UNIVERSITY of STIRLING

Scottish Medieval Castles & Chapels C-14 Project

Preliminary mortar & masonry survey of Lochindorb Castle, Badenoch



SC14-LCB-PRE-01

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Introduction to SMCCCP

The Scottish Medieval Castles & Chapels C-14 Project (SMCCCP) is an archaeological research project investigating the palaeoenvironmental potential of Scottish medieval building materials. The project is joint-funded by Historic Environment Scotland and the University of Stirling, directed by Mark Thacker (Research Fellow, University of Stirling), and is scheduled for completion in 2019.

Document & Site Details

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Part One: SITE SURVEY

A rapid survey of Lochindorb Castle was undertaken from ground level in order to establish the potential of further survey and material analysis at the site. MacGibbon and Ross (1887) and Anderson and Dixon (2011) orientate the site differently, but descriptions below follow those of the latter authors.

The survey building remains of Lochindorb are very ruinous and present a good mixture of visible masonry contexts including: largely complete wall faces; deep core rubble where facing stone has been lost; and full face-core-face cross-sections of masonry in upstanding wall sections adjacent to collapse. The masonry is fully lime-bonded in all visible upstanding sections.

The general wall faces of the primary building have been constructed of probable gneiss and schistose rocks, laid in rough courses with a battered foundation plinth. Most face stones are flat-laid and 'naturally-bedded' with only occasional large edge-bedded face stones evident. Dressings are sandstone and, although not subject to detailed examination, these appear to be of two different colours, suggesting different provenances.

Very large volumes of mortar have been used in the castle's primary construction: bed joints are often very wide and particularly large volumes of core mortar are also evident. This constructional mortar is generally very coherent with good survival, and the material appears compositionally consistent and contiguous in all examined phase 1 core and bed contexts. Apart from some recent consolidation of interstitial joints in the internal face of the south-east wall there is little to suggest multi-periodicity in the phase 1 masonry, and in interim the apparently primary mortar may characterised as follows:

General Description: Buff-brown coloured, coarse lime mortar.

Carbonate kiln relicts: This is a probable limestone-lime mortar, exhibiting a low concentration of rounded orange-brown probable heated limestone kiln-relicts, generally to 10mm.

Added temper: This mortar is tempered with a mixture of coarse and generally rounded to subrounded quartz-rich sand and gravels to 15mm.

Fuel kiln-relicts: This mortar appears to have been wood-fired and contains a low visible surface concentration of probable wood-charcoal kiln-relict fragments. Fractured loose samples, in particular, display a high concentration of very fine fuel fragments to 3mm which suggests much of the surface fuel evidence may have eroded away. This may be unusual, but is a suggestion supported by a number of black-stained angular surface vesicles.

Regarding the phase 2 mortar, although requiring further work, preliminary examination suggests this material may have been tempered with a finer aggregate material. Phase 2 mortars are most clearly visible in wall cross-sections at breaches in the south-east outer courtyard wall,

and in the core of surviving masonry of the south-east range. Each of these sections present a coherent material which, again in interim, may be characterised as follows:

General description: Buff-coloured fine lime mortar.

Carbonate kiln-relicts: This phase 2 mortar is a probable limestone-lime which contains locally high concentrations of grey subangular probable heated limestone kiln-relicts to 25mm diameter.

Added temper: This phase 2 mortar is lithic-tempered and dominated by buff-coloured quartz-rich sand, generally grading to 1mm with occasional 10mm clasts.

Fuel kiln-relicts: This phase 2 mortar appears to have been wood-fired and in some contexts contains locally high concentrations of fuel kiln-relicts.

Part Two: PREVIOUS EVIDENCE & SIGNIFICANCE

The surviving primary masonry phase visible at Lochindorb Castle is generally regarded to have been constructed in the 13th-century by the Comyn Lords of Badenoch, and its round-towered quadrilateral design is often compared to the apparently similarly configured castles of Inverlochy and Caisteal Dubh amongst others (MacGibbon and Ross 1887, 63-64, 70-71; Cruden 1960, 61; Barrow 1988; Young 2005, 64, 74; Anderson and Dixon 2011). Recent measured survey by the RCAHMS supported previous interpretations that Lochindorb Castle was a structure of two main phases whose primary fabric was contemporary with the castle at Inverlochy (Cruden 1960, 61; Barrow 1988, 8-9), and this coincidence has been interpreted to suggest that these two Comyn buildings were built by the same masons (Anderson and Dixon 2011, 15).

On the basis of its general design, and in particular the form of a tower window, Cruden ascribed a late 13th-century constructional date to the primary fabric at Lochindorb Castle (1960, 61). Barrow's analysis of the documentary evidence indicates that the primary castle probably predates 1279 and, assuming the building can be attributed to John Comyn, suggests 'its earliest building dates would lie between 1258 and 1275' (Barrow 1988, 9; Young 2005, 77). Cruden had previously speculated that Edward I was responsible for the 'distinctly superior work' of the secondary curtain wall during his stay in 1303, whilst documentary evidence that the castle was demolished by Royal order in the mid 15th-century appears (at least historically) to circumscribe the date of the secondary phase of the structure (MacGibbon and Ross 1887, 71).

The confluence of documentary and architectural evidence which suggests a mid-late 13th-century date for the primary construction of Lochindorb Castle is convincing and the particular form of this building has allowed a more architecturally-informed date than at many medieval castle sites. There is, however, no supporting archaeological evidence for the chronologies of either of the main two phases, and the secondary (outer-courtyard and internal range) phases of

the castle are much less well understood. At present these can only be ascribed a very broad, and somewhat tentative (1300-1450) date range.

The site of Lochindorb Castle is clearly nationally significant as a place which can be confidently related to a number of historical events associated with the Lords of Badenoch, Edward I, and the Douglas Earls of Moray, whilst the form of the surviving primary phase masonry building suggests this was one of a small group of similarly designed 13th-14th-century castles surviving across Scotland. Recent work elsewhere in Scotland suggests materials analysis has the potential to enable the first direct scientific dating of Lochindorb Castle to be undertaken, and this may further inform discussion of the buildings construction dates and allow further insight into the composition and exploitation of the local geological and ecological environment (Thacker 2016; forthcoming). The preliminary survey presented above suggests materials analysis at this site has potential in this regard.

Moreover, our understanding of the construction dates of medieval buildings elsewhere across Scotland and Europe is often much less refined than has been argued for the primary phase of Lochindorb, and so materials analysis from this particular environmental, archaeological and historical context may increase our knowledge of the wider resource and allow a more informed comparative approach to similar evidence from medieval sites elsewhere. Further research and analysis at Lochindorb Castle, therefore, has the potential to increase the significance of the site and its surviving materials.

Part Three: FURTHER WORK

Following this preliminary survey and discussion of the visible evidence at Lochindorb Castle, a programme of further masonry survey, and materials sampling and analysis is recommended. The project proposal should certainly include further examination and analysis of mortar materials from both main phases of the surviving structure, and the possibility of including sandstone evidence within the materials investigation should be explored. The proposal methodology should use the recent RCAHMS measured survey of the site, to allow more accurate recording and interpretation of sample contexts. Only very small sample volumes, from visible masonry surface contexts, would be required to achieve the proposed research aims, and, considering the large volume of constructional material survival, this will not adversely affect the significance or structural stability of the monument.

Part four: BIBLIOGRAPHY & ACKNOWLEDGEMENTS

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Many thanks to: Angelika Cawdor for permission to survey at the site; to Sharon and Justin for arranging boat transport to the island and to Justin for taking the photo on the title page of this document. Also thanks to [redacted] of SNH and [redacted] of Police Scotland for discussion of the wildlife of the site and how site visits might be timed to avoid disturbance.

Part five: FIGURES

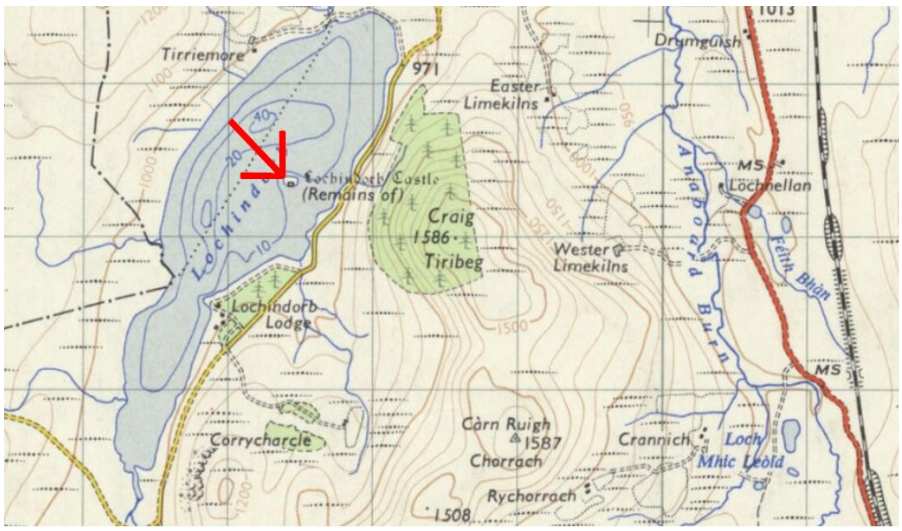


Figure 1 – Lochindorb Castle is located on an island in a freshwater loch of the same name. The site is within the former district of Badenoch and Strathspey and approximately 10km north-west of Grantown-on-Spey. Note the reference to 'Easter' and 'Wester' limekilns here. (detail from Ordnance Survey (1959), permission to use kindly received from National Library of Scotland).

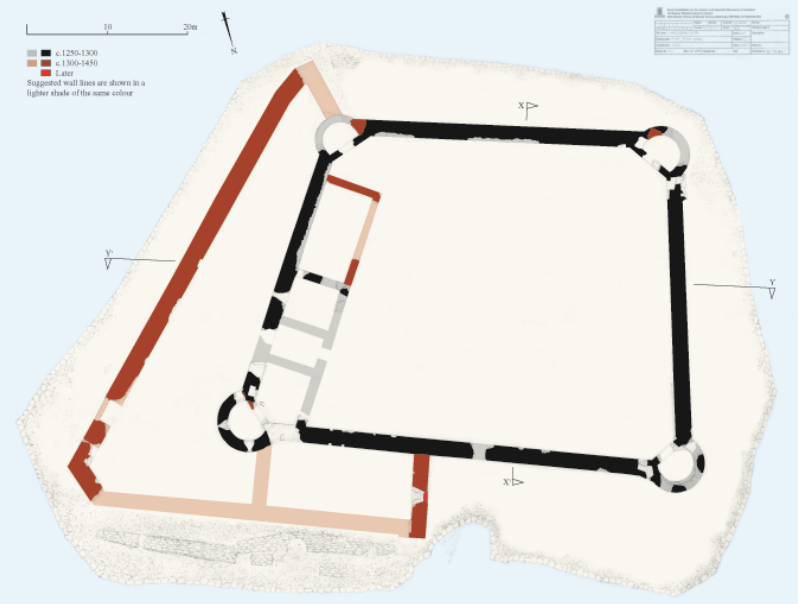


Figure 2 – RCAHMS ground-floor plan and phasing of the island site of Lochindorb Castle, based on 2009-2011 measured survey and analysis (Anderson and Dixon 2011) (image © Historic Environment Scotland GV004942). A first-floor plan (GV004943) was also produced by the RCAHMS and has been made available by HES for mortar survey and sample recording.



Figure 3 – RCAHMS recent measured survey drawings without phasing interpretation (1226387) may be used to record sample contexts.



Figure 4 – The island site of Lochindorb Castle from the south-east. This view is dominated by the secondary (south-east) outer courtyard wall, with a breach at the former gatehouse to the right and a section of the primary south wall and south-west tower visible to the left. No Scale; photograph M. Thacker.



Figure 5 – The external face of west end of primary north wall of Lochindorb Castle, with evident coursing, remains of north-west tower to the right, and robbed-out/breached 'postern' entranceway to the left. Scale 500mm; photograph M. Thacker.



Figure 6 – External face of primary west wall of Lochindorb Castle, with north-west tower to left, south-west tower to the right, and robbed-out and blocked postern entranceway in the centre of the image. The coursing and battered plinth are clearly evident. No Scale; photograph M. Thacker.



Figure 7 – Coursed metamorphic angular to subangular masonry of the external face of the primary west wall of Lochindorb Castle. Scale 500mm; photograph M. Thacker.



Figure 8 – Internal north-west corner of primary castle exhibits large sections of missing facing stone and breached cross-sections. No Scale; photograph M. Thacker.



Figure 9 – Full face-core-face wall cross section visible in west jamb of robbed-out/breached north postern entrance of Lochindorb Castle. Scale 500mm; photograph M. Thacker.



Figure 10 – Full face-core-face cross-section of breached masonry at south end of secondary (phase 2) south-east outer courtyard wall. Scale 500mm; photograph M. Thacker.

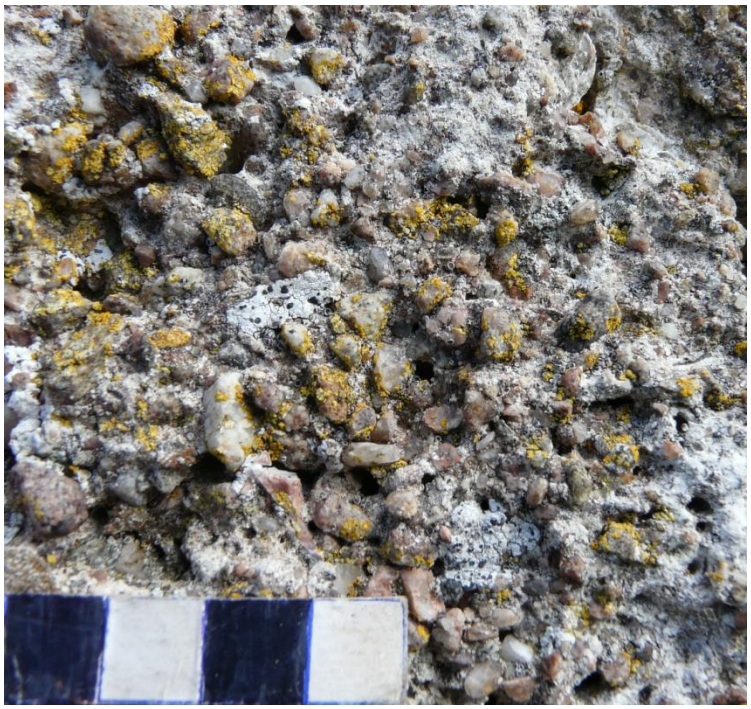


Figure 11 - Phase 1 mortar in core of primary north wall. Scale 10mm; photograph M. Thacker.

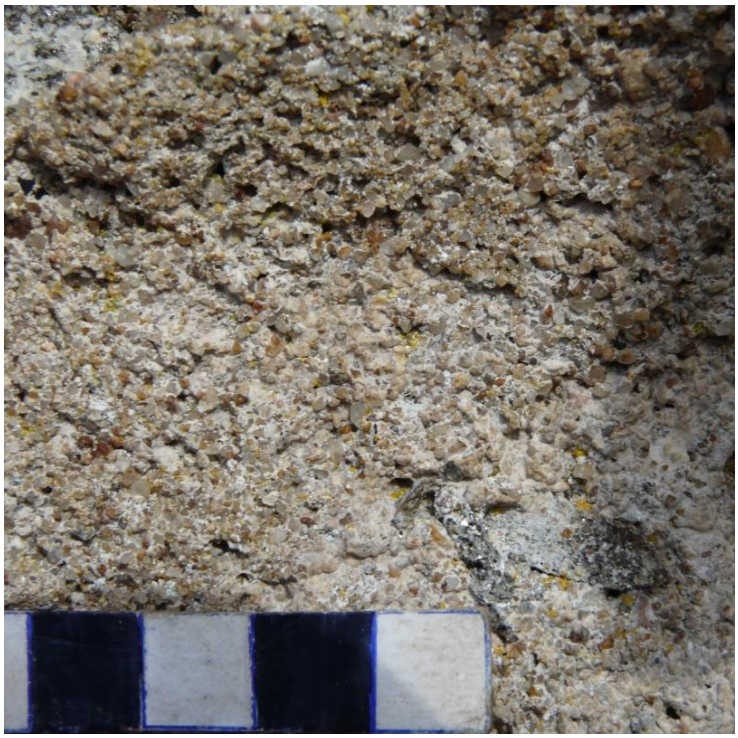


Figure 12 - Phase 2 core mortar at secondary south-east wall cross-section noted from figure 8. Scale 10mm; photograph M. Thacker.