

**Data Structure Report
of Archaeological Excavations
October 13th – 31st 2003
Lochloy, Nairn
NH 897 / 567 (centred)**

Client: Lochloy Properties Ltd



**By
Stuart Farrell
B.A A.I.F.A F.S.A.Scot.
December 2003**

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Cover: Late Bronze Age Cremation Pot in Area 4.

Non-Technical Summary

Stuart Farrell was commissioned by Lochloy Properties Ltd in August 2003 to undertake a series of archaeological excavations at Lochloy, Nairn (NH 897/567) further to trial trenching conducted in 2001 to investigate areas prior to the development of housing.

Work in 5 areas of the site revealed a mixture of features including prehistoric and modern pits, a possible post-medieval corn-drying kiln, a Late Bronze Age cremation pot and features associated with agricultural improvement. Small finds of interest were few with only 2 finds of 2 pieces of flint and a possible whetstone.

No recommendations for further fieldwork have been proposed for zones 3 to 5.

1. Introduction

This report is for a series of archaeological excavations conducted on behalf of Lochloy Properties Ltd by the author for a housing development at Lochloy, Nairn. Part of this work is related to planning applications 03/00022/FULNA for housing in zone 4 and 03/00023/FULNA for access road to zone 4 and forms the archaeological work for zones 3 to 5 of the overall development plan.

The fieldwork was conducted between October 12th and October 31st 2003.

2. Acknowledgements

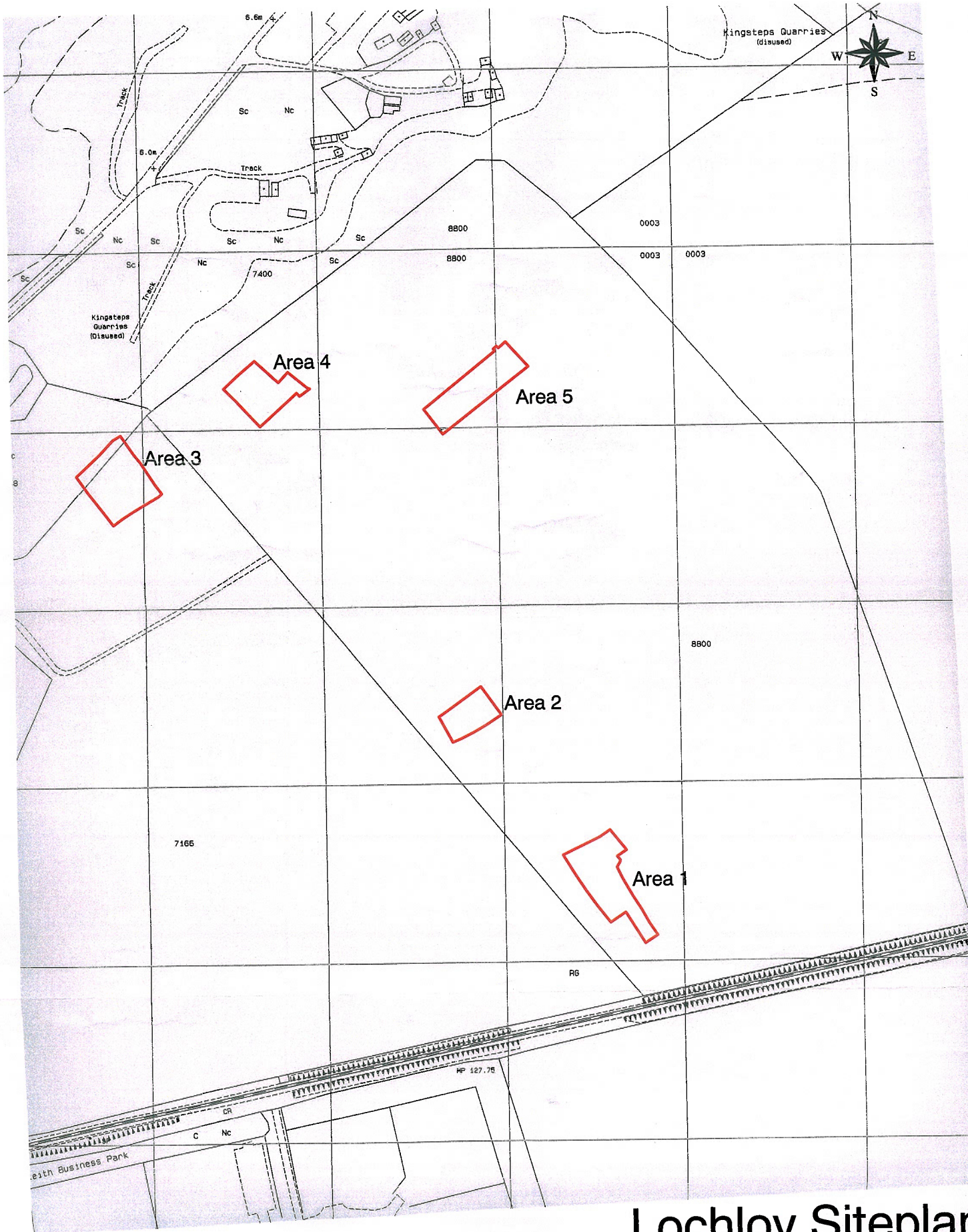
I would like to thank the following for their help during the work:

- Staff of Adrem Cartographic Services Ltd for site survey work;
- Staff of John A Jack Contracts Ltd for onsite works;
- Staff of Highland Council Archaeology Unit;
- Mr. S Buchanan, Mr. R Newman, Miss C Raynor and Miss J Rhoden for onsite work.
- Ms M Hastie, of Headland Archaeology Ltd for environmental report;
- Dr T B Ballin, for study of the flint and whetstone;
- Ms J Robertson, for illustrations.

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Figure 1 – General Location 1:50,000

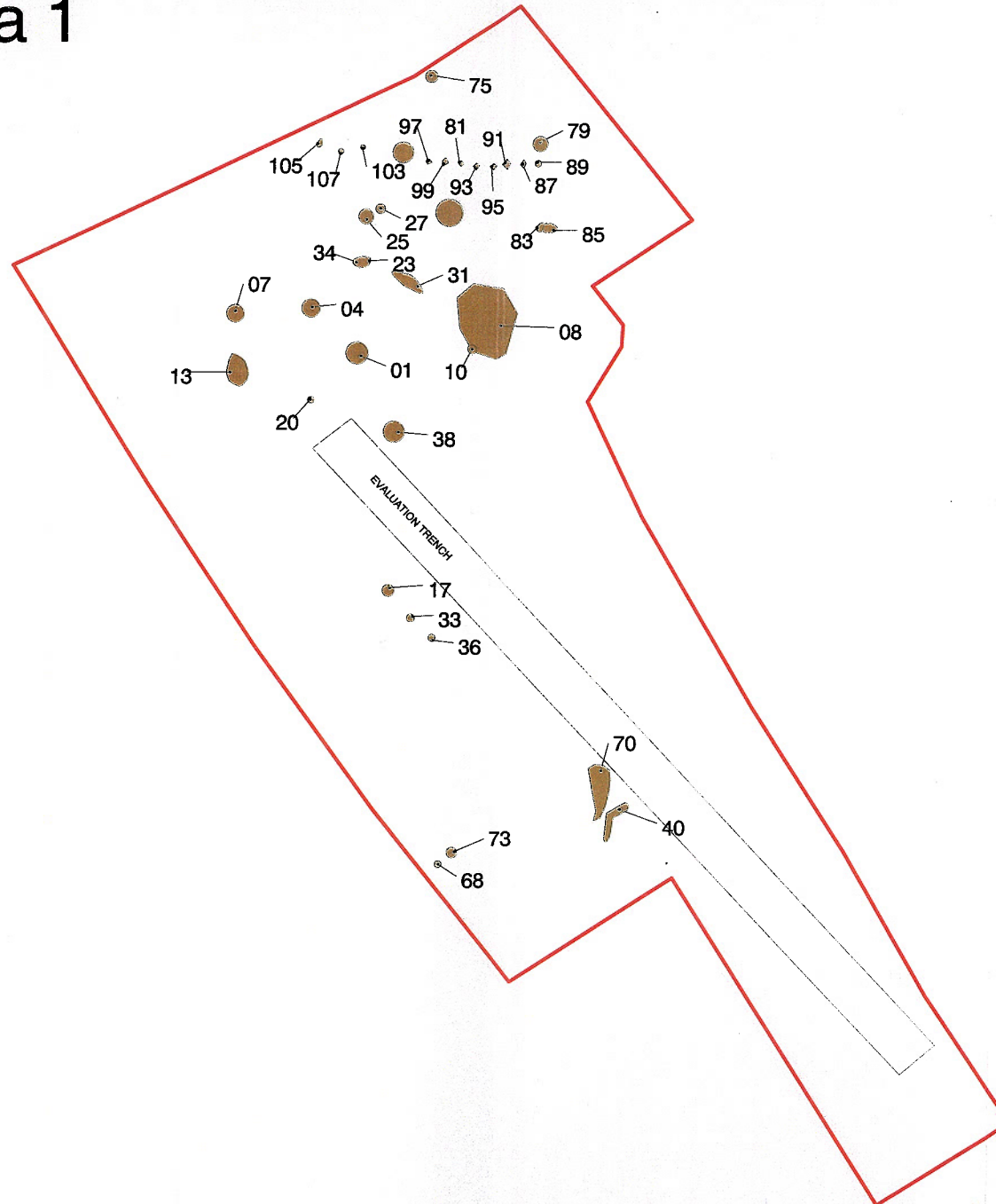





Lochloy Siteplan



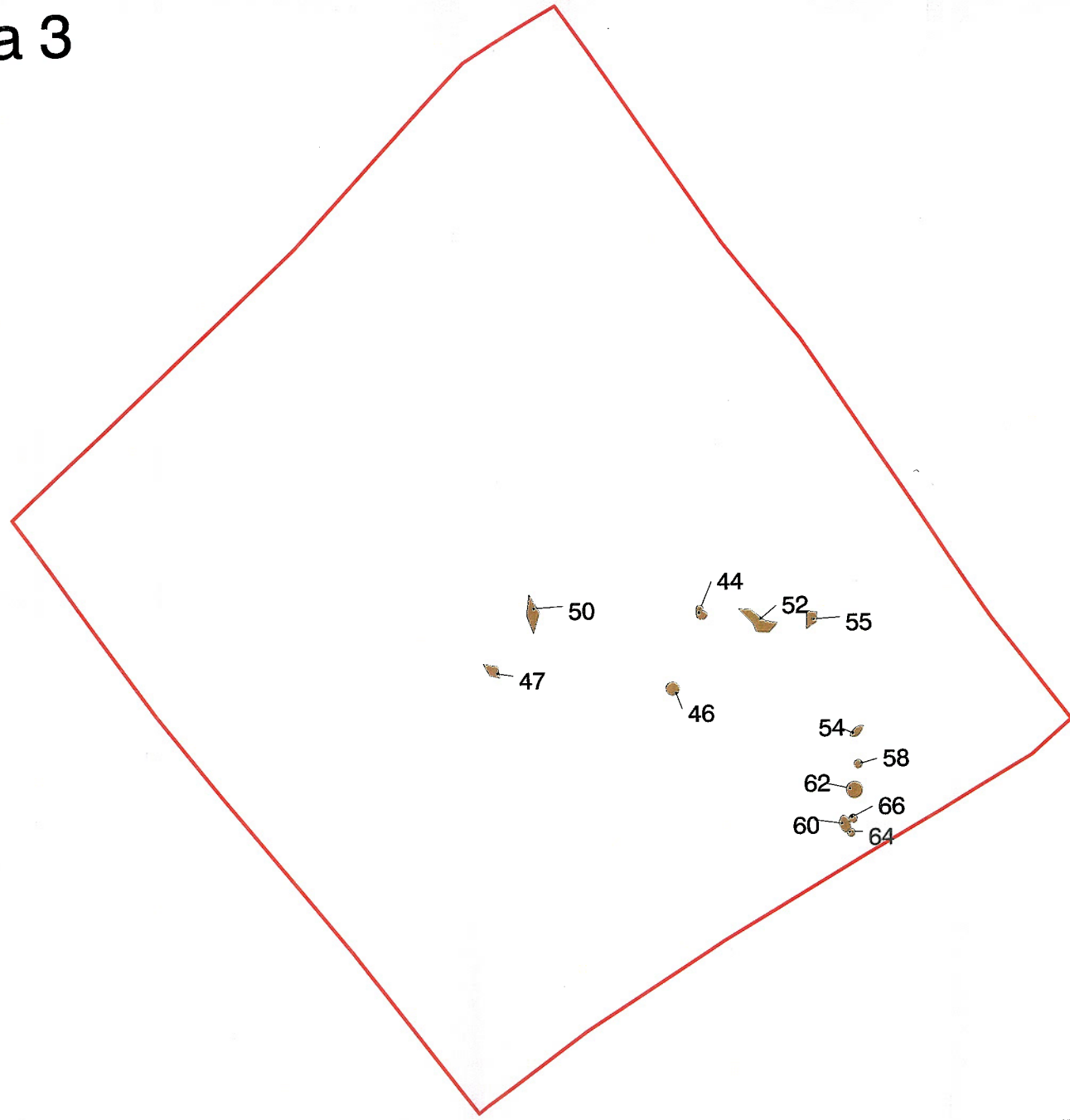
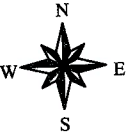
Excavation Area 1



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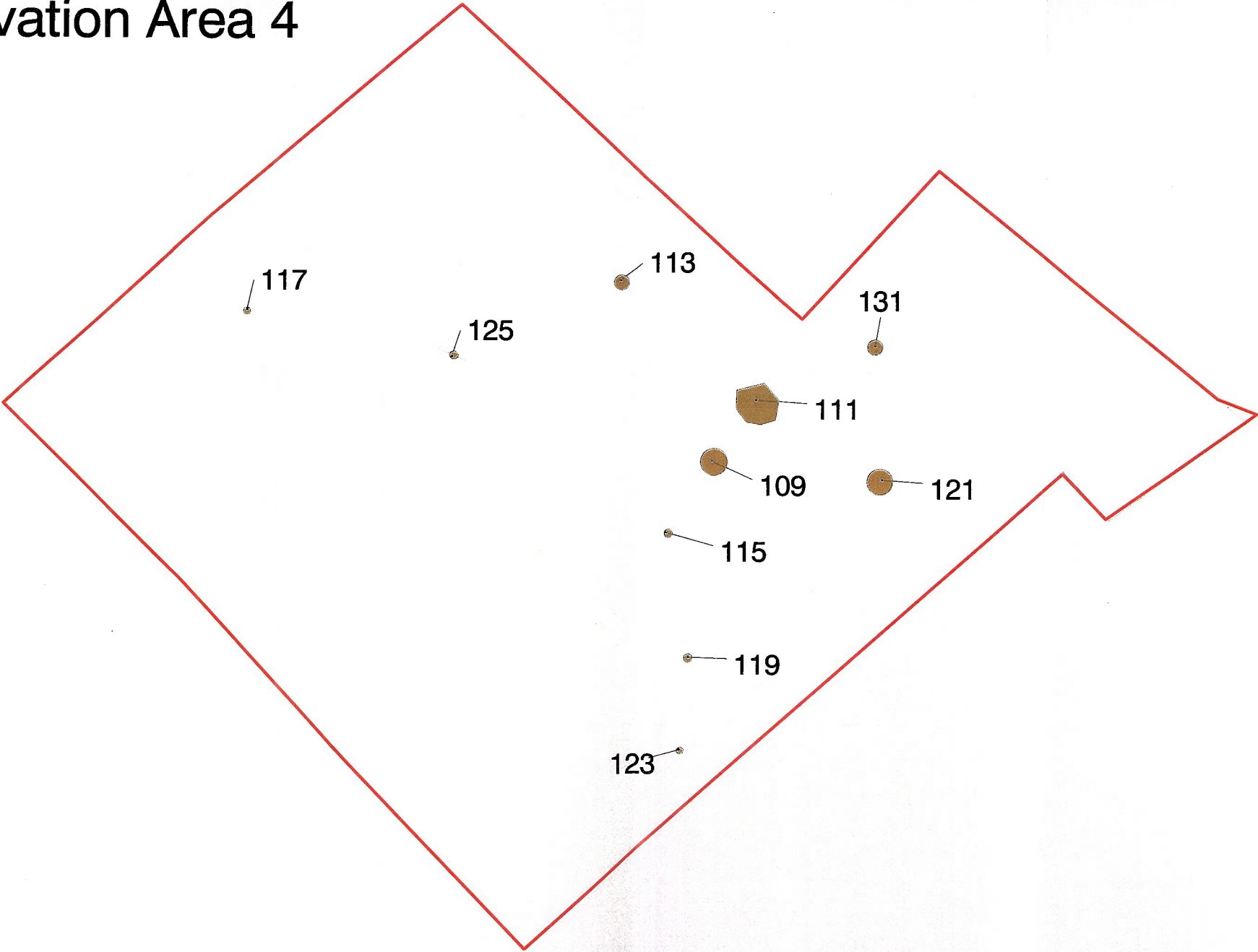


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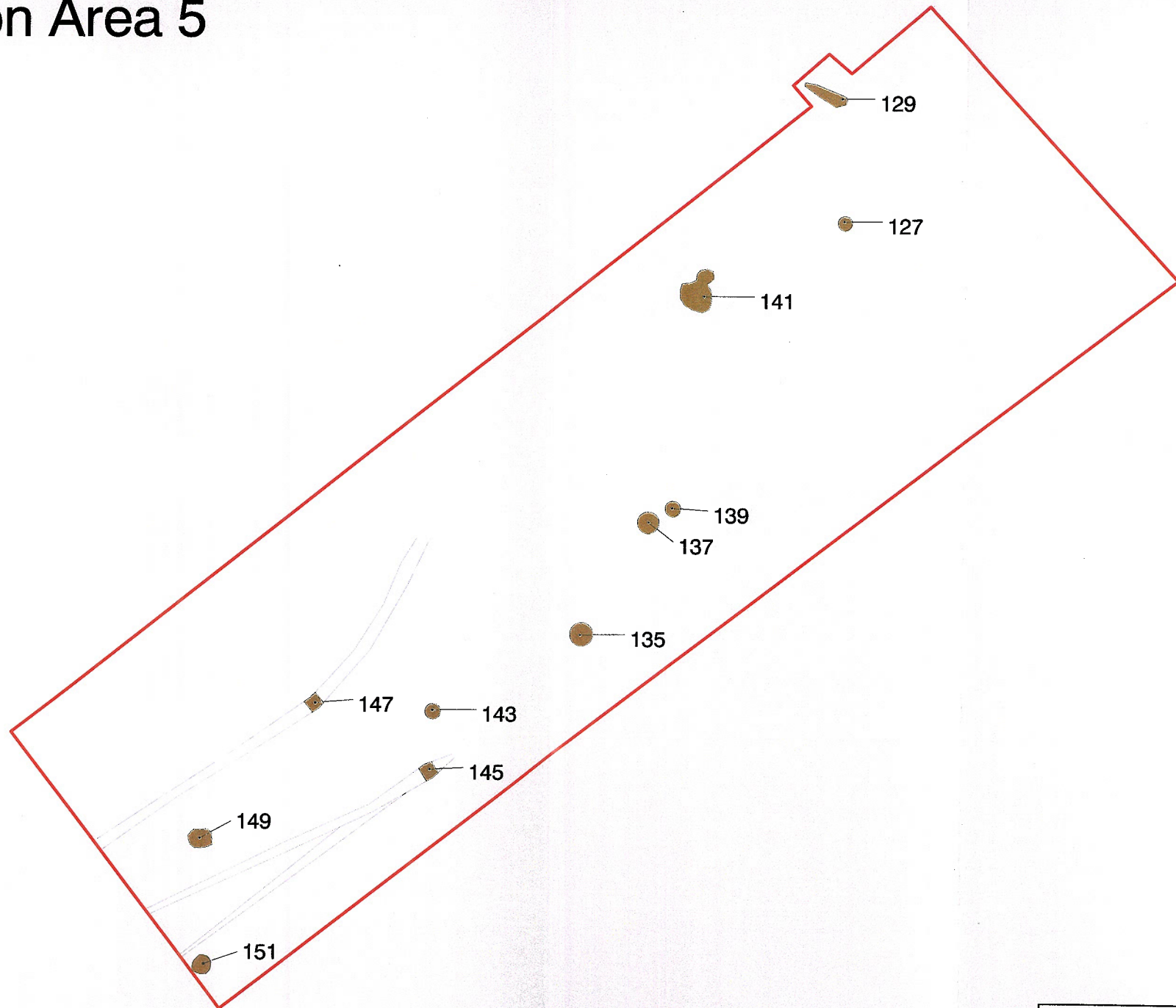
Excavation Area 4



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Excavation Area 5



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3. Background

The excavations were conducted further to recommendations that had been made after trial trenching in 2001 (Farrell, 2002) that had recommended the following:

- Phase 3 – trench 14 – two groups of features possibly representing buildings. Recommended that two areas of c.225m² to be opened up to north and south areas of trench.
- Phase 3 – trench 19 – Possible linear slots forming building to north end of trench. Recommended that area of c.225m² to be opened up.
- Phase 3 – trench 22 – Possible building and find of Bronze Age pottery. Recommended area of c.225m² to be opened up prior to road being made in this area.
- Phase 4 – Recommended area of c.225m² to be opened up in area of features in trench 28, possible structure.
- Phase 4 – Recommended area of c.225m² to be opened up in area of features in trench 32, possible building.

4. Objectives

To conduct each area of archaeological excavation to an area to be determined onsite to ensure area covered records all archaeological features. A back-acting machine made all stripping of ground with a straight edged bucket under direct archaeological supervision.

5. Methodology

All archaeological features and deposits were first excavated to 50% and then being fully excavated, and recorded by using *pro forma* recording sheets and a continuous unique numbering system. All plans were drawn at 1:20 with all sections were drawn at 1:10 on permanent drafting film. All features and sections were photographed to produce a photographic record consisting of monochrome prints and colour slides. Digital images were also made for report purposes.

6. Excavation Results

The excavations were carried out in accordance with accepted professional archaeological standards as published by the Institute of Field Archaeologists (IFA 1999). Over the working period a suitably qualified archaeologist was on site to carry out the excavation works.

Area 1 – Centred at NH 8995/5664

Trial trenching at this location (trench 32) had revealed a possible building, though at an early stage of work it was revealed that the line of possible stake-holes and other features identified in 2001 (Farrell, 2002) were actually natural features as the south end of the site had a large amount of root disturbance possibly of a small mixed woodland.

The features revealed to an area of c1290m² comprised of small to medium sized pits both modern and prehistoric and 2 possible u-shaped hearths. The overall site lying on a southeast-facing slope situated above a wet area of mixed silts and peat lying to the east. The original excavation area was extended 3 times until areas were clear of archaeological features.

The majority of features revealed were found to the north of the original trench and were all cut into sand. Of these a number of post-holes were revealed to the NE corner [cuts 97, 99, 81, 93, 95, 91, 87 and 89] forming a possible field boundary with a possible earlier line to the SW of 3 postholes [cuts 27, 83 and 85]. To the NE corner a possible pit [75] revealed the find of one piece of flint (see specialist report) of an unknown prehistoric date.

Close to the southwest of this group of features was a number of small to medium sized pits [cuts 13, 1, 23, 77, 79 and 38] of these with the exception of cut 38 had no finds and are of unknown date. The fill of 38 [37] had the find of one piece of flint (see specialist report) of an unknown prehistoric date. Also found in this area was a possible fire-pit [25] with burnt stones though sampling of the fill [24] revealed it to be archaeologically sterile. Most of these pits were round and quite shallow, sampling of their contents revealed that two [1 and 38] had contained barley.

Also to this area were 4 modern features of 3 pits [8, 10 and 101] of which one [8 – the largest pit in the area] contained Victorian pottery, glass and 2 iron nails and 2 plastic lollipop sticks, the other modern feature being a post-hole [34] that contained modern glass. One other feature [31] was deemed as unknown due to animal disturbance. Also in this area were a number of possible post-holes [cuts 29, 20, 7, and 4] again with no finds but possibly not structural.

Other features to the SW included a pit [17] and 2 post-holes in alignment [cuts 33 and 36] of these again were no finds except in fill of 17 [16] where a possible whetstone was found but post-excavation analysis proved it to be a piece of un-worked stone (see specialist report). Sampling of the fill of this pit [16] again provided remains of barley. To the SW corner were also 2 other post-holes [cuts 68 and 73]. The function of these post-holes is unknown but may be the remnants of post-improvement field systems.

To the south end of the site was revealed 2 possible hearths (?) [cuts 40 and 70] both forming u-shaped cuts with burnt rounded small to medium stones within and burnt sand below. Fills were found with laminations of bleached sands, charcoal and light brown silty sand. The function of which is unknown. Both were about 2.5m in length and up to 0.6m wide and up to 0.3m in depth. Deemed by excavators that the nearby water might have played a part in their original function. Possibly some form of heating of water?

Excavation of additional areas to the north and east revealed no other features out-with the group of features at the NE corner of the area of excavation.

Top: View of group of features N end of Area 1 facing W.

Middle: View of possible hearths/kiln facing N – scales 1m.

Below: Group of postholes of field boundary to NE corner facing NW – scale 1m.



Top: View of pit [cut 17] upon ½ section – scale 0.5m.
Middle: View of pit [cut 38] upon ½ section – scale 0.5m.
Below: View of pit [cut 77] upon ½ section – scale 0.5m.



Area 2 – Centred at NH 8988/5674

Trial trenching at this location (trench 28) had revealed a possible structure. Before work commenced it was noted that the overall area in this location had been landscaped by the adjacent development (phase 2) and initial topsoil stripping revealed that the area had been used for the dumping of waste building material.

An area of c520m² revealed no archaeological features. Part of the original trench was located to the west and lies in the phase 2 area of development.

Below: View of Machining for area 2 facing NW with dumped material.



Area 3 – Centred at NH 8969/5686

Trial trenching at this location (trench 14) had revealed two groups of features possibly representing buildings. Before work commenced it was noted that the overall area in this location had been landscaped by the adjacent development (phase 2) with the ground level being reduced and the proposed area of excavation to the south end of the trench being lost to a new access road.

An area of c1330m² revealed only a small number of features. The original features noted in the trial trenching were revealed to be possibly natural depressions with no indication of any buildings.

The features revealed comprised of small shallow pits [cuts 47, 50 and 55] though animal burrowing disturbed the later, though no finds were made to date them. None of the pits had any fills worth sampling. A line of post-holes [cuts 44, 52, 54, 58, 62, 64 and 66] was deemed to form part of modern field boundary. Two other features were deemed as a stone-hole [46] and unknown [60] due to animal disturbance.

It may be possible that the field boundary may have been associated with Camperdown farm that was situated close to the south.

Top: View of excavation area facing NW.

Below: View of ½ section of pit [cut 50] facing W – scale 1m.



Area 4 – Centred at NH 8977/5692

Trial trenching at this location (trench 19) had revealed 2 possible linear slots forming a building.

An area of c915m² revealed only a small number of features. The original features noted in the trial trenching were revealed to be possibly animal burrowing with no indication of any building.

The features revealed comprised of 2 small pits [cuts 113 and 131] of an unknown date with no finds made, though sampling revealed charcoal and burnt bone, making them likely to be prehistoric. Four postholes of unknown date were also revealed [cuts 117, 115, 119 and 123] though their function is unknown.

Also revealed was a group of 3 modern pits [cuts 109, 111 and 121] of which cut 111 was deemed as being spade cut, though its purpose was unknown as no finds were made.

Top: View of ½ section of pit [111] – scale 1m.

Below: View of ½ section of pit [113] – scale 1m.



By far the most unexpected find was that of a Late Bronze Age cremation urn known as a 'vase' (deemed to this date by its style - pers comm. Dr A Sheridan of the NMS) to almost the centre of the site [cut 125] that was situated on its own.

The pot (see front cover) was plain with no decoration and was upright and covered with a rough rounded block of sandstone and surrounded by a dark black fill [124] heavy with charcoal though there was no evidence of an in-situ burning taking place as the surrounding sand was unburnt. The pit was about 35cm in diameter and 20cm deep. Animal disturbance on its north edge had caused some of the pot to be moved.

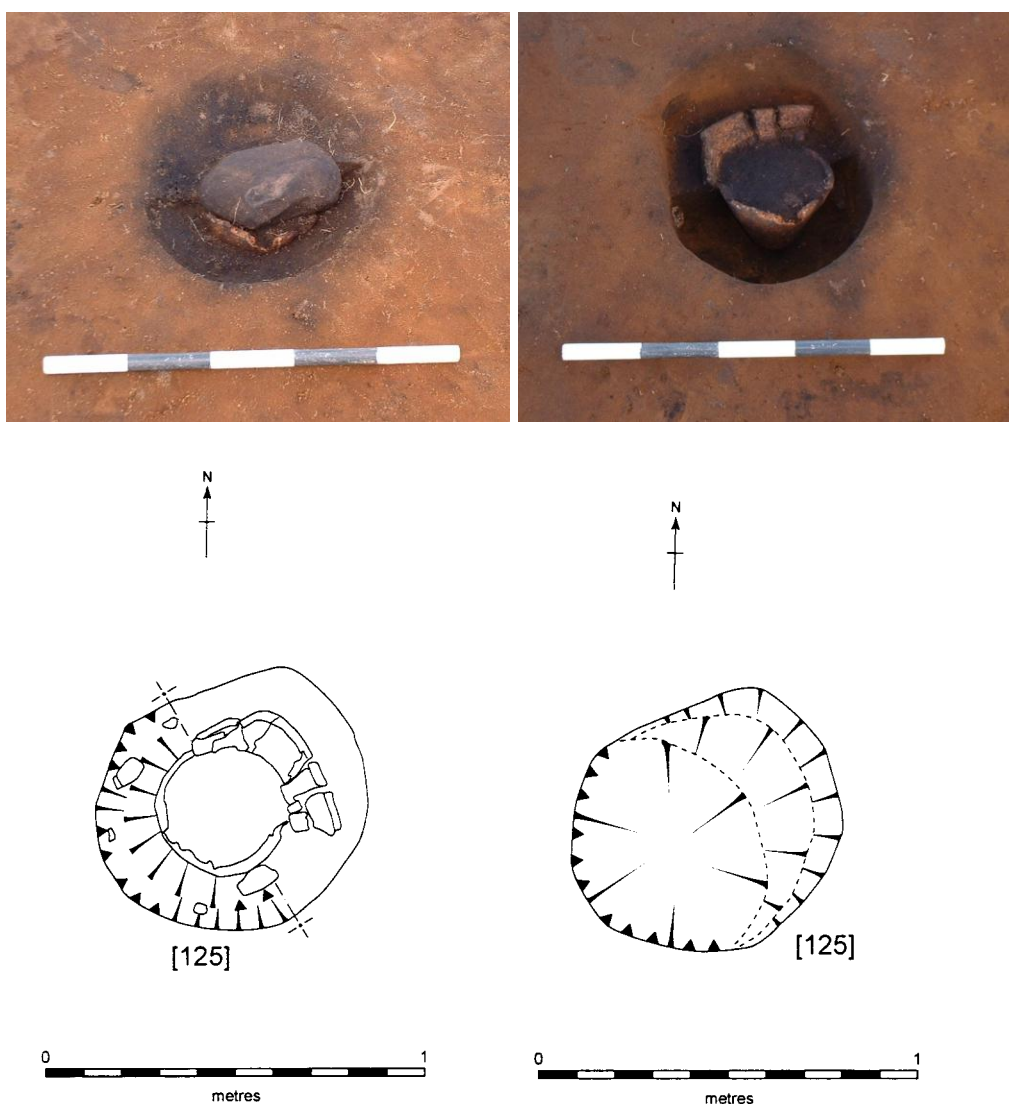
Preliminary analysis of the contents has revealed a small amount of cremated bone possibly deposited in the urn in a small bag (Farrell, forthcoming). Further analysis of the style of the pot, its contents and dating both of the bone and the fill surrounding the urn will be forthcoming at a later date.

Top Left: View of pot with stone on top – scale 0.5m.

Top Right: View of pot in pit upon ½ section – scale 0.5m.

Bottom left: Plan of pot in pit upon ½ section – scale 1:10.

Bottom Right: Plan of cut of pit upon complete excavation – scale 1:10.



Area 5 – Centred at NH 8988/5691

Trial trenching at this location (trench 22) had revealed a possible building and the find of 3 fragments of Bronze Age pottery.

An area of c1110m² revealed only a small number of features. The original features noted in the trial trenching were revealed to be possibly animal burrowing with no indication of any buildings. No further pottery was found.

The features revealed comprised of 2 shallow modern drainage ditches [cuts 147 and 145] a number of small to medium sized pits [cuts 127, 141, 143 and 149] of an unknown date with no finds being made. Sampling of these pits revealed some charcoal but no other finds. A number of other pits [cuts 137, 139, 135 and 151] were deemed as modern with pieces of coal being found in the fill of 151. One feature [129] was deemed as animal burrowing.

Top: View of section through ditch [147] – scale 0.5m.

Below: View of section through ditch [145] – scale 0.5m.



Lithics by Dr T B Ballin

INTRODUCTION

During recent excavations at Lochloy, near Nairn, Highland, a small number of lithic and stone objects was recovered. The aim of the present report is to characterize, catalogue and – if possible – date these pieces.

THE ASSEMBLAGE

The assemblage includes three objects, two in flint and one in sandstone:

Context 37 (fill of pit)

CAT 1 Bipolar, inner flake in fine, yellow, relatively fresh flint; the outermost part of the distal end has broken off. The dorsal face displays flake scars initiated from the proximal and distal ends, as well as a number of removal scars running perpendicular to those. The latter scars suggest that the bipolar core, from which CAT 1 was detached, was re-orientated during production and, consequently, possessed two sets of crushed bipolar terminals. 20 x 18 x 5 mm.

Context 74 (fill of possible pit)

CAT 2 Modified secondary hard-hammer flake in coarse, grey/white, relatively fresh flint with chalcedonic or opalline inclusions as well as impurities of quartz crystals; the left distal corner has broken off. The flake has a broad, plain, untrimmed platform remnant and a pronounced ventral bulb. The left lateral side is blunt due to the presence of abraded cortication, whereas the right lateral side is sharp. The right distal corner has been retouched (c. 7 mm), but, as the left continuation of the modification is missing, it is not possible to say whether this retouch was a scraper-edge, blunting for a knife, or a piercer tip. The relative sharpness of the right lateral side would have allowed use as a cutting implement. 36 x 24 x 6 mm.

Context 16 (fill of pit)

CAT 3 The fragment of a long narrow pebble in fine-grained, brown sandstone; the piece flaked along one of the natural layers of this foliated stone, and one end broke off. The flaking of the object occurred at some point of time in prehistory, as demonstrated by the roughly abraded surface of the secondary face, whereas the end was detached much later, leaving a fresher break. The original outer surface of the piece is very smooth and even, and there is no doubt that this type of sandstone would have been a suitable raw material for a whetstone, but the smooth surface displays none of the facets, scratches/grooves or concavities usually associated with this artefact type (cf. Ballin 1996, Figs 30.4-5), and the piece is most likely a natural, unworked stone. 117 x 48 x 13 mm.

DISCUSSION

The abraded cortex of CAT 2 suggests that raw flint may have been acquired from beach deposits along the shores of the Moray Firth (cf. Fig 1 – off-shore Cretaceous flint deposits – in Saville 1994, 58). The two flint artefacts were manufactured in different percussion techniques, with CAT 1 representing bipolar technique and CAT 2 hard percussion. If they are contemporary, they are the products of a combined platform/bipolar industry, which, drawing on technological analyses of other lithic assemblages from Scottish prehistory, usually implies the manufacture of platform flakes from relatively large pebbles, and production of bipolar flakes from either exhausted platform cores, or from pebbles which were too small to work in platform technique.

None of the artefacts is diagnostic and, as individual pieces, they would fit into any Mesolithic, Neolithic or Bronze Age assemblage from east of Scotland or from the northeastern part of the Highland region. Mesolithic collections are usually referred to as macroblade (early) / microblade (late) assemblages, Early Neolithic collections as macroblade assemblages, and Late Neolithic and Bronze Age collections as flake assemblages, but flake blanks and flake tools were produced, at least as by-products, throughout prehistoric Scotland.

7. Conclusions

As noted previously on work in zones 1 and 2 (Farrell, 2002) some of the features revealed relate to an agricultural landscape both modern and pre-agricultural improvement in date in the form of drainage ditches and field boundaries. Evidence for earlier habitation is completely prehistoric but of unknown date with no direct evidence for structural remains of any structures but only of pits, the majority without contents, though this is not uncommon as pits of a prehistoric date have been found at Raigmore, Inverness (Simpson, 1996) where no finds were made though they did contain charcoal and a little bone. It may be possible that due to the underlying natural sand having an acid content most of the wood/leather/bone possibly deposited in these pits has dissolved over time. The work in area 1 was similar to that work conducted in zone 1 where the archaeological features are situated on a SE facing slope in the shelter of the predominant wind direction.

That some parts of the site were destroyed by development work or that possible features identified during trial trenching (made over 2½ years previously) shows that further work upon initial discoveries should be investigated during trial trenching rather than being left to a later date.

8. Recommendations

No recommendations with regard any further fieldwork for zones 3 to 5 of the work at Lochloy is currently to be proposed due to that few other features would be revealed with further work. This should currently cover planning applications 03/00022/FULNA for housing in zone 4 and 03/00023/FULNA for the access road to zone 3 and 4.

Analysis of the cremation urn from area 4 is still underway and results on its contents and c14 dates will be forthcoming.

Further archaeological work still needs to be undertaken in the form of preliminary trial trenching for zones 6 to 9. It is proposed that when all the archaeological work is completed a final report will be compiled on all the work carried out.

9. Archive

The following is to be deposited in the National Monuments Record in Edinburgh:

- Notebook of results
- Black and white photographs & negatives
- Plan and section drawings
- Context sheets
- Photographic record sheets
- Colour chart
- Copy of this report
- Report by Headland Archaeology on Samples

A set of black & white photographs of the features excavated and colour slides showing the progress of the work has been deposited with Highland Council Sites and Monuments Record. Digital images used in this report have been deposited with HSMR on disc as well as a copy of this report as a PDF file.

10. Discovery & Excavation in Scotland

A short summary of the results of this project has been submitted to the Council for Scottish Archaeology's publication *Discovery & Excavation in Scotland*.

11. References

Ballin, T.B (1996) *Klassifikationssystem for stenartefakter*. Varia 36. Oslo: Universitetets Oldsaksamling.

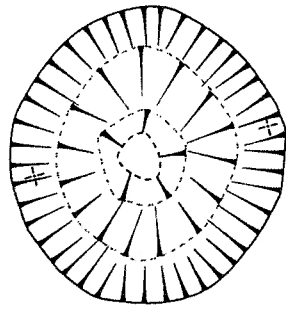
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Farrell, S (forthcoming) Report on a Late Bronze Age Cremation from Lochloy.

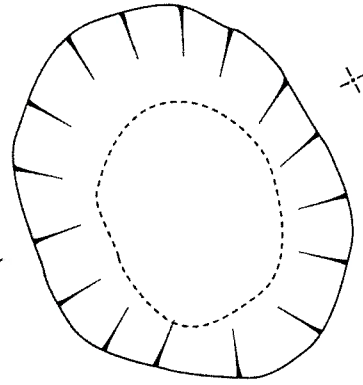
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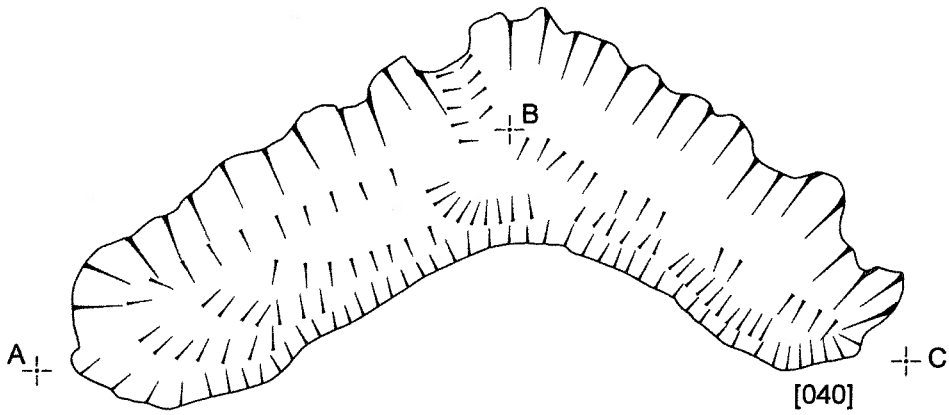
Simpson, D (1996) Excavation of a kerbed funerary monument at Stoneyfield, Raigmore, Inverness, Highland 1972-3. *Proceedings of the Society of Antiquaries of Scotland* 126, 53-86.



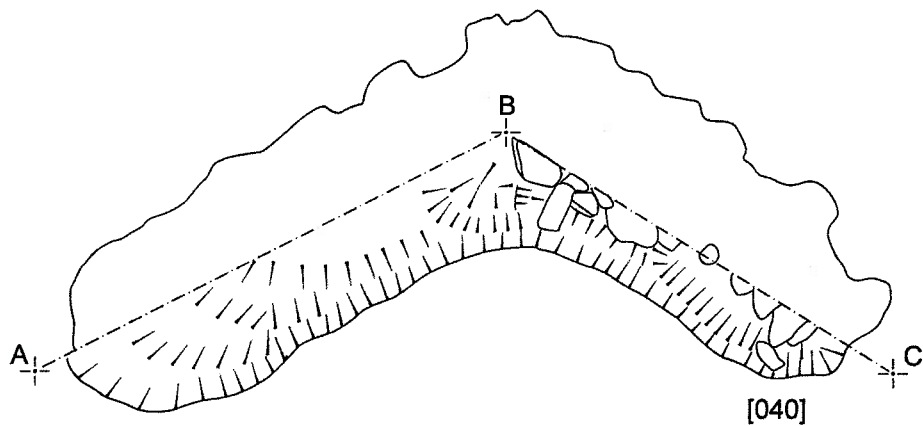
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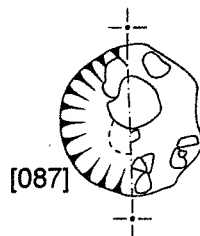
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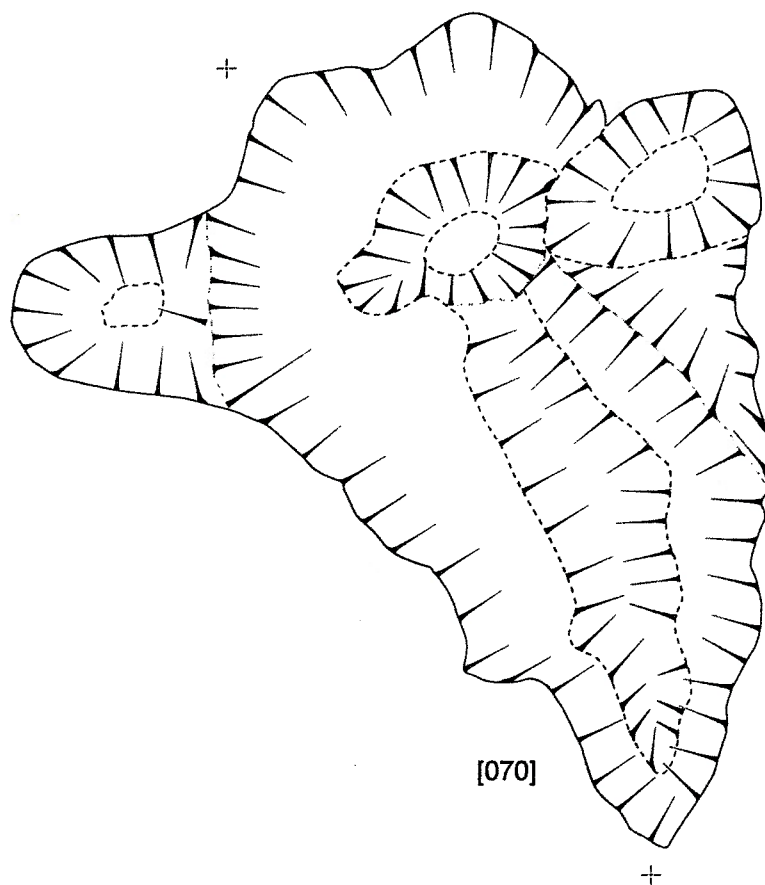
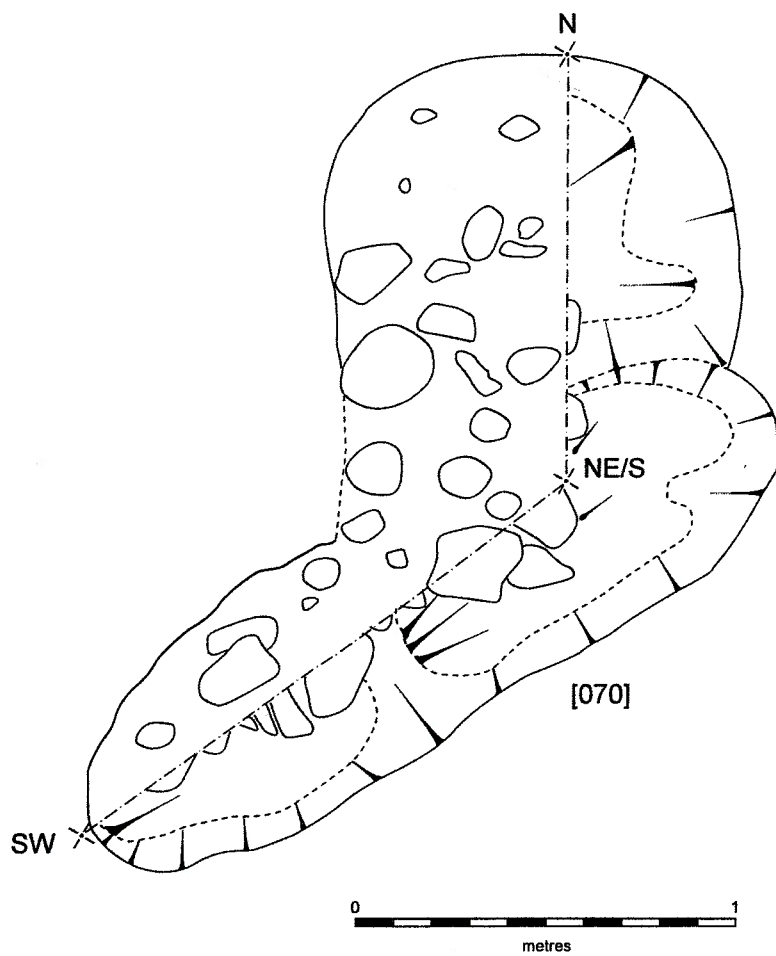
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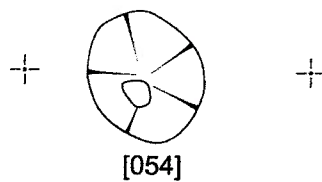
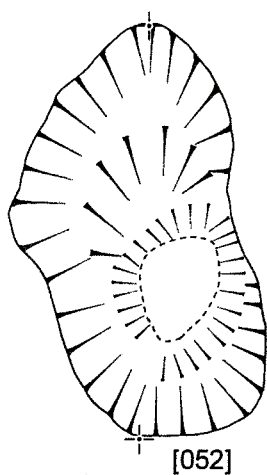
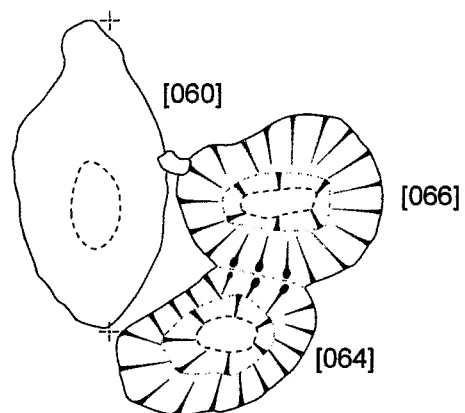
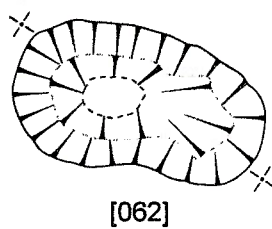
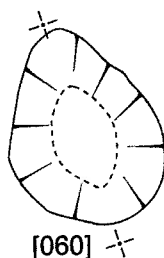
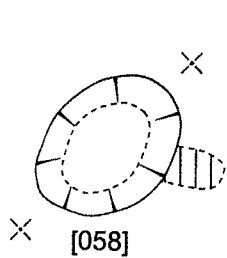
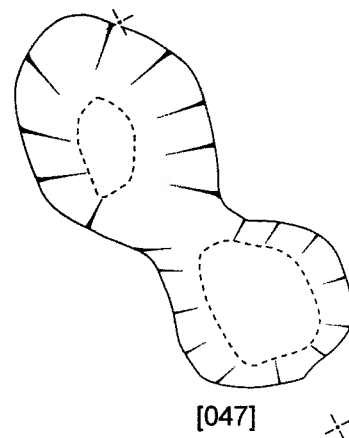
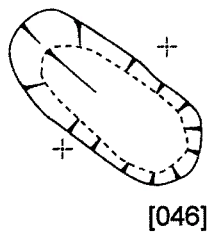
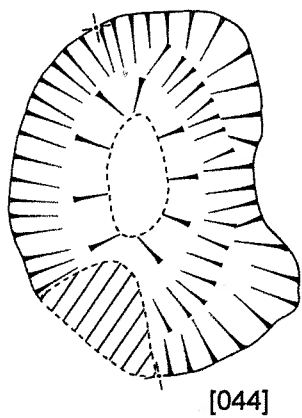


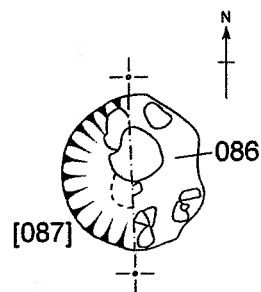
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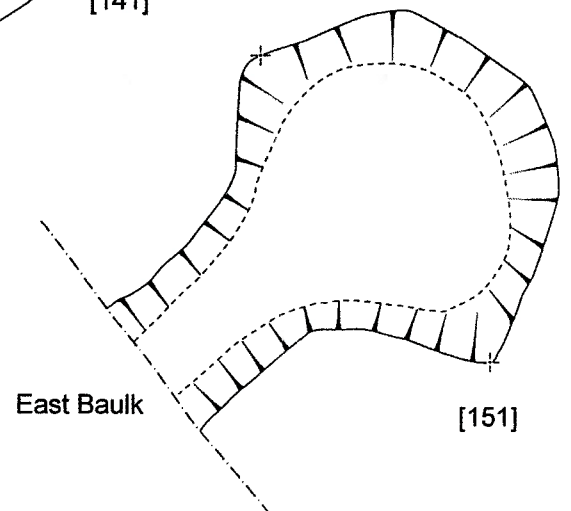
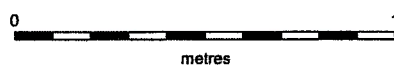
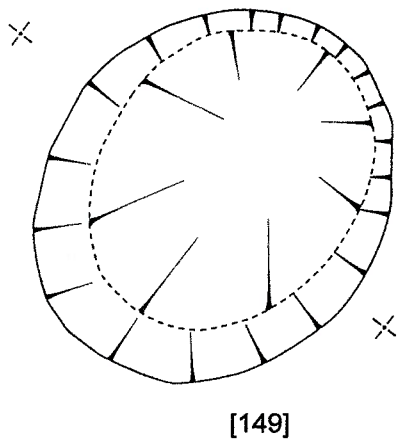
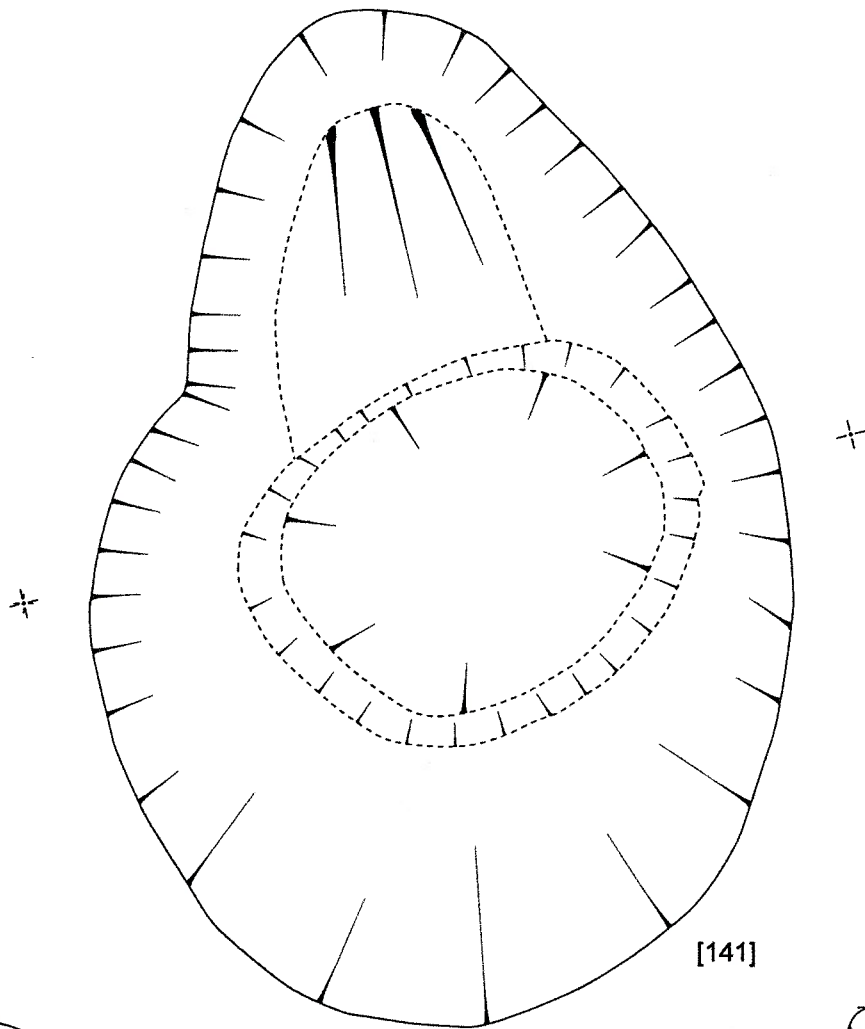
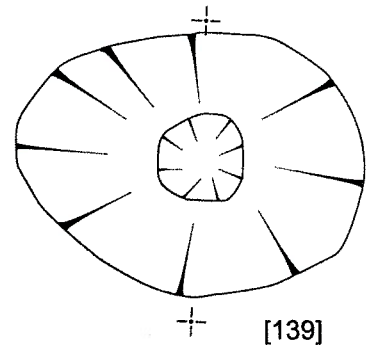
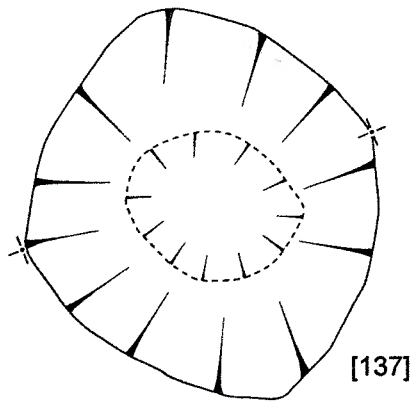
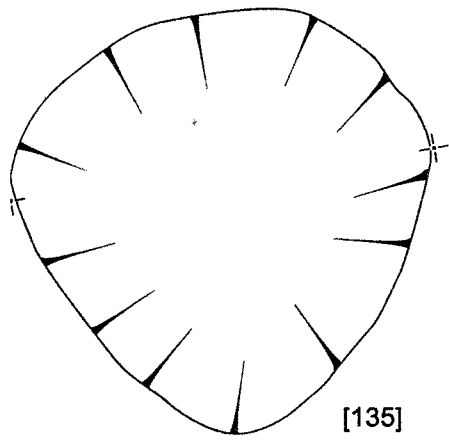


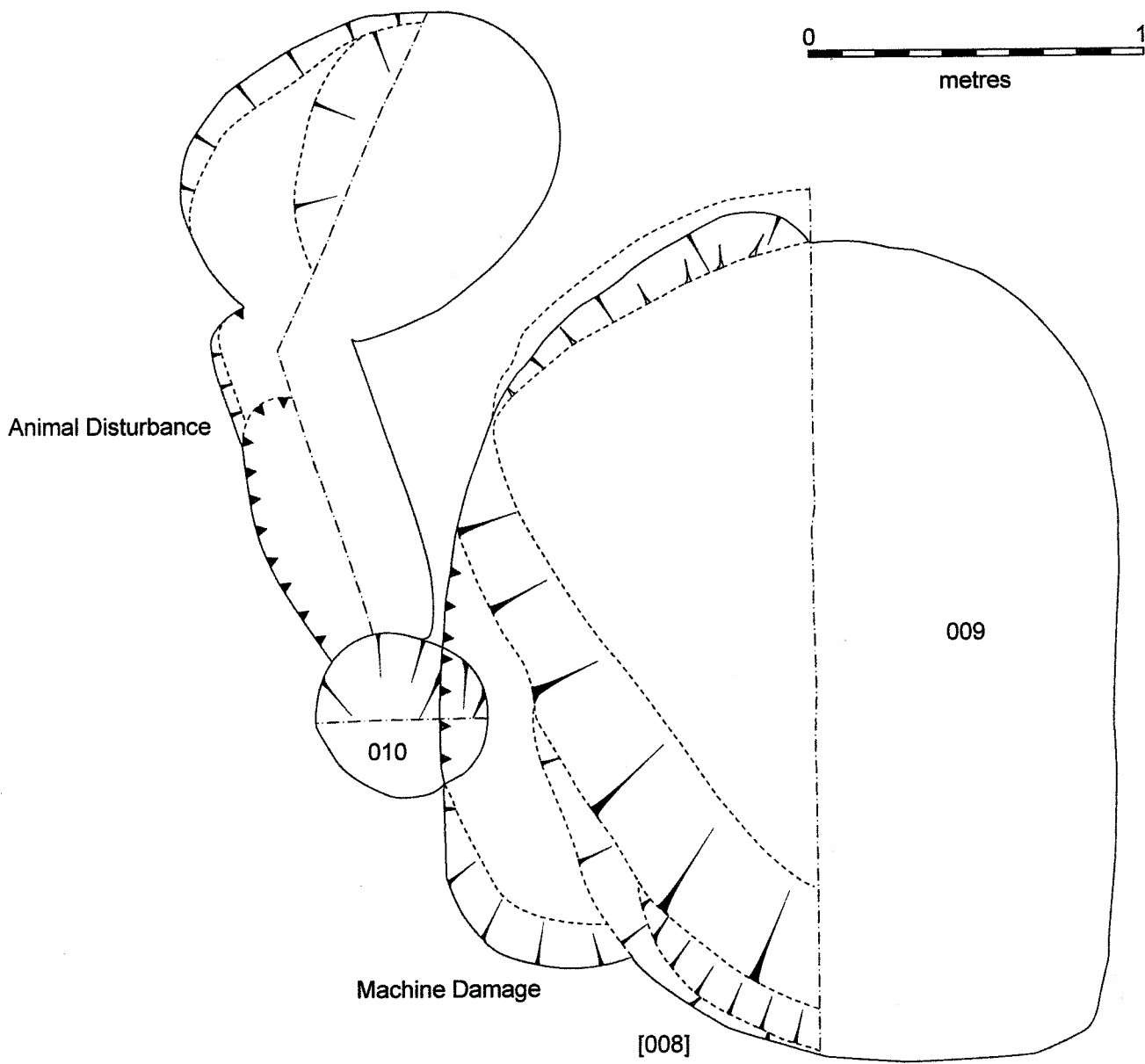
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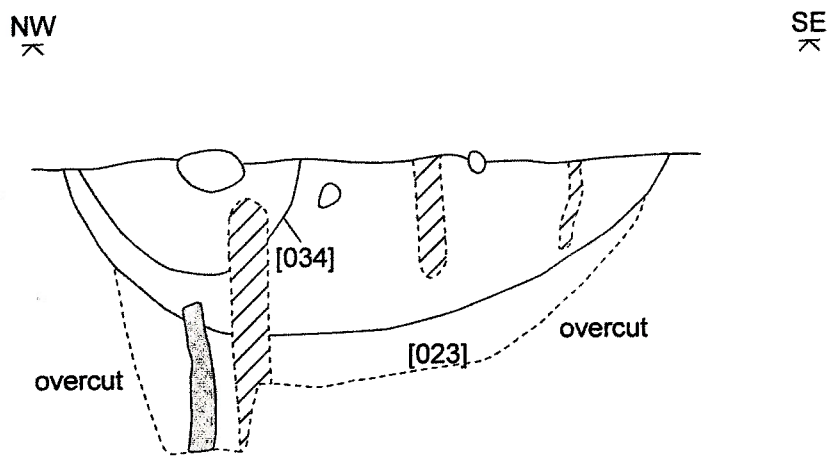
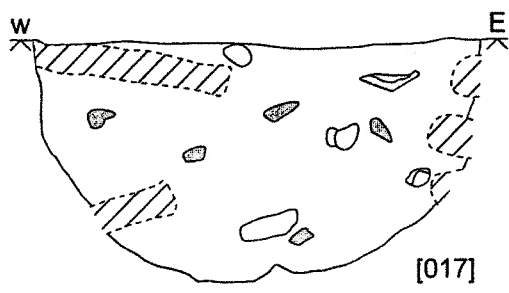
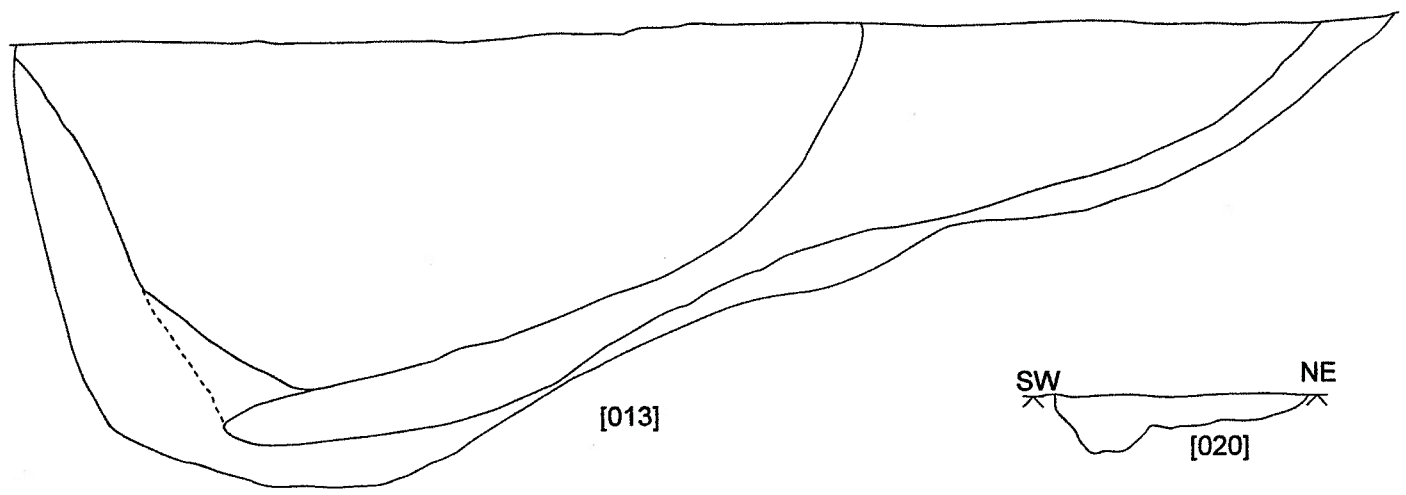
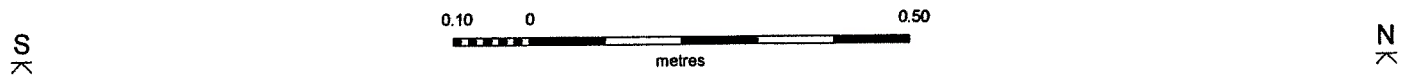
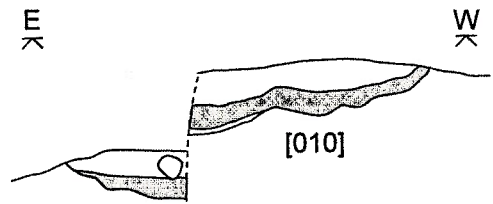
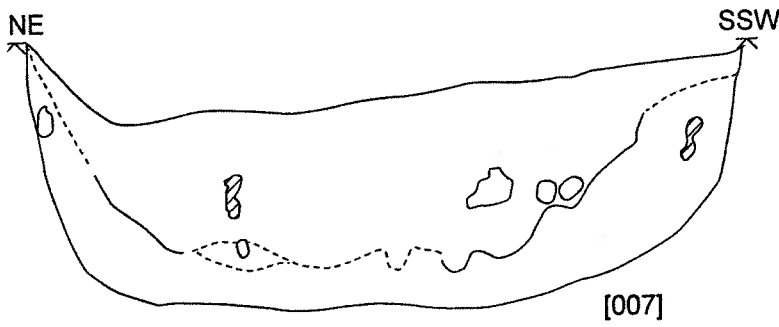
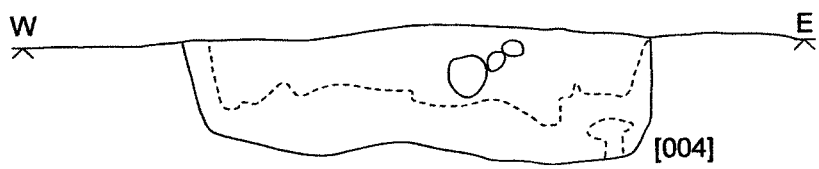
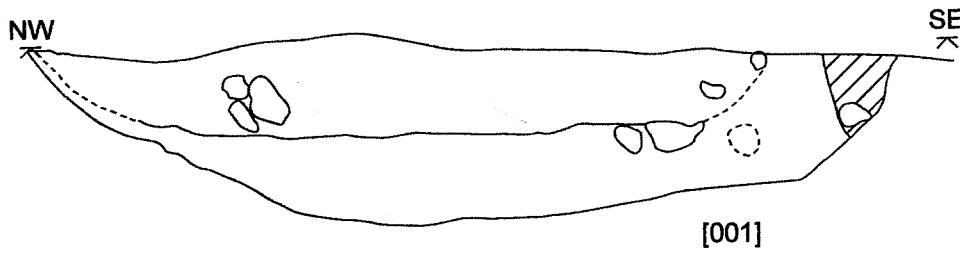


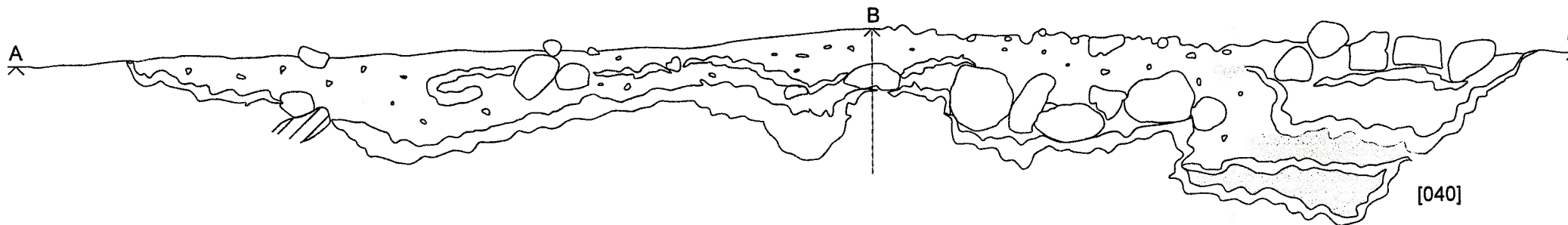
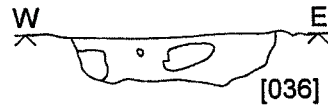
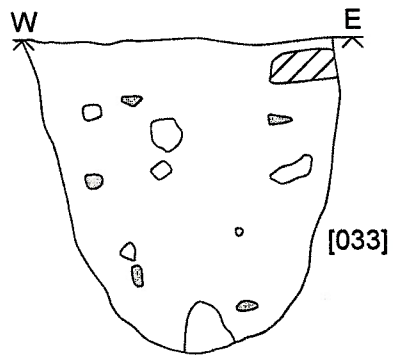
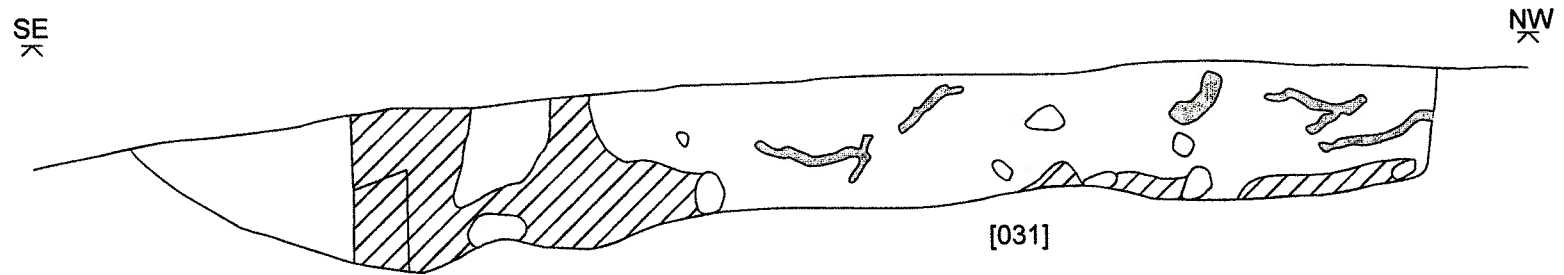
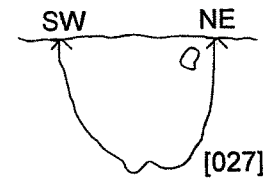
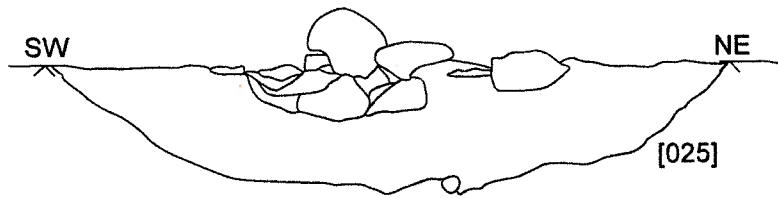


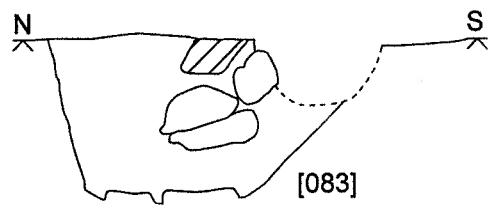
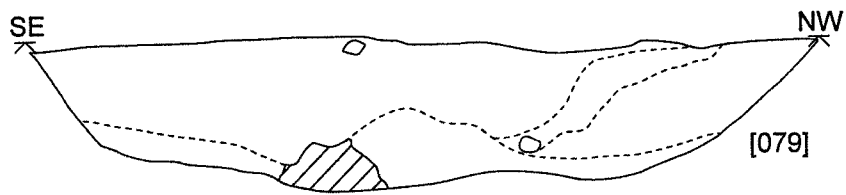
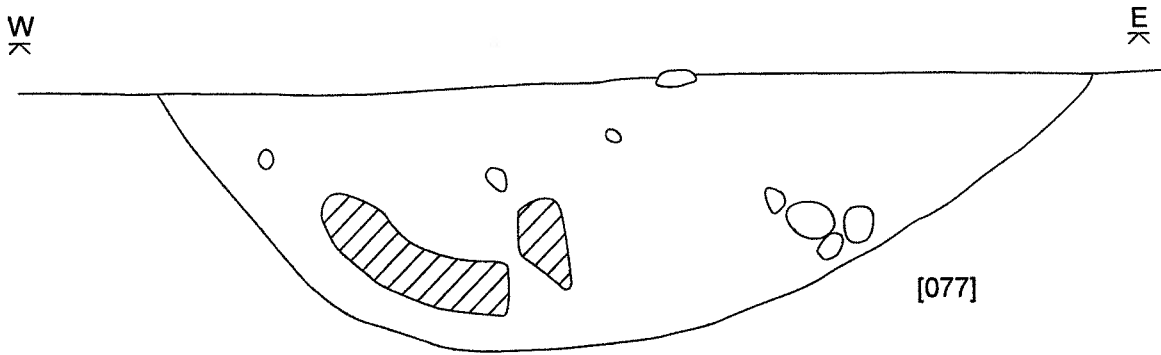
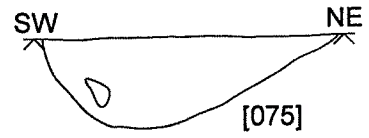
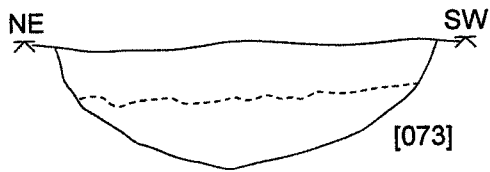
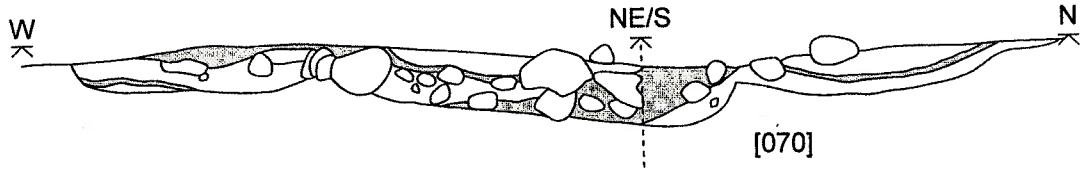
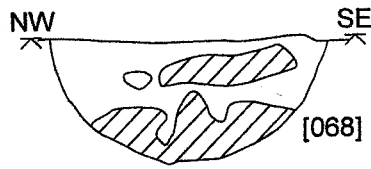


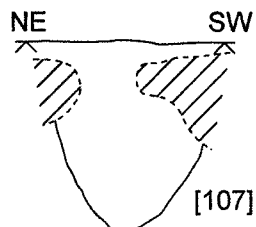
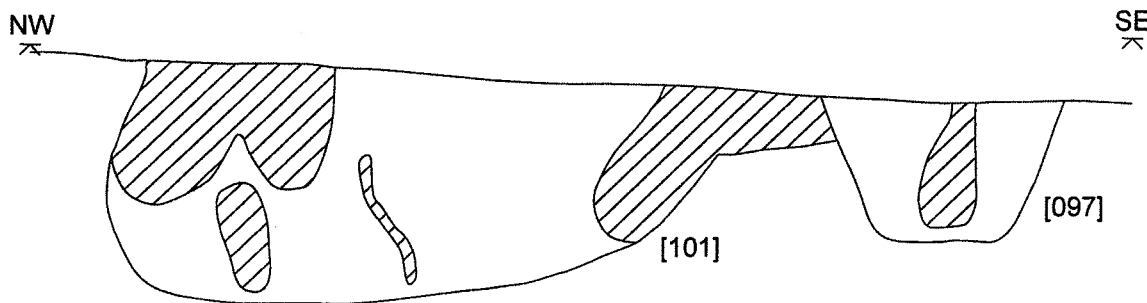
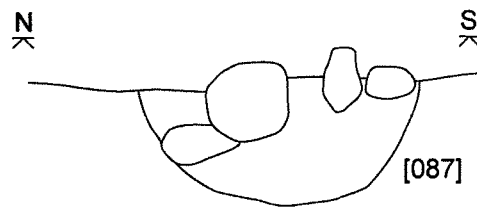
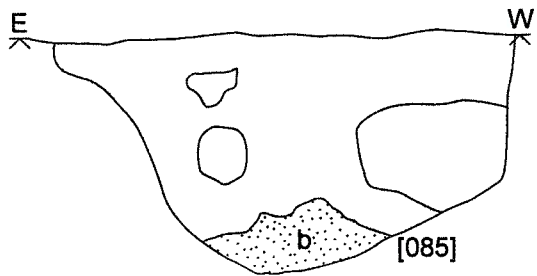


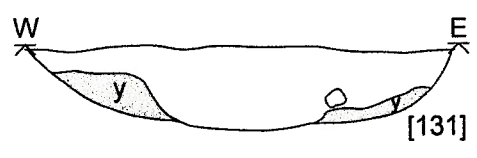
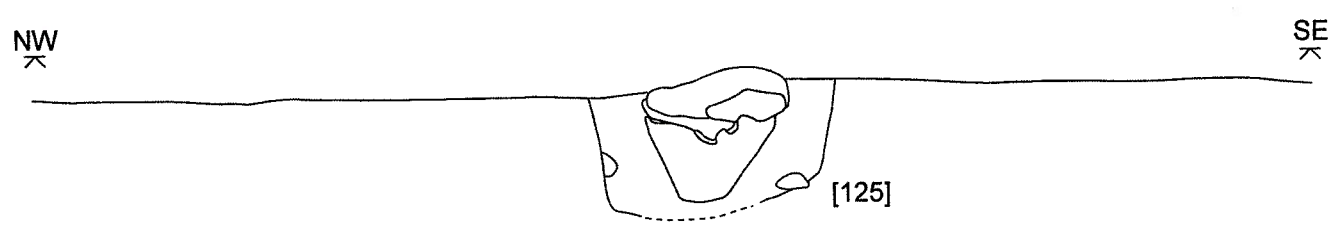
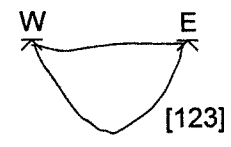
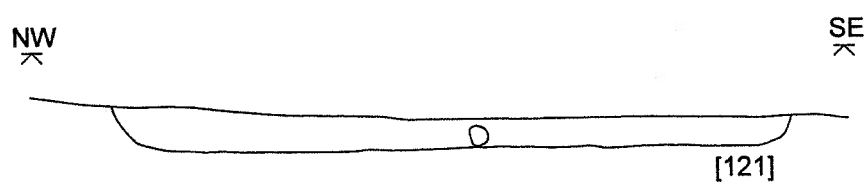
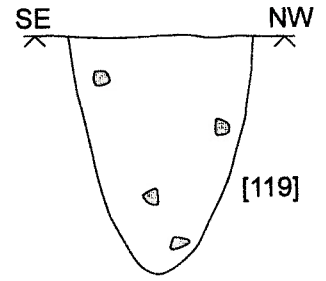
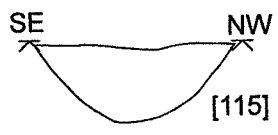
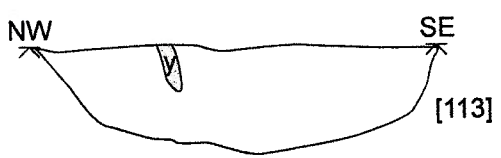
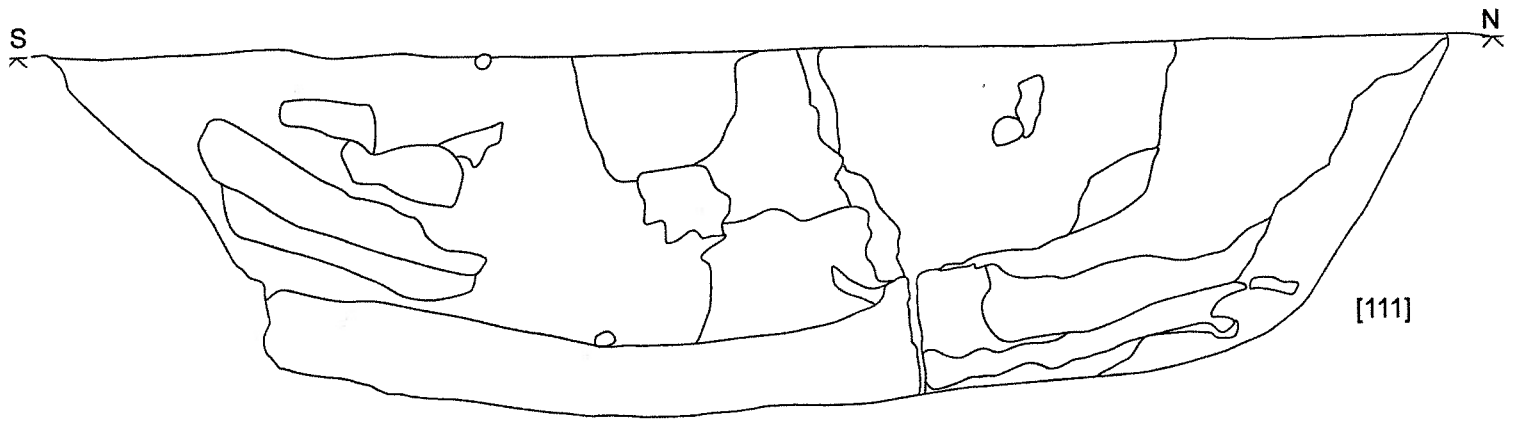
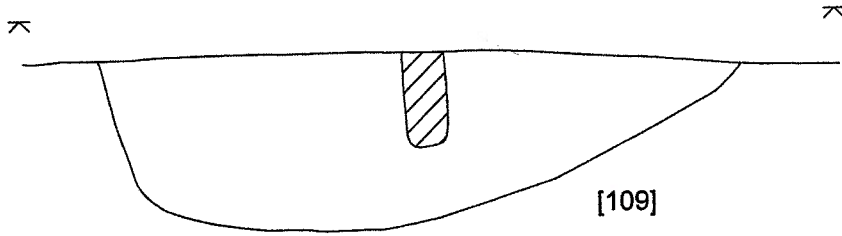


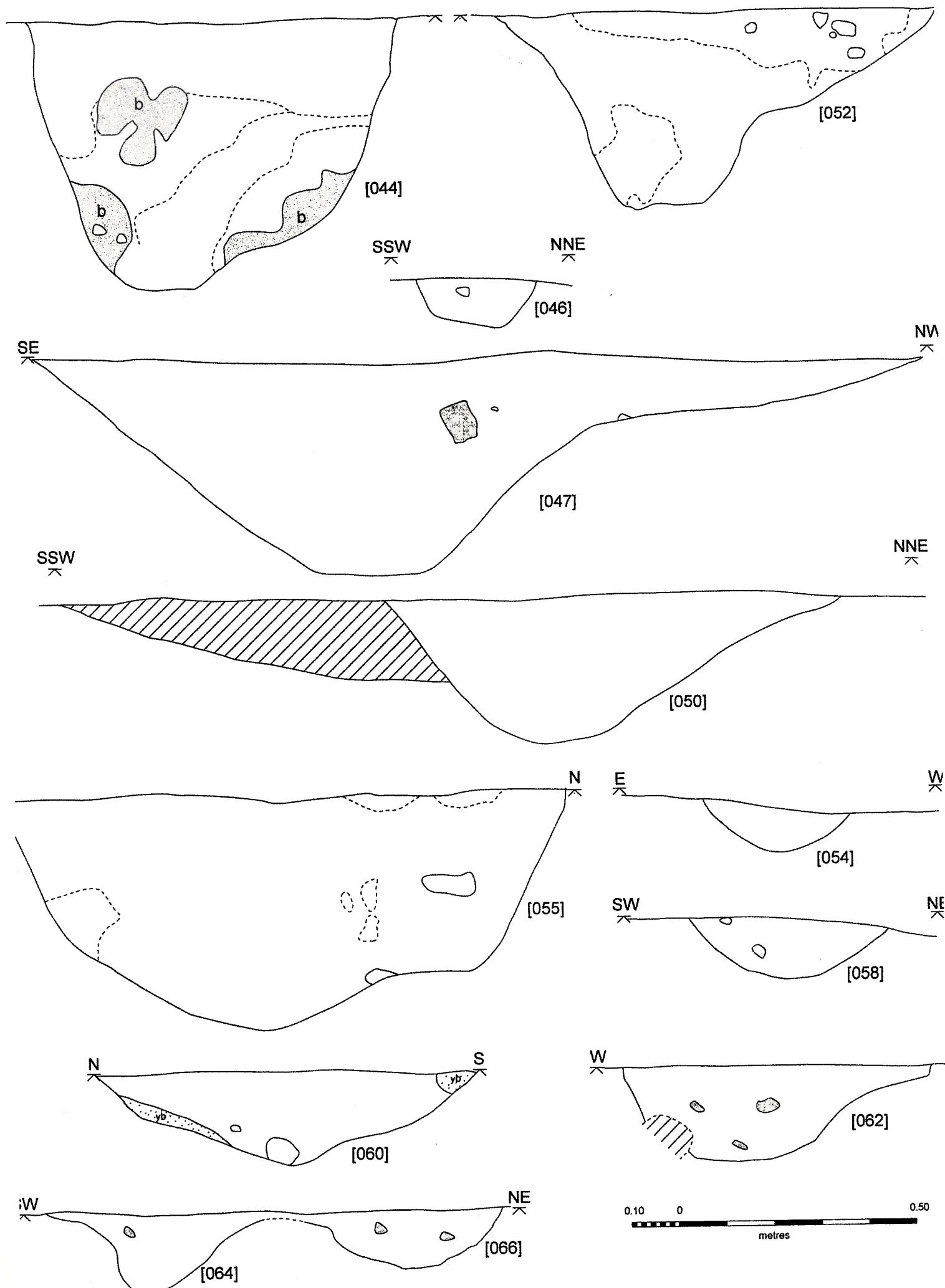


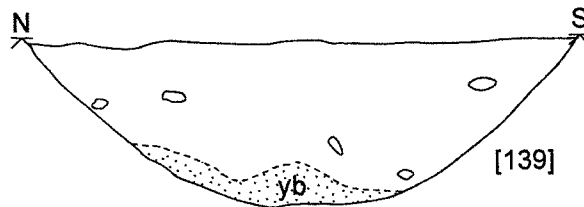
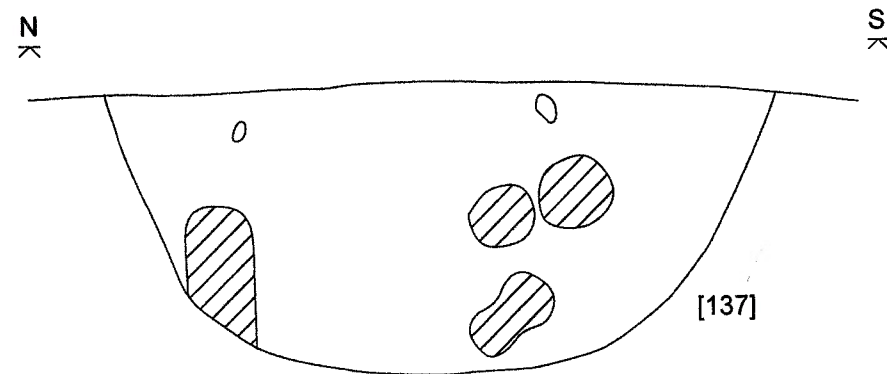
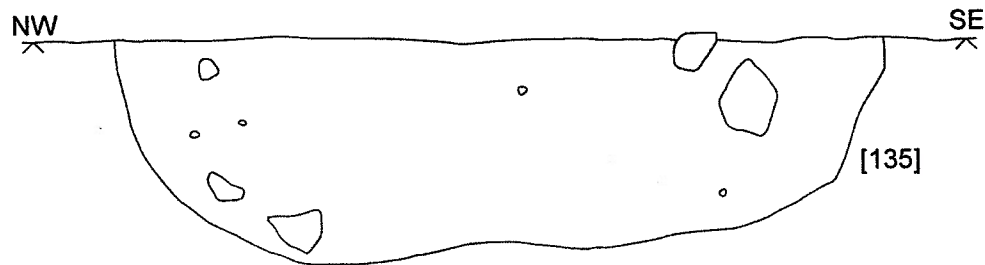
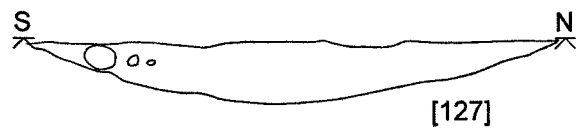


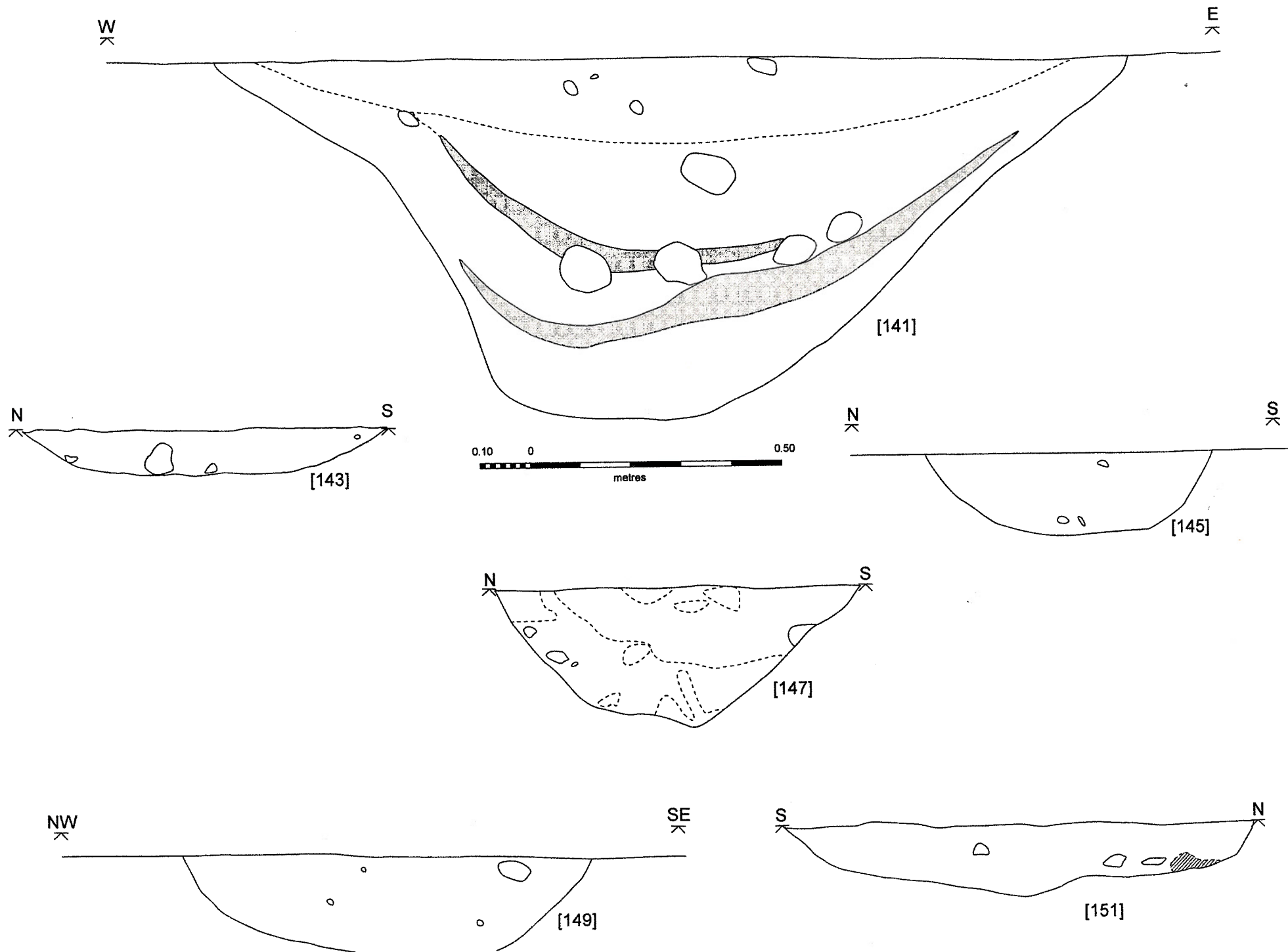












APPENDIX 1: CONTEXT REGISTER.

Context Number	Description	Dimensions: Dm = diameter L = length B = breadth D = depth
1	Cut of Pit/Posthole, sub-circular in plan, steep edges shelving to a rounded base.	Dm = 1.14m D = .24m
2	Fill of [001] Light/medium yellow/grey silty-sand of firm but crumbly compaction, occasional small stones throughout, good edges.	See [001]
4	Cut of Pit/Posthole, sub-circular in plan, steep sides, uneven base, irregular profile, good edges.	Dm = .60m D = .20m
5	Fill of [004] Medium/dark brown/grey silty-sand with pockets of stones and cobbles.	See [004]
7	Cut of Pit/Posthole, sub-circular in plan, steep sides, uneven base, irregular profile, edges occasionally obscured.	Dm = .91m D = .25m
8	Cut of Pit, sub-oval in plan, steep sides to a rounded base, good edges.	L = 2.4m B = 2m D = 1m
9	Fill of [008] Mixed sands and silts, unsorted.	See [008]
10	Deposit of burnt wood and ash.	Dm = .5m D = .07m
11	Fill of [007] Medium grey silty-sand with assorted small stones throughout.	See [007]
13	Cut of Pit/Posthole, sub-oval in plan, steep sided to S, less so to N, angular base, good edges.	L = 1.12m B = 1.15m
14	Fill of [013] Medium grey silty-sand, small stones throughout.	See [013]
15	Fill of [013] Medium yellow sand with V-small amount of silt throughout.	L = 1.4m B = 1.15m
16	Fill of [017] Medium grey/brown silty-sand of moderate compaction, occasional small stones and charcoal. Contained whetstone.	Dm = .58m D = .31m
17	Cut of Pit/Posthole, sub-circular in plan, rounded profile, good edges.	See [016]
19	Fill of [020] Dark brown/black sandy-silt with powdered charcoal throughout.	L = .32m B = .09m
20	Cut of Pit/Posthole, sub-oval in plan, irregular in profile, good edges.	See [019]
21	Fill of [023] Medium/light orange/grey silty-sand with occasional small stones.	L = .76m B = .46m D = .23m
22	Fill of [034] V-dark brown silty-sand with substantial flecks of charcoal and moderate stones throughout. Truncated post, present in bottom half of fill.	Dm = .28 D = .15m
23	Cut of Posthole, sub-oval in plan, rounded profile, good edges.	See [021]
24	Fill of [025] V-dark grey/black silty-sand of firm but crumbly compaction, powdered charcoal throughout, fist-sized stones burnt in situ.	Dm = .87m D = .17m
25	Cut of Firepit. Sub-circular in plan, rounded but irregular profile, good edges.	See [024]
26	Fill of [027] Medium brown/grey silty-sand of firm but crumbly compaction, occasional small stones.	Dm = .20m D = .19m
27	Cut of Pit/Posthole. Sub-circular in plan, rounded profile, good edges.	See [026]
28	Fill of [029] V-dark grey/black silty-sand of firm but crumbly compaction, powdered charcoal throughout, assorted stones throughout with cluster towards centre.	Dm = .26m D = .18m
29	Cut of Pit/Posthole. Sub-circular in plan, V-shaped profile, slightly rounded base, good edges.	See [028]
30	Fill of [031] Mixed grey ash and powdered charcoal, occasional small	L = 1.72m

	stones.	B = .46m D = .19m
31	Cut of possible Pit. Irregular elongated oval in plan, irregular in profile, poor edges.	See [030]
32	Fill of [033] Medium grey/brown silty-sand of moderate and crumbly compaction, small stones throughout.	Dm = .40m D = .42m
33	Cut of Pit/Posthole. Sub circular in plan, V-steep sides, rounded base, undercut on S-side, good edges.	See [032]
34	Cut of Posthole, Fill [022] Sub-circular in plan, moderate sides, rounded base, good edges.	See [022]
35	Fill of [036] V-dark grey/black silty-sand of firm but crumbly compaction.	Dm = .26m D = .06m
36	Cut of Pit/Posthole. Sub-circular in plan, short sides, irregular base, not always good edges.	See [035]
37	Fill of [038] Medium dark grey silty-sand, several stones and small cobbles. Contained struck flint.	L = 1.07m B = .80 D = .16m
38	Cut of Pit/Posthole. Sub-oval in plan, moderate sides, shallow rounded base, good edges.	See [037]
39	Fill of [040] V-dark brown/black silty-sand of firm compaction, powdered charcoal throughout, considerable amount of stones and cobbles (many fire cracked and blackened) throughout.	L = 2.5m B = .60m D = .33m
40	Cut of Pit. Boomerang shaped in plan, irregular V-shaped profile, many edges obscured and altered by water action.	See [039]
43	Fill of [044] Mixed – medium, medium/dark and dark grey/brown silty-sand + pure light sand lenses, frequent flecks of charcoal.	L = .94m B = .64m D = .58m
44	Cut of Pit/Posthole. Bean shaped in plan, steep sides, rounded uneven base, good edges.	See = [043]
45	Fill of [046] Medium/dark grey/brown silty-sand, V-occasional charcoal flecks.	L = .57m B = .23m D = .10m
46	Cut of Pit/Posthole. Elongated oval in plan, moderate sides and rounded base, good edges.	See [045]
47	Cut of Pit. Sub-oval in plan, shallow sides, flattish rounded base, good edges.	L = .95m B = .56m D = .21m
48	Fill of [047] Black/brown silty-sand of loose compaction, powdered charcoal throughout, occasional pebbles.	See [047]
49	Fill of [050] Dark brown silty-sand, occasional charcoal flecks.	L = 1.64m B = .60m D = .30m
50	Cut of Pit. Irregular in plan, moderate but irregular sides, uneven base, edges heavily disturbed in places.	See [049]
51	Fill of [052] Mixed – light, medium and dark grey/brown silty-sand of moderate compaction, occasional small stones towards top of fill.	L = 1.8m B = .56m D = .44m
52	Cut of Pit/Posthole. Sub-oval in plan, steep edges to W, more gentle to E, flattish base (possible socket), good edges.	See [051]
53	Fill of [054] V-dark brown/black silty-sand, frequent flecks and pockets of charcoal throughout.	Dm = .34m D = .13m
54	Cut of Posthole. Sub-circular in plan, rounded profile, good edges.	See [053]
55	Cut of Pit. Pear shaped in plan, steep sides, rounded base, good edges.	L = .60m B = .86m D = .28m
56	Fill of [055] Dark brown/black silty sand of moderate compaction, pebbles throughout.	See [055]
57	Fill of [058] Medium/dark grey/brown silty-sand, rare charcoal flecks, occasional stones.	L = .42m B = .34m

		D = .13m
58	Cut of Posthole. Sub-oval in plan, moderate/steep sides, rounded base, good edges.	See [057]
59	Fill of [060] Dark brown/grey silty-sand; reasonably frequent pebbles, stones and small cobbles throughout.	L = .80m B = .46m D = .24m
60	Cut of Pit. Elongated irregular oval in plan, shallow sides to N&S, steep to E&W, rounded base, good edges.	See [059]
61	Fill of [062] Medium red/brown silty-sand of moderate compaction, flecks of charcoal throughout.	L = .68m B = .38m D = .20m
62	Cut of Posthole. Sub-oval in plan, steep sides to W, convex curve to E, rounding back to a concave base, good edges.	See [061]
63	Fill of [064] Dark brown/grey silty-sand of moderate compaction, occasional flecks of charcoal.	L = .51m B = .34m D = .17m
64	Cut of Pit/posthole. Sub-oval in plan, convex profile to S, concave to N, rounded base, good edges.	See [063]
65	Fill of [066] Dark brown/grey silty-sand of moderate compaction, occasional flecks of charcoal.	L = .52m B = .44m D = .12m
66	Cut of Pit/Posthole. Sub-oval in plan, gently rounded profile, good edges.	See [065]
67	Fill of [068] Dark brown/grey silty-sand of moderate compaction.	Dm = .35m D = .16m
68	Cut of Pit/Posthole. Sub-circular in plan, rounded profile, good edges.	See [067]
69	Fill of [070] Mixed – white sand, medium brown silty-sand, black silty-sand full of powdered charcoal, with larger flecks and pockets of charcoal, assorted stones and cobbles, many cracked and blackened by fire action.	L = 2.06m B = 1.7m D = .18m
70	Cut of Pit. Irregular Boomerang shaped in plan, V-irregular sides and base, much disturbed by water action, diffuse edges.	See [069]
71	Fill of [073] V-dark grey/black silty-sand of moderate compaction, powdered charcoal throughout.	Dm = .49m D = .08m
72	Fill of [073] V-light brown sand of soft compaction.	Dm = .44m D = .09m
73	Cut of Pit/Posthole. Sub-circular in plan, gently rounded profile.	Dm = .49m D = .17m
74	Fill of [075] Grey/brown sandy-silt, occasional stones and charcoal flecks throughout.	L = .60m B = .39m D = .10m
75	Cut/deposit. Irregular in plan and profile, confused edges.	See [074]
76	Fill of [077] dark brown silty-sand, V-occasional flecks of charcoal.	L = 1.2m B = .88m D = .35m
77	Cut of Pit/Posthole. Sub-oval in plan, moderate sides, rounded base, reasonable edges.	See [076]
78	Fill of [079] Dark grey/brown sandy-silt, large pebbles throughout.	L = 1.03m B = .50. D = .20m
79	Cut of Pit/Posthole. Oval in plan, shallow sides with flattish base, good edges.	See [078]
80	Fill of [081] Dark grey/black silty-sand.	Dm = .31m D = .10m
81	Cut of Posthole. Circular in plan, rounded in profile, reasonable edges.	See [080]
82	Fill of [083] Medium brown silty-sand of soft/moderate compaction, frequent stones and cobbles throughout.	Dm = .44m D = .20m
83	Cut of Posthole. Sub-oval in plan, steep sides with flattish stone base, good edges.	See [082]

84	Fill of [085] Dark grey/brown silty-sand of soft/moderate compaction, frequent stones and cobbles throughout.	Dm = .60m D = .32m
85	Cut of Pit/Posthole. Sub-oval in plan, steep sides and uneven base, profile often unclear because of stones and cobbles in natural, good edges otherwise.	See [084]
86	Fill of [087] Medium dark brown silty-sand, flecks of charcoal and medium stones throughout.	Dm = .37m D = .18m
87	Cut of Posthole. Sub-circular in plan, moderate/steep sides, rounded base, good edges.	See [086]
88	Fill of Modern Posthole: Unexcavated.	
89	Cut of Modern Posthole: Unexcavated.	
90	See [088]	
91	See [089]	
92	See [088]	
93	See [089]	
94	See [088]	
95	See [089]	
96	Fill of [097] Dark brown silty-sand, V-occasional flecks of charcoal.	Dm = .30m D = .19m
97	Cut of Posthole. Sub circular in plan, steep sides, gently rounded base.	See [096]
98	See [088]	
99	See [089]	
100	Fill of [101] Medium/dark brown silty-sand.	L = 1.08m B = .80m D = .34m
101	Cut of Pit. Sub-oval in plan, Steep sides (undercut to W), rounded base, good edges.	See [100]
102	Fill of [103] V-dark brown/black silty-sand of moderate compaction. Contained modern glass.	Dm = .27m D = .14m
103	Cut of Posthole. Sub-circular in plan, rounded profile, good edges.	See [102]
104	Fill of [105] Dark brown silty-sand of soft compaction.	Dm = .55m D = .14m
105	Cut of Posthole. Sub-circular in plan, rounded base.	See [104]
106	Fill of [107] Dark brown silty-sand of soft compaction.	Dm = .24m D = .26m
107	Cut of Posthole. Sub-circular in plan, steep sides to narrow rounded base.	See [106]
108	Fill of [109] Dark grey/brown silty-sand, V-occasional flecks of charcoal.	L = 1.16m B = .86m D = .23m
109	Cut of Pit. Sub-oval in plan, moderate sides, gently rounded base, good edges.	See [108]
110	Fill of [111] Mixed – yellow/brown, Medium grey, dark grey/black, and medium brown sand, V-little organic material.	L = 1.88m B = 1.75m D = .48m
111	Cut of Pit. Sub-circular in plan, moderate/steep sides, almost flat base, good edges.	See [110]
112	Fill of [113] Dark brown sandy silt of moderate compaction.	Dm = .51m D = .13m
113	Cut of Pit/Posthole. Sub-circular in plan, moderate/steep sides, rounded base, good edges.	See [112]
114	Fill of [115] Dark brown silty-sand, 1 piece of charcoal.	L = .35m B = .28m D = .10m
115	Cut of Posthole. Sub-oval in plan, shallow sides flattish base, good edges.	See [114]
116	Fill of [117] Medium grey/brown sandy-silt, occasional stones and flecks of charcoal.	Dm = .22m D = .15m
117	Cut of Pit/Posthole. Irregular circle in plan, irregular rounded profile,	See [116]

	poor edges.	
118	Fill of [119] Dark brown silty-sand of moderate compaction, flecks of charcoal throughout.	Dm = .24 D = .31
119	Cut of Posthole. Sub-circular in plan, V-steep sides, tight rounded base.	See [118]
120	Fill of [121] Mixed – grey and brown silty-sand, small stones and flecks of charcoal throughout.	Dm = .90m D = .05m
121	Cut of Pit. Circular in plan, V-short steep sides, flat base, good edges.	See [120]
122	Fill of [123] V-dark brown silty-sand.	Dm = .26m D = .12m
123	Cut of Posthole. Sub-circular in plan, steep sides, rounded base, good edges.	See [122]
124	Fill of [125] V-dark grey/black silty sand, considerable amounts of charcoal throughout, V-occasional small stones. Contains pottery vessel with capstone.	L = .37m B = .33m D = .20m
125	Cut of Pit. Sub-oval in plan, V-steep sides, rounded base, good edges.	See [124]
126	Fill of [127] Dark brown silty-sand, occasional stones.	L = 1m B = .68m D = .08m
127	Cut of Pit. Sub-oval in plan, shallow sides, flattish base, good edges.	See [126]
128	Fill of [129] Dark yellow/brown silty-sand, occasional small pebbles.	L = 1.7m B = .68m D = .12m
129	Cut of Linear feature. Orientated N/W-S/E, Shallow rounded profile.	See [128]
130	Fill of [131] V-dark brown silty-sand, occasional small/medium pebbles.	L = .55m B = .62m D = .11m
131	Cut of Pit. Sub-circular in plan, irregular rounded profile, good edges.	See [130]
132	Pottery vessel within [130]	
133	Fill of [132]	
134	Fill of [135] Medium grey sand of firm compaction, trace of silt, occasional pebbles and small stones.	Dm = .99m D = .30m
135	Sub circular in plan, steep sides curving to a flattish, slightly uneven base, good edges.	See [134]
136	Fill of [137] medium grey silty-sand, occasional flecks of charcoal. Contains modern tile.	L = 1.1m B = .89m D = .38m
137	Cut of Pit. Sub-oval in plan, steep sides, rounded base, good edges.	See [136]
138	Fill of [139] Dark yellow/brown silty-sand, occasional pebbles.	L = .86m B = .72m D = .22m
139	Cut of Pit. Sub-circular in plan, Steep sides with rounded base, good edges.	See [138]
140	Fill of [141] Mixed – V-light brown sand, medium brown, orange/grey and grey silty-sand, flecks and small fragments of charcoal throughout.	L = 2.7m B = 1.8m D = .72m
141	Cut of pit Irregular sub-oval in plan, short moderate sides, rounded base, good edges.	See [140]
142	Fill of [143] Medium/dark brown silty-sand, occasional pebbles.	L = .72m B = .63m D = .09m
143	Cut of Pit. Sub-circular in plan, short shallow sides, flattish base, good edges.	See [142]
144	Fill of [145] Mixed – Medium, dark/medium and dark brown silty-sands, flecks and small fragments of charcoal throughout.	L = 14m B = .57m D = .16m
145	Cut of linear feature. Orientated N/E – S/W, rounded irregular profile, irregular edges.	See [144]
146	Fill of [147] Mixed - medium and dark brown silty-sands, light yellow	L = 23m

	and V-light grey sands, occasional small stones	B = .73m D = .28m
147	Cut of curvilinear feature. V-shaped profile with narrow irregular base, good edges.	See [146]
148	Fill of [149] Medium/dark brown silty-sand, V-occasional flecks of charcoal.	Dm = .85m D = .20m
149	Cut of Pit. Sub-circular in plan, moderate sides, rounded base.	See [148]
150	Fill of [151] Dark brown/grey silty-sand, occasional small/medium pebbles.	L = .94m B = 1.05m D = .14m
151	Cut of Pit. Pear shaped in plan, shallow sides, flattish base, good edges.	See [150]

APPENDIX 2: PHOTOGRAPHIC REGISTER.

Colour Slide & Black & White Film # 1

Photo No.	Direction Facing	Description
1	N/E	Section of Pit/Posthole [001]
2	N	Section of Pit/Posthole [004]
3	S/E	Section of Pit/Posthole [007]
4	N/W	Section of Pit/Posthole [013]
5	S/E	Section of Pit [008]
6	S	Section of burnt deposit [010]
7	S/W	Section of Pit/Posthole [020]
8	N/W	Section of Fire-Pit [025]
9	N/W	Section of Pit/Posthole [027]
10	N/E	Section of Pit/Posthole [029]
11	S/W	Section of linear feature [031]
12	W	Pre-Ex Area 3
13	S	Pre-Ex Area 3
14	N	Section of Pit/Posthole [017]
15	N	Section of Pit/Posthole [017]
16	S/E	Section of Pit [033]
17	N	Section of Posthole [036]
18	N	Section of Pit [038]
19	N	Section of Boomerang shaped Pit [040]
20	N/E	Section of Boomerang shaped Pit [040]
21	W	Group shot features within Area 1
22	N/W	Features within Area 1
23	S	Features within Area 1
24	N/E	Section of Boomerang shaped Pits [040] & [042]
25	S/E	Post-Ex Area 2
26	S/W	Section of Pit
27	W	Section of Pit [046]
28	N/W	Section of Pit [046]
29	N	Section of Pit [047]
30	N/W	Section of Pit [050]
31	N	Section of Pit [052]
32	?	Section of Feature [054]
33	?	Section of Pit [055]
34	E	Section of Pit/Posthole [058]
35	N/E	Section of Pit/Posthole [060]
36	N	Section of Pit/Posthole [062]

Colour Slide & Black & White Film # 2

Photo No.	Direction facing	Description
1	N	Section of Pit/Posthole [054]
2	N/W	Section of Pit/Posthole [058]
3	N	Post-excavation of Pit [062]
4	N/W	Sections of Pits/Postholes [064] & [066]
5	N/E	Post-Ex of Pit/Posthole [047]
6	N	Post-Ex of Pit [046]
7	?	Post-Ex of Pits [060] & [064] & [066]
8	?	Post-Ex of Pits [060] & [064] & [066]
9	N/E	Section of Pit/Posthole [068]
10	S/E	Section of Pit/Posthole [073]
11	N	Section of Pit [077]

12	N/W	Section of Pit/Posthole [075]
13	S/E	Section of Pit/Posthole [079]
14	S	Sections of Pits/Postholes [083] & [085]
15	E	Sections of Pits/postholes [083] & [085]
16	N/W	Section of Pit/Posthole [081]
17	?	Section of Pit/Posthole [087]
18	E	Pits/Postholes in Area 1
19	N/E	Sections of Pits/Postholes [097] & [101]
20	N/E	Section of Pit [109]
21	W	Section of Pit [111]
22	N/E	Section of Pit [113]
23	S/W	Section of Pit/Posthole [115]
24	S/W	Section of Pit/Posthole [117]
25	S/E	Section of Pit/Posthole [119]
26	N/E	Section of Pit/Posthole [121]
27	N/E	Section of Pit/Posthole [123]
28	N/E	Section of Pit [125] with Stone/Pot
29	N/E	“
30	N/E	“
31	N/E	“
32	E	“
33	N/E	“
34	N/E	“
35	N/E	“
36	N/E	Vertical shot of Pot within [125]

Colour Slide & Black & White Film # 3

Photo No.	Direction Facing	Description
1	W	Section of Pit [131]
2	N/E	Post-Ex of Pit [124]
3	N/E	Section of Pit [135]
4	E	Section of Pit [137]
5	E	Section of Pit [139]
6	S/W	Section of Pit [127]
7	N	Section of linear feature [129]
8	N	Section of Pit [141]
9	E	Section of Pit [143]
10	E	Section of linear feature [145]
11	E	Section of linear feature [147]
12	N/E	Section of Pit [149]
13	W	Section of Pit [151]

APPENDIX 3: SAMPLE REGISTER.

Sample No.	Context No.	Area	Description
2	010	1	Burnt deposit
3	043	1	Fill of Pit
4	057	3	Fill of Posthole
5	040	1	Fill of Boomerang shaped Pit
6	037	1	Fill of Pit containing Flint
7	001	1	Fill of Pit/Posthole
8	005	1	Fill of Pit/Posthole
10	011	1	Fill of Pit
11	024	1	Fill of Pit/Posthole
12	016	1	Fill of Pit/Posthole containing Whetstone
13	070	1	Fill of Boomerang shaped Pit
14	032	1	Fill of Posthole
15	072	1	Fill of Pit/Posthole
16	124	4	Fill of Pit containing Pottery Vessel
17	123	4	Fill of Posthole
18	119	4	Fill of Posthole
19	108	4	Fill of Pit/Posthole
20	114	4	Fill of Posthole
21	110	4	Fill of Pit
22	120	4	Fill of Pit
23	130	4	Fill of Pit/Posthole
24	112	4	Fill of Pit/Posthole
25	138	5	Fill of Pit
26	140	5	Fill of Pit
27	150	5	Fill of Pit
28	134	5	Fill of Pit
29	148	5	Fill of Pit
30	136	5	Fill of Pit

Appendix 4 – Samples Report

Headland Archaeology Ltd

Date: November 2003

Client: Stuart Farrell

Project Code: LOY01

Assessment of samples from Lochloy 4

Mhairi Hastie

PROJECT SUMMARY SHEET (THP99)

Client	Stuart Farrell
Project Manager	Dr Tim Holden
Text	Mhairi Hastie
Sample processing & retent sorting	David Masson
Assessment of flots	Mhairi Hastie
Schedule	
Sample processing	November 2003
Assessment report	November 2003

1. SAMPLING STRATEGY

2. METHODOLOGY

3. RESULTS

Glass

Flint/chert

Burnt bone

Carbonised plant remains

Wood charcoal

Other plant remains

4. DISCUSSION

5. RECOMMENDATIONS

6. REFERENCES

FIGURES

Table 1. Composition of retents

Table 2. Composition of flots

1. SAMPLING STRATEGY

Archaeological fieldwork undertaken by Stuart Farrell at Lochloy near Nairn, uncovered a series of pits and post-holes. Eighteen bulk soil samples were taken from a selection of the archaeological features and these samples were submitted to Headland Archaeology for palaeoenvironmental analysis.

2. METHODOLOGY

All samples were subjected to a system of flotation in a Siraf style flotation tank. The floating debris (flot) was collected in a 250 μm sieve and, once dry, scanned using a binocular microscope. Any material remaining in the flotation tank (retent) was wet-sieved through a 1 mm mesh and air-dried. This was then sorted and any material of archaeological significance removed.

The results are summarised in Tables 1 and 2.

3. RESULTS

Glass

Two small fragments of glass were recovered from two post-hole fills [002 and 005].

Flint/chert

Occasional small fragments of flint/chert were recovered from two pit fills [032 and 039] and one post-hole fill [002].

Burnt bone

Small fragments of large mammal bone were recovered from one pit [037] and one pit/posthole [002]. The bone fragments were extremely small in size, < 5mm in diameter and were not retained for further analysis.

Carbonised Plant Remains

Wood charcoal

Large quantities of wood charcoal were recovered from the majority of samples.

Other plant remains

A number of abraded barley grain were recovered from four samples, Context 002, 016, 032 and 037. One small fragment of hazelnut shell was also recovered from Context 033.

Context no	Sample no	Context description	Glass	Flint/chert	Burnt bone	Charcoal	Hazelnut shell	Coal
002	7	Fill of pit/post-hole [001]		+	+	++		
005	8	Fill of pit/post-hole [004]	+			++		
010	2	Deposit of burnt wood and ash				++++		
011	10	Fill of pit [007]				+		
016	12	Fill of pit/post-hole [017]				+++		
024	11	Fill of pit/post-hole [025]	Archaeologically sterile					
032	14	Fill of post-hole [033]	+			+++	+	
037	6	Fill of pit [038]			+	+		+
039	5	Fill of boomerang shaped pit [040]		+		++		
043	3	Fill of pit [044]	Archaeologically sterile					
057	4	Fill of post-hole [058]				+		
069	13	Fill of boomerang shaped pit [070]				++++		
072	15	Fill of pit/post-hole [073]				+		
108	19	Fill of pit/post-hole [109]	Archaeologically sterile					
110	21	Fill of pit [111]				+		
112	24	Fill of pit/post-hole [113]				++		
114	20	Fill of post-hole [115]	Archaeologically sterile					
118	18	Fill of post-hole [119]				+		
120	22	Fill of pit [121]			+			
122	17	Fill of post-hole [123]	Archaeologically sterile					
124	16	Fill of pit [125]		+		+++		
130	23	Fill of pit/post-hole [131]			+	++		
134	28	Fill of pit [135]				+		
136	30	Fill of pit [137]				++		
138	25	Fill of pit [139]				+		
140	26	Fill of pit [141]				+		
148	29	Fill of pit [149]				+		
150	27	Fill of pit [151]				+		+

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

Table 1. Composition of retents

Context no	Sample no	Context description	Total flot vol (ml)	Cereal grain	Charcoal	Comments
002	7	Fill of pit/post-hole [001]	50	+	+++	Barley +
005	8	Fill of pit/post-hole [004]	10		++	
010	2	Deposit of burnt wood and ash	250		++++	
011	10	Fill of pit [007]	30		++	
016	12	Fill of pit/post-hole [017]	500	+	++++	Barley +
024	11	Fill of pit/post-hole [025]	10		++	
032	14	Fill of post-hole [033]	40	+	+++	Barley +
037	6	Fill of pit [038]	20	+	++	Barley +
039	5	Fill of boomerang shaped pit [040]	20		+++	
043	3	Fill of pit [044]	20		++	
057	4	Fill of post-hole [058]	10		+	
069	13	Fill of boomerang shaped pit [070]	100		++++	
072	15	Fill of pit/post-hole [073]	20		++	
108	19	Fill of pit/post-hole [109]	<10		++	
110	21	Fill of pit [111]	<10		+	
112	24	Fill of pit/post-hole [113]	20		++	
114	20	Fill of post-hole [115]	<10			
118	18	Fill of post-hole [119]	<10		+	
120	22	Fill of pit [121]	<10		+	
122	17	Fill of post-hole [123]	<10		+	
124	16	Fill of pit [125]	200		++++	
130	23	Fill of pit/post-hole [131]	<10		++	
134	28	Fill of pit [135]	20		+	
136	30	Fill of pit [137]	40		++	
138	25	Fill of pit [139]	10		+	
140	26	Fill of pit [141]	10		+	
148	29	Fill of pit [149]	20		++	
150	27	Fill of pit [151]	20		++	

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

Table 2. Composition of flots

4. DISCUSSION

The mixture of finds and palaeoenvironmental remains recovered was similar in composition to material present in samples taken during 2002 fieldwork at Lochloy 3 (Hastie 2002). Low levels of domestic debris were present in the samples suggesting that the features uncovered are associated with an area of settlement.

The quantity of charred cereal grain and hazelnut shell recovered was very low and they are unlikely to be directly associated with the function of the feature from which they were recovered. The origin of this material is unknown though the presence of charred food remains within the excavation site may indicate grain storage or processing was taking place within the immediate area.

The presence of modern glass, within two features, indicates that a degree of mixing of later material with earlier sediment has occurred, probably through insect and invertebrate activity.

The material retrieved from the samples has a low potential to yield useful environmental information, although it may be more significant when taken along with the previous years finds from Lochloy.

The samples do contain sufficient charcoal for AMS dating if this is required.

5. RECOMMENDATIONS

- ◆ **Small finds**
The flint should be sent to an appropriate specialist for further assessment.
- ◆ **C14 dating**
Sufficient charcoal was present in Context 002, 010, 016, 032, 039, 069, 112, 124, and 136 for AMS dating. If dating is to be carried out then identification of the species of wood present will need to be undertaken prior to dating.

None of the cereal grains recovered was suitable for AMS dating.
- ◆ **Further analysis**
A summary of methodology and results from this assessment should be added to any final report.

6. REFERENCES

Hastie, M 2002 *Assessment of Samples from Lochloy 3*. Headland Archaeology: Client Report.