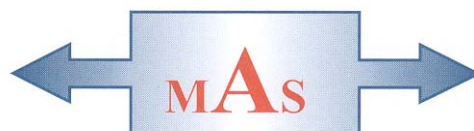


MAINS OF BALNAKETTLE FETTERCAIRN, ABERDEENSHIRE



- Standing Building Survey -

Carried out 24th April 2008
by
Murray Archaeological Services Ltd



Report No: MAS 2008-9

by
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- Standing Building Survey -

1. Background

- 1.1 Proposals for the development of a steading at Mains of Balnakettle, Fettercairn by Fasque and Glen Dye Estate was subject to a planning condition requiring a level 1 Standing Building Survey.
- 1.3 The archaeological condition was applied in the context of the National Planning Policy Guideline No 5, Archaeology and Planning, which states that it is necessary for developers to arrange for archaeological fieldwork to take place prior to development, in appropriate circumstances.
- 1.4 Murray Archaeological Services Ltd was commissioned by Fasque and Glen Dye Estate to undertake the work; the field element of which was carried out on 24th April 2008.

2. Desk-top survey

- 2.1 A search was carried out in the Sites and Monuments Record, Archaeology Service, Aberdeenshire Council and in the Sites and Monuments Records of the Royal Commission for Ancient and Historic Monuments in Scotland (RCAHMS) through Canmore, Canmap and Pastmap.
- 2.2 The 1st and 2nd Ordnance Survey maps of the farm were consulted. Photographic copies of an Estate map dated to 1850 were made available by Norman McIntosh Architectural Services Ltd. Roy's Military map of 1747-55 was consulted on line at www.scran.ac.uk.

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- 2.3 Site plans and elevations of the site were kindly supplied by Norman McIntosh Architectural Services Ltd, as were copies of photographs taken by Mr McIntosh, prior to the demolition of certain unsafe elements of the structures.

3. The Site

- 3.1 The buildings are located at Mains of Balnakettle, to the NW of Fettercairn, Aberdeenshire.

Parish: Fettercairn. NGR: NO6257 7465

- 3.2 The site is in the RCAHMS archive NMRS Number: NO67SW 47. There is a separate entry for the original Balnakettle House (Not the present structure) , thought to have been E of the present farmhouse. There are no details for either entry.

- 3.3 The part of the steading to be developed is now out of use but has been used recently for agriculture. Parts are in a very ruinous condition. Other buildings in the complex, which are not being developed include a modern steel frame cattle building and barn and buildings used by gamekeepers- the latter being of some interest to the present survey as they include elements of the 19th century steading.

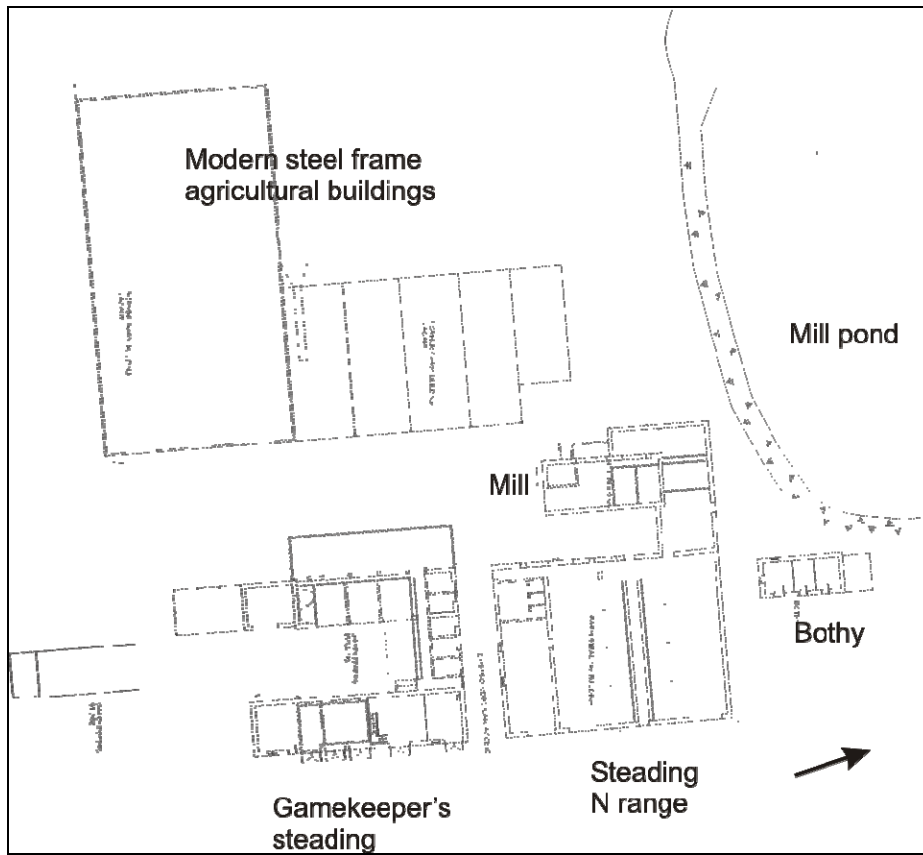
4. Methodology

- 4.1 The ground plans have been annotated to show details and to indicate differences in the building materials which may help in understanding the development of the group and of individual structures.

- 4.2 The buildings due for development (the bothy, mill and steading) were photographed. The full set of photographs will be supplied on CD for the archive and annotated plans in the present report indicate the position of each.

- 4.3 Each building will be discussed individually below and the development of the group examined.

5. The Buildings



Illus 1 Main plan (adapted from Norman McIntosh plan)

5.1 The Bothy



Illus 2 Bothy front view

Dimensions: Int 9 x 3.5m Ext 10 x 5m

Description

The bothy is built of red sandstone rubble with roughly dressed sandstone rybats at doors and corners with smoothly dressed margins. The roof is pitched and slated with no skewes. The original sandstone chimney for fireplace F1 had been demolished prior to the survey as it was unstable.

A wooden lean-to shed at one end.

Door D1 (W:1.22m. H: 1.93m) sandstone margin LHS only. This has been widened.

D2 and D3 (W: 920mm H: 1.9-1.93m) dressed margins both sides. Original.

W1 (Ext W: 770mm. H:1.24m) Sandstone rybats with dressed margins.

F1. Fireplace with dressed sandstone. (Total W: 1.32m. H: 1.23m. Internal W: 930mm. H:1.02m.) Wooden mantel.

Date stone: A date stone of 1797 with the initials JF and JN (N reversed) was built into the front wall of the bothy. This is not original as the bothy does not appear on the maps until the late 19th/ early 20th century. It is suggested this may have come from an earlier building- possibly the predecessor of the present farmhouse. It does suggest that there were buildings on the site in the late 18th century.



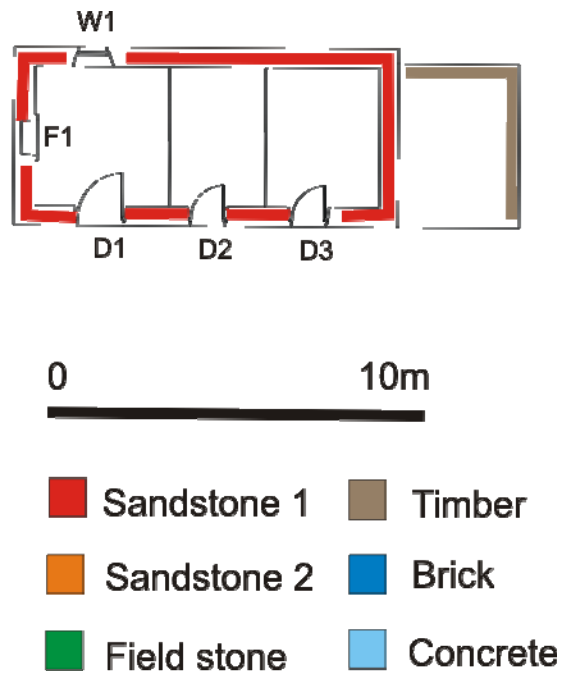
Illus 3 Bothy detail of date stone, probably reused

Original use: Bothy

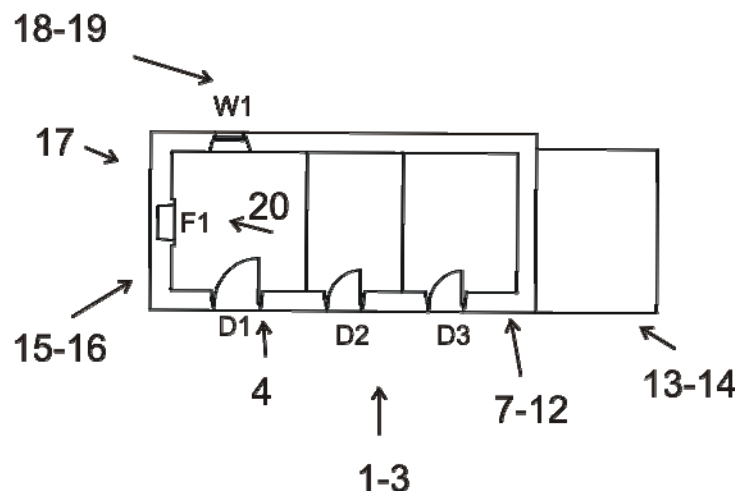
Present use: Store

Discussion

Not shown on 1868 1st edition Ordnance Survey. Shown on 2nd edition map of 1904.



Illus 4 Annotated plan of bothy



Illus 5 Photo reference for bothy

5.2 The Steading



Illus 6 Steading N range, front view

Dimensions: Main block Ext: 27.5 x 20.5m

Description

The main part of the steading consists now of four bays at right angles to the access road. Three of the bays (Bays 1-3) have been combined to form a large open cattle court with a central feeding pass. The fourth bay (4) is subdivided into a front shed (Area 2) and a smaller area at the back (Area 3). The N side of the block is extended to wrap around the N (Area 4) and W (Area 5) sides of the mill.

Walls: The external walls are of a mixture of sandstone and field rubble construction. To some extent this may reflect the fairly common practise of having the front wall of superior material (sandstone). However, differences in detail of the structure give some indication of different periods of building.

Wall 1 is all of sandstone. The N end (Bays 1 and 2) is of horizontal sandstone rubble with some field stones between and occasional use of this grey stones to level up the courses. This is in contrast to the wall across Bays 3 and 4 which uses larger blocks, set differently – this appears similar to wall 2.



Illus 7 Steading wall 1 detail of change in wall construction (to LHS of ranging rod)

Wall 3 was of sandstone for only c 1.5m from the corner and the rest of rubble construction with small flat horizontal infill stones. This is in contrast to the rubble stone wall 5 which incorporates some sandstone but lacks the small infill stones.

Wall 7 and the part of wall 5 alongside Area 5 are of a fairly rough sandstone construction.

It is suggested that the front wall of bays 1 and 2 is part of the original steading (1850 estate map and 1st OS map of 1868) , when the front of bays 3 and 4 had not been built. The back range shown on these maps may correspond to the line of wall 3 but the difference in construction suggests a degree of rebuilding. Wall 7, which initially appears early, being of sandstone, does not appear on the 1904 map (2nd edition OS map which shows a smaller structure over the wheel- possibly related to the wraggle on the outside of mill wall (below) and is therefore a later reuse of salvaged building materials.

Doors and windows: With the exception of the mill (5.3 below) and of Area 5, all the doors and windows into these steading walls are of a very standardized type – suggesting that, although the walls may have been built in stages as the steading developed, the existing doors and windows were part of a single building operation- possibly in the period between 1868 (1st OS map) and 1904 (2nd OS map).



Illus 8 Steading Detail of door D6

D1, D2, D4 All widened and raised for modern vehicle access. D1 concrete lintel. D2 wooden. D4 steel lintel

D3 W:1.03m. H: 1.93m. Roughly dressed sandstone rybats with dressed margins. Now has external concrete ramp to feeding pass.

D5 Blocked. W: 1.04m. H: 2.64m. Lintel irregular sandstone block with roughly dressed face and margins.

D6 Lintel sides and threshold as D5. W: 1.04m H: 2.07m. The door (wooden planks) is set behind the dressed margins (as in bothy).

D7 As D6. W: 1.05m H: 2.08m

D8 Lintel sides and threshold as D5. Plank door, recessed behind margins. W: 1.01m H: 1.99m

D9 Lintel sides and threshold as D5. Plank door, recessed behind margins. W: 1.02m H: 1.99m

D10 Not accessible due to rubble. Sandstone at sides not dressed at margins. Height raised by bricks on RHS. Wooden lintel. Splays internally.

D11 Sandstone rybats with dressed margins. W: 1.05m H: 2.01m Now the floor levels in cattle court have been reduced so the base of D11 is 730mm above ground level.

W1 Sandstone lintel as D5, sill and sides. Top glazed with 9 astricals. Base wooden slatted for livestock ventilation. W: 840mm H: 1.39m

W2 Blocked . Sandstone lintel as D5, sill and sides. W:850mm H: 1.36m



Illus 9 Steading wall 3 with ranging rods indicating vents

V1-5 In wall 3, there are five pairs of blocked vents c. 2.57m apart (centres). Each pair consists of two rectangular openings one above the other and c 950mm apart (edge to edge). Sandstone blocks used for sills and lintels. In V2 the sandstone appeared possibly reused as there was a cut recess that did not appear to fit in its present position. V3-5 each had the remains of two iron fittings above the upper vent – possibly the eyelets to hold swivel pins of a shutter which could be swung up or down. Internally V1,2 and 5 could be seen to have wooden lintels on the lower vent in each pair. Internally there is a ridge along the face of the wall from V2 to V5 at the level of the base of the upper vents. Possibly there was originally a fitting such as a hay rack along this line. Only two could be measured easily:



Illus 10 Detail of vents V2



Illus 11 Detail of iron fittings above upper vent

V1 upper W: 570mm H: 620mm

V1 lower W: 560mm H: 500mm

V2 upper W:530mm H: 530mm

V2 lower W: 520mm H: 460mm

V6 At 340mm above present floor this vent is likely to be a drain. W:200mm H: 250mm outlined by sandstone blocks. Now has a modern clay drain pipe running through it.

Roof: The roof over bays 1-4 consists of four parallel roofs, each hipped at the ends. They are of slate with ceramic ventilators along the ridge. There are a number of metal skylights. The mill roof will be discussed below (5.3. Mill).

Internal details



Illus 12 Steading Interior view Area 1

Area 1: The internal arrangements are a fairly recent conversion (at a guess between 1970 and 2000). The floor has been cut down (see the level of D10) and all the earlier internal walls have been removed. The roof has been supported on steel beams. Only two columns at the back of the building are of partly brick and partly sandstone and may derive from the original structure.

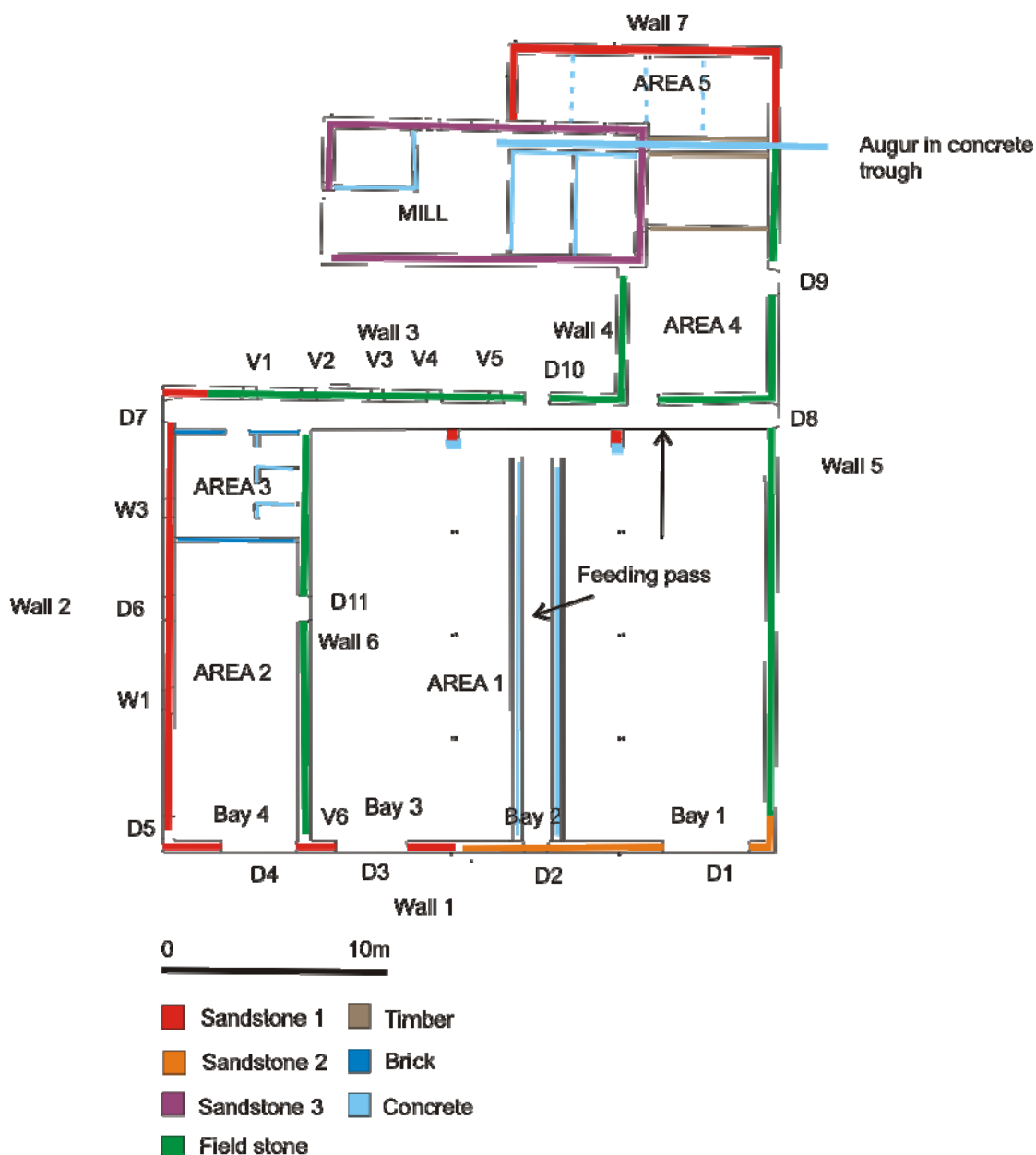
Area 2 and 3: These two areas have been subdivided by brick walls making the back area into what appears to have been a small dairy at some point (pipework), but which also has three low walled pens- possibly for pigs (based on size etc).

Area 4 and 5: Area 5, and the part of Area 4 nearest to it, have been subdivided by a series of concrete and wooden walls. These appear to have formed a series of grain bins each with an individual chute, on either side of a grain auger set in a concrete trough. The trough runs through into the former mill building. The roof ventilators (of asbestos and corrugated plastic) suggest that there may have been a drier in the mill in its recent use- and possibly a bruiser for the cattle feed. The ruinous state of the mill interior did not allow further examination.



Illus 13 Steading, Area 5 detail of grain chutes broken through mill wall

Mill: See below (5.3)



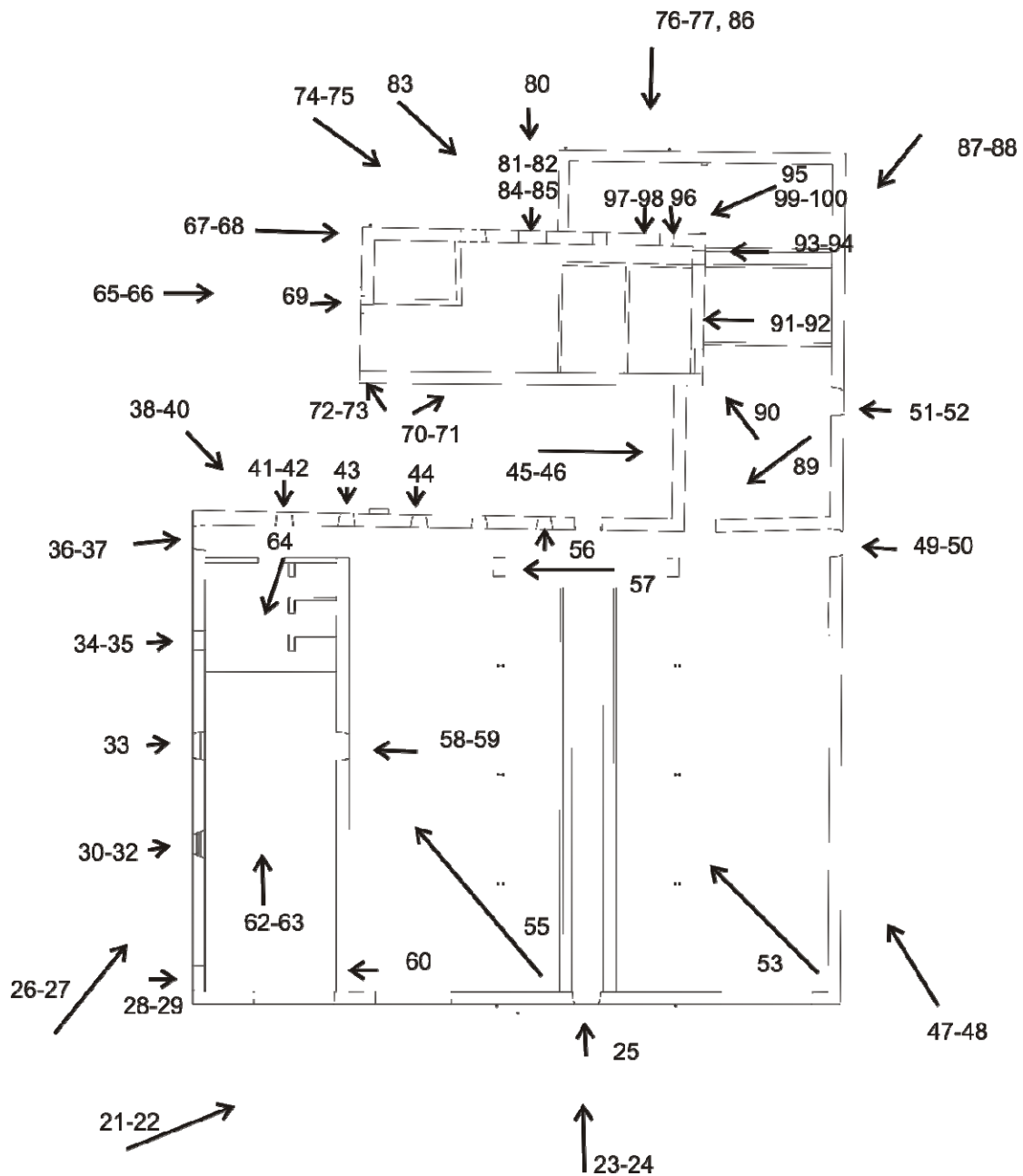
Illus 14 Annotated plan of steading

Original use: Cattle steading with mill and feed store behind.

Present use: Recent use as cattle court with the mill as grain store.

Discussion In its original form by 1850, the steading extended around the N, W and parts of the S and E sides of a rectangular court. The buildings are likely to have been used for cattle with a central dung yard in the open area surrounded by a walkway. By 1904 the central yard had been roofed and it is suggested that at this stage there was a degree of rebuilding and the insertion of a uniform series of doors and windows. The vents (1-5) in wall 3 may belong to either phase but interestingly appear to have reused some dressed blocks. In each pair the upper vent appears to have been for

ventilation with an external shutter. There is some evidence of a horizontal fitting along the inside wall below the upper vents and it is suggested that this might have been a hay rack. The function of the lower vents is unclear- it is unlikely they were for ventilation as they would have created drafts at livestock leg level which would have potentially caused health problems. The spacing of the vent pairs is suggestive of a row of five individual stalls.



Illus 15 Photo reference for steading

5.3 The Mill



Illus 16 Mill form behind (mill pond to LHS- just off picture)

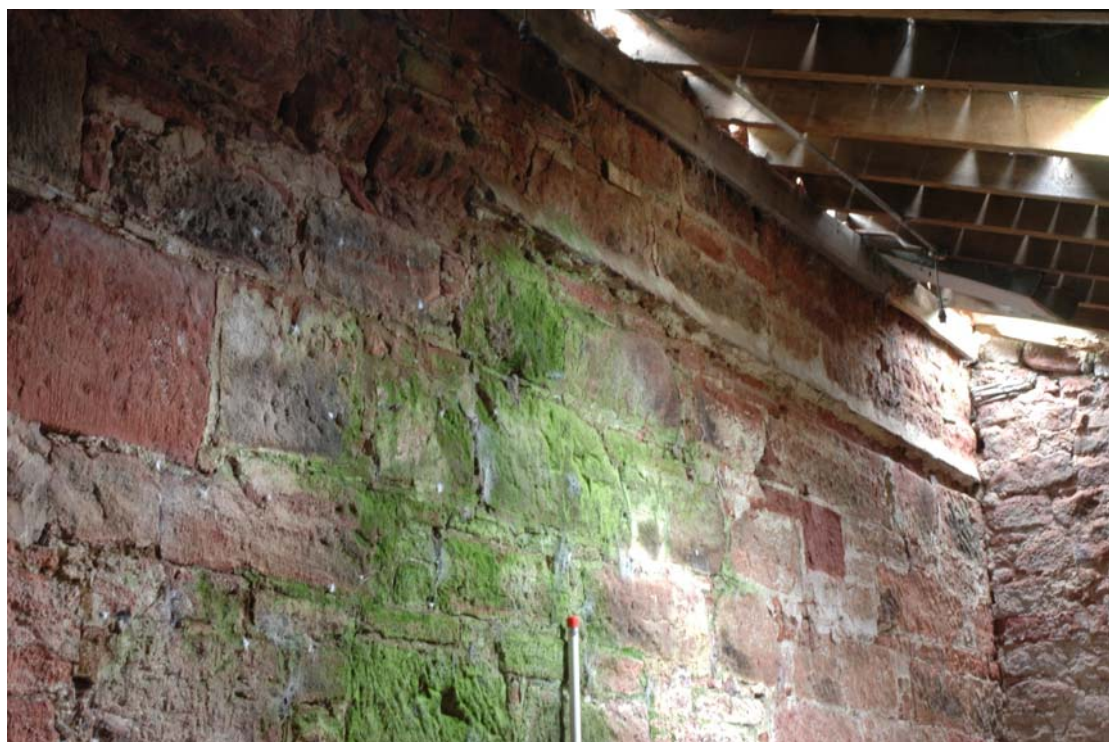
Dimensions: Int: 13.5 x 5.5m Ext 14.5 x 6.5m

Description: Although the mill has been incorporated into the steading (above) it can still be traced as a separate building. It was a 2-storied building.

Walls. The walls were of semi-dressed red sandstone blocks in clear wide horizontal courses with small filling stones in both horizontal and in vertical sets between blocks. Shaped sandstone blocks have been used at the apex of the gables and at the skewputs. This walling can be traced consistently around all four walls and shows that regardless of the later alterations, this is the original mill. The wall construction is different from all the other walls in the steading and bothy and it may be suggested that the mill was earlier than any of the surviving elements of the steading.

Wall 1: The wall that originally held the wheel now has a lean to built against it (Steading wall 7). This can be proved to be a much later feature and certainly post-dating 1904 (see above). However there is a horizontal raggle and a groove along the sandstone of the outside of the wall which indicates there was an earlier lean-to, possibly the smaller structure shown on the 1904 map- which may have enclosed the

wheel itself.



Illus 17 Mill wall showing raggle

There are at present two recent breaks (W: 570mm H: 1m) in the base of this wall, both being openings for grain chutes into the 20th century grain augur – neither of these is original to the mill. However, between them at 2.29m from the NW corner of the mill building, there is a blocked vent at the base of the wall. W: 460mm H 500mm+ with a sandstone lintel. The size and position indicate that this is likely to have been the hole for the shaft of the original water wheel. This also fits with the position of the mill lade as shown on the 1850 and 1868 maps. This feature could not be seen on the inside of the wall where it is obscured by the cement block channel for the augur. The wheel would have been on the outside of the wall, fed by water from the mill pond – there would have been a lower ground level to allow the wheel to turn – this is obscured by the later levelling and the later lean-to.



Illus 18 Mill wall showing blocked wheel shaft hole

Further S along this wall, there is a doorway (D1) at ground level which appears original (W: 1.05m H: 1.74m) with a roughly dressed sandstone lintel. D2 which now extends from ground level to 1st floor may have had a door at ground level but this could also be a break-through. The opening here at 1st floor level appears to be an original hatch, possibly from a grain store at this level.

Wall 2: Wall 2 has a blocked original doorway (D3) at ground floor level W: 1.03m H: 1.8m) and a blocked window at 1st floor level in the centre of the gable (W2- not possible to measure). A rattle on the gable suggests that at some point there has been a lower pitched- roofed building set against this gable- before this part of the steading was built.

Wall 3: There are a series of six sets (the central set is doubled) of sandstone corbels projecting 250mm from the outer face of the wall at 2.43m above present ground level. These do not project inside the building. Although they had been utilised by an infill building (demolished prior to the survey) between the mill and the steading, this does not appear to have been their original function and they may be an earlier feature of the mill, possibly an earlier lean- to.



Illus 19 Mill wall 3 showing corbels

Wall 4: The S gable had a window at 1st floor level (W1- not measured) with very roughly dressed sandstone rybats. The upper part had been glazed with wooden slat ventilation below – this is like the windows in the steading and is likely to have been a re-fenestration within the original opening. At ground floor level there is a cart door. This has clearly been widened on the LHS (bricks) and raised and now has the remnants of a door on a metal runner. This has totally obscured any earlier opening- but it is probable that there was a cart door at this point in the original building.



Illus 20 Mill wall 4

Roof: The roof is slatted and has been pierced by two modern ventilators constructed of asbestos and corrugated plastic. An original feature of the roof is the sandstone skewes at the gables- the use of skewes is not seen elsewhere in the steading and again may indicate an earlier date. The present slates may be a replacement.

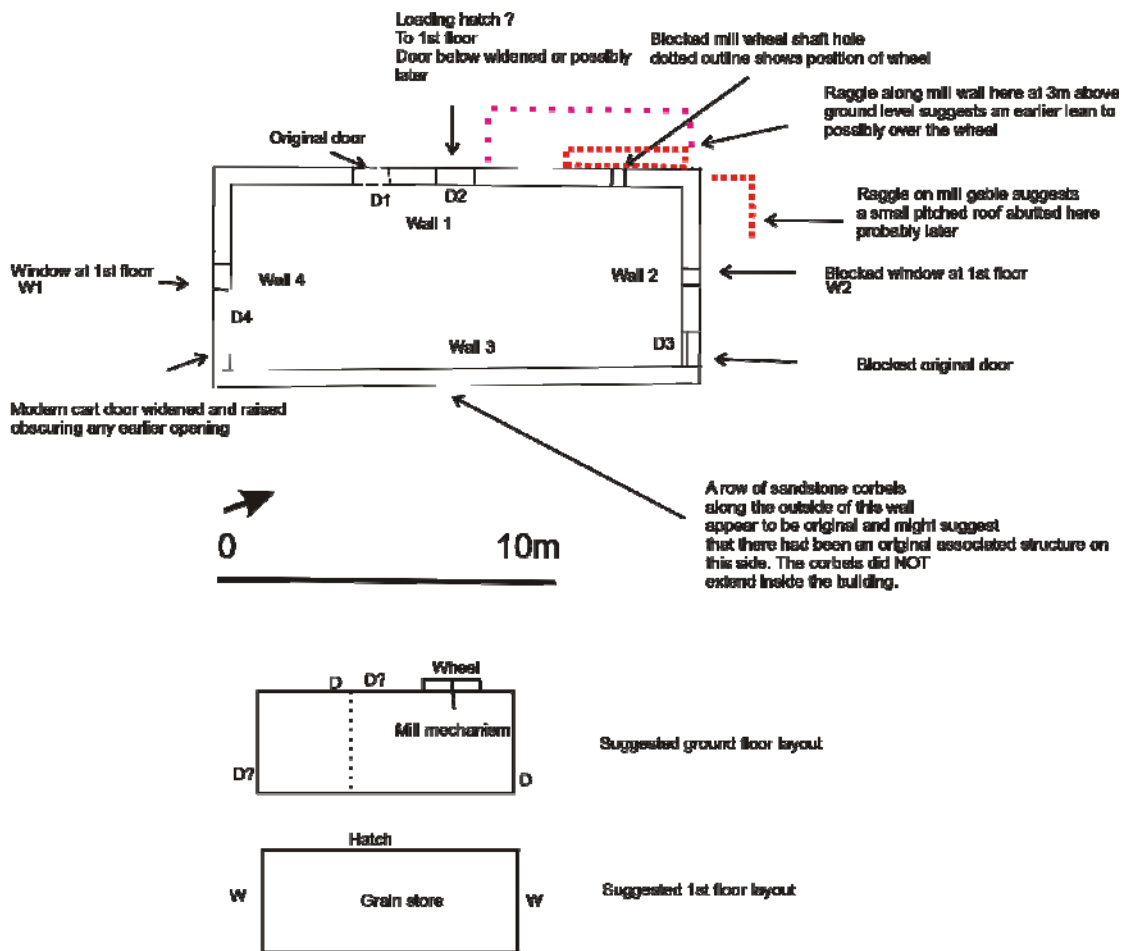


Illus 21 Mill Detail of S skew

Internal : No internal details could be recorded- partly due to the extensive later structure within the mill – but also on safety grounds.

Original use: Mill- grain mill.

Present use: Most recently a grain store, probably with drier and bruiser.



Illus 22 Annotated plan of mill

5.4 The Gamekeeper's steading

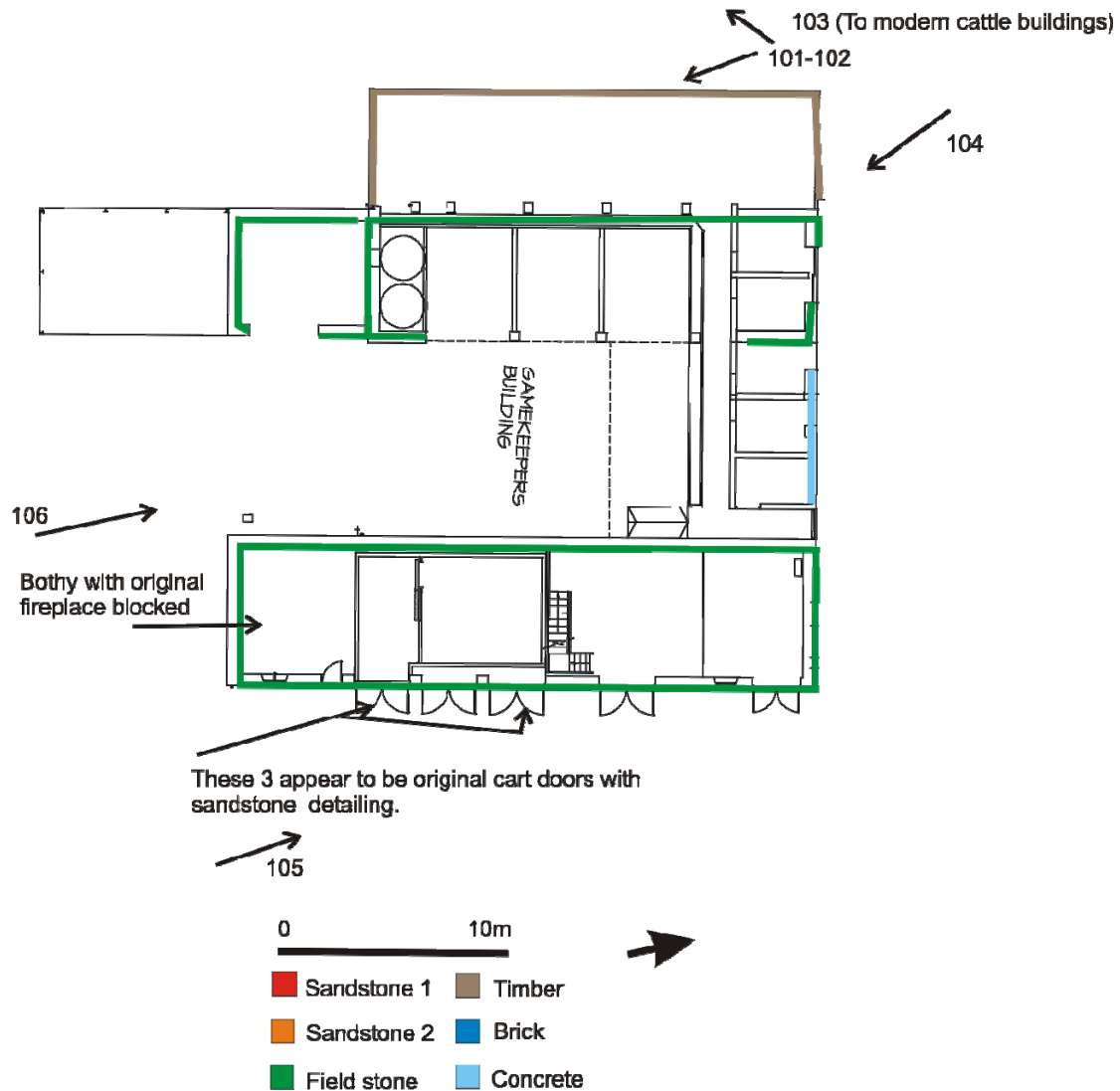


Illus 23 Gamekeeper's steading (Original S range)

The steading in use at present by gamekeepers is not part of the present development and was not surveyed in detail. However as it appears to include elements of the S steading shown in the 1850 Estate map it has briefly been considered. The original surviving features are two parallel buildings (green on plan) built of field rubble with sandstone used as detailing at doors and windows.

Of particular note are three cart openings at the S end- which appear to be the original openings with semi- shaped sandstone at the sides and long sandstone lintels. The room at the S end was originally a bothy- the fireplace still visible inside.

It is possible that this was originally the steading for carts and stabling for farm horses- although this is speculation.



Illus 24 Annotated plan of gamekeeper's steading with photo numbers

6. Development of the Buildings

pre- 1850

Balnakettle (spelled Balnakettle) is shown on Roy's Military map of 1747-55 (www.scran.ac.uk). At this point a building is shown within a rectangular walled enclosure.

The mill appears to be the earliest surviving building on the site. The survey evidence suggests it was originally freestanding. The re-used date stone in the bothy (1797) may have come from anywhere but perhaps it is most likely to have been used from the original farmhouse. This could perhaps indicate that the mill building may also be of late 18th century date.

1850-1868

The earliest documentary evidence comes from the 1850 estate map and the 1st edition 1868 OS map. By this stage the mill is attached to the N steading and the S steading has been built. The N steading from the survey evidence would appear to have been used for cattle with an open dung court and it is suggested that the S steading range may have been used for carts and farm horses. The curved corner beside the mill is odd but appears on both maps – it is not shown on the survey evidence but there is considerable evidence of phases of rebuilding of this NW corner. The position of the mill and the lade from the mill pond fits the evidence of the survey. The bothy did not exist at this point although other buildings are shown further to the N.

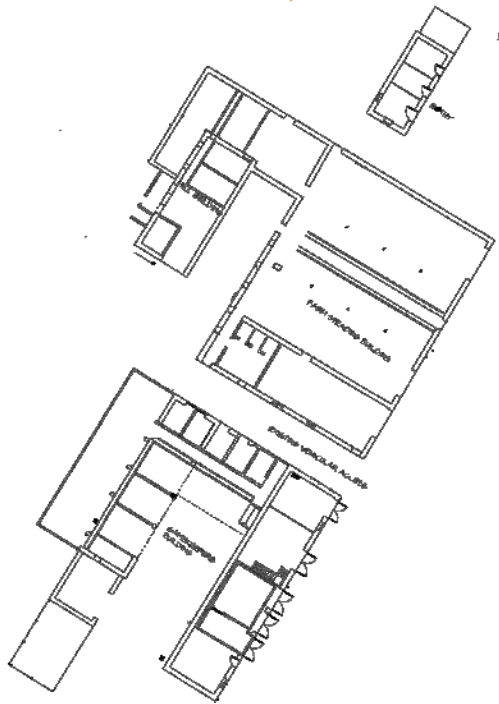
Late 19th C/ early 20th C to 1904

During the second half of the 19th century the open court of the N steading range was filled in and roofed and the gap between the mill and the steading also roofed.

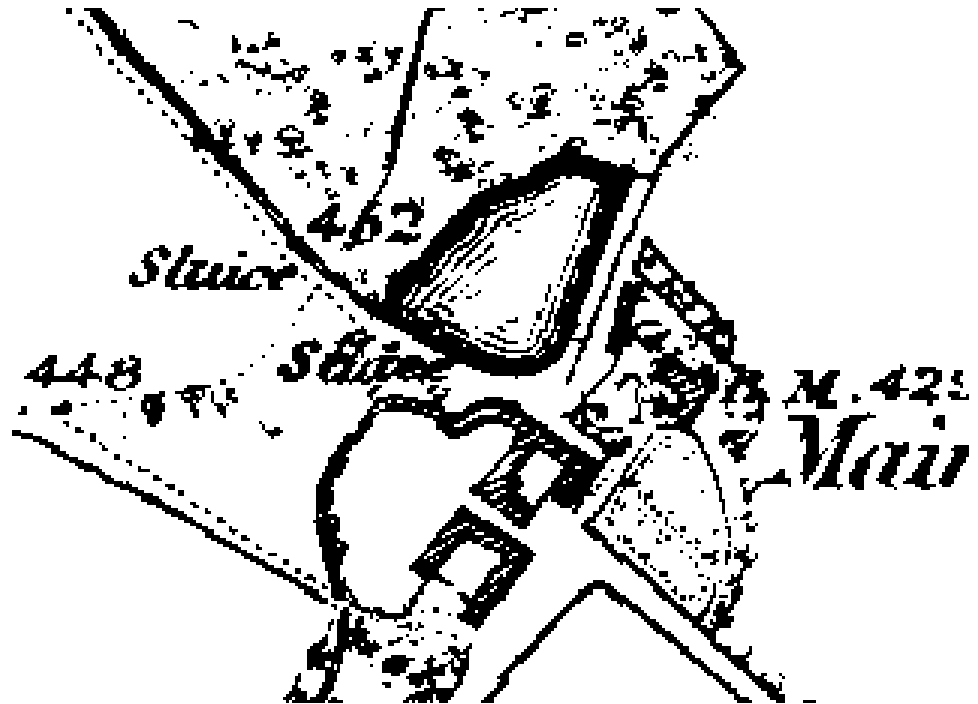
The S range has similarly been filled in. The bothy has been built to the N of the mill. The similarity of the treatment of the doors and windows in the bothy and those in the N range suggests that there was considerable alteration at this stage with many of the doors and windows replaced at this stage. The vents in the back wall of the N range may have been filled in at this stage or later. The mill appears to have still been in use at this stage and a second mill pond appears on the maps from this point – further N and uphill of the original pond and apparently feeding into it.

Later 20th C

In the later 20th century, the interior of the steading was cleared of internal walls, the roofs being supported on steel beams, the floor lowered and a concrete feeding pass built. It was during this period that many of the doorways were widened and raised. Within this period a complex system of grain stores was built in the part of the steading beside the mill, the grain being fed by augur from the bins into the mill for drying and probably bruising.



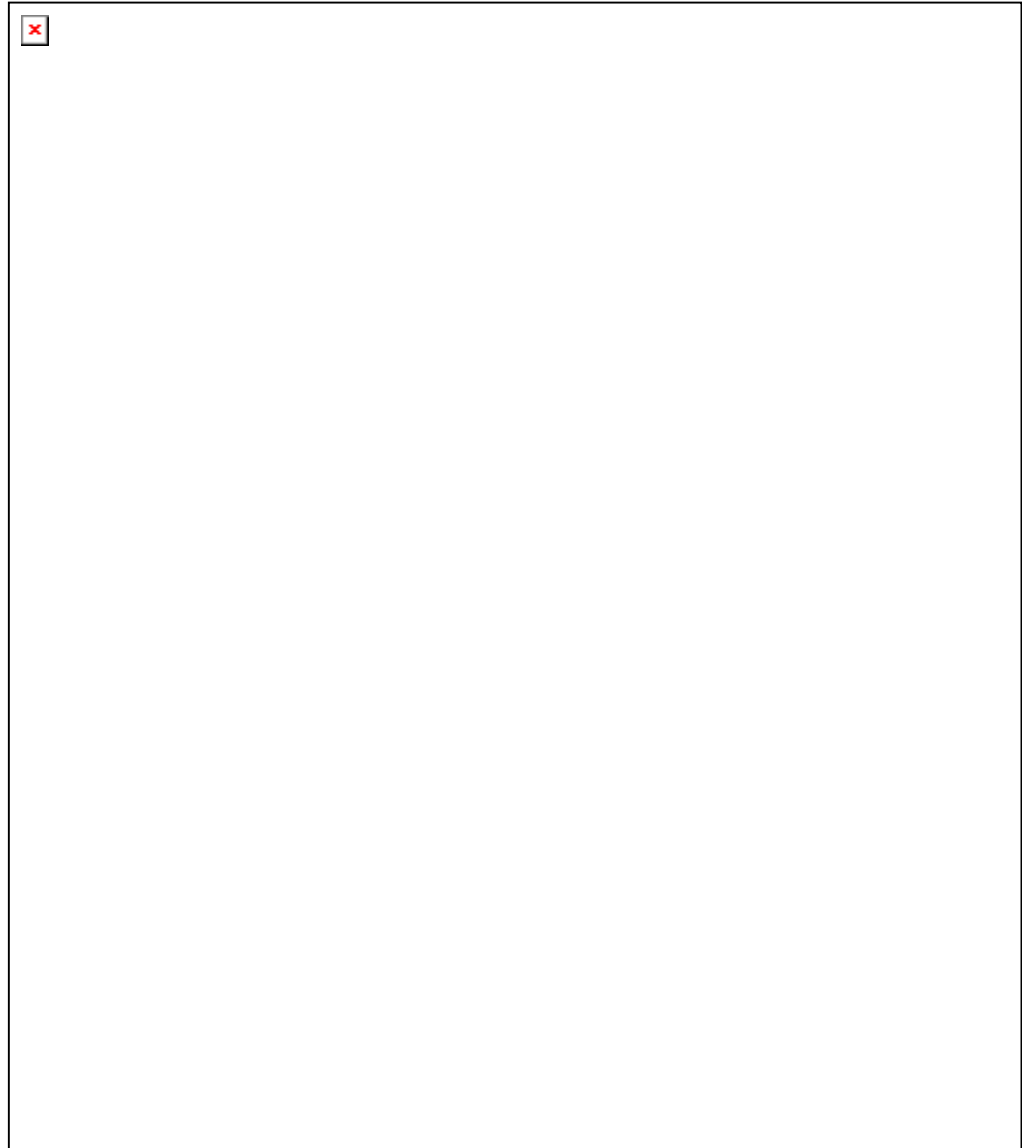
Illus 25 Steading plan (below) compared with extract from Fasque Estate map of 1850 (courtesy of Fasque and Glen Dye estate)



Illus 26 Extract of 1868 OS map (copyright Ordnance Survey)



Illus 27 Detail of 1904 2nd edition Ordnance survey map (copyright Ordnance Survey)



Illus 28 Plan overlaid on 1904 map

Archive

A full set of photographs with the photo location plans will be supplied on CD to the Aberdeenshire SMR and to the RCAHMS SMR.

Photographic list

1-20	Bothy
21-64	Steading N range
65-100	Mill (78-79 Mill pond)
101-106	Gamekeeper's steading
107	Steading N range looking towards house