the enclosure's northwestern side. This channel feeds either into or out of the large pond-like earthwork complex.
- 1.3.17 The position of the western precinct boundary line is represented by a surviving ditch that again runs just below the 5m contour and is positioned around 80m west of Hollow Lane, which itself leads towards the late-medieval gatehouse. The ditch links to earthworks south of Hollow Lane shown on the RCHME plan.
- 1.3.18 To the south-east and north-east there is some evidence (stronger at the south-east) for the existence of a double boundary, or of different versions of the precinct; the information being recoverable from early edition OS maps, recent aerial photographs and an excavated section through a previously unknown boundary ditch (Mortimer 2006). It is possible that these alignments represent the line of, and ditched flood defences for, a trackway around the outside of the precinct.
- 1.3.19 Booth's Hill, an Anarchy fortification, lies at the extreme south of the precinct (Fig 3), and could either have been set within it (dating the enclosure to before the Anarchy period) or deliberately enclosed by it (dating after the Anarchy). Scholars usually interpret Booth's Hill as a defensive work dating to 1143 when de Mandeville's forces occupied and fortified the abbey. It was no doubt located to command the seasonally dry land to the south of the island on which the monastery lies, and across which an ancient routeway, from Ramsey to its former mother parish church at Bury

(Cambridgeshire), is believed to have existed (Fig 4) (D Cozens pers. comm.). Unlike the crossing from the mainland to the west, this route would not involve a crossing of the Bury Brook. Parts of this route may be fossilised in the footpaths that still run to the east of the Bury Brook between Bury and Ramsey.

- 1.3.20 It is probable that the causeway to the mainland due west from the abbey was in place by the middle or end of the 12th century, as it was at this point that the settlement outside the abbey gate was granted a market (Page, et al 1932, 188); it is possible that until this route's construction the main way onto the island was direct from Bury to the south. The causeway would not only have had to cross deep fen but also the course, or multiple courses, of the Bury Brook and it may be that the canalisation of the Bury Brook was begun at this time — a causeway would necessitate the closing off of all but one course of the stream, and also the construction of a bridge. The early bridge would have been of wood, but was of stone by the 13th century.
- 1.3.21 The relationship between the precinct boundary and the growth and shape of the town of Ramsey itself is undoubtedly complicated. While we cannot fully explore this subject here, it is important to note the following observations. Surviving property boundaries visible to the north of Little Whyte and to the south of High Street preserve the original precinct boundary line and give a position for the original western gateway, and perhaps also a logical position for further defensive works from the Anarchy period. Ramsey's plan was probably first formalised at, or soon after, the award of a market charter in 1200. This may have resulted in establishment of the market place between the current High Street and Little Whyte, but it is also possible that an informal arrangement was already in existence here. Whatever the case, by 1222 (when the guesthouse was converted into a church for the parish), the precinct boundary may have been redefined to provide access to the church. This change also offered the possibility of infilling the resultant space with further properties and allowed the market place to be extended eastwards to the current Church Green. The resultant peculiar curving shape of properties is visible north of Little Whyte. South of the new parish church, the southern churchyard boundary became aligned on the north wall of the abbey church and a new gateway into the precinct was established where the late 15th-century structure was later built (Spoerry and Cooper 2000). This gateway may already have been in existence as the entrance to the inner court.

1.4 Acknowledgements

- 1.4.1 The 'Monks Down Under' project was funded by the Heritage Lottery Fund, as a Young Roots Project. Thanks go to English Heritage for granting scheduled monument consent and in particular to Dave Kenny who assisted greatly on site and also took the time to explain the role of English Heritage to the pupils. We are also grateful to the Trustees of the site and Lord & Lady Fairheaven for giving their permission to excavate some well maintained lawns.
- 1.4.2 Peter Masters of Cranfield University supervised the geophysical survey and demonstrated the use of the equipment to pupils. The author and James Fairbairn supervised the test pit excavations with the assistance of several volunteers including; Christopher Beard, Charlotte Beattie, Peter Cornelissen, Jo Everitt, Nina Ferreday, Alex Fisher, Josephine Fried, Christine Green, Philip Harty, Anne Jarzabek, John Jarzabek, Michael Looker, Robert Skeen and Becky Zarate, along with Abbey College teachers Charles Dallywater, Rachel Green and Jackie West.
- 1.4.3 The pupils involved in excavating the test pits were; Tabby Baldwin, Richard Bennett, Liz Clarke, Alan Cooper, Abigail Ewan, Jack Fowler, Edward Glen, Sam Green, Michael

Jones, Alana Knight, Marcus Law, Alistar Mockett, Geena Muir-Sage, Ben Nicol, Alex Paynter, Chris Paynton, Jeremy Purlant, Jacob Setchfield, Jack Smith, Lewis Smith, James Thomas , Becky Wells, Samuel Wells, Charlotte West, Tom Wincup and Edward Younger. Finally, David Crawford-White and Becca Hoy who ran the Young Roots project.

2 AIMS AND METHODOLOGY

2.1 Aims

- 2.1.1 The archaeological objective of this project was to determine as far as reasonably possible the location, nature, extent, date, quality, condition and significance of any surviving archaeological remains of Ramsey Abbey and if possible shed some light on the layout of the principal abbey buildings.
- 2.1.2 This was carried out through geophysical survey (see Appendix G) and the excavation of test pits.

2.2 Methodology

- 2.2.1 Ten 1m x 1m test pits were to be excavated, as two groups of four and a group of two. The two groups of four were each arranged covering a 2.5m x 2.5m area, leaving a half meter cross shaped bulk through the middle. This bulk was later removed in one group of test pits (5,6,7 and 8) and the single large test pit this created renamed test pit 5.
- 2.2.2 The test pits were located on sites identified through both the resistivity and magnetometry surveys, with test pits 9 and 10 located over a magnetic anomaly, and the remainder on possible wall lines identified by resistivity.
- 2.2.3 All excavation was carried out by hand, under constant archaeological supervision, primarily by pupils from Ramsey Abbey college. Each test pit was excavated by an average of two pupils and at least one adult volunteer.
- 2.2.4 The site survey was carried out by Rachel Clarke of OA East using a Leica 1200 GPS.
- 2.2.5 Spoil, exposed surfaces and features were scanned with a metal detector and all spoil removed from the test pits was sieved. All metal-detected and hand-collected finds were retained for inspection.
- 2.2.6 All archaeological features and deposits were recorded using *pro-forma* sheets. Trench plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of relevant features and deposits. Environmental samples were to be taken from all excavated features, however only one was identified and this was sampled.
- 2.2.7 Site conditions were generally good, although there were occasional light rain showers.

3 RESULTS

3.1 Introduction

3.1.1 The results are presented by test pit group, with details of each context given in Appendix A.

3.2 Test Pits 1, 2, 3 and 4 (Fig 2 & 5)

3.2.1 Test Pits 1, 2, 3 and 4 were excavated to depths of between 0.40m and 0.60m, the natural geology was not reached in any of the pits and no features were identified. Layers in each pit were similar, the lowest deposit reached was a mid brownish orange silty sand, with frequent gravel inclusions (304). This was located 0.60m below current ground level in Test Pit 3 and was not excavated, it may represent the geological horizon, a surface or a dumped deposit.

3.2.2 This was overlain by a mid grey brown silty sand (104, 105, 203, 303, 402), which contained medieval and post-medieval material (Appendix B). This deposit was excavated to a depth of 0.34m (in Test Pit 3) and appears to represent a post-medieval or modern levelling layer. Above this was a dark brownish grey silty sand, with frequent gravel inclusions (102, 202, 302). It was between 0.04m and 0.16m thick and was not present in Test Pit 4. The final layer in each pit was the topsoil (101, 201, 301, 401), a dark brownish grey silty sand between 0.08m and 0.12m thick.

3.3 Test Pit 5 (Figs 4 & 5)

3.3.1 Test Pit 5 was located east of the school building in a grassed area that would have been part of the formal gardens for Abbey house. Test Pit 5 measured 2.5m x 2.5m and was dug to a maximum depth of 1.1m. It contained three distinct features; a shallow rubbish pit, a small posthole and the remains of a garden wall. These are all thought to date to the post-medieval period.

Feature 512

3.3.2 A post-medieval pit that was most probably dug to dispose of general domestic and garden waste (**512**) was recorded in the south-east corner. This was dug to a depth of 0.72m onto a reddish brown sandy gravel natural geology. The lower fill of Test Pit 5 (511) consisted of a firm mid brown sandy silt which contained pottery and bone dating to the post-medieval period. The upper fill (510) consisted of a dark silty clay with moderate patches of burning and charcoal. Finds consisted of pottery and bone dating to the post-medieval period. This was overlain by garden soils (503 and 502), both consisted of a similar dark grey brown sandy silt and were in turn capped by a layer of turf (501).

Post hole 509

3.3.3 A small post hole (**509**) was recorded in the north eastern corner of Test Pit 5. This was steep sided with a slightly concave bottom and contained a single fill (508) which consisted of a dark brown sandy silt containing small amounts of pottery dating to the late post-medieval to modern period. The post hole was sealed by a mid brownish grey silty sandy subsoil layer 507.

Feature 505

- 3.3.4 The remnants of a small wall (505 and 513) were recorded in Test Pit 5. Only small pieces of brick and mortar remained within a shallow cut (**506** and **514**). This cut can be assigned to either a shallow foundation for a garden wall or a robber cut dug when the wall was removed. The wall was orientated north to south and was noted as an anomaly during the geophysical survey carried out on the site in advance of the excavation. The wall had a maximum width of 0.30m and a depth of 0.20m. The ceramic building material (CBM) is post-medieval and is most probably associated with a garden feature to the east of the house.

3.4 Test Pits 9 and 10 (Fig 2 & 5)

- 3.4.1 Test Pits 9 and 10 were positioned to the south of Abbey House, where a magnetic anomaly was observed. It is of note that a large quantity of tile and stone was visible in an adjacent flower bed. Neither test pit reached the geological horizon and no cut features were identified. The lowest deposit identified was a mid yellowish brown silty sand (905, 1005), which contained finds of medieval and post-medieval date.
- 3.4.2 This was overlain by a mid greyish brown, silty sand deposit (904, 1004) containing frequent fragments of fossiliferous limestone, along with finds of medieval and post-medieval date. The overlying deposit (902, 903, 1002, 1003) was very similar but contained fewer smaller stones. The final layer was the topsoil, a dark brownish grey silty sand between 0.10m and 0.12m thick.

3.5 Finds

- 3.5.1 A quantification (count and weight) by context of all of the finds is given in Appendix B.

Metalwork

- 3.5.2 A total of four modern coins were recovered from the excavations, two from context 702 and two from 1001, these consisted of three two pence pieces and a one pence piece. In addition a total of twenty six iron nails were retrieved. The nails were all hand made and are not closely datable. A single copper alloy lace end was found in context 202, this was complete and measured 31mm long. It is likely to be post-medieval in date.
- 3.5.3 A small collection of four lead objects was also found. Two fragments of window Came, which could be medieval and related to the abbey buildings (from 903 and 1002), a sheet fragment (from 902) and a lump (from 515). The lead lump from 515 may represent the melting down of lead from the roof and windows of the abbey at the Dissolution, although it is also possible that lead was melted at the site for numerous reasons at other times.

Glass

- 3.5.4 A relatively large number of fragments of late post-medieval and modern glass vessel and window glass were recovered from the test pits. Eight fragments (4g) recovered from 905 may have been from the same glass vessel. These are made of potash glass and so are likely to date from between the 13th and 15th century. The fragments are small and poorly preserved, making an identification of form impossible, although one appears to be from the rim or foot of a vessel.
- 3.5.5 A single fragment (2g) of medieval painted window glass was recovered from 903. This has a fleur-de-lys pattern painted on the surface and certainly originated from an important building within the Abbey.

Pottery

- 3.5.6 An assemblage totalling 462 sherds (2.760kg) of pottery was recovered from the site. The majority, 431 sherds (2.520kg or 93%), were from late post-medieval or modern terracotta flower pots, with several pieces of white glazed porcelain.
- 3.5.7 Only 31 sherds (240g or 7%) were medieval or late medieval in date. These are catalogued in Table 1 below. Most are late medieval, although a single sherd of Stamford ware does show earlier activity. They are from a variety of sources, with Surrey white wares, Bourne D (from Lincolnshire) and various Cambridgeshire potteries represented. In general this assemblage was small (average sherd weight was only 7.7g) and abraded, which reflects the secondary post medieval context from which it was retrieved.

Context	Weight (g)	Description	Date
102	6	Micacious fine sandy ware	1200-1500
103	3	Oxidised late Grimstone ware, external and internal green glaze	1350-1500
103	16	Oxidised Grimston ware, external green glaze	1200-1500
104	2	Sandy ware	1200-1500
202	8	Ely ware, external green glaze	1350-1500
202	2	Medieval sandy ware, external green glaze	NCD
202	2	Medieval sandy ware	NCD
301	1	Tudor green cup rim (surrey white ware)	1380-1550
303	3	Medieval sandyware	NCD
402	2	Medieval sandyware	NCD
402	3	Bourne D, external green glaze	1450-1650
503	2	Bourne D	1450-1650
503	11	?Surrey white ware, internal and external green glaze	1350-1550
503	3	Grimstone ware, external green glaze	1200-1500
505	3	Stamford ware, partial external yellow glaze	850-1150
510	5	Bourne D	1450-1650
603	6	?Huntingdon fen sandyware	?1150-1350
702	5	Micacious oxidised sandyware	1200-1500
702	30	Lyvden Stanion	1200-1350
702	16	Bourne D, exterior partial green glaze	1450-1650
803	11	Medieval reduced sandy ware	1150-1350
903	14	Late medieval Grimstone ware	1350-1500
904	8	?south Cambridgeshire grog tempered sandy ware	1050-1200
904	15	Huntingdon Fen sandyware, heavy internal limescale	1150-1350
904	3	Grimstone ware, external green glaze	1200-1500
904	13	Late medieval Grimstone ware, internal and external green glaze	1350-1500
905	18	Huntingdon fen sandyware	1150-1350
1002	2	Ely Ware, external green glaze	1450-1650
1002	20	Bourne D, exterior brown/yellow glaze	1450-1650
1004	2	Late Brill, internal and external green glaze	1350-1500

Context	Weight (g)	Description	Date
1004	5	Sible Hedingham, small traces external yellow glaze	1140-1350

Table 1: The medieval and late medieval pottery

Clay pipe

- 3.5.8 A total of thirteen fragments (37g) of clay tobacco pipe stem fragments were recovered. These were in frequent use throughout Britain from the latest 16th century until the early 20th century.

Building stone

- 3.5.9 Only the stone that had worked surfaces was retained, although numerous pieces of non-local stone were recorded. A total of twenty one fragments (3.344kg) of worked stone were present. The majority of these were fragments of fossiliferous limestone (although one is made from oolitic limestone) with one or two flat faces, without any measurable dimensions surviving. They almost certainly represent part of the vast abbey buildings that stood on the site, but little further interpretation is possible. A fragment of architectural stone, possible from the moulding around a doorway was found in 903. This is very similar, but significantly larger than, mouldings present in the 'Lady Chapel'. In addition 11 fragments (732g) of limestone roof tile were recovered, which probably originated from Northamptonshire (Colywestern).

Ceramic Building Material

- 3.5.10 A small to moderate collection of 380 (18.62kg) fragments of brick, floor brick and roof tile were found within 32 test pit contexts (Table 2). Forty are brick fragments, of which several are in the distinctive deep red fabric Ramsay Abbey were producing in the very early 16th century. Most of the brick is probably 17th and into 18th century with none definitely late (*i.e.* into 19th century). Two medieval floor tiles were found, one with raised relief decoration and was produced at Ramsay Abbey and the other a plain green glazed example, *c.*15th century in date. One probable post medieval floor brick which was *c.*18th century in date.
- 3.5.11 The vast majority of the assemblage (337 fragments) were roof tile fragments. Ceramic tile far outnumbered the stone tiles discussed above and these ceramic tiles comprised mostly peg hole types (26 had sub-rounded peg holes), although three had nibbs or probable nibb. The tile were in many fabrics including medieval Ely ware as well as some post medieval examples broadly up to *c.*17th or 18th centuries. There were no very late roof tiles such as pantiles.

Context	Weight (kg)	Number of CBM	Comments
102	0.43	13	?Two post-med brick fragments. ?Eleven tile. One sub-rounded peg hole. One possible tile with nibb or it could be a broken brick - anyway its been heavily over fired.
103	0.14	3	One post-medieval brick. Two tile. One sub-rounded peg hole
104	0.47	9	All roof tile. Mortar on one
105	0.60	7	All tile?
201	0.55	3	post-medieval brick; two roof tile
202	0.54	14	?Four brick - all post-medieval. The remainder til of which two have sub-rounded peg holes
203	0.40	12	One brick - possibly early 16th. 11 roof tile. Mortar on ?three.
301	0.04	4	Roof tile
302	0.12	9	Two brick ?early post medieval-remainder are tile
303	0.36	8	?Two post-medieval brick fragments -the remainder tile

Context	Weight (kg)	Number of CBM	Comments
402	0.50	24	One 16th century brick and one post-medieval brick. Remainder tile. Two fragments with sub rounded peg holes. Mortar on several
501	1.37	21	One brick fragment (post-med), one post-medieval floor brick 18th century and 19 roof tile. One had a prominent nibb. One sub-rounded peg hole. Four mortared
503	0.07	3	One brick ?post-medieval
504	0.10	2	Roof tile
505	0.04	1	Roof tile
507	0.09	4	Two undiagnostic brick. Two tile
510	0.33	5	One ?early post-medieval brick - remainder are tile
515	0.67	11	All roof tile. Two sub-rounded peg holes
602	0.07	3	Roof tile
603	0.14	6	Roof tile. One mortared
702	0.81	18	Three brick (post-medieval c.18th century) and 15 tile. Two with sub-rounded peg holes. One burnt.
802	0.04	3	Roof tile. One sub-rounded peg hole
803	0.11	3	One late medieval green glazed floor tile; two roof tile fragments.
804	0.19	4	One post-medieval brick. Three tile
902	1.11	20	One decorated medieval floor tile. One c.early 16th century brick fragment. 18 roof tile - one is a limestone fragment. Mortar on ? two
903	4.49	57	Six brick -16th - and? 17th century. One limestone roof tile. 50 ceramic roof tile including ?two Ely types. Four sub-rounded peg holes. Mortar on a few.
904	1.42	27	One brick- post-medieval. Remainder roof tile. Four sub-rounded peg holes. One nibb. Lime mortar attached to a few.
905	0.20	2	Two roof tile-mortared
1001	0.08	4	One undiagnostic brick. Three tile
1002	0.97	31	Four undiagnostic brick (probably all post-medieval); 27 roof tile fragments. Five fragments with sub-rounded peg holes. Mortar on three
1004	0.90	18	All roof tile? Two sub-rounded peg holes. Mortar on ?fout
1005	1.28	31	Four brick - all post-medieval. Remainder tile. Four have mortar attached.

Table 2: Quantification of ceramic building material

Mortar

3.5.12 Only 19 fragments (858g) of mortar were retained for inspection, although numerous fragments that were too small to be retrieved were noted on site. This material is a mixture of modern cement mortars and some lime mortar, which may be medieval or post-medieval.

Animal bone and shell

3.5.13 A small quantity (476g) of animal bone was found during the test pit excavations. The majority of the 160 fragments were small and unidentifiable to species, with an average weight of only 2.98g per fragment. There were also numerous bones from small rodents and rabbits, which are likely to be intrusive.

3.5.14 In addition, 118 fragments (492g) of marine molluscs were recovered. The majority of these were oyster shells, although some whelks and cockles were also present.

3.6 Environmental Summary

- 3.6.1 Only a single environmental sample was taken, from post-medieval pit **512**. It produced an assemblage consistent with that expected in a rubbish pit of this date. Plant remains are scarce suggesting that they were not deliberately included in the rubbish deposit and are most likely to have derived from hearth sweepings (App. C).

4 DISCUSSION AND CONCLUSIONS

4.1 Post medieval features

- 4.1.1 The three features identified in Test Pit 5 are all post-medieval and are perhaps associated with either the construction of Abbey House in the 17th century or the major remodelling which took place in the 1830s. They may well represent garden features. This may also explain the layers of post-medieval material recorded in Test pits 1-4, which probably represent levelling layers associated with the same construction.
- 4.1.2 It is of note that the natural geology was not encountered in Test pits 1-4 (the maximum depth reached was 0.60m), or in test pits 9 and 10 (excavated to a depth of 0.55m). However, post-medieval levelling layers were encountered. This suggests significant post-medieval alteration of the ground level, which could also account for the floor of the 'Lady Chapel' being over a metre below current ground level. It is possible that this levelling resulted in the preservation of archaeological deposits in the area close to Abbey House.

4.2 Abbey Layout

- 4.2.1 The geophysical survey (Appendix G) suggests that the remains of major buildings lie to the east of Abbey house, however, no features that would account for these geophysical anomalies were encountered due to the fact that test pits 1-4 and 9-10 only reached a depth of 0.60m and 0.55m respectively and did not reach the natural.
- 4.2.2 It is possible that feature **505**, located in Test Pit 5, was identified on the resistivity survey conducted prior to excavation (Appendix G). If this is the case then it is likely that the small group of anomalies noted to the east of the survey area would also represent post-medieval features. It is also possible that the frequent stone and ceramic building material found in Test Pits 9 and 10, account for the magnetic anomaly located in this area.
- 4.2.3 Although this work did not definitely confirm the location of the main Abbey buildings, the geophysical survey and finds recovered suggest that at least some major buildings lie to the east of Abbey House. In the future a radar survey of the lawns in the area of the test pits could provide further valuable information and potentially resolve the issue of the main precinct location. In addition, the re-excavation of the current test pits to greater depths would ascertain whether or not medieval deposits are preserved below the post-medieval demolition and levelling layers recorded during this excavation.

4.3 Artefacts




- 4.3.1 All the artefacts recovered from this site were from post-medieval or modern features and deposits, and the majority of the finds were of those dates, however, a small assemblage of medieval material was recovered. Some of this hints at the appearance of the Abbey buildings, with worked limestone, Collywestern roof slates and painted window glass. The pottery recovered spans the period from early medieval to the 20th century.

4.4 Significance



- 4.4.1 This project has allowed the pupils of Ramsey Abbey College and local people to become involved in helping to further the understanding of the past of Ramsey Abbey. The geophysical survey has highlighted the presence of possible building remains

surviving below the current lawn areas to the east and south of the 'Lady Chapel'. The test pitting failed to locate any definite walls, or robbed out wall trenches, however, this is probably due to these being more deeply buried and the test pits did not reach these levels.

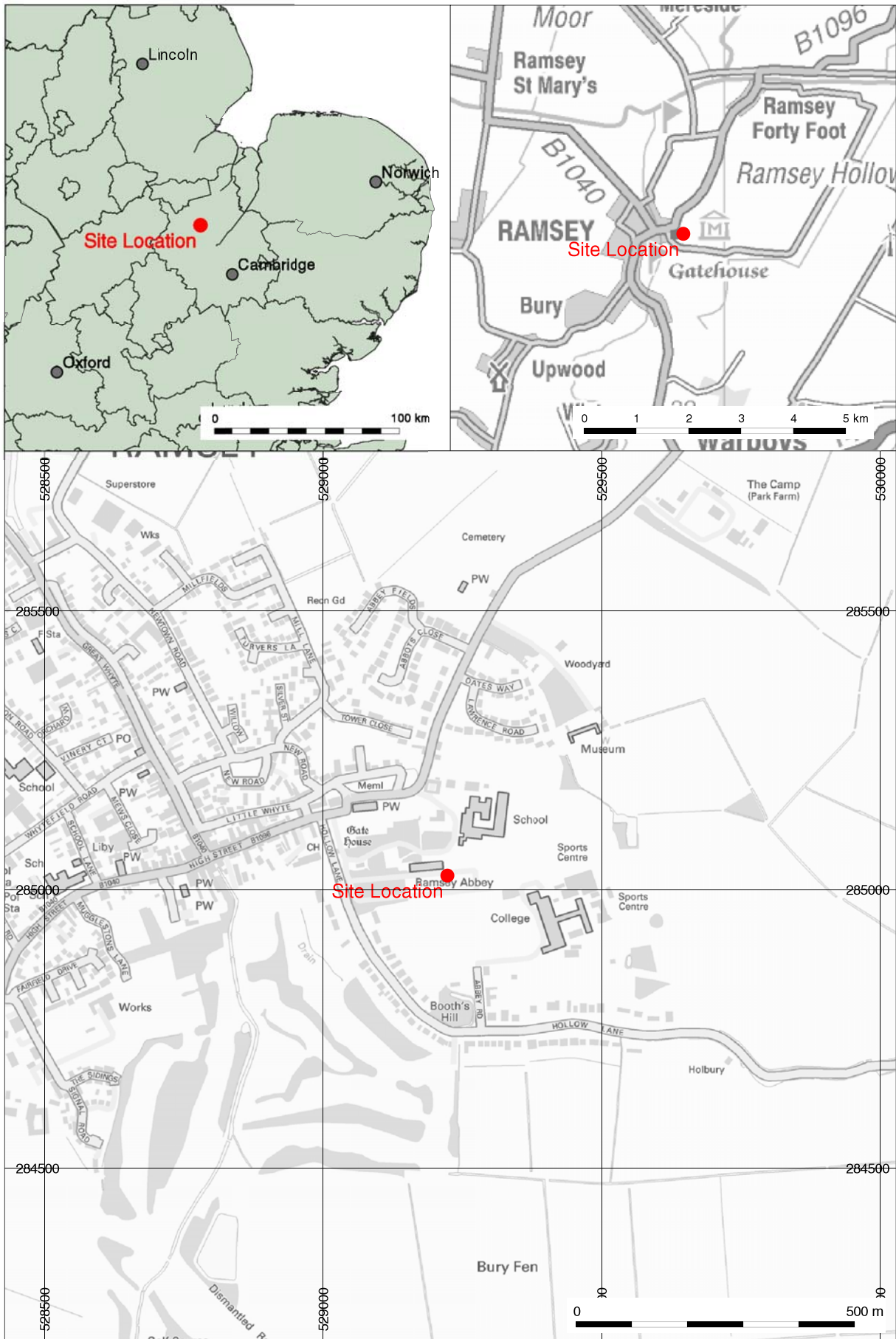
Plans

Limit of Excavation	—————
Deposit - Conjectured	- - - - -
Sondages/Machine Strip	- · - · - ·
Intrusion/Truncation	- · - · - ·
Illustrated Section	————— S.14
Archaeological Feature	
Excavated Slot	
Stone	
Cut Number	118
Deposit Number	118

Sections

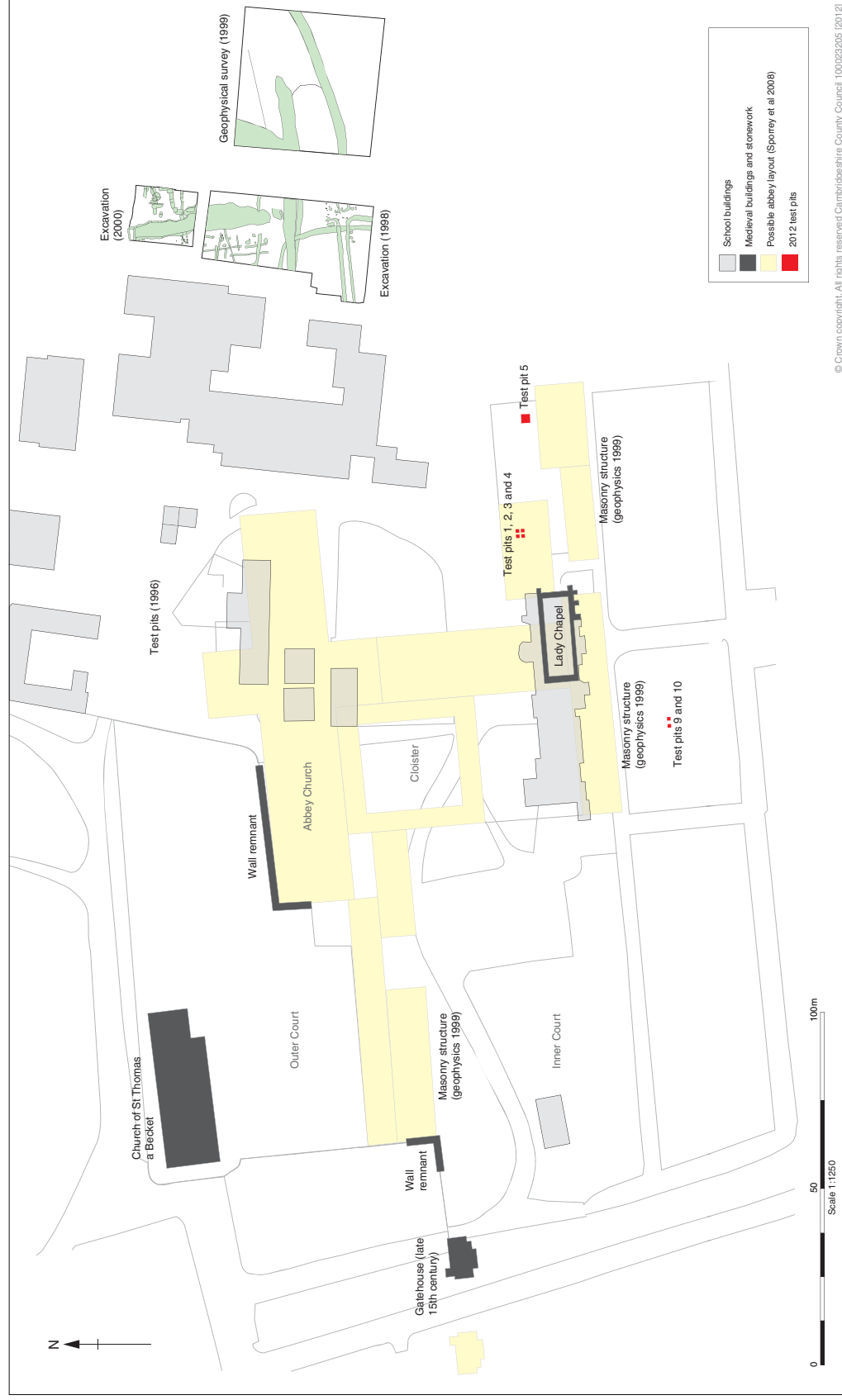
Limit of Excavation	- · - · - ·
Cut	—————
Cut Conjectured	- - - - -
Deposit Horizon	—————
Deposit Horizon Conjectured	- - - - -
Intrusion/Truncation	- · - · - ·
Top Surface/Top of Natural	—————
Break in Section/ Limit of Section Drawing	- - - - -
Cut Number	117
Deposit Number	117
Ordnance Datum	18.45m OD X
Sample Number	◇1
Stone	
Charcoal	

Convention Key



Contains Ordnance Survey data ©Crown copyright and database right 2012. All rights reserved. Licence No. AI 100005569

Figure 1: Site location



© Crown copyright. All rights reserved Cambridge County Council 100/023205 (2012)

Figure 2: Ramsey Abbey: interpretive plan showing surviving buildings and archaeological interventions

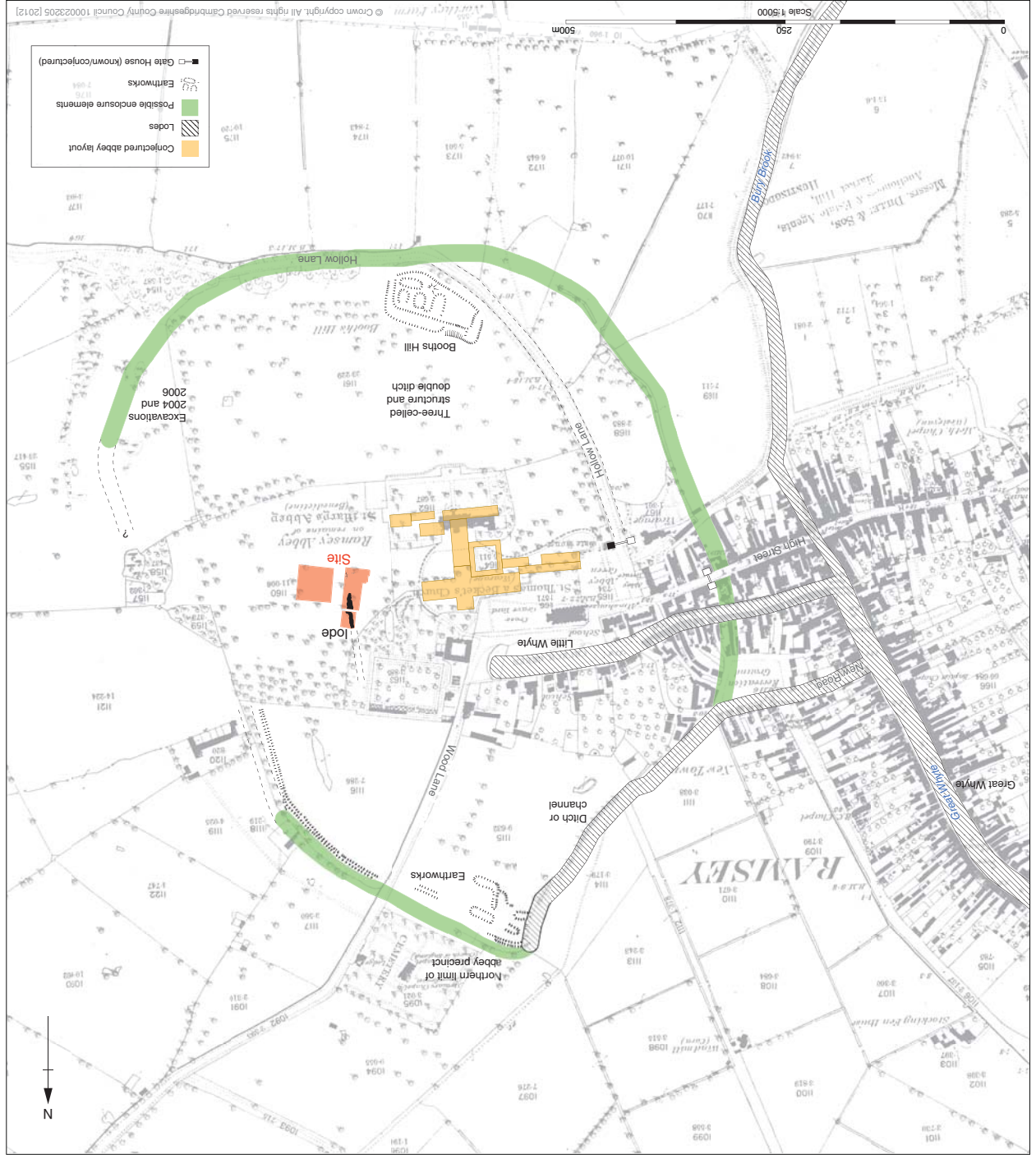


Figure 3: Interpretive map, showing possible elements of the Ramsey abbey precinct enclosure and lodges, in relation to the 1891 Ordnance survey map (1st edition)

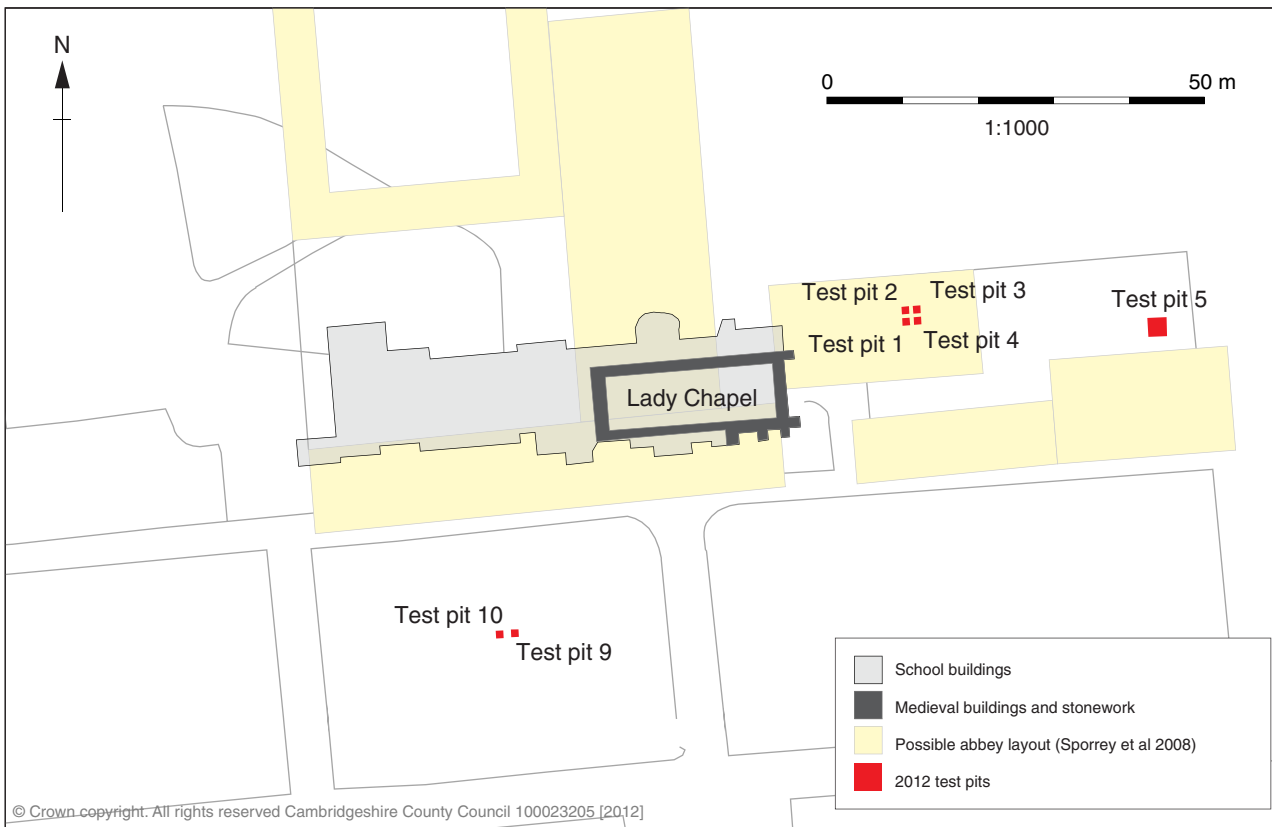


Figure 4: plan of test pits, with detailed plan of test pit 5

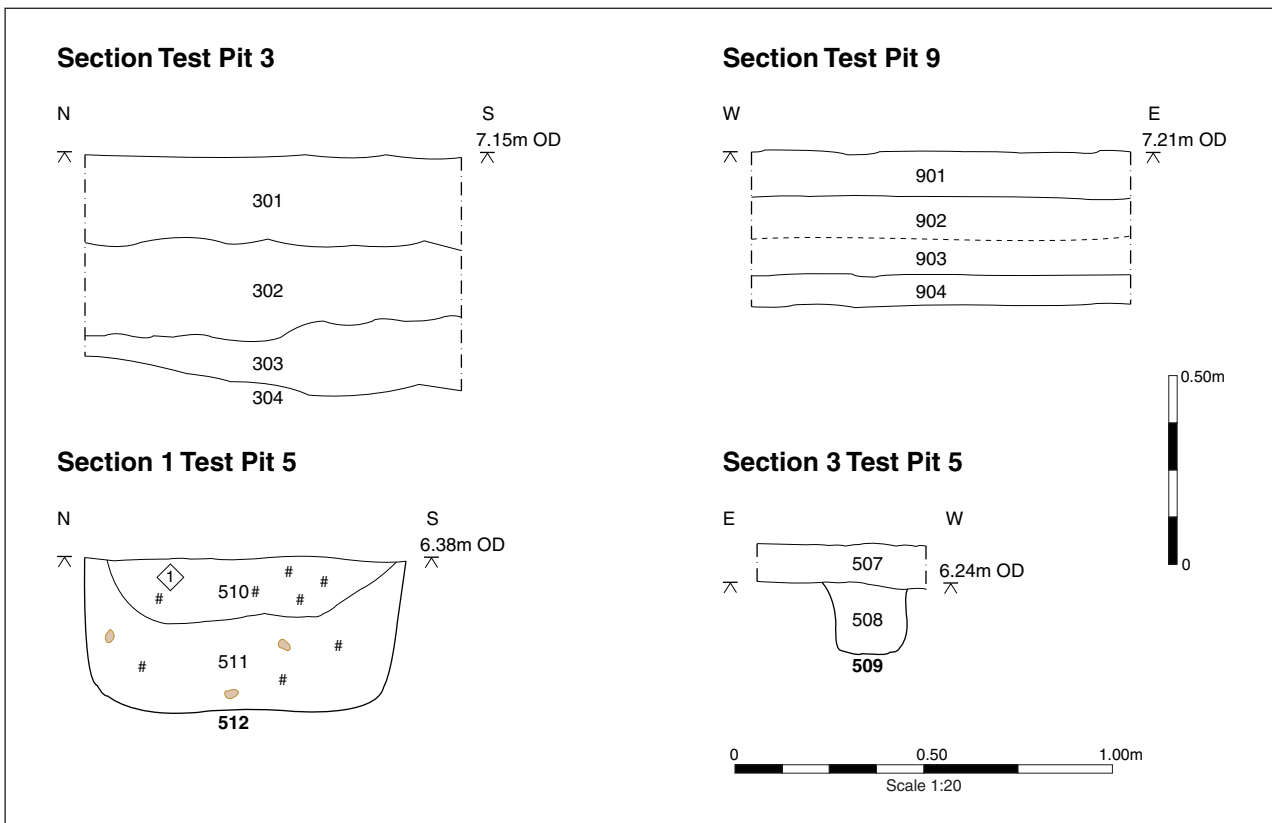


Figure 5: Selected sections



Plate 1: Test Pit 5, from the south



Plate 2: Test Pit 9, from above



Plate 3: Test Pit 10, from the north

APPENDIX A. TEST DESCRIPTIONS AND CONTEXT INVENTORY

Test Pit 1					
General description				Orientation	n/a
Test pit did not reach geological horizons, no archaeological features identified				Max. depth (m)	0.44
				Width (m)	1
				Length (m)	1
Contexts					
context no	type	Width (m)	Depth (m)	comment	Finds date
101	Layer	-	0.12	Topsoil	-
102	Layer	-	0.14	Gravel layer	Medieval, post-medieval, modern
103	Layer	-	-	Deposit (not excavated)	-
104	Layer spit	-	0.10	Deposit (same as 105)	
105	Layer spit	-	>0.04	Deposit (same as 104)	

Test Pit 2					
General description				Orientation	n/a
Test pit did not reach geological horizons, no archaeological features identified				Max. depth (m)	0.46
				Width (m)	1
				Length (m)	1
Contexts					
context no	type	Width (m)	Depth (m)	comment	Finds date
201	Layer	-	0.08	Topsoil	
202	Layer	-	0.04	Gravel layer	
203	Layer	-	>0.32	Deposit	

Test Pit 3					
General description				Orientation	n/a
Test pit did not reach geological horizons, no archaeological features identified				Max. depth (m)	0.60
				Width (m)	1
				Length (m)	1
Contexts					
context no	type	Width (m)	Depth (m)	comment	Finds date
301	Layer	-	0.10	Topsoil	
302	Layer	-	0.16	Gravel layer	
303	Layer	-	0.34	Deposit	
304	Layer	-	-	Deposit (not excavated)	-

Test Pit 4					
General description				Orientation	n/a
Test pit did not reach geological horizons, no archaeological features identified				Max. depth (m)	0.40
				Width (m)	1
				Length (m)	1
Contexts					
context no	type	Width (m)	Depth (m)	comment	Finds date
401	Layer	-	0.10	Topsoil	
402	Layer	-	<0.30	Deposit	
403	Layer	-	-	Deposit (not excavated)	-

Test Pit 5					
General description				Orientation	NW-SE
Test pits 5,6,7 and 8 were combined to form a single test pit (5). This was done primarily to follow the course of a robbed out wall 506 . A small post hole and a post medieval pit were also recorded.				Max. depth (m)	1.1
				Width (m)	2.5
				Length (m)	2.5
Contexts					
context no	type	Width (m)	Depth (m)	comment	Finds date
501	Layer	-	0.1	Turf line	-
502	Layer	-	0.1	Topsoil	-
503	Layer	-	0.1	Subsoil	-
505	Layer	0.25	0.15	Rubble	-
506	Cut	0.25	0.15	Cut of wall	
507	Layer	-	0.1	Subsoil	-
508	Fill	0.2	0.2	Fill of post hole	
509	Cut	0.2	0.2	Cut of post hole	
510	Fill	0.72	0.16	Fill of pit	
511	Fill	0.4	0.85	Fill of pt	
512	Cut	0.4	0.85	Cut of pit	
513	Layer	0.25	0.15	Rubble	
514	Cut	0.25	0.15	Cut of wall	

Test Pit 9					
General description				Orientation	n/a
Test pit did not reach geological horizons, no archaeological features identified				Max. depth (m)	0.55
				Width (m)	1
				Length (m)	1
Contexts					
context no	type	Width (m)	Depth (m)	comment	Finds date
901	Layer	-	0.12	Topsoil	
902	Layer spit	-	0.10	Deposit (same as 903)	
903	Layer spit	-	0.10	Deposit (same as 902)	
904	Layer	-	0.08	Deposit with stones	
905	Layer	-	>0.15	Deposit	

Test Pit 10					
General description				Orientation	n/a
Test pit did not reach geological horizons, no archaeological features identified				Max. depth (m)	0.55
				Width (m)	1
				Length (m)	1
Contexts					
context no	type	Width (m)	Depth (m)	comment	Finds date
1001	Layer	-	0.10	topsoil	
1002	Layer spit	-	0.10	Deposit (same as 1003)	
1003	Layer spit	-	0.10	Deposit (same as 1002)	
1004	Layer	-	0.10	Deposit with stones	
1005	Layer	-	>0.15	Deposit	

APPENDIX B. FINDS QUANTIFICATION

Context	Material	Object Name	Weight (kg)	Count
102	Ceramic	clay pipe	0.002	1
102	iron	object	0.066	2
102	Plaster	Plaster	0.009	1
102	Bone	Bone	0.021	6
102	Mortar	Mortar	0.030	2
102	Shell	shell	0.026	6
102	Glass	Vessel (mod)	0.012	1
102	Ceramic	Ceramic Building Material	0.428	13
102	Ceramic	Vessel	0.100	20
102	Stone	worked stone	0.259	3
103	Ceramic	Ceramic Building Material	0.141	3
103	Bone	Bone	0.026	6
103	Mortar	Mortar	0.122	4
103	Stone	worked stone	0.166	1
103	Shell	shell	0.014	5
103	iron	nail	0.003	1
103	Ceramic	Vessel	0.052	10
104	Ceramic	Ceramic Building Material	0.469	9
104	Plaster	Plaster	0.079	3
104	Ceramic	Vessel	0.019	3
104	Shell	shell	0.006	4
104	Bone	Bone	0.027	7
105	Ceramic	Ceramic Building Material	0.600	7
105	Mortar	Mortar	0.028	3
201	Bone	Bone	0.004	1
201	Glass	window glass (mod)	0.002	1
201	Ceramic	Vessel	0.035	8
201	Ceramic	Ceramic Building Material	0.550	3
202	Ceramic	Ceramic Building Material	0.541	14
202	Bone	Bone	0.015	7
202	Ceramic	Vessel	0.218	51
202	iron	nail	0.014	1
202	Stone	worked stone	0.035	2
202	copper alloy	lace end	0.001	1
203	Ceramic	Ceramic Building Material	0.403	12
203	Ceramic	Vessel	0.036	7
203	Bone	Bone	0.011	2
203	Shell	shell	0.002	1
301	Ceramic	Ceramic Building Material	0.040	4
301	Shell	shell	0.003	5
301	Ceramic	Vessel	0.024	7
302	Ceramic	clay pipe	0.002	1
302	Glass	vessel (mod)	0.001	1
302	iron	nail	0.012	2
302	Bone	Bone	0.001	3
302	Slag	slag	0.020	1

Context	Material	Object Name	Weight (kg)	Count
302	Shell	shell	0.010	5
302	Ceramic	Ceramic Building Material	0.119	9
302	Ceramic	Vessel	0.156	31
303	Ceramic	Ceramic Building Material	0.361	8
303	Slag	slag	0.107	1
303	Shell	shell	0.007	2
303	Glass	Window glass (mod)	0.002	2
303	Stone	worked stone	0.047	1
303	Bone	Bone	0.001	2
303	Ceramic	Vessel	0.085	12
402	Ceramic	Ceramic Building Material	0.498	24
402	Shell	shell	0.011	3
402	Bone	Bone	0.018	8
402	iron	nail	0.012	2
402	Ceramic	Vessel	0.246	65
501	Ceramic	Ceramic Building Material	1.371	21
501	Shell	shell	0.025	7
501	Ceramic	Vessel	0.039	10
501	stone	worked stone	0.056	1
501	Bone	Bone	0.130	23
502	Ceramic	Vessel	0.052	3
502	Glass	window glass (mod)	0.006	1
503	Ceramic	Vessel	0.056	11
503	Glass	window glass (mod)	0.002	1
503	Ceramic	Ceramic Building Material	0.070	3
503	Ceramic	clay pipe	0.002	1
504	Ceramic	Ceramic Building Material	0.099	2
504	Ceramic	Vessel	0.028	6
504	Bone	Bone	0.002	1
504	Shell	shell	0.004	1
505	Ceramic	Ceramic Building Material	0.038	1
505	Ceramic	Vessel	0.003	1
507	Ceramic	Vessel	0.018	4
507	Ceramic	Ceramic Building Material	0.090	4
508	Bone	Bone	0.009	5
508	Glass	window glass (mod)	0.009	3
510	Bone	Bone	0.029	7
510	Ceramic	clay pipe	0.002	1
510	Shell	shell	0.001	1
510	Ceramic	Ceramic Building Material	0.326	5
510	Stone	worked stone	0.329	1
510	Ceramic	Vessel	0.147	19
515	lead	lump	0.061	1
515	Bone	Bone	0.004	1
515	Ceramic	Ceramic Building Material	0.670	11
602	Ceramic	Ceramic Building Material	0.072	3

Context	Material	Object Name	Weight (kg)	Count
602	Shell	shell	0.005	1
602	Ceramic	clay	0.002	1
602	Bone	Bone	0.008	1
602	Ceramic	Vessel	0.007	1
602	Mortar	Mortar	0.039	1
603	Stone	worked stone	0.131	1
603	Ceramic	Ceramic Building Material	0.143	6
603	Glass	vessel (mod)	0.007	2
603	Bone	Bone	0.007	4
603	Shell	shell	0.005	4
603	Ceramic	Vessel	0.014	2
603	iron	nail	0.005	2
702	Bone	Bone	0.041	16
702	Glass	vessel (mod)	0.698	10
702	Ceramic	Ceramic Building Material	0.806	18
702	Ceramic	Vessel	0.659	55
702	Glass	window slass (mod)	0.008	2
702	Shell	shell	0.008	2
702	iron	nail	0.021	5
702	copper alloy	coin (mod)	0.009	2
702	Ceramic	clay pipe	0.012	2
702	Ceramic	clay pipe	0.001	1
802	Ceramic	Ceramic Building Material	0.043	3
803	Ceramic	Vessel	0.018	2
803	Shell	shell	0.002	1
803	Bone	Bone	0.015	1
803	Ceramic	Ceramic Building Material	0.113	3
804	iron	nail	0.003	1
804	Shell	shell	0.002	1
804	Bone	Bone	0.016	3
804	Ceramic	Ceramic Building Material	0.188	4
804	Ceramic	Vessel	0.001	1
902	Ceramic	Ceramic Building Material	1.112	20
902	lead	sheet fragment	0.027	1
902	Bone	Bone	0.008	14
902	glass	vessel (mod)	0.026	4
902	iron	nail	0.012	4
902	Ceramic	clay pipe	0.004	1
902	Shell	shell	0.034	6
902	Slag	slag	0.027	2
902	Ceramic	Vessel	0.253	30
903	stone	worked stone	1.002	1
903	Stone	worked stone	0.904	6
903	Ceramic	Ceramic Building Material	4.488	57
903	Plaster	Plaster	0.106	2
903	Shell	shell	0.159	22
903	Bone	Bone	0.033	14
903	Glass	Vessel	0.007	3

Context	Material	Object Name	Weight (kg)	Count
903	lead	window came	0.028	1
903	iron	nail	0.009	2
903	Ceramic	Vessel	0.104	13
903	Glass	painted window glass	0.002	1
904	Ceramic	Ceramic Building Material	1.419	27
904	Slag	slag	0.043	1
904	Plaster	Plaster	0.029	1
904	Shell	shell	0.045	6
904	Bone	Bone	0.029	10
904	Mortar	Mortar	0.380	4
904	Ceramic	Vessel	0.040	4
905	Ceramic	Ceramic Building Material	0.195	2
905	Ceramic	Vessel	0.018	1
905	Ceramic	clay pipe	0.006	1
905	Slag	slag	0.005	4
905	iron	nail	0.002	1
905	Glass	vessel?	0.008	4
1001	Ceramic	Ceramic Building Material	0.077	4
1001	Shell	shell	0.005	3
1001	Ceramic	Vessel	0.024	5
1001	Bone	Bone	0.003	6
1001	copper alloy	coin (mod)	0.014	2
1001	Mortar	Mortar	0.122	3
1002	Slag	slag	0.020	2
1002	Ceramic	clay pipe	0.003	2
1002	lead	window came	0.007	1
1002	iron	nail	0.020	4
1002	Bone	Bone	0.005	5
1002	Shell	shell	0.011	6
1002	Ceramic	Vessel	0.185	28
1002	Ceramic	Ceramic Building Material	0.965	31
1004	Ceramic	Ceramic Building Material	0.904	18
1004	Mortar	Mortar	0.046	1
1004	Bone	Bone	0.012	6
1004	Shell	shell	0.019	7
1004	Ceramic	clay pipe	0.001	1
1004	Stone	worked stone	0.350	3
1004	Ceramic	Vessel	0.038	8
1005	Ceramic	Ceramic Building Material	1.278	31
1005	Mortar	Mortar	0.091	1
1005	Shell	shell	0.088	19
1005	Ceramic	Crucible	0.030	3
1005	Plaster	Plaster	0.060	3
1005	Bone	Bone	0.001	1
1005	Ceramic	Vessel	0.085	9
1005	iron	nail	0.008	1
1005	Stone	worked stone	0.065	1

APPENDIX C. ENVIRONMENTAL REMAINS

By Rachel Fosberry

Introduction and Methods

- C.1.1 A single bulk sample was taken from a post-medieval pit **512** in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.
- C.1.2 Ten litres of the sample was processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.3mm nylon mesh and the residue was washed through a 0.5mm sieve. Both flot and residue were allowed to air dry. The dried residue was passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or other artefacts are noted on Table 3. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands and the authors' own reference collection.

Results

- C.1.3 The results are recorded on Table 3.

Sample No.	Context No.	Feature Type	Flot Contents	Residue Contents
1	510	Pit	Oat grain, pea fragments, weed seeds, charcoal, roots	Shell fragments, coal, animal bone, clay pipe fragment, iron nails

Table 3. Contents of environmental sample

- C.1.4 Preservation is by charring with no evidence of preservation by waterlogging or mineralisation. Charcoal and coal fragments were noted in both the flot and the residue.
- C.1.5 Charred plant remains consist of a single oat (*Avena* sp.) grain, a cotyledon of a pea (*Pisum/Lathyrus* sp.) and single seeds of dock (*Rumex* sp.), brassicas (*Brassica* sp.) and vetch (*Vicia* sp.).
- C.1.6 Artefacts in the sample residue include small fragments of marine shell including mussel, cockle and oyster, small pieces of coal, animal bone, a fragment of clay pipe and two iron objects, possibly iron nails.

Discussion

- C.1.7 The environmental sample from Abbey College Cambridge produced an assemblage consistent with what would be expected to find in a rubbish pit of this date. Plant remains are scarce, suggesting that they were not deliberately included in the rubbish deposit and are most likely to have derived from hearth sweepings.

APPENDIX D. BIBLIOGRAPHY

Atkins, R 2004a, *Medieval and Post-Medieval Features at Nos 46-48 High Street, Ramsey, Cambridgeshire: An Archaeological Evaluation*, Cambridgeshire County Council Archaeological Field Unit Rep No 713.

Atkins, R 2004b, *Medieval and Post-Medieval Features at 42 High Street, Ramsey, Cambridgeshire: An Archaeological Excavation* Cambridgeshire County Council Archaeological Field Unit Rep No 732.

Cappers, R.T.J., Bekker, R.M. and Jans J.E.A., 2006, *Digital Seed Atlas of the Netherlands* Groningen Archaeological Studies 4, Barkhuis Publishing, Eelde, The Netherlands.
www.seedatlas.nl

Cooper, S 2003, *A Medieval Ditch at 30 Great Whyte, Ramsey, Cambridgeshire*, Cambridgeshire County Council Archaeol Rep No 728, unpublished.

Cooper, S 2005, *Medieval Remains at 96-98 Great Whyte, Ramsey, Cambridgeshire: An Archaeological Evaluation*, Cambridgeshire County Council Archaeol Rep No 724, unpublished.

DeWindt, A. R. and DeWindt, E. B. 2006, *Ramsey: The Lives of an English Fenland Town, 1200-1600*, Washington DC: The Catholic University of America Press.

Dickinson P G M 1967, 'St Ives Chapel; Ramsey Abbey Church, Abbey and Gatehouse, *Archaeol. J.* 124, 214-58

Eames, E S 1980, *Catalogue of Medieval Lead-glazed Earthenware Tiles in the Department of Medieval and Later Antiquities, British Museum*, London: British Museum Publications.

Haigh, D 1988, *The Religious Houses of Cambridgeshire*, Cambridge: Cambridgeshire County Council.

Hall, D 1992, *The Fenland Project Number 6: The South-Western Cambridgeshire Fenlands*, *E Anglian Archaeol* 56.

Hickling, S 2006, *Late Medieval/Early Post-Medieval Remains at The Grand, Great Whyte, Ramsey: An Archaeological Evaluation*, Cambridgeshire County Council Archaeol Field Unit Rep No 860.

Macray, W D (ed.) 1886, *Chronicon Abbatiae Ramesiensis*, Roll Series 83, London.

Membery, S and Hatton, A 1996, *Marriots Yard, Ramsey: An Archaeological Recording Brief*, Cambridgeshire County Council Archaeol Field Unit Rep A90.

Mortimer, R 2006, *A Possible Location for The Ramsey Abbey Precinct and Docks: Excavations at Ailwyn Community School, Ramsey, Cambridgeshire*, Cambridgeshire County Council Archaeol Field Unit Rep 894.

O'Brien, L and Crank, N 2002, *Land at Ramsey Garden Centre, Great Whyte, Ramsey, Cambridgeshire. An archaeological desk-based assessment and field evaluation*, Hertfordshire Archaeol Trust Rep 1024, unpublished.

Nicolson, K. 2006. Medieval land reclamation and subsequent occupation on High Street, Ramsey TL 2870 8506. *PCAS* 95: 175-8.

Page, W, Proby, G, and Inskip Ladds, S (eds.) 1932, *The Victoria History of the County of Huntingdon*, vol II, The University of London.

Pearson, A and McDonald, T 2000, *Newtown Green, Ramsey, Archaeological desk-based assessment and trial trench evaluation*, Hertfordshire Archaeol. Trust Rep. 0761.

RCHME, 1926, *The Monuments of Huntingdonshire*

Spoerry, P S and Cooper, S 2000, *Ramsey Abbey, an Archaeological Survey, Cambridgeshire County Counc Archaeol Field Unit Rep 170 (CD ROM)*

Spoerry, P., Atkins, R., Macaulay, S., Popescu, E. 2008. Ramsey Abbey, Cambridgeshire: Excavations at the site of a Fenland Monastery. *Medieval Archaeology* 52: 171-210

APPENDIX E. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-129881		
Project Name	Test Pit Excavation and geophysical survey at Ramsey Abbey, Cambridgeshire		
Project Dates (fieldwork) Start		Finish	
Previous Work (by OA East)	Yes	Future Work	Unknown

Project Reference Codes

Site Code	RASABC12	Planning App. No.	n/a
HER No.	ECB 3748	Related HER/OASIS No.	CHER 02781

Type of Project/Techniques Used

Prompt	Research
Development Type	Other

Please select all techniques used:

<input type="checkbox"/> Aerial Photography - interpretation	<input type="checkbox"/> Grab-Sampling	<input type="checkbox"/> Remote Operated Vehicle Survey
<input type="checkbox"/> Aerial Photography - new	<input type="checkbox"/> Gravity-Core	<input type="checkbox"/> Sample Trenches
<input type="checkbox"/> Annotated Sketch	<input type="checkbox"/> Laser Scanning	<input type="checkbox"/> Survey/Recording Of Fabric/Structure
<input type="checkbox"/> Augering	<input checked="" type="checkbox"/> Measured Survey	<input checked="" type="checkbox"/> Targeted Trenches
<input type="checkbox"/> Dendrochronological Survey	<input checked="" type="checkbox"/> Metal Detectors	<input type="checkbox"/> Test Pits
<input type="checkbox"/> Documentary Search	<input type="checkbox"/> Phosphate Survey	<input type="checkbox"/> Topographic Survey
<input checked="" type="checkbox"/> Environmental Sampling	<input type="checkbox"/> Photogrammetric Survey	<input type="checkbox"/> Vibro-core
<input type="checkbox"/> Fieldwalking	<input checked="" type="checkbox"/> Photographic Survey	<input checked="" type="checkbox"/> Visual Inspection (Initial Site Visit)
<input checked="" type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Rectified Photography	

Monument Types/Significant Finds & Their Periods

List feature types using the [NMR Monument Type Thesaurus](#) and significant finds using the [MDA Object type Thesaurus](#) together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
layer	Post Medieval 1540 to 1901	painted glass	Medieval 1066 to 1540
	Select period...	pottery	Medieval 1066 to 1540
	Select period...	pottery	Post Medieval 1540 to 1901

Project Location

County	Cambridgeshire	Site Address (including postcode if possible)
District	Huntigdonshire	Abbey College, Abbey Road, Ramsey, Cambridgeshire, PE26 1DG
Parish	Ramsey	
HER	Cambridgeshire	
Study Area	c.1ha	National Grid Reference TL 291 850

Project Originators

Organisation	OA EAST
Project Brief Originator	n/a
Project Design Originator	Stephen Macaulay
Project Manager	Stephen Macaulay
Supervisor	Nick Gilmour

Project Archives

Physical Archive	Digital Archive	Paper Archive
CCC stores	OA East Bar Hill	CCC stores
RASABC12	RASABC12	RASABC12

Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ceramics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Glass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Human Bones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leather	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stratigraphic		<input type="checkbox"/>	<input type="checkbox"/>
Survey		<input type="checkbox"/>	<input type="checkbox"/>
Textiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked Bone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked Stone/Lithic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Digital Media	Paper Media
<input type="checkbox"/> Database	<input type="checkbox"/> Aerial Photos
<input type="checkbox"/> GIS	<input checked="" type="checkbox"/> Context Sheet
<input checked="" type="checkbox"/> Geophysics	<input type="checkbox"/> Correspondence
<input checked="" type="checkbox"/> Images	<input type="checkbox"/> Diary
<input checked="" type="checkbox"/> Illustrations	<input type="checkbox"/> Drawing
<input type="checkbox"/> Moving Image	<input type="checkbox"/> Manuscript
<input type="checkbox"/> Spreadsheets	<input type="checkbox"/> Map
<input checked="" type="checkbox"/> Survey	<input type="checkbox"/> Matrices
<input checked="" type="checkbox"/> Text	<input type="checkbox"/> Microfilm
<input type="checkbox"/> Virtual Reality	<input type="checkbox"/> Misc.
	<input checked="" type="checkbox"/> Research/Notes
	<input checked="" type="checkbox"/> Photos
	<input checked="" type="checkbox"/> Plans
	<input checked="" type="checkbox"/> Report
	<input checked="" type="checkbox"/> Sections
	<input checked="" type="checkbox"/> Survey

Notes:

APPENDIX F. REPORT ON MONKS DOWN UNDER HLF PROJECT

'Monks Down Under'

A Young Roots Heritage Lottery Project

A basic overview of the project with particular reference to the two day of excavation in May 2012

'Monks Down Under'

A Young Roots Heritage Lottery Project

A basic overview of the project with particular reference to the two day of excavation in May 2012

1. Background information

1.1 A detailed history of the rise and fall of Ramsey Abbey is found in the written Archaeological Report, suffice to say that for many years the actual layout of the Abbey at Ramsey has been one of conjecture and ongoing discussion. The short two day excavation on the 18th & 19th May was undertaken as part of the Young Roots 'Monks Down Under' Project. The aim of the excavation was to identify at least part of the original Abbey plan with a series of targeted test pits.

1.2 The potential site of the Abbey is these days within a scheduled area and so before any excavation could take place permission was sought from English Heritage to agree in principle as to the project outline and the excavation in particular. Two sets of permission were required from English Heritage. Firstly, permission to carry out a geophysical survey of the scheduled area and secondly, permission to undertake an archaeological excavation of targeted areas. The latter permission would require Scheduled Monument Consent (SMC) which had to be agreed by the Secretary of State.

1.3 Besides permission from English Heritage, permission to excavate was also requested and granted from Abbey College, the Trustees of the site and Lord & Lady Fairheaven as part of the SMC. Once all parties had agreed an on site discussion with English Heritage took place and the survey area was agreed.

1.4 The geophysical survey of the site was undertaken by Mr Peter Masters (Cranfield University) and consisted of both a gradiometry and resistivity survey funded by the project. Pupils were involved in the survey work and then worked with Mr David Kenny (Historic Environment Field Adviser [East of England]) from English Heritage on the most appropriate places to excavate.

1.5 Following on from these discussions a SMC application was made and it was agreed by English Heritage that the young people could excavate a total area of 10 square metres with support from Oxford Archaeology East (OA East) staff. The location of the test pits was included in the SMC application.

2. Preparation for the excavations

2.1 In view of the nature of the project the young people involved attended a number of training sessions with OAEast staff during the life of the project. These included activities related to the archaeological timeline (**Appendix 1**) used by archaeologists as well as sessions on the recognition of different artefacts, including pottery, bone and metal work. There were sessions on the use of different archaeological techniques, the importance of the Historic Environment Record and English Heritage within the local and national setting, as well as the use of non-intrusive archaeological techniques such as geophysical surveys. Besides the theory behind geophysical surveys the young people had practical on-site involvement with Mr Masters (**Plate 1 & 2**) as well a session on the interpretation of the geophysics results. After the results were plotted onto the scheduled area the young people then worked with Mr David Kenny (English Heritage) on the most appropriate places to excavate. A copy of the full report produced by Mr Masters and the location of the Test Pits is found as an appendix with the full archaeological report.

2.2 The young people also attended sessions on archaeological techniques (**Appendix 2**), the use of test pits (**Appendix 3**) and recording methodology. As with all archaeological excavations there is a need to record in detail what is found and this excavation was no exception. **Appendix 4** is an example of just one of the basic recording sheets used by the young people and adult volunteers. Besides a completed example there was a set of notes which accompanied the recording sheet. A detailed timetable for the two days produced (**Appendix 5**) and presented to all young people and adult volunteers in advance. Additional information on the possible layout of the abbey and its basic history were also provided for all participants.

2.3 In addition to the regular project members being involved in the excavation a ‘buddy’ system was introduced to allow additional young people from Abbey College to take part in the excavation for either one or two days. The proviso being that these young people had to attend at least two training sessions run prior to the excavation. These two sessions were run either at lunchtime or after school along with the regular group members.

2.4 From the outset groups members had been photographed and/or filmed so these ‘new’ group members had to also have signed photographic permission forms (**Appendix 6**). As with all archaeological excavations a detailed ‘Risk Assessment’ was written and was site specific. It was read and approved in advance by the OA East H&S Officer (**Appendix 7**) and given to all those taking part (adults and young people) in advance of the two days of excavation. This appendix just shows the front page of the thirteen page Risk Assessment document. As part of the final preparation for the two days of excavations this document was discussed with all young people. The aim was to have no incidents or accidents during the two days of excavation. This was achieved.

2.5 Also as part of the planning of such an undertaking, there had to be clear emergency procedures and first aid arrangements. These were made apparent to all participants (young people and adult volunteers) as part of the site induction (**Appendix 8**), which everyone undertook prior to participating in the two day excavation.

2.6 David Kenny (English Heritage) was present throughout the first day of the excavations and supervised the whole process. At the end of the first day he then with OA East professional staff discussed in detail what had taken place to date and what would need to be carried out on the second day.

2.7 Besides two professional archaeologists from OA East (Nick Gilmour & James Fairbairn) there were also a number of OAEast registered volunteers. Nick and James, had set areas to oversee and within this arrangement OAEast volunteers were assigned a support role to each of the test pit groups. This proved very useful. Where young people came for just one day they were allocated particular roles within the three excavation areas. This also applied to parental involvement on the Saturday. In all twenty-six young people were engaged in the two days of excavating with fifteen volunteer adults supporting them. **Plates 3 - 8** shows some of the young people and adult volunteers working on site during the two days.

3. Visitors to the excavation site

3.1 From the outset of the project the aim was to ensure that others came to see what the young people were doing and to learn about the Abbey site as a whole. To this end two events took place during the excavation period involving the OA East Outreach Officer. Firstly, a local Primary School was invited to bring along pupils to visit the site, have tours of the medieval gatehouse and ‘Lady Chapel’ and to take part in an activity. Secondly, there would be an Open Morning’ allowing members of the general public to come along to see for themselves what was taking place and talk to the young people involved.

3.2 Unfortunately, the first Primary school that was approached to see if they wanted to visit the site declined due to their SATs exams, but Ashbeach Community Primary School quickly filled their place. A total of thirty-eight pupils in two groups with accompanying staff visited the site from the primary school on Friday afternoon and both groups followed the planned programme (**Appendix 9**). The verbal feedback from the pupils and staff before they left the site was good (**Appendix 10**).

3.3 On the Saturday (19th May) there was an Open Morning timed from 11am – 1pm. This provided an opportunity for five young people working in two groups to give a tour of the site and to talk about what they were doing and why. The site tours lasted thirty minutes. In addition, Mr Fox (a local historian and past school staff member) also gave tours of the medieval gatehouse and ‘Lady Chapel’ as well as opening up the library to exhibit a set of early drawings of Abbey House. The tours proved popular with a total of fifty-three people attending the site tours.

3.4 Outside the advertised tour times another fifteen members of the general public came to see visit the excavations. Staff and young people talked to them about the project and as with the site tours all visitors saw some of the artefacts that had been excavated.

3.5 The press were invited to come and visit the site during the two days. A photographer from the Hunts Post & Ely Standard and the Peterborough Evening News both came and took photographs. An article was written in the latter newspaper about the excavations and a photograph was published in the former (See **Plate 9**). **Plate 10** shows many of the young people that took part in the project.

3.6 As part of the involvement with local primary schools in this unique project, a set of pictures of medieval abbeys was sent to all feeder primary school to Abbey College, along with details on the art competition (**Appendix 11**).

3.7 Pupils from years 4 to 6 in all schools were invited to draw or paint a picture of what the Abbey at Ramsey may have looked like or a picture of monks going about their daily life. Members of the pupil steering group then met and judged the submitted pictures. The prizewinners were then invited with their parent to attend the celebratory evening to collect their prizes.

4. Evaluation of the two days of Excavation

4.1 All young people and adult volunteers were given an evaluation sheet to complete (**Appendix 12 & 13**) which was returned to the Outreach & Learning Officer. All completed forms have been incorporated into Appendices 12 and 13.

4.2 Most of the young people that took part in the two days of excavation enjoyed their experience as recorded in some of their comments. The support of adult volunteers also proved invaluable and here also the feedback was good with some adults commenting on the enthusiastic involvement of the young people.

5. The Celebratory Event

5.1 After the two days of excavation and as part of the Young Roots Heritage Lottery Grant the young people then set about the organisation of their Celebratory Event. They produced an invitation list and duly sent out invites, worked on the displays and what they were going to say.

5.2 Besides producing a series of displays the young people also were involved in the editing and production of the film and a photographic record of their project experience. The film was premiered on the celebratory evening, which was attended by parents and invited guests who were impressed with what the young people had achieved.

5.3 The celebratory evening was on Wednesday 27th June and was well attended by students and parents as well as invited guests. Over 50 people attended the evening with refreshments served by the young people. The evening was organised and led by the steering group and included short speeches by the young people themselves on various aspects of the project as well as the presentation of prizes to the Primary School prizewinners. The film of the project was premiered and besides a display of artefacts found, there was a photographic display of pictures taken by staff and pupils throughout the life of the project. The young people involved in the project were all given certificates of participation and commitment. Many of the young people will also be receiving their County Youth Award at a school assembly.

5.4 Feedback from staff and pupils was very good e.g. 'I thought last night was terrific, great event.', 'I saw in yesterdays celebration kids enthused, teachers thankful and a room full of proud parents', 'Thank you for the project, it was great fun and we had a great evening', 'I looked forward to the weekly meetings after school they were great fun and tonight was fun. I wish it could continue'.

6. Conclusion

6.1 Overall the project was a great success with the support from English Heritage and the school being paramount. An enthusiastic group of young people was involved in the project and by all accounts had a great time. The group initially met in early 2011 and over many weeks worked out a programme of what they wanted to do with support from adults. The application form was submitted in the summer and the decision to grant aid the project was received in October last year. Over the past nine months the young people have learnt a lot about all things heritage and about themselves and they certainly learnt more about their school site and the heritage beneath their feet.

6.2 Although the two days of excavation targeted features noted on the geophysical survey the excavation results were not fully able to elucidate the foundations of the Abbey. This may in part be due to the foundations being deeper than the depth achieved by the excavations. However, having said that evidence of the abbey building was recorded in the form of broken roof tiles, architectural stone and a fine example of a piece of medieval painted window glass. These artefacts probably relate to the demolition of the Abbey buildings following the Dissolution or religious buildings by Henry VIII. Various features were identified by archaeologists including a stone wall, post hole, pit and gravelled areas which may relate to later garden features when Abbey House was built. Full details of the excavation are provided in the archaeological report.

6.3 It is hoped that with the enthusiasm of the young people and the interest shown on the Open Morning by the local community will lead to the formation of a local Archaeological Action Group in Ramsey. This potential development

would hopefully involve Abbey College students and with support from the Cambridgeshire Jigsaw Project continue to explore the abbey layout and position within the landscape through further Heritage Lottery applications. With the right support and infrastructure this type of 'hands on' heritage project could certainly be replicated with other young people in secondary schools in Cambridgeshire and beyond.

6.4 In looking forward now that the project has ended staff from OA East have already been invited to meet with school staff and young people to see how life after this successful project can be continued for the benefit of the pupils and the wider community. The adage 'watch this space' certainly applies in this case.

David Crawford-White
Outreach & Learning Officer
Oxford Archaeology East

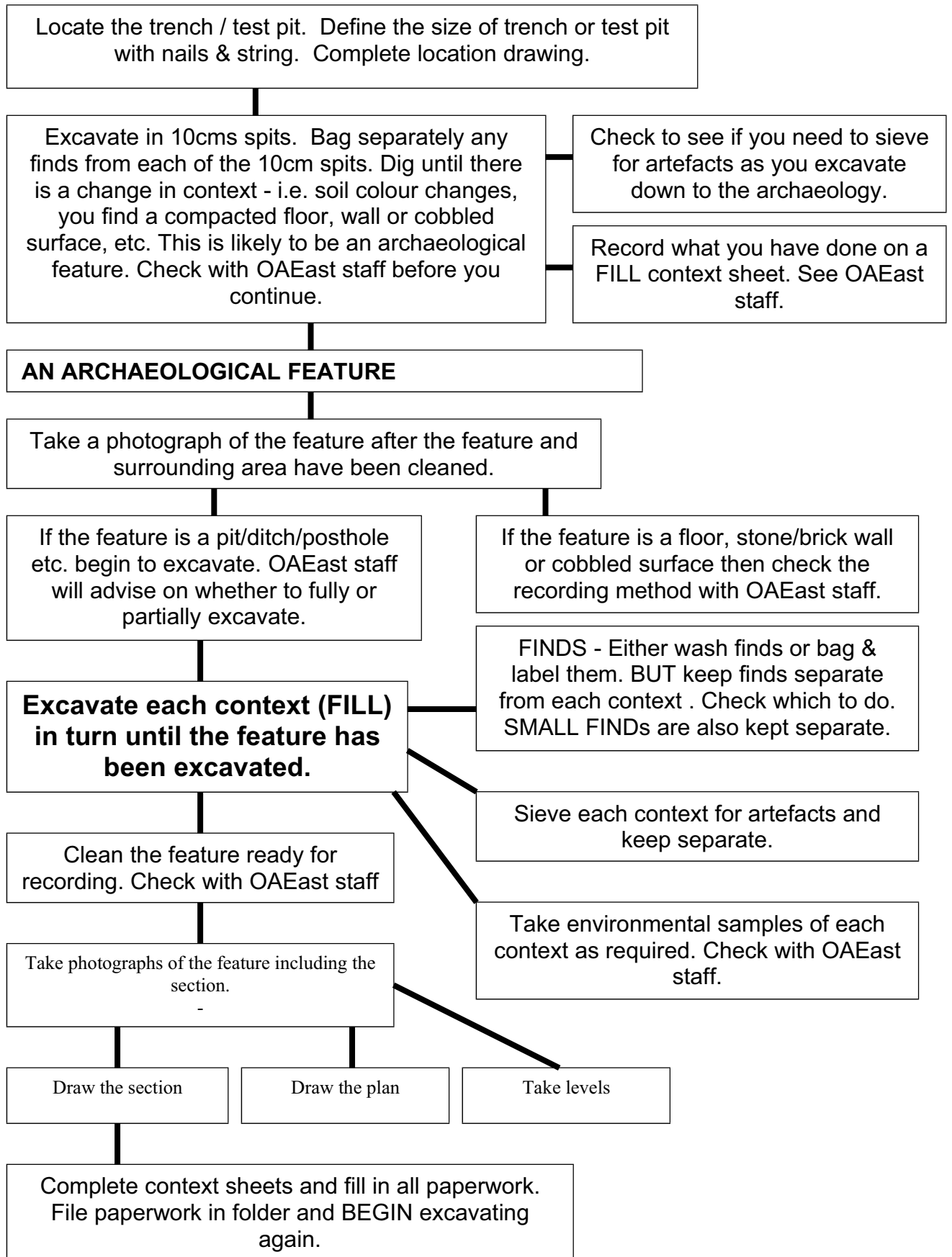
June 2012

Appendix 1 - The Archaeological Timeline

Archaeological time periods used by archaeologists

Historical Period			
AD1800 – Now	Modern		
AD1500 – AD1800	Post-medieval		
AD1200 – AD1500	Medieval		
AD1066 – AD1200		Norman	
AD850 – AD1066	Anglo-Saxon	Late	
AD650 – AD850		Middle	
AD410 – AD650		Early	
AD43 – AD410	Roman		
Prehistoric Period			
1BC – AD43	Iron Age	Later	Pre-
		Roman	
		Iron Age	
100BC – AD43		Late	
300BC – 100BC		Middle	
700BC – 300BC		Early	
1,000BC – 700BC	Bronze Age	Late	
1,500BC – 1000BC		Middle	
2,500BC – 1,500BC	Stone Age	Neolithic	
2,900BC – 2,500BC		Late	
3,500BC – 2,900BC		Middle	
6,000BC – 3,500BC		Early	
10,000BC –		Mesolithic	
30,000BC –		Late	
100,000BC –		Early	
500,000BC –		Palaeolithic	
1,000,000BC –		Upper	
500,000BC		Middle	
	Lower		

Appendix 2 - The Archaeological Process (Test Pits / Trenches)



Appendix 3 - A Basic Guide to Trench/Test Pit Excavations

An introduction

- Small Trench or Test pit excavations are increasing in number. They are popular with local historical and archaeological groups as they are relatively easy to undertake, organise and deliver. However, the associated work after the excavation can take a great deal of time. They should not be entered into lightly. For Test Pits read Small Trenches as well.
- They often form an important part of a planned local study providing a number of windows into past times. This can apply to the development of a town; village or an area that has produced already a number of surface finds found through field walking and metal detecting.
- The use of Small Trenches and/or Test Pits, if recorded properly as part of a community exploration supported by archaeologists, can help identify the potential archaeology below any given urban or rural environment.
- When a large number of test pits are dug they can help the archaeologist to gradually map the area in past times. This can apply to the expansion and / or contraction of a town or village over time. The Black Death saw the contraction of many small towns and villages.
- Test pitting is a simple and relatively in-expensive technique of exploration and when coupled with field walking and geophysical survey work the resulting information can be of great importance to both local groups as well as to the archaeology fraternity as a whole.
- Where prior field walking and geophysical survey work is not possible for various reasons the use of early maps (Enclosure, Ordnance Survey, etc), recent nearby archaeological excavations and current HER (Historic Environment Record) information can all assist in determining possible Test Pit sites.
- Small Trench or Test Pit excavations can only take place where you have local goodwill and interest in the community. Local societies are ideally placed to both initiate and run successful test pit excavations with support from the professional archaeologist. The opportunity to be able to excavate in someone's garden relies greatly on the good will and personal contact within a community.

The Test Pits

- Test Pits are generally small, usually 1metre square and can be sited in any garden (lawn, flowerbed or vegetable patch), field or meadow. Their position can depend on suitable and available land e.g. A house owner who is willing to have a test pit dug in their garden.
- Test Pits can include the local community of both genders, all ages and are usually completed in one or two days.
- Test Pits are carefully recorded, photographed and on some site samples of the soil are taken. As with all archaeology once you begin to dig you actually destroy the area you excavate. Only careful records of the excavation show what was found albeit a few sherds of Roman pottery.

Small Trench or Test Pit methodology

- The methods used to excavate Small Trenches and Test Pits are simple and as long as the technique used is consistent the results can be compared with other small trench and or test pit excavations in the same village or in a different part of the country.

- Careful recording is the key with the information written on to prepared recording sheets. The use of the camera, before, during and after the excavation can add greatly to the record of an individual trench or test pit.
- Small Trenches or Test pits are usually excavated in small teams of 3 – 5 people working together on a number of tasks. These tasks should be rotated around the team so that everyone gets involved and has a chance of excavating with a trowel something that has not seen the light of day for many years. This calls for co-operation, communication and a willingness to have a go.
- A small team of people working together should be able to dig, record and back fill a small trench or test pit over a one or two day period. How far down the group gets in its excavation can depend on the fitness of the group, the type of context under excavations and the weather. It may also depend on if any archaeological feature is found be it a pit, ditch or stone foundations.
- Training by an archaeologist beforehand is vital so that various aspects of health & safety, the recording technique and background information sets the scene for an activity that can be both hard work but very enjoyable.
- The aim of the excavation is to remove the soil in a systematic way usually in 10cms (4”) spits and to record all that is found and seen. This can mean de-turfing an area before the excavation begins.
- Once the turf has been removed (this may already account for the first 10cms) the group can steadily continue to excavate in 10cm spits. This method allows the group to get use to excavating and getting familiar with the paperwork associated with any excavation.
- As each 10cms is excavated so any finds are recorded and the soil is sieved. Until the archaeology is reached all the finds in this soil are from one context but the finds bags are labelled up for each of the 10cms. This will aid the archaeologists when they come to write up the test pit ‘story’ as they can comment on not only the finds but the spatial position of these finds.
- The excavation continues down in 10cms [4”] spits until the archaeology is reached i.e. some type of feature (i.e. a wall, a ditch, a floor surface, a pit or posthole) and / or a change in soil colour.
- All the soil excavated up until this point in time is deemed one context and is recorded on a numbered recording sheet as a FILL. See the detailed checklist in the folder for more details.
- While some artefacts will be found while trowelling each spit, to aid artefact recovery all the soil from each context is usually sieved. Having said that, it is at the discretion of the Site Director whether the sieving starts before a feature and / or soil colour change. Is noted.
- In clayey soil the amount sieved will be limited and again the Site Director will determine the strategy to be used.
- In the first few spits it is likely that many potential artefacts will be found ranging from modern china, plastic toys to bone and bit of metal to the occasional medieval or even Roman pottery. As the test pit gets deeper so modern artefacts become fewer and the chance of finding older material increases.
- The aim is to excavate until you reach the ‘natural’ (i.e. the solid or drift geology) surface of the area or you have gone down at least 1 metre. The ‘natural’ can be chalk (solid geology) or gravels and clays (drift geology). The local geology map of the area is often a useful guide to when the ‘natural’ is reached.

- Once the 'natural' has been reached or you have run out of time it is vital that at least one section (i.e. the side of the trench or test pit) is drawn carefully.
- When an archaeological feature is found, as mentioned above, OAEast staff will need to be involved and they will go over to with you the recording of for example 'a ditch'. Separate Context Sheet/s and OAEast staff will assign number/s.
- Once the 'natural' has been reached all Context Sheets should be checked through by the team so that the paperwork is as complete as possible.
- It is also important at this time to photograph the test pit section and the base of the test pit showing the 'natural'. In some instances it will be useful to draw more than one section. This will be at the discretion of the Site Director.
- Once all the Context Sheets have been checked and the Site Director is 'happy' the test pit can be backfilled with the last few buckets of soil that came out going back in first. This is important for although you cannot replace the soil exactly in the same place it is important to try and keep the fills similar to the surrounding landscape. Certainly as you approach the natural the soil will be very different from that which was first excavated.

Life after the small Trench or Test Pit excavation

- When the excavations are complete the Site Director will go through and check all the Context Sheets, Section Drawing, Site plans, photographs and artefacts. A report will be written.
- Once the report is written a copy should be housed with the County HER (Historic Environment Record) Office.

Health & Safety

- As with all archaeology there are serious 'Health & Safety' implications when excavating. All groups should be briefed on 'Health & Safety' issues before they begin to excavate. All group members have a responsibility to themselves and to the rest of the group with regard to Health & Safety'. See the separate section on Health & Safety.

At the end of the excavation

- After the excavation the Small Trench or Test Pit may be back filled. Allow time to do this and pack down the soil as you fill the hole.
- Check that all the paperwork is completed. This includes all context sheets (FILL and CUT), all plans, section drawings, photographs and any other master sheets it will be checked by an OAEast archaeologist.
- All the finds are bagged up and put into in labeled bags which have small holes in them so that the finds do not 'sweat'. Labels to include site code, trench or test pit number and fill number.
- All the tools are cleaned as they will be used by others. There is nothing worse than having to clean very hard compacted clay/mud off tools before you can use them. Equipment is then checked and return to the designated area.
- Any rubbish is collected and disposed of appropriately.

- Depending on the time, groups may have a chance to visit the other trenched / test pit sites and / or will be shown some of the artefacts that have been excavated.
- Participants leave the area and OAEast staff check every trench / test pit site to ensure that it is left appropriately.

The archaeological report

- Once all the paperwork has been checked on site it will be collected by the Site Director at the end of the day and form part of the site archive.
- The completed forms, photographs, drawings, finds and environmental data will be used to write an excavation report. There may be a community section in the report that includes details of groups involved, feedback information and data that might be of interest to others planning similar excavations. A section will also include both pictures of artefacts as well as participants and visitors to the site where appropriate.
- A report is then written by an archaeologist will then be filed with the HER (Historic Environment Record) Office so that it adds to the archaeological information of the area. This is a very important part of any archaeological investigation. It takes time and effort but its vital.

Appendix 4 - Recording sheet used by all participants

13b. Context Recording Sheet for a FILL Example				Date 4/4/2012		Checked by James Fairbairn						
				Date checked 10/4/2012								
Site Code ELTMF12		Trench or Test Pit Number		TP4		Context Number		401				
CHECKLIST - Tick the right hand column as you complete each row of this recording sheet. Use the ADVICE SHEET or ask OAEast staff for help.										Tick		
1. Categ ory	FILL		2. Type (Circle just one) Buried soil - Cremation - Ditch - Floor - Foundation trench - Grave - Gully - Hearth - Hearth/Oven - Kiln - Natural - Pit - Post hole - Post pit - Robber trench - Skeleton - Stake hole - Slot - Surface - Wall - Well - Not sure							✓		
3. Fill of [404]			4. Plan Number PN 4/1			5. Section Number SN 4/8				✓		
6. Feature	Feature length 1 metre		Feature width / diameter 30cms			Feature depth 24cms				✓		
7. Colour of the fill? See 'ADVICE SHEET'			Modifier Mid		Hue Brownish		Colour Black			✓		
8. Fine composition What does the fill feel like?	Silty clay	Sandy clay	Clayey silt	Sandy silt	Silty sand	Clayey sand	Other (describe)			✓		
9. Coarse composition See 'ADVICE SHEET'	Are there any inclusions (e.g. stones)? If 'YES' complete the boxes below				Yes	✓	No				✓	
	What it is? FLINT	Frequent	Moderate	Rare	Angular	Sub-angular	Rounded	Well sorted	Moderately sorted	Poorly sorted	✓	
10. Compaction e.g. Sediment type and term. Tick just one	Coarse-grained sediment	Coarse-grained sediment	Fine grained sediment	Fine grained sediment	Fine grained sediment	Fine grained sediment	Fine grained sediment				✓	
	Compact	Loose	Firm	Soft	Friable	✓						
11. Truncated Is the feature cut by any other feature?					Yes	No	✓					✓
12. Finds - Tick all boxes that apply					Small finds - Type & small finds number			SF1 - small bone needle SF2 - small cu alloy coin				✓
Nothing	Bone	CBM	Clay pipe	Daub	Flint	Glass	Metal	Pottery	Shell	Slag	Stone	✓
	✓		✓		✓	✓	✓	✓	✓			
Specify other finds not listed above: 1 modern plastic comb, 4 pieces of roofing slate												
13. Environmental Record Each sample must include 3 labels with the Site Code, Context No., Sample No & No. of Samples					Also complete the Environmental Record Sheet Site code is ELTMF12, Context Number 401, 3 samples taken							✓
14. Stratigraphic Matrix Label below					15. Add any other information Continue overleaf The fill contained pottery from several time periods. One sherd of Roman pottery was very abraded.							✓
This context is	400	401	402									✓
2.6.1.1 Name of person/s completing this form Joe Brown and Mary Waters	On the CUT recording sheet add a sketch plan and your comments/interpretations										✓	

Appendix 5 - The Excavation Timetable

Monks Down Under - Young Roots Lottery Heritage Project Excavation and Timetable Information

Please read the information below carefully and if you have any queries please ask asap. Note. All those taking part will need to bring a packed lunch and drink with them for the two days.

Friday 27th April – Excavating / filming

<i>Time</i>	<i>Groups</i>	<i>Activity</i>	<i>Comments</i>
8.00	OAEast staff	Arrive & Set up POP-UP shelter, get tools and paperwork ready	
8.30	OAEast Vols & pupils	Arrive, sign-in, site induction and brief site tour by DCW	Begin filming / taking photos
8.30	OAEast staff	Set out equipment for groups and confirm groups – NG & JF	Photos / film
9.00 – 9.30	OAEast Vols & pupils	Check their equipment and go to their test pit	Photos / film
9.30 – 10.30		Begin excavations and record as appropriate	
10.30 – 10.50	MORNING BREAK FOR ALL		
10.50 – 12.30	OAEast Vols & pupils	Continue to excavate and record	Photos / film
12.30 – 1pm	LUNCH BREAK FOR ALL		
1 – 2.30 TBC	Ramsey Primary Sch	<i>Open only to class Classes 5 & 6.. actual timing to be confirmed but needs to be in the afternoon so that there is ‘something’ for them to see! Will also arrange for them to wash pottery if possible.</i>	<i>All pupils / staff / parents will need to sign a photo permission form.</i>
1 – 2.40	OAEast Vols & pupils	Resume excavating and recording – by the end of the day groups should be down at least 50cms	
2.45	Pupils	Groups check in their CLEAN equipment	
3.00		End of day briefing by DCW	
3.10		Sign out, leave the site. Catch late buses home	
3.00	OAEast Vols	Finish recording for the day and check in their equipment. Briefing and sign out and leave the site	
3.30 – 4	OAEast staff	Review the day and check the site if safe	
4.30	OAEast staff	Secure site & tools and leave for home	

Saturday 28th April – Excavating / filming

<i>Time</i>	<i>Groups</i>	<i>Activity</i>	<i>Comments</i>
8.00	OAEast staff	Arrive & Set up POP-UP shelter, get tools and paperwork ready. Put out signs for the OPEN DAY and mark the route round the excavations.	Get all posters/ signs ready.
8.30	OAEast staff	Set out equipment for groups	
9.00	OAEast Vols & pupils	Arrive, sign-in and have short briefing for the day	Begin filming / taking photos
9.15 – 9.30	OAEast Vols & pupils	Check their equipment and go to their test pit	Photos / film
9.30 – 10.30		Continue excavations, finds process and record as appropriate	
10.30 – 10.50	MORNING BREAK FOR ALL		
10.50 – 12.30	OAEast Vols & pupils	Continue to excavate, finds process and record	Photos / film
11.00 – 1.00	General Public	OPEN MORNING SESSION – guide tours of the site with pupils leading the tours.	Photos / film
12.30 – 1.00	LUNCH BREAK FOR ALL		
1.00 – 3.00	OAEast Vols & pupils	Resume excavating and recording - by the end of the 2 days all groups should be down at least 0.8 metre.	Photos / film
3.00		Groups have all their test pits checked by Dave Kenny (English Heritage) and finish recording. Check in their equipment	Photos / film
3.30		Clean and check in their equipment. End of the two day with a briefing by DCW	Photos / film
4.00	Pupils	Sign out, leave the site and make their way home	
4.00	OAEast Vols	Briefing and sign out and leave the site	
4.00 – 5	OAEast staff	Review the day, load all equipment and check the site if safe	
5.00	OAEast staff	Leave for home/ Bar Hill to unload and sort all equipment	

Appendix 6 - Photographic Permission Form

Abbey College & Oxford Archaeology East

Photographic Permission Form for Young People

Event: **A Young Roots Project based at Abbey College, Ramsey**

Location: **Abbey College, Ramsey and other venues**

During the above project, staff from Abbey College and Oxford Archaeology East (OAEast) will be taking photographs and digital images of your child engaged in various activities. We may use these images to promote and advertise the work of Abbey College, OAEast and/or Oxford Archaeology in the form of posters, websites and publications (i.e. in-house publications, public magazines or newspapers). The images will also be used to produce a DVD and booklet about the project. Apart from the acknowledgements in the DVD we will not include the name or address of any individual.

If you agree that your child may be photographed and appear in the above mentioned publicity material please sign below.

I give permission for my child/ren (name below)

.....

to be filmed & photographed as part of this project and I have no objections to such images being used in a DVD, printed publications or on the Abbey College, OAEast or Oxford Archaeology websites. Please note that this form will be kept in a locked filing cabinet.

Please details (parent/guardian)

Signed:.....Print name:.....

Relationship to child:.....

Home address:.....

.....Post Code:.....

Tel:..... E-mail:.....

Please complete details (young person/s)

Signed:.....Print name:.....

Signed:.....Print name:.....

Thank you.

Oxford Archaeology East is based at 15, Trafalgar Way, Bar Hill, Cambs. CB23 8SQ
Registered Office: Oxford Archaeology Unit Limited, Janus House, Osney Mead, Oxford,OX2 0ES

Private limited company number: 1618597. Registered charity number: 2856

Appendix 7 - Risk Assessment - Monks Down Under

RISK ASSESSMENT

OXFORD ARCHAEOLOGY EAST

Site name	Ramsey Abbey, Ramsey	Prepared by	D. Crawford-White	Signed.....	Taleyna
Site code	RASABC12	Approved by	Taleyna Fletcher		Fletcher
Invoice code	RASABC12	Date	3rd May 2012		

CDM Status: Site does/does not fall under CDM Regulations at this time.

Job summary: Minimum info. Required = description of terrain and current land use, duration, number of staff, type of work to be undertaken.

The site is a scheduled monument. SMC has been sought from English Heritage. There will be at least three OAEast staff, up to 10 OAEast volunteers and from 10 - 30 Abbey College Students with three school staff. The small trench / test pit excavation will take place over two days (18th & 19th May).

There will be a site visit by a local Primary School on Friday 18th May and an Open Morning for the community (11am - 1pm) on Saturday 19th May

The following activities will take place during the three days - B2 (Pot and Bone washing), B3 (Other aspects of finds processing), C5 (Archaeological tour), C8 (Find Processing - young people), C11 (Handling animal bones & teeth), C12 (Handling artefacts), D1 (Barrowing), D2 (Small trench or test pit excavations), D3 (Hand excavation), E1 (working with young people).

Basis for this Risk Assessment: This is the first Risk Assessment for this site

First Aid

The regulations require that your risk assessment considers the appropriate level of 1st Aid cover necessary for each site. You must consider the size of the team, the nature of the hazards present (e.g. plant on site, working in deep excavations), the remoteness from the emergency services and whether the site is shared with other contractors engaged in hazardous activities. If you feel that a first aider is required for your site please advise the Head of Fieldwork (or regional equivalent). If you are unclear about 1st Aid provision please ask a Health and Safety Advisor for guidance.

If you do not need a First Aider, you will need as a minimum an 'Appointed Person', whose responsibility is to take charge when someone is injured or fall ill, and who calls an ambulance if necessary. The appointed person also looks after and re-stocks the 1st Aid box.

Number of First Aiders required: 2

Nominated First Aider/Appointed person:
Nick Gilmour & James Fairbairn

The following is a list of common risks, and suitable controls. Please review carefully, decide whether they apply to your project and complete Column 4. If 'Yes', add any further site specific controls that might be necessary (in Column 5), beyond those already detailed, or follow the instructions given. If 'No', delete or strike-through the contents of Columns 5 to 7.

If there are risks on your project that are not detailed below please add them, and appropriate controls, to the Site Specific Risk Assessment table below. (NOTE - A full RA is available to view.)

Appendix 8 - Induction checklist



Oxford Archaeology East Site Induction checklist for all volunteers

Name:

Sire Code: RASABC12

I have read, understood and signed the Risk Assessment form.
.....

I have been told the site specific issues:

- Danger of the tripping over objects or lawn edges
- Uneven ground
- Sharp objects in the soil
- Plastic sheeting can become very slippery

I am familiar with the use of standard tools but if in doubt will ask how
best to undertake any unfamiliar procedure.

I am aware that I must take other measures for my own personal protection
e.g. sun block, hat, wear gloves, wear waterproofs.

I have been shown the position of the First Aid Box
.....

The First Aiders are Nick Gilmour / James Fairbairn (OAEast)

I have been made aware of the emergency procedures
.....

I know how to contact help in an emergency
.....

I have been shown the location of the toilets and hand washing facilities
.....

I have read and understood the 'Employees Duties' (H&S at Work 1999) PTO
.....

Signed: Date:

MANAGEMENT OF HEALTH AND SAFETY AT WORK REGULATIONS 1999

Regulation 14: Employees' duties

85 Employees' duties under section 7 of the HSW Act include cooperating with their employer to enable the employer to comply with statutory duties for health and safety. Under these Regulations, employers or those they appoint (eg under regulation 7) to assist them with health and safety matters need to be informed without delay of any work situation which might present a serious and imminent danger. Employees should also notify any shortcomings in the health and safety arrangements, even when no immediate danger exists, so that employers can take remedial action if needed.

86 The duties placed on employees do not reduce the responsibility of the employer to comply with duties under these Regulations and the other relevant statutory provisions. In particular, employers need to ensure that employees receive adequate instruction and training to enable them to comply with their duties.

87 Employees have a duty under section 7 of the HSW Act to take reasonable care for their own health and safety and that of others who may be affected by their actions or omissions at work. Therefore, employees must use all work items provided by their employer correctly, in accordance with their training and the instructions they received to use them safely.

Regulation 15: Temporary Workers

(1) Every employer shall provide any person whom he has employed under a fixed term contract of employment with comprehensible information on-

(a) any special occupational qualifications or skills required to be held by that employee if he is to carry out his work safely; and

(b) any health surveillance required to be provided to that employee by or under any of the relevant statutory provisions,

and shall provide the said information before the employee concerned commences his duties.

(2) Every employer and every self-employed person shall provide any person employed in an employment business who is to carry out work in his undertaking with comprehensible information on-

(a) any special occupational qualifications or skills required to be held by that employee if he is to carry out his work safely; and

(b) health surveillance required to be provided to that employee by or under any of the relevant statutory provisions.

(3) Every employer and every self-employed person shall ensure that every person carrying on an employment business whose employees are to carry out work in his undertaking is provided with comprehensible information on-

(a) any special occupational qualifications or skills required to be held by those employees if they are to carry out their work safely; and

(b) the specific features of the jobs to be filled by those employees (in so far as those features are likely to affect their, health and safety);

and the person carrying on the employment business concerned shall ensure that the information so provided is given to the said employees.

Regulation 19: Young Persons

98 The employer needs to carry out the risk assessment before young workers start work and to see where risk remains, taking account of control measures in place, as described in regulation 3. For young workers, the risk assessment needs to pay attention to areas of risk described in regulation 19(2). For several of these areas the employer will need to assess the risks with the control measures in place under other statutory requirements.

99 When control measures have been taken against these risks and if compulsory school age) can be employed to do this work. A young worker, above the minimum school leaving age, cannot do this work unless:

(a) it is necessary for his or her training; and

(b) she or he is supervised by a competent person; and

(c) the risk will be reduced to the lowest level reasonably practicable.

Appendix 9 - Primary School Programme

Part 1 - Visit to Ashbeach Primary School

Venue: Ashbeach Primary School, Ashbeach Drove, Ramsey St. Mary, Ramsey, Huntingdon, PE26 2YG

Contact Telephone Number: 01733 844262

Contact person: Mrs Anna Norden

Staff: Oxford Archaeology East staff

Time	Group	Activity	Comments
8.00	OAEast staff arrive and set up in the hall		
8.55	Whole school registration		
9.00 - 9.40	Whole school	1. Introduction to archaeology using a timeline 2. Short talk about what they will be doing at Abbey College and the search for the lost Abbey. PPT presentation. 3. Talk briefly about the abbey and the life of the monks. (Art Competition)	Use of original and replica artefacts A pack of pictures of what an abbey looks like and the monks.
9.40 - 10.00	CLASS 1	Excavating with trowels in a series of 'Dig Boxes' with recycled rubber	Use of real artefacts
10.00 - 10.30	CLASS 2	Excavating with trowels in a series of 'Dig Boxes' with recycled rubber	As above
10.30 - 10.50	BREAK		
10.50 - 11.20	CLASS 3	Excavating with trowels in a series of 'Dig Boxes' with recycled rubber	As above
11.20 - 11.50	CLASS	Excavating with trowels in a series of 'Dig Boxes' with recycled rubber	As above
11.50	OAEast staff pack up and leave		
Lunch break			

Part 2 - Site visit by Ashbeach Primary School pupils

Venue: Ashbeach Primary School, Ashbeach Drove, Ramsey St. Mary, Ramsey, Huntingdon, PE26 2YG

Contact Telephone Number: 01733 844262

Contact person: Anna Norden

Staff: Oxford Archaeology East staff

Site Visit Date: Friday 18th May

Site visit on the Friday 18th May (DCW)

Timing	Group	Activity	Resources
12.45pm	Group 1	Arrive at gatehouse	-
12.45 - 12.50 (5 mins)		Welcome, intro, RA chat	Notes, pictures
12.50 - 12.55 (5 mins)		Look at the gatehouse and church from outside	Pictures
12.55 - 1.00 (5 mins)		Walk to Abbey House	-
1.00 - 1.10 (10 mins)		Visit the chapel	-
1.10 - 1.25 (15 mins)		Visit digging site to see what Abbey students are doing	Plan of the geophysics
1.25 - 1.35 (10 mins)		Finds processing with Staff in charge helped by a volunteer	Bowls, FP box, Roman objects to wash
1.35 - 1.40 (5 mins)		Teacher led - Pack up and return to Gatehouse	-
1.40		Return to school in Minibus	-
1.30	DCW leaves group to go to meet 2nd group		-
1.35	Group 2	Arrive at gatehouse	-
1.35 - 1.40 (5 mins)		Welcome, intro, RA chat	Notes, pictures
1.40 - 1.45 (5 mins)		Look at the gatehouse and church from outside	Pictures
1.45 - 1.50 (5 mins)		Walk to Abbey House	-
1.50 - 2.00 (10 mins)		Visit the chapel	-
2.00 - 2.15 (15 mins)		Visit digging site to see what Abbey students are doing	Plan of the geophysics
2.15 - 2.25 (10 mins)		Finds processing with Staff in charge helped by a volunteer	Bowls, FP box, Roman objects to wash
2.25 - 2.35 (10 mins)		Teacher led - Pack up and return to Gatehouse	-
2.35	Return to school in Minibus	-	

Appendix 10 - Primary School Review

Name of school: Ashbeach Primary School

Teacher: Ms A. Norden

Date of visit to Ashbeach School: Tuesday 15th May, 2012.

Date of visit to the excavation site: Friday 18th May, 2012.

It has always been both a pleasure and exciting to work with David Crawford-White on projects linked to history and archaeology, however, it was even more thrilling to actually see archaeology happening and be involved in the Monks Down Under Project. The children thoroughly enjoyed the workshops on Tuesday 15th especially the younger ones for whom this may have been their first time being 'real archaeologists', brushing for treasures.

When we visited the dig at the Abbey College the older children were fascinated by the separate plots and why they were not digging in one huge area. Taking part in the 'Finds processing' activity was the highlight of the whole experience for many of our Yr4, 5 and 6s at the dig site. In fact I do not think I have ever seen our children so absorbed in 'cleaning'! They were fascinated by the different objects and what they were originally a part of. In addition, as we have been working on a topic called 'My Body', and through this spent time looking at the skeletons, skulls and teeth of various animals, the children were even more fascinated by the Roman remains of various creatures. They quickly identified which part of the animal they came from and in some cases the animal itself. These links have a powerful effect on the children's learning and interest.

Being involved in the Monks Down Under project has enabled us to visit, and for some, revisit areas of history in a lively and interesting way, giving the children wonderful hands on experience of a scientific study often only explored through pictures and small activities. They have met and spoken to people for whom archaeology is a passion and been able to explore some local heritage. For some it may have sparked an ongoing interest.

Many of the children took their families to visit the site on Saturday 19th May and parents have commented on the welcome reception they were given and how lovely it was for the children to be recognised, collect their 'postcards' and excitedly explain all they knew.

We would like to thank David and all the project team for their efforts in giving our children a great experience.

Quotes from Ashbeach School:

"I've never seen our children so careful in and excited to clean. It's been marvellous that they have shown great recall of the work we've been doing on skeletons by identifying the remains." - A.Norden (teacher)

"I enjoyed being able to see all the different things that have been found and taking my family to see it too." Jamie (year 6)

"Seeing the actual dig was really interesting by the sixth form building. I didn't think it would be like that." Blade (year 6)

"I really enjoyed washing all the Roman objects. They were really dirty I didn't think they would be that dirty." Maddie (year 6)

"The cleaning was really interesting as you were able to get a feel for what it is like to be an archaeologist." Salene (year5)

"Picking up the tools and using them in the dig boxes was really enjoyable, it made it real." Hattie (year 4)

A. Norden
May, 2012.

Appendix 11 - Primary Schools Art Competition

'Monks Down Under' Young Roots Heritage Project

Arts Competition Information Sheet

Paint or Draw a picture of what the medieval abbey at Ramsey may have looked like when it was first built

OR

Paint or Draw a picture of monks going about their daily lives

Competition title *'Ramsey Abbey and its monks'*

What are the age categories? Year 4 Year 5 Year 6

Who can enter the competition?

The Art Competition is open to all pupils who attend Ashbeach School Primary School. The entry should be no larger than A4 and each pupil can enter only one picture (painting or drawing).

When is the closing date?

The closing date is Friday 25th May, 2012. Entries should be handed in at school by the end of the day and the school will then need to send or deliver them to Rachel Green, Abbey College BY 3.10pm Thursday 31st May. **ALL entries** must have on the back of them the following information: Artist's name, School, Class and Age.

Who are the judges?

There will be a panel of judges made up of an archaeologist, three members of the Steering Group and Rachel Green. The decision of the judges is final and no correspondence can be entered into. The organisers are not liable for loss or damage to any picture entered for the competition.

What are the prizes?

Three winners will be selected from each age category and contacted by Rachel Green via the relevant school Headteacher. The first prize will be a replica medieval face jug with books on archaeology. There will also be smaller prizes for the 2nd and 3rd prizewinners in each age category.

What will happen to the pictures?

The winning entries and a selection of other pictures will be displayed at the Celebratory Event of the Young Roots project as well as at the local library and rural museum space permitting. Selected entries will also be displayed on the Oxford Archaeology East web site and may also be used for posters and publicity material.

When will be the presentation of prizes?

Prizes will be presented at the Celebratory Event at the end of the Young Roots Project by members of the judging panel.

Appendix 12 - Review Sheet - Young People

Friday 18th & Saturday 19th May, 2012

Overall thoughts:

Activity	(Please tick the appropriate box - thank you)					
	1 (great)	2	3	4	5	6 (poor)
Pre-excavation information	6	7	3	-	-	-
Excavating in a team	11	5	-	-	-	-
Finding 'stuff'	14	1	1	-	-	-
Overall organisation of the ½ days	7	8	1	-	-	-

Would you like to be involved in another archaeology project like this in the future?	Yes	16	No	-
---	-----	----	----	---

If 'YES' why?	<i>It was fun and I learnt a lot about archaeology - Because I like history and enjoy finding things to do with the past - It was an interesting and enjoyable activity - Because I thoroughly enjoyed the experience and would like to do it again - I enjoyed my time on the project and would like to do something similar in the future - Because its fun and it's different - Because the time was interesting - Because it was fun & I like digging - Because its fun and I miss lessons - Because it was fun and very interesting - Because it was fun and it was good - I found it fun and exciting over the two days - Because I enjoyed it - Because I enjoy seeing what people use to do or make and I have been to several other digs over 3 years - Because I enjoy finding things from the past.</i>
If 'No' why?	

Comment	(Please tick the appropriate box - thank you)					
	1 (great)	2	3	4	5	6 (poor)
What did you think of the one / two days?	13	3	-	-	-	-

What was good about the one/two days? What did you like?	<i>I got to dig and find things - We got to get out and do things to help better understand the history of the abbey - Interesting activity & finds - I like it because I met new people and learnt new things - Working in a team and finding interesting things - Did something new, something different - It was interesting. We found lots of things. We weren't over supervised - I like digging. I like finding stuff - I liked it because it was fun - I liked it when we got permission to extend the trench - We got biscuits - The digging because it is fun to dig - I found it fun and exciting and I learnt new things - I liked finding things - I</i>
--	--

	<i>liked the friendly people and finding stuff - Working together, finding stuff from the past because it teaches you more about the past.</i>
What was not so good? Why?	<i>I thought that we dug in the wrong place - I felt some of it could have been better organised as I spent most of my time on my own - Didn't mind much - Finding a surface just before filling hole in. Frustrating - doing the paperwork was boring and confusing - There wasn't enough time to dig the entire designated pit - Lifting the turf as we were told we would not have to do it - There was not enough time to dig more up - De-turfing it - The size of the tools - Because some people leave you doing one job by yourself - Doing the paperwork - The amount of building material found - Digging in small pits because we had 4 people around 1 pit – not enough space.</i>
What did you like the most?	<i>Digging and finding things - Getting to dig and finding stuff - Digging / talking to - Finding interesting things - Finding interesting finds - Finding something important and being able to say ' I found that' - Finding things - Digging (x3) - Expanding the trench - Finding the wall - Finding the artefacts - Finding some window stain glass - Digging, finding stuff.</i>
What did you like the least?	<i>Digging in the wrong place - Sieving - Finding surface at (the) end - Filling in the paperwork - Not being able to tell the difference between a rock and something good - Lifting the turf - It was only two days - Putting the soil and turf back - Cleaning - Being stuck with one job - The paperwork - The rain - Working in small pits.</i>
Do you think you learnt something	<i>Yes – What was difference between mud and archaeology - I learnt about the history of the Abbey and other such establishments also about categorising archaeological finds - Processing finds - That finding different layers is important - I learnt how to excavate and clean / identify finds - I learnt to shovel like a machine - I learnt how to do archaeological things - It takes along time to dig half a metre with a trowel - There was a foundation in the ground - How to excavate properly - What the differences are between cuts and fills - Yes .. that what is on the surface is just as important as what's underneath.</i>
What would you like to do again? Why?	<i>Yes, dig - All of it because it was really enjoyable - Yes, enjoyable experience - Yes, because I found it very interesting - Excavate in a team - Yes because its fun - Finding stuff - All of it! I really enjoyed it - I would like to excavate again because its fun - I would like to do the digging because I found it interesting - Dig - Yes its fun - The digging I found that fun - Digging the holes - Expand the holes so we could follow the wall - Would like to dig again because it is fun.</i>
Any other comments about the 1/2 days that you would like to write	
<i>The entire thing was really good however I believe more people, such as schools, should have been invited during the dig - It was amazingly great!! - All volunteers / staff were very friendly and I had a great time - Breaks & tours were not brilliantly planned. Drinks should have been more readily provided. Music should have been played! - It should have been done on Thursday and Friday instead of one weekend day - Found out a lot about the type of animals live there and what type of people use to live there lot - That it was really good - It was a great learning different equipment and finding a wall in the test pits and doing an excavation with the rest of the group.</i>	

Appendix 13 - Review Sheet - Adult Volunteers

Friday 18th & Saturday 19th may, 2012

Activity	(Please tick the appropriate box - thank you)					
	1 (great)	2	3	4	5	6 (poor)
Pre-excavation information	9	1				
Excavating in a team	6	3	1			
Finding 'stuff'	7	3				
Overall organisation of the ½ days	8	2				

Would you like to be involved in another archaeology project like this in the future?	Yes	10	No	0
---	-----	----	----	---

If 'YES' why?	<p><i>- I enjoyed working with the students who have such enthusiasm (sometime too much) and have learnt a lot from them together with James. I also realised how important the idea of working within a community project is, not only for us who attended the days, but also to the historical and archaeological records. I was unaware that schools groups had been formed to meet these needs.</i></p> <p><i>- An interesting opportunity to work in unique archaeological location. Chance to enthuse young people about their past and show how archaeology is a means of exploring it.</i></p> <p><i>- This was my first experience of an archaeology project with students and I found it really rewarding to be able to share my (limited) knowledge with them.</i></p> <p><i>- It was a great site run by dedicated people who allowed us all to enjoy the experience.</i></p> <p><i>- It was well organised and fun working with the youngsters.</i></p> <p><i>- Really enjoyed working with enthusiastic teenagers. Very refreshing change from the norm.</i></p> <p><i>- Enjoyed working with young people as part of a team. The two boys I dug with were very polite and friendly and worked well together.</i></p> <p><i>- Really enjoyed the day. Great to work with young people. Everything very well organised. Plenty of help when required.</i></p> <p><i>- Like working with helping, talking to young people of all abilities as long as that are enthusiastic and on-task.</i></p> <p><i>- The heritage of the past belongs to us all - its elucidation should therefore involve young and old when possible.</i></p>
If 'No' why?	-

Any other comments about the 1 /2 days. What did you think? What was good and what was not so good? Did you enjoy it, if so why?

- It was a totally new experience for me working with students of that age and therefore was unsure what to expect. The mix of ages within my team was ideal because the elder ones were able to help the younger ones. The two days were very enjoyable even though the work was labour intensive. The enthusiasm of the students was great to see. They were also very polite. I certainly enjoyed it, also the training given by James was excellent and he also made it fun. I can fully recommend this type of community project and would like to carry out further work such as this. The organisations and planning was top class and a credit to Oxford Archaeology East.

- A very well organised event. David clearly put a lot of effort into preparatory briefing and organising things on the day so that all went smoothly and safely

- Thoroughly enjoyed working with students; for the most part they were enthusiastic and eager to learn.

- Working with bright and enthusiastic children was great. It was good to talk to Dave Kenny, an enthusiastic EH (English Heritage) guy and you could see how pleased he was with the participation of all.

- I was only on site for one day but enjoyed working with students and other volunteers, although sometimes I would find myself digging our test pit on my own, as my students tended to wander off for a while! I liked their enthusiasm and their sense of fun and light heartedness made it an enjoyable day, even though we managed to dig less than half of the pit. It was also good to have archaeologists on hand to help explain to me anything I wasn't sure about (e.g. recording sheets).

- Generally all went well, but could have done with a little more digging time (perhaps adults could have carried on?). That's the problem of archaeology of course not the overall organisation (If we had found nothing it would not have been an issue!!). Less interested children possible need more support.

- Thought the day was well organised. Enjoyed working with my group. Weather was good. The afternoon was too short, so not much achieved then.

- One young man was a pleasure to work with, motivated and a careful worker; alas the other young member of the team was not so dedicated. I enjoyed the company and archaeological conversation of like-minded enthusiasts.

- Great dig, yet again learned loads. The young people were very keen, knowledgeable and like sponges wanting to learn. I found everything to be very well organised even before we got there.

Plates 1 & 2 - Pupils of Abbey College carrying out a geophysical survey of the area around Abbey House



Plates 3 & 4 - Pupils of Abbey College and adult volunteers working in Area 1 (Test Pits 1 to 4)



Plates 5 & 6 - Pupils of Abbey College and adult volunteers working in Area 3 (Test Pits 5 to 8)



Plates 7 & 8 - Pupils of Abbey College and adult volunteers working in Area 3 (Test Pits 9 to 10)



Plate 9 - A copy of the photograph taken for the Hunts Post & Ely Standard showing adult volunteers and pupils



Plate 10 - This photograph shows just some of the young people that took part in the two-day excavation





**GEOPHYSICAL SURVEY AT ABBEY COLLEGE,
RAMSEY, CAMBRIDGESHIRE**

Cranfield Forensic Institute Report No. 58

Peter Masters

**April 2012
Amended June 2012**

CONTENTS

<i>ABSTRACT</i>	1
1.0 INTRODUCTION	1
2.0 LOCATION AND DESCRIPTION	1
3.0 BACKGROUND INFORMATION	2
4.0 METHODOLOGY	3
5.0 ANALYSIS AND INTERPRETATION OF RESULTS	4
6.0 CONCLUSIONS	6
7.0 ACKNOWLEDGEMENTS	6
8.0 BIBLIOGRAPHY	6

ILLUSTRATIONS

FIG. 1: Location plan, scale – 1:5000.

FIG. 2: Gradiometer survey results, scale 1:2500

FIG. 3: Resistance survey results, scale 1:2500

FIG. 4: Gradiometer Survey of Areas 1 and 2– Grey scale and trace plots of raw, scale – 1:1000

FIG. 5: Gradiometer Survey of Areas 3 and 4 – Grey scale plot of enhanced data, scale – 1:1000

FIG. 6: Interpretation plan of gradiometer data – 1:2,500

FIG. 7: Resistance Survey of Areas 3 and 4 – Grey scale plot of enhanced data, scale – 1:1000

FIG. 8: Interpretation plan of resistance data, scale 1:2500

ABSTRACT

A gradiometer and earth resistance survey was carried out at Abbey College, Ramsey, Cambridgeshire in February and April 2012. The purpose of the survey was to locate any surviving remains of the former great Benedictine Abbey of Ramsey.

Four areas were surveyed around the Abbey House and the results from both techniques have produced some significant anomalies of an archaeological nature.

Areas 1 and 2 surveyed by gradiometer on the north side of Abbey House and inside of the Abbey Gatehouse and wall produced no archaeological anomalies and are criss-crossed by a series of service trenches.

Areas 3 and 4 surveyed by both techniques produced some highly significant anomalies. Area 3 indicated the presence of wall foundations whilst in Area 4 an apsidal ended building was revealed by resistance technique possibly denoting the remains of a chantry chapel. Other anomalies may indicate pier bases.

1.0 INTRODUCTION

A gradiometer and earth resistance surveys were undertaken on behalf of Oxford Archaeology East as part of a project funded by the Young Roots Heritage Grant at Abbey College, Ramsey, Cambridgeshire (Fig 1).

The purpose of the survey was to locate any surviving remains of the Benedictine Abbey of Ramsey.

The survey methodology described in this report was based upon guidelines set out in the English Heritage document 'Geophysical Survey in Archaeological Field Evaluation' (David, 2008).

2.0 LOCATION AND DESCRIPTION

The site is located within the grounds of Abbey College, Ramsey, Cambridgeshire. (Fig 1: NGR TL 291 850). The site is located on the south-east side of Ramsey and 10 miles south-east of Peterborough.

The site is currently under grass and ornamental gardens within the school grounds of Abbey School and on the site of the former Benedictine Abbey of Ramsey; which is a Scheduled Ancient Monument (Monument No. 100638; CHER No. 02781).

The underlying geology is comprised of March Gravels underlain by Oxford Clay Formation (Geological Map data © NERC 2011). The magnetic responses to these types of geologies is generally good to average depending on depth and target being detected and responds well to resistance surveys (Gaffney & Gater 2003, 78; David 2008, 10; Clark 1990, 92).

3.0 BACKGROUND INFORMATION

The Benedictine Abbey of Ramsey was the first of the great religious houses in Eastern Fenland to be founded and was at the time one of the most important, influential and wealthiest abbeys in the Fen to be founded. Ramsey is situated on a gravel island in the fen and the monastery would have at one time been surrounded on all sides by water. Its only approach was from the south-west by a causeway from Bury (REF).

It is traditionally thought that the monastery was founded in the 10th century AD and a wooden chapel was constructed. In 947AD, the wooden chapel according to legend was replaced with one in stone, which was dedicated to Our Lady, St Benedict and all Holy Virgins (Dickinson 1964, 13). The newly established monastery at the time was endowed and a charter by King Eadgar and granted many privileges to the order at Ramsey. By the end of the 10th century, Ramsey Abbey had established a great reputation for its learning that children of noble gentry sent them there to get a good and well respected education.

During the 12th and 13th centuries the abbey sustained great losses; in 1143 the abbey was occupied by the forces of Geoffrey de Mandeville when it was turned into a fortress and again in 1267 during the short-lived campaign of John d'Eyville.

At the time of the of the Black Death, the abbey was left in debt following the death of the abbot, Robert of Nassington but later the abbey managed to regain its great fortune until 1539.

In front of the abbey gate, is the Abbey Green, which was established around the time of the town being established around 1267. This feature is well known for early Benedictine monasteries and Battle Abbey is good comparative example of this.

In 1539, the abbey was dissolved by Henry VIII and then passed into the hands of Sir Richard Williams and used the site as a 'quarry' as the entire stonework from the ruins was re-used.

The Abbey estates remained in the hands of Cromwell until 1674 when it was sold to Colonel Titus and his family and has remained so until the 20th century when the present school took over the estate (Dickinson, 1964, 16).

Today there is very little to see of the once great Abbey, only the 15th century Abbey Gate House and wall separate Abbey College from the churchyard and Abbey Green where much of the fabric has been reused from the destruction of the abbey. Abbey College (formerly called Abbey School) incorporates a lot of the abbey stone into its structure and in the basement are the part surviving remains of the 13th century Lady Chapel. The parish church of St Thomas a Beckett is located outside the college grounds and its bell tower is also constructed from the abbey stone, which was built in around 1672.

Excavations and geophysical survey were conducted within the abbey precinct at Abbey School between 1998 and 2002 (Spoerry et al 2008; Utsi 1999). The

geophysical survey carried out in 1999 to the south and east of the 13th century 'chapel' a number of high resistance anomalies were mapped and ground penetrating radar (GPR) transects across the areas confirmed their depth and composition. Further geophysics was conducted to the north-west of the chapel, which indicated possible structures present. The excavations that took place between 1998 and 2002 were undertaken in advance of the new school buildings to the north-east of Abbey House.

The archaeological evidence recorded during these excavations generally gives a broad date range of c.1150-1350 based on the pottery evidence. The earliest evidence on the site dates from the 10th to mid 12th centuries (Phase 1), which revealed a group of timber buildings. The second phase of activity (Early to Mid 12th century) appears to show replanning of the site with the shift of the buildings to the north. Phase 3 (Mid 12th to 13th centuries) two parallel ditches were excavated based on the geophysical survey anomalies, which probably represent a trackway or path. To the north of the ditches, an earlier boundary marker was recut and made more substantial into a U-shaped ditch suggesting that this may indicate an early form of a lode.

The final phase, 4 (13th century to c. 1539) concentrated around a large lode that was 45m long and 8.7m wide, which contained waterlain material with a possible storehouse on its western side.

The arrangement of timber buildings around a courtyard suggest elements of the late-Saxon Monastery was founded in the later 10th century.

4.0 METHODOLOGY

Gradiometry

Gradiometry is a non-intrusive scientific prospecting technique used to determine the presence/absence of some classes of sub-surface archaeological features (eg pits, ditches, kilns, and occasionally stone walls). By scanning the soil surface, geophysicists identify areas of varying magnetic susceptibility and can interpret such variation by presenting data in various graphical formats and identifying images that share morphological affinities with diagnostic archaeological as well as other detectable remains (Clark 1990).

The use of gradiometry is used to establish the presence/absence of buried magnetic anomalies, which may reflect sub-surface archaeological features.

The area survey was conducted using a Bartington Grad 601 dual fluxgate gradiometer with DL601 data logger set to take 4 readings per metre (a sample interval of 0.25m). The zigzag traverse method of survey was used, with 1m wide traverses across 30m x 30m grids. The sensitivity of the machine was set to detect magnetic variation in the order of 0.1 nanoTesla.

The data was processed using *Archeosurveyor v.2.5.16.0*. The results are plotted as greyscale and trace plot images (Figs. 4-9).

The enhanced data was processed by using zero-mean functions to correct the unevenness of the image in order to produce a smoother graphical appearance. It was also processed using an algorithm to remove magnetic spikes, thereby reducing extreme readings caused by stray iron fragments and spurious effects due to the inherent magnetism of soils. The data was also clipped to reduce the distorting effect of extremely high or low readings caused by discrete pieces of ferrous noise.

Resistance survey

Resistivity survey measures the electrical resistance of the earth's soil moisture content. A twin probe configuration is normally used, which involves the pairing of electrodes (one current and one potential), with one pair remaining in a fixed position (remote probes), whilst the mobile probes measure resistivity variations across the survey grids. Resistance is measured in ohms, and this method is generally effective to a depth of approximately 1m.

Features such as wall foundations are usually identified as high resistance anomalies, as well as rubble spreads, made surfaces (i.e. yards and paths) and metalled roads and track ways. In contrast, low resistance values are normally associated with water-retentive features such as large pits, graves, ditches, drains and gulleys.

The resistivity survey was carried out using a Geoscan RM15 Resistance Meter with a twin probe array configuration in mobile probe spacing of 0.5m. The zigzag traverse method of survey was used, with 1m wide traverses across a 20m x 20m grid.

The data was processed using *Archeosurveyor v.2.5.16.0*. It was despiked to remove extremely high readings caused by poor contact with the ground surface. The enhanced data was high and low passed filtered in order to remove near surface geology and other trends as well as give it a smoother graphical appearance. The results are plotted as greyscale and trace plot images (Figs 4-8).

5.0 INTERPRETATION AND ANALYSIS OF RESULTS (Figs. 4-8)

Four areas were surveyed with the gradiometer whilst only along and south east sides of the Abbey House were surveyed by earth resistance meter.

Gradiometer Survey

Areas 1 and 2 (Figs 4, 5, and 6)

An area covering c.0.62ha was surveyed by gradiometer technique only on the north side of Abbey House and immediately inside the Abbey Gate and wall.

A series of linear and curvilinear dipolar anomalies (Fig 6, blue lines) denote the presence of modern services.

No other anomalies of an archaeological nature were detected in these areas.

Areas 3 and 4 (Figs 5 and 6)

This area was surveyed by both gradiometer and resistivity techniques to the south and adjacent to the eastern end of Abbey House. Some significant anomalies of archaeological significance were detected.

Along the southern side of the house, which is currently a garden surrounded by gravel path, a short rectilinear positive anomaly (Fig 6, 1) was detected indicating the possible presence of wall footings or may reflect a magnetic response from modern disturbances as much of the area appears speckled from iron spikes.

At the eastern end of area 3 a short rectilinear anomaly and three individual square shaped positive anomalies (Fig 6, 2) were recorded in the resultant grey scale and trace images. These may reflect the presence of masonry beneath the surface. These types of responses may denote the presence of wall footings and pier bases. However, it is feasible that these may just reflect magnetic responses from tile and brick that lie beneath the surface.

A short distance from anomaly 2 is a linear positive anomaly (Fig 6, 3) running in a north-west to south-east direction from the present building denoting the presence of a service.

In area 4, a series of dipolar anomalies (Fig 6, 4) were detected indicating modern ferrous debris. A rectilinear positive magnetic anomaly (Fig 6, 5) was recorded in the greyscale and trace plot images possibly indicating the presence of wall foundations. This appears to correlate well with the resistance data (Figs 7 and 8, 8). The results obtained from a GPR survey carried out in 1999 indicated possible wall and floor surfaces in this area (Utsi 1999).

Other short linear positive anomalies may denote wall foundations or may reflect the presence of other ferrous remains (Fig 6, 5).

A large rectangular shaped dipolar anomaly (Fig 6, 6) was detected to the south of the path running east – west in front of the present building. It may reflect a subterranean feature such a cess tank or it could reflect remains of a cellar or basement or it may just resolve as demolition material beneath the surface. The GPR survey indicated floor type signals immediately to the west of this anomaly (Utsi 1999, 9).

Resistance Survey

The resistance survey was concentrated along the southern and eastern sides of Abbey House as the areas surveyed by gradiometer to the north are criss-crossed by modern services.

Areas 3 and 4 (Figs 7 and 8)

This area covering about 1ha was surveyed in the gardens along the southern side of Abbey House. The results produced some significant archaeological anomalies.

The lawn area is surrounded by a gravel path and this has been reflected in the greyscale raw and enhanced images as high resistance anomalies (Figs 7 and 8, 7).

A series of linear and rectilinear high resistance responses (Figs 7 and 8, 8) have been detected towards the centre of the lawn to the south-east of The Lodge Bungalow. These appear to reflect the presence of probable wall foundations, some of which are more substantial than others. It is likely that in places the foundations are still in-situ whilst others may have been robbed out soon after the dissolution of the monastery in 1539.

Area 4 was situated to the east and south-east of Abbey House covering an area of c. 0.3ha. A number of significant archaeological anomalies were detected in this area.

Immediately to the east of the present building, a polygonal/apsidal shaped high resistance anomaly (Figs 7 and 8, 9) was detected denoting the presence of wall foundations. The geophysical survey carried out in 1999 showed similar responses to this present survey (Utsi 1999). It may represent foundations relating to a building situated on the north side of the Abbey Church such as a chantry chapel. To the east of anomaly 9 and attached partly to it are a series of high resistance rectilinear anomalies (Figs 7 and 8, 10), indicating a further room or chapel-like building.

A series of rectilinear and linear high resistance anomalies (Figs 7 and 8, 11) possibly reflect the outline remains of walls. A square-shaped high resistance anomaly (Figs 7 and 8, 12) located to the south of 11 may indicate the presence of a pier base or merely reflect an area of demolition deposits. This anomaly correlates with the large rectangular shaped anomaly 6 recorded by gradiometer.

Other high resistance responses (Figs 7 and 8, 13) are areas denoting compacted dry ground around trees and shrubs or may reflect rubble deposits.

6.0 CONCLUSIONS

The survey has highlighted some significant anomalies indicating possible wall footings to the former remains of the Abbey church of Ramsey some of which were previously mapped during the geophysical survey carried out in 1999.

Ramsey was the mother church of the Fen region to the other abbey churches of Ely, Chatteris, Bury St Edmunds and Peterborough. Their plans are very similar and if you compare Ramsey with Ely and Peterborough where the Lady Chapel is situated on the north side of the Abbey Church. If this is taken into consideration, then the polygonal shaped anomaly at the east end is likely to represent a chapel off the chancel end of the church. Whether the polygonal anomaly can be equated with a chantry chapel is debatable but it is likely to represent a function of similar stature.

Fragmentary wall alignments have been detected indicating the presence of a large building such as the Abbey church but at the time of the dissolution most of the stone appears to have been removed for use elsewhere.

Based on the survey results, it can be concluded that the areas of investigation proved to indicate the locations of the possible buildings including a possible chapel and other wall foundations along the southern and eastern sides of Abbey House. Without further investigations the interpretations of the detected anomalies remain inconclusive.

7.0 ACKNOWLEDGEMENTS

Cranfield University, Centre for Archaeological and Forensic Analysis would like to thank David Crawford-White for this commission and Abbey College.

8.0 BIBLIOGRAPHY

- Clark, A. J. 1990 *Seeing Beneath the Soil* London, Batsford
- David, A. 2008 *Geophysical Survey in Archaeological Field Evaluation*. London, English Heritage: Research & Professional Guidelines No.1.
- Dickinson, P. 1964 *Ramsey Church and Abbey, Huntingdonshire*. Revised Second Edition Guide book.
- Gaffney, C. & Gater, J. 2003 *Revealing the Buried Past – Geophysics for the Archaeologist*, Tempus publishing.
- Spoerry, P, Atkins, R., Macaulay, S., & Popescu, E.S. 2008 *Ramsey Abbey, Cambridgeshire: Excavations at the Site of a Fenland Monastery*, *Medieval Archaeology*, 52.
- Utsi, E. 1999 *Ground Penetrating Radar Survey of parts of Ramsey Abbey for the Cambridgeshire Archaeological Field Unit*. Utsi electronics unpublished report.

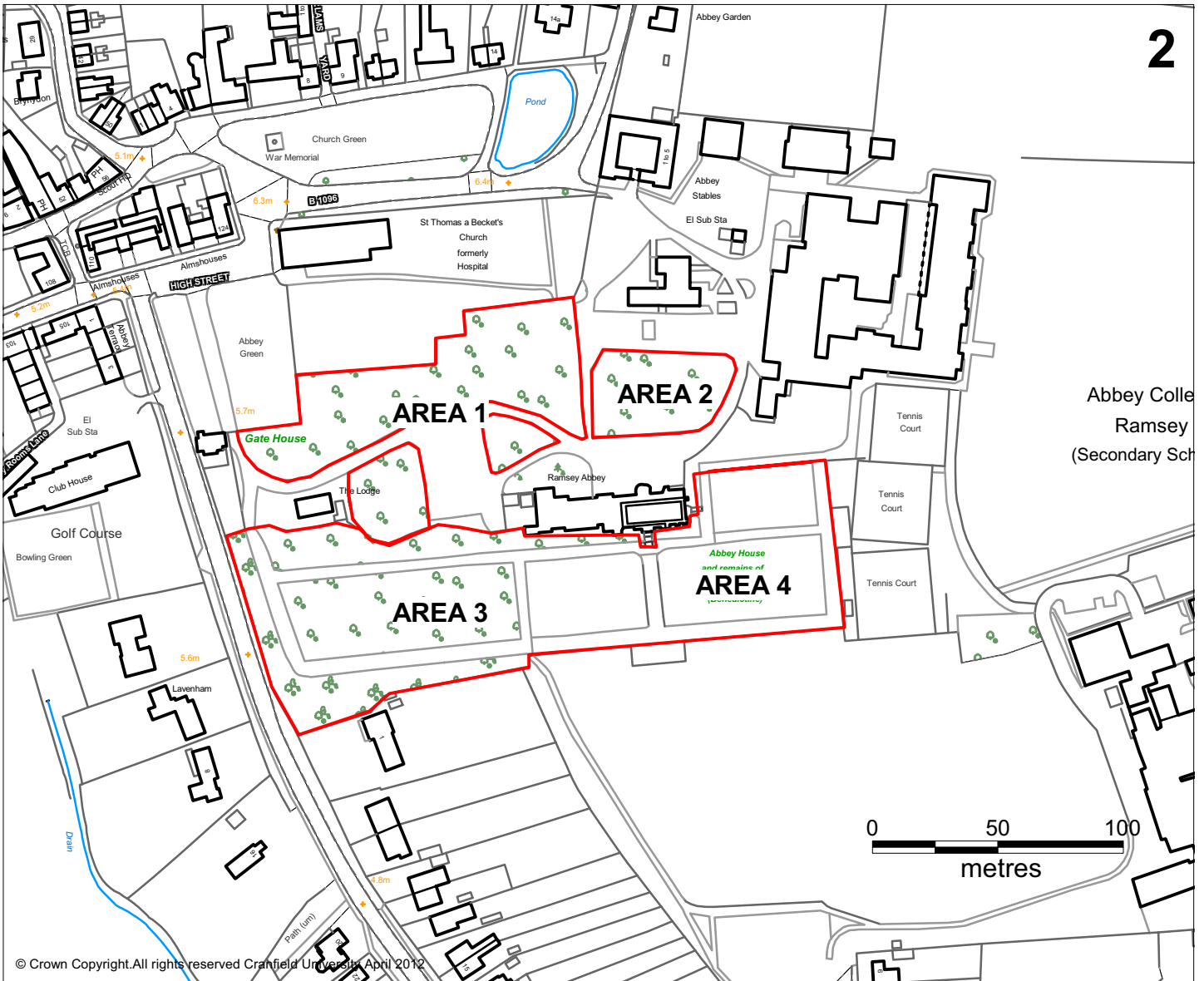
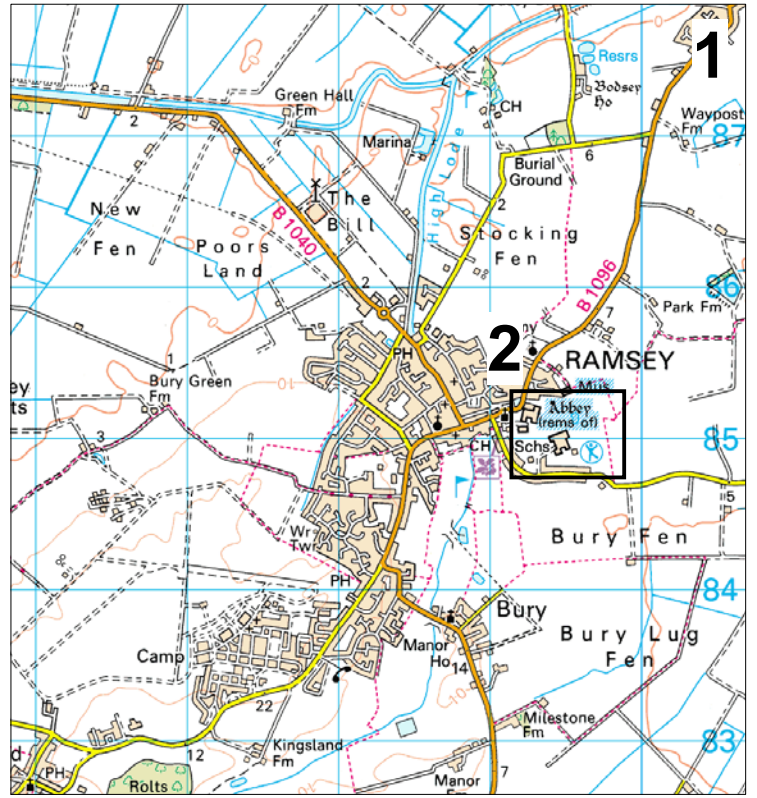
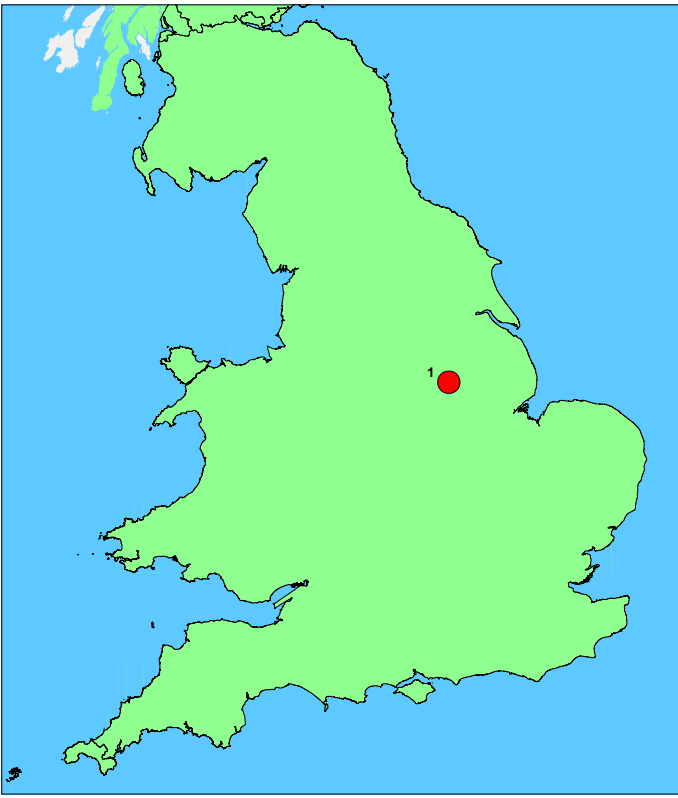


Fig. 1 - Location map showing survey areas, scale - 1:2,500

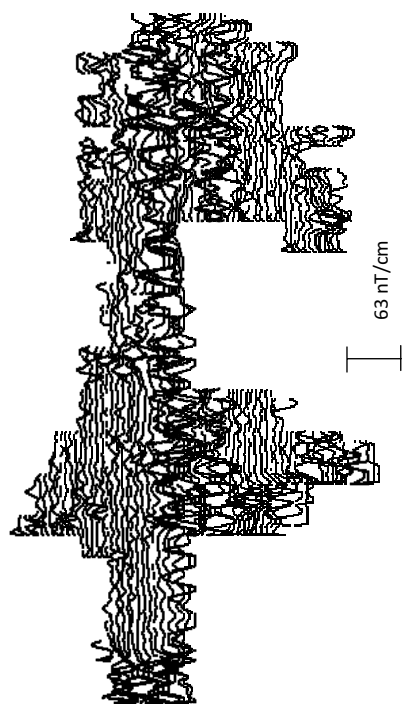
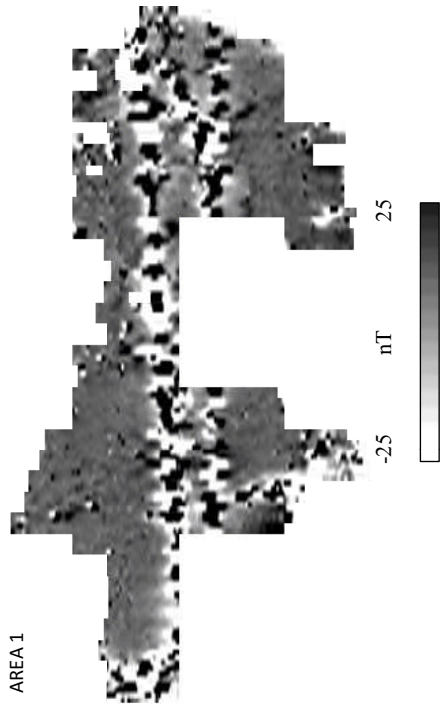


Figure 2 - Gradiometer survey, scale - 1000



Figure 3 - Resistance survey data, scale - 1:1000

AREA 1



AREA 2

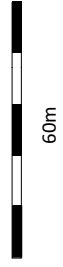
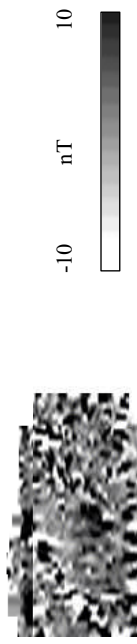
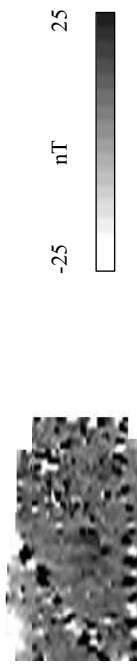
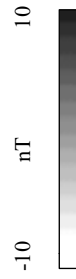
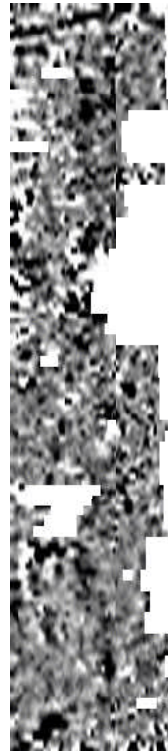
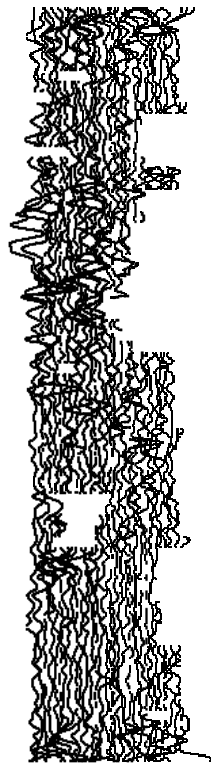
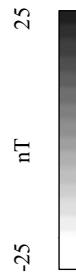
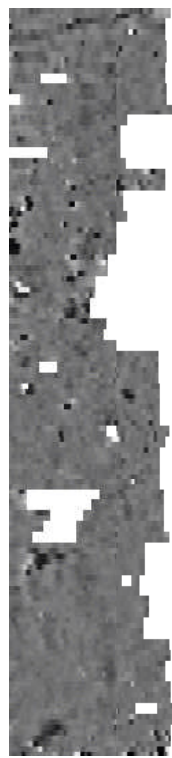


FIG. 4: Gradiometer Survey Areas 1 and 2 – Grey scale and trace plots of raw and enhanced data, scale – 1:1000

Area 3



Area 4

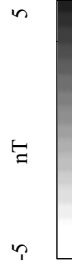
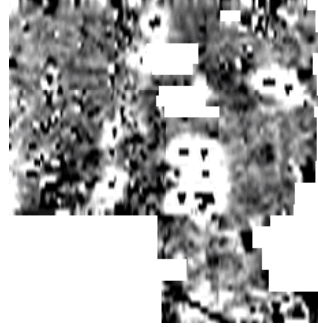
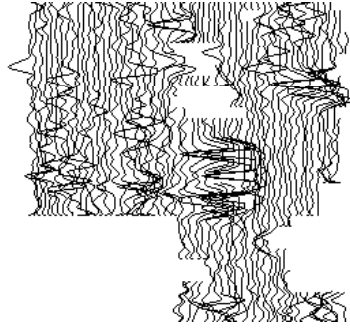
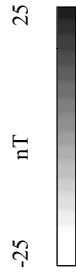
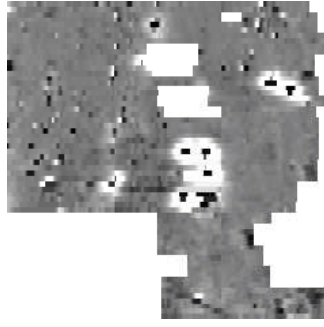


FIG. 5: Gradiometer Survey Areas 3 and 4 – Grey scale and trace plots of raw and enhanced data, scale – 1:1000



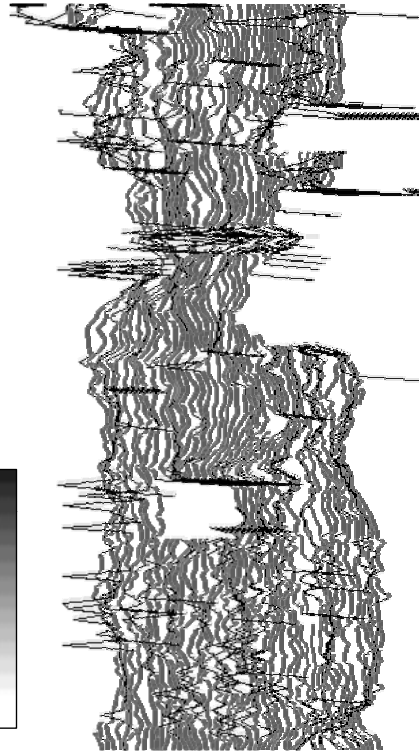
Figure 6 - Interpretation of gradiometer data, scale - 1:1000

Area 3

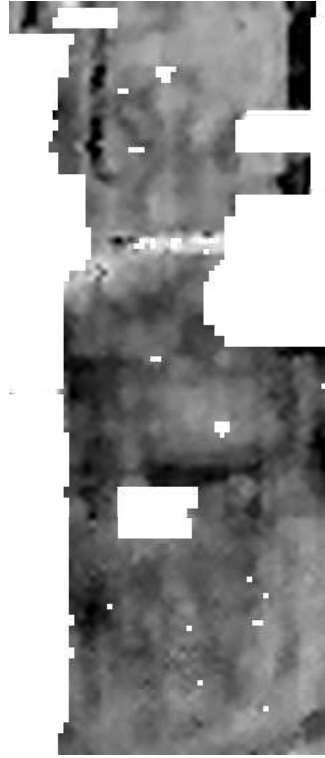


18.50 ohms

150



56 ohms/cm

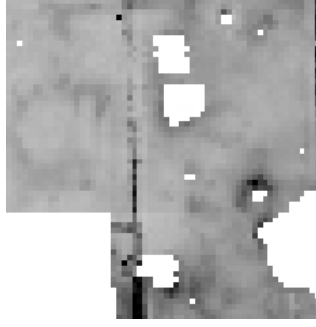


25 nT

100

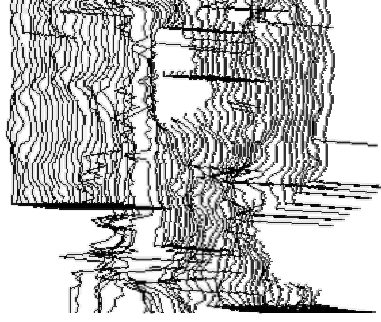


Area 4

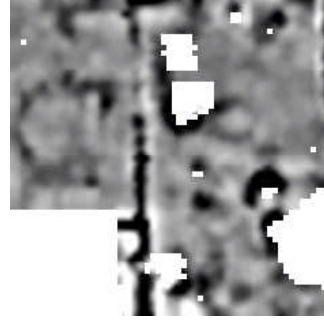


18.50 ohms

150



56 ohms/cm



36.88 ohms

46.88



60m



FIG. 7: Resistance Survey, Areas 3 and 4 – Grey scale and trace plots of raw and enhanced data, scale – 1:1000



Figure 8 - Interpretation plan of resistance data, scale - 1:1000



**Head Office/Registered Office/
OA South**

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarch.co.uk
w: <http://thehumanjourney.net>

OA North

Mill 3
Moor Lane
Lancaster LA1 1GF

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: [oanorth@thehumanjourney.net](mailto: oanorth@thehumanjourney.net)
w: <http://thehumanjourney.net>

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
f: +44 (0) 1223 850599
e: [oaeast@thehumanjourney.net](mailto: oaeast@thehumanjourney.net)
w: <http://thehumanjourney.net>



Director: David Jennings, BA MIFA FSA

*Oxford Archaeology Ltd is a
Private Limited Company, N^o: 1618597
and a Registered Charity, N^o: 285627*