Cloburn Quarry Extension, Lanark, South Lanarkshire:

Archaeological Mitigation

Data Structure Report

by Douglas Gordon

with contributions from Thomas Rees & Dr Louise Turner

issued 30th October 2015

on behalf of Cloburn Quarry Development Ltd

RATHMELL ARCHAEOLOGY LTD

Quality Assurance

This report covers works which have been undertaken in keeping with the issued brief as modified by the agreed programme of works. The report has been prepared in keeping with the guidance of Rathmell Archaeology Limited on the preparation of reports. All works reported on within this document have been undertaken in keeping with the Chartered Institute for Archaeologists' Standards and Policy Statements and Code of Conduct.

Signed ..... Date …30th October 2015…….

In keeping with the procedure of Rathmell Archaeology Limited this document and its findings have been reviewed and agreed by an appropriate colleague:

Checked ..... Date …30th October 2015…….

Quality Assurance Data

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Canmore IDs	47645 (cairn)		

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Introduction

1. This Data Structure Report has been prepared for Cloburn Quarry Development Ltd in respect of the archaeological excavation of a prehistoric cairn within the quarry extension at Cloburn Quarry, Lanark, South Lanarkshire (NGR: NS 9521 4149). The archaeological works were designed to mitigate the impact on the archaeological remains identified within a portion of the larger development area.

2. South Lanarkshire Council required a programme of archaeological works to be undertaken as a requirement of the issued planning consent (Planning ref: CL/14/0140). The West of Scotland Archaeology Service (WoSAS), who advise South Lanarkshire Council on archaeological matters, provided guidance on the structure of archaeological works required on site in advance of extraction works.

3. Rathmell Archaeology Limited were appointed by Cloburn Quarry Development Ltd to undertake the implementation of archaeological mitigation works prior to the development of the site.

4. The first stage of works was a Historic Environment Appraisal (Turner 2013) which identified three historic environment assets within the whole of the development area. This was then followed by an archaeological evaluation of the first stage of the development area in April 2015 (Gordon 2015b). The evaluation consisted of an 8% evaluation of the ground and the targeted investigation of several suspected clearance cairns and two hand excavated trenches within a suspected denuded ring-cairn (Canmore ID: 47645). The evaluation showed the suspected clearance cairns to be exactly that, though their age was not ascertained. The two hand excavated trenches showed that it was very likely a prehistoric cairn, as well as recovering struck lithics.

5. This work assumes knowledge of previous works including Historic Environment Appraisal (Turner 2013) and the Data Structure Report for the Evaluation stage of this portion of the study area (Gordon 2015b). Both of which contain archaeological and historical backgrounds.

Project Works

6. The mitigation works took place from the 17th August to the 21st September 2015, and relate to Quarry Phases 1 and 2. The works commenced with an archaeological led topsoil strip around the limits of the cairn in conjunction with the deturfing by hand of the topsoil over the remains of the cairn. The topsoil stripping took place from 17th-18th August 2015, using a 20t 360^0 excavator with a toothless bucket.

7. Prior to archaeological works occurring the development area consisted of an open hill side which had been used as pasture for sheep. The cairn sat on the brow of Swaites Hill, 320m OD. The underlying geology consists of till from the Devensian epoch over Swanshaw Sandstone Formation. Generally the ground was well draining.

8. From field observation the cairn originally had been thought to be two conjoined cairns, with the south western one being larger than the north eastern one. Given the presence of two hollows in what would have been their centres, they appeared to have been disturbed at some point in the past. As such a central longitudinal baulk was placed through the centre of both cairns, with two further baulks placed perpendicularly across the centres. This created six zones across the site (Figure 1).

9. All works were carried out in keeping with the agreed Written Scheme of Investigation (Gordon 2015a) as well as being conducted in accordance with WoSAS Standard Conditions, the Chartered Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements.

Conventions

10. A standardised description of each context is contained within Appendix 1: Context Register at the rear of this report. Contained within Appendix 1 are the registers for photography, drawing, sampling and finds from the project.

11. All depths given for features are given from the top surface of the natural subsoil after the removal of topsoil and/or modern overburden unless otherwise stated. The reader should presume that a homogenised topsoil was present over the upper surface of the drift geology unless an alternative description is provided. Where a number of cut features were identified in close proximity, they have been described together as Feature Groups – while this may reflect an association between them, at the current time the only definite association is physical proximity.

12. The context is the basic archaeological unit of description relating to either a structure, cut or sediment of common characteristics. Structures (such as walls or built surfaces) and cut features (normally identified as they cut the underlying subsoil) are denoted by squared brackets (e.g. [040]). Sediments, including the fills of cut features, are denoted by rounded brackets (e.g. (041)).

Findings

13. An area of 2134m^2 in total was opened, all putative features identified within the open area strip around the cairn were investigated in accordance with the WSI with many consequently being discounted as products of bioturbation or geological anomalies rather than anthropic features.

Natural Sediment and Topography

14. The topsoil (001) consisted of very dark brown sandy silt with high organic content and frequent rootlets with occasional to frequent small and medium sized stones and very occasional large stones to boulders present. In general the topsoil was generally about 110mm in depth although it could be up to 500mm deep in places.

15. The subsoil (002), was a mid orange, silty clay with frequent small to medium sized stones, frequent root and occasional grey sandstone/red granite bedrock/fragments.

Cairn Material

16. After the deturfing and initial cleaning back of the site had occurred, the exposed spread of stone had the appearance of one large irregular cairn measuring 22m in diameter. This stone spread was defined in large part by the NE to SW break of slope on its E side, through at one point in the SE the stone spread spilled down this slope. This post-strip appearance contrasted with the topographic-led interpretation of two conjoined circular stone cairns, with the northeastern cairn appearing more denuded.

17. Excavation commenced, seeking to reduce the cairn fabric within each zone (see Project Works) to locate either structural elements within the cairn fabric or other complexities. During the excavation the northeastern portion of the spread (including the whole of Zones 5 & 6) was found to be wholly comprised of re-deposited cairn material (009).

18. This re-deposited material consisted of small to medium sized, angular and sub-angular stones with infrequent large stones (500 by 500mm) present; all within a mid grey-brown sandy silt matrix. The material was only moderately compacted, the stones having no regular pattern of deposition and the context frequently overlay residual fragments of topsoil (001). In total this northeastern spread of material covered an area some 12m by 7m and varied in depth from 400 to 500mm.

19. To the NW of the stone spread was a low lying bank of material aligned ENE to WSW that merged with the outer limit of the cairn in Zones 1 & 3. The bank (007) consisted of a dark brown sandy silt with frequent medium to large sub-angular and sub-rounded stone inclusions and frequent small root inclusions. It measured 19m long and 3.5m wide and was up to 0.26m in depth. This material had a similar compaction and character to the re-deposited cairn material (009).

20. More limited spreads of comparable redeposited cairn fabric (009) were also noted on the margins of the whole stone spread, especially to the SE where significant volumes of this material spilled down the natural slope in Zones 2 & 4. Of note was the recovery of a copper alloy rapier <021> from within this margin material in Zone 1 (see below). Within the core of the SW end of the stone spread a more consistent, compacted cairn fabric was

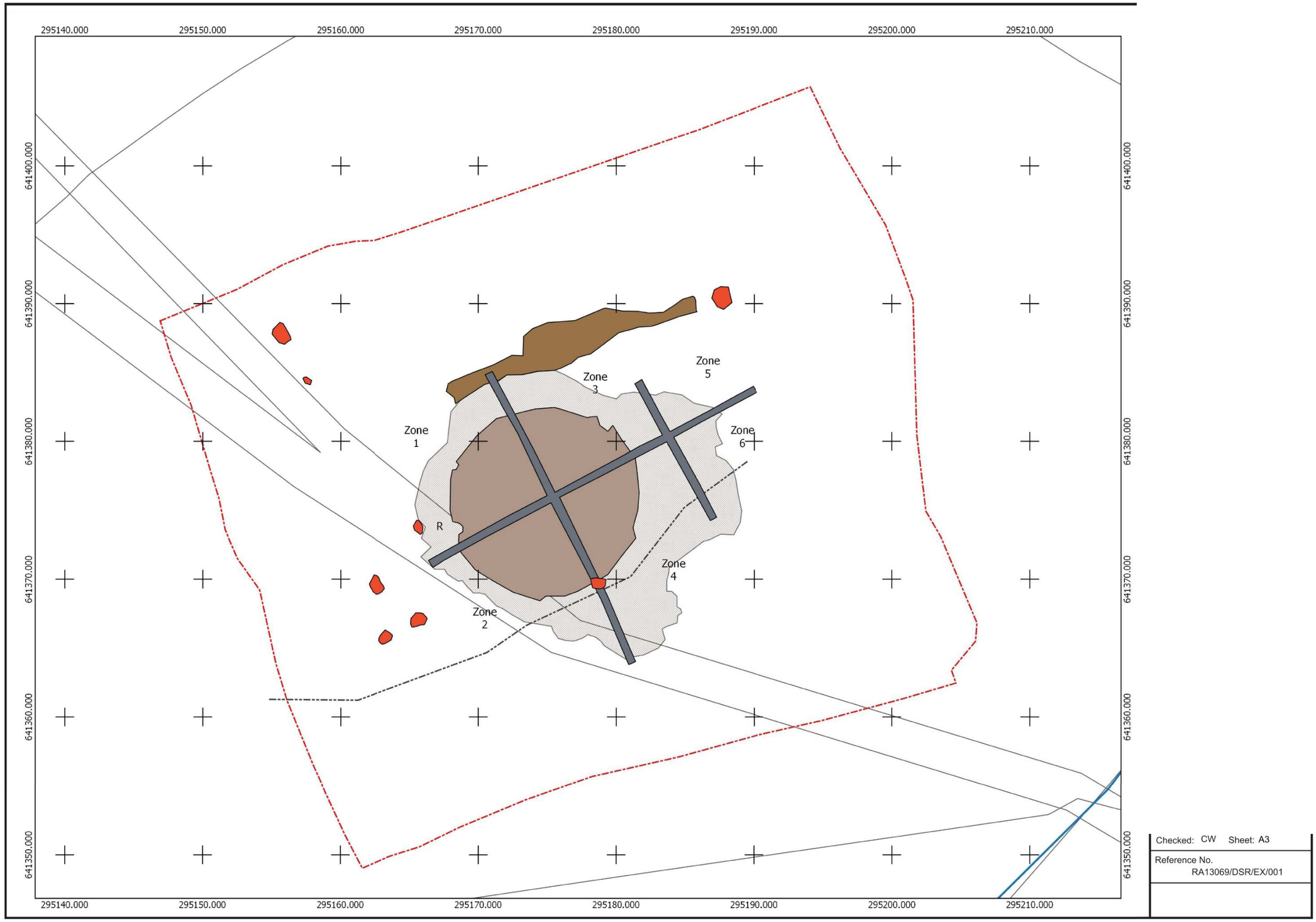


Figure 1: Site Plan showing extent of stone spread and working process (zones and baulks)

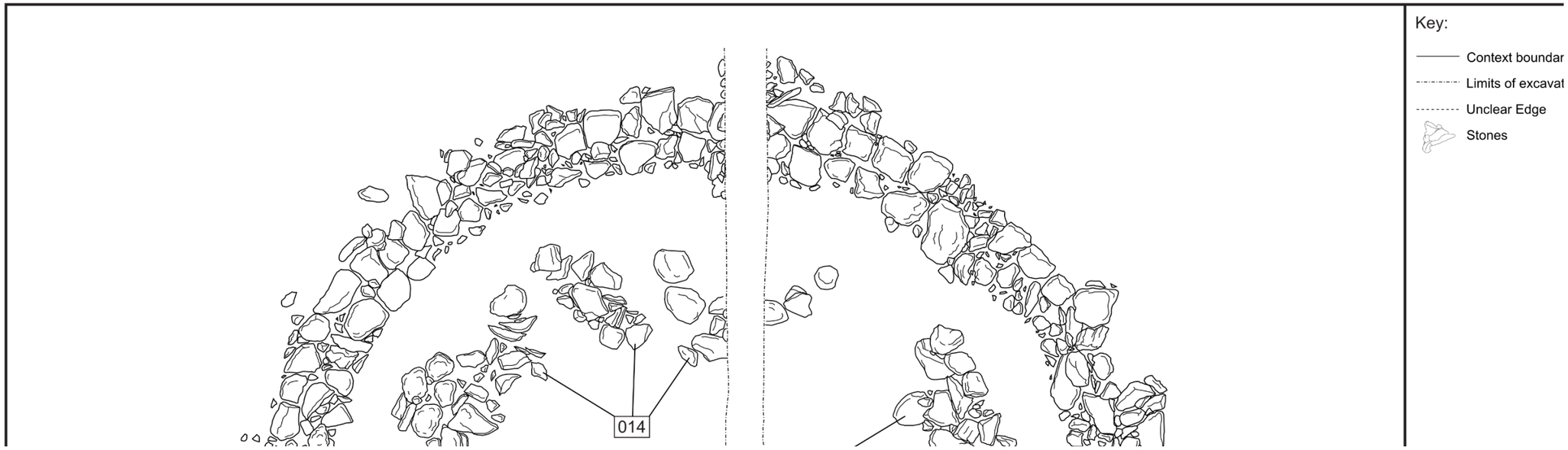


Figure 2: Plan of Cairn showing Outer and Inner kerbs and Cists [015] & [016]

Figure 3a: General shot of cairn pre excavation from W

Figure 3b: Deturfing across the cairn from N with Tinto Hill in background

Figure 4a: View of outer kerb [012] from E

Figure 4b: Outer and inner kerb with infill (029) including leaning flat stones in Zone 1

progressively recognised - upper cairn material (011). This cairn fabric was a loose mid grey-brown sandy silt, small-medium angular and sub-angular stones, infrequent large stones (500 x 500m). Of note within all the cairn fabric was an infrequent but regular appearance of well-rounded (waterworn) cobbles of varied lithology – hence colour and texture.

21. The archaeological features presented below were all identified in Zones 1 to 4 in the SW, predominantly revealed by the removal of the upper cairn material (011) and residual elements of the re-deposited cairn material (009).

The Inner and Outer Kerbs

22. As the upper cairn material (011) and tumble (009) were removed from the southwestern portion of the stone spread, a curving line of large stones [012] two stones wide was revealed (Figure 2). These stones were overlain by some 400mm of cairn material. These stones formed an annular ring approximately 14m in diameter, the stones were sub-angular and sub-rounded in shape measuring up to 780mm by 520mm and 450mm in depth.

23. The kerb [012] was relatively uniform around its circumference, except at three points. Two of these consist of gaps, the first being at the baulk between Zones 3 and 4 and the second was in Zone 1 near the baulk with Zone 2. The third, in Zone 2, consisted of a variation in the character of the construction from the balance of the kerb. Here [012] was formed of smaller stones which were placed to create a recess, some 1.15m by 0.55m in plan, in the outer side of the circumference.

24. Within the cairn a second annular ring of stones [014] was evident (Figure 2 and 6). [014] was not as complete as [012] but did form a discernible though intermittent circle in plan with a 9-10m diameter. It consists of large sub-angular and sub-rounded stones measuring up to 600mm by 350mm by 300mm in depth. The portion of [014] that survived in Zone 3 was formed by large stones with additional flat stones leaning against the outside face of the kerb.

Cairn fabric between the kerbs

25. Within Zone 3 there was cairn material (029) that exhibited a marked differentiation from the upper cairn material (011). This material, situated between the kerbs [012] and [014], consisted of sub-angular and sub-rounded stones ranging from 100 to 500mm in size in a mid grey-orange slightly clayey sand matrix, 0.2m thick. This deposit was distinguished by its firmer compaction compared to the more vacuous (011). While this context survived best in Zone 3, it was recognisable in more fragmentary form within the other three zones as the basal layer of cairn material between the two kerbs.

26. A sediment (032) was excavated overlying (029) but beneath the more vacuous cairn fabric (011) within Zone 1. It consisted of a mottled dark grey-brown and mid orange-brown clayey silt with frequent small to medium charcoal chunks, measuring 1.5m by 0.75m and was up to 250mm in depth. The charcoal within this context was found in two marked concentrations at either end of the context, suggesting locations of primary burning rather than *ex-situ* charcoal.

27. Within the compact cairn material (029) betwixt the kerbs in Zone 4 was context (017) - a friable mid orange-yellow silty sand with frequent medium sized sub-angular stone inclusions. It contained a quantity of small to medium sized (2-50mm) fragments of burnt bone. Also recovered from within the context were decorated ceramic sherds <026> and <027>. The context was highly irregular in plan, measuring up to 1m in length by 1m in with and was up to 250mm in depth. The pottery and the burnt bone were in close proximity to each other within this material.

Soil horizons below the Outer Kerb

28. When the stones forming [012] were lifted, two different contexts were revealed in several places below and between the stones. Within Zone 4 context (033) was recorded under and between some of the stones. It consisted of a dark orange-brown clayey silt with small sub-rounded stones inclusions and occasional charcoal flecks. It was up to 320mm in

depth.

29. While in Zone 3 (027) was a dark grey-black mottled pink-brown slightly clayey silt with frequent small charcoal flecks and occasional small sub-angular stone inclusions. Context (027) was underlying [012] at the recess (see above).

The two Cists

30. As the upper cairn material (011) was removed from the centre of the cairn a marked change in the colour, if not the overall composition, of the cairn fabric was noted at several points. The matrix supporting the stone within the lower cairn fabric (018) being orangey brown was more reflective of the subsoil (002) on-site. Of note within this lower cairn material was the recovery of hazelnut shell <030>.

31. Within the area enclosed by the inner kerb [014], two cists [015] and [016] were revealed beneath the cairn fabric ((011) & (018)), south of the centre of the cairn in Zone 2 (Figure 2). Neither cist had retained its capstone(s) and both were identified as sediment filled voids, with the surviving side stones and flooring set in cuts into the underlying subsoil (002).

32. Cist [015] was sub-circular in plan (Figure 5), measuring 1.1m by 0.7m and 0.5m in depth. The side stones forming the walls of the cist were capped by further level stones, placed to slightly overhanging the body of the cist. The floor of the cist consisted of sub-angular flat stones [031] varying in size from 80-460mm in length and ≤30mm in thickness, these stones formed a paved surface.

33. The fill of cist [015] was a light orange-brown sandy silt with small stone, charcoal and burnt bone inclusions. On the paved floor [031] a deposit of burnt bone (028) was uncovered sitting in the northeast end.

34. When the floor was removed a second possible cremation was uncovered. The primary fill of the cist pit (034) was a dark brown silt clay with sub-angular and rounded small stone inclusions with occasional charcoal and a marked quantity of burnt bone fragments. In addition a fragment of moss or fern <043> was also recovered from immediately below the paved floor [031].

35. The second cist [016] was situated 0.8m to the SE of cist [015]. It was sub rectangular in plan, measuring 1.2m by 0.6m and up to 0.5m in depth with several flat stones making up its sides (Figure 5). Like [015] it had stones placed above the side stones, slightly overhanging, though in this case only on its northern side.

36. The base (025) was a compact mid grey-brown silty sand with frequent sub-angular and sub-rounded stone inclusions, which was most likely the remains of degraded stone or stones.

37. The interior of the cist was filled by (021) a mid orange-brown sandy silt with infrequent sub-rounded stones, occasional charcoal flecks. Which measured 850mm by 540mm and 470mm in depth.

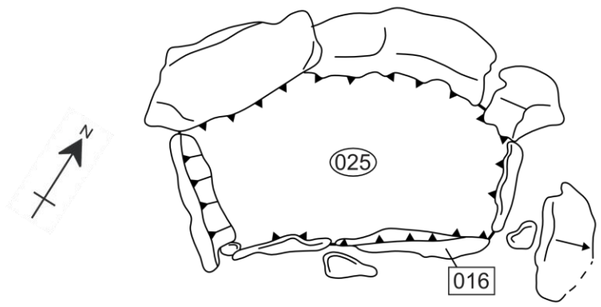
38. No cremation or grave goods were present and nothing further was revealed when the base was lifted or when the cist was dismantled.

Boulders

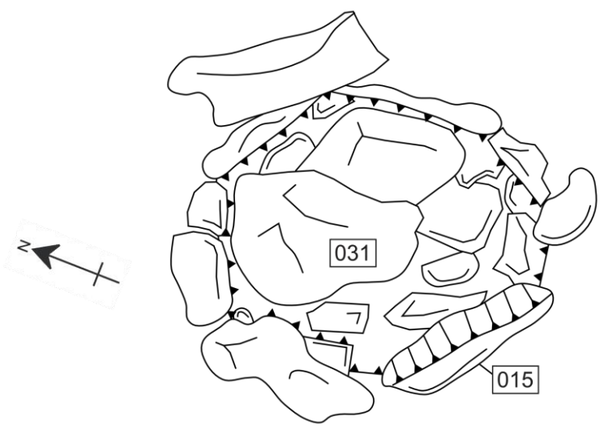
39. Around the cairn, and indeed in the general landscape, many large boulders were present. Of particular note were three were situated to the SW within a couple of metres to the edge of the cairn, one to the immediate W at the outer limit of the redeposited cairn material (009), one to the at the ENE end of the bank (007) to the NE and one situated above the outer kerb [012] at the S edge of the cairn (see Figure 2).

40. The majority of these boulders when investigated exhibited no evidence for having been placed in settings or otherwise moved within the landscape so should be considered most likely natural phenomenon. Within this group though, three do not follow this pattern:

- The boulder above the outer kerb [012] proved to be resting on a much degraded modern turf surface suggesting it is only recently in this location;



Cist [016]



Cist [015]

Key:

Context boundary

Stones

Client
Cloburn Quarry Development Ltd

Project Name
RA13069
Cloburn Quarry Excavation

Title
Post Excavation Plans of Cists [015] and [016]

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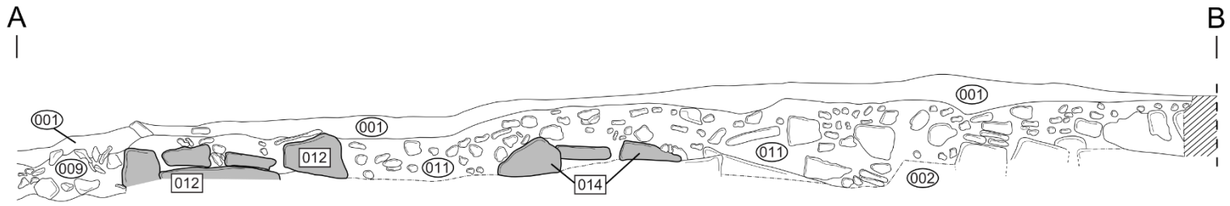
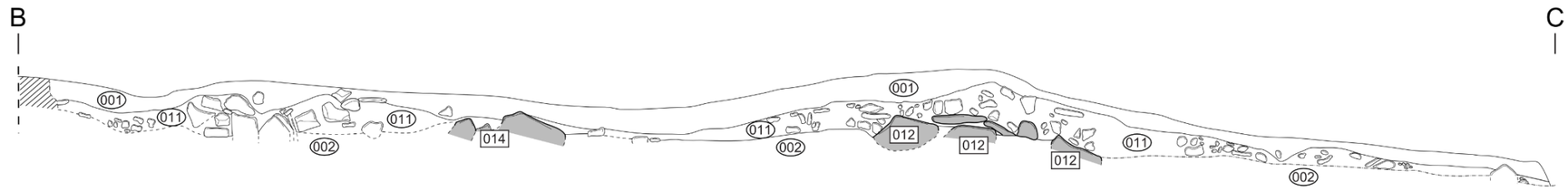
Drawn: JAD Date: 24.09.2015
Checked: DG Sheet: A3

Reference No.
RA13069/DSR/EX/003

Figure 5: Cists [015] & [016]



NE facing section Zone 3



NE facing section Zone 4

Key:

- Context boundary
- Limits of excavation
- Stones
- Kerb stones

Client: Cloburn Quarry Development Ltd

Project Name: RA13069 Cloburn Quarry Excavation

Title: NE facing section through Zones 3 and 4

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Drawn: JAD Date: 24.09.2015
Checked: DG Sheet: A3

Reference No. RA13069/DSR/EX/004

Figure 6: Section through the Cairn

- The boulder to the immediate W appeared not to rest into the underlying subsoil as the other do and was provisionally considered part of the redeposited material (009);
- A stone heave (negative scar left from displacing a stone from the subsoil surface) was investigated within the cluster of three boulders to the SW suggesting either one of these has been relocated or a fourth boulder once lay there.

41. The frequency of these boulders in the general landscape should be recalled when considering their role with regards to this archaeological site.

Finds Summary

42. The excavations yielded 27 sherds/fragments of prehistoric ceramic, approximately 25 pieces of struck flint/chert, a modest selection of worked coarse stones (still to be evaluated) and a copper alloy rapier of Bronze Age date. A quantity of cremated bone, assumed to be human, was also recovered. This is a provisional summary of the character of these finds and their potential significance relative to the excavated cairn.

The Bronze Age Rapier

43. An initial appraisal suggests that the rapier <021> falls into Cowie and O'Connor's Group 1 type (Cowie and O'Connor 1995), which is itself derived from an earlier classificatory scheme established by Burgess and Gerloff (Burgess and Gerloff 1981). This group is classed as 'Group 1: Blades with Rounded Midribs Bordered by Grooves, Ribs and Channels,' and it includes several examples recovered from Dumfries and Galloway, including a rapier from the Glentrool hoard and a single find from Lower Nunton, Kirkcudbrightshire. The scope of this group is, however, extremely broad, and this is reflected in the three Group I finds recorded to date from Scottish contexts: in the Cloburn Quarry example, a rounded midrib is flanked by closely spaced multiple grooves which do not disrupt the lines of the blade section, suggesting a greater affinity with the Group 1 rapier from Later Nunton than the Glentrool specimen.

44. Rapiers with multiple-groove decoration on the blade are most commonly found in Ireland (Cowie and O'Connor 1995, 349). To date, 2 out of the 3 finds of Group 1 rapiers in Scotland have been recovered from Dumfries and Galloway, leading Cowie and O'Connor to suggest that these objects may have originated in Ireland (Cowie and O'Connor 1995, 349 – the third is from Perthshire). In this respect, an outlying find in South Lanarkshire is not entirely unexpected. The group has been dated on typological grounds to early in the Middle Bronze Age, c. 16th century BC, on account of the fact that they share common attributes with daggers of late Early Bronze Age date. In particular, these rapiers are characterised by the presence of multiple grooves running the length of the blade (e.g. the examples from Camerton and Arreton Down illustrated in Piggot 1938).

45. Absolute dates for these objects are lacking, as the vast majority have been recovered from wet contexts such as rivers and peat bogs. In this respect, its presence in displaced cairn material associated with a Bronze Age burial cairn is itself extremely unusual and worthy of particular interest: of the known finds of Group 1 rapiers from Britain and Ireland recorded by Burgess and Gerloff in 1981, only 2 were recorded as having been associated with burials. These were described as 'Wessex Culture' burials, i.e. they had sufficient affinity with late Early Bronze Age traditions and practices to be viewed as part of the preceding as opposed to the succeeding period (Burgess and Gerloff 1981, 15). This observation in keeping with Cowie and O'Connor's suggestion (after Needham, 1996) that the origins of these objects lie within Early Bronze Age metalworking traditions.

46. With finds of these objects invariably accompanied by a distinct dearth of both material culture and contextual evidence, the potential wealth of information attached to this find makes it of particular interest in terms of the wider study of these artefacts.

Ceramics

47. The 27 sherds/fragments of prehistoric ceramic recovered during the excavations were

Figure 7a: Bank (007) from ENE

Figure 7b: Buried soil horizon (033) under outer kerb [012] in Zone 4

Figure 8a: Cremation deposit within Cist [015]

Figure 8b: Copper alloy Rapier <021>

derived from at least two different vessels which each represented two very different ceramic traditions.

48. The first vessel was represented by 24 sherds/fragments derived from a thick walled vessel (<26> and <27> recovered in association with the possible cremation in (017)), characterised by hackly fractures and with smooth inner and outer surfaces which may have been covered by a fine slip. The fabric had few large grits present, with occasional inclusions of crushed quartz noted. Three rim fragments were identified: these showed evidence of a moulded everted rim with a marked internal bevel. A possible carination was also identified.

49. The exterior was decorated with a series of incised grooves: these encircled the body, but their arrangement was fairly informal with the angles of each groove varying slightly and the spacing inconsistent. The internal bevel of the rim was also decorated by faint shallow grooves running vertically down its length: these differed markedly in character from the more pronounced grooves decorating the exterior and may have been finger- or thumb-imparted. The vessel would have measured approximately 18cm in diameter at the rim. This preliminary assessment suggests that the vessel may fall into the Food Vessel tradition of the Middle Bronze Age, though this should be treated as a provisional appraisal.

50. The second vessel comprised two sherds (<024> recovered from redeposited cairn material (009) in Zone 4) from an upright vessel or jar of markedly thinner fabric with a plain, narrowed rim which featured an unusual pronounced lip along its external edge. This fabric appeared to represent a much later ceramic tradition, dating perhaps to the Late Bronze Age or even the Iron Age.

Lithics

51. An initial review of the lithics indicates that approx. 20 stuck lithics were recovered during the excavation from either the topsoil (001), redeposited cairn material (009) or the upper cairn material (011). This assemblage is mainly flint derived from small pebbles, dominated by inner material. There is a limited sub-group of quartz and chert pieces, all of which are small. None of the pieces have ready evidence of having been burnt and heat altered, though rolling damage was evident on some pieces.

52. Overall the assemblage was dominated by debitage, of note was a tendency to the blade form – though in such a small assemblage no particular weight should be given to this. However, within the review (which was not a comprehensive assessment nor analysis) one readily identifiable retouched pieces and another possible were noted. The readily identifiable piece was a flint concave end scraper <010> on a blade. The possible piece was a fragment of a flint backed blade(let) <006>.

53. The concave end scraper tool type while not chronologically indicative, typically date from early prehistory (Neolithic and Bronze Age).

Discussion

54. Presented below is a provisional discussion and interpretation of the findings from the excavations of Cloburn Quarry Cairn. It should be appreciated that this section is limited by the scope and scale of works undertaken to date and as such should in part be viewed as an agenda for subsequent post-excavation analytical work.

A pre-Cairn soil horizon?

55. Context (033) and (027) which were found in Zones 3 and 4 under and between some of the stones forming the outer kerb [012], is believed to be the remains of the pre-cairn ground surface. Why it has only survived in certain small portions around the perimeter of the outer kerb is uncertain. It is possible that an imperfect job was done to remove the topsoil prior to the construction of the cairn. Though it is equally possible it is nothing more than the vagaries of time and ground conditions that means that only some of it has survived.

56. Of note, both apparent pre-cairn soil horizons included quantities of wood charcoal, with the level of charcoal present being much higher in (027) than was present in (032). This

clearly suggest pre-cairn anthropic activity in the immediate environs of the site, with any such activity potentially being closer to Zone 3.

The Setting of the Cairn

57. An unusual aspect to the cairn is its position on the hill. Generally when on a hill, cairns are sited on the highest point, thereby gaining maximum prominence in the landscape. An example of this is the Tinto Cairn (Canmore ID 47525) which is 45m in diameter and up to 6m in height. It is very prominent and can be seen for a great distance all around, including from Swaites Hill nearly 7km to the N. In contrast the Cloburn Quarry Cairn actually sits off of the summit, with the centre of the cairn being about 10-15m to the SW of the summit. Prior to the excavation, the cairn stood roughly 0.5m high at most and was only visible at close proximity. Given the amount of material redeposited about the cairn, at a rough guess when *in situ* it would have made the cairn about 1m in height. Then conservatively estimating the amount of material removed entirely, the cairn could possibly have been between 2-3m in height, possibly more. This positioning off the summit would partially obscure the cairn from the north but make it visible to the S and SE.

58. The presence of large boulders around the cairn was noted during previous works. One such boulder to the NE of the cairn was investigated during the evaluation stage (Gordon 2015b) to see if it was a manuport or a natural occurrence; it was found to be the latter.

59. However, during the excavation one of the large boulders was revealed to be positioned over the outer kerb of the cairn. When this boulder was moved it was found to sit upon the turf that had formed over the cairn. It therefore had been relocated long after the cairn had been constructed. While it didn't appear to have been part of the original construction of the cairn, its size and position made it unlikely to have been put on the cairn recently. However, it may have been moved there during the later eighteenth century stone robbing. Which would have meant that it was originally situated closer to the centre of the cairn and moved over the out kerb to get it out of the way. If this is the case then the other large boulders near the cairn could potentially have also been situated on the cairn, as part of it original construction or a slightly later phase. This would have given the cairn far more visual impact within the landscape.

The Architecture of the Cairn

60. The cairn consists of four distinct elements: the inner kerb [014], outer kerb [012], a compact cairn fabric (029) between these kerbs and the more vacuous cairn fabric that filled the central space and sealed them ((018) & (011)).

61. It is possible that the cairn was a simple kerbed cairn ([012] and (018)) that was subsequently expanded through the construction of a new kerb [014] to retain the new mass of the cairn ((029)&(011)) – but such a sequential double kerb is quite unusual form. Most kerb cairns have only a single outer kerb, but rare examples of a kerbed cairns that have been expanded, consuming a fragmentary earlier kerb within their later, expanded fabric are known. An example is the Olcote Cairn on Lewis (Canmore Id 110238), an 8m diameter kerbed cairn that contained within its fabric an earlier kerb, 6.5m in diameter (Curtis & Curtis 1995, Neighbour 1996). An interesting parallel between this site and Cloburn Quarry Cairn was that both had their outer kerb formed by paired stones and these stones were typically set with their longest axis horizontal (i.e. laid flat) rather than vertical (i.e. set up) – the latter being much more typical of kerbed cairns.

62. However, unlike Olcote Cairn, our cairn's inner kerb [014] does not have a clear face to assist in determining its role in the structure's sequence. Drawing on other aspects of the construction, the more compact cairn fabric material betwixt the kerbs is highly suggestive of a separate build phase for this portion or cairn fabric, separate from the more vacuous layers (018) and (011). Given that these vacuous (clast supported) layers of cairn fabric both filled the area enclose ed by the inner kerb and covers all the other features a more credible formation sequence would be:

- Initial Cairn – a ring-cairn formed by the two kerb [012] & [014] and the compact infill cairn fabric (029);

- ❖ Later Cairn – the addition of large volume of cairn fabric (018) & (011) to form the appearance of a simple, large kerb cairn (presuming the outer kerb [012] remained initially visible)

63. Supporting this hypothesis is the layer of an apparent fragment of soil horizon that incorporates two discrete areas of burning (032) that overlay the 'ring-cairn' fabric (029). This may represent a soil and turf capping to the initial ring-cairn prior to the expansion into a simple kerbed cairn – should this be the case this gives a clear hiatus in terms of the cairn sequence between the two phases.

64. That this burning episode (032) had two concentrations of charcoal at each end of the surviving sediment suggests either two small hearths or the repeated cleaning out of a single hearth. There is no cause to suggest that the burning related to a pyre (i.e. the lack of burnt bone and the apparent low temperature of the fire) but it does suggest that the monument was a focus for activity not readily recognisable as funerary after the formation of the initial cairn.

65. Turning to other aspects of the construction, the slab-like stones that leant on the outer face of the inner kerb in Zone 3 were also unusual. A slight comparison could be made, to the construction of a cairn at Bu Farm on Westray, Orkney (Canmore ID 3228). In that case the cairn consisted of slabs of stone, which as you got to the centre it became more organised with concentric rows of interleaving flat stones leaned against the central cist (Barber *et al* 1996). While not on this scale, it may reflect an attempt at a consistent form to the cairn fabric in this localised area. Alternatively, the flat stones may have been used to give a more vertical face of greater height to the interior face of the inner kerb – a process that was undermined by their size leading to them toppling inwards, pushed by the cairn fabric behind them.

66. The recess identified in the outer kerb [012] in Zone 3, was another usual aspect to the form of the cairn. The recess was formed by stones much smaller than those present in the rest of the kerb. It is possible that it was the place for a large upright stone, which is found in some kerb cairns. However, this would not explain why it was necessary to form the recess rather than just place the upright within the circuit of the kerb. As such there is the potential that this recess was a deliberate architectural form within the kerb that either sought to hold a non-stone object or to represent an architectural features (such as a false portal).

67. Other breaks exist in the outer kerb without the complexity of the recess; in these cases the presumption is that stone has been robbed from the kerb. In one instance, the break in the Zone 1, appeared to be a well matched break for the boulder that lay due west (Figure 1). If this is a sound association, it heightens the potential that boulders that preceded the formation of the initial ring-cairn may have been incorporated into its circuit – raises the question of how the creation of the original cairn interacted with natural features and whether these were perceived as such during the Bronze Age. Sites such as Cairnwell ring-cairn in Aberdeenshire (Rees 1997) have shown the deliberate siting of a ring-cairn within a preceding stone circle, with a later expansion that absorbed the stone circle into the outer kerb of the ring-cairn.

The formation of the Cairn relative to the cists

68. The sequence of the construction of the cairn is not clear (see above) and our current interpretation is based on a greater degree of inference than is desirable. This position is a consequence of the scale of modern disturbance to the cairn (see below). We provisionally view the two kerbs ([012] & [014]) to be broadly contemporaneous. The logic being that the more compact cairn fabric (029) betwixt the two kerbs marks the first cairn fabric on the monument. This proposal would then be, in the first instance, for a ring-cairn to have defined and enclosed a central court. Within this space were the two cists (slab lined graves), though we cannot be confident as to whether they were placed into this courtyard, or the court formed around them.

69. The cists within the cairn are short cists; as such most likely date to the early Bronze Age (approximately 2000 to 1400 BC). The position of the cists which were off centre to the

south, while not unusual this is a little odd. Invariable, though not always, within a cairn there is a central cist with any off centre cist or urned cremation being later insertions – in essence a primary burial with later subsidiary burials. The lack of a central burial may reflect a different scheme of burial from that normally encountered especially as even if robbed out, the cist pit would have been readily identifiable within the courtyard.

The Rapier – a later insertion?

70. The presence of the copper alloy rapier dating to the early part of the Middle Bronze Age within the cairn is significant. With only around 40 dirks and rapiers recorded throughout Scotland, they are uncommon finds and this is the first known example found in Lanarkshire. Such artefacts are more often found in wet places such as peat bogs where they have been placed as votive deposits. So the discovery of an isolated specimen in close association with a burial monument of broadly comparable date is very interesting.

71. Where the rapier was found is also of interest, it was uncovered within the redeposited cairn material (009), outwith the outer kerb to the immediate W of the cairn. The redeposited cairn material (009) here was quite minimal in comparison to the rest of the site, extending only 1m out with the outer kerb [012]. It was initially thought that the rapier had been ended up where it was found after being discarded during the disturbance to the cairn, possibly originating from within a cist that was destroyed. If this is the case then the stone was of more interest than the rapier. However, it is possible that the redeposited cairn material here is natural tumble rather than being human disturbed material. If this is the circumstance then there is a case to be made that the rapier was in fact a votive deposit, inserted into the edge of the cairn perhaps as an offering to the ancestors.

72. If this is a sound assessment, it also provides a potential *terminus ante quem* for the later, expanded cairn in the early Middle Bronze Age. Indeed by this point the larger cairn would need to both have been formed, and be starting its natural process of spreading over the outer kerb (assuming this was retained as a visible feature). This would appear to fit well with the broadly Early Bronze Age date for the short cists and hence the initial ring-cairn.

73. The insertion of the disturbed urned cremation (017) within a Food Vessel <026><027> into the ring-cairn fabric (029) is presumably a later burial from the Middle Bronze Age. Such insertions, illustrating an ongoing recognition and role for such a funerary site, are a common feature of cairns; that these burials are often urned cremations reflecting the diversity and individual nature of burial rites in the Early and Middle Bronze Age.

74. The fragments of possible Late Bronze Age or even Iron Age pottery <024> recovered from the redeposited cairn material (009) suggests that there was an even more complex continuing role for the cairn within the cultural landscape of the communities living in the area. Sadly the scale of modern disruption that we infer has occurred (see below) inhibits our ability to recognise with clarity this ongoing role and we presume that much of the later use of this site has been lost.

Modern Disturbance

75. The most obvious observation in regards to the cairn was the level of disturbance that had taken place prior to our archaeological investigations. A large amount of cairn fabric had been removed from the cairn and deposited to the immediate ENE, with a smaller amount of material spread down the slope to the SE (Figure 1). It would appear that at some point in the past persons unknown had dug down into the centre of the cairn, dumping the excavated cairn fabric (009) next to the monument.

76. Who carried this out, when it was carried out and for what purpose is unknown. It is likely to have been either antiquarians investigating the cairn or possibly local people robbing the stone from the cairn for building. The latter is known to have occurred in the area, the Statistical Accounts of Scotland (Ferguson 1791-1799) reports the finding of urns, many years previously, when some people were digging out large stones for building material a large enclosure. The description of the enclosure sounds like Blackhouse Burn enclosure (Canmore ID 476440) which is located 900m south of the cairn. The Statistical Accounts go on to mention other urns being uncovered under a cairn (Canmore ID 47644) a quarter

of a mile away, though this doesn't explain why that cairn was being dug up. Both of these sites are within easy walking distance from the site at Swaites Hill, and it not a stretch of the imagination for the same stone robbing or investigation to have occurred at our cairn on Swaites Hill.

77. The bank (007) situated to the N of the cairn, did not appear to be deliberately constructed. It resembled more a vague linear dump of material. This has provisionally been interpreted as spilt material, for instance left from filling carts with the stone robbed from the cairn. During the evaluation it was thought that there may have been evidence of a cart track between the bank and the cairn (Gordon 2015a, para 39) which would support this interpretation.

78. However, the process of stone robbing is in essence using the cairn as a quarry. Taking this approach it is challenging to explain the preferential reduction of the centre of the cairn or the creation of the redeposited cairn to the NE – rather than loading stone straight into carts. It seems credible that the first phase of disturbance activity was purposeful investigation of the cairn, excavating the core of the cairn, locating and lifting the capstones of the cists and casting waste material (i.e. cairn fabric) into the redeposited cairn. The subsequent reduction (especially in its core) of the redeposited material and the bank (007) suggesting a second, later phase of removing stone from the site.

79. Known antiquarian activity in the area seems to have been limited to survey and information gathering rather than excavation. It also appears to have concentrated on the hillforts in the area, though there are mentions of some cairns (Christian 1889-1890 & Irving & Murray 1864). However, this does not preclude the possibility of unrecorded works being carried out or treasure hunting/grave robbing.

80. In addition to the likely antiquarian investigation and subsequent stone robbing, there appears to have been recent intrusions into the core of the cairn - shown by the presence of plastic (<023> & <047>) within the cairn material (011) in Zones 4 and 3 respectively. These may have been left by modern stone robbing or metal detectorists. It is also possible that got there by bioturbation, however given the size of the plastic fragments and their position within the cairn material this appears unlikely.

81. The level of modern disturbance that has occurred would likely have destroyed or disrupted any later burials or votive deposits in the upper cairn material. Though if they had been only disrupted, evidence of such activity would likely have been found in the redeposited cairn material (009). However, only two finds <021>, <024> were recovered from this context. This lack of finds may indicate that there were no later deposits or burials in the upper cairn. Alternatively it may be that anything like that was recovered at the time of the disturbance leaving no evidence of their presence.

Recommendations

82. The quality and quantity of the archaeological features recovered is such that it would warrant a programme of post-excavation analysis works and publication. Any programme for such works would need to be confirmed with South Lanarkshire Council and their archaeological advisors, the West of Scotland Archaeology Service, in keeping with the terms laid out in the Written Scheme of Investigation

83. The appropriateness and acceptability of our recommendations rest with South Lanarkshire Council and their advisors, WoSAS.

Conclusion

84. A programme of archaeological works was required by Cloburn Quarry Development Ltd in respect of the quarry extension at Cloburn Quarry, Lanark, South Lanarkshire (Planning ref: CL/14/0140). The archaeological works were designed to mitigate the impact on an identified cairn identified within the development area.

85. During these works the Bronze Age cairn was fully excavated and shown to have consisted of two concentric annular kerbs, with two cists present within the space defined by the inner kerb. Two cremations where recovered from within one of these cists while a third

possible urned cremation was identified within the larger cairn.

86. Artefacts recovered included Bronze Age and Iron Age pottery along with flint tools. In addition a Middle Bronze Age copper alloy Rapier was also recovered from within the cairn fabric.

87. The cairn, including the cists, had clearly been extensively disturbed in relatively recent time (i.e. after the late 18th century) with displaced cairn fabric cast to the NE and SW. This displaced material, and possibly the primary cairn, also appear to have been subsequently robbed of stone.

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Appendix 1 Registers

91. Within this appendix are all registers pertaining to works on-site during the evaluation.

Appendix 1.1 Context Register

Context No.	Zone	Type	Description	Interpretation
001	All	Deposit	Very dark brown sandy silt with occasional small stone inclusions and frequent small root inclusions	Topsoil
002	All	Deposit	Mid orange silty clay with frequent small to medium sized stone, frequent root inclusions and occasional grey sandstone / red granite bedrock fragments	Subsoil
003	1	Cut	Sub-circular in plan. 800mm long, 800mm wide, 350mm deep	Probable stone-heave.
004	1	Fill	Firm black-brown slightly clayey sand, frequent small stone inclusions and occasional charcoal flecks.	Upper fill of [003]
005		Deposit	Black-brown sandy silt E of cairn, small sub-angular and sub-rounded stone inclusions and frequent charcoal flecks	Possible small dump of burnt material.
006	1	Fill	Firm mid grey-yellow clayey sand with frequent small sub-angular stone inclusions and occasional charcoal flecks	Lower fill of [003]
007	5	Deposit	Dark brown silt with frequent medium to large sub-angular and sub-rounded stone inclusions and frequent small root inclusions. Deposit is 0.26m thick and 3.5m wide.	Bank to NE of cairn of uncertain age, possibly a dump relating to removal of cairn material.
008	2	Deposit	Friable mid orange-brown mottled black slightly sandy silt. 25-50mm deep. Underlying rubble tumble (009) from cairn.	Probable old ground surface.
009	All	Deposit	Medium to large (400 x 400 x 300mm) sub-angular and sub-rounded stones around entirety of cairn. Deposit is 0.5m deep	Re-deposited Cairn Material. May have been spread through disturbance as well as natural deterioration of cairn. Material to the NE likely spread from disturbance.
010	2	Deposit	Loose dark brown-orange sandy silt with frequent small sub-angular and sub-rounded stone inclusions and occasional charcoal flecks. This deposit abuts the kerb of the cairn on its outer side.	Probable ground surface prior to deposition of tumble (009).
011	All	Deposit	Loose mid grey-brown sandy silt, small-medium angular and sub-angular stones, infrequent large stones (500 x 500m). Deposit is 400m deep and overlies kerb stones	Upper cairn material. Likely prehistoric.

Context No.	Zone	Type	Description	Interpretation
012	1 - 4	Deposit	Large (780mm long, 520mm wide, 450mm deep) sub-angular and sub-rounded kerb stones two rows wide underlying tumble (009) of inner cairn material (011). Feature is 14m in diameter. A possible false portal or remains of an entrance is present in Zone 3	Outer kerb of cairn.
013	2	Deposit	Loose black-brown silt with small stone inclusions and charcoal.	Lens of charcoal disturbed by burrowing.
014	1 - 4	Deposit	Large sub-angular and sub-rounded stones (600mm long, 350mm wide, 300mm deep) some positioned upright, leaning against inner boulders. This inner kerb is inconsistent, with gaps in places.	Possible inner kerb of cairn. May pre-date the outer kerb.
015	2	Deposit	Dark grey-brown sandy silt with large flat upright angular stones delimiting the deposit's edges. Pre-ex dimensions of soil: 1.1m long, 0.7m wide. Post-ex dimensions, including stones: 2m long, 1.6m wide. 0.5m deep. No cut was visible, but a single row of packing stones was discovered behind the stone lining. These varied from flat slabs, of a similar size to those of the inner lining, to smaller more rounded boulders. Chocking stones were present, bracing the lining in place at various points. No capstone was present, but the stone lining itself was capped by large flat slabs which resulted in a slight overhang into the cist. Two deposits of burnt bone were discovered ((023),(028) and (036)), stratigraphically separated by a layer of flat paving stones [031].	Sub-circular, probably Bronze Age, stone-lined cist.
016	2	Deposit	Dark grey-brown sandy silt with small sub-rounded and sub-angular stones delimited by four flat upright slabs to the S and 3 broader slabs to the N. 1.2m long, 0.6m wide, 0.5m deep. No cut was visible behind this stone lining. The base of the feature was defined by a hard grey deposit (025). No capstone was present. However, a large flat boulder was uncovered beneath the adjacent baulk. The dimensions of this boulder (1.1m long, 0.8 wide, 0.25m thick) suggest it may have been a capstone of this cist or [015].	Sub-rectangular, probably Bronze Age, stone-lined cist.
017	4	Deposit	Friable mid orange-yellow silty sand with frequent medium (50-100mm) sub-angular stone inclusions, frequent small-medium (2-50mm) burnt bone fragments, occasional medium (50 x 10mm) decorated pot sherds. A considerable number of bone fragments were immediately adjacent to some of the pot sherds, suggesting a direct relationship between the two. No cut or distinct boundary with this deposit and that around it was present, suggesting considerable disturbance has taken place.	Probable disturbed remains of a cremation burial, likely Bronze Age.
018	1-4	Deposit	Loose dark orange-brown sandy silt with occasional sub-rounded and sub-angular stone inclusions which may originate in upper cairn material (011).	Lower cairn material underlying (011) and contained within the area bounded by the inner kerb [012]
019	2	Deposit	Loose dark grey-brown silt with infrequent sub-angular stones. 250mm long, 200mm wide, 50mm deep.	Lens of silt material within [016].

Context No.	Zone	Type	Description	Interpretation
020	Void	Void	Void	Void
021	2	Deposit	Mid orange-brown sandy silt with infrequent sub-rounded stones, occasional charcoal flecks. 850mm long, 540mm wide, 470mm deep. A void was present in the NE corner at a depth of 350mm, this and the homogenous nature of the deposit suggest it may be a natural accumulation of material.	Primary fill of cist [016].
022	2	Fill	Black-brown silt with stone inclusions and possible charcoal. Located stratigraphically above (032).	Charcoal inclusions suggest anthropogenic deposit.
023	2	Fill	Soft light orange-brown sandy silt, stone, charcoal and burnt bone inclusions. Similar in composition to fill (021) in cist [016], but with bone and stone inclusions.	Burial remains in cist [015]..
024	Void	Void	Void	Void
025	2	Deposit	Firm mid grey-brown silty sand with frequent sub-angular and sub-rounded stone inclusions. 880mm long, 490mm wide.	Probable base of cist [016].
026	All	Deposit	Firm mid orange-brown silty sand with occasional large (600 x 400 x 300mm) and frequent small (50mm) sub-angular and sub-rounded stone inclusions.	Probable ground surface prior to construction of cairn.
027	3	Deposit	Friable dark grey-black mottled pink-brown slightly clayey silt with frequent small charcoal flecks and occasional small sub-angular stone inclusions.	Probable old ground surface underlying outer kerb [012] in its NE extent at possible portal/entrance feature.
028	2	Deposit	Firm black-brown silt with frequent large (50mm) burnt bone inclusions and occasional charcoal flecks. Larger fragments of bone appeared to be part of a cranium and hip ball-joint.	Cremation remains deposited in cist [015]. This and (023) make up the secondary burial.
029	1 – 4	Deposit	Small-medium (100 – 500mm) sub-angular and sub-rounded stones in a friable mid grey-orange slightly clayey sand matrix. 1m in diameter, 0.2m thick. Distinguished from looser, more vacuous (011) by its firmer compaction.	Layer of rough cobbling / compact rubble between outer [012] and inner [014] kerbs. Probable structural element of the cairn.
030	2	Deposit	Firm mid brown sandy silt with frequent small sub-rounded and sub-angular stones and charcoal inclusions. 340mm long, 300mm wide, 100mm deep.	Probable stone-heave material from past disturbance of the cairn.
031	2	Deposit	Layer of medium sub-angular flat stones varying from 80 – 460mm in diameter and <30mm thick.	Paved secondary base of cist [015]. The stones were well-placed, arranged to lie neatly together.

Context No.	Zone	Type	Description	Interpretation
032	1	Deposit	Friable dark grey-brown mottled mid orange-brown clayey silt with frequent small to medium (5 – 20mm) charcoal inclusions. Length: 1.5m, width: 0.75m, depth: 0.25m	Possible hearth remains post-dating cairn. The charcoal inclusions were unevenly distributed, with concentrations at either end of the length of the deposit, suggesting two small hearths adjacent each other, or the cleaning out of a single hearth.
033	2	Deposit	Firm dark orange-brown clayey silt with small sub-rounded stones inclusions and occasional charcoal flecks. 320mm deep.	Possible old ground surface beneath and between outer kerb stones of [012].
034	2	Deposit	Firm dark brown silty clay with sub-angular and rounded stone inclusions (quartz, whinstone, red granite) occasional charcoal, and burnt bone fragments.	Primary fill and cremation remains of cist [015]
035	2	Deposit	Degraded whinstone and red granite	Primary floor of cist [015]
036	2	Deposit	Dark brown silt with frequent burnt bone fragments, occasional charcoal flecks and occasional small stone inclusions. Appeared to be less disturbed than (025)&(028).	Primary burial of cist [015]. Earlier than (025)&(028).

Appendix 1.2 Drawing Register

Drawing No.	Sheet No.	Feature Group/ Trench	Drawing Type	Scale	Description	Drawer	Date
001	1	2	Plan	1:20	Pre-ex plan Zone 2 (Part 1)	LMcK	1/9/15
002	2	2	Plan	1:20	Pre-ex plan Zone 2 (Part 2)	LMcK	2/9/15
003	3	5	Section	1:10	Section of a deposit overlying sandy silt	PL	2/9/15
004	4	1	Section	1:10	W-facing section of possible pit [003]	JAD	2/9/15
005	4	1	Plan	1:20	Possible pit [003], half-sectioned	JAD	2/9/15
006	5	3	Plan	1:20	Pre-ex plan Zone 3 (Part 1)	LMcK	2/9/15
007	6	3	Plan	1:20	Pre-ex plan Zone 3 (Part 2)	LMcK	3/9/15
008	7	4	Plan	1:20	Pre-ex plan Zone 3 (Part 1)	LMcK	4/9/15
009	8	4	Plan	1:20	Pre-ex plan Zone 4 (Part 2)	LMcK	8/9/15
010	9	6	Plan	1:20	Pre-ex plan Zone 6	LMcK	8/9/15

Drawing No.	Sheet No.	Feature Group/ Trench	Drawing Type	Scale	Description	Drawer	Date
011	10	5	Plan	1:20	Pre-ex plan Zone 5 (Part 1)	LMcK	8/9/15
012	11	5	Plan	1:20	Pre-ex plan Zone 5 (Part 2)	LMcK	9/9/15
013	12	1	Plan	1:20	Pre-ex plan Zone 1 (Part 1)	LMcK	9/9/15
014	13	1	Plan	1:20	Pre-ex plan Zone 1 (Part 2)	LMcK	9/9/15
015	14	2	Plan	1:20	Post-ex plan of mound Zone 2	LMcK	14/9/15
016	15	4	Plan	1:20	Post-ex plan of mound Zone 4	LMcK	15/9/15
017	16	3	Plan	1:20	Post-ex plan of mound Zone 3	LMcK	16/9/15
018	17	2	Section	1:10	Section of (022)	PL	16/9/15
019	17	2	Plan	1:20	Plan of [024]	PL	16/9/15
020	4	2	Plan	1:20	Plan of [016]	AJW	17/9/15
021	19		Section	1:10	SE-facing section through mound (Part 1)	LMcK	17/9/15
022	20	2	Plan	1:20	Plan of cist [015]	PL	18/9/15
023	21	4	Section	1:10	SE-facing section of baulk running NE-SW (centre portion)	CW	18/9/15
024	22	3	Section	1:10	NE-facing section of NE-facing baulk (NW end)	DiG	18/9/15
025	23	1	Plan	1:20	Zone 1	LMcK	18/9/15
026	20	1	Section	1:10	S-facing section (032)	JAD	18/9/15
027	24	4	Section	1:10	NE-facing section Zone 4 (centre)	DiG	18/9/15
028	25	1	Section	1:10	SE-facing section Zone 1 (S end)	CW	18/9/15
029	4	1	Section	1:10	NE-facing section Zone 4 (SE end)	AJW	18/9/15

Appendix 1.3 Sample Register

Sample No.	Feature Group/ Trench	Context No.	Sample Type	Description	Excavator	Date
001		005	Bulk	Black-brown silt, frequent charcoal inclusions	PL	2/9/15

Sample No.	Feature Group/ Trench	Context No.	Sample Type	Description	Excavator	Date
002		004	Bulk	Black clayey sand from [003]	JAD	2/9/15
003		008	Bulk	Soft orange sand, possibly old ground surface	JAD	3/9/15
004	2	010	Bulk	Soft dark brown-orange sand, frequent charcoal inclusions	PL	3/9/15
005	2	013	Bulk	Black-brown silt, charcoal inclusions	PL	7/9/15
006	4	017	Bulk	Friable orange sand, frequent bone inclusions, occasional pottery fragments	JAD	14/9/15
007	2	019	Bulk	Dark grey-brown silt from [016], some charcoal inclusions	AJW	16/9/15
008	2	021	Bulk x17	Mid orange sandy silt – primary fill of cist [016], charcoal inclusions	AJW	16/9/15
009	2	022	Bulk x2	Fill of cist [015]	PL	17/9/15
010	2	023	Bulk x22	Fill of cist [015]	PL	17/9/15
011	2	028	Bulk	Burnt bone	PL	17/9/15
012	3	027	Bulk	Silty deposit with frequent charcoal flecks	JAD	18/9/15
013	2	030	Bulk	Mid brown sandy silt from stone heave	AJW	18/9/15
014	2	033	Bulk	Dark brown silt – possible old ground surface	AJW	18/9/15
015	1	032	Bulk	Dark brown-black silt, charcoal inclusions	JAD	18/9/15
016	2	034	Bulk	Dark brown silty clay. Bone, charcoal flecks	PL	18/9/15
017	2	034	Bulk	Burnt bone inclusions	PL	18/9/15

Appendix 1.4 Finds Register

Find No.	Feature Group/ Trench	Context No.	Material Type	Description	Excavator	Date
001	1	001	Stone	Possible chert fragment	JAD	20/8/15
002	1	001	Stone	Flint flake	DG	21/8/15
003	1	001	Stone	1x worked flint, 1x flint scraper	LMcK	21/8/15
004	1	001	Stone	1x flint chunk	JAD	24/8/15

Find No.	Feature Group/ Trench	Context No.	Material Type	Description	Excavator	Date
005	2	001	Stone	Flint blade – possibly retouched	JAD	25/8/15
006	4	001	Stone	Flint blade	AJW	26/8/15
007	4	001	Bone	Single fragment	PL	26/8/15
008	3	001	Stone	Broken lithic	AJW	26/8/15
009	3	001	Stone	Quartz fragment – possibly worked	AJW	26/8/15
010	2	001	Stone	Possible flint scraper	DG	27/8/15
011	3	001	Stone	Possible flint core or debitage	PL	27/8/15
012	3	001	Stone	Possible struck lithic	PL	28/8/15
013	3	001	Stone	Quartz fragment	AJW	28/8/15
014	3	001	Stone	Possible flint core	AJW	31/8/15
015	2	001	Stone	Possible struck quartz	PL	3/9/15
016	2	011	Stone	Flint flake	AJW	4/9/15
017	2	011	Stone	Single chert chunk	PL	4/9/15
018	2	011	Stone	Possible worked stone	PL	7/9/15
019	2	011	Stone	Flint flake	AJW	8/9/15
020	2	011	Stone	Flint flake, possibly worked	AJW	8/9/15
021	1	009	Cu Alloy	Rapier	DG	10/9/15
022	4	001	Stone	Burnt and struck flint	PL	11/9/15
023	3	011	Plastic	Fragment of plastic – possibly sellotape	DG	14/9/15
024	4	009	Ceramic	Gritty with white inclusions – possibly pottery	PL	14/9/15
025	4	017	Bone	Small (10-25mm) fragments of burnt bone	JAD	14/9/15
026	4	017	Ceramic	Medium (10-50mm) pot sherds, possibly decorated	JAD	14/9/15
027	4	017	Ceramic	Decorated rim sherd – same material as SF026	JAD	14/9/15
028	1	011	Stone	Struck lithic	PL	15/9/15

Find No.	Feature Group/ Trench	Context No.	Material Type	Description	Excavator	Date
029	1	011	Stone	Possible worked stone	PL	15/9/15
030	3	018	Organic	Single carbonised hazelnut shell	PL	15/9/15
031	3	011	Stone	Chert fragment, possible debitage	DiG	15/9/15
032	2	022	Bone	Single small piece of burnt bone	PL	16/9/15
033	1	011	Bone	Several fragments of bone	PL	17/9/15
034	2	023	Bone	Sample of larger pieces of bone from context (023)	CW	17/9/15
035	2	023	Stone	Fragment of stone with single hole – possibly man-made	PL	17/9/15
036	2	023	Bone	2x large burnt bone fragments	PL	17/9/15
037	2	023	Stone	2x quartz fragments found in opposing corners of cist [015]	PL	17/9/15
038	2	023	Bone	Large burnt bone fragment from SE corner of cist [015]	PL	17/9/15
039	2	028	Bone	Burnt bone fragments with charcoal	PL	17/9/15
040	4	017	Bone	Burnt bone fragments	JAD	17/9/15
041	2	034	Stone	Red granite (possibly ritually deposited with primary burial in cist [015]	PL	18/9/15
042	2	034	Stone	5x fragments of possibly worked quartz	PL	18/9/15
043	2	034	Organic	Remains of plant material from beneath floor of cist [015]	PL	18/9/15
044	2	034	Bone	Burnt bone	PL	18/9/15
045	2	015	Bone	Bone fragments from joins between cist stones of [015]	PL	18/9/15
046	1 – 4	011	Stone	Examples of river stones from the cairn material 1x quartz, 1x red granite, 1x whinstone	DG	21/9/15
047	4	011	Plastic	Fragment of medium gauge plastic	PL	08/09/15

Appendix 1.5 Photographic Register

Image No.	Digital	Description	From	Date
1	3751	General shot of cairns	S	14/08/2015
2	3752	General shot of cairns		14/08/2015
3	3753	General shot of cairns		14/08/2015
4	3754	General shot of cairns		14/08/2015
5	3755	Working shot		18/08/2015
6	3756	Working shot		18/08/2015
7	3757	Working shot		18/08/2015
8	3758	Post-investigation shot of eval clearance cairn (010)	S	18/08/2015
9	3759	Post-investigation shot of eval cairn (009)	SE	18/08/2015
10	3760	Post-investigation shot of clearance cairn eval Tr. 34	E	18/08/2015
11	3761	Post-investigation shot of clearance cairn eval Tr. 36	SE	18/08/2015
12	3762	Post-investigation shot of stony area eval Tr. 47	NW	18/08/2015
13	3763	Post-investigation shot of clearance cairn D	NW	18/08/2015
14	3764	Pre-ex shot of feature - possible post- or stake-hole	E	02/09/2015
15	3765	Half-section photo of black-brown deposit (005)	E	02/09/2015
16	3767	Plan of feature [003] half-sectioned	W	02/09/2015
17	3768	W-facing section [003]	W	02/09/2015
18	3769	Zone 2, cairn	SW	02/09/2015
19	3770	Zone 2, cairn	S	02/09/2015
20	3771	Zone 2, cairn	NNW	02/09/2015
21	3772	Zone 1, cairn	WSW	02/09/2015
22	3773	Zone 1, cairn	N	02/09/2015
23	3774	Zone 1, cairn	E	02/09/2015
24	3775	Zone 3 with bank (007)	N	02/09/2015
25	3776	Zone 3	E	02/09/2015
26	3777	Zone 4	S	02/09/2015
27	3778	Zone 4	ESE	02/09/2015
28	3779	Zone 6	ESE	02/09/2015
29	3780	Zone 6	N	02/09/2015
30	3781	Zone 5	N	02/09/2015
31	3782	General shot of cairn	NW	02/09/2015
32	3783	General shot of cairn	SW	02/09/2015
33	3784	General shot of cairn	W	02/09/2015
34	3785	General shot of cairn	S	02/09/2015
35	3786	General shot of cairn	S	02/09/2015
36	3787	General shot of cairn	E	02/09/2015
37	3788	General shot of bank (007)	E	02/09/2015
38	3789	Post-ex plan [003]	W	02/09/2015
39	3790	Working shot	SW	04/09/2015

Image No.	Digital	Description	From	Date
40	3791	Working shot	S	04/09/2015
41	3792	Working shot	SW	04/09/2015
42	3793	Working shot	S	04/09/2015
43	3794	Working shot	SW	04/09/2015
44	3795	Working shot	N	04/09/2015
45	3796	Working shot	S	04/09/2015
46	3797	General shot with Tinto Hill	N	04/09/2015
47	3798	General shot of Quothquon Hillfort	NW	04/09/2015
48	3799	General shot	W	04/09/2015
49	3800	General shot	ESE	04/09/2015
50	3801	General shot (013)	NW	04/09/2015
51	3802	Pre-ex (017)	E	14/09/2015
52	3803	Pre-ex (017) showing probable in situ pot and bone concentration	S	14/09/2015
53	3804	Post-ex interior Zone 2	NW	14/09/2015
54	3805	Post-ex interior Zone 2	NW	14/09/2015
55	3806	Post-ex interior Zone 2	NE	14/09/2015
56	3807	Post-ex interior Zone 2	NE	14/09/2015
57	3808	View of Zone 2 exterior	SW	14/09/2015
58	3809	View of Zone 2 exterior	SW	14/09/2015
59	3810	View of Zone 2 exterior	SE	14/09/2015
60	3811	View of Zone 2 exterior	SE	14/09/2015
61	3812	Pre-ex of cist [015]	SE	14/09/2015
62	3813	Pre-ex of cist [016]	N	14/09/2015
63	3814	Post-ex of mound Zone 4 interior	NW	15/09/2015
64	3815	Post-ex of mound Zone 4 interior	NW	15/09/2015
65	3816	Post-ex of mound Zone 4 interior	SW	15/09/2015
66	3817	Post-ex of mound Zone 4 interior	SW	15/09/2015
67	3818	Post-ex of mound Zone 4 showing curve of kerb stones	S	15/09/2015
68	3819	Post-ex of mound Zone 4 exterior	NE	15/09/2015
69	3820	Post-ex of mound Zone 4 exterior	NE	15/09/2015
70	3821	Post-ex of mound Zone 4 exterior	SE	15/09/2015
71	3822	Post-ex of mound Zone 4 exterior	SE	15/09/2015
72	3823	Cist [016] pre-ex	SE	16/09/2015
73	3824	Cist [016] pre-ex	NE	16/09/2015
74	3825	Cairn Zone 3	E	16/09/2015
75	3826	Cairn Zone 3	NNW	16/09/2015
76	3827	Cairn Zone 3 kerb	W	16/09/2015
77	3828	Cairn Zone 3	SW	16/09/2015
78	3829	Detail, possible structural feature in kerb, Zone 3	NNE	16/09/2015

Image No.	Digital	Description	From	Date
79	3830	Detail of interior, Zone 3	NNE	16/09/2015
80	3831	Cist [015] pre-ex	NW	16/09/2015
81	3832	Cist [015] pre-ex	NW	16/09/2015
82	3833	Cist [015] half-section wihtout shade	N	16/09/2015
83	3834	Cist [015] half-section with shade	N	16/09/2015
84	3835	Cist [016] post-ex	SE	16/09/2015
85	3836	Cist [016] post-ex	NE	16/09/2015
86	3837	Cist [016] - stones removed	SE	17/09/2015
87	3838	Cist [015] - pre-bone lift	NW	17/09/2015
88	3839	Zone 1 outer kerb	ESE	17/09/2015
89	3840	Zone 1 general shot of cairn	SE	17/09/2015
90	3841	Zone 1 outer kerb	SSW	17/09/2015
91	3842	Zone 1 outer kerb	NE	17/09/2015
92	3843	Zone 1 outer kerb	N	17/09/2015
93	3844	Zone 1 general shot of cairn	NW	17/09/2015
94	3845	Zone 1 general shot of cairn	WSW	17/09/2015
95	3846	Zone 1 inner kerb	NNW	17/09/2015
96	3847	Zone 1 inner area of cairn	NE	17/09/2015
97	3848	Zone 1 inner area of cairn	NNE	17/09/2015
98	3849	Zone 1 inner side of outer kerb	NE	17/09/2015
99	3850	Zone 1 inner side of outer kerb	SE	17/09/2015
100	3851	Zone 1 SW-facing section - ESE end	SSW	17/09/2015
101	3852	Zone 1 SW-facing section NW end	SW	17/09/2015
102	3853	Zone 1 SW-facing section whole	WNW	17/09/2015
103	3854	Zone 1 NW-facing section (NE end)	NW	17/09/2015
104	3855	Zone 1 NW-facing section (SW end)	NW	17/09/2015
105	3856	Zone 1 NW-facing section (whole)	WSW	17/09/2015
106	3857	Zone 1 NW-facing section (whole)	NW	17/09/2015
107	3858	Zone 3 black silty spread underlying NE of kerb	NE	17/09/2015
108	3859	Cist [015] post-ex vertical	SW	17/09/2015
109	3860	Cist [015] post-ex oblique	SW	17/09/2015
110	3861	Cist [015] post-ex oblique	NE	17/09/2015
111	3862	Cist [015] post-ex	NW	17/09/2015
112	3863	Cist [015] post-ex	NW	17/09/2015
113	3864	Cist [015] post-ex	SE	17/09/2015
114	3865	Pre-ex (029) compact rubble between inner and outer kerb, Zone 3	NW	18/09/2015
115	3866	Post-ex slot through (029)	NW	18/09/2015
116	3867	Pre-ex (032)	SE	18/09/2015

Image No.	Digital	Description	From	Date
117	3868	Possible ground surface beneath kerb [012]	S	18/09/2015
118	3869	Possible ground surface beneath kerb [012]	W	18/09/2015
119	3871	(032) half-section	S	18/09/2015
120	3871	Below [031] of cist 015)	N	18/09/2015
121	3872	Post-ex of floor of cist [015] beneath [031]	N	18/09/2015
122	3873	Zone 2 southern baulk western face	N	18/09/2015
123	3874	Zone 4 cist [015] post-ex (cist slabs removed)	NW	18/09/2015

Appendix 2: Discovery & Excavation in Scotland

LOCAL AUTHORITY:	South Lanarkshire
PROJECT TITLE/SITE NAME:	Cloburn Quarry Extension
PROJECT CODE:	RA13069
PARISH:	Pettinain
NAME OF CONTRIBUTOR:	Douglas Gordon
NAME OF ORGANISATION:	Rathmell Archaeology Limited
TYPE(S) OF PROJECT:	Open Area Strip and Excavation
NMRS NO(S):	47645
SITE/MONUMENT TYPE(S):	Cairn, Cist
SIGNIFICANT FINDS:	Pottery; lithics; Copper Alloy.
NGR (2 letters, 8 or 10 figures)	NS 9521 4149
START DATE (this season)	17th August 2015
END DATE (this season)	21st September 2015
PREVIOUS WORK (incl. *DES* ref.)	Evaluation
MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields)	A programme of archaeological works was required by Cloburn Quarry Development Ltd in respect of the quarry extension at Cloburn Quarry, Lanark, South Lanarkshire (Planning ref: CL/14/0140). The archaeological works were designed to mitigate the impact on an identified cairn identified within the development area. During these works the Bronze Age cairn was fully excavated and shown to have consisted of two concentric annular kerbs, with two cists present within the space defined by the inner kerb. Two cremations where recovered from within one of these cists while a third possible urned cremation was identified within the larger cairn. Artefacts recovered included Bronze Age and Iron Age pottery along with flint tools. In addition a Middle Bronze Age copper alloy Rapier was also recovered from within the cairn fabric.

	The cairn, including the cists, had clearly been extensively disturbed in relatively recent time (i.e. after the late 18th century) with displaced cairn fabric cast to the northeast. This displaced material, and possibly the primary cairn, also appear to have been subsequently robbed of stone.
PROPOSED FUTURE WORK:	Post-excavation analyses
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	Cloburn Quarry Development Ltd
ADDRESS OF MAIN CONTRIBUTOR:	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
EMAIL ADDRESS:	contact@rathmell-arch.co.uk
ARCHIVE LOCATION (intended/deposited)	Report to West of Scotland Archaeology Service and archive to HES Collections.

Contact Details

92. Rathmell Archaeology can be contacted at our Registered Office or through the web:

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Unit 8 Ashgrove Workshops
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93. The West of Scotland Archaeology Service can be contacted at their office or through the web:

West of Scotland Archaeology Service
231 George Street
Glasgow
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