

ARCHAEOLOGICAL EVALUATION REPORT:

**LAND NORTH OF ST LEONARD'S CHURCH,
LEVERINGTON, CAMBRIDGESHIRE**

Planning Reference: F/YR10/0922/F
NGR: TF 4445 1149
AAL Site Code: LESL 11
CHER Event Number: ECB3600
OASIS Reference Number: allenarc1-104409



Report prepared for Leverington Parochial Church Council

By
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Executive Summary

- Allen Archaeology Limited was commissioned by Leverington Parochial Church Council to undertake an archaeological evaluation by trial trenching on land to the north of St Leonard's church in Leverington, Cambridgeshire.
- The proposed development area lies west of the late Saxon sea bank known as the 'Roman Bank', where some evidence of salt making has been recorded, and the 13th century St Leonards church lies directly south of the development area.
- The trenching, which evaluated Phases 1 and 2 of the proposed cemetery, has identified that the site saw some activity from the 12th century onwards, and that this was focussed on an area of higher ground at the west end of the field, generally within the area of Phase 1 of the development.
- The eastern half of the evaluation area (Phase 2) appears to have been an open wetland with a creek running from south to north. Overbank flooding from this channel may have deposited clay on the higher ground prior to the digging of pits and ditches in 12th to 14th century. These features are likely to be associated with a farmstead or small settlement to the west of the wetland area.
- A large ditch at the north-west end of the site appears to be broadly contemporary with this activity, and was likely to be a major drain that fed into the wetland zone or continued through to the Sea Bank to the east.
- Following abandonment of the settlement area in the 14th century, the area may have reverted back to a wetland habitat, based on the alluvial soil that was present throughout the trenches.
- The major drain was replaced by a further large ditch in the 15th or 16th century. This linear is visible as a large hollow in the landscape, and is shown on the 1st edition Ordnance Survey map. A wood-lined drain may have been added at a later date to feed into this later boundary feature.
- More recently, in the 19th century the field was an orchard before being used for agricultural purposes.

1.0 Introduction

- 1.1 Allen Archaeology Limited (hereafter AAL) was commissioned by Leverington Parochial Church Council to undertake a programme of archaeological evaluation by trial excavation as a result of a planning condition for change of use of land to form an additional burial ground on land to the north of St Leonard's church in Leverington, Cambridgeshire.
- 1.2 The excavating, recording and reporting conforms to current national guidelines, as set out in the Institute for Archaeologists '*Standard and guidance for archaeological field evaluations*' (IfA 1995, revised 2001 and 2008), the regional guidelines '*Standards for Field Archaeology in the East of England*' (Gurney 2003), a brief prepared by CAPCA (McConnell 2011) and a specification prepared by this company (AAL 2011).
- 1.3 The archive will be submitted to Cambridgeshire Museums Service within six months of the completion of the fieldwork and will be stored under CHER Event Number: ECB3600.

2.0 Site Location and Description

- 2.1 Leverington is situated approximately 2km north-west of central Wisbech, and 28km east-north-east of central Peterborough, in the administrative district of Fenland District Council. The proposed development area is in the historic core of the settlement, centred on NGR TF 4445 1149.
- 2.2 The local geology comprises the superficial Terrington Beds, described as younger saltmarsh and tidal creek deposits of silty clay and sandy silt. These overly a bedrock geology of Ampthill Clay (British Geological Survey 1995). The site is broadly flat and lies at a height of approximately 5m above Ordnance Datum.

3.0 Planning Background

- 3.1 A planning application was submitted for the change of use of existing allotment gardens to provide additional burial areas for St. Leonard's Church (Planning Application Reference F/YR10/0922/F). The application was granted, with conditions, including the undertaking of a programme of archaeological evaluation by trial trenching in order to determine the archaeological potential of the proposed development area.
- 3.2 The current programme of works entails the evaluation of Phases 1 and 2 of the development, as the subsequent Phases 3 and 4 will be assessed as a separate stage of work.
- 3.3 This approach is consistent with the guidelines that are set out in Planning Policy Statement 5 (PPS5) (Department of the Environment 2010).

4.0 Archaeological and Historical Background

- 4.1 Leverington is not mentioned in the Domesday Survey of 1086, however it was in ownership of the church of Ely around 1109 (Pugh 2002). The place name is from the Old English and means '*farm/settlement connected with Leofhere*' (<http://www.nottingham.ac.uk/~aezins//kepn/detailpop.php?placeno=4122>).
- 4.2 The original settlement was focussed around the church and Leverington Hall, which both lie on a ridge of higher ground immediately to the west of the early medieval Sea Bank known as 'Roman Bank' (Pugh 2002).
- 4.3 There is some evidence for salt making in the vicinity with early medieval pottery along with evidence for burning having been recovered from beneath the Sea Bank during groundworks c.150m to the east of the site (Cambridgeshire Historic Environment Record (hereafter CHER) Reference 03960).
- 4.4 The church of St Leonard is mainly of 13th century date, although a 12th century cap in the parvise or priest room alludes to an earlier church (CHER Reference CB14886). The church saw some rebuilding in the 14th century before a major phase of construction occurred in the second half of the 15th century, followed by restoration work in the 19th century. The church is a Grade I listed structure (Listed Building Number 1160993). Also within the church porch there is the base of a cross which is Grade II listed (Listed Building Number 1125951), and a Grade II listed First World War memorial is located within the churchyard to the south of the site (Listed Building Number 1161025).
- 4.5 Leverington Hall is located to the south-east of the site, is Grade I listed (Listed Building Number 1160993) and dates to around 1630 (CHER Reference MCB18549).

5.0 Methodology

- 5.1 The fieldwork was carried out by a team of experienced field archaeologists in the week beginning 6th June 2011. The trial trenching initially entailed the excavation of four trenches measuring 30m x 1.6m, however three further trenches were added to enhance the results of the investigations and to provide geotechnical information for the client within the proposed development area. Trench 5 measured 11m x 1.6m, Trench 6 measured 13m x 1.6m and Trench 7 measured 3.5 x 1.6m (Figure 2).
- 5.2 Machine excavation was carried out with a tracked 360^o excavator fitted with a 1.6m wide toothless ditching bucket. In each trench, topsoil and subsoil layers were removed in spits not exceeding 0.1m in depth until the first archaeologically significant horizon or the natural geology was encountered, whichever was first. A sondage was excavated in Trenches 1, 3, 4, 6 and 7 to obtain a deep stratigraphic profile through the underlying deposits. Further excavation was carried out by hand.
- 5.3 A full written record of the archaeological deposits was made on standard AAL context recording sheets. Archaeological features and deposits were drawn to scale, in plan and section (at scales 1:20 or 1:50). Photography formed an integral part of the recording strategy.

All photographs incorporated scales, an identification board and directional arrow, and a selection of these images has been included in Appendix 1.

- 5.4 Each deposit, layer or cut was allocated a unique identifier (context number), and accorded a written description, a summary of these are included in Appendix 9. Three digit numbers within square brackets reflect cut features (e.g. pit [104]).

6.0 Results (Figures 3 – 7)

6.1 Trench 1 (Figure 3)

6.1.1 Topsoil 100 was the uppermost layer encountered in Trench 1, consisting of mid to dark grey brown silt with abundant rootlets and mixed refuse material including three clay tobacco pipe fragments of 17th to 19th century as well as nine medieval to late medieval pot fragments. It sealed alluvial soil layer 101 of mid orange/brown silt with two animal bone fragments and five 13th to 14th century pot sherds. This layer sealed an intermittent band of alluvial blue/grey clay deposit 102, sealing a natural silt deposit 103, of mottled yellowish orange and light brown laminated silt.

6.1.2 The features encountered were restricted to the northern half of this trench, they were all sealed by the subsoil 101 and cut or had removed clay layer 102; these comprised a large sub-circular pit [106] and three smaller pits [123], [125] and [104]. Pits [123] and [125] were undated. Eleven 12th to 13th century pottery sherds and four animal bone fragments were retrieved from backfill 107 of pit [106], and one fragment of animal bone and ten 12th to 13th century pottery sherds were recovered from backfill 105 within pit [104]. Two undated smaller pits or postholes [122] and [116] were recorded cutting pits [123] and [104]. Pit [104] was also observed cutting an earlier, undated, east-west aligned ditch [108]. South of this ditch were four isolated features comprising undated pit [110], pit [112] which contained four animal bone fragments and two late 11th to mid/late 13th century pot sherds, pit [114] which produced five animal bone fragments with occasional butchery marks and two 13th to 14th century pot sherds; and one ditch [118] with eleven mid/late 13th century pottery sherds.

6.1.3 Soil samples were taken from all dated features and the results were relatively homogeneous. The features contained small quantities of cereals such as barley, wheat and rye, as well as bread wheat retrieved from pit [112]. Herbs such as goosegrass and legumes were incorporated in the samples, as was charcoal, and tarry and cokey material suggesting waste from high temperature burning events. Evidence of wetland plants were recorded within pit [114] only.

6.2 Trench 2 (Figure 4)

6.2.1 In Trench 2 the topsoil 200 comprised compact mid to dark grey brown silt with abundant rootlets and modern refuse. It sealed alluvial soil 201 of compact mid brown silt. The third layer encountered, 202, was a natural yellow silt with frequent iron panning, which in turn sealed a c.0.8m thick deposit of fairly loose laminated yellow, grey and brown silt 203. Underneath this

layer firm, plastic dark blue/grey organic clay 221 was exposed approximately 1.5m below the modern ground surface.

- 6.2.2 Four features were encountered within this trench. Cutting through the subsoil towards the centre of the trench was an undated, naturally silted, wood lined drain [204] running broadly north-east to south-west. At the west end of the trench a wide east-north-east to west-south-west aligned ditch [208] was recorded below subsoil 201. The secondary silting fill 209 contained three animal bone fragments and eight mid 15th to mid 16th century pottery sherds, along with three handmade brick fragments ranging in date from the 14th to 17th century. A palaeoenvironmental sample from this fill contained cereal grains, charcoal, coal, and cokey and tarry material, again evidence of waste from high temperature burning in the area.
- 6.2.3 Approximately ten metres to the east a ditch measuring approximately nine metres wide with gradual sloping sides and fairly flat base was recorded, [215]/[216]. A slot through the eastern side of the feature [215] exposed three fills. The primary silting 214 contained one animal bone fragment and three fragments of mid 12th to late 13th century pottery. This fill was sampled and the results showed residues of wheat, legumes and goosegrass, charcoal and fish bone. The secondary backfill 213 contained three animal bone fragments and thirty-six pottery fragments of 13th century date. A slot excavated in the western half of the ditch [216], contained four fills. Primary natural silting 217 contained a single 14th to 17th century brick fragment, the third, a backfill event 219; contained two fragments of possibly intrusive early/mid 18th century pottery and the fourth backfill 220 contained a single residual sherd of 13th to 14th century pot.

6.3 Trench 3 (Figure 5)

- 6.3.1 Trench 3 proved to be devoid of archaeological features and exposed a sequence of flood deposits, possibly within a natural creek or palaeochannel. Topsoil 300, a friable mid to dark greyish brown silt with abundant rootlets sealed alluvial layer 301 of compact mid orangey brown silt. It sealed layer 302, a yellowish orange to light brown silt, containing six pottery sherds of mid/late 12th century date. Underneath 302, alluvial deposit 304 was encountered, comprising compact mottled blueish grey and brown clayey silt with iron pan staining and occasional reeds. To the north this layer sealed fairly loose light grey silt deposit 303. Two auger holes through deposit 304 to the south also showed this layer to be sealing a thin layer of mid to light brown orange sandy silt 305. Underneath 305 firm and plastic bluish black organic silty clay 306 was encountered, which sealed mid brown sandy silt 307, overlying dark grey to mid brown saturated sand 308.

6.4 Trench 4 (Figure 6)

- 6.4.1 The uppermost layer in this trench was compact, mid grey and brown silt with frequent rootlets and occasional pebbles, 400. It sealed alluvial layer 401, a very compact mid brown silt that contained a single sherd of 13th to 15th century pottery. Towards the west-north-west end of the trench a thin layer of compact blue grey clay 410 was encountered, sealing natural laminated silt layer 402.

6.4.2 Two linear features were recorded in this trench. Ditch [407] to the north-west had steep sides and a flat base and contained two naturally silted fills 408 and 409. A soil sample taken from 409 contained small quantities of wheat and charcoal. Further to the east an 8.6m wide natural creek [403] had silted up with fine light blue clayey silts 406 containing two animal bone fragments, a band of clay 405 and finally a coarse thin layer of laminated silts 404.

6.5 Trench 5 (Figure 7)

6.5.1 Trench 5 was devoid of archaeological features; the uppermost deposit was topsoil 500, a compact mid grey and brown silt that sealed alluvial soil 501, compact mid brown silt with occasional roots, over the natural superficial geology 502, a laminated light grey and coarse yellow silt.

6.6 Trench 6 (Figure 7)

6.6.1 Trench 6 was also devoid of archaeological features. The uppermost deposit was topsoil 600, a compact mid grey and brown silt that contained one sherd of early 12th to early/mid 13th century pot. It sealed subsoil 601, compact mid brown silt with occasional roots and fired silt flecks; a single late 11th to early/mid 13th century pot sherd was also retrieved from this layer. It sealed alluvial deposit 602, a compact mid brown clayey silt with occasional light yellow silt lenses, from which one sherd of 12th to 15th century pottery was recovered. The earliest layer recorded was 603 a coarse light to mid grey silt with lenses of clay alluvium that had been formed within a natural channel.

6.7 Trench 7

6.7.1 Trench 7 was a geotechnical pit which was excavated and recorded during the trial trenching, and showed the same deposit sequence as that in Trench 3 to the west.

7.0 Discussion

7.1 The sequence exposed in Trench 1 was relatively straightforward in that natural laminated silts showing no sign of bioturbation were sealed by a layer of blue/grey clay 102 that was in turn cut by a number of pits and ditches of medieval date. The clay layer reflects a period when the locality was submerged, perhaps through overbank flooding from the creek identified in Trench 4 (See Section 7.4 below). Shortly after the clay layer was created, a number of pits and ditches were excavated. Palaeoenvironmental evidence suggests that hearth or oven waste was probably incorporated into their fills, along with moderate quantities of cereal grains, and it seems likely that the pits reflect a farmstead or small settlement situated on or immediately to the west of the trench. Ceramic evidence indicates this was likely to have occurred around the 12th to 14th centuries AD. The archaeological features were then sealed by a compact silt horizon that is perhaps suggestive that the area reverted back to a wetland habitat, as its composition is similar to the wetland soils exposed in Trenches 3 – 7. A small number of 13th to

14th century pottery sherds from this layer are likely to have been reworked from the underlying medieval deposits. This was overlain by the modern ploughsoil.

- 7.2 Trench 2 revealed a number of archaeological features cutting the natural silts at the base of the trench. The earliest and largest feature was an east-north-east to west-south-west c.9m wide drain [215]/[216] that was probably created in the 12th or 13th century. The ceramic assemblage from the feature was mainly of 13th to 14th century date, including a dump of 36 pieces of 13th century pottery along the eastern edge of the feature. A single early/mid to late 18th century stoneware dish or bowl from a backfill deposit is almost certainly intrusive. Immediately to the west of the drain was a wood-lined gully of unknown date. The planking was desiccated and poorly preserved, however it was cut from directly below the ploughsoil so is probably fairly recent in date. At the west end of the trench was a large ditch, [208], that was over 1.5m deep and followed a similar orientation to the medieval drain [215]/[216]. Within the natural silts filling the feature, which was visible to the west of the trench as a pronounced hollow, were a small group of mixed pottery of 13th – 14th and mid 15th – mid 16th century date and animal bone. It seems likely that this was a replacement for the earlier drain, perhaps due to the other becoming choked with silt.
- 7.3 No archaeological features were encountered in Trench 3, and the sequence of deposits comprised natural laminated silts that were overlain by an alluvial clay horizon that is likely to be associated with a former creek that was exposed in Trench 4 (See Section 7.4 below). Augering through the clay identified a thin lens of coarse silt, which overlay dark blue/grey organic silty clay and then a further sandy silt layer. At the base of the sequence, approximately 2.25m below the modern ground surface (c.2.91m aOD), was saturated sand that the auger was unable to penetrate. Overlying the clay probably associated with the former creek was an alluvial soil that has formed in a wetland environment following the silting of the channel. Scattered throughout this soil were six sherds of mid/late 12th century pottery, possibly washed in from the activity associated with the pits and ditches encountered in Trench 1 (See Section 7.1 above). Overlying this was a further silty horizon that is likely to be a further component of the alluvial soil formation, which was in turn sealed by the modern ploughsoil.
- 7.4 A single ditch and a palaeochannel were encountered in Trench 4, both sealed beneath an immature alluvial soil that contained a single sherd of 13th to 14th century pottery, which was in turn covered by the modern ploughsoil. The ditch, [407], ran broadly north-north-east to south-south-west and although undated, may have formed a boundary between the lower wetland area and the medieval activity to the west. The former channel contained a primary deposit of fine blue/grey clayey silt, which contained several horse bones that had washed into the channel. The secondary fill was light blue clay 405 that was also identified beneath the immature alluvial soil 401 at the west end of the Trench. This may represent overbank flooding which was recognised in Trench 1 as pre-dating the medieval activity. Overlying this layer within the channel was a shallow series of flat bedded laminated silts, and above this was the alluvial silt 401. The channel was cut through the naturally-formed laminated silts exposed at the base of the sequence in the other trenches.
- 7.5 No archaeological features or artefacts were encountered in Trench 5. The soil sequence comprised the natural laminated silts overlain by a c.0.36m thick immature alluvial soil that was sealed by the modern ploughsoil.

- 7.6 Trench 6 exhibited a similar profile to Trench 5, however between the alluvial soil horizon and the natural silt was encountered clayey silt horizon 602 from which a sherd of 12th to 15th century pottery was recovered. This deposit represents the western edge of the wetland zone that was probably in place during the medieval activity identified in Trench 1, c.30m to the west (See Section 7.1 above). Medieval pot sherds were also recovered from the ploughsoil and underlying alluvial soil in this trench.
- 7.7 Although Trench 7 lay to the east of Trenches 3 and 4 where a former channel were identified, there was no evidence for this in the exposed profile, indicating the channel did not extend this far to the east. Instead, the trench showed a c.0.3m thick alluvial soil formation beneath the ploughsoil that in turn sealed naturally-formed laminated silt.

8.0 Conclusions

- 8.1 The evaluation has shown that there has been archaeological activity on the site from the 12th century onwards, and that the focus of this has been in the western half of the site, within the Phase 1 area of the proposed new cemetery (See Figure 2).
- 8.2 The eastern half of the site was an open wetland area with a sinuous creek running broadly south to north, and overbank flooding from the former channel was identified as a clay layer on the higher ground to the west in Trenches 1 and 4. Following this flooding, a series of ditches and pits were excavated in the western half of the site, around Trench 1, and these are likely to be associated with a farmstead or other settlement that was in use from the 12th to the 14th century. A ditch exposed in Trench 4 may have also been associated with this activity, acting as a barrier between the wetland zone and habitable area.
- 8.3 The site lies to the west of the Sea Bank, a protective earthen barrier that was constructed in the Late Saxon period to prevent marine flooding (Coles and Hall 1998). As the site lies on the landward side of the bank, the 12th to 14th century activity was therefore probably a direct consequence of the construction of the flood defence.
- 8.4 Material within the intercutting pits and ditches included pottery and animal bone, fish bones, egg shell, charcoal and faecal matter that suggest the deposition of domestic and hearth waste. The large size and unabraded nature of the ceramics indicates that they were deposited soon after breakage, providing a secure date to the activity.
- 8.5 At the north-west end of the site, a large drain or boundary was very likely contemporary with the medieval activity, and appears to run towards the wetland zone, indicating a drainage function is the most likely. The size of the drain is surprising, being approximately 9m wide and c.1.5m deep, indicating it was a major landscape feature. This drain appears to follow the orientation of a tree-lined boundary depicted to the west of the site on the First Edition Ordnance Survey map of 1888 (Figure 8).
- 8.6 The drain appears to have silted up over the following centuries and was probably then replaced by a second drain further to the west. This feature, which may have been excavated around the 15th to 16th century, is still visible as a distinct hollow at the north-west end of the

site, and is depicted on the First Edition Ordnance Survey map as a curving boundary along the northern side of the site.

- 8.7 All the trenches exhibited an upper immature alluvial soil that suggests a period of wetland formation that immediately post-dates the 12th to 14th century activity on the higher ground, and following the silting of the creek along the east end of the site. This is perhaps confirmed by the lack of post-14th century ceramics or other artefacts from across the site save for the large drains investigated at the north-west corner of the field. At the time the proposed development may have reverted to a water meadow, although the palaeoenvironmental evidence was not sufficient to confirm this.
- 8.8 A wooden planked drain at the north-west end of the site remains undated; however it was probably constructed as an attempt to drain the wetland, feeding into one of the two major drains.
- 8.9 The 1888 map of Leverington shows the field was an orchard at the time, and more recently it was an arable field (Mr Jack Dalziel *pers. comm.*).

9.0 Effectiveness of Methodology

- 9.1 The archaeological evaluation methodology was appropriate to the nature and extent of the proposed development. It showed that the west part of the proposed cemetery contained archaeologically significant features of medieval and later date, whereas the east part of the investigated area was devoid of features of archaeological interest as it comprised an open channel and wetland zone.

10.0 Acknowledgements

- 10.1 Allen Archaeology Limited would like to thank Leverington Parochial Church Council for this commission. Kasia Gdaniec, Senior Archaeologist at Cambridgeshire County Council is thanked for providing helpful comments during the evaluation fieldwork.

11.0 References

AAF, 2007, *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*, Archaeological Archives Forum

AAL, 2011, *Specification for an archaeological evaluation by trial trenching: land to the north of St. Leonard's Church, Leverington, Cambridgeshire*

British Geological Survey, 1995, *Wisbech. England and Wales Sheet 159. Solid and Drift Geology. 1:50000 Provisional Series*. Keyworth, Nottingham: British Geological Survey

Brown, N. and Glazebrook J., 2000, *Research and Archaeology: A framework for the eastern counties, 2. research agenda and strategy*, East Anglian Archaeology, Occasional Paper no.8

Coles, J. and Hall, D., 1998, *Changing Landscapes: The Ancient Fenland*. Cambridgeshire County Council and Wetland Archaeology Research Project

English Heritage, 2006, *Management of Research Projects in the Historic Environment*. Historic Buildings and Monuments Commission for England. London

Glazebrook, J. (ed.), 1997, *Research and Archaeology: A Framework for the Eastern Counties: 1 Resource Assessment*. East Anglian Archaeology, Occasional Paper 3

IfA, 1994 (revised 2001 and 2008), *Standard and guidance for archaeological field evaluations*, Institute for Archaeologists, Reading

McConnell, D., 2009, *Brief for archaeological excavation*, CAPCA

Pugh, R., 2002, 'Wisbech Hundred: Leverington', *A History of the County of Cambridge and the Isle of Ely: Volume 4: City of Ely; Ely, N. and S. Witchford and Wisbech Hundreds*, pp. 186-197

Williams, Dr A and Martin, Professor G. H., 2002, *Domesday Book: A Complete Translation*. Penguin Books

Appendix 1: Colour Plates



Plate 1: General view of the site taken from the north-west corner of the development area, looking south-east



Plate 2: Pre-excavation shot of north part of Trench 1, looking south



Plate 3: South facing section of ditch [208] in Trench 2, looking north



Plate 4: West-north-west facing section of sondage in Trench 3, looking east-south-east



Plate 5: South-east facing section of former creek [403] in Trench 4, looking north-west



Plate 6: South-east facing section of Trench 5, looking north-west



Plate 7: South facing section of Trench 6, looking north



Plate 8: East facing section of Trench 7, looking west

Appendix 2: Post-Roman Pottery Assessment

By Jane Young

Introduction

An assemblage of one hundred and sixteen sherds, representing seventy-five vessels in total, was submitted for examination. The pottery was recovered from five different trenches across the site. The assemblage was quantified by three measures: number of sherds, weight and vessel count within each context. Fabric identification of some sherds was undertaken by x20 binocular microscope. The ceramic data was entered on an Access database using Lincolnshire fabric codenames with a concordance to Cambridgeshire codes. Recording of the assemblage was in accordance with the guidelines laid out in Slowikowski, *et al.* (2001).

Condition

The pottery is mainly in a slightly abraded to fairly fresh condition. Sherd size is extremely variable and mainly falls into the small size range (between 1 and 10 grams) although the largest sherd weighs 175 grams. Fifteen vessels are represented by more than one sherd and there are two cross-context joining vessels.

Overall Chronology and Source

Eighteen different pottery ware types were recognised including local and regionally imported types. The material ranges in date from the Saxo-Norman to early modern periods and probably spans the period between the 12th and 18th centuries. A narrow range of identifiable vessel types was recovered, mainly various types of jugs and jars.

Table 1 Pottery types with total quantities by sherd and vessel count

Lincolnshire codename	Full name	Earliest date	Latest date	Total sherds	Total vessels
BONC	Bourne or Colne-type Post-medieval	1450	1600	3	2
BOSTTT	Boston Glazed ware - Toynton type	1230	1330	1	1
BOUA	Bourne-type Fabrics A, B and C	1150	1400	4	1
DST	Developed Stamford ware	1150	1230	1	1
ELY	Ely-type ware	1150	1500	26	13
EMHM	Early Medieval Handmade ware	1100	1250	36	31
GRIM	Grimston ware	1200	1550	7	5
GRIMT	Grimston-type ware	1200	1550	1	1
LMX	Late Medieval Non-local fabrics	1350	1550	4	3
MEDLOC	Medieval local fabrics	1150	1450	1	1
MEDX	Non Local Medieval Fabrics	1150	1450	5	5
SLBTOX	South Lincolnshire Baston-type Oxidised	1200	1350	3	2
SLLFOFQ	South Lincolnshire Light Firing Oolite Iron and Quartz	1200	1500	1	1
SLSQF	South Lincs Shell Quartz and Iron (generic)	1200	1500	1	1

SLST	South Lincolnshire Shell Tempered ware	1150	1250	1	1
ST	Stamford Ware	970	1200	14	6
SWSG	Staffordshire White Saltglazed stoneware	1700	1770	1	1
WEMS	Whealthrown Early Medieval Shell-tempered	1050	1220	6	1

Saxo-Norman to Early Medieval

Fourteen sherds from six different vessels are in Stamford ware (ST). One unglazed jar or pitcher sherd with incised wavy decoration and one glazed jug, jar or pitcher sherd are in Fabric B. This fabric is thought to be a post-conquest development and continues in use through the 12th century. The other four vessels are all from jugs or jars in Fabric C, which is found in ceramic groups of mid 12th to early 13th century date. The single Developed Stamford ware jug or jar sherd (DST) is also in Fabric C.

Early Medieval to Medieval

Sixty-two vessels in a range of local and regionally imported fabrics are of early medieval to medieval type. The main type represented is quartz-tempered Early Medieval Handmade ware (EMHM with 31 vessels) used mainly for globular jars, which starts in the late 11th or early 12th century and continues in use in parts of Cambridgeshire, South Lincolnshire and East Anglia until the mid to late 13th century. These vessels were made at a number of centres in eastern England. Few chronologically diagnostic features occur within the type making close dating impossible.

Twenty-five sherds from eleven different vessels in two main fabric groups are in Medieval Ely-type ware (ELY). Seven of the vessels are of standard type (see Spoerry 2008 for Cambridgeshire code MELS), three are calcareous (MELC) and one vessel is in a coarse fabric (MELCO). Most of the sherds are from unglazed jugs or jars but some sherds have a thin reduced glaze. These vessels are of mid 12th to 14th century date.

Seven sherds from five vessels can positively be identified as Grimston products (GRIM). All the sherds are from jugs of probable 13th to 14th century date. The only decorated jug has iron-stained applied strip decoration forming part of a complex design likely to be based on the 'fleur-de-lys' motif. One plain jug sherd is visually similar to Grimston products (GRIMT) but under x20 microscopic examination reveals a coarser sand fabric. It is probable that the type was produced at several as yet unknown centres between the late 12th and 14th centuries.

Four sherds from a single jug in the very conservative Medieval Bourne-type ware (BOUA) can only be generally dated to between the 13th and 14th centuries. A single jug sherd with an applied iron-stained strip is in a Boston-type Toynton fabric (BOSTTT). This type dates from the mid/late 13th to mid 14th centuries.

Several other local (MEDLOC) and regionally imported (MEDX, SLBTOX and SLLFOFQ) glazed jugs or jars are present in the assemblage. Coarseware vessels include jars and a dish in several quartz or shell-tempered fabrics (MEDX, SLSQF, SLST and WEMS). Most of these vessels come from unknown production centres and can only be generally dated to between the late 12th and 14th centuries, although some could be of 15th century date.

Late Medieval

Five vessels are of late medieval type and probably date to between the 15th and mid 16th centuries. Two vessels are of post-medieval Bourne or Colne type (BONC). Both vessels are in a smooth fabric of the type usually found from the mid 15th century and comprise two sherd from a single internally glazed bowl and a

jug or jar sherd. The single probable late Ely-type jug is similar to a published example from the Potters Lane waster group (Spoerry 2008 Figure 10, 43). A jug or jar with a thick internal glaze and a small jug base are late medieval products from unknown regional sources (LMX).

Early Modern

A single base sherd from a small dish or bowl is an industrial Staffordshire White Salt-glazed fineware (SWSG). These vessels were produced between the early/mid and late 18th century.

Site Sequence

Pottery was recovered from five different trenches across the site with most of the material being found in Trenches 1 and 2. In Trench 1 topsoil layer **100** produced nine sherds from five vessels of medieval to late medieval date. The latest vessel is of probable mid 15th to early 16th century date. Subsoil layer **101** contained two Grimston ware jug sherds and an Early Medieval Handmade ware sherd. The two Grimston ware jugs could be of 13th or 14th century date. Nine unglazed Stamford ware sherds from a jar or pitcher and an Ely ware jar or bowl sherd were recovered from the fill of pit **104** (fill **105**). The Stamford ware vessel is of probable early to mid 12th century date, but the Ely ware sherd could be of mid 12th to 13th century date. The ten vessels recovered from pit **106** (fill **107**) include possible jars in Ely ware and Early Medieval Handmade ware and a jug in a non-local glazed sandy fabric (MEDX). All of the sherds are small and only one vessel is represented by more than one sherd. The sherds recovered belong to the period between the late 12th and 13th centuries. The two tiny sherds of Early Medieval Handmade ware found in pit **112** (fill **113**) are of general late 11th to mid/late 13th century date. Pit **114** (fill **113**) produced two sherds of standard Medieval Ely ware of 13th to 14th century date. Six single-herd vessels were recovered from the primary deposit in ditch **118** (fill **119**). The group includes four Early Medieval Handmade ware jars, a Stamford ware jug or jar sherd and an Ely ware jar or bowl sherd. This small group probably dates to between the mid 12th and 13th centuries. Fill **120** of this ditch produced five vessels mainly of Early Medieval Handmade type, but also including a Boston Toynton-type decorated jug of mid/late 13th to mid 14th century type and seven sherds from a coarse Ely ware jar. Further sherds of the coarse Ely ware jar were recovered from topsoil layer **100**.

In Trench 2 a secondary fill of ditch **208** produced a small group of seven vessels (fill **209**). The group is mixed and includes vessels of 13th to 14th century and mid 15th to mid 16th century type. A sherd from one of the later vessels was also found in ditch **216**. A group of twenty-one vessels were recovered from the secondary silting of ditch **215** (fill **213**). The group contains jugs, jars and a dish in nine different ware types of mid 12th to 13th century date. Some of the sherds are in a fresh condition, perhaps suggesting primary discard. Two small Early Medieval Handmade ware jar sherds and a jug or jar in Developed Stamford ware were recovered from the primary silting of this ditch (fill **214**). The Stamford vessel is of mid 12th to early/mid 13th century date but the Early Medieval Handmade ware sherds are of 12th to mid/late 13th century date. Ditch **216** (fill **219**) produced two sherds of pottery, the later of which is from a small Staffordshire White Stoneware dish or bowl. The other sherd is from a non-local late medieval jug or jar also found in ditch **208**. A single small sherd from a Grimston ware jug of 13th to 14th century date was recovered from fill **220** of ditch **216**.

In Trench 3 silt deposit **302** produced sherds from three Stamford ware and one Early Medieval Handmade ware vessels. The Stamford ware fabrics suggest a mid to late 12th century date for deposition. Layer **401** in Trench 4 contained a large sherd from a non-local glazed jug of 13th to 15th century date.

Three deposits in Trench 6 each produced single sherds of pottery. That in context **600** is a mid 12th to early/mid 13th century Stamford ware jug or jar in Fabric C. The Early Medieval Handmade ware jar in context **601** is of general late 11th to early/mid 13th century date. Context **602** contained a single shell-tempered sherd of general 12th to 15th century date.

Summary and Recommendations

This is a small group of pottery of mainly early medieval to medieval date, but also including some late medieval vessels and an early modern sherd. The assemblage suggests activity in the area from at least the 12th century but is not large enough to infer the status of the medieval occupation. The assemblage should be kept for future study, especially as part of any further characterisation of the Early Medieval Handmade fabrics.

References

Spoerry, P., 2008, *Ely Wares*. East Anglian Archaeology 122

Slowikowski, A., Nenk, B. and Pearce, J., 2001, *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*. Medieval Pottery Research Group, Occasional Paper 2.

Post-Roman Pottery Archive

Context	Lincs codename	Camb's codename	Sub fabric	Form type	Sherds	Vessel	Weight	Decoration	Part	Ref	Description
100	ELY	LMELS	Late Standard	jug	1	1	175		rim with UHJ		simple rounded rim;grooved oval handle with 2 upper outer pressings& 2 central grooves;rim sim to Fig10:43 Spoerry 2008;? ID
100	ELY	MELCO	Coarse	jar ?	4	1	19		BS	vessel 2	int soot over thin int glaze
100	BONC	BOUD	smooth	bowl	2	1	60		BS		very abraded;
100	SLBTOX	UPG		jug	1	1	13		base		thumbed basal angle
100	ELY	MELS	Standard	jug?	1	1	5		BS		thin glaze
101	GRIM	GRIM		jug	2	1	76		base		finger pressings on inner base
101	EMHM	EMW		jar ?	1	1	4		BS		soot ext; carbonised deposit int
101	GRIM	GRIM		jug	2	1	72	complex applied strip & pellet design ? Fleurs de lys	BS		reduced glaze
105	ST	STAMB	Fabric B	jar/pitcher	9	1	31	incised wavy dec	BS		unglaze
105	ELY	MELS	Standard	jar/bowl	1	1	11		base		flat base
107	MEDX	UPG	reduced; med sandy	small jug	1	1	1		BS		thick reduced glaze; abundant fine-med round to subround quartz;13th;? A LSWW
107	EMHM	EMW		jar ?	1	1	1		BS		soot
107	EMHM	EMW		?	1	1	1		BS		int carbonised deposit
107	EMHM	EMW		jar ?	2	1	3		BS		int carbonised deposit;soot
107	EMHM	EMW		jar	1	1	3		BS		soot
107	EMHM	EMW		?	1	1	2		BS		int carbonised deposit
107	ELY	MELC	Calcareous	?	1	1	5		BS		soot
107	ELY	MELC	Calcareous	?	1	1	1		BS		
107	ELY	MELS	Standard	jar ?	1	1	1		BS		soot;glaze spots
107	ELY	MELS	Standard	jar ?	1	1	11		BS		thick int carbonised deposit;soot
113	EMHM	EMW		?	1	1	1		BS		soot
113	EMHM	EMW		?	1	1	2		BS		soot int & ext
115	ELY	MELS	Standard	jug/jar	1	1	18		BS		thick int & ext glaze;part spalled during firing
115	ELY	MELS	Standard	?	1	1	1		BS		
119	EMHM	EMW		jar	1	1	8		neck		soot
119	EMHM	EMW		jar	1	1	13		BS		soot ext & part int

Context	Lincs codename	Cams codename	Sub fabric	Form type	Sherds	Vessel	Weight	Decoration	Part	Ref	Description
119	EMHM	EMW		jar	1	1	2		BS		soot
119	ST	STAMC	Fabric C	jar/jug	1	1	1		BS		glaze
119	ELY	MELS	Standard	jar/bowl	1	1	4		BS		
119	EMHM	EMW		jar	1	1	12		BS		soot
120	EMHM	EMW		jar	1	1	1		BS		soot
120	EMHM	EMW		jar	1	1	1		BS		soot
120	BOSTTT	UPG		jug	1	1	9	fe applied strip	BS		very thin glaze
120	ELY	MELC	Coarse	jar ?	7	1	76		base	vessel 2	salt surface; ? ID as direct Ely product but fabric appears very similar
120	EMHM	EMW		?	1	1	1		BS		
209	SLLFOFQ	UPG		jug	1	1	3		BS		thick reduced glaze; moderate mainly coarse subround to round quartz 0.3-0.8mm common oolite comm fe; looks like SLBTOL + fe
209	LMX	LMT	oxid; fine sandy	small jug	2	1	34		base		slightly kicked out base; reduced glaze; worn basal angle; common finesubrounded quartz moderate fe occ fe cemented sandstone
209	MEDX	UPG	oxid; fine micaceous	jug/jar	1	1	16		base		very abraded; abundant very fine quartz below 0.1mm some up to 0.3mm mod fe; highly micaceous; ? Essex
209	BONC	BOUD	smooth	jug/jar	1	1	19		BS		
209	MEDX	MWC	R/OX/high t R; fine	jar	1	1	9		rim		plain everted rim; worn int rim & neck; abundant fine quartz occ larger & mod fe
209	LMX	LMT	OX/R/OX; fine-med sandy	jar/jug	1	1	75		base	vessel 1	thick internal reduced glaze; internal deposit; red ext wash; knife trimmed basal angle; comm to abundant fine-med quartz mod fe sparse ca rare muscovite
209	MEDLOC	UPG	OX/R/OX; fine sandy	large jug/jar	1	1	12		BS		? A local Toynton type; spot brown glaze; fabric incl comm fine-med subround to round quartz mod fe & occ flint
213	EMHM	EMW		?	1	1	1		BS		soot
213	EMHM	EMW		jar ?	1	1	1		BS		
213	EMHM	EMW		jar ?	1	1	2		BS		soot; internal deposit
213	EMHM	EMW		jar	2	1	5		rim		
213	EMHM	EMW		?	1	1	1		BS		soot
213	EMHM	EMW		jar ?	1	1	4		BS		soot; internal attrition
213	EMHM	EMW		jar ?	1	1	4		BS		soot
213	EMHM	EMW		jar	1	1	4		BS		soot
213	EMHM	EMW		jar	2	1	12		BS		soot
213	BOUA	BOUA ?	Fabric A	jug	4	1	61		handle		strap handle with central hollow; reoxidised over part of break

Context	Lincs codename	Cams codename	Sub fabric	Form type	Sherds	Vessel	Weight	Decoration	Part	Ref	Description
213	EMHM	EMW		jar	1	1	7		BS		soot
213	EMHM	EMW		jar ?	1	1	5		BS		
213	EMHM	EMW		jar	1	1	3		BS		
213	SLSQF	MWC		jar ?	1	1	5		base		
213	GRIMT	GRIM		jug	1	1	8		BS		South Lincolnshire type
213	SLST	MWC		jar/bowl	1	1	10		BS		soot
213	ELY	MELC	Calcareous	jug	5	1	27		BS		horizontal shoulder grooves;thin glaze
213	GRIM	GRIM		jug	1	1	1		BS		thin glaze
213	GRIM	GRIM		jug	1	1	13		BS		thin glaze
213	WEMS	MWC	shelly fabric	large dish	6	1	160		profile		fresh condition
213	SLBTOX	UPG		jar/jug	2	1	2		BS		glaze;soot
214	EMHM	EMW		jar	1	1	8		BS		
214	EMHM	EMW		jar	1	1	4		BS		soot
214	DST	STAMC	Fabric C	jug/jar	1	1	1		BS		mottled cu glaze
219	LMX	LMT		jug/jar	1	1	14		BS	vessel 1	thick int & ext glaze;int deposit
219	SWSG	SW ?		small dish/bowl	1	1	12		base		footring base
220	GRIM	GRIM		jug	1	1	3		BS		thick reduced glaze
302	ST	STAMC	Fabric C	?	1	1	1		BS		glaze
302	ST	STAMC	Fabric C	jug/jar	1	1	4		BS		glaze
302	ST	STAMB	Fabric B	jug/jar/pit	1	1	1		BS		glaze
302	EMHM	EMW	coarse fabric	jar	3	1	15		BS		soot
401	MEDX	UPG	OX/R/OX; med sandy	jug	1	1	45		BS		thin pocked reduced glaze;? An odd late ELY;abundant round quartz sparse to moderate ca mod fe;thrown
600	ST	STAMC	Fabric C	jug/jar	1	1	4		BS		ext glaze;abraded;slightly odd as low fired with spalling glaze
601	EMHM	EMW		jar	1	1	7		rim		int soot;pressed rim top
602	MEDX	MWC	light OX/R/light OX; coarse shelly	jar	1	1	9		BS		unusual fabric with prom surface shell; mod to common thick med to coarse fossil shell mod to common fe sparse flint

Appendix 3: Brick Archive

By Jane Young

Context	Cname	Full name	Fabric	Frag	Weight	Description	Date
209	BRK	Brick	red calcareous	1	239	handmade;soot including breaks;salt surfacing;48mm;slop moulded;straw impressions on underside	15th to 17th
209	BRK	Brick	orange-red calcareous	1	142	handmade;very abraded	14th to 17th
209	BRK	Brick	red calcareous	1	385	handmade;salt surfacing;mortar including over breaks;slop moulded;sunken centre	15th to 17th
217	BRK	Brick	red calcareous	1	479	handmade;115x55mm;end;salt surfacing;poorly wedged;high fired & distorted;? Slop moulded	14th to 17th

Appendix 4: Dating Archive

By Jane Young

Context	Date	Comments
100	mid 15th to early 16th	
101	13th to 14th	
105	mid 12th to 13th	
107	late 12th to 13th	
113	late 11th to mid/late13th	
115	13th to 14th	
119	mid 12th to 13th	
120	mid/late 13th to mid 14th	
209	mid 15th to mid 16th	includes handmade bricks
213	13th	
214	mid 12th to mid/late 13th	
217	14th to 17th	date on single brick
219	early/mid to late 18th	
220	13th to 14th	single sherd
302	mid to late 12th	
401	13th to 15th	single sherd
600	mid 12th to early/mid 13th	single sherd
601	late 11th to early/mid 13th	single sherd
602	12th to 15th	single sherd

Appendix 5: Animal Bone Assessment

By Jennifer Wood

Introduction

A total of 28 (657g) refitted fragments of animal bone were recovered during archaeological works undertaken by Allen Archaeology Ltd at the Land to the north of St Leonards Church, Leverington, Cambridgeshire. The animal bone assemblage was recovered from a series of medieval features within Trench 1; pits, [104], [106], [112], [114], ditch [118] and subsoil deposit all dated from 12th-14th century. Ditches [208] dated from 12th – 14th century and [215] and dated from 14th -16th century within Trench 2, and an undated former creek [403] within Trench 4.

Results

The remains were of a good to moderate overall condition, averaging between grades 2 and 3 on the Lyman criteria (1996).

Two fragments of bone recovered from (115) and (119) displayed evidence of butchery. The butchery marks were consistent jointing of the carcass.

A total of two fragments of bone recovered from (113) and (119) displayed evidence of carnivore gnawing. The lack of gnawing on the rest of the remains may suggest that they were rapidly buried, reducing the access for scavengers.

No evidence of pathology or burning was noted on any of the remains.

Table 1, Summary of Identified Bone

Cut	Context	Taxon	Element	Side	Number	Weight	Comments
101	101	Cattle	Skull-Zygomatic	L	1	26	
		Large Mammal Size	Tibia	L	1	20	Tibial crest
104	105	Large Mammal Size	Mandible	R	1	22	Body fragment
106	107	Cattle	Tooth	L	1	15	Upper PM
		Cattle	Tooth	R	1	22	Upper M1
		Sheep/Goat	Tooth	L	1	4	Lower M3=h
		Unidentified	Unidentified	X	1	2	
112	113	Cattle	Metapodial	X	1	31	Distal condyle, carnivore gnawed
		Cattle	Tooth	L	1	4	Lower PM2
		Large Mammal Size	Long Bone	X	1	3	
		Medium Mammal Size	Thoracic	B	1	1	Spinous process fragment
114	115	Cattle	Sacrum	L	1	25	Chopped through the left allele and centrum
		Medium Mammal Size	Long Bone	X	4	1	
118	119	Cattle	Ulna	L	1	71	Proximal articulation, chop on both sides on the olecranon, carnivore gnawing on the proximal end.
		Large Mammal Size	Humerus	R	1	8	Lateral condylar crest, heavily rootlet etched.
		Large Mammal Size	Long Bone	X	1	1	Carnivore gnawing on the shaft
208	209	Sheep/Goat	Radius	R	1	5	Proximal shaft fragment
		Large Mammal Size	Long Bone	X	1	6	

		Large Mammal Size	Vertebra	X	1	10	Transverse process
215	213	Large Mammal Size	Long Bone	X	1	7	Slightly mineral encrusted
		Medium Mammal Size	Long Bone	X	1	1	Shaft Fragment
		Medium Mammal Size	Rib	X	1	1	Blade Fragment
	214	Cattle	Femur	X	1	15	Distal shaft fragment with supra condylar fossa
403	406	<i>Equid</i> (Horse Family)	Innominate	L	1	201	Fragmentary, mostly complete
		<i>Equid</i> (Horse Family)	Innominate	R	1	155	Fragmentary, mostly complete

As can be seen from Table 1, Cattle remains are predominant within the assemblage, followed by Sheep/Goat and *Equid* (horse family).

The assemblage is too small to provide meaningful information on animal husbandry and utilisation on site, save the presence of the animals/remains on site. The skeletal element representation would suggest that the remains predominantly represent butchery discard. Due to the general abundance of remains, the main focus of activity on site is centred on Trench 1.

In the event for further works the site is liable to produce further remains of a similar condition with a good to moderate potential to provide further information of the animal husbandry and utilisation for the site.

References

Lyman, R L, 1996, *Vertebrate Taphonomy*, Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge

Appendix 6: Clay Tobacco Pipes Assessment

By Kevin Trott

Two plain slightly abraded stem fragments (2 and 4 grams) from two separate clay tobacco pipes were recovered from the topsoil layer (Context 100) within Trench 1. The thickness and bore diameter of both stem fragments indicates both a late 17th century and a single late 18th/19th century pipe fragment was discarded on site and became incorporated within the topsoil layer possibly from later agricultural disturbances.

References

Flood, R.J., 1976, *Clay Tobacco Pipes in Cambridgeshire*. The Oleander Press

Oswald, A., 1975, *Clay Pipes and the Archaeologist*. British Archaeological Report **14**

Appendix 7: Palaeoenvironmental Assessment

By Val Fryer

Introduction and method statement

Evaluation excavations at Leverington, undertaken by Allen Archaeology Ltd, recorded a limited number of pits, ditches and other discrete features of medieval to post-medieval date. Samples for the evaluation of the content and preservation of the plant macrofossil assemblages were taken from features within excavations trenches 1, 2 and 4, and ten were submitted for assessment.

The samples were processed by manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Table 1. Nomenclature within the table follows Stace (1997). All plant remains were charred. Modern seeds and fibrous and woody roots were present within all ten assemblages.

The non-floating residues were collected in a 1mm mesh sieve and will be sorted when dry. Any artefacts/ecofacts will be retained for further specialist analysis.

Results

Cereal grains were present at a low to moderate density within all ten samples. Preservation was generally very poor, with most specimens being in a very puffed and fragmentary state, whilst others appeared 'melted', with the identifiable structure of the grain being replaced with black porous and tarry residues. Such preservation was probably a result of the combustion of the remains at extremely high temperatures.

Oat (*Avena* sp.), barley (*Hordeum* sp.), rye (*Secale cereale*) and wheat (*Triticum* sp.) grains were recorded, with barley and wheat occurring most frequently. Chaff was rare, but barley/rye type rachis nodes were noted along with a very small number of bread wheat (*T. aestivum/compactum*) type nodes. Two severely puffed fragments of what appeared to be large pulse (Fabaceae) cotyledons were noted within the assemblages from samples 5 (pit [112]) and 6 (pit [118]). Weed seeds were extremely scarce, occurring within only five of the assemblages studied. All were of common segetal/grassland herbs namely small legumes (Fabaceae), goosegrass (*Galium aparine*) and grasses (Poaceae). A single sedge (*Carex* sp.) nutlet was noted within sample 6. Charcoal/charred wood fragments were present throughout, although mostly at a low to moderate density. Other plant macrofossils included pieces of charred root/stem and indeterminate culm nodes.

The fragments of black porous and tarry material were all probable residues of the combustion of organic remains (including cereal grains) at very high temperatures. Possible dietary residues included fragments of bone, eggshell, fish bone and marine mollusc shell. Other remains occurred infrequently, but did include mineralised faecal concretions and small pieces of coal, although it is, perhaps, most likely that the latter were intrusive within the features from which the samples were taken.

Conclusions and recommendations for further work

In summary, the assemblages are all small (<0.1 litres in volume) and it would appear very unlikely that any are indicative of the primary deposition of refuse within the pit and ditch fills. The extremely poor condition

of the remains is uniform across all assemblages and it is, therefore, quite probable that all are derived from a common source, with the remains being spread across a wide area and accidentally becoming incorporated within any features standing open at the time. Why such high temperatures of combustion were occurring on or near the site during the medieval period is currently not known, although the predominance of cereals within the assemblages may suggest the presence of hearth or oven waste.

Although the current assemblages are small, they clearly illustrate that plant macrofossils are preserved within the archaeological horizon at Leverington. Therefore, if further interventions are planned, it is strongly recommended that additional plant macrofossil samples of approximately 20 – 40 litres in volume are taken from all dated and well-sealed contexts recorded during excavation.

Reference

Stace, C., 1997 *New Flora of the British Isles*. Second edition. Cambridge University Press

Key to Table

x = 1 – 10 specimens xx= 11 – 50 specimens xxx = 51 – 100 specimens C = cent

Palaeoenvironmental Archive Table

Sample No.	1	2	3	4	5	6	11	8	9	7
Context No.	105	109	107	111	113	115	119	209	214	409
Feature No.	104	108	106	110	112	114	118	208	215	407
Feature type	Pit	Ditch	Pit	Pit	Pit	Pit	Ditch	Ditch	Ditch	Ditch
Trench No.	1	1	1	1	1	1	1	2	2	4
Date	12thC	Med.	12-13thC	Med.	11-13thC	13-14thC	?12thC	15-16thC	12-13thC	
Cereals and other food plants										
<i>Avena</i> sp. (grains)			xcf							
<i>Hordeum</i> sp. (grains)	xcf	x	x	x		xcf	x			
<i>Hordeum/Secale cereale</i> type (rachis nodes)						x	x			
<i>Secale cereale</i> L. (grain)						xcf				
<i>Triticum</i> sp. (grains)	x		xcf	x		x			xcf	x
(rachis internode)					x					
<i>T. aestivum/compactum</i> type (rachis nodes)						x				
Cereal indet. (grains)	x	xcf	x	x	x	xx	x	x	x	
Large Fabaceae indet. (cotyledon frags.)					xcf	xcf				
Herbs										
Fabaceae indet.					x				x	
<i>Galium aparine</i> L.	xfg				xfg		x		x	
Large Poaceae indet.						x	x			
Wetland plants										
<i>Carex</i> sp.						x				
Other plant macrofossils										
Charcoal <2mm	x	x	x	x	xx	x	xx	x	x	x
Charcoal >2mm	x		x		x	x	x	x	x	
Charred root/stem	x		x		x		x	x	x	
Indet.culm nodes					x	x				
Other remains										
Black porous 'cokey' material	x	x	xx	x	x	x	x	x		
Black tarry material			x		x	x		x		
Bone	x			x xb	x				xb	

Palaeoenvironmental Archive Table

Sample No.	1	2	3	4	5	6	11	8	9	7
Context No.	105	109	107	111	113	115	119	209	214	409
Feature No.	104	108	106	110	112	114	118	208	215	407
Feature type	Pit	Ditch	Pit	Pit	Pit	Pit	Ditch	Ditch	Ditch	Ditch
Trench No.	1	1	1	1	1	1	1	2	2	4
Date	12thC	Med.	12-13thC	Med.	11-13thC	13-14thC	?12thC	15-16thC	12-13thC	
Burnt/fired clay				x		x				
Eggshell	x									
Fish bone	x		x	x	xx	x	x xb		x	
Marine mollusc shell frags.				x						
Mineralised faecal concretions			x		x					
Mineralised soil concretions	xxx			xxx					xxx	
Small coal frags.	x	x		x		x		xxx		
Small mammal/amphibian bones	x		x	x	x					
Vitreous material									x	
Sample volume (litres)	14ss	16ss	16ss	14ss	17ss	14ss	14ss	14ss	16ss	18ss
Volume of flot (litres)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Appendix 8: Context Summary List

CBM = Ceramic Building Material (e.g. brick and tile)

Trench 1

Context	Type	Description	Interpretation
100	Layer	Mid to dark grey brown silt with abundant rootlets and modern refuse material. Seals 101	Topsoil
101	Layer	Moderate compact mid orangey brown silt. Sealed by 101, seals 102	Alluvial soil
102	Layer	Compact blue grey clay. Sealed by 101, seals 103	Intermittent clay deposit
103	Layer	Firm yellowish orange to mottled light brown silt, sealed by 102	Natural geology
104	Cut	Irregular feature with moderate steep and irregular sides. Contains 105	Cut of irregular pit
105	Fill	Moderate compact mid to dark grey brown fins silt with occasional charcoal flecks	Backfill of pit [104]
106	Cut	Sub-circular feature with gradual sloping sides and slight concave base. Contains 107 and 127	Cut of pit
107	Fill	Reddish brown silty clay	Possible backfill of pit [106]
108	Cut	E-W aligned, irregular linear with moderately steep sides and flat base, contains 109	Cut of ditch
109	Fill	Moderately compact, mottled mid brown silt and blue grey clay with occasional charcoal	Backfill of ditch [108]
110	Cut	Sub-oval E-W aligned feature with steep sides and flat base, contains 111	Cut of pit
111	Fill	Mixed of moderately compact mid brown silt and blue grey clay and occasional pot and mussel shells	Backfill of pit [110]
112	Cut	Sub-rectangular E-W aligned feature with steep sides and slight concave base. Contains 113	Cut of pit
113	Fill	Moderately compact greyish yellow clayey silt	Natural silting of pit [112]
114	Cut	Sub-rectangular E-W aligned feature with steep sides and concave base. Contains 114	Cut of pit
115	Fill	Moderately compact greyish yellow sandy silt	Natural silting of pit [114]
116	Cut	Small sub-circular feature with steep sides and concave base, contains 117	Small pit or posthole
117	Fill	Moderately compact mid to dark greyish brown fins silt with occasional charcoal	Backfill of [116]
118	Cut	E-W aligned feature with moderately steep sides and concave base, contains 119 and 120	Cut of ditch
119	Fill	Moderately compact dark greyish brown silt with occasional charcoal flecks	Primary dumped deposit of ditch [118]
120	Fill	Moderately compact mottled orangey brown and mid brown silt with occasional charcoal	Naturally silted fill of ditch [118]
121	Cut	Small feature with moderately sharp sloping sides and concave base, contains 122	Cut of small pit of posthole
122	Fill	Mid brown silt	Natural silting of [121]
123	Cut	Feature with sharp sloping sides and flat base, contains 124	Cut of pit
124	Fill	Fairly firm mid brown silt	Natural silting of pit [123]
125	Cut	Feature with steep sides and flat base, contains 126	Cut of pit
126	Fill	Fairly firm mid brown silt	Natural silting of pit [125]
127	Fill	Fairly firm bluish grey clay and brown silt	Primary backfill of pit [106]

Trench 2

Context	Type	Description	Interpretation
200	Layer	Compact mid to dark grey brown silt with abundant rootlets and refuse, seals 201	Topsoil
201	Layer	Compact mid brown silt, sealed by 201, seals 202	Alluvial soil
202	Layer	Fairly loose yellow silt and iron pan, sealed by 201, seals 203	Natural silt deposit
203	Layer	Fairly loose yellow, grey and brown silt, seals 221	Natural silt deposit
204	Cut	NW-SE aligned linear with steep sides and flat base, contains 205 – 207	Cut of wood lined drain
205	Lining	Wood lining	Wood lining of drain [204]
206	Fill	Fairly firm brown grey silt	Secondary silting of drain [204]
207	Fill	Fairly firm grey silt	Primary silting of drain [204]
208	Cut	NE-SW aligned linear with slightly stepped sides and flat base, contains 209 – 211	Cut of ditch
209	Fill	Fairly firm dark grey brown clayey silt with occasional charcoal flecks, pot and bone	Secondary silting of ditch [208]
210	Fill	Firm mid brown clayey silt with rare CBM flecks and charcoal flecks	Tertiary silting of ditch [208]
211	Fill	Fairly firm occasionally laminated mid grey clayey silt with iron pan staining	Primary silting of ditch [208]
212	Fill	Compact yellow silt	Tertiary natural silting of ditch [215]
213	Fill	Compact reddish brown silty clay with iron panning	Secondary backfill of ditch [215]
214	Fill	Fairly loose greyish blue silty clay	Primary silting of ditch [215]
215	Cut	NE-SW very wide linear with gradual sloping sides and fairly flat base, contains 212 – 214	Cut of very wide ditch, same as [216]
216	Cut	NE-SW very wide linear with gradual sloping sides and fairly flat base, contains 217 – 220	Cut of very wide ditch, same as [215]
217	Fill	Fairly firm mid bluish grey silty clay with iron panning	Primary natural silting of ditch [216]
218	Fill	Fairly firm laminated silty clays of grey, brownish green grey and beige white silt	Secondary natural silting of ditch [216]
219	Fill	Fairly firm mid grey brown silty clay with occasional pot	Backfill of ditch [216]
220	Fill	Firm mid orange brown silty clay	Backfill of ditch [216]
221	Layer	Firm and plastic dark blue/grey organic clay, sealed by 203	Organic clay deposit

Trench 3

Context	Type	Description	Interpretation
300	Layer	Friable mid to dark grey brown silt with abundant rootlets, seals 301	Topsoil
301	Layer	Moderately compact mid orangey brown silt, sealed by 300, seals 302	Alluvial soil
302	Layer	Fairly firm yellowish orange to light brown silt, sealed by 301, seals 304	Natural silt deposit
303	Layer	Fairly loose light grey to brown silt	Natural silt deposit
304	Layer	Fairly to very compact mottled blue grey and brown clayey silt with iron pan staining and occasional reeds, sealed by 302, seals 303 and 305	Flood deposit
305	Layer	Fairly loose mid brown to light brown orange sandy silt, sealed by 304, seals 306	Flood deposit
306	Layer	Firm and plastic bluish black organic clay, sealed by 305, seals 307	Flood deposit
307	Layer	Fairly loose mid brown sandy silt, sealed by 306, seals 308	Flood deposit?

Context	Type	Description	Interpretation
308	Layer	Dark grey to mid brown saturated sand	Flood deposit?

Trench 4

Context	Type	Description	Interpretation
400	Layer	Compact very dry mid grey and brown silt with frequent rootlets and occasional pebbles, sealed by 401	Topsoil
401	Layer	Very compact mid brown silt, sealed by 400, seals 410	Alluvial soil
402	Layer	Light yellow and orange laminated silts, sealed by 410	Natural silt deposit
403	Cut	NE-SW aligned wide linear with gradual sloping sides and flat base, contains 404 – 406	Cut of former creek
404	Fill	Coarse bands of laminated light brown silts	Third natural silting of [403]
405	Fill	Band of fine light blue and clayey silt	Secondary natural silting of [403]
406	Fill	Light blue and grey fine silt	Primary silting of [403]
407	Cut	NNE-SSW aligned linear with steep sides and flat base, contains 408 and 409	Cut of ditch
408	Fill	Compact mid grey brown silt with rare charcoal flecks	Secondary silting of [407]
409	Fill	Compact mid grey clayey silt with rare charcoal	Primary silting of [407]
410	Layer	Compact blue grey clay, sealed by 401, seals 402	Flood deposit

Trench 5

Context	Type	Description	Interpretation
500	Layer	Compact mid grey and brown silt, sealing 501	Topsoil
501	Layer	Compact mid brown silt with occasional roots, sealed by 501, seals 502	Subsoil
502	Layer	Laminated light grey and coarse yellow silt, sealed by 501	Natural superficial geology

Trench 6

Context	Type	Description	Interpretation
600	Layer	Compact mid grey and brown silt, sealing 601	Topsoil
601	Layer	Compact mid brown silt with occasional roots and fired silt flecks, sealed by 600, seals 602	Subsoil
602	Layer	Compact mid brown clayey silt with occasional light yellow silt lenses, sealed by 601, seals 603	Alluvial build up
603	Layer	Coarse light to mid grey silt with lenses of clay	Natural silting of a natural channel

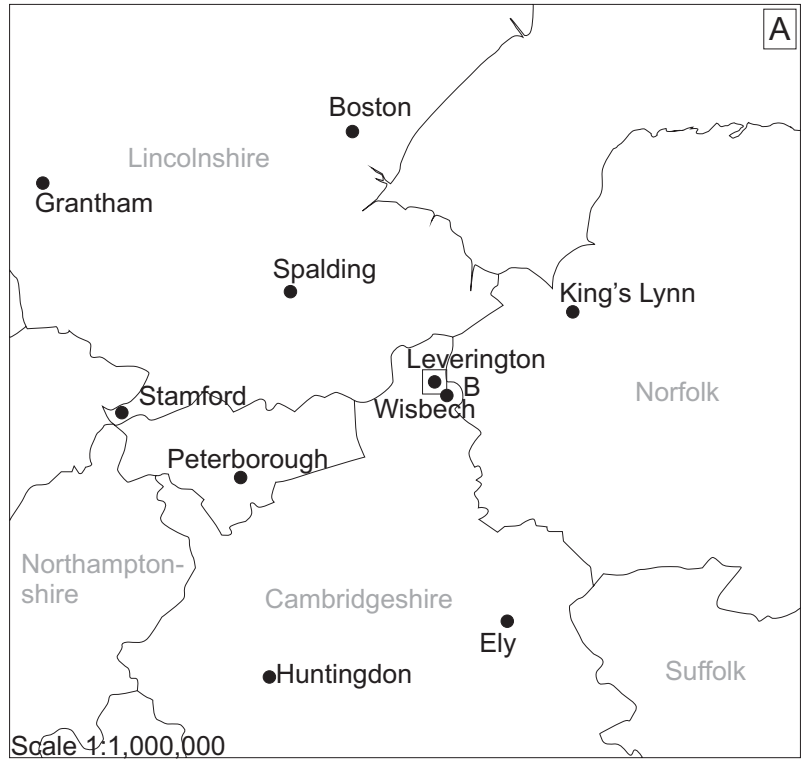
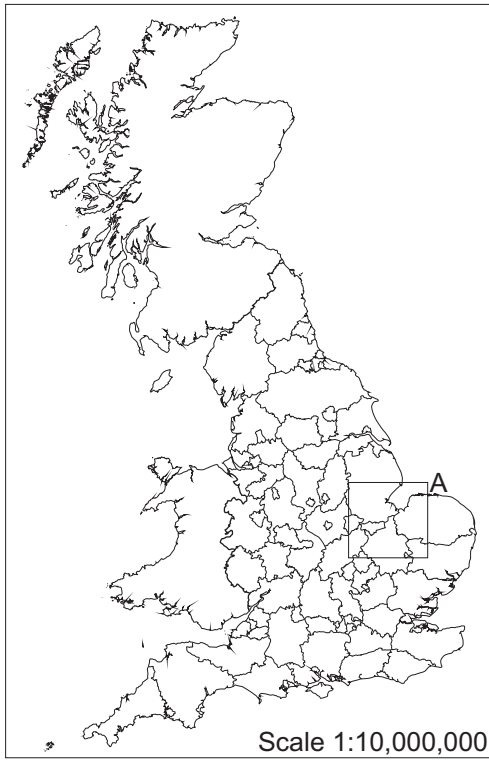


Figure 1: Site location at scale 1:25,000, with site shown in red
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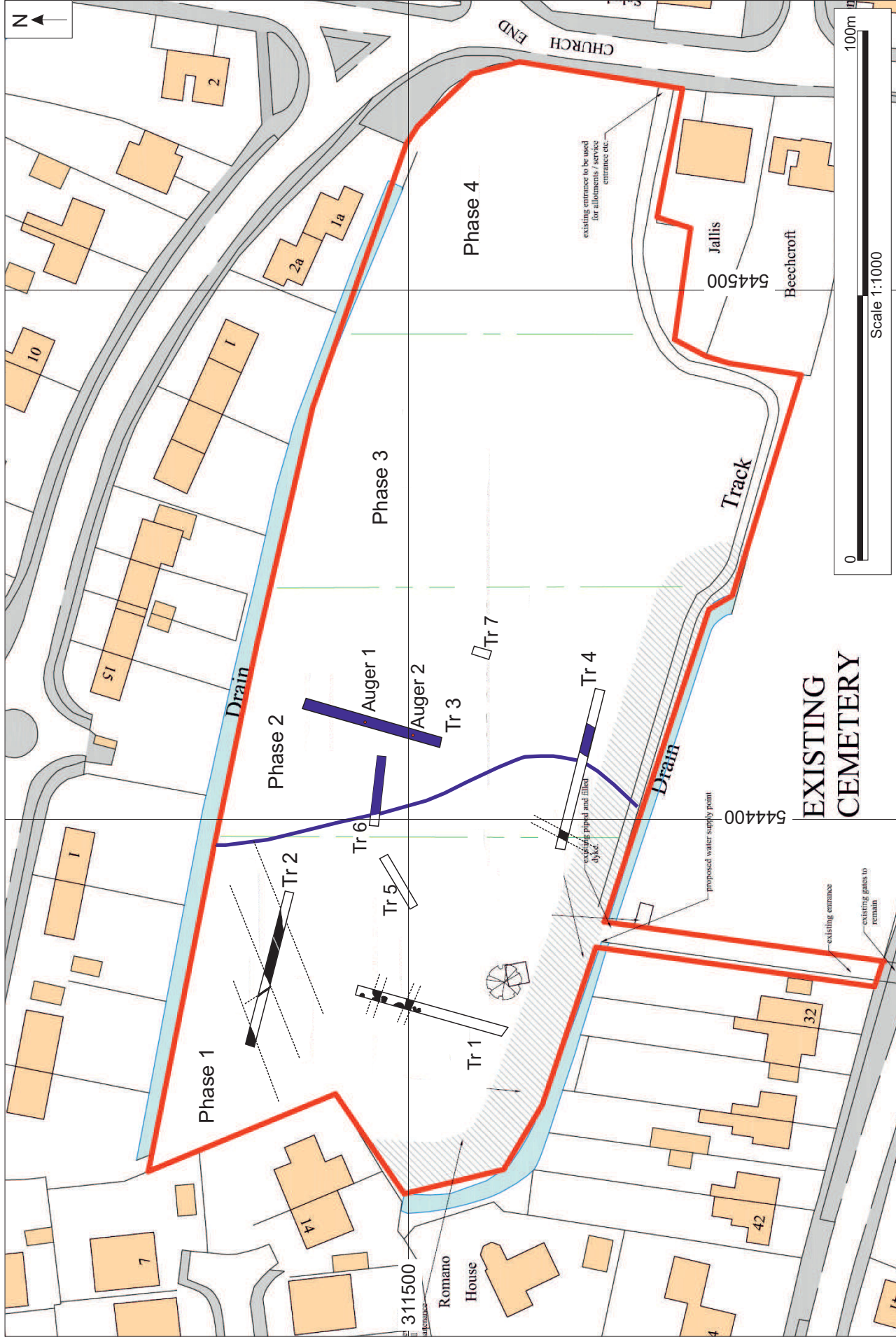
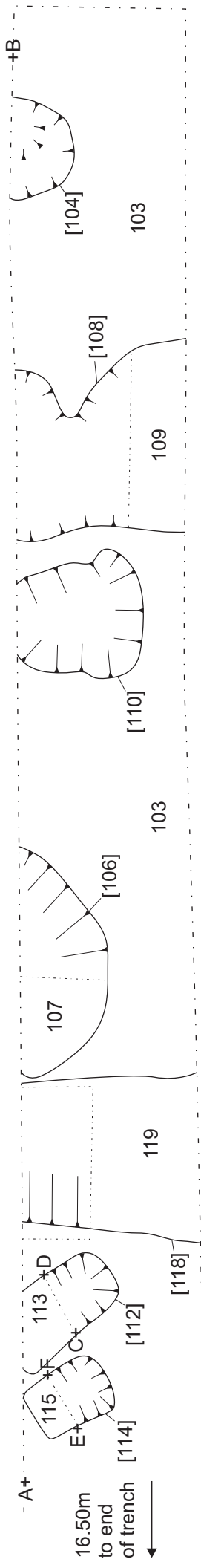
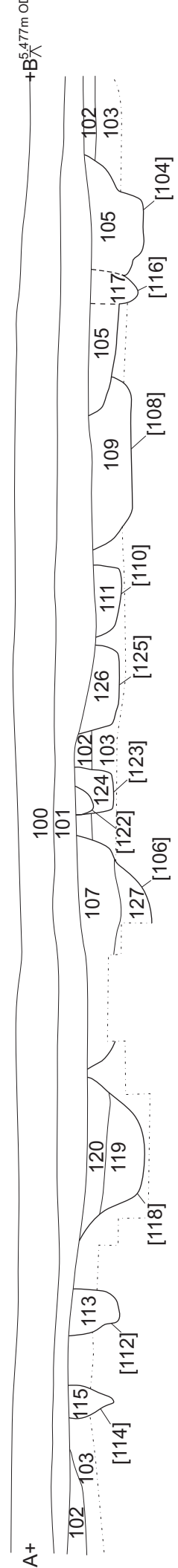


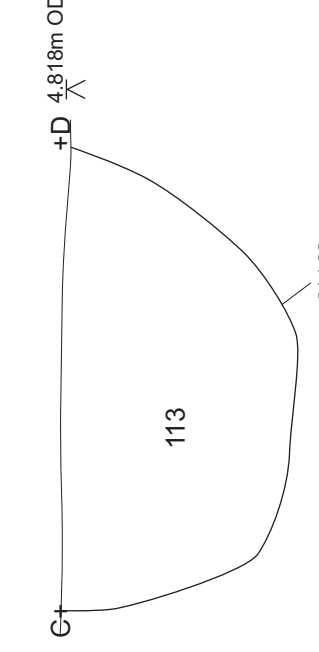
Figure 2: Trenching at proposed cemetery at scale 1:1000, with evaluation trenches (Tr) outlined in black, archaeology in black with linears shown as dotted lines to show orientation. Extent of natural creek system in blue, with likely area of medieval wetland zone shown as blue line



East-South-East Facing Section



East Facing Section



East Facing Section

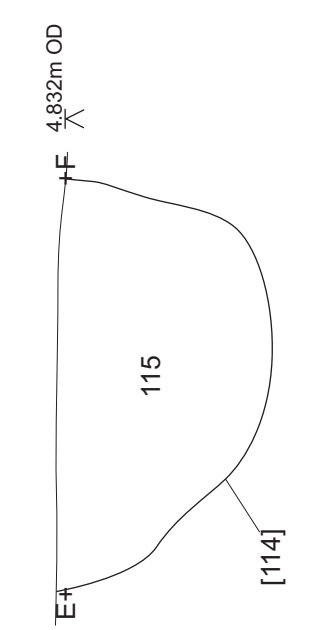
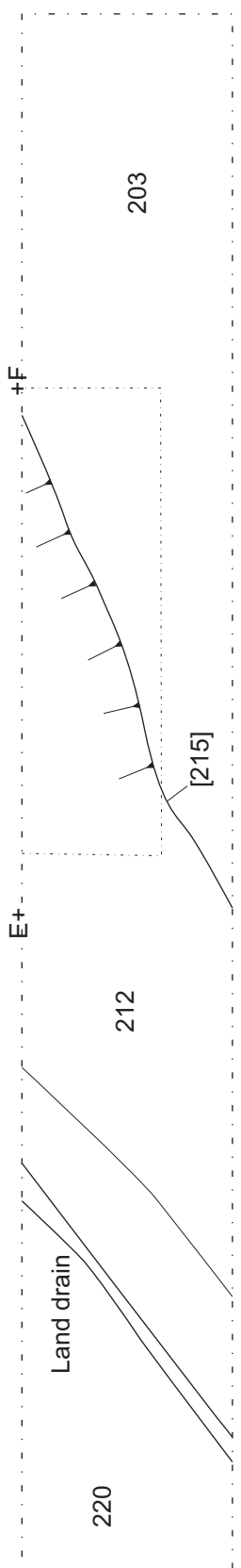
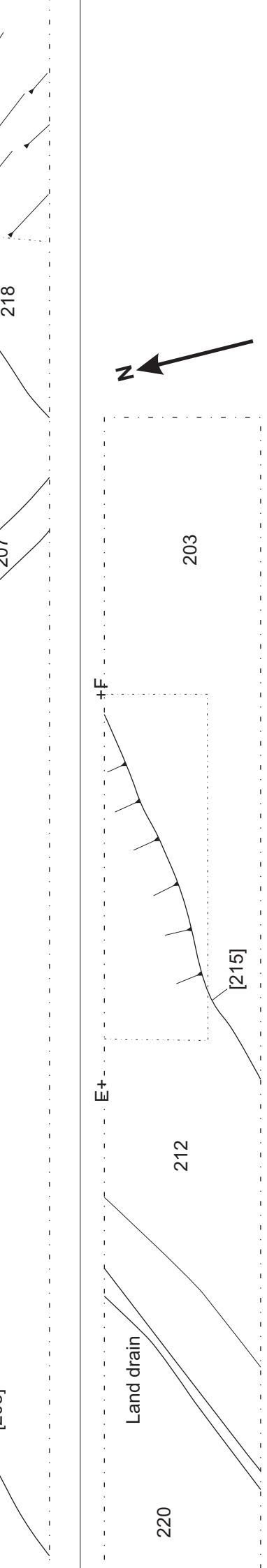
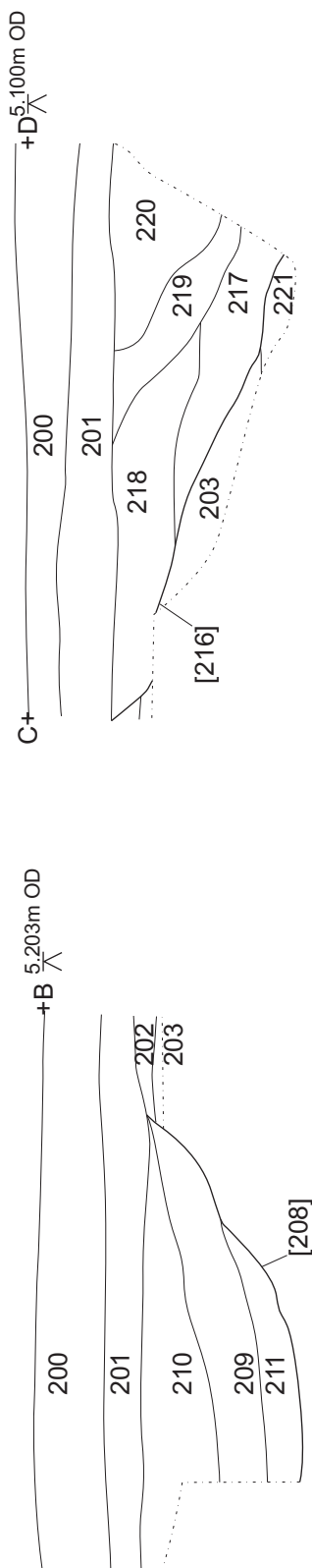


Figure 3: Trench 1 plan and section A-B at scale 1:50. Sections C-D and E-F at scale 1:10



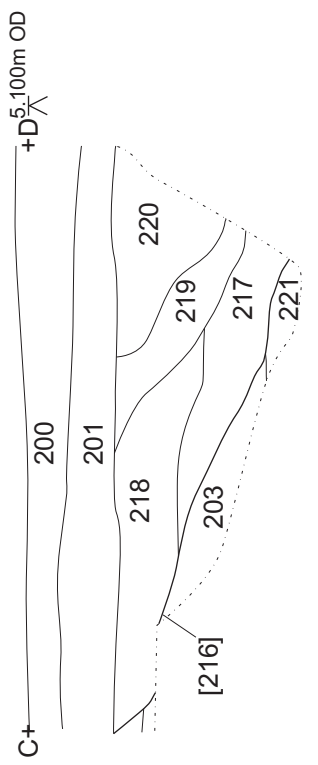
South-South-West Facing Section

South-South-West Facing Section



South-South-West Facing Section

South-South-West Facing Section



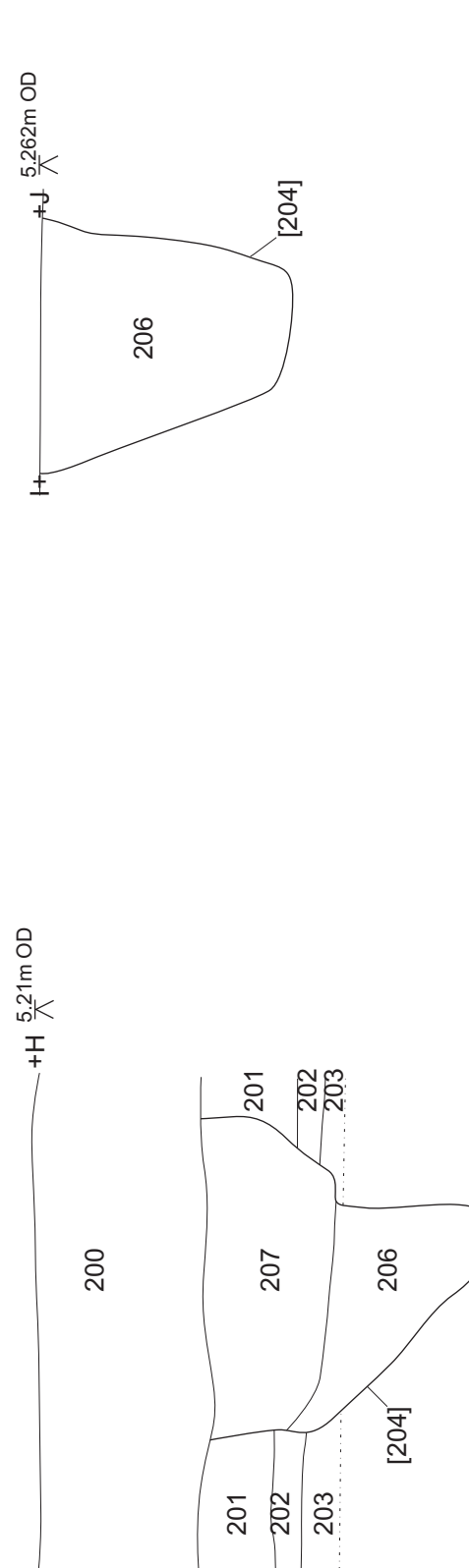
South-South-West Facing Section

South-South-West Facing Section



South-South-West Facing Section

South-South-West Facing Section



North-West Facing Section

North-West Facing Section

West-North-West Facing Section

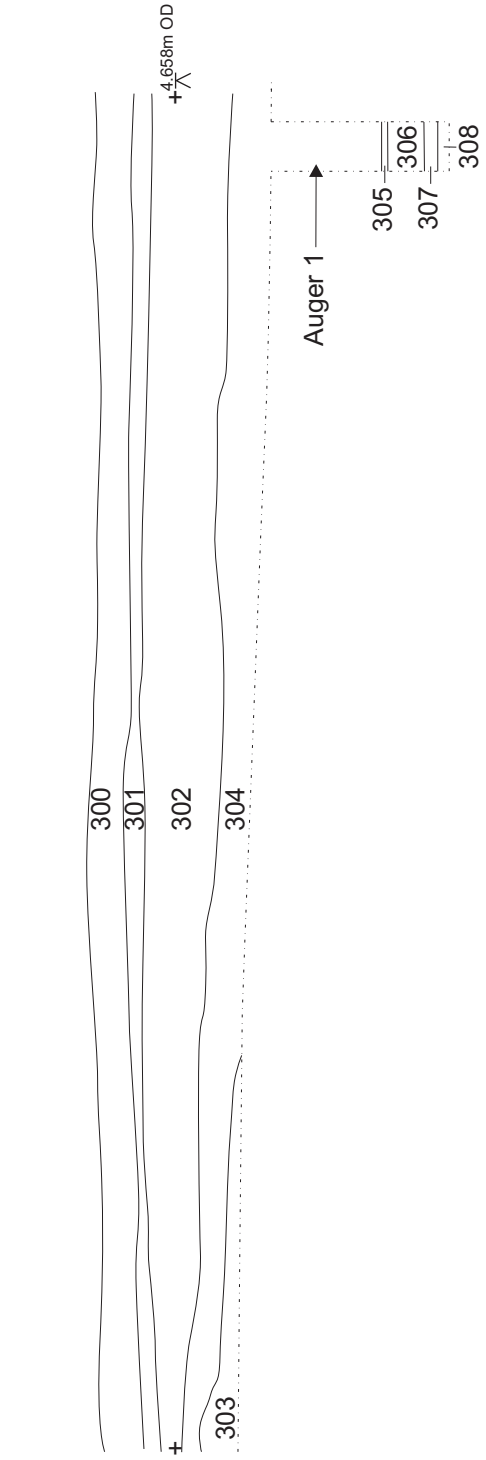
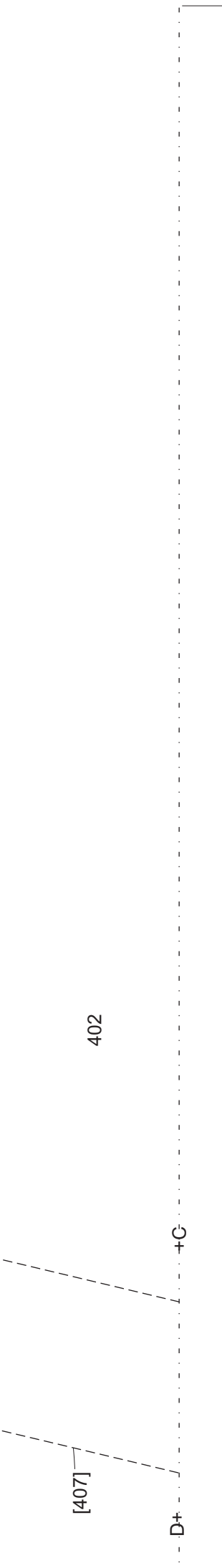
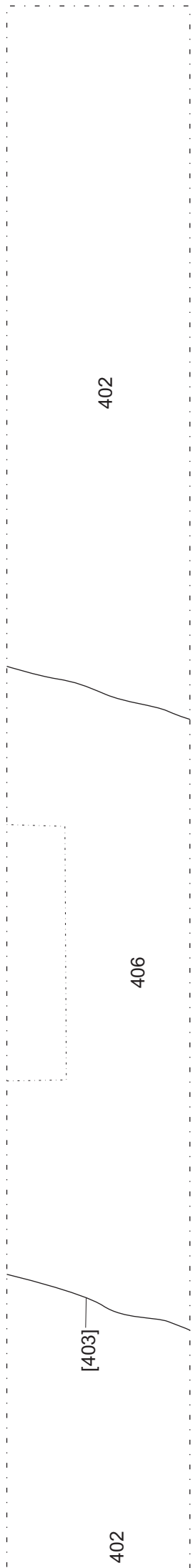
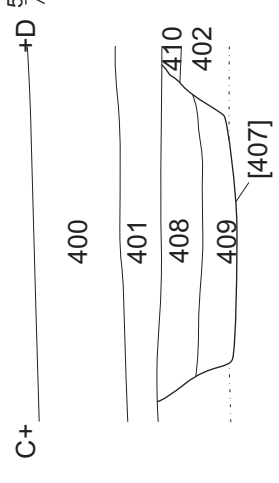


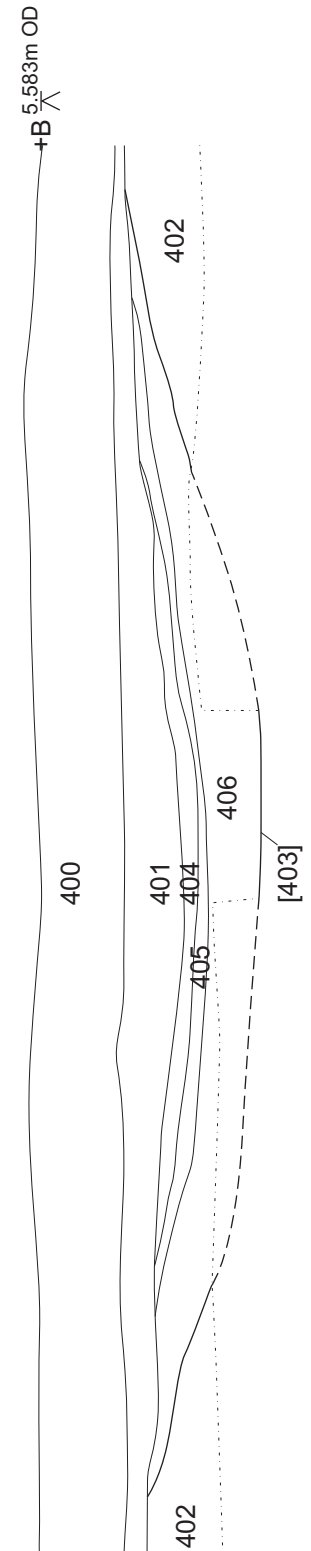
Figure 5: Trench 3 section at scale 1:50 including Auger Hole 1



North-East Facing Section

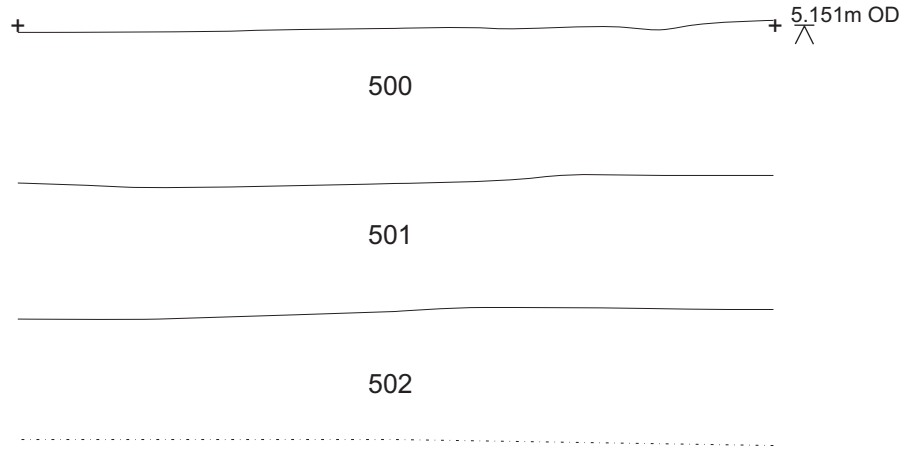


South-West Facing Section



Scale 1:50

Trench 5
South-East Facing Section



Trench 6
South Facing Section

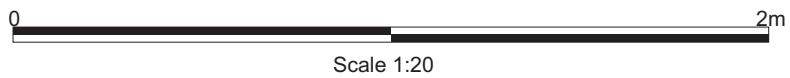
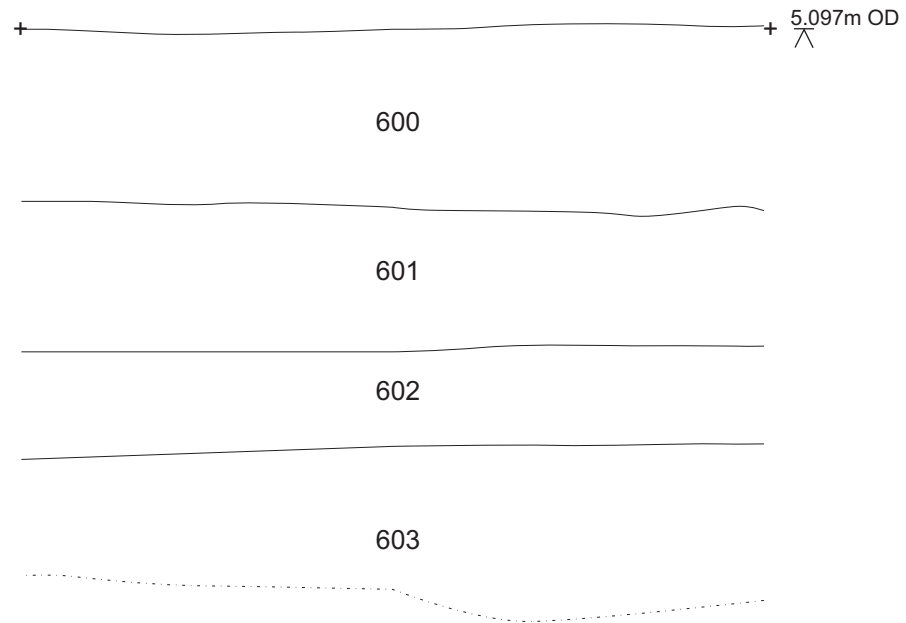


Figure 7: Representative sections of Trenches 5 and 6 at scale 1:20.

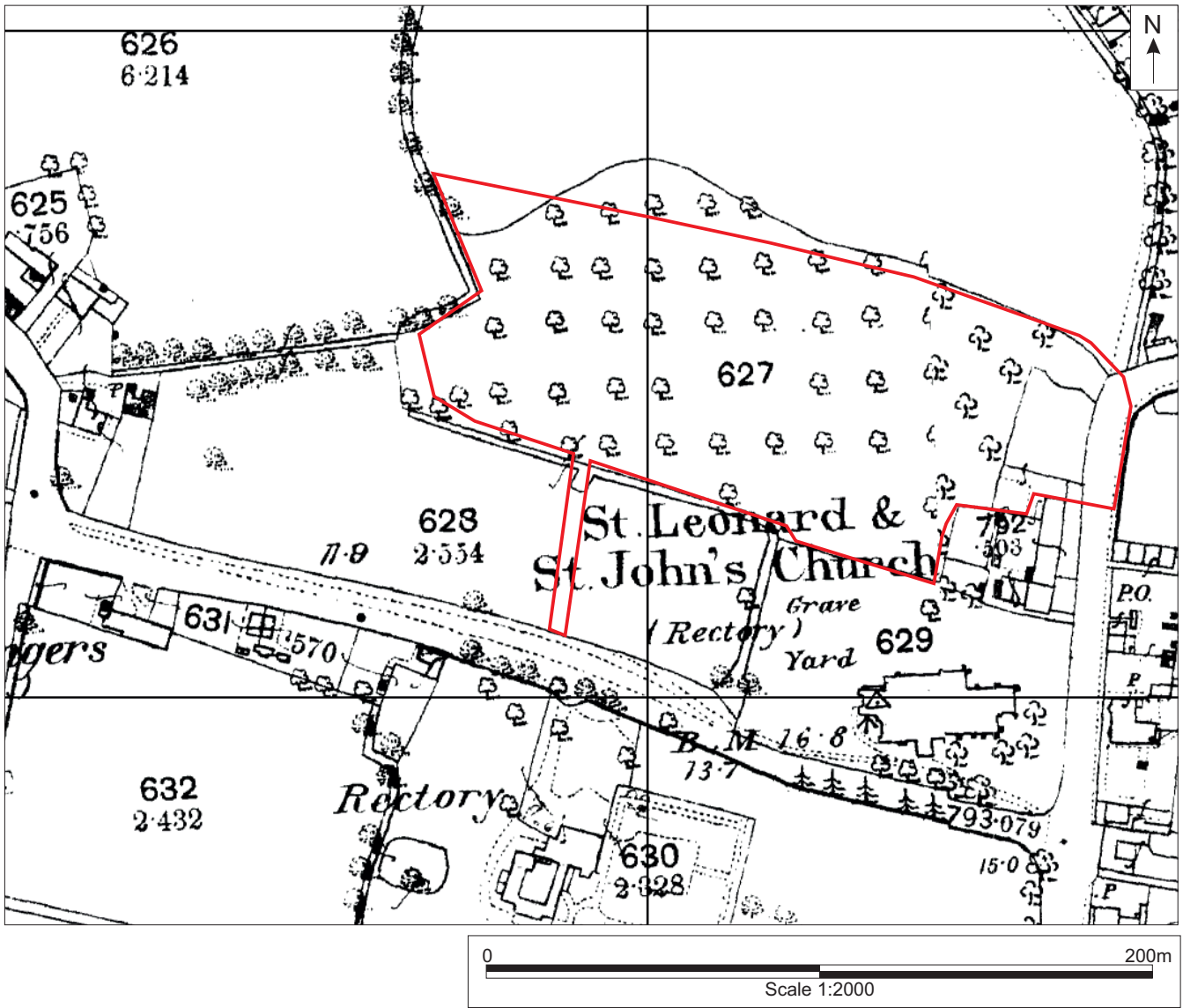


Figure 8: First edition Ordnance Survey map of 1888 at scale 1:2000 showing site outlined in red



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