Brows Pasture Chapel-le-Dale

Update

(And details of associated Monastic Boundaries)

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This is an update to our previous research report (Batty A, Crack N, 2013) and incorporates our interpretation of information obtained from an archaeological excavation undertaken by David Johnson in 2012 (Johnson D, 2013). Any references in this report to evidence obtained by excavation are from this source.

The investigation covers three rectangular stone based structures; Structure 1/Area 1 (Fig 2) and Structures 1, and 2/Area 2, (Fig 3). The splitting of these two groups of structures into two areas is not meant to imply that they are two separate farmsteads. There is no clear evidence from enclosure remains on the survey (Fig 1) or excavation that they are two separate farmsteads, unlike the two sites in Clapham Bottoms that have clearly defined associated field systems (Batty A 2011). However, even these may not be individual farmsteads but are probably more likely to represent different agricultural stock or crop regimes. A cross-section of the NW side of the valley (Fig 7) shows the elevation relationship between the different feature locations.

Excavation - Trenches and Finds.

There were four trenches excavated in Structure 1/Area 1. These revealed areas of paved floor and an area of burning, possibly a hearth, at the NE end. A tang from a knife, a piece of clinker and charcoal remains were also found in two of the trenches. Previous to this excavation the authors had found an angle backed knife within this structure,

One trench was excavated in Structure 1/Area 2 revealing areas of stone paving, an angle backed knife and charcoal remains.

One trench was excavated in Structure 2/Area2 which showed the floor to be less clearly defined. Several informative items were found, including slivers of burnt animal bone and clinker remains, possibly resulting from metalworking, and charcoal.

A trench was also excavated in the entrance to the small enclosure surrounding Structure 2/Area 2 that showed the entrance to be paved.
Interpretation of Structure 1/Area 1.

There is always one question that is uppermost in the mind when interpreting structural remains. What were they used for? Domestic dwelling, livestock housing, storage etc. We have found evidence for a large number of rectangular structures with small areas of burning around outer walls, a relatively common feature, and one which has enabled us to date many sites to the Anglo-Saxon period. One point that must be emphasised is that the presence of hearths should not be used as definitive evidence of domestic habitation. There are many reasons within an agricultural context for areas of burning in buildings, especially against outer walls e.g. heating cauterisation irons used for castration. Softening salves used for salving sheep, heating veterinary potions, and burning plants/herbs for warding off insect pests. These are a small example of the uses that we have practical experience of and, more often than not, the hearths were placed near doorways. However, it must be noted we may never know the purpose or extent of the numerous, small hearths found within Anglo-Saxon buildings.

Floor.

Here there is evidence for some of the floor being roughly paved but having large gaps between the paving. This raises the question of why is the paving not laid with tighter spacing? Floor designs are probably related to the activity taking place upon them. The floor in this structure appears to have no more than a 50% cover of paving stones, but if an area within this floor was found to have an 80% to 90% cover this may indicate that a different function was taking place. For example, you could have a building with a pathway down the centre with fitted paving or areas down either side with widely spaced paving. An example of a fitted paved path down the centre of a building can be seen at Simy Folds (Coggins D, 2004).

There can also be features built into floors for example, drains both covered or uncovered, work areas and hearths. No drain was found at the down slope end of this building, where you would expect one to be, had it been deemed necessary. There was also an area of burning in the corner at the NE end. This would suggest that the floor design may be more likely to represent sheep housing, with the open paving acting more as surface stabilisation and covered over with a bedding of rushes or bracken. Heather would not be used as this becomes entangled in the wool. The sub-surface geology underlying this structure is ideal for drainage purposes and is probably the reason why there is no evidence of a drain. The gaps between the paving slabs are also
ideal if you need to create individual pens as, the vertical timbers in a wattle hurdle could be driven into the ground between the pavings, or one of the pavings pushed aside. There does not seem to be any logical reason why this type of floor would be used in a domestic dwelling. The floor would not be easy to brush clean and differential wear would be created between the interspersed stone and earth surfaces. The earth gaps would wear down much quicker creating grooves that would not be practical for domestic use. In that setting having a tightly jointed paved floor, or a rammed, hard-earth floor are both preferable to the one present here, with the earth floor being rather warmer than the stone option.

Wall Construction

The overriding questions about the wall concerns the height and the construction methods. The approximate width of the wall remains on the Brows Structures is 1m (Plates 4 and 5) Many Anglo-Saxon buildings have been excavated further south in the country with only a few in the north and there is considerable evidence for these being built with timber uprights and timber boarded walls. There are examples of several structures built to this design at Thirling in Northumberland (O’Brien C, Miket R. 1991) and also at Yeavering Bell (Hope-Taylor, B K 1977). The residents at these locations may actually be full-blooded Saxons, a premise we are unable to ascertain in our area, and this fact alone may create cultural differences resulting in different building techniques. Combined with the different geological and topographical location this makes it pointless to transpose their constructional methods onto the Brows pasture site.

On the radiocarbon dated sites the quantity of stone remains are very similar. Some are in locations where you may think stone robbing could have occurred, and some are located where it would be unlikely, but obviously stone robbing could occur anywhere. There is no evidence that the walls were raised using turves. If this was the case you would expect the remains we see today to have a large depth of earth covering the stones and we do not know of anywhere in the local area where this applies. Excavations carried out to date confirm this to be the case. There is no evidence for timber walls, and it must be born in mind that in the locations mentioned above, all have timbers down to the ground with no stone base wall, only packing stones. Having said all this one must be mindful of the old adage “Absence of evidence is not evidence of absence” - you only have the evidence available at any given time.
Evidence from the structure of the walls, and the amount of stone present today, probably represents the amount that was used in the original construction. The NE gable wall remains of Structures 1, 2, and 3 are all very slight and do not suggest that there was a stone base identical to the side walls and SW gables. The gables may have had two vertical posts, with the top of these attached to a cross beam forming an access door, the rest of the gable being filled with removable wattle panels for ventilation, or increasing accessibility. These slight remains may be stones placed at the base of the panels to increase stability at the point of pressure created by livestock within the building. It is assumed that these buildings would be used for housing livestock in winter and for stock management in summer. This probably adds validity to the idea of removable panels in the gables allowing them to be closed off in winter and open in summer.

Construction of Roof.

The evidence suggests to us that the roof has been constructed on a low stone wall base, possibly no more than 1m wide 1m high the drawing Fig4 shows the proposed reconstruction. There are no vertical posts shown supporting the roof apart from those used in the NE gable as described above. This is based on the fact that there is no evidence for post holes within the structures and there has been no excavation across any of the NE gables. Taking into account the thin soil layer which has been subject to bioturbation, and the underlying Karst geology, both of these create problems when trying to identify post hole remains. Unfortunately, almost all the sites surveyed and those excavated in our area are on this type of ground,

The drawing in Fig 5 shows spars running up from the centre of the base wall to a ridge (Fig 6) going from the top of the SW hipped roof section to the NE gable end where the end spars are supported by the vertical posts and cross timber. We have shown cross members below the ridge tying opposing spars on either side of the roof together, in effect creating an A frame, that adds considerable strength to the roof and compensates for the possible lack of vertical post support.

At the SW end there would probably be a hipped roof reducing wind resistance and making wind damage more unlikely. The NE gable, as previously described, can be infilled to stop the wind blowing into the structure creating uplift and thus causing roof damage. Thin, branch timber would be woven in and out or fastened across the spars to support the roof cladding.

When considering the type of material used for cladding the roof, there are several
options; turves or flaws, rushes, bracken, heather and possibly furze (gorse), or a combination of types. If turves were used this would add considerable weight to the roof probably requiring stronger supporting timbers. Trials carried out at Butser Iron Age Farm (Reynolds P J 1979) found that a small structure roofed with turves collapsed within months, but if a fire was burning continuously inside it survived considerably longer.

It has been the practice in more recent times for turves to be used as a base layer overlaid with different thatching materials. Trials carried out with rush thatching on a roof pitch of 45 degrees or more shows this is sufficient to give weather protection for three to five years. An example of this type of construction is shown in (Plates 1 and 2)*. Calculating from details of a round-house reconstruction the weight of rushes needed to thatch a structure 16m x 6m is approximately 2.5 tons. Today we expect a new roof to last a lifetime, it is more likely that in the Anglo-Saxon period general repairs were a task that fitted into the yearly routine and any roof covering that lasted 3/5 years, with intermittent repairs, was probably acceptable, especially if the material was freely available.

The drawing (Fig 5) shows a possible reconstruction of the junction where the roof meets the wall, with turves placed on the roof under the thatch. There are two sound reasons for proposing this method of construction. First, it protects the interior, underside of the thatch from livestock damage and, secondly, the turves add weight at the base of the roof, helping to anchor it down into the wall where stones placed over the roof timbers are also adding weight. The drawing in Fig 6 shows the proposed construction of the ridge A frame the location of the horizontal timber is obviously adjustable up and down.

Assuming that the roof is sitting on a low wall makes the headroom inside the structure very low at eaves level, creating problems if cattle were housed. A barrier around the interior of the structure would be needed to keep their horns away from the roof and would considerably reduce the usable, internal area.

Unexcavated Structures 2 and 3/Area 1 appear to have many similarities to Structure 1 in the same area and there is no reason to believe they should be interpreted any differently. They have been surveyed with a gradiometer, the plots provide evidence that small hearths or burnt stones may be present.

* Image taken from www.millennia.f2s.com/building.htm - see bibliography
Interpretation of Structure 1/Area 2.

Area 2, is situated beneath a steeply sloping limestone scree, and is in a more sheltered location than Area1. Structures 1, and 2/Area 2 are connected by enclosure remains (Fig 3) that continue NE from the end of Structure 1 to a water supply. A considerable amount of stone clearance has taken place on this area of Brows Pasture and a large amount of it has been deposited adjacent to the NE gable-end wall of Structure 1 this gable has substantial wall remains approximately 1m wide, and probably suggests that the roof was hipped. There does not appear to be any reason to believe that this structure was constructed differently to those previously described. The paved floor area has a striking resemblance to those excavated in Structure 1/Area 1. An angle backed knife was also found identical in design, but slightly smaller, than the one found by the authors in same structure.

Interpretation of Structure 2/Area 2.

This structure is positioned to the SW of Structure 1/Area 2, below a continuation of the same scree slope (Fig 3). The structure is within a small enclosure, possibly a kitchen garden, that abuts the scree slope beyond its NE and SW ends. There is an entrance into this area at the southern corner which was excavated and shown to be roughly paved. The entrance into the main structure is difficult to define. We tend to think this may also be located in the southern corner being the shortest distance between this point and the entrance into the enclosure. On the outside of the enclosure and adjacent to the entrance are two smaller, and less substantial, rectangular remains (Structures 3 and 4). Their location and more fragile appearance is suggestive of small livestock housing or enclosure. Being near the supposed dwelling this would make it a logical site for livestock that would be subject to predation and an ideal location for a guard dog.

The excavation within this structure exposed a section of the NW, and SE wall, and the NE gable wall. There was only a very small amount of stone tumble within the structure suggesting that the wall remains may represent approximately the height when originally constructed. There was a considerable number of small finds within the excavation trench consisting of charcoal, smithing deposits, clinker. bone remains of sheep/goat, burnt mammalian bone and various tooth remains. The floor surface appears to be indeterminate but not the same construction as Structure 1/Area 1. There is no reason to think that the construction of the roof would be any different, apart from the gable ends, both possibly being hipped.
Radiocarbon Dating.

The radiocarbon dates from Structures 1, and 2/Area 2, are approximately 100 years later than Structure 1/Area 1. This difference in the dates cannot be used with any certainty to suggest that Structure 1/Area 1 is older as radiocarbon dated charcoal from hazel may vary by 70 to 80 year as this represents approximately the life span of hazel and the possible difference in age between the earliest tree ring formation and the last. Hazel that has been coppiced can have a stool which is several hundred years old and if some of this was burnt on a fire the discrepancy in the dates could be even greater.

Conclusions.

In this paper we have concentrated on interpreting the excavated structures. There are several others about which we have no detailed information other than geophysical survey results and any statements about Structures 2, 3 and 4/Area 1 have to be based on these, and drawing comparisons regarding similarities of the visible remains. Structure 4/Area 1 is a sunken feature with visible wall remains and is unlike any other in either Areas 1 or 2, and without excavation it is impossible to make any meaningful interpretation of this. As the visible remains and geophysical results of Structures 1, 2 and 3/Area 1 are very similar it is considered that these are possibly of identical construction but may have different purposes. It is our view that they are probably related to the management and housing of sheep as they all open out into the large enclosure which appear to take in both areas 1, and 2 (Fig 1). Having structures with very low eaves height would make them vulnerable to damage if cattle were grazing around the outside. There is no evidence for protective fences other than the one around Structure 2/Area 2. If, as we propose, Structure 3 and 4/Area 2 are of slight construction, and not protected, they could also be damaged by cattle unless they were tethered at a safe distance.

The water supply is located in the northern corner of the enclosure, with a short steep access that would not be ideal for cattle. There is no evidence of a leat supplying other areas of the site but there is another alternative water source situated below the terrace to the SW.

At the SE end of the SW outer enclosure is one of the best examples of stone based enclosure remains we have seen (Plate3). There would probably have been timber posts
fixed in the grykes supporting brushwood on top of this stone base.

The areas excavated by David Johnson combined with our own research and interpretations have jointly added to the knowledge base and together, in the wider context, will hopefully prove important to understanding the Anglo-Saxon period in the local area.

**Documentary Evidence.**

We do not know of any documentary information for the Brows Pasture site relating to the period in which it is dated. The earliest charters which may be relevant are three Monastic boundary perambulations of Southerscales describing a section of the SW boundary (below Nos. 1 and 2 Brownbill, J. 1916. No. 3 Atkinson, J.C. 1886 and a post-mortem inquisition made at Ingleton dated 1305-06, following the death of the lord of the manor, John son of Hugh who held an assart at ‘Southerscales’ (Brown W 1906)

1. Boundary Perambulation dated 1220

   “..*Merebek usque ad Witfallis et inde usque ad rupem proxima bercariis ex parte occidentali; ex illa autem rupe per directum usque ad Ellerbek…”

2. Boundary Perambulation dated 1250-1251

   “..*Morebech usque ad Witfallis et inde usque ad rupem proxima bercariis ex parte occidentali, ex illa autem rupe per directum usque ad Ellerbech….”

3. From a Charter of Confirmation by King Henry IV of previous Royal and other Charters.

   “..*Merebek usque ad Witfallis et inde usque ad Rupem proximam bercariis ex parte occidentali; ex illa autem rupe per directum usque ad Ellerbech….”

All three translate as:

“..Merebeck as far as Whitefalls and from there as far as the rock next to the sheepfolds on the Western side, moreover from that rock directly as far as Ellerbeck…”.

As can be seen two of these perambulation dates are about 300 years later than the radiocarbon dates for the structures on Brows Pasture, although it must be remembered that the sheepfold and the rectangular structure within it, just to the north, are not dated.

We have no information concerning when these boundaries were established but it was prior to 1203 when William de Mowbray agrees to let Adam de Staveley keep all rights to Southerscales and its three cow-pastures (Fig 9). It is possible the boundary was
established pre-conquest which would be taking it nearer to the radiocarbon dates for the Structures on Brows Pasture.

The boundary description Merebeck to Witfallls (which is now called Gods Bridge) is clearly defined by Merebeck stream and a geological fault in the limestone terraces. It is proposed that the two monastic boundary perambulations above are describing the boundary as shown in (Fig 8 and 10). If we take rock to mean a “limestone escarpment” this would mean that after the “rock”, when you are standing on top of the escarpment, Ellerbeck is in sight and this is the next location mentioned on the perambulation. This means the boundary would cross an area now known as Scales, where at a later date, intack could have taken place. Farmsteads created after intack probably straddled the boundary that would then be cutting through fields belonging to different farms, possibly resulting in some farms having land in both the manors of Twistleton and Ellerbeck (assuming this manor was contemporary) and Southerscales which could create confusion at a later date.

The post-mortem inquisition made at Ingleton dated 1305-06 following the death of the Lord of the Manor John, son of Hugh, who held an assart at Southerscales. It is interesting to ask where is the location? The following perambulations may provide an answer. To try to solve this problem we need to move forward in time.

The Newby boundary perambulation of 1683 states “…from the head of Moorbeck to Withfalls (or as some call it Withfalls = Chapel) all those butting and bounding on the Lord of Ingleton on the west side and from thence to Battress from thence to a stone upon a rock called Bottrix and thence along to Ellerbeck…..”.

In this perambulation Southerscales estate is now part of the manor of Newby, and the perambulation appears to have introduced another Withfalls near the Chapel, there are falls behind the Chapel so the name does fit the feature. There are also two other names Battress and Bottrix however the locations of these are unknown at present. This perambulation appears to be suggesting the boundary has been relocated leaving an area of land between two boundaries. Having two features named Withfalls is confusing especially as they follow one another on the perambulation, but as we can see on the next perambulation this has been resolved.

Newby boundary perambulation from 1739 clearly states that the boundary goes ‘.. up water (River Weiss/Twiss) from a point called Toad Dubb to Witfalls near the Chapel and then up by Gillhead to Ellerbeck field…..’ An Ingleton manor boundary perambulation of
In the 1739 perambulation a new location has been used to replace the original Witfalls, this is now called Toad Dubb. From this location it states up stream to Witfalls near the Chapel, obviously using Chapel to confirm the Witfalls location. The boundary then goes to Gillhead and then to Ellerbeck field.

The establishment of early boundaries on the moorland areas (called wastes) was outlined using natural, and in many cases named landscape features. Also used were archaeological features such as cairns, banks, ditches and older derelict settlements which may be remembered by their usage. The features mentioned would probably be visible from one to the next, creating a line of sight boundary with long stretches being poorly defined. These boundaries would have a smoother outline than many which came later, as more land was assarted and became intack on the outer edges of the original boundary. This new outer boundary would become more difficult to define. It may have been a priority for a new area of assart to be agreed by clear topographical features, and not necessarily by any form of measurement, as we now know walls and hedges became the method of clearly defining areas and ownership.

We are proposing the location of the boundary between Southerscales and Ingleton has been changed from that described in the early perambulations to that of the later ones. This is where the assart recorded at Southerscales in 1305-06 (but could be older) may be relevant. This assart was held by the Manor of Ingleton which abuts Southerscales on the south western side. There is no location given for the assart, but we are proposing that it could be the area shown on the map (Fig 8). As can be seen this area is between the two proposed boundaries, and if it was already held by Ingleton Manor it would be a logical progression for it to become a permanent part of the manor which it clearly was in later perambulations.

Opinion varies as to whether or not the boundary route remains the same over time but it is our view, from the evidence above, that the route has changed at some time between the early 15th century and 18th century. Possibly this difference of opinion may have occurred because the 13th century latin word “Bercarii” (which means sheep fold/s) was taken to mean Weathercote (i.e. wether sheep folds). Mary Higham, describing the boundary of Souther Scale from the 1251 perambulation states:

“It is possible that the boundary then took the line followed by the modern right-of-way round the outside of what would appear to be the south-western edge of a primary enclosure, along the
Roman road at the foot of Twistleton Scar to what is now a very rocky dry valley to the southwest of Weathercote (Wethercot Garth in 1346 - a shed for wether sheep), surely the bercarii (sheep folds) of the grant. An alternative route would follow the course of Chapel Beck upstream to the same tributary dry valley.” (Higham, 1997). (NB, The Italics are original)

Similarly David Johnson states:

“This later encompasses what is now Weathercote (southern W) but was historically ‘Wethercote’ meaning the shed or place where wethers (castrated sheep) were kept: from the 1250-51 boundary perambulation described earlier, this may well correspond to the Bercariis mentioned in that document.” (Johnson, 2013)

The first problem for these interpretations is that the 13th/15th century perambulations state that when you are at Witfalls you then go to the rock next to the Bercariis on the western side there is no suggestion that you go up the river, but assuming you did the direction is NNE and you would arrive at Witfalls = chapel and you would be on the western side but the early perambulation states that when you are at Witfalls you still have to go to the rock near Bercarii on the western side.

There is still another problem. We have no evidence for a reference to Weathercote before 1346 “...Winterskales usque ad cornu boriale del Wethercot garth...” (Brownbill J 1916) Translated this states “...Winterscales right up to the northern leg? of Wethercot garth...” this is not a perambulation of the outer boundary of Southerscales, but a boundary description for an area of land within Southerscales. This reference to Weathercote is 143 yrs later than the first charter for Southerscales. Weathercote was still not named on the 15th century perambulation description. The first reference we have to Weathercote being on the outer boundary is the 1739 perambulation. You would expect the assart to be part of Southerscales somewhere near this location, as there is no other part of the coterminous boundary that is not clearly named and repeated many times, from the earliest to the later perambulations. Unfortunately, there is no documentary evidence describing the location of the assart.

We have intentionally not discussed the Twistleton and Ellerbeck Manor boundary up to this point as the records for this area, in the early monastic period, are either non-existent, or unknown to us. It is very likely that, at sometime, this manor abutted the Southerscales boundary on the SW side from the River Welse/Twiss to the crest of Whernside above Ellerbeck.

The need to create a more clearly defined boundary and solve the problems on Scales,
possibly initiated changing the location to that clearly described in 1739, but when this actually occurred we do not know. The boundary changes proposed here are based on documentary records and subject to any errors and omissions within them. Any interpretational errors are ours.
Bibliography


**Internet Reference.**

Building Reconstruction Photographs. www.millennia.f2s.com/building.htm
Fig 4 Proposed construction of Area 1/Structure 1.

Fig 5 Detail of eaves showing turves under rush thatching.

Fig 6 Ridge. A frame construction using half lap joints secured with wooden pegs.
Plate 1. Showing framework of reconstructed Anglo-Saxon Structure.

Plate 2. Showing Rush thatching and wattle in-filled gable.
Plate 3. Stone base remains of brushwood fence SW enclosure.  

Plate 4. Showing 1m width of wall foundation Structure 1. area 1.
Plate 5. Showing 1m width of wall remains in Structure 2. area 2.  

Photograph A Batty

Fig 7. Vertical profile of NW side of Brows Pasture.  

Drawn by A Batty
Fig 8. Showing location of early and later boundaries, and names of boundary features.

Drawn by A Batty
Fig 9. Showing Southerscales boundary and the location of the three cow-pastures.

*Drawn by A Batty.*
Fig 10. Showing proposed location of Southerndale boundary in relation to Brows Pasture.

Drawn by A Batty