

PENDLE HERITAGE ARCHAEOLOGICAL GROUP

Wycoller Country Park Landscape Project



A Report on a Survey of Bracken Hill Barn, Wycoller

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A Report on a survey of the Barn at Bracken Hill, Wycoller

Site

- Record no. - AB.01
- Location - Bracken Hill Farm, Wycoller
- NGR - SD 9275 3925
- Altitude - 225m
- Orientation of barn doors - single projecting wagon entrance faces north
- Listing – the barn and adjoining farmhouse are unlisted
- Date of Surveys – 9th March 2013 and 17th September 2014.

Description of Building

The barn is of five bays and is built of coursed, squared stonework with a roof of grey slate sat on purlins and king post trusses (pl. 1 and 2). At a later date a farmhouse with a first floor three light south facing window was inserted into the eastern bay of the barn. This adjoined an eastern extension, which also contained a small cottage on the south elevation. It is not known if the extension and the accommodation in the barn formed one or two dwellings. This is shown on the 1848 six inch OS map and is detailed on the 1893 1:2500 OS map. The roof to the barn was almost certainly raised at this time. A second phase involved a further extension to the east and the reorganisation of the dwellings into one farmhouse, this is detailed on the 1912 1:2500 OS map. In recent times the farmhouse has been extended into the barn to occupy the eastern two bays. At present the building and farmhouse are not used for agricultural purposes.

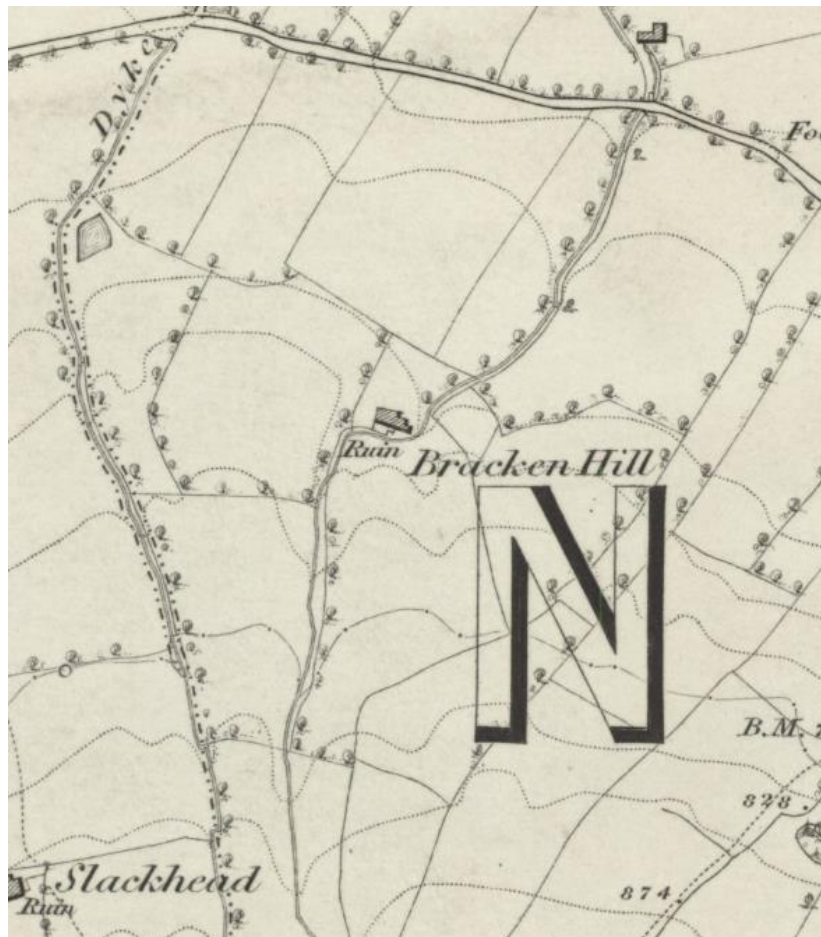
Historical Record

The historic background of the site, together with that of Wycoller, is presented elsewhere.¹

Map regression gives the following evidence:

1st edition OS map 1848 (six inches to a mile)

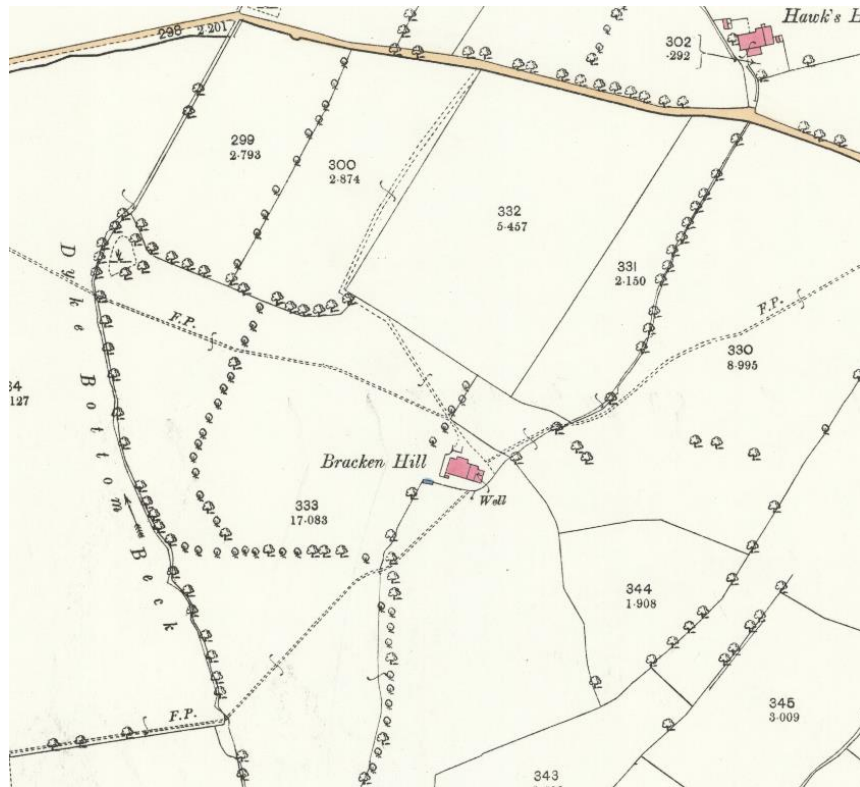
The barn and the attached farmhouse with the primary extension to the east are shown in plan to match the existing. There is also a small extension built on to the eastern wall of the farmhouse which is probably a cottage. The projecting barn doors are not shown



The building is described as 'ruin'. There appears to be a narrow enclosure wall to the south elevation of the barn, which may have been a lean-to shorn of its roof. No access roads, tracks or footpaths are shown relating to the building. Trees are shown to field boundaries. As the building is shown without a reference to it being a ruin on subsequent OS maps, the implication is that substantial repairs would have been carried out sometime after 1848. However, importantly it shows that the building was unoccupied almost certainly due to the drift of people to the nearby towns at the onset of the Industrial Revolution.

OS map 1893, scale 1:2500

This map shows the same outline to a larger scale but the small extension to the east of the farmhouse has been squared off to form an extension to the farmhouse around the cottage. Surviving windows to the building suggest that the farmhouse was used partly for wool or worsted weaving. The small cottage was probably for a farm worker. Some pigsties are shown by the entrance into the farmyard. The projecting barn doors are indicated. A well is indicated within the farmhouse/cottage. Trees are shown in the field boundaries around the farm. An access road is shown from the unclassified road into the village and three footpaths are indicated running up to the building.



OS map 1914, scale 1:2500

The outline of the building is shown as the previous map together with access routes.

Some outbuildings are shown at the end of the access road at the entrance to the farmyard.

OS map 1932, scale 1:2500

This shows the same building arrangement as 1914 but the pigsties by the entrance into the farmyard have been enlarged.

Setting

The building is located in the Township of Wycoler and is situated within Nether Wycoler vaccary (Fig. 4). A watercourse runs close to the western side of the building and a spring issues within a few metres of the south facing wall. The barn itself lies in a hollow with the ground rising up behind it to the south and with a lesser falling gradient to the north. The present road into Wycoler is of relatively late date and it is probable that a trackway ran from the farm to Wycoler and from the farm to Slack and Winewall in a north-westerly direction. To the west a trackway ran to Stunstead Farm and Hill Top and thence to Carry Bridge. Although the land around the former farm is used for pastoral purposes at present, there is much ridge and furrow in evidence. A platform to the west of the building has been explored but nothing was seen; this could have been the site of a former agricultural building.

Plan (Fig. 1)

The barn as originally planned was 17.860m (58'.7") in length and 8.400m (27'.7") in width internally. A projecting wagon entrance 3.400m wide was placed centrally in the length of the building. The structure was built to a high degree of accuracy, there being little variation in opposing dimensions

Within the eastern and western bays stalls were set out for cattle with a hay loft over (those at the western end are assumed, from architectural evidence set out below). There were however, only entrance doors in the north wall. A tall domestic doorway in the later house to the east may replace an earlier southern cattle entrance. To the west a paved walkway 1.560-1.840m wide and laid to falls was set 110mm below the stalls. This walkway, made up of irregular sized stones, widened towards the north entrance door and was edged by a substantial stone kerb. The stalls set below the hay loft averaged 2.700m deep and were floored with large stones. It is assumed that six animals were housed in the stalls. The height of the joists supporting the hay loft were some 2.000m above the paved walkway at its highest point. Three well-formed corbels with a picked finish 350mm deep were built into the western gable wall to support the original loft (pl. 8). One matching corbel was seen, in the house extension within the barn to the east, similarly positioned. It is therefore probable that the stalls were set out for cattle at the eastern end of the barn as well as the west. There was no evidence of an external door into the loft so the hay or other produce must have been loaded directly from the main area of the barn. A small window is set in the south wall to light the loft. The main remaining area of the barn was covered in concrete in recent times and so no evidence remained of its original floor covering. A large doorway was formed in the south wall opposite the wagon entrance; a large stone threshold out of a single piece of material created a step up to external levels.

At a later date a rubble built lean-to, possibly a chicken shed, was constructed in the western angle of the barn door. This can be seen on the 1893 OS map. Also a privy was built against a wall running on the line of the western gable, this is shown on all subsequent maps and relates to the current structure.

External Walls

The external walls to the barn were built of high-quality squared, coursed masonry of differing depths. Several courses in the lower half of the west gable wall and at high level are exceptionally deep. The facing stones were dressed to an even face and some tooling was visible; this is clearly visible to the western section of the south wall. Large quoins with a picked finish are built into the external angles. The internal face of the wall was similarly finished. The inner and outer leafs of stonework do not appear to have been tied

together in any meaningful way. This could have allowed some movement in the fabric necessitating the building of a substantial buttress in the centre of the south wall; some movement can also be seen at the east end of the north wall. The buttress was constructed sometime between the issuing of the 1912 and 1932 maps; later in the twentieth century a lean-to greenhouse was built to the eastern side of the buttress and demolished around 2006. In addition the assumed primary trusses (see appendix), due to the large span, are likely to have imposed considerable stresses on the external walls. There is evidence of the raising of the roof in the differing masonry of the top three courses, in particular to the south wall, this would have been brought about when the roof form was altered and the present trusses inserted (Fig. 3).

Doors with large monolithic stone lintels and chamfered heads and jambs gave access to the cattle stalls at the east and west ends of the north elevation. The lintels to the easternmost and westernmost doors on the north elevation formed a quoin to the corners of the barn (pl. 6). Two lintels are set over these and other openings bearing on the inner and outer leaves of masonry. An exceptionally large lintel is set over the south doorway into the barn (pl. 4), this doorway appears to have been widened. On the north elevation these openings flank a central projecting wagon door with projecting wing walls of 1.780 m to each side. The hanging stile to the wagon door at present is mounted on a pivot block at its foot and retained at its head. Corbel blocks are present to each side of the opening on which a course of masonry has been set so raising the height of the opening together with the roof. A single vent at high level in the north wall opens into the loft. Four vents were formed in the western gable wall at low level to the cattle stalls (pl. 5). One of these remains extant and is finely made being 590mm high and 220mm wide externally with splayed jambs and head and measuring 520mm and 110mm internally. The vent opening splays into the barn to a width of 650mm. The remaining three have been enlarged. Two small square vents and one larger rectangular one are formed in the gable wall at hayloft height. A larger vent, with internal splays, is formed on the line of the ridge at high level.

The Roof (Fig. 2)

The roof over the barn and adjacent farmhouse is continuous and covered in grey slate with stone ridges. The bases of two much eroded finials are positioned over the two gable walls to the barn. The spars are underdrawn so their size and description is unknown. These bear on three purlins set on each side of the principal rafter of a truss. Four trusses are placed within the barn constructed to a pitch of approximately 35 degrees. The two oak trusses to the extant barn are king post in form with two raked angle struts set to either side of the central post (pl. 3). The tie beam is chamfered on its lower edge with the king

post and braces chamfered on all edges complete with stop ends. The truss members are substantial with the tie averaging 485mm by 280mm and the king post 185mm by 123mm. The king post and braces are tenoned into the tie beam. The trusses are marked in many instances with carpenter's assembly marks, i.e. the westernmost truss is identified as IIII with the number identified numerically. Some of the timbers are suffering from an attack of woodworm and their surface appears to have been lime washed. The two trusses in the extant barn, with one exception, bear on corbels formed out of diminishing stepped courses of stone. The bearing of the truss closest to the north barn door rests on a timber block (possibly part of an earlier truss) set on a well-formed corbel. The two trusses to the east (within the portion of the house extended into the barn) are of oak. These are of a later date and do not have chamfered edges.

From the evidence of the raising of the external walls it is almost certain that the original form of the trusses differed from those now extant (see appendix). The insertion of the present trusses would have involved the raising of the external walls by approximately 450 mm in order to accommodate the present arrangement of roof timbers. This is supported by evidence to the interior of the north wall where a wall plate can be seen positioned two courses below eaves level (pl. 7).

The raising of the external walls would appear to have coincided with the building of the primary farmhouse and its extension into the eastern part of the barn. The three light weaver's window within the barn can be seen to butt up to the raised masonry of the external walls suggesting that the work was carried out at the same time.

In view of the position of the wall plate it is quite probable that the original roof form had a steeper pitch with a simple truss bearing on the projecting corbels. It could be that the outward movement close to the centre of the south wall was due to the steepness of the original roof pitch and the lack of tie between the principle rafters of the truss. If this was the case the roof covering could have been thatch (which requires a minimum pitch of forty five degrees) or some other alternative to grey slate. It is probable the series of projecting corbels presently below many of the trusses was an attempt to reduce the lateral thrust being applied to the external walls at high level by the original trusses.

Discussion

The barn, being of substantial size, was built to a high quality of workmanship using the best materials available. This is reflected in the high degree of dimensional accuracy in

the setting out of the building. Such a combination of factors suggest both wealth and high status.

Unusually the external walls of the building are constructed in coursed squared masonry with a roughly dressed face and tooling evident in certain areas. The coursing both internally and externally is of random depth which averages 200mm in depth. However, several courses to the west elevation are built of large squared masonry some 360mm in depth. This quality and size of masonry is unusual and is matched by similar stonework at Parson Lee barn where it can be seen at high level on the south elevation. The size of the lintels to the door openings is very large being much larger than required to span the opening; that of the external lintel to the door to the centre bay in the south elevation is 650mm deep by 2 630mm long by 300mm wide. The weight of these is considerable with the estimated weight of the lintel to span the latter being in excess of a ton. Such a size of lintel would require the use of a hoist of some form to place it in position. The high quality, consistency and finish of the corbels suggests that these are reused from another building (pl. 8).

The size of the span at 8.400m is close to the maximum, which can be achieved with a king post roof and also reflects the maximum length of timber which would have been available for the tie beam. A dimension of this nature would have required a tree in excess of 16m high. Unusually the four trusses to the barn do not match although of oak. The preferred structural timbers available locally in the early post-medieval period would have been oak. These trusses are almost certainly replacements for the original trusses and could reflect the renewal of the roof where two trusses were reused from another building and two new matching trusses were supplied. From the evidence it is likely that the primary trusses would have been set at a steeper pitch with a different configuration. It must be remembered that if new trusses of a different pitch are installed then the profile of the gable walls will also have to be adjusted and in this case lowered. There is evidence of the pitch being altered to match the pitch of the present trusses at the internal face of the masonry to the west gable wall, which is unfinished against the underside of the roof covering. It can also be seen externally where in the sixth course below the ridge a large block has been cut to size.

The degree of accuracy in the setting out of the building considering its use is surprising. The span of the barn at the west end is 8.400m and at the centre by the main barn doors is 8.450m.

The barn at Parson Lee, Wycoller bears similar resemblance in design and size to that at Bracken Hill. This can be seen in the use of monolithic lintels, similar small areas of squared stonework with deep courses, roof finials and tellingly an almost identical span of 8.390m. It is probable that some of the masonry is reused from a high status building as also can be seen in the reuse of the finials to both barns. There is a link between Whalley Abbey and Parson Lee which could suggest that this stonework came from an ecclesiastical location.² The trusses at Parson Lee however, have been replaced and are now a queen post type; the external walls have also been raised to accommodate the trusses. The barn at Pepper Hill, Wycoller although of later date, has also an almost identical span.

The provision of housing for cattle and the storing of hay suggests that mixed farming was taking place around the period of its erection. The siting of opposing doors in the central bay further suggests a threshing floor and the growing of barley and oats. There is evidence of a possible stylobate positioned to the east of the central south door. This could suggest an earlier timber dwelling, possibly with a cruck frame built to the side of the original high quality stone built barn. It also indicates that a principal house, which it may have served, was sited elsewhere.

It is suggested that the primary barn could well date to the middle of the seventeenth century. It is possible that the roof was raised when the barn was restored around 1775 and it then fell out of use in the later part of the century becoming ruinous. It is strongly recommended that further detailed research into the barn should take place and if possible a dendrochronological date obtained. It is a building, in our opinion which should be included on the statutory list of Listed Buildings.

Notes

1. Bentley, John, 1975, *Portrait of Wycoller*, Nelson; Folley, E. W., 2004, *Romantic Wycoller*, Nelson.
2. The deeds held by the present owners of Parson Lee farm refer to the sale of the farm in October 1772 to Henry Owen Cunliffe from Whalley Abbey. No further details are given as to the identity of the vendor. The property is one of the first bought by Cunliffe when he arrived in Wycoller in the summer; the purchase price was £840.00.

Appendix

An assessment of the primary roof configuration (Fig. 3)

From the existing site evidence, both the barn at Bracken Hill and that at Parson Lee, Wycoller had the same primary roof configuration. This is shown in the presence of projecting stone corbels on the internal face of the external walls some short distance below the top. At Bracken Hill the present trusses rest on corbels made up of a series of projecting courses; the top of the corbels does not correspond in some cases to the original, whose position cannot be verified with certainty. The corbels of the barn at Parson Lee appear to be of similar heights, although the levels have not been checked. The drawn reconstruction is based on evidence from Parson Lee Barn with a wall plate shown in the position as seen at Bracken Hill.

It is possible that the primary roof was covered in thatch rather than slate. The roof covering is shown with this material; if it were incorrect and stone slate was used the pitch would have been in excess of thirty five degrees and the slates laid as shown on the accompanying drawing. The pitch of any roof is determined by the roof covering and exposure. Generally speaking, the smaller the unit of roof cover then the greater the exposure, the steeper the pitch. Thatch requires a minimum pitch of 45 deg. in a sheltered position; this has been assumed in the reconstruction where there is evidence of a steeper primary pitch.

It would appear that when the roof was replaced with the present arrangement, the roof trusses were placed on the top of the existing walls (pl. 7). The external walls were then raised to cover the ends of the truss where they rested on the wall and to allow the spars to bear on the top of the external wall. These raised sections of walling can clearly be seen internally and externally at both barns. The primary roof form would appear not to have incorporated a tie beam placed at the bottom of the principal rafters with these rafters bearing on a shaped bottom member bearing on the corbels. This member could have been adjusted in height to take up any variation in levels. A tie would then have been placed at around first purlin height with a possible additional set tie higher up.

Acknowledgements

Grateful thanks must be extended to the owners of the barn Mrs E. Jolly and Mr J. Staton for allowing unlimited access to the barn, together with other members of the Archaeology Group who participated and are not mentioned elsewhere.



Pl. 1 South Elevation showing farmhouse and former cottage to the right..



Pl. 2 West elevation, note differing depths of stone courses.



Pl. 3 Detail of roof truss



Pl. 4 Detail of barn door to south elevation



Pl. 5 Detail of vent to west elevation



Pl. 6 Detail of side door to north elevation, note the size of the lintel



Pl. 7 North internal wall showing wall plate and projecting corbels.



Pl. 8 Corbel detail showing picked finish

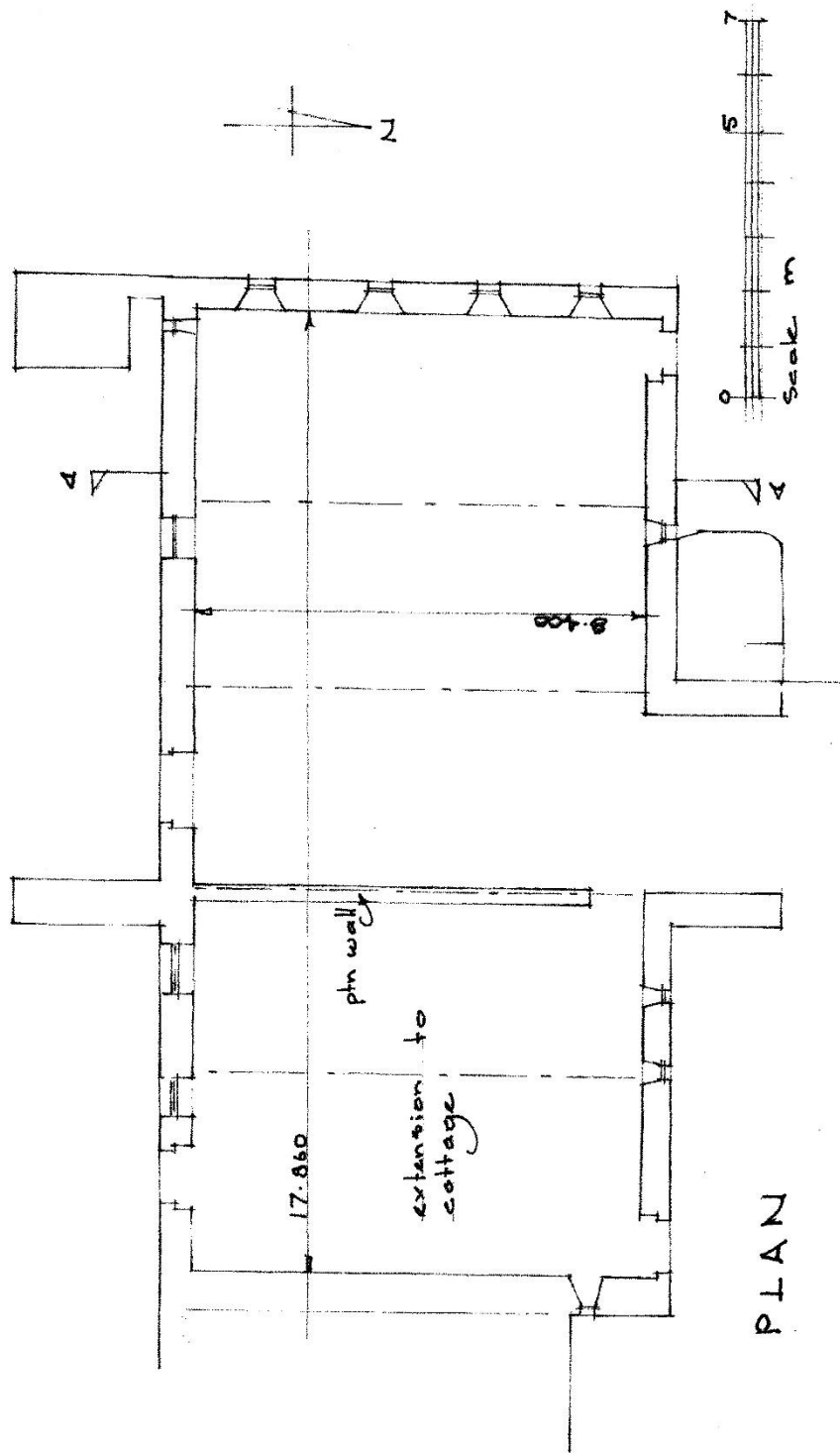


Fig. 1 BRACKEN HILL BARN WYCOLLER

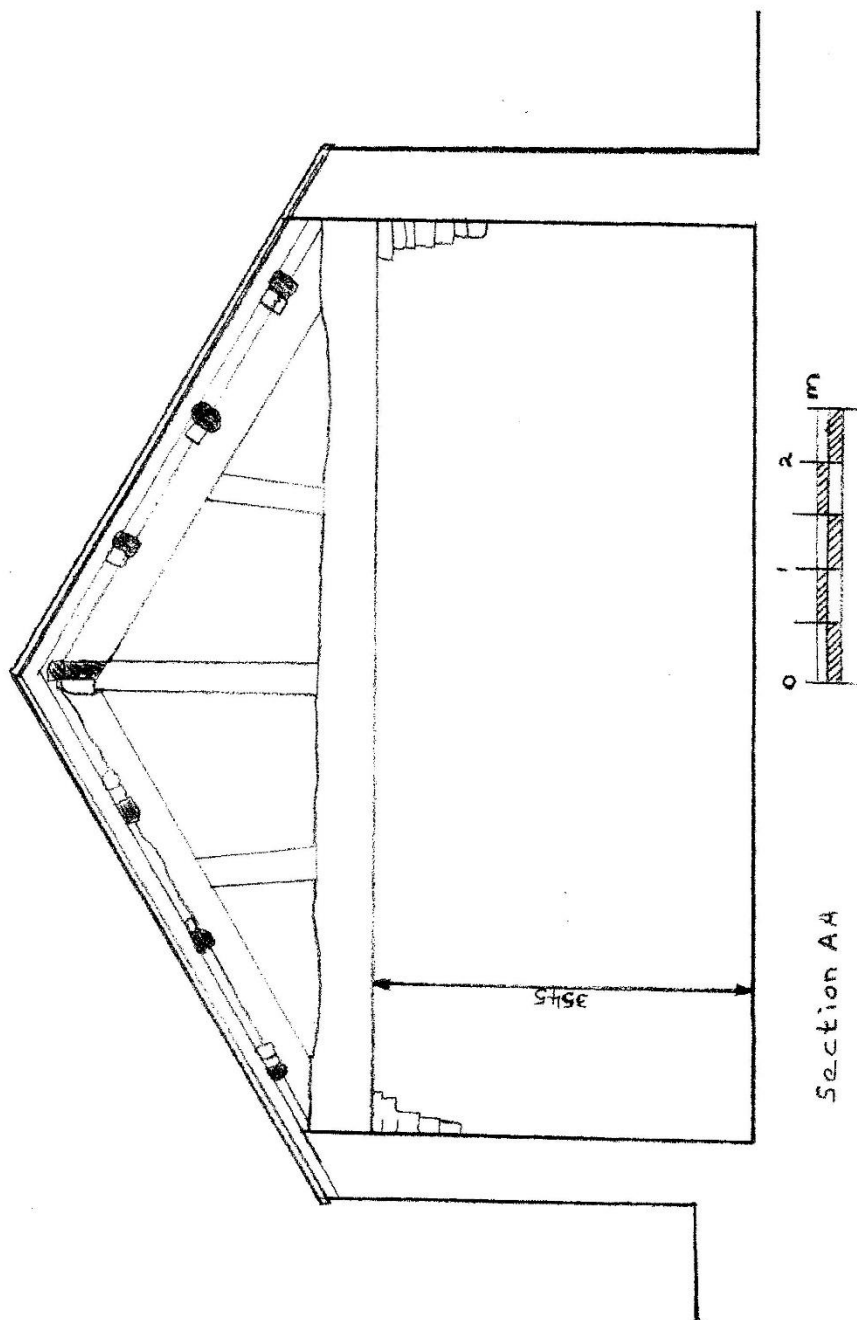


Fig. 2

Bracken Hill Barn Wycoller Scale 1:50

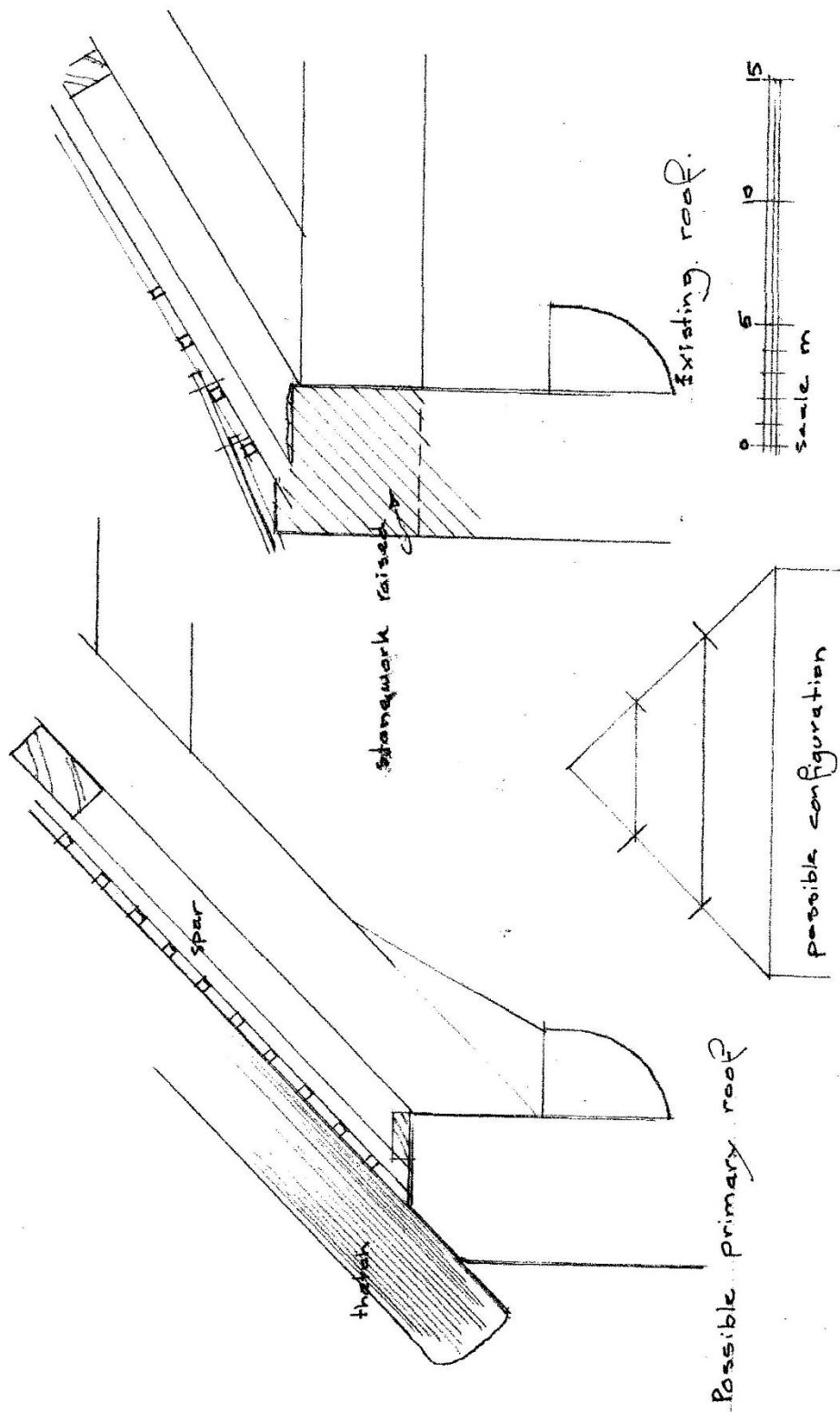


Fig.3 BRACKEN HILL BARN WYCOLLED
EXISTING AND POSSIBLE PRIMARY ROOF ARRANGEMENTS

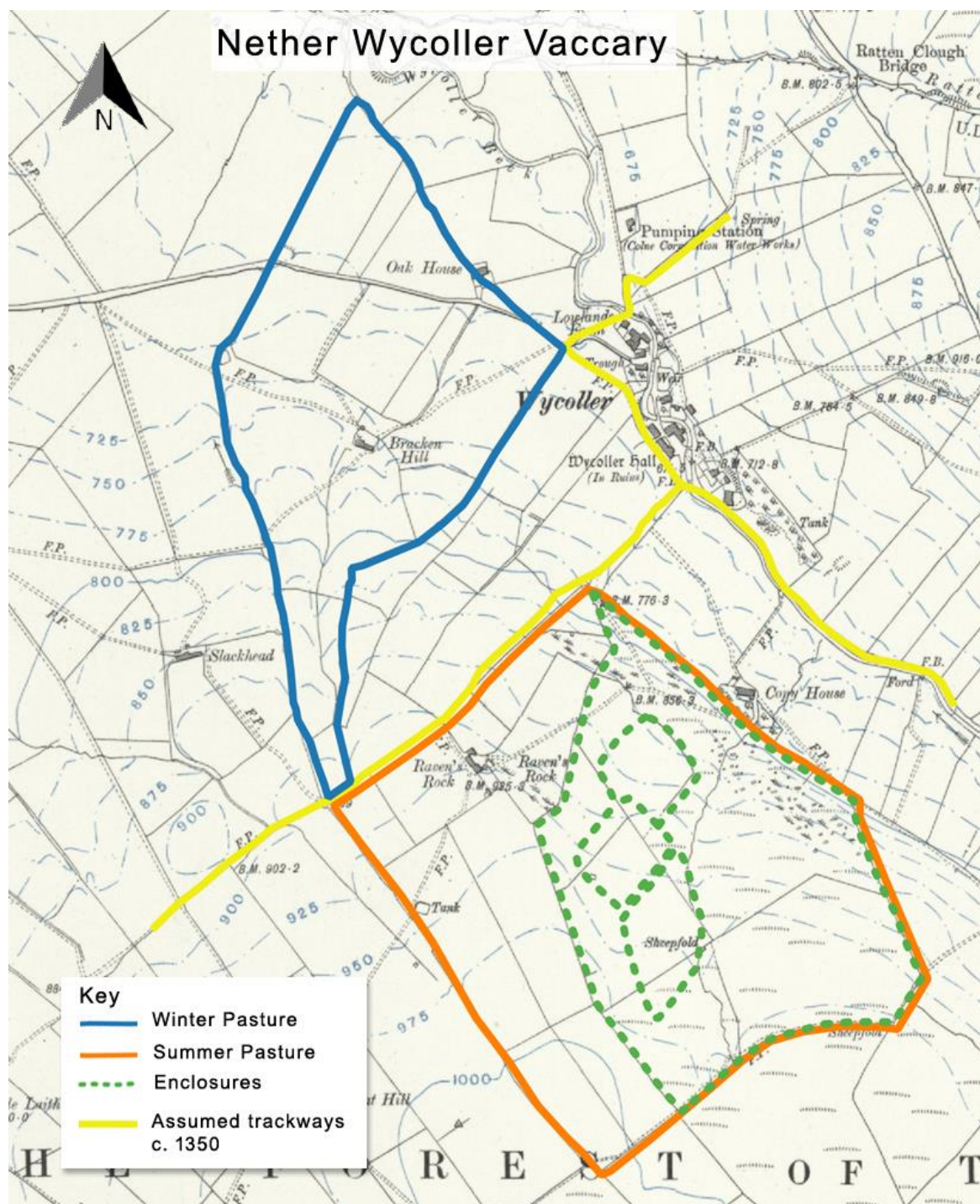


Fig. 4 Postulated disposition of the Nether Wycoller vaccary.

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