



Cotswold Dry Stone Walls

Conservation and management



Working together to conserve and enhance
the natural beauty of the Cotswolds
www.cotswoldsaonb.com



Introduction

Dry stone walls are walls that are made without the use of mortar or cement. They have been used as boundaries throughout Britain for centuries, and are a particularly important and attractive feature of the landscape within the Cotswolds Area of Outstanding Natural Beauty (AONB).

These walls are very much a part of what makes the area special. There are at least 4,000 miles of dry stone walls in the AONB (as long as the Great Wall of China). Sadly, many of them are in a derelict state, but steps are being taken to encourage people to maintain and restore them for future generations.



History

The earliest known example of dry stone walling in the Cotswolds can be found at Belas Knap near Winchcombe in the North Cotswolds, a Neolithic long barrow built about 2000 BC. Most of the dry stone walls we see now date from the 18th and 19th century, when large tracks of open fields and downland were enclosed for livestock. Stone and labour were both readily available, so walls were relatively cost effective to construct.

In the second half of the twentieth century, many walls became redundant as livestock numbers fell and fields were used for growing crops. There were also fewer people employed with the skills to maintain and restore the walls.

Geology

Stone used for dry stone walling in the Cotswolds comes from thin strata of oolitic limestone. The thickness and colour of the stone varies considerably throughout the area. As a result, the appearance of the walls, also varies. In the north of the Cotswolds, for example, the stone can be honey coloured, while in other parts of the Cotswolds it can be grey or white. Near Bath the stone has a boulder-like appearance. A type of stone that is commonly found in walls across the Cotswolds is 'Ragstone', a particularly uneven, rough-looking stone.



Belas Knap



Wildlife

Dry stone walls support a vast array of wildlife. Many species of lichens and mosses, such as feather and cushion mosses and algae, make their homes on walls. Some of these create 'tilth' (which comes from the oolithic limestone creating a soil like material) which supports other plants, including pennywort, stonecrop, cranesbill and ivy. Care should be taken that ivy does not destabilise the wall. Other plants found on the walls include spleenwort, polypody and wall rue, as well as some that have come from domestic gardens, such as species of saxifrage.

Slowworms and invertebrates including snails live within the walls' nooks and crannies, as do spiders, woodlice, springtails, millipedes, bees and wasps. One particular species of snail, *Lauria semproni*, can only be found at a single location in the Cotswolds. Adders can often be seen basking in the sun on the walls. Birds such as coal tits, wrens, wheatears, robins, redstarts and little owls also make their nests within the cavities of walls, as do toads, voles, fieldmice, shrews, hedgehogs and bats.

Dry stone walls help to create microclimates that support other species that live nearby. The uncultivated strips of land running alongside walls are very important habitats

for wildlife - like hedges, walls act as wildlife corridors.

Characteristics of Cotswold dry stone walls

Cotswold dry stone walls are built with a tapering cross section (called the batter). The width of the wall below the coping stones should generally be half that of the base. Through stones are used to bind the two sides of the wall together and small stones or 'hearting' are used to fill in the gaps of the stones on each course. The longer edge of each stone is placed going into the wall to protect the stone from weather effects. Each stone should be placed at a slight angle so that water can run out of the wall rather than staying within it. This is because retained water causes problems when it freezes and expands, damaging individual stones and even pushing walls apart over time.





Methods of topping walls

Various methods are used to finish off the top of walls. In the Cotswolds, so called 'cock and hen' coping stones are the most common. These are thin individual pieces of stone placed on end at right angles across the top of the wall. These stones weigh down the courses below and bond both faces together so that the wall settles into a solid unit. They protect the face stones and fillings from the weather, animals and people. Without copings, walls tend to flake away course by course, especially if they are made of small or fissile stones. Some walls are topped with dressed stones or stone slabs.



Coping stones are sometimes cemented to the top of the wall to stop them from being dislodged by people or animals. This can restrict the natural movements of walls as they settle over time.

In some areas of the Cotswolds rather than coping stones, it is not uncommon to see a layer of mortar, as a cap, spread over the top

of the wall. The use of mortar in this way restricts the movement of the wall and can result in large sections collapsing as one.

Features of Cotswold walls

Features in the dry stone walls in the Cotswolds contribute to the diversity of the area, and reflect local history. Walls contain many unusual features, including holes for livestock to pass through, stone steps, water troughs, stone styles, archways and bee boles – a shelter within the wall where beehives used to be kept.



In some places the core of old stone pipes, saddle stones and other reused stone artifacts can be seen in walls.



Some local features are constructed in dry stone walling for example animal pounds used to hold stray livestock until they were collected by their owners. Walls were also used to partition dew ponds, watering holes for livestock, which owners sometimes shared.



What can be done to protect and maintain these unique features

In the context of modern farming practice dry stone walling is expensive to maintain. Within the Cotswolds they are a unique and distinctive feature of the landscape and their conservation and management is a high priority.

If dry stone walls are properly maintained they can last for generations. Some simple steps will help ensure that the walls remain in good condition:

- Cut vegetation from the side of walls once a year. This will allow the wall's condition to be checked and will prevent the growth of woody vegetation. It will also 'air' the wall and help prevent frost damage.
- Do not allow trees to grow beside walls. Their roots can make foundations unstable and the tree trunk could eventually push the wall over.
- Remove ivy from walls as soon as it emerges, as this will weaken the whole structure. Walls already overgrown with ivy may need complete reconstruction.
- Replace coping stones or their equivalent as soon as they fall off. They give the wall additional strength.
- Repair any damage to walls as soon as it happens. If left untreated, the damage will get worse and the cost of repair will increase.

Where possible, to maintain the local distinctiveness, stone should be used from local quarries.



Grants

It can cost around £100 per metre run to restore a badly damaged wall, including the cost of the stone. A number of organisations now offer grants for repairs, including Defra (the Department for Environment, Food and Rural Affairs) through its agri-environment schemes. The Cotswolds AONB Partnership is also running a scheme, Caring for the Cotswolds, funded by the Heritage Lottery Fund, to promote dry stone walling. This includes grants of up to 50% to restore existing walls in some parishes within the AONB.

Training

Several organisations offer training in dry stone walling, notably the AONB Partnership and the Dry Stone Walling Association. These courses also raise awareness of dry stone walls and the need to maintain them.

Information about dry stone wall training is available from:-

Cotswolds AONB Partnership
Tel: 01451 862000
www.cotswoldsaonb.com

Dry Stone Walling Association of Great Britain
(both Cotswolds and South-West Branches)
British Trust for Conservation Volunteers
Tel: 01452 857851
www.dswa.org.uk

British Trust for Conservation Volunteers
Tel: 01302 572 244
www.btcv.org

National Trust
Tel: 01985 843600
www.nationaltrust.org.uk

Wychwood Project, Oxfordshire
Tel: 01993 814143
www.wychwoodproject.org

Royal Agricultural College - Cirencester
Tel: 01285 652531
www.royagcol.ac.uk

Hartbury College
Tel: 01452 702132
www.hartbury.ac.uk

Lantra - Stoneleigh Park
Tel: 024 7669 699
www.lantra.co.uk





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This booklet is part of a series that aims to raise awareness of the features that make the Cotswolds landscape so special. It also sets out how we can help to conserve and enhance this outstanding heritage.