The Mesolithic Occupation of Heysham Head, Lancashire

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Introduction

The Late Palaeolithic and Mesolithic settlement of northern Britain has presented archaeologists with a host of problems. The established view has always been that settlement did not occur until the early Neolithic because climatic conditions would have prevented exploitation of the region. However, the discovery of the late glacial elk, at High Furlong, with uniserial barbed points in situ (Hallam et al. 1973) changed that view and established a Late Pleistocene exploitation of the region.

In 1969, Kirkhead Cave on the northern shores of Morecambe Bay was excavated by R. M. Ashmead (1974–1979). Ashmead recovered a number of flint artefacts associated with an antler boss which yielded a C14 determination of 10700 200 b.p. (HAR 1059). Several papers on Kirkhead Cave have been published in the recent past by Gale and Hunt (1985, 1990), Salisbury (1986), and Tipping (1986). In 1986, Lindale Low Caves, again on the northern shores of Morecambe Bay were excavated by Salisbury (1988) yielding evidence for Late Upper Palaeolithic occupation of the region.

Recent and on-going excavations at Bart’s Shelter near Ulverston in Cumbria by Stables (pers. comm.), confirm a Late Pleistocene occupation of the region as do recent field walking exercises during which two large Levallois cores together with a Late Upper Palaeolithic flint assemblage have been recovered in an area to the south east of Barrow-in-Furness, Cumbria.

The possibility that land to the west of St Patrick’s Chapel at Heysham Head could have been occupied during the Mesolithic has been suspected for some considerable time. Large numbers of flint artefacts have been found on the beaches and paths of the headland.

An extensive examination of the area in 1991 led to the discovery of a number of flint artefacts in an eroded vertical cliff face. Several specimens were forwarded to the British Museum where they were
identified as Mesolithic (Cook, pers. comm.).

An area of land at Barrows Field, Heysham Head, was excavated in March 1992, the working being directed by the writers. A very large stone tool assemblage was recovered during the excavations.

**Heysham Head NGR: SD4161**

Heysham Head is an area of land to the south west of the Lancashire coastal town of Morecambe. As the centre for a hunting community it has strategic value in that it commands extensive views across Morecambe Bay. It is 16km south of Kirkhead and Lindale Low Caves, 19km south east of Bart’s Shelter and 23km to the north of High Furlong. A geological fault immediately to the east of the excavated area may have been the source of a fresh water supply.

The site is on the edge of a sandstone cliff overlooking the sea at 9.5m O.D. It is sheltered from the westerly winds. There are several caves in the immediate vicinity none of which have been examined.

Prior to excavation, the site was subjected to non-destructive examination by Resistivity Survey, Magnetic Susceptibility Survey and Metal Detection Survey.

The soil is very dry, extremely acidic and biological activity is present in all excavated horizons. The excavators were therefore not surprised that the faunal assemblage consisted of one microscopic fragment of bone from an upper horizon.

Excavation of an area measuring 10m by 10m close to the cliff edge commenced on 14 March 1992. The area under excavation was subsequently reduced to a trench measuring 10m by 3m together with an ancillary trial pit measuring 2m by 1m. Excavation work was completed on 8 April 1992. Backfill of the trench was onto 1000g Visqueen PVC sheet and all timber grid location pegs were treated with preservative and then driven to below turf level.

During the excavation over 1200 stone artefacts were recovered from the 10m by 3m trench.

**The stratigraphy**

Six distinct contexts were encountered during the excavations and these are summarized in Table 1.

**Context 1** revealed evidence of the more recent use of the site in the form of modern metals associated with equestrian activity and leisure activity in the form of aluminium ring pulls from drinks’ cans.

**Context 2** (the underlying loams) revealed evidence of military activity during World War 2 in the form of firing pins from anti-
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aircraft artillery, a brass tie pin and modern pottery. Some late 19th century pottery, clay pipe stems and bowls were recovered from this context.

**Context 3** was the first of the major Mesolithic occupation layers to be encountered and it provides good evidence of a late Mesolithic occupation in the form of finely worked microliths, cores, blades and points made from both flint and igneous rock.

**Context 4** was the main Mesolithic occupation layer encountered during the excavations and it is from this context that most of the stone artefacts were recovered. In the upper horizons of context 4 the stone tools continued to be fine and delicately worked but as the layer was penetrated the artefacts appeared to be larger in form and became “heavier”. A distinct change in type, pattern, source and usage became evident. A sample of .27 cubic metres was removed in one operation from context 4, sands and silts were washed out and the rock content of the sample examined. All the pebbles recovered in the sieves were water-rounded. A high proportion were not locally derived, with slate, igneous rock, tufaceous rock, limestone and Borrowdale Series rocks present in large quantities. The pebbles were dried, measured, weighed and classified as follows:-

*Class 1* mean size 52mm diameter – 1.3kg in sample cube
*Class 2* mean size 31mm diameter – 1.8kg in sample cube
*Class 3* mean size 21mm diameter – 3.1kg in sample cube
*Class 4* gravel, mean size less than 5mm – 1.75kg in sample cube

**Context 5** was obviously of fluvio-glacial origin and revealed little evidence of human activity other than in its extreme upper horizon.

**Context 6** is bed-rock and there was no evidence of inter-glacial deposition sequences having occurred in the Ipswichian Inter-glacial period between contexts 5 and 6.

The deposits contained in context 5 are typical of glacial deposits common in the region and appear to have been deposited on top of the bedrock which may have been previously scoured of any earlier deposits. Context 4, the main occupation horizon appears to be fluvio-glacial in nature with a high proportion of wind blown sands present throughout the context.

All horizons examined appear to be stable with dynamic action only occurring on the seaward side of the cliff. The open texture of the upper horizons combined with a touch matrix of overlying coarse grass prohibits both hill-wash and down slope movement of the soils.
<table>
<thead>
<tr>
<th>Context Number</th>
<th>Thickness</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80mm</td>
<td>turf and vegetation</td>
</tr>
<tr>
<td>2</td>
<td>70mm</td>
<td>modern loam and root systems</td>
</tr>
<tr>
<td>3</td>
<td>200mm</td>
<td>coarse sands interspersed with silt and containing water-rounded erratics and unabraded local rocks</td>
</tr>
<tr>
<td>4</td>
<td>240mm</td>
<td>heavily compacted fine sands and silts containing water-rounded erratics and gravels</td>
</tr>
<tr>
<td>5</td>
<td>over 1m</td>
<td>glacial till of fine silts heavily compacted containing large quantities of water-rounded erratics and glacial boulders up to 0.5m in diameter. One heavily scratched, large boulder in this context at 1.5m, was present in all contexts above, other than context 1. Sandstone bedrock.</td>
</tr>
</tbody>
</table>

**Dating the occupation layers**

The high acidity of the soils combined with a very open and free draining, coarse matrix, has foiled all attempts at reconstructing past environment and climate.

Numerous soil samples were obtained from all contexts but microscopic examination has failed to identify any organic remains.

Pollen is present in all samples in varying quantities but the open texture of the soil prohibits the construction of a pollen diagram. It is felt that pollen washed down the horizons from the upper contexts would distort any result.

A number of burned flints have been recovered but dating of these artefacts by Thermoluminescence Dating is not feasible for two reasons:

1. none of the artefacts is in excess of 300mm from its boundary, (300mm being the recommended minimum unit of boundary distance).

2. the rate of radiation bombardment of the site is above normal due to the site being located within 1km of Heysham Nuclear Power Station.

The high background radiation of the area also prohibits a C14 determination being obtained on the minute fragments of carbon recovered.
from each context. Indeed, the results of any radiometric dating techniques employed at this site would have to be viewed with a great deal of caution.

The difficulties encountered in attempting to date the occupation horizons have led the excavators to take a more pragmatic approach. The evidence for the earliest occupation of the site appears in the upper layers of the late last glacial deposits and is continuous throughout overlying contexts up to the underside of the modern loams. The deposits overlying the late last glacial contexts are considered to be early Flandrian.

The artefacts

During the four week excavation period 1262 flint and other stone artefacts were recorded in an area of only 32 square metres. Further examination of the recorded artefacts has eliminated 82 pieces but they have been retained within the assemblage. All the artefacts are made from imported stone.

The proportion of finished products, complete or otherwise, to waste flakes may indicate production on site rather than importation of finished products. This in turn is considered to be indicative of permanent settlement throughout the year rather than seasonal occupation on the site.

The sources of the raw materials are not known other than the few blades struck from indigenous rocks. The nearest source of good quality flint is over 150km to the south east of the site. A very wide range of materials is evident within the assemblage and includes such diverse materials as basalt, granite, tuffaceous rocks and cannel coal.

The 23 complete blades with very abraded cutting edges and points are the most puzzling features of the assemblage. They appear to be penknife type blades struck with long curved cutting edges and those cutting edges then appear to have been ground to a blunt face whilst retaining a sharp arris to both edges. Microscopic examination of the ground faces showed that most of the scoring was longitudinal and may indicate grinding on a very fine-grained rock to produce a plane-type cutting edge.

That this type of tool could then have been used for fashioning implements from other materials is a matter of conjecture particularly in the absence of evidence of tools made from materials other than stone.

Three pebbles of local sandstones with deep grooves cut into one face were recovered. At first it was thought that the grooves had been cut with one of the abraded blades but experiments with this type of
sandstone have failed to reproduce the polishes evident on most of the 23 abraded blades.

Sixteen artefacts have been selected for illustration and are shown in Figures 16–20. The spatial distribution of the artefacts both vertically and horizontally was consistent over the whole of the excavated areas.

Conclusions

The headland at Heysham is in excess of 100 hectares in area and only 32 square metres were excavated. The large number of artefacts recovered from such a small trench may well indicate that the headland was a major hunting centre during the Mesolithic period.

The even distribution of artefacts throughout the occupation horizons leads to the conclusion that there has been continuous occupation of the site from the end of the Devensian Glacial Period through to the deforestation of Britain in the early Neolithic. The infertility of the soils would perhaps have led to the abandonment of the site when the economic activity changed to settled farming.

The intensity of occupation and evidence suggesting on-site manufacture of tools from imported raw materials leads the excavators to conclude that the Heysham Head was a large and permanently occupied site throughout the whole of the Mesolithic period.

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References

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Speleology, 2, 24-33.


Figure 18. Six small flint artefacts from the middle and upper occupation horizons. Blades 1, 3, 4 exhibit signs of edge wear and damage. Blades 5, 6 do not exhibit signs of use.

Figure 19. A black flint 'thumbnail' type scraper from the middle occupation horizons. The piece is very delicately worked, exhibits no sign of edge wear. The cortex is present on one surface.

Figure 20. Two pen-knife type flint blades from the upper occupation horizons. Both are manufactured from brown flint and are abrantly backed. Blade 1 exhibits signs of edge wear. Blade 2, exhibits signs of the cutting edge having been ground, possibly on stone. Blade 2 was found in association with a sandstone disc on which a distinct groove has been cut.