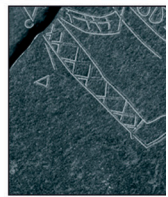
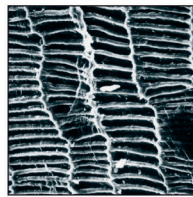
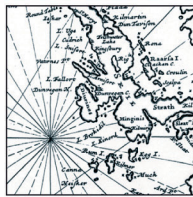
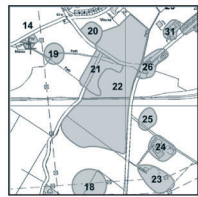


MOIR10



MOIRLANICH LONGHOUSE, KILLIN

*Assessment of the Thatched Roof
for the National Trust for Scotland*

June 2011



HEADLAND
ARCHAEOLOGY (UK) Ltd



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Illus 1
N pitch from the W



Illus 2
S pitch from the E

MOIRLANICH LONGHOUSE, KILLIN

Assessment of the Thatched Roof

1. BACKGROUND

These notes are based on a visit to the site on 10th & 17th June 2011. At the time of the visits the corrugated iron sheets had been removed and the whole roof was protected underneath a scaffolding shell. Areas of the surviving thatch were exposed and available for inspection (Illus 1 & 2). The condition of the surviving thatch was very variable having been affected by animal disturbance (mice, insects and birds), wind erosion and water ingress. Over much of the surface, detail of the thatch was obscured by wind-blown debris.

2. METHOD

Two areas on the N pitch were selected and cleaned back with a fine brush to reveal the *in situ* elements below. These cleaned areas were recorded photographically. Having gained a better understanding of the structure in the first visit, two areas were selected for further investigation where this would provide additional information while not creating a conservation problem at a later date. This involved excavating through the thatch to provide two sections through the structure (Illus 3 & 4). The sections were drawn and photographed.

3. RESULTS

3.1 South Pitch - West end

This is primarily a cereal straw over a thick and uneven turf much of which is exposed at the surface. Both rye and wheat straw was represented with the straw culms running down the pitch. The thatch is supported on close-set, sawn boards.

3.2 South Pitch - East end

This comprises a thick uneven turf, much of which is exposed at the surface. Cleaning back the surface revealed that the predominant covering was bracken with the blackened stipe (root end) pointing down the pitch (except at the ridge). Small areas of cereal straw were observed but it was unclear if these related to repairs or were a part of the main thatch. Remnants of two surviving wooden pegs (crooks) were seen.

The excavation of a small 'trench' in this area produced a good section through the thatch revealing how part of it was constructed (Illus 3). The section showed it to comprise layers of bracken up to 10 cm thick separated by thin layers of oat straw (Illus 3). The whole was supported on a bed of thin turves laid vegetation side down overlying the cabers beneath.



Illus 3

E facing section S pitch



3.3 North Pitch - West end

Relatively thick deposits of cereal straw running down the pitch survive in good condition with no exposures of turf sub-stratum. An inspection from the interior, however, identified that turf was present.

A good section was produced by cutting back a damaged area of thatch in the NW part of the roof. While some details remain unclear the sequence appears to be as follows (Illus 4):

- Turf - the basal layer was formed of thin turf that had been laid vegetation side down directly onto the cabers beneath.
- Rush layer - Directly above the turf was a compacted layer of rushes, primarily the jointed rush (*Juncus articulatus*) with occasional stems of soft rush (*J. effuses*). In places these seem to have been fixed in place by turves (a technique known from other sites in Scotland) but elsewhere the method of fixing could not be discerned.
- Rye straw - directly overlying the rushes was a layer of rye straw. This seemed to cover the

majority of the roof but it was not possible to work out how this had been fixed in place.

- Wheat straw - the upper layers were formed of wheat straw. This was in a good state of preservation and possibly formed the last surface of the roof before the tin roof was put on. The presence of crooks (forked pegs) in several places indicated that this surface had been held in position using a crook and caber technique where the forked pegs (c. 3-4 cm diameter) were pushed horizontally into the roof to support narrow cabers that ran parallel along the length of the roof (Walker *et al.* 1996 p. 35).

In some places there was evidence of repairs using, for example, bracken but they also ran over the ridge.

3.4 North Pitch - East end

Primarily turf was exposed at the surface with remains of bracken held in place in some areas by turf. Several wooden pegs were visible at the surface.

2



Illus 4

W facing section N pitch

4. DISCUSSION

In many cases when corrugated roofs were put onto the older vernacular buildings, the thatch was raked back to form a level surface into which the timber battens could be bedded to accommodate the corrugated iron sheets. This is what appears to have happened at Moirlanich, so the surviving thatch represents only a proportion of the original. In some places the upper layers are in such good condition that they are thought likely to be 20th century in origin.

There would appear to be two distinct areas of thatch on the building with the dividing line to the W of the chimney. The E end was originally a bracken thatch with alternating layers of bracken and oat straw over a substratum of turf, held in place by a crook and caber technique. This combination is almost identical to a thatch previously analysed by Holden *et al.* (1998) at the nearby settlement of Lochearnhead. It is even possible that the same thatcher was responsible for both roofs.

The W end of the building appears originally to have been a rush thatch that was eventually re-surfaced with rye straw and later by wheat straw.

In both parts of the roof the presence of pegs sticking out of the thatch support the idea that the thatch had been fixed to the roof using a crook and caber technique. This is supported by several old photographs which show the parallel timbers held in place along the roof. These photos fail to show a significant difference in the surface materials used (*ie.* bracken vs. cereal straw) on the W and E so it seems likely that, by this time the whole may have been surfaced in wheat.

5. POTENTIAL FOR FUTURE WORK

1. **Consolidate results of assessment** – registers, sections, to prepare DSR report.

2. **Turf** – Turf was present both as a substratum of the main thatch and as a packing material at the skewes. A basic record of the morphology of the turfs would provide information of the tools used to cut them and whether this was the same in both the roofing materials and gable end turf. A more detailed analysis of the turf through thin section analysis and analysis of the surface vegetation will offer an insight into the type and source of turves and something of the management regimes being adopted. At other sites like this it has been possible to identify that the turf was taken from an area that had previously been stripped of topsoil, presumably by previous turf cutting.
3. **Botanical material** – particularly with the cultivated cereal thatches, evidence for the varieties of cereal grown and the conditions of the field environment can be illuminated. This is done by an analysis of the plants themselves and also the weed seeds that accompany them.
4. **Publication** – this kind of analysis is not very common and a popular article in something like '*Vernacular Building*' would assist in bringing other examples of this type to light as buildings are renovated and modernised.

5. REFERENCES

- Holden, T G, 1998, *The Archaeology of Scottish Thatch*, Edinburgh: Historic Scotland Technical Advice Note 13.
- Walker, B, McGregor, C & Stark, G, 1996a, *Thatches and Thatching Techniques: A guide to conserving Scottish Thatching Traditions*, Edinburgh: Historic Scotland Technical Advice Note 4.



6. APPENDIXES

6.1 Appendix 1 – List of samples taken

Sample no.	Context no.	Location	Material type
1	–	NW Trench, N pitch	Sub-stratum turf
2	–	W gable, N pitch	Gable turf
3	–	SE Trench, S pitch	Sub-stratum turf
4	–	NW Trench, N pitch	Gable turf
5	02	NW Trench, N pitch	Rye straw
6	03	NW Trench, N pitch	Rush layer (base)
7	–	NW Trench, N pitch	Various rope, pegs and newspaper
8	–	S pitch	Tippet from area of repair
9	–	NW Trench, N pitch	Wheat straw, surface layer
10	04	NW Trench, N pitch	Material from directly over turf
11	–	SE Trench, S pitch	Oat straw between bracken
12	–	E Gable, N Pitch	Gable turf



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