PRE-CONSTRUCT ARCHAEOLOGY

LINCOLN

HOLBEACH ROAD, SPALDING ARCHAEOLOGICAL EVALUATION REPORT

Site Code: HOLS03
NGR: TF 2568 2360
Planning Ref. N/A
Accession No. 2003.112

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Report prepared for Castle Building Ltd.
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Summary

- *A program of archaeological evaluation was carried out on 1.1 ha of former agricultural land at Holbeach Road, Spalding, Lincolnshire, to inform planning decisions in advance of redevelopment.*

- *The comprehensive programme of trial excavation exposed six boundary features ranging in date from the 11th to the 18th centuries AD. These features do not form elements of an integrated system of land division.*

- *Quantities of fired clay and plano-convex bricks were found in a large pit, [1005]. These materials appear to represent debris from structures utilised in salt production at some point between the 11th and 13th centuries AD. Sloping layers of silt observed at the base of trench 2 and trench 11 may represent the basal components of truncated saltern mounds that ran down the western side of the site, parallel to the River Welland. Alternatively, these deposits may reflect the presence of a palaeo-channel running up the eastern side of the site.*

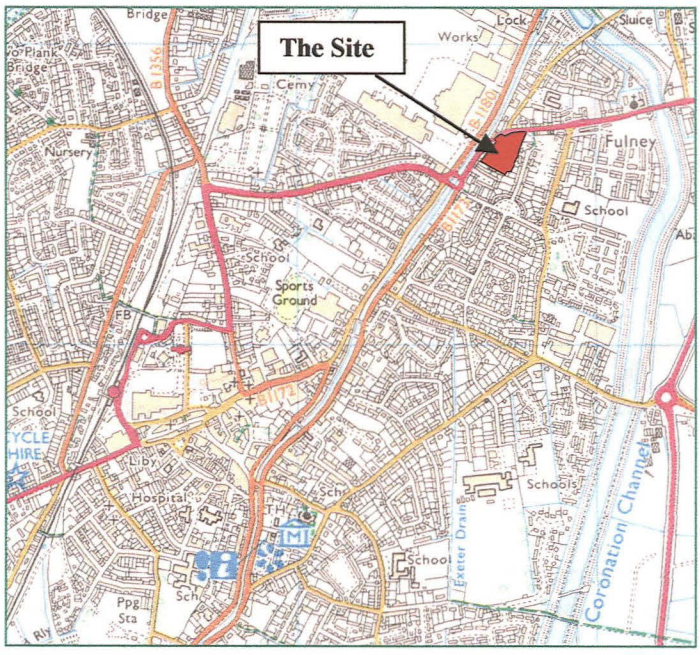

Fig. 1 : Shows location of site, in red.

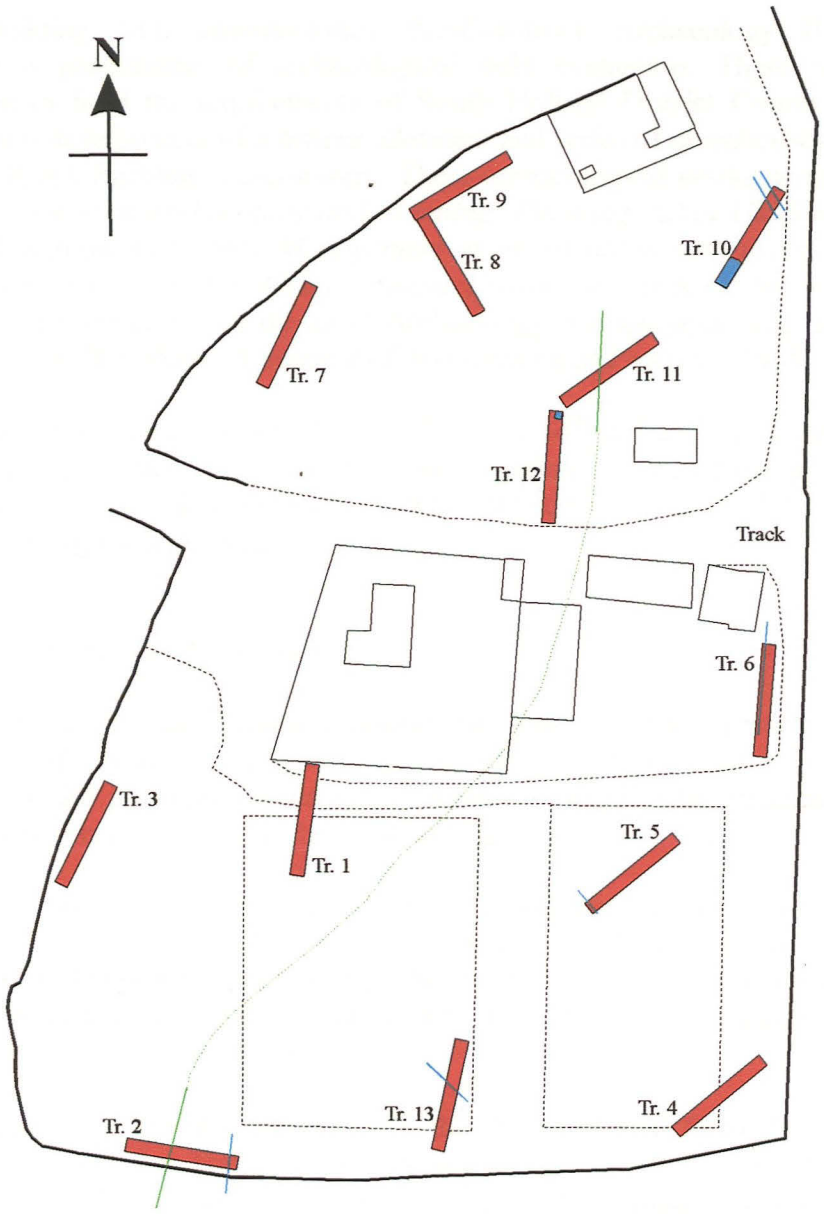

Fig. 2 : Site plan showing location of trenches, with archaeological features shown in blue and the edge of a palaeochannel or saltern mound shown in green. 1:100.

1.0 Introduction

Castle Building Ltd. commissioned Pre-Construct Archaeology (Lincoln) to undertake a programme of archaeological field evaluation. These works were undertaken to fulfil the requirements of South Holland District County Council in advance of redevelopment of a former allotment and series of greenhouses adjacent to Holbeach Road, Spalding, Lincolnshire. These archaeological works comply with the recommendations of *Archaeology and Planning: Planning Policy Guidance Note 16*, Dept. of Environment (1990); *Management of Archaeological Projects*, EH (1991); *Standard and Guidance for Archaeological Excavations*, IFA (1994) and has been prepared in accordance with the LCC Archaeology Section document '*Lincolnshire Archaeological Handbook: A Manual of Archaeological Practice*', 1998.

The archaeological evaluation took place between 14th and 23rd April 2003, and this report documents the results of that investigation. It incorporates a series of assessments by specialist researchers who studied the archaeological materials recovered during the fieldwork.

2.0 Site location and description

Spalding lies in the administrative district of South Holland approximately 22km south-west of Boston and 25km north-east of Peterborough. The proposed development site is situated towards the north-east edge of the modern settlement, lying to the south and east of Holbeach Road (fig. 1).

The area of investigation (hereafter 'the site') comprises a sub-rectangular unit of approximately 1.1 hectares, bordered by Holbeach Road to the north and the back gardens of residential properties on the other three sides. Prior to this project, the land had been utilised as an allotment and nursery. The site is predominantly level and its elevation is approximately 4m OD.

The geological survey map indicates that the 'Roman Bank' formerly ran along the eastern edge of the site. This earthwork prevented incursion by the sea and defined the outer limit of fenland reclamation at the end of the 13th century (B.G.S., 1992). The drift deposits reflect the proximity of Spalding to the sea. The upper strata consist of the Terrington Beds, laminated marine and riverine alluvium (sandy silts, sands and clays), with a total depth of up to 20m. These sediments mantle a deposit of Abbey Sand and Gravel, which has a close spatial correlation with the course of the River Welland. Beneath the latter are further Quaternary deposits, of glacial sands and gravels, which extend across the depression of the Fen Basin, from the Lincolnshire Wolds to the East Anglian Heights. The underlying solid geology is comprised of extensive beds of Upper and Middle Jurassic Oxford Clays.

The National Grid Reference for the centre of the site is TF 2568 2360.

3.0 Planning background

Castle Building Ltd. is looking to redevelop a former allotment and series of greenhouses adjacent to Holbeach Road, Spalding, Lincs.

Prior to the submission of a planning application, following discussions with South Holland District Council, the client has requested an archaeological field evaluation of the land.

This information will form the basis of any decision relating to archaeological matters, and is consistent with the recommendations of *Archaeology and Planning: Planning Policy Guidance Note 16*, 1990.

4.0 Archaeological and Historical Background

The coastline of prehistoric Lincolnshire was considerably further inland than at present, and the area of Spalding was a frequently submerged island, uninhabitable for long periods. A prehistoric stone axe and a stone axe-hammer appear in the Sites and Monuments Record for Spalding parish (reference numbers 22367 and 22368), and pre-Roman salt workings have been found in the area (Simmons, 1993).

Salt production continued during the Roman period, and the Wash creeks may have been used for river traffic and fishing; settlement increased greatly in the 2nd century AD, probably due to a widespread drainage and administration programme (Hallam, 1970). A number of Romano-British coins and pottery scatters have been discovered within Spalding itself, other finds from this period including a statue, probably of Venus (SMR ref. 22372), a ragstone female bust (23610), and a bronze figurine of a horse (22394).

By the Saxon period, falling sea levels had rendered Spalding a coastal settlement rather than an island, although the 'coastline' in this area still varied greatly with the tide and the season. The Fenland Survey records 6th century and later Saxon pottery in the west of the parish (Sawyer, 1998), and Spalding may have become a Royal Estate Centre in the 7th or 8th century AD (Palmer-Brown, 2000). The name itself is ascribed to the *Spalda*, one of the local tribes listed in the 7th/8th century *Tribal Hidage*.

Saxon and medieval development in the Spalding area was strongly influenced by monasticism. Crowland Abbey received numerous land grants in the 9th century AD (Sawyer, 1998) and, with the nobles Ivo Tallboys and Guy de Craon, is listed as a major landowner in *Domesday Book*, which refers to a market, fisheries and salt-houses in Spalding (Morgan and Thorn, 1986). The abbey established a Benedictine priory at Spalding: the charter granting land for its foundation is dated 1051, but it may not have been built until after the Norman Conquest (Sumner, 1988). The priory is well documented, but archaeologically, little survives. Ivo Tallboys was made 'Lord of Spalding and all Holland' in 1073, and subsequently built a castle in the town: its earthworks were said to be visible at Coney Garth, c. 1km south-west of the development site, in 1746, but are no longer extant.

The medieval port and town was directly north-east of the priory, between the River Welland and the Westlode: wool and woad (then a popular dyestuff) were exported via the Welland, and prestige goods such as wine (for Crowland) were imported. The Westlode was primarily a drain, and may have originally been part of the Roman drainage system, but was also used to transport goods inland to Bourne, and local agricultural produce to Spalding.

Both the town and the district were radically altered by the massive enclosure and drainage projects carried out in the Fens in the 18th and 19th centuries: large areas of previously unexploited wetland came under cultivation, and much of the produce was exported via Spalding, a prosperous port whose population doubled in the first half of the 19th century. Steam-powered pumping engines made the Westlode obsolete in 1824 (Gooch, 1940): it was filled in, and its course is now followed by New Road and Westlode Street.

In 2001, a single archaeological trial trench was investigated at 3 Albion Street, approximately 400m south-west of the current site. No archaeological deposits were encountered (JSAC, 2001).

5.0 Methodology

The primary purpose of an archaeological evaluation is to gather and collate information for planning purposes: to assess the archaeological potential of a site and provide a basis for mitigating against the effects of development, if and as appropriate. This approach is consistent with the guidelines set out in *Archaeology and Planning: Planning Policy Guidance Note 16* (1990).

To achieve the above, thirteen trenches were opened to examine a representative proportion of the overall site. The location of the trenches is indicated on fig. 2; each trench was 15m long and 1.8m wide.

The evaluation was undertaken by the author and a team of three experienced field archaeologists over a period of 6 days, between the 14th and 23rd of April 2003. The excavations were supervised by Chris Clay on the 16th and 17th.

For each trench, a 360° tracked excavator fitted with a smooth blade was used to remove all topsoil, subsoil and underlying deposits in spits not exceeding 20cm in depth. The process was repeated until the first archaeologically significant or natural horizon was exposed. All further excavation was by hand. Due to the depth of the alluvial deposits present on the site, excavation was stopped at a depth of 1m if a clear archaeological horizon had not been reached.

Trench 7 was found to contain only modern features, many of which were filled with rusty metal, glass and other hazardous materials making it unsafe to enter. After consultation with Jim Bonner this trench was abandoned.

Where archaeological remains were exposed, features and deposits were sample excavated manually, and context information was recorded on standard Context Record Sheets. Archaeological deposits were drawn to scale in plan and section. Archaeological contexts were photographed, and some prints are reproduced within this report (see Appendix 1).

Archaeological finds were recovered during the investigation (e.g. pottery sherds and animal bone). They were washed and processed at the offices of PCA, prior to submission for detailed specialist appraisal.

6.0 Results

A ubiquitous topsoil, (001) was removed from all of the trenches investigated. It was friable dark grey silty sand with a considerable humic component, which was between 0.30 and 0.40m deep. This unusual depth was probably due to the site's former use as a nursery and allotments; large numbers of roots would have promoted deep topsoil development.

Archaeological features were encountered in seven of the trenches investigated:

Trench 2. (figs. 4&5)

Below the topsoil was a regular layer of mid brown alluvial silt (202), which yielded four sherds of 12th to 13th century pottery, as well as a duck, and a sheep or goat bone, and a small piece of fuel ash slag. Some of the pottery had a sooty coating on its exterior surface, which provides indications that the vessels had been used over a fire.

An archaeological feature, [201], was observed below this alluvial layer. Running from north to south, and situated at the eastern end of the trench, [201] was a 1.5m wide shallow ditch, with irregular sides terminating at an irregular concave base. The primary fill (205) was a dark grey clayey silt containing a single pig bone, charcoal flecks and late 12th to 13th century pottery, again with a sooty coating. The presence of this pottery and animal bone suggests that this deposit incorporated domestic waste as it formed. Sealing (205) was a lighter but otherwise similar material, (204), which produced sherds of 12th to 13th century pottery, as well as a sheep or goat bone. This deposit also seems to reflect the dumping of domestic refuse, the lighter colour may be a result of a lower proportion of charcoal.

Ditch [201] cut through the fill of a small irregular pit, [200], with an irregular 'V'-shaped profile that was much steeper to the west. The fill, (203), was a mid brown silt containing charcoal flecks and two or three cow bones.

Trench 5. (fig. 9)

Two features were observed in the section at the south-western end of the trench, both being situated immediately below the topsoil. Only visible in one section, [505] was interpreted as a small pit. It was filed with a friable brownish grey silty sand, (504), which contained a fragment of concrete indicating that this was a modern feature probably relating o the site's former use as an allotment and nursery.

[503] was visible in both sections suggesting that it was a linear feature. However, it was much shallower to the south-east which may indicate that it terminated just beyond the edge of the trench. It was filled with a light brownish-grey silty sand, (502), which contained occasional charcoal flecks; a single cow scapula, two sherds of 14th or 15th century pottery and a lump of straw tempered fired clay.

Trench 6. (figs. 10&11)

Removal of the topsoil and a 0.65m deep layer of alluvium, (608), revealed one side of a north to south aligned linear feature, [600]. This relatively steep sided ditch was over 8m long and more than 0.5m wide, with a well defined edge and a flat base. It contained five distinct fills; the lowest being a blue grey silty clay, (605), that is likely to have been deposited by water when the ditch was first dug. Above (605) was a black deposit composed of decayed organic material, (604), which contained a pig and a sheep or goat bone, mid 15th to 16th century pottery and a single piece of straw tempered fired clay. This deposit probably represents a dump of domestic waste.

The next deposit to form was (603), a yellowish brown clayey silt, which appears to have been waterborne and may represent the partial silting up of the feature. Sealing (603) was a darker clayey silt material, (602), which also seems to have been deposited by water contained in the feature, a single large sherd of mid 15th to 16th century pottery and a fragment of late medieval, or post-medieval brick were recovered from this deposit.

The upper fill of [600] was a mid brown silt, (601), which contained a fragment of brick, large pieces of limestone, cow, pig, cat and bird bone, as well as two sherds of 15th to 17th and three sherds of 18th century pottery. These limestone and brick inclusions are too big to have been deposited here as a result of flooding, or other natural events. This suggests that (601) represents the deliberate back-filling of a disused feature. The stone and brick are likely to have been derived from a demolished structure that had been situated somewhere in the town.

The southern end of ditch [600] had been removed by the creation of a large pit, [607], the exposed component of which was 5m wide. This pit was filled by a brownish grey clayey silt, (606), which yielded 18th and 19th century pottery.

Trench 8. (figs 12&13)

A large circular pit, [802], was exposed, following the removal of alluvial layer (803). It was filled by a dark grey sandy silt, (801), from which sherds of 19th or 20th century pottery and a single undiagnostic fragment of slag was recovered. Given the date of this pottery, it is probable that [802] was cut from the top of the alluvial layer, (803), but was not visible at that level.

Trench 10. (figs15-18)

The topsoil and two layers of alluvium, (1010) and (1011), were removed to expose two parallel linear features running from north to south in the north-eastern half of the trench. The larger of the two, ditch [1009], was c. 1.0m wide and had a shallow 'U'-shaped profile. It was filled with blue clay, (1008), which had been deposited by slow moving water when the feature was in use as a boundary and/or drainage ditch.

The second feature, gully [1007], was situated c. 1m to the west of ditch [1009]. This gully was 0.5m wide by 0.55m deep, with well-defined edges at the top and a steep-sided, 'V' shaped profile terminating at a slightly rounded base. It was filled by dark brown sandy silt, (1006), from which a sherd of 17th or 18th century pottery was recovered. The form and fill of [1007] differed from that of the neighbouring ditch, [1009]. It is unlikely that the feature ever held standing, or slow moving water, as there is no evidence of gleying and the sides are nearly vertical in places. This latter characteristic suggests that the feature was backfilled soon after it was created, its profile being indicative of a foundation trench for a fence or palisade.

Much of the southern half of the trench was occupied by part of a large sub-circular pit, [1005], that was more than 5m in diameter. The upper fills of this feature were removed to a depth of 0.7m, but its base was not exposed due to inundation by ground water.

The lowest fill encountered was a dark grey silt, (1002), containing a complete pig skull and pottery dating to the mid/late 11th - 12th and mid 12th to early/mid 13th centuries. Two pieces of flat-faced fired clay were also recovered from (1002), each having one surface that was heavily encrusted with residues that had probably formed as a result of heating brine. This material was interpreted as the remains of a structure used in salt making, possibly representing elements of a trough lining. This deposit also produced 21 pieces of plano-convex brick. The function of these bricks is unknown, but as they show no signs or mortar, or other bonding material, it is likely they were used as dry-walling. Their association with salt making debris may suggest they were utilised in that industry.

An environmental sample taken from (1002) (sample number <1>) was largely composed of fired clay that had contained large amounts of organic temper (appendix 6). This material is also likely to be waste from salt production, and may be part of the same structure as the putative trough lining and the plano-convex bricks (see appendix 4). However, the flot from this sample was very large and was predominantly composed of charred cereal grain (primarily barley, wheat, oats and rye), chaff and straw. This material represents the remains of a crop that had been burnt before it could be processed. This factor raises the possibility that some of the fired clay may represent elements of a structure, or ground surface destroyed at the same time as the crop. Indeed, it is conceivable that the hearth structures used in salt production could also perform a secondary purpose, enabling crops to be dried prior to processing.

Above (1002) was a thin layer of re-deposited natural silt, (1001), from which a further four fragments of plano-convex brick, a piece of trough lining, a cow bone and a sherd of late 12th to 13th century bowl or curfew were retrieved. This material appears to have been dumped into the pit to seal the underlying fill, possibly to control odours as (1002) decomposed, or to prevent material floating out if the site flooded.

The next fill to enter the pit was a mid grey slightly sandy silt, (1000), that contained another ten fragments of plano-convex brick and a further single piece of trough lining. This fill also produced three pieces from a 12th to 13th century pottery jar and an unusual fragment of white-firing tile, which may have been part of a decorative wall plaque. This material also appears to be a waste dump, containing industrial and domestic waste.

The upper fill was a second dump of re-deposited natural, (1012), which again could have served to control the smell of the pit below.

These features were all cut into a mid greyish brown alluvial layer (1013).

Trench 12. (figs. 20&21)

A single feature, [1205], was exposed at the northern end of this trench, following the removal of the topsoil and a light greyish brown alluvial silty sand, (1201). In plan, the exposed portion of [1205] formed an irregular sub-rectangle more than 1.8m long and over 1.3m wide. It had gently sloping sides and a flattish base situated c. 0.4m below the top of the cut. The lower fill was a light grey sandy silt, (1206), likely to have formed immediately after the feature was first excavated. A single sherd of mid 12th to 13th century pottery was recovered from this deposit. The upper fill, (1204), was a soft, dark grey clayey sand from which a single sherd of (possibly) 13th century pottery was collected.

Trench 13. (figs. 22-24)

Removal of the topsoil and an alluvial layer, (1301), exposed a single straight linear feature, [1303], occupying the central portion of the trench. This ditch was 1.4m wide and had a shallow 'U'-shaped profile. It was filled by a greyish brown slightly silty sand, (1302), which appeared to have been deposited by water contained within the feature. The recovery of three sherds from a 13th century jug and a cow bone attest to human activity in the area as this deposit was forming.

The alluvial sequence.

One or more alluvial layers were identified below the topsoil in each trench. The thickness of these deposits varied between 0.4 and 1.0 metres, generally being thinner in the trenches opened in the south-eastern part of the site. They were mostly yellowish-brown mixtures of sand and silt, although light brown silty sand was recorded in some trenches. See appendix 2 for more detailed descriptions of these deposits.

In general the interfaces between these deposits were reasonably horizontal and the machining was halted at the top of a further horizontal deposit, for instance (903) in trench 9. However, in trenches 2 and 11 a different pattern was observed; in these trenches the horizon that was exposed by machining was seen to be made up of a series of silt and sand alluvial deposits that sloped quite markedly downwards towards the east.

In trench 2 (fig. 4) the lowest of these deposits was (209), a brownish grey silty sand with no inclusions. Overlying the eastern face of this deposit was a light yellowish grey sandy silt, (208), which produced a pig bone and a sheep sized bone, as well as four sherds of pottery dating from the mid 11th to 13th centuries. Over this material was (207), a mid grey sandy silt and (206), a mottled orangey brown and grey silty sand; this mottling appeared to be iron panning formed in root voids.

In trench 11 (fig. 19) a deposit of fired earth (1104) was sandwiched between alluvial layers (1105) and (1106). The eastern edge of this material appeared to have been truncated, or eroded prior to the deposition of (1105).

7.0 Conclusions

The earliest deposits encountered on the site were a series of alluvial layers, which were, for the most part, horizontal. However, earliest deposits in trenches 2 and 11 sloped down toward the east, and in so doing exposing a number of separate bands of material; one of these deposits ((208) in trench 2) produced pottery dated to the 11th to 13th centuries. These inclined layers can only have formed against an existing slope or bank of material. It is possible that they represent fills developing along the western edge of a large channel that was either migrating eastward, or was no longer carrying large volumes of water. The location of the western edge of this putative channel is shown in green on fig. 2. The course of the River Welland, situated to the west, exhibits a number of straight sections and may be partially canalised or artificially straightened. Given that it no longer appears to be following its original course, this putative channel may represent a former course.

An alternative hypothesis for the formation of these sloping deposits is suggested by the sequence exposed in trench 11, where a lens of 'fired earth' separated two of the silt layers. Similar sequences of deposits were identified within saltern mounds at Spalding Golf Club, Surfleet Seas End (Rylatt, 2001). At this site waste silt, the residue of salt processing, had been deposited in successive layers, which resulted in the progressive expansion of the saltern mound. However, the absence of clay in these free draining deposits meant that the face of the mound sloped at a very gentle angle (c. 5-6° to the horizontal) due erosion by surface water. At certain intervals layers of pinkish peat ash and fired silt from the salt evaporation hearths had been spread across the face of the saltern mound in order to give it greater coherence. The same arrangement appears to be replicated in trench 11. This raises the possibility that the truncated remains of one or more saltern mounds are sealed beneath later deposits on the western half of the site. This would accord with the presence of salt stained fired clay found in a number of the features exposed during the evaluation (see below).

One or more deep layers of alluvium were removed in each of the trenches before an archaeological horizon was reached. This ubiquity suggests that there were one or more large scale flood events, following the cessation of medieval, or early post-medieval activity.

Six ditches were identified during the course of this evaluation. Associated artefacts indicate that these features dated from the 11th to the 18th centuries. These ditches are likely to have served as boundaries, but it is difficult to determine any inter-relationships from their positioning, or alignments.

The ditch and gully exposed at the northern end of trench 10 were created relatively late in the sequence of activity, being associated with 17th – 18th century pottery. They have a similar alignment to the existing boundary running along the north-east corner of the site adjacent to trench 10, and may represent elements of the same system of late post-medieval land division.

The ditches in trench 5 and trench 13 share the same alignment and occupy the same corner of the site. However, they are associated with medieval pottery of slightly different dates, [503] containing 14th-15th century material and [1303] incorporating 13th century sherds. Although these features may form elements of the same boundary system, a direct association cannot be demonstrated on the evidence currently available.

The ditches exposed in trench 2 and trench 6 also have the same alignment, but are situated on opposite sides of the site. Again, the ceramic materials recovered from each feature relate to different periods of activity; ditch [201] contained 12th-13th century pottery, while 15th-16th century material was found in [600]. These spatial and chronological differences suggest that there is no relationship between these two features.

The most informative feature on the site was the large pit, [1005], recorded in trench 10. This feature contained 11th to 13th century pottery, large quantities of fired clay, fragments of plano-convex bricks and flattened pieces fired clay interpreted as parts of troughs used to evaporate the water from brine to make salt. The plano-convex bricks were not mortared and so do not appear to have been used in conventional walling. Their close association with the trough remains and the fact that one example was encrusted with the same salt residue as found on the trough fragments suggests that they were used in that same process. A number of bricks were found in association with a late 14th century salt-making site at Parson Drove in Cambridgeshire and were interpreted as possibly being part of specialised salt-making hearths, which may support this hypothesis (Pollard, Hall & Lucas, 2001).

The interpretation of the flatter fragments as trough lining is more problematic. Excavation of a mid 14th century site at Bicker Haven produced similar vegetable tempered and variedly fired pieces of flat ceramic, but here they were interpreted as parts of the hearth linings, an interpretation supported by the recovery of lead fragments from boiling pans on the same site, (Bell, Gurney & Heally, 1999). However, the fact that the pieces found during this project were covered by salt concretions that can only form through contact with brine during heating (A. Vince, *pers. comm.*) tends to suggest that they actually contained the brine, unless the coating results from the repeated spillage of brine within the hearth structure. If they are trough linings they represent a method of salt production not previously encountered at other medieval saltern sites in the region.

An environmental sample taken from the lowest fill of this pit produced large quantities of burnt and carbonised cereal grain and, chaff and straw that clearly represented the remains of a crop that had burnt before it could be processed. This evidence for a burnt, freshly harvested crop is comparable to a deposit found at Theddlethorpe in North Lincolnshire, where burnt cereals were uncovered along with fired daub that was interpreted as coming from the barn in which they had been stored (Allen and Tann, 1999).

This pit has produced evidence for two separate activities taking place on the site, but it cannot be taken to be directly associated with either of them. Rather it appears to be a convenient rubbish pit, used to dispose of both the waste from salt making and of a freshly harvested crop that was lost to fire.

Clearly, the economy of the site in the early and mid medieval period depended both on arable agriculture and on the production of salt. It is unlikely that such dramatic evidence for cereal production will be present elsewhere on the site but salt making may have left further tangible remains in the vicinity.

8.0 Effectiveness of methodology

The methodology employed allowed the presence/absence and the depth of archaeological deposits to be determined in each of the excavated trenches, many of which were sterile. After consultation with the Castle Buildings Ltd it proved possible to position the trenches outside the footprints of the proposed dwellings thus minimising the impact on the primary scheme.

9.0 Acknowledgements

The author would like to thank Castle Building Ltd, for commissioning this report; as well as for providing the machine and site plans. Thanks are also due to the excavation team, Rachel Gardner, Suzy Matthewson and Dave Bower, and to Chris Clay who supervised the site on two days.

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11.0 Site Archive

The site archive for this project is in preparation and will be deposited at the Lincoln City and County Museum (physical) and the Lincolnshire Archives Office (documentary) within six months. Access to the archive may be granted by quoting the global accession number 2003.112.

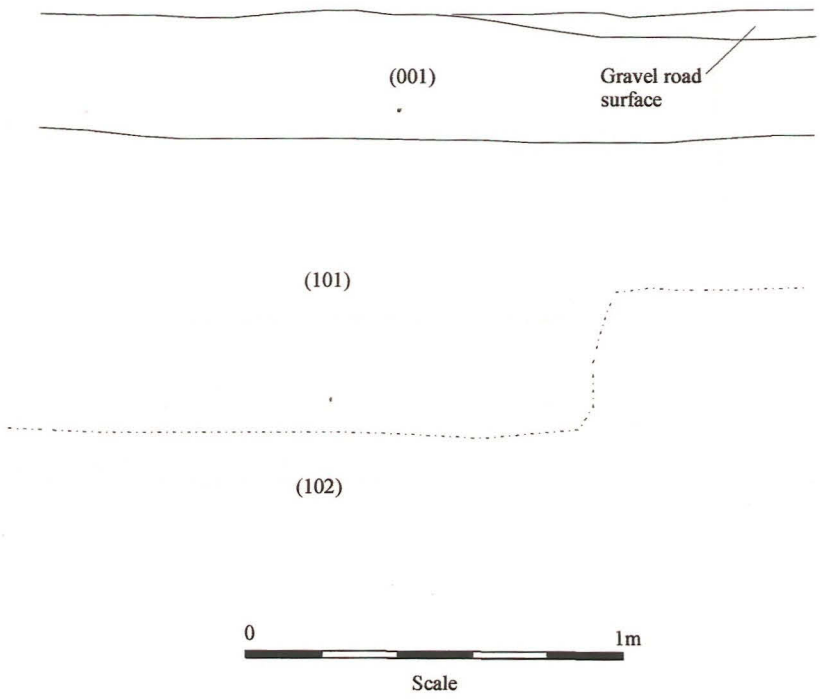


Fig. 3 : South-east facing sample section from trench 1. 1:20

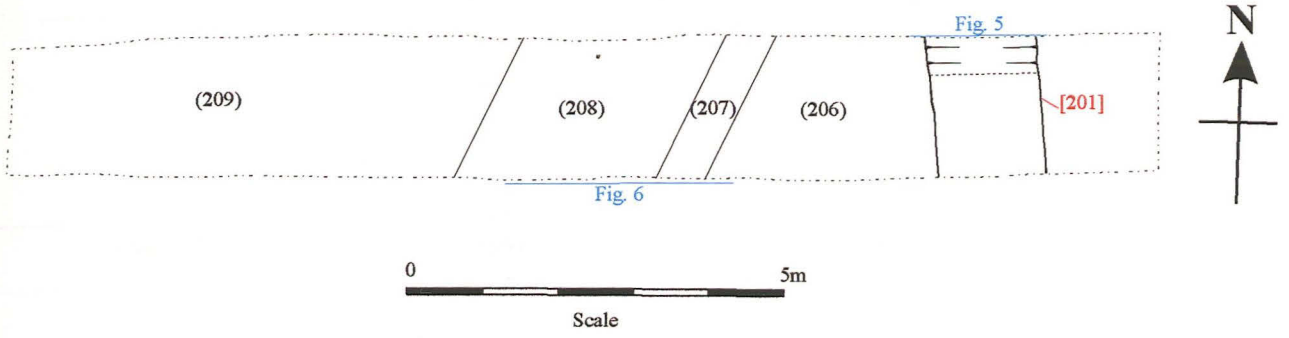


Fig. 4 : Plan of trench 2 showing ditch [201], alluvial banding and location of sections. 1:100.

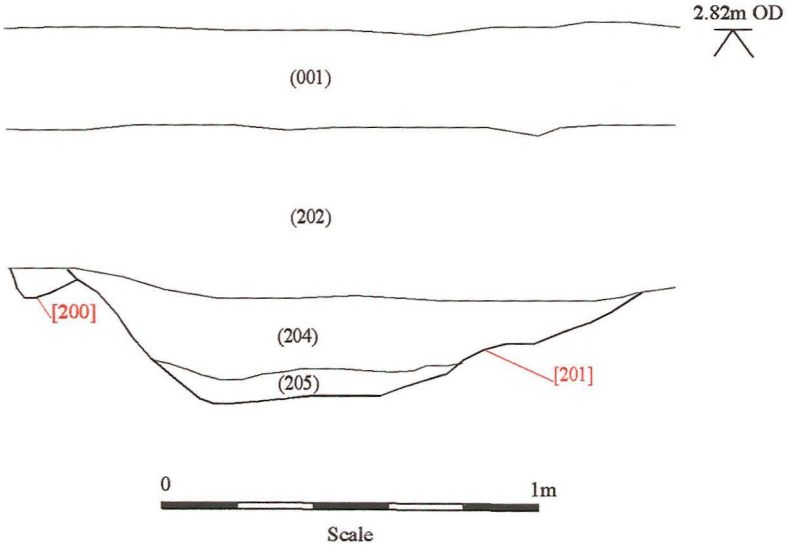


Fig. 5 : South facing section showing ditch [201], small pit [200] and overlying alluvial deposits. 1:20.

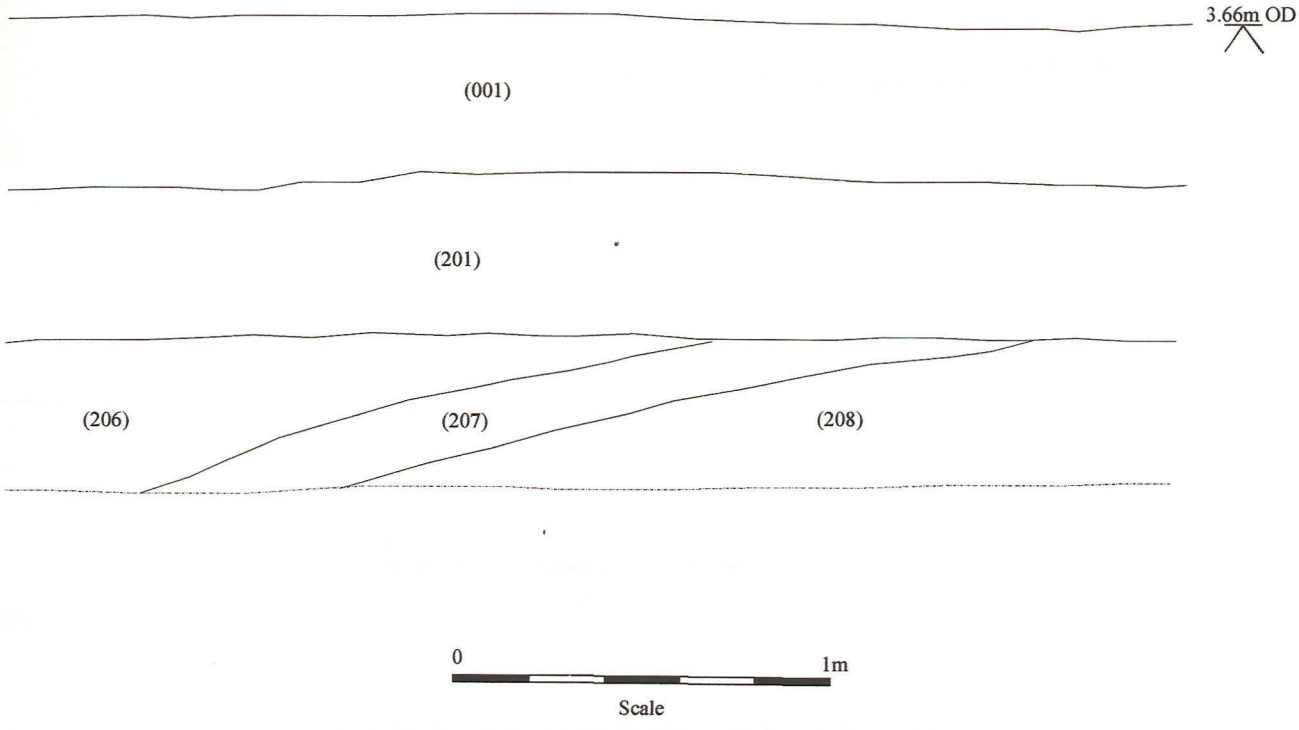


Fig. 6 : North facing section from trench 2. Shows two phases of alluviation. 1:20.

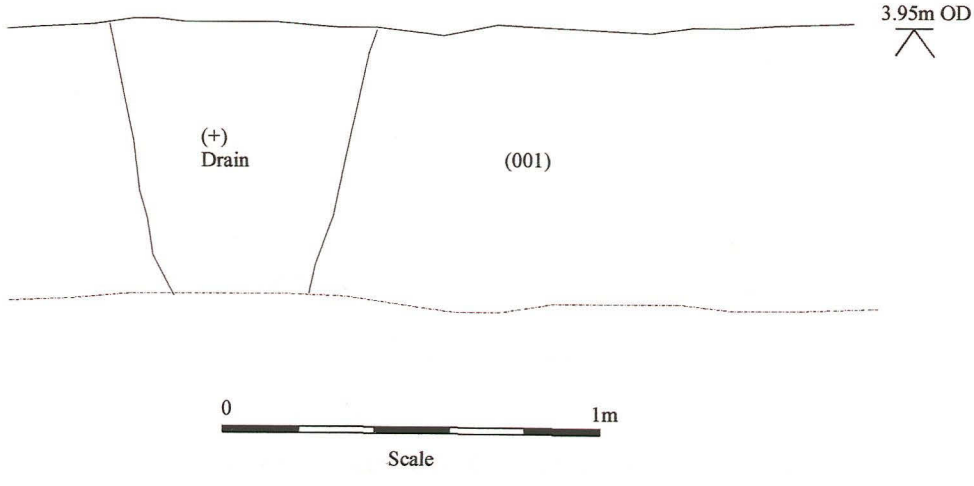


Fig. 7 : South-east facing sample section from trench 3. 1:20.

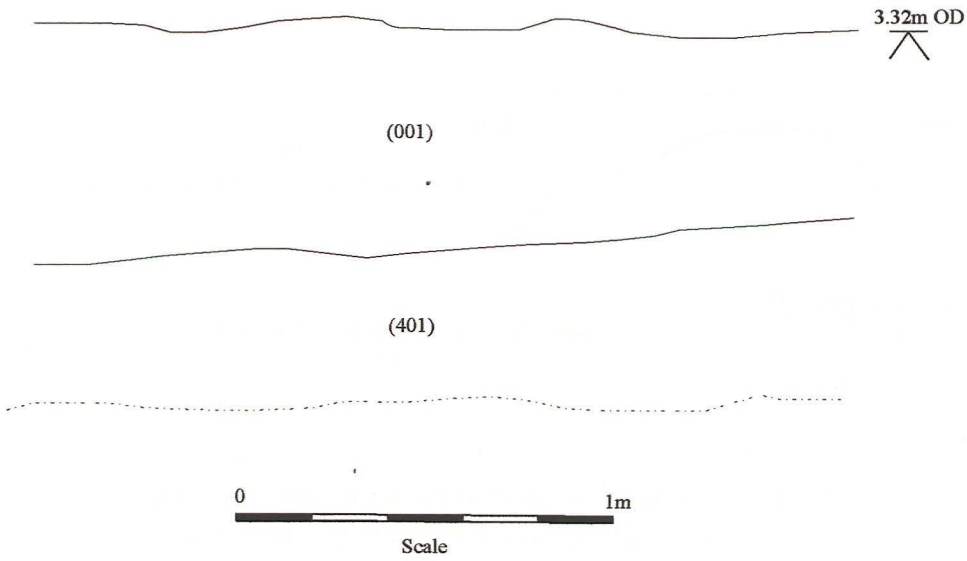


Fig. 8 : South-east facing sample section from trench 4. 1:20

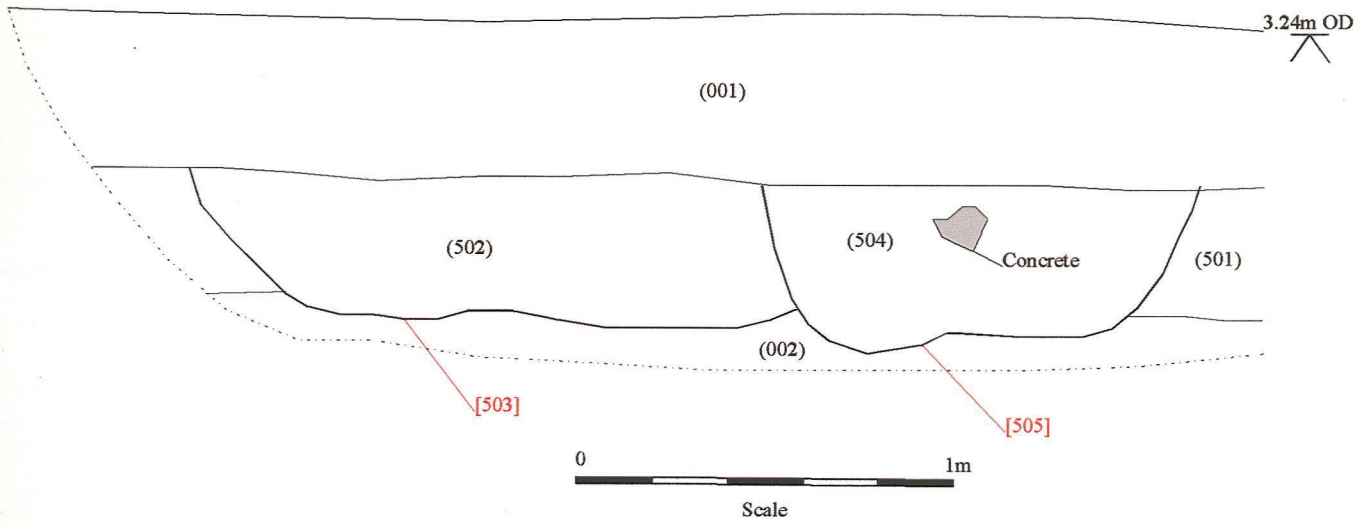


Fig. 9 : South-east facing section from trench 5. Shows ditch [503] and modern feature [505]. 1:20

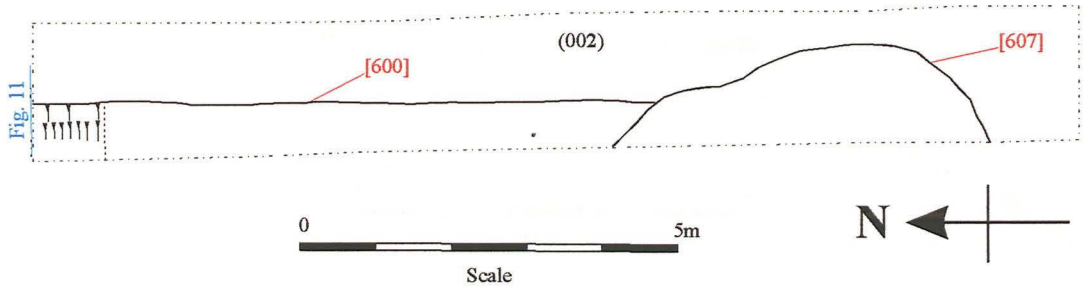


Fig. 10 : Plan of trench 6 showing ditch [600] cut at its southern end by modern feature [607]. 1:100.

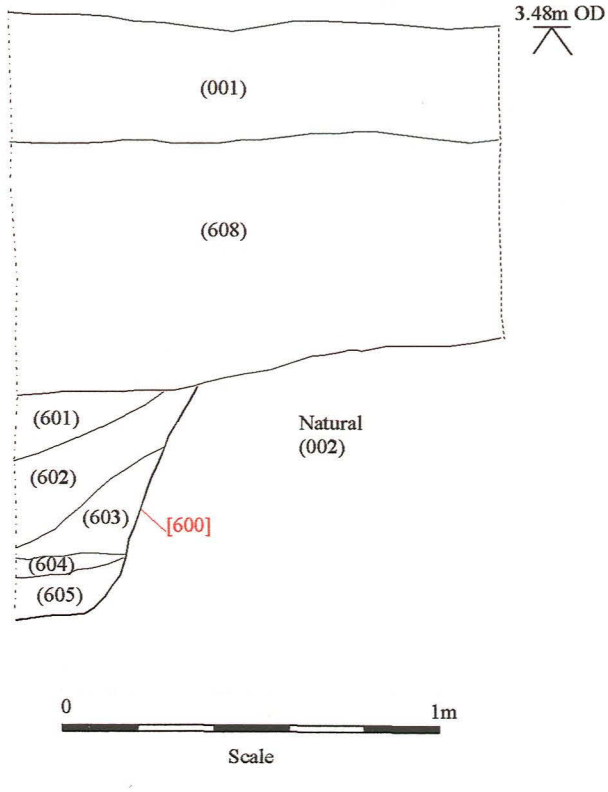


Fig. 11 : South facing section from trench 6. Shows ditch [600]. 1:20

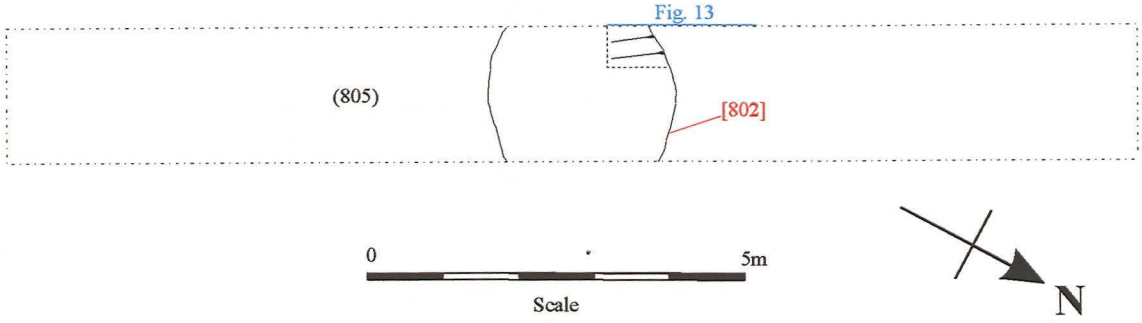


Fig. 12 : Plan of trench 8 showing modern feature [802]. 1:100

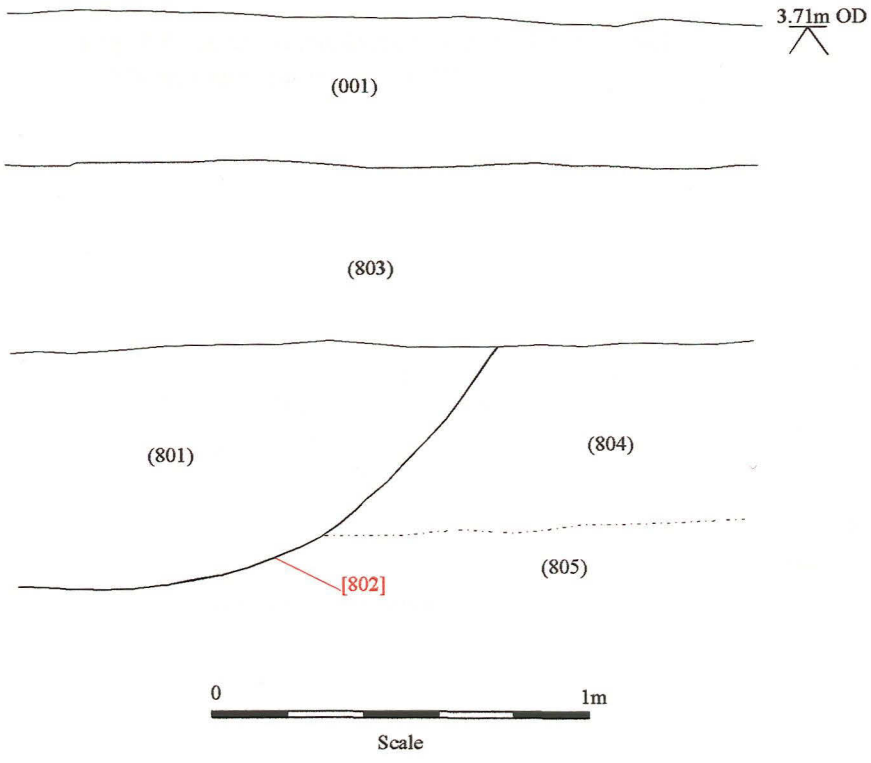


Fig. 13 : North-east facing section from trench 8. Shows modern feature [802]. 1:20.

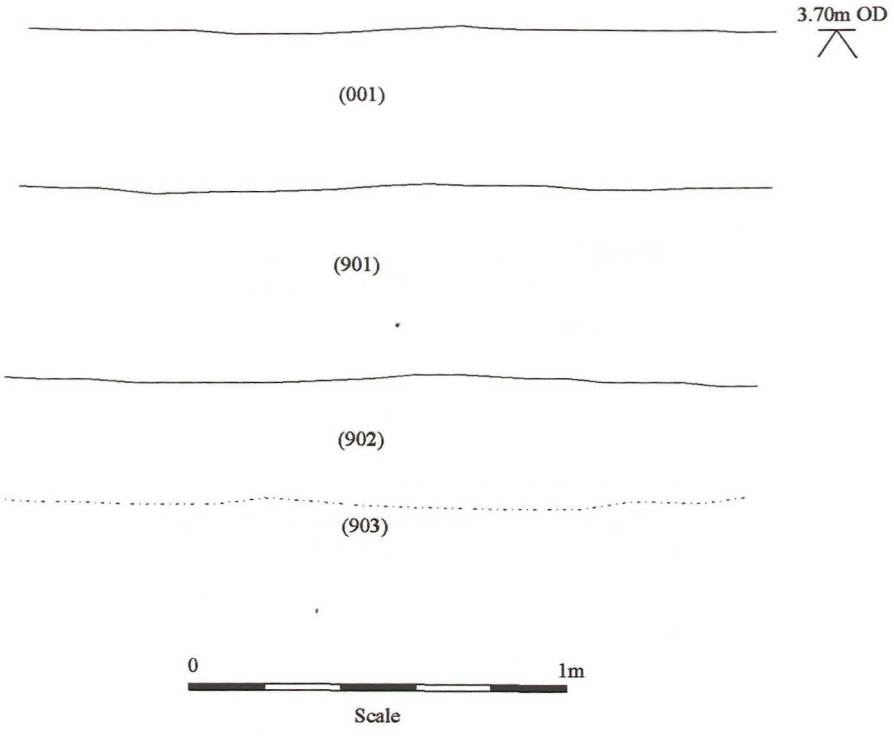


Fig. 14 : South-east facing section from trench 9. Shows alluvial layers. 1:20.

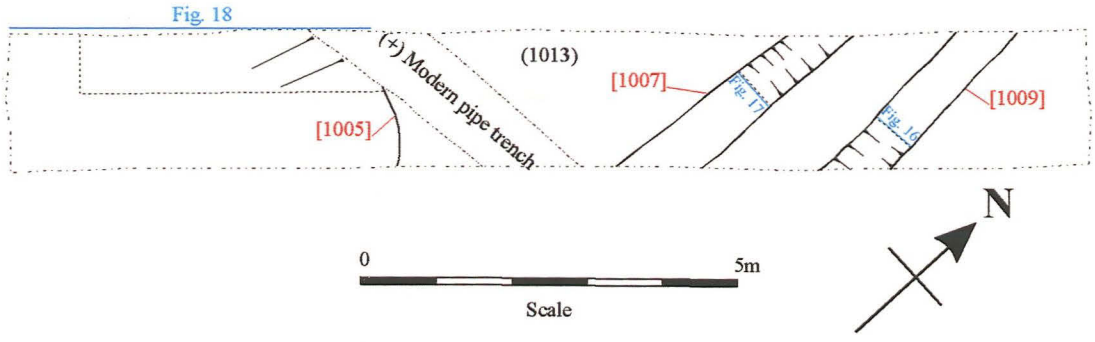


Fig. 15 : Plan of trench 10 showing two parallel ditches and large pit [1005]. 1:100.

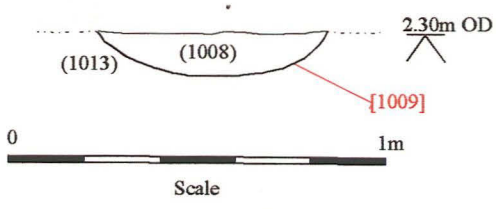


Fig. 16 : South facing section through ditch [1009]. 1:20.

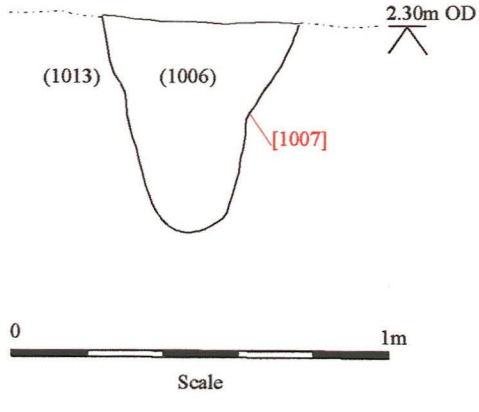


Fig. 17 : North facing section through gully [1007]. 1:20

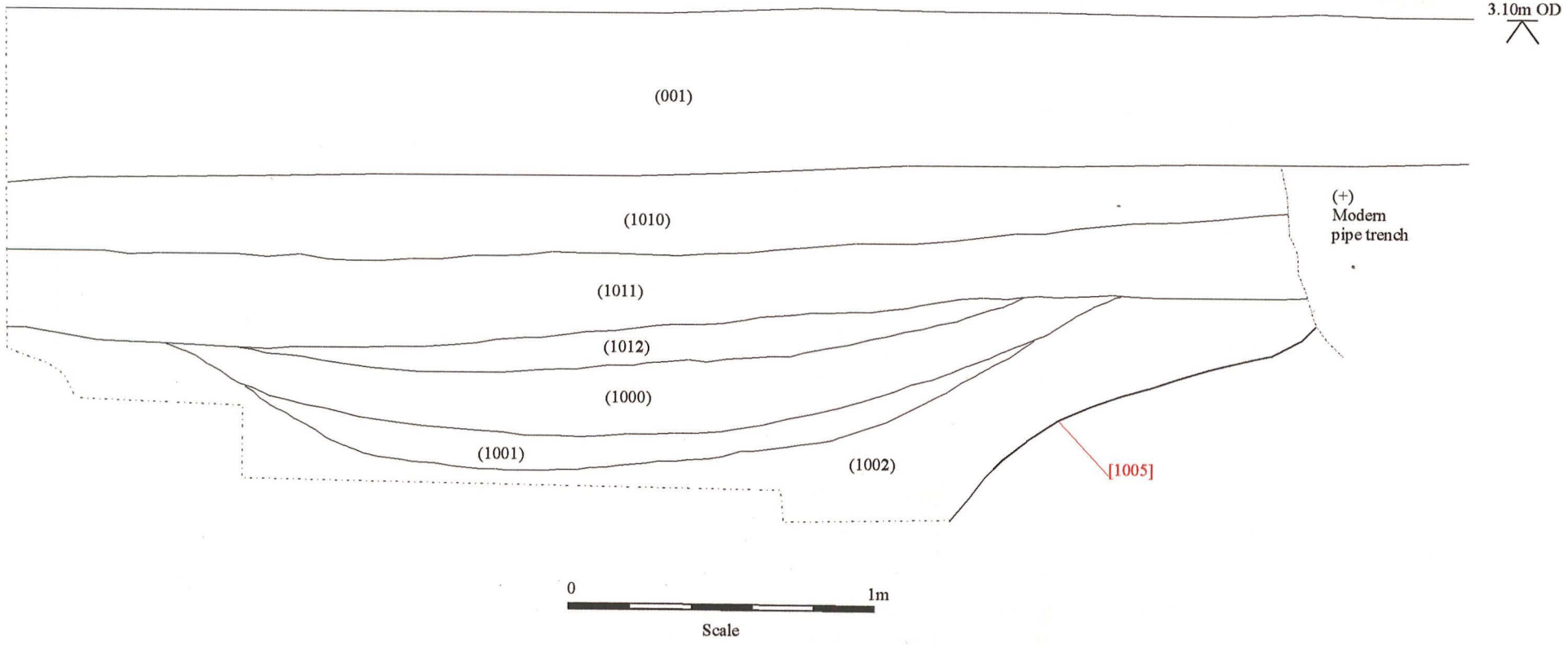


Fig. 18 : South-east facing section from trench 10 showing pit [1005]. 1:20.

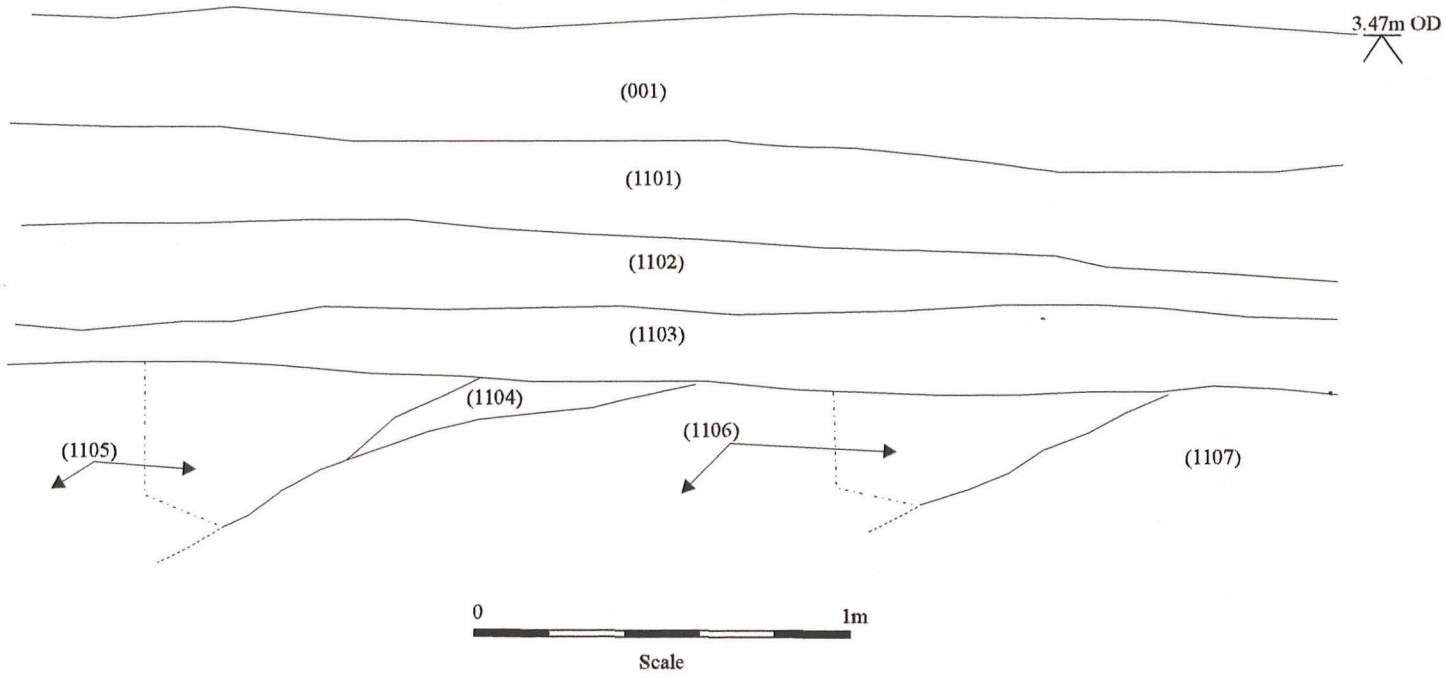


Fig. 19 : North west facing section from trench 11 showing 2 phases of alluvial deposition, horizontal bands overlie earlier sloping deposits. 1:20

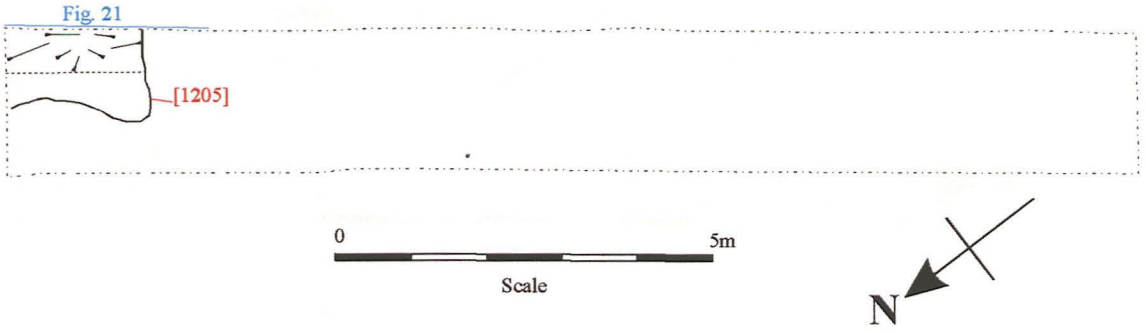


Fig. 20 : Plan of trench 12 showing single feature [1205] at northern end. 1:100

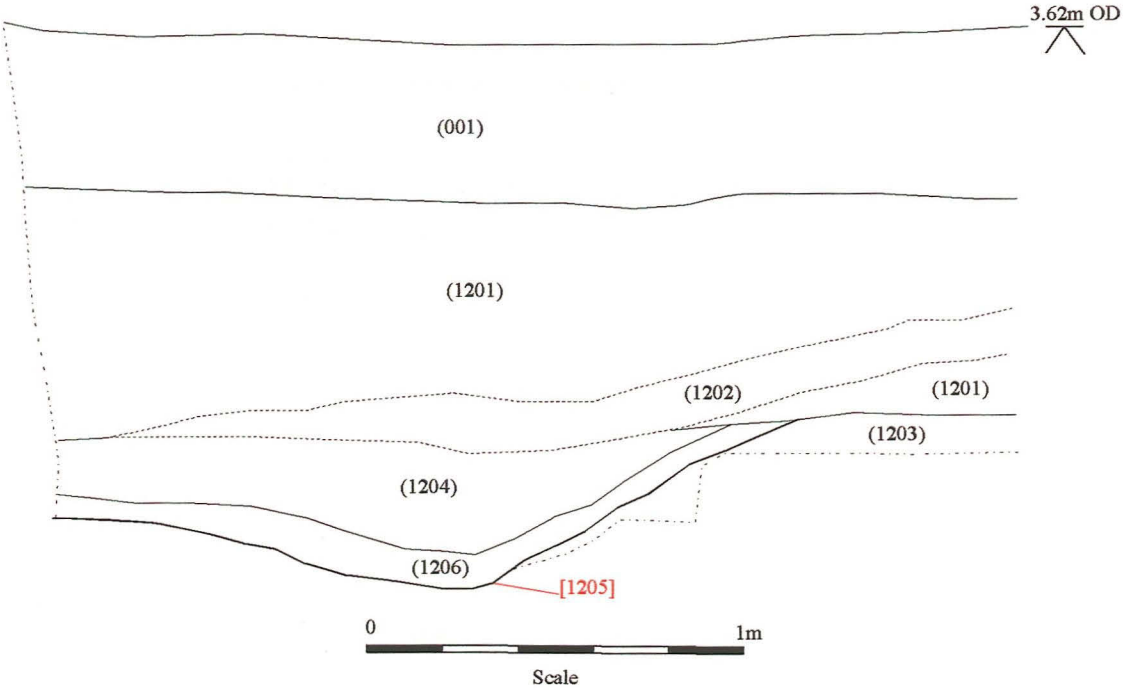


Fig. 21: West facing section from trench 12, showing pit [1205] with root channel (1202) above. 1:20.

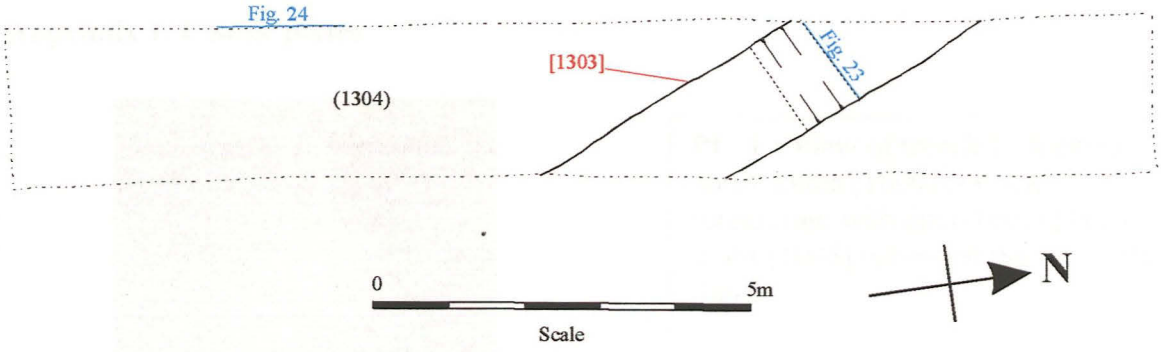


Fig. 22 : Plan of trench 13 showing ditch [1303] and locations of sections. 1:100

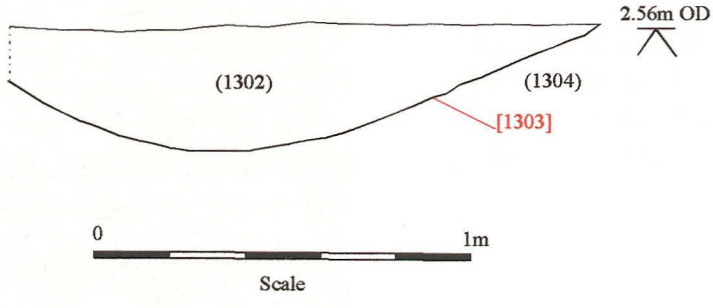


Fig. 23 : South facing section through ditch [1303]. 1:20

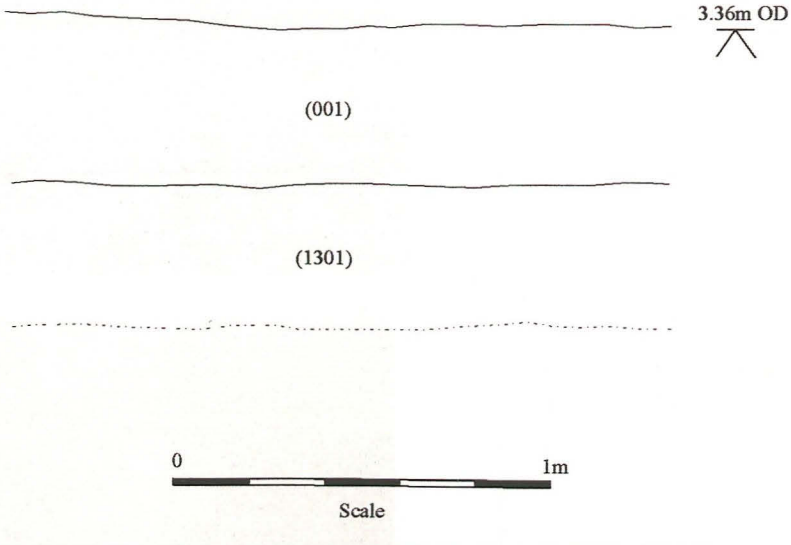
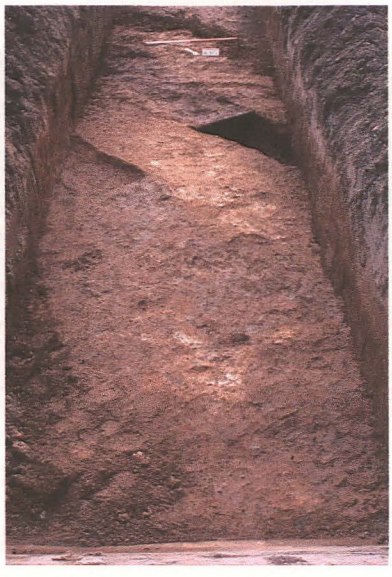


Fig. 24 : East facing sample section from trench 13. Shows topsoil and alluvial layer (1301). 1:20

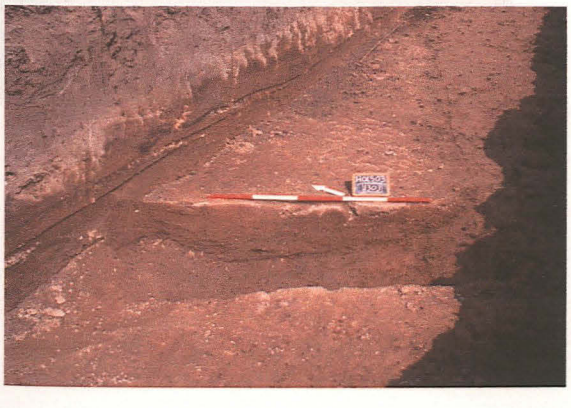
Appendix 1. Colour plates



PL. 1 : View of trench 10 looking north. Ditch [1009] is in the foreground with ditch [1007] beyond it. Pit [1005] is beyond the top of the frame.

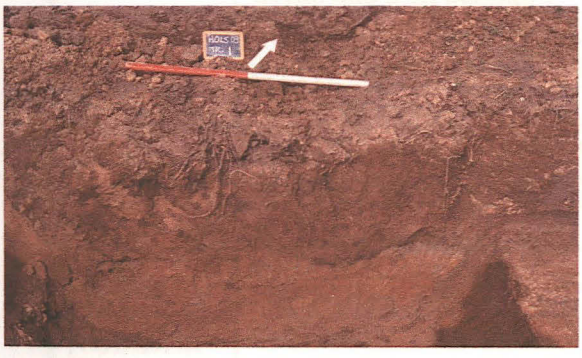
PL. 2 : Oblique SE-facing section of pit [1005] looking west. The darker fill at the base of the feature is (1002) from which the sample was taken.

PL. 3 : W-facing section showing pit [1205], looking east. The dark material over the top of the feature was interpreted as root disturbance.



PL. 4 : SW-facing section through ditch [1303], looking north east.

PL. 5 : N-facing section, trench 11, looking south. The two slots have been excavated through sloping alluvial layers as they dip down towards the east.



PL. 6 : SE-facing section, trench 1, looking north west. Shows 2 horizontal layers of alluvium below the topsoil.

PL. 7 : SE-facing section, trench 5, looking north west. Shows a horizontal layer of alluvium below the topsoil, a second is visible forming the base of the trench.

Appendix 2. Context summary

	TRENCH 1
CONTEXT NUMBER	DESCRIPTION
101	Friable light brownish grey fine sandy silt with occasional mussel and whelk shells. Subsoil, alluvial in origin.

	TRENCH 2
CONTEXT NUMBER	DESCRIPTION
[200]	Irregular cut feature, interpreted a naturally formed.
[201]	Ditch cut, boundary or marker ditch.
202	Compact mid brown silt with occasional charcoal flecks, alluvial material re-worked by root action to form a subsoil.
203	Fill of [200], grey-brown silt.
204	Top fill of ditch [201], mid brown silt.
205	Primary fill of [201], dark grey clayey silt with occasional charcoal flecks and iron panning.
206	Mottled grey and brown silty sand with frequent iron panning. Mottles appear to have formed in former root channels.
207	Mid grey sandy silt, no mottling or inclusions.
208	Light yellowish grey sandy silt, no inclusions.
209	Brownish grey silty sand, possible former ground surface.

	TRENCH 3
CONTEXT NUMBER	DESCRIPTION
	This trench contained frequent modern intrusions and possible live services. Excavation was abandoned.

	TRENCH 4
CONTEXT NUMBER	DESCRIPTION
401	Soft light greyish brown fine sand with occasional iron staining. Alluvium.

	TRENCH 5
CONTEXT NUMBER	DESCRIPTION
501	Soft greyish brown silty sand with some lighter brown mottling. No inclusions, alluvial.
502	Fill of [503]. Brownish grey silty sand with occasional charcoal flecks, pot and bone recovered.
[503]	Ditch, appears to terminate just beyond southern limit of trench
504	Fill of [505], modern.
[505]	Small pit, modern.

	TRENCH 6
CONTEXT NUMBER	DESCRIPTION
[600]	Ditch, probable drainage ditch.
601	Fill of [600], mid brown clayey silt, limestone fragments indicative of some deliberate back filling as this deposit formed.
602	Fill of [600], brownish and yellowish grey clayey silt water-lain in feature.
603	Fill of [600], yellowish brown clayey silt, formed in similar manner to above.
604	Fill of [600], dark grey silt with decayed organic matter, either dump of domestic waste or plant growth in base of feature.
605	Fill of [600], blue-grey silty clay, formed by slow moving water after feature first excavated.
606	Fill of [607], modern material visible on surface, not excavated.
[607]	Modern pit, not excavated.
608	Yellowish brown sandy silt with some evidence of rooting, alluvial material.

	TRENCH 7
CONTEXT NUMBER	DESCRIPTION
	This trench was filled with modern intrusions and unstable modern dumps containing glass and other hazardous material. Trench abandoned.

	TRENCH 8
CONTEXT NUMBER	DESCRIPTION
801	Fill of [802], Victorian or modern date.
[802]	Rubbish pit, Victorian or modern date.
803	Yellowish brown sandy silt alluvium, no inclusions, some rooting.
804	Mid to dark brown sandy silt (sandier than overlying (803)), no inclusions, alluvial deposit.
805	Mid brown sandy silt, becoming lighter and siltier towards southeast, alluvial deposit.

	TRENCH 9
CONTEXT NUMBER	DESCRIPTION
901	Yellowish brown sandy silt, no inclusions but some root and worm disturbance, alluvial deposit.
902	Dark brown silty sand, higher energy alluvium than (901) above it.
903	Light brown slightly silty sand, alluvial deposit.

	TRENCH 10
CONTEXT NUMBER	DESCRIPTION
1000	Fill of [1005], mid grey slightly sandy silt with pottery, animal bone and salt production waste, dump of domestic waste into rubbish pit.
1001	Fill of [1005], re-deposited natural used as capping layer in pit.
1002	Fill of [1005], dark grey silt with frequent charcoal and decayed plant remains. Dump of mixed waste, primary fill. <1>
1003	Number not used.
1004	Number not used.
[1005]	Rubbish pit, only 1 edge observed.
1006	Fill of [1007], dark brown slightly sandy silt, water lain, possibly as part of the larger flood event that formed (1011).
[1007]	Ditch, steep sides show it was not left open for long.
1008	Fill of [1009], mottled brown and blue clay, water lain during life of feature.
[1009]	Shallow ditch, nature of fill (1008) shows used for drainage.
1010	Light yellow silty sand, alluvial subsoil.
1011	Mid grey silty sand becoming darker towards bottom, alluvial deposit.
1012	Fill of [1005], capping layer.
1013	Alluvium in base of trench 10.

	TRENCH 11
CONTEXT NUMBER	DESCRIPTION
1101	Soft yellowish brown slightly silty fine sand, alluvial layer.
1102	Mid brownish grey silty fine sand, alluvial layer.
1103	Mid greyish brown sandy silt with occasional flecks of burnt earth material, presumably incorporated from underlying deposit (1104). Alluvial layer.
1104	Dump of burnt earth waste, possibly fire rake-out or similar. Appears to be eroded to northeast by same water action that deposited layers (1105), (1106) and (1107).
1105	Mottled brownish grey and blue fine sandy silt with frequent iron panning formed in former root channels, alluvial layer. Possible former ground surface.
1106	Mixed deposit of fine silty sand with pockets of blue clay, either disturbed or the product of varying depositional processes.
1107	Mid grey fine sandy silt, alluvial material, possibly surface over /through which proposed channel cut.

	TRENCH 12
CONTEXT NUMBER	DESCRIPTION
1201	Friable silty fine sand with pronounced band of iron panning at bottom. Alluvial deposit
1202	Former tree root channel, slopes down into fills of pit [1205].
1203	Greyish brown plastic silty clay. Alluvial deposit.
1204	Upper fill of [1205], soft clayey fine sand with some iron staining, pottery, bone and shell indicate domestic waste dumping.
[1205]	Irregular cut feature, fills (1204) and (1206) contain domestic waste.
1206	Primary fill of [1205], light grey fine sandy silt, collapse into freshly dug feature.

	TRENCH 13
CONTEXT NUMBER	DESCRIPTION
1301	Yellowish brown slightly silty sand, darker towards bottom. Alluvium, some rooting.
1302	Fill of [1303], mid greyish brown slightly silty sand, some domestic waste derived inclusions.
[1303]	Ditch, shallow 'U' shape running NW-SE, marker ditch.
1304	Brown silty sand with some orange iron staining. Alluvial material.

Appendix 3. Pottery archive.

context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	action	description	date
0202	SLQO		jar	1	1	12		base	fabric type series	handmade;soot;comm limestone occ carb veg;	12th to 13th
0202	SLQO		jar	1	1	2		BS		handmade;soot;comm limestone occ carb veg;	12th to 13th
0202	SLQO		jar ?	1	1	10		base		fabric incl mod rounded limestone & occ shell mostly fine quartz occ larger;handmade	12th to 13th
0202	SLQO		?	1	1	8		base		handmade;soot;comm limestone occ carb veg;	12th to 13th
0204	SLQO		jar ?	1	1	15		BS		soot;coarse fabric sim to that from Stamford;? A BOUA	12th to 13th
0205	MEDLOC	OX/R/OX;med sandy;hard	jar ?	1	1	5		BS		soot ext;occ carb veg & mod rounded limestone in fabric;? Odd BOUA ;wheelthrown	late 12th to 13th
0208	ST	B	jar/pitcher	1	1	1		BS		glaze	mid 11th to 12th
0208	SLOQ		jar	1	1	7		neck		fabric incl. Med quartz comm ca incl. Oolite & occ shell occ aggregate sst	12th to 13th

context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	action	description	date
0208	SLOQ		?	1	1	3		base		fabric incl. Med quartz comm ca incl. Oolite & occ shell occ aggregate sst occ carb veg occ clay pellets mod fe;soot	12th to 13th
0208	SLOQ		?	1	1	10		BS		fabric incl. Med quartz comm ca incl. Oolite & occ shell occ aggregate sst ;soot	12th to 13th
0502	BOUA	A	jug ?	1	1	8		BS		int dep	13th to 14th
0502	BEVO2	C	small jug	1	1	74		handle			late 13th to mid 14th
0601	BOU	4	jug	1	1	23		LHJ		? ID as a flake	15th to 17th
0601	NOTS		jar ?	1	1	14	machine roulette	rim			18th
0601	NOTS		jar/bowl	3	1	250		base			18th
0601	SLIP		large press mould dish	2	1	197	white trailed dec	rim		soot on int & extrim edge;red body	18th
0601	BOU	7	?	1	1	1		BS		? ID as a flake	15th to 17th
0602	BOU	7	large jug	1	1	112		BS			mid 15th to 16th
0604	BOU		bowl ?	1	1	15		BS		int glaze	mid 15th to 16th
0606	CREA		small bowl	1	1	174		base			mid/late 18th to mid 19th

context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	action	description	date
0606	BL		large bowl	1	1	86		rim			18th to 19th
0606	STSL		thrown dish ?	1	1	9	3 colour trailed	base		flake	18th
0606	LHUM		jar/jug	1	1	173		base			18th
0606	BL		chamber	1	1	15		rim			18th
0606	BL		large bowl	1	1	283		base			18th to 19th
0606	PEARL		cup ?	1	1	1	blue underglaze dec	rim			late 18th to mid 19th
0801	SLIP		side-handled jar	1	1	40		BS			19th to 20th
0801	WHITE		plate	1	1	7	blue feather edging	rim			19th to 20th
0801	WHITE		plate	1	1	3	blue feather edging	rim			19th to 20th
0801	NCBW		jar/bowl	2	1	10	white banded	BS			19th to 20th
0801	WHITE		jar	1	1	7		BS			19th to 20th
1000	EMHM		jar	3	1	9		BS		thin walled	12th to 13th
1001	MEDLOC	OX/R/OX;med sandy;hard	curfew/bowl	1	1	14		BS		heavy soot int;soot ext;occ carb veg & mod rounded limestone in fabric;? Odd	late 12th to 13th

context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	action	description	date
										BOUA;wheelthrown	
1002	DST	C	jug	3	1	50		BS			mid 12th to early/mid 13th
1002	ST	B	jug/pitcher	1	1	3		base		soot;glaze	mid/late 11th to 12th
1006	BERTH		side-handled jar	1	1	50		rim			17th to 18th
1204	TOY	K	jug	1	1	17	thumbed base	base			13th ?
1206	MEDLOC	reduced;med sandy;hard	jug	1	1	2		BS		pitted glaze	mid 12th to 13th
1302	STANLY		jug	3	1	40	applied light firing vert strips & pad with grid stamp	BS		cracked during firing	13th

Appendix 4. The fired clay from HOLS03

Alan Vince

A small collection of fired clay was submitted for identification and assessment. The material was of three types: handmade bricks of late medieval or post-medieval date and two types of debris from salt extraction. In total, 46 fragments were submitted, of which two are either definitely or probably bricks, 43 are probable salt extraction debris and one is an unusual white-firing tile (Table 1).

Table 1

Context	FCLAY	PMTIL	FCLAY/PMTIL	Grand Total
502	1			1
601		1		1
602			1	1
604	1			1
1000	12			12
1001	5	1		6
1002	24			24
Grand Total	43	2	1	46

Fabric

A representative sample of the material was examined at x20 magnification. Two main fabric groups were present

Fabric 1

This fabric contains moderate quantities of straw, represented now by long impressions with a flat cross section, about 4-5mm wide. The groundmass contains abundant quartz and mica silt up to 0.1mm. The micas are mainly muscovite but include definite flakes of biotite. The frequency of silt varies and is lowest in the brick and putative brick fragments.

The material varies in colour, due to differences in firing temperature and/or duration. However, all of the material is completely oxidized and the straw inclusions are completed burnt away. The lower-fired material is a light brown colour whilst the higher fired material is red. Both the lower fired and higher fired fragments have evidence for contact with salt water. In the lower fired material this takes the form of a white skin or crust whilst on the higher fired material there are changes in colour to the body (a purple tinge) together with a thin salt/ash glaze.

Fabric 2

An inclusionless white fabric with a groundmass containing moderate sponge spicules. The clay is highly calcareous, although most if not all of calcareous matter has probably been chemically combined with the clay groundmass. The single example of this fabric has a layer of moulding sand on the base composed of rounded ?chalk grains c.0.5mm across.

Form

The material seems to have been part of four types of object.

Brick

Rectangular handmade bricks thrown into a mould lined with straw.

Flat tile

A single fragment (fabric 2) seems to come from a flat tile. It is c.15mm thick and has a sanded base. The upper surface appears to have two knife-cut surfaces, one parallel to the base and the other at an angle of c.135 degrees.

Trough lining?

Three fragments have a flat surface with extensive salt surfacing (ie a white crust). Two of these were lower fired and the third higher fired.

Plano-convex bricks

Thirty-five fragments appear to come from large objects (perhaps c.200 by 300mm by 150mm) with one roughly flat surface and the other roughly rounded. The straw impressions suggest that these objects were wrapped in straw during forming.Function

Neither of the brick fragments show any evidence for the presence of mortar or clay bonding and may have been used in dry walling. One fragment has lost all its original surfaces as a result of spalling, perhaps evidence for prolonged exposure to freeze/thaw action.

The flat tile shows no sign of wear and its near-pipeclay appearance suggests that it might have been used for decoration or display (perhaps as part of a wall plaque?). Such an item would imply a domestic rather than an industrial context.

The trough lining? Fragments have clearly been exposed to salt water and heat but interestingly the heat seems to have been insufficient to bake the clay to a red colour. It would be possible by re-heating a sample of the lower fired pieces to establish the upper limit for the firing temperature but broad comparison with other fired clays suggests a maximum temperature in the range 700 to 900 degrees C.

Finally, the plano-convex bricks show no signs of wear, nor any signs of bonding. Furthermore, the salt surfacing in once case runs down a broken edge, suggesting that the bricks were fired after breakage and may have originally been used in an unfired condition. Their function and even original form is open to doubt but given their association with the trough lining they were probably used in a salt extraction process.

Assessment

This collection seems to be associated with both domestic and industrial activity. The industrial activity is probably salt extraction. However, there is a difference in the nature of the fired clay found here and that previously noted by the author on late medieval/early post-medieval saltings. Thus, the material was either associated with a different stage in the process or comes from a salting where a different method of salt extraction was employed. Further information might be extracted from more detailed analysis of these fragments but what is really required is a collection where the objects were left *in situ* or at least as complete or larger fragments.

List of Fired Clay

Context	Description	Cname	Form	Nosh	Subfabric	Firing
502		FCLAY		1	FABRIC 1	**RED**
601		PMTIL	BRICK	1	FABRIC 1	RED
602		FCLAY/ PMTIL	BRICK?	1	FABRIC 1	RED
604		FCLAY		1	FABRIC 1	**RED**
1000		FCLAY		2	FABRIC 1	**LIGHT BROWN**
1000		FCLAY	PLANO-CONVEX BRICK	10	FABRIC 1	RED
1001	BASE SANDED (CHALK SAND?);TWO KNIFE-TRIMMED SURFACE AT 135 DEGREES	PMTIL	FLAT	1	FABRIC 2	OFF-WHITE
1001		FCLAY	PLANO-CONVEX BRICK	4	FABRIC 1	RED
1001	ONE FLAT FACE HEAVILY SALT-SURFACED	FCLAY	TROUGH LINING?	1	FABRIC 1	LIGHT BROWN
1002		FCLAY		1	FABRIC 1	**LIGHT BROWN**
1002		FCLAY	PLANO-CONVEX BRICK	11	FABRIC 1	LIGHT BROWN
1002		FCLAY	PLANO-CONVEX BRICK	10	FABRIC 1	RED
1002	ONE FLAT FACE HEAVILY SALT-SURFACED	FCLAY	TROUGH LINING?	1	FABRIC 1	RED
1002	ONE FLAT FACE HEAVILY SALT-SURFACED	FCLAY	TROUGH LINING?	1	FABRIC 1	LIGHT BROWN

Appendix 5. Archive Catalogue of hand collected animal bone.

cont.	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	path	comment	preservation
202	OVCA	MTC	1	L		12						PROX END	4
202	DUCK	STN	1	F								LATERAL FRAGMENT	4
203	BOS	UM1	1	R					I16			COMPLETE	4
203	BOS	PH2	1	R	PF	12						COMPLETE	4
203	CSZ	RIB	1	F								SHAFT FRAGMENT	4
204	OVCA	HUM	1	R		5						PROX SHAFT- 3 PIECES	4
205	SUS	MT4	1	R		1		DG				PROX HALF-DISTAL CHEWED	4
208	SSZ	LBF	1	F								SHAFT FRAGMENT	4
208	OVCA	TIB	1	F								DISTAL SHAFT FRAGMENT	4
502	BOS	SCP	1	L		23	CH	DG				GLENOID AND NECKCHOPPED VENTRALLY AND TUB CHEWED OFF	4
601	BOS	SKL	1	L		HC						MOST OF HORN CORE AND PART FRNT AND PAR-LARGISH HC	4
601	SUS	MAN	1	R								SYMPHYSEAL FRAG-SMALL PIGLET	4
601	FEL	HUM	1	L						GL-88.2		COMPLETE .	4
601	BIRD	FEM	1	L								DISTAL END-SMALL DUCK?	4
604	SUS	SKL	1	L					K3			POST MAXILLA-M3 IN CRYPT	4
604	OVCA	TRV	1	F	CFAF	2345						CENTRUM AND ARCH	4
1000	BOS	FEM	1	L	PJ	13	CH					CAPUT-CHOPPED AXIALLY AND THROUGH HEAD	4
1000	BOS	HUM	1	R	DF	9		DG				CONDYLE CHEWED OFF-DISTAL ANT SHAFT FRAGMENT	4
1002	SUS	SKL	1	W		112234455667788899			FGHJ14K10			COMPLETE-M1 LOST IN LIFE-SMALL	4
1302	BOS	RUL	1	L	PFDF	123456/234						PROX AND DISTAL ENDS-NOT ATTACHED	4

Appendix 6. Environmental Archaeology Assessment

Introduction

One soil sample was taken on an evaluation excavation conducted by Pre-Construct Archaeology (Lincoln) at Holbeach Road, Spalding. The samples was taken from a wet organic context within a pit of 12th century date. The sample was submitted to the Environmental Archaeology Consultancy for processing and assessment (Table 1), along with a small collection of animal bones.

Methods

The soil sample was processed in the following manner. Sample volume and weight was measured prior to processing. The sample was washed in a 'Siraf' tank (Williams 1973) using a flotation sieve with a 0.5mm mesh and an internal wet sieve of 1mm mesh for the residue. Both residue and flot were dried and the residue subsequently re-floated to ensure the efficient recovery of charred material. The dry volume of the flot was measured and the volume and weight of the residue recorded.

The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. A magnet was run through the residue in order to recover magnetised material such as hammerscale and prill. The residue was then discarded. The flot was studied using x10 magnifications and the presence of environmental finds (i.e. snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The flot was then bagged and along with the finds from the sorted residue, constitute the material archive of the sample.

The individual components of the sample were then preliminarily identified and the results are summarised below in Table 1.

Results

There are two dominant elements in the sample. The residue is largely composed of fired and baked daub of unknown function but perhaps structural in origin. Only two pieces carry possible impressions of wood, but the remainder are fairly blocky with limited evidence for faces and lots of organic temper. The second major element is the charred assemblage. The flot is very large, 1.5 litres, and composed predominantly of charred cereal grain, chaff, straw and weed seeds in considerable abundance. There are several thousands of grains and seeds in the samples. Several peas and beans are present and a wide variety of crop weeds, but little wood charcoal. The cereals preliminarily identified include barley, wheat, oats and rye.

Table 1: HOLS03. Finds from the processed samples

Samp no.	cont no.	samp vol (l)	residue vol. (l)	flot vol (ml)	fired earth/ daub g.	char-coal *	charr'd grain *	charr'd chaff *	charr'd seed *	bone g.	egg-shell g.	marine shell g.	fish bone g.
1	1002	26	1.4	1500	821	5	5+	5	5	3	<1	1	1

* = abundance: 1=1-10, 2=11-50, 3=51-150, 4=151-250, 5=250+

Other environmental finds include several fragments of bird (presumably chicken) eggshell, a few small fragments of burnt bone, a single fragment of mussel shell, vole and amphibian bones and several fish bones among which the spines of the three spined stickleback have been identified and at least one other small fish species is present.

Animal Bone

A small group of twenty bones were recovered by hand during the evaluation. Cattle, sheep/goat, pig, cat, duck and another bird species were recorded. A catalogue of the bones is attached. The condition of the bone is very good, although three bones carried evidence for dog gnawing. Two bones showed evidence for butchery.

A virtually intact pig skull was recovered from context 1002 in the 12th century pit. This female animal was adult when it died, and is relatively small for a mature animal.

Discussion and Recommendations

The botanical assemblage appears to be a harvested but unprocessed crop. The mix of grain, chaff, straw, weed seeds and other crops, with many grains still within their husks suggests that the crop had not undergone any processing and the fire that resulted in its carbonisation was probably accidental. The presence of fired and unfired daub material in the sample might point to the deposit deriving from a burnt down structure of some sort, although the absence of timber or wood charcoal from structural timbers or wattle in the flot may be inconsistent with this interpretation.

This charred plant assemblage from context 1002 is exceptional and very similar to a tenth century assemblage studied from Theddlethorpe (on the Saltfleetby Pipeline- Gale *et al* 2000). A similar abundance of burnt daub in the samples from Theddlethorpe suggests a similar origin for the material.

Even if no further work is undertaken at the site the charred plant assemblage from context 1002 should be fully analysed. The sample will afford an important comparanda for the 10th century deposit from Theddlethorpe and medieval sites from the Spalding area.

The very rich character of the fills of this 12th century pit are very unlikely to occur in isolation and it would appear probable that other medieval features and evidence for occupation will be located very nearby. When further work is undertaken at the site the charred plant remains are clearly likely to have major potential for understanding the activities and economy of the site. But other remains, including the mammal and fish bone are also well preserved and may be able to make a significant contribution to a study of the diet and palaeoeconomy of the site. Sampling and analysis should therefore be concentrated on the palaeoeconomic aspects of the site such as the crop types, crop processing activities and character of the plant assemblages,

with the samples affording the opportunity for the routine recovery of fish bones and other remains which might give clues as to the origin of the deposits and the activities carried out on the site. Hand collection of the domestic animal bone should be carried out with any rich bone deposits being bulk sampled for wet-sieving to ensure their unbiased recovery.

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APPENDIX 7: Archaeometallurgical assessment by M Allen

Two pieces of metallurgical waste (weighing 91g) were recovered during a scheme of archaeological trial trenching (from Trenches 2 and 8) on land off Holbeach Road, Spalding, Lincolnshire (Table 1).

Context No.	Weight (g)	Identification	Notes
202	1g	Fuel ash slag	-
801	90g	undiagnostic piece	-

Table 1: Summary of material by context.

Context 202

Lightweight, vesicular piece of fuel ash slag. These can be produced in any high temperature fire, and are therefore not (on their own) indicative of a metallurgical process.

Context 801

A single piece of undiagnostic slag was recovered from the modern backfill of a 19th/20th century pit [802].

Conclusions

As only two pieces of slag were recovered from a total of 13 trenches across the site, there is little that can be said of the assemblage. The material does not in any way indicate metallurgical activities were occurring on, or near the site.

M. Allen 28/05/03