

BCCP



BEECRAIGS COUNTRY PARK, WEST LoTHIAN

Archaeological Evaluation

for West Lothian Council

0548/FUL/09

May 2012

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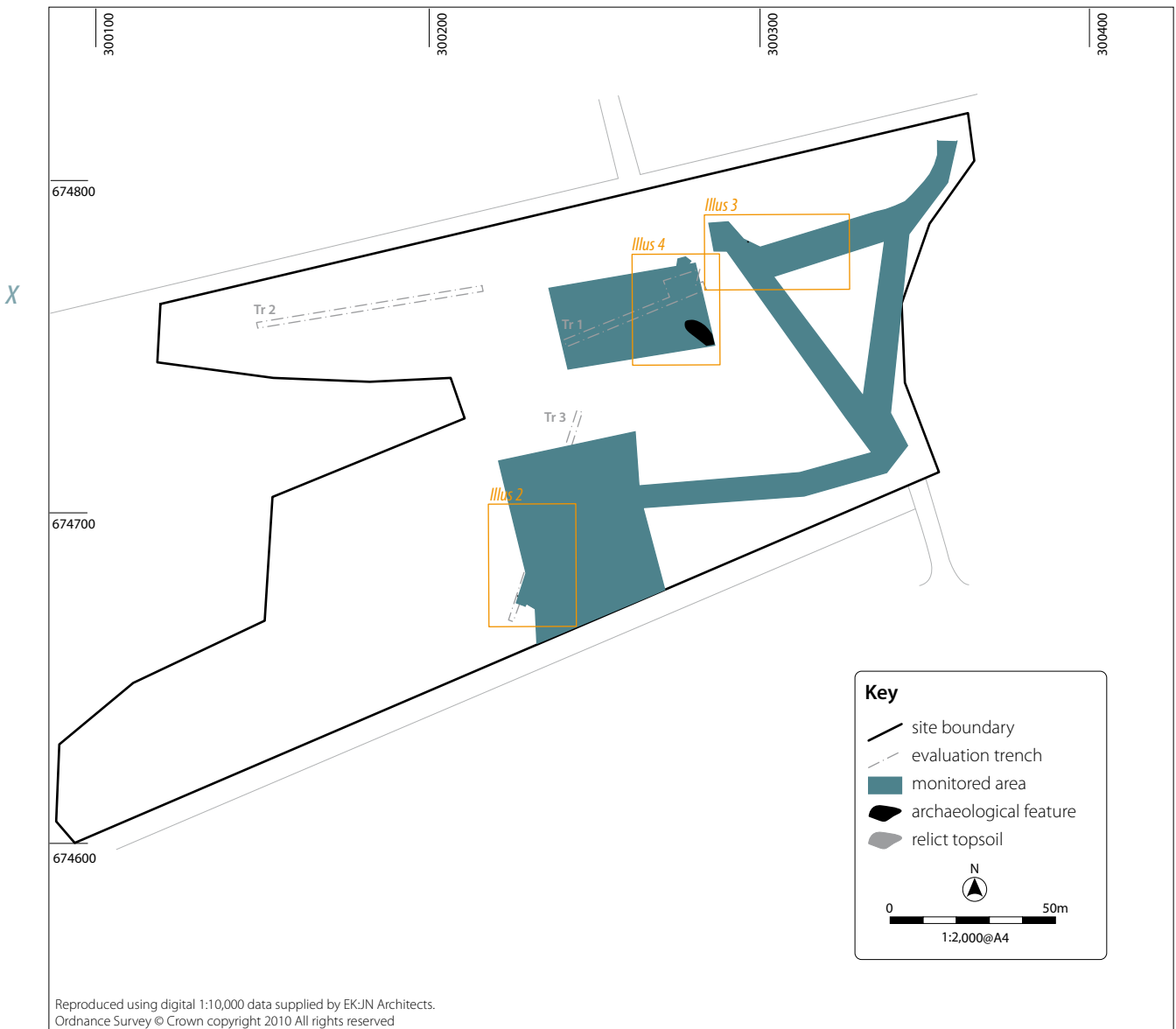
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Illus 1

Site location

BEECRAIGS COUNTRY PARK, WEST LOTHIAN

Archaeological Evaluation

Headland Archaeology (UK) Ltd undertook a series of archaeological investigations in advance of construction of a new eco-visitor centre at Beechraigs Country Park, West Lothian. The site was subject to an 8% sample trial trench evaluation and all topsoil stripping in advance of construction was subject to an archaeological watching brief.

The work revealed evidence of prehistoric activity in the form of a timber circle, a ring ditch and a possible roundhouse. The timber circle was located on the top of a small hill on which the site is situated and comprised seven postholes. A small, deep ring ditch lay immediately to the west and was interpreted as having been related to a burial cairn that had subsequently been removed. Some 100m to the southwest and off the crest of the hill on a natural terrace a partial ring ditch was interpreted as the heavily truncated remains of a roundhouse and some associated features were recorded.

No directly dateable artefacts were recovered from these features; their form and two fragments of cannel coal suggested a later prehistoric date.

1. INTRODUCTION

Headland Archaeology (UK) Ltd was commissioned by West Lothian Council to undertake a programme of archaeological works at Beechraigs Country Park. The work was undertaken in response to a planning condition set by West Lothian Council and a Written Scheme of Investigation (Headland Archaeology 2010) was submitted to the West of Scotland Archaeological Service (WoSAS; archaeological advisors to West Lothian Council) for approval prior to site works.

This report presents the findings of an archaeological evaluation and subsequent monitoring. The work was undertaken by a team of two archaeologists from February to June 2010.

2. METHODOLOGY

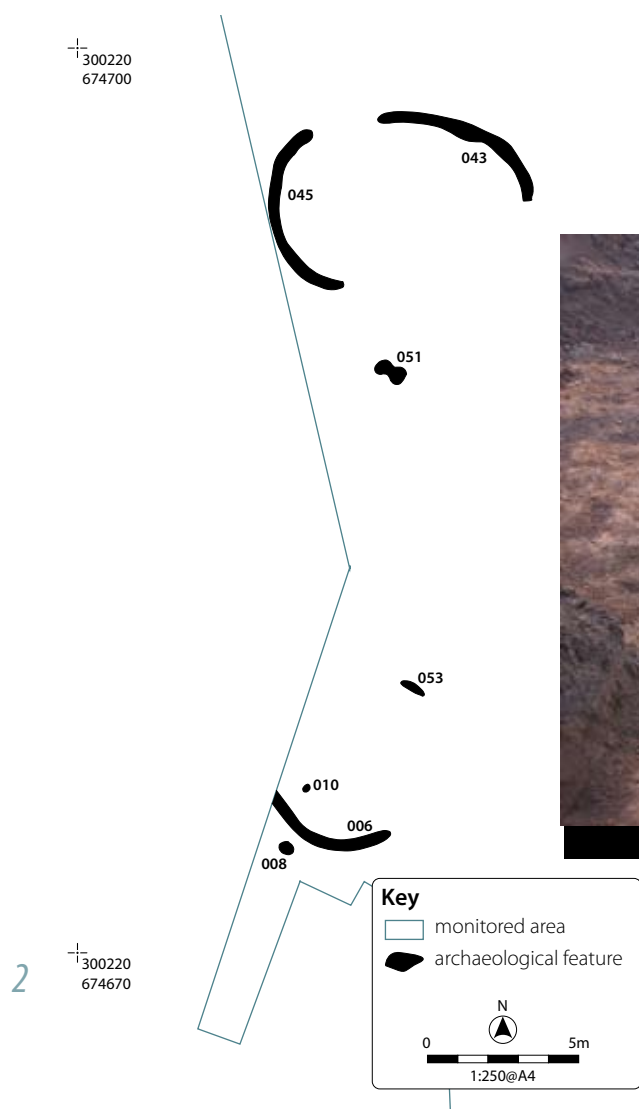
The objectives of the evaluation were to establish if deposits or features of archaeological interest were present on the site; and if so to assess the nature and condition of any such remains. The aim was to provide enough information on any remains to recommend further mitigation measures and establish their likely scope.

The aim of the archaeological monitoring was to ensure that any identified features exposed by topsoil stripping prior to construction works were adequately excavated and recorded.

Three trial trenches (70m, 68m and 48m long and 1.5m wide) were machine excavated in accordance with an agreed layout that positioned them in areas likely to be disturbed by further works (Illus 1). The total area of the evaluation trenches was 279m² and covered c 8% of the parts of site that were to be disturbed.

The trenches were excavated by a mechanical excavator fitted with a flat-bladed ditching bucket, which was used to remove topsoil under direct archaeological control. Excavation continued until either clean geological sediments or significant archaeological deposits were encountered. The resulting surfaces were hand cleaned where necessary and investigated for archaeological features. All identified features were investigated by hand and recorded. The stratigraphy of each trench was recorded in full.

Topsoil stripping on the access road, building footprint and car parking areas was archaeologically monitored. Topsoil stripping was undertaken using a mechanical excavator fitted with a flat-bladed ditching bucket under direct archaeological control. Excavation continued until either clean geological sediments or significant archaeological deposits were encountered. The resulting surfaces were hand cleaned where necessary and investigated for archaeological features. Features identified were subject to salvage excavation and recording. WoSAS were kept informed of any features identified during the monitoring and the level of excavation and recording was agreed.



◀ **Illus 2**

Plan of possible settlement features

▲ **Illus 3**

Settlement features revealed in evaluation trench

All recording was according to IfA standards and guidance. All contexts and environmental samples were given unique numbers and all recording was undertaken on *pro forma* record cards.

Colour transparency and print photographs were taken and recorded in a photographic register; supplemented by digital photography (including aerial shots taken by the West Lothian Archaeology Group). Record shots of archaeological contexts had a metric scale visible.

An overall site plan was recorded and related to the National Grid. Sections were drawn where appropriate.

Deposits identified as archaeologically significant (eg fills from negative features such as pits and postholes) were sampled for environmental material and other finds (eg bone, pottery etc.). Bulk samples were taken from deposits for wet sieving and flotation in order to recover any environmental material. Bulk samples ranged from 10 to 30 litres. All samples taken on site were processed and assessed with the results included in this evaluation report.

Bulk finds were collected by context.

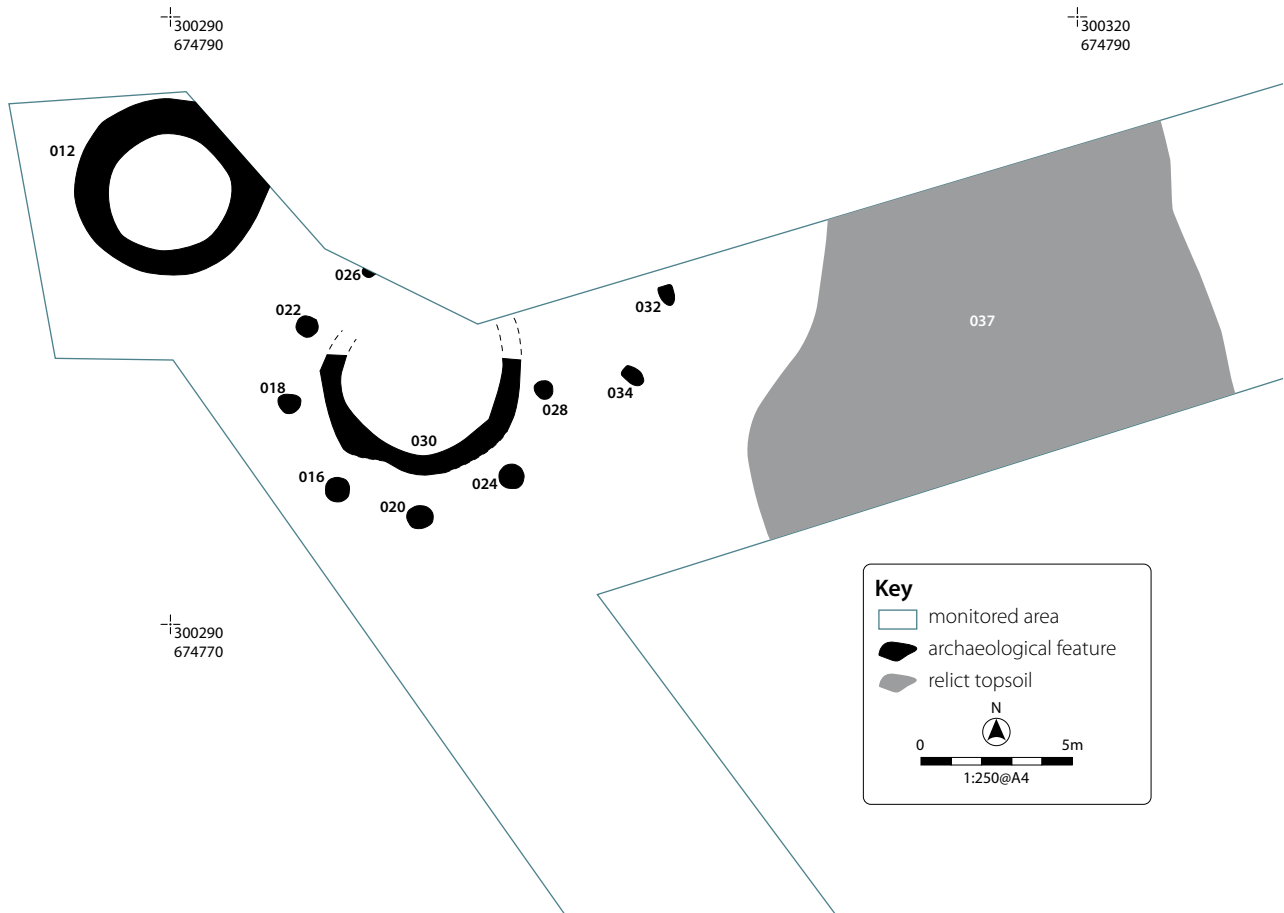
3. RESULTS

The following presents a summary of the results; full descriptions can be found in the appendices and site records will be deposited with the National Monuments Record of Scotland.

3.1 Topography and geology

The site partially occupies the top of a small hill (212m OD), where the visitor centre is to be located, with the car park area occupying the gentle slopes to the southwest, and planned reed beds downhill to the west. On the summit of the hill there is a slight hollow. From the summit there are fine, open views towards the Forth on the east and north and facing west the view is dominated by the larger hill of Cockleroy, topped by a prehistoric fort (NMRS NS97 SE9).

The soil profile across the site consisted of a humus-rich clay loam overlying orange brown clay gravel. The geology of the area is of Devensian diamicton tills overlying basalt of the Bathgate Hills volcanic formation with a band of limestone running NE-SW to the east of the site.



Illus 4

Plan of timber circle and ring ditch

3.2 Prehistoric features

Settlement

On a slight terrace below the crest of the hill at the south of the site was a cluster of features interpreted as the heavily truncated remains of a roundhouse with some ancillary features (Illus 2). The remains comprised segments of a curvilinear ditch [006 & 053] with 2 associated postholes [008 & 010] (Illus 3), along with two further curvilinear ditches [043 & 045] a short distance to the north.

Presuming that the segments of curvilinear ditch [006 & 053] once formed a ring ditch, it would have had an internal diameter of c.6m. Segment [006] was 0.3m wide and 0.1m deep. The base was formed from the top of bedrock. A sample (01) from this feature contained a very small, abraded and undiagnostic pottery fragment. To the north possible continuation [053] was 1.3m long by 0.3m wide and 0.1m deep, and the surrounding area had been heavily disturbed by burrowing.

Posthole [008], located immediately to the south of [006], was 0.48m in diameter and 0.1m deep with the base again formed from bedrock. A sample (02) from this feature

contained rare charcoal of a size large enough for AMS radiocarbon dating. Posthole [010] lay between [006 & 053] and was 0.25m in diameter and 0.12m deep; the fill of this feature contained several possible packing stones.

To the immediate north of these features lay two further curvilinear ditches [043 & 045] (Illus 2). These features were both very narrow (0.4m) and shallow (0.05m) and their similarity in profile and alignment suggested that they were part of the same original feature. The feature appeared to be very truncated and could be the surviving remains of a shallow ditch, perhaps originally forming a small enclosure. Two small pieces of cannel coal were recovered from the fill of [043]. While not diagnostic, these tentatively imply a late prehistoric or early historic date.

A feature interpreted as an irregularly shaped pit [051] filled with dark brown silty sand [050] to a depth of 0.21m was also recorded in this cluster.

Timber circle

The highest point of the site was occupied by a near complete circular arrangement of postholes (Illus 4 & 5). This comprised 7 postholes [016, 018, 020, 022,



◀ **Illus 5**

Timber circle with ring ditch in background



◀ **Illus 6**

Ring-ditch under excavation

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024, 026 & 028]. A further two can be expected to lie outside the excavated area. There were also traces of a concentric internal ring ditch [030]. The circle of posts had a diameter of 8.5m and no internal features other than [030] were discovered. The postholes were all of similar size being around 1m in diameter with an average depth of 0.25m. The sandy clay loam fills of the postholes contained a number of packing stones confirming that they once had held upright timbers and suggesting that the posts had been left to rot *in situ* rather than being removed. Several of the postholes were excavated to the bedrock which lay close to the ground surface across the site. Samples 04 and 08 from postholes [016] and [020] contained only very small flecks of charcoal.

The internal concentric ring ditch [030] was very shallow with a maximum depth of 0.05m and in areas there was only a very slight trace. This feature is thought to be the remains of a shallow ditch located internally to the circle

of posts. Sample 13 from this feature again contained only traces of carbonised material.

To the east two pits [032 & 034] of undetermined character and date were discovered. It is not thought that these features held posts. Also to the east a broad hollow in the surface of geological deposits was filled with topsoil [037]. This was interpreted as relict topsoil preserved in a natural hollow in the surface of geological deposits and a single sherd of white gritty ware pottery (12th–14th century AD) was recovered from it. This suggests that the area had been manured and cultivated during the medieval period.

Ring ditch

Immediately to the west of the timber circle an annular ditch [012] was discovered lying almost completely within the area excavated for an access track (Illus 4 & 6). This

feature had an internal diameter of 4.4m with the ditch varying in width between 0.6m and 0.9m. The sides of the ditch were sloping and the base rounded. The ditch had an average depth of 0.25m.

Initially 3 sections were hand-excavated across the ditch and recorded. Subsequently the feature was emptied by hand. No features were discovered in the interior of the ditch, which was thoroughly examined. Sample 03 from this feature contained rare charcoal of a size suitable for AMS dating.

3.3 Quarry pits

Two large irregularly shaped pits were discovered in close proximity to each other. The first of these was encountered in evaluation trench 1 while the second was revealed during monitoring of the soil stripping for the visitor centre footprint (Illus 7 & 8).

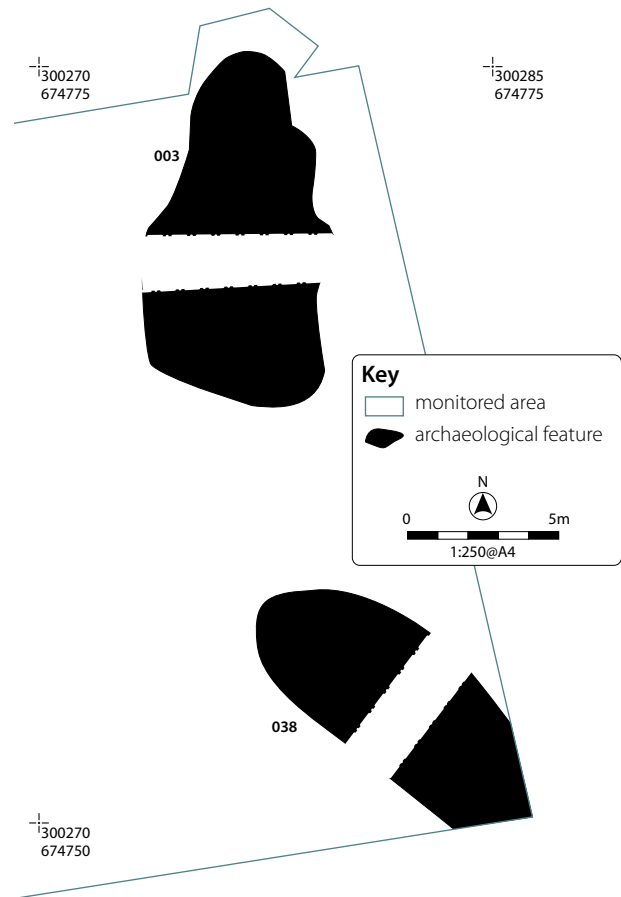
Pit [003] measured 7m by 11m and a machine excavated trench through the feature was halted at a depth of 2.2m for safety reasons; at this depth groundwater entered the trench. Similarly pit [038], measuring 11m by 4.5m was investigated by a machine-dug slot and excavation was stopped at 2m without reaching the base of the feature.

Both pits were steep sided and the base was not reached in either excavation. No dating evidence was recovered from the backfill, which was shale-rich redeposited subsoil. Pit [038] had been backfilled level with the ground surface while a hollow 0.4m deep remained after pit [003] was backfilled and subsequently filled with silt. Given their size, depth and that both were backfilled quickly with the material excavated from them, these pits were interpreted as related to quarrying.

3.4 Environmental summary

Sarah-Jane Haston

A total of seven soil samples were processed for the recovery of charred plant remains and any other environmental or artefactual material. A full report is included as an Appendix. The concentration of archaeological remains recovered from the samples was very low. Carbonised material was the most frequently recovered material but in the majority of cases this only amounted to small quantities of wood charcoal and the occasional charred cereal grain. The paucity of charred plant remains and the poor preservation of the grain and charcoal may suggest that it had been moving around on the ground surface for a period of time before being blown and/or washed



Illus 7
Plan of quarry pits

into the feature fills. In the absence of any obvious conflagration deposits the likely source of the charred material is domestic activity nearby, from which burnt debris (charred during food preparation or small-scale crop processing), has been accidentally incorporated into the sampled deposits.



Illus 8
Quarry pit 3



Illus 9 (across page spread)

Panorama of site taken by West Lothian Archaeology Group

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3.5 Finds summary

Julie Franklin

The assemblage numbered two pieces of a lightweight black shiny stone, probably locally available cannel coal, and two fragments of pottery. The only diagnostic sherd was of medieval date, other finds hint at an Iron Age date. Sites of the latter period are notoriously lacking in finds evidence in southeast Scotland.

The largest of the pot sherds is of locally made Scottish White Gritty Ware (Jones *et al* 2003). It dates to between the 12th and 14th centuries. It was found in the fill of a natural hollow. The other sherd was a small fragment of soft abraded reddish buff pottery with large stone inclusions. It is of uncertain date, but its location within the fill [007] of a ring ditch suggests it may be prehistoric.

The two pieces of cannel coal were found in a small curvilinear ditch (fills [005] and [042]) and associated with other features of presumed prehistoric date. The pieces are possibly worked, both are covered in scratch marks and one piece has a distinctly curved polished surface. These pieces are not diagnostic but cannel coal and similar stones were used to make bangles and other items of jewellery, particularly in the late prehistoric and early historic period.

4. DISCUSSION

4.1 Prehistoric

Archaeological features of presumed prehistoric date were confined to two discrete areas. The features on top of the hill appear to relate to ritual activity, while the features off the crest of the hill to the south appear to be more domestic in character. The more sheltered location may have been favoured for settlement while the summit was considered more suitable for the erection of monuments which were intended to be visible from a distance.

Settlement

The curvilinear ditch [006 & 053] and postholes [008 & 010] in the car park area of the site suggest prehistoric settlement. Morphologically the features can be realistically interpreted as the remains of a small and very truncated roundhouse. The curvilinear gullies [043 & 045] to the north were very insubstantial. They may have represented a less substantial structure, such as a fenced enclosure rather than another roofed structure. This interpretation is tentative and the finds from the features, fragments of possibly worked cannel coal, imply both a later prehistoric date and possible craft-working on the site. The environmental remains do not particularly support a domestic interpretation for these features but this may reflect the site's very poor preservation.



Timber circle

It can be difficult to distinguish the remains of a timber circle from those of a roundhouse or domestic roofed structure, and the latter was originally the preferred interpretation at Beecraigs. This interpretation was dismissed during the excavation for several reasons. Firstly there was no hearth within the structure, and a lack of domestic rubbish, carbonised grain or charcoal as would be expected in a domestic context. Perhaps more importantly the size and depth of the postholes suggested that the upright timbers were at least 0.4m in diameter and only shallowly set into the ground. The combination of large timbers with too shallow a foundation to support a heavy roof suggested that a timber circle should be the preferred explanation. The proximity of the ring ditch described below and the hill-top location also suggested a ritual interpretation.

Timber circles are known throughout Britain, with many being multi-period sites. They are often associated with other circular monuments of the later prehistoric period such as stone circles, henges and pit circles. Timber circles are often found within henge monuments, with Cairnpapple Hill being a prominent local example (Barclay & Grove 1998). The arrangement apparently seen at Beecraigs, a ring ditch internal to the timber circle, is rare but a parallel has been recorded at Standlake 20, Oxfordshire (Gibson 2005, 171 & Fig 56). This small circle, with a diameter of 13.5m was associated with middle Bronze age pottery.

Ring ditch

The small circular ditch to the west of the timber circle had a small internal diameter and for that reason does not seem likely to have been related to a roundhouse. Its form was suggestive of a ditch round a funerary cairn with the excavated material from the ditch being thrown into the centre to create a mound that would have covered a burial or cremation placed onto the former ground surface. The mound and grave would have been completely removed, presumably by later agriculture. Cultivation appears to have started on the site in the medieval period as a pot sherd from this period was recovered from a patch of relict topsoil.

Quarry pits

The resource that the quarry pits were excavated to exploit is not clear. The fills contained a large amount of shale and both pits were excavated close to a band of shale running across the site. Quarry pit [003] was also excavated into a band of limestone and it is a possibility that this was the mineral being pursued. However, adjacent quarry pit [038] was not excavated into this band of limestone. There is a large limestone quarry immediately to the east of the site, along with a number of lime kilns. One possibility is that the pits discovered at Beecraigs were trial excavations to test whether this area was worth exploiting.

The quarrying activity on the site does not appear on any historic maps of the area. This would suggest that activity



on the site was either too insubstantial to be mapped or of a date that preceded detailed mapping by the Ordnance Survey in 1855.

5. REFERENCES

5.1 Cartographic sources

1855 Ordnance Survey, 6" to the mile, *Linlithgowshire Sheet V*

5.2 Bibliographic sources

Barclay, G & Grove, D 1998 *Cairnpapple Hill*, Historic Scotland.

Gibson, A 2006 *Stonehenge and timber circles*, Tempus.

Headland Archaeology (UK) Ltd 2010 *Beebraigs Visitor Centre, Linlithgow, West Lothian: Written Scheme of Investigation for an Archaeological Programme of works*.

Jones R, Will R, Haggarty G & Hall D 2003 'Sourcing Scottish White Gritty Ware', *Medieval ceramics*, 26/7, 2002/3, pp 45-84.

6. APPENDICES

Appendix 1 – Site registers

Trench register

Trench	Description
1	Trench oriented ENE-WSW and 48m long excavated to an average depth of 0.3m through a dark brown clay loam topsoil to reveal an orange brown compact clay gravel glacial till. Located over the footprint of the proposed visitor centre. At the eastern end of the trench a large quarry pit 003 was discovered. The trench was extended in this area in order to expose the full extent of 003.
2	Trench oriented E-W and 70m long in the location of the proposed reed beds. Excavated to an average depth of 0.3m through a dark brown clay loam topsoil to expose an orange brown compact clay gravel glacial till in the east of the trench and a pale blue grey clay at the west of the trench. No features of archaeological interest were exposed in this trench. Two field drains running ENE-WSW were identified at the western end of the trench.
3	Trench oriented NE-SW and 68m long excavated to an average depth of 0.4m through a dark brown clay loam topsoil to reveal an orange brown compact clay gravel glacial till. Located at the proposed car park. Four possible prehistoric features were identified in this trench. A curvilinear ditch 006 with two associated postholes 008 & 010 may represent the remains of a structure. 004 was a second curvilinear ditch

Context register

Context no.	Description
1	Topsoil. Soft reddish brown clayey silt with frequent small stone inclusions.
2	Grey fine shale like gravel over 2m deep, tip lines suggest this deposit was backfilled into 003 from the east. Fill of 003.
3	Irregular shaped cut with steep sides, measures *** and over 2m deep. Quarry pit possibly excavated for extraction of limestone.
4	Curvilinear ditch, measures 1.16m across trench by 0.48m wide and up to 0.16m deep. Possible ring ditch.
5	Medium brown clay loam. Fill of 004. Small piece of worked canal coal recovered from this deposit suggesting a prehistoric date.
6	Curvilinear ditch, measures 4m long by 0.32m wide and 0.10m deep. Prably froms structure along with postholes 008 & 010.
7	Dark brown clayey loam. Fill of 006.
8	Circular cut diameter 0.48m and 0.10m deep. Posthole part of possible structure with 006 & 010.
9	Dark brown clayey loam. Fill of 008.
10	Sub circular cut 0.25m diameter and 0.12m deep. Posthole, part of possible structure along with 006 & 008.

Context no.	Description
11	Dark brown clayey loam. Fill of 010.
12	Annular ditch with internal diameter of 4.3m and external diameter of 6.2m and 0.25m deep. Ring ditch of probable funerary origin.
13	Dark brown sandy loam. Fill of 012.
14	VOID.
15	Circular arrangement of 7 post holes with slight ring groove lying internally. Possible timber circle.
16	Circular cut diameter 0.82m and depth 0.23m. Posthole, part of timber arrangement 015.
17	Dark brown sandy clay loam. Fill of 016.
18	Circular cut diameter 0.64m depth 0.21m. Posthole, part of 015.
19	Dark brown sandy clay loam. Fill of 018.
20	Circular cut diameter 0.75m depth 0.24m. Posthole, part of 015.
21	Dark brown clay loam. Fill of 020.
22	Circular cut diameter 0.70m depth 0.19m. Posthole, part of 015.
23	Dark brown sandy clay loam. Fill of 022.
24	Circular cut diameter 0.7m depth 0.25m. Posthole, part of 015.
25	Dark brown sandy loam. Fill of 024.
26	Circular cut diameter 0.57m depth ****m, Posthole, part of 015.
27	Dark brown sandy clay loam. Fill of 026.
28	Circular cut diameter 0.50m depth 0.20m. Posthole, part of 015.
29	Sandy clay loam, contains 3 large packing stones. Fill of 028.
30	Annular groove concentric and internal to posthole ring 015. Truncated remains of shallow annular ditch.
31	Dark brown sandy clay loam. Fill of 030.
32	Square cut measuring 0.65m by 0.65m and 0.15m deep. Pit of possible modern date.
33	Dark brown sandy loam. Fill of 032.
34	Oval cut measuring 0.65m by 0.50m and 0.23m deep. Pit of possible modern date.
35	Dark brown sandy clay. Fill of 034.
36	Deposit of dark brown sandy clay formed around 4 earthfast boulders. Possible survival of a buried soil around earthfast stones where ploughing has not penetrated to as great a depth.
37	Deposit of dark grey sandy clay loam filling natural hollow. Buried soil sitting in natural hollow. Single sherd of white gritty pottery (12th -14th century) recovered from this deposit.
38	Amorphous cut measuring 11m by 4.5m and over 2m deep. Quarry pit probably related to 003 just to the NW.
39	Dark brown sandy clay loam. Backfill of 038.
40	Dark grey to black sandy clay loam and shale. Lense of material within fills of 038 suggests 038 has been backfilled from the NE.



Context no.	Description
41	Dark brown angular stone, appears to be shattered bedrock. Backfill of quarry pit 038.
42	Dark brown silty sand, fill of curvilinear cut 043. Same as 005.
43	Curvilinear cut measures **** in length by ***** wide and **** deep. Same as 004.
44	Dark brown silty sand. Fill of 045.
45	Curvilinear cut measures **** in length by *** wide and **** deep. Probable continuation of 043.
46	Mid brown fine sand. Fill of 047. Same as 007.
47	Curvilinear cut measures **** in length by *** wide and *** deep. Same as 006.
48	Dark brown fine sand. Fill of 049.
49	Cut that upon excavation revealed itself to be a burrow
50	Dark brown silty sand and gravel. Fill of 051.
51	Irregular shaped pit, measures 0.9m by 0.5m and 0.21m deep
52	Mid brown fine sand. Fill of 053.
53	Curvilinear cut measuring 1.3m by 0.3m and 0.13m deep. Possible continuation of 006/047 however this area has been heavily affected by burrowing.

Drawing register

10

Drawing no.	Scale	Description
1	1:20	S facing section through 003
2	1:20	N facing section through 003
3	1:10	NW facing section through 004
4	1:10	E facing section through 006
5	1:10	W facing section through 010
6	1:10	S facing section through 008
7	1:5	S facing section through 012
8	1:5	E facing section through 012
9	1:5	N facing section through 012
10	1:5	W facing section through 016
11	1:10	N facing section through 018
12	1:10	W facing section through 020
13	1:10	NW facing section through 022
14	1:10	SW facing section through 026
15	1:10	E facing section through 014
16	1:10	NE facing section through 028
17	1:10	SW facing section through 030
18	1:10	E facing section through 030
19	1:10	SW facing section through 030

Drawing no.	Scale	Description
20	1:10	E facing section through 032
21	1:10	NE facing section through 034
22	1:10	E facing section through 036
23	1:20	NW facing section through 038
24	1:50	038 post-excavation and location plan
25	1:10	05 SW facing section
26	1:10	045 SW facing section slot 1
27	1:10	045 NW facing section slot 2
28	1:10	045 SW facing section slot 3
29	1:10	043 N facing section slot 1
30	1:10	043 W facing section slot 2
31	1:10	043 E facing section slot 3
32	1:10	047 S facing section slot C
33	1:10	047 E facing section slot B
34	1:10	047 SE facing section slot A
35	1:10	053 N facing section through terminal
36	1:10	053 E facing section

Photographic register

Shot no.	Facing	Description
1	-	ID Shot Film 1
2	W	Trench1 showing quarry pit 003
3	N	Trench1 and extension showing Quarry pit 003
4	N	Trench1 and extension showing Quarry pit 003
5	SW	Trench1 and extension showing Quarry pit 003
6	SW	Trench1 and extension showing Quarry pit 003
7	S	East end of N facing section through quarry pit 003
8	S	East end of N facing section through quarry pit 003
9	NW	West end of S facing section through quarry pit 003
10	NW	West end of S facing section through quarry pit 003
11	S	N facing section through quarry pit 003
12	S	N facing section through quarry pit 003
13	S	N facing section through quarry pit 003
14	S	N facing section through quarry pit 003
15	SW	Western edge of quarry pit 003
16	SE	Eastern edge of quarry pit 003
17	SE	General view of quarry pit 003
18	SW	General view of site

Shot no.	Facing	Description	Shot no.	Facing	Description
19	E	Trench 2 from east end	57	W	Post ring 015 working shot (digital only)
20	W	Trench 2 from west end	58	NW	Post ring 015 working shot (digital only)
21	W	Trench 3 showing 006, 008 & 010 pre-excitation	59	SE	NW facing section through posthole 022
22	N	Trench 3 showing 006, 008 & 010 pre-excitation	60	NE	Posthole 020 post-excitation
23	N	Trench 3 showing 006, 008 & 010 pre-excitation (digital only)	61	SE	Post hole 022 post-excitation
24	NE	Trench 3 showing 006, 008 & 010 pre-excitation	62	W	E facing section of posthole 024
25	NW	Trench 3 showing 004	63	NE	SW facing section of posthole 026
26	SE	NW facing section of curvilinear ditch 004	64	W	Posthole 024 post-excitation
27	SE	NW facing section of curvilinear ditch 004 (digital only)	65	-	ID shot
28	W	General view of site	66	SW	NE facing section through posthole 028 showing packing stones
29	W	General view of site	67	W	Posthole 028 mid-excitation showing packing stones
30	NW	SE facing section of curvilinear ditch 006	68	NE	SW facing section through eastern end of ring groove 030
31	NE	SW facing section of posthole 008	69	W	E facing section through southern end of ring groove 030
32	SW	Trench 3 showing 006, 008 & 010 mid- excavation	70	NE	SW facing section through western end of ring groove 030
33	SW	NE facing section of posthole 010	71	W	E facing section of pit 032
34	-	ID shot	72	W	032 post-excitation
35	NW	Ring ditch 012 pre-excitation	73	SW	NE facing section through pit 034
36	SE	Ring ditch 012 pre-excitation	74	SW	Pit 034 post-excitation
37	S	Ring ditch 012 pre-excitation	75	E	Working shot of pole mounted camera (digital only)
38	S	N facing section of 012	76	E	Working shot of pole mounted camera (digital only)
39	W	E facing section of 012	77	N	Post hole ring 015 post-excitation
40	N	S facing section of 012	78	N	Post hole ring 015 post-excitation
41	NW	Ring ditch 012 working shot (digital only)	79	N	Post hole ring 015 post-excitation
42	NE	Ring ditch 012 working shot (digital only)	80	N	Post hole ring 015 post-excitation (digital only)
43	S	Ring ditch 012 working shot (digital only)	81	E	General view of site (digital only)
44	W	Ring ditch 012 working shot (digital only)	82	NW	Post hole ring 015 post-excitation
45	NW	Ring ditch 012 post-excitation	83	NW	Post hole ring 015 post-excitation
46	NE	Ring ditch 012 post-excitation	84	W	Post hole ring 015 post-excitation
47	S	Ring ditch 012 post-excitation	85	W	Post hole ring 015 post-excitation
48	W	Ring ditch 012 Working Shot (digital only)	86	SE	Post hole ring 015 post-excitation
49	NW	Posthole ring 015 pre-excitation	87	SE	Post hole ring 012 with ring ditch 012 in foreground post-excitation
50	E	Posthole ring 015 pre-excitation	88	E	Post hole ring 015 post-excitation
51	W	Posthole ring 015 pre-excitation	89	E	Post hole ring 015 post-excitation
52	E	W facing section posthole 016	90	SW	Footprint of visitor centre stripped of topsoil
53	S	W facing section posthole 018	91	SE	NW facing section through quarry pit 038
54	N	Posthole 016 post-excitation	92	SE	NW facing section through quarry pit 038
55	E	W facing section of posthole 020	93	SE	NW facing section through quarry pit 038 east half
56	S	Posthole 018 post-excitation			



Shot no.	Facing	Description
94	SE	NW facing section through quarry pit 038 west half
95	SE	NW facing section through quarry pit 038
96	-	ID Shot
97	W	View of stripped area 26/5/10
98	E	View of stripped area 26/5/11
99	NE	Location shot of area stripped 25/6/10
100	N	Part of car park stripped
101	SE	Part of car park stripped
102	W	Part of car park stripped
103	W	Area stripped 27/5/10
104	E	Area stripped 27/5/11
105	W	Area stripped 27/5/12
106	SW	Area stripped 27/5/13
107	W	5m wide strip of car park area
108	SW	South side of car park area
109	NE	West of car park showing features revealed during evaluation
110	W	West of car park area showing features revealed during evaluation
111	W	South side of car park area
112	E	Working shot of stripping of car park area
113	NW	Car park area showing curvilinear feature [006/047]
114	W	Car park area showing curvilinear feature [006/047]
115	S	Car park area showing curvilinear feature [006/047]
116	N	Car park area showing curvilinear feature [006/047]
117	W	Southern half of car park area
118	S	Northern half of car park area
119	E	Working shot
120	E	Area stripped 4/7/10
121	-	ID Shot
122	S	View of curvilinear feature [006/047]
123	NE	View of curvilinear feature [006/047]
124	NW	View of curvilinear feature [006/047]
125	W	View of cuts [006/047 & 049]
126	NE	Pit [050] SW facing section
127	S	Working shot (digital only)
128	S	View of cut [049]
129	E	View of cut [049]
130	N	[051] post-ex
131	-	Working shot

Shot no.	Facing	Description
132	E	View of [053]
133	NE	[043] post-ex
134	N	[045] post-ex
135	SW	[053] mid-ex
136	W	E facing section of [053]
137	SW	NE facing section of [053]
138	N	[045] S facing section slot 1
139	SE	[045] NW facing section slot 2
140	NE	[045] SW facing section slot 3
141	E	[047] mid-ex
142	W	[047] mid-ex
143	N	[047] S facing section of terminal end
144	W	[047] E facing section slot B
145	W	[047] E facing section slot A
146	N	[047] post-ex
147	N	[047] post-ex
148	W	[047] E facing section at trench edge
149	S	[053] post-ex
150	N	[043 & 045] post-ex
151	N	[043] post-ex
152	W	[045] post-ex
153	E	[043 & 045] post-ex
154	W	[043 & 045] post-ex
155	W	[043 & 045] post-ex

Sample register

Sample no.	Context no.	Description
1	7	Fill of curvilinear ditch 008
2	9	Fill of posthole 010
3	13	Fill of ring ditch 012
4	17	Fill of posthole 016
5		VOID
6	19	Fill of posthole 018
7		VOID
8	27	Fill of posthole 026
9	23	Fill of posthole 022
10	27	Fill of posthole 026
11	25	Fill of posthole 024

Sample no.	Context no.	Description
12	29	Fill of posthole 028
13	31	Fill of ring groove 030
14	33	Fill of pit 032
15	35	Fill of pit 034
16	36	Buried soil
17	50	Fill of pit 051
18	52	Fill of curvilinear cut 053
19	46	Fill of cut 047 slot A
20	46	Fill of cut 047 slot B
21	42	Fill of curvilinear cut 043
22	44	fill of curvilinear cut 045



Appendix 2 – Finds Assessment

The assemblage numbered two pieces of a lightweight black shiny stone, probably locally available cannel coal and two sherds of pottery. Though the only diagnostic sherd was of medieval date, other finds hint at an Iron Age date. Sites of this period are notoriously lacking in finds evidence in south-east Scotland.

The largest of the pot sherds is of locally made Scottish White Gritty Ware (Jones *et al* 2003). It dates to between the 12th and 14th centuries. It was found in the fill of a natural hollow. The other was a fragment of soft abraded reddish buff pottery with large stone inclusions. It is of uncertain date, but its location within the fill [007] of a ring-ditch suggests it may be of prehistoric date.

The two pieces of cannel coal were found in a small curvilinear ditch (fills [005] and [042]) associated with a roundhouse of presumed prehistoric date. The pieces are possibly worked, both are covered in scratch marks and one piece has a distinctly curved polished surface. These pieces are not diagnostic but cannel coal and similar stones were used to make bangles and other items of jewellery, particularly in the late prehistoric and early historic period.

References

- 14 Jones, R., Will, R., Haggarty, G & Hall, D 2003 'Sourcing Scottish White Gritty Ware', *Medieval ceramics* 26/7 (2002/3), pp 45–84.

Finds catalogue

Context no.	Sample no.	Material	Qty	Object	Description	Spot date	Period
005	–	Stone	1	Cannel Coal?	Worked? Piece with plano-convex section, relatively polished surfaces covered in scratch marks.	–	–
007	1	Pottery	1	Coarseware?	Red/buff fabric, gritty, small fragment, soft, abraded	–	PH?
037	–	Pottery	1	Medieval	White Gritty, jar rim?	12th–14th	Medi
042	-	Stone	1	Cannel Coal?	Worked? Flat sherd, scratch marks in surface. Micaceous.	–	–

Appendix 3 – Palaeoenvironmental sample assessment

A total of seven soil samples were processed for the recovery of charred plant remains and any other environmental or artefactual material. The samples were collected from a series of features including ditch and posthole fills excavated during the evaluation and subsequent monitoring of topsoil stripping at Beecraigs Country Park. The assessment aims to look at what the palaeoenvironmental potential of the material is and what evidence this material is showing us for the activities which once took place at the site.

Method

Samples were processed in laboratory conditions using a standard floatation method (*cf* Kenward *et al*, 1980). All plant macrofossil samples were analysed using a stereomicroscope at magnifications of x10 and up to x100 where necessary to aid identification. Identifications were confirmed using modern reference material and seed atlases including Cappers *et al* (2006).

Results

The results of the sample processing are provided in Tables A3.1 (Retent finds) and A3.2 (Flotation finds). Suitable material for AMS dating is also identified within each table.

Plant remains

The concentration of archaeological remains recovered from the samples was very low. Carbonised material was the most frequently recovered material but in the majority of cases this only amounted to small quantities of wood charcoal and the occasional charred cereal grain.

Charred cereal grain was present within only two of the flotation samples (13 and 14) and is represented by the single poorly preserved grains of oat (*Avena* sp.) and barley (*Hordeum vulgare*) (see Table A3.2). Oat and hulled barley have been cultivated in Scotland from the Later Prehistoric Period onwards (Boyd, 1988) and are still grown in some areas today. The low quantities of carbonised cereal grain recovered are insufficient to allow detailed analysis. The presence of charred cereal grain albeit in small quantities does; however, suggest that some food preparation or corn drying was being carried out in the vicinity of the site.

Small quantities of wood charcoal fragments were present in all of the samples processed though most of the fragments were less than 1 mm in diameter. Only two samples (02 and 03) were found to contain fragments of a size and condition suitable for radiocarbon dating (see Tables A3.1 and A3.2).

Other finds

Finds such as pottery fragments and iron slag were recovered from the retent samples (See Table A3.1). Burnt bone and unburnt bone was found in very small quantities in a limited amount of samples (01 and 03).

Discussion

The paucity of charred plant remains and the poor preservation of the grain and charcoal may suggest that it had been exposed to and or had been moving around on, the surface for a period of time before being blown and/or washed into the ditch and posthole fills. In the absence of any obvious conflagration deposits the likely source of the charred material is from the domestic hearth, from which burnt debris (charred during food preparation or small-scale crop processing), has been accidentally or deliberately incorporated into the sampled deposits along with other material.

Conclusions

Further detailed analysis of the archaeological material recovered would add little to the information gained from this assessment. The primary value of the charred plant remains will be as a source of dating evidence. If available wood charcoal were selected identification of the species represented would need to be undertaken prior to dating.

References

- Boyd, WE 1988 'Cereals in Scottish Antiquity', *Circaea* 5, pp 101–10.
- Cappers, RTJ, Bekker, RM & Jans, JEA 2006 *Digital seed atlas of the Netherlands* Barkhuis Publishing and Groningen University Library, Groningen.
- Kenward, HK, Hall, AR & Jones, AKG 1980 'A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits', *Science and Archaeology* 22, pp 3–15.



Environmental tables

Context no.	Sample no.	Feature	Sample Vol (l)	Ceramic			Charcoal		Material available for AMS Dating	Coal	Comments
				Pre-historic	Pottery	Burnt bone	Mammal	Mammal			
007	01	Fill of curvilinear ditch [006]	20	+	+	-	-	-	-	+	Burnt bone less than 0.5cm ² and coal not kept
009	02	Fill of posthole [008]	10	-	-	-	+	2	Charcoal	+	-
013	03	Fill of ringditch [012]	30	-	-	+	+	1	Charcoal	+	-
017	04	Fill of posthole [18]	20	-	-	-	-	-	-	-	Archaeologically sterile
021	08	Fill of posthole [20]	20	-	-	-	-	-	-	-	Archaeologically sterile
031	13	Fill of ring curve [30]	30	-	-	-	-	-	-	-	Archaeologically sterile
033	14	Fill of possible pit [32]	20	-	-	-	-	-	-	-	Archaeologically sterile

Key + = rare, ++ = occasional, +++ = common and ++++ = abundant

NB charcoal over 1cm is suitable for identification and AMS dating

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Table A3.1

Retent sample results

Context no.	Sample no.	Total flot Vol (ml)	Cereal grain			Charcoal	Material available for AMS	Comments	
			Avena sp.	Hordeum vulgare	Other plant remains				
007	01	70	-	-	-	+	<0.5	-	
009	02	20	-	-	-	+	<0.5	-	
013	03	50	-	-	-	+	<0.5	-	
017	04	40	-	-	-	+	<0.5	-	
021	08	50	-	-	-	+	<0.5	-	
031	13	90	-	+	-	+	<0.5	-	
033	14	60	+	-	-	++	<0.5	-	Cereal grain is broken and abraded

Key + = rare, ++ = occasional, +++ = common and ++++ = abundant

NB charcoal over 1cm is suitable for identification and AMS dating

Table A3.2

Flotation Sample Results

Appendix 4 – Discovery and Excavation Scotland entry

LOCAL AUTHORITY:	West Lothian
PROJECT TITLE/SITE NAME:	Beebraigs Country Park
PROJECT CODE:	BCCP10
PARISH:	Linlithgow
NAME OF CONTRIBUTOR(S):	Jamie Humble
NAME OF ORGANISATION:	Headland archaeology
TYPE(S) OF PROJECT:	Evaluation & Watching Brief
NMRS NO(S):	N/A
SITE/MONUMENT TYPE(S):	Ring Ditch, Pit circle, Ring ditch house
SIGNIFICANT FINDS:	None
NGR	NT 0022 7471
START DATE (this season)	16/2/10
END DATE (this season)	8/9/10
PREVIOUS WORK (incl. DES ref)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>Headland Archaeology (UK) Ltd undertook a series of archaeological investigations in advance of construction of a new eco visitor centre at Beebraigs Country Park, West Lothian. The site was subject to an 8% evaluation, following this all groundworks for the construction were subject to an archaeological watching brief.</p> <p>The work revealed evidence of prehistoric activity, in the form of a timber circle, a ring ditch and a roundhouse. The timber circle was located the top of the small hill on which the site is situated and comprised of seven postholes forming a circle. The ring ditch lay immediately to the west of this timber circle. Slightly off the crest of the hill on a slight natural terrace the heavily truncated remains of a roundhouse with an exterior annexe were discovered.</p>
PROPOSED FUTURE WORK:	
ARCHIVE LOCATION (intended/deposited)	<p>Archive and report to be deposited with NMRS</p> <p>Report to be deposited with WoSAS</p>
SPONSOR OR FUNDING BODY:	West Lothian Council
CAPTION(S) FOR ILLUSTRS:	
ADDRESS OF MAIN CONTRIBUTOR:	<p>Headland Archaeology</p> <p>10 Payne Street</p> <p>Glasgow</p> <p>G4 0LF</p>
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