The Lost Walls of the Lower Wye Valley

A Report on the Drystone Walls of the Wye Valley Area of Outstanding Natural Beauty

Introduction

Straddling the English/Welsh Border, the lower reaches of the Wye Valley between Symonds Yat and Chepstow contain a great density of drystone walls. Surprisingly, despite the fact that they are unique in style and represent an important contribution to the area's landscape, culture and biodiversity, a look through books on drystone walls reveals no mention of the walls of the Wye Valley.

Drystone walls, are one of the most frequently encountered field boundaries in the UK and play an integral part in the make-up of our traditional landscapes.

Typically found in upland areas, they are predominant in Scotland, Northern England, Wales and the South West, whereas hedges are the major field boundary in central and south eastern England.

Between 2002 and 2004, the Wye Valley Area of Outstanding Natural Beauty unit co-ordinated a survey of the drystone walls within the area. Through engaging with local communities, the survey sought to gain some assessment of the extent and condition of drystone walls and to raise the profile of this 'overlooked' landscape feature.

What is a drystone wall

The term drystone is used to describe walls that do not use cement or mortar to hold the stones together. The stone is not dressed and is used as it is found or quarried.

When were they built and who built them

The heyday for drystone walling was associated with the enclosure acts between 1750 and 1850. Enclosure was the process whereby communal exploitation and regulation of the arable land, open pastures and meadows was replaced by a system of private land management. It is likely that most walls of the Wye Valley date from that time. The Tithe maps of the 1840's

show the field pattern already well established and walls visible today can still be traced using such maps.

It is likely that most walls within the Wye Valley were built by the original occupiers of the land. Areas such as the Hudnalls in Gloucestershire were transformed by squatters moving onto the common, clearing woodland and laying claim to parcels of land. Around 1900 land value was increasing and landowners wanted a more permanent means of establishing boundaries.

Estate workers or farm workers also built walls. Often to keep them occupied when other work was scarce. It is also possible that temporary labour was hired for a fixed period. These may have been labourers who worked under the control of someone skilled in wall building or wallers, often from Ireland, who worked as itinerant gangs living on site until the work was finished. Lastly a popular local legend is that the walls were built by French prisoners from the Napoleonic Wars, which if true would give the walls an age of 200 years.

It is possible that some of the walls in the Wye Valley are much older than those associated with the enclosure acts. Walls near Ninewells Farm, Catbrook are, by local reputation, associated with the monastic activities at Tintern Abbey which would date them back to the 1500's.

Drystone Walls at Ninewells, Catbrook

Why they were built

As well as providing boundaries to land ownership, there are many other reasons for the construction of walls. On a day-to-day basis, the walls served as a means of controlling livestock.

On sloping ground, walls frequently follow the contours, acting as retaining walls and allowing terraces to be formed. Examples of these terraces can be seen in the Wye Valley south of Redbrook. Now lost in woodlands these terraces are evidence that the land in this area once consisted of open fields.

The lines of footpaths and bridleways were established and protected by walls preventing both animal and human trespass. Slab Stiles were built to serve as crossing places where these walls intersected paths.

Slab Stile

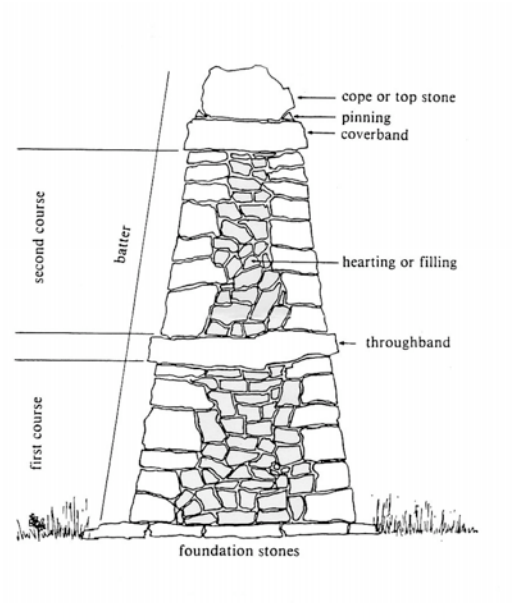
In some newly occupied areas, too much stone could frequently be a problem and walls were often built to 'deal' with this stone. Known as consumption walls, they are usually wide and/or occur in high densities to use up maximum amounts of stone. Good examples of consumption walls occur in areas like the Hudnalls, where some walls can exceed 3 metres wide and generally occur in great densities.

Walls are also important for the wildlife they support. Reptiles and amphibians frequently make their homes in them. Birds use walls for nest sites and many specialised plants such as wall pennywort, lichens and mosses can frequently be found.

Lichen covered stones

The unique styles of the Wye Valley walls

The basic structure and profile of a 'typical' drystone wall is shown in the diagram below, although there are a number of variations of this in the Wye Valley. In general the structure consists of two sloping faces known as the 'batter'. The 'hearting' or middle of the wall is filled with small stones and the row of large verticle stones along the top is called the cope. Whilst typically the foundation layer consists of the largest stones, in the Wye Valley this is not always the case, tending to make the walls top heavy. Construction in this way is unusual, lending itself to instability.



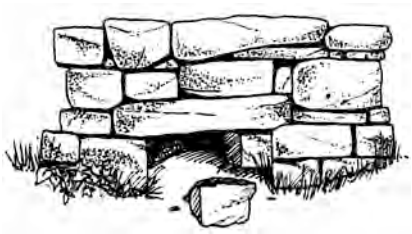
Cross section of wall (Picture courtesy of the Drystone Walling Association)

The size of stone varies, ranging from blocks manageable with one hand to blocks so large that nowadays they would require a machine to lift them. The largest of these stones must originally have been placed with block and tackle or the use of heavy horse and ropes. The large size of the stones and the frequency of their use within a small area is not seen elsewhere in Britain with the possible exception of North Wales.

A drystone wall in Manor Brook showing the large stone sizes used.

The Wye Valley walls also have no copestones. The only other area where copestones are not used is in the Mendips where it has been suggested that the walls were once topped with turf. There is however no evidence that this was the case in the Wye Valley. There are many suggested functions of copestones; they may aid with tying the two sides of the wall together or act as a sharp jagged barrier to sheep or lambs contemplating jumping over. The large size and width of walls in the Wye Valley may make copestones unnecessary.

The Wye Valley walls have little or no slope to the batter, having nearly vertical faces and there are very few associated features such as water/sheep smoots, stoups etc



Water smoot

Stone stoup

Geology and drystone walls

The appearance of drystone walls is influenced by their locality, based on the geology of the area. In the Wye Valley the geology varies, however there are three predominant rock types used in walling; Old Red Sandstone, Quartz Conglomerate and Limestone.

Despite its name, Old Red Sandstone occurs in a variety of colours and it is most frequently used on the Welsh side of the River Wye. Despite being geologically similar to the stone found in the Brecon Beacons and the Black Mountains further west, it presents itself in a different form. In structure the stone usually consists of flat faced blocks and is generally not flat bedded.

Less frequently used, quartz conglomerate consists of a sandstone matrix containing quartz pebbles. This appearance gives rise to the local name of pudding stone and in some places jack stone. The stones are often awkwardly shaped for walling purposes a problem which is exacerbated by the fact that the stone is difficult to dress and will frequently shatter when tapped with a hammer.

Pudding stone

On the English side of the River Wye in Gloucestershire, sandstone walls are found towards the valley floor but towards the top of the Valley sides and southwards the predominant stone is limestone. The form is that of blocks of various sizes tending to become more flat bedded in appearance near Clearwell, Gloucestershire

Threats to walls – why they fall down

Within the Wye Valley, many drystone walls persisted, whereas elsewhere in the country they were lost through field expansion. This is largely due to the fragmented land ownership in the Area of Outstanding Natural Beauty where large areas of land are divided into small-holdings, typically of less than ten acres in size. As these small-holdings are not viable for farming they have conserved a characteristic landscape of small fields of often unimproved semi-natural grassland.

Map of a section of the 1885 map from near St Briavels alongside a current map for comparison .

The walls are now threatened due to the cost of repairing drystone walls compared to that of replacing them with fencing. There has also been a continued decline in the number of skilled drystone wallers.

Built correctly, a drystone wall can remain standing for centuries. Walls can fall down for various reasons:

- Incorrect building techniques, e.g. placing the larger stones near the top of the wall and smaller stones near the base
- Animals such as rabbits and badgers burrowing underneath
- Trees growing in or adjacent to the wall
- Livestock climbing, leaning and rubbing against the wall
- Human activity such as climbing over walls, hitting walls with vehicles and machinery, theft of stone and removal of stone for other purposes

Wall damage caused by a tree

Survey methodology

The drystone wall survey sought to assess the overall condition of the walls and any special features and to provide an estimate of the total length of walls in the Wye Valley. The survey also looked at each of the walls in terms of its public benefit, functionality and relative cost of repair, based on the amount of stone remaining and the accessibility of the wall. This assessment provides a crude mechanism for prioritising walls into their overall importance in the countryside and, should future funding be available, highlighting those walls that should receive attention first.

Information on the wildlife value of the walls was also requested as part of the survey, but was rarely provided. For this reason it could not be included as part of the evaluation criteria.

Whilst the survey was co-ordinated by the Wye Valley AONB unit, it relied on volunteers from the local communities to carry out the fieldwork, so it was limited by the number of volunteers that took part and the time that they could contribute. Volunteers were asked to record walls in a systematic way by visiting field boundaries marked on the map and identifying them as either walls, hedges and fences.

The survey was promoted through a leaflet, posters and press releases. A survey pack was produced to help volunteers through the survey process. Additional promotion came through project launches at Catbrook Village Hall in August 2002. and the Macenzie Hall, Brockwier in February 2003.

Information recorded

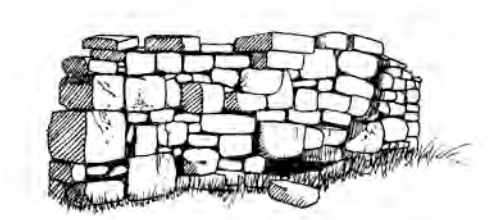
Surveyors were asked to record any drystone wall features including: Stone stoups, cheekends, water/sheep smoots and slab stiles.

Surveyors were also asked to determine a wall's overall condition by placing it in one of the following categories:

A) Walls that remain intact, displaying their original build style and features, or have been repaired to a satisfactory standard within recent times.

B) Walls similar to A but with some areas of collapse or poor repair or with features such as copestones missing.

C) Walls still stock proof for the most part but showing signs of imminent collapse such as bulging or bellying out, leaning, poor repairs, and extensive overgrowth or foundation problems.

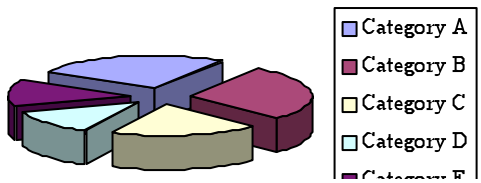


D) Walls with large gaps or areas of poor repair and lengths with loss of feature such as copestones.

E) Walls where most of the stone is missing, covered in dense overgrowth and probably less than 30% of the wall is present.

The survey results showed that the walls fell into the following categories:

- 56 (25.9%) walls fell into category A
- 60 (27.7%) into category B
- 42 (19.4%) into category C
- 26 (12%) into category D
- 30 (13.8%) into category E



Fig?. Survey results demonstrating the condition of drystone walls in the Wye Valley AONB

As a means of prioritising walls for conservation, further information was gathered for a simple scoring system:

Functionality Essentially whether the wall is used to control stock and/or serves as a retaining wall

Public Benefit	Assessed by whether the wall is alongside or close to a public right of way
Cost of repair	The percentage of stone still remaining from 0-100% and accessibility i.e. along a roadside

By applying this method walls could score between zero and nine points. The higher the score the greater the importance of the wall. This allows walls to be prioritised walls for future conservation

Results

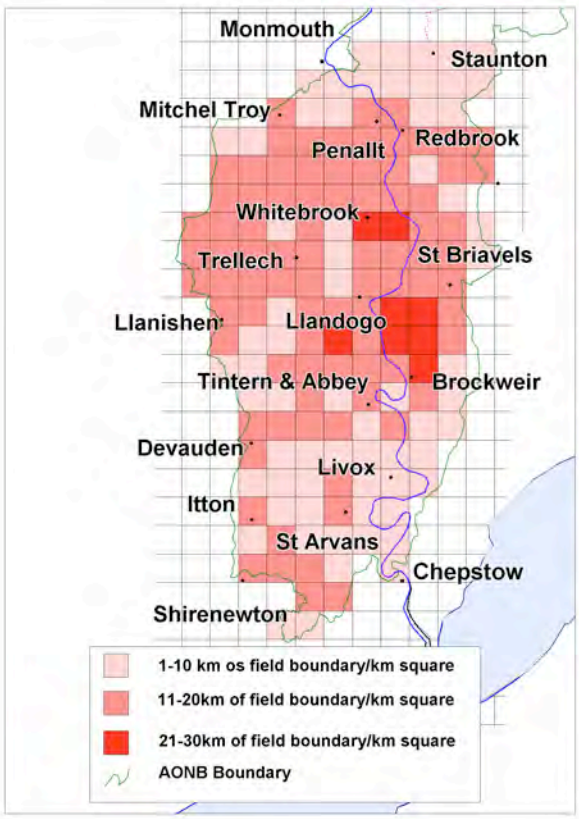
The survey generated considerable interest, with many local people from local communities wanting to learn more about drystone walls in their area. In summary a total of:

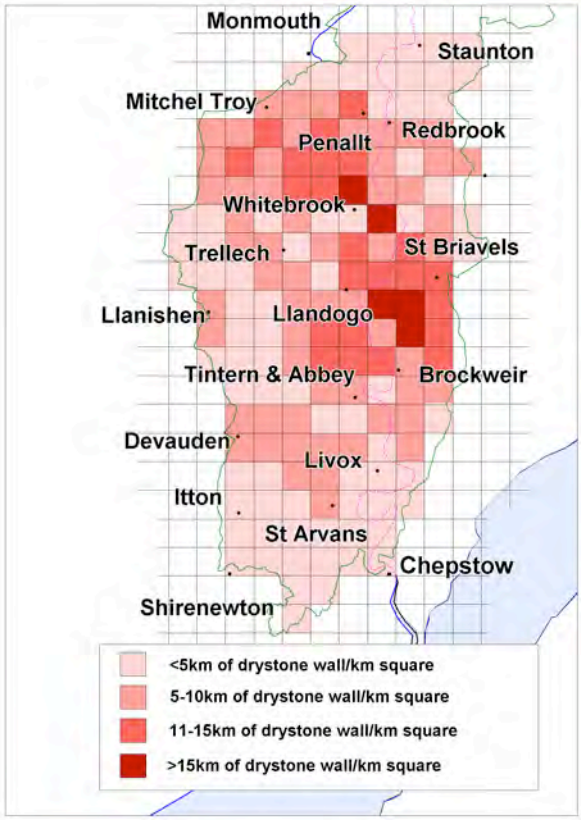
- A total length of 27,504 metres of wall surveyed.
- 249 individual field boundaries were recorded.
- 216 of the field boundaries recorded were walls.
- 31 of the field boundaries were either fences and/or hedges.
- 2 field boundaries were no longer in existence.
- 65 (30.1%) were retaining walls.
- 134 (62%) were stockproof barriers.
- 136 (63%) of walls bordered a public right of way.
- Features included – 9 cheekends, 11 slab stiles, 12 stoups and 2 water smoots.
- Average wall length was 111 metres.

Survey results suggest that a large proportion of the walls are in a good state of repair, with 58.6% falling into categories A & B.

How many walls and field boundaries are there?

The data gathered suggests there could be up to 600 miles of wall within the Wye Valley Area of Outstanding Natural Beauty. In just one kilometre grid square (SO5303) 72 individual field boundaries, totalling nearly 32 km, were recorded from Ordnance Survey data. Drystone wall concentrations occur near St Briavels, Brockweir, Llandogo, Catbrook, Penallt, Whitebrook and The Narth although walls can be found almost anywhere in the Wye Valley AONB between Symonds Yat and Chepstow. The greatest density of walls occur near Brockweir and St Briavels.





Left: map showing the number of field boundary per 1km square, measured from the Ordnance Survey OL14. Right: map showing estimated density of walls within the AONB.

Restoration work

Today, the majority of drystone walls built in the Area of Outstanding Natural Beauty tend to be small scale and usually form garden boundaries. In the wider countryside, walling is rarely used as a means of stock control, due to its relative cost compared to fencing. There is however a local demand for drystone walling skills which at present cannot be met by the current level of training opportunities.

Every year since 2002 the Wye Valley AONB unit has trained about 24 people in drystone walling. In addition, the AONB unit runs regular volunteer tasks to restore drystone walls.

Training course attendees, Whitebrook

Assessment of methodology and data analysis

As the survey relied on local volunteers to record information on drystone walls throughout the area. The recording form needed to be concise and simple for them to use to ensure the greatest coverage and to maintain the surveyors' enthusiasm. The volunteers were able to choose the survey sites themselves so they could fit the survey in around their lifestyles.

Whilst this methodology encouraged a large return of data, there were associated problems that became apparent during the survey. Many volunteers selected areas they knew contained good numbers of drystone walls, which were generally in good condition, rather than working systematically from Ordnance Survey data. It is also likely that some walls were in such a state of disrepair that they were missed as walls altogether. For example within the Hudnalls, many walls have all but disappeared, to be replaced by hedges, and a thorough investigation is required to determine if a wall was once present. As a result there is likely to be a skew in the survey data showing that the walls are generally in a good condition within the Wye Valley when in fact this is probably not the case. Also, it has been difficult to estimate the density of walls in the Area of Outstanding Natural Beauty because there was a lack of systematic recording of the field boundaries.

A fairer picture would have been obtained by pre-selecting areas for surveying and recording all field boundary information, although this would have invariably reduced the amount of survey information recorded. It is estimated that less than 3% of the total length of drystone wall was recorded as part of this survey, and the results are likely to have been skewed by the methodology, which involved volunteers rather than paid surveyors.