Upper Ribblesdale and Malham Dry Stone Wall History Project

A project by Winskill Farm Visitor Centre, and the Craven College Heritage Studies course "Understanding the Cultural Landscape of the Yorkshire Dales" supported by the Yorkshire Dales Millennium Trust. **Tom Lord 2003**

Dry stone walls offer great potential for understanding the history of the Yorkshire Dales landscape. Preliminary fieldwork in Upper Ribblesdale at Winskill revealed changes in dry stone wall construction styles and techniques that could be dated by reference to historical sources (Lord *in prep*). The Winskill results also showed that some lengths of walls may survive virtually intact for much longer than hitherto believed, at least four hundred years in some instances (Plate 1).

Plate 1 *Documentary and field evidence indicates that this wall was standing in 1592. It was built earlier as part of the infield boundary at Winskill, Upper Ribblesdale. It is a wide top double wall and survives virtually as it was built apart from the loss of original topstones. The adjustable metal wall profile frame is an entirely new survey tool developed by the project to improve the recording of dry stone walls.*

Plate 2 Another part of the Winskill infield boundary wall viewed from the outside. It is a wide top double wall with some of the original projecting topstones still in place. The projecting topstones provide an additional deterrent against animals jumping into the infield area. The wall is built here almost directly on limestone bedrock.

Soon afterwards the Winskill findings were backed up by fieldwork evidence from a much larger study, the detailed survey of 136 kilometres of dry stone wall on the National Trust Estate at Malham (Lord *in press*). The Malham survey significantly advanced our understanding of the factors affecting the preservation of dry stone walls, especially why it is that certain lengths of wall may stand virtually unchanged for centuries. The survey found that the stability of the ground surface is a key factor, and preservation is generally

better where walls are built more or less directly on exposed bedrock (Plates 2 & 4).

The Malham survey identified about 12 kilometres of an early wall style first recognised at Winskill, and shown there to have been already obsolete by the late sixteenth century. This style is described as wide top double wall because the width of the top of the wall beneath the topstones is 50 cm (20 inches) or more. This is significantly greater than the tops of later forms of double wall which are rarely more than 40 cm (16 inches) in width. These are described as narrow top double walls (Lord *in press*). Nearly all wide top double walls have a uniform width beneath the topstones of 50 cms (20 inches). This measurement is equivalent to a cubit, an archaic unit of measurement based on the distance of a man's arm from the elbow to the tip of the outstretched middle finger. Where the original topstones of wide top double walls survive they are laid flat and generally project about 15 cm (6 inches) on one or both sides to provide an extra deterrent against jumping animals (Plates 2-6 & 8-10).

Plate 3 *A wide top double wall with projecting topstones, Watlowes, Malham. This was part of the mediaeval boundary dividing the Malham outfield. Here the projecting topstones provide an additional deterrent against animals jumping into the Fountains Abbey side, on the other side of the wall.*

Projecting topstones in Malham and Upper Ribblesdale are restricted to wide top double walls and three quarter double walls (see pp. 12-14 below). They are not present on the later narrow top double walls where the arrangement of the topstones is generally leaning against each other and flush with the top of the wall. Similarly the projecting topstones on wide top double walls and three quarter double walls cease to be replaced indicating a change in

maintenance strategy. Projecting topstones were already obsolete at Winskill by the late sixteenth century (Lord *in prep)*. Wall construction is rarely documented, but double walls dated to the early seventeenth century and later are always narrow top double wall forms. The explanation for the projecting topstones going out of use is not at all certain. In purely functional terms it might result from the local extinction of large predators such as wolves, or possibly involve new systems of livestock management and changes in the breed of livestock kept especially sheep. People would find them difficult to climb too. Projecting topstones on boundary walls may also indicate private ownership especially monastic which ended with the Dissolution in 1539.

Wide top double walls are built with little batter so that both sides of the wall stand nearly straight up (Plates 2 - 7). Distinctive orthostats are sometimes used as footings at the base of these walls. These are large slab like stones placed on edge more or less vertically at the base of the wall, rather like a playing card standing on its side. Upended pieces of limestone pavement are often used as orthostats where the wall is built upon limestone bedrock (Plate 4).

Plate 4 *A well preserved wide top double wall with projecting topstones and orthostats at the base of the wall. The limestone bedrock provides a stable foundation, and the survival of the original wall structure is excellent. Ingman Lodge boundary wall, Upper Ribblesdale.*

At Winskill documentary and field evidence indicate that the wide top double walls were built in the mediaeval period, when Winskill was part of the Sawley Abbey holding in Langcliffe and Stainforth. The Malham survey evidence supports a mediaeval construction date, and strengthens the case for this wall

style to be recognised as a standard type on monastic upland estates. Fountains Abbey and Bolton Priory had important grazing holdings at Malham. Where stone was readily available, wide top double walls were clearly a favoured form of stock proof boundary. They were usually built about 1.5 to 1.7 metres high (about 5 feet to 5 feet 6 inches). Nearly all the 12 kilometres of wide top double wall identified in the Malham survey is either decayed or substantially affected by later repair. Only a fraction of the 12 km total consists of wide top double wall standing to full height with the distinctive projecting top stones still in place (Plate 2).

The Winskill and Malham surveys suggest that wide top double wall should be found elsewhere on upland holdings formerly owned by monastic houses, and where the conditions for wall preservation are good. They predict that this wall type might survive in the Horton-in-Ribblesdale area which was mostly owned in the later mediaeval period by Furness, Jervaulx and Fountains Abbey (Moorhouse 2003). As at Malham the monastic activity focussed on the upland grazing. The large expanses of more or less flat limestone bedrock at or close to the surface on the Ingleborough side of Upper Ribblesdale provide an excellent ground surface for wall preservation. It is clear that upland limestone pasture was a valued resource in the mediaeval period, and in the Yorkshire Dales was much sought after by the larger monastic houses.

Preparatory fieldwork with adult students on the Craven College course "Understanding the Cultural Landscape of the Yorkshire Dales" is revealing a remarkably well preserved, and very extensive, field pattern made up of wide top double walls and three-quarter double walls (see pp. 12-14 below) in Horton-in-Ribblesdale, especially in the Selside area in and around the Ingleborough National Nature Reserve (Fig. 1). Although affected by later repairs and rebuilding, the survival of the original wall structures is generally much better than Malham.

The wide top double and three-quarter double walls make up a field pattern which appears planned out. It includes both infield and outfield areas. It covers a large area. It corresponds to the medieval holding of Furness Abbey at Selside (Brownbill 1916). Selside adjoined two other large blocks of Furness property centred on Ingleborough; Newby, extending from the western slopes of Ingleborough to the edge of the Forest of Bowland, and Southerscales running along the northern slopes of Ingleborough taking in the upper part of Chapel-le-dale. It is quite likely that Furness managed Selside as part of this larger estate, possibly administered locally from Newby Cote (Moorhouse 2003). Furness also had livestock processing facilities such as a tannery in the vicinity of Newby by 1300 (Donkin 1978). We might therefore expect to see specialisation at Selside, especially in relation to livestock management.

Whether Furness ever relinquished direct control of the Selside pastures is not known. At Malham documentary evidence reveals that Fountains Abbey reserved pastures for their own livestock right up to the Dissolution (Atkin

1990-91). Furness may have done the same. An alternative would be forms of leasing to the tenants of the lodges. Unfortunately the surviving documentation relating to the management of the Furness properties is very limited. We must rely on archaeological evidence to understand Furness activities in Selside.

The wide top double walls at Selside have similar dimensions and profiles to the Winskill and Malham examples (Plates 4 – 8). The only difference is where the topstones project not on one, but on both sides of the wall (Plate 6). These walls provide further evidence that wide top double walls were a standard type. Like Winskill and Malham, the documentary sources and field evidence point to the construction of wide top double walls in the mediaeval period. A map of 1619 depicts part of the field pattern in the Sulber and South House part of Selside (see Fig. 1). These fields must have been in existence prior to the making of the map (PRO Austwick 1619/MPC/1/235).

Plate 5 Wide top double wall with projecting topstones facing onto Borrins Moor, Selside, Upper Ribblesdale. The wall stands about 1.6 metres high (5 feet 4 inches).

A notable feature of the wide top double and three-quarter double field pattern is the inclusion of approximately 350 hectares (about 850 acres) of what is today limestone pasture. A ditch and bank boundary running from Alum Pot to the infield at Selside divides the limestone pasture into two roughly equal blocks of about 400 acres. The ditch and bank is now surmounted by a narrow top double wall. It suggests the ditch and bank continued in use as a boundary until the widespread adoption of narrow top double wall construction, possibly in the later sixteenth century.

<u>Plate 6</u> Wide top double wall with projecting topstones on both sides of the wall. Ingman Lodge boundary, Upper Ribblesdale. This wall stands around 1.6 metres high (about 5ft 4 inches). Like most wide top double walls the width of the top of the wall beneath the topstones is 50 cm (20 inches). The topstones project on each side about 15 cm (6inches). So far such topstones have been recorded only at Selside. They might be a design restricted to Furness Abbey holdings.

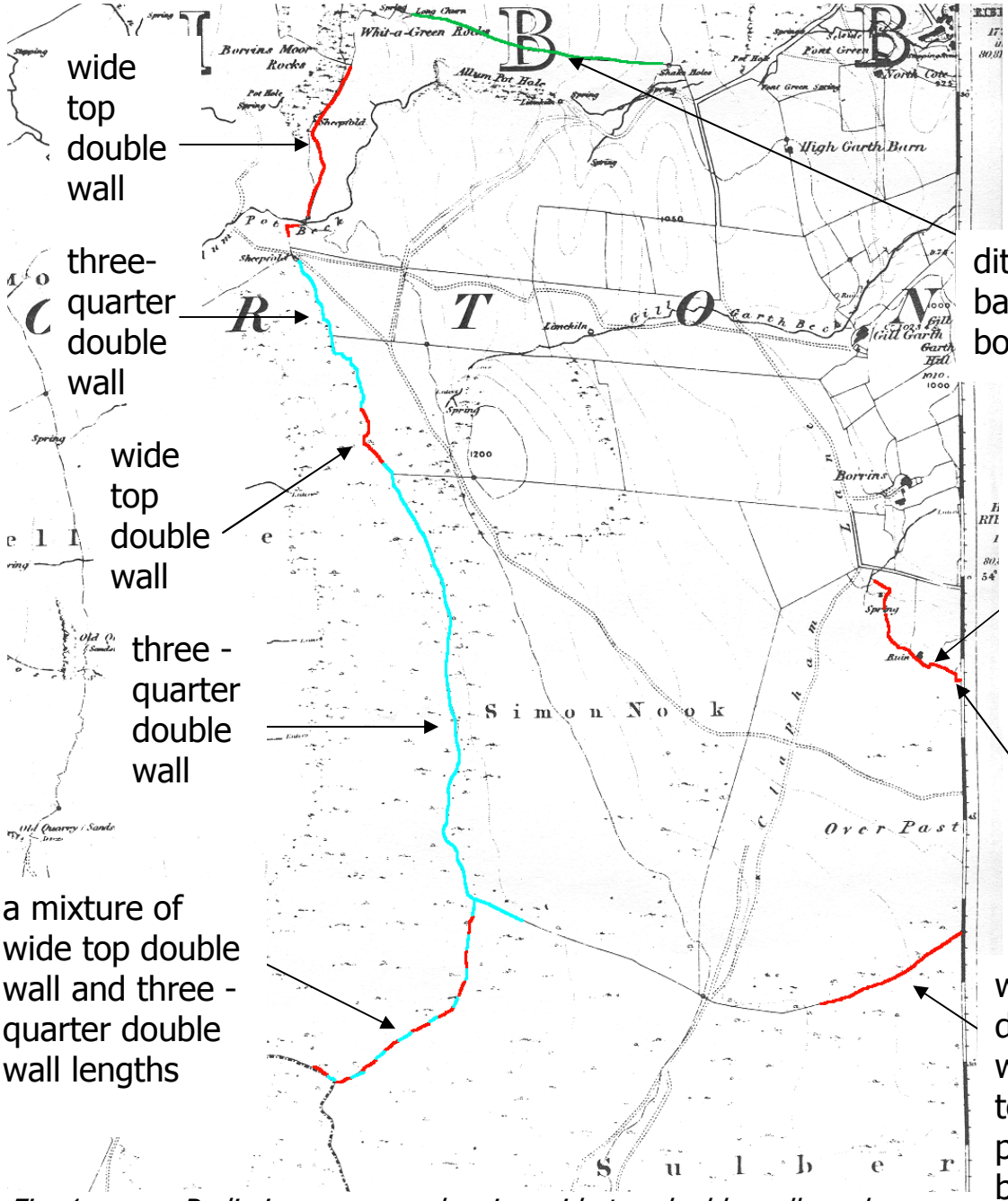

Fig. 1 *Preliminary survey showing wide top double walls and three- quarter double walls in the south part of the Furness Abbey holding in Selside, Upper Ribblesdale. Note that this is only a partial survey of the map area. 1:10, 000 map base, 1st Edition O.S. published 1851. The map depicts about half the limestone pasture enclosed with wide top and three quarter double wall boundaries at Selside.*

The distance from the boundary at the north end of the limestone pasture against Ingman Lodge, to the boundary at the south end against Sulber, is approximately 3.5km. Both boundaries include lengths of virtually identical wide top double wall with flat top stones projecting on both sides. The top stones projecting into the pasture reveal that an additional deterrent against

jumping was necessary to contain domestic livestock even though the wall was originally built about 1.6 metres high (5 feet 4 ins) (Plates 4 & 6). It suggests heavy stocking by sheep at certain times of the year. Documented late sixteenth century stocking rates for similar limestone pasture at Winskill are 1 sheep to 0.65 acres. Assuming the same stocking rate at Selside, the enclosed limestone pasture there (approximately 850 acres) may have held in the order of 1,300 sheep. These numbers suggest a substantial sheep enterprise.

Further evidence of large scale sheep management is the remarkably well preserved wide top wall gathering pen, forcing pen and sheep race on the eastern edge of the limestone pasture north of South House. It is an outstanding structure (Fig. 2 & Plates 7 & 9). It survives more or less as it was recorded on the 1st Edition Ordnance Survey map in the 1840s. The sheep race is partly formed out of orthostats. There is also an attached wide top drive wall contiguous with a larger earthwork pattern. The standing features are clearly surviving elements from a much bigger livestock management complex straddling the infield boundary (Fig. 2). This is the core area of a hitherto unknown Furness Abbey 'bercaria', a monastic sheep handling and management complex. The surviving features also include a well preserved open D shaped fold (Fig. 2 & Plates 8 & 10).

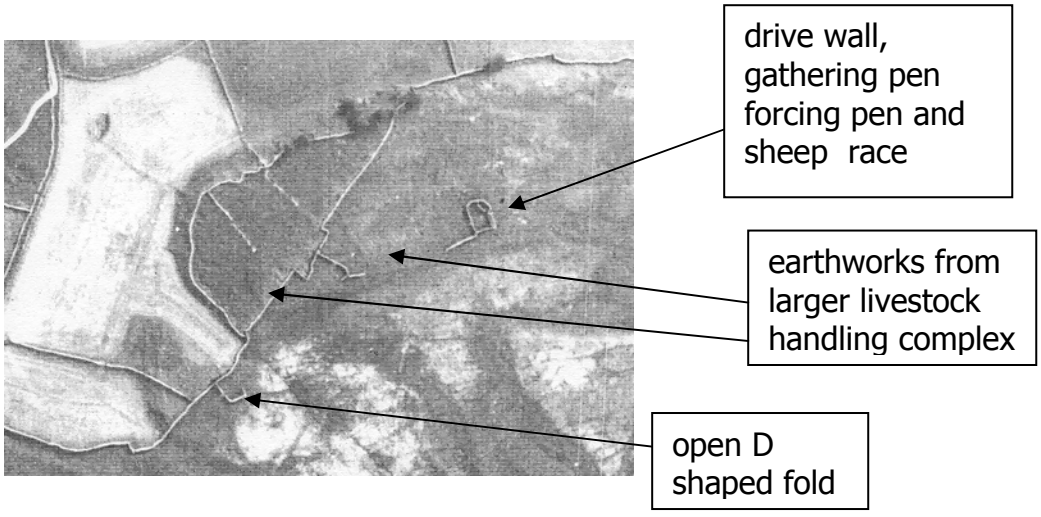

Fig. 2 Wide top double wall livestock handling facilities contiguous with earthworks of a larger mediaeval livestock handling complex, north of South House, Selside. It is the core area of a Furness Abbey 'bercaria', a monastic sheep handling and management complex.

Plate 7 *Wide top double wall drive wall, gathering pen, forcing pen and sheep race; structures surviving in the core area of the Furness Abbey 'bercaria' at Selside. Note the large orthostat in the forcing pen wall (on the right).*

Plate 8 *The three-quarter boundary wall line against the Fell Close lies in the far distance and gives an indication of the scale of the enclosed mediaeval pastures at Selside; in the middle distance the core area of the Furness Abbey 'bercaria' with a wide top double wall fold in the form of an open D shape; modified wide top double wall infield boundary on the right. The remaining walls are probably post-mediaeval.*

The excellent preservation of the standing wide top wall features in the core area of the 'bercaria' is due to the limestone bedrock being more or less at the surface (Plates 7 -10). Presumably the gathering pen and the other wide top double wall structures remained in use until comparatively recently, and

so escaped the destruction caused by limestone pavement extraction for garden rockery stone. This practice was particularly heavy in this area (Gilkes & Lord 1985, Nature Conservancy Council 1965).

Plate 9 Wide top double wall head with projecting topstones facing into the gathering pen in the Furness Abbey 'bercaria' complex at Selside (Fig. 2 & Plate 9). The arrangement of the topstones may have been necessary to control sheep especially prone to jumping. Flocks of weathers, castrated male sheep kept for wool and meat, are a possibility.

Plate 10 Wide top double wall head in the open D shaped fold in the Furness Abbey 'bercaria' complex at Selside. Note the projecting topstones facing into the fold area. This fold may have served a specialist function and would have required hurdles to stock proof the open side. It probably survived because it also served as a 'bield' or shelter wall for livestock, a purpose for which the inward facing projecting topstones are entirely unnecessary.

A further important aspect of the wall pattern is the presence of well preserved three-quarter double wall lengths in the boundary with the Fell Close. The boundary with the Fell Close changes from a wide top double wall interspersed with lengths of three-quarter double on Sulber, to a three-quarter double wall on Simon Nook (Fig. 1). The lengths of three-quarter double wall run mainly on exposed limestone bedrock. They have projecting topstones which face onto the Fell Close (Plate 11). The latter is very different grazing with peaty areas and generally acidic upland vegetation.

Plate 11 Three-quarter double wall made from weathered limestone, Fell Close boundary, Selside, Upper Ribblesdale. Tape 1.2 metres (4ft).

Plate 12 Three-quarter double wall made from field clearance sandstone Gunnerside Gill boundary, Swaledale. Tape 1.2 metres (4ft).

Three-quarter double walls consist mainly of deep stones running right across the width of the wall interspersed with pockets of opposing face stones. Filling stones are hardly ever used in the middle of the wall. They are built with little batter so that in profile both sides of the wall stand nearly straight up like wide top double walls. However, in profile they are not as wide and so represent a more economical use of walling stone. They seem to be used where the substrate is especially firm such as where bedrock outcrops at the surface. Orthostats are sometimes used as footings, and where they occur they are often found in rows (Plates 14 & 15). In the Malham wall survey for the National Trust, three-quarter double walls made up only 1.3% of the 136km of wall recorded. At Malham, they were only recorded built on limestone bedrock.

Plate 14 *Three-quarter double wall with a row of upended limestone pavement orthostats. Fell Close boundary, Selside Upper Ribblesdale. The original topstones are missing, and the upper part of the wall has been modified by later repair. The wall is now stock proofed with galvanized top wire mesh fencing. When first built projecting topstones served as a deterrent against animals jumping from the fell. For the original profile on the fell side see Plate 11.*

Plate 15 *Three-quarter double wall with a row of blocky sandstone orthostats. Gunnerside Gill boundary wall, Swaledale. The wall is made of field clearance sandstones. The upper part of the wall has been modified by later repair. For the original wall profile on the gill side see Plate 12.*

At Winskill a three-quarter double wall on limestone bed rock occurs with a wide top double wall in a boundary present by 1592. Interspersed wide top double wall and three-quarter double wall in the Fell Close boundary at Selside is further evidence that the two wall forms were contemporary. The map made in 1619 shows part of the Sulber and Fell Close boundary. It reveals that the Fell Close was already enclosed by that time.

There is now evidence that three-quarter double walls are not confined to areas of limestone bed rock. A three-quarter double wall was recently recognized in Gunnerside Gill in Swaledale (Lord 2003). The Gunnerside wall is built out of field clearance sandstone. One part still retains the original projecting top stones, and slab like blocks of sandstone have been placed on edge to form a row of orthostats (Plates 12 & 15). The height and cross section of the three-quarter double wall in Gunnerside Gill is very similar to the Selside three-quarter double walls against the Fell Close. It is possible that three-quarter double walls were built to a standard specification, like wide top double walls. It suggests management by well organized, large estates holding suites of dispersed properties. Monastic houses are the most likely candidates in the Yorkshire Dales in the mediaeval period.

Three-quarter double wall like wide top double wall is an obsolete construction style. Provision is urgently needed to train land managers and dry stone wallers how to recognise and restore it. A further problem is that the style is basically one which economises on walling stone. When rebuilt as a fully double wall, there is insufficient stone from the original structure to bring the wall up to a stock proof height. It then requires galvanised top wire mesh fencing to be put up permanently (Plate 13). This is contrary to the principle of sustainable use of resources, now a cornerstone of rural development policy.

Plate 13
Recent rebuild of a three-quarter double wall as a low double wall stock proofed with galvanised top wire mesh fencing. Fell Close boundary, Selside, Upper Ribblesdale.

Conclusions

In the Horton-in-Ribblesdale area the preservation of the early dry stone wall pattern is exceptional. It suggests for some areas of the Yorkshire Dales in the mediaeval period, dry stone walls played a key role in protecting livestock from predators and in livestock management generally. It is very likely that dry stone walls were built much more extensively in the mediaeval period than hitherto realized.

The work of surveying the walls in the Horton-in Ribblesdale area is still at an early stage. Yet the initial findings strongly suggest that the Ingleborough National Nature Reserve and the adjacent farms contain a remarkably well preserved, and nationally important, monastic dry stone wall landscape. We have much to learn about early dry stone walls, but it looks increasingly likely that they offer a unique key to 'decode' the mediaeval landscape of the Yorkshire Dales.

Detailed survey of the dry stone walls and the related earthworks in Upper Ribblesdale will greatly enhance our understanding of monastic land use in the Yorkshire Dales. It will substantially enhance our knowledge of the mediaeval landscape and complement the already magnificent work by Stephen Moorhouse (2003).

The purpose of this project, however, is much more than a foray in landscape history and methodology. The surviving resource of early dry stone walls in the Yorkshire Dales is now at great risk. Wide top and three-quarter double dry stone walls are generally part of the 'still in use' working landscape, unlike the abundant mediaeval earthwork evidence. Being wholly obsolete styles, they are extremely vulnerable to so-called wall restoration schemes funded by the various agri-environmental schemes, environmental agencies and conservation charities which operate in the Yorkshire Dales.

Currently dry stone wall work in the Yorkshire Dales is on a scale unprecedented since the boom in livestock farming in the Victorian era. I have seen instances where agri-environmental schemes, environmental agencies and conservation charities have destroyed monastic dry stone walls and replaced them with walls built in modern styles. In some instances the replacement walls are then topped with galvanized wire to stock proof them. It is ironic that public funded schemes to conserve the historic landscape are now a major threat to the dry stone wall heritage of the Yorkshire Dales.

Urgent provision is needed for more dry stone wall survey work using the methodologies developed in the Malham wall survey (Lord *in press*).

Urgent provision is needed to train land managers and dry stone wallers so that they can identify and restore the historically important obsolete dry stone wall types outlined in this document.

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