UNIVERSITY of STIRLING

Scottish Medieval Castles & Chapels C-14 Project

Preliminary mortar & masonry Survey of Kinclaven Castle, Perthshire

SC14-KCP-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 Kinclaven Castle was undertaken by Mark Thacker in order to establish the potential of further survey and material analysis at the site. Access was from ground level only and was non-intrusive.

The building is very ruinous and some wall sections have suffered complete collapse. The surviving upstanding walls, however, present a good mixture of visible masonry contexts including: some sections with largely complete wall faces; large volumes of 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 wall faces of the primary building have been constructed of large blocks and flaggy slabs of purple-coloured sandstone; generally flat-laid and naturally-bedded stones up to approximately 200 high and 4-600 deep, the flaggy nature of the sandstone has promoted the use of edge-bedded soldier stones for snecks. The wall faces are well-coursed but course heights are irregular - generally around 230mm but also up to 400mm high.

The walls are wider in the basal courses, and a 150mm deep splay of finely dressed sandstone (of irregular lengths) survives at the west end of the north-west wall. This basal levelling plinth appears to be of the same sandstone as the general wall faces, and no evidence for this feature was noted internally.

The core rubble is distinctive, as in contrast to the quarried stone of the wall faces this is largely composed of very rounded detrital material (including sandstone, quartz and granite) which may have been sourced from the nearby river. One loose oyster shell was noted amongst building rubble of the north wall, and it is possible this had been used as a masonry pinning.

The walls are fully lime-bonded in all visible upstanding sections, although no mortar coating evidence appears to survive and organic growth and mortar degradation obscures the evidence in many contexts. Where the mortar evidence is visible, however, then the surviving evidence appears consistent and contiguous in all core and bedding contexts, and no compositional evidence for multiperiodicity was noted during this rapid survey. In interim, therefore, this appears to support previous single phase interpretations of the site.

On that basis, the primary constructional mortar can be preliminarily described as:

General Description: Buff-brown lime mortar

Carbonate kiln-relicts: This is a limestone-lime containing a high concentration and range of heated limestone kiln-relicts, which are angular to rounded, white to buff-brown and generally grade to 10mm diameter.

Added-temper: This mortar is lithic-tempered and contains quartz-rich sands, gravels and stones; often very rounded but including all shapes to angular; generally grading up to 15mm but including clasts up to 30mm.

Fuel kiln-relicts: This mortar was wood-fired and contains a high concentration of wood charcoal kiln-relicts, generally as very fine lenses grading to 1-2mm. The local tree population includes Beech, Oak and Scots Pine and there is some suspicion that the mortar charcoal assemblage includes Oak, but is not completely dominated by it.

Part Two: PREVIOUS EVIDENCE & SIGNIFICANCE

Although suggested to be an 11th-century building constructed in the reign of Malcolm Canmore by one commentator (Hunter 1883, 378-9), Kinclaven Castle was more reasonably ascribed a 13th-century construction date by MacGibbon and Ross and on the basis of a number of documentary references they suggested that the site had been a royal residence throughout the late 13th and 14th-centuries (1887, 67-70). This description is repeated almost word-for-word by Cruden (1960, 50), although that purpose is also curiously contradicted by MacGibbon and Ross, who also state that 'Kinclaven never was a residence, but was purely a garrison castle' (1887, 69).

This ascription of a 13th-century primary construction date for the surviving ruin may be supported by architectural comparison with the earliest upstanding phase of the Royal castle at Tarbert in Knapdale (Argyll), which is also often accorded a 13th-century date (MacGibbon and Ross 1887, 136), and similar typological comparisons can be made with the quadrilateral enclosure castles of Castle Roy (Strathspey) and Kincardine (Kincardine-shire).

However, of these four buildings only the structure at Tarbert can be physically chronologically constrained (by a later probable Brucian phase). Moreover, it should be recognised that the 1264 documentary reference to Kinclaven only provides an historical upper terminus for a site, and it is important to note that the remains of a motte survive very close by on the opposite bank of the Tay at Castle Hill (see figure 2 below). We may reasonably presume that the Castle Hill earthwork represents the remains of an earlier castle building, but MacGibbon and Ross (1887) and Cruden (1960) are careful not to ascribe a close date of construction to the upstanding masonry remains known as Kinclaven Castle and there is no upper terminus for its abandonment and ruination. Moreover, given the lack of apparent multiperiodicity exhibited in the surviving masonry fabric, documentary accounts of destruction and subsequent repair of the building during the Wars of Independence do not appear in evidence. These references, however, highlight that caution and further work are required.

In summary, given the evidence for association with historic events and personalities including the Scottish Crown, the English Crown, and William Wallace, the site of Kinclaven Castle is

clearly of national significance, and a broadly 13th-century date of construction for the surviving building remains is not unreasonable. This evidence, however, is chronologically broad, circumstantial and somewhat speculative. A more refined and independent date of construction for Kinclaven Castle would allow for more informed discussion of its historical context, enable more informed comparison with the other (apparently similar) Scottish quadrilateral enclosure castles, and provide further information about this important period of Scotland's past.

Part Three: FURTHER WORK

Further material analysis of the upstanding remains of Kinclaven Castle would be significant from a number of aspects. Materials analysis has the potential to enable the first direct scientific dating of the structure to be undertaken, and for any results to be compared with the architectural and documentary evidence. Analysis, would also inform us about the materials from which the castle was constructed, and allow some further insight into the composition of the local environment and the technical conversion of particular materials. In that regard it is significant that in the 19th-century MacGibbon and Ross described the site as 'abundantly wooded' (1887, 67), and a wider landscape perspective would be enlightening.

Moreover, our knowledge of the construction dates of many medieval buildings elsewhere in Scotland are very broad, and a more refined date for Kinclaven Castle may allow some further comparative clarity. This preliminary survey would suggest that, within the Scottish Medieval Castles and Chapels C-14 Project, the constructional mortar at Kinclaven Castle has the potential to answer some of these research questions and so a programme of mortar sampling is recommended. Such a programme will not adversely affect the stability of the structural remains and may increase the significance of the monument and its constructional materials.

Part four: BIBLIOGRAPHY & ACKNOWLEDGEMENTS

Cruden, S. (1960). The Scottish Castle. Nelson: Edinburgh.

MacGibbon, D. and Ross, T. (1887). The Castellated and domestic architecture of Scotland from the twelfth to the eighteenth century. Vol. 1. David Douglas: Edinburgh.

Hunter, T. (1883) Woods, forests, and estates of Perthshire with sketches of the principal families in the county. Perth. Noted in https://canmore.org.uk/site/28498/kinclaven-castle

This preliminary survey forms part of a research project jointly funded by Historic Environment Scotland and the University of Stirling. Many thanks to [redacted] (Owner) and [redacted] for permission to survey at and access to the site.

Part five: FIGURES

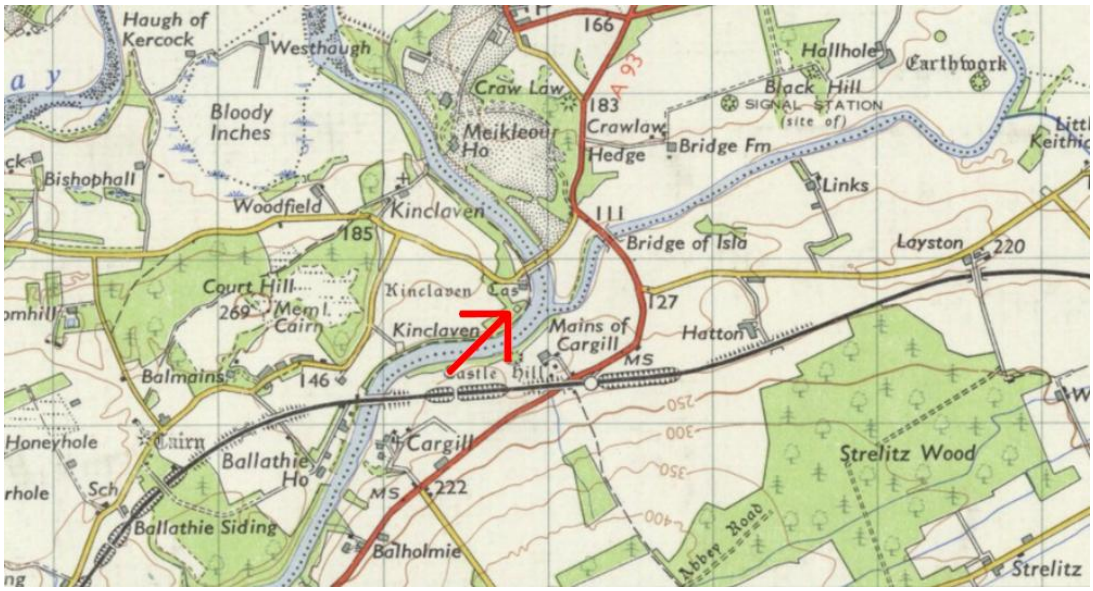

Figure 1 (above) - Kinclaven Castle is located in the county of Perthshire; approximately 4 miles WSW of Couper Angus and 9 miles N of central Perth. The Castle is located on a elevated site above the west bank of the River Tay, at its confluence with the Isla River. (Map image © Ordanace Survey 1961, used with kind permission of National Library of Scotland).

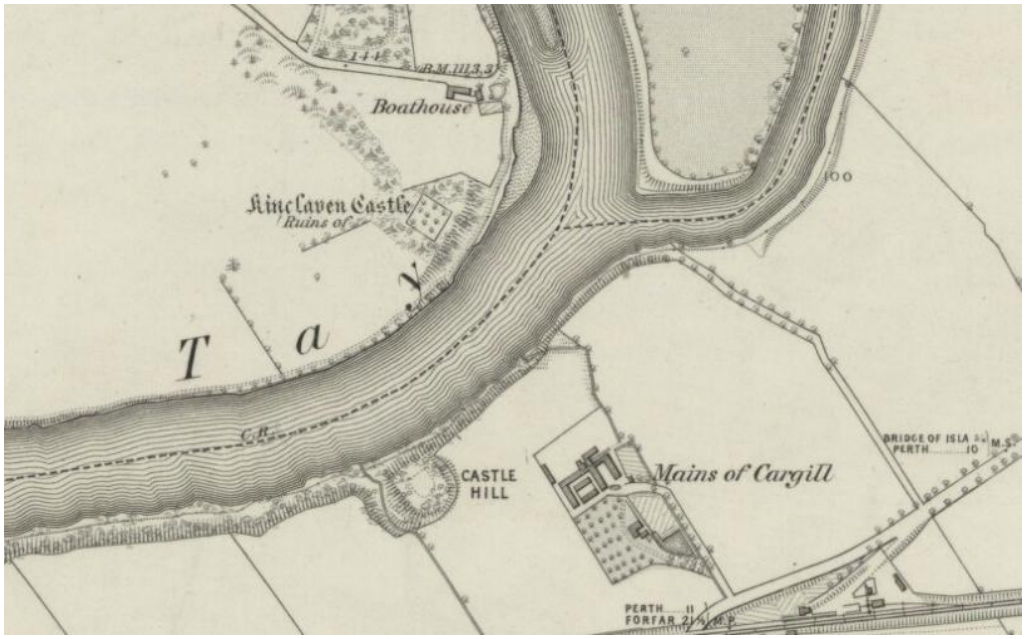

Figure 2 (above) - Ordnance Survey (1867). 1st Edition 1843-1882, sheet LXXIV, 6-inch to the mile map, detailing the quadrangular ruined enclosure of Kinclaven Castle, 290m north of the motte at Castle Hill. (Map image © Ordanace Survey 1867, used with kind permission of National Library of Scotland).

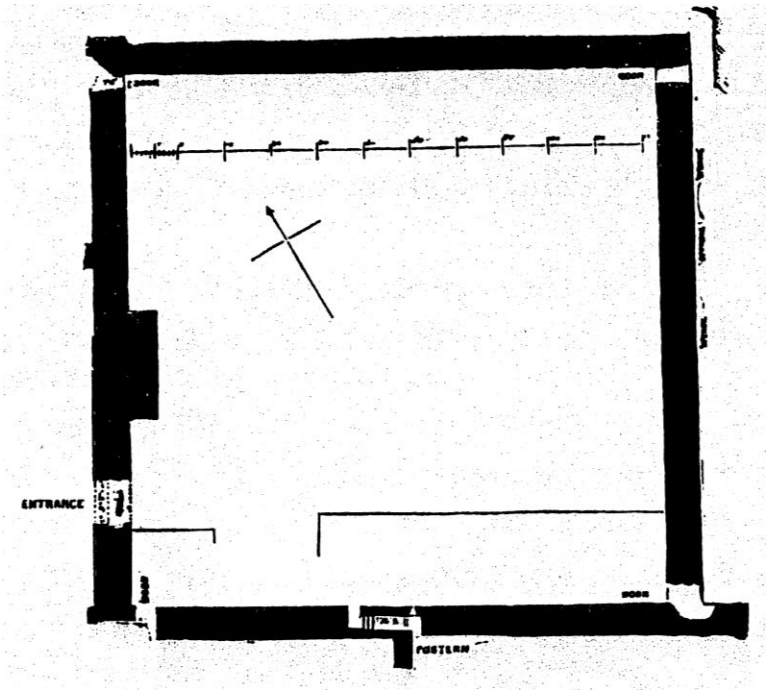

Figure 3 (above) – Plan of upstanding masonry enclosure of Kinclaven Castle from MacGibbon and Ross (1887, fig 47). Whilst in interim this drawing serves to identify and orientate the main features of the structure, going forward it has been agreed that the project will use more recent RCAHMS/HES data as soon as that becomes available.

Figure 4 (above) - Kinclaven Castle; external face of surviving sections of north-east wall from north. Scale 500mm; photograph M. Thacker.

Figure 5 (above) – Kinclaven Castle; external face of south-east wall from the south. Scale 500mm; photograph M. Thacker.

Figure 6 (above) - Kinclaven Castle; internal face of south-east wall from the east. Scale 500mm; photograph M. Thacker.

Figure 7 (above) – Kinclaven Castle; external face of west end of north-west wall, including the remains of main entranceway. Scale 500mm; photograph M. Thacker.

Figure 8 (above) – Kinclaven Castle; core mortar of south-east wall clearly displaying large angular and white probable limestone kiln-relict clasts, and rounded lithic temper inclusions. Scale 10mm; photograph M. Thacker.

Figure 9 (above) – Kinclaven Castle; Exposed cross-section at east end of south-east wall displaying large surface areas of core mortar. Note contrasting width of wall in higher courses where facing stone survives. Scale 500mm; photograph M. Thacker