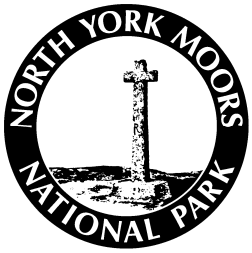
Archaeological Evaluation

Upleatham, Redcar and Cleveland and

Goldsborough, North Yorkshire



ENGLISH HERITAGE

TA08/10

OASIS ID 52502

Archaeological Evaluation

Upleatham, Redcar and Cleveland and

Goldsborough, North Yorkshire

December 2008

Rachel Grahame
with contributions from Allan Hall, Jim Innes, Peter Rowe and Blaise Vyner

TA08/10

OASIS ID 52502

Tees Archaeology, Sir William Gray House, Clarence Road, Hartlepool, TS24 8BT
Tel: 01429 523455 Fax: 01429 523477 email: tees-archaeology@hartlepool.gov.uk

Contents

Appendices (CD only)

Illustrations

Summary

This report describes the methodology and results of two archaeological evaluations undertaken by Tees Archaeology Research and Fieldwork Section at Upleatham, Redcar and Cleveland, and Goldsborough, North Yorkshire. The fieldwork was undertaken in August and September 2008 as part of an English Heritage funded partnership project between Tees Archaeology and the North York Moors National Park Authority researching the Mesolithic in north east Yorkshire.

Both sites are lowland locations in prominent positions, and have been previously identified as sites of potential settlement due to the presence of lithic scatters. They were evaluated using a programme of shovel pitting followed by targeted test pitting. This replaced a fieldwalking programme which could not be carried out due to poor weather delaying the harvesting of crops at both site.

At Upleatham, the flint assemblage demonstrates occupation from at least the late Mesolithic (and possibly early Mesolithic) through to later prehistory. In addition several features were identified: a large ditch, probably an enclosure ditch, a pit and a hearth. Pottery finds indicate that these are all likely to date to the Late Bronze Age or Pre-Roman Iron Age.

At Goldsborough, the shovel pitting produced a very mixed flint assemblage, but two ditches, probably enclosure ditches, were identified. Flint finds indicate that one of these dates to the Mesolithic or early Neolithic.

Acknowledgements

Grateful thanks go to the farmers who allowed us access to their land, provided space for site facilities and parking, and assisted us at their busiest time of year - Peter Humphrey, Capon Hall Farm, Upleatham; Paul Hogarth, Overdale Farm, Goldsborough; and Alwyn Marsay, Middle Farm, Goldsborough.

Thanks also to all the volunteers who worked with us, and who continued through rain and wind to finish the job - Neil Arnison, Francis Barnard, Pat Dean, Norman Harbord, Patricia Harbord, Yvette Marks, Adam Mead, Rachel Orange, Keith Palmer, John Piprani, Stephen Pratt, Patricia Rowe, Victoria Sievert, Alan Simkins, John Usher and John Watson.

1. Introduction

Two archaeological evaluations of land at Upleatham, Redcar and Cleveland, and Goldsborough, North Yorkshire (Figures 1 and 5) were undertaken by Tees Archaeology Research and Fieldwork Section during August and September 2008 as part of an English Heritage funded partnership project between Tees Archaeology and the North York Moors National Park Authority researching the Mesolithic in north east Yorkshire. The fieldwork was carried out by Rachel Grahame (project director), Aaron Goode (supervisor) and Dave Errickson (site assistant), assisted by a total of sixteen volunteers.

The North East Yorkshire Mesolithic Project consists of a phased programme of research intended to increase our understanding of the nature of Mesolithic occupation in north east Yorkshire (Daniels, 2008). Existing sites are known primarily from flint scatters rather then systematic excavation, and little paleoenvironmental research in the area has been carried out on archaeological sites.

Phase 1 of the project was carried out in 2006 and consisted of a review of known sites and existing collections of lithics within the study area, resulting in the identification of six zones of Mesolithic occupation:

Zone 1 - low-lying areas in the Tees valley. These include the former lake basin at Seamer Carrs and sites alongside the river Tees and the former course of the Leven at Levensdale

Zone 2 - lowland locations in prominent positions, principally overlooking the Tees estuary and what would have been the coastal plain in the Mesolithic. Typical locations are those on the Eston and Upleatham hills and down the coast at Goldsborough

Zone 3 - the lower-lying northern and eastern fringes of the present moorland block where sites are often on broad ridges with panoramic views, with sites such as Simon Howe, Mauley Cross and Brown Hill.

Zone 4 - prominent locations on the edge of steep valley and scarp slopes. These include Highcliff Nab, the northern edge of Urra Moor, sites on the western escarpment of the Hambleton Hills and Bransdale Ridge.

Zone 5 - the upper reaches of streams in high moorland in locations such as White Gill, Parci Gill on West Bilsdale Moor and Butter Beck on Egton High Moor.

Zone 6 - high moorland spring head basins. Typical sites include Ousegill Head, Peat Moss, Glaisdale Moor and Westerdale Head.

Phase 2 of the project was then designed to evaluate a number of these sites and zones of activity. Evaluation in 2008 has focussed on two areas in Zone 2, Upleatham and Goldsborough. These were considered to be the most promising of the lowland locations with prolific assemblages which include a variety of artefact types, as well as both Mesolithic and later items. These are ploughsoil assemblages from fieldwalking, but the extent of plough damage is not known. The three sites at Upleatham have been considered in the past to be typical lowland sites of Mesolithic occupation (Spratt *et al* 1976). When first walked, one of the Goldsborough sites had evidence for hearths in the form of concentrations of burnt stone on the surface of the ploughsoil (N Harbord pers. comm.) and there may be subsoil features surviving now. None of these sites have early Mesolithic flints (although one of the Goldsborough sites produced a possible Late Upper Palaeolithic shouldered point), but the Goldsborough sites have very late Mesolithic rods and therefore have the potential for investigating the transition from Mesolithic to

Neolithic. Goldsborough is also in a similar location to the recently excavated site at Howick on the Northumberland coast (Waddington 2003), on a cliff-top overlooking low-lying coastal areas, and therefore could have had a similar type of occupation, although with plough damage, preservation at Goldsborough is not likely to be so good. Evidence from the former low-lying coastal zone is absent from the project area, but sites such as Goldsborough may have been associated with the type of evidence found in Hartlepool Bay to the immediate north (Waughman 2005).

2. Aims and Objectives

The primary aim of the evaluation was to identify those locations with the greatest potential to provide new evidence through detailed excavation, particularly through the identification of features, and the recovery of palaeoenvironmental evidence and material suitable for radiocarbon dating.

This corresponds to Phase 2 objective 2:

> To evaluate by field investigation the zone of lowland activity (Zone 2) in order to determine the extent of plough damage and identify sites with concentrated activity, surviving stratigraphy and features. (Daniels 2008, 16)

and also contributes to Phase 2 objectives 6 and 7:

> Where possible, to obtain palaeoenvironmental samples and material suitable for radiocarbon dating from sites evaluated under 2-4, and identify deposits which preserve plant macrofossil and invertebrate remains. Key contexts for dating will be hearths and peat deposits containing or sealing archaeological remains. (Daniels 2008, 16)

> To identify sites with the greatest potential to provide detailed new data through excavation and palaeoenvironmental sampling in order to satisfy the project aims based on information gathered through steps 2-6. (Daniels 2008, 17)

The involvement of volunteers in the project also contributed to Phase 2 objective 1:

> To increase general awareness of the Mesolithic within the project area. (Daniels 2008, 16)

The results of the evaluation will form part of a permanent archive of the site. The archive will be held by Tees Archaeology under the site codes MPU08 and MPG08.

3. Methodology

The following methodology was specified for the evaluation:

> The first season will include 20 days in the field and the second 30 days. Activity will comprise either initial investigation by fieldwalking at 5m intervals, bagging and surveying each find individually as far as is reasonable. Where fieldwalking is not possible investigation will be by augering/shovel-pitting based initially on a 10m grid, reducing the interval to 5m or 2m where lithics are found in order to pinpoint possible concentrations and identify their extent. This will be followed by more targeted test pitting using hand dug trenches 2m x 2m. The latter may be extended in order to clarify features of specific interest. All spoil from these pits will be dry sieved through a 6mm mesh to recover small artefacts and archaeozoological material, although on many sites animal bone is unlikely to be preserved except in charred form or within

> waterlogged deposits. If the test pit spoil is very sandy (particularly for the upland sites) the mesh size may be decreased to improve artefact recovery. (Daniels 2008, 19)

This comprised Year 2 tasks 2.2 and 2.3:

> Task 2.2 Fieldwalking of up to 4 fields at Upleatham and up to 6 fields at Goldsborough with a view to selecting 2 locations with the highest concentrations of Mesolithic material.
>
> Task 2.3 Test pitting/trial trenching to investigate concentrations of flint. Test pits to be hand dug, 2m square and ploughsoil to be dry sieved through a 6mm mesh. The test pits will be extended as necessary to clarify features of interest. Bulk sampling of hearth deposits and other features which look likely to produce dating evidence. The test pitting will also seek to determine the degree of plough disturbance by assessing how dispersed the lithics are both horizontally across the area being examined and vertically through the ploughsoil. (Daniels 2008, 19)

In the event, the application of this methodology at both Upleatham and Goldsborough was compromised by the poor weather during the fieldwork season (see below), and shovel pitting was the primary means of investigation. The shovel pits and test pits were each given a unique number within a single sequence: shovel pits which were expanded to become test pits retained their original number.

The shovel pits and test pits were excavated by hand through the ploughsoil and subsoil until boulder clay or bedrock were reached. All of the ploughsoil and subsoil from the shovel pits was dry sieved through a 6mm mesh: in the case of the test pits, time constraints meant that only a percentage of the ploughsoil and subsoil could be sieved. Where features were located, subsequent excavation and recording was undertaken following the methodology set out in Tees Archaeology Research and Fieldwork Section's recording manual. Sections within each test pit were drawn at a scale of 1:10 and plans were drawn at a scale of 1:20. Deposits were recorded using pro forma context recording sheets. A photographic record of the investigations was compiled using SLR and a digital camera. This comprised black and white prints and colour transparencies on 35mm film. All photographs include a graduated metric scale. The photographic record forms part of the project archive. A temporary benchmark was established on the site using established survey information. The location of each shovel pit and test pit was surveyed using a Topcon Total Station.

4. Upleatham

The Upleatham study area is located to the northwest of the village of Upleatham on a plateau overlooking the Tees estuary and surrounded on all sides by steep drops. The plateau itself has a high central point dropping away gently to the east and west, and more steeply to the south. Three sites were initially identified as having potential (Figure 1), one at the eastern end of the plateau (NZ 63502005), one at the northwest corner (NZ 62201990), and one along the central northern edge (NZ 62902020). The geomorphology of the area consists of sandstone overlain in places by boulder clay.

A few weeks prior to fieldwork commencing it was discovered that the farmer no longer regularly ploughs the fields, instead leaving the stubble and waste from harvesting on the field, and direct drilling the new crop. This effectively removed the possibility of carrying out any fieldwalking during the fieldwork programme.

Fieldwork was carried out from the 18th August to the 29thAugust, during which period approximately a quarter of the time was lost to bad weather. During the first week the

weather was very poor, improving during the second week. At the start of the two week programme the sites at the eastern end of the plateau and along the central northern edge had not been harvested, so shovel pitting was started on the site at the northwest corner of the plateau. The eastern end of the plateau was harvested at the start of the second week, but by this point it was clear that the remaining time would be needed to complete the shovel pitting and test pitting programme on the site at the northwest corner of the plateau.

A total of fourteen volunteers were scheduled to take part in the project: of these, three were unable to take part. An additional two volunteers were gained during the course of the project. One volunteer who had only committed to the first week of the project elected to continue their participation during the second week. In total, 49 volunteer days were contributed to the project.

The project was given the site code MPU08 for **M**esolithic **P**roject **U**pleatham 20**08**.

4.1 Results

A total of 54 shovel pits were excavated, 2 of which were expanded to become test pits (Figure 2). Initially 46 shovel pits were excavated on a 10m grid, with an additional 8 excavated at 5m intervals where a rapid on-site assessment of the finds indicated concentrations of flint. An additional 2 test pits were then excavated. The ploughsoil was a homogenous deposit of mid brown firm/friable humic clay silt, though varying in depth across the field from 0.23m to 0.50m. Beneath this the natural varied from boulder clay to heavily weathered sandstone, with an occasional thin sandy subsoil present.

4.1.1 Test Pit 28

Shovel pit 28 was expanded to a test pit (Figure 3) measuring 1.40m long and 1.30m wide, due to the presence of charcoal in the ploughsoil [7] and in the underlying deposit. This revealed an irregularly shaped sub-circular shallow pit with a very shallow U-shaped profile [9], filled by a mid brown firm clay silt containing patches of orange boulder clay, frequent flecks and lumps of charcoal, occasional fragments of burnt sandstone, and occasional stones [10]. The pit was approximately 1.10m in diameter and 0.12m deep, and was cut into the boulder clay [8]. The pit was initially half-sectioned: following this the eastern half of the fill was taken as an environmental sample. This feature was heavily truncated by ploughing and its function is not apparent, but it appears to have been backfilled with burnt material.

4.1.2 Test Pit 37

Shovel pit 37 was expanded to a test pit (Figure 4) measuring 2.50m long and 1.60m wide, due to the failure to find either boulder clay or sandstone at the base of the pit. This revealed the uppermost fill of a large linear feature. When excavated this proved to be a large ditch aligned *c*.ESE-WNW, with a shallow U-shaped profile [6] cut into the boulder clay [2]. The edges of the feature lay beyond the limit of excavation, but a segment 1.40m long, 2.20m wide and 0.87m deep was excavated. The primary fill of the ditch consisted of a mid yellow orange silty clay containing occasional small-medium sized sub-round and sub-angular stones (<0.09m), and very infrequent small flecks of charcoal [5]. At the top of this deposit were three roughly V-shaped intrusions of a mid grey loose/friable clay silt. It is not clear if these were stakeholes or the result of disturbance of the overlying fill, a thinner layer of dark grey friable clayey sandy silt containing occasional flecks and small patches of charcoal, and very occasional flecks of burnt daub [4]. Above this was the uppermost fill, a light brown red compact clay silt containing occasional flecks of charcoal, and occasional stones [3]. This was overlain by the ploughsoil [1]. Whilst fills 5 and 3 are consistent with gradual silting, fill 4 appears to be a deliberate deposit of burnt material.

4.1.3 Test Pit 55

Test pit 55 was excavated to investigate a concentration of flint identified by the shovel pitting, and measured 0.90m long, 0.75m wide and 0.30m deep. The ploughsoil, a mid brown firm/friable humic clay silt, overlay a layer of mid brown yellow friable sand derived from the heavily weathered sandstone below. This was cut in the northwestern corner of the test pit by a partially exposed feature. This consisted of an irregular cut filled with mid yellow brown friable sandy silt, containing a mid pink firm clay lining with a dark grey brown silty sand fill, both with occasional fragments of red burnt sandstone. This feature was not excavated as it was found on the last afternoon of fieldwork at this site, but was interpreted as a hearth.

4.1.4 Test Pit 56

Test pit 56 was excavated to investigate a concentration of flint identified by the shovel pitting, and measured 0.90m long, 0.80m wide and 0.35m deep. The ploughsoil, a mid brown firm/friable humic clay silt, overlay a mid brown yellow friable sand with patches of mid pink firm clay. No features were observed.

4.2 Finds

4.2.1 Flint by Peter Rowe

Introduction

This report summarises an assemblage of 186 lithics collected during fieldwork at Upleatham in 2008. The majority of the flints are from ploughsoil contexts, recovered whilst sieving the spoil from shovel pits. As a result of sieving the assemblage includes many small flakes and chips that could easily have been missed by conventional retrieval by hand.

The entire assemblage has been catalogued using Microsoft Excel. The following variables have been catalogued:-

- raw material type (e.g. flint, chert, agate)
- raw material colour
- percentage of cortex
- cortex type (e.g. reduced, chalky)
- patina colour and percentage
- type of artefact (e.g. flake, blade, core)
- reduction sequence (i.e. primary, secondary, tertiary)
- interpretation (e.g. scraper, arrowhead)
- period
- maximum dimensions
- method of knapping (e.g. hard hammer percussion)
- whether burnt
- whether damaged

The catalogue is available with the site archive.

The composition of the assemblage is set out in Table 1 below: -

Flint Type	Quantity
Blades (inc. fragments)	15
Core	2
Debitage	52
Flakes (worked/unworked)	7/33
Irregular burnt fragment	53
Microlith	2
Natural pebble	20
Scraper	2
Total	**186**

Table 1: Assemblage composition

General character

Raw material

The assemblage is composed entirely of flint, although several unworked pebbles of quartz were discarded. There are no examples of chert, jasper or other fine-grained stone types such as tuff.

The collection includes 20 natural pieces. These range from rolled gravels to small pebbles. The majority are probably derived from the underlying boulder clay although it is possible that some of the larger pebbles were collected for possible knapping from elsewhere.

The flint has a fairly homogenous character, mainly consisting of light brown or toffee brown items. The incidence of cortex is rare, occurring on only 25 items (excluding natural pebbles). There are four primary flakes with a cortical dorsal surface. Other than this cortex is generally more limited, usually covering less than 20% of the surface area. When cortex is present it is worn from glacial or water action and is extremely thin in section.

The general quality of the flint is poor, the two cores are heavily reduced suggesting that raw material was maximised. The assemblage is likely to derive from small pebbles collected from local glacial deposits, river gravels or beaches, the later being the most likely source.

Post-deposition damage

There is little evidence of post depositional damage. Edge chipping was noted on several items, consistent with movement within the ploughsoil. Patination was most apparent on burnt items, see below, but also occurred on unburnt pieces. Where patina is present it is generally an opaque white or grey, often mottled in appearance. The original colour can usually be made out by backlighting the thinner edges of patinated pieces.

Burning

Fifty-three pieces have evidence of thermal damage caused by burning (i.e. approximately 1/3 of the collection excluding natural pebbles). The burning ranges from slight discoloration of the flint surface to more serious damage including complete patination (grey or white), with significant crazing and shattering. Context 7 has a concentration of 15 burnt pieces.

The burnt pieces can be split into two categories, 1) those where the original form of the flint is still evident and 2) highly fired shattered fragments where the original form cannot be ascertained. It is possible that flints in the latter category may be the result of spreading burnt lime on the fields as a fertilizer in the 19th and 20th centuries. These more recently introduced flints account for approximately 1/3 of the burnt pieces.

Technology

Assemblage composition

Core technology is represented by two small cores (from Shovel Pits 40 & 45). The cores are both small in size and heavily reduced. The blade core from Shovel Pit 40 (see Fig. #.1) has a single platform, with the remnants of 5 former removal scars. The core has been discarded when the platform angle has reached 90 degrees. This core is typical of the blade producing industries of the Mesolithic and early Neolithic.

The second core from Shovel Pit 45 is a flake core with a single platform (see Fig. #.2). This salmon coloured flint is also exhausted but is reminiscent of the more ad hoc and less controlled lithic industries of later prehistory (Young & Humphrey, 1999).

The dominant technology of the assemblage is the production of flakes. Flakes represent over 25% of the collection (if natural pieces are excluded from the calculations). These range in size from thick squat examples to small chippings recovered by sieving. Seven of the flakes demonstrate edge modification from use.

Other flake tools include two scrapers from Shovel Pits 16 and 43. Both are end and edge scrapers based on slightly elongated thin flakes. They each have post depositional damage. That from SP16 (see Fig. #.3) has a fracture to its end whilst the example from SP43 (see Fig. #.4) has a large thermal pot lid scarring its dorsal face. These scrapers would not be out of place in a Mesolithic or early Neolithic assemblage.

Blade production is also evident with 15 examples. These comprise 8 complete examples, 4 distal ends and 3 proximal ends. A blade from Test Pit 28, context 7 has a deliberately notched end. This blade production and modification of blades is typical of Mesolithic industries.

The blades are complemented by two microliths, from SP 40 and TP55. Both are fragmentary. The example from SP 40 (Fig. #.5) comprises the body of a broken rod or scalene triangle with oblique blunting along its left edge. It is of very late Mesolithic date. The other example from TP 55 (see Fig. #.6) is a larger fragment and is also incomplete. Its original width is at least 10mm meaning it would not be out of place in an early Mesolithic assemblage.

Conclusion

This is an interesting assemblage of lithic material. The chronologically distinctive pieces from the collection demonstrate occupation from at least the late Mesolithic (and possibly early Mesolithic) through to later prehistory. It is unfortunate that the diagnostic pieces are from ploughsoil contexts.

The blade core (Fig. #.1), end and edge scrapers (Figs. #.3 & #.4), blades and microliths (Figs. #.5 & #.6) are all indicative of a Mesolithic date (although some elements may continue into the early Neolithic). This corresponds well with earlier descriptions of lithic material from this location (Spratt *et al*, 1976 & Rowe, 1994).

Given the proximity of the site to a pair of Bronze Age burial mounds it is not surprising that later prehistoric knapping is also represented. Many of the angular chunks of debitage, flakes and the flake core (Fig. #.2) are characteristic of later prehistoric assemblages.

Recommendations

There are six flints that have been drawn to illustrate this report. Other than this the material should be permanently curated with the site archive.

Illustrated flints (Figure 9)

Fig No.	Context No.	Description
#.1	SP40	Blade Core
#.2	SP45	Flake Core
#.3	SP16	End and Edge Scraper
#.4	SP43	End and Edge Scraper
#.5	SP40	Fragment of scalene triangle or rod microlith
#.6	SP55	Fragment of scalene triangle microlith

4.2.2 Prehistoric Pottery by Blaise Vyner

This small collection appears to contain ceramics from two periods. A single sherd bearing a lattice decoration is likely to derive from a Beaker, and thus date from the beginning of the Early Bronze Age, perhaps 2300-2200 cal BC. A second decorated sherd bears fingernail impressions and could belong to a broad chronological continuum extending from the Late Bronze Age to the later Pre-Roman Iron Age, a period when there was little change in ceramic manufacture in this region. The accompanying material is not especially helpful in confirming a chronology, but its general character suggests a Pre-Roman Iron Age date is the more likely. Similar material was associated with the palisade phase at nearby Eston Nab, and the problem of establishing the chronology of pottery of this period was discussed in that report (Vyner 1988, 71-72). The conclusion remains that in this area fingernail decoration is more likely to belong to the earlier rather than later Iron Age. Further excavation might well retrieve a more extensive ceramic assemblage which might go some way to confirming the chronology of activity here.

Catalogue

Test Pit 28	Context 10	2 sherds, 1 of these with lattice decoration
Test pit 37	Context 3	1 sherd
Test pit 37	Context 5	2 sherds, 1 of these decorated with fingernail impressions
Shovel pit 45	2 sherds	
Shovel pit 48	1 sherd	
Test pit 55	3 sherds	

4.2.3 Other Finds

Other finds included pottery (all post-medieval except for one medieval sherd), clay pipe, jet, animal bone, iron objects, glass and industrial residues. These finds have not yet been assessed by specialists, and are listed in Appendix 2.

5. Goldsborough

The Goldsborough study area is located to the east of the village of Goldsborough on a cliff top overlooking steep cliffs and shore to the north and east, and dropping away to the south to a small stream valley. Two sites were initially identified as having potential (Figure 5), one at the west end of the area close to a small stream (NZ 84401470), and another to the northeast where an area of high ground is bounded by cliffs to the north, sharply dropping ground to the east, and more gentle slopes to the south and west (NZ 85101450). The geomorphology of the area consists of sandstone overlain in places by boulder clay.

Fieldwork was carried out from the 1st September to the 12th September, during which period approximately a quarter of the time was lost to bad weather. The weather was variable throughout the two weeks with occasional very poor days. At the start of the two week programme the site at the west end of the area had not been harvested, and harvesting did not take place during fieldwork, therefore no work was done on this site. At the east end of the area the field containing the site had had a margin of approximately 20m around the west, north and east sides harvested in order to facilitate the archaeological fieldwork, but rain had unfortunately prevented the completion of the harvesting and subsequent ploughing. A programme of shovel pitting was therefore carried out on the northern and eastern edges of the field. The remainder of the field was harvested on the night of 11th September.

A total of eight volunteers were scheduled to take part in the project: of these, three were unable to take part. One of these was a volunteer who had been unable to attend the Upleatham project. In total, 31 volunteer days were contributed to the project.

The project was given the site code MPG08 for **M**esolithic **P**roject **G**oldsborough 20**08**.

5.1 Results

A total of 80 shovel pits were excavated, 2 of which were expanded to become test pits (Figure 6). Initially 52 shovel pits were excavated on a 10m grid, with an additional 28 excavated at 5m intervals where a rapid on-site assessment of the finds indicated concentrations of flint. An additional 1 test pit was then excavated. The ploughsoil was a variable deposit, a grey brown silt mixed with either clay or sand, and varying in depth across the field from 0.15m to 0.45m. Beneath this the natural varied from boulder clay to heavily weathered sandstone, with a thin subsoil present in approximately half the pits.

5.1.1 Test Pit 11

Shovel pit 11 was expanded to a test pit (Figure 7) measuring 2.20m long and 1.00m wide, due to the failure to find either boulder clay or sandstone at the base of the pit. This revealed the uppermost fill of a large linear feature. When excavated this proved to be a large ditch aligned *c*.NE-SW, with a shallow irregularly shaped profile [5] cut into the sandstone bedrock [6]. The southern edge of the feature lay beyond the limit of excavation, but a segment 1.00m long, 1.84m wide and 0.95m deep was excavated. The primary fill of the ditch consisted of a mid orange brown compacted silty sand containing very frequent sub-angular stones (< 0.13m) [4]. This was overlain by a light grey brown friable sandy clay containing frequent sub-angular stones (< 0.05m), and several larger (0.08m-0.19m) sub-rounded stones at the base of the fill [3]. Above this was a thinner layer of dark grey brown friable humic clay silt containing infrequent sub-angular stones (< 0.04m) [2]. This was overlain by the ploughsoil [1]. Whilst fills 4 and 3 are consistent with gradual silting, the large stones at the base of fill 3 suggest a deliberate deposit. Fill 2 may represent an old ground surface.

5.1.2 Test pit 62

Shovel pit 62 was expanded to a test pit measuring 1.04m long and 0.62m wide, due to the presence of unweathered sandstone at the base of the pit. This was initially thought to be structural, but when lifted revealed sandstone bedrock, with no sign of any dressing or bonding.

5.1.3 Test Pit 76

Shovel pit 76 was expanded to a test pit (Figure 8) measuring 1.20m long and 1.10m wide, due to the failure to find either boulder clay or sandstone at the base of the pit. This revealed the uppermost fill of a large linear feature. When excavated this proved to be a large ditch aligned *c*.NW-SE, with an irregular stepped profile [9] cut into the sandstone bedrock [8]. The edges of the feature lay beyond the limit of excavation, but a segment 1.20m long and 1.10m wide was excavated. The primary fills of the ditch consisted of a light orange loose sand containing occasional sub-angular sandstone fragments (< 0.03m) [14] overlain by a mid brown orange friable clay sandy silt containing rare sub-angular sandstone fragments (< 0.02m) [13]. Above these was a dark orange brown firm clay silt containing infrequent sub-angular sandstone fragments (< 0.03m) and occasional charcoal flecks [12]. This was overlain by a mid brown orange friable clay sandy silt containing occasional sub-angular sandstone fragments (< 0.05m) [11] and a mid yellow brown friable sandy silt containing occasional sub-angular sandstone fragments (< 0.05m) and occasional charcoal fragments [10]. Above this was the ploughsoil [7]. Fills 14 and 13 are probably derived from the erosion of the sandstone edges of the ditch, but fill 12 may represent an organic layer formed when the ditch was in use. Fills 11 and 10 are consistent with the erosion of the sandstone edges of the ditch and gradual silting.

5.1.4 Test Pit 81

Test pit 81 was excavated to investigate a concentration of flint identified by the shovel pitting: it was T-shaped and measured a maximum of 1.90m long, 1.10m wide and 0.35m deep. The ploughsoil, a dark grey brown friable sandy silt with occasional sandstone fragments (< 0.02m), overlay a light brown yellow hard/friable sandstone. At the northern end of the test pit a patch of dark brown orange friable silty sand containing 30% angular sandstone fragments (< 0.10m) and patches of ploughsoil, with a very irregular shape and very diffuse horizon with the natural, was interpreted as animal burrows. No other features were observed.

5.2 Finds

5.2.1 Flint by Peter Rowe

Introduction

This report summarises an assemblage of 457 lithics collected during fieldwork at Goldsborough in 2008. The majority of the flints are from ploughsoil contexts, recovered whilst sieving the spoil from Shovel Pits and Test Pits (376 flints). A further 81 flints were recovered during informal fieldwalking to the northwest of Overdale Farm at NZ 84501450. As a result of sieving the assemblage includes many small flakes and chips that could easily have been missed by conventional retrieval by hand.

The entire assemblage has been catalogued using Microsoft Excel. The following variables have been catalogued:-

- raw material type (e.g. flint, chert, agate)
- raw material colour

- percentage of cortex
- cortex type (e.g. reduced, chalky)
- patina colour and percentage
- type of artefact (e.g. flake, blade, core)
- reduction sequence (i.e. primary, secondary, tertiary)
- interpretation (e.g. scraper, arrowhead)
- period
- maximum dimensions
- method of knapping (e.g. hard hammer percussion)
- whether burnt
- whether damaged

The catalogue is available with the site archive.

The composition of the assemblage is set out in Table 2 below: -

Flint Type	**Pits**	**Fieldwalking**	**Total**
Arrowhead	0	1	1
Blades (inc. fragments)	16	0	16
Core	2	1	3
Debitage	59	1	60
Flakes (worked/unworked)	3/41	1/9	54
Irregular burnt fragment	118	58	176
Microlith	1	0	1
Natural pebble	136	6	142
Scraper	0	4	4
Total	**376**	**81**	**457**

Table 2: Assemblage composition

The assemblage size is artificially inflated by the large number of natural pebbles and burnt pieces (the majority of which are 19th or 20th century in date; see 2.3 below).

General character

Raw material

The assemblage is composed entirely of flint, although several unworked pebbles of quartz were discarded. There are no examples of chert, jasper or other fine-grained stone types such as tuff.

The collection includes 142 natural pieces. The main component of the natural flints are sieve recovered fragments of angular gravel (<5mm in maximum dimension) reminiscent of grouse grit.

The flint has a fairly homogenous character, mainly consisting of light brown or red brown items. The incidence of cortex is rare, occurring on only 28 items (excluding natural and burnt pieces). There are seven primary flakes with a cortical ventral surface. Other than

this cortex is generally more limited, usually covering less than 20% of the surface area. When cortex is present it is worn from glacial action and is extremely thin in section.

The general quality of the flint is poor. The assemblage is likely to derive from small pebbles collected from local glacial deposits, river gravels or beaches, the later being the most likely source.

Post-deposition damage

There is little evidence of post depositional damage. Edge chipping was noted on several items, consistent with movement within the ploughsoil. Patination was most apparent on burnt items, see below, but also occurred on unburnt pieces. Where patina is present it is generally an opaque white or grey, often mottled in appearance. The original colour can usually be made out by backlighting the thinner edges of patinated pieces.

Burning

One hundred and seventy-six pieces have evidence of thermal damage caused by burning. The burning ranges from slight discoloration to the flint surface to more serious damage including complete patination (grey or white), with significant crazing and shattering.

The burnt pieces can be split into two categories, 1) those where the original form of the flint is still evident and 2) highly fired, and sometimes vitrified, shattered fragments where the original form cannot be ascertained. It is likely that flints in the latter category are the result of spreading burnt lime on the fields as a fertilizer from the 19th century to present. These account for approximately 98% of the burnt pieces.

Technology

Assemblage composition

Core technology is represented by two small cores (TP 76, Context 10 and from fieldwalking) and a core fragment (SP38). The cores have both been discarded before exhaustion, probably due to the poor quality of the flint. The example from fieldwalking (see Fig. #.1) has a cortical fault running laterally through the piece. Both cores have single platforms, with hard hammer struck flake scars including hinge fractures. They are reminiscent of the more ad hoc and less controlled lithic industries of later prehistory (Young & Humphrey, 1999).

The dominant technology of the assemblage is the production of flakes. Flakes represent over 33% of the collection (if natural and burnt pieces are excluded from the calculations). These range in size from thick squat examples to small chippings recovered by sieving. Four of the flakes demonstrate edge modification from use (e.g. SP35, Fig. #.2).

Other flake tools include four scrapers all from the fieldwalking collection. The scrapers include an end scraper based on an elongated flake (Fig. #.3), probably of Mesolithic or earlier Neolithic date. A squatter end and edge scraper of later prehistoric date is also present along with another later prehistoric, large and invasively flaked end scraper (Fig #.4). The final scraper is more *ad hoc* and is based on an angular chunk of debitage with rough retouch along one end. This is again likely to be later prehistoric in date.

Blade production is also evident with 16 examples. These comprise 7 complete examples, 4 proximal ends, 1 mid section and 4 distal ends. A significant concentration of 8 of these blades was recovered from TP76 with 2 examples from context 10, 5 examples from context 11 and a possible burnt distal end from context 13. Context 11 produced a proximal end and a distal end that conjoin. These blades are characteristic of Mesolithic or early Neolithic activity.

A single fragment of a microlith was collected from SP46 (Fig. #.5). This is a fragment only, representing the tip of a larger item, probably a simple obliquely blunted point. As this is a fragment it is not possible to offer a more prescriptive date other than the Mesolithic as a whole.

Neolithic projectile technology is represented by a bifacial arrowhead (Fig. #.6) from the Fieldwalking collection. The piece has a modern break meaning that approximately 20% is missing making interpretation difficult. There is an unusual notch on the complete longer edge which may have been a flaking error. Although the notch is reminiscent of those which appear on chisel arrowheads, the bifacial retouch along the rounded base suggest this was a leaf example belonging to Green's class 3A (Green, 1980).

Conclusion

This assemblage is very mixed in character. The diagnostic pieces range in date from the Mesolithic to later prehistory.

The majority of flints are unstratified, however the collection of blades from TP 76, contexts 10, 11 and 13 appear to be a significant indicator of earlier prehistoric activity, possibly of early Neolithic or even Mesolithic date. The conjoining blade from context 11 suggests that the lower fills of the feature have retained their integrity. However there are three highly vitrified flints (probably 19th or 20th century in date) from context 10 along with a poor quality flake core, likely to be later prehistoric in date suggesting that there may have been some intrusion into this upper fill. The single flint from context 4 is an undiagnostic chink of debitage.

The lithics from the 2008 field season are in keeping with the multi-period collection reported by Norman and Patricia Harbord (Harbord *pers. com.)*, although it would appear from the low concentration of items that the areas investigated are peripheral to the main focus of prehistoric activity.

Recommendations

There are six flints that have been drawn to illustrate this report. Considerations should be given to discarding the majority of the natural and burnt pieces to streamline the site archive. Representative samples of each type should be retained to allow reinterpretation.

Illustrated flints (Figure 10)

Fig No.	Context No.	Description
#.1	Fieldwalking	Flake Core
#.2	SP35	Retouched Flake
#.3	Fieldwalking	End Scraper
#.4	Fieldwalking	Invasively retouched End and Edge Scraper
#.5	SP46	Fragment of microlith
#.6	Fieldwalking	Incomplete bifacially worked arrowhead

5.2.2 Other Finds

Other finds included pottery (all post-medieval except for one Roman sherd and one medieval sherd), clay pipe, jet, animal bone, stone, glass and industrial residues. These finds have not yet been assessed by specialists, and are listed in Appendix 4.

6. Environmental Samples

6.1 Assessment of charred plant remains from samples from excavations at Goldsborough, N. Yorkshire (site code MPG08), and Upleatham, Redcar & Cleveland (MPU08)

Allan Hall
Department of Archaeology, University of York, King's Manor, York YO1 7EP

Material and methods

Samples from excavations by Tees Archaeology in Summer 2008 at Goldsborough and Upleatham were submitted for assessment of their content of charred plant remains, and in the hope of recovering material suitable for dating by AMS. The material submitted is listed in Appendix 5.

In each case, a subsample of 3kg (about 1.5-2 l.) was processed using simple disaggregation and sieving (to 0.5 mm) in the laboratory. Though this is a rather small subsample for samples which are typically 'bulk-sieved' using 10-30(-40 l.), it was felt that the likely sparseness of remains and the apparently rather clayey nature of the sediments warranted a less vigorous processing technique in which a smaller subsample was handled more gently than is usually feasible in a bulk-sieving tank. In the event, the fragments of charred plant material in some subsamples were so much coated with clay and silt or with mineral concretions that they could not be separated by means of a 'washover' (and would not, therefore, have 'floated' during conventional bulk-sieving). The clayey nature of the deposits necessitated periods (usually overnight) of soaking in a dilute sodium pyrophosphate solution, with as many as three separate soakings required to disaggregate the clays completely. Charred plant material was concentrated from the disaggregated samples by 'washover' or, where none was recovered by this technique the dried residues were checked subsequently for plant remains.

Results

As Appendix 5 shows, plant remains were very sparse. The largest volume of charred plant material recovered was from Sample 2, Context 4, at Upleatham, and even here no more than a 1-2 cubic centimetres of remains were present.

Apart from a single ?cereal grain and remains of three other seeds preserved by charring, all the ancient material consisted of wood charcoal (mostly in fragments less than 5mm) or structures which are thought to be root/basal twig fragments of heather (perhaps confirmed as this plant by the presence in one sample of some leafless heather twig fragments) and herbaceous root/rhizome fragments. These, and the charred moss stem fragment in one sample, form a group which is thought by the author to represent remains from burnt turves (in the sense of grass/heath sods), though the possibility that some at least of this material is from burnt peat cannot be ruled out. Such material is been repeatedly found by the author in rural occupation deposits of both prehistoric and later periods in N England (it has perhaps been largely overlooked by archaeobotanists in the past). Material originating in grass sods is most likely to have resulted from the use of sods in building or constructions such as hearths and kilns, whilst peat is, of course, most likely to have been used as fuel.

Given the nature of the charred material—the small, rather poorly preserved fragments of wood charcoal which cannot with certainty be shown to have originated in twig or small branch wood, and the remains of plants which may have arrived in what would presumably have been ancient peat at the time of burning—it is not thought that dating of any of this material would be worthwhile.

6.2 Cores *by Jim Innes*

A programme of coring was carried out at Moordale Bog (NZ 568172), where 20 hand cores were taken, of which samples were collected from the lower part of cores 2 and 14. The whole of core 10 was collected and will be used to generate a pollen diagram.

The record at core 10 is:

0-100cm Fresh wet peat

100-166cm Fresh peat with roots and detrital plant material

166-236 Humified peat with wood fragments

236-284 Blue clay

There is therefore 2.35m of peat to look at. Pollen has been prepared from 1m to 2.34, which will include the Late Mesolithic. Preliminary work suggests peat started forming before the alder pollen rise (c.7,000 14C BP) and goes on past the Elm Decline into the Neolithic.

7. Discussion

At both Upleatham and Goldsborough the methodological approach of the project was compromised by poor weather leading to a delay in harvesting which prevented any fieldwalking taking place. Shovel pitting proved to be an effective way of identifying flint concentrations, though much less ground could be covered due to the increased time needed to cover an area.

Whilst no features datable to the Mesolithic were found at either site, the flint assemblages confirm a Mesolithic presence at both. In addition, later prehistoric settlement has been found at both sites. At Upleatham, the presence of a large ditch, probably an enclosure ditch, a pit and a hearth, which associated pottery indicates are all likely to date to the Late Bronze Age or Pre-Roman Iron Age, shows there was settlement in close proximity to the two Bronze Age burial mounds on the edge of the plateau. At Goldsborough, the two large ditches which were identified are very similar in nature and aligned at right angles to each other, and may represent an enclosure. The presence of flint blades including conjoining fragments of one blade from one of the lower fills of ditch 9 (context 11) indicates an unusually early Mesolithic or early Neolithic date for this feature. Unfortunately environmental samples from both sites produced little in the way of charred plant remains and no material suitable for AMS dating.

It is recommended that geophysical survey should be carried out at both sites in order to gain a picture of the nature and extent of the enclosures and related features. In addition, geophysical survey at the other locations identified by flint scatters (two at Upleatham and one at Goldsborough) may reveal evidence of further prehistoric settlement.

Bibliography

Daniels, R 2008 *North East Yorkshire Mesolithic: Updated Project Design for Phase 2* Tees Archaeology report for English Heritage

Rowe, P. 1994. An Archaeological Survey of the Upleatham Hills, Cleveland. Department of Archaeology, University of Durham, Undergraduate Dissertation.

Spratt, D. A., Goddard, R. E. and Brown, D. R. 1976. Mesolithic settlement sites at Upleatham, Cleveland. *Yorks Arch. J.* 48, 19-26

Vyner, B E 1988. The hill-fort at Eston Nab, Cleveland. *Archaeological Journal* 145, 60-98

Waddington, C. 2003. A Mesolithic settlement site at Howick, Northumberland: a preliminary report. *Arch. Aeliana* vol 32, 1-12

Waughman, M. 2005. *Archaeology and Environment of Submerged Landscapes in Hartlepool Bay, England.* Tees Archaeology Monograph 2.

Young, R. & Humphrey, J. 1999. Flint use in England after the Bronze Age: Time for a re-evaluation? *Proc. Prehist. Soc.* **65**, 1999, pp. 231-242.