THE OVER NARROWS (Pt.V; 2010)

Archaeological Investigations in Hanson's Needingworth Quarry

The O'Connell Ridge East - The Site II Barrow

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UNIVERSITY OF CAMBRIDGE

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O'Connell Ridge East – The Site II Barrow

(Pt. V; 2010)

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INTRODUCTION

This is the fifth report covering the Cambridge Archaeological Unit's *Over Narrows* investigations within the northeastern quarter of Hanson's Needingworth Quarry (TL 53885/274026; Fig 1). The area in question - the so-(Unit-) named *The O'Connell Ridge* - was fully evaluated in the autumn of 2007 (fig. 2; Vander Linden & Evans 2008). Aside from additional trenching, two areas of excavation were targeted: the Site IIA round barrow (Barrow 6) and an adjacent burnt stone spread identified along the northern ridge-side's flank (IIB; Figs. 4 & 14).

Methodology

Following the machine stripping of a 50 x 50m area centred on Barrow 6, geophysical survey was undertaken by R. Ferriby (the results of which are featured below; Fig. 9) over the exposed mound and surrounding area. Excavation of the barrow followed the same quadrant-method employed for the neighbouring Low Grounds Barrow Group (Evans & Tabor 2010). The first stage comprised the hand-excavation of eight sections across the surrounding ditch. Following this, staggered cross-axial metre-wide transects were hand-dug across the upstanding mound. The transects were excavated as a series of metre-square blocks and the finds separated accordingly in order to assess the quantity and distribution of artefactual material incorporated into the mound.

Having established the constructional sequence of the mound, the transects were expanded to expose specific features. Unfortunately, the geophysical survey results were inconclusive in terms of the location of cremations and pyre sites (in contrast to the Low Grounds Barrow Group where the results of the geophysical survey determined the location of the majority of hand-excavated slots). As such, the location of the hand-dug areas was determined solely by the evidence encountered in the transects.

Once the structural and mortuary sequence of the barrow was fully understood, the spit-reduction of the remaining mound was undertaken using a mini-digger. Following this, the excavation of pre-mound features was undertaken, along also with buried soil sampling comprising the hand-excavation of 25 metre-square test pits. Finally, the entire footprint of the barrow was machine-stripped to the surface of the natural gravels.

Of the adjacent excavation of the ridge-side burnt stone spread (Fig. 14), its location below the watertable presented a challenge for both the machine operator and archaeologists. Following the machine-removal of up to 2m of overlying peat and alluvial deposits over 560sqm, constant pumping was required to combat the constant flow of groundwater into the excavation area. Two hand-dug metre-wide transects (one east-west and one north-south) were excavated across the burnt spread deposit with a sequence of metre-square samples collected for post-excavation analysis of the composition of its matrix.

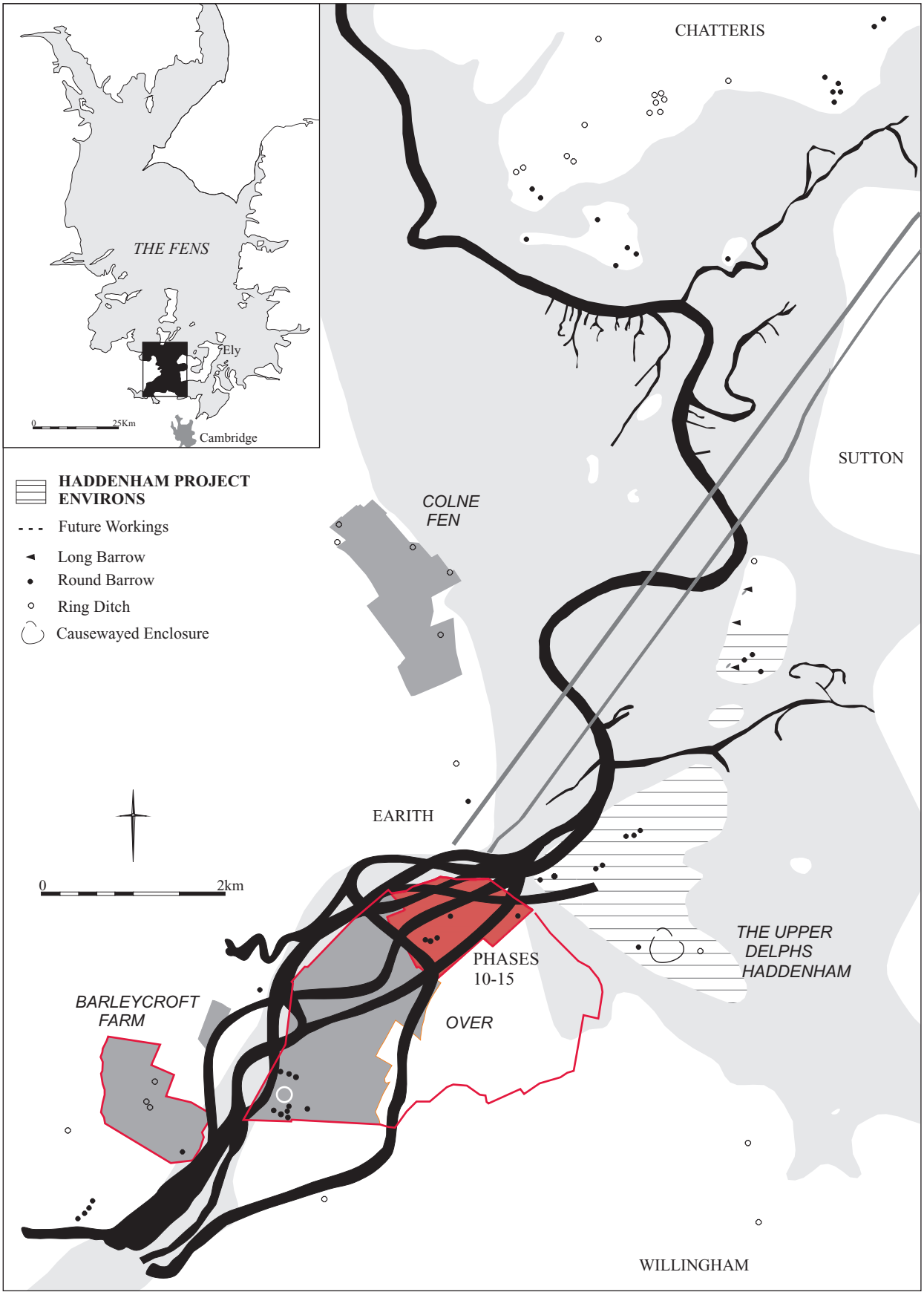

THE FENS
Ely
0
25Km
Cambridge
HADDENHAM PROJECT ENVIRONS
Future Workings
Long Barrow
Round Barrow
Ring Ditch
Causewayed Enclosure
CHATTERIS
SUTTON
COLNE FEN
EARITH
0
2km
THE UPPER DELPHS HADDENHAM
PHASES 10-15
BARLEYCROFT FARM
OVER
WILLINGHAM
34/70
44/70

Figure 1

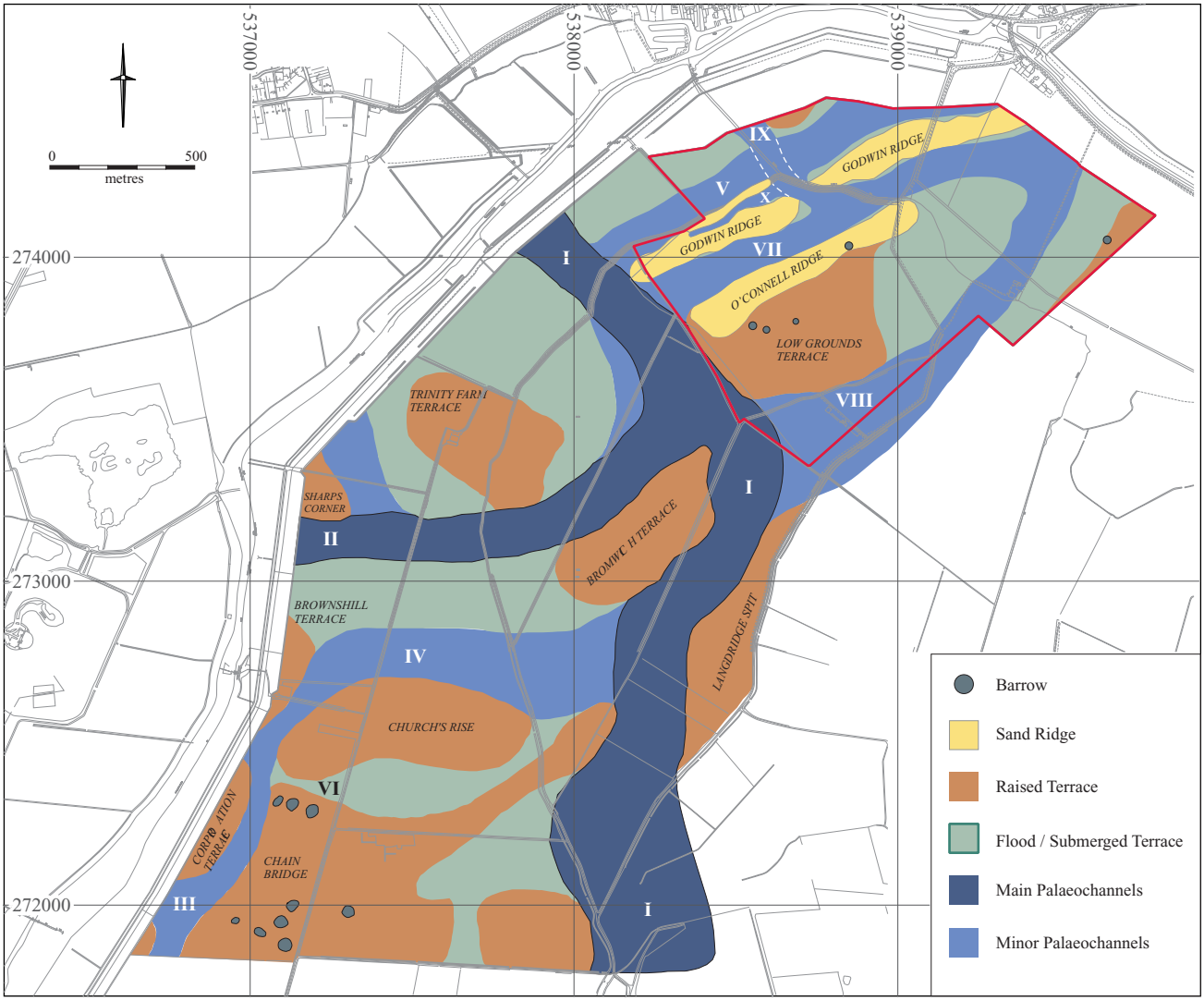

537000
538000
539000
274000
273000
272000
0
500
metres
IX
V
X
GODWIN RIDGE
GODWIN RIDGE
VII
O'CONNELL RIDGE
LOW GROUNDS TERRACE
VIII
I
TRINITY FARM TERRACE
SHARPS CORNER
II
I
BROMWICH TERRACE
LANGDRIDGE SPIT
BROWNSHILL TERRACE
IV
CHURCH'S RISE
VI
CORPORATION TERRACE
CHAIN BRIDGE
III
i
Barrow
Sand Ridge
Raised Terrace
Flood / Submerged Terrace
Main Palaeochannels
Minor Palaeochannels

Figure 2

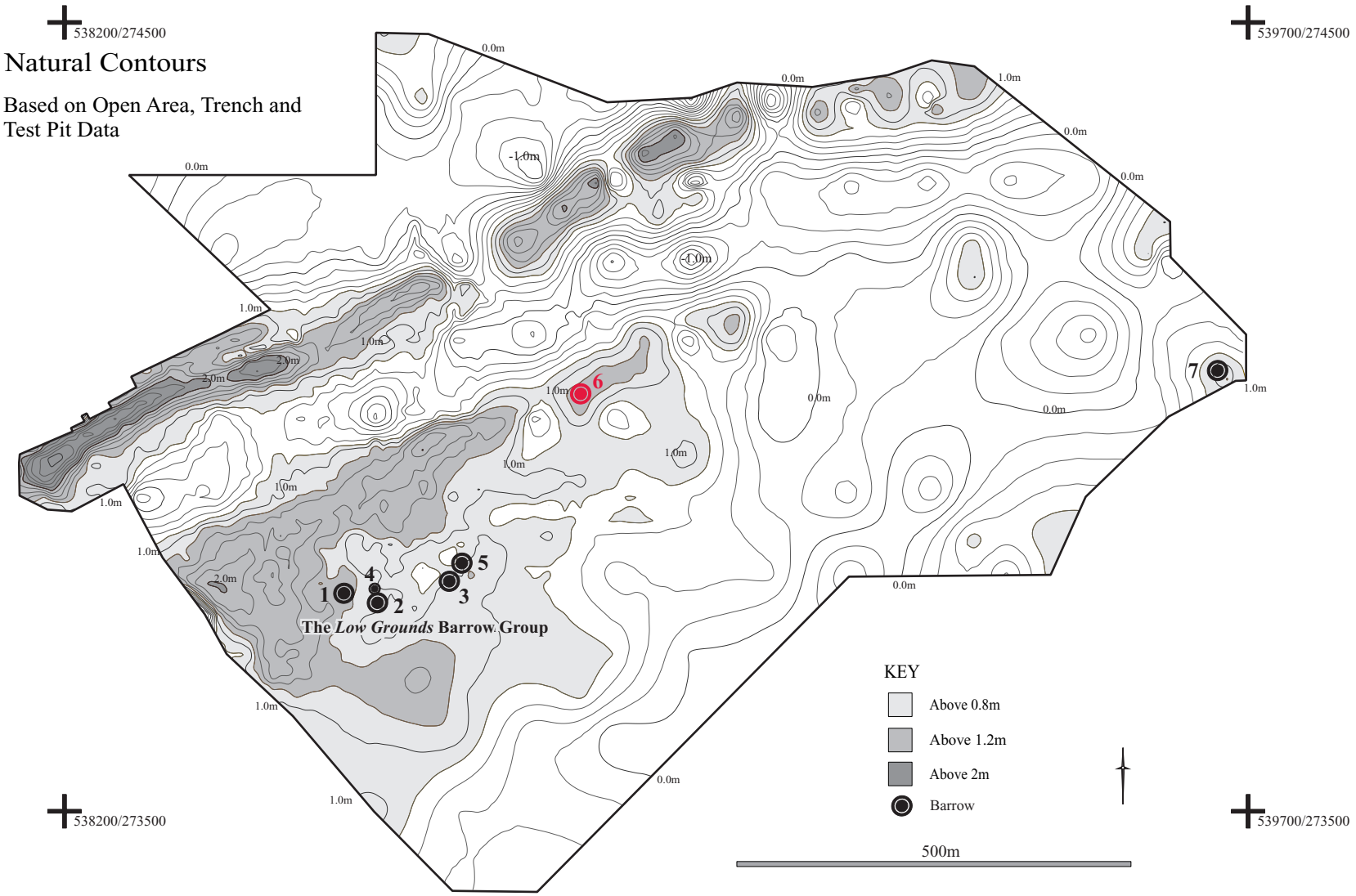

538200/274500
539700/274500
Natural Contours
Based on Open Area, Trench and Test Pit Data
0.0m
-1.0m
1.0m
2.0m
1
2
3
4
5
6
7
The *Low Grounds* Barrow Group
KEY
Above 0.8m
Above 1.2m
Above 2m
Barrow
500m
538200/273500
539700/273500

Figure 3

Palaeo-Environmental Researches

Pollen Analysis Steve Boreham

Eight sub-samples of sediment were taken from the three 50cm monoliths (<220>, <221> & <222>) for pollen analysis from the palaeochannel sediments adjacent to the burnt flint spread (Figs. 14 & 16). The basal brown-grey silty sand (Context 9520; 0-20cm) from Monolith <222> was not selected for pollen analysis, since it appeared to be oxidised. However, pollen sub-samples were taken from Monolith <222> at 25cm and 40cm within the blue-grey silty sand of Context 9519 (20-48cm). A pollen sub-sample was also taken with Context 9519 (0-20cm) at 5cm within Monolith <221>. This Context appeared significantly less-oxidised than the underlying sandy material. Above this, pollen sub-samples were taken at 22cm and 32cm within the peaty buried soil of Context 9518 (20-48cm) in Monolith <221>. In Monolith <220> pollen sub-samples were taken at 10cm within the lower silty wood peat (5-20cm; Context 9505), at 32cm within silty clay (20-40cm; Context 9504), and at 45cm within the upper silty wood peat (40-50cm; Context 9503). It should be noted that the three monoliths overlapped so that 0cm on Monolith <221> approximated to 25cm on Monolith <222>, and 0cm on Monolith <220> approximated to 40cm on Monolith <221>.

The eight sub-samples were prepared using the standard hydrofluoric acid technique, and counted for pollen using a high-power stereo microscope. The percentage pollen data from these eight samples is presented in Appendix 1.

Unfortunately, the three sub-samples from Context 9519 (25cm &40cm <222> & 5cm <221>) were barren. This suggests that these sediments were laid down rapidly, perhaps at a time of low pollen production. Such conditions may have existed in the late-Glacial period. The reduced nature of these silty sands suggested potentially good conditions for pollen preservation, unlike the clearly oxidised material beneath. The basal sample (22cm <221>) from the peaty buried soil (Context 9518) was also barren, although it did contain abundant micro-charcoal. It is possible that this is because the very basal part of the buried soil comprised sand and oxidised organic debris from the onset of soil accumulation in a sub-aerial environment above the initial influence of rising water levels.

The pollen concentration of the four remaining sub-samples ranged between 84,135 and 138,824 grains per ml. Poor preservation of fossil pollen grains (palynomorphs) hampered pollen counting to some degree. Assessment pollen counts were made from a single slide for these sub-samples. The pollen sums achieved for two slides were above 100 grains, but none exceed the statistically desirable total of 300 pollen grains main sum. As a consequence caution must be employed during the interpretation of these results.

32cm <221> Context 9518 – Peaty buried soil – This sub-sample produced a pollen spectrum dominated by grass (Poaceae; 54.2%), but with no other herbs apart from sedges (Cyperaceae; 4.2%). Arboreal taxa comprised hazel (*Corylus*; 8.3%), alder (*Alnus*; 6.3%), lime (*Tilia*; 4.2%), and pine (*Pinus*; 4.2%), with birch (*Betula*), oak (*Quercus*), willow (*Salix*) and juniper (*Juniperus*; all at 2.1%). Fern spores together accounted for 10.5%. Although it is tempting to invoke post-depositional oxidation to explain this herb-poor assemblage and low main sum, the usual indicators such as elevated proportions of fern spores and Asteraceae were not present in this slide.

10cm <220> Context 9505 – Lower silty wood peat – This sub-sample produced a pollen signal dominated by grass (Poaceae; 30.3%) and alder (*Alnus*; 22.7%). There was a limited range of herbs including sedges (Cyperaceae; 9.1%), fat-hen family (Chenopodiaceae; 7.6%), rock rose (*Helianthemum*; 3.0%) and buttercup (*Ranunculus*; 3.0%). Apart from alder, arboreal taxa comprised oak (*Quercus*; 6.1%), hazel (*Corylus*; 3.0%) and juniper (*Juniperus*; 3.0%). Monolete fern spores reached 10.6%, and aquatics were represented by the emergent bur-reed (*Sparganium*) and the free-floating frogbit (*Hydrocharis*).

32cm <220> Context 9504 – Silty clay – This sub-sample produced a pollen signal dominated by grass (Poaceae; 44.4%), with a limited range of herbs including sedges (Cyperaceae; 2.5%), the cabbage family (Brassicaceae; 1.3%) and buttercup (*Ranunculus*; 1.3%). Arboreal taxa comprised hazel (*Corylus*; 3.1%), juniper (*Juniperus*; 1.9%), oak (*Quercus*; 1.3%), with pine (*Pinus*) and alder (*Alnus*; both <1%). The emergent aquatic bur-reed (*Sparganium*) was present at 3.1%. Notably, fern spores together accounted for 41.9%. This elevated proportion of fern spores may indicate post-depositional oxidation of palynomorphs. However, the relatively well-preserved assemblage and lack of elevated Asteraceae may hint that this may be a taphonomic effect, caused by fern spores from the river catchment being preferentially deposited with silt in this context.

45cm <220> Context 9503 – Upper silty wood peat – This sub-sample produced a pollen signal dominated by grass (Poaceae; 38.3%), with a range of herbs including sedges (Cyperaceae; 6.5%), the cabbage family (Brassicaceae; 6.5%), the cow-parsley family (Apiaceae; 5.2%) and buttercup (*Ranunculus*; 3.9%). Arboreal taxa comprised alder (*Alnus*; 9.1%), hazel (*Corylus*; 5.8%), willow (*Salix*; 3.9%) and birch (*Betula*), (1.9%), with lime (*Tilia*), pine (*Pinus*), oak (*Quercus*), ash (*Fraxinus*) and buckthorn (*Rhamnus*; all at 0.6%). The epiphytic tree-living polypody fern (*Polypodium*) was present at 1.9%, and other fern spores together accounted for 6.4%. The emergent aquatic bur-reed (*Sparganium*) was present at 7.1%.

The sub-sample (32cm <221>) from the peaty buried soil (Context 9518) appears to represent a reed-swamp, with mixed-oak woodland and alder carr in the river catchment. There is an apparent absence of soil disturbance or arable indicators. The presence of lime pollen suggests that this assemblage could easily date from the late Neolithic or Early Bronze Age, at a time when rising water levels submerged an earlier buried soil horizon. The overlying lower silty wood peat (10cm <220>) of Context 9505 clearly shows a signal from local alder carr (wet woodland), with reed-swamp and more distant mixed-oak woodland. This sub-sample is interesting in that it contains elevated proportions of fat-hen family (Chenopodiaceae) pollen, which could be derived from nearby saltmarsh. It also contains pollen of frogbit, a free-floating aquatic indicative of open water habitats.

In contrast, the sub-sample from the silty clay (32cm <220>) of Context 9504 shows a return to reed-swamp and possibly floodplain conditions. The high proportion of resistant fern spores may actually represent deposition of allochthonous material, rather than a large number of ferns growing at the site, or indeed post-depositional oxidation. There is little evidence in the pollen for increased salinity or adjacent saltmarsh. The upper silty wood peat (45cm <220>) of Context 9503 shows some evidence for nearby alder carr and for more distant mixed-oak woodland. The major habitat again appears to be reed-swamp, with some suggestion of tall-herb communities of meadow or pasture. The apparent absence of disturbed ground or arable indicators and the presence of lime in the woodland both suggest that this is not a post-clearance signal. The most likely date might be late Bronze Age.

OVE2010 - Percentage data (Appendix 1)

monolith	222		221			220		
context	9519	9519	9519	9518	9518	9505	9504	9503
sub-sample	25cm	40cm	5cm	22cm	32cm	10cm	32cm	45cm
Trees & Shrubs								
Betula					2.1	0.0	0.0	1.9
Pinus					4.2	0.0	0.6	0.6
Quercus					2.1	6.1	1.3	0.6
Tilia					4.2	0.0	0.0	0.6
Alnus					6.3	22.7	0.6	9.1
Fraxinus					0.0	0.0	0.0	0.6
Corylus					8.3	3.0	3.1	5.8
Salix					2.1	0.0	0.0	3.9
Juniperus					2.1	3.0	1.9	0.0
Rhamnus					0.0	0.0	0.0	0.6
Herbs								
Poaceae					54.2	30.3	44.4	38.3
Cyperaceae					4.2	9.1	2.5	6.5
Caryophyllaceae					0.0	0.0	0.0	0.6
Chenopodiaceae					0.0	7.6	0.6	0.0
Brassicaceae					0.0	0.0	1.3	6.5
Fabaceae					0.0	0.0	0.0	1.9
Helianthemum					0.0	3.0	0.0	1.3
Lamiaceae					0.0	0.0	0.0	0.6
Polygonum	barren	barren	barren	barren	0.0	0.0	0.0	0.6
Ranunculus type					0.0	3.0	1.3	3.9
Rosaceae undiff.					0.0	1.5	0.0	0.0
Rumex					0.0	0.0	0.6	0.6
Apiaceae					0.0	0.0	0.0	5.2
Liliaceae					0.0	0.0	0.0	0.6
Veronica _type					0.0	0.0	0.0	0.6
Lower plants								
Polypodium					0.0	0.0	0.0	1.9
Pteropsida (monolete) undif.					6.3	10.6	40.0	4.5
Pteropsida (trilete) undif.					4.2	0.0	1.9	1.9
Aquatics								
Hydrocharis					0.0	1.5	0.0	0.0
Sparganium type					0.0	4.5	3.1	7.1
Sum trees					18.8	28.8	2.5	13.6
Sum shrubs					12.5	6.1	5.0	10.4
Sum herbs					58.3	54.5	50.6	67.5
Sum spores					10.4	10.6	41.9	8.4
Main Sum	-	-	-	-	48	66	160	154
Concentration (grains per ml)	<1052	<1052	<1052	<1052	84136	138824	73162	115687

Taken together, it seems that this sequence represents barren, possibly late-Glacial silty sands (Contexts 9520 & 9519), with a buried soil (Context 9518) developed on them. The lowest part of the buried soil may have formed in a dry-land setting, but rising water levels, probably in the Late Neolithic or Early Bronze Age, caused reed-swamp to spread across the area. The burnt flint spread (Context 9507) appears to post-date the buried soil and pre-date or be coeval with the overlying lower silty wood peat of Context 9505. Alder carr appears to spread across the area, but is locally accompanied by open water and possibly the local development of saltmarsh some distance from the site.

The silty clay of Context 9504 may represent the brackish or freshwater equivalent of the 'fen clay', and certainly suggests an alluvial floodplain environment. However, in this case pollen analysis does not provide much evidence for raised salinity or maritime conditions. The upper silty wood peat (Context 9503) shows a return to wet woodland, reed-swamp and probably meadow or grassland, possibly towards the end of the Bronze Age. As always, it is important not to over-interpret the pollen signal, but these pollen sub-samples have produced a useful insight into the changing Bronze Age environments adjacent to the ridge-side burnt flint spread.

Geoarchaeological Assessment of the Buried Soil Charles French

Extensive excavations have afforded the opportunity to sample an outlier round barrow to the northeast of the main Low Grounds Barrow Group situated on the northernmost part of the O'Connell Ridge.

The upstanding redeposited turf, soil and gravel of the barrow's mound material overlies a well-preserved buried soil which appears to exhibit a complete soil profile. In addition, the upper surface of the primary barrow mound exhibits some stabilisation and perhaps turf development, possibly indicative of a hiatus period in terms of barrow construction measured in a few tens of years. The regular grey/orange mottling of the mound deposits with variable amounts of amorphous iron staining certainly suggests that the mounds are primarily composed of turves.

Three soil profiles were taken for micromorphological analysis (Murphy 1986; Bullock *et al.* 1985; Stoops 2003). Profile 1 was a spot block sample taken through the upper surface of the buried soil in the central area of the barrow where there was much evidence of surface reddening. Profile 2 was taken as a series of three soil blocks through the palaeosol profile, located about 3.5m north of the central cross-over of the section baulks. Profile 3 was a spot block sample taken across the boundary between the first and second mounds (Context 9172), located a further 1.5m to the north of Profile 2.

Profile 2 of the *in situ* palaeosol comprised *c.* 3cm of dark grey sandy loam over *c.* 18cm of pale greyish brown sandy loam over *c.* 15-17cm of orangey brown sandy loam with occasional gravel pebbles. This *c.* 38cm thick organic Ah/lower A/B horizon sequence is developed on a substrate of mixed sands and gravels, and is overlain by *c.* 32-35cm of upcast mound material.

There are a number of important characteristics to this landscape and its buried soils. The palaeosols of the Godwin and O'Connell Ridges are generally very well-preserved over very large areas of buried landscape, and they are associated with both settlement and burial contexts. But it is rare to find an apparently untruncated and complete buried soil beneath a barrow mound as here, unlike the three mounds of the same barrow group already examined (French 2010a).

Comparisons will be able to be drawn between the pre-Early Bronze Age landscapes already investigated just to the south on the O'Connell Ridge and southwest on the Godwin Ridge (French 2010a), as well as those examined in the southwestern sector of the Over quarry (French 2010b). Indeed the soils examined elsewhere in this quarry development have indicated both woodland, arable and grassland phases prior to being subsumed by freshwater peats and overbank alluvial deposits.

There are very few other river valleys on the Cambridgeshire fen-edge where development has allowed such large-scale palaeo-landscape investigations, really only the lower Welland valley at Maxey-Etton-Borough Fen (French & Pryor 2005). All of these factors make the soil analyses of high potential, and their interpretation will be of direct relevance to the archaeological landscape being investigated.

In addition, investigation of the apparent burnt palaeosol surface in the central area subsequently occupied by the mound and the possible transition between the first and second mounds should enable some thoughts on pre-barrow use and constructional aspects.


538000
538500
539000
539500
274000
273500
Godwin Ridge
Sites
VII
VI
V
IV
IIB
IIA
III
OVE07
O'Connell Ridge
I
Barrow
Cemetery
Areas excavated
Forthcoming Sites
Sand ridges
0
500
metres

Figure 4

EXCAVATION RESULTS

Barrow 6 (Site IIA)

Open-area excavation on the site of Barrow 6 revealed, not only the upstanding remains of the round barrow itself, complete with surrounding ditch, but also evidence of Late Neolithic activity comprising a number of pits and an intact pre-barrow buried soil preserved beneath the barrow mound.

The Buried Soil

Well-preserved palaeosols occur across the O'Connell Ridge and the Godwin Ridge to the north and this site was no exception. Although an area of buried soil truncation was recorded to the southeast of Barrow 6 itself - potentially the result of fluvial action and overbank flooding - this horizon otherwise survived across the majority of the excavation area to a depth of between *c.* 0.2m and *c.* 0.6m. Of greater significance, however, was the degree of buried soil preservation beneath Barrow 6 itself. While a swathe of buried soil truncation was recorded around the barrow mound - a result of de-turfing (see 'Phase III', below) - an untruncated and complete buried soil was sealed beneath it (see French, above).

Test Pit No.	**Flint** (Qty.)	**Burnt Flint** (Qty.)	**Pot** (Qty.)	**Bone** (Qty.)	**Burnt Stone** (Qty.)	**Total**
1	3	1	-	-	2	6
2	-	-	-	-	-	-
3	4	-	-	-	-	4
4		-	-	-	-	-
5	9	-	-	-	1	10
6	13	-	-	-	-	13
7	18	-	-	1	-	19
8	22	-	2	-	-	24
9	13	-	-	-	3	16
10	9	-	-	-	-	9
11	15	-	-	-	2	17
12	5	-	-	-	-	5
13	13	-	-	-	-	13
14	2	-	-	-	-	2
15	5	-	-	-	-	5
16	8	-	-	-	-	8
17	8	-	-	-	1	9
18	5	-	-	-	-	5
19	8	-	-	-	-	8
20	5	-	-	-	-	5
21	15	-	-	-	-	15
22	16	-	-	-	-	16
23	6	-	-	-	-	6
24	7	1	-	-	-	8
25	8	-	-	-	-	8

Table 1: Buried soil test pit finds.

A total of 25 1x1m test pits, laid out on the site grid, were excavated in order to assess the artefact density within the buried soil horizon (see Table 1). Of these, Test Pits 1-4 were excavated 'outside' the barrow and yielded relatively few finds. (These only approximated to metre-squares as they were taken from *c.* 0.50 x 2.00m machined 'scoops' of the buried soil and processed off-site during the course of its stripping.) A further four test pits excavated through the buried soil beneath the centre of the barrow mound, however, produced more substantial assemblages associated with two Late Neolithic pits (F.2026 & F.2036, see below). Further test pitting of this area (see Fig. 5) confirmed a clear clustering of buried soil finds around these features with a lower background density of finds in the buried soil away from this area.

Late Neolithic Pits

Four pits exposed within the excavation area (see Fig. 6) can be confidently dated to the Late Neolithic and contained assemblages of Grooved Ware pottery belonging to the Clacton/Woodlands and Durrington Walls sub-styles (see Knight, below). The finds assemblages of each are detailed in Table 2 below.

Pit	**Pottery**	**Flint**	**Bone**(g)	**Burnt Clay**(g)	**Burnt Flint**(g)	**Burnt Stone**(g)
F.2002	9/153	87/1083	2535	637		1247
F.2004	7/52	25/394		12	1	927
F.2014	13/10	23/380		23		
F.2026	4/268	84552	1917	13		219

Table 2: Late Neolithic pits, assemblage breakdown (unless otherwise indicated, first figure is number; second, weight in grammes).

Pit **F.2002** was located to the northeast of Barrow 6. The pit, which measured 1.07m in diameter and was 0.88m deep, had steep, almost vertical sides and a flat base It contained five fills, which yielded finds including substantial assemblages of worked flint (see Billington, below) and animal bone (see Rajkovaca, below).

Pits **F.2004** and **F.2014** were located to the southwest and northwest of Barrow 6 respectively. Pit F.2004 had a steep-sided profile and measured 0.75m across by 0.73m deep. It contained a sequence of five fills comprising sterile slumping/silting layers overlain by more charcoal-rich fills from which all of the finds were recovered. Pit F.2014 was much shallower, measuring 0.92m across by 0.15m deep and contained three fills.

Pit **F.2026** was sealed by the Barrow 6 mound and as a result was untruncated and well-preserved. The pit had a relatively steep-sided profile and measured 0.95m in diameter by 0.4m deep. It contained three fills, of which the lower two fills represented primary silting/slumping. The upper fill was a more midden-like deposit which yielded the majority of the finds.

A further shallow pit (**F.2036**) also seems likely to belong to this Late Neolithic phase and, sealed beneath the barrow mound, was located 5m to the southeast of pit F.2026. The pit yielded worked flint and a small fragment of calcined bone.

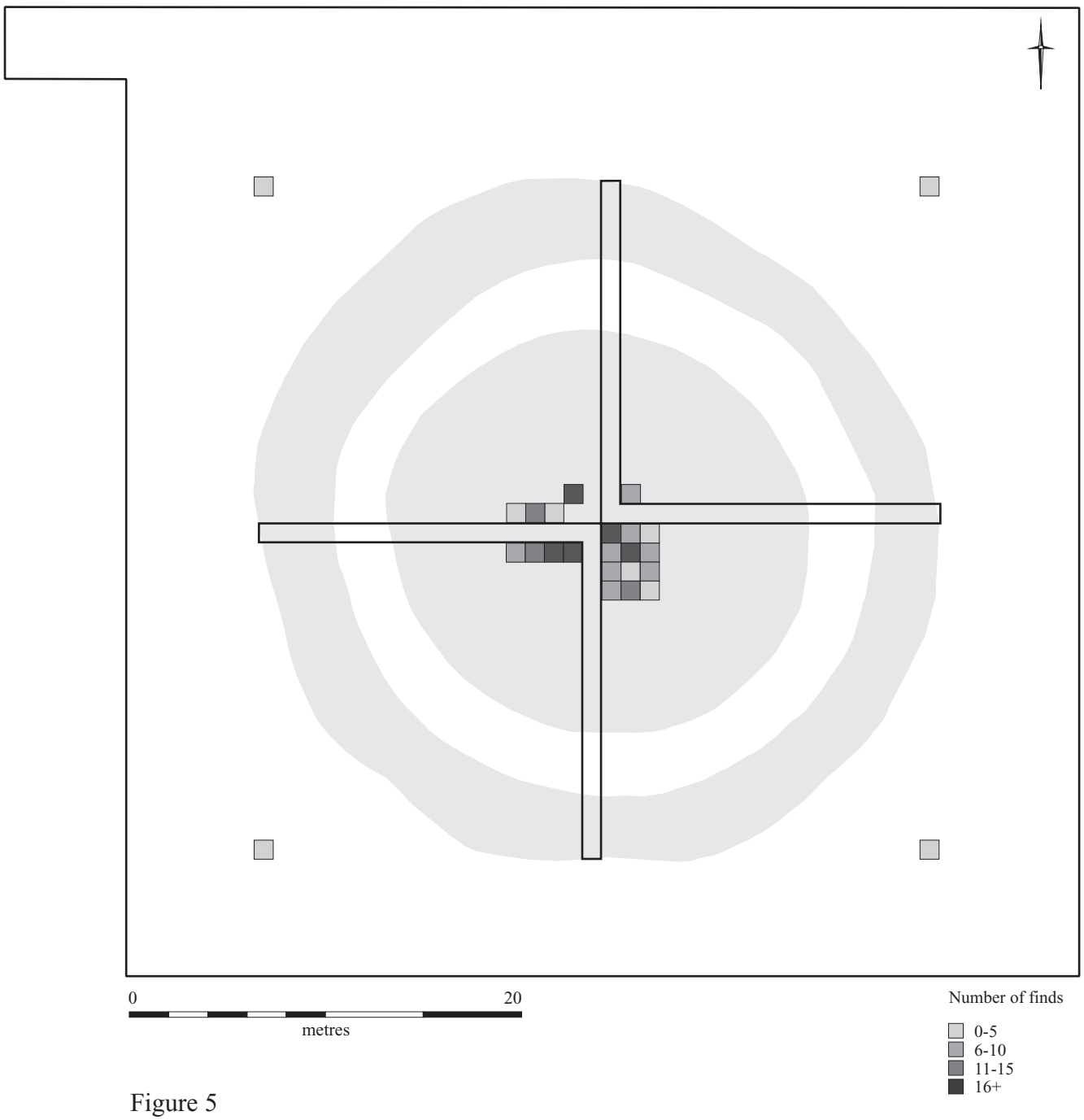


Figure 5


F.2014
Buried soil-filled hollow
F.2002
F.2029
F.2026
F.2036
F.2030
F.2003
F.2001
F.2005
F.2004
F.2010
F.2000
0
20
metres
Pre-barrow features
Barrow

Figure 6

The Barrow

Excavation of Barrow 6 revealed a complex monument with multiple phases of construction and use, which survived to a maximum height of 0.4m above the buried soil surface (see Figs. 3 & 9). Like Barrows 1-3 of the Low Grounds Barrow Group to the southwest (Evans & Tabor 2010), Barrow 6 originated as a relatively small monument that, expanding over time, resulted in a ditched barrow with a total diameter of *c.* 35m. Three clear phases of monument construction, with two surviving cremations, were recorded:

Phase I

Like the round barrows of the Low Grounds Barrow Group, the primary cremation of Barrow 6 was closely associated with the remnants of the funerary pyre; its traces consisting of charred timber and a scorched buried soil surface (Figs. 9 & 11) However, the style of interment and the context of deposition was markedly different to any of the barrows previously recorded at Over.

Excavation of the primary interment (**F.2025**), the cremated remains of an adult individual (see Dodwell, below), revealed a relatively complex and unusual feature which is best described as a sequence of events:

i) The sequence was initiated by an on-site cremation which took place slightly to the northwest of the barrow centre where an area of scorched buried soil (**F.2023**) clearly indicates the location of the cremation pyre (Figs. 9, 11 & 20).

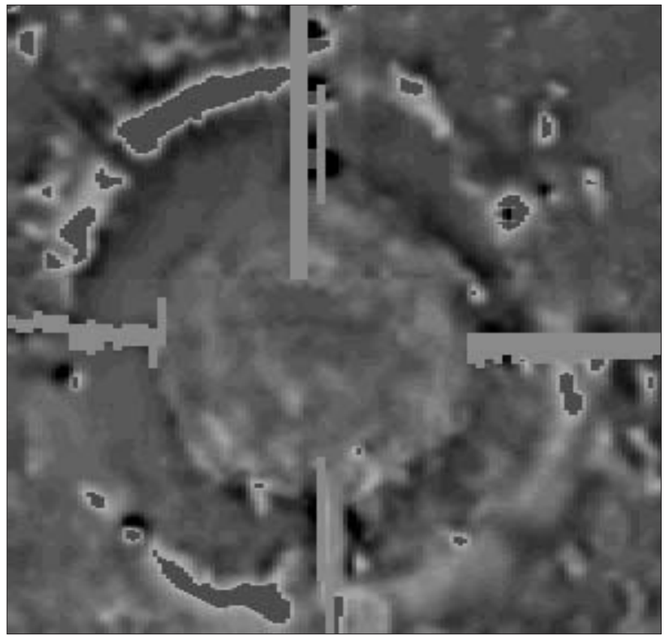
ii) The focus of activity then shifted a few metres to the southeast, to an area adjacent to the pyre site where a post – indicated by a posthole (**F.2035**) - was erected, possibly to commemorate the individual (Figs. 9, 12 & 20).

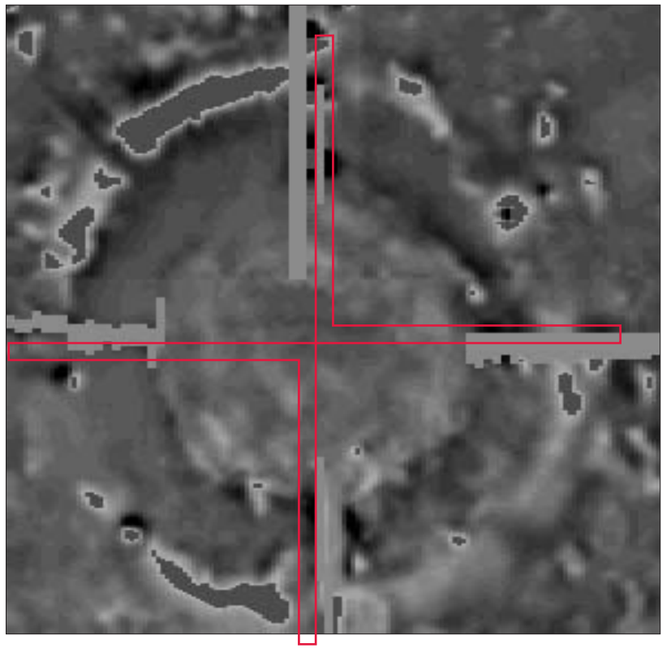
iii) Following the collection and separation of the pyre debris and cremated bone from the pyre site, the cremated bone (**F.2025**) was then packed around the base of the eastern side of the post (see Figs. 9, 12, 13 & 20). (The manner in which the cremated bone survived as an intact deposit - 'clinging' to the edge of the posthole - indicates that at the time of interment, the post must have been positioned loosely within the posthole, with the cremated bone effectively forming part of the 'packing material'. The *in situ* decay of the post subsequently allowed the cremated bone to maintain its original form and position against the edge of the posthole.)

iv) Pyre debris, including charred wood, ash and smaller amounts of cremated bone were also deposited around the base of the post and the remains of large, partially charred timbers, probably formerly part of the pyre structure, were placed around the central post and cremation deposit effectively 'framing' it (Figs. 9, 11, 12 & 20). It seems likely that this 'frame' of timbers (**F.2024**) marks the extent of an initial small mound - or at least stack of turf and pyre debris – around the base of the post which protected the primary interment.

Figure 7

Figure 8





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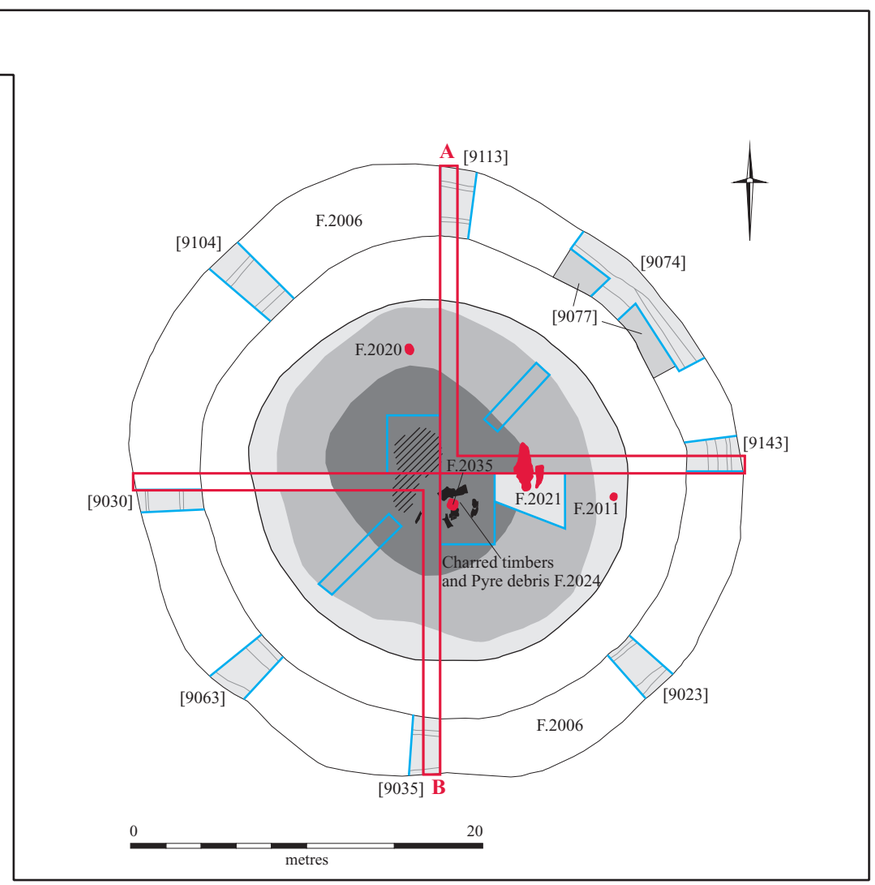


Mound sequence

- Hand - excavated transects
- Hand - dug areas
- Pyre material F.2023
- Phase II Turf Mound F.2016
- Phase III Turf Mound F.2017
- Phase III Gravel Capping F.2018

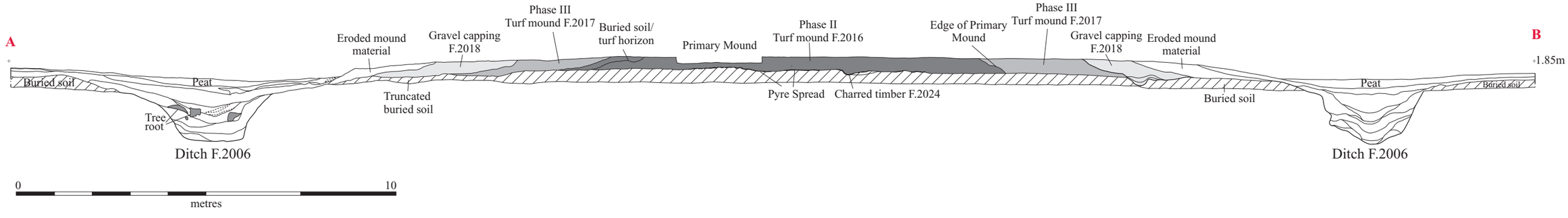


Figure 9

The central post and primary interment appears to have existed - effectively as a pre-barrow funerary monument - for a brief period of time before the construction of the first mound proper (see Phase II below). Certainly the degree of 'weathering' of the scorched buried soil surface in comparison to those beneath Barrows 1 and 2 in the Low Grounds Barrow Group - where *in situ* pyres had been immediately covered by a primary mound - suggests exposure of the surface took place before it was covered by the Phase II mound.

Phase II

The second phase of activity involved the construction of a mound (**F.2016**), which covered both the primary interment and the scorched surface of the pyre site (Figs. 7-9 & 20). This was constructed of turf and measured *c.*12m by *c.*10m surviving to a maximum height of 0.4m. The relationship of this mound with the upright post marking the primary cremation (posthole F.2035) is uncertain. Given, however, that the post must have decayed *in situ* and, therefore, almost certainly still existed when the Phase II mound was raised, it seems likely that the mound was built up around it; depending on its height, the post may well have still formed a visible part of the monument.

At present, no surviving interments can be directly associated with the Phase II mound, however, the remains of a pyre on the eastern slope of the mound clearly indicate that – as seen in the Barrows 1-3 of the Low Grounds Barrow Group – the mound acted as a platform for subsequent cremations. The pyre remains (**F.2021**) comprised charred timber fragments, ash, an area of scorched buried soil and a number of small cremated bone fragments. Clearly, except for these few fragments, the cremated remains were collected and potentially interred in the top of the Phase II mound before subsequently being lost to ploughing.

Soil stabilisation and possible turf development on the surface of the Phase II mound suggests this barrow-form existed for a period of time, perhaps measured in a few tens of years (see French, above), before further enlargement and elaboration.

Phase III

The final phase of barrow construction comprised mound enlargement and the digging of a surrounding ditch (Figs. 7-10). The ditch (**F.2006**), which was both a significant elaboration of the barrow's form and a quarry for mound material, had an internal diameter of *c.* 27m, while the ditch itself measured between 3m and 3.5m wide by between 1.2m and 1.55m deep. The profile and fills of the ditch were very much a reflection of the conditions and environment which prevailed following the construction of the Phase III barrow. The ditch, cutting through the buried soil and natural gravel, displayed a largely steep-sided profile, often with slumped or 'under-cutting' edges towards the base; probably a result of standing water in the ditch. The primary ditch fills comprised layers of slumped gravel and washed-in buried soil, while the upper fills comprised horizons of peat and silty clay reflecting

the gradual transformation of the landscape from dry to wet during the Bronze Age.

The associated Phase III mound (**F.2017/F.2018**) measured *c.* 21.5m in diameter leaving a berm of 2.5m to 3m between the mound and its surrounding ditch. In terms of the construction of the mound itself, the evidence suggests a methodical approach, with clear material selection. Firstly, a clear zone of buried soil truncation around the edge of the Phase III mound certainly represents the removal of turves, which were then stacked around the Phase II mound. Although individual turves were not visible in the mound's sections, clear lines of iron staining and orange mottling would appear to represent this construction technique (see French, above). Following turf removal the addition of soils and sub-soils excavated from the barrow ditch would have further enlarged the mound before the final addition of the natural gravels from the base of the encircling ditch. The separation of the gravel in order to created a visually striking gravel capping - which is clearly visible as a gravel ring on aerial photographs (see Fig. 7) - was clearly very deliberate and an important element of the barrow architecture.

As with the Phase II mound, no cremations/interments can be directly associated with Phase III, although F.2011 (see below) may well be contemporary. Further barrow activity is, however, potentially represented by an area of in-filled ditch to the northeast of the barrow. Here, overlying the primary silting layers in the base of the ditch, a 'mass' deposit of silty sand ([9077]), measuring up to *c.* 6m across, contrasted markedly with the peaty/silty clay upper fills present elsewhere in the barrow ditch. The localised nature of the deposit suggests that it was not the result of natural silting/erosion and it potentially represents a deliberate causeway across the ditch providing access to the mound. This raises the possibility that the Phase III mound was further utilised as a 'stage'/platform for secondary cremations in much the same way as Barrows 1-3 of the Low Grounds Barrow Group (Evans & Tabor 2010). Unfortunately the top of Barrow 6 was heavily truncated by ploughing and evidence of any cremations at this level was limited to occasional small fragments of cremated bone collected from its surface. The only feature recorded in the top of the barrow was a small pit (**F.2020**) and an associated faint patch of scorching which were potentially cremation-related, but difficult to confidently interpret as such in the absence of further evidence.

Pit-Pyre Cremation F.2011 (Fig. 9)

The excavation of the mound and ditch of Barrow 6 revealed only one secondary interment, a pit-pyre cremation, which was located *c.* 5m to the east of the Phase II mound and within the line of the outer ditch. The feature, **F.2011**, which measured 0.52mm by 0.38m by 0.31m deep, was cut into the top of the buried soil. Its scorched sides and fills comprising pyre debris and cremated bone, were typical of the many pit-pyre cremations excavated in the Low Grounds Barrow Group. The cremated remains were that of an adult female (see Dodwell, below) and were unaccompanied by any grave goods or urn, although a charred cow mandible was found amongst the cremated human bone.

Figure 10

Figure 11

Figure 12

Figure 13

In terms of its position within the barrow chronology, Cremation F.2011 was sealed by the Phase III mound and therefore, almost certainly belongs to Phase II or Phase III. While F.2011 may well be a 'satellite feature' of the primary cremation and Phase II mound, it is perhaps more likely that it is directly associated with, and potentially the impetus for, the construction of the Phase III mound.

Artefactual and Faunal Evidence

In contrast to Barrows 1-5 of the Low Grounds Barrow Group, where cremations often had associated grave goods as well as being interred or associated with pottery vessels, no grave goods or pottery vessels were recovered from either of the cremations in Barrow 6 (a small fragment of probable Grooved Ware pottery from F.2025 being almost certainly residual).

A chronologically mixed finds assemblage was recovered from the mound material of the various barrow phases and the fills of its ditch. The assemblage largely comprises worked flint (see Billington, below), although small amounts of animal bone and Neolithic and Early Bronze Age pottery were also recovered (see Knight, below). Although some of this material is potentially contemporary with the barrow – including 17 sherds (99g) of Collared Urn/Early Bronze Age pottery, a plano-convex flint knife and a flint scraper – the mixed nature of the assemblage and the abraded condition of most of the pottery suggests the majority is residual. The large amount of Late Neolithic flint, for example, is clearly buried soil-derived and represents material re-deposited along with the turves used to construct the mound. As such, while the finds assemblage from the mound material of Barrow 6 is much larger than those from the 'mounded' Barrows 1-3 of the Low Grounds Barrow Group, this would appear to be a reflection of its position on the O'Connell Ridge and in an area of previous settlement rather than an indication of barrow-related activity.

The limited faunal assemblage from Barrow 6, the majority of which was recovered from its ditch, F.2006, is more comparable to the assemblages recovered from Barrows 1-3 of the Low Grounds Barrow Group where only small amounts of animal bone were recovered. The assemblage is dominated by domestic species and red deer, albeit in small quantities (see Rajkovaca, below).

Undated Features

A further seven undated features were recorded within the Site II excavation area. Of these, four (**Fs. 2000, 2001, 2003** & **2005**) were potential pits occurring in a small cluster along with Late Neolithic pit F.2004 (Fig. 6). Only two of the pits contained material culture: F.2000 yielded four struck flints and F.2003 yielded three of the same. Although undated, the apparent association of these features with Late Neolithic pit F.2005 suggests they may be contemporary.

Three of the undated features recorded were sealed by the Barrow 6 mound; (**Fs. 2030, 2031** & **2032)**. These were all possible postholes and they yielded only two struck flints between them. That they were sealed by the Barrow 6 mound indicates that they must date to the Early Bronze Age or earlier. As such, once again, they may belong to the Late Neolithic phase of the site.

Human Bone Natasha Dodwell

Cremated human bone was recovered from three features: a small pit, F.2011, which showed evidence of *in-situ* burning; an area of scorched earth and charred timbers, F.2021 on the slope of the primary mound that probably represented debris from a pyre; and, F.2035, the packing for a posthole at the centre of the barrow. In addition a very small quantity of burnt bone, probably intrusive, was identified in test pits dug through the mound itself.

Both Features 2011 and 2035 were excavated in quadrants and spits so that any putative spatial patterning of skeletal elements could be recognised. All of the soil from each spit/quadrant was collected and wet-sieved and the residues passed through a stack of graded sieves. Extraneous material was removed from the residues >5mm. All bone >5mm was examined and the unsorted residues <5mm were scanned and any identifiable bone fragments (notably teeth) were extracted. Analysis of the cremated, bone followed the methodology outlined by McKinley (2004). This methodology requires that the cremated bone >5mm is separated/weighed by body part. Although this information is not presented in this report the data is recorded on a spreadsheet so that it can be utilised more productively once the cremated bone from the other Over barrows has been analysed.

	Deposit type	**Bone weight** (>5mm)	**age/sex**	**Pathological changes**	**Grave/pyre goods/ comments**
F.2011	*In situ* burning	1835g	Adult female	OA in spine & knee, fused vertebrae,caries	Charred cow mandible (9g)
F.2016	Primary mound material	16g	adult		
F.2021	Pyre site	2g	adult		
F.2035	Packing for posthole	2366g	adult		Cremation slag

Table 3: Summary table.

The results are summarised in Table 3. The bone fragments recovered from F.2035 were predominantly a buff white colour, indicative of high pyre temperatures and full oxidisation. Several of the phalanges were black suggesting that the hands and/or feet may have fallen away from the centre of the pyre. The colour of the bone from F.2011 is far less uniform with much of it being only charred. Brown/black elements include the left femur shaft and calcaneus, an un-sided patella, proximal tibia and rib, the right distal humerus and the endocranial surface of several of the skull fragments.

Neither Feature 2011 or 2035 appears to be truncated and it is likely that the quantity of bone excavated and recorded is similar to that which was originally deposited. Mckinley's observations at modern crematoria (1993) showed that the weight range of collectable bone

(>2mm fraction) from an adult cremation is *c*. 1000-2400g. The weights recorded on this site, 1835g and 2366g, are at the higher end of the range but similar to those recorded in the undisturbed cremation burials, including the *in situ* pit-pyre burials identified in the nearby barrows at Over in 2008.

Cremated bone will fragment at various stages; on the pyre, as it is being collected for burial, in the burial environment itself, during excavation and processing. The largest bone fragment recorded in Fs. 2011 and 2035 is 109mm and 92mm respectively, and almost 75% of the bone from each feature was larger than 10mm (Table 4). This suggests that there has been no deliberate breaking of the bone and that the bone has not moved very far from the pyre site.

Feature	**Largest fragment** (mm)	**Bone weight >10mm**	%	**Bone weight 5-10mm**	%	**Total Bone weight >5mm**
F.2011	109	1337g	73%	498g	27%	1835g
F.2035	92	1746g	74%	620g	26%	2366g

Table 4: Bone Fragmentation.

Pathological changes were observed in several the bones from F. 2011. Osteoarthritic changes were recorded in the spine; marginal osteophytes and increased porosity were observed in all of the vertebral bodies and there are Schmorl's nodes in one of the lumber vertebrae. The bodies of two of the thoracic vertebrae are fused. A caries lesion was recorded at the root/crown junction of a ?maxillary molar.

Feature 2011, the small, shallow pit (0.52 x .38 x .31m) with heavily scorched sides in the south east quadrant of the barrow, is similar in its dimensions and appearance to the pit *beneath* the experimental pyre conducted/recorded at Over in May 2010. That experiment demonstrated that constructing a criss-cross pyre structure of native wood species *over* a small (0.75 x .45 x .35m) pit resulted in temperatures up to 942^0 C and bright orange/pink sides where the natural silts had oxidised. The base of the pit, as here, was not visibly heat-affected. The position of bones in relation to each other suggests some degree of articulation post-cremation. In general terms, the skull fragments are absent in the northeast quadrant, but were identified in large quantities in the southeast and, particularly, in the southwest quadrant. The northwest quadrant had predominantly lumbar and lower thoracic vertebrae and pelvis bones. Most strikingly, a concretion of iron pan has fused the left calcaneus and talus (ankle bones) together. These two bones are in the anatomically correct position suggesting that they were still articulated when they fell into the pit as the pyre burnt out. If a pyre is not disturbed or tended with much enthusiasm then there is very little movement of the bone. Experimental pyres at Guiting Power, constructed on a flat groundsurface and where sheep corpses were cremated, showed that once the pyre had burnt out the cremated bone and charred soft tissues were in the correct anatomical position on a bed of wood ash (Mckinley 1997, 134).

The deposit of cremated bone in F.2035 is curious and seems to be part of the backfill/packing of a post. A quantity of 'cremation slag' was recovered from the residue and an area of scorched soil adjacent to the post suggests that this was the site of the pyre and the cremated bone did not have to be moved very far.

Material Culture

Flint Lawrence Billington

A total of 1017 worked flints were recovered from the excavation. The large size of the assemblage is largely attributable to pre-barrow later Neolithic activity represented by substantial assemblages from Grooved Ware associated pits and from the buried soil deposits sealed by the barrow. Comparatively little flint could be closely associated with the construction and use of the barrow itself; the cremation deposits did not have accompanying flint grave goods.

In order to characterise the pre-barrow activity the material from the four Grooved Ware pits (F's 2002, 2004, 2014 & 2026) and the flint from the buried soil test squares was examined in detail. A small number of worked flints associated with the primary cremation and posthole were also so-analysed. The remaining material, derived from surface finds, transect excavation, the barrow ditch and other pre-barrow features was subject to a more cursory assessment with the main aim of identifying material possibly contemporary with the construction and use of the barrow during the Early Bronze Age.

Pre-barrow Activity

The Grooved Ware Pits

The flint assemblages from the four Grooved Ware pits and from the test squares excavated through the buried soil are quantified in Table 5. The pit assemblages are comparable with Grooved Ware-associated material recovered from previous excavations at Over and share the distinctive characteristics of later Neolithic flintwork which can be observed at a regional and national level.

The raw material is dominated by fine grained, dark flint of good quality. The surviving cortical surfaces hint at varied sources of raw material. Several pieces display the thin abraded cortex characteristic of secondary sources, probably obtained from the local terrace gravels. A large proportion of the assemblage, however, has a relatively unabraded chalky cortex and dark interior suggestive of a primary source on the chalk. The size of some of the flakes also indicates that large nodules, probably obtained direct from the chalk were being exploited. The marked increase in the use of primary flint in the late Neolithic has been noted on a regional level (see Brown 1996 and Edmonds 1999), a pattern clearly seen at sites in the Over landscape where Grooved Ware assemblages invariably contain a high proportion of chalk flint (e.g. Edmonds 2004).

Technologically, much of the material from the pits is typical of the simple flake production strategies that prevail throughout the later Neolithic and Early Bronze Age, accompanied by evidence for sophisticated levallois/discoidal core reduction strategies particularly characteristic of Grooved Ware associated assemblages (Saville 1981, 5-6). The former generalised flake based material is represented by well worked-out multiple platform cores and flakes of varying morphology hard hammer struck from plain platforms. The levallois/prepared core technology is evinced by distinctive flakes often with fine multi-directional dorsal scar patterns and facetted or dihedral striking platforms and three exhausted discoidal cores. The assemblage is dominated by tertiary and secondary flakes, with just five flakes having more than 75% of dorsal cortex. Although the early stages of core reduction are poorly represented, flintworking as well as use was clearly being carried out as evidenced by cores and core trimming flakes. A small refitting sequence of three tertiary flakes from F.2002 also demonstrates knapping was taking place on the site, although again these reflect the latter stages of core reduction.

	Grooved Ware pits					Buried soil test pits
Feature	2002	2004	2014	2026	**total**	
Chip	2				**2**	14
Irregular waste	1			3	**4**	5
Flake	61	15	20	65	**161**	167
Blade like flake	4	2	1	4	**11**	6
Blade	1			1	**2**	1
axe flake				1	**1**	1
wedge shaped fragment	2			1	**3**	2
Irregular core	2		1		**3**	2
Single platform flake core						2
two platform flake core				1	**1**	1
multiple platform flake core	1			2	**3**	5
keeled core				1	**1**	1
discoidal core	1			2	**3**	
core fragment	1		1		**2**	2
end-scraper	2	3			**5**	1
sub-circular scraper		1			**1**	
Horse shoe-scraper	1				**1**	
double ended-scraper		1			**1**	
misc scraper	2				**2**	1
Piercer	2				**2**	
transverse arrowhead	1				**1**	
Retouched flake	2	3		3	**8**	3
notched flake	1				**1**	
Denticulate						1
TOTALS	**87**	**25**	**23**	**84**	**219**	**215**
Retouched %	12.6	32	0	3.5	**10**	2.8
unretouched utilised %	9.2	20	17.4	2.4	**8.7**	Unrecorded
Burnt %	13.8	8	8.7	9.5	**10.9**	8.8
broken %	34.5	32	30.4	34.5	**33.8**	38.6
Average weight (g)	12.3	15.6	15.6	6.3	**10.8**	7.5

Table 5: Quantification of the Grooved Ware pit and buried soil test pit worked flint.

Retouched tools are well-represented, with an overall retouched component of 10%. The assemblage is balanced between scrapers and less formally retouched flakes, together with a single chisel arrowhead, two piercers and a notched flake from F.2002. The scrapers are dominated by large convex end-scraper forms, generally made on tertiary blanks, several of which are likely to be the product of discoidal cores. The retouched flakes were also invariably made on fine tertiary blanks, sometimes blade-like in morphology. Alongside the retouched tools were a large number of flakes which showed macroscopic traces of use, generally as cutting tools. Again, tertiary discoidal core products or blade like blanks were favoured for utilisation. A single flake from a polished flint implement of mottled light grey colour, presumably an axe, was recovered from F.2026.

Although the assemblage from the four pits has been considered as a whole it is clear that there are significant divergences between the individual pit assemblages. F.2002 contained the richest assemblage with a wide range of retouched forms, cores and unretouched flakes. F.2004 had a much smaller assemblage, but retouched tools and utilised flakes were extremely well-represented. This, together with the absence of cores and few waste flakes, shows a clear emphasis on tool-use rather than flintworking. The similarly sized assemblage from F.2014 contained no retouched forms but was dominated by utilised flakes and large usable flake blanks. The large assemblage from F.2026 provided the greatest contrast, with very few retouched forms and much more evidence for flintworking in the form of cores and waste flakes. The low average weight of the pieces (see Table 5) from this feature in comparison with the other pits is a reflection of the large number of small waste flakes.

The Buried Soil

A total of 215 flints were recovered from 25 test pits, with a range of 0–22 and an average of 8.6 pieces per test pit. The primary aim of the analysis was to explore the extent to which the buried soil assemblages represented the same later Neolithic 'settlement' activity represented by the pits, or whether a slightly earlier episode of activity could be distinguished. In terms of raw material, technology and retouched forms the buried soil assemblage was extremely similar to the material from the pit features. Dark and good quality flint, often with an unabraded cortex, dominated a simple flake-based technology accompanied with distinctive discoidal/prepared core products. There was no evidence for blade-based flintwork of earlier Neolithic/Mesolithic date and the entire assemblage can be thought to represent later Neolithic/Early Bronze Age activity. The absence of any distinctive Early Bronze Age forms does not preclude some of the undiagnostic flake based material dating to this period; however, the frequency of distinctively later Neolithic pieces, together with the characteristic use of primary flint, suggests any later contribution was small. A concerted programme of refitting, beyond the scope of this analysis, may have the potential to provide physical links between the assemblages from the buried soil and pit assemblages. A flake from a polished axe found in Test Pit 7 is of identical raw material to the polished axe flake from nearby pit F.2026 and could represent the reduction of the same implement.

Retouched forms are few, but include a similar range to that encountered in the pits including two convex scrapers and retouched cutting flakes. The buried soil assemblage, with its low incidence of retouched forms, low average weight and high numbers of waste flakes and cores, is similar in composition to pit F.2026 and contrasts with the other 'tool-rich and flintworking-poor' features.

Discussion

The flint assemblage from the Grooved Ware pits and buried soil deposits evidently represents a significant episode of later Neolithic activity. This activity appears to primarily reflect flintworking waste from the latter stages of core reduction together with a wide range of settlement type activities as reflected in the retouched and used tools. The recovery of assemblages from cut features, together with associated material from large samples of undisturbed buried soil, provides an opportunity to consider the dynamics of pit deposition *verses* surface discard. The high incidence of large flakes and retouched pieces from three of the pits, in contrast to the material from F.2026 and from the buried soil might suggest a degree of selection in the deposition of material within some of the pits. This need not necessarily represent any 'formal' or structured deposition, but rather perhaps reflects the association of the features with material generated by specific episodes of tool-use and the tidying up of larger more conspicuous pieces.

Other Contexts

A total of 575 worked flints were recovered as finds from the successive barrow mound phases, the barrow ditch, transect cuttings through the mound and buried soil, surface finds and small natural and cut features beneath the barrow (Table 6). This includes material from a variety of contexts; largely from the buried soil, both beneath the barrow and in the immediate area, as represented by the turves making up the bulk of the barrow mound.

	Surface finds	Transects	Ring ditch	Mound material	Cut features	TOTAL
Chip	8	24	1	4		**37**
irregular waste	3	3		3	3	**12**
Flake	133	183	63	69	39	**487**
Blade like flake		4	1	3		**8**
Blade	1	1	1			**3**
Bladelet	1					**1**
irregular core		1	1			**2**
multiple platform flake core	2	3		1		**6**
core fragment		3	1			**4**
end-scraper		2		2		**4**
Thumbnail scraper		1	1			**2**
Piercer				1		**1**
transverse arrowhead	1					**1**
oblique arrowhead	1					**1**
Retouched flake		1			1	**2**
seratted flake					1	**1**
Flake knife	1		1			**2**
plano-convex knife		1				**1**
TOTALS	**151**	**227**	**70**	**83**	**44**	**575**

Table 6: Quantification of the worked flint assemblage from other contexts of Barrow 6.

A few patinated prismatic blades hint at a limited Mesolithic presence, including single blades from the infill of the barrow ditch and from the surface-find assemblage. This material is closely comparable to the Mesolithic flintwork recovered in extremely large numbers from the Godwin Ridge to the north (Evans & Vander Linden 2009a & b). Aside from these few pieces, the assemblage can be attributed to later Neolithic/Early Bronze Age activity. Later Neolithic material, closely comparable to that recovered from the buried soil and Grooved Ware assemblages, is well-represented by distinctive prepared core products and by retouched forms including a broken oblique arrowhead, a chisel arrowhead and a sub-circular knife made on a blank from a discoidal core.

Although dominated by this later Neolithic material, the flintwork also contains a number of distinctive Early Bronze Age types that may be broadly contemporary with the barrow construction or use. A fine plano-convex knife and a thumbnail scraper were recovered during the excavation of the western transect, although their exact context (e.g. buried soil or barrow mound) is unknown. A further thumbnail scraper was recovered from [9052], an infill deposit within the barrow ditch.

The Central Cremation

A small number of worked flints were associated with the central Cremation F.2025 (Table 7). Within the ashy cremation deposit [9238] was an unburnt hard hammer struck flake, whilst sixflakes and a core were recovered from the fills of posthole F.2026. None of these appear to reflect deliberate deposition, although their technological traits are consistent with a broadly contemporary Early Bronze Age date. The small core is particularly distinctive; weighing just 10g, it has been used for the production of very small flakes and is of a type recognised elsewhere in Collared Urn-ssociated contexts (Beadsmoore 2009, 167)

	Cremation Deposit [9238]	Posthole F.2035
Flake	1	6
miniature core		1

Table 7: Quantification of flint assemblage from deposits associated with central Cremation F.2025.

The worked flint assemblage from Barrow 6 contrasts markedly with the assemblage recovered from the excavation of the Low Grounds Barrow Group (see Evans & Tabor 2009). The assemblages from buried soil deposits sealed by the three barrows on the terrace was far poorer than here at Barrow 6; at least partly a reflection the density of activity upon the *Over Narrows* ridges proper, both north and south. Perhaps more notable is the dearth of flint grave goods from the Barrow 6 cremations in contrast to the assemblages recovered from the earlier excavations. In flintwork terms, the significance of the site lies in the pre-barrow Neolithic activity rather than the later monument. The intensity of buried soil sampling, together with cut features, provides an excellent opportunity for an exploration of the use and deposition of flint generally represented only by assemblages from cut features.

Prehistoric Pottery Mark Knight

The pottery assemblage comprised 69 sherds weighing 646g. The pottery can be separated into material derived from discrete features, spot finds or barrow mound/buried soil transects. The bulk of the sherds by number and by weight came from the discrete features category, whilst the transect material was made up almost entirely of small abraded fragments or crumbs. The condition of the assemblage varied between contexts, but included large 'fresh' slabs, as well as probable residual pieces. The fabric series incorporated shell, grog and flint-rich fragments. Rim sherds were present in three contexts, as were base sherds, whilst decorated pieces occurred in nine contexts.

Context	Sherds	Weight	Mean Sherd Weight
Feature	43	532g	12.4g
Spot Find	8	52g	6.5g
Transect (Barrow Mound)	18	62g	3.4g
Total:	69	646g	

Table 8: Context of material.

Grooved Ware made up nearly half of the assemblage (48% by number or 77% by weight), with the remainder being either Early Neolithic (plain, hard flint-tempered pieces) or Early Bronze Age (predominantly grog-tempered occasionally with characteristic Beaker/Collared Urn type decoration).

Early Neolithic
SF 1956 <148> - Neolithic. Small flint-tempered fragment.

Grooved Ware
F.2002 [9005] <502> - Grooved Ware. ?Durrington sub-style. Two large refitting base fragments (grog and sand) and a sand-rich plain body sherd.

F.2002 [9006] <508> - Grooved Ware. Hard sand-rich plain body sherd.

F.2004 [9014] <518> - Grooved Ware. Clacton/Woodlands sub-style. Rim, body and base sherds from a ?single vessel with incised grooves. Rim sherd has internal moulding and raised knot design. 'Lost' shell-opening material.

F.2004 [9015] <523> - Grooved Ware. Same as [9014].

F.2025 [9237] <671> - Grooved Ware? Hard thin-walled sherd with fine crushed shell filler.

F.2026 [9219] <609> - Grooved Ware. Clacton/Woodlands sub-style as characterised by tub-shaped profiles, shell temper and incised/raised horizontal decoration (including lozenge-shaped panels). Other attributes include internal rim molding and applied 'knots' or pellets (contains sherds from at least two different vessels). Of particular interest is a rim sherd from a small diameter, thin-walled tub-shaped vessel with raised pellets along its lip and incised raised cordons.

F.2014 [9160] <568> - Grooved Ware. Clacton sub-style, incised body sherds, lost shell.

Buried Soil <1531> - Grooved Ware. Plain body frags with lost shell-lightweight fabric.

Early Bronze Age (Beaker/Collared Urn)
F.2017 [9155] <588> - Mixed. Abraded rusticated Beaker sherd (ripple design with crowsfoot impressions) and Early Neolithic plain body sherd.

F.2017 [9156] <562> - EBA. Grog-tempered plain body sherds.

SF 1940 <132> - EBA. ?Collared Urn. Grog-filled 'soapy' body sherd.

SF 1953 <145> - Beaker. Thin-walled grog-tempered body sherd decorated with shell-impressed filled panels.

SF 1954 <146> - EBA. ?Beaker/Collared Urn. Medium hard flint and grog plain body sherd.

SF 1978 [9156] <169> - EBA crumb.

SF 1981 <172> - EBA. Thin-walled sandy grog-tempered body sherd.

SF 1991 <182> - EBA. ?Beaker/Collared Urn. Single decorated (rows of impressed twisted cord) body sherd made of medium hard burnt flint-rich fabric.

SF 2027 [9186] <217> - Collared Urn. Whipped cord impressed sherd (grog).

North Transect A - EBA. Plain body grog-tempered.

West Transect C <1035> - EBA. Base frag (grog).

West Transect E <1040> - EBA crumb.

West Transect F <1044> - EBA. Thick-walled grog-tempered (soapy) body sherd.

East Transect G <1021> - EBA. Collared Urn. Burnt (pink) plain body sherds (grog).

South Transect G <1027> - EBA crumb.

West Transect H <1050> - Collared Urn. Decorated 'T'-shaped rim with twisted cord decoration on top, lip and face (grog-tempered); ?burnt.

Miscellaneous
SF 1957 <149> - BA. Thin walled; ?grog.

East Transect E <1009> - Prehistoric crumb.

South A <1018> - Burnt clay?

Wood Maisie Taylor

Most of the wood was examined in the ground, where it was also recorded and sampled; much of it was charred. All the material comes from beneath Barrow 6 and is either pyre material or wood associated with cremations. The larger material seems to have been placed to 'frame' the cremation (F.2024/25).

The wood is a combination of large roundwood (or trees) and timber planks. There is some gnarled material with large roundwood attached which could be overgrown coppice. There are other chunks of roundwood and what may be thin planks or planks that have become thin through heavy charring.

Using the scoring scale developed by the Humber Wetlands Project (Van de Noort, Ellis, Taylor & Weir 1995, table 15.1) most of the material scores 2 or 3. This condition scale is based primarily on examination of the surface of the wood and the data which was recorded from that examination. The condition score reflects whether each type of analysis might be profitably applied, it is not intended as a recommendation for various analyses or treatment. A score of 5 would mean that all or any of the processes detailed from museum conservation to species identifation might be worth applying to the material. A score of 0, on the other hand would mean that the material was a write-off as far as any of the listed analysis were concerned. A score of 2-3, therefore, means that the wood is not suitable for extensive analysis.

	Museum Conservation	Technlogy Analysis	Woodland Management	Dendro-Chronology	Species Identification
5	+	+	+	+	+
4	-	+	+	+	+
3	-	+/-	+	+	+
2	-	+/-	+/-	+/-	+
1	-	-	-	-	+/-
0	-	-	-	-	-

Table 9: Wood 'scoring'.

As the quality of the wood was so fragile (mostly due to the combination of charring, compression and wetness) much of the recording and analysis was done in the field. Very little material, except samples survived lifting. There is one place where the wood displays the same strange 'bubbly' effect that has been seen on charred timber in earlier seasons. This possibly suggests that the wood has been very hot and possibly then 'quenched' rapidly. The area where this happened is very small.

The wood is not completely charred and some of the uncharred material may well have disintegrated or rotted. This will make subsequent interpretation of the 'frame's' structure more difficult.

Where they were sufficently preserved for analysis, the planks are radially split oak. As with oak timber from barrows excavated earlier, the heavy charring makes it difficult to distinguish the shaping, which comes from burning rather than working. All the wood, timbers and roundwood, have varying growth patterns with everything from very slow (with rings a millimetre or less apart) to very fast (with rings 4mm apart or more); this applies to all species. Although charcoal has often been found under barrows in association with cremations, there is rarely enough for analysis other than species. To find large pieces of wood, charred and uncharred directly associated with a cremation is much rarer. This material, together with that

already excavated from barrows in the area, forms an assemblage of great importance, allowing detailed analysis of the wood-working and, with it, aspects of ceremonies associated with cremation and burial.

Worked Stone

Only one piece of worked stone was recovered, a cobble utilised as hammer stone (F.2002 [9005] <507>).

Fired Clay Grahame Appleby

A total of 26 pieces of fired clay were recovered from seven features (F.2002, F.2004, F.2006, F.2014, F.2022, F.2026 & F.2029), weighing a total of 712g (range 1-133g). The fabric consisted of loosely bound sandy and friable clay with rare small flint inclusions, with buff to orange-red colours, to a single example of a hard sandy fabric that has at some point been fired in a reducing atmosphere (F.2014). The largest assemblage was recovered from F.2002: 21 fragments, weight 616g. The fragments ranged in weight from *c*. 1g to 133g and in size from *c*.2mm to 94mm.

The friable nature of the assemblage and absence of cereal or organic impressions or evidence of structural material (apart from a small single piece <522> from F.2002) is intriguing, with several pieces clearly showing differential effects of heating. The possibility, therefore, that these pieces are related to processes requiring the use of heat on a temporary or impermanent basis cannot be excluded, especially the pieces retrieved from F.2002.

Economic and Environmental Data

Faunal Remains Vida Rajkovača

Excavations resulted in the recovery of a small faunal assemblage totalling 88 assessable fragments and weighing 6335g. The great majority of the assemblage originated from pre-barrow Neolithic activity in the form of two pits (F.2002 & F.2026) producing 51 assessable bone specimens (Table 10). The remainder of the assemblage was made up of comparatively little animal bone material recovered from the buried soil, the barrow's ditch and cut features. Heavy residues were collected from bulk soil samples pit-pyre F.2011; pyre-spread F.2021 and Cremation F.2025.

Contexts	**Fragment count**	%
Grooved Ware pits	51	58
Buried soil	1	1
Other contexts (ring ditch, mound material and cut features)	25	28
Heavy residues	11	13
Total	88	100

Table 10: Fragment count for all contexts.

The zooarchaeological investigation followed the system implemented by Bournemouth University with all identifiable elements recorded (NISP: Number of Identifiable Specimens) and diagnostic zoning (amended from Dobney & Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) was derived. Identification of the assemblage was undertaken with the aid of Schmid (1972), Hillson (1999) and reference material from the Cambridge Archaeological Unit, Cambridge. Unidentifiable fragments were assigned to general size-categories where possible. This information is presented in order to provide a complete fragment count. Ageing of the assemblage employed both mandibular tooth wear (Grant 1982; Payne 1973) and fusion of proximal and distal epiphyses (Silver 1969). Taphonomic criteria including indications of butchery, pathology, gnawing activity and surface modifications as a result of weathering were also recorded when evident. The majority of the assemblage showed a moderate state of preservation. A portion of the assemblage was severely weathered with bones that have lost zones of cortical bone due to exfoliation. High numbers of bones were also covered in thick iron pan concretions.

Pre-barrow Activity

Of the four pits dated to the Late-Neolithic, only two contained faunal material producing a total of 51 assessable bone fragments (Table 11). This small sub-set was dominated by the remains of pig, cattle and cattle-sized specimens. F.2002 was dominated by the remains of cow (NISP=11), whereas F.2026 had a prevalent pig component (NISP=12).

The animal bone was covered in thick iron pan concretions, almost completely obscuring butchery marks. It was possible to note, however, an interesting example of butchery carried out on a red deer metatarsal found in F.2026. The bone shaft has been split axially, using a large blade, with a blow from the distal end of the bone. The same action was repeated at least three times, yet at slightly different angles thus creating a tapering gouge-like end. The specimen in itself does not show any signs of working; however, it is somewhat apparent that the bone had been utilised as a bone point. It is also important to note that the red deer calcaneum (F.2002) and red deer metacarpus could indicate that deer were hunted and their meat was utilised. In addition, deer antlers seem to have been collected, rather than sawn off the skull, as indicated by two roe deer and one red deer antler deposited in F.2026.

Only two ageable specimens were recorded from this sub-set, both of which were pig mandibles, most likely part of the same animal. These were aged to 2-7 months.

Taxon	**NISP**	**NISP%**	**MNI**
Cow	11	31	1
Ovicapra	1	3	1
Pig	17	49	2
Red deer	4	11	1
Roe deer	2	6	1
Cattle-sized	13	.	.
Sheep-sized	2	.	.
Rodent-sized	1	.	.
Total	51	100	.

Table 11: NISP and MNI for identified species for Grooved Ware pits F.2002 and F.2026.

Other Contexts

The total quantity of animal bone recovered from the contexts associated with the barrow (ditch F.2006 and pit F.2020) is given in Table 12. Here, the sub-set is dominated by domestic species, with horse and dog also being present with one specimen each. As for the wild species, Context 9132 from ditch F.2006 yielded six red deer specimens, all of which are considered to be meat-bearing elements. In addition, a red deer antler was recovered from [9067] of F.2006 and an unidentifiable bird bone fragment came from F.2034. A single loose cow tooth was recovered from Test Pit 7.

Taxon	NISP	NISP%	MNI
Cow	9	43	1
Ovicapra	2	9	1
Pig	1	5	1
Horse	1	5	1
Dog	1	5	1
Red deer	6	28	1
Vole n.f.i.	1	5	1
Cattle-sized	3	.	.
Bird n.f.i.	1	.	.
Total	25	100	.

Table 12: NISP and MNI for other contexts.

Post-barrow

A nearly complete badger skeleton was recovered from pit F.2027. It is assumed that this deposit post-dates the construction of the barrow and is most likely not anthropogenic in origin.

The relatively varied animal bone assemblage recovered from two Grooved Ware pits amounting to 51 specimens, compared to a single specimen being recovered from the buried soil, is potentially a clear indication of differences in the deposition of material. This is not just the case with the faunal material. For instance, pit F.2002 contained a great variety of different material types such as pottery, animal bone, worked flint, burnt clay and burnt stone. This suggests that pits were being chosen as receptacles for post-consumption bone waste, broken pottery or flint generated from different episodes of activity, with the remainder of the site being kept clean.

Comparison can be made with contemporaneous Grooved Ware pits excavated on the O'Connell ridge during 2008. Although the O'Connell Ridge faunal report (Seetah 2009) listed species from all phases of occupation collectively, we can confidently state that the O'Connell assemblage showed a broadly similar range of species. Prevalence of pig, followed by cattle and the presence of red deer (meat-bearing elements and antler) are also reflected in this small sub-set. Similar to the results presented here (two mandibles aged to 2-7 months), previous work showed a greater proportion of juvenile pigs, which probably reflects the fact that these animals are primarily raised for meat. It is difficult to assess at this point how pigs might have been managed on site, yet their prevalence can indicate surrounding woodland resources which would have allowed pigs to forage on pannage.

Of the barrow's assemblage proper, as seen from the previous work on the gravel terrace in the vicinity (Seetah 2010), barrows do not tend to be rich with faunal material. Of the Low Grounds Barrows, Numbers 2-4 produced between six and 12 specimens, with Barrow 5 yielding 115 assessable fragments, of which 44 were identified as pig. Apart from the small quantity of bone, another similarity with the barrows excavated in 2008 is the range of species, which is dominated by the main food-species and red deer.

Bulk Environmental Samples Anne de Vareilles

Ten bulk soil samples from nine Bronze Age features were chosen for analysis (a total of 118.5 Litres), along with four Early Bronze Age cremations 100% sampled. The latter generated a total soil volume of 274 litres separated into 24 samples. Samples from the ditch of Barrow 6, five later Neolithic/Grooved Ware pits and three Early Bronze Age features provide additional economic and environmental information to the prehistoric landscape of Over.

Carbonised remains were more frequent than waterlogged ones, which were only recovered from the ditch samples around Barrow 6. The latter were not well-preserved, only containing a limited amount of seeds and included some modern specimens. Fragments of waterlogged wood survive, but finer structures have been lost to adverse oxygenated conditions. Carbonised remains other than charcoal were not recovered from all samples, and no feature contained a dense assemblage of secure interpretation. Modern rootlets and straw fragments were found in most of the samples, especially in Cremations F.2023 and F.2021. They indicate that recent ploughing and bioturbation has disrupted archaeological layers, potentially resulting in the destruction and/or loss of artefacts. Interestingly, mollusc shells were only found in two cremations. If necessary, the cremations could be dated through charcoal, as could features F.2004, F.2026 and F.2036 (no other plant remains are suitable).

Grooved Ware Pits F.2002 [9007], F.2014 [9160], F.2026 [9219], F.2004 [9014] and F.2036 [9256]

Of the five features sampled three had relatively large charcoal assemblages that probably represent intentional discards from hearths/fires. They did not, however, contain any plant remains suggestive of cooking or consumption other than a single cereal grain from F.2036 (*Triticum/Hordeum* sp.). No other cereal remains were found. F.2036 also contained a grass seed fragment. A wild grass seed and a medics or clover seed (*Medicago/Trifolium* sp.) were found in F.2026. All but F.2002 had a range of residue finds including pottery, worked flint and burnt stone.

The Barrow

Ditch F.2006 [9050], [9120] and [9077]

[9050] and [9120] within the barrow ditch appeared to have been waterlogged so a sub-sample of 0.5 Litres was wet-sieved from [9120], whilst 10 Litres from [9050] were flotation sieved and left to dry. Carbonised plant remains were completely absent and waterlogged seeds almost non-existent. Both samples, however, contained numerous fragments of decaying waterlogged wood that attest to a wetter past environment. A few modern seeds were also found, showing recent disturbance. [9077] was not waterlogged, but also contained very few plant remains and no residue finds.

Posthole F.2035 [9251]

The sample contained very few plant remains and practically no residue finds. The absence of molluscs confirms that the feature was quickly filled before snail communities could be established.

Cremations F.2011 and F.2025 and Pyre-spreads F.2021, F.2023 and F.2024 [9237]

Apart from F.2024, the features produced large quantities of well-preserved charcoal which confirms the pyre remains were found *in situ*. Cereal remains were rare: two spelt or emmer wheat grains (*T.spelta/dicoccum*) were found in F.2011; one indeterminate wheat grain (*Triticum* sp.) from F.2025; another indeterminate wheat grain from F.2023, and F.2021 had a possible rye grain (cf. *Secale cereale*). Apart from a few hazel nutshell fragments in F.2011 and F.2025, no other known edible or medicinal plant was recovered. The quantities and

distribution of cereal grains and hazel nuts suggest that these are unlikely to have been intentional food offerings. Identification of the charcoal could confirm whether the hazelnuts originate from fuel use. Residue finds were scarce, consisting of worked flint and burnt flint.

The wild plant seeds were very similar throughout the features and represent damp, abandoned disturbed land of poor quality, perhaps even an over-used arable field that was no longer suitable for the production of crops. The most represented species were medics and/or clover (*Medicago/Trifolium* spp.), followed by blinks (*Montia fontana* ssp *minor*), a true sedge producing large, flat seeds (*Carex* sp.), and finally ribwort plantain. False-oat grass root bulbs (*Arrhenatherum elatius* Var. *bulbosum*) were also common, but only in Cremations F.2011 and F.2025. This grass grows in dense tussocks and spreads in un-grazed grasslands, often favouring derelict land no longer exploited for cultivation, representing a stage in land development between arable or pasture and scrubland (Robinson 1988). The basal culms, along with fragments of small stems and other rootlets, indicate that turf was burnt, either from being directly beneath the pyre, or by being added as a capping layer (see below). Perhaps surprisingly the sample from pyre-spread F.2024 did not contain much charcoal and only two other plant remains, including a ribwort plantain seed (*Plantago lanceolata*).

Mollusc shells were found in Cremations F.2011 and F.2025. They did not occur in large numbers, but species were represented by both burnt and unburnt shells (see Table 16). Despite there being a few burnt rootlets and plant stems in the other two cremations, the absence of snails and false-oat grass bulbs seem to indicate that turf was not burnt, but rather that the pyre was somehow raised above it. Snails might move away from the chosen area if the ground surface was cleared sometime before the pyre was constructed. The uneven distribution of heat throughout the turf would explain why not all snails were equally affected in Cremations F.2011 and F.2025.

Samples from Barrow 6 were devoid of artefacts and contained almost no plant remains other than decaying fragments of waterlogged wood. The excellent preservation and wealth of botanical information retrieved from the Low Grounds Barrows has, sadly, not been replicated (see de Vareilles in Evans & Tabor 2010).

The early prehistoric pits, ditches and post-hole sampled revealed very few plant remains other than charcoal. Assemblages of crops capable of providing information on the site's agricultural system and economy are missing, as are well-preserved waterlogged remains for landscape reconstruction. The Grooved Ware assemblages accord with those previously analysed from the Godwin and O'Connell Ridges where no concrete evidence for a stable, agricultural economy was recovered, despite the presence of residue finds indicative of 'daily activities' (Ballantyne in Evans & Tabor 2009). Conversely, wild and cultivated plant remains found within the Collared Urn deposits of the O'Connell Ridge are absent from features examined here. Residue finds were also less frequent, suggesting that the Collared Urn settlement 'domestic' activities centred upon the area of the main O'Connell Ridge site (*ibid*.).

Plant remains recovered from the four cremations compare well with evidence from other Bronze Age barrows which also seem to have been constructed on disused arable or pasture (*cf*. de Vareilles in Evans & Tabor 2010; Stevens 1996). Evidence is found in associated cremations that contained signs of turf-burning. At Butcher's Rise, Barleycroft, turf was found to have been burnt in most, but not all, of the 32 Bronze Age cremations (Stevens 1996). In trying to understand how plant parts below the soil surface became incorporated into the pyre, Stevens (1996) decided the most likely explanation was that turf was broken up before the pyre was constructed, to prevent the fire from spreading: '… it can only be assumed that as the body was

gathered…, burnt tubers, seeds and other root material were gathered with it' (*ibid*., 78). Another possibility is that turfs were stacked on top of the pyres in order to generate more heat and less flame (*ibid*.). The botanical assemblages from cremations in which there is evidence for turf-burning show that pyres were erected on disused land, probably no longer fertile (as is suggested by the many nitrogen-fixing medics and/or clover) and not reserved for grazing. The differences between F.2011/F.2025 and F.2021/F.2023 do not suggest that they were performed on separate land, but rather that they were constructed and/or buried differently.

Table 13: Ecofacts from the Waterlogged Bulk Soil Samples.

Sample number		213	209
Context		9050	9120
Feature		2006	2006
Feature type		E.B.A. ditch around Barrow 6	
Phase/Date			
Sample volume - litres		10 L.	0.5 L.
Fraction of flot sorted		*	1
Fraction of heavy residue sorted		1	1
NON-CEREAL			
Ranunculus sceleratus L.	Celery-leaved Buttercup	- M?	
R. Subgen, *BATRACHIUM*	Crowfoot	- M?	
Callitriche sp.	Water-starworts	+ M?	
Sonchus oleraceus L.	Smooth Sow-thistles	1M	
waterlogged wood fragments		+++	+++
CHARCOAL			
charcoal volume/ ml.		0 ml.	0 ml.

Key: '-' 1 or 2, '+' <10, '++' 10-50, '+++' >50 items. M = modern
* 100% ≥2mm and 50% <2mm of the flot were sorted

Table 14: Ecofacts from the Bulk Soil Samples.

Sample number		202	225	260	204	266	217	239	268
Context		9007	9160	9219	9014	9256	9077	9237	9251
Feature		2002	2014	2026	2004	2036	2006	2024	2035
Feature type		Pit	Pit	Pit	Pit	Pit	ring dch	pyre	P.hole
Phase/Date		Grooved Ware					E.B.A	E.B.A	E.B.A
Sample volume - litres		10	10	30	8	18	19	12	1
Fraction of flot sorted		1	1	1	1	1	1	1	1
Fraction of heavy residue sorted		1	1	1	1	1	1	1	1
CHARRED CEREAL GRAINS									
Hordeum / *Triticum* sp.	barley or wheat grain					1			
CHARRED NON CEREAL									
Rumex sp.	Dock						1		
Medicago/Trifolium sp.	Medics or Clover			1					
Plantago lanceolata L.	Ribwort plantain							1	
small Poaceae	wild grass seed			1					
Indet. Poaceae frag.	wild or cultivated grass					1			
Indet. seed							2	1	
CHARCOAL									
charcoal volume/ ml.		<1ml.	2ml.	30ml.	15ml.	20ml.	1ml.	3ml.	<1ml.
large charcoal (>4mm)		+	+	+++	+++	+++	-	-	
med. charcoal (2-4mm)			+	+++	+++	+++	-	+	
small charcoal (<2mm)		+	+++	+++	+++	+++	++	+++	+
MOLLUSCA									
Vallonia costata Müller									-
OTHER BIOLOGICAL ITEMS									
bone frags. from >4mm heavy residue			+++	++					
burnt bone frags. from >4mm heavy residue			-	++	-	+			-
Osseus lump			1						
Modern uncharred straw fragments		P	P					P	
Modern rootlets				P		P		P	P
ARTEFACTS									
Pottery sherds		-		+	+				
Baked clay			-						
Flint			+	+++		++		-	
Burnt flint				+		+		+	
Burnt stone			+		++	-			

Key: '-' 1 or 2, '+' <10, '++' 10-50, '+++' >50 items. P = present.

Table 15: Ecofacts from floated Cremation samples

Sample number		227	230	228	231	229	232	233	234	235	236	269	271	272
Context		9181		9182		9183		9184				9238	9237	
Feature		2011 - Cremation										2025 - Cremation		
Context location		S.half	N.half	S.half	N.half	S.half	N.half	SE qd.	SW qd	NE qd	NW qd	ash/bone dust	N.half	S.half
Sample volume – litres		3	7	12	7	15	12	2	4	2	12	10	5	9
Fraction of flot sorted		1	1	1	1	1	1	1	1	1	1	1	1	1
Fraction of heavy residue sorted		1	1	1	1	1	1	1	1	1	1	1	1	1
CHARRED CEREAL GRAINS														
Triticum spelta/dicoccum	spelt or emmer grain		2											
Triticum sp.	wheat grain												1	
CHARRED NON CEREAL														
Ranunculus sp.	Buttercup					2								
Corylus avellana L.	Hazel-nut shell fragment						3				1			
Chenopodium sp.	Goosefoots	1										3		
Montia fontana ssp. *minor* Hayw. - Blinks		1						1				3		2
Caryophyllaceae indet.	Pink family embryo	1												
Brassica sp.	wild cabbage											2		
Medicago / Trifolium spp.	Medics or Clover	2		4	2	1	1					21		6
Plantago lanceolata L.	Ribwort plantain						1	1				4	1	1
Veronica hederifolia L.	Ivy-leaved Speedwell	1												
Odontites vernus (Bellardi) Dumort. - Red bartsia		1cf.												
Asteraceae indet.	Daisy family seed					1								
Lenticular *Carex* sp.	flat Sedge seed	1					1					7		
Arrhenatherum elatius Var. *bulbosum* (Willd.) St Amans	False oat-grass bulbs		3	5	11	10	12				3	9	1	3
small Poaceae	wild grass seed					1								
Indet. Poaceae fragment	wild or cultivated grass										1			
Indet. seed			1	1		1					2	5		

Indet charred rootlets/ bulbs		+	-	+	++	++		+	-	-	+++	++	++
Indet charred thin stalks/stems											++	++	++
CHARCOAL													
Charcoal volume/ ml.	15ml.	5ml.	30ml.	90ml.	110ml.	130ml.	8ml.	80ml.	3ml.	80ml.	120ml.	40ml.	45ml.
large charcoal (>4mm)	+++	+++	+++	+++	+++	+++	+++	+++	+	+++	+++	+++	+++
med. charcoal (2-4mm)	+++	+++	+++	+++	+++	+++	+++	+++	++	+++	+++	+++	+++
small charcoal (<2mm)	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++
Parenchyma amorphous indet. burnt lumps?								++	-	+	-		
OTHER BIOLOGICAL ITEMS													
Burnt bone >5mm		-	++	++		+++	-	+++	+++	+++	+++	+++	+++
Modern uncharred straw fragments (rootlets)	P	(P)							P (P)	P (P)			
ARTEFACT													
Flint (burnt flint)						(-)						(-)	-

Table 15: continued

Table 16: Molluscan remains in Cremations F.2011 and F.2025

Sample number	227	230	228	231	229	232	233	234	235	236	269	271	272
Context	9181		9182		9183		9184				9238	9237	
Feature	2011 - Cremation										2025		
Context location	S.half	N.half	S.half	N.half	S.half	N.half	SE qd.	SW qd	NE qd	NW qd	ash/bn dust	N.half	S.half
												bone layer	
Sample volume – litres	3	7	12	7	15	12	2	4	2	12	10	5	9
Fraction of flot sorted	1	1	1	1	1	1	1	1	1	1	1	1	1
Fraction of heavy residue sorted	1	1	1	1	1	1	1	1	1	1	1	1	1
Damp / Shade loving species													
Cochlicopa lubrica / *lubricella* (burnt)		-	-		+	- (-)		(-)		- (-)			-
Carychium tridentatum Risso										-			
Oxychilus / *Aegopinella*													-
Mollusca of mostly dry, open/partly shaded habitats													
Vallonia costata Müller (burnt)		(-)	+	++ (-)	++ (+)	++ (+)		+		+ (-)			+ (+)
Catholic species / Unkown habitats													
Lauria / *Pupilla* sp. (burnt)			(+)	- (-)	+ (-)	- (+)		(+)		(+)			
Vertigo sp. (burnt)		(-)	(+)	- (-)	+ (+)	+ (+)		(-)		- (+)			(+)
Vallonia sp.										-			
Clausilia sp. Burnt shell								-					
Trichia sp.					+								

Key: '-' 1 or 2, '+' <10, '++' 10-50, '+++' >50 items. P = present.

Table 17: Ecofacts from floated Cremation samples

Sample number		243	244	245	246	247	249	250	251	252	253	254
Context		9206	9207	9208				9153				
Feature		Pyre spread						Pyre Spread				
Context location							T.pit7					
Sample volume - litres		18	25	10	16	10	10	19	20	19	23	4
Fraction of flot sorted		1	1	1	1	1	1	1	1	1	1	1
Fraction of heavy residue sorted		1	1	1	1	1	1	1	1	1	1	1
CHARRED CEREAL GRAINS												
cf. *Secale cereale*	possible rye grain											1cf.
Triticum sp.	wheat grain	1										
CHARRED NON CEREAL												
Chenopodium sp.	Goosefoots									3		
Montia fontana ssp. *minor* Hayw. - Blinks		12					3		3	1		1
Caryophyllaceae indet.	Pink family embryo								2			
Brassica sp.	wild cabbage	1										
Medicago / *Trifolium* spp.	Medics or Clover	24	3			1	6		2	9		3
Lycopus europaeus L.	Gipsywort											1cf.
Plantago lanceolata L.	Ribwort plantain				1							
trilete *Carex* sp.	triangular Sedge seed	2										
lenticular *Carex* sp.	flat Sedge seed	8	2							1		1
Arrhenatherum elatius Var. *bulbosum* (Willd.) St Amans	False oat-grass bulbs								1			
medium Poacea	wild grass seed									1		
small Poaceae	wild grass seed								2	2		
Indet. Poaceae fragment	wild or cultivated grass				1							
Indet. seed		1	6	2			1		2			2
Indet charred rootlets/ bulbs		+	++		-							-

Indet charred thin stalks/stems								-			
CHARCOAL											
charcoal volume/ ml.	3ml.	3ml.	40ml.	7ml.	20ml	5ml.	25ml.	50ml.	80ml.	40ml.	70ml.
large charcoal (>4mm)	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++
med. charcoal (2-4mm)	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++
small charcoal (<2mm)	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++
OTHER BIOLOGICAL ITEMS											
Burnt bone >5mm				-			-				
Modern uncharred straw fragments (rootlets)	P (P)	P(P)	P(P)	P(P)	P(P)	P(P)	P(P)	P(P)	P	P(P)	P
ARTEFACTS											
Flint (burnt flint)	+	+ (-)	- (-)	-			-		(+)	(-)	

Key: '-' 1 or 2, '+' <10, '++' 10-50, '+++' >50 items. P = present.

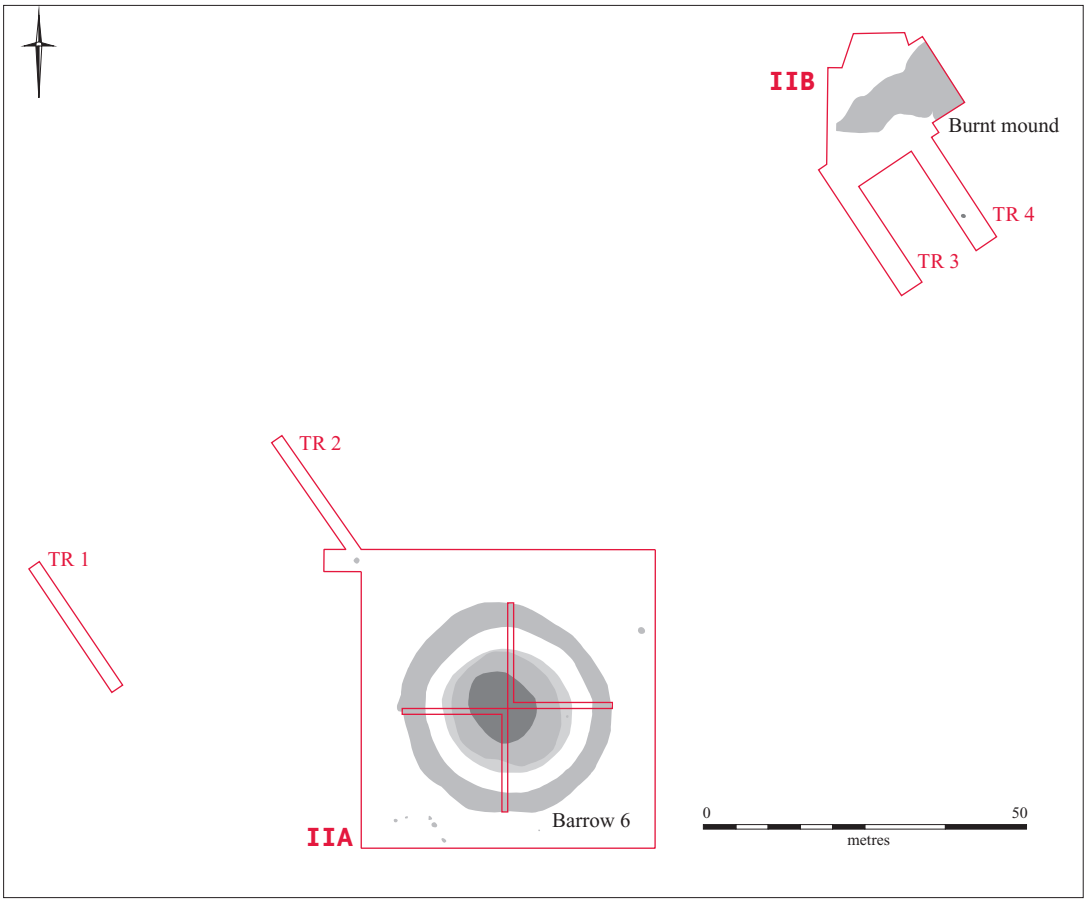
Table 17: continued

The Burnt Spread (Site IIB)

Located northeast of Barrow 6 (Fig. 14), the excavations revealed a burnt stone spread, along with a series of potentially associated inter-cutting pits, situated on the northern edge of the O'Connell Ridge. The burnt stone spread (**F.2100**) extended along the edge of the O'Connell Ridge for some 21m southwest to northeast. It had a maximum width of *c.* 6m and was up to 0.4m thick. The burnt spread deposit, which was situated directly on a sandy buried soil, comprised largely burnt stone (*c.* 80%) with a lesser burnt flint component (*c.* 20%). With the exception of one piece, a Late Neolithic end-scraper, none of the burnt flint component showed any signs of working and appeared to be largely shattered fragments of locally sourced flint pebbles/gravel (see Billington, below). Four unburnt worked flints were recovered from the burnt 'mound' deposit: three Late Neolithic/Early Bronze Age flakes and a potentially Late Neolithic/Early Bronze Age retouched flake.

At the northeastern extent of the burnt mound deposit, a cluster of three inter-cutting pits (**Fs. 2101, 2102** & **2103**) were exposed (Figs. 14 & 16). These - which were only partially exposed within a 1.5m by 3m sondage - were all between 0.45m and 0.55m deep with, where visible, moderately steep sides and flat bases; all contained sterile fills probably indicative of rapid in-filling. The pits were sealed by a peaty buried soil deposit, which had presumably formed within the hollow created by the pits. Stratigraphically, the burnt mound deposit was seen to just overly pits F.2101, F.2102 and F.2103, and the lack of any burnt stone within the pit fills also suggests that they were earlier features which had been entirely in-filled before the burnt mound was established. Equally, that the burnt mound and pits are contemporary features should not, however, necessarily be ruled out, the burnt mound deposit having potentially 'washed over' the in-filled pits post-use.

Overlying the burnt mound deposit a sequence of peat deposits sandwiching a 'freshwater fen clay' deposit represent the development of a succession of wet woodland/reed swamp and alluvial floodplain environments resulting from rising water tables during the Bronze Age (see Boreham, above). The 'lower peat' ([9505]), which directly overlay the burnt spread, was found to contain a large number of woodchips, preserved by waterlogging, which indicate wood working in the vicinity. While this activity cannot be directly associated with the burnt spread, radiocarbon dating of a woodchip provided a *terminus ante quem* for its use (1620-1440 cal. BC; see below).


IIB
Burnt mound
TR 4
TR 3
TR 2
TR 1
IIA
Barrow 6
0
50
metres

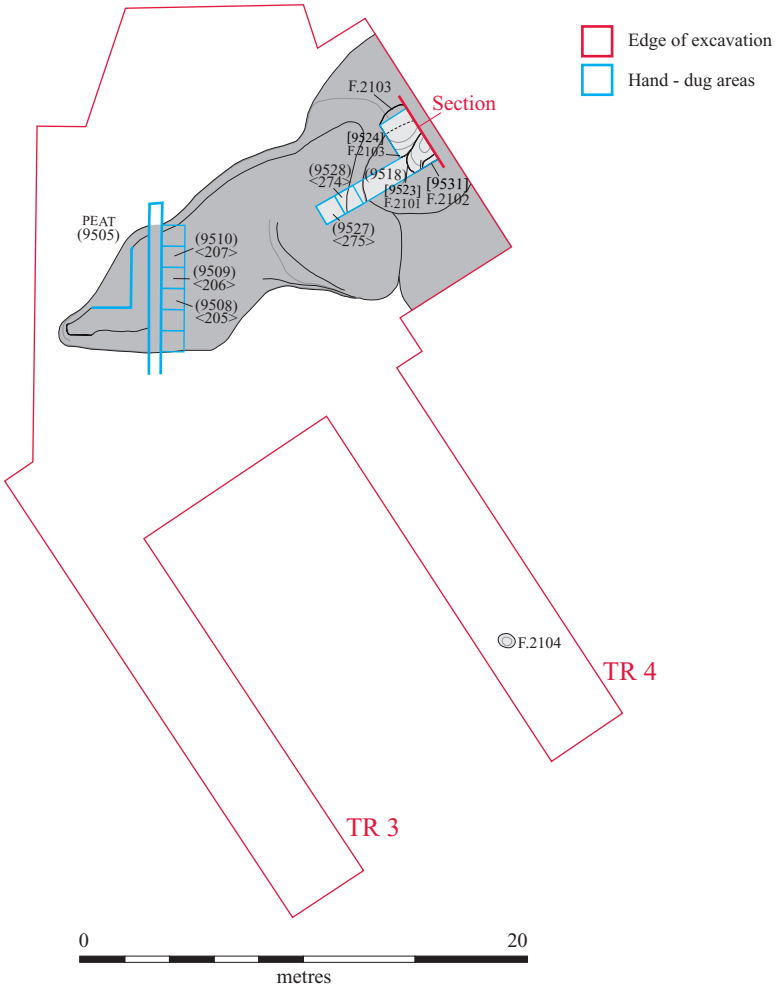

Edge of excavation
Hand - dug areas
F.2103
Section
[9524]
F.2103
(9528)
<274>
(9518)
[9523]
F.2101
[9531]
F.2102
PEAT
(9505)
(9510)
<207>
(9509)
<206>
(9508)
<205>
(9527)
<275>
F.2104
TR 4
TR 3
0
20
metres

Figure 14

Figure 15

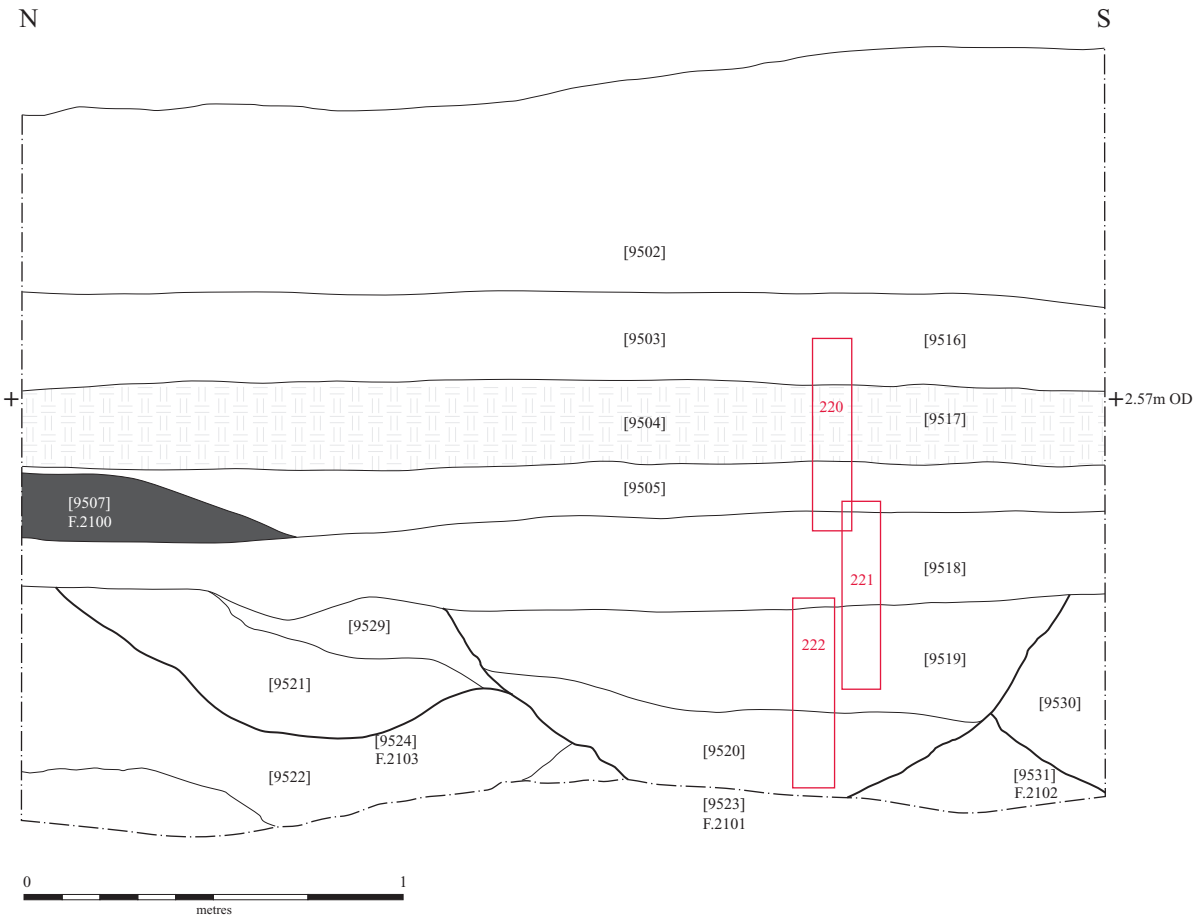

N
S
[9502]
[9503]
[9516]
+2.57m OD
220
[9504]
[9517]
[9505]
[9507]
F.2100
221
[9518]
[9529]
222
[9519]
[9521]
[9530]
[9524]
F.2103
[9520]
[9522]
[9531]
F.2102
[9523]
F.2101
0
1
metres

Figure 16

Figure 17

Lithics Lawrence Billington

Despite extensive sampling of the burnt spread only five worked flints were recovered during the excavation, all from within the burnt spread matrix (Table 18). Three of these were undiagnostic waste flakes, consistent with but not diagnostic of later Neolithic/Early Bronze Age flintworking traditions. Significantly, none of these were burnt, suggesting they were not implicated in the heating process itself. A retouched flake was also recovered from the burnt spread matrix; with fine invasive retouch along a small length of its dorsal side, this piece is probably of later Neolithic/Early Bronze Age date and again is unburnt and perhaps represents tool-use in association with activity at the burnt spread. The only diagnostic piece recovered was a large convex end-scraper made on a distinctive blank with a facetted platform. This form of scraper is particularly characteristic of Grooved Ware assemblages. This had, however, been heavily burnt and was perhaps a 'scavenged' piece used alongside the unworked stone and flint that makes up the bulk of the burnt spread matrix.

	Burnt Mound F.2100
flake	3
Retouched flake	1
end-scraper	1

Table 18: Quantification of worked flint from the burnt spread.

The small assemblage of worked flint from the burnt spread suggests that flintworking and tool use (or at least deposition/loss) were not activities that played a significant role in the use of the feature. The limited size of the assemblage precludes any confident assessment of date, but is most consistent with later Neolithic/Early Bronze Age flintwork.

The Burnt Spread Matrix

In order to analyse the composition of the burnt spread matrix, the contents of five complete metre-squares were wet-sieved during excavation through a 5mm mesh and the coarse fraction retained. Three metre-squares were sampled from the north-south transect (<205> [9508], <206> [9509] & <207> [9510]) together with two from the east-west transect (<274> [9528] & <275> [9527]). The total weights of the sieved squares are shown in Table 19, together with the maximum depth of the burnt spread deposit in the respective metre-squares.

Following wet-sieving the entire contents of a metre-square, Sample <205>, was sorted into three categories: burnt stone, burnt flint and unburnt gravel. This demonstrated an almost complete absence of worked flint or artefacts within the deposit and a sampling strategy was derived in order to characterise the remaining four samples. Each sample was thoroughly mixed and spread across a measured metre-square area. A planning frame strung at 10cm intervals was placed on top and two 10cm squares were randomly selected for analysis. The contents of each these 'sub-squares' was extracted and separated into the three categories of burnt stone, burnt flint and unburnt gravel. This produced two 1% sub-samples from each metre-square sample.

Sample No.	Burnt stone (kg)	Burnt flint (kg)	Unburnt gravel (kg)	Total weight (kg)	Maximum thickness of deposit
274				35.8	0.13
275				27.2	0.17
207				38.9	0.14
206				51.1	0.13
205	34.3	7.5	3.4	45.2	0.15

Table 19: Total weight of the burnt spread samples coarse component.

The composition of Sample <205> and the overall weights of the remaining samples are shown in Table 19 whilst the sub-samples of the remaining samples are present in Table 20. Whilst the maximum depth of the burnt spread deposit shows only relatively minor variation - from 0.13 to 0.17m - the weights of material from each of the metre-squares shows considerable variation, from 27.2kg to 51.1kg. This variation appears to have no positive relationship with the recorded thickness of the deposit, the greatest weight coming from Sample <206>, with a depth of only 0.13m. The weight of the samples from the north-south transect are significantly higher than those from the east-west transect, perhaps suggesting a degree of spatial variability within the deposit in terms of proportion of coarse material within the burnt spread matrix. The amount of natural gravel within the samples is also variable. Some of this material is likely to have been incorporated into the samples from the underlying buried soil [9506] and the natural gravel beneath during excavation.

Sample No.	Total weight (kg)	Sub-sample	Burnt stone (g)	Burnt flint (g)	Total burnt (g)	Burnt stone %	Burnt flint %	Unburnt gravel (g)	Total (g)
274	35.8	1	205.3	56.7	262	78	22	66.3	328.3
		2	187.7	49.1	236.8	79	21	28.3	265.1
		total	**393**	**105.8**	**498.8**	**78**	**22**	**94.6**	**593.4**
275	27.2	1	187.3	54.7	242	77	23	43.2	285.2
		2	163.4	40.5	203.9	80	20	25.9	229.8
		total	**350.7**	**95.2**	**445.9**	**79**	**21**	**69.1**	**515**
207	38.9	1	162.6	46.8	209.4	77	23	13.7	223.1
		2	242.8	44.9	287.7	84	16	26	313.7
		total	**405.4**	**91.7**	**497.1**	**81**	**19**	**39.7**	**536.8**
206	51.1	1	328.8	85.8	414.6	79	21	28.5	443.1
		2	350.2	68.8	419	84	16	12.8	431.8
		total	**679**	**154.6**	**833.6**	**81**	**19**	**41.3**	**874.9**

Table 20: Composition of the sub-samples of the burnt spread matrix.

The composition of the burnt component of the matrix is much more uniform; the proportions of burnt stone to flint in the sub-samples are detailed in Table 20 and Figures 18 and 19 show the proportions of stone to flint in Sample <205> and in the combined sub-samples for each of the four remaining samples respectively. The results consistently show the dominance of burnt stone over burnt flint and, in all, between 77 and 82% of the burnt material is made up of stone. Although the variation is very small, the north-south transect consistently produced a slightly higher proportion of burnt stone.

The burnt stone consists largely of sub-angular thermally fractured fragments of medium-grained sandstone. It is clear that most of this material was originally in the form of small rounded pebbles, unfragmented pieces were very rare, and never exceeded 60mm in length. The burnt flint took the form of heat-crazed angular and sub-angular thermally fractured fragments. Small thermally produced spalls and chips were also common and these are probably poorly represented due to the mesh size used for wet sieving. None of the flint examined showed any traces of prior working and it might be more accurate to describe the majority of the flint as burnt gravel, as much of it appears to derive from small pebbles (*c.* 20mm diameter) easily obtained from the gravel terrace.

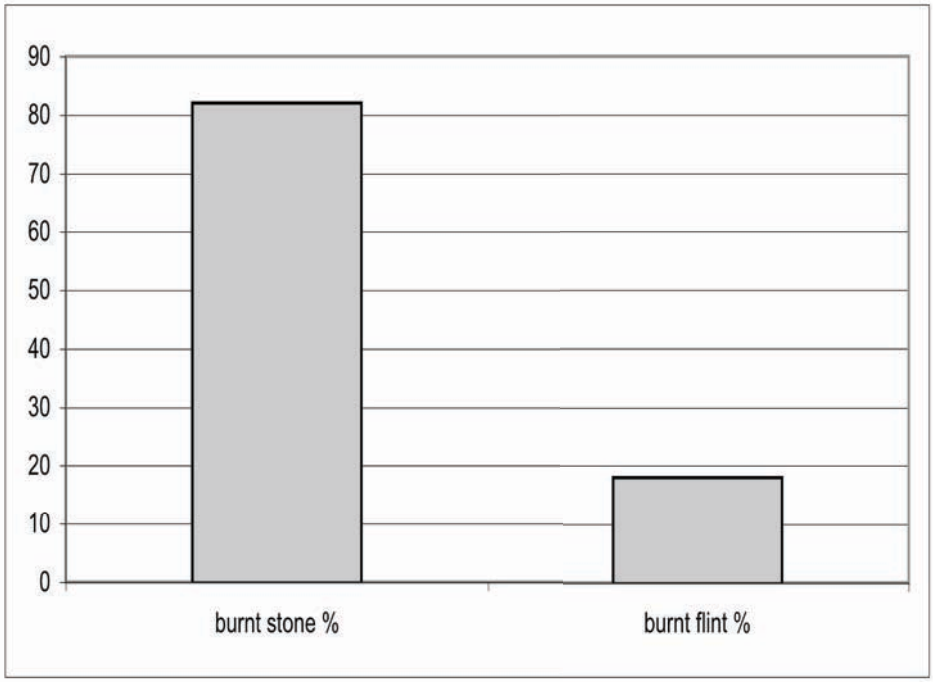


Figure 18: Proportion of stone to flint in Sample <205>.

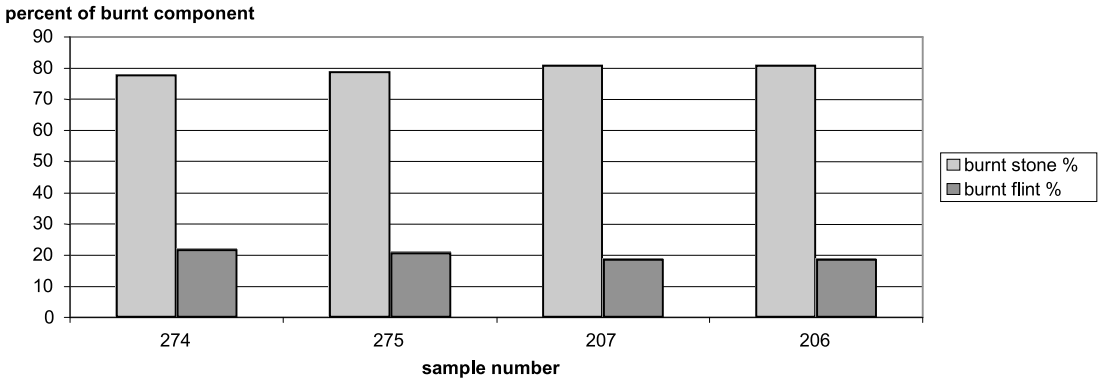


Figure 19: Proportion of stone to flint in sub-samples.

The coarse fraction of the burnt spread deposit was dominated by burnt stone with a smaller amount of burnt gravel and a varying proportion of unburnt gravel. The composition of the burnt elements was very consistent, and, although there was minor variation between the north-south and the east-west transects, it appears that the deposit represents a single event or a number of episodes which routinely drew on a standard suite of lithic resources.

Locally a comparative burnt spread feature was excavated on the Foulmire Fen terrace some 4km downstream from the Over site. The 0.15m thickness of that spread was comparable with that from Over (Evans & Hodder 2006, 56). It is notable, therefore, that the weight of burnt lithic material recovered from each metre-square was substantially lower, from 2.0-4.7 kg per metre-square (*ibid.*, 55). The composition of the burnt material was also very different: burnt flint estimated to make up 80%, with unworked burnt flint forming the rest of the deposit - essentially inverse proportions to the Over burnt spread material. The excavation of three Early Bronze Age burnt mounds at Bradley Fen, Whittlesey on the western edge of the Flag Fen basin provide a closer

parallel for the Over deposit. There the percentage of burnt stone is much higher at between 86 and 90%, the remainder being made up of unworked burnt flint/gravel (Gibson & Knight 2006, Table 3).

Bulk Environmental Samples Anne de Vareilles

Three samples from the burnt flint spread were analysed. Ten litres from [9527] and [9528] were flotation-sieved to maximise the retrieval of carbonised remains. Context [9528] appeared to be waterlogged so a 500ml sub-sample was wet-sieved. Apart from large quantities of well-preserved charcoal however, very few plant remains were recovered. The waterlogged sub-sample contained two fragments of hazel nut shell (*Corylus avellana*) and the odd waterlogged seeds of crowfoot (*Ranunculus* Subgen. *BATRACHIUM*), brambles (*Rubus* sp.), mint (*Mentha* sp.) and fine-leaved water-dropwort (*Oenanthe aquatica*). A few of the same waterlogged species were found in the other two samples but no charred seeds. Although the former point to a damp environment with a high watertable, too few seeds survived to accurately visualise the Bronze Age landscape. As has been found at other Bronze Age burnt flint mounds, there is no evidence for the consumption or offering of grains, seeds and fruit in association with the burnt spread (Crowson 2004; Gibson & Knight 2006).

Table 21: Ecofacts from floated Burnt Spread samples.

Sample number		223	223	224
Context		9528	9528	9527
Feature		2100		
Feature type		Burnt Flint Mound		
Sample volume - litres		0.5 L.	10 L.	10 L.
Fraction of flot sorted		1	1	1
Fraction of heavy residue sorted		1	1	1
NON-CEREAL				
R. Subgen, *BATRACHIUM*	Crowfoot	++		
Corylus avellana L.	Hazel-nut shell fragment	2 C		
Rubus sp.	Bramble	-		
Oenanthe aquatica (L.) Poir.	Fine-leaved water-dropwort	-		
Mentha sp.	Mint	-		
waterlogged wood fragments		+++	+++	+++
CHARCOAL				
charcoal volume/ ml.		1 ml.	2 ml.	3 ml.
large charcoal (>4mm)		+	++	+++
med. charcoal (2-4mm)		+++	+++	+++
small charcoal (<2mm)		+++	+++	+++
ARTEFACTS				
Baked clay			+++	+++
Burnt stone / flint			+++	+++

Key: '-' 1 or 2, '+' <10, '++' 10-50, '+++' >50 items.

C = charred, all other remains are waterlogged (apart from charcoal)

10L of samples 223 and 224 were flotation sieved for the retrieval of carbonised remains.

Few waterlogged seeds were noted

Few burnt mounds have been studied and published in detail like the burnt flint mound at Northwold in the Norfolk fens (Crowson 2004). Such a study on the temporality and use of the burnt spread could be achieved through charcoal analysis from the its matrix and associated features.

Additional Trenching

Four additional trenches were excavated in order to further evaluate the potential of the O'Connell Ridge in the area around Barrow 6 and burnt spread F.2100. Trenches 1 and 2, were located to the northwest of Barrow 6 and both measured 2m wide by 25m in length. Trenches 3 and 4 were 'double width' trenches extending from the southern edge of the burnt mount excavation area and both measured 4m wide by 25m long. All the trenches were orientated at right angles to the main axis of the ridge. Only Trench 3 exposed archaeology: an undated pit **(F.2104**) which yielded a single worked flint. As such the results suggest a continuation of the relatively dispersed prehistoric activity recorded along the eastern O'Connell Ridge (Evans & Tabor 2009).

DISCUSSION

Thus far, two radiocarbon dates have obtained from the site and before progressing it is worth presenting their assays (calibrated to two sigma):

OVE10-[9154])Beta-280341) - 3460±40BP/1890-1680 cal. BC (charcoal associated with Barrow 6's primary cremation)

OVE10-[9505] (Beta-280342) - 3330±40BP/1620-1440 cal. BC (woodchip from above burnt stone spread) .

Both are considered acceptable and their implications are duly discussed below.

Pre-Barrow Activity

Aside from a very slight Mesolithic presence in the flintwork and a few sherds of earlier Neolithic pottery, the site's pre-barrow usage was essentially of later Neolithic date. Apart from a single Beaker sherd (and, perhaps, the two thumbnail scrapers), there is nothing to stop all this material having the same attribution as the four 'rich' pits and be Grooved Ware-related. Although there was no distinct clustering of those four features *per se,* and they lay 20-30m apart, this occupation would seem to comparable to the Grooved Ware clusters recovered on the main O'Connell' Ridge site (Evans & Tabor 2009) and, also, on the northern, Godwin Ridge (Evans & Vander Linden 2009a & b). Having an average of some nine pieces per metre-square, the area's buried soil worked flint densities are certainly 'respectable' for what essentially seems a single-phase occupation. What is significant in this regard is how little contemporary pottery was recovered from the site's buried soil (and, also, potentially redeposited within the barrow's mound). This either suggests that it had been intentionally gathered for deposition within the pits - but, then, where is the remainder of those vessels? - or, more likely, disintegrated and decayed through exposure within/upon that soil horizon.

Very few plant remains were recovered from the pre-barrow pits' samples to give any indication of this occupation's economic basis (only one charred cereal grain, *etc*.). Fortunately, the animal bone from F.2002 and F.2026 was somewhat more forthcoming and, with 49% and 17% of pig and deer respectively, suggest that it was, at least in part, a woodland-based economy.

In the light of the survival of an untruncated buried soil horizon beneath the barrow (see French, above), the absence of any occupation surfaces/spreads associated with the earlier Grooved Ware-usage warrants mention. The eradication of this strata must either be the result of bioturbation over the course of the some 400-500 years between it and the barrow's construction and/or attest to an interval of arable production (i.e. ploughed out); only full analysis of the buried soil column samples will resolve this issue. Finally, given the time-span between the pre-barrow activity and the monument, as was the case at Haddenham's Snows Farm Barrow (Evans & Hodder 2006b, 24-38), the siting of the barrow upon the Grooved Ware occupation swathe must have been coincidental and without long-term resonance.

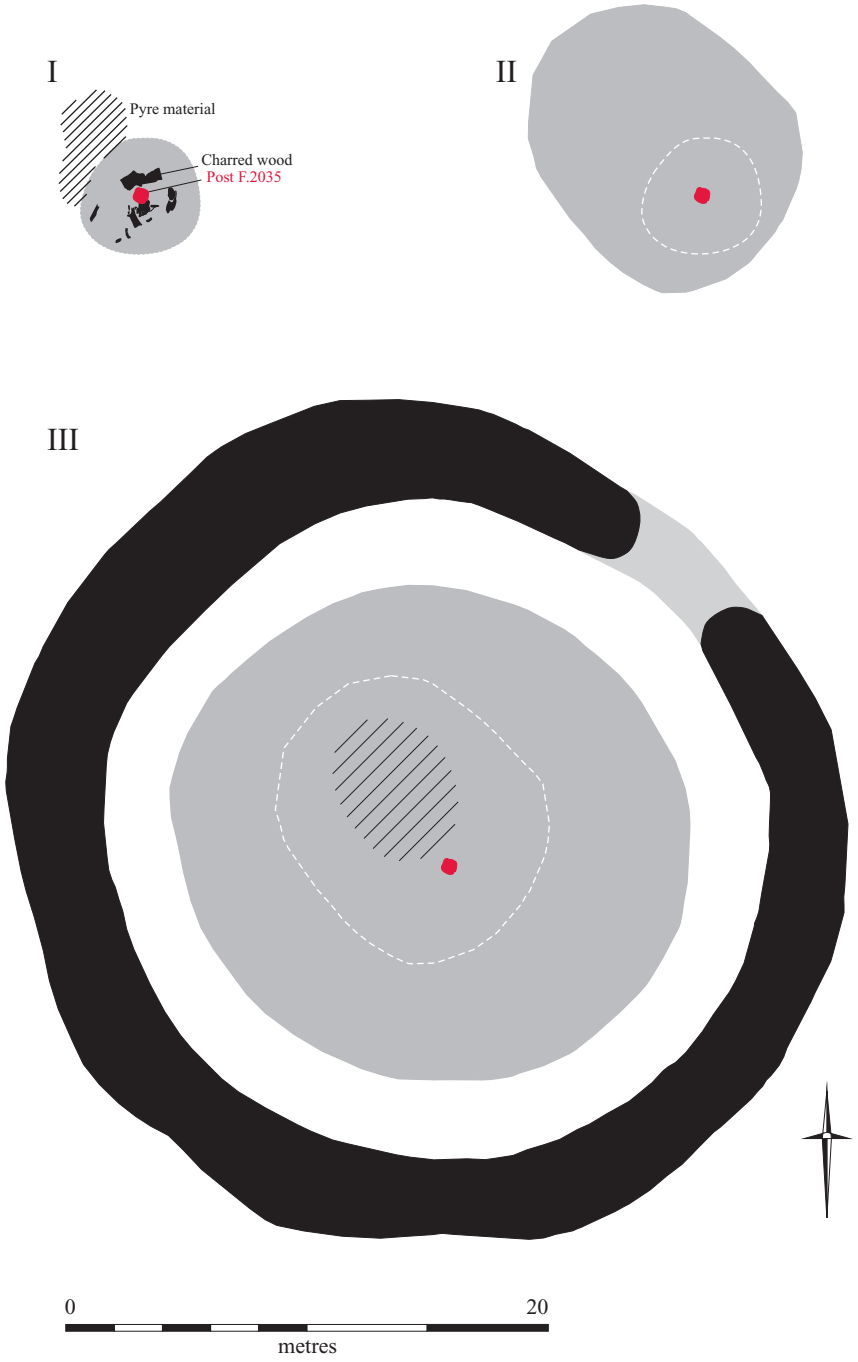


Figure 20

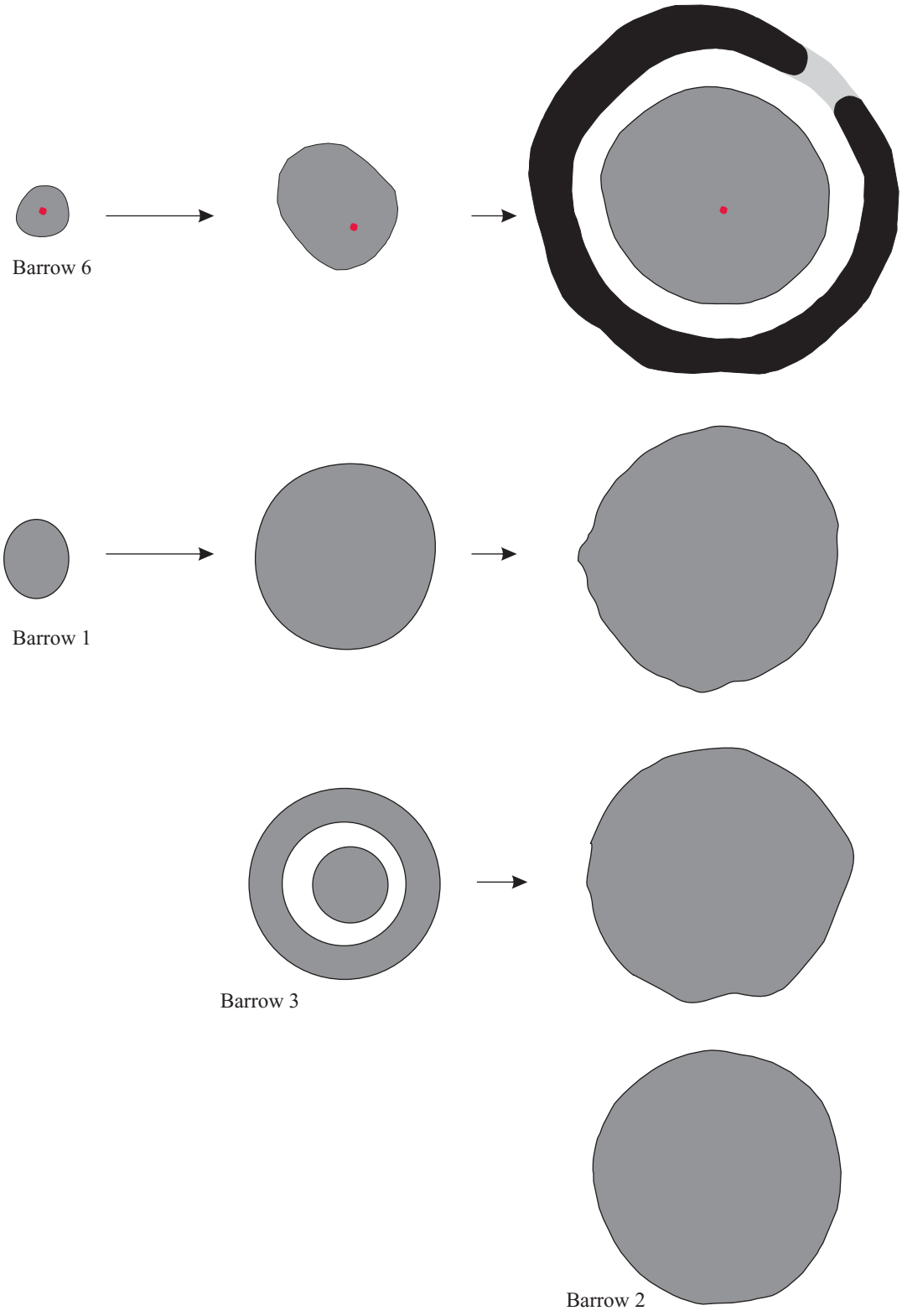


Figure 21

The Barrow

The barrow's sequence proved surprising on a number of accounts and differed considerably from those of the adjacent Low Grounds group (Evans & Tabor 2010). Given that it is the only barrow within the immediate area to be ditched and presuming that it marks a late/closing stage, by the proximity of the earlier/Middle Bronze Age settlement within the main O'Connell' Ridge Site (Evans & Tabor 2009), it was expected that the monument would have attracted greater secondary cremation activity. Equally, is that neither of its main interments included any grave goods; this, again, being in contrast to the Low Grounds' monuments. Yet, set against this, its basic three-stage construction sequence would fully accord with that of the previously investigated barrows (Fig. 21). Its basic 'mound-architecture' (e.g scale) was comparable to the other 'mounded' monuments (Barrows 1-3) and, rather than indicating any major 'type' distinction, its final ditching must have essentially related to its relatively higher/drier location upon the ridge proper (Fig. 3). It can only be presumed that the area of the other, *Low* Ground Barrows would have had a higher watertable and which would have impeded such deep 'digging'.

What was truly remarkable of this barrow's sequence were the clearly 'staged' actions relating to its primary pyre interment (Fig. 20). This involved the removal of the individual's remains from the pyre (located in what was to become the barrow's northwest-centre), their deposition around and down the sides of a massive 'totem-pole-scale' post and, then, the piling up of large pyre timbers around the foot of the upright. The state of the wood indicates both that the pyre had been dismantled prior to having all of its fuel consumed and, also - as re-set around the post - it must have shortly thereafter been covered with a small mound as, otherwise, it and the accompanying ash/bone would have decayed and spread.

It is relevant to note that this sees the second instance where the charred pyre timbers evidently formed part of the burial mound ritual; the other being the heap of burnt timbers set on top of the Low Grounds Barrow 3's central/primary urned interment. This could promote speculation that by participating in the cremation the wood itself was then imbued with significance. Their charred, but not consumed, state equally tells that the pyre was not left to burn out and, therefore, that the non-intensively burnt large bone-size of the body's remains was what was desired; otherwise, the pyre would have been left to burn for longer.

The situation and bedding of the burnt human bone down the side of the F.2035 posthole provides crucial insights into the subsequent stages of the monument. As is evident in Figure 13, it could not have remained thus had the post ever been extracted and, therefore, its great post must have been left to rot *in situ*. Accordingly, though its profile was not distinguished within the overlying mound deposits, it must have still been upright during Phases II and III of the monument's sequence.

Of the Phase II mound, it is clear that it effectively served as platform. As was clearly also the case of the main Low Ground Barrows - particularly Barrow

1 (Evans & Tabor 2010) - the evidence of the F.2021 pyre debris bedding down its lower eastern profile suggests that further cremation activities occurred on its top. As outlined above, it is difficult to be certain of the exact phase-status of the nearby F.2011 pit-pyre cremation: was it contemporary with the Phase II mound or, sealed by its gravel capping, did it actually initiate Phase III construction - was it, in effect, its primary burial?

The idea that in Phases II and III the barrow remained a place of 'active ritual' is suggested on two grounds. First would be the quantity of small Early Bronze Age/Collared Urn sherds (some burnt) recovered from the mound deposits and which surely attest to rituals occurring upon the Phase II mound/platform. Second, is the somewhat flattened northwestern circuit of the Phase III barrow ditch and that a 'plug' of redeposited natural clay silts had there been dumped across it to create a causeway-access to the mound. This is very rare in round barrow sequences and, again, indicates that there were then reasons to gain the mound and it was somewhere that 'things' happened (this being despite that few finds were recovered from the final barrow's weathering deposits or its surrounding ditch). Indeed, this continued activity might have been the source of the reddening/scorching upon the top of the mound within its northwestern sector. Finally, in this regard it should be mentioned that the ditch's northwestern causeway lay symmetrical/central to the straight(-ish) long side of the Phase II ovoid mound. While it is unlikely that the two could have been directly contemporary, its provides a formal 'design' element or, at least, a sense of maintained north-westward 'frontage' (see Evans & Hodder 2006b, 38-59 for the comparable 'elongated' early mound-phase layout of the Hermitage Farm Barrow, Haddenham).

As to the barrow's lifetime/chronology, the 1890-1680 cal. BC date of its primary interment would fully accord with the (post-Beaker) origins of the three main Low Grounds Barrows (1-3) and be, if only in effect, of Collared Urn-attribution. It is likely that the Phase II mound was thereafter constructed within a year of the primary burial; as attested to by the turf-line distinguished between the Phase II/III mounds (see French, above), the main Phase III barrow might have followed some tens of years after that. While, therefore, it is probable that as an 'active' monument it would have been short-lived, the barrow clearly had a lingering landscape presence and the peat in the upper profile of its surrounding ditch must be of 1st millennia BC/Iron Age date.

The Burnt Spread

Accepting that the woodchips within the peat overlying the nearby ridge-side burnt deposits were related to it, the Beta-280342 date (1720-1440 cal. BC) would then indicate that the spread was of earlier/Middle Bronze Age date. This would accord with the fact that the only diagnostic burnt worked flint recovered from its matrix was a form of end-scraper characteristic of Grooved Ware assemblages and might well have been 'scavenged' for burning from the nearby, later barrow-sealed site of that date. This being said, the overall paucity of worked flint within that spread equally must indicate that the Grooved Ware occupation did not extend that far to the northeast as,

otherwise, burnt worked flint would have surely constituted far more of its matrix (see Edmonds *et al*. 1999 further to this theme). Indeed, the paucity of worked material would generally support the evaluation results (Evans & Vander Linden 2008) and further indicate that this area of the ridge saw relatively little settlement-usage.

By its character this burnt spread unfortunately does little to further understanding of the 'operations' that have variously been ascribed to such burnt mound deposits. Its finding is nonetheless important as it further adds to the growing western fen-edge corpus of such features and which are now beginning to readdress what has been their eastern fen-edge distributional dominance thus far (e.g. Healy 1996); it becoming clear that, in the west, they simply have not been found due to the fact that deeper peat/alluvial cover has impeded their fieldwalking recovery.

If wishing to make 'a story' out of the recovery of the O'Connell Ridge-side burnt spread, it could always be argued that it relates to the residues of mass cooking/feasting associated with the nearby barrow's group-ritual activity. In which case, any associated bone and food remains waste would have then been thrown into the adjacent channel. Although an attractive interpretative 'solution', especially in the face of no other obvious alternative (and any immediately corresponding, 'upslope' Early Bronze Age settlement component), it does seem rather too convenient to be true. Its dating does, moreover, appear somewhat too late to promote this with conviction and further resolution of this issue will have to await the submission of additional samples.

The pollen core studied by Boreham from this trench provides a number of important insights. Amongst these are the lack of any evidence of arable production and that the silty clay [9504]) overlying the burnt spread might represent a brackish or freshwater equivalent of 'fen clay', and certainly attests to an alluvial floodplain environment. Indeed, the latter might relate to the possible evidence of distant saltmarsh within the underlying silty wood peat ([9505]) that sealed the burnt spread itself. This would accord with the evidence of the impact of marine conditions/influence found in other of the *Over Narrows*' pollen cores (e.g. see Boreham in Evans & Tabor 2010) and which increasingly seems a crucial factor for the understanding of the dynamics of the area's changing land-use during the 2nd millennium BC.

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OASIS DATA COLLECTION FORM: England

OASIS ID: cambridg3-85185

Project details

Project name	The Over Narrows (Pt. V; 2010)
Short description of the project	Excavation of a barrow - Barrow 6 - and burnt mound and buried soil as part of continuing fieldwork excavation and evaluation, including geophysical survey, pollen analysis and geoarchaeological assessment. Several Neolithic pits were discovered, some sealed by the barrow. Three phases of barrow construction were identified with a primary inhumation identified in Phase II and a well preserved secondary pit-pyre in Phase III. Artefacts include Groove ware and Beaker/Collared Urn pottery, Neolithic flint, charred wood and human cremated bone, a small quantity of animal bone and a single hammer stone.
Project dates	Start: 01-05-2010 End: 30-06-2010
Previous/future work	Yes / Not known
Any associated project reference codes	03731 - HER event no.
Any associated project reference codes	MCB17839 - HER event no.
Any associated project reference codes	04075 - HER event no.
Any associated project reference codes	CB15598 - HER event no.
Any associated project reference codes	MCB17840 - HER event no.
Any associated project reference codes	CB15597 - HER event no.
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Monument type	BARROW Bronze Age
Monument type	BURNT MOUND Bronze Age
Monument type	PITS Neolithic
Significant Finds	HUMAN CREMATION Bronze Age
Significant Finds	POTTERY Bronze Age
Significant Finds	POTTERY Neolithic
Significant Finds	WOOD Late Prehistoric
Significant Finds	FLINT Neolithic
Significant Finds	BURNT STONE Late Prehistoric
Methods & techniques	'Annotated Sketch','Augering','Aerial Photography - interpretation','Aerial Photography - new','Environmental Sampling','Geophysical Survey','Measured Survey','Metal Detectors','Photographic Survey','Sample Trenches','Targeted Trenches','Test Pits','Topographic Survey'
Development type	Mineral extraction (e.g. sand, gravel, stone, coal, ore, etc.)
Prompt	Planning condition
Position in the planning process	After outline determination (eg. As a reserved matter)
Solid geology	AMPTHILL AND KIMMERIDGE CLAY
Drift geology	PEAT
Techniques	Magnetometry

Project location

Country	England
Site location	CAMBRIDGESHIRE SOUTH CAMBRIDGESHIRE OVER The O'Connel Ridge East - The Site II Barrow
Postcode	PE28
Study area	0.50 Hectares
Site coordinates	TL 53 27 51.9200085781 0.225064954888 51 55 12 N 000 13 30 E Point
Height OD / Depth	Min: -1.00m Max: 2.00m

Project creators

Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Contractor (design and execute)
Project design originator	Christopher Evans
Project director/manager	Christopher Evans
Project supervisor	Jonathan Tabor
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Physical Archive recipient	Cambridge Archaeological Unit
Physical Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Wood','Worked stone/lithics'
Digital Archive recipient	Cambridge Archaeological Unit
Digital Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Stratigraphic','Survey','Wood','Worked stone/lithics','other'
Digital Media available	'Database','GIS','Geophysics','Images raster / digital photography','Spreadsheets','Survey','Text'
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