VERNACULAR BUILDING 34

Scottish Vernacular Buildings Working Group

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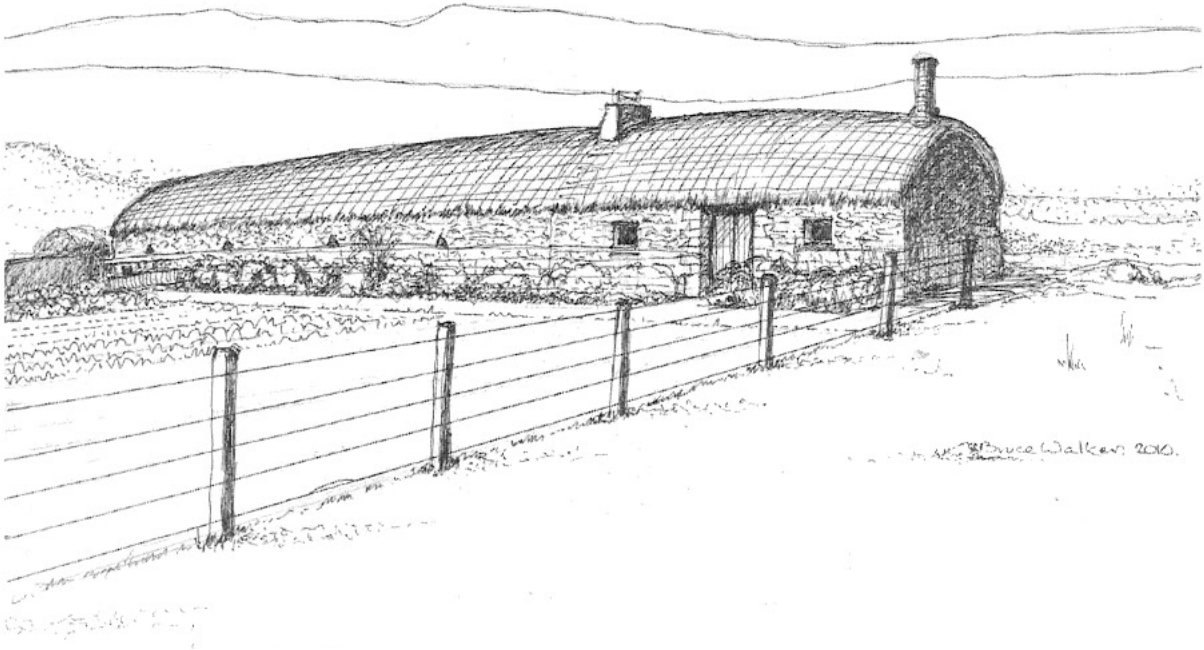

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CAIRNIEBOTTOM, EAST AYRSHIRE: CASE STUDY OF A NINETEENTH-CENTURY SMALLHOLDING

Ross Murray and Bruce Walker

When the occupants finally abandoned Cairniebottom Farm in the Muirkirk parish of East Ayrshire in the late nineteenth century, it is hard to imagine them thinking that over a hundred years later someone would seek to tell the tale of their unassuming, marginal little smallholding. Indeed nobody would have if it were not for the work done in advance of open-cast coal mining. While this could be viewed as a sad occasion, although it is difficult to imagine who would mourn its passing, I think the opposite is true. It has allowed a thorough investigation of a building that would have sat virtually anonymously in the Ayrshire hills until it decayed to nothing.

This investigation took the form of a survey of Cairniebottom and its surrounding landscape, trial trenching in and around the smallholding and the study of cartographic and documentary sources. The results of this research, presented in this report, have shown how the smallholding was constructed and functioned, and what the building and its surrounding lands would have looked like at the time it was in use, as well as determining, to some extent, what life at Cairniebottom would have entailed.

Cairniebottom was situated in an area of flat land in a landscape that is the very definition of the word bleak, approximately 2.5 kilometres (1.5 miles) to the east of Muirkirk in the upper Muirkirk valley and just west of the location of the former village of Glenbuck (see fig.1). At the time of the survey, the land consisted of poor agricultural grassland in fields bounded by stock fencing that generally fell towards the south from a high point of approximately 300 metres (1,000 feet) above sea level, and it is drained by the Ponesk and Lightshaw Burns which flow to the south and west respectively into the River Ayr.

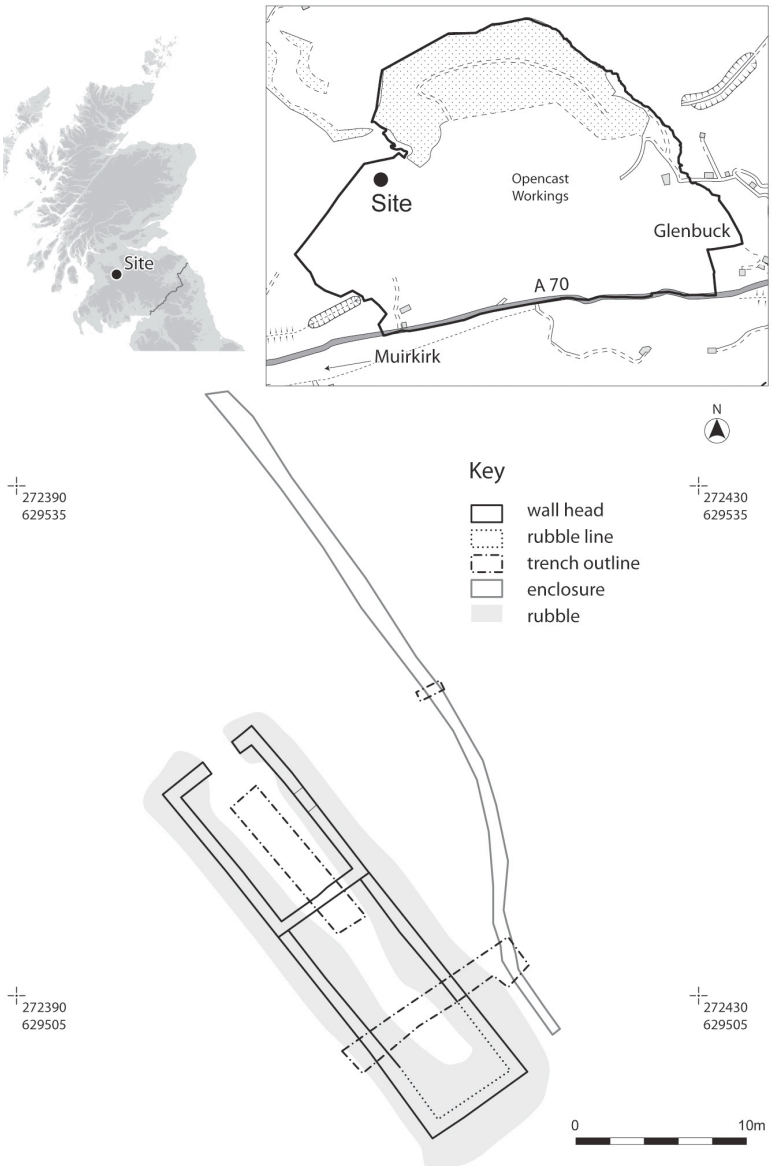


Figure 1. The location of Cairniebottom.

Survey

The survey of Cairniebottom revealed the remains of a low turf-covered building that measured 22.5 by 6.8 metres (74 x 23 ft) externally, with walls roughly 0.7 metre (2 ft 3 in) wide and up to 1 metre (3 ft 3 in) high in places (see fig.2). The building was aligned north-west to south-east, falling to the south-east. Around it was a spread of collapsed stone and turf superstructure. There was an entrance towards the north-west end of the more northerly long wall, and there was a marked change in level in the south-east half of the building, representing a step down. There were also traces here of a central drain. Initial field observations interpreted this south-east half as a possible byre, with the higher north-west part of the building being a small farmhouse.

The building was formed by a low random rubble wall that presumably formed a base for a turf superstructure, given that there were insufficient levels of rubble present around the building to suggest that the walls stood to its full height. The construction of the northern part of the building differed slightly, with the wall containing large orthostats (large stones set upright), while the south-west-facing external wall of the byre had been built with more formal squared rubble.

Figure 2. View of Cairniebottom during initial survey, looking south-west.

To the north-east of the building was a low, spread bank roughly 42 metres (138 ft) long and up to 1.1 metre (3 ft 7 in) wide, which could be traced further to the north as a well-built drystone wall. It petered out to the north and its full course could not be identified. Inspection of the area around the site, bounded by a former open-cast area to the south and where the ground fell away sharply to form the valley of the Ponesk Burn, did not identify other features, such as field systems, enclosures or rig and furrow, that may have related to Cairniebottom.

Excavation

The excavation was fairly small scale with three hand-excavated trenches placed within the building and across the associated enclosure (see fig.3). A trench was placed in the centre of the

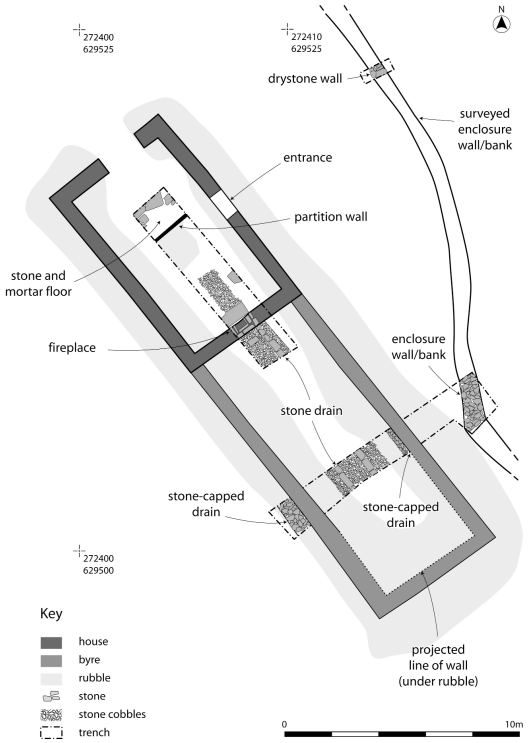


Figure 3. Plan of Cainiebottom following excavation.

farmhouse in order to locate the hearth (if present) and to investigate the drop in level within the building noted during the initial survey. The north-west end of the trench revealed a floor surface, comprising a mixture of large flagstones, lime mortar and cement mortar, which was present to the north of a narrow internal wall. To the south-east of this was a spread of stone rubble likely to be collapse from the adjacent wall (see fig.4).

Beyond the rubble spread was a cobble surface, roughly 2.2 metres (7 ft 2 in) by 1 metre (3 ft 3 in) in extent, which abutted a large rectangular flagstone set next to the end wall of the farmhouse. This wall was 0.7 metre (2 ft 3 in) wide and was constructed of squared rubble bonded with coarse lime mortar and stood to a height of 0.4 metre (1 ft 4 in). Several of the larger stones had tool marks on the surface. Within this end wall was a brick- and stone-built fireplace, 0.6 metre (2 ft) wide and 0.5 metre (1 ft 8 in) deep; the bricks had not been frogged (the indentation on one of the longer faces that reduces the weight of the brick and assists laying and adhesion) and displayed no maker's mark. The drop in elevation, noted in the initial survey, was shown to be where the byre abutted the end wall of the original farmhouse. On the south side of the farmhouse wall, in the byre, was the drain noted in the initial survey. This comprised two parallel lines of large

Figure 4.
View of the house end of Carniebottom, looking south-west.

rectangular stones flanked on the outside by a 0.4-metre-wide (1 ft 4 in) cobbled strip forming a channel 0.9 metre (3 ft) across and 0.1 metre (4 in) deep. The base of the channel was also lined with cobbles.

The trench placed across the putative byre exposed both walls of the building, showing them to be built of random rubble, bonded with rough lime mortar (see fig.5). The south wall stood to a height of 0.8 metre (2 ft 7 in) and was 0.7 metre (2 ft 3 in) wide, with the lower 0.3 metre (1 ft) projecting from the wall face. This was built partially over a stone-lined drain that ran down the outside of the building and had been capped with tightly packed stones. The north wall shared the same random rubble and lime mortar construction, but was narrower with a width of 0.6 metre (2 ft), and stood to a height of 1 metre (3 ft 3 in) in order to compensate for a drop in ground level. Another stone-capped drain was present next to the interior face of this wall. The drain noted in the trench to the north also continued into this part of the byre (see fig.6).

The eastern end of this trench also exposed the enclosure bank associated with the farmstead, showing it to be 0.8 metre (2 ft 7 in) wide and constructed of unbonded stone. It was also exposed in the small trench to the north where it consisted of a more formally constructed drystone wall that was 0.56 metre (1 ft 10 in) wide and 0.43 metre (1 ft 5 in) high.

Some artefacts were recovered from the topsoil during the excavation and are typical finds one would expect from this type of site. They comprised various sherds of nineteenth-century redware and whiteware ceramics, glass (bottle and window) and corroded iron objects.

Generally the findings of the archaeological investigations are consistent with the layout of an early nineteenth-century small-holding, comprising a two-roomed house and contiguous byre, set up on marginal land at a time when agricultural holdings were in great demand. The archaeological evidence suggests a two-phase build, the house being the primary structure and the byre some time later. This is quite typical, since the house needed to

Figure 5.
View of collapsed enclosure bank (foreground) and external wall of the byre, looking south-east.

Figure 6.
View of stone drain in the centre of the byre.

be ready for the tenant and his family to occupy whilst he set up the rest of the smallholding in accordance with a pre-arranged agreement. The work required to be executed would include enclosure of property; water supply; drainage; preparation of arable land and garden; housing for livestock; midden stance and so on (see fig.7).

The construction of the house at Cairniebottom is consistent with the period and size of the farm (see fig.8). Walls were constructed with masonry and bound with mortar – normally of clay, but occasionally, in lime-producing areas, with lime mortar. These walls were normally built off the surface of the ground without any attempt at producing a foundation on the hard pan. In this case the walls appear to have formed a base on which a cuppilled structure – two timber cuppills (or crucks) equally spaced between the gables of the byre – would rest. The remainder of the walls up to an eaves height of 1.7 to 1.8 metres (5 ft 7 in to 5 ft 11 in) were normally constructed of mudwall, turf or in this case alternating stone and turf.

The cuppills supported a roof comprising a roof tree or, quite often in this part of Scotland, three roof trees making a platform at the ridge, pans (purlins) resting on the inclined surfaces of the cuppill siles at intervals between ridge and wallend. These in turn carried the sub-strata of the roof – a panel of stake and rice, wattle, or a series of cabers spanning from eaves to ridge. A layer of turf usually laid grass-side down would have been used as a base for a stob thatch, or a double layer of turf, the lower layer grass-side down and the upper layer grass-side up, as a base for a laid-on rush thatch. Stobbed thatch was particularly common in south-west Scotland, the best and most frequent recorded example being Robert Burns's cottage in Alloway, Ayrshire. Early images of this cottage show an angular roof, the pitch being more or less parallel to the pitch of the cuppill sides, but as a result of continuing repairs each season saw an increase in height over the ridge, a natural result of stob thatch repairs. By the time Sam Bough painted the house at the end of the nineteenth century there must have been at least 2 and possibly 3 metres (6 ft 6 in to 9 ft 10 in) of thatch on the ridge,

Figure 7.
Reconstructed plan of Cairniebottom.

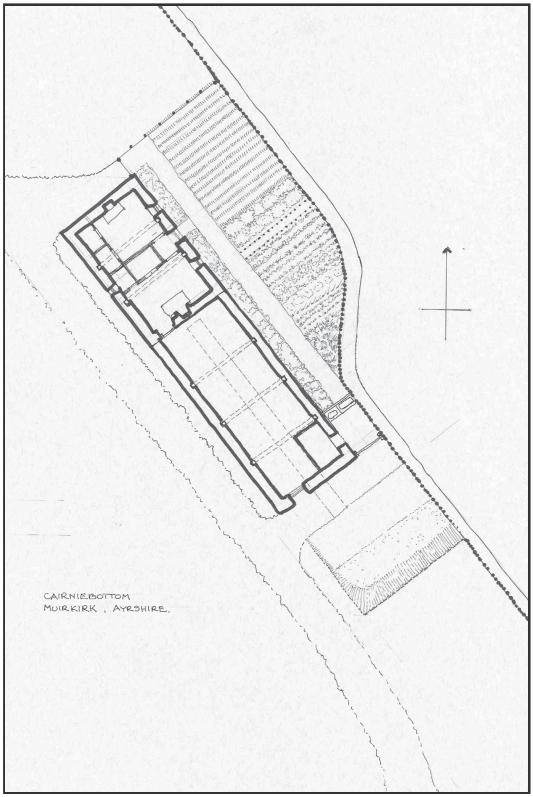
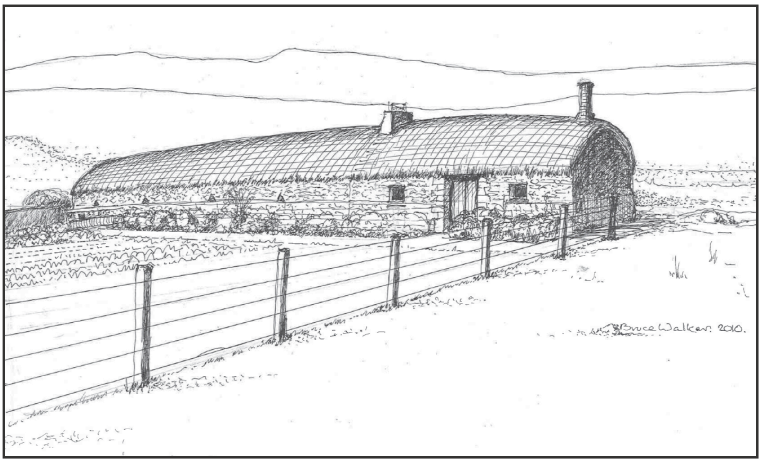


Figure 8.
Reconstruction of Cairniebottom.



changing the outer roof pitch from about 45 degrees to at least 60 degrees. The Sam Bough painting is owned by the Glasgow Museums and Art Galleries.

The house and byre were always built to predetermined sizes, based on the size of the holding rather than that of the occupying family, and although built by the tenant, remained the property of the estate. The ownership only included the building envelope, devoid of doors and windows in early leases but including these items later on. The exact date of the change cannot be defined, but tends to be linked to when the estate employed outside contractors to build new farm buildings. The interior, including internal partitions, ceilings, furnishings, chimney hoods and so on, fell under the category of 'tenant's timber' which could be removed at the end of a lease provided there was no danger to the integrity of the structure. It did not include cuppills, pans and ridge trees provided by the estate, as has been suggested by some building historians.

Cartographic and documentary evidence

Historic maps were consulted prior to the archaeological work at Cairniebottom in order to determine an approximate construction date. Although Roy's Military Survey (1747–55) and Thomson's Atlas of Scotland (1832) show farmsteads nearby, Cairniebottom is not present. The earliest cartographic evidence for Cairniebottom comes from the 1st Edition Ordnance Survey map, surveyed 1852–9, where it is depicted as a single building. The building is not present on the OS 2nd Edition map, surveyed in 1895. The map evidence suggests, therefore, that Cairniebottom was constructed after 1832 and was abandoned some time prior to 1895.

The documentary evidence for Cairniebottom is scarce and a search of the National Archives of Scotland failed to yield estate plans depicting the farm. However, it is mentioned briefly in the work of the Muirkirk poet Thomas Floyd (1858–1933), who writes:

> A hundred years ago Muirkirk Parish contained a number of farm houses and one or two notable

> places that have long since succumbed to the ravages of a century of time. Some are standing in ruins, while others have disappeared and left only their names to tell they have been.
>
> In the Greenock Water district Hallsmuir, Cleuchheid, Cairniebottom, East Braeheid, West Braeheid, the Old Manse, Lamonburn, Harwood, Burnhoose, and Shawknowe have all gone west.

The phrase 'have all gone west' is intriguing in that, though it most likely simply means these farms were abandoned for various reasons, it may literally be the case that the occupants emigrated to North America in search of a better life.

Conclusions

While optimism in the early nineteenth century was high and a large number of settlements created at this time survived, in situations as inhospitable as Cairniebottom, all too many failed. Cairniebottom's elevation above sea level, its bleakness and the obvious wetness of the ground would put this site at a distinct disadvantage as a viable agricultural holding, but such was the demand for farms created by the agricultural improvements breaking up the multiple-tenancy 'ferm toons' that estates were prepared to set aside land for new agrarian settlements. These were based on pendicles; that is, the estate and tenant both recognised that the tenant would require secondary employment in order to make an adequate living.

Many pendicles were occupied by key estate workers such as millers, carpenters, masons, blacksmiths and the like, and their secondary occupation was easy to recognise in the layout and detailing of the byre buildings. These tenants were normally allocated good sites close to the centre of the estate where they could service all the main farms. Poorer sites such as Cairniebottom tended to be allocated to dikers, ditchers, peat cutters, foresters, quarrymen, roadmen and shepherds, who required no special equipment in the byre.

The only occupation that tends to entail a different layout to the house is that of the weaver. In the weaver's cottage, the room to the north would be set aside for the loom, and this room would lack a fireplace and have an earthen floor. This was intended to retain dampness in the air, improving the workability of the fibres. At Cairniebottom, lack of evidence at the north gable precludes a definite interpretation, so the more common sleeping room interpretation has been shown in the reconstruction.

Cartographic sources and references

1747–55 Roy Military Survey of Scotland

1832 Thomson's Atlas of Scotland

1860 Ordnance Survey 1st Edition, *Ayr Sheet XXVI.14*

1897 Ordnance Survey 2nd Edition, *Sheet 23 – Hamilton*

Murray, R, 'Results of a walkover survey & archaeological evaluation at Ponesk Remainder Surface Mine, East Ayrshire', unpublished client report, 2010

Walker, D Bruce, 'Housing for Agricultural Workers 1770–1920' *The Agricultural Buildings of Greater Strathmore 1770–1920*, unpublished PhD thesis, University of Dundee (copies also held by Historic Scotland Library and RCAHMS Library)

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