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West Coast Archaeological Services

Castle Leod Strathpeffer, Easter Ross



Archaeological Test Pitting Evaluation

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Castle Leod Archaeological Evaluation Strathpeffer, Easter Ross

Results of the Archaeological Test Pitting Evaluation

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1.0 Summary

Castle Leod is an L-shaped tower house located north of Strathpeffer in Easter Ross. The present castle occupies a grass-covered mound that is believed to be an earlier motte on which a previous wooden or stone castle tower was built. There are references to a possible Pictish fort on the same site, which may also have been later re-used by the Norse. Although the earliest period of construction for the tower is unclear and the earliest documented construction refers to the early 17th century, the construction and fabric of the lower storey of the castle indicates it was built as early as the 14th century.

This report presents the results, on behalf of Clan Mackenzie Charitable Trust, for an archaeological test trench evaluation of the castle site, the main objective of which was to provide baseline data about the condition and type of archaeological deposits surviving below the ground surface. Four trenches were excavated by volunteer professional archaeologists and experienced volunteers over two days in May 2014. The results indicated that while the intermediate terrace in front of the castle appears to have been landscaped, removing archaeological horizons, significant well-stratified archaeological layers survive beyond the castle motte. Further archaeological material relating to multiple periods of renovation and building on the castle site were also uncovered.

2.0 Introduction

2.1 Project background

In February 1994, a study was conducted by Law & Dunbar-Nasmith Architects with regard to the feasibility of opening the castle and its policies to visitors. The report was intended for use as baseline data for decisions about the future of the property¹. In June 1994, a project proposal for an archaeological evaluation was presented by the Architectural Restoration and Conservation Organisation of Scotland (ARCOS). The report recommended a programme of documentary research and geophysical survey to be carried out alongside targeted excavation².

The present owners of the castle are continuing to develop plans for the future of the estate, which include the upkeep of the castle structure and development of community heritage and history projects, the overall aim of which is to support and encourage interest in Highland heritage, history and culture. Exploration of the archaeology of the site forms part of these plans. The archaeological evaluation was organised in order to provide baseline information about the type and condition of the archaeological deposits below the existing ground surface.

2.2 Site location

Castle Leod is located less than 1km north of the Victorian spa village of Strathpeffer in the parish of Fodderty, approximately 4 miles west of Dingwall. The site is located on the northwest side of the A834 within the foothills of Ben Wyvis. The castle mound is located on

¹ Law & Dunbar-Nasmith Architects 1994

² ARCOS 1994

the southwest side the Peffery Burn and occupies a raised platform on the east side of the base of Cnoc Aulaidh (Figure 1).

2.3 Site description

The present castle was built on what appears to be a medieval motte. A typical site would have comprised a raised mound, the motte, with an enclosed courtyard or bailey, surrounded by a palisade and ditch.

The upper platform of the castle mound, which had been partly laid with gravel, measures approximately 31m across on a NE-SW axis. The lower platform of the mound steps down about 1.5m at a distance of 8m from the southeast side of the castle tower. It measures approximately 49m NW-SE by 40m, with the steeper side of the mound being on the east-northeast side of it (cover plate and Plate 1). There is a clear edge to this side of the mound, whilst the west-southwest drop is more gradual.

The walls of the castle are up to 2.4m deep and contain gun loops and arrow slits, especially on the south side of the structure. There are traces of a curved lower wall on the west side. The ground around the sides and front of the castle appear to have been built-up to create a level terrace, possibly when the castle was being remodeled in the 17th century. The possibility that a lower storey was filled in is supported by some arrow slits being located near ground level³. On the north side of the original tower are rectangular buildings which were added to the original structure during the Edwardian and Victorian periods.

There were no certain earthworks visible on the grounds, although some possible banks were noted at the southeast base of the lower terrace during a site visit. While there is no documentary evidence to indicate that formal landscaping to the mound took place, the front, or southeast, terraces appear to have been shaped to step down in two gentle slopes to the base of the mound on the southeast side of the site. The type and condition of the deposits underlying the castle and grass-covered terraces was unknown prior to this investigation.



Plate 1:

View NW over Castle Leod in 2012, showing the steep slope of the eastern side of the mound

³ Castle Leod 2014

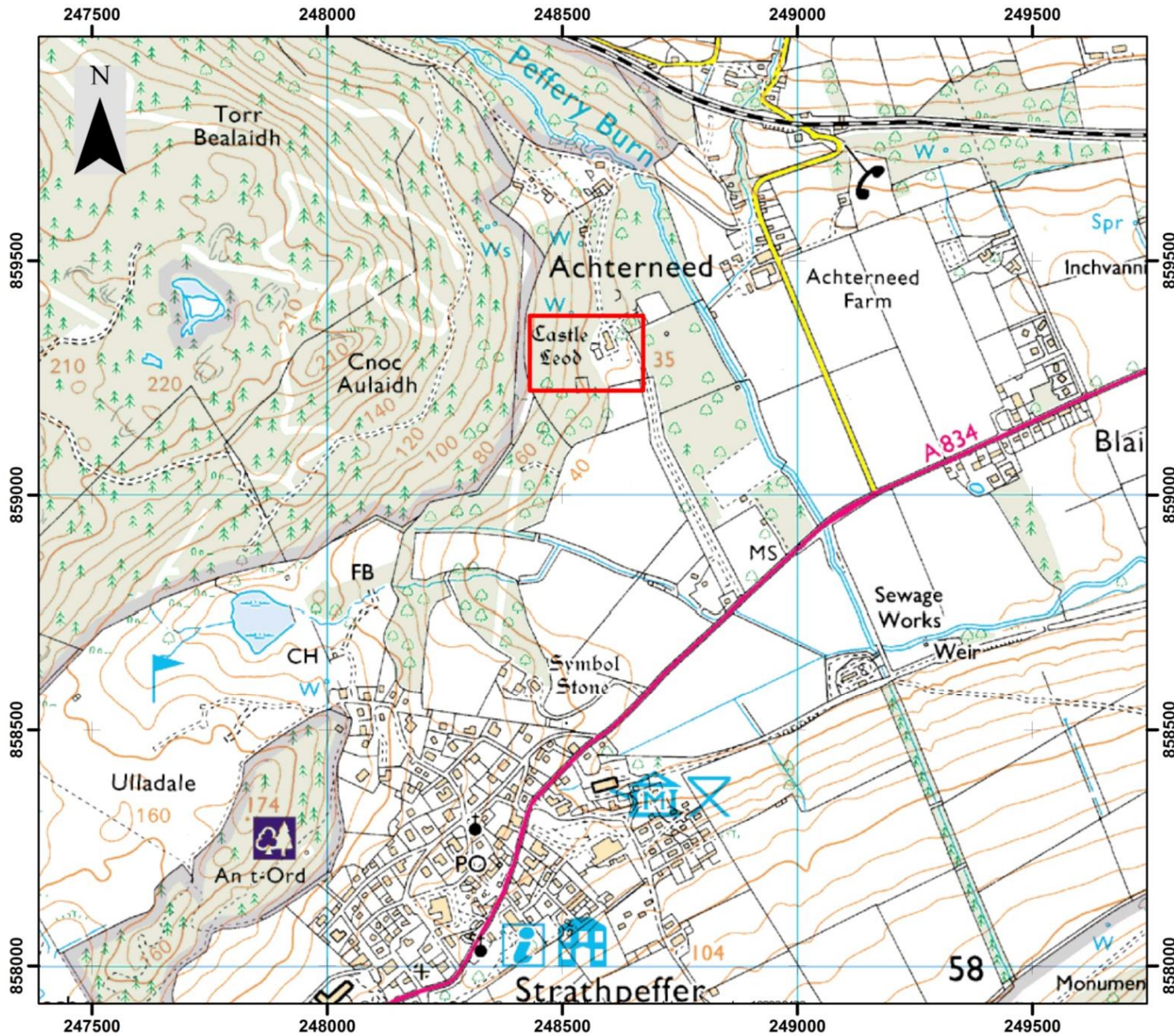


Figure 1:
Landscape location of
Castle Leod

3.0 Archaeological and historical background

Castle Leod is the family home of the Chief of the Clan Mackenzie, the present Earl of Cromartie, and has been in the family's hands almost continuously for at least 500 years. The Mackenzies expanded their territory eastward from Kintail in Wester Ross towards Easter Ross after the 1411 Battle of Harlaw. Their first defensive seat in the strath was located on the west side of Strathpeffer on the Loch Kinellan crannog⁴. In the mid-16th century, Mary de Guise confirmed the Sasine of Castle Leod to John of Killen⁵. Recent research has uncovered documentary evidence that the castle was in the Mackenzie family as early as the 15th century⁶.

Although the primary documentary evidence for the castle construction relates to Sir Rory Mackenzie, the *Tutor of Kintail*, in the early 1600s, the castle tower appears to predate the 17th century with some structural evidence suggesting construction as early as the 14th century⁷. The motte, or mound, underlying the building may have been built up during construction and/or rebuilding on the site. The buildings to the north side of the castle were added in the 19th and 20th centuries⁸.

In addition to significant prehistoric archaeological remains, the strath contains remnants of Pictish and Viking settlement. Strathpeffer would have formed part of Pictland and the village's well-known Pictish carving is representative of this. The Eagle Stone⁹ is a Pictish symbol stone incised with the images of a Pictish bird and horseshoe-shape design. Although the meaning of the designs is unknown, it may represent an alliance of families or tribes. The Pictish stone was originally located at Ardival on the east side of Strathpeffer and one legend has it that the Eagle Stone was removed from its original location after the defeat of the Munros by the Mackenzies to mark a mass clan grave¹⁰. The Viking association with the site is evident in the place-name of Cnoc Aulaidh (Olaf's Hill) for the hill to the west of the castle mound and Ulladale (Olaf's Dale) to the southwest¹¹.

Prior to the evaluation, there was no known archaeological excavation on the castle site. However, members of North of Scotland Archaeology Society (NOSAS) conducted a walkover survey and recording of the castle policies during the winter of 2012/13. This work has provided a useful background survey of the estate.

⁴ Anon *undated*

⁵ Law & Dunbar-Nasmith Architects 1994

⁶ Pers comm J Mackenzie

⁷ *Ibid*

⁸ Highland Council Historic Environment Team 2014

⁹ *Ibid*

¹⁰ Finlayson 1979: 23, 32.

¹¹ Castle Leod 2014



Figure 2

Trench locations ©
Getmapping plc 2014

4.0 Aims and objectives

The purpose of the test trench evaluation was to assess the type of deposits on the site, whilst potentially recovering some artefactual material relating to the periods of occupation. The overall objective of a future archaeological investigation is to establish the date of earliest occupation of the castle mound and to learn about the type of construction of any earlier buildings on the site.

The Scottish Archaeological Research Framework (ScARF) for the Medieval Period recommends that research into the interaction between polities of this period should be promoted, specifically the Picto-Norse interface, Viking Age and Late Norse periods¹². Based on legend and place-name evidence, Castle Leod has the potential to provide evidence for occupation from these periods. This evaluation will provide a stepping-off point for future research on the site.

4.1 The overall **aims** of the archaeological excavation were:

- ❖ To establish the condition of the archaeological deposits on the castle mound
- ❖ To establish the type of archaeological deposits which form the upper terrace of the mound
- ❖ To obtain evidence from the site to be used in chronological interpretation
- ❖ To provide information useful in planning and costing future archaeological investigations on the site
- ❖ To enhance the historic environment record

4.2 The specific **objectives** of the archaeological evaluation were:

- ❖ To excavate test trenches on the castle site, whereby the type and condition of archaeological material can be recorded in order to gather information about potential archaeological features and finds and their stratigraphic relationships
- ❖ To recover artefacts which will assist interpretation and chronology of the past activities within the site
- ❖ To provide data on the ground conditions for future excavation plans

5.0 Fieldwork methodology

The fieldwork, recording and reporting methods were conducted in accordance with the Highland Council's *Standards for Archaeological Work*¹³ and adhering to the Institute for Archaeologists' *Code of Conduct*¹⁴.

5.1 Archaeological Evaluation

A site visit was conducted on 12 March 2014. During this time, the castle site was assessed for any visible earthworks, a photographic record was made and ground conditions were

¹² ScARF 2014

¹³ Highland Council 2012

¹⁴ Institute for Archaeologists 2012

noted. The test trench evaluation was carried on 10-11 May 2014, during a period of intermittent rain showers, with some heavy downpours.

Four test trenches (Table 1; Figure 2) were excavated. Trench 1 evaluated the northwest side of the middle terrace on the southwest side of the castle. Trench 2 evaluated the area west of the middle terrace. Trench 3 evaluated the archaeological material at the base of the mound on the east-southeast side of the castle site, particularly looking for evidence for a ditch feature around the mound. Trench 4 was excavated adjacent to the southwest side of the castle, to assess the depth of the castle foundations.

The test trenches were excavated by hand and all stratigraphic relationships were recorded in section and all features recorded in plan. Work began with the removal of turf and topsoil, which was reinstated upon completion of the fieldwork.

5.2 On-site recording

Individual features, contexts, samples, finds, plans, levels and photographs were recorded on *pro forma* record sheets. The relationships between contexts were assessed on-site and recorded in a Harris Matrix format on context record sheets. Individual plans for features and trenches and an overall site plan were produced at a scale of 1:20. Trench sections were produced at a scale of 1:10.

The evaluation process and trench locations, archaeological features and trench sections were recorded using high resolution digital photography. This report will be submitted to the Highland Council Historic Environment Team, Historic Scotland and the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS).



Plate 2

Trial trench evaluation in progress, showing the location of Trench 1 at the first break of slope of the castle mound, the intermediate terrace

6.0 Results

The results indicate that while the intermediate terrace in front of the castle appears to have been landscaped, removing archaeological remains, significant well-stratified archaeological horizons were identified outside of the castle motte. Further archaeological material relating to multiple periods of renovation and building on the castle site were also uncovered.

Table 1 List of Trenches

1	3m E-W x 1m	0.25-0.3	-	Location at the base of the upper mound on the SE side of Castle Leod, adjacent to the steps centred on the mound, approximately 16m from the front of the castle
2	2m N-S x 1m	0.3-0.75	2.04, 2.08, 2.10	Located at the base of the intermediate slope, approximately 18m SW from the SW corner of the castle
3	2m E-W x 1m	0.3-0.35	-	Located at the base of the motte, approximately 18m E from the SE corner of the castle
4	1.5m N-S x 1m	1	4.11, 4.12	Located adjacent to the SW castle wall, 5.5m from the front of the SW corner of the castle

6.1 Trench 1

Trench 1 was located at the base of the upper break of slope of the castle mound, approximately 17m south of the front of the castle (Figure 2; Plate 2). It was excavated to a depth of 30cm below the turf, where the natural subsoil was encountered (Plate 3). A sub-trench excavated in the east corner of the trench ensured that the subsoil layer had been encountered.

While no archaeological layers were identified, the nature of the ground suggested that the mound had been landscaped in the past, which may have removed archaeological material. The topsoil contained a mixture of glass fragments, clay pipe stems (Plate 4) and post-medieval pottery sherds.



Plate 3

Trench 1, post-excitation, showing the top of the natural subsoil



Plate 4

Clay pipe fragments (SF 9) from the topsoil in Trench 1; inset: stamped clay pipe bowl

6.2 Trench 2

Trench 2 was located 18m to the southwest of the castle, beyond the upper terrace of the castle site. It was excavated to investigate the potential for archaeological deposits just outside the main castle terrace and front lawn, in an area expected not to have been landscaped.

Trench 2 revealed an interesting sequence of archaeological layers (Figure 3) containing the footing of a possible wall or stone setting (Context 2.08) and a possible ditch (Context 2.10). The possible stone wall base or setting comprised a compact layer of small stone clasts (Plate 5) extending for 0.75m through an archaeological horizon containing small charcoal flecks (Context 2.05). Although the interpretation is unclear, its location with an earlier soil layer containing evidence of burning provided evidence for the survival of archaeological material below the topsoil layers.

A sub-trench to evaluate this layer revealed a probable ditch (Context 2.10) extending beyond the south trench edge. From partial excavation, the U-shaped cut contained gravel-stone fill with larger stones at its base (Plate 6). The ditch, which survived below the topsoil, had been cut through the charcoal-flecked lower archaeological horizon (Context 2.06), from which a clay daub lump and mammal teeth were recovered. At the base of the trench, 0.70m below the turf was a further archaeological horizon containing rare charcoal flecks. This layer was not fully excavated to the natural subsoil due to time constraints but it provided further evidence for the survival of extensive archaeological deposits beyond the cultivated front terrace of the castle.

Although only a small trench was excavated and the exact nature and extent of the archaeological layers and features were not fully conclusive, the trench revealed the potential for significant archaeological material beyond areas of the castle mound disturbed by early landscaping. One interesting find from the intermediate soil layer was a fragment of lead window casing (SF 14; inset, Plate 6).

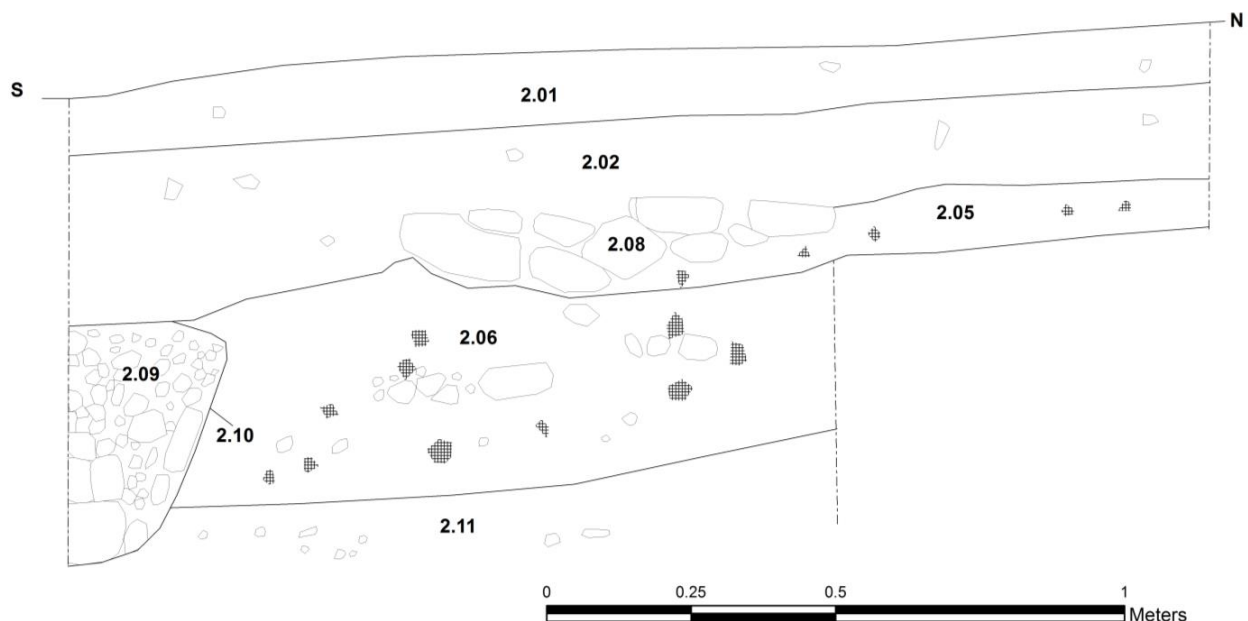


Figure 3 E-facing section of Trench 2, showing the possible wall (2.08) and ditch (2.10)



Plate 5

E-facing trench section, showing the possible wall base (2.08) in centre right; and the edge of the gravel/stone-filled ditch (2.10) to left



Plate 6

N-facing trench section, showing the partial section of the gravel/stone-filled ditch (2.10); inset: SF 14, fragment of lead window casing from Trench 2

6.3 Trench 3

Trench 3 was excavated at the base of the castle mound, approximately 10m from the southeast corner of the castle terrace (Plate 7). It was hoped that the trench would reveal evidence for a ditch at the base of the motte.

While the trench did not revealed extensive archaeological layers, the layer between the topsoil and natural subsoil comprised a compact spread of stone (Plate 8), which contained a significant amount of window glass fragments, roofing slate fragments and a possible stone whetstone. The stone spread was an inconclusive archaeological layer and may suggest further potential for archaeological material at the base of the castle site.



Plate 7 (left)

Location of Trench 3,
facing NW



Plate 8 (right)

Stone layer (Context
3.02) in Trench 3,
facing W

6.4 Trench 4

Due to the sterile nature of the deposits in Trench 1, there was time during the evaluation to excavate a small trench adjacent to the southwest side of the castle (Plate 9). The trench revealed the base of the castle foundations (Plate 10 and Figure 4) and a drain passing through it, and contained some revealing artefacts relating to the castle occupation.



Plate 9

Location of Trench 4, facing NNW



Plate 10

Foundations of Castle Leod (Context 4.11) overlying a cobbled layer (Context 4.09)

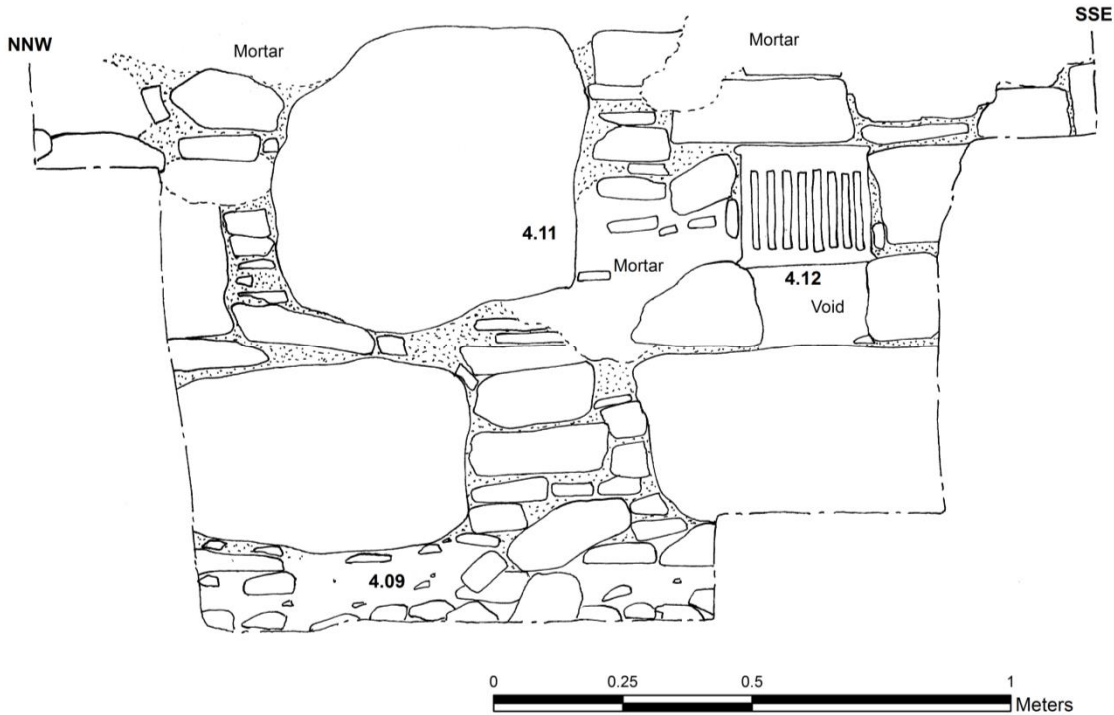


Figure 4

SW wall of Castle Leod showing the foundations (Context 4.11) overlying a cobbled layer (Context 4.09)

The layers excavated in Trench 4 contained a sequence of layers (Figure 5 and Figure 6) relating to two-three periods of construction or re-building of the castle and contained material such as window glass (Plate 11), roof slate fragments, mortar, as well as small black bead (Plate 12). The glass, originally part of window panes in the castle, was sent away for examination by specialist Robin Murdoch (Appendix 5). Using an x-ray fluorescence spectrometer, courtesy of Historic Scotland, Murdoch looked at the glass composition and origin. He determined that the glass must have been imported, probably from continental Europe, in the early 16th century. In later archaeological layers, different window glass signatures provided evidence of changes to the castle during the 17th to mid-18th centuries.

The drain (Context 4.12), which was lined with cobbles contained mixed ceramic sherds and animal bone, as well as an intriguing fragment of linen textile (Plate 13).

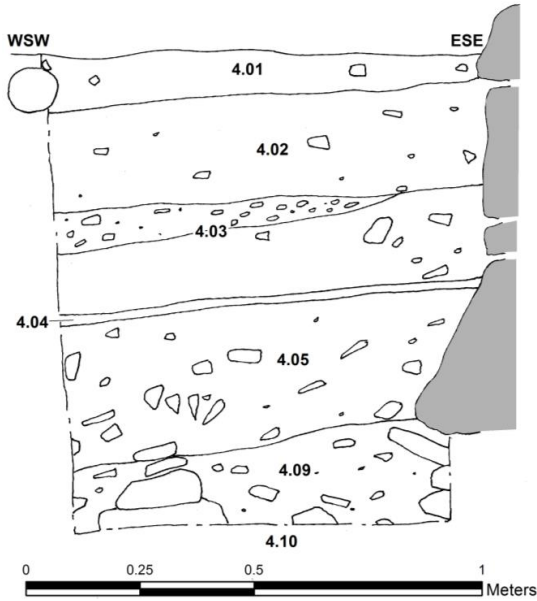


Figure 5 (left)
NNW-facing
section of
Trench 4

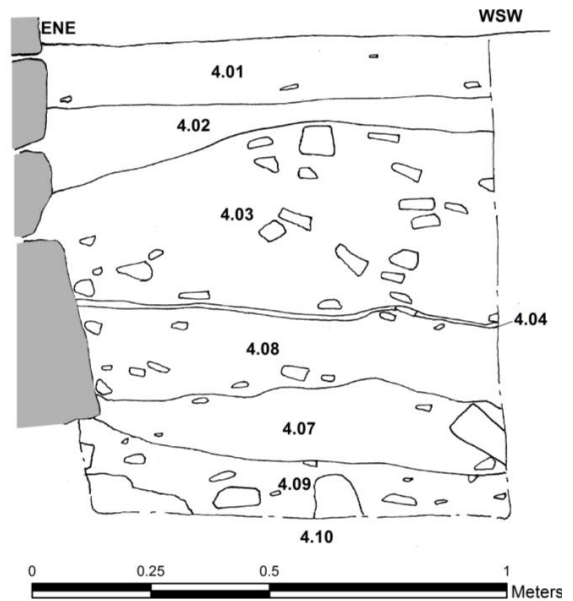


Figure 6 (right)
SSE-facing
section of
Trench 4

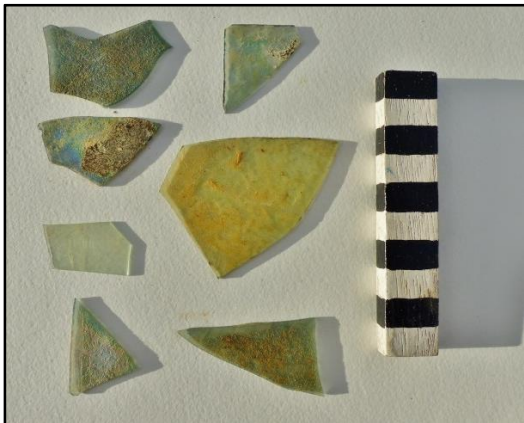


Plate 11 (left)
Window glass (SF
45) from Trench 4



Plate 12 (right)
Small black bead
(SF 39) from
Trench 4



Plate 13
Fragment of textile (SF 38) from the drain
fill

7.0 Conclusion and recommendations

Castle Leod is one of few still-standing, inhabited castle sites in Highland region. As well as holding an important place in Scottish Medieval history, as a site of one of the most dominant clans of its time, the site is central to regional folklore of the early medieval and Viking periods.

While the evaluation provided only snapshots of the castle site, it provided evidence for the survival of substantial archaeological remains. Future excavation on the site has the potential to reveal much more about the castle and its history, as well as the potential for earlier periods of occupation.

8.0 References

Anon. undated. *Castle Leod*. The Clan Mackenzie Charitable Trust.

ARCOS, 1994 *Castle Leod, Strathpeffer. A proposal outlining possible archaeological evaluation*. Edinburgh: ARCOS

Castle Leod 2014 *Castle Leod the Seat of Clan Mackenzie*. [Http://www.castleleod.org.uk](http://www.castleleod.org.uk)

Finlayson, C. 1979. *The Strath, the biography of Strathpeffer*. Edinburgh: The St Andrew Press.

Highland Council 2012 *Standards for Archaeological Work*, v.1.

[Http://www.highland.gov.uk/yourenvironment/conservation/archaeology/developmentguidance.htm](http://www.highland.gov.uk/yourenvironment/conservation/archaeology/developmentguidance.htm).

Highland Council Historic Environment Team (HET) 2014 *Highland Historic Environment Record (HHER)*. [Http://her/highland.gov.uk](http://her/highland.gov.uk)

Institute for Archaeologists (IfA) 2008a *Standard and guidance for archaeological excavation*. Reading: IfA

Institute for Archaeologists (IfA) 2008b *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*. Reading: IfA

Institute for Archaeologists (IfA) 2012 *By-laws of the Institute for Archaeologists: Code of Conduct*. Reading: IfA

Law & Dunbar-Nasmith Architects 1994 *Castle Leod, Strathpeffer Feasibility Study on the Opening of Castle & Policies to Visitors*. Forres: Law & Dunbar-Nasmith

Mackenzie, J Email from K Mackenzie dated 10 November 2014

National Library of Scotland 2014 Accessed online at <http://www.nls.uk>

Scottish Archaeological Research Framework (ScARF) 2014

Accessed online at <http://www.scottishheritagehub.com/content/28-future>

Appendix 1 List of Photographs

Photo No.	Direction Facing	Trench No.	Description	Taken By	Date
1	SW	1	Trench 1, mid-excavation photo, showing top of Context 1.02	MKP	10/05/2014
2	SW	1	Trench 1, mid-excavation photo, showing top of Context 1.02 and Trench 2 location in back	MKP	10/05/2014
3	N	2	Trench 2, mid-excavation photo, showing based of Context 2.02 with Context 2.05 starting to show	LF	10/05/2014
4	NNE	1	Looking over location of Trench 1, in front of Castle Leod	MKP	10/05/2014
5	WNW	2	Trench 2, mid-excavation photo, showing top of Context 2.05 with possible pit/post-hole (2.04) in front left corner	MKP	10/05/2014
6	SE	2	Trench 2, mid-excavation photo, showing top of Context 2.05 with possible pit/post-hole (2.04) in top centre corner	MKP	10/05/2014
7	N	2	Pre-excavation image of possible pit/post-hole (2.04)	MKP	10/05/2014
8	NW	2	Pre-excavation image of possible pit/post-hole (2.04)	MKP	10/05/2014
9	NW	1	Post-excavation image of Trench 1, showing top of natural	LF	10/05/2014
10	ENE	1	Sondage through natural at the E end of Trench 1	LF	10/05/2014
11	N	2	Half-sections through deposit 2.03 in the SW side of Trench 2	MKP	10/05/2014
12	S	2	Half-section through possible pit/post-hole 2.04 - showing N-facing section	MKP	10/05/2014
13	NE	3	Pre-excavation image of Trench 3	SEW	11/05/2014
14	NW	3	Pre-excavation image of Trench 3, showing trench location	SEW	11/05/2014
15	W	2	E-facing section of Trench 2, showing possible wall base Context 2.08	LF	11/05/2014
16	NNW	2	Mid-excavation image: looking over Trench 2 east section, showing possible wall base Context 2.08 and top of Context 2.06 and start of section through it	LF	11/05/2014
17	N	2	Mid-excavation image: looking over Trench 2, showing possible wall base Context 2.08 (centre left, in trench section) and top of Context 2.06, the start of sectioning through it; the stone fill in possible ditch (2.10) is visible in front running across the front of the trench	LF	11/05/2014
18	NE	4	Working shot - Trench 4	LF	11/05/2014
19	NE	4	Working shot - Trench 4	LF	11/05/2014
20	SSW	2	Working shot - Trench 2	LF	11/05/2014
21	NW	3	Working shot - Trench 3	LF	11/05/2014
22	SE	3	Working shot - Trench 3	LF	11/05/2014
23	NNW	4	Mid-excavation image of Trench 4, with SSE-facing trench section in back	LF	11/05/2014
24	WSW	3	Mid-excavation image of Trench 3, showing top of Context 3.02	LF	11/05/2014
25	-	-	The excavation team	MKP	11/05/2014
26	W	3	Mid-excavation image of Trench 3, showing top of Context 3.02 after rainfall	LF	11/05/2014
27	W	3	Mid-excavation image of Trench 3, with Castle Leod in back	LF	11/05/2014
28	W	-	Castle Leod, facing W	LF	11/05/2014
29	NNW	3	SSE-facing section through Context 3.02	SEW	11/05/2014
30	NNW	2	Mid-excavation image, Trench 2, showing half section through Context 2.06	MKP	11/05/2014

Photo No.	Direction Facing	Trench No.	Description	Taken By	Date
31	S	2	N-facing section of Trench 2, after half-section through Context 2.06; showing gravel-stone fill (2.09) of drain (2.10)	MKP	11/05/2014
32	NE	2	W-facing section of Trench 2 and W-facing section through sondage of Context 2.06	MKP	11/05/2014
33	N	2	N-facing section of Trench 2, showing gravel-stone fill (2.09) of drain (2.10)	MKP	11/05/2014
34	S	2	N-facing section of Trench 2, showing gravel-stone fill (2.09) of drain (2.10)	MKP	11/05/2014
35	W	2	E-facing section of Trench 2 after section through Context 2.06; showing edge of ditch (2.10) in front left and possible wall base Context 2.08 in trench face	MKP	11/05/2014
36	W	2	E-facing section of Trench 2 after section through Context 2.06; showing edge of ditch (2.10) in front left and possible wall base Context 2.08 in trench face	MKP	11/05/2014
37	E	2	E face of Trench 2 (W-facing)	MKP	11/05/2014
38	ENE	4	Castle wall foundations and base of trench	SB	11/05/2014
39	ENE	4	Castle wall foundations in Trench 4	SB	11/05/2014
40	NW	4	NW face of Trench 4 (facing SE)	SB	11/05/2014
41	NW	4	NW face of Trench 4 (facing SE) and base of trench	SB	11/05/2014
42	NE	4	SE face of Trench 4 (facing NW) and base of trench	SB	11/05/2014
43	NE	4	Post-excavation image of Trench 4, showing ENE trench face	SB	13/05/2014
44	NW	4	Post-excavation image of Trench 4, showing base of trench and NW trench face	SB	13/05/2014
45	-	4	Drain (4.12) through the SW castle wall foundations; looking through the drain, showing the cobble fill	JWom	13/05/2014
46	-	4	Drain (4.12) through the SW castle wall foundations; looking through the drain, showing the cobble fill	JWom	13/05/2014

Appendix 2 List of Small Finds

Find No.	Material	Context No.	Trench No.	Description	Approx. Date	Initials	Date
1	Slate	1.02	1	15 fragments of various slates	Unknown	SB/ JWom	10/05/2014
2	Brick	1.02	1	Several fragments of brick	Unknown	MKP/ SEW	10/05/2014
3	Stone	1.02	1	2 x quartz fragments and one micaceous flat schist clast - possible 'counter'?	Unknown	MKP/ SEW	10/05/2014
4	Ceramic	1.02	1	2 x fragments of stoneware	Post-medieval	MKP/ SEW	10/05/2014
5	Ceramic	1.02	1	10 x fragments of various post-medieval ceramics	Post-medieval	MKP/ SEW	10/05/2014
6	Coal	1.02	1	5 x lumps of coal	Unknown	MKP/ SEW	10/05/2014
7	Ceramic	1.02	1	1 x sherd of possible medieval pottery	Medieval?	MKP/ SEW	10/05/2014
8	Glass	1.02	1	10 x fragments of misc. glass (clear, green and brown coloured)	Post-medieval	MKP/ SEW	10/05/2014
9	Ceramic	1.02	1	Fragments of clay pipe stems and 1 x fragment of clay pipe bowl with stamp	Post-medieval	MKP/ SEW	10/05/2014
10	Iron	2.02	2	3 x pieces of encrusted iron	Unknown	MKP/ SEW	10/05/2014
11	Ceramic/ slate	2.02	2	Sherds of broken ceramic plant pot and 1 x slate fragment	Post-medieval	MKP/ SEW	10/05/2014
12	Ceramic	2.02	2	2 x sherds of post-medieval pottery	Post-medieval	MKP/ SEW	10/05/2014
13	Glass	2.02	2	2 x fragments of post-medieval glass	Post-medieval	MKP/ SEW	10/05/2014
14	Lead	2.02	2	Fragment of lead window casing	Unknown - late medieval?	MKP/ SEW	10/05/2014
15	Bone	2.02	2	1 x fragment of animal bone	Unknown	MKP/ SEW	10/05/2014
16	Bone	2.08	2	1 x fragment of animal bone	Unknown	MKP/ SEW	10/05/2014
17	Glass	4.03	4	1 x fragment of window glass	Unknown	SB	11/05/2014
18	Ceramic	4.02	4	Mixed sherds of glazed pottery	Unknown	SB	11/05/2014
19	Glass	4.02	4	3 x pieces of misc. glass	Unknown	SB	11/05/2014
20	Bone	4.02	4	Fragments of animal bone and some animal teeth	Unknown	SB	11/05/2014
21	Stone	4.02	4	Various stone clasts, slate fragments, mortar chunks and coal fragments	Unknown	SB	11/05/2014
22	Glass	3.01	3	Mixed fragments of glass	Unknown	JWom / SEW	11/05/2014
23	Ceramic	3.01	3	Various sherds of post-medieval pottery sherds	Unknown	JWom / SEW	11/05/2014

Find No.	Material	Context No.	Trench No.	Description	Approx. Date	Initials	Date
24	Bone	3.01	3	1 x animal tooth	Unknown	JWom / SEW	11/05/2014
25	Stone/slate	3.01	3	Misc. stone and slate fragments	Unknown	JWom / SEW	11/05/2014
26	Coal	3.01	3	1 x lump of coal	Unknown	JWom / SEW	11/05/2014
27	Wood	3.01	3	1 x piece of charred wood	Unknown	JWom / SEW	11/05/2014
28	Glass	2.03	2	2 x fragments of misc. glass	Post-medieval	SEW	10/05/2014
29	Bone	2.03	2	2 x fragments of animal bone	Unknown	SEW	10/05/2014
30	Stone	2.03	2	1 x fragment of chert	Unknown	SEW	10/05/2014
31	Bone	2.06	2	Enamel from animal tooth	Unknown	MKP	11/05/2014
32	Clay	2.06	2	1 x lump of burnt daub	Unknown	MKP	11/05/2014
33	Stone	2.06	2	Fragment of slate?	Unknown	MKP	11/05/2014
34	Ceramic	2.06	2	1 x fragment of glazed ceramic	Unknown	MKP	11/05/2014
35	Slate/stone	2.03	2	2 x fragments of slate?, 1 x stone fragment	Unknown	MKP	11/05/2014
36	Stone	3.02	3	Possible whetstone	Unknown	MKP	11/05/2014
37	Bone, slate	4.06	4	Misc. bone, slate, pot sherds, material washed into drain (4.12)	Various	SB	11/05/2014
38	Textile	4.06	4	Piece of brown/buff textile from back of drain (4.12) fill	Unknown	SB	11/05/2014
39	Unknown	4.07	4	Circular, rounded bead (glass?) with central perforation	Unknown	SB	11/05/2014
40	Iron	4.07	4	Iron nails, possible from roof slates	Post-medieval	SB	11/05/2014
41	Mortar	4.07	4	1 x lump of lime mortar	Unknown	SB	11/05/2014
42	Bone	4.07	4	Misc. fragments of animal bone	Unknown	SB	11/05/2014
43	Charred material	4.07	4	Charcoal and burnt grain from lower archaeological horizon	Unknown	SB	11/05/2014
44	Glass	4.07	4	Misc. bottle glass sherds, some rim and base sherds with corrosion	Unknown	SB	11/05/2014
45	Glass	4.07	4	Thin window glass, with corrosion	Unknown	SB	11/05/2014
46	Ceramic	4.07	4	4 x ceramic sherds with blue/white glaze, one possible porcelain fragment	Unknown	SB	11/05/2014
47	Slate	4.07	4	Misc. Caithness flag and Ballachulish slate fragments, some with holes for fixing	Unknown	SB	11/05/2014
48	Slate	2.02	2	Caithness flag slate	Unknown	MKP	11/05/2014
49	Glass	2.02	2	3 x fragments of bottle glass	Unknown	MKP	11/05/2014
50	Ceramic	2.02	2	2 x sherds of ceramic	Unknown	MKP	11/05/2014
51	Glass	3.02	3	19 x fragments of bottle glass	Unknown	JWom / SEW	11/05/2014
52	Glass	3.02	3	18 x fragments of window glass, 1 burnt	Unknown	JWom / SEW	11/05/2014

Find No.	Material	Context No.	Trench No.	Description	Approx. Date	Initials	Date
53	Mortar	3.02	3	1 x lump of lime mortar	Unknown	JWom / SEW	11/05/2014
54	Ceramic	3.02	3	7 x sherds of misc. glazed ceramic	Unknown	JWom / SEW	11/05/2014
55	Coal	3.02	3	1 x lump of coal	Unknown	JWom / SEW	11/05/2014
56	Slate	3.02	3	Misc. Caithness flag and Ballachulish slate fragments	Unknown	JWom / SEW	11/05/2014

Appendix 3 List of Drawings

Plan No.	Section No.	Scale	Description	Contexts	Feature	Drawn By	Date
1	-	1:20	Post-excavation plan of Trench 2, showing the location of contexts and sections	2.04, 2.05, 2.08, 2.10	2.04, 2.08, 2.10	MMM	11/05/2014
2	-	1:20	Post-excavation plan of Trench 1, showing the castle wall foundations and trench base	4.09, 4.11	4.11	JWom	11/05/2014
	S1	1:10	E-facing section of the west trench face in Trench 2, showing the ditch (2.10) at the S end and the possible wall base (2.08)	2.01, 2.02, 2.05, 2.06, 2.08-2.11	2.08, 2.10	MKP	11/05/2014
	S2	1:10	SW-facing castle wall face, NE trench face in Trench 4	4.09, 4.11	4.11	SB	11/05/2014
	S3	1:10	SSE-facing section of the NNW trench face in Trench 4, showing the archaeological deposits	4.01-4.03, 4.05, 4.07, 4.09, 4.10	4.11	SB	13/05/2014
	S4	1:10	NNW-facing section of the SSE trench face in Trench 4, showing the archaeological deposits	4.01-4.03, 4.07-4.09	4.11	SB	13/05/2014
	S5	1:10	Profile of the drain (4.12) built into the castle wall base	4.12	4.12	SB	13/05/2014

Appendix 4 List of Contexts

Context No.	Type	Trench No.	Description	Over	Under	Fill of	Filled by	Cut by	Finds	Samples	Interpretation
1.01	Deposit	1	Turf and mid brown sandy loam with < 1% small stones and some fine rootlets, 0.2m deep	1.02	-	-	-	-	-	-	Turf and topsoil layer
1.02	Deposit	1	Light brown sandy loam containing 5% small stone clasts up to 0.15m wide; contained mixed 19th-20thc. small ceramic sherds and clay pipe fragments	1.03	1.01	-	-	-	-	-	Slopewash layer
1.03	Deposit	1	Mottled pale buff-yellow-grey sandy clay with <2% subangular stone clasts up to 0.1m wide	1.04	1.02	-	-	-	-	-	Natural subsoil, glacial deposit
1.04	Deposit	1	Pale grey-yellow silty sand with <2% small stone clasts		1.03	-	-	-	-	-	Lower subsoil
2.01	Deposit	2	Turf and mid brown sandy loam with < 1% small stones and some fine rootlets, 0.2m deep	2.02		-	-	-	-	-	Turf and topsoil layer
2.02	Deposit	2	Mid brown sandy loam with <2% small stone clasts and mixed 19th-20thc. ceramic and glass sherds; 0.25-0.3m deep		2.01	-	-	-	-	-	Intermediate soil layer
2.03	Fill	2	Mid brown sandy loam with scattered charcoal flecks and 5% small subangular stones and gravel up to 0.10m, some roots; contained one glass sherd and chert flake	2.04	2.02	-	-	-	-	-	Probably same as Context 2.02, but filling a hollow/pit
2.04	Cut	2	Amorphous cut, 35cm by 20cm wide, 12 cm deep	2.06	2.03	-	2.03	-	-	-	Pit of unknown use
2.05	Deposit	2	Mid orange-brown sandy silt with 1% small stones and few, scattered charcoal flecks; abuts stone layer 2.08	2.06	2.02, 2.08	-	-	-	-	-	Upper archaeological horizon - possibly associated with stone layer 2.08
2.06	Deposit	2	Located 0.37m below the turf - a mid brown-grey loosely compact gritty clayey silt with 5% scattered charcoal flecks; contains some animal bone (burnt), teeth and burnt daub	2.11	2.02, 2.05	-	-	2.1	-	-	Archaeological deposit - unknown interpretation
2.07	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID

Context No.	Type	Trench No.	Description	Over	Under	Fill of	Filled by	Cut by	Finds	Samples	Interpretation
2.08	Structure?	2	Exposed in the west trench section was a compact layer of small subangular stones 0.10-0.15m long and 0.05-0.10m wide; 0.75m wide overall and 0.15m deep, overlies context 2.06	2.05, 2.06	2.02	-	-	-	-	-	Base of wall or remains of a stone setting?
2.09	Fill	2	Mid brown-grey claggy, gritty loam with 50% small subangular gravel and large stones at base; contained some animal bone	2.06	2.05	2.10	-	-	-	-	Fill of ditch (2.10)
2.10	Cut	2	Probable U-shaped, steep-sided cut, partially exposed in the south trench section	2.11	2.09	-	2.09	-	-	-	Ditch or channel of unknown use - only partially exposed in the trench
2.11	Deposit	2	Pale brown-orange gritty soil with 2% small gravel	-	2.06, 2.10	-	-	-	-	-	Lowest archaeological horizon in trench - not fully excavated
3.01	Deposit	3	Turf and mid brown sandy loam, loosely compact with < 1% small stones; 0.10-0.15m deep; contained some 19th-20th c. glass and ceramic fragments	3.02	-	-	-	-	-	-	Turf and topsoil layer
3.02	Deposit	3	Layer of medium rounded cobbles (up to 20cm wide) and small subangular stones (2-4cm wide) within a mid brown sandy loam; contained scattered ceramic and glass sherds and possible whetstone	3.03	3.01	-	-	-	-	-	Archaeological horizon - unknown interpretation, probable stone rubble
3.03	Deposit	3	very compact pale-yellow grey clay moraine, iron-rich	-	3.02	-	-	-	-	-	Natural subsoil
4.01	Deposit	4	Imported gravel layer with a mid brown gritty soil matrix	4.02	-	-	-	-	-	-	Gravel path around the base of the castle
4.02	Deposit	4	Mid brown sandy soil with 2% small stones and fine rootlets, 0.08m deep; contained coal, slate, animal bone, white-glazed ceramic sherds	4.03	4.01	-	-	-	-	-	Upper, redeposited horizon, abuts castle wall
4.03	Deposit	4	Pale buff-brown gritty soil with small angular stone clasts, up to 0.20m deep; contained some ceramic, fish bone, wood with iron nails; tapers towards the castle wall	4.04	4.02	-	-	-	-	-	Fill around base of castle wall - compact layer, possibly old path/drive way

Context No.	Type	Trench No.	Description	Over	Under	Fill of	Filled by	Cut by	Finds	Samples	Interpretation
4.04	Deposit	4	Pale grey-white lime mortar deposit containing few small stone clasts and some white-glazed ceramic sherds; comprises a thin, intermittent lens, thickest at base of castle wall	4.05, 4.08	4.03	-	-	-	-	-	Residue from period of renovation to castle, possibly re-pointing of castle walls in the 19th c.
4.05	Deposit	4	Mid brown soil with small-medium angular stone clasts, find rootlets and sand	4.07	4.03, 4.04	-	-	-	-	-	Redeposited material - unknown interpretation
4.06	Fill	4	Light brown silty soil with some roots, leaves, animal bone, ceramic and slate fragments; abuts the clean rounded cobbles on the inside of the drain and Contexts 4.01-4.03 on the outside of the castle	4.12	-	-	-	-	-	-	Outer fill of drain at base of castle wall - slumped material, washed into drain
4.07	Deposit	4	Dark brown silty soil with small angular and rounded stone clasts; contained charcoal fragments, burnt grain, iron slate nails, Caithness flag slates, Ballachulish slate, animal bone, bottle glass, window glass, mortar; also contained a single black bead	4.09	4.05, 4.08	-	-	-	-	-	Redeposited construction material - probably during 17th/18th c. renovation
4.08	Deposit	4	Mid grey silt with small rounded stone clasts; sterile layer, only in part of trench and lenses out before the NNW side of the trench	4.07	4.03, 4.04	-	-	-	-	-	Redeposited natural material
4.09	Deposit	4	Mid-light brown sandy silt with large schist cobbles	4.10	4.07	-	-	-	-	-	Possible cobbled layer or platform
4.10	Deposit	4	Shale bedrock and pale orange-brown sandy silt	-	4.09	-	-	-	-	-	Natural subsoil/bedrock
4.11	Structure	4	Mixed large boulders (including granite) and irregular stones and thin packing slabs, forms a battered and stepped-out face built over a layer of small angular stones (4.09); there are some large horizontal pinning stones and patches of lime mortar	4.09	-	-	-	-	-	-	Foundation courses of SW castle wall - 0.85m deep
4.12	Structure	4	Stone-lined drain that ascends through the castle outer wall and is lined with rounded cobbles, 0.2m wide	-	-	-	-	-	-	-	Well-built, stone-lined drain through castle outer wall

Appendix 5 Notes on the Castle Leod Glass

K. Robin Murdoch, September 2014

The small assemblage of window glass from Castle Leod comprised a total of 15 mainly small shards which could be divided into four distinct groups based on appearance. These types are entitled A, B, C and D.

Type A: Consisted of 6 shards slightly bluish grey in colour (probably natural and not deliberately coloured), secondary surfaces where corrosion layers have become detached. Thin blown 1.3-1.6mm but originally probably slightly thicker (surface loss). The sample shard was a small square missing a corner and with four grazed (clipped) edges. All four sides had some shadows from differential weathering inside and outside the lead comes when the shard was mounted in a window. The shard measured 37.5mm x 36.5mm and that was its original size.

Type B: Consisted of 5 shards pale slightly olive green colour (natural) dulled surfaces with light corrosion. Thin blown 1.4mm.

Type C: Consisted of 3 shards pale dull green colour (natural) dulled surfaces, thin blown 1.2 . 1.8mm

Type D: Single shard, pale bluish aqua colour, dulled surfaces, thin blown 1.5mm

The four sample shards were analysed on a pXRF (portable x-ray fluorescence spectrometer) to determine their composition. Sincere thanks are due to Historic Scotland Technical Division, South Gyle, Edinburgh, for providing access to this facility.

Type A is an HLLA (high lime low alkali) glass with a high manganese content. According to English Heritage (EH) research this composition dates to the period c1567-c1600. However, the c1567 date is relevant only in England. Current understanding is that Scotland did not have an indigenous glass industry until c1610 so anything earlier must have been imported. Some importation may have been from England but more probably the Continent of Europe. HLLA glass was developed in Germany in the 14th century and had spread to France by the 15th so it is not unreasonable to suppose that type A could be much earlier than c1567 and its condition might indicate that. It is certainly pre 1600 and is more likely to be early 16th century rather than later.

Type B is also an HLLA glass with slightly less manganese and is in slightly better condition than type A. Type B probably dates to the later 16th century.

Type C is again an HLLA glass but with low manganese indicating a composition according to the EH dating model of c1600-c1700, i.e. 17th century.

Type D is unusual in that while having the typical colour of 18th century kelp (seaweed) fluxed glass the strontium content is low suggesting a land based plant fluxing alkali. There is also a small trace of lead. The nearest parallel is a considerable number of panes from Newhailes

House by Musselburgh, East Lothian. Newhailes consists of a central block c1686 and two wings c1720-50.

The glass similar to type D exists in all three parts and probably means that the house was totally reglazed when the wings were added. Type D is almost certainly first half 18th century.