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PRE-CONSTRUCT ARCHAEOLOGY LINCOLN

ARCHAEOLOGICAL EVALUATION REPORT LAND TO THE SOUTH OF HIGH FARM, HALTON HOLEGATE, LINCOLNSHIRE.

NGR: TF 41310 65650
LCCM ACC. NO. 2001.19
Site Code: HAH 01
Planning Ref.: (E)572/-/00/CM/CEW





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Report Prepared for
Cirque Energy (UK) Ltd
by Jim Rylatt

February 2001

Pre-Construct Archaeology (Lincoln)
61 High Street
Newton on Trent
Lincoln
LN1 2JP
Tel & Fax. 01777 228155

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Summary

- A programme of archaeological trial excavation been undertaken on land to the south of High Farm, Halton Holegate, Lincolnshire, prior to the determination of a planning application for the construction of a temporary drill site.
- This intrusive fieldwork followed a desk-based assessment and a detailed gradiometer survey, which together produced results suggesting the presence of in-situ, sub-surface archaeological remains.
- Three trenches were opened, in one of which were two pits. The fills of these features contained a substantial quantity of artefactual material, which can be dated to the later Neolithic (3rd millennium BC). The nature of this material, and further lithic artefacts collected from the ground surface, indicates that the site hosted some form of occupation at this time.
- Within a second trench were elements of a curving ditch, which has been interpreted as a ringwork encircling a round barrow of late Neolithic or Early Bronze Age date.
- The third trench contained two large pits, probably resulting from sand quarrying, one of which contained mid-20th century refuse.

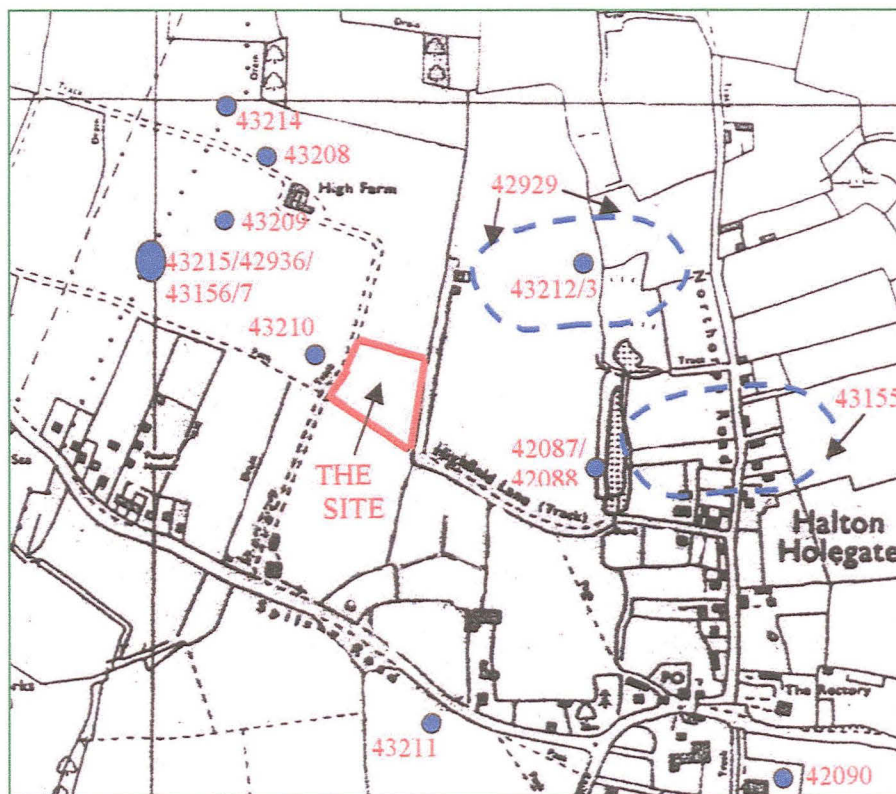


Figure 1: Site location at a scale of 1: 10,000. Also shown are the location of archaeological features and materials recorded in the County Sites and Monuments Record.

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1.0 Introduction

Cirque Energy (UK) Ltd. commissioned Pre-Construct Archaeology (Lincoln) to undertake a programme of archaeological investigation on land to the south of High Farm, Halton Holegate, Lincolnshire, in advance of the determination of a planning application for the construction of a temporary drill site for geological exploration.

This report details the results of an archaeological evaluation that followed an archaeological desk-based assessment (Rylatt, 2000) and geophysical survey (Rylatt & Bunn, 2000) of the site. It incorporates a series of assessments by specialist researchers who studied the archaeological materials recovered during excavation. The text follows current national guidelines produced by the Institute of Field Archaeologists (IFA, 1994) and local guidelines set out in the Lincolnshire County Council publication *Lincolnshire Archaeological Handbook: A Manual of Archaeological Practice* (LCC, 1998).

2.0 Location and description

Halton Holegate lies at the southern edge of the Lincolnshire Wolds, within the administrative district of East Lindsey. It is situated approximately 43km east of Lincoln and 23km north-north-east of Boston.

The site is situated c. 600m to the north-west of the village core, in an area of cultivated agricultural land (fig. 1). The proposed development will be contained within a sub-rectangular unit of land, totalling approximately 1ha, which represents the southern end of the north-south arm of an 'L'-shaped field.

This field had recently supported a cereal crop. The surface cover comprised stubble, c. 0.15m high, and short weed species, particularly nettles and thistles, as well as deciduous leaves from nearby trees. This shrouded 50 – 80% of the surface of the topsoil.

The eastern perimeter of the site follows the edge of a grass track known as Highfield Lane. There is no physical boundary between them. The ground surface rises noticeably at the north-eastern corner of the plot. The eastern part of this mound has been terraced away to enable Highfield Lane to continue as a relatively horizontal surface. A band of compacted topsoil, which results from the use of a public footpath, defines the southern boundary. The western edge of the site is defined by a trackway constructed on a low bank, the rubble surface of which lies c. 0.4m above the surface of the field. The northern edge of the site is not clearly defined, the field continuing for approximately another 300m in this direction.

The site occupies the southern half of the crest of an east-south-east to west-north-west orientated ridge, which runs between Spilsby and the village of Halton Holegate. The ground surface drops toward the southern edge of the site, at c. 36m OD, with the north-eastern corner situated at c. 40m OD, and the rest of the crest of the ridge lying at c. 38.5m OD. In contrast the low ground some 250m to the south lies at c. 26m OD.

There are extensive views to the north and south, with the buildings and landscaping of the modern settlements of Spilsby and Halton Holegate impeding vision in the other directions.

The British Geological Survey (BGS, 1995) has not identified any drift deposits within the immediate vicinity of the site, although the presence of a slightly clayey ploughsoil containing small quantities of (Claxby?) ironstone, flint and other erratics suggests that there is a thin veneer of such material covering the site. The uppermost formation of the underlying solid geology is Spilsby Sandstone, a pale grey, green to brown-weathering, pebbly sandstone, deposited at the end of the Jurassic period. This forms the east-west ridge, while the valley to the south of the site is incised into the top of the underlying clay formations of the Ancholme Group.

Central National Grid Reference: TF 41310 65650.

3.0 Planning background

Cirque Energy (UK) Ltd have applied to Lincolnshire County Council for planning permission to construct a temporary drill site for testing and evaluating a single explanatory borehole (planning ref. (E)572/-/00/CM/CEW). That authority, acting on the advice of their Built Environment Team, has requested that a programme of archaeological investigation be undertaken to inform the decision making process and enable the application to be determined.

4.0 Archaeological and historical background

No formal archaeological excavations had been undertaken within the parish of Halton Holegate prior to the current investigations (detailed in 6.0). However, a programme of fieldwalking undertaken by T. and H. Godfrey in the 1970s, examined the fields flanking the northern half of the village. This essentially focussed upon the east-south-east to west-north-west orientated ridge on which the site is located. Lithic material constituted the majority of the artefacts recovered, and attests to an extended period of human activity in the prehistoric period.

The oldest artefact recovered was a Lower Palaeolithic bifacial handaxe, found toward the western edge of the field located immediately to the west of the site. This item is a product of the Acheulean tradition, evident in Britain from c. 500,000 to 150,000 BC. As such, an archaic *Homo sapien* (i.e. a pre-anatomically human person) manufactured it prior to the last glaciation. A scatter of microlithic flints was also recovered from the southern edge of the same field. These artefacts are characteristic of Later Mesolithic technologies, c. 6000 – 3500BC, and were fabricated to create composite tools. Such localised scatters are often the by-product of the expedient manufacture of tools by passing groups of hunter-gatherers.

Aerial photographs suggest that the locality was the setting for significant activity during the earlier Neolithic period, as they have demonstrated the presence of a large circular feature at the eastern edge of the field lying immediately to the east of the site.

This takes the form of two concentric ditches, the inner having a diameter of c. 25m and the outer c. 40m. Both ditches appear to be discontinuous, being interrupted in a number of places. This suggests that the cropmarks represent the remains of a causewayed enclosure, constructed and utilised between c. 3,300 and 2,500BC. Such monuments probably operated as important ritual and communal foci for a number of relatively mobile communities (*q.v.* Edmonds, 1993).

Neolithic flint tools have also been recovered from the area, but in the majority of cases they have not been differentiated from other lithic artefacts manufactured in the succeeding Bronze Age period. The exceptions represent extremely diagnostic pieces. These include a polished stone axe from Keal's Field, c. 450m to the east of the site. Also recovered were a number of leaf-shaped and *petit tranchet* arrowheads, from the eastern edge of the field containing the causewayed enclosure. This area overlooks low lying wetland, formerly a small lake known as Pine Goose. The margins of the lake probably represented a rich and diverse source of game for hunters.

Two barbed and tanged arrowheads represent the only Bronze Age lithic material positively identified, one coming from the same area as its Neolithic counterparts, the other from the vicinity of the causewayed enclosure.

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no. Further cropmarks, located in the field lying to the east of that containing the causewayed enclosure, appear to indicate the position of at least four single-ditched round barrows. While such funerary monuments were constructed, intermittently, from the later Neolithic until the Anglo-Saxon period, the majority are associated with Early Bronze Age burials. It is probable that this necropolis was deliberately constructed adjacent to, and in reference to, the existing Neolithic monument, a site long associated with ritual and ancestral activity. Such juxtapositions are relatively common (e.g. Arbor Low, Derbys; Barrow Hills, Oxon; West Cotton, Wilts.) and can occur on all sides of the monument, generally in locations from which there is inter-visibility. Consequently, it is unsurprising to find that cropmarks suggest the presence of further barrows to the west of the site, one lying close to the handaxe find-spot, the other in the east-west arm of the field containing the site, c. 150m to the north-west of High Farm.

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At present there is no positive evidence of activity in the vicinity during the Iron Age and Romano-British periods. However, aerial photographs indicate that there are several sub-rectangular enclosures, one possibly containing a circular structure, situated to the immediate west and north-west of High Farm. These cropmarks have morphological characteristics, which suggest that they represent settlement and boundary features of a Late Bronze Age to Romano-British date (*q.v.* Winton, 1998).

There is no archaeological evidence for Anglo-Saxon activity in the parish. However, the etymology of the place-name suggests that the origin of the modern settlement lay in the later Anglo-Saxon period. The village appears as *Haltun* in the *Domesday Book*, a word utilising Old English components *halh* and *tun*, meaning 'farmstead in a nook or corner of land' (Mills, 1993). In contrast, the suffix, Holegate, has an Old Scandinavian origin, from *holr* and *gata*, meaning 'road in a hollow'. This road has continued to be used to the present day, as Hole Gate, part of the B1195 to Wainfleet All Saints. The cutting or 'hollow' is located to the north of St Andrew's Church,

allowing a gradual descent from the edge of the Wolds, at c. 24m OD, to the Lindsey Marshes, at c. 17m OD. It is conceivable that the differing origins of the two components of the place-name indicate a sequence of activity, with the farmstead being established initially, and the road being created or formalised later, during the period of Danelaw, or even subsequent to the Domesday Survey. It is probable that the road was created to allow passage for livestock onto the fertile grassland of the marshes, and also to facilitate the transportation of salt inland from production sites on the coast.

The *Domesday Book* indicates that although Count Alan controlled some property in and around the village, Ivo Tallboys, the nephew of King William, held much of the land in the parish. This estate was managed from the manor at Bolingbroke, in which wapentake Halton lay (Morgan & Thorn, 1986). In addition to 9 carucates of land and 120 acres of meadow, Ivo also held 4 mills and a church. Although the present church contains no fabric of this date, it is likely that St Andrew's overlies the site of this Saxon or Saxo-Norman precursor and indicates the general location of the Domesday settlement.

Elements of the medieval field system still exist as earthworks. Several of the fields bracketing Spilsby Road, to the south of the site, contain extant ridge and furrow. Further surviving strips can be found at the north-west corner of the parish, to the north of High Farm and west of Northorpe Farm, which appear to represent a small component of a much larger system belonging to Spilsby. Immediately to the south of these strips, and surrounding High Farm, are a series of cropmarks representing linear boundaries and a trackway. These have been interpreted as other elements of the medieval field system, although it should be noted that they appear to overlie the remains of a late prehistoric settlement and enclosures (see above).

5.0 Methodology

Jim Bonnor, Senior Built Environment Officer, Lincolnshire County Council, devised a trenching scheme, which was based upon the results of the gradiometer survey (fig. 2). Two 20m long trenches were placed within the north-eastern quadrant of the site. A third trench of 5m by 5m was placed toward the southern edge of the field. Additionally, it was specified that 15 test pits, each 1m², be excavated at all of the principle points of a 30m grid placed across the site as part of the geophysical survey. The purpose of the latter were to sample the topsoil, by passing it through a sieve with a 10mm² mesh, and extract any artefactual material in order to establish its nature, distribution and density. Three test pits were excavated along the eastern edge of the site, but soil moisture severely hampered the sieving process. Following the discovery of *in-situ* prehistoric deposits, and after consultation with the Senior Built Environment Officer, the remainder of the test pit sampling programme was abandoned.

A JCB fitted with a 1.8m wide, toothless ditching blade was used to remove all topsoil and subsoil in spits no greater than 0.2m in depth. The removal of these deposits was monitored constantly to ensure that any archaeological features exposed by this process were identified. All further excavation was undertaken by hand.

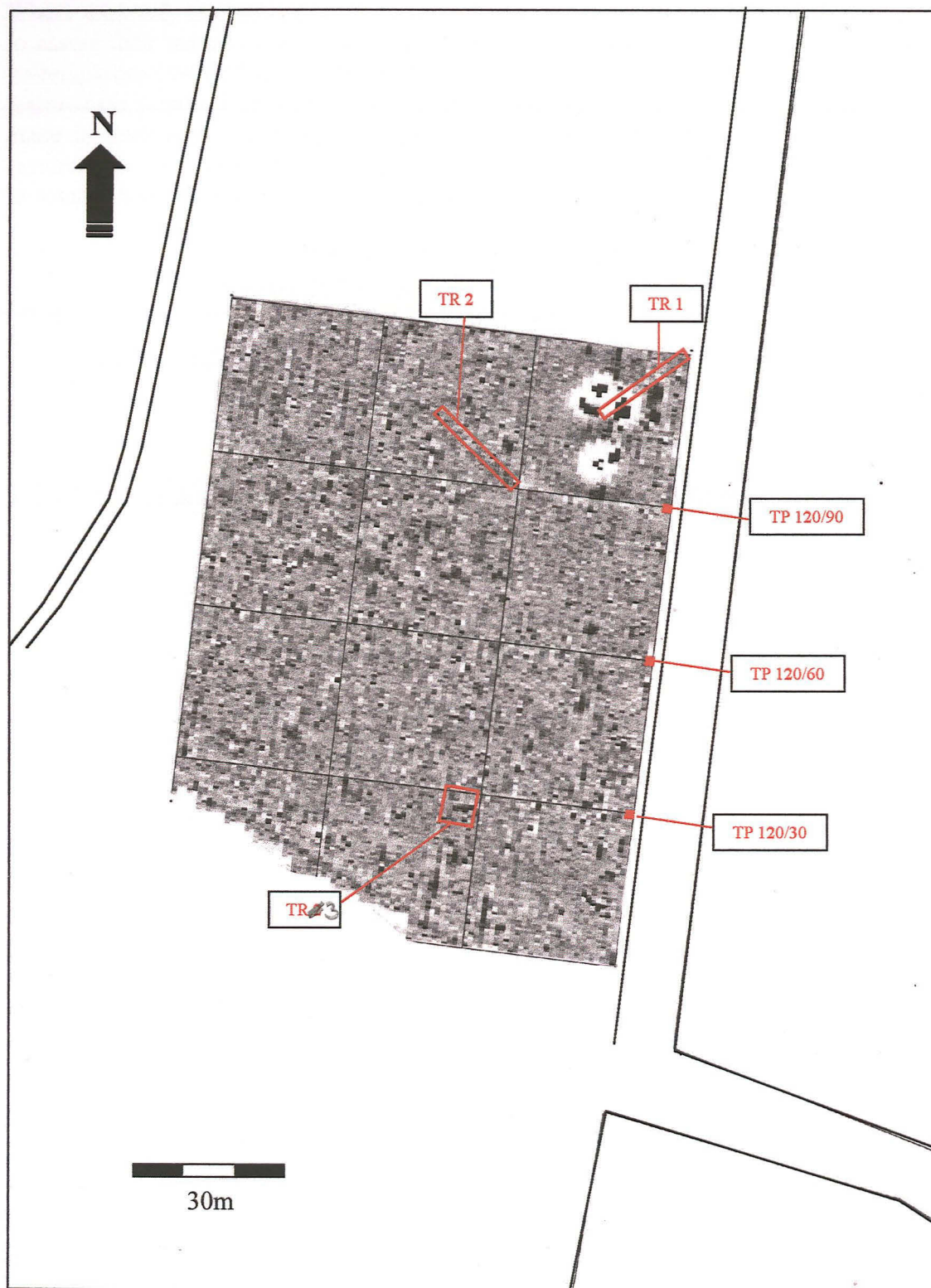


Figure 2: Location of trenches in relation to the anomalies detected by the gradiometer survey.

Where exposed, archaeological features and deposits were sample excavated in order to assess their nature, dimensions and to attempt to recover datable materials. These investigations resulted in the production of written descriptions of all deposits and features on standard context record sheets, and complementary scale drawings were made in both plan and section. A photographic record (colour prints) of exposed features was maintained. Selective prints have been reproduced in this report, with the remainder forming part of the project archive.

A team of four experienced field archaeologists carried out the excavation over a period of five days, from the 22nd to the 26th January, 2001.

Artefactual materials recovered from the site were cleaned and processed prior to their submission to researchers specialising in the examination of archaeological materials. Additionally, a recognised specialist has analysed processed soil samples to ascertain the presence and nature of any palaeo-environmental remains, which they may contain. The results of these investigations have been included as independent appendices to this report, and the general conclusions of these accounts have been integrated into the main text.

6.0 Results

The topsoil was noted to vary slightly in composition, from a silty sand to a slightly clayey, sandy silt, with progression across the site. The depth of this layer also varied, from c. 0.25 - 0.35m. Stubble from a cereal crop indicated that the field had been ploughed in the last twelve months, and that this followed a north-south orientation, running perpendicular to the contours. Consequently, it is evident that ploughing has been responsible for homogenising this layer and creating its well defined, horizontal interfaces.

This ploughsoil contained large quantities of coarse components. The dominant constituent was small rounded and sub-rounded pebbles of Spilsby Sandstone. There were also small amounts of ironstone, quartzite pebbles and flint. Artefactual material reflected both modern and earlier utilisation of the site. In the latter category were large quantities of worked flint, as well as a few hammer-stones, fragments of medieval pottery and tile, and sherds of post-medieval pottery.

Trench 1

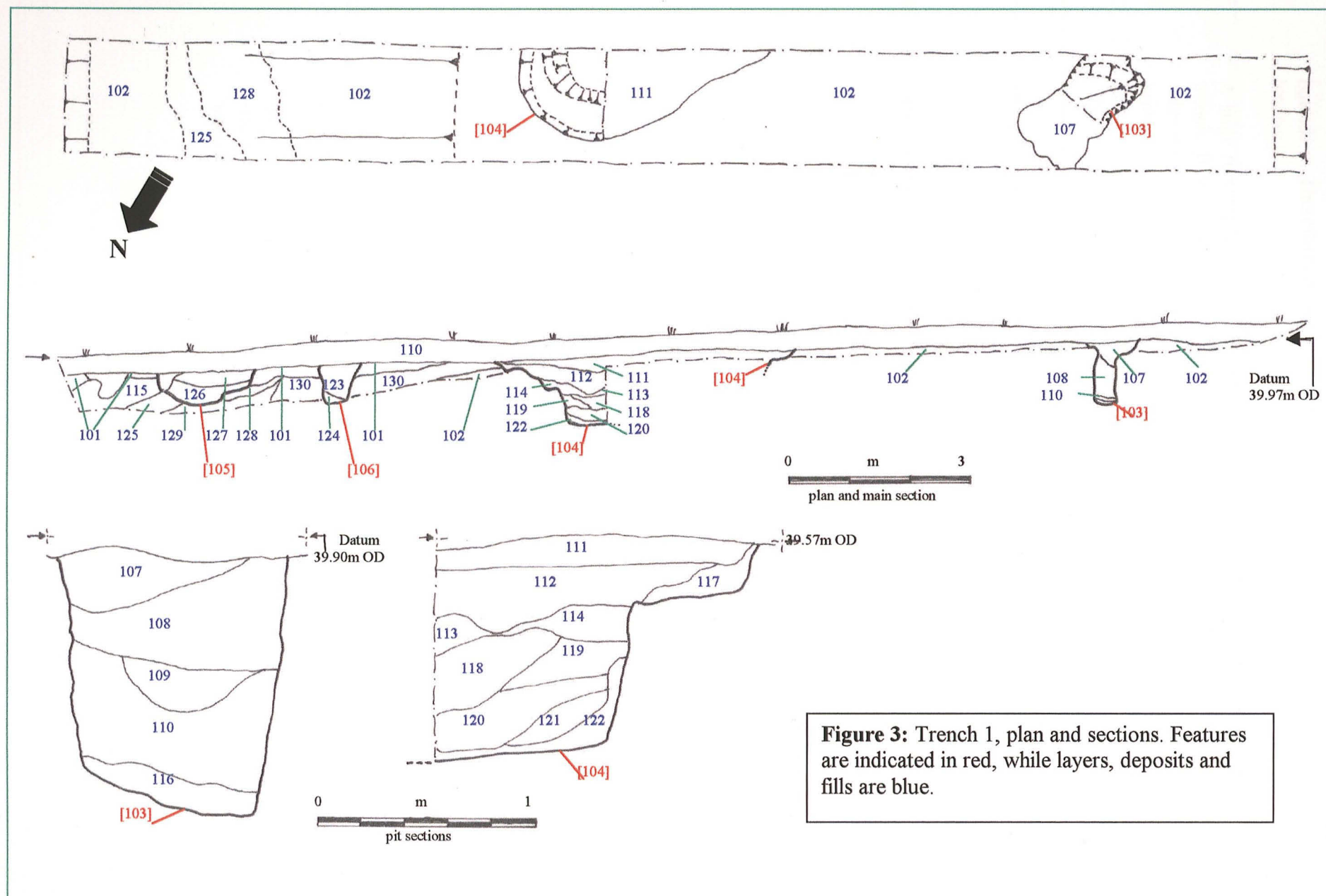
(See fig. 3)

This trench ran south-westward from the north-eastern corner of the geophysical survey grid, thus crossing the top of the mound situated in that part of the site (see 2.0). It was placed to investigate a group of strong dipolar anomalies, which the gradiometer had detected on the apex and southern flank of this rise.

Removal of the ploughsoil, (100), revealed that the subsoil, (101), did not extend across the full length of the trench, but was restricted to the north-eastern third of the exposed area. It was evident that this differentiation resulted from localised erosion. In the southern two-thirds of the trench, the topsoil was situated immediately above the natural, (102), a coarse yellow sand. This was the highest point of the mound, and the cumulative effects of overland flow and ploughing had resulted in the translocation of sediment down slope. As a consequence, the natural deposits were being incrementally incorporated into the ploughsoil.

Further support for this inference was provided by an examination of the deposits at the north-eastern end of the trench. Beneath the subsoil, (101), were a series of laminated colluvial deposits, (115), (125), (128), (129) and (130), which increased in depth toward the end of the trench. This indicates that the mound as we now see it is lower and wider than in the past.

Cut into these deposits, c. 1.6m from the northern end of the trench, was a north - south aligned ditch, [105]. The upper fill, (127), a mid-brown sandy silt, was only slightly darker than the subsoil, effectively masking the feature during the initial machining of the trench. Consequently, the feature was only observed in section. It was c. 1.6m wide and c. 0.5m deep, with a 'U'-shaped profile that was slightly stepped along its western edge. Artefactual material was not recovered from either (127) or the primary fill (126). However, the close proximity and shared orientation of this ditch and the edge of the field suggests that [105] represents an earlier alignment of the



boundary. Therefore, it would appear to be a feature of the post-medieval or modern landscape.

A large rectangular pit, [103], was located c. 2.7m from the south-western end of the trench. It was 2.0m long, from north to south, by 1.0m wide, and had near-vertical sides descending to a flat bottom, c. 1.10m below the base of the ploughsoil. The primary fill, (116), was a dirty orangey yellow sand, c. 0.14m deep, which appeared to be comprised of slumped natural deposits, trampled by the people who created the pit. Above this was a substantial deposit of domestic refuse, (110), c. 0.5m in depth. The constituents of (110) included stoneware marmalade jars, broken plates, glass jars and a number of bottles. Among the latter were a number of vessels with embossed lettering, including two 8 ounce Bovril bottles, two small 'Eiffel Tower Lemonade' bottles - the product of Foster Clark Ltd, Maidstone - and a bottle marked 'Mason's Wine Essences Nottingham'. These items indicate a 20th century date for this deposit. Around 70% of (110) was comprised of ferrous debris, including paint tins, screw-top tins, buckets, pots and pans. The magnetic signature of this material is undoubtedly responsible for one of the strong dipolar anomalies detected in this area by the gradiometer survey. Three further deposits sealed the refuse layer, (108) being of a substantial volume, suggesting deliberate back-filling to cover (110).

The northern half of a large sub-oval pit, [104], was uncovered c. 7.5m from the north-eastern edge of the trench. This pit, c. 4.0m long and 1.5m wide, as exposed, had an unusual profile. The upper edge sloped down at around 40°, stopping after approximately 0.2m at a horizontal platform, c. 0.5m wide, which ran right around the excavated segment. Below this level area, the sides of the pit were steeper, descending a further 0.66m to a flat base. It could be inferred that [104] had been back-filled relatively soon after its creation, as it had been cut into coarse sands, (108), and yet the sides were still relatively steep and regular. The primary fills, (122) and (121), appeared to be composed of material largely derived from (108), that had presumably slumped or washed into the pit. Above these were a series of deposits, each of which tipped down toward the centre of the pit. Artefactual material was not encountered during excavation, but the proximity to pit [103] implies that this is a relatively modern feature. Additionally, as it does not appear to have been created to contain refuse or other waste products, it is conceivable that [104] is a quarry pit, the by-product of sand extraction.

Another pit, [106], was exposed in north-west facing section, c. 4.2m from the north-eastern end of the trench. In comparison to [103] and [104], this appeared to be a relatively insubstantial feature, being only 0.65m wide and 0.6m deep. However, when it is considered that the feature only projected a few centimetres into the trench, its other dimensions suggest that [106] only represents the corner of a much larger feature extending to the south of the trench.

Trench 2

(See fig. 4)

This trench was placed c. 20m to the south-west of Trench 1 in order to investigate one of two penannular anomalies detected by the magnetometer survey. The more clearly defined example was selected, which was situated to the east of its neighbour at the foot of the mound in the north-east corner of the site.

Removal of the ploughsoil, (200), exposed a subsoil layer, (201), up to 0.3m in depth. Beneath (201) at the south-eastern end of the trench was a mixed brownish-yellow silty sand, (222), its counterpart at the north-western end being (223). These layers were possibly colluvial in origin. Additionally, the upper surface of the underlying deposit, (203), a stiff pink clay, was characterised by closely spaced undulations and depressions, which suggested that (222)/(223) were essentially sub-components of the subsoil, filling voids created by tree roots or animal burrows.

A small irregular pit, [206], c. 1.0m long and c. 0.7m wide, provided more direct evidence of tree root disturbance. Its irregular, concave base was only 0.15m deep and was lined with a deposit, (217), containing a large quantity of charcoal fragments, some of which were up to 0.015m³. A number of small circular deposits of (217) continued beneath the base of the pit, probably representing individual root voids, which, together with the charcoal, strongly suggests that this feature results from the burning and clearance of a tree bole. There were no direct stratigraphic relationships with the other features in the trench, which would provide evidence of when this event occurred, but the upper fill, (216), was sealed beneath the subsoil, (201), indicating that it probably predated the medieval utilisation of the site.

Part of a ditch, [204], which curved through c. 20° between the two lateral sections, was exposed c. 0.45m to the east of [206]. The edges of this feature were difficult discern during excavation, but were readily apparent in both the north-east and south-west facing sections. Consequently, it was evident that [204] was c. 1.35m wide, with a 'U'-shaped profile, which was stepped along its western edge and slightly flattened to create a level base, c. 0.35m wide. The latter was situated approximately 1.0m below the modern ground surface.

A second ditch, [205], was revealed c. 9m to the north-west of [204]. This also had a slight curvature, the eastern end of [205] turning toward the northern end of [204]. The morphology of the two features differed somewhat, as [205] was wider, at c. 1.7m, with the profile being far more irregular than that observed for [204]. Additionally, [205] appeared to be c. 0.25m shallower than its neighbour. However, this difference in depth actually reflected the topographical changes occurring at the edge of the large mound (see 2.0), with the bases of the two ditch sections being located at more or less the same height above Ordnance Datum. Consequently, it would appear that [204] and [205] represent two sections through the same feature, a circular ditch of c. 10m diameter, the centre of which lies c. 1.75m to the south of the north-east facing section, at a point approximately equidistant from the two excavated elements.

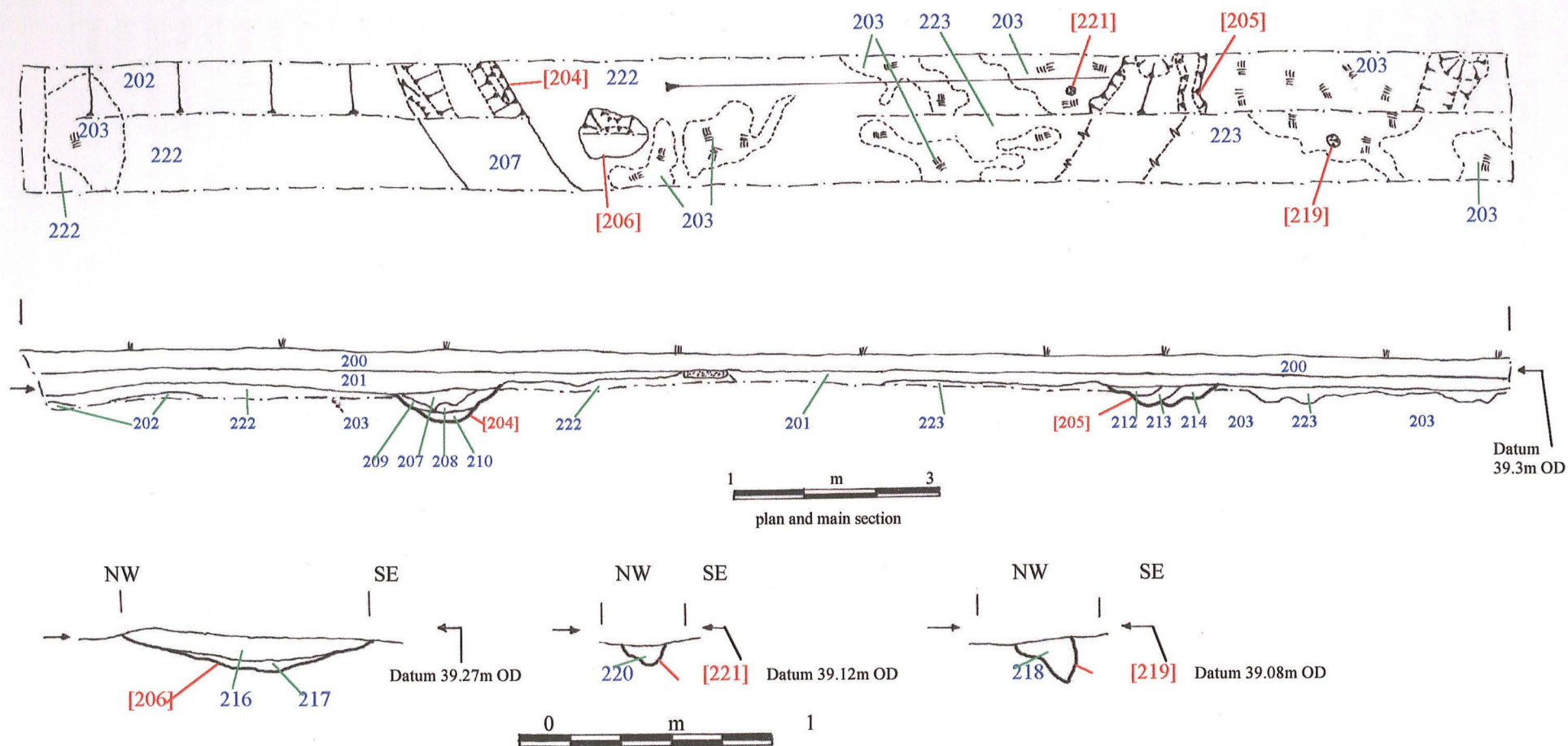


Figure 4: Trench 2, plan and sections.

Ditch [204] corresponds closely to the location of the south-eastern edge of a penannular anomaly, (8), which was detected by the geophysical survey (Rylatt & Bunn, 2000). However, the greyscale image suggested that this feature was c. 20m in diameter, indicating that [205] could not represent the north-western return of this feature, as the latter should lie c. 6m beyond the end of the trench. This would suggest that either the two ditch sections are not from the same feature or phase, or that the interpretation of the gradiometer survey results was substantially, but not wholly correct.

Examination of the sequence of fills in the two ditch sections provides some insight into the possible use of the hypothesised circular feature, extrapolated from the spatial relationships between [204] and [205]. Ditch [204] was excavated into the same naturally deposited coarse yellow sands, (202), as noted in Trench 1. The primary fill, (211), was a thin lens of slightly silty coarse sand, a mere 0.05m thick. Above this was a distinct layer of pale brownish-grey sandy silt, (210), c. 0.1m in depth. The colour and composition of this deposit, in comparison to many others encountered on the site, suggested that it had accumulated in an open feature. The fills above (210) had an asymmetrical distribution. A small deposit of pale brownish-yellow silty sand, (209), c. 0.07m thick, ran along the eastern edge of [204]. In comparison, much of the western half of the feature, the area corresponding to the inner edge of the arc of the ditch, was filled by a light yellowish-brown sandy silt, (208), which was up to 0.23m deep. The dominant yellow component of (208) and (209) was very similar to the natural sands (202).

The fills of [205] differ in some respects from those described above. The three lower fills, (215)/(214)/(213), are all pale brownish-orange silty sands, which appear to have entered the ditch from the western, or outer, edge. The upper fill, (212), is a pale brownish yellow silty sand, comparable to (209). This appears as a flattened 'U'-shaped deposit, c. 0.1m deep, running along the inner edge of the ditch.

The observations made above suggest that a small proportion of the soil removed during the creation of the ditch was placed along its outer rim, with a much larger quantity being deposited into the central area contained by the latter. On some subsequent occasion part of the resultant bank and mound were pushed back into the partially silted ditch. The projected morphology of this reconstruction, combined with the dimensions of the ditch, suggest that [204]/[205] represent surviving components of a round barrow. As the probable tree clearance feature, [206], lies within the area contained by [204]/[205] it is possible that this event occurred immediately prior to the creation of this postulated barrow.

Two small sub-circular features were also examined in the north-western half of the trench. One of these, [221], lay c. 0.4m from the inner edge of [205]. This had a bowl-shaped profile, c. 0.08m deep and c. 0.16m wide, and was filled by a greyish-brown sandy silt, (220), containing occasional small charcoal fragments. The other, [219], was slightly larger and lay c. 2m to the north of [205]. It had an asymmetrical profile terminating in a pointed base, c. 0.18m deep, which slightly undercut the south-eastern edge of the feature. The fill, (218), was comparable to that contained within [221]. It is possible that both of these features represent postholes, a theory supported by the

cross-section of [219], which has a morphology paralleling the known effect of rocking a post laterally in order to loosen it prior to removal.

Trench 3

(See fig. 5)

Trench 3 was placed 60m to the south of the south-eastern end of Trench 2, and c. 25m to the north of the southern boundary of the site. It was a small square trench encompassing 25m², its shape reflecting the nature of the geophysical anomaly under investigation. The latter was one of a series of relatively small discrete entities, which appeared to be randomly distributed across the survey area. It was thought that these may represent areas of burning, possibly having a correlation to the significant quantities of burnt flint recovered from the surface of the site

Removal of the ploughsoil, (300), c. 0.27m deep, exposed a subsoil layer, (301), of c. 0.18m depth. Removal of the latter revealed an area of dark grey, charcoal rich material near the centre of the trench. The edges of this deposit were somewhat nebulous, but it was approximately 3.7m long from east to west and c. 1.0m wide. Initially, examination suggested that it was a single homogenous deposit, and it was not until half had been removed that it became obvious that there were in fact two inter-cutting features. As a consequence of this inability to differentiate the two fills, it has not been possible to confidently establish which of the features was created first. However, there were some indications that the larger, more easterly pit, [307], was the earlier of the two.

In plan [307] was very irregular, being sub-oval to sub-rectangular around much of its perimeter, but having a number of significant indentations in its north-eastern quadrant. Its long axis, orientated west-north-west to east-south-east, would have extended approximately 2.2m, while the maximum width was c. 1.2m. The profile of [307] was also rather erratic, the base, at c. 0.7m below the modern ground surface, being flattish, but undulating slightly. At the top of the pit the sides sloped at approximately 70°, the angle gradually changing toward the horizontal with progress toward the bottom of the feature. This produced an elongated bowl-shaped pit without a distinct break-of-slope between the edges and the base. Additionally, there were a number of small features cut through the bottom of the pit. An oval scoop, c. 0.5m long, 0.3m wide and 0.1m deep was situated at its south-eastern corner, while 14 fairly randomly distributed sub-circular areas of charcoal-rich fill, varying between 0.04 and 0.14m in diameter, appeared to represent a series of stake holes.

The primary fill of [307] was a pale brownish to pinkish-yellow clay, (303), containing occasional charcoal fragments. This was unlike any other deposit encountered during the evaluation, raising questions as to its source. One possibility is that it was brought to the site from the lower ground to the south of Spilsby Road, where the Kimmeridgean Clay Formations outcrop (BGS, 1995). However, it is necessary to exercise caution before interpreting (303) as a deliberate lining to the pit, because it was unevenly distributed, being up to 0.12m thick in some places and absent in others. A deposit of mid to dark grey silty sand, (306), was situated above (303), but appeared to follow, and was only present close to, the edges of the pit. In contrast to the

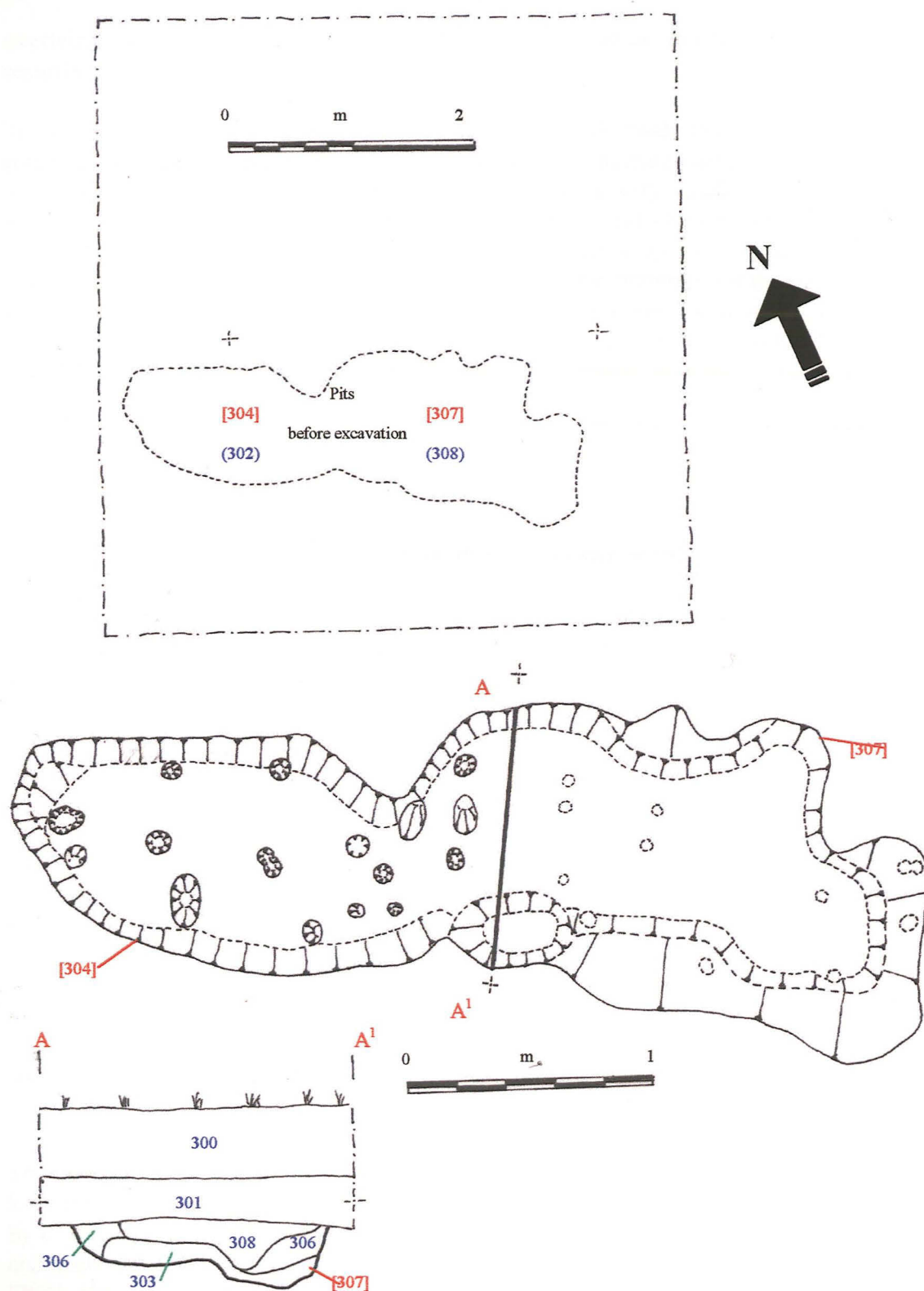


Figure 5: Trench 3, pre-excitation and post excavation plans of pits [304] and [307], and west facing section of [307].

overlying deposit, (308), (306) was notable for the total absence of artefactual material.

The artefact rich deposit, (308), was a dark grey to black sandy silty clay, the colour reflecting the large quantity of comminuted charcoal contained within it. There were only two pieces of ceramic material in this deposit, a very small fragment of an oxidised fabric, with coarse angular burnt flint inclusions, and a larger sherd in a sandy, quartz tempered fabric, which is of unknown date and form (see Appendix 13.2). Associated with this were twenty pieces of worked lithic material. Of these, eighteen were produced from various types of flint, four, including a core, being burnt. The only diagnostic piece was a horseshoe scraper, typically of later Neolithic date. The other two flakes had different geological origins. One was a relatively coarse-grained mid to dark grey metamorphic rock, while the other was struck from a fine-grained olive-grey material, probably either a chert or a volcanic tuff. The latter material was utilised during the Neolithic for the production of stone axes. Also contained within (308) were a number of small fossils. These appear to have been included as a deliberate deposit, as fossils were not discovered among the coarse components of the soil (for exception see 120/30, below), nor were they recovered from any other excavated context. It would also seem that these particular fossils had been selected because they were no longer contained within a larger lithic matrix, but had eroded out so that they explicitly resembled the original fauna. It is also probable that the diversity of species represented in the assemblage was not coincidental.

A 30 litre sample of (308) was submitted to a specialist for analysis (see Appendix 13.4). The absence of mollusc shells and the relatively poor level of preservation of bone confirmed the acidity of the soil. Only 6g of the latter survived, most of which was burnt, together with pieces of cattle tooth enamel. By contrast, charred material had survived and was in relatively good condition. It consisted of fairly abundant charcoal fragments, a possible fragment of grain and two pieces of hazelnut shell. Finds were also recovered from the bulk sample, including 5 sherds of pottery, c. 50 pieces of flint, and 88g of fired clay. Of the latter, some pieces had an intact surface, while one or two fragments preserved impressions of other materials, raising the possibility that they may be components of a structure. Unfortunately, as these materials were discovered after the soil sample had been processed, it was not possible to have them analysed by appropriate specialists. However, they will be included in the permanent archive, making them available for future investigation.

The other pit, [304], had a more regular, sub-oval plan than that exhibited by [307]. Its long axis, of c. 1.8m, shared the same alignment as that of [307], which it overlapped by c. 0.25m. The bowl shaped profile of [304], while more regular, a little shallower and narrower, at c. 0.94m wide, was also closely comparable to [307]. Additionally, [304] also had a number of stake holes penetrating its base, this time thirteen. Essentially, there was a single fill, (302), which was indistinguishable from the upper fill, (308), of [307]. Again, there was a sizeable artefactual component contained within (302). Most significant among this were eleven sherds of pottery, produced in four different types of fabric. Three sherds, from two different vessels, were decorated with grooves and fingernail impressions, allowing them to be identified as Clacton style Grooved Ware of the middle to late Neolithic. Fifty-seven pieces of worked flint were also found within this context. Of these, thirty pieces had been burnt, including a core

fragment and a broken, invasively flaked scraper. Two further cores were recovered, as well as a flint hammer stone. Of the other pieces, one broken blade-like flake had sickle gloss along one lateral edge, indicating it had been used to cut plant material, while there was also a fragment from a bi-facially worked flint knife. Also present was a flake removed from a larger bi-facially worked tool, possibly an axe. Eight fragments from water rounded, fine-grained sandstone cobbles completed the artefactual assemblage. These had been thermally shattered, their surfaces showing evidence of having been burnt. Additionally, the surface of one of these fragments was heavily abraded, indicating that it had probably been used as a rubber, in combination with a quern stone, for the preparation of foodstuffs.

Both of the pits, [304] and [307], had been cut into a mixed orangey-brown silty sand, (305). Comparison with the deposits encountered in the other two trenches suggests that (305) is a colluvial layer, the formation of which must pre-date the later Neolithic.

Test Pits

Of the planned fifteen test pits only three were excavated, these all being situated along the eastern edge of the site. To conform to nationally recognised cartographic methodology, the origin of the site grid, 0/0, was considered to lie at the south-western corner of the field, with the easting of each point being quoted before the northing, both being given in metres. Consequently, the three pits excavated were labelled as 120/30, 120/60, and 120/90. Each was 1m², with the purpose being to establish the density of artefactual material in the ploughsoil.

120/30 - furthest down slope, this pit contained the greatest quantity of worked lithic material, sixteen pieces, which included three burnt flakes. Only one piece appeared to have been utilised, as a scraper. Also recovered was one small fragment of rock bearing the negative impression of two fossils. Additionally, there were two small pieces of green glass, one from a bottle, the other possibly window glass.

120/60 - There were eleven pieces of worked flint recovered from this test pit. Of these, three showed evidence of burning, including a broken hammer-stone. Additionally, one irregular flake had been invasively retouched around the end and along one side, to form a scraper. A small fragment of slag was also recovered during sieving.

120/90 - Only six pieces of worked flint were found in this test pit, four of which were burnt; one was so severely altered that it was beginning to disintegrate into small angular granules. One of the other two flakes had been removed from a tool with a polished surface. A small piece of bone, a tiny fragment of green window glass and two pieces of slag were also recovered from the ploughsoil.

The relative difference in the number of artefacts recovered from each pit is interesting. While it is possible that such differences may result from each pit's proximity to foci of prehistoric activity, topographical changes may also play a significant role. Pit *120/90* was situated on the south-facing slope of the mound situated at the north-eastern corner of the site, and contained a relatively low number of artefacts. Trench 1, 30m to

the north, contained direct evidence of soil movement in this area, which suggests that ploughing and soil-creep have resulted in the translocation of artefacts toward the southern edge of the site. This theory receives further support from the higher proportion of artefacts recovered from 120/30, which is situated further down the slope.

7.0 Interpretation and discussion

The oldest datable artefactual materials recovered from the site are a few flint flakes contained within the ploughsoil, or lying on the ground surface. One of these items is a notched blade produced from a prepared blade core, which is most likely to have been fabricated during the later Mesolithic period. A large end scraper recovered from the topsoil in Trench 3 may also be of this date, but is more likely a product of an early Neolithic industry. The low occurrence of such diagnostic pieces, in comparison to those of a later Neolithic date, suggests that the site was not occupied before the 3rd millennium BC. However, only a small area of the proposed development was sampled during the evaluation. This may significantly bias any interpretation, as it has been noted that on earlier Neolithic occupation sites most worked stone tends to be recovered from pits, while surface scatters tend to be of a later date (e.g. Healy, 1993). Nonetheless, on current evidence it would appear that the site was only visited very sporadically during the 7th-4th millennia BC. This was probably by relatively mobile groups, who would occasionally discarded items as they passed through the landscape.

With the exception of large monuments and surface scatters of lithic material, evidence of Neolithic activity is generally quite ephemeral. There are only a small number of recognisable house sites, and away from the monuments, subsoil pits constitute the most important source of stratified deposits for both the earlier and later periods (Thomas, 1999). The latter have been discovered and examined at a number of sites in lowland Britain, and are consistently found to contain a range of cultural material. Most share a common morphology, being relatively shallow, bowl-shaped depressions, which, unlike the later shaft-like Iron Age pits, are manifestly unsuitable for the storage of foodstuffs, such as grain. Additionally, Neolithic pits most frequently have well-defined edges and only one or two fills, indicating that they were deliberately back-filled soon after their creation. These fills almost always contain a significant quantity of burnt material, commonly ash or charcoal. The two pits, [304] and [307], investigated in Trench 3 totally conform to this generalised model.

Perfunctory examination of the range of artefactual material contained within such pits, both at Halton Hologate and at a national level, suggests that they were created for the routine disposal of domestic refuse. However, more detailed analysis indicates that the items deposited were carefully selected for the purpose (Edmonds, 1999). Consequently, there is a general tendency to find a disproportionate quantity of stone tools, relative to the associated debitage. These tools are often pristine or have been deliberately broken (Thomas, 1999). Similarly, faunal remains often come from the meatiest parts of the animal, suggesting that they were deposited complete with flesh. Other bones, including human remains, often exhibit evidence of excarnation prior to burial. It is also notable that while whole pots are sometimes found within these pits, it

is more common for only a small proportion of any one vessel to be interred, with this frequently being accompanied by sherds from a number of others.

The range of artefacts recovered from (302) and (308), the fills of pits [304] and [307] respectively, are relatively typical of such deposits and have attributes that are comparable with material recovered from other sites. The eleven sherds of pottery recovered from (302) were produced in four different types of fabric, and appeared to be fresh and unabraded, as if deliberately placed immediately after the vessel was broken. This pattern suggests that these fragments were deliberately selected from a much larger quantity of broken pottery, because of a particular trait they were considered to have. It is unlikely that pottery was in daily use during the later Neolithic, suggesting that it had a restricted set of specialised purposes (Allen & Hopkins, 2000). Consequently, even the distinctive nature of the different tempering materials may have been highly significant.

Two of the vessels were decorated with grooves and fingernail impressions, identifying them as Clacton style Grooved Ware of the middle to late Neolithic. Allen suggests a date range of 3100 to 2600cal BC (see Appendix 13.2), and the few radiocarbon dates available suggest that this style is an early form of Grooved Ware (Barclay, 1999). The depositional context of the Clacton style differs from that of other sub-styles, being generally found in pits and on open sites, rather than in direct association with monuments (Thomas, 1999). It is notable that this sub-style has only been recovered from three other sites in Lincolnshire, Barholm, West Ashby and Leadenham, while other types are known from no more than nine other locations (Allen - Appendix 13.2).

Of the fifty-seven pieces of worked flint found within (302), 53% had been burnt. This is significant, as studies elsewhere on the fen edge have indicated that assemblages containing a substantial proportion of burnt flint are generally of Later Neolithic or Early Bronze Age date (Edmonds, *et al.*, 1999). Of these, only two pieces represent finished tools, a small scraper and a flint knife, and both were broken (Appendix 13.3). A hammer stone and three cores, as well as a multitude of secondary and primary flakes, attested to the initial stages of tool manufacture on or near the site. Additionally, four flakes had been retouched and another nine exhibited edge-wear, indicating that they had been utilised in some processing activity.

The analysed lithic assemblage from (308) was smaller, amounting to only twenty pieces, but the bulk sample from this context was found to contain around fifty further flakes and chips. The only diagnostic piece in the first group was a horseshoe scraper, again of later Neolithic date. Additionally, there was a flake of a fine-grained material, possibly a volcanic tuff, which may have been struck from a stone axe. During the Neolithic, it appears that stone axes were thought to be imbued with totemic properties far exceeding their utilitarian purpose (Edmonds, 1999). Consequently, even a small chip of this material could have had an important ritual significance.

Other lithic material was also present in (302), in the form of 'pot boilers'. These were fragments of fine-grained sandstone cobbles, which had been thermally shattered. Again, it is tempting to consider this material in purely utilitarian terms, as they are commonly perceived to be the by-products of cooking, being used as a method to

bring water, and thus food, to the boil. However, it was notable that no two pieces fitted together, suggesting that, like the pottery, they had been carefully selected for deposition. The grain-size of these fragments, as well as their water-rounded surfaces indicates that they had been imported to the site. This factor may partially account for the value placed upon them at the time of their deposition, as they would have served as symbols of the prior movements of individuals, or the group, associated with the creation of the pit. It is also significant that prior to being burnt, one of the fragments had probably part of a rubber used to grind cereals, or wild seeds. This suggests that the contents of the pit represent all the stages involved in the acquisition, preparation and consumption of food.

Animal bone is a common component of the fill of pits on other Neolithic sites. However, very little was encountered at Halton Hologate (see Appendix 13.4). The acidity of the soil is the probable cause of this deficit, rather than reflecting an absence of this material in the original deposits. Small pieces of burnt bone and tooth enamel, the latter from cattle, were recovered from (308), lending weight to this argument. Fossils and exotic stones have also been recovered from Neolithic deposits, sometimes in association with the remains of shellfish (Thomas, 1999). Like the bone, the latter would have dissolved in acidic soils. While the presence of mollusc shells could be explained in utilitarian terms, it is more difficult to arrive at a rational explanation for the presence of the manuports.

The matrix of the fills of [304] and [307] contained quantities of carbonised material, but the base of the pits suggested that this was not a product of *in-situ* burning. The fragments of fired clay found in (308), some incorporating the impressions of other materials, may represent the remains of some external hearth structure. The recovery of two pieces of charred hazelnut shell is also consequential, as such wild species tend to dominate the floral component of Neolithic pit fills (*ibid.*). Other carbonised remains included a possible fragment of grain and charcoal fragments, the latter potentially a source of dating material.

There are also parallels for the stake holes penetrating the bases of the two pits; thirteen being found in [304] and fourteen, or fifteen, in [307]. A later Neolithic pit excavated at Thirling's, Northumbria had had twelve stakes inserted into it (*ibid.*). The distribution of these holes within the pits at Halton Hologate appears to be random and consequently, it is virtually impossible to suggest a form for any superstructure that they may have constituted. It may be that they are the product of several separate events, which would explain in part this apparent disorder. However, the fact that some were angled and others vertical, and that they had varying diameters, implies that they were components of some kind of frame.

Having established the nature and parallels of pits [304] and [307], it is advantageous to consider their purpose. As described above, the cultural material that they contain does not appear to represent a cross-section of the full range of refuse produced in the domestic context. Consequently, we must look to alternative explanations. The popular image of the Neolithic, perpetuated throughout much of the 20th century, is of a relatively rapid transition from small, mobile Mesolithic communities gathering and hunting, to a lifestyle characterised by sedentary mixed farming (Thomas, 1999). However, the archaeological evidence is more equivocal than this model indicates, and

it suggests that other forms of subsistence were in operation. In lowland Britain there are very few Neolithic structures, which could be termed houses, and equally, there are only a small number of contemporary field systems. As a consequence of these and other factors, many researchers now believe that in general, Neolithic peoples were still highly mobile and were still largely dependent upon naturally occurring resources. This does not mean that they did not supplement their gathering and hunting with domesticated species. Rather it suggests that the importance of the latter has been over-emphasised, and that they were not necessarily tied to one small piece of land, as are more traditional farming communities. While there were very few pits dug during the Mesolithic, the practice flourished during the Neolithic. This possibly indicates a growing interest in the opening up of the earth, a practice also central to the creation of communal monuments. When the concept of residential mobility is considered, it is possible to contemplate the function of the pits in a way different to those surrounding permanent settlements.

"The common context of these features suggests that the gathering and burial of material in this way was often a localised act. Undertaken on settlements and limited camps, the practice of breaking the earth and planting cultural remains was an event attended by a relatively small company. The full significance of this practice remains beyond our grasp, but it may be that these acts were a medium through which communities renewed their sense of tenure with particular places. They held evidence for past relations and events. This may have been of great importance where seasonal and even generational cycles carried people from one setting to another." (Edmonds, 1999: 29).

There is further support for models suggesting a ceremonial or ritual motivation for the creation of the pits. Examination of the wider landscape indicates that there is often a close spatial relationship between the pits and later monuments (Barclay, 1999; Thomas, 1999). Often ring ditches and round barrows of later Neolithic or Early Bronze Age date are found in close proximity to, or overlie pit sites. This also appears to be the situation at Halton Holegate. The two sections of curving ditch examined in Trench 2 appear to parts of the same feature, which would seem to form a ring of c. 10m diameter. Artefactual material was not recovered from these features, but the trench did not cross the projected centre of the disc, which may have been the focus of activity. Consequently, we are left merely with the known morphological traits from which to devise an interpretation. On this basis it would appear that [204]/[205] represent sections of the ditch surrounding a small round barrow. If this interpretation is correct, the geophysical survey provides evidence that there are the remains of further barrows located on the site.

The presence of a small barrow cemetery in a location such as this is not unexpected. The feature in trench 2 was not located on the crest of the ridge, but slightly to the south. When viewed from the area of Spilsby Road, the spoil heap produced during the excavation of the trench appeared to be located on the skyline. Such false horizons were commonly utilised as the locations of barrow cemeteries, allowing the barrows to increase their prominence by projecting into the sky (Tilley, 1994). Additionally, cropmark evidence indicates that there are a number of round barrows in the vicinity of the site. A small group is located two fields away, c. 350m to the north-east of the site, while two further isolated barrows appear to be situated a similar distance to the west and north-west. As the site contains the highest land in the immediate area, all of these other potential burial sites are visible from it. It also seems likely that there would be a high degree of inter-visibility from and between any of these other locations.

The principle focus of all this ritual activity would appear to be a putative causewayed enclosure located c. 250m to the north-east of the site. This feature is known only from aerial photographs, so its form and date remain to be tested by excavation. A number of these early Neolithic monuments appear to have been situated along the fen edge, in both Lincolnshire and Cambridgeshire. However, all of these are quite a lot bigger than the example at Halton Holegate, which is only c. 40m in diameter. The next smallest is Melbourn, which is roughly twice the size (Edmonds, 1999). Consequently, the existence of this causewayed camp to the east of the site remains equivocal, as it is also possible that this particular cropmark represents the remains of a large double-ditched late Neolithic round barrow.

If there were barrows located on the site, their above ground components would appear to have been severely truncated or completely removed by the late 19th century. The First Edition Ordnance Survey map of 1892 shows no such features in the area. This denudation could date back to the medieval period, if not earlier. While medieval features were not encountered during the excavation, small quantities of pottery were recovered from the ground surface. The abraded condition of these sherds suggests that they were probably introduced in midden material, spread to improve the fertility of cultivated land. Consequently, it should be supposed that the creation, maintenance and working of the *selions* associated with medieval arable farming would have impacted upon the prehistoric deposits. This destruction and homogenisation of *in-situ* archaeological horizons is likely to have been further exacerbated by Victorian and modern ploughing. This hypothesis would appear to be borne out by the range of material recovered from the ploughsoil, some of which is similar in character to that contained within pits [304] and [307].

8.0 Conclusions

With the exception of a few residual flakes of flint, the majority of the archaeological deposits surviving on the site relate to later Neolithic and possibly Early Bronze Age activity. Evidence of later Neolithic occupation is far from common, and the range of materials recovered from the site provides strong indications of its importance. The probable existence of later monuments within the same area contributes toward an insight into the development of the prehistoric landscape, both in terms of the continuity and the transform of ideas and practices.

The close correspondence between the archaeological features examined and the anomalies detected by the geophysical survey attests to the presence of further archaeological deposits located within the area of the proposed development. It is anticipated that many of these will also have a later Neolithic provenance.

9.0 Effectiveness of Methodology

All of the trenches opened at Halton Hologate contained stratified archaeological deposits. These had a very strong morphological and spatial correlation with the anomalies detected by the gradiometer survey. Additionally, the nature of the various fills corresponded closely to the strength and form of the magnetic signatures recorded. Consequently, it is concluded that the geophysical survey provides a relatively accurate representation of the density, distribution and configuration of the archaeological features surviving on the site.

The recovery of artefactual material and the morphological attributes of the features examined indicate that the site was utilised over a long period of time. However, this activity appears to have been punctuated rather than continuous. This factor provides a basis for anticipating the nature of any further deposits that may be encountered during the proposed development. Therefore, it is concluded that the evaluation satisfied its primary purpose by determining the nature and date of extant archaeological deposits located within the confines of the site.

10.0 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 2001.19.

11.0 Acknowledgements

Pre-Construct Archaeology (Lincoln) would like to thank Cirque Energy (UK) Ltd for commissioning this programme of archaeological investigation. Thanks are also offered to Jim Bonnor, Senior Built Environment Officer, and to the landowner, Mr Lumsden for assistance and advice given during the excavation. Additionally, the author is extremely grateful to Carol Allen and Mark Edmonds for assistance, discussion and pointers provided during the post-excavation analysis and creation of this report.

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Appendix 13.1 Colour photographs



Plate 1: General site photo, with Trench 1 in the foreground, Trench 2 to the right of shot, and Trench 3 in the middle distance to the right of the top of the survey staff. The houses in the distance line Spilsby Road, looking south-west.



Plate 2: Trench 1, pit [103] following excavation. Note the substantial deposit of ferrous refuse at the base of the pit, looking north-north-east.



Plate 3: Trench 3, the dark upper fills of pits [304] (nearest camera) and [307], to the right of the number board, prior to excavation, looking east.



Plate 4: Trench 3, pit [304], in foreground following excavation. Note the distribution of stake holes, and the section in the partially excavated [307], looking east.

**HIGH FARM,
HALTON HOLGATE, LINCS
HAH01
TF 4131 6565**

REPORT ON PREHISTORIC POTTERY

By Carol Allen

for

**PRE-CONSTRUCT ARCHAEOLOGY
LINCOLN**

8 February 2001

**Dr Carol Allen
Archaeological Consultant
Hill View
Marston Montgomery
Ashbourne
Derbyshire
DE6 2FF**

**Tel 01889 591808
Fax 01889 591212
Email: allen.hillview@
sb-computers.co.uk**

HALTON HOLGATE, LINCS

TF 4131 6565

REPORT ON PREHISTORIC POTTERY

1 QUANTITY

A total of 11 sherds (179 g weight) of prehistoric pottery was found on this site and are listed on Table 1, the catalogue of pottery. Another sherd is shown at the end of the catalogue, but it is unclear if this is prehistoric pottery. No complete or near complete vessels are represented, but on the basis of fabric type at least four different vessels are represented.

2 FABRICS

The fabrics have been rapidly scanned with a x2 microscope but further careful examination and thin section analysis would be required to be sure of the character of the inclusions. The summary below is an estimation of the four main fabric types noted in the assemblage. These are described in Appendix I and summarised below:

1	FLMC	Flint tempering, mainly burnt (2 sherds)
2	QUSV	Quartzite and quartz tempering (1 sherd)
3	SHMC	Shelly material/voids representing shell, also quartz, quartzite and possibly glauconite (7 sherds)
4	QTMV	Quartzite and some shell/voids (1 sherd)

The site lies on the Spilsby sandstone and very near to the areas of Kimmeridge clay, both of which are now considered to be Jurassic formations and contain ammonite fragments and other molluscs (Swinerton and Kent 1976, 55; Kent and Gaunt 1980, 84). The clay outcrops near to Spilsby (*ibid*, 56), and could be the source of the shelly material found in fabrics 3 and 4. In the Spilsby sandstone glauconite and calcareous cemented masses are recorded and both seem to be apparent in this pottery in fabric 3. The source of the quartz, quartzite and flint inclusions is not clear at present. Therefore some of the materials used in the pots may be local, but the source of other materials is unclear.

Further investigation is required to clarify the varied sources of the inclusions in this pottery. Considering the small number of sherds in the assemblage the variety and complexity of the inclusions is surprising, and suggests that if further pottery were to be excavated from this location, it would be essential to undertake thin section analysis of the sherds to clarify the origin of the material used for the manufacture of the pots. Thin section analysis is not costly but requires some time for completion. It does, however, provide a cost-effective way of establishing the origin and thus the possible transportation of pottery and materials.

3 TYPOLOGY

3.1 Grooved Ware

3.1.1. *Description*

Two joining base sherds, three undecorated body sherds and two decorated body sherds (302/3) were all made from fabric 3, and could be part of the same vessel. The base is a minimum of 95mm in diameter. Another decorated sherd (302/4) was made from fabric 4. The shelly material in the fabric of these sherds could be local.

One decorated sherd (Figure 1.1: 302/3) is 8mm thick. It is well-made and fired and pale orange in colour on the exterior. It shows two horizontal grooves above a horizontal line of well executed fingernail design. This is Clacton Style of Grooved Ware whose common elements in Lincolnshire are horizontal grooved decoration and fingertip or fingernail impressions (Manby 1999, 60). A second sherd (Figure 1.2: 302/3: 8mm wall), with horizontal grooved decoration is of the same fabric and possibly from the same vessel. A third sherd (Figure 1.3: 302/4: 8mm wall) also has horizontal decoration but is of fabric 4 and must therefore be a different vessel.

3.1.2 *Comparisons*

At other sites in Lincolnshire Clacton style Grooved Ware has been found at Barholm (Manby 1974, 4) and at West Ashby (Field 1985). At Leadenham, Lincs (Allen 2000) both horizontal grooved and fingernail decoration were apparent. However, a sherd with identical decoration to 302/3 from Halton Holgate (Figure 1.1) was found at Storey's Bar Road, Fengate, Peterborough, Cambs (Pryor 1978, fig. 37.16). A Clacton style Grooved Ware vessel with very similar decoration to these sherds from Halton

Holgate is known from Thurmaston in Leicestershire (Manby 1999, fig. 6.3.7). These sherds of Grooved Ware from the present site therefore do fit conformably into the eastern and northern traditions of this type of pottery of Clacton style.

Other styles of Grooved Ware are known elsewhere in Lincolnshire at Risby and Roxby (Manby 1999, 7: uncertain type), Tattershall Thorpe (Bradley *et al* 1993: Durrington Walls style) and Salmonby (Philips *et al* 1990: Durrington Walls type at 4 sites). Pottery from Deeping St Nicholas may also be Grooved ware of uncertain type. Often the similarities in grooved design of the different types make identification of individual styles problematical when only sherds are available

3.1.3 Dating

All styles of Grooved Ware are considered to be dated between about 3100 and 2600 cal BC (Garwood 1999). This is based on the investigation of a number of sites in England, many in the south, but also including Barholm and Storey's Bar Road. Recent investigations have not noted any particular variations in dating of styles between regions (Garwood 1999, illus. 15.3). These sherds can therefore be dated to the middle Neolithic period.

3.2 Neolithic Pottery Sherds

Two sherds (302/1) were found which have inclusions of angular flint, which appears to have been burnt (fabric 1). One sherd is from the base of a pot and one is a small undecorated body sherd. The colour and general appearance of the sherds strongly suggest that these are prehistoric, and the flint tempered fabric indicates, in this region, that the sherds are most likely to be Neolithic in date (Allen and Hopkins 2000, 311, fig. 8). A third sherd (302/2) is tempered with coarse white angular quartzite and quartz and its fabric type and slightly concave form may suggest that this may be part of a Neolithic bowl. However, as the sherd is small and undecorated this identification is tentative.

3.3 Undated Sherd

A coarse quartz tempered sherd (308, fabric 5) has a pale very sandy undecorated exterior layer and broken interior surface. The curving shape suggests that this is a pottery sherd but its form and date cannot be identified.

4 CONTEXT

The sherds of Grooved Ware pottery were found in a pit (302) together with a number of pieces of flint, including fresh debitage, three scrapers, a flake knife and a flint hammerstone. The pit was filled with charcoal-rich soil and fire-shattered pebbles. The other undecorated sherds, considered also to be of Neolithic date were found alongside the Grooved Ware.

Grooved Ware pottery of Clacton style is often found in small assemblages, and usually as here, in pits (Cleal 1999, 5; Garwood 1999, 159; Thomas 1999, 119). The pottery usually consists of single highly decorated and unabraded sherds, as in this case, often deposited with flints and axes, which sometimes have been deliberately broken (Barclay 1999, 14). Charcoal or ashy deposits were also placed in the pits. It is thought that these deposits are not rubbish pits but assemblages of special artefacts deliberately placed into the pits which were then backfilled. This is often considered to be indicated by the single fill of the pits rather than fills which have accumulated over time. All the sherds from 302, which probably represent four different vessels, are fresh and unabraded as if deliberately placed.

The deliberate placing of the decorated and unabraded sherds in pits with other artefacts is considered to indicate the location of a special deposit, perhaps with a special ritual meaning to the people who may have existed in small scattered groups (Thomas 1999, 120). Often such deposits in pits are located fairly close to later barrow sites (Cleal 1999, 6), and this is true at Halton Holgate. Thus, the landscape in which these pits occurred was of special importance and people visited the location for ceremonies or gatherings over a long period of time.

5 CONCLUSIONS

Middle Neolithic Grooved Ware pottery is very fragile and is not a common find in Lincolnshire or elsewhere. The Grooved Ware known in this county is limited to a small number of sherds recorded from those sites discussed above. Therefore, this pottery representing several vessels of Clacton style is an unusual and important find in contributing to our understanding of the Neolithic in the county.

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High Farm, Halton Holgate, Lincs - HAH 00					
Catalogue of Prehistoric Pottery					
Context	No of Sherds	Weight g	Fabric Type	Abrasion Level	Description
302 (1)	2	42	1-FLMC	U	1 base sherd, 1 body sherd
302 (2)	1	5	2-QUSV	U	1 body sherd
302 (3)	7	125	3-SHMC	U	2 joining base sherds 3 undecorated body sherds 2 decorated body sherds, grooves and fingernail decoration: figures 1.1 & 1.2
302 (4)	1	7	4-QTMV	S	1 grooved body sherd: figure 1.3
Totals	11	179			
Other Ceramic Material					
Context	No	Weight g	Fabric	Abrasion	Description
308	1	30	5-QUCF	A	broken body piece with layered interior & fine pale sandy exterior, not identified or dated
Abrasion level: U, unabraded, <5%: S, slightly, 5-25%: M, moderately, 25-50%: A, abraded, >50%)					

APPENDIX I

HALTON HOLGATE, LINCS

FABRIC TYPES

Below is given a summary of the fabric types observed in the pottery sherds. This was obtained by a quick scan of the material under a x2 binocular microscope.

- 1 **FLMC**, moderate amount of coarse very angular flint, both burnt and unburnt (2 sherds)
- 2 **QUSV**, sparse quantity of quartz and quartzite, angular and very coarse (1 sherd)
- 3 **SHMC**, moderate amount of coarse angular shelly material, or elongated voids representing shell leach out, also some quartz, quartzite and possible glauconite (7 sherds)
- 4 **QTMV**, moderate quantity of quartzite, coarse angular grains of black and white quartz, also has shell/voids (1 sherd)
- 5 **QUCF**, common amount of fine quartz, sandy fabric – undated (1 sherd)

Inclusions within the fabric of the pottery:

Type: SH/VO = fossil shell material, sometimes represented by voids
 FL = flint/burnt flint: QU = quartz: QT = quartzite:
Quantities: S – sparse, 3-9%: M = moderate, 10-19%: C = common, 20-30%
Modal size: F = fine, <0.25mm: M = medium, 0.25 – 1.00mm:
 C = coarse, 1.00 - 3.00mm: V – very coarse, >3.00mm

HALTON HOLGATE, LINCOLNSHIRE
CATALOGUE OF ILLUSTRATED POTTERY

Figure 1: Grooved Ware of Clacton style

- 1 decorated body sherd, with grooves above a row of horizontal fingernail:
fabric 1, FLMC: unabraded: context 302/3
- 2 decorated body sherd with single groove: fabric 1, FLMC: unabraded: context
302/3
- 3 decorated body sherd with horizontal grooved decoration: fabric 4 –QTMV:
unabraded: context 302/4

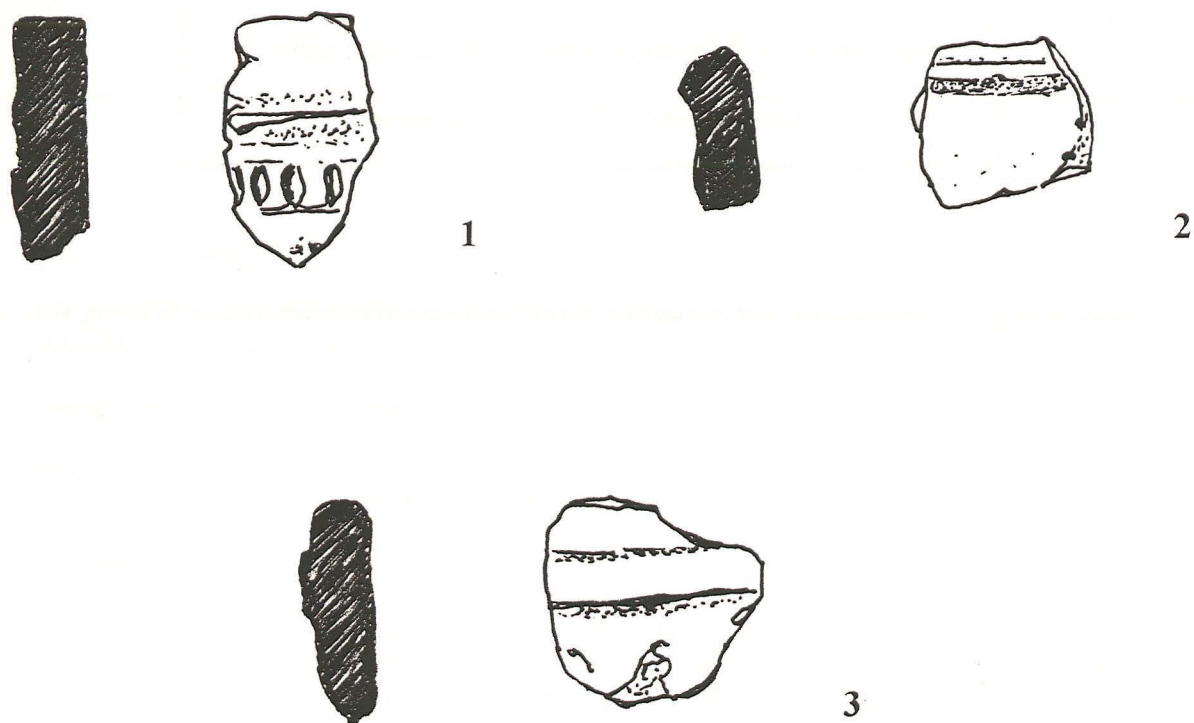


Figure 1: Halton Holgate, Lincs: Middle Neolithic Grooved Ware of Clacton style

**Land south of High Farm, Halton Hologate,
Lincolnshire
HAH01**

Lithic Materials: Catalogue and Assessment

Report by Jim Rylatt – February, 2001

1.0 Catalogue

139 pieces of worked stone were recovered during excavation, with an additional 143 pieces being retrieved from the surface of the site.

Context No.	Description	
Trench 1		
		No worked lithic material recovered.
Trench 2		
<i>Unstrat.</i>	Broken secondary flake	Proximal fragment of blade-like conchoidal flake, with very small prepared platform and very diffuse bulb. The surviving dorsal surface is c. 15% cortical. Dorsal surface has scars suggesting single platform working. Grey-brown semi-translucent flint.
<i>Unstrat.</i>	Chunk	Probable core fragment, probably burnt and with some evidence of crushing along one edge. Lightly patinated brownish-grey opaque flint.
<i>Unstrat.</i>	Chunk	Some surfaces preserve evidence of flake removal. Grey-brown semi-translucent flint.
<i>Unstrat.</i>	Secondary flake	Conchoidal flake, with flat platform, diffuse bulb, and feathered termination. The dorsal surface is c. 5% cortical. Patinated flint. 16 x 18mm.
Trench 3		
<i>Unstrat.</i>	Tertiary flake	Large conchoidal burnt flake, with flat platform, moderately pronounced bulb, having erasure flake removed, and feathered termination. Dorsal surface has scars suggesting removal of large flakes from a single platform. Opaque flint, with frequent chalky inclusions. 45 x 48mm.
<i>Unstrat.</i>	Chunk	Probable core fragment, with evidence of crushing along one edge. Possibly thermally altered. Opaque grey flint, with frequent chalky inclusions.
<i>Unstrat.</i>	?Core tool	Medial fragment of sub-rounded flint pebble, with oval cross-section. Flakes crudely removed from both ends, with remaining pebble surface cortical. One of the narrow portions of one end has had four small invasive flakes removed, possibly to produce a crude scraper. Lightly patinated dark grey flint.

Context No.		Description
<i>Unstrat.</i>	Core	Crude core (A2), with 5 flakes removed - relatively poor quality flint, probably discarded: c. 10% of surface is cortical. May have been lightly burnt. Lightly patinated brownish-grey flint with chalky inclusions. 26 x 56mm.
<i>Unstrat.</i>	Core Fragment	Fragment of pebble core, evidence of flake removal from multiple platforms: c. 60% of surface cortical. Dark brownish-grey flint.
<i>Unstrat.</i>	Core Fragment	Fragment of pebble core, evidence of flake removal from multiple platforms: c. 30% of surface cortical. Dark brownish-grey flint with some inclusions.
<i>Unstrat.</i>	Core	Exhausted core (Cb), 10+ flake removals from multiple platforms. Lightly patinated mid-grey flint with chalky inclusions. 34 x 45mm.
<i>Unstrat.</i>	Core Fragment	Fragment of core with very irregular dorsal surface, possibly indicating early stages of core reduction: surface c. 20% cortical. Lightly patinated pale to mid-grey flint with chalky inclusions.
<i>Unstrat.</i>	Core Tool	Fragment of core with dorsal surface showing evidence of flake removal from at least 2 platforms: surface <5% cortical and burnt. One edge has abrupt/semi-abrupt retouch to produce notched scraper. Pale to mid-grey flint with chalky inclusions.
<i>Unstrat.</i>	Chunk	Chunk of heavily burnt flint. Some flake surfaces survive, but granular surface elsewhere. Surface c. 10% cortical.
<i>Unstrat.</i>	Chunk	Chunk showing evidence of flake removal. Surface c. 20% cortical. Lightly patinated brownish-grey flint with some inclusions.
<i>Unstrat.</i>	Chip	Small piece of pale grey opaque flint, showing evidence of flake removals.
<i>Unstrat.</i>	Chip	Small piece of pale grey opaque flint, c. 80% cortical, showing evidence of prior flake removal.
<i>Unstrat.</i>	Tertiary flake	Conchoidal burnt flake, with flat platform and feathered termination. Probably from same core as 'A' and 'B' below. Grey opaque flint with chalky inclusions. 20 x 26mm.
<i>Unstrat.</i>	Tertiary flake	Burnt flake, with diffuse bulb and irregular dorsal surface. Previous flake removal from at least two platforms. Opaque flint. 18 x 19mm.
<i>Unstrat.</i>	Tertiary flake	Squat, lightly burnt conchoidal flake, with prepared platform, relatively diffuse bulb, having erasure flake removed, and feathered termination. Probably core reduction. Lightly patinated brownish-grey opaque flint. 14 x 15mm.
<i>Unstrat.</i>	Tertiary flake	Squat, burnt conchoidal flake, with flat platform, diffuse bulb, and feathered termination. Probably core reduction. Opaque coarse-grained flint. 14 x 21mm.

Context No.		Description
Unstrat.	Tertiary flake 'A'	Lightly burnt conchoidal flake, with flat platform, relatively diffuse bulb, having eraillure flake removed, and feathered termination. Evidence of flake removal on dorsal surface. Refits to 'B', but intermediate flake missing. Pale grey opaque flint, with chalky inclusions. 25 x 28mm.
Unstrat.	Tertiary flake 'B'	Lightly burnt conchoidal flake, with flat platform, relatively pronounced bulb, and hinged termination. Dorsal surface refits to 'A', but intermediate flake missing. Pale grey opaque flint, with chalky inclusions. 26 x 32mm.
Unstrat.	Secondary flake	Conchoidal flake, with complex platform, relatively diffuse bulb and feathered termination. The dorsal surface is c. 25% cortical. The lateral edges have been retouched bi-facially; abrupt retouch on the dorsal face and oblique on the ventral face. Semi-opaque brownish-grey flint. 31 x 20mm.
Unstrat.	Broken secondary flake	Proximal fragment of conchoidal flake, with very small platform, and relatively diffuse bulb, having eraillure flake removed. The surviving dorsal surface is c. 20% cortical. One lateral edge may have been retouched, or have use-wear. Brownish-grey opaque flint.
Unstrat.	Broken secondary flake	Distal fragment of conchoidal flake, with feathered termination. The surviving dorsal surface is c. 95% cortical. Lightly patinated pale to mid-grey opaque flint.
Unstrat.	Broken secondary flake	Fragment of conchoidal flake, with small pronounced bulb (Herzian cone-like) and hinged termination. Heavily burnt resulting in granular structure and one lateral edge becoming detached. The surviving dorsal surface is c. 40% cortical and shows evidence of flake removal from more than one platform. Ventral face very irregular. Dark brownish-grey opaque flint.
Unstrat.	Extended end scraper	Large conchoidal secondary flake, with complex platform, relatively diffuse bulb, having eraillure flake removed, and feathered termination. The dorsal surface is <5% cortical. Possibly burnt. Distal end has a series of abrupt, semi-abrupt, and oblique invasive flakes removed to produce scraper. Typically early Neolithic, but may be late Mesolithic. 52 x 33mm.
Unstrat.	Transverse arrowhead	Partially completed example of an oblique arrowhead, produced on a broken flake from a core with 2 or more platforms. Tang is almost complete, with hollow base having been produced by abrupt retouch, and much of adjacent having been finished by removal of relatively large abrupt and semi-abrupt invasive flakes. Flake has been burnt, but heavy patination on one flake surface only suggests that it may have been struck from reused core.
302	Hammer stone	A small, burnt sub-rounded pebble, with a number of small primary flakes removed; c. 70% of surface remains cortical, of which c. 50% is heavily chipped, crazed and abraded as a result of impacts with target pieces. c. 47mm diameter.

Context No.		Description
302	Core	Exhausted core (Cb), 3+ platforms, with 10+ flake removals. C. 15% of surface is cortical, while another c. 25% is patinated, suggesting that this is a reutilised core. It has also been burnt resulting in some of the edges crumbling. Dark grey flint with chalky inclusions. 32 x 41mm.
302	Core	Exhausted core (Cb), 3+ platforms, with 8+ flake removals: <5% of surface is cortical, and core has possibly been burnt. Mid brownish-grey flint with chalky inclusions. 23 x 31mm.
302	Core	Exhausted pebble core (Cb), 4+ platforms, with 8 flake removals: c. 60% of surface is cortical. Dark brownish-grey flint with some inclusions. 29 x 32mm.
302	Core Fragment	Fragment of core, evidence of flake removal from 2+ platforms: c. 40% of surface cortical. Heavily burnt, with resultant granular structure, one end of which appears to have been abraded to form scraper like edge. Dark brownish-grey flint with some inclusions.
302	Core Fragment	Fragment of core, evidence of flake removal (4) from 3 platforms: c. 40% of surface cortical. Burnt, with resultant granular structure on one edge. Dark brownish-grey flint with chalky inclusions. Possibly same core as below.
302	Core Fragment	Fragment of core, evidence of flake removal (3) from 3 platforms: c. 20% of surface cortical. Burnt, with resultant granular structure on one edge. Dark brownish-grey flint with chalky inclusions. Possibly same core as above.
302	Core Fragment	Fragment of core, evidence of flake removal (3) from 1 platform: c. 80% of surface cortical. Patinated brownish-grey flint.
302	Tertiary flake	Blade-like conchoidal flake, with very small platform, moderately pronounced bulb and feathered termination. It has been struck to remove negative scar from hinge termination, which runs parallel to platform. Centre of one lateral edge has retouch and small notch. Brownish-grey opaque flint. 34 x 9mm.
302	Tertiary flake	Small blade-like bending flake, with very small platform, bulb removed by enlure flake, and feathered termination. Probable trimming flake. Brownish-grey semi-opaque flint. 18 x 8mm.
302	Tertiary flake	Squat conchoidal flake, with complex platform, diffuse bulb and feathered termination. Scars on dorsal surface indicate multiple platform working. Heavily burnt. Grey opaque flint. 16 x 39mm.
302	Tertiary flake	Squat conchoidal flake, with faceted butt, diffuse bulb, having enlure flake removed, and hinged termination. Scars on dorsal surface and platform indicate that this flake has been removed from a large bi-facially worked tool, such as an axe. Additionally, one lateral edge and half of the hinged termination have been bi-facially retouched. A part of both lateral edges have been broken off. Possibly burnt. Grey opaque flint.

Context No.		Description
302	Tertiary flake	Conchoidal flake, with small platform, diffuse bulb and stepped termination. Use-wear on both lateral edges. Grey opaque flint with some inclusions. 31 x 31mm.
302	Tertiary flake	Small, burnt, conchoidal flake, with flat platform, diffuse bulb and feathered termination. Grey opaque flint. 20 x 16mm.
302	Broken tertiary flake	Proximal fragment with complex platform and relatively pronounced bulb. Burnt, with possible use-wear along one lateral edge.
302	Broken tertiary flake	Proximal fragment with complex platform and relatively pronounced bulb, having erailure flake removed. Pattern of small flake removal along one lateral edge raises possibility that this is a thinning flake from a part finished tool.
302	Broken tertiary flake	Proximal fragment with very small platform and diffuse bulb. Heavily burnt.
302	Broken tertiary flake	Proximal fragment with complex platform and diffuse bulb. Very irregular dorsal surface.
302	Broken tertiary flake	Distal fragment of conchoidal flake, with feathered termination. Dorsal scars show a series of parallel sided flakes removed. Heavily burnt opaque flint.
302	Broken tertiary flake	Distal fragment of conchoidal flake, with stepped termination. Dorsal scars show a series of parallel sided flakes removed, and one facet appears to have been polished. Brownish-grey opaque flint with some inclusions.
302	Broken tertiary flake	Distal fragment of conchoidal flake, probably with hinged termination (part of distal end also removed). Use-wear along one lateral edge. Pale brownish-grey opaque flint with chalky inclusions.
302	Broken tertiary flake	Distal fragment of burnt conchoidal flake, with plunging termination. Use-wear along one lateral edge. Pale brownish-grey opaque flint with chalky inclusions.
302	Broken tertiary flake	Distal fragment of heavily burnt conchoidal flake, with feathered termination, crazed flake surfaces with granular structure. Opaque flint.
302	Secondary flake	Conchoidal flake, with cortical platform, relatively diffuse bulb, having erailure flake removed, and feathered termination. The dorsal surface is <5% cortical and irregular with triangular cross-section (this flake would have effectively rejuvenated this part of the core). Use-wear on one lateral edge. Burnt brownish-grey opaque flint with chalky inclusions. 36 x 31mm.
302	Secondary flake	Conchoidal flake, with crushed platform, moderately pronounced bulb, having erailure flake removed, and hinged termination. The dorsal surface is c. 15% cortical. Abrupt retouch on the cortical lateral edge, and semi-abrupt retouch on half of distal end. Burnt brownish-grey opaque flint, with some inclusions. 38 x 25mm.

Context No.		Description
302	Secondary flake	Squat conchoidal flake, with very small platform, diffuse bulb, and hinged termination. The dorsal surface is c. 65% cortical. Brownish-grey opaque flint. 18 x 23mm.
302	Secondary flake	Conchoidal flake, with flat platform, relatively diffuse bulb, having erailure flake removed, and hinged termination. The dorsal surface is c. 60% cortical. Brownish-grey opaque flint. 25 x 23mm.
302	Secondary flake	Blade-like conchoidal flake, with very small platform, diffuse bulb and feathered termination. The dorsal surface is c. 60% cortical. Brownish-grey opaque flint. 35 x 9mm.
302	Primary flake	Blade-like, burnt conchoidal flake, with flat platform, diffuse bulb and feathered termination. The dorsal surface is 100% cortical. Mid-grey opaque flint, with some inclusions. 32 x 11mm.
302	Secondary flake	Burnt conchoidal flake, with complex platform, relatively diffuse bulb, having erailure flake removed, and feathered termination. Use-wear on one lateral edge. The dorsal surface is c. 20% cortical. Mid-grey opaque flint. 20 x 27mm.
302	Secondary flake	Small, burnt conchoidal flake, with flat platform, relatively diffuse bulb, having erailure flake removed, and feathered termination. The dorsal surface is c. 30% cortical. Mid-grey opaque flint, with some inclusions. 20 x 12mm.
302	Secondary flake	Burnt, conchoidal flake, with flat platform, pronounced bulb and feathered termination. The dorsal surface is c. 80% cortical. Small area of bi-facial retouch at proximal end. Brownish-grey opaque flint. 37 x 22mm.
302	Secondary flake	Small, bending flake, with flat platform, diffuse bulb and feathered termination. Two flake surfaces are heavily patinated, suggesting reuse of discarded core. The dorsal surface is c. 10% cortical. Greyish-brown opaque flint. 7 x 17mm.
302	Secondary flake	Small, conchoidal flake, with flat platform, diffuse bulb and hinged termination. The dorsal surface is c. 50% cortical. Brownish-grey opaque flint. 19 x 15mm.
302	Broken secondary flake	Distal fragment of conchoidal flake, with feathered termination. The dorsal surface is c. 10% cortical. Brownish-grey opaque flint, with some inclusions.
302	Broken primary flake	Distal fragment of burnt flake, with feathered termination. The dorsal surface is 100% cortical. Possible use-wear along distal end. Pale to mid-grey opaque flint, with some inclusions.
302	Broken primary flake	Distal fragment of burnt flake, with hinged termination. The dorsal surface is 100% cortical. Pale to mid-grey opaque flint, with some inclusions.
302	Broken secondary flake	Distal fragment of conchoidal flake, with feathered termination. The dorsal surface is 30% cortical, cortex is thick and chalky suggesting mined chalk flint. Use-wear along one lateral edge. Greyish-brown opaque flint, with some inclusions.

Context No.		Description
302	Broken secondary flake	Distal fragment of blade-like conchoidal flake, with plunging termination. The dorsal surface is c. 40% cortical. Brownish-grey opaque flint.
302	Broken secondary flake	Distal fragment of flake, with feathered termination, possibly burnt. The dorsal surface is c. 70% cortical. Pale grey opaque flint.
302	Broken secondary flake	Proximal fragment of burnt flake, with cortical platform, and relatively diffuse bulb, having erasure flake removed. The dorsal surface is c. 5% cortical. Pale to mid-grey opaque flint, with some inclusions.
302	Broken secondary flake	Proximal fragment of burnt flake, with flat platform, and diffuse bulb. The dorsal surface is c. 35% cortical. Pale grey opaque flint.
302	Broken secondary flake	Distal fragment of large blade-like flake, with feathered termination. The dorsal surface is c. 35% cortical. Half of one lateral edge has slight use-wear and noticeable sickle gloss. Brownish-grey opaque flint.
302	Chunk	Chunk of burnt flint. Some flake surfaces survive. Surface c. 10% cortical. Mid-grey opaque flint, with some inclusions.
302	Chunk	Chunk of flint pebble. Very irregular ventral face. Surface 100% cortical. Dark brownish-grey opaque flint.
302	Chunk	Chunk of flint, some flake surfaces survive, possible core fragment. Brownish-grey opaque flint, with some inclusions
302	Chunk	Chunk of flint, some flake surfaces survive. Surface c. 80% cortical. Brownish-grey opaque flint, with some inclusions.
302	Chunk	Chunk of flint, some flake surfaces survive, possibly burnt. Surface c. 25% cortical. Creamy opaque flint, with some inclusions.
302	Chunk	Chunk of burnt flint, some flake surfaces survive. Opaque flint, deep orange on most surfaces.
302	Chunk	Chunk of heavily burnt flint. Surface c. 25% cortical
302	Chunk	Chunk of burnt flint, some flake surfaces survive. Surface c. 10% cortical. Pale grey opaque flint, with some inclusions.
302	Chunk	Chunk of burnt flint, some flake surfaces survive. Surface c. 10% cortical. Creamy grey opaque flint, with some inclusions.
302	Chip	Small, burnt flake fragment. Surface c. 50% cortical. Pale grey opaque flint.
302	Chip	Small chip, some flake surfaces survive. Surface c. 15% cortical. Greyish-brown semi-opaque flint.
302	Chip	Small chip, flake surfaces survive. Surface c. 30% cortical. Dark grey opaque flint.

Context No.		Description
302	Broken flake knife	Distal end of flake, which has bi-facial semi-abrupt and oblique invasive flaking, around all the surviving portion of the lateral and distal edges. There is additional abrupt retouch to one lateral edge. Greyey-brown opaque flint.
302	Broken scraper	Small scraper produced on primary or secondary flake from river pebble. Has been heavily burnt, creating granular structure, and resulting in the proximal end breaking away. Distal end has series of small, oblique, invasive flakes removed and possible use-wear along edge thus created. Grey opaque flint.
308	Core	Core (Cb), 3+ platforms, with 4+ flake removals. c. 15% of surface is cortical. It has been heavily burnt resulting in some of the edges crumbling. Pale grey opaque flint with some inclusions. 55 x 58mm.
308	Tertiary flake	Squat conchoidal flake, with complex platform, diffuse bulb and hinged termination. Possibly burnt. Brownish-grey opaque flint. 12 x 23mm.
308	Tertiary flake	Burnt conchoidal flake, with abraded platform, relatively diffuse bulb and feathered termination. Possible use-wear on one lateral edge. Brownish-grey opaque flint. 36 x 20mm.
308	Tertiary flake	Squat conchoidal flake, with flat platform, moderately pronounced bulb and feathered termination. Possible use-wear on distal end. Possibly burnt. Platform appears to have been polished, suggesting flake struck from finished tool. Brownish-grey opaque flint. 14 x 16mm.
308	Tertiary flake	Conchoidal flake, with flat platform, relatively diffuse bulb and feathered termination. Greyey-brown semi-opaque flint. 25 x 14mm.
308	Tertiary flake	Bending flake, with flat platform, moderately pronounced bulb and feathered termination. Scars on dorsal surface indicate small trimming flake removals, but one facet heavily patinated raising possibility of the reuse of an old, discarded core. Greyey-brown opaque flint. 19 x 13mm.
308	Secondary flake	Heavily burnt conchoidal flake, with flat platform, moderately pronounced bulb, having erailure flake removed, and plunging termination. The dorsal surface is c. 70% cortical, and scars indicate multi-platform working. Grey opaque flint. 49 x 25mm.
308	Secondary flake	Conchoidal flake, with flat platform, relatively diffuse bulb, and hinged termination. Possible use-wear on proximal edge. The dorsal surface is c. 80% cortical. Brownish-grey opaque flint. 19 x 28mm.
308	Secondary flake	Burnt conchoidal flake, with cortical platform, diffuse bulb and feathered termination. Possible use-wear on one lateral edge. The dorsal surface is c. 10% cortical. Mid-grey opaque flint, with some inclusions. 31 x 24mm.
308	Secondary flake	Conchoidal flake, with cortical platform, relatively pronounced bulb, and hinged termination. Very irregular ventral surface. The dorsal surface is c. 20% cortical. Greyey-brown opaque flint, with some inclusions. 37 x 26mm.

Context No.		Description
308	Secondary flake	Burnt conchoidal flake, with flat platform, relatively diffuse bulb, and feathered termination. Possible use-wear on one lateral edge. The dorsal surface is c. 15% cortical. Brownish-grey opaque flint. 33 x 24mm.
308	Secondary flake	Burnt conchoidal flake, with flat platform, relatively diffuse bulb, and feathered termination. Use-wear on one lateral edge. The dorsal surface is c. 40% cortical, and scars indicate 2+ platform working. Mid-grey opaque flint, with chalky inclusions. 30 x 35mm.
308	Secondary flake	Squat conchoidal flake, with flat (rippled) platform, relatively diffuse bulb, and feathered termination. The dorsal surface is c. 90% cortical. Brownish-grey opaque flint. 8 x 25mm.
308	Broken secondary flake	Distal fragment of flake, with feathered termination. The surviving dorsal surface is c. 70% cortical. Heavily burnt. Creamy-grey opaque flint.
308	Chunk	Chunk of burnt flint, some flake surfaces survive. Pale to mid-grey opaque flint, with some inclusions.
308	Chunk	Chunk of burnt flint, some flake surfaces survive, but granular structure, with pot lid fractures. Grey opaque flint.
308	Chip	Heavily burnt flake fragment. Calcined flint.
308	Horseshoe scraper	Produced on distal fragment of thick conchoidal flake. A large flake has been removed from each side to create lateral edges, while a series of small, abrupt and semi-abrupt invasive flakes have been removed from distal end. Additional abrupt retouch along this sharpened edge, and possible signs of use-wear. The dorsal surface is c. 45% cortical. Brownish-grey opaque flint, with some inclusions. 35 x 34mm.
308	Broken secondary flake	Small flake fragment. The surviving dorsal surface is c. 25% cortical. Produced on fine-grained stone, possibly chert, but more likely volcanic tuff- slightly greenish pale grey. Possibly chip from stone axe?
308	Broken tertiary flake	Proximal fragment of flake, with flat platform, diffuse bulb, and showing prior flake removal on dorsal face. Produced on relatively coarse-grained, banded (? metamorphic) rock.
Test pits		
120/30	Secondary flake	Small conchoidal flake, with flat platform, diffuse bulb, and feathered termination. The dorsal surface is <5% cortical. Patinated opaque flint. 22 x 15mm.
120/30	Chunk	Chunk of burnt flint, some flake surfaces survive. Surface is c. 50% cortical Grey opaque flint.
120/30	Chip	Burnt flake fragment, some flake surfaces survive. Pale to mid-grey opaque flint.
120/30	Chip	Burnt flake fragment, some flake surfaces survive. Pale to mid-grey opaque flint.

Context No.		Description
120/30	Chip	Burnt flake fragment, some flake surfaces survive. Pale to mid-grey opaque flint.
120/30	Chip	Burnt flake fragment, some flake surfaces survive. Pale to mid-grey opaque flint.
120/30	Chip	Heavily burnt flint, some flake surfaces survive, but granular structure, with pot lid fractures. Grey opaque flint, with some red surfaces.
120/30	Chip	Burnt flint fragment, some flake surfaces survive. Red surfaces to flint.
120/30	Broken tertiary flake	Proximal fragment of flake, with flat platform, and relatively diffuse bulb, having erailure flake removed. Burnt greyey-brown opaque flint.
120/30	Broken tertiary flake	Distal fragment of burnt flake, with feathered termination. Mid grey opaque flint, with frequent chalky inclusions.
120/30	Broken secondary flake	Distal fragment of flake. The surviving dorsal surface is c. 70% cortical, and produced from pebble. Possible retouch at distal end. Brownish-grey opaque flint.
120/30	Broken primary flake	Distal fragment of flake. The surviving dorsal surface is 100% cortical, and produced from pebble. Dark brownish-grey opaque flint.
120/30	Broken secondary flake	Distal fragment of flake. The surviving dorsal surface is c. 50% cortical, and has flake scars. Patinated brownish-grey opaque flint.
120/30	Broken secondary flake	Proximal fragment of flake, with cortical platform and diffuse bulb. The surviving dorsal surface is c. 90% cortical. Patinated brownish-grey opaque flint.
120/30	Broken tertiary flake	Distal fragment of flake, with hinged termination. Has been deliberately broken, as both surface of break and distal end have been abruptly retouched, the former to create a slight notch. Greyey-brown opaque flint.
120/30	Broken denticulate/scrapper	Proximal fragment of flake. Retouch and small invasive flakes have removed platform and bulb. One lateral edge has abrupt retouch on ventral face, with notch at proximal end. Other lateral edge has abrupt retouch on both faces, creating three small indentations. The surviving dorsal surface is c. 45% cortical. Greyey-brown opaque flint.
120/60	Broken hammer stone	Half of a burnt sub-rounded pebble, with a number of small primary flakes removed near base; c. 70% of surviving surface remains cortical, of which c. 20% is heavily chipped, crazed and abraded as a result of impacts with target pieces. c. 55mm diameter.
120/60	Secondary flake	Burnt conchoidal flake, with flat platform, diffuse bulb, and hinged termination. The dorsal surface is c. 5% cortical. Pale grey opaque flint. 39 x 17mm.
120/60	Broken tertiary flake	Distal fragment of heavily burnt conchoidal flake, with hinged termination. Scars on dorsal surface indicate multiple platform working.

Context No.		Description
120/60	Secondary flake	Conchoidal blade-like flake, with complex platform, relatively diffuse bulb, having erailure flake removed, and hinged termination. The dorsal surface is c. 10% cortical. Brown semi-opaque flint. 28 x 16mm.
120/60	Secondary flake	Squat conchoidal flake, with flat platform, diffuse bulb, and feathered termination. The dorsal surface is c. 5% cortical. Brown semi-opaque flint. 14 x 20mm.
120/60	Broken secondary flake	Distal fragment of flake, with stepped termination. Surviving dorsal surface is c. 60% cortical. Greyey-brown semi-opaque flint.
120/60	Broken Primary flake	Distal fragment of burnt flake, with hinged termination. Surviving dorsal surface is 100% cortical. Mid-grey opaque flint, with chalky inclusions.
120/60	Chunk	Chunk of burnt flint, some flake surfaces survive. Crushing on one edge suggests this is probably a core fragment. One surface is patinated. Brown-grey opaque flint.
120/60	Chunk	Chunk of burnt flint, some flake surfaces survive. One surface is patinated. Surface is c. 30% cortical. Greyey-brown opaque flint.
120/60	Chip	Flake fragment, flake surfaces survive. Patinated mid-grey opaque flint.
120/60	Misc scraper	Thick irregular burnt flake from pebble core, with cortical platform, diffuse bulb and feathered termination. Dorsal surface is c. 40% cortical. Series of small, abrupt invasive flakes have been removed from distal end, with further retouch along one lateral edge. Patinated, brown-grey opaque flint. 43 x 23mm.
120/90	Tertiary flake	Squat conchoidal flake, with flat platform, relatively diffuse bulb, and hinged termination. The dorsal surface and platform have been polished, indicating that this is likely to be a resharpening flake from a tool such as an axe; angle at interface of two polished surfaces c. 40°. Brown-grey opaque flint. 10 x 24mm.
120/90	Chunk	Chunk of heavily burnt flint, some flake surfaces survive. Granular structure, from which fragments have crumbled. Surface is c. 20% cortical. Calcined greyey opaque flint.
120/90	Chunk	Chunk of burnt flint, some flake surfaces survive. Surface is c. 15% cortical. Brown-grey opaque flint.
120/90	Chunk	Chunk of flint, some flake surfaces survive. Surface is c. 70% cortical. Greyey-brown opaque flint.
120/90	Chunk	Chunk of burnt flint, some flake surfaces survive. Surface is c. 60% cortical. Pale grey opaque flint.
120/90	Chunk	Chunk of burnt flint, some flake surfaces survive. Red opaque flint.

NB: Measurements are given only for complete flakes. The first figure relates to the maximum length, measured perpendicular to the striking platform; the second to maximum breadth, measured at a right angle to the length. Figures for the percentage of cortex relate to the total area of the dorsal surface and platform.

A rapid assessment of the material recovered from the surface of the site was made. This amounted to 143 pieces of flint, and included the material collected during the site visit conducted during the compilation of the desk-based assessment. Among this group were 4 pieces requiring detailed description.

Context No.	Description
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Ground surface assemblage (Group B)

Unstrat.	Notched blade	Tertiary conchoidal flake, with complex platform, diffuse bulb and feathered termination. Scars on the dorsal surface indicate that a series of narrow parallel flakes have been removed, from a single platform, indicating that it was struck from a prepared core. Although there is some damage to the lateral edges, as a result of rolling/ploughing, it is apparent that one has been retouched along its full length. This retouch includes a small notch near the proximal end. Probably later Mesolithic, but could be early Neolithic. Flake has been burnt resulting in granular structure on part of dorsal face. Brownish-grey opaque flint. 49 x 18mm.
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Unstrat.	Unifacial knife	Conchoidal primary flake, with small flat platform, moderately pronounced bulb, having craillure flake removed, and feathered termination. Essentially triangular in shape, the lateral edges intersect at the platform. The dorsal face of the two lateral edges have been extensively retouched, by the removal of a series of small, regular, parallel-sided, semi-abrupt and oblique invasive flakes. This technique is indicative of a later Neolithic or Early Bronze Age industry. The distal end has been more crudely retouched on the ventral face. Brownish-grey opaque flint. 47 x 37mm.
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Unstrat.	Misc scraper	Squat conchoidal tertiary flake, with flat platform, diffuse bulb, having craillure flake removed and feathered termination. Distal end and one lateral edge has been retouched by the removal of a series of small abrupt and semi-abrupt flakes from the dorsal face. Burnt brownish-grey opaque flint. 23 x 32mm.
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Unstrat.	Broken fabricator or dagger tang	Fragment of thick secondary flake, with sub-oval cross-section. Has been extensively bi-facially retouched along both lateral edges and the (probable) distal end. Generally, working appears to be quite regular suggesting that this may be part of a broken tool with a clear morphology, such as a dagger, rather than a fabricator, which would be expected to be slightly more irregular. Very clean break at one end results from rest of artefact being detached, making definitive recognition impossible. Daggers are thought to be late Neolithic in date, while fabricators were produced from the Mesolithic through to the Early Bronze Age. However, the more regular 'D'-shaped types, of which this would be one, are again thought to be of late Neolithic date, and are typical of Beaker contexts. Burnt brownish-grey opaque flint. 23 x 32mm.
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Table 1: Summary of the worked and modified lithic material recovered from stratified and associated contexts (Group A)

	Number present	Polished	Burnt	Retouched	Use-wear	Notes
Trench 2						
<i>Unstrat.</i>						
Secondary flakes	2		1			
Chunks/chips	2					
Total	4	0	1	0	0	
Trench 3						
<i>Unstrat.</i>						
Core	2		1			unfinished
Core fragment	4			1		
Tertiary flakes	7		7			
Secondary flakes	4		1	1	1	
Chunks/chips	5		2			
Transverse arrowhead	1		1			
Core scraper	1		1			
Extended end scraper	1		1			
Total	25	0	14	2	1	
302						
Hammerstone	1		1			1x struck from axe? 1x sickle gloss
Core	3		2			
Core fragment	4		3			
Tertiary flakes	15	1	7	2	4	
Secondary flakes	17		8	2	4	
Primary flakes	3		1		1	
Chunks/chips	12		7			
Flake knife	1					
Misc. scraper	1		1			
Total	57	1	30	4	9	
308						
Core	1		1			1x metamorphic rock 1x chert, or volcanic tuff
Tertiary flakes	6	1	3		1	
Secondary flakes	9		5		4	
Chunks/chips	3		3			
Horseshoe scraper	1				1	
Total	20	1	11	0	6	
Pot boilers	9				1	Fine grained quartz sandstone, 1x having previously been utilised as a rubber.

	Number present	Polished	Burnt	Retouched	Use-wear	Notes
Test Pits						
120/30						
Tertiary flakes	3		2	1		
Secondary flakes	4			1		
Primary flakes	1					
Chunks/chips	7		7			
Denticulate/scrapper	1					
Total	16	0	9	1	0	
120/60						
Hammerstone	1		1			
Tertiary flakes	1		1			
Secondary flakes	4		1			
Primary flakes	1		1			
Chunks/chips	3		2			
Misc scrapper	1		1			
Total	11	0	7	0	0	
120/90						
Tertiary flakes	1	1				
Chunks/chips	5		4			
Total	6	1	4	0	0	

Table 2: Summary of the worked and modified lithic material recovered from the surface of the site (Group B)

	Number present	Polished	Burnt	Retouched	Use-wear	Notes
Surface collection						
Hammerstone	1					
Core	9		6			2x previously used as hammers
Core fragment	14		10	1		
Tertiary flakes	29		22	9		
Secondary flakes	33		22	6		
Primary flakes	4		2	1		
Chunks/chips	49		46			
Notched blade	1					
Flake knife	1					
Broken fabricator or dagger tang	1		1			
Misc scrapper	1					
Total	143	0	109	16	0	

2.0 Description and context

Almost all of the worked stone is flint, the exceptions being two small flakes from (308). One of these is a relatively coarse-grained rock, probably metamorphic, which may have been present in the region as a glacial erratic, or in river terrace deposits. The other is a fine-grained material, possibly a chert, but more likely to be a fragment of volcanic tuff. Chert is derived from limestone geology and as such it is likely it would have been imported to the site from the west (e.g. the White Peak of Derbyshire). It was utilised extensively for tool manufacture, throughout prehistory, in areas lacking plentiful supplies of flint. Generally, however, chert is less suitable for the purpose and produces a less satisfactory edge. The sources of volcanic tuff also lie to the west, being situated in the upland zones fringing the western seaboard of Britain, such as Cumbria and North Wales. These exotic materials were almost exclusively utilised for the production of stone axes, the examples most commonly found in Lincolnshire originating from the Group VI quarries on Langdale, in the Lake District.

The majority of the flint appears to be derived from secondary deposits. Most of the primary and secondary flakes have a thin, abraded cortex, and where relatively large areas of this surface survive, often exhibit a rounded profile. This indicates that they are water-transported nodules, a factor accounting for the considerable variation in colour, composition and quality. While the actual source this material is not apparent, it will have come from coastal or riverine contexts. The River Steeping runs within 1km of the site, but as this is only a small water-course draining the south-eastern corner of the Wolds, it is debatable as to whether it would yield such a diversity of types of flint. The River Witham, situated c. 23km to the west, is a more likely source in terms of variance, but presumably there is a similar source much closer to the site.

There are a few flakes of high quality flint, having a relatively thick chalky cortex (e.g. a secondary flake from (302)), which compare well with the products of mines, such as Grimes Graves, Norfolk. Production at the latter site was initiated at around the turn of the 3rd millennium BC, but there is evidence from other sites in the south of England that the tradition dates back to the early Neolithic. The process of mining compares well with acquisition of volcanic tuff, both involving a relatively high investment of time, in contrast to the relatively expedient collection of secondary flint from river banks, tree throws, or slight delves into gravel beds.

Before discussing the nature of the assemblage, it is necessary to establish a distinction between the material collected unsystematically from the surface of the field (Group B) and, that retrieved from the trenches and test pits during the evaluation (Group A). There are likely to be some significant biases in the composition of the former group, as some components would have been more visible than others. A comparison of the percentage of burnt flint in each group supports the notion that Group B represents a skewed data set. Burning flint tends to make it lighter in colour, increasing the contrast with the soil. Thus, it is notable that while 54.7% of the material recovered from the evaluation was burnt, 76.2% of the pieces in Group B had been similarly treated. This suggests that the problem of differential recognition, though not totally eliminated from the excavated sample, has been significantly reduced. Thus, it is considered that this latter collection will be more representative of the original worked lithic population, and the following summary will be structured accordingly.

Cores and core fragments together constitute 10.1% of Group A. Generally, these have been worked to exhaustion, a factor possibly reflecting the effort of bringing the stone to the site. Without exception, the scars indicate that flakes, rather than blades, were removed, and consequently, the cores do not exhibit signs of careful preparation or maintenance. This factor is particularly evident in the high incidence of multiple platform working, and the relatively random patterning of the relationships between these platforms.

The form of the flakes corresponds closely to the pattern of core reduction noted above. Few are relatively narrow and, the high incidence of hinge and stepped fractures suggests that a fairly informal technique was a characteristic of this industry. Of the 78 flakes in Group A, 57.7% are cortical. This high incidence probably results from the nature of the raw materials, as waterborne cobbles and pebbles have a relatively high surface area in comparison to chalk flint. Together with the cores, the large number of cortical flakes indicates that all stages of core reduction were undertaken at the site. The proportion of complete cores (6) to flakes is 1: 13, but given the extent to which many of the

former had been worked, the number of flakes would still appear to be low. This suggests that the assemblage is not a true representation of its initial composition, and that some of the flakes have been transported to other locations.

Overall, Group A contained a relatively high proportion of utilised flakes (23.2%). This sub-set was composed of 8 tools, 8 informally retouched flakes and a further 16 pieces showing evidence of use-wear. This indicates that in addition to core reduction, tools were being manufactured and used on this ridge at Halton Holegate. One of the used flakes had an area of well developed 'sickle gloss', the by-product of cutting plant stalks, while some of the tools are manifestly suited to the preparation of hides, or meat. Additionally, the presence of pot-boilers and a fragment from a stone rubber imply that some stages of food preparation were undertaken on the site. This range of activities, combined with the depositional contexts from which the artefacts were recovered, indicates that there was some form of occupation site on the hilltop.

3.0 Dating

Within the total assemblage (Groups A and B) there are a few diagnostic pieces that appear to have been manufactured somewhat earlier than the remainder. These were either contained within the ploughsoil, or recovered from the ground surface. A notched blade, produced from a prepared blade core, is most likely to have been manufactured during the later Mesolithic, but would not be atypical of earlier Neolithic industries. A large end scraper recovered from the topsoil in Trench 3, has a comparable date range, but is more likely to represent early Neolithic activity.

The patterns evident in core reduction suggest that the majority of the assemblage was produced after the early Neolithic. Indicators include the predominance of multiple platform working, the small number of prepared platforms and the prevalence of relatively squat and irregular flakes.

The only diagnostic artefact recovered from a stratified context was a horseshoe scraper within (308). This is stylistically typical of later Neolithic technology. The partially fabricated oblique arrowhead from the ploughsoil in Trench 3 is of a comparable date. Both would be typical of the first three-quarters of the 3rd millennium BC.

It is also noteworthy that there is an apparent absence of thumbnail scrapers and, barbed and tanged arrowheads, both characteristic of the final Neolithic and Early Bronze Age. This suggests that the assemblage is relatively homogenous, if a period of six or seven centuries can be considered in those terms.

4.0 Discussion and conclusion

As detailed above, the lithic material provides some interesting insights into activities undertaken at the site. Most, or all, of the flint must have been brought to the site. The variety of types of flint, some from the Wolds, some from river valleys and probably some from mines, implies that material came from a number of sources, the latter possibly reflecting the movement of a number of relatively mobile, but disparate, groups. Following this initial phase of procurement, all other stages of manufacture, use and discard of tools are represented. The presence of stone hammers, cores, primary and secondary flakes, and, chips and chunks of flint provides compelling evidence that core reduction took place within the confines of this field.

Similarly, the presence of utilised flakes and tools is indicative of a range of activities consequent upon their production. The recovery of a range of other artefacts from (302) and (308) supports the proposal that there was some form of occupation on the site during the 3rd millennium BC. Associated material included Clacton style Grooved Ware pottery, pot boilers, charcoal, a charred hazlenut shell and a number of fossils.

Among the strongest evidence for concentrated activity is the charcoal, which denotes that fires or hearths were constructed here. The lithic material provides further confirmation, as 55.5% of the flint

in Group A was burnt. In many cases, the degree to which heat has altered the structure showed that it had been subject to very high temperatures for relatively sustained periods. Analysis of a sizeable lithic assemblage from Soham, on the fen edge in Cambridgeshire, suggested that large quantities of burnt flint were a feature of later Neolithic and Early Bronze Age activity (Edmonds *et. al.*, 1999). However, the underlying purpose remains elusive. More prosaic explanations include re-use as pot boilers, or for the creation of temper for pottery. Yet the small size of many of the flakes, and the relative proportions of burnt flint to flint-tempered ceramics somewhat undermines these arguments. It has also been proposed that the burning of discarded flint represented part of a process of ritually, or symbolically purifying a site, either during or at the end of a period of occupation. Such theories must remain largely conjectural, but the corollary of the latter scenario is that waste flint would have been collected and brought to hearths, thus skewing its eventual distribution.

There are a number of partially finished, complete or broken tools among both the lithic material collected from the ground surface and that recovered from the topsoil/subsoil during the evaluation. While these may have been discarded onto the contemporary ground surface, it is also possible that they were originally components of the deposits placed into pits such as [304]/[307]. Indeed, the recovery of an oblique arrowhead from the topsoil above these two features suggests that this item may originally have been situated within one of them. It is therefore possible that these deposits have been truncated as a result subsequent agricultural activity.

In almost all cases, lithic assemblages represent palimpsests of activity, and the material that is considered in this report is no different. However, there is only a very limited quantity of material that appears to have been fabricated before the later Neolithic. Similarly, there is no firm evidence for the continuation of occupation or activity at either the very end of the Neolithic, or during the Early Bronze Age. Accordingly, this appears to be an essentially homogenous collection, which is a factor of importance. If further work is conducted at the site, the collection and analysis of a relatively substantial quantity of worked lithic material should be anticipated. This is likely to provide a significant insight into regional working practices during a specific period of prehistory. Additionally, much of this material may have secure associations with charcoal and pottery, which would allow current chronologies to be refined. Consequently, it is considered that the site at Halton Holegate has significant potential for advancing our understanding of the Neolithic period, certainly in Lincolnshire, and possibly at a wider level.

5.0 References

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Halton Holgate – HAH01**Environmental Archaeology Assessment****Introduction**

A single soil sample was submitted from evaluation excavations conducted by Pre-Construct Archaeology at Halton Holgate, near Spilsby, Lincolnshire. The sample was taken from a prehistoric feature.

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 float 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 hammerstone and prill. The residue was then discarded. The two floats from the sample were studied under a low power binocular microscope. The presence of environmental finds (ie snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The floats were then bagged. The flot and finds from the sorted residue constitute the material archive of the sample.

Results

The sample was taken from context 308 and comprised 30 litres of deposit weighing approximately 36 kilogrammes. The sample matrix was a sandy silty clay with some larger stone and gravel.

A fairly large number of uncharred seeds, including *Chenopodium* sp. (goosefoot/orache), *Galium* sp. (cleavers), *Sambucus* sp. (elder), *Rubus* sp. (blackberry/raspberry) and others were present in the flot and clearly indicate the movement down through the soil of recent seeds. The presence of fibrous roots, larval cases and isopods is a further testament to this recent contamination of the archaeological deposit.

The residue was composed of a coarse sand with fossil rich subrounded and angular stone, and comprised less than 10% by volume and weight of the original sample. The absence of mollusc shells and the generally poor preservation of unburnt bone in the sample suggests that the soils are acid. Archaeological finds included 88 g. of fired earth from the >7mm fraction of the residue, 5 sherds of pottery (one of which was decorated), six grammes of bone and circa fifty fragments and flakes of flint, apparently representing debitage and weighing 73g. The fired clay fragments included pieces with an intact surface and one or two fragments with impressions, and some may be structural. A single spheroid of hammerstone was recovered in the magnetic sweep of the dried residue. The bone fragments, mostly burnt, included pieces of cattle tooth enamel.

The sample produced a flot of *circa* 7 ml. With charcoal fragments fairly abundant, two pieces of charred hazelnut shell and a possible fragment of charred grain, in addition to the uncharred seeds and invertebrates mentioned above.

Conclusions

Bone and mollusc shells appear to have been poorly preserved in the soil and may not survive well on the site, although burnt bone will have survived. Charred material is present and survives well, and although there was very little dietary or crop debris in this sample the deposits clearly have potential for this type of evidence. The single spheroid of hammer scale may be a contaminant but could indicate iron smithing at the site. There appears to be a relatively high concentration of flint debris in the sample, in a soil type in which flint appears to be alien, and it may be necessary to sieve deposits for the efficient recovery of this debris.

While the environmental data relating to the palaeoenvironment and the animal husbandry at the site may be limited the charred plant remains, charcoal, cereal remains and weed seeds should be sampled for if further work is proposed. Industrial evidence, possible structural material, flint debris and other finds may also be forthcoming from these samples. Samples should be of a similar size to that taken during the evaluation, ie 30 litres, and taken from dateable features, except where charred material may be required for radiocarbon dating. The fragmented state of the charcoal in the sample and recent concerns over the dating of bulked charcoal samples (Ashmore 1999) suggests that cost allowance should be made for AMS dates if radiocarbon analyses are envisaged.

Acknowledgments

I should like to thank Alison Foster and Trudi Maynard for the sample processing.

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15th February 2001

Appendix 13.5

List of Archaeological Contexts

Trench 1

<i>Context No.</i>	<i>Category</i>	<i>Description</i>
100	Layer	Topsoil
101	Layer	Subsoil
102	Layer	Natural - coarse yellow sand
103	Cut	Pit - large rectangular pit filled with modern rubbish
104	Cut	Pit - large oval or sub-circular pit
105	Cut	Ditch - poorly defined linear running parallel to, and very near, edge of field
106	Cut	?Pit - feature exposed in section
107	Fill	Upper fill of [103], sealing (108)
108	Fill	Fill of [103], sealing (109)
109	Fill	Fill of [103], sealing (110)
110	Fill	Secondary fill of [103], containing 20 th century domestic refuse
111	Fill	Upper fill of [104], sealing (112)
112	Fill	Fill of [104], sealing (113)/(117)
113	Fill	Fill of [104], sealing (114)
114	Fill	Fill of [104], sealing (118), same as (117)
115	Layer	Colluvial deposit at north-east end of trench, seals (125)
116	Fill	Primary fill of [103]
117	Fill	Fill of [104], same as (114)
118	Fill	Fill of [104], sealing (119)
119	Fill	Fill of [104], sealing (120)
120	Fill	Fill of [104], sealing (121)
121	Fill	Fill of [104], sealing (122)
122	Fill	Primary fill of [104]
123	Fill	Upper fill of [106], sealing (124)
124	Fill	Primary fill of [106]
125	Layer	Colluvial deposit at north-east end of trench, seals (129)
126	Fill	Primary fill of [105]
127	Fill	Upper fill of [105], sealing (126)
128	Layer	Colluvial deposit at north-east end of trench, seals (129)
129	Layer	Colluvial deposit at north-east end of trench, seals (130)
130	Layer	Colluvial deposit at north-east end of trench

Trench 2

<i>Context No.</i>	<i>Category</i>	<i>Description</i>
200	Layer	Topsoil
201	Layer	Subsoil
202	Layer	Natural - coarse yellow sand
203	Layer	Natural - stiff pink clay
204	Cut	Ditch - probably part of ring ditch, with further section exposed as [205]. Possibly defines a round barrow?
205	Cut	Ditch - probably part of ring ditch, with further section exposed as [204]. Possibly defines a round barrow?
206	Cut	Pit - probably created by tree bole/roots, the latter subsequently being burnt
207	Fill	Upper fill of [204], sealing (208)
208	Fill	Fill of [204], sealing (209)
209	Fill	Fill of [204], sealing (210)
210	Fill	Fill of [204], sealing (211)
211	Fill	Primary fill of [204]
212	Fill	Upper fill of [205], sealing (213)
213	Fill	Upper fill of [205], sealing (214)
214	Fill	Upper fill of [205], sealing (215)

215	Fill	Primary fill of [205]
216	Fill	Upper fill of [206], sealing (217)
217	Fill	Primary fill of [206]
218	Fill	Fill of [219]
219	Cut	Possible posthole
220	Fill	Fill of [221]
221	Cut	Possible posthole
222	Layer	Mixed deposit, possibly colluvial, or leached subsoil
223	Layer	Possibly natural sands, discoloured at interface with (201)

Trench 3

<i>Context No.</i>	<i>Category</i>	<i>Description</i>
300	Layer	Topsoil
301	Layer	Subsoil
302	Fill	Fill of [304]
303	Fill	Possible clay lining (pinkish yellow clay) to pit [307]
304	Cut	Pit - sub-oval Neolithic pit
305	Layer	Natural - coarse orangey brown sand (possibly colluvial)
306	Fill	Fill of [307], sealing (303)
307	Cut	Pit - sub-oval Neolithic pit
308	Fill	Upper fill of [307], sealing (306)