

ARCHAEOLOGICAL WATCHING BRIEF REPORT
THURLBY WETLAND CREATION SITE

LCCM Accession No.: 26.96

SK 909 614

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15496



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Ro. front: LI 4568

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LI 4571

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AN ARCHAEOLOGICAL WATCHING BRIEF REPORT

FOR

THE NATIONAL RIVERS AUTHORITY

BY

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1.0 Non Technical Summary

An intensive archaeological watching brief was maintained during ground works for a National Rivers Authority wetland creation site at Thurlby, Lincolnshire (Figure 1). The development involved minimal damage to ephemeral medieval earthworks, but did not affect Romano-British settlement remains, which are now believed to lie on higher and drier ground to the west of the development. A small quantity of Romano-British, medieval and post-medieval artefacts were recovered during the brief, and arrangements were made for artefacts already in the possession of the current site owners to be quantified as part of the present study.

2.0 Introduction

Pre-Construct Archaeology (Lincoln) were commissioned by the National Rivers Authority (NRA) to undertake an archaeological watching brief during earth moving operations associated with the creation of a wetland site on the west side of the River Witham at Thurlby, Lincolnshire (Fig. 1). The NRA are seeking to re-establish a natural valley profile to a c. 0.8km strip of land on the east side of Thurlby: it is hoped this new environment will attract rare wading birds such as the snipe and curlew, as well as encourage the proliferation of floral species which are currently lost to the environment established as a result of 1950's bank construction.

The archaeological works followed consultations between the County Archaeological Officer for Lincolnshire and the NRA Conservation Officer. The Sites and Monuments Record (SMR) contains entries which indicate the proximity of a potentially high status Romano-British settlement, and the scheme was to involve disturbance to ephemeral features associated with the Shrunken Medieval Village (SMV) of Thurlby.

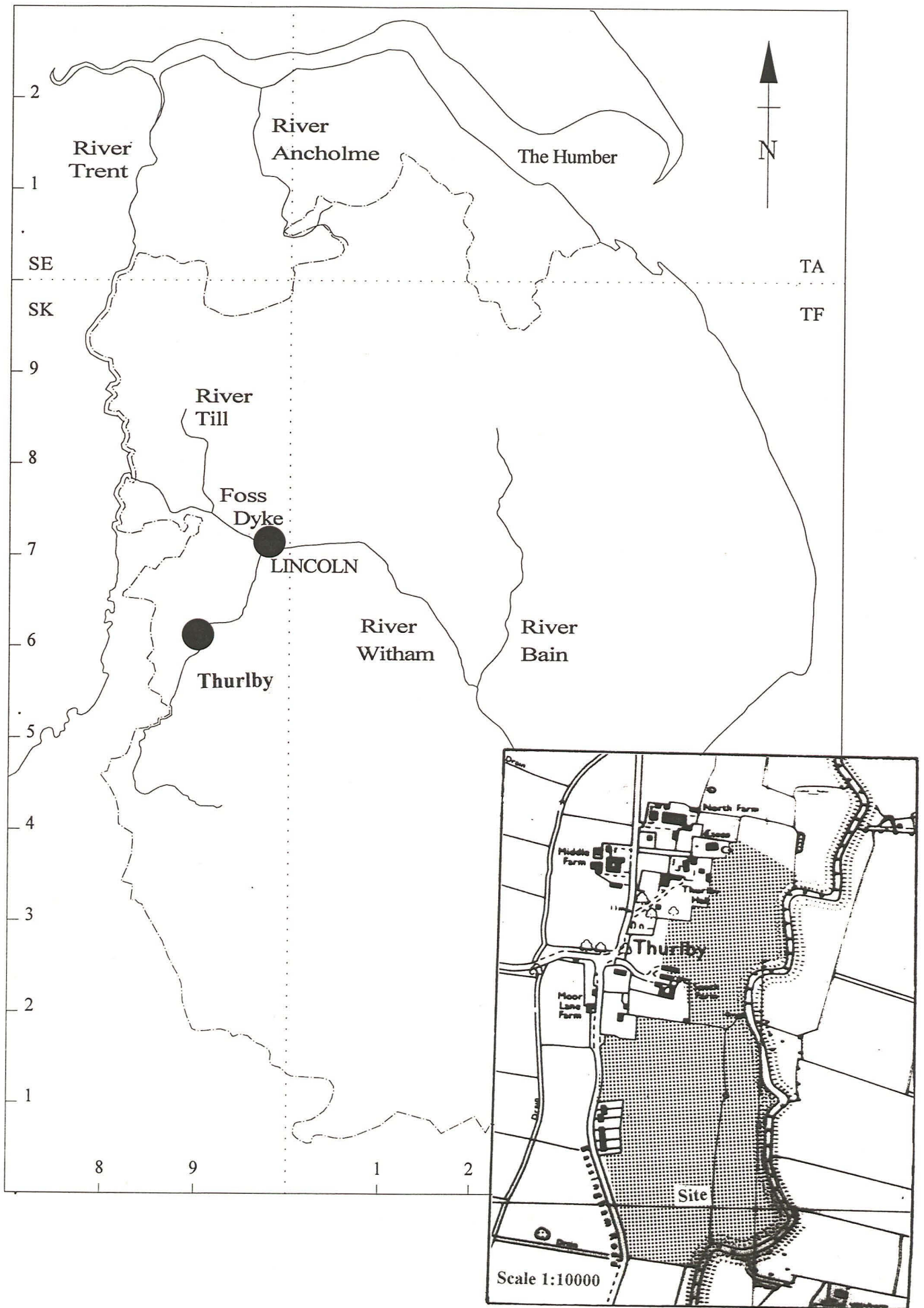
The County Archaeological Officer issued a brief requiring a two-stage programme of investigation:-

- a) a **magnetometer survey** over proposed borrow pit sites (sites from which material would be extracted to build low banks to the west of existing flood defences)
- b) an **archaeological watching brief**; to take place during all ground disturbance associated with the development.

The purpose of a) was to define, and avoid if possible, dense or important settlement features worthy of preservation *in situ*: the purpose of b) was to record any features remaining at risk from development (effectively, preservation by record).

A project specification was prepared in December 1995, which was approved by the County Archaeologist and the NRA. This included provisions for an earthwork survey on a complex of extant remains on the north side of the site. This latter element was subsequently removed from the programme following a decision to reduce the size of the development.

Fig. 1 Site location



3.0 Geology and Topography

The site lies adjacent to the River Witham. The soil surface supports scrub pasture/rough grazing and the land rises from the river westward to a height approximately 10.0m OD. On the north side of the development are areas of pronounced topographical variation: medieval settlement remains.

The solid geology comprises lower lias clay, shale and rare limestone (British Geological Survey 1:50,000 Map Sheet 114). These deposits are overlain with river alluvium of unquantified depth. At several points across the site there are outcrops of limestone bedrock .

4.0 Archaeological and Historical Background

Entries within the County Sites and Monuments Records (SMR) suggest the proximity of a Romano British settlement of undefined extent: on the east side of the Witham near Thurlby, a fibula and a number of coins have been reported. Other prestige items such as a Roman set of bronze surveyors divider's and a rare coloured glass bead or loom weight have also been recovered, along with a small amount of Roman pottery in fields near the river bank. The present landowner is in possession of fifteen Roman coins which were unearthed in a field next to South Farm by a local metal detectorist (Appendix 2). These coins were concentrated in a specific area close to aspects of the development. Unfortunately, many finds are now in private hands and have not therefore been quantified. The occurrence of such material suggests the possibility that a high status Roman site may be found in this area.

At Bassingham, approximately 1.0 Km south of Thurlby, recent excavations carried out by Archaeological Project Services revealed an extensive Romano British field system and a later rectangular enclosure with an associated cemetery dating to the late third century (Gary Taylor, pers comm.). Although no evidence of buildings was recovered the data suggests a high incidence of settlement during the Roman period.

Approximately 3 Km south-east of Thurlby, at Norton Disney, excavations earlier this century uncovered the remains of an extensive Roman villa. (Whitwell,1992). First occupied in the first century, it appears to have expanded and survived at least to the third century.

Thurlby itself is a shrunken medieval village (SMV). Its present configuration consists of a number of eighteenth and nineteenth century farms, St. Germaine's church, a row of council houses, a nineteenth century rectory and Thurlby Hall, a traditional brick built structure, dating from about 1700. Excluding the church, the only visible testament to the village's past are the extensive earthworks which occupy fields adjacent to the River Witham and extend to the area of proposed wetland creation. These earthworks are impressive: to the north side of the wetland site and east of St. Germaine's church are the remains of a possible moated site, fish pond and extensive ridge and furrow. Within the moated enclosure is evidence of possible house platforms. The earthworks incorporate surviving masonry, and a glazed floor

tile was recovered from the area by the current site owner. The ridge and furrow continues south of the earthworks, extending westward from the riverbank.

At the south end of the site the ridge and furrow ends abruptly along the line of an old field boundary. It would appear that, in this area, the land has been extensively levelled, to the detriment of the archaeology. Any pre-medieval deposits would lie sealed beneath the existing ridge and furrow.

The clarity of the ridge and furrow over much of the site suggests this land has not been intensively ploughed in recent times, possibly due to the risk of flooding which existed prior to the erection of modern flood defences. This factor has implications, of course, for the siting of a settlement: in living memory, local residents have talked about the frequency and severity of floods before the erection of the flood defences in the 1950's. This detracts from the feasibility of settlement in some of the lower areas adjacent to the riverbank assuming that conditions were similar in the past to those of today. Indeed, the pattern is consistent with the distribution of Roman finds discussed above.

Directly to the east of South Farm, the regularity of the ridge and furrow appears to deviate possibly respecting other earthworks which are less pronounced.

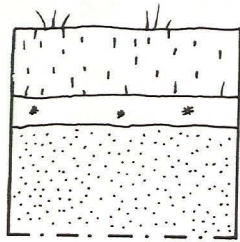
The parish church, St. Germaine's, was rebuilt on its original foundations in 1820. The only external medieval feature is the south doorway which dates from before 1200 (Pevsner and Harris 1988, 764). Within the fabric of its north wall is a fragment of reused limestone which sports an interlace design carved in relief (photo. 11). This may be the remains of a grave marker, the design of which implies a Scandinavian influence.

The Church lies approximately 200m west of the moated earthworks, with further earthworks and a possible fishpond in between. This could imply a parochial relationship between the church and moated complex, reinforcing any economical and social relationships within the village.

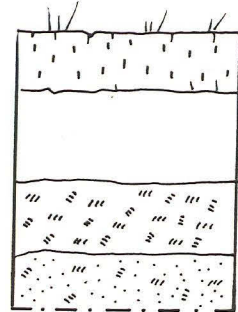
At the time of the Domesday survey (1086), much of the land in Thurlby came under the jurisdiction of Eagle (Morris 1986), and belonged to one "Countess Judith". There was a relatively high proportion of freemen within the village, suggesting, possibly, an unusual system of landholding.

In summary, the evidence suggests the presence of a Roman settlement, a high status medieval site and the remains of a shifting medieval settlement pattern within a wider historic landscape.

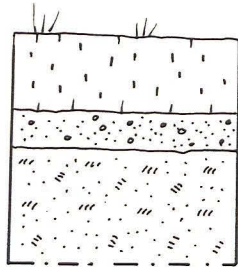
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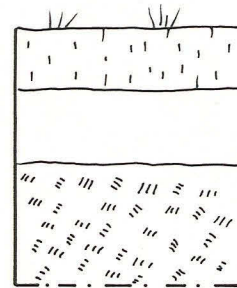
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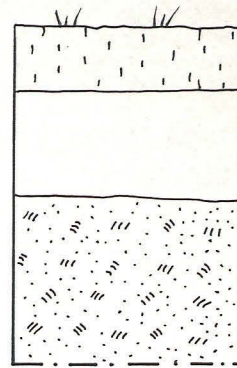
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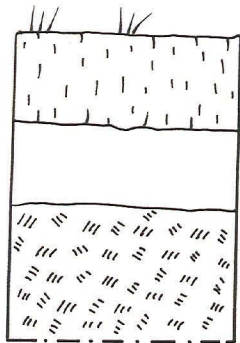
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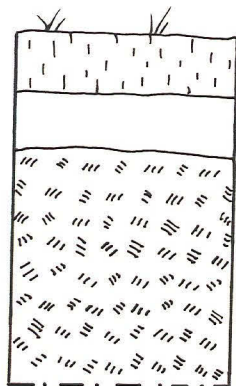
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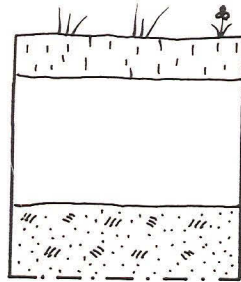
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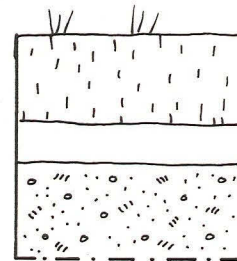
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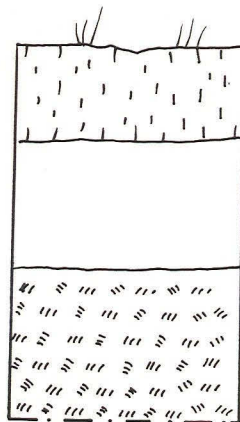
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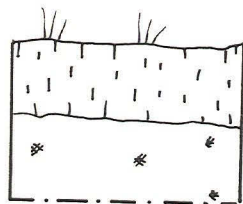
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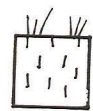
TP10



TP11



Key



Topsoil



Silty Sand Subsoil



Silty Sand Subsoil With Occasional Charcoal Inclusions



Sandy Gravel - River Deposit



Sandy Gravel Clay - Natural



Sandy Clay - Natural



Lias Clay Natural

Fig. 3 Test Pit Schematic Sections

Scale 1:20

5.0 Aims

The aim of archaeological watching brief was to locate and, if possible, to avert unnecessary destruction to archaeological settlement remains during the excavation of the new flood banks and the borrow pits required to construct them. This was in particular reference to Romano-British deposits, the presence of which was implied by the frequency of high status chance finds. If high density settlement features had been encountered, the intention was to relocate the borrow pits to alternative areas. It was also the purpose of the watching brief to monitor and record any (possibly ephemeral) archaeological remains threatened by the scheme. A project specification based around these objectives was jointly agreed between Pre Construct Archaeology, the County Archaeologist and the client.

6.0 Methodology

A magnetometer survey was carried out by The Landscape Research Centre Ltd. in advance of excavations (Appendix 1). Its purpose was to survey an extensive area which exceeded the area of the proposed borrow pits to;

- a) locate possible Romano-British settlement features (e.g. pits, ditches, structures etc)
- b) provide details on areas of archaeological sterility, which could be considered as alternative sites for borrow pit extraction, should settlement remains be encountered elsewhere.

The survey was carried out over a period of three days - the 25th and 28th of February and the 1st March, 1996. Four separate areas of varying lengths were investigated adjacent to the river bank (Figure 2).

Copies of the magnetometer report were distributed to the County Archaeologist and the client and, following consultations, it was suggested that (although significant areas of magnetic variability had featured in some places) it was not anticipated that the magnetic anomalies would translate to important archaeological remains worthy of preservation *in situ*. The County Archaeologist approved the borrow pit excavation scheme, with a proviso that the watching brief should be maintained on all soil disturbance. It was agreed that, were topsoil stripping to expose important deposits in any of the areas, the situation would be placed under review.

On February 26th, a total of eleven test pits were excavated in areas of proposed borrow pit extraction and flood bank construction. These works, which were conducted under archaeological supervision, were carried out to evaluate the suitability of underlying lias clays as material for the core of the new flood banks, as well as to test the depths of deposits in the new flood bank areas. The location of the pits is indicated on Figure 2.

The pits were excavated (using a back acting machine with a 1.9m wide bucket) to depths averaging 700mm and were on average c. 3.5m long. Schematic sections through natural strata were drawn to indicate depths of deposits (Figure 3).

The main development commenced on 5th March. The east-west section of the most southerly flood bank area (Flood Bank 1) was marked out with wooden pegs and then cleared of topsoil using two bulldozers. The area stripped was approximately 18m wide (north to south) and ran the full length of the southern site boundary, some 130m (Figure 2). The topsoil was banked up north of the excavation; to be reused at a later date to landscape the new flood bank.

Following soil stripping the exposed area was scanned for archaeological features and plotted at 1:1000. It was then gridded into 10m squares and field walked with a view to plotting and collecting surface finds. No archaeological features were detected in plan, and the contractors were instructed that trenching could take place to insert the clay core of the new flood bank.

This procedure was replicated for all three flood bank areas, (for locations and dimensions see Figure 2), and the results are summarised thus;

Flood Bank 1 - 130m east-west along southern site boundary, 18m wide
- 130m south-north along western site boundary, 18m wide, tapering to 7m wide at northern end

Flood Bank 2 - 105m east-west along southern boundary of South Farm, 10m wide
- 118m north-south c.10m south of eastern boundary of rectory, 10m wide

Flood Bank 3 - 60m west-east between most easterly field boundary to the east of St. Germaine's church to existing flood bank, 15m wide.

Following the excavation of Flood Bank 1,(FB1), it was agreed that a straight bladed bulldozer would be used to scrape the surface of all subsoil or natural surfaces to aid with the identification and interpretation of archaeological features. This significantly enhanced the definition of deposits and the speed of scanning.

The borrow pits were excavated in a similar manner, using a toothed bulldozer to strip the topsoil and a flat bladed one to produce better definition of the subsoil. In total, three pits were excavated to supply sufficient material for the clay core of the new flood banks (for location and extent see Figure 2). As the programme continued it was deemed necessary to extend these pits to provide adequate core material. This involved extending Borrow Pit A to a width between 15-18m (as opposed to the original 10m) and continuing the pit northwards along the line of the existing flood bank; to join with Flood Bank B (which, likewise, was extended to a width of 15m).

Borrow Pit A - Originally 10m wide and 225m long, extending along the line of the existing flood bank east then north, in the far south east part of the site. It was then extended to 15m wide and continued northwards

along the river bank to join up with Borrow Pit B in effect producing one borrow pit some 480m long approximately

Borrow Pit B - Originally 8m wide and 60m long; located approximately half way up on the eastern boundary of the site adjacent to the River Witham, extended as above.

Borrow Pit C - 10m wide extending north to south some 85m along the existing flood defences.

All areas were scanned for *in situ* archaeological deposits. Areas of soil variability were intensively investigated and recorded. The results were then plotted at scale 1:1000.

The watching brief was carried out between the 5th and 15th of March and concluded with the excavation of Borrow Pit C. All recording was undertaken by Stephen Timms on behalf of Pre-Construct Archaeology.

7.0 Results

In a sense, the watching brief achieved its principal objective: that of avoiding important Romano-British settlement remains which, it was hoped, would be left *in situ*, if threatened. No *in-situ* archaeological features were exposed in any of the areas examined, excluding medieval ridge and furrow and modern land drains.

The test pits which were excavated in advance of the main development revealed no evidence of *in situ* archaeological deposits or artefacts, aside from a single worn sherd of Roman Nene Valley ware which came from the topsoil in Test Pit 1 and dates within the third/fourth centuries AD (B Davies, pers. comm.). The borrow pit sites were also demonstrably sterile, and the schematic sections derived from the test pit sites demonstrates the common stratigraphic sequences which prevail over the site and the relative depths of deposits (Figure 3).

Flood Bank 1 There were no *in situ* archaeological deposits. Several ceramic finds were recovered from the subsoil but none lay within archaeological features such as pits or ditches. Most of the finds were post-medieval (Appendix 4), excluding a large bun-shaped clay loomweight of late Saxon/medieval date (Appendix 3).

Flood Bank 2 The north-south section of the flood bank extended along the top of an extant earthwork: probably a redundant track. Few finds were recovered from the area and no *in situ* archaeological deposits were exposed. A quantity of modern finds occurred within the topsoil close to the boundary fence of South Farm, particularly around the main gate where rubble has been dumped to consolidate the ground.

Flood Bank 3 Potentially, this area was the most interesting archaeological zone to be affected by the development. Its proximity to the moated complex, St. Germaine's Church and the area of Roman surface finds suggested that archaeological deposits

could be encountered. However, no *in situ* archaeological deposits were exposed, though several finds were recovered after machine stripping, including sherds of green glazed (medieval) pottery and roof tile (Appendix 4). Discrete areas of charcoal were noted within the sandy subsoil but these could not be quantified. The excavations involved the truncation of large sections of well-preserved ridge and furrow.

Borrow Pit A The natural clay was 200mm beneath the modern ground surface.

No finds were recovered from the area and no *in situ* archaeological deposits were exposed.

Borrow Pit B The area was devoid of archaeological deposits. This was surprising, given that the magnetometer survey had revealed a complex of magnetic anomalies. One amorphous feature was investigated but, when sectioned, appeared to be a tree root depression or possibly a disturbance associated with the construction of the existing flood defences.

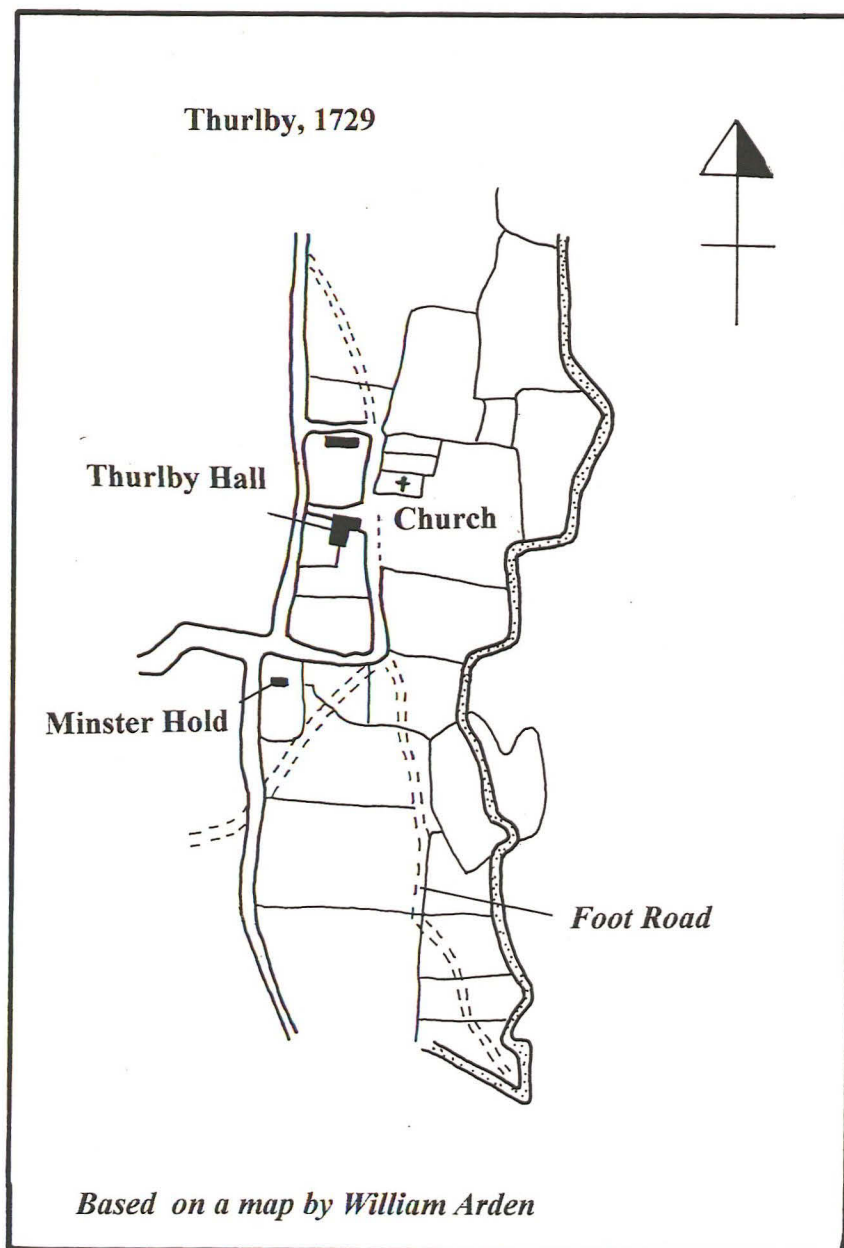
Borrow Pit C Like the other areas, Borrow Pit C was devoid of archaeological deposits. None of the magnetic anomalies detected in this area (excluding modern field drains) translated to *in situ* archaeological features.

8.0 Summary and Conclusions

Despite the (superficially) negative watching brief result, the programme of work has demonstrated that, if a high-status Romano-British settlement exists in this area, then it does not extend to the lands in the immediate vicinity of the existing river course. That these lands have supported more than a pastoral economy in the past is evident from the well-preserved medieval ridge and furrow cultivation scars which proliferate across a wide area to the west of the modern river course. However, it would seem likely that, for parts of the year (the winter months), these same areas would have been vulnerable to flooding and, in both the Roman and medieval periods, settlement will have remained restricted to the drier areas away from the river and the inevitable threat of flooding.

Unstratified Roman coins from the site, which were assessed as part of this study (Appendix 2), indicate occupation between the mid to late third century and the later fourth century AD. The few sherds of Romano-British pottery in the possession of the site owners date between the mid-second and the fourth century AD: some of the later sherds may have been manufactured at the local Swanpool kilns (B Davies, pers. comm.). All of the Romano-British 'chance discoveries' were recovered from an area close to South Farm: the farm itself is located on one of the highest points to the west of (but close to) the present river course, and it is in this area that our elusive settlement may be located (possibly beneath the farm complex itself).

During the medieval and post-medieval periods, the site appears to have been used as pasture or for arable cultivation. In 1729, for example, it comprised a series of small field units; traversed in places by trackways:-



In conclusion, the Thurlby wetland scheme may be viewed as a model example, perhaps, of how conservation and archaeology (assuming, perhaps wrongly, that the two areas are segregated) can work together in a positive and productive way. Hopefully, the results of these efforts will be gratefully inherited by generations not yet old enough to enjoy them.

9.0 Acknowledgements

On behalf of Pre-Construct Archaeology, sincere thanks are expressed to the National Rivers Authority Anglian Region for commissioning the watching brief: in particular, Mr M Tarttelin (Conservation Officer). Thanks are also due to the County Archaeological Officer, Mr S Catney, for his overall curatorial guidance, and to Fox Plant Hire Ltd for their co-operation and support in the field. Many thanks are expressed to Mrs and Mr. Taylor, the site owners, for the loan of their finds collection and for their keen interest and support throughout the project. Finally, thank you to the staff at the City of Lincoln Archaeology Unit for their specialist finds assessments/appraisals..

10.0 References

- | | | |
|------------------------|------|---|
| Morris J | 1986 | <i>Domesday Book</i> |
| Pevsner N and Harris J | 1990 | <i>The Buildings of Lincolnshire</i> p764 |
| Whitwell JB | 1992 | <i>Roman Lincolnshire</i> p82 and 87 |

11.0 Appendices

11.1 Magnetometer survey report by the Landscape Research Centre Ltd.

11.2 Report on the unstratified metallic artefacts by JE Mann (City of Lincoln Archaeology Unit)

11.3 Registered finds archive list (ceramic loomweight)

11.4 Archive of post-Roman pottery and tile (City of Lincoln Archaeology Unit)

11.5 Colour photographs

Fluxgate Gradiometer Survey

for

Pre-Construct Archaeology (Lincoln)

at

Thurlby, Lincolnshire

Survey by the

Landscape Research Centre Ltd

The Old Abbey

Yedingham

North Yorkshire

YO17 8SW

carried out on the

25, 28 February and 1 March, 1996

Phone & Fax 01723 859759

Summary

A fluxgate gradiometer and resistivity survey were carried out by the Landscape Research Centre Ltd. for Pre-Construct Archaeology (Lincoln), as part of an archaeological assessment of a proposed estuarine development at Thurlby, Lincolnshire. The proposed development area was of a medium to good magnetic susceptibility, and a number of magnetic anomalies were noted, and are discussed in detail below.

Report

The subject of this report is the interpretation and discussion of the results of a fluxgate gradiometer survey carried out on behalf of Pre-Construct Archaeology (Lincoln). The site in question is a proposed estuarine development in land to the east of South Farm, Thurlby, Lincolnshire. The survey was conducted using a *Geoscan Research* fluxgate gradiometer (model FM36). The zigzag traverse method of survey was used. The survey was conducted by taking readings every 25cm along the north/south axis and every metre along the east/west axis (thus 3600 readings for every 30m grid). The data has been processed and presented using the programs GeoImage (a program dealing with the processing of geophysical data) and GSys (a program which can display, process and present digitised plans and images).

The survey was carried out on the 25th 28th February and the 1st March, 1996. The personnel involved were James Lyall and Heather Clemence. The proposed survey areas were 2 hectares in total area, and consisted of 4 areas, all of which were adjacent to the river bank on the west bank of the river..

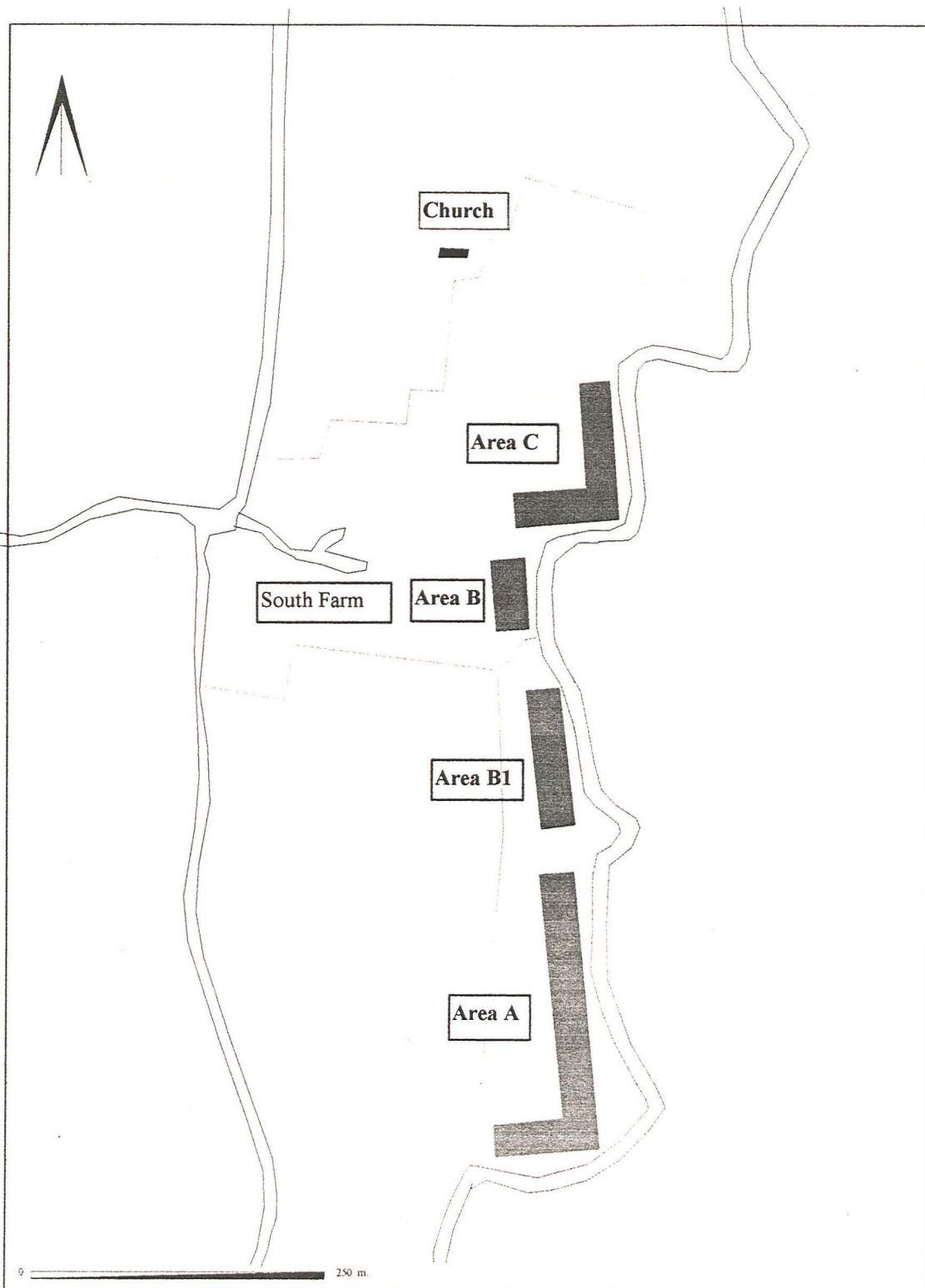


Figure One

This plan gives the location of the 4 survey areas. Plastic pegs have been left at the corners of each grid. The plan also shows the position of South Farm and the route of the river.

The Fluxgate Gradiometer Data

The fluxgate gradiometer data is displayed both as a number of greyscale images (Figures 2, 4, 6 and 8) and as a number of digitised interpretations (Figures 3, 5, 7 and 9). The anomalies are the areas of lighter and darker grey, which indicate areas of higher and lower magnetic susceptibility. The results from the survey are discussed in detail below. The survey area was covered in short grass, with a number of linear earthworks visible on the ground in Areas C, B1 and A. Due to the proximity of the river it is likely that many of these earthworks are banks to protect against flooding. Because of the

sinuous nature of the river and the position of metal fences, it proved impractical to survey the areas using one grid system. Each area will thus be discussed in turn, with the northernmost area (Area C), being the first.

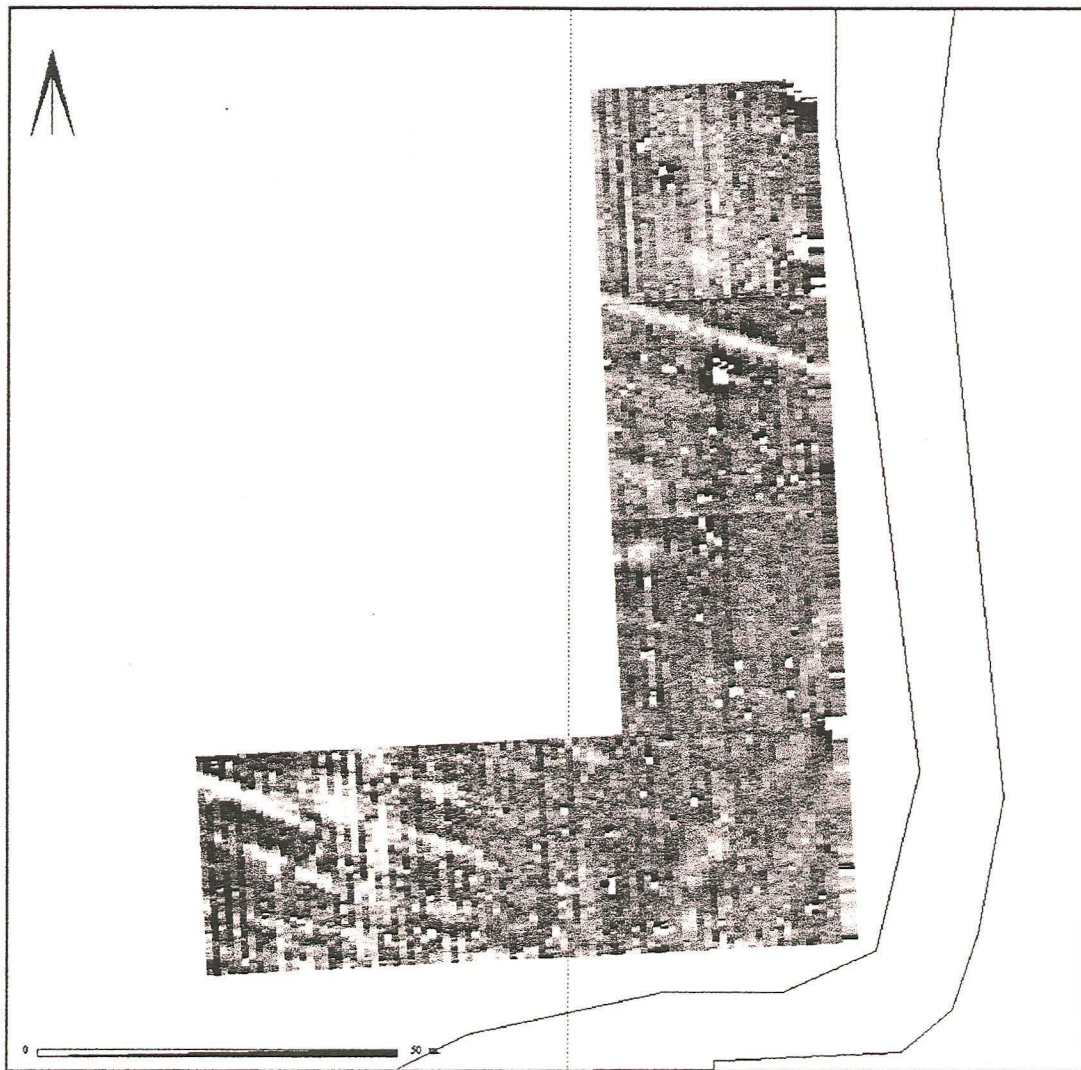


Figure Two

This plan shows the results of the gradiometer survey of Area C displayed as a greyscale image. The survey area consists of 6 30m grids, thus 0.45 hectares.

Area C survey results

Sixteen anomalies were noted in area C.

C1 and C8-16 are all linear anomalies with the same ESE-WNW alignment. It is quite possible that these anomalies relate to the position of field drains, although the different magnetic response of some of the anomalies may relate to the date of the drains.

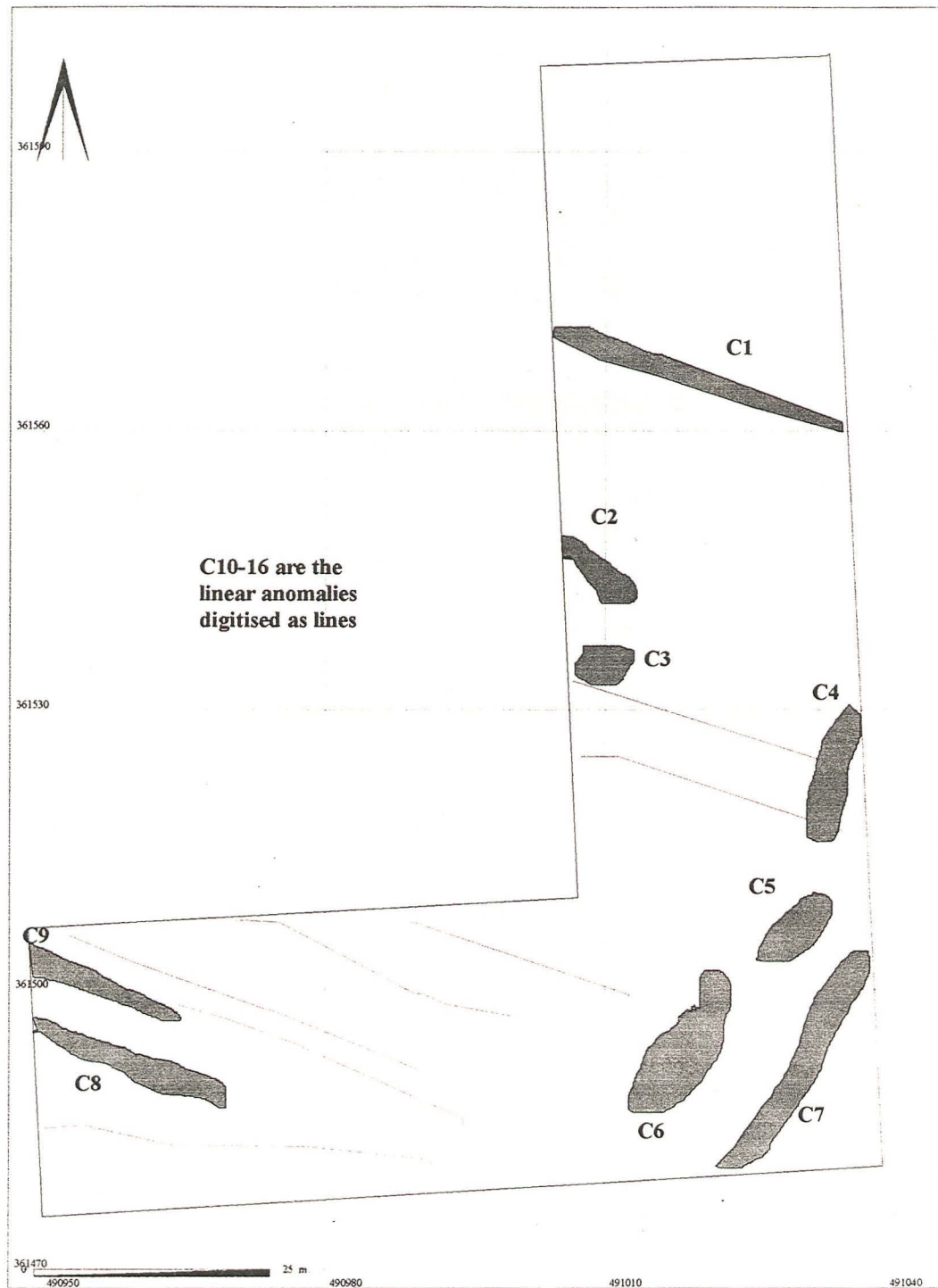


Figure Three

This plan shows the positions of the digitised interpretation of the magnetic anomalies in Area C with the letters and used in the text below. Note that these are the digitised outlines of magnetic signals and need not necessarily equate with the true size of the feature, which might be either larger or smaller than the extent of the magnetic signal.

Anomalies C4-C7 all have the same NE-SW alignment. It is possible that these anomalies may relate to a different course of the river, and thus may be geomorphological in origin.

Anomalies C2 and C3 are the only anomalies in this area which may be archaeological in origin. It is difficult to categorise archaeological features when only a 30 metre wide strip has been surveyed, although anomaly C2 appears to be a linear anomaly, and C3 appears to be localised.



Figure Four

This plan shows the results of the gradiometer survey of Area B1 displayed as a greyscale image. North is to the top of the page. The area covered consists of 2 30m grids, thus 0.18 hectares.

Area B1 survey results

Anomalies B24 and B25 are strong magnetic anomalies almost certainly caused by modern action. A number of bricks were noted in this part of the survey area, and these almost certainly caused the strong magnetic signals.

Anomalies B27 and B28 relate to a raised area running across this part of the site.

Anomaly B26 may be archaeological in origin, although the proximity of the electricity pole and the areas of modern disturbance make this difficult to ascertain.

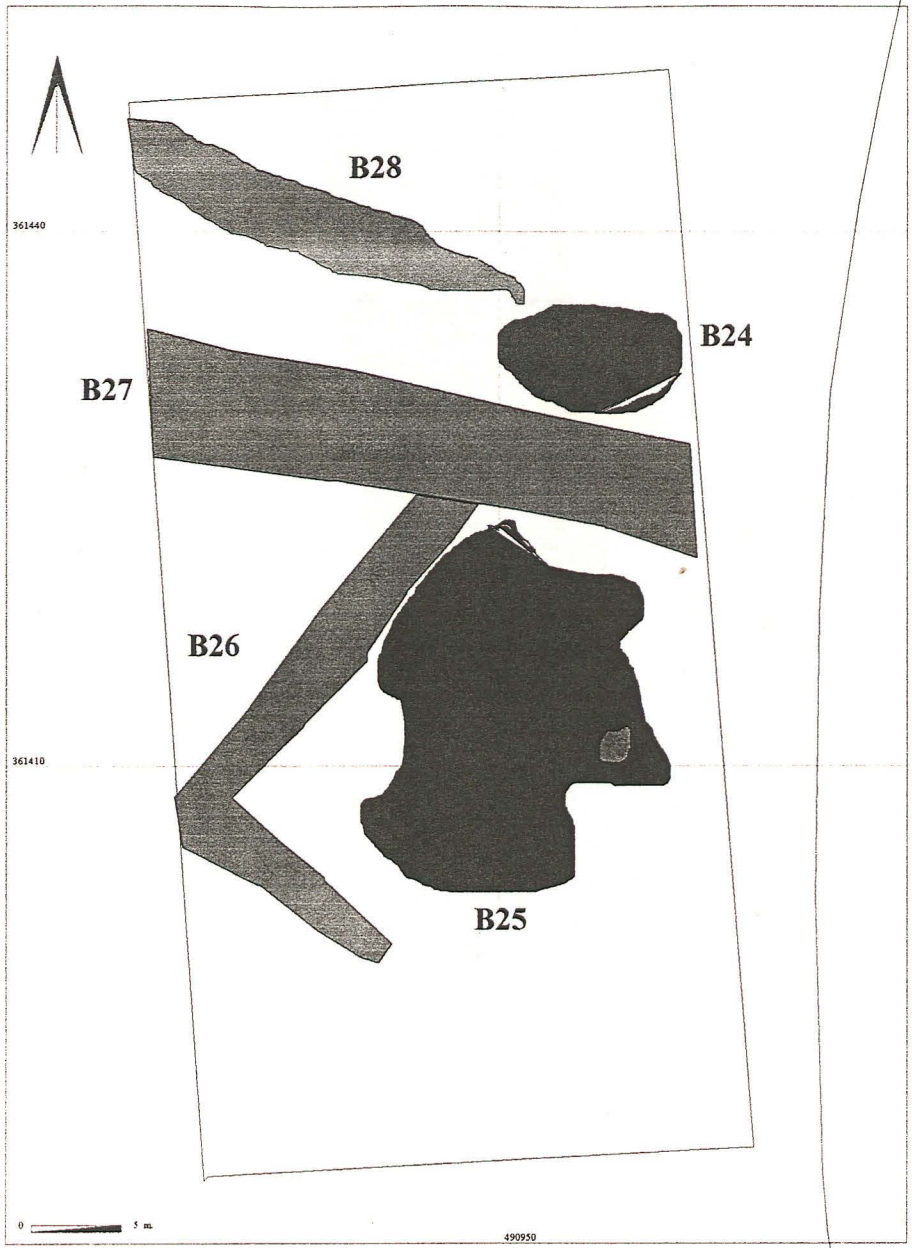


Figure Five
This plan shows the positions of the digitised interpretation of the magnetic anomalies in Area B1 with the letters and used in the text. The green area marks the position of an electricity pole.



Figure Six

This plan shows the results of the gradiometer survey of Area B2 displayed as a greyscale image. North is to the top of the page. The area covered consists of 4 30m grids, thus 0.36 hectares.

Area B2 survey results

This area proved to be the most productive in terms of anomalies found. Anomaly B23 is the area where a test pit was located. Anomaly B1 may well be another field drain.

Anomalies B2-B5 are all localised linear anomalies in the north-east of survey area B2. It is possible that these anomalies consist of more than one localised anomaly close together, and that they are of a similar nature to the other anomalies in this survey area.

Anomalies B6-B22 are all localised anomalies. It is possible that they may be a number of pits. The position of a number of these anomalies is of note, in particular in the south-east of the survey area. The anomalies appear to form a roughly north-south alignment. It is not possible to say whether this alignment has some structural significance, because the survey area is only 30 metres wide, although it would seem likely that more of these anomalies would occur to the east.

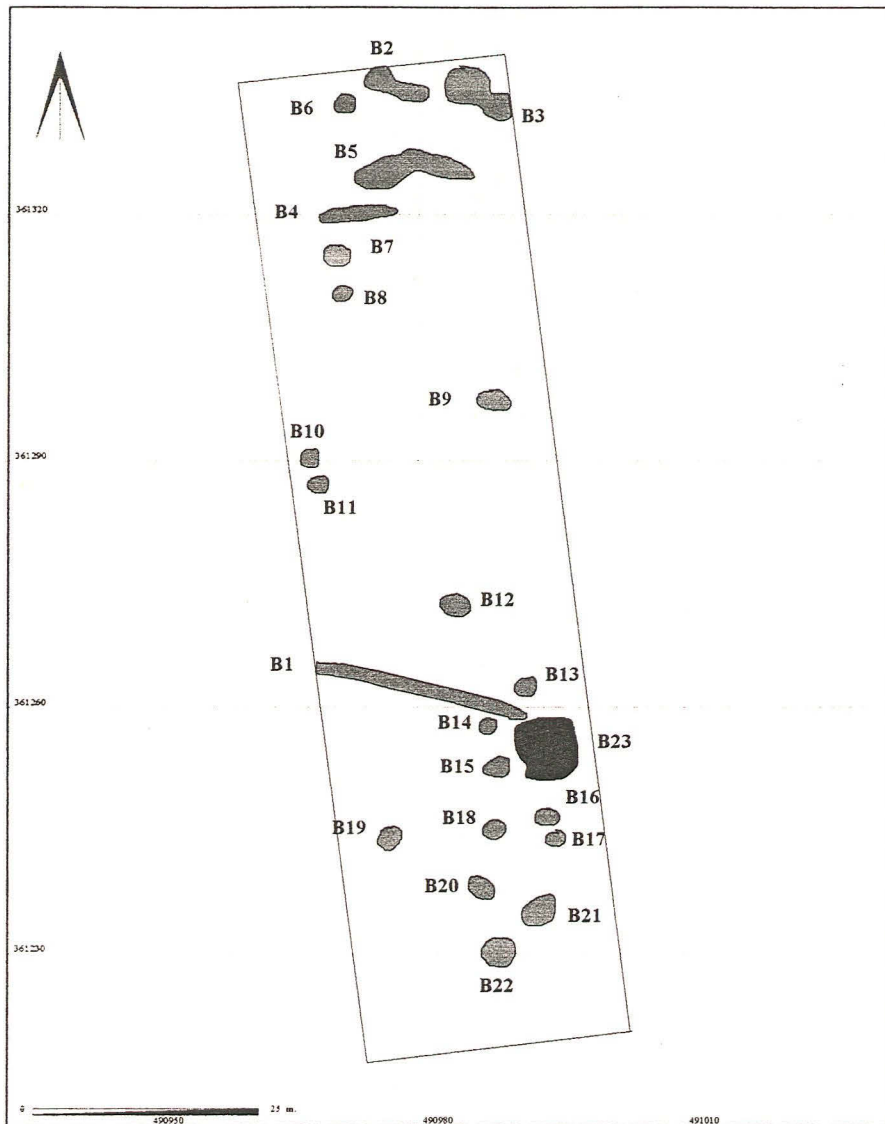


Figure Seven

This plan shows the positions of the digitised interpretation of the magnetic anomalies in Area B2 with the letters and used in the text.

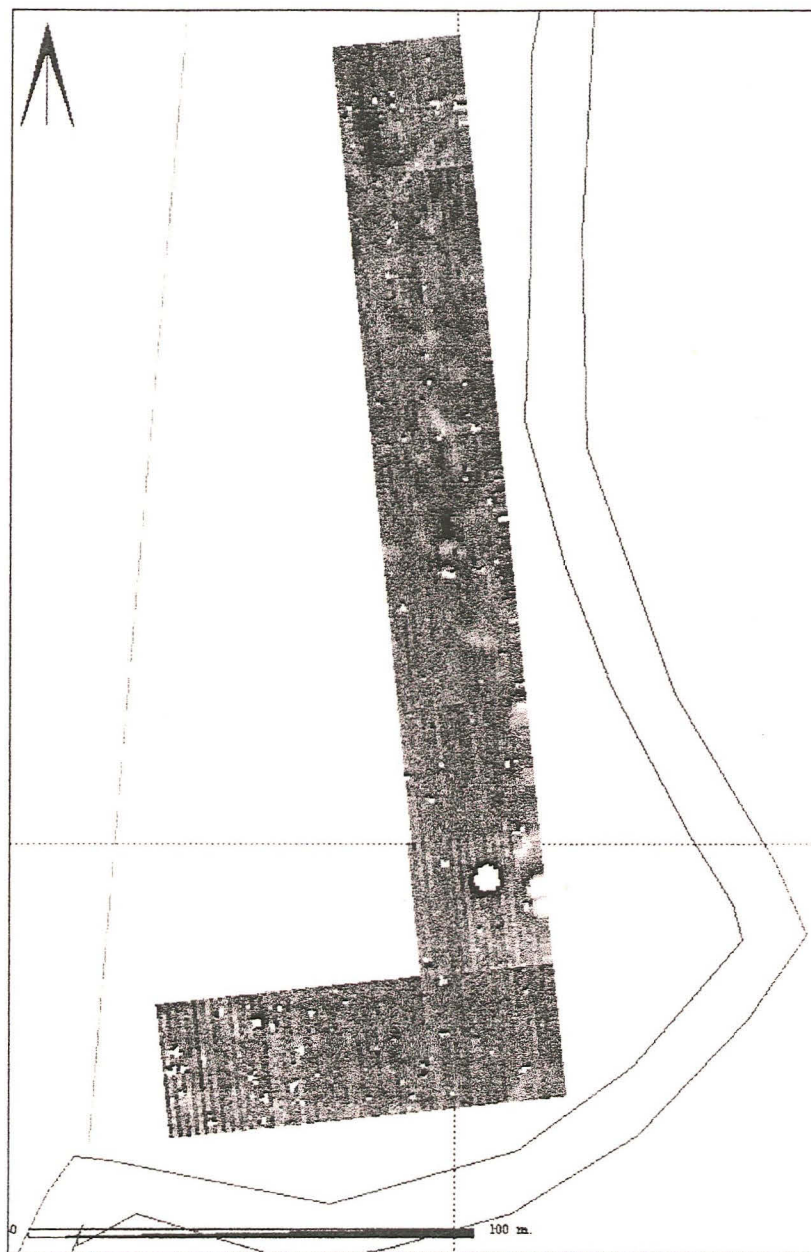


Figure Eight

This plan shows the results of the gradiometer survey of Area A displayed as a greyscale image. North is to the top of the page. The area covered consists of 10 30m grids, thus 0.9 hectares.

Area A survey results

Anomalies A1 and A2 are linear anomalies in the north of the survey area. It is possible that they relate to drainage, although anomaly A1 has a different alignment to all other linear anomalies in the surveyed areas.

Anomalies A6 and A7 relate to two raised banks running east-west across the south of the survey area.

Anomaly A3 is an exceptionally strong magnetic anomaly, almost certainly caused by the presence of a large lump of metal or pipe in the area. Anomalies A4 and A5 are located just to the south-east of A3, and are localised anomalies of a similar nature to the anomalies noted in area B2.

The area in between anomalies A2 and A3 has a number of weak, amorphously shaped anomalies (See greyscale image Figure 8). While it is possible that some of these anomalies are pits, it is likely that these anomalies are geological in origin, caused by periodic flooding of the area.

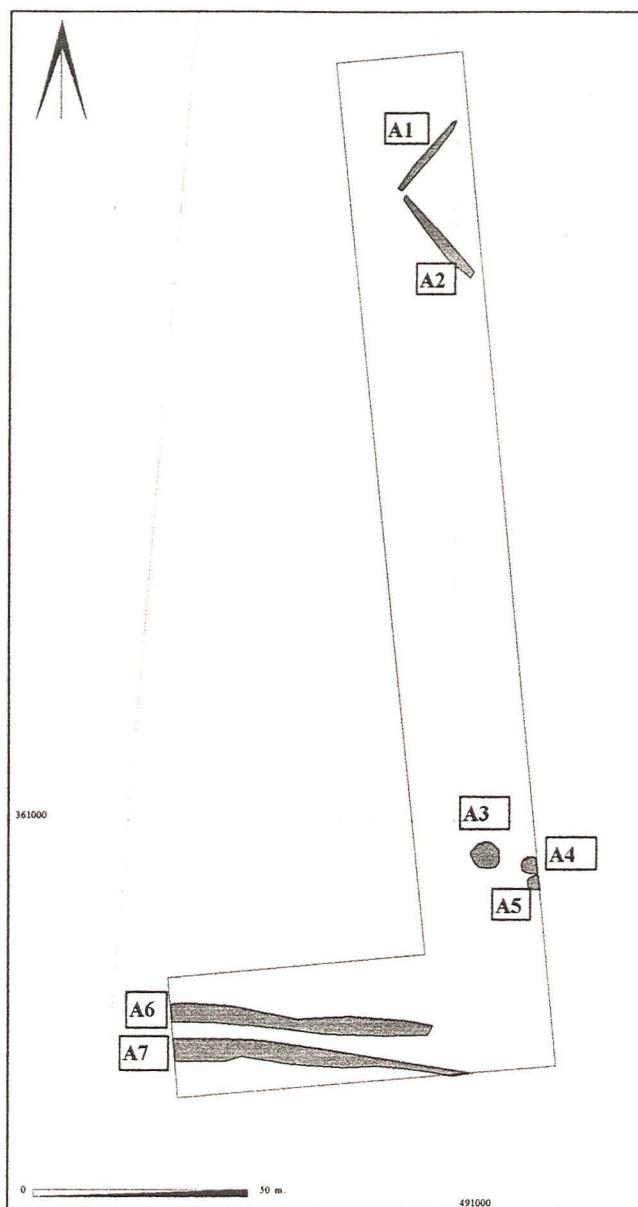


Figure Nine

This plan shows the positions of the digitised interpretation of the magnetic anomalies in Area A with the letters and used in the text below.

Conclusion

In conclusion, the site at Thurlby proved to be of a medium to good magnetic susceptibility, with area B2 in particular providing good results. A number of magnetic anomalies were found in all four areas, some of which are modern in origin, as well as the position of a number of field drains. The most likely area to have archaeological features is area B2, which has a number of discrete anomalies, some of which appear to have a north-south alignment.

The plans should allow any archaeological investigation (if such is deemed to be necessary) of the area to concentrate in the specific areas believed to be significant. To assist in this, plastic pegs have been left in the corners of all the survey areas. Note that the field boundary to the west of area B2 has apparently been moved to the east since the OS maps were drawn. The United Kingdom latitudes are such that there can be a distortion of up to half a metre in position between the magnetic anomalies shown and the position of the actual features themselves.

Report by James Lyall

Landscape Research Centre Ltd.

APPENDIX ONE

GRID NO	MINIMUM	MAXIMUM	RANGE	AVERAGE	STD. DEVIATION
C1	-222	164	386	2	10
C2	-19	65	84	-2	3
C3	-38	390	428	-3	8
C4	-29	115	144	-3	3
C5	-87	107	194	-5	4
C6	-27	34	61	-8	4
B1	-267	234	501	-8	14
B2	-324	404	728	-5	33
B3	-306	55	361	0	7
B4	-55	180	235	-1	4
B5	-28	265	293	4	7
B6	-256	340	596	1	11
A1	-308	345	653	-1	10
A2	-131	36	167	0	3
A3	-22	23	45	-1	2
A4	-44	60	104	-1	2
A5	-37	43	80	-2	2
A6	-23	75	98	-1	2
A7	-143	400	543	-3	14
A8	-288	150	438	0	7
A9	-43	23	66	0	2
A10	-290	318	608	-3	11

TABLE ONE

The table gives the raw data and statistics in nanoTesla for each of the 22 grids of the gradiometer survey. Values shown are the minimum value, maximum value, range, average value and the standard deviation of each grid. The grids are numbered from the north to the south of the area.

Appendix 2

THURLBY WETLAND CREATION SITE, CHANCE FINDS

Roman coins

The coins were removed from their backing (to which they had been attached with Blu-tack) in order to examine them, and then replaced.

All are in poor or extremely poor condition and little detail is visible; only three coins (nos. 2,3 & 4) have partially legible inscriptions, and some (e.g. no. 10) are totally illegible. The following identifications cannot therefore be regarded as precise, and only the briefest information is given here. Any visible detail has been recorded, however, and could be made available if required.

The coins are listed, with brief identifications, as follows:-

Nos. 1-5: Top row, left to right

Nos. 6-10: Middle row, left to right

Nos. 11-15: Bottom row, left to right

1. Barbarous Radiate (copy), 270-84 A.D.

2. House of Constantine, 335-41 A.D.

3. House of Valentinian, 364-78 A.D.

4. House of Valentinian, 364-78 A.D.? (reverse illegible)

5. Gratian, 367-75 A.D.

6-9. All are definitely 4th century, probably mid-late, and may be Theodosian issues of 388-92 A.D.

10. 3rd or 4th century (nil visible).

11. House of Valentinian, 364-78 A.D.?

12. Barbarous Radiate (copy), 270-284 A.D.

13. House of Valentinian, 364-78 A.D.

14. House of Valentinian, 364-78 A.D.?

15. Gratian, 367-75 A.D.?

Copper Alloy and Iron Bar

Fragment, oval-sectioned copper alloy bar with expanded terminal. L: 65 mm. Surfaces and terminal ornamented with irregularly incised cross-hatching. Longitudinal crack running from broken end along one

broad face; the presence of ferrous corrosion here, and its response to a magnet, indicates that this may represent the remains of an iron shaft within the bar. It does not appear to run the whole length of the bar (although without an X-ray this is impossible to determine). It may be the handle of a small tool of some kind, or perhaps merely a decorative fitting.

Probably late medieval or post-medieval

Lead Alloy (pewter?) Button

Convex disc with off-centre looped shank cast in one piece; surface damaged, so ornament unclear, but probably a floral motif. Diam: 28 mm.

Post-medieval

Perforated Lead Disc

Misshapen, almost ovoid disc with irregular off-centre perforation; surface irregular. Diam: 29 mm. (max) Wt: 34 gm. Diam. of perf: 10 mm (max). Could be a spindlewhorl, despite its irregularity, but is most probably a weight, possibly used in fishing as a net-sinker.

Not closely datable but could be Roman or later.

Perforated Lead Object

Irregularly shaped fragment, with one smooth face showing surface damage; 39 x 28 x 17 mm. Diam. of perf: 7 mm (max). Possibly an unfinished, poorly cast object such as a weight (or perhaps a spindlewhorl).

Not datable.

Appendix 3

THURLBY WETLANDS CREATION SCHEME (TWC96): REGISTERED FINDS ARCHIVE LIST

Registered Finds

Context	Finds No	Material	Object	Comments
FB1	1	CERA	LOOM	LSAX-MED;ABRA

Appendix 4

TWC96: Assessment Report on the Ceramic Building Material

Richard Kemp

CLAU 03.4.96

1. Introduction

Six pieces of Ceramic Building material were recovered from the site. This was examined and recorded at basic CLAU archive level (form type by sherd count and weight, with note of diagnostic sub-form) using CLAU classification. (see Appendix 1). The basic archive is described in appendices 2 and 3.

2. Condition

The medieval glazed ridge tile is a fairly large fragment with mortar adhering under. The Romano-British tiles appear fairly worn.

3. Overall Chronology and Source

The Romano-British tiles recovered appear to be from a localised source/ manufacture. The medieval tiles recorded appear to date from the early 14th century. The dating of these tiles relies mainly on the flat, nibbed roofing tile, which appears to be a product of the Boston tile kiln. This nibbed tile is the double nibbed suspension type (4B) which dates from the early 14th to mid 14th century. The glazed ridge tile is of a similar period although not from the same source as the nibbed tile, this source may be from the Grantham/Lincoln area.

4. Further work

No further work is needed on this particular material although any Ceramic Building materials recovered in the future from this area will need further quantification.

TWC96; TILE TYPES BY AREA, WEIGHT AND FABRIC

Area	Form	Sherds	Weight	Subform	Fabric	Comments
+	GRID	1	235	-	1	?ID GRANTHAM OR LINCOLN
FB1	NIB	1	45	4B	2	?BOSTON
FB3	TEG	1	235	-	SL1	?LOCAL
FB3	IMBRX	1	60	-	SL2	?LOCAL
FB3	RTIL	2	150	-	SL1	?LOCAL

THS95: CLAU LIST OF FORM TYPE NAMES

Form code	Description
GRID	<i>GLAZED RIDGE TILE</i>
IMBRX	<i>ROMAN IMBREX TILE</i>
NIB	<i>UNGLAZED NIBBED ROOFING TILE</i>
RTIL	<i>UNDIAGNOSTIC ROMAN TILE</i>
TEG	<i>TEGULA TILE</i>

THS95; CLAU LIST OF FORM TYPE BY COUNT AND PERIOD

	Form	Sherds
1. ROMAN	TEG	1
	IMBRX	1
	RTIL	2
2. MEDIEVAL	GRID	1
	NIB	1

THS95: CONTEXT TILE DATING SUMMARY

Context	Earliest date	Latest date	Prob date	Comments
---------	---------------	-------------	-----------	----------

+	13	15	14/15	-
FB1	E14	M14	E/M14	-
FB3	R	R	ROM	-

POST-ROMAN POTTERY ARCHIVE: TWC96 WARE TYPES BY CONTEXT

Context	Ware	Sherds	Form	Comments
+	NOTG	1	JUG	RIM;WELL WORN;? ID
+	SLST	1	-	-
FB1	BL	1	CLOSED	BASE;17/18 TH
FB1	BL	1	JAR/JUG	BASE;17/18 TH;VITR
FB1	BL	1	OPEN	BASE;18/19 TH
FB1	LPM	2	-	PLAIN WHITE CHINA
FB1	MY	1	LID?	OR FLANGED RIM
FB1	NOTG	1	JUG	BASE;WORN;? ID
FB1	NOTG	1	JUG	BASE;WORN;? ID
FB1	SLIP	2	DISH	WORN;PALE ORANGE FABRIC; WHITE SLIP;TAN DEC
FB3	LPM	1	-	BL/W CHINA
FB3	MEDLOC	1	-	NO SURFS
FB3	MEDLOC	1	JUG	? GRANTHAM
FB3	MEDLOC	1	JUG	WORN;LIGHT FINE FABRIC; CORDON
FB3	MISC	1	-	NO SURFS
FB3	WS	1	PLATE/DISH	-

POST-ROMAN POTTERY ARCHIVE: HORIZON DATING

Context	Ware	Sherds	Earliest horizon	Latest horizon
+	NOTG	1	MH4	MH7
+	SLST	1	MH1	MH7
FB1	BL	3	PMH5	EMH
FB1	LPM	2	EMH	EMH
FB1	MY	1	PMH3	PMH5
FB1	NOTG	2	MH4	MH7
FB1	SLIP	2	PMH5	PMH8
FB3	LPM	1	EMH	EMH
FB3	MEDLOC	3	MH1	MH10
FB3	MISC	1	R	PMH8
FB3	WS	1	PMH8	PMH9

POST-ROMAN POTTERY ARCHIVE: TWC96 WARE TYPES BY CONTEXT

Context	Ware	Sherds	Form	Comments
+	NOTG	1	JUG	RIM;WELL WORN;? ID
+	SLST	1	-	-
FB1	BL	1	CLOSED	BASE;17/18 TH
FB1	BL	1	JAR/JUG	BASE;17/18 TH;VITR
FB1	BL	1	OPEN	BASE;18/19 TH
FB1	LPM	2	-	PLAIN WHITE CHINA
FB1	MY	1	LID?	OR FLANGED RIM
FB1	NOTG	1	JUG	BASE;WORN;? ID
FB1	NOTG	1	JUG	BASE;WORN;? ID
FB1	SLIP	2	DISH	WORN;PALE ORANGE FABRIC; WHITE SLIP;TAN DEC
FB3	LPM	1	-	BL/W CHINA
FB3	MEDLOC	1	-	NO SURFS
FB3	MEDLOC	1	JUG	? GRANTHAM
FB3	MEDLOC	1	JUG	WORN;LIGHT FINE FABRIC; CORDON
FB3	MISC	1	-	NO SURFS
FB3	WS	1	PLATE/DISH	-

POST-ROMAN POTTERY ARCHIVE: HORIZON DATING

Context	Ware	Sherds	Earliest horizon	Latest horizon
+	NOTG	1	MH4	MH7
+	SLST	1	MH1	MH7
FB1	BL	3	PMH5	EMH
FB1	LPM	2	EMH	EMH
FB1	MY	1	PMH3	PMH5
FB1	NOTG	2	MH4	MH7
FB1	SLIP	2	PMH5	PMH8
FB3	LPM	1	EMH	EMH
FB3	MEDLOC	3	MH1	MH10
FB3	MISC	1	R	PMH8
FB3	WS	1	PMH8	PMH9

CLAU MEDIEVAL POTTERY DATING 5TH TO 19TH CENTURIES SEP 1994

HORIZONS	DATING	PERIOD
ASH1	5TH - ?L7TH	ANGLO-SAXON
ASH2	?L7TH - ?L7/E8TH	MIDDLE SAXON
ASH3	?E8TH - ?M8TH	
ASH4	?M8TH - ?L8TH	
ASH5	?E9TH - ?M9TH	
ASH6	?M9TH - ?L9TH	
ASH7	?L9TH	LATE SAXON
ASH8	L9TH - E10TH	
ASH9	E/M10TH - M10TH	
ASH10	M10TH - L10TH	
ASH11	L10TH	
ASH12	E11TH - ?E/M11TH	SAXO-NORMAN
ASH13	?E/M11TH - M/L11TH	
ASH14	L11TH - E/M12TH	
MH1	?E/M12TH - M12TH	EARLY MEDIEVAL
MH2	M12TH - M/L12TH	
MH3	M/L12TH - E13TH	
MH4	E13TH - E/M13TH	
MH5	E/M13TH - ?L13TH	HIGH MEDIEVAL
MH6	?L13TH - ?M14TH	
MH7	?M14TH - ?L14TH	LATE MEDIEVAL
MH8	?L14TH - ?E15TH	
MH9	?E15TH - M/L15	
MH10	M/L15TH - L15TH	
PMH1	E16TH-M16TH	EARLY POST-MEDIEVAL
PMH2	M16TH-M/L16TH	
PMH3	M/L16TH-E17TH	POST MEDIEVAL
PMH4	E17TH-M17TH	
PMH5	M17TH-M/L17TH	
PMH6	M/L17TH-L17TH	
PMH7	L17TH-E18TH	
PMH8	E18TH-M18TH	LATE POST-MEDIEVAL
PMH9	M18TH-L18TH	
PMH10	L18TH-E19TH	
EMH	L18TH-20TH	EARLY MODERN

CLAU MEDIEVAL POTTERY CODES

Ware code	description	period	earliest horizon	latest horizon
AARD	LOW COUNTRIES HIGHLY DECORATED WARE	MED	MH5	MH7
ANDA	ANDALUSIAN LUSTREWARE	MED	MH5	MH9
ANDE	ANDENNE WARE	SN	ASH11	MH3
ARCH	ARCHAIC MAIOLICA	MED	MH6	MH8?
BA	BRONZE AGE	PREH	0	0
BADO	BADORF-TYPE WARE	MSAX-LSAX	ASH2	ASH8
BALT	BALTIC-TYPE WARES	LSAX-SN	ASH7?	ASH14?
BEAU	BEAUVAIS-TYPE WARE	LSAX	ASH7?	ASH11?
BERTH	BROWN EARTHENWARES	PMED	PMH2	PMH10
BEVO	BEVERLEY ORANGE WARE	EMED-MED	MH1	MH7
BL	BLACKWARE	PMED	PMH3	EMH
BLBURN	BLACK BURNISHED WARES	MSAX	ASH3	ASH4?
BLGR	PAFFRATH-TYPE OR BLUE-GREY WARE	SN-EMED	ASH12	MH3?
BLSURF	BLACK SURFACED WARES	MSAX	ASH3	ASH4?
BOU	BOURNE;FABRIC D	PMED	MH10	PMH4
BOUA	BOURNE;FABRICS A-C	MED	MH3	MH7
BRANS	BRANDSBY-TYPE WARE	MED	MH5	MH8
BRBURN	BROWN BURNISHED WARES	MSAX	ASH3	ASH4?
BRILL	BRILL WARES	MED	MH5	MH7
BRUNS	BRUNNSUM-TYPE FLASKS	EMED	MH2?	MH3?
BS	BROWN STONEWARE	PMED	PMH7	EMH
CEP	CHINESE EXPORT PORCELAIN	PMED	PMH6	PMH10
CHALK	UNGLAZED SANDY FABRICS WITH CHALK	SN-MED	ASH11	MH7
CHARN	CHARNWOOD FABRICS	ESAX	ASH1	ASH2
CHINS	CHINESE STONEWARE	MED-EMOD	MH4	EMH
CIST	CISTERCIAN-TYPE WARES	PMED	MH10?	PMH5
CITG	CENTRAL ITALIAN TIN-GLAZED WARE	LMED-PMED	MH9	PMH2
CMW	WHITE COAL MEASURE FABRICS	MED-PMED	MH7	PMH3
CRMWARE	CREAMWARE	EMOD	PMH9	EMH
CROW	CROWLAND ABBEY-TYPE WARE	SN	ASH12	ASH14
DERB	DERBY-TYPE WARE	LSAX	ASH10?	ASH13?
DONC	DONCASTER-HALLGATE FABRICS	EMED-MED	MH3	MH4
DST	DEVELOPED STAMFORD WARE	EMED	MH1	MH4
DUTR	LOW COUNTRIES RED EARTHENWARES	LMED-PMED	MH8	PMH5
DUTRT	LOW COUNTRIES RED EARTHENWARE-TYPES	PMED	PMH3	PMH5
EALMT	EAST ANGLIAN LMED/TRANSITIONAL WARE	LMED-PMED	MH9	PMH3
ECHAF	CHAFF-TEMPERED FABRICS	ESAX	ASH1	ASH2
EGSW	EARLY GERMAN STONEWARES	MED	MH5	MH6
ELFS	EARLY FINE-SHELLED WARE	MSAX	ASH6	ASH7
ELSW	EARLY GLAZED LINCOLN WARE	LSAX	ASH7	ASH8
EMED	EARLY MEDIEVAL	EMED	MH1	MH4
EMHM	EARLY MEDIEVAL HANDMADE FABRICS	EMED	MH1?	MH3?
EMLOC	EARLY MEDIEVAL LOCAL FABRICS	EMED	MH1	MH4
EMOD	EARLY MODERN	EMOD	PMH10	EMH
EMSAX	ESAX OR MSAX	ESAX-MSAX	ASH1	ASH6
EMX	EARLY MEDIEVAL NON-LOCAL FABRICS	EMED	MH1	MH4
ESAX	EARLY SAXON	ESAX	ASH1	ASH2

ESAXLOC	EARLY SAXON LOCAL FABRICS	ESAX	ASH1	ASH2
ESAXX	EARLY SAXON NON-LOCAL FABRICS	ESAX	ASH1	ASH2
ESG	YORK EARLY GLAZED WARE;TYPE 1	LSAX	ASH8	ASH12
ESGS	GREENSAND FABRICS	ESAX	ASH1	ASH2
EST	EARLY STAMFORD WARE	LSAX	ASH7	ASH11
FE	IRONSTONE ORE-TEMPERED FABRIC	ESAX	ASH1	ASH2
FERTH	FINE EARTHENWARES	PMED	PMH9	EMH
FINSP	FINE SPLASHED WARE	EMED	MH2?	MH4?
FREC	FRECHEN/COLOGNE STONEWARE	PMED	PMH2	PMH8
FREN	FRENCH WARES (GENERAL)	MED-PMED	MH3	PMH5
FLINT	FLINT TEMPERED FABRICS	PREH-MSAX	0	ASH3
GLGS	GLAZED GREENSAND FABRICS	EMED-LMED	MH2	MH10
GRAP	GRAPHITIC CRUCIBLE FABRICS	PMED	PMH3	EMH
GRBURN	GREY BURNISHED WARES	MSAX	ASH3	ASH4?
GRE	GLAZED RED EARTHENWARES	PMED	PMH3	PMH9
GRIM	GRIMSTON-TYPE WARE	MED	MH3	MH8
GS	GREY STONEWARES	EMOD	PMH5	EMH
HLKT	HORNCastle-TYPE LKT WARE	LSAX	ASH9?	ASH11?
HUM	HUMBERWARE	LMED-PMED	MH7	PMH2
HUMB	HUMBER BASIN GLAZED FABRICS	MED	MH1	MH10
IA	IRON AGE	PREH	0	0
IALSAX	IA OR LSAX	PREH-LSAX	0	0
IMP	UNDATED IMPORTED FABRICS	ND	ASH1	PMH7
INDUS	UNSPECIFIED INDUSTRIAL MATERIAL	ND	ASH1	EMH
IPS	IPSWICH-TYPE WARE	MSAX	ASH2?	ASH6
IS	UNIDENTIFIED IMPORTED STONEWARE	PMED	PMH1	PMH7
ISLG	ISLAMIC GLAZED WARES	SN-MED	ASH11	MH8
ITGE	IMPORTED TIN-GLAZED EARTHENWARES	LMED	MH7	MH10
KEUP	MERCIAN MUDSTONE-TEMPERED WARE	ESAX-MSAX	ASH1	ASH?
KOLN	COLOGNE STONEWARE	PMED	PMH1	PMH2
L/LSW4	LLSW OR LSW4	LMED	MH9	PMH1
LANG	LANGERWEHE STONEWARE	LMED	MH7	PMH1
LARA	LANGERWEHE/RAEREN STONEWARE	LMED	MH8	PMH1
LEMS	LOCAL EARLY MEDIEVAL SHELLY WARE	EMED	MH1	MH4
LERTH	LATE EARTHENWARES	EMOD	PMH9	EMH
LEST	LEICESTER-TYPE WARE	LSAX	ASH7?	ASH9?
LFS	LINCOLN FINE-SHELLED WARE	SN	ASH11	MH3?
LFS/ELFS	LFS OR ELFS	MSAX-SN	ASH6	MH3?
LG	LINCOLN GRITTY WARE	LSAX	ASH7	ASH7
LG/LSLS	LG OR LSLS	LSAX	ASH7	ASH8
LHUM	LATE HUMBERWARE	PMED	PMH2	EMH
LIGU	LIGURIAN BERRETINO TIN-GLAZED WARE	PMED	PMH2	PMH6
LIM	OOLITE-TEMPERED FABRICS	ESAX-SN	ASH2	ASH13
LKT	LINCOLN KILN-TYPE WARE	LSAX	ASH7	ASH11
LLSW	LATE GLAZED LINCOLN WARE	LMED	MH8	MH10
LMED	LATE MEDIEVAL	LMED	MH7	MH10
LMF	LATE MEDIEVAL FINE WARES	LMED	MH9	PMH1
LMIMP	LATE MEDIEVAL IMPORTED FABRICS	LMED	MH7	MH10
LMLOC	LATE MEDIEVAL LOCAL FABRICS	LMED	MH8	PMH1
LMPM	LMED OR PMED	LMED-PMED	MH7	PMH10
LMX	LATE MEDIEVAL NON-LOCAL FABRICS	LMED	MH7	MH10
LOCC	LOCAL SPLASHED WARE	EMED	MH1	MH3?
LONS	LONDON STONEWARE	PMED	PMH7	EMH

LPM	EARLY MODERN OR MODERN	EMOD	EMH	EMH
LPMDISC	EARLY MODERN OR MODERN (DISCARDED)	EMOD	EMH	EMH
LS/SNLS	LSLS OR SNLS	LSAX-SN	ASH7	ASH13
LSAX	LATE SAXON	LSAX	ASH7	ASH11
LSCRUC	LINCOLN CRUCIBLE FABRICS	LSAX-SN	ASH7	ASH12
LSH	LINCOLN SHELLY WARE	LSAX	ASH7	ASH12?
LSIMP	LATE SAXON IMPORTED FABRICS	LSAX	ASH7	ASH11
LSLOC	LATE SAXON LOCAL FABRICS	LSAX	ASH7	ASH13
LSLS	LATE SAXON LINCOLN SANDY WARE	LSAX	ASH7	ASH8
LSMED	LSAX OR MED	LSAX-MED	ASH7	MH10
LSPLS	LIGHT-BODIED LSLS WARE	LSAX	ASH7	ASH8
LSTON	LATE STONEWARES	EMOD	PMH10	EMH
LSW	UNDATED LINCOLN FABRICS	LSAX-LMED	ASH7	MH10
LSW1	GLAZED LINCOLN WARE	EMED	MH1	MH4
LSW1/2	LSW1 OR LSW2	EMED	MH1	MH6
LSW2	GLAZED LINCOLN WARE	MED	MH4	MH6
LSW2/3	LSW2 OR LSW3	MED	MH4	MH9
LSW3	GLAZED LINCOLN WARE	LMED	MH6	MH9?
LSW4	GLAZED LINCOLN WARE	LMED	MH10	PMH1
LSWA	GLAZED LINCOLN WARE;FABRIC A	EMED-MED	MH1	MH10
LSWE/1	ELSW OR LSW1	LSAX-EMED	ASH7	MH4
LSX	LATE SAXON NON-LOCAL FABRICS	LSAX	ASH7	ASH13
MAGR	MAGREBI WARE	MED	MH5	MH7
MAMPH	ROMAN/MEDIEVAL AMPHORA	ROM-MED	0	0
MARTI	MARTINCAMP WARE;TYPE I	PMED	MH10	PMH2
MARTII	MARTINCAMP WARE;TYPE II	PMED	PMH1	PMH3
MARTIII	MARTINCAMP WARE;TYPE III	PMED	PMH3	PMH7
MAX	NORTHERN MAXEY-TYPE WARE	MSAX	ASH2	ASH6?
MAY	MAYEN-TYPE WARES	MSAX	ASH3	ASH6?
MED	MEDIEVAL	MED	MH4	MH10
MEDLOC	MEDIEVAL LOCAL FABRICS	MED	MH4	MH10
MEDPM	MED OR PMED	MED-PMED	MH4	PMH10
MEDX	MEDIEVAL NON-LOCAL FABRICS	MED	MH4	MH10
MIMP	MEDIEVAL IMPORTED FABRICS	MED	MH4	MH10
MISC	UNDATED MISCELLANEOUS FABRICS	ND	ASH1	EMH
MLSAX	MSAX OR LSAX	MSAX-LSAX	ASH2	ASH11
MLTG	MONTELUPO POLYCHROME	PMED	MH10	PMH7
MMAX	RMAX WITH QUARTZ	MSAX	ASH2?	ASH6?
MP	MIDLAND PURPLE-TYPE WARE	LMED-PMED	MH8?	PMH3?
MSAX	MID-SAXON	MSAX	ASH2	ASH6
MSAXLOC	MID-SAXON LOCAL FABRICS	MSAX	ASH2	ASH6
MSAXX	MID-SAXON NON-LOCAL FABRICS	MSAX	ASH2	ASH6
MVAL	MATURE VALENTIAN LUSTREWARE	LMED	MH7	PMH3
MY	MIDLAND YELLOW-TYPE WARE	PMED	PMH2	PMH8
NEWS	NEWARK SANDY WARE	SN	ASH11	ASH12
NFM	NORTH FRENCH MONOCHROME	MED	MH4	MH5
NFRE	NORTH FRENCH FABRICS	EMED-MED	MH3?	MH5
NFSVA	NORTH FRENCH SEINE VALLEY FABRIC A	MSAX	ASH2?	ASH4?
NHSLIP	NORTH HOLLAND SLIPWARES	PMED	PMH3	PMH7
NITALS	NORTH ITALIAN SGRAFFITO WARE	PMED	PMH3	PMH4
NLST	NORTH LINCOLNSHIRE SHELLY WARE	EMED-MED	MH1	MH8
NOTG	NOTTINGHAM GREEN-GLAZED WARE	MED	MH4?	MH7
NOTS	NOTTINGHAM WARE	LSAX	ASH9?	ASH12?

NSP	NOTTINGHAM SPLASHED GLAZED WARE	EMED	MH1	MH4?
ORP	OXIDISED RED-PAINTED FABRICS	MSAX	ASH4?	ASH6?
PBIC	LIGHT-BODIED BICHROME FABRICS	PMED	PMH2?	PMH3?
PGE	LIGHT-BODIED GLAZED EARTHENWARES	PMED	PMH3	PMH5
PING	PINGS DORF-TYPE WARE	SN-EMED	ASH7	MH3
PMED	POST-MEDIEVAL	PMED	PMH1	PMH10
PMF	POST-MED FINE WARES	PMED	PMH1	PMH7
PMIMP	POST-MED IMPORTED FABRICS	PMED	PMH1	PMH10
PMLOC	POST-MED LOCAL FABRICS	PMED	PMH2	PMH9
PMX	POST-MED NON-LOCAL FABRICS	PMED	PMH1	PMH10
PORC	PORCELAIN (GENERAL)	PMED	PMH8	EMH
PORTF	PORTUGESE TIN-GLAZED WARES	PMED	PMH3	PMH5
POTT	POTTERHANWORTH WARE	MED	MH4?	MH9?
PREH	PREHISTORIC	PREH	0	0
R	ROMAN	ROM	0	0
RAER	RAEREN STONEWARE	PMED	MH10	PMH2
RESAX	ROMAN OR ESAX	ROM-ESAX	0	0
RGRE	REDUCED GLAZED RED EARTHENWARES	PMED	PMH3	PMH9
RLG	ROMAN OR LG	ROM-LSAX	0	0
RLSAX	ROMAN OR LSAX	ROM-LSAX	0	0
RLSLS	ROMAN OR LSL	ROM-LSAX	0	0
RMAX	SOUTHERN MAXEY-TYPE WARE	MSAX	ASH2	ASH6?
RMED	ROMAN OR MED	ROM-MED	0	0
RMSAX	ROMAN OR MSAX	ROM-MSAX	0	0
ROUEN	ROUEN-TYPE WARES	EMED-MED	MH3	MH5
RSN	ROMAN OR SN	ROM-SN	0	0
RSTON	RED STONEWARES	PMED	PMH8	PMH10
SAIC	SAINTONGE CHAFING DISH	PMED	PMH1	PMH4
SAIG	SAINTONGE GREEN-GLAZED WARE	MED	MH5	MH6
SAIM	SAINTONGE MOTTLED WARE	MED	MH5	MH7
SAIP	SAINTONGE POLYCHROME WARE	MED	MH5	MH6
SCAR	SCARBOROUGH WARE	EMED-MED	MH3	MH7
SIEG	SIEGBURG STONEWARE	MED-LMED	MH6	PMH1
SLIP	SLIPWARE (GENERAL)	PMED	PMH4	EMH
SLST	SOUTH LINCOLNSHIRE SHELLY WARE	EMED-MED	MH1?	MH7?
SN	SAXO-NORMAN	SN	ASH7	ASH14
SNEMED	SN OR EMED	SN-EMED	ASH11	MH4
SNEOT	ST.NEOTS-TYPE WARE	SN-EMED	ASH11	MH3?
SNIMP	SAXO-NORMAN IMPORTED FABRICS	SN	ASH7	MH3
SNLOC	SAXO-NORMAN LOCAL FABRICS	SN	ASH7	MH3
SNLS	SAXO-NORMAN LINCOLN SANDY WARE	SN	ASH11	ASH13
SNTG	SOUTH NETHERLANDS TIN-GLAZED WARES	PMED	MH10	PMH1
SNX	SAXO-NORMAN NON-LOCAL FABRICS	SN	ASH7	MH3
SPAN	SPANISH UNGLAZED COARSEWARES	PMED	PMH1	EMH
SRCRUC	STAMFORD OR ROMAN CRUCIBLES	ROM-SN	0	0
SST	SANDSTONE-TEMPERED FABRICS	ESAX-MSAX	ASH1	ASH6
ST	STAMFORD WARE	SN	ASH7	MH3
STANLY	STANION/LYVDEN-TYPE WARE	MED	MH5	MH7
STCRUC	STAMFORD WARE CRUCIBLES	SN	ASH7	MH3
STMO	STAFFORDSHIRE MOTTLED WARE	PMED	PMH6	PMH8
STSL	STAFFORDSHIRE SLIPWARE	PMED	PMH5	PMH8
TB	TOYNTON OR BOLINGBROKE-TYPE WARE	PMED	MH10?	PMH8
TGE	TIN-GLAZED EARTHENWARES	PMED	PMH4	PMH10

TGEM	MAIOLICA (ANGLO-NETHERLANDS)	PMED	PMH3	PMH4
THET	THETFORD OR THETFORD-TYPE WARE	SN	ASH7	MH2
TILE	TILE FABRIC	MED	MH3	MH10
TORK	TORKSEY WARE	SN	ASH7	ASH13
TORKT	TORKSEY-TYPE WARE	SN	ASH7	ASH13
TOY	TOYNTON WARE;KILN 1 (ROSES)	MED	MH5	MH6
TOYII	TOYNTON WARE;KILN 3	LMED	MH10?	PMH1
UNGS	UNGLAZED GREENSAND	SN-MED	ASH11	MH7
VGf	VICTORIAN GARDEN FURNITURE	EMOD	PMH10	EMH
VITR	UNIDENTIFIED VITRIFIED SHERDS	ND	ASH1	EMH
WERRA	WERRA/WANFRIED WARE	PMED	PMH3	PMH4
WESER	WESER WARE	PMED	PMH3	PMH4
WEST	WESTERWALD STONEWARE	PMED	PMH4	EMH
WINC	WINCHESTER-TYPE WARE	SN	ASH10	ASH14
WS	WHITE SALT-GLAZED WARES	PMED	PMH8	PMH9
YG	YORKSHIRE-TYPE GRITTY WARES	SN	ASH13	MH3
YORK	YORK GLAZED WARE	EMED-MED	MH3	MH5?
YORKSPL	YORK-TYPE SPLASHED WARES	EMED	ASH14?	MH4?
YW	YORK WARE	LSAX	ASH6	ASH9



P1- Bulldozer scraping subsoil in Flood Bank 3, looking east



P2- Bulldozer battering down lias clay core of Flood Bank 1, looking south



P3- Box-scraper dropping clay core in Flood Bank 2, looking north



P4- Area stripped for Flood Bank 2, looking north



P5- General shot of River Witham and Borrow Pit A, looking south



P6- Bulldozer stripping topsoil in Flood Bank 3, looking east



P7- General shot showing full extent of Borrow Pits A and B, looking north



P8- Bulldozer working in Flood Bank 2, looking west



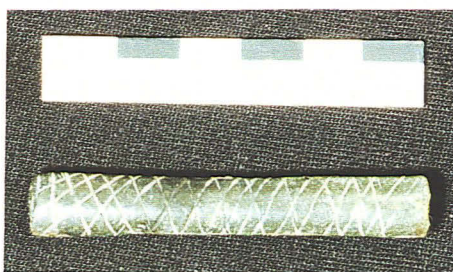
P9- Loomweight recovered from Flood bank 1



P10- Lead ?net-sinkers (in possession of site owners)



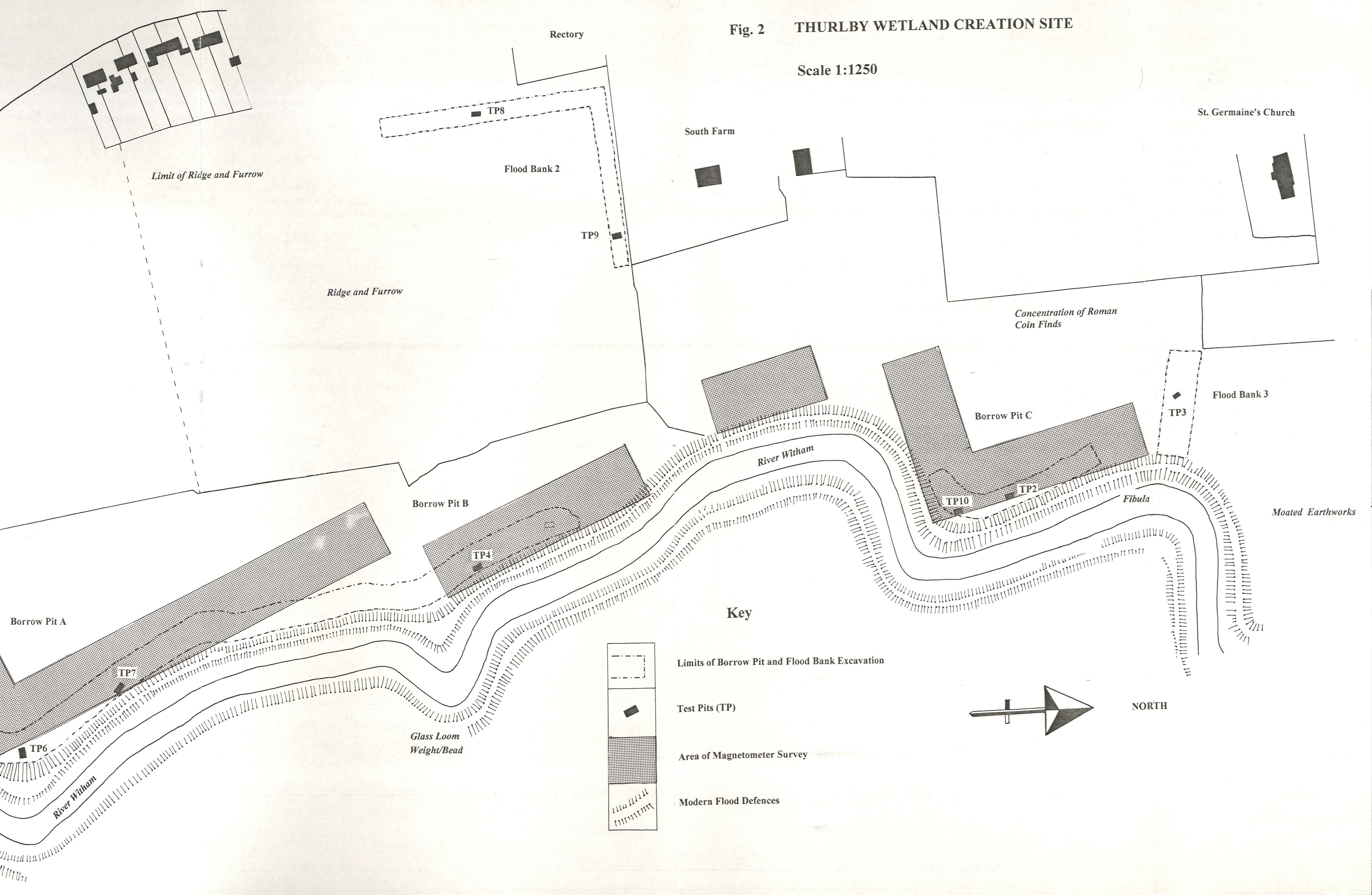
P11- Roman coins (in possession of site owners)



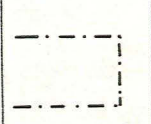

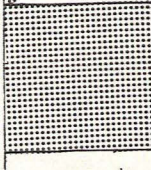

P12- Decorated bronze ?knife handle (in possession of site owners)

Fig. 2 THURLBY WETLAND CREATION SITE

Scale 1:1250



Key

-  Limits of Borrow Pit and Flood Bank Excavation
-  Test Pits (TP)
-  Area of Magnetometer Survey
-  Modern Flood Defences

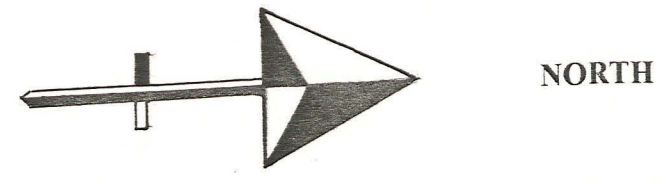
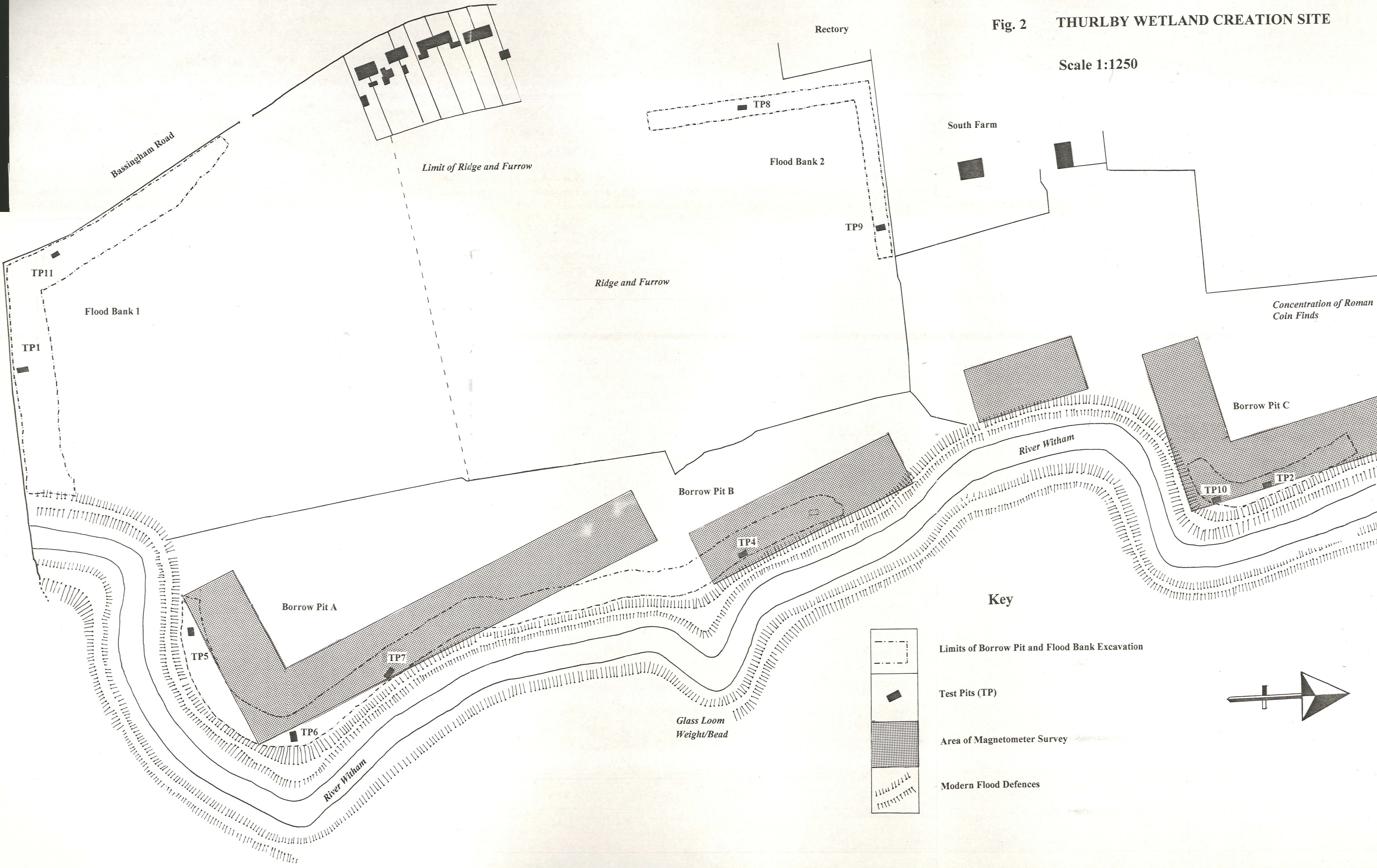
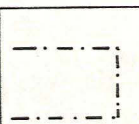

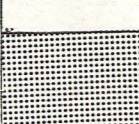



Fig. 2 THURLBY WETLAND CREATION SITE

Scale 1:1250



- Key**
-  Limits of Borrow Pit and Flood Bank Excavation
 -  Test Pits (TP)
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