

00/28

**ARCHAEOLOGICAL EVALUATION
OF CASTLE HILL,
WELBOURN,
LINCOLNSHIRE
(WCHF00)**



A P S
ARCHAEOLOGICAL
PROJECT
SERVICES

SMR
EVENTS L11492 L11494
SOURCES L16263 L16264
PRA: 60741 L160941
L16379 L181125

1 5. DEC 00

**ARCHAEOLOGICAL EVALUATION
OF CASTLE HILL,
WELBOURN,
LINCOLNSHIRE
(WCHF00)**

Work Undertaken For
Welbourn Parish Council

November 2000

Report compiled by
Tobin Rayner BSc (Hons)

National Grid Reference: SK 968 543
City and County Museum Accession No: 2000.215



A.P.S. Report No: 170/00

CONTENTS

List of Figures

List of Plates

1.	Summary	1
2.	Introduction	1
	2.1 Definition of an Evaluation	1
	2.2 Background	1
	2.3 Topography and Geology	1
	2.4 Archaeological Setting	2
3.	Aims	3
4.	Methods	3
5.	Results	3
	5.1 The Stratigraphic Sequence	3
	5.2 Phase 1: Undated deposits	4
	5.3 Phase 2: 13 th - 14 th century deposits	4
	5.4 Phase 3: Modern deposits	5
6.	Discussion	5
	6.1 Phase 1: Undated deposits	5
	6.2 Phase 2: 13 th - 14 th century deposits	6
	6.3 Phase 3: Modern deposits	6
	6.4 Overview	7
7.	Effectiveness of Techniques	8
8.	Conclusions	8
9.	Acknowledgements	9
10.	Personnel	9
11.	Bibliography	9
12.	Abbreviations	10

Appendices

- 1 Application to the Department for Culture, Media and Sport for the proposed works
- 2 Project Specification
- 3 Context Summary
- 4 The Finds by *Hilary Healey and Gary Taylor with a comment on the glass bead by John Cherry, British Museum*
- 5 The Glass by *Rachael Hall*
- 6 The Animal Bone by *James Rackham*
- 7 Glossary
- 8 The Archive

List of Figures

- Figure 1 General location map
- Figure 2 Site location and archaeological setting
- Figure 3 Geophysical results, trench and auger line locations
- Figure 4 Auger results
- Figure 5 Plans Trench 1
- Figure 6 Trench 1, Sections 101 -104
- Figure 7 Plans Trench 2
- Figure 8 Trench 2, Sections 201 - 204

List of Plates

- Plate 1 General view of the site with trench locations visible in the distance, looking northeast
- Plate 2 View of Trench 1 with work in progress, looking south
- Plate 3 Work continuing in Trench 2, looking northeast
- Plate 4 Augering
- Plate 5 Sieving
- Plate 6 Trowelling
- Plate 7 Finds processing
- Plate 8 Post excavation view of Trench 1 showing remains of wall (107), looking northeast
- Plate 9 Probable remains of wall (204) *in situ*, looking south
- Plate 10 Post excavation view of Trench 2, looking west

1. SUMMARY

An archaeological evaluation comprising a programme of trial trenching and augering was undertaken in order to assess the presence and character of the archaeological resource within the Scheduled Ancient Monument of Welbourn Castle, Lincolnshire. Previous geophysical survey identified structures, walls and rubble spreads at the site, which is considered to be of medieval date.

Stamford ware pottery of the 10th - 12th century was retrieved from the site and indicates activity dating either, prior to or from the period of the castle's initial construction.

The investigation revealed that the geophysical signals, in part of the site, were produced by wall tumble and ditches dated to the 13th - 14th century with further features, including a probable perimeter rampart of clay, also being recorded. The retrieved artefacts are indicative of a medieval domestic assemblage. Demolition rubble was recorded within the trenches confirming the abandonment of the site after this period. Robber trenches suggest that the stone was removed probably to be used within the village.

Limestone rubble recorded at the base of the auger holes probably relates to this period of demolition and abandonment when rubble would have been tipped down the earthwork.

A dearth of finds dating to the post-medieval period suggests that the site remained abandoned until the 18th - 20th century, when the site appears to have been used for agricultural purposes and more recently the tipping of modern waste.

2. INTRODUCTION

2.1 Definition of a Evaluation

An archaeological evaluation is defined as 'a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structure, deposits, artefacts or ecofacts within a specified area or site. If such archaeological remains are present Field Evaluation defines their character and extent, quality and preservation, and it enables an assessment of their worth in a local, regional, national or international context as appropriate,' (IFA 1997).

2.2 Background

On the 7th and 8th October 2000, an archaeological evaluation was undertaken at Castle Hill, Welbourn, Lincolnshire. The evaluation was carried out in order to assess the presence and character of the archaeological resource. The archaeological investigation was commissioned by Welbourn Parish Council and carried out by Archaeological Project Services to the requirements of the Heritage Officer for North Kesteven District Council and English Heritage. The site is a Scheduled Ancient Monument and Consent required for the evaluation was granted by the Department for Culture, Media and Sport (Appendix 1).

2.3 Topography and Geology

Welbourn is situated approximately 18km south of Lincoln and 13km northwest of Sleaford in the administrative district of North Kesteven, Lincolnshire (Fig. 1). The settlement lies at the foot of the scarp slope of the Lincolnshire Limestone Edge.

The site is located near the centre of the village and is partly bounded by High Street, Beck Street and Castle Hill. A ditch or moat

surrounds the raised area of the castle on the north, east and northwestern sides. At the south side the moat/ditch appears to have been filled in though a small stream flows along the boundary in this area. Three parallel ditches and two banks cross this part of the site, with the inner most ditch possibly representing the southern arm of the moat. A raised area in the northern part of the site may be due to recent ground clearance and moat cleaning, rather than indicating buried remains.

Situated at a height of *c.* 33m OD on land that slopes down to the west at National Grid Reference SK 968 543, the site is approximately 1.4ha in area (Plate 1).

Local soils are of the Wickham 2 Association fine loamy over clayey typical stagnogley soils (Hodge *et al.* 1984, 214). These soils are developed on a drift geology that overlies Jurassic ironstone.

2.4 Archaeological Setting

Welbourn village is located in an area of archaeological remains dating from the Prehistoric period to the present day (Fig. 2). A Neolithic flint axe and an edge scraper have been found in the parish.

A few sherds of Roman pottery were recovered from a medieval deposit during a watching brief at 28 High Street (Palmer-Brown 1994). Pottery scatters and coins have been recorded within the parish. The earthworks associated with Welbourn Castle were described as Roman in the nineteenth century and it was claimed that coins of this date were found there. These finds are now lost and cannot be confirmed. Similarly, linear earthworks to the northwest of the castle were attributed to the Roman period, however, they are now believed to be associated with the castle.

The Roman road Ermine Street passes 2.5km east of the village.

Anglo-Saxon remains within the village have been recorded close to the church, north of the site. Further remains, including burials and metalwork, have been retrieved between the village and Ermine Street.

The place-name Welbourn is Old English in origin and refers to 'a brook or stream coming from a spring' (Ekwall 1974, 504). Welbourn is a settlement of Saxon origin and is referred to in the Domesday Book of 1086. At the time of the survey the manor of *Wellebrune* was held by Robert Malet and included a church and priest, a mill and 200 acres of meadow (Foster and Longley 1976, 185).

The church is dedicated to St. Chad and probably replaced the building recorded in Domesday. Although it was in existence from at least the eleventh century, the earliest surviving remains are in the Early English style (Pevsner and Harris 1989, 784).

The earthwork remains of Welbourn Castle, a Scheduled Ancient Monument, comprise a medieval ring-work, and documentation of 1158 refers to a *castellum* in *Le Northalle* being walled in stone. Hugh de Bayeux confirmed Robert Rabaz in his fee of one knight in Maidwell and Kelmarsch (Northants) in return for the construction of one perch of the wall (Roffe 1997, 55).

A detailed account of 1288 of the northern manor records a croft, two watermills, a wall around the court surmounted by a small tower and with a ditch in the court, a hall with two chambers, kitchen, brewhouse, oxhouse, cowshed, sheepfold and garden. It is and has recently been the subject of a detailed survey. Although the exact period of its operation is uncertain, it is known that

the site was abandoned by 1374.

A charter bestowing the rights of a market and fair on Elias de Rabayn (lord of the manor) is dated 1272. It is believed the fair and market were held within a block of land lying between Little Lane and the Manor House (Tann 1999, 6).

Medieval pottery and other remains, including possible fishponds, have been found during earlier watching briefs along the High Street and in the vicinity of the castle.

Geophysical survey of the site identified structures, walls and rubble spreads. A circular area of high resistance at the northwest corner of the ringwork may be the small tower recorded in 1288. A polygonal, apparently buttressed structure connected to a wall was also identified. Areas of burning on the east side of the site may be kilns or ovens (Fig. 3).

3. AIMS

The aim of the evaluation was to gather information to increase public awareness and to establish the presence or absence, extent, condition, character, quality and date of any archaeological deposits.

4. METHODS

A geophysical survey of the site had been undertaken prior to the commencement of trial trenching and augering. The result of the survey was used to position the trenches over potential archaeological features in accordance with the requirements of the Heritage Officer for North Kesteven District Council (Fig. 3). The augering was positioned across the moat to determine the depths of deposits and to establish, where

possible, the date of formation.

The trial trenching consisted of the excavation of two trenches measuring 2m x 2m each, whilst the auger survey was undertaken using a gouge auger at 1m intervals on a transect, positioned across the moat (Fig. 2).

Topsoil was stripped from the trenches by hand to the level of the archaeological deposits (Plate 6). The exposed surfaces of the trenches were then cleaned by hand and inspected for archaeological remains. A metal detector survey was undertaken of the spoil generated during excavation. Much of the excavated spoil was sieved to retrieve artefacts and ecofacts (Plate 5). Where present, features were excavated by hand in order to retrieve dateable artefacts and other remains. Evident structural remains were to be left intact and investigation of medieval deposits limited in extent.

Each deposit exposed during the excavation was allocated a unique reference number (context number) with an individual written description. A photographic record was compiled. Sections were drawn at a scale of 1:10 and plans at a scale of 1:20. Recording of deposits encountered during the evaluation was undertaken according to standard Archaeological Project Services' practice.

Field survey of the excavated trenches, auger line and existing reference points was completed using a Geodolite Total Station in conjunction with a Psion Datalogger

5. RESULTS

5.1 The Stratigraphic Sequence

Finds recovered from the deposits identified during the evaluation (Plate 7) were

examined and a date assigned where possible (Appendix 3). Records of the deposits encountered were also examined. A list of all contexts and interpretations appears as Appendix 2. Phasing was based on the nature of the deposits and recognisable relationships between them, supplemented by artefact dating where relevant. Three phases were identified:

Phase 1: Undated deposits

Phase 2: 13th - 14th century deposits

Phase 3: Modern deposits

Context numbers appear in brackets, and these refer to the individual cut and deposit description recorded during excavation.

5.2 Phase 1: Undated deposits

Trench 1: (Figs. 5 and 6, Plate 8) The earliest recorded deposit was a dark greyish brown clayey silt (108) with frequent limestone fragments. Measuring 0.32m to limit of excavation this deposit probably represents made ground. Cutting layer (108), on the western side of the trench, was a north-south aligned ditch or robber trench containing a mid yellowish brown clayey silt (109). Running parallel to this ditch was an accumulation of large, roughly hewn angular limestone (107). This deposit measured 1.50m long x 1.40m, within the trench, and probably represents the remains of a tumbled down wall.

Trench 2: (Figs. 7 and 8, Plate 10) A made ground comprising a mottled bluish grey/greyish brown silty clay (210) with occasional charcoal and ironstone fragments was recorded at the base of the trench.

Auger line: (Fig. 4, Plate 4) The deposits recorded within the auger were all similar apart from A7, which will be described separately. The earliest deposit recorded was an indurate layer of limestone rubble

recorded at a depth of between 32.08m OD and 31.16m OD. Overlying this deposit was a mid bluish grey clay/greyish blue clayey silt with a maximum thickness of 0.84m. Recorded within A1, overlying this deposit was a mid greyish brown clayey sand sealed by a mid brown clayey sand.

Auger A7 revealed a sequence of firm to indurate mid grey clay, a dark brown sandy silt, and a mid greyish brown sandy clay. The maximum depth reached within this auger was 30.51m OD, being *c.* 2m below the surface.

5.3 Phase 2: 13th - 14th century deposits

Trench 1: (Figs. 5 and 6, Plate 8) Overlying the limestone wall tumble (107) and the ditch/robber trench (106) was a demolition layer (103) comprising of a mid brown silt with frequent angular limestone fragments. Two sherds of 13th - 14th century pottery and a piece of clinker were retrieved from this deposit.

Trench 2: (Figs. 7 and 8, Plates 9 and 10) Sealing deposit (210) was a 0.26m⁺ thick bluish grey silty clay (206) with occasional ironstone, charcoal and limestone fragments. Two sherds of Potterhanworth ware pottery, dating to the 13th - 14th century, were recovered from this made ground. Cutting deposit (210) was a north-south aligned probable footing trench (209). Measuring at least 1.34m long x 0.30m wide this feature contained a mid brown clayey silt backfill (208) and roughly hewn limestone blocks (204) probably representing the remains of a wall. A mid brown clayey silt (207), with frequent limestone and mortar fragments was recorded overlying deposit (206). Measuring at least 1.70m long x 0.70m wide this was aligned east-west, north-south and located along the southern and western edges of the trench. This has been

interpreted as wall tumble. Sealing all these deposits was a 0.34m⁺ thick, light brown clayey silt (205) demolition rubble, with frequent angular limestone. A single sherd of Potterhanworth ware pottery, a brick/tile fragment and a piece of iron smithing slag was retrieved from this deposit.

5.4 Phase 3: Modern deposits

Trench 1: (Figs. 5 and 6, Plates 2 and 8) Overlying demolition deposit (103) was a similar mid yellowish brown silt (104) containing occasional angular limestone fragments. Measuring 0.20m thick this has been also interpreted as demolition rubble, with the variation between the underlying deposit being due to the differing phases of formation. There is no evidence of structures surviving to recent times and it is therefore likely that at least one of these deposits has been formed by ploughing. Recorded in the southwest corner of the trench overlying (104) was a dumped burnt deposit of dark brown silt (105) with frequent fragments of coal. Sealing the trench was a mid brown silt (101 and 102) topsoil, containing occasional angular stones and limestone and covered by rough grass. A large quantity of modern pottery, glass and metalwork was recovered from the topsoil.

Trench 2: (Figs. 7 and 8, Plates 3 and 10) Disturbed demolition rubble (203) comprising mid brown clayey silt with frequent limestone fragments and occasional charcoal and coal flecks was recorded overlying the limestone blocks (204) and deposit (205). This deposit was sealed by a 0.25m thick brown silt (202) and grey clayey silt (201) topsoil containing occasional angular limestone and rootlets and covered by rough grass. A large quantity of modern pottery, glass and metal working waste was recovered from the topsoil.

Auger line: (Fig. 4, Plate 4) A 0.60m thick

dark brown clayey silt humic layer was recorded within all the auger results sealing the underlying deposits.

6. DISCUSSION

Archaeological evaluation of land at Castle Hill, Welbourn, Lincolnshire, has identified a range of archaeological deposits including an undated ditch/robber trench, wall tumble and made ground, 13th - 14th century demolition layers, footing trench, wall and wall tumble, and modern disturbed demolition rubble, dumped burnt deposit and topsoil.

6.1 Phase 1: Undated deposits

Trenches 1: Recorded at the base of the trench was a made ground comprised of clayey silt. This layer probably represents the landscaping of the internal ground surface prior to the construction of buildings during the medieval period.

Overlying the made ground was a tumbled down wall whilst a ditch was recorded cutting the deposit. These two features are believed to be associated with the medieval building complex located during the geophysical survey. The lack of extant remains in the form of surviving walls within the trench may suggest that the stone has been robbed out and perhaps used in other buildings around the village, such as the church. The geophysical survey appears to have recorded robber trenches and wall tumble within the two excavated trenches. However, extant remains may still exist elsewhere across the site.

Trench 2: The earliest deposit recorded at the base of the trench was a silty clay which probably represents a made ground forming part of the earthworks, specially a rampart around the central area. This rampart was

probably constructed from up-cast from the moat.

Although undated these deposit and features were recorded below 13th - 14th century levels and probably date to the early medieval period when the castle was first constructed or during subsequent repairs prior to the decline of the castle in the 14th century.

Auger line: The earliest recorded deposit of limestone rubble probably represents a layer of tumble derived from the wall that would have encircled the earthwork. Although this is the most likely explanation it may however define the underlying natural, being the depth to which the moat was excavated during the medieval period. The subsequent overlying deposits signify a natural silting of the moat. Auger A7 revealed a different sequence of deposits and possibly defines an earlier course of The Beck. Furthermore, the depth of auger A7 suggests that the limits of the moat extends beyond this point.

6.2 Phase 2: 13th - 14th century deposits

Trench 1: The demolition layer recorded sealing the ditch and wall tumble has been dated to the 13th - 14th century and indicates a period when the castle was probably derelict. This is in keeping with the historical data that gives a date of 1374 for the castle's abandonment (Tann 1999).

Trench 2: The made ground (206) recorded sealing the earlier deposit (210) indicates further work to the castle's earthworks probably in the form of repairs or enhancement of the ramparts. Perhaps significantly, this upper earthwork deposit (206) contained limestone, material absent from the lower rampart make-up (210). This may tentatively suggest that deposit (206) relates to the walling of *Le Northalle* in

1158. This, in turn, implies that the lower rampart belongs to a pre-existing earthwork. This correlates with the mid-12th century documentation which suggests stone walling was provided to an existing *castellum*.

The north-south aligned footing trench is probably the anomaly recorded on the geophysical results. This feature contained the remains of a wall and a backfilled deposit suggesting that the wall had in part been robbed out. Geophysical results define this feature running north-south extending approximately 40m south before turning 90^o westward. The differing alignment of this feature to the other features suggests at least two phases of building work within the 13th - 14th century, although the exact dating was impossible to determine within the limitations of this evaluation.

Wall tumble aligned east-west, north-south was also recorded within the trench, overlying (206), although this was not indicated on the geophysical survey. This may define a discrete feature, possibly a building constructed against the wall or a walled-off area. A period of decline is intimated by the sealing deposit of demolition rubble. The retrieval of iron smithing slag from this deposit probably indicates the production of iron either within the confines of the castle or its surrounds. Burnt areas recorded during the geophysical survey may possibly be associated with this activity.

6.3 Phase 3: Modern deposits

Trench 1: Demolition rubble recorded overlying an earlier, medieval, rubble layer was probably disturbed by ploughing and contained 19th- 20th century pottery. A dumped deposit of burnt material, overlying the disturbed demolition rubble, indicates the discarding of this material within a discrete area of the site. The overlying

topsoil contained a large quantity of pottery, glass and ceramic building material which was probably introduced to the site through dumping of waste within the castle whilst the site was overgrown and unattended.

Trench 2: A similar sequence of deposits to that recorded within Trench 1 was recorded within this trench and the formation process is therefore the same as in Trench 1.

Auger line: The overlying topsoil, across the moat, contained a high humic content derived from the surrounding vegetation, the hollow of the ditch acting as a trap for leaf litter.

6.4 Overview

The earliest material recovered from the site was several sherds of 10th - 12th century Stamford ware. Although recovered within an 18th - 20th century context, these sherds may suggest a Saxo-Norman presence within Welbourn, probably within the vicinity of the castle and possibly pre-dating it. However, the production of Stamford ware continued into the mid 13th century and these artefacts may indicate the earlier period of the castle's life, when it is believed to have been constructed. Notwithstanding this uncertain chronology, two phases of rampart around the castle were recognised, the latter involving the use of stone. This latter rampart phase probably relates to the documented provision, in 1158, of a stone wall around the *castellum*. By the implication of both the archaeological and documentary evidence, the earlier rampart belongs to a structure or complex that was in existence prior to this date.

Several Medieval contexts were identified within the trenches and appeared to support the geophysical results. However, the remains were in the form of wall tumble and ditches and did not appear to contain any

extant features, although this may not be characteristic of the whole site. The bone assemblage retrieved from these contexts are typical of a domestic medieval assemblage. The narrow date range of the pottery suggests occupation of the castle within the 13th - 14th centuries. However, documentary evidence suggest that the castle was occupied from at least the 12th century. These contrasting dates may indicate that the position of the trenches were within areas of the castle that were not extensively utilised, or did not accumulate occupation debris, during the early period of the castle's existence.

After these medieval features went out of use the site appears to have been abandoned. The demolition rubble and wall tumble revealed within the trenches being indicative of this abandonment. Although no evidence for the reason of this abandonment was discovered, documentary evidence suggests that by 1334 the manors of *Southalle* and *Northalle* were held by Isabel de Vesey, and the subsequent amalgamation of the estates probably led to the abandonment of le Northalle (Roffe 1997, 56). However, although this is the most likely reason, it is known that the Black Death and the deterioration of the climate during the 14th century led to a decline in the population, and the abandonment of less productive lands.

With the castle in disuse there appears to have been a period when the stone from the castle was taken from the site and re-used for building work elsewhere. It has been suggested that stone from the castle was used, in part, to build the church of St Chad. Augering of the moat revealed a layer of limestone rubble that may have been formed during the castle disuse, probably deriving from the castle's wall.

The site appears to have remained

uninhabited from its medieval abandonment until the present day, with no artefactual material of the early post-medieval period being revealed. However, use of the area apparently resumed in the 18th - 20th century. This is attested by the recovery of a large quantity of artefacts dating to that period. The form of this use is unclear although an agricultural one can be assumed due to the depth of the topsoil. This was probably formed by ploughing, which also served to disturb some of the earlier, medieval, demolition debris. The artefacts would have entered the site during manuring and probably also from dumping of rubbish on the unattended site.

7. EFFECTIVENESS OF TECHNIQUES

The technique of using trial trenches to evaluate the archaeological deposits was successful although only 0.05% of the castle interior was examined. Removal of overburden deposits by hand allowed an in-depth appraisal and confirmed that archaeological deposits were present within the trenches.

Moreover, manual excavation of the remains established that the archaeological deposits were well-preserved, and represented different phases of activity, from the medieval period to the present. Furthermore, the evaluation recognised some of the geophysical signals previously recorded on site and revealed other remains not identified by the geophysical examination.

Sieving and metal detection of the excavated spoil permitted a very thorough recovery of artefactual and ecofactual material.

However, the restrictive size of the trenches meant that interpretations of the features revealed was limited. Further excavation

would be necessary to determine the true nature and extent of these features.

8. CONCLUSIONS

An archaeological evaluation of land at Castle Hill, Welbourn, Lincolnshire was undertaken in order to assess the presence and character of the archaeological resource within the Scheduled Ancient Monument, and to provide more information on the site to enhance public awareness.

The earliest recorded finds were Stamford ware pottery dated to the 10th - 12th century, and, although they were retrieved from contexts containing 20th century artefacts, they do confirm activity within the area, either pre-dating the castle or during the castle's initial construction and subsequent inhabitation.

The investigation revealed that the geophysical signals were produced by wall tumble and ditches. With further wall tumble not identified during the geophysical survey also recorded. These features have been dated to the 13th - 14th century, with the artefacts being indicative of a medieval domestic assemblage. Furthermore, evidence for iron working was also revealed during the investigation in the form of iron slag.

The site was abandoned after this period, evidenced by the demolition rubble recorded within the trenches, although no evidence for the reason of abandonment was discovered. The robber trenches suggest that the stone from the buildings was removed during this period and probably used within the village for other construction work.

No early post-medieval remains were retrieved during the evaluation confirming the documentary evidence of the castle's abandonment during the 14th century. The

dearth of finds dating to this period suggest that the site remained abandoned until the 18th - 20th century.

The 18th - 20th century deposits and artefacts confirm the presence of activity on the site during those periods and probably relate to an agricultural function including manuring. The wealth of 20th century artefacts suggest that the site was perhaps used for the tipping of waste, probably during a period when the castle was unattended.

Archaeological remains were reasonably well preserved, although there was no evidence of waterlogging at the site. Ancient plant remains would only be preserved through charring, though bone and shell did survive. However, waterlogged deposits may survive at greater depth within the moat.

9. ACKNOWLEDGEMENTS

Archaeological Project Services would like to acknowledge the assistance of Bill Goodhand who commissioned the fieldwork and post-excavation analysis on behalf of Welbourn Parish Council. The archaeological project was coordinated by Gary Taylor who jointly edited this report with Tom Lane. Joanna Hambly, the Heritage Officer for North Kesteven District Council, kindly permitted access to the relevant parish archaeological files.

10. PERSONNEL

Project Coordinator: Gary Taylor
Project Officer: Tobin Rayner
Site Assistants: Rachael Hall and Steve Thomson
Volunteers: Christine Barry, Mark Cross, Bill Goodhand, Sylvia Green, Bob Holmes, Patsey Holmes, Jennifer Jackson, Louise Jennings, Peter Lorimer, Rosalyn Mellows,

Marianne Overton, Paul Ranshaw, June Sampson, Rosalyn Smith, Margaret Storer, Rod Storer, Jane Taylor, Bernard Wallbutton and Gwen Wallbutton

Finds Processing: Denise Buckley

Photographic Reproduction: Sue Unsworth

Illustrations: Rachael Hall and Tobin Rayner

Post-excavation Analyst: Tobin Rayner

11. BIBLIOGRAPHY

Ekwall, E., 1974 *The Concise Oxford Dictionary of English Place-Names* (4th edition)

Foster, C.W. and Longley, T. (eds), 1976 *The Lincolnshire Domesday and the Lindsey Survey*, The Lincoln Record Society 19

GSB Prospection, 1999 *Welbourn Castle, Lincolnshire, Geophysical Survey*, unpublished report 99/44

Hodge, C.A.H., Burton, R.G.O., Corbett, W.M., Evans, R. and Scale, R.S., 1984 *Soils and their Use in Eastern England*, Soil Survey of England and Wales Bulletin No. 13

IFA, 1997 *Standard and Guidance for Archaeological Field Evaluations*

Palmer-Brown 1994 *Archaeological Watching Brief report, 28 High Street, Welbourn, Lincolnshire*. Unpublished Pre-Construct Archaeology report

Pevsner, N. and Harris, J., 1989 *Lincolnshire*. The Buildings of England (2nd edition revised by n. Antram)

Roffe, D., 1997 *Welbourn Castle, Lincolnshire in Nottingham Medieval Studies xli*

Smith, A.H., 1956 *English Place-name*

elements, Pt. 1, English Place Name Society

Tann, G., 1999 *Welbourn Castle, Lincs. Archaeological Desk-Based Assessment and Earthwork Surveys*, unpublished LAS report

12. ABBREVIATIONS

IFA Institute of Field Archaeologists

LAS Lindsey Archaeological Services

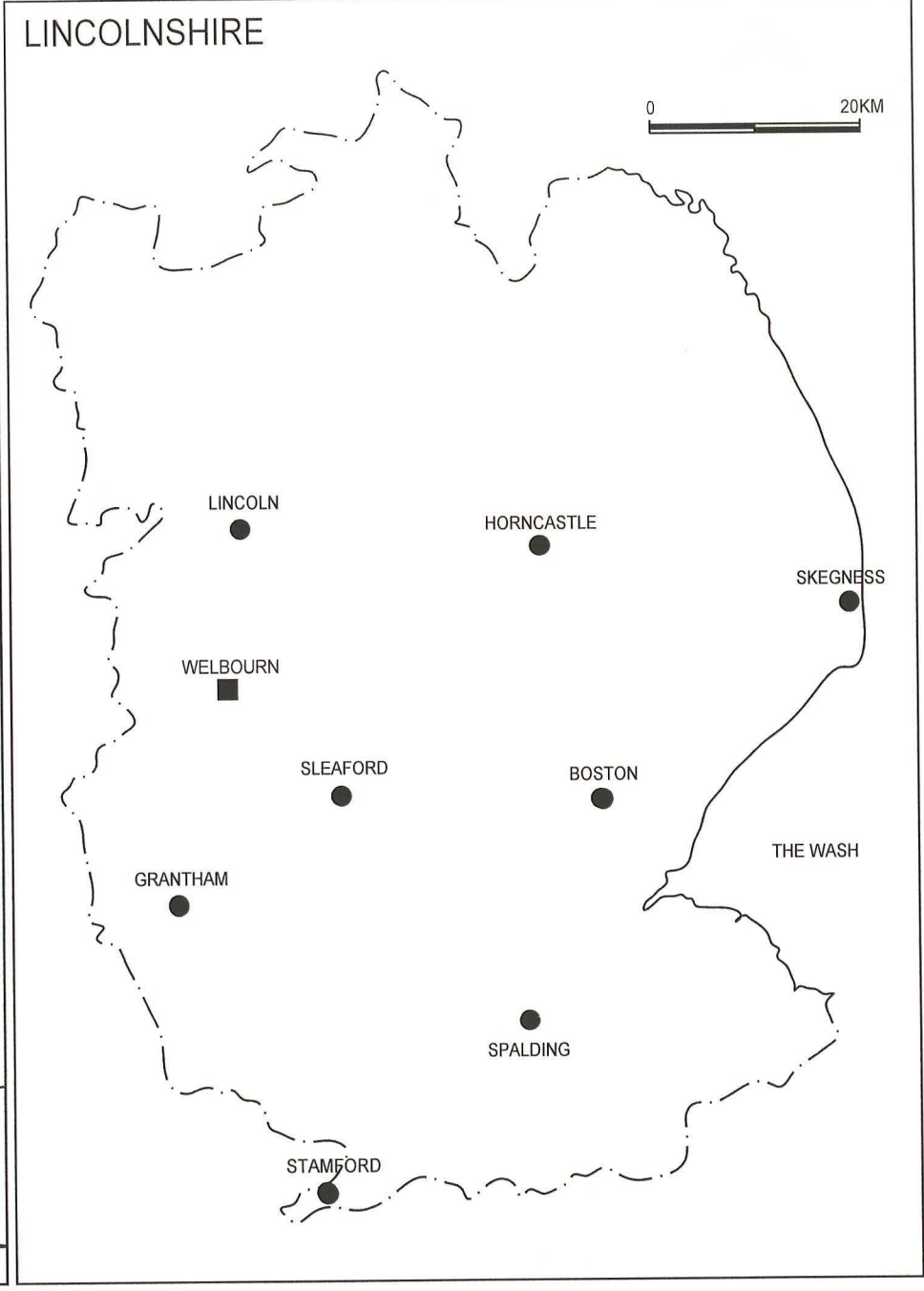
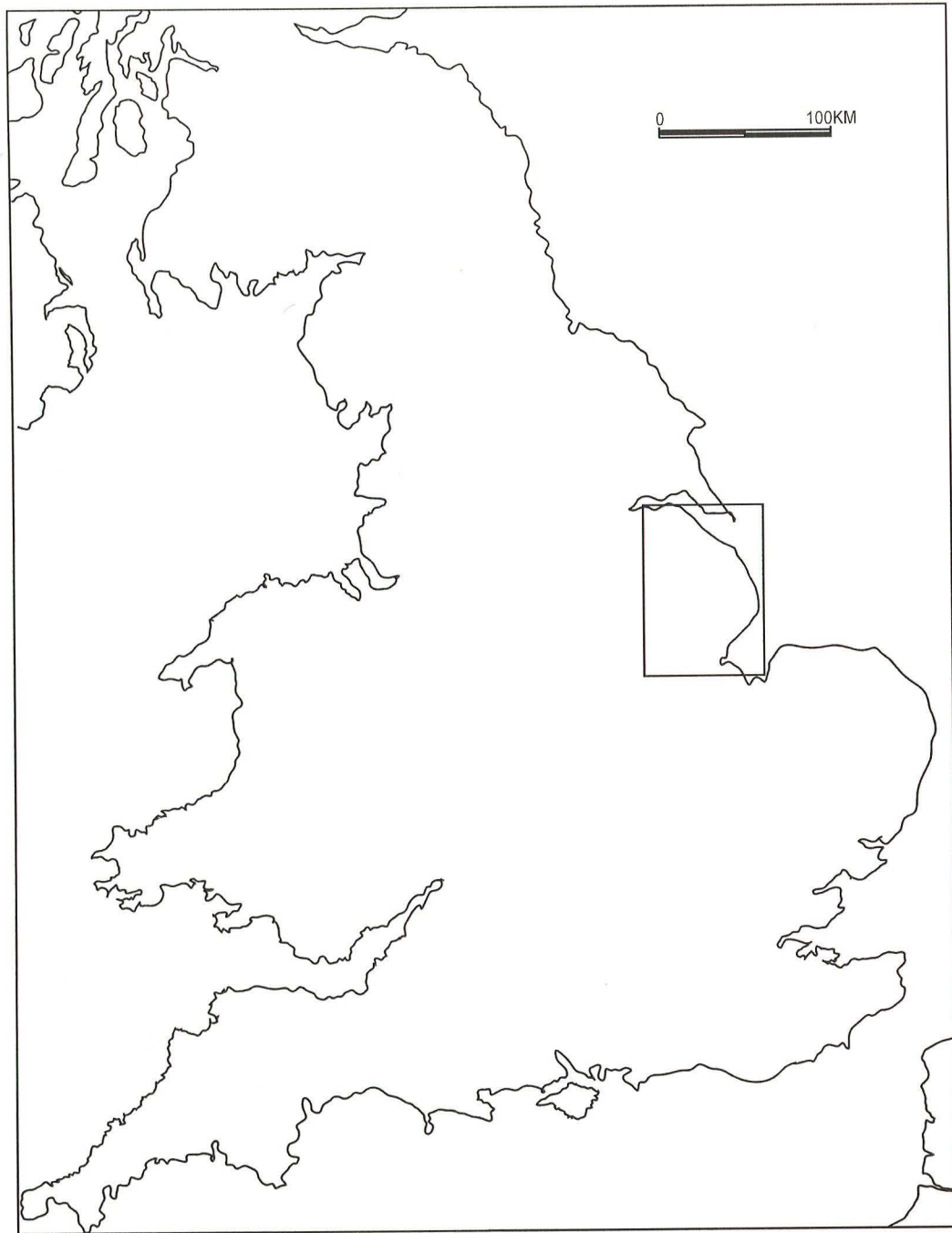


Figure 1: General location map

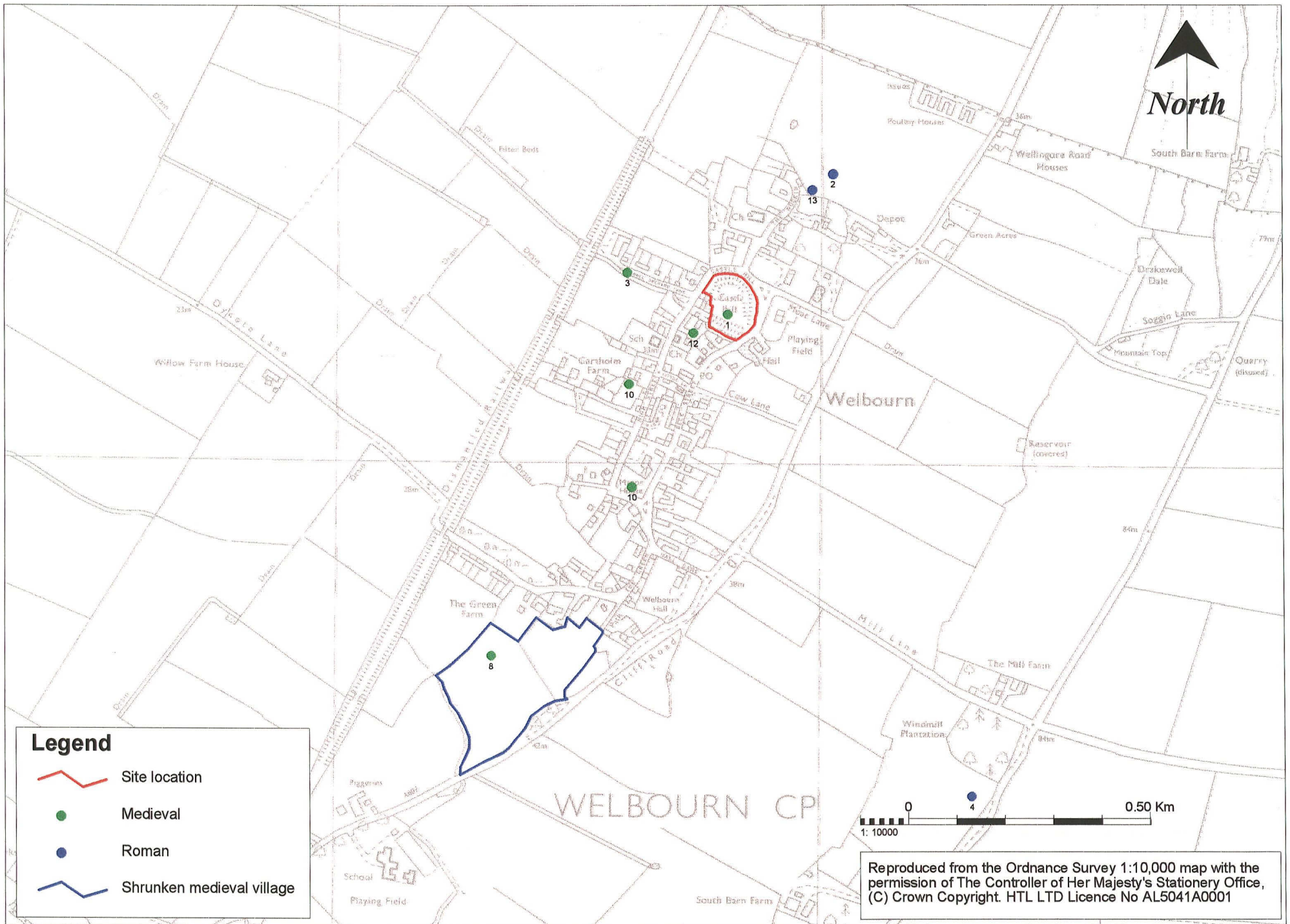
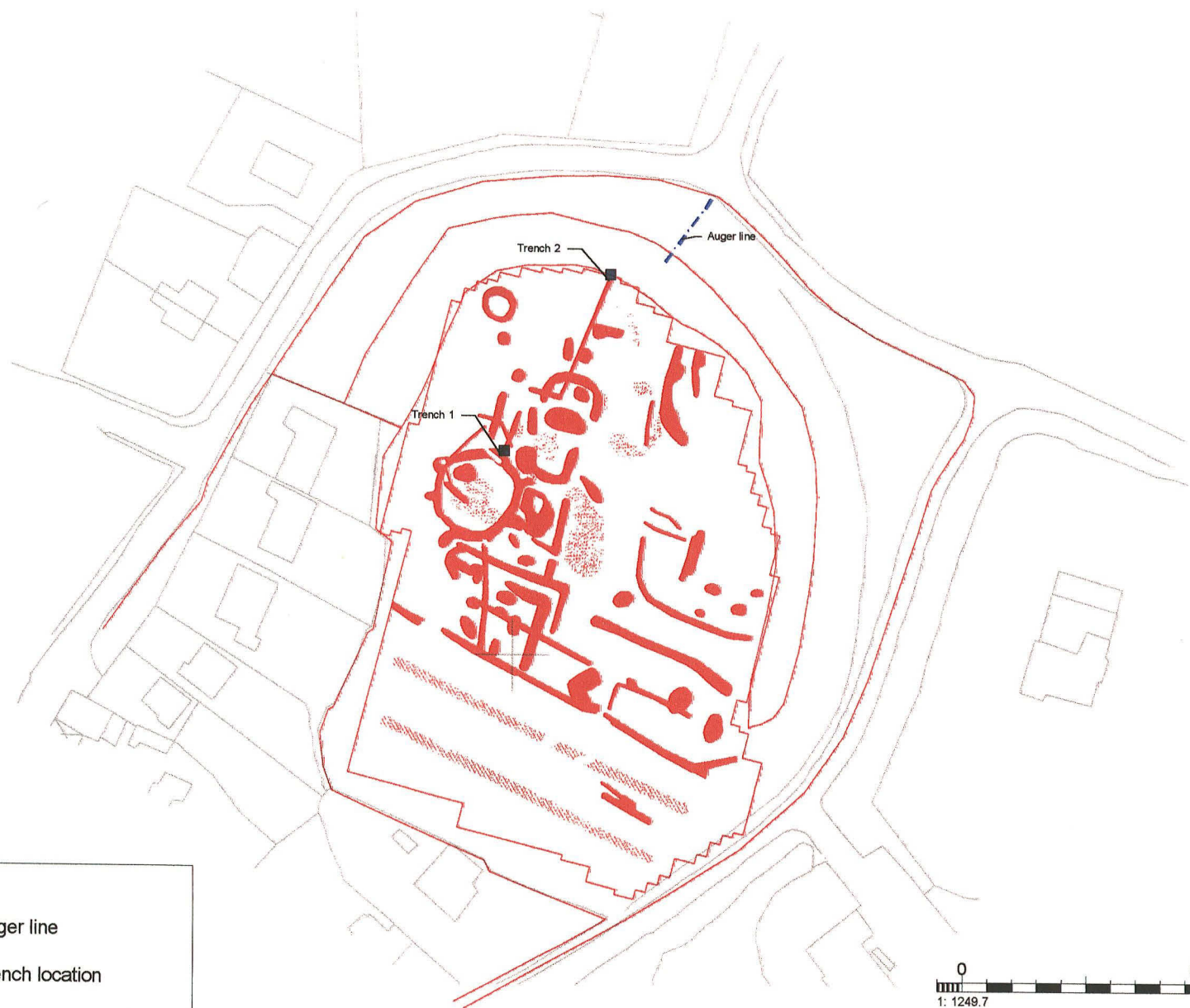





Figure 2: Site location and archaeological setting



Legend

-  Auger line
-  Trench location
-  Geophysical results



Geophysical Survey Results after GSB (1999)

Reproduced from the Ordnance Survey 1:10,000 map with the permission of The Controller of Her Majesty's Stationery Office, (C) Crown Copyright. HTL LTD Licence No AL5041A0001

Figure 3: Geophysical results, trench and auger line locations

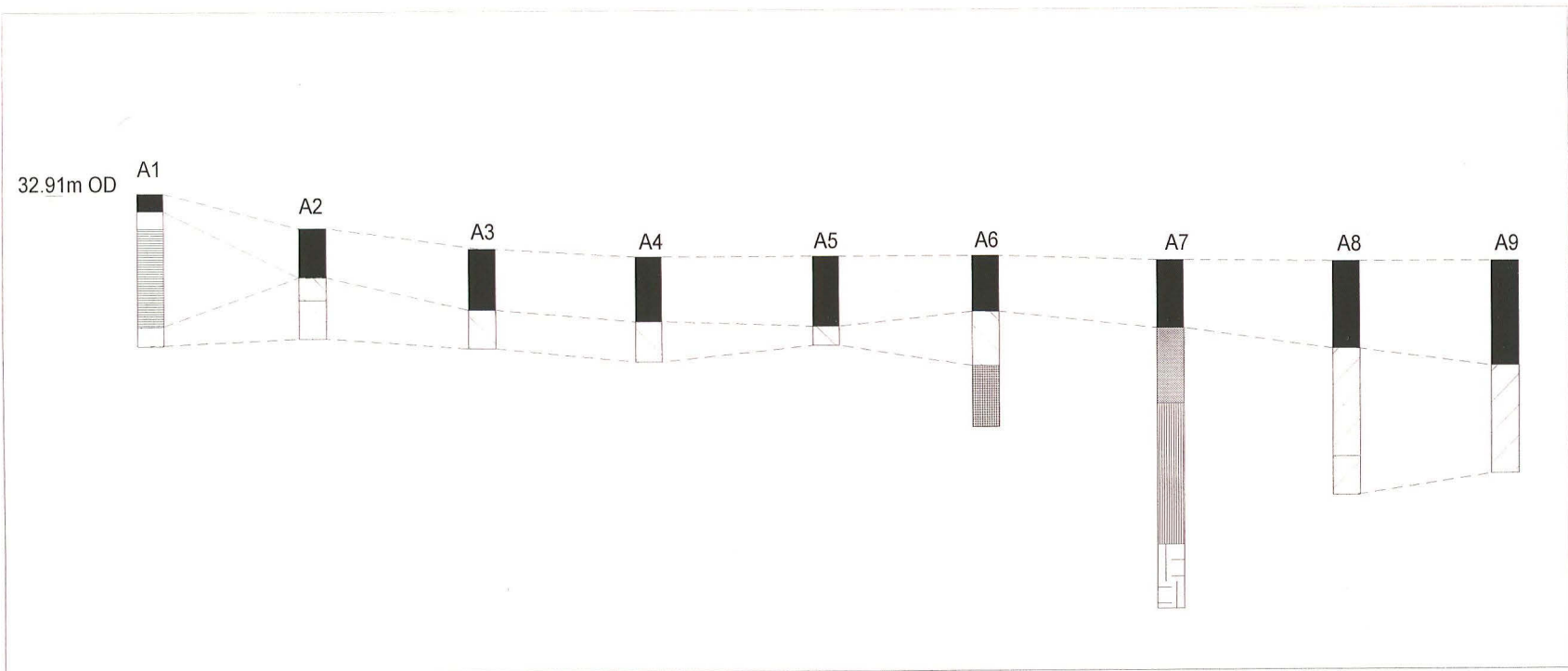
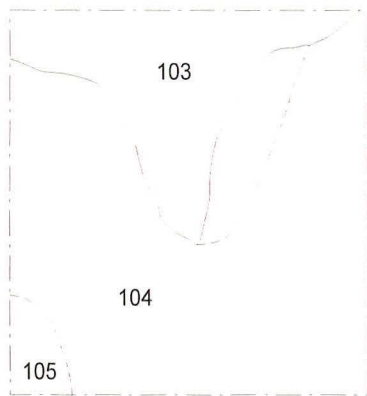
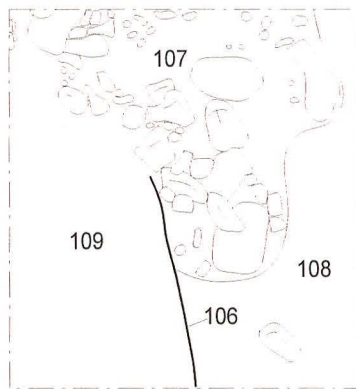


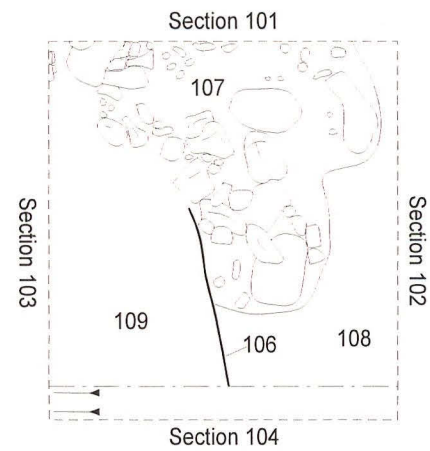
Figure 4: Auger results



PLAN 101



PLAN 103



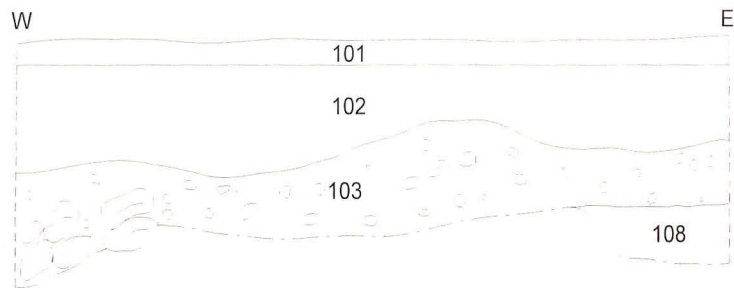
PLAN 104

0 1m

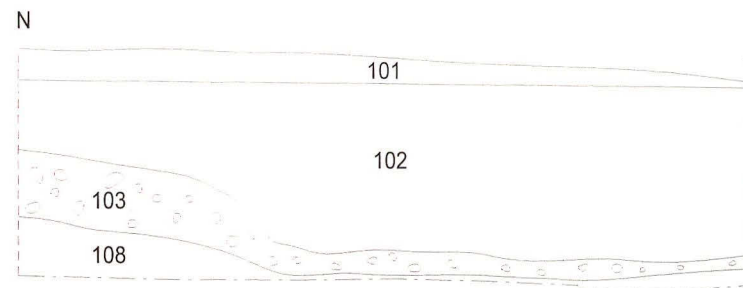
SCALE 1:40



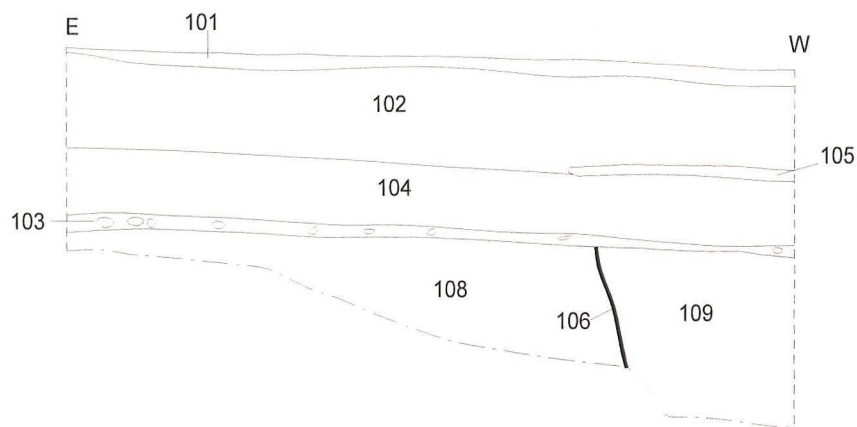
Figure 5: Plans Trench 1



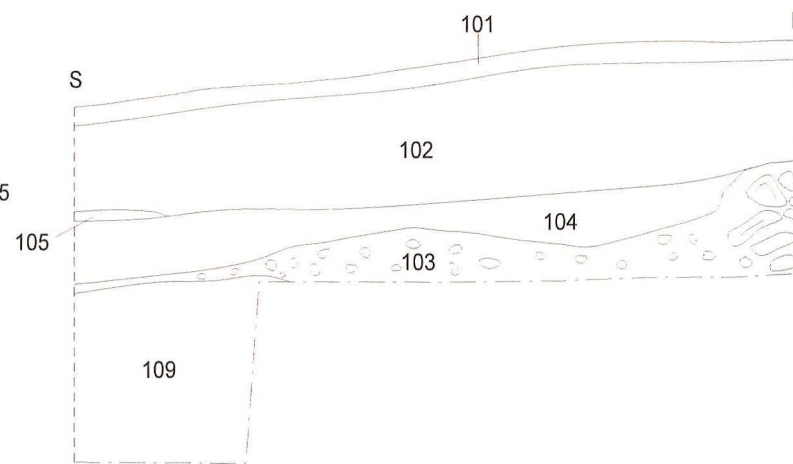
SECTION 101



SECTION 102



SECTION 104

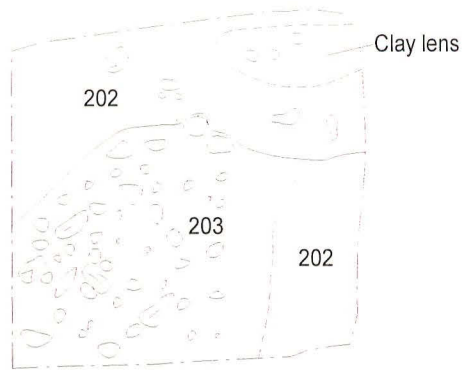


SECTION 103

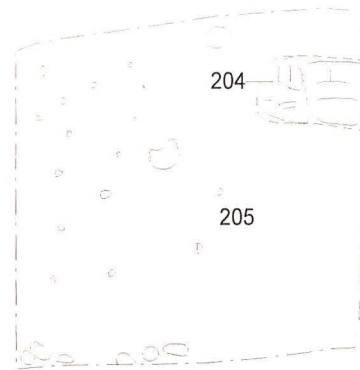


SCALE 1:20

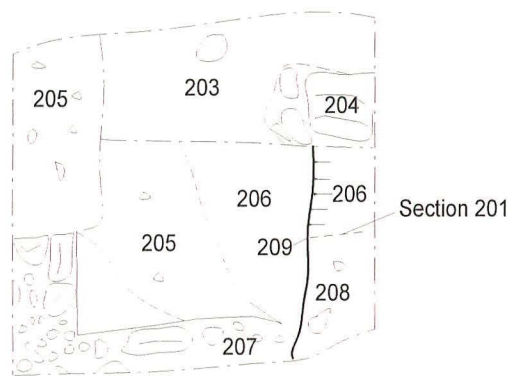
Figure 6: Trench 1, Sections 101 - 104



PLAN 201



PLAN 202



PLAN 203



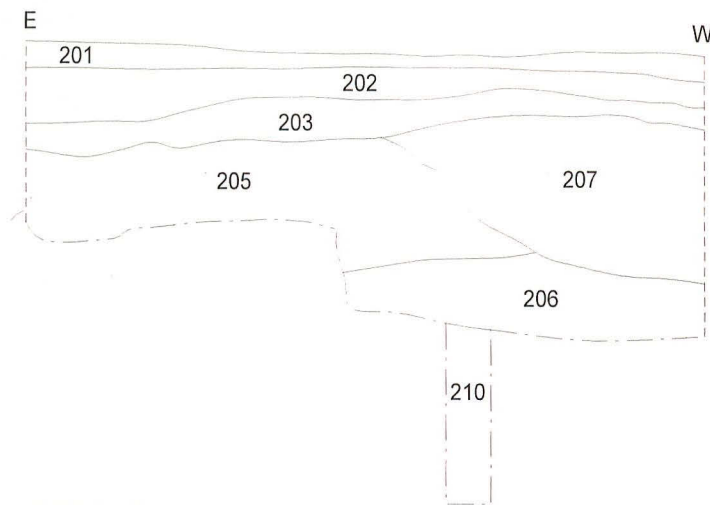
PLAN 205

0 1m

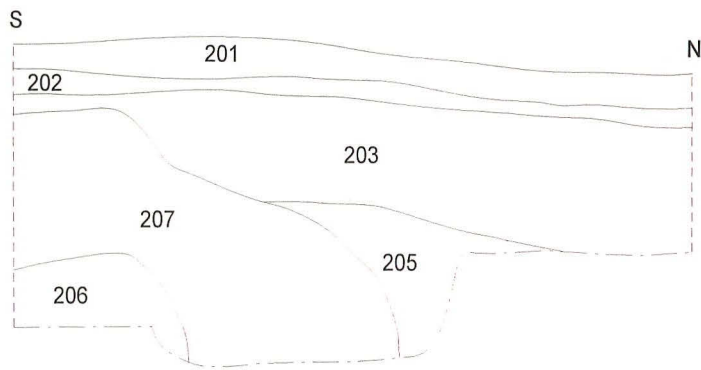
SCALE 1:40



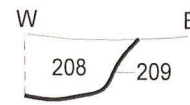
Figure 7: Plans Trench 2



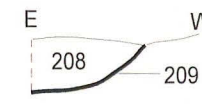
SECTION 203



SECTION 202



SECTION 201



SECTION 204



SCALE 1:20

Figure 8: Trench 2, Sections 201 - 204



Plate 1 General view of the site with trench locations visible in the distance, looking northeast



Plate 2 View of Trench 1 with work in progress, looking south



Plate 3 Work continuing in Trench 2, looking northeast



Plate 4 Augering



Plate 5 Sieving



Plate 6 Trowelling



Plate 7 Finds processing

Volunteers working on site



Plate 8 Post excavation view of Trench 1 showing remains of wall (107), looking northeast



Plate 9 Probable remains of wall (204) *in situ*, looking south



Plate 10 Post excavation view of Trench 2, looking west

Appendix 1

Department for Culture, Media and Sport 2-4 Cockspur Street Tel 020-7211- 6923
Buildings, Monuments and Sites Division 2 London SW1Y 5DH Fax 020-7211 6962
www.culture.gov.uk anne.middleton
@culture.gov.uk

Mr Bill Goodhand
Welbourn Parish Council
Mill Farm
Welbourn
Lincoln
LN5 0QQ

Your Ref:

Our Ref: HSD9/2/3520(pt6)

17 August 2000

Dear Mr Goodhand

**ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979 (AS AMENDED) - SECTION 2
PROPOSED WORKS AT CASTLE HILL, WELBOURN, LINCOLNSHIRE
COUNTY MONUMENT NO 116
APPLICATION BY WELBOURN PARISH COUNCIL**

1 I am directed by the Secretary of State for Culture, Media & Sport to refer to your application for scheduled monument on behalf of Welbourn Parish Council consent dated 5 July 2000 and to your covering letter of that date, location and site plans (Figs 1-4), the background information provided by the parish council (Appendix 1), and the specification for archaeological evaluation prepared by Archaeological Project Services (Appendix 2) submitted therewith in respect of proposed works at the above scheduled ancient monument concerning the commissioning of an archaeological evaluation to aid site management and interpretation.

2 In accordance with paragraph 3(2) of Schedule 1 to the 1979 Act, the Secretary of State is obliged to afford to the applicant, and to any other person to whom it appears to the Secretary of State expedient to afford it, an opportunity of appearing before and being heard by a person appointed for that purpose. This opportunity has been declined in your telephone conversation with Mr J Burke of the Department on 17th August 2000.

3 The Secretary of State is also required by the Act to consult with the Historic Buildings and Monuments Commission for England (English Heritage) before deciding whether or not to grant scheduled monument consent. Having received the advice of English Heritage, the Secretary of State considers that the proposed works will comprise small-scale archaeological excavation supported by a full research design which reasonably justifies the controlled destruction of buried archaeological evidence and its recording and preservation in archive and published form in order substantially to increase understanding and management. The Secretary of State is agreeable for the works to proceed providing the conditions recommended by English Heritage, and set out below, are adhered to, and accordingly hereby grants scheduled monument consent under section

2 of the 1979 Act for the proposed works as referred to in paragraph 1 above, subject to the following conditions :-

- (i) the works to which this consent relates shall be carried out to the satisfaction of the Secretary of State, who will be advised by English Heritage. At least 4 weeks' notice, (or such shorter period as may be mutually agreed) in writing of the commencement of work shall be given to: Dr Glyn Coppack, English Heritage, 44 Derngate, Northampton, NN1 1UH in order that an English Heritage representative can have the opportunity to inspect and advise on the works and their effect in compliance with this consent;
- (ii) the specification (including analysis, post-excavation and publication proposals) for which consent is granted shall be executed in full, unless variations have been agreed under the terms of condition (i); and
- (iii) a report on the archaeological evaluation shall be sent to the County Sites and Monuments Record and to Dr Glyn Coppack at English Heritage within 3 months of the completion of the works.

4 By virtue of Section 4 of the 1979 Act, if no works to which this consent relates are executed or started within five years from the date of this letter, the consent shall cease to have effect at the end of that period (unless it is revoked before then).

5 This letter does not convey any approval or consent required under any enactment, bye law, order or regulation other than section 2 of the Ancient Monuments and Archaeological Areas Act 1979.

6 Attention is drawn to the provisions of section 55 of the 1979 Act under which any person (hereinafter referred to as the 'applicant') who is aggrieved by the decision given in this letter may challenge its validity by an application made to the High Court within six weeks from the date when the decision is given. The grounds upon which an application may be made to the Court are (1) that the decision is not within the powers of the Act (that is, the Secretary of State has exceeded his powers) or (2) that any of the relevant requirements have not been complied with and the applicant's interests have been substantially prejudiced by the failure to comply. The "relevant requirements" are defined in section 55 of the 1979 Act: they are the requirements of that Act and the Tribunals and Inquiries Act 1971 and the requirements of any regulations or rules made under those Acts.

7 A copy of this letter is being sent to English Heritage's Field Monument Warden Kate Fearn and to the County Archaeological Officer Jim Bonnor.

Yours faithfully

A R Middleton (Miss)
Authorised by the Secretary of State
to sign in that behalf

Appendix 2

Specification for the Archaeological Field Evaluation of Castle Hill, Welbourn, Lincolnshire

1 SUMMARY

- 1.1 *This document comprises a specification for the archaeological evaluation of land at Castle Hill, Welbourn.*
- 1.2 *The site is a medieval ringwork castle, partially surrounded by a ditch. Documents of 1158 and 1288 refer to buildings of, or associated with, the castle and it was abandoned in 1374.*
- 1.3 *In order to provide more information about the site, with the aim of enhancing public awareness, a programme of trial trenching of the site has been proposed. Permission for the trenching is subject to Scheduled Monument Consent.*
- 1.4 *A desk-top assessment and geophysical survey of the site has already been completed and the geophysical survey identified probable building remains within the ringwork. Proposals for up to three trenches have been made, the scale of work dependent on Scheduled Monument Consent and finances.*
- 1.5 *On completion of the fieldwork a report will be prepared detailing the findings of the investigation. The report will consist of a text describing the nature of the archaeological remains located and will be supported by illustrations and photographs.*

2 INTRODUCTION

- 2.1 This document comprises a specification for the archaeological field evaluation of Castle Hill, Welbourn, Lincolnshire, national grid reference SK 968 543.
- 2.2 The document contains the following parts:
 - 2.2.1 Overview
 - 2.2.2 The archaeological and natural setting
 - 2.2.3 Stages of work and methodologies to be used
 - 2.2.4 List of specialists
 - 2.2.5 Programme of works and staffing structure of the project

3 SITE DESCRIPTION

- 3.1 Welbourn is located approximately 13km northwest of Sleaford in North Kesteven District, Lincolnshire. Situated near the centre of the village, the site is approximately 1.4ha in area and partly bounded by High Street, Beck Street and Castle Hill. A ditch or moat surrounds the raised area of the castle on the north, east and northwestern sides, the moat being water-filled on the northwest. At the south side the moat/ditch appears to have been filled in though a small stream flows along the boundary in this area. Three parallel ditches and two banks cross this part of the site, with the innermost ditch possibly representing the southern arm of the moat. A raised area in the northern part of the site may be due to recent ground clearance and moat cleaning, rather than indicating buried remains.

4 BACKGROUND

- 4.1 The site is a Scheduled Ancient Monument and Consent will be required for excavation of the trenches. The client will make the application to English Heritage for Scheduled Monument Consent.

5 SOILS AND TOPOGRAPHY

- 5.1 The site lies at approximately 33m OD on land that slopes down to the west. Local soils of the area are Wickham 2 Association fine loamy over clayey typical stagnogley soils (Hodge *et al.* 1984 351). These soils are developed on drift that overlies Jurassic ironstone.

6 ARCHAEOLOGICAL OVERVIEW

- 6.1 Welbourn is a settlement of Saxon origin and is referred to in the Domesday Book of 1086 when it had a church. Anglo-Saxon artefacts have been found to the northwest of the castle. The present church dates from the late 12th-mid 13th century and probably replaced the building recorded in Domesday.
- 6.2 The castle is a ringwork and documentation of 1158 refers to a *castellum* in *Le Northalle* being walled in stone. A detailed account of 1288 of the northern manor records a croft, two watermills, a wall around the court surmounted by a small tower and with a ditch in the court, a hall with two chambers, kitchen, brewhouse, oxhouse, cowshed, sheepfold and garden. In 1374 the site was abandoned.
- 6.3 Geophysical survey of the site identified structures, walls and rubble spreads. A circular area of high resistance at the northwest corner of the ringwork may be the small tower recorded in 1288. A polygonal, apparently buttressed structure connected to a wall was also identified. Areas of burning on the east side of the site may be kilns or ovens.

7 AIMS AND OBJECTIVES

- 7.1 The aim of the work will be to gather information about the site to increase public awareness.
- 7.2 The objectives of the work will be to:
- 7.2.1 Establish the form and structure of the castle; and to identify Lincolnshire parallels.
 - 7.2.2 Determine the social structure and status of the castle inhabitants.
 - 7.2.3 Determine whether and how many of the documented buildings are actually situated within the ringwork.
 - 7.2.4 Establish archaeologically the date of construction and desertion and determine why it was deserted.
 - 7.2.5 Identify the nature of the defences.
 - 7.2.6 Determine the characteristics of the local environment.
 - 7.2.7 Identify the diet and economy of the castle inhabitants.
 - 7.2.8 Determine whether there were any post-medieval buildings on the site.
- 7.3 It should be noted that, due to the scale of the work, the above objectives may not all be achievable and the possibility of satisfying these aims will diminish with reduced scale of investigation.

8 LIAISON WITH THE ARCHAEOLOGICAL CURATORS

- 8.1 Should finances preclude the excavation of all the proposed trenches, consultation will take place with the archaeological curators and client to determine which trenches are actually excavated.

9 TRIAL TRENCHING

9.1 Reasoning for this technique

- 9.1.1 Trial trenching enables the *in situ* determination of the sequence, date, nature, depth, environmental potential and density of archaeological features present on the site.
- 9.1.2 The trial trenching will consist of the excavation of up to three trenches, each measuring 2m x 2m. Should archaeological deposits extend below 1.2m depth then the trench sides will be stepped in. Augering may be used to determine the depth of the sequence of deposits present.
- 9.1.3 The trenches will be located: a) over the polygonal geophysical anomaly, perhaps a buttressed hall; b) in the northern moat arm, for the recovery of environmental and dating evidence; and c) on the northern bank, to determine if there is a wall, and the nature of same.

9.2 General Considerations

- 9.2.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the evaluation.
- 9.2.2 The work will be undertaken according to the relevant codes of practice issued by the Institute of Field Archaeologists (IFA). *Archaeological Project Services* is an IFA registered organisation (no. 21) managed by a member of the institute (MIFA).
- 9.2.3 Excavation of the archaeological features exposed will only be undertaken as far as is required to determine their date, sequence, density and nature. Not all archaeological features exposed will be excavated. However, the evaluation will, as far as is reasonably practicable, determine the level of the natural deposits to ensure that the depth of the archaeological sequence present on the site is established.
- 9.2.4 Open trenches will be marked by hazard tape attached to road irons or similar poles. Subject to the consent of the archaeological curator, and following the appropriate recording, the trenches, particularly those of any depth, may be promptly backfilled to minimise any health and safety risks.
- 9.2.5 Any and all artefacts found during the investigation and thought to be 'treasure', as defined by the Treasure Act 1996, will be removed from site to a secure store and promptly reported to the appropriate coroner's office.

9.3 Methodology

- 9.3.1 Removal of the topsoil and any other overburden will be undertaken by hand and undertaken/supervised by Archaeological Project Services. On completion of the removal of the overburden, the nature of the underlying deposits will be assessed by hand excavation and cleaned to enable the identification and analysis of the archaeological remains exposed.
- 9.3.2 Investigation of the remains will be undertaken only as far as required to determine their date, form and function. The work will consist of half- or quarter-sectioning of features as required and, where appropriate, the removal of layers. Should remains be located

which may be worthy of preservation *in situ*, excavation will be limited to the absolute minimum, (*ie* the minimum disturbance) necessary to interpret the form, function and date of the remains.

- 9.3.3 The archaeological remains encountered will be recorded on Archaeological Project Services pro-forma context record sheets. The system used is the single context method by which individual archaeological units of stratigraphy are assigned a unique record number and are individually described and drawn.
- 9.3.4 Plans of features will be drawn at a scale of 1:20 and sections at a scale of 1:10. Should individual features merit it, they will be drawn at a larger scale.
- 9.3.5 Throughout the duration of the trial trenching a photographic record consisting of black and white prints (reproduced as contact sheets) and colour slides will be compiled. The photographic record will consist of:
 - 9.3.5.1 the site before the commencement of field operations.
 - 9.3.5.2 the site during work to show specific stages of work, and the layout of the archaeology within individual trenches.
 - 9.3.5.3 individual features and, where appropriate, their sections.
 - 9.3.5.4 groups of features where their relationship is important.
 - 9.3.5.5 the site on completion of field work
- 9.3.6 Should human remains be encountered, they will be left *in situ* with excavation being limited to the identification and recording of such remains. Following recording the remains will be reburied. The environmental health department, police and coroner will be informed, as appropriate.
- 9.3.7 Finds collected during the fieldwork will be bagged and labelled according to the individual deposit from which they were recovered ready for later washing and analysis. A metal detector may be used to assist artefact recovery, subject to Scheduled Monument Consent for such prospection methods.
- 9.3.8 The spoil generated during the evaluation will be mounded along the edges of the trial trenches with the topsoil being kept separate from the other material excavated for subsequent backfilling.
- 9.3.9 The precise location of the trenches within the site and the location of site recording grid will be established by an EDM survey.

10 ENVIRONMENTAL ASSESSMENT

- 10.1 During the evaluation specialist advice will be obtained from an environmental archaeologist. The specialist will visit the site and will advise on the nature of the environmental material present on the site and sampling strategies.

11 POST-EXCAVATION AND REPORT

11.1 Stage 1

- 11.1.1 On completion of site operations, the records and schedules produced during the trial trenching will be checked and ordered to ensure that they form a uniform sequence constituting a level II archive. A stratigraphic matrix of the archaeological deposits and

features present on the site will be prepared. All photographic material will be catalogued: the colour slides will be labelled and mounted on appropriate hangers and the black and white contact prints will be labelled, in both cases the labelling will refer to schedules identifying the subject/s photographed.

- 11.1.2 All finds recovered during the trial trenching will be washed, marked, bagged and labelled according to the individual deposit from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.

11.2 Stage 2

- 11.2.1 Detailed examination of the stratigraphic matrix to enable the determination of the various phases of activity on the site.
- 11.2.2 Finds will be sent to specialists for identification and dating.

11.3 Stage 3

- 11.3.1 On completion of stage 2, a report detailing the findings of the evaluation will be prepared. This will consist of:
 - 11.3.1.1 A non-technical summary of the findings of the investigation.
 - 11.3.1.2 A description of the archaeological setting of the site with reference to the desk-top assessment and geophysical survey.
 - 11.3.1.3 Description of the topography and geology of the investigation area
 - 11.3.1.4 Description of the methodologies used and discussion of their effectiveness in the light of the findings of the investigation.
 - 11.3.1.5 A text describing the findings of the investigation.
 - 11.3.1.6 Plans of the trenches showing the archaeological remains exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.
 - 11.3.1.7 Plans of potential archaeological deposits.
 - 11.3.1.8 Sections of the trenches and archaeological remains.
 - 11.3.1.9 Interpretation of the archaeological remains exposed and their context within the surrounding landscape.
 - 11.3.1.10 A consideration of the importance of the findings, in local, regional and national terms.
 - 11.3.1.11 Specialist reports on the finds from the site.
 - 11.3.1.12 Appropriate photographs of the site and specific archaeological features.

12 **ARCHIVE**

12.1 The documentation, finds, photographs and other records and materials generated during the evaluation will be sorted and ordered into the format acceptable to the City and County Museum, Lincoln. This sorting will be undertaken according to the document titled *Conditions for the Acceptance of Project Archives* for long term storage and curation.

13 **REPORT DEPOSITION**

13.1 Copies of the evaluation report will be sent to: the client, Welbourn Parish Council; the North Kesteven Heritage Officer; English Heritage; and the Lincolnshire County Sites and Monuments Record.

14 **PUBLICATION**

14.1 A report of the findings of the evaluation will be published in Heritage Lincolnshire's periodic report and an article of appropriate content will be submitted for inclusion in the journal of the Society for Lincolnshire History and Archaeology. Notes or articles describing the results of the investigation will also be submitted for publication in the appropriate national journals: *Medieval Archaeology* and *Journal of the Medieval Settlement Research Group* for medieval and later remains, and *Britannia* for discoveries of Roman date.

15 **CURATORIAL MONITORING**

15.1 Curatorial responsibility for the project lies with North Kesteven Heritage Officer and the Inspector of Ancient Monuments, English Heritage. They will be given two weeks notice in writing prior to the commencement of the project to enable them to make appropriate monitoring arrangements.

16 **VARIATIONS TO THE PROPOSED SCHEME OF WORKS**

16.1 Variations to the scheme of works will only be made following written confirmation from archaeological curators and client.

16.2 Should the archaeological curators or client require any additional investigation beyond the scope of the brief for works, or this specification, then the cost and duration of those supplementary examinations will be negotiated between the client and the contractor.

17 **SPECIALISTS TO BE USED DURING THE PROJECT**

17.1 The following organisations/persons will, in principal and if necessary, be used as subcontractors to provide the relevant specialist work and reports in respect of any objects or material recovered during the investigation that require their expert knowledge and input. Engagement of any particular specialist subcontractor is also dependent on their availability and ability to meet programming requirements.

<u>Task</u>	<u>Body to be undertaking the work</u>
Conservation	Conservation Laboratory, City and County Museum, Lincoln.
Pottery Analysis	Prehistoric: Dr D Knight, Trent and Peak Archaeological Trust
	Roman: B Precious, independent specialist
	Anglo-Saxon: H Healey or J Young, independent specialists
	Medieval and later: H Healey, independent specialist

Other Artefacts	J Cowgill, independent specialist
Human Remains Analysis	R Gowland, University of Durham
Animal Remains Analysis	Environmental Archaeology Consultancy
Environmental Analysis	Environmental Archaeology Consultancy
Radiocarbon dating	Beta Analytic Inc., Florida, USA
Dendrochronology dating	University of Sheffield Dendrochronology Laboratory

18 PROGRAMME OF WORKS AND STAFFING LEVELS

- 18.1 Should one trench be excavated the site work will take two days with one supervisor and an experienced field archaeologist, with assistance from local people. Post-excavation would be expected to take about 7 person days, with a notional programme of 5 days (subject to specialist time-tables); it is expected that at least some of the finds processing would be done on site by volunteers under the direction of the finds supervisor. Three half-days of specialist time are allotted, in addition to a half-day visit by the environmental specialist during site work.
- 18.2 Should two trenches be excavated the site work will take three days with one supervisor and an experienced field archaeologist, with assistance from local people. Post-excavation would be expected to take about 8.5 person days, with a notional programme of 7 days (subject to specialist time-tables); it is expected that at least some of the finds processing would be done on site by volunteers under the direction of the finds supervisor. Three half-days of specialist time are allotted, in addition to a half-day visit by the environmental specialist during site work.
- 18.3 Should three trenches be excavated the site work will take three days with two supervisors and an experienced field archaeologist, with assistance from local people. Post-excavation would be expected to take about 10 person days, with a notional programme of 9 days (subject to specialist time-tables); it is expected that at least some of the finds processing would be done on site by volunteers under the direction of the finds supervisor. Three half-days of specialist time are allotted, in addition to a half-day visit by the environmental specialist during site work.

19 INSURANCES

- 19.1 Archaeological Project Services, as part of the Heritage Trust of Lincolnshire, maintains Employers Liability Insurance of £10,000,000; Public and Products Liability insurances, each with indemnity of £5,000,000; and Professional Indemnity insurance. Copies of insurance documentation can be supplied on request.

20 COPYRIGHT

- 20.1 Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act 1988* with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.
- 20.2 Licence will also be given to the archaeological curators to use the documentary archive for educational, public and research purposes.
- 20.3 In the case of non-satisfactory settlement of account then copyright will remain fully and exclusively with Archaeological Project Services. In these circumstances it will be an infringement under the *Copyright, Designs and Patents Act 1988* for the client to pass any report, partial report, or copy of same, to any third party. Reports submitted in good faith by Archaeological Project Services to any Planning Authority or archaeological curator will be

removed from said planning Authority and/or archaeological curator. The Planning Authority and/or archaeological curator will be notified by Archaeological Project Services that the use of any such information previously supplied constitutes an infringement under the *Copyright, Designs and Patents Act 1988* and may result in legal action.

- 20.4 The author of any report or specialist contribution to a report shall retain intellectual copyright of their work and may make use of their work for educational or research purposes or for further publication.

21 **BIBLIOGRAPHY**

Hodge, CAH, Burton, RGO, Corbett, WM, Evans, R, and Seale, RS, 1984 *Soils and their use in Eastern England*, Soil Survey of England and Wales 13

Appendix 3

Context Summary

Trench 1

Context	Type	Description	Thickness (m)	Interpretation	Fill of
101	Deposit	Friable, mid brown silt with occ. angular stones and limestone	0.10	Topsoil removed by hand	
102	Deposit	Friable, mid brown silt with occ. angular stones and limestone	0.25	Topsoil removed by mattock	
103	Deposit	Soft, mid brown silt with frequent small to medium angular limestone frags.	0.25	Demolition rubble	
104	Deposit	Soft, mid yellowish brown silt with occ. small angular limestone frags.	0.20	Demolition rubble	
105	Deposit	Loose, dark brown silt with frequent fragments of coal	0.26	Dumped burnt deposit	
106	Cut	Linear feature with clearly defined near vertical edges, 2.00m ⁺ long x 0.50m ⁺ wide	0.48 ⁺	Ditch or robber trench	
107	Masonry	Frequent large roughly hewn angular limestone, 1.50m long x 1.40m wide		Tumbled down limestone wall	
108	Deposit	Soft, dark greyish brown clayey silt with freq. small limestone frags.	0.32 ⁺	Colluvial deposit/made ground	
109	Deposit	Soft, mid yellowish brown clayey silt with freq. small angular limestone frags.	0.48 ⁺	Fill of ditch or robber trench	106

Trench 2

Context	Type	Description	Thickness (m)	Interpretation	Fill of
200	Finds	Unstratified finds from back filling			
201	Deposit	Friable, dark grey clayey silt with occ. angular limestone and rootlets	0.10	Topsoil	
202	Deposit	Loose, light to mid brown silt with occ. angular limestones and rootlets	0.15	Topsoil	
203	Deposit	Loose, mid brown clayey silt with freq. limestone and occ. charcoal and coal frags.	0.43	Demolition rubble	
204	Masonry	Roughly hewn limestone blocks (420mm x 320mm x 200mm), aligned E-W with random bonding, visible dimensions 0.62m x 0.43m x 0.20m		Possible remnants of wall	
205	Deposit	Loose to firm light brown clayey silt with freq. angular limestone, mortar and burnt limestone frags.	0.34 ⁺	Colluvial deposit/made ground	
206	Deposit	Firm bluish grey (with occ. brown patches) silty clay with occ. ironstone, charcoal and limestone frags.	0.26 ⁺	Colluvial deposit/made ground	
207	Deposit	Loose to firm mid brown clayey silt with freq. limestone and occ. mortar frags., 1.70m long x 0.70m wide	0.48	Wall tumble	

Context	Type	Description	Thickness (m)	Interpretation	Fill of
208	Deposit	Loose mid brown clayey silt with occ. limestone, rootlets and mortar frags. and rare burnt limestone	0.15	Fill of possible footing trench	209
209	Cut	Linear feature with concave sides and base, aligned N-S, 1.34m long ⁺ x 0.30m wide	0.15	Possible footing trench	
210	Deposit	Firm, mottled bluish grey/light greyish brown silty clay with occ. charcoal and ironstone frags.	0.60 ⁺	Made ground	

Auger 1

Context	Type	Description	Thickness (m)	Interpretation
001	Deposit	Loose, dark brown clayey silt with humic inclusions	0.10	Topsoil
002	Deposit	Loose, mid brown clayey sand	0.10	Colluvial
003	Deposit	Soft, mid greyish brown clayey sand	0.56	Colluvial
004	Deposit	Soft, mid bluish grey clay with occ. sand	0.11	Colluvial
005	Deposit	Indurate, limestone		Probable limestone rubble

Auger 2

Context	Type	Description	Thickness (m)	Interpretation
006	Deposit	Loose, dark brown clayey silt with humic inclusions (same as 001)	0.28	Topsoil
007	Deposit	Soft, mid greyish blue clay with iron stone inc.	0.13	Colluvial
008	Deposit	Soft, mid greyish blue clay with occ. limestone frags.	0.22	Colluvial

nb. hit stone

Auger 3

Context	Type	Description	Thickness (m)	Interpretation
009	Deposit	Loose, dark brown clayey silt with humic inclusions (same as 001)	0.35	Topsoil
010	Deposit	Soft, mid greyish blue clay with iron staining and occ. small limestone frags.	0.22	Colluvial

nb. hit stone

Auger 4

Context	Type	Description	Thickness (m)	Interpretation
011	Deposit	Loose, dark brown clayey silt with humic inclusions (same as 001)	0.37	Topsoil
012	Deposit	Soft, mid greyish blue clay with iron staining and occ. small limestone frags. (same as 010)	0.23	Colluvial

nb. hit stone

Auger 5

Context	Type	Description	Thickness (m)	Interpretation
013/016	Deposit	Loose, dark brown clayey silt with humic inclusions (same as 001)	0.40	Topsoil
014/017	Deposit	Soft, mid greyish blue clay with iron staining and occ. small limestone frags. (same as 010)	0.11	Colluvial
015/018	Deposit	Indurate, limestone (same as 005)		Probable limestone rubble

Auger 6

Context	Type	Description	Thickness (m)	Interpretation
019	Deposit	Loose, dark brown clayey silt with humic inclusions (same as 001)	0.32	Topsoil
020	Deposit	Soft, mid greyish blue clay with iron staining and occ. small limestone frags. (same as 010)	0.31	Colluvial
021	Deposit	Indurate, limestone (same as 005)	0.35	Probable limestone rubble

Auger 7

Context	Type	Description	Thickness (m)	Interpretation
022	Deposit	Loose, dark brown clayey silt with humic inclusions (same as 001)	0.39	Topsoil
023	Deposit	Soft, mid greyish brown sandy clay	0.43	Colluvial
024	Deposit	Soft, dark brown sandy silt with angular limestone	0.81	Colluvial
025	Deposit	Stiff, mid grey clay	0.37	Colluvial

nb. too stiff to auger any further

Auger 8

Context	Type	Description	Thickness (m)	Interpretation
026	Deposit	Loose, dark brown clayey silt with humic inclusions (same as 001)	0.50	Topsoil

Context	Type	Description	Thickness (m)	Interpretation
027	Deposit	Soft mid greyish blue clayey silt with occ. sand and organic matter	0.62	Colluvial
028	Deposit	Soft mid greyish blue clayey silt with occ. sand and organic matter	0.22	Colluvial

nb. hit stone

Auger 9

Context	Type	Description	Thickness (m)	Interpretation
029	Deposit	Soft mid greyish blue clayey silt with occ. sand and organic matter	0.60	Topsoil
030	Deposit	Soft mid greyish blue clayey silt with occ. small limestone frags., sand and organic matter	0.62	Colluvial

nb. hit stone

Appendix 4

The Finds

*by Hilary Healey and Gary Taylor,
with a comment on the glass bead by
John Cherry, British Museum*

Provenance

The material was recovered from topsoil (101, 102, 201 and 202), demolition rubble (103, 104 and 203), colluvial/made ground (108, 205 and 206) and the fill of a possible footing trench (208). The finds from deposit (200) were retrieved during backfilling of Trench 2.

Large amounts of the excavated spoil was sieved, this enhanced recovery method being substantially responsible for the extensive quantities of material recovered.

Although the earlier pottery fragments are probably all Lincolnshire products, it is likely that much of the later, post-medieval, pottery fragments were made in Staffordshire in the Midlands (note: 'Cornish ware' is a type name, it was not made in Cornwall). Potterhanworth and Lincoln wares dominate the small medieval component of the assemblage and were produced in kilns 15-20km to the north and northeast. The clay pipes were probably made locally in the Lincoln area.

Range

The range of material is detailed in the tables.

Pottery of probable 10th -12th century date is the earliest material recovered, though artefacts of this period are scarce. Slightly later medieval pottery, of the 13th-14th century is more common though still provides only a minor component of the assemblage. There is virtually no late medieval to early post-medieval material of the 15th-17th centuries but, by contrast, later post-medieval artefacts, of the 18th-20th centuries, are abundant.

In addition to the material reported here, glass artefacts and animal bones were also recovered and are reported separately.

Table 1: Artefacts

Context	Description	Context Date
101	3x blue and white transfer printed tableware, 1 pc same pattern as sherd from 102 but no link, 19 th -early 20 th century	mid 20 th century
	1x Cornish ware, mid 20th century	
	7x white glazed tableware, 1 with gilded line; 1 with red painted lines, 19 th -early 20 th century	
	1x soft paste porcelain, 19 th -early 20 th century	
	1x clay pipe stem, bore 5/64", 18th-19th century	
	2x handmade brick, 1 with mortar attached, post-medieval	
	1x tile (?pantile), post-medieval	
	1x iron hexagon nut, 19th-20th century	
	10x coal/clinker	

Context	Description	Context Date
102	19x blue and white transfer printed tableware, 5 from same service (2 small bowl, 3x ?cup); 1 pc same pattern as sherds from 101 but no link, 19 th -early 20 th century	mid 20 th century
	1x red and white transfer printed tableware, late 19th-20th century	
	2x green and white transfer printed tableware, late 19th-20th century	
	1x Cornish ware, mid 20th century	
	6x blue and white painted tableware, 3 link, probably only 1 vessel, late 19 th -early 20 th century	
	18x white glazed tableware, 1 with gilded line,	
	2x creamware ?teapot, gilded, sherds do not link but almost certainly same vessel, late 18th-19th century	
	4x red glazed tableware, black-glazed, including pancheon, 18th-early 19th century	
	3x Nottingham salt-glazed stoneware, mid-late 18th century	
	1x salt-glazed stoneware jar, 19th-early 20th century	
	2x yellow glazed earthenware, 19th-early 20th century	
	1x Midlands Yellow ware, 17th-early 18th century	
	1x Toynton All Saints ware, 14th-15th century	
	1x clay pipe bowl, ?17th-18th century	
	2x clay pipe stem, incl 1 mouthpiece, bore 4/64", 19th century	
	1x clay pipe stem, bore 5/64", 18th-19th century	
	1x glass bead, blue, oblate, post-medieval	
	2x tile (1 pantile?), post-medieval	
	2x handmade brick, post-medieval	
	7x brick/tile	
	1x copper alloy sprung catch, 20th century	
	7x iron nails, all c. 40mm long, 3 have round heads, 2 have rectangular heads; round headed examples clearly recent	
	c. 70 fragments coal/clinker	
1x slate, Welsh, 19th-20th century		
2x shale/slate, natural?		
103	1x Lincoln ware, 13th-14th century	13th-14th century
	1x Nottingham ware, 13th-14th century	

Context	Description	Context Date
	1x clinker	
104	2x red painted earthenware, black-glazed, 18th-early 19th century	19th-early 20th century
	2x blue and white transfer printed tableware, 19th century	
	2x white glazed tableware, 19th-early 20th century	
	1x soft-paste porcelain, late 18th-19th century	
	1x white salt-glazed stoneware, late 18th century	
	2x Potterhanworth ware, 13th-14th century	
	1x brick, handmade, post-medieval	
	2x tile, post-medieval	
	3x brick/tile	
	2x iron nails, rectangular heads and shafts, up to 67mm long	
	1x iron oval split loop, 95mm x 45mm, circular-sectioned wire/bar, 5mm thick	
	1x iron hinge plate	
	1x iron sheet	
	12x coal/clinker	
108	1x iron nail, rectangular shaft	
200	1x Lincoln ware jug, 13th-14th century	13th-14th century
201	1x black and white transfer printed cup, 19th-early 20th century	20th century
	2x underglaze blue painted tableware, 19th century	
	3x white glazed tableware, 19th-early 20th century	
	1x Nottingham salt-glazed stoneware, mid-late 18th century	
	1x Stamford ware, abraded, 10th-12th century	
	2x machine-made brick, 1 frogged, 20th century	
	1x handmade brick	
	1x pantile, 18th-20th century	
	1x nib tile	
	1x salt-glazed stoneware drainpipe, late 19th-20th century	
	1x iron spring clip and chain link, 19th-20th century	
	9x iron smithing slag	
	7x clinker	

Context	Description	Context Date
202	1x Potterhanworth ware, burnt, 13th-14th century	18th-20th century
	1x Stamford ware, 10th-12th century	
	1x pantile, 18th-20th century	
	1x iron smithing/industrial slag	
	5x iron smithing slag	
	2x coal	
203	1x blue and white transfer printed tableware, 19th century	19th century
	1x Potterhanworth ware, burnt, sooted internally, 13th-14th century	
	1x Nottingham splash glazed ware, 13th-14th century	
	2x pantile, 18th-20th century	
	2x brick/tile	
	1x iron smithing slag	
	1x burnt stone	
	1x ironstone nodule, oval, disk-shaped stone, natural	
	1x brick/tile	
	1x iron nail, 50mm long, rectangular shaft and head	
	2x coal/clinker	
	2x clinker/cinder	
205	1x Potterhanworth ware, sooted externally, 13th-14th century	13th-14th century
	1x brick/tile	
	1x iron smithing slag	
206	2x Potterhanworth ware, 13th-14th century	13th-14th century
208	1x mortar	

A few fragments of Stamford ware were recovered. This ware was toward the later stages of its production life in the mid 12th century (Kilmurry 1980) when Welbourn Castle is generally thought to have been constructed. These sherds, therefore, may be from some of the late Stamford wares reaching the site. However, they could be from earlier in the production period of Stamford ware and relate to a prior, Saxo-Norman, occupation of the ring-work.

Although simple glass beads such as that recovered from (102) are conservative and long-lived artefacts, it is probable that this blue bead is post-medieval in date.

A collection of seven iron nails, of uniform dimensions though of differing forms, was recovered from (102). Some of these nails are clearly recent, probably 20th century, but they are perhaps all part of a related group, possibly used for fencing or wire attachment.

Table 2: Molluscs

Context	Species	Description
102	Freshwater mussel	1x shell fragment
104	Banded snail	4x shells

A fragment of a freshwater mussel shell was recovered. This is likely to be from a Painter's Mussel, *Unio pictorum*, which inhabits hard water environments throughout much of England (McMillan 1973, 113). Additionally, 4 shells of banded snails, *Helix nemoralis*, were collected. This species is widespread and occurs in varied habitats including woods, hedges, scrub, grassland and dunes (Kerney and Cameron 1979, 204), and therefore is not useful as an environmental indicator.

Condition

All the material is in good condition and present no long-term storage problems. Archive storage of the collection is by material class.

Documentation

Welbourn Castle has been the subject of previous historical research and non-invasive archaeological investigations. These previous examinations have identified documentary and potential physical evidence for buildings and other structures at the castle. Other archaeological investigations have been carried out in Welbourn. Details of archaeological sites and discoveries in the area are maintained in the files of the North Kesteven Heritage Officer and the Lincolnshire County Council Sites and Monuments Record.

Potential

The post-medieval aspect of the assemblage has limited potential though the medieval component can be related to the documented use of the castle. It is possible that the Stamford ware pottery sherds relate to a Saxo-Norman use of the ring-work area. However, only non-diagnostic body fragments were recovered and may be towards the end of the production period for Stamford ware and therefore contemporary with the use of the castle from the mid 12th century.

Material of the 15th-17th centuries is virtually absent and this is potentially significant, perhaps implying that the site was entirely abandoned during this period and not used for any activities that were accompanied by artefact deposition, for example, refuse disposal associated with occupation, or manure spreading for agricultural processes.

Reference

Kerney, M. P. and Cameron, R. A. D., 1979 *A Field Guide to the Land Snails of Britain and North-west Europe* (Collins)

Kilmurry, K., 1980 *The Pottery Industry of Stamford, Lincs. c. A.D. 850-1250*, British Archaeological Reports British Series 84

McMillan, N. F., 1973 *British Snails* (Warne)

Appendix 5

The Glass

by Rachael Hall

Provenance

The following glass assemblage represents the glass retrieved during the Welbourn Castle evaluations. The glass comes from the latest deposits represented in the two trenches opened, topsoil and developing subsoil

Summary

Context	Description	Context Date
101	1x colourless, part of everted fire rounded rim, jar, modern. 1x pale green, bottle sherd, with slight iridescence, 19 th century 1x colourless, part of bottle neck with mould seam, modern	20 th century
102	1x black, bottle sherd, modern 1x opaque brown, beer bottle sherd, modern 1x mid green, wine bottle sherd, 19 th century 3x translucent green, wine bottle sherds, iridescence 1x aqua complete octagonal ink bottle, 19 th century	20 th century
104	1x aqua complete square with ribs on three sides, sheared lip ink bottle, 19 th century 1x aqua top of square with ribs, sheared ink bottle, 19 th century 2x colourless, bottle sherds, one a neck fragment with a mould seam, modern	20 th century
201	3x translucent green, bottle fragments, one embossed, 19 th century 1x colourless, frosted window glass, modern 3x colourless, cut glass bowl decorated with floral design	20 th century
202	1x colourless, complete internal screw paste jar, punt mark TD FOOD 1x green, beer bottle glass, modern	20 th century
203	1x aqua body sherd of square with ribs ink bottle, 19 th century	19 th century

Discussion

The Welbourn assemblage contains glass dating largely to the Victorian era, and post Victorian period. Several well preserved ink bottles were retrieved. Such ink bottles as those represented at Welbourn would have been sealed with a cork and sealing wax. Though not seen in the Welbourn assemblage, many ink bottles of the period were found to have ingenious patent designs and rather novel shapes, in attempt to capture the market. The glass is typical of that expected in topsoil deposits, small fragments of bottle and occasional window glass.

Condition

Due to its modern dating the glass has witnessed little weathering. With the exception of the ink bottles the glass fragments are of small dimension.

References:

Blakeman, A. (1999) *Antique Bottles Collectors Encyclopaedia* BBR Publishing
Hall, R.V. (1999) *The Glass at Wharram Percy* Unpublished

Appendix 6

The Animal Bone

by James Rackham

A small collection of one hundred and two animal bones was recovered from excavations of medieval and post-medieval date at Castle Hill, Welbourn. These bones have been identified and recorded following the procedures of the Environmental Archaeology Consultancy (see attached Key) and the catalogue is attached to this report. This material is summarised in Table 1.

The bones have been recovered from medieval and post-medieval deposits, the bulk of it being recent. The condition of the bones is good but fragmentation is very high although less so in contexts 203 and 205. One or two bones exhibit evidence for butchery, while only one fragment carries dog tooth marks which might suggest a low level of scavenging.

Table 1: Frequency of animal bone fragments of each taxa from each context.

species	103	205	206	203	202	104	102	201	108	109	208	210
date C.	13/1 4	13/1 4	13/1 4	19	18/2 0	19/2 0	20	20	nd	nd	nd	Nd
Horse				1								
Cattle				3	3	1						
Cattle size		1	1	2	5		1	3	2	1		
Sheep/goat			1	8	5	6		8				1
Sheep		1										
Sheep size						8		2	1	2	1	
Pig	1	1	2	4	3			3				
Dog						1						
Chicken						1						
Goose				1				1				
Unidentified bird		1										
Frog/toad						1						
Unidentified				4	2		3	4		1		

The species identified include horse, cattle, sheep, pig, dog, chicken, goose and frog or toad. Sheep/goat bones dominate the assemblage and include immature and fully adult animals.

Archive Catalogue of Hand Collected Animal Bone from Castle Hill, Welbourn - WCH00

site	cont.	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	path	comment	preservation
WCH00	102	CSZ	VER	1	F								INDET	4
WCH00	102	UNI	SKL	1	F								INDET	4
WCH00	102	UNI	UNI	2	F								INDET	4
WCH00	103	SUS	RAD	1	F								SPLIT MIDSHAFT FRAGMENT	4
WCH00	104	BOS	LI	1	L								MEDIUM TO WELL WORN	4
WCH00	104	CAN	MTP	1	F								SHAFT FRAGMENT	4
WCH00	104	CHIK	HUM	1	L								SHAFT-SL POROUS	4
WCH00	104	FRTO	INN	1	W									4
WCH00	104	OVCA	INN	1	L		4						PUBIS FRAGMENT OF ACETAB	4
WCH00	104	OVCA	LM2	1	R					J13				4
WCH00	104	OVCA	LMV	1	R	CNAN		CH					RIGHT SIDE CENTRUM-CHOPPED DOWN MIDDLE	4
WCH00	104	OVCA	LPM3	1	R					G				4
WCH00	104	OVCA	RIB	1	F								MIDSHAFT-1ST RIB	4
WCH00	104	OVCA	UM2	1	R					J9				4
WCH00	104	SSZ	LBF	1	F								SHAFT FRAG	3
WCH00	104	SSZ	LMV	1	F		1						SPINE	4
WCH00	104	SSZ	RIB	3	F								MIDSHAFT FRAGMENT	4
WCH00	104	SSZ	RIB	1	L								SHAFT	4
WCH00	104	SSZ	UNI	2	F								INDET	4
WCH00	108	CSZ	LBF	2	F								SHAFT FRAGMENT	4
WCH00	108	SSZ	LBF	1	F								SHAFT FRAGMENT	4
WCH00	109	CSZ	LBF	1	F								SHAFT FRAGMENT	3
WCH00	109	SSZ	LBF	1	F								SHAFT FRAGMENT	4
WCH00	109	SSZ	RIB	1	F								PROX SHAFT FRAGMENT	4
WCH00	109	UNI	UNI	1	F								INDET	4
WCH00	201	CSZ	LBF	1	F								SHAFT FRAGMENT-HORSE?	4
WCH00	201	CSZ	UNI	2	F								INDET	3
WCH00	201	GOOS	STN	1	F								SMALL FRAGMENT	4
WCH00	201	OVCA	DUP3	1	R					g12				4
WCH00	201	OVCA	LM2	1	R					J13				4
WCH00	201	OVCA	MAN	1	F								LATERAL FRAG HORI RAMUS	4
WCH00	201	OVCA	MAX	1	L					h11				4
WCH00	201	OVCA	RAD	1	L								PROX SHAFT FRAGMENT	4
WCH00	201	OVCA	TIB	1	F								DISTAL SHAFT FRAGMENT-	4
WCH00	201	OVCA	TIB	1	F								DISTAL SHAFT FRAGMENT	4
WCH00	201	OVCA	UM2	1	L					J14				4
WCH00	201	SSZ	RIB	2	F								SHAFT FRAGMENT	4
WCH00	201	SUS	INN	1	L	EF	4						ACETABULAR FRAG PUBIS	4
WCH00	201	SUS	LC	1	L								FRAGMENT-MALE	4
WCH00	201	SUS	LM3	1	W					K3			UNERUPTED	4
WCH00	201	UNI	UNI	4	F								INDET	3
WCH00	202	BOS	FEM	1	F		4						DISTAL SHAAFT FRAGMENT	4
WCH00	202	BOS	SCP	1	F								VENTRAL BLADE FRAGMENT	4

site	cont.	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	path	comment	preservation
WCH00	202	BOS	UM	1	F								UNWORN- 2 PIECES	4
WCH00	202	CSZ	RIB	2	F								PROX SHAFT FRAGMENT	4
WCH00	202	CSZ	UNI	3	F								INDET	4
WCH00	202	OVCA	MAN	1	R		23			GH12I15			ANT RAMUS-M1 LOOSE	4
WCH00	202	OVCA	TIB	1	R	DF	567						DISTAL END	3
WCH00	202	OVCA	UM	1	F								ENAMEL FRAGMENT	4
WCH00	202	OVCA	UM2	1	L					J7				4
WCH00	202	OVCA	UPM2	1	R					F				4
WCH00	202	SUS	LI	1	F								SL-MED WEAR	4
WCH00	202	SUS	LI3	1	L								SL WEAR	4
WCH00	202	SUS	TIB	1	R		4	CH					PROX SHAFT-MIDSHAFT CHOPPED	4
WCH00	202	UNI	UNI	2	F								INDET	3
WCH00	203	BOS	FEM	1	F								PORX SHAFT FRAG- 2 PIECES	4
WCH00	203	BOS	PH1	1	L	PF	12						COMPLETE	4
WCH00	203	BOS	UPM4	1	R					H12				4
WCH00	203	CSZ	LBF	1	F			C					SHAFT FRAGMENT-CHARRED	4
WCH00	203	CSZ	RIB	1	L								PROX SHAFT FRAGMENT	3
WCH00	203	EQU	UM	1	R								MEDIUM WEAR	4
WCH00	203	GOOS	COR	1	R			KN					FRAGMENT PROXIMAL END-CUT	4
WCH00	203	OVCA	HUM	1	R								DISTAL SHAFT FRAGMENT	4
WCH00	203	OVCA	LI	1	L								MED WEAR	4
WCH00	203	OVCA	MAN	1	R		5						CONDYLE	4
WCH00	203	OVCA	MAN	1	R		4						CORONOID	4
WCH00	203	OVCA	MAN	1	R					K13			2 PIECES	4
WCH00	203	OVCA	PH1	1	L		2						DISTAL HALF	4
WCH00	203	OVCA	PH1	1	L	PF	12						COMPLETE	4
WCH00	203	OVCA	UM2	1	R					J12				3
WCH00	203	SUS	LC	1	R								SL DAMAGE-MALE	4
WCH00	203	SUS	PH2	1	F	PN	2						PROX EPI LOST	4
WCH00	203	SUS	SCP	1	R		35						DISTAL BLADE FRAGMENT	4
WCH00	203	SUS	SCP	1	L		4						SPINE	4
WCH00	203	UNI	UNI	3	F								INDET	4
WCH00	203	UNI	UNI	1	F								INDET-POSSIBLY MANDIBLE	4
WCH00	205	CSZ	UNI	1	F								INDET	4
WCH00	205	OVI	MTT	1	R	DN	125						PROX END AND SHAFT	4
WCH00	205	SUS	CAL	1	F	PN	1						PROX EPIPHYSIS	4
WCH00	205	UNIB	LBF	1	F								SHAFT FRAG	4
WCH00	206	CSZ	TRV	1	F		5						BASE SPINE AND NEURAL ARCH- 2 PIECES	4
WCH00	206	OVCA	MTT	1	F								DISTAL POSTERIOR SHAFT FRAGMENT	4
WCH00	206	SUS	FIB	1	F								SHAFT FRAGMENT	4
WCH00	206	SUS	MC4	1	R	DN	12						PROX END AND SHAFT	4
WCH00	208	SSZ	RIB	1	F								SHAFT FRAGMENT	4
WCH00	210	OVCA	FEM	1	L		4		DG				DISTAL HALF SHAFT-DISTAL CHEWED	4

THE ENVIRONMENTAL ARCHAEOLOGY CONSULTANCY

Key to codes used in the cataloguing of animal bones

SPECIES		BONE		SIDE	FUSION
BOS	cattle	SKL	skull	W - whole	Records the fused/unfused condition of the epiphyses
CSZ	cattle size	TEMP	temporal	L - left side	P - proximal; D - distal; E - acetabulum;
SUS	pig	FRNT	frontal	R - right side	N - unfused; F - fused; C - cranial; A - posterior
OVCA	sheep or goat	PET	petrous	F - fragment	
OVI	sheep	PAR	parietal	TOOTH WEAR - Codes are those used in Grant, A. 1982 The use of tooth wear as a guide to the age of domestic animals, in B.Wilson, C.Grigson and S.Payne (eds) <i>Ageing and sexing animal bones from Archaeological sites, 91-108.</i>	
SSZ	sheep size	OCIP	occipital	Teeth are labelled as follows in the tooth wear column:	
EQU	horse	ZYG	zygomatic	h ldpm4/dupm4	f ldpm2/dupm2
CER	red deer	MAN	mandible	H lpm4/upm4	g ldpm3/dupm3
CAN	dog	MAX	maxilla	I lm1/uml	
MAN	human	ATL	atlas	J lm2/um2	
UNI	unknown	AXI	axis	K lm3/um3	
CHIK	chicken	CEV	cervical vertebra	ZONES - zones record the part of the bone present.	
GOOS	goose, dom	TRV	thoracic vertebra	The key to each zone on each bone is on page 2	
LEP	hare	LMV	lumbar vertebra		
UNB	indet bird	SAC	sacrum		
MALL	duck, dom.	CDV	caudal vertebra	MEASUREMENTS - Any measurements are those listed in A.Von den Driesch (1976) <i>A Guide to the Measurement of Animal Bones from Archaeological Sites</i> , Peabody Museum Bulletin 1, Peabody Museum, Harvard, USA	
GULL	gull sp.	SCP	scapula		
FISH	fish	HUM	humerus		
UNIB	bird indet	RAD	radius		
UNIF	fish indet	MTC	metacarpus	PRESERVATION	
GSZE	goose size	MC1-4	metacarpus 1-4	1 - enamel only surviving	
BEAV	beaver	INN	innominate	2 - bone very severely pitted and thinned, tending to break up teeth with surface erosion and loss of cementum and dentine	
CORV	crow or rook	ILM	ilium	3 - surface pitting and erosion of bone, some loss of cementum and dentine on teeth	
POLE	polecat/ferret	PUB	pubis	4 - surface of bone intact, loss of organic component, material chalky, calcined or burnt	
PART	partridge	ISH	ischium	5 - bone in good condition, probably with some organic component	
ORC	rabbit	FEM	femur		
ROD	rodent	TIB	tibia		
JACK	jackdaw	AST	astragalus		
OWL	owl indet.	CAL	calcaneum		
AUR	aurochs	MTT	metatarsus		
DUCK	duck sp.	MT1-4	metatarsus 1-4		
CRA	goat	PH1	1st phalanx		
FER	feral dove	PH2	2nd phalanx		
DAM	fallow deer	PH3	3rd phalanx		
TURK	turkey	LM1-LM3	Lower molar 1 - molar 3		
GOSZ	goose, poss. wild	UM1-UM3	upper molar 1 - molar 3		
HADD	haddock	LPM1-LPM4	lower premolar 1-4		
		UPM1-UPM4	upper premolar 1-4		
		DLPM1-4	deciduous lower premolar 1-4		
		DUPM1-4	deciduous upper premolar 1-4		
		MNT	mandibular tooth		
		MXT	maxillary tooth		
		LBF	long bone		
		UNI	unidentified		
		STH	sternum		
		INC	incisor		
		TTH	indet. tooth		
		CMP	carpo-metacarpus		
		SKEL	skeleton		

ZONES - codes used to define zones on each bone

SKULL -	1. paraoccipital process 2. occipal condyle 3. intercornual protuberance 4. external acoustic meatus 5. frontal sinus 6. ectorbitale 7. entorbitale 8. temporal articular facet 9. facial tuber 0. infraorbital foramen	METACARPUS -	1. medial facet of proximal artciulation, MC3 2. lateral facet of proximal articulation, MC4 3. medial distal condyle, MC3 4. lateral distal condyle, MC4 5. anterior distal groove and foramen 6. medial or lateral distal condyle
MANDIBLE	1. Symphyseal surface 2. diastema 3. lateral diastemal foramen 4. coronoid process 5. condylar process 6. angle 7. anterior dorsal ascending ramus posterior M3 8. mandibular foramen	FIRST PHALANX	1. proximal epiphysis 2. distal articular facet
		INNOMINATE	1. tuber coxae 2. tuber sacrale + scar 3. body of illium with dorso-medial foramen 4. iliopubic eminence 5. acetabular fossa 6. symphyseal branch of pubis 7. body of ischium 8. ischial tuberosity 9. depression for medial tendon of rectus femoris
VERTEBRA	1. spine 2. anterior epiphysis 3. posterior epiphysis 4. centrum 5. neural arch	FEMUR	1. head 2. trochanter major 3. trochanter minor 4. supracondyloid fossa 5. distal medial condyle 6. lateral distal condyle 7. distal trochlea 8. trochanter tertius
SCAPULA	1. supraglenoid tubercle 2. glenoid cavity 3. origin of the distal spine 4. tuber of spine 5. posterior of neck with foramen 6. cranial angle of blade 7. caudal angle of blade	TIBIA	1. proximal medial condyle 2. proximal lateral condyle 3. intercondylar eminence 4. proximal posterior nutrient foramen 5. medial malleolus 6. lateral aspect of distal articulation 7. distal pre-epiphyseal portion of the diaphysis
HUMERUS	1. head 2. greater tubercle 3. lesser tubercle 4. intertuberal groove 5. deltoid tuberosity 6. dorsal angle of olecranon fossa 7. capitulum 8. trochlea	CALCANEUM	1. calcaneal tuber 2. sustentaculum tali 3. processus anterior
RADIUS	1. medial half of proximal epiphysis 2. lateral half of proximal epiphysis 3. posterior proximal ulna scar and foramen 4. medial half of distal epiphysis 5. lateral half of distal epiphysis 6. distal shaft immediately above distal epiphysis	METATARSUS	1. medial facet of proximal artciulation, MT3. 2. lateral facet of proximal articulation, MT4 3. medial distal condyle, MT3 4. lateral distal condyle, MT4 5. anterior distal groove and foramen 6. medial or lateral distal condyle
ULNA	1. olecranon tuberosity 2. trochlear notch- semilunaris 3. lateral coronoid process 4. distal epiphysis		

Appendix 7

Glossary

Bronze Age	A period characterised by the introduction of bronze into the country for tools, between 2250 and 800 BC.
Context	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretations of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, <i>e.g.</i> (004).
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, <i>etc.</i> Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
Fill	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) which become contained by the 'cut' are referred to as its fill(s).
Iron Age	A period characterised by the introduction of Iron into the country for tools, between 800 BC and AD 50.
Layer	A layer is a term to describe an accumulation of soil or other material that is not contained within a cut.
Medieval	The Middle Ages, dating from approximately AD 1066-1500.
Natural	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity.
Post-medieval	The period following the Middle Ages, dating from approximately AD 1500-1800.
Prehistoric	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.

Appendix 8

The Archive

The archive consists of:

- 50 Context records
- 14 Drawing sheets
- 4 Daily record sheets
- 2 Context record sheets
- 2 Section record sheet
- 2 Plan record sheet
- 2 Photographic record sheets
- 4 Level Sheet
- Boxes of finds
- Stratigraphic matrix

All primary records and finds are currently kept at:

Archaeological Project Services
The Old School
Cameron Street
Heckington
Sleaford
Lincolnshire
NG34 9RW

The ultimate destination of the project archive is:

Lincolnshire City and County Museum
12 Friars Lane
Lincoln
LN2 1HQ

The archive will be deposited in accordance with the document titled *Conditions for the Acceptance of Project Archives*, produced by the Lincolnshire City and County Museum.

Lincolnshire City and County Council Museum Accession Number: 2000.215

Archaeological Project Services Site Code: WCHF00

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act 1988* with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.