

CONSERVATION ECOLOGY PROJECT

SHEEPWASHES OF THE WESTERN LAKE DISTRICT VALLEYS



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By Steve Clarke



PLATE1

WALNA SCAR QUARRY SHEEPWASH, DUDDON VALLEY

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The following Appendixes are contained on the enclosed CD:

APPENDIX 1 TYPICAL CHARACTERISTICS OF A SHEEPWASH

APPENDIX 2. STRUCTURE CONDITION PROTOCOL

APPENDIX 3. RIVER ANNAS CATCHMENT SURVEY REPORT

APPENDIX 4. RIVER CALDER CATCHMENT SURVEY REPORT

APPENDIX 5. RIVER DUDDON CATCHMENT SURVEY REPORT

APPENDIX 6. RIVER ESK CATCHMENT SURVEY REPORT

APPENDIX 7. RIVER IRT CATCHMENT SURVEY REPORT

APPENDIX 8. RIVER LICKLE CATCHMENT SURVEY REPORT

APPENDIX 9. PLACE NAME EVIDENCE

APPENDIX 10. POSSIBLE (UNCONFIRMED) SHEEPWASHES

INTRODUCTION

I have been walking the Lake District fells for more than 30 years but it is only very recently that I have become aware of the presence of the old structures used for washing sheep that are widespread and still quite abundant on the lower slopes.

A search of the Cumbria County Records Office and Lake District National Park databases reveals that no comprehensive survey of Cumbrian sheepwashes has been carried out, and the small amount of information that exists does not contain photographs or diagrams of the remains.

This project is hopefully the first step to conserving these historical structures, and will be copied to relevant groups and organisations.

Before proceeding further it is important to differentiate between washing and dipping sheep.

Washing has not been carried out for many years and is a process to remove grease, dirt and particulate from the fleece by washing in water whilst it is still on the sheep's back, no chemicals are used.

Dipping is an operation to improve animal welfare that became compulsory in 1905. It utilises chemicals to kill insectivorous vermin such as lice and to prevent scab and other similar sheep diseases.

PROJECT AIMS

1. To locate, survey and record details of remaining structures and former sites where structures have been lost.
2. To investigate how, when and why the structures were used with a local emphasis but also nationally and internationally such that local findings can be seen as part of a wider picture.
3. To make the results available to other organisations as the first step in protecting and conserving this relatively unknown part of our agricultural heritage.

GEOGRAPHIC SCOPE OF PROJECT

The study area of this project is described as the western valleys of the Lake District National Park. Specifically it is the catchments of the following rivers:

1. Lickle
2. Duddon
3. Annas
4. Esk
5. Irt
6. Calder

METHODS

Phase 1: Preliminary investigation to locate potential sheepwash sites

1. Systematic study of first and second edition Ordnance Survey maps held in County Record Offices (CRO`s)
2. Archive searches of CRO (Barrow) and CRO (Whitehaven), Lake District National Park (LDNP) and National Trust Western Valleys team (NT).
3. Discussions with farmers

Phase 2: Field Survey

1. Develop protocols for determining likelihood that a structure is a sheepwash (Appendix 1) and for evaluating its condition (Appendix 2).
2. Visit each potential site to evaluate remains in accordance with the protocol and decide whether to include the structure in the project
3. For each structure that is likely to be a sheepwash, measure, map, photograph and record details on a survey sheet. (Appendixes 3 to 8)
4. Whilst out on the fells, carry out visual Surveys of watercourses from vantage points using binoculars in order to locate any structures not identified in phase 1 study.

The following equipment was used during this phase, hand held GPS to accurately locate sites, measuring stick, digital camera and binoculars.

Phase 3: Document and Internet search to investigate how and why sheepwashes were used, when they were built and when they went out of use.

1. Key word searches (Sheepwash, Washfold) of CRO, LDNP and NT archives and the internet
2. Books dealing with post medieval cumbrian farming and the wool trade

Problems encountered

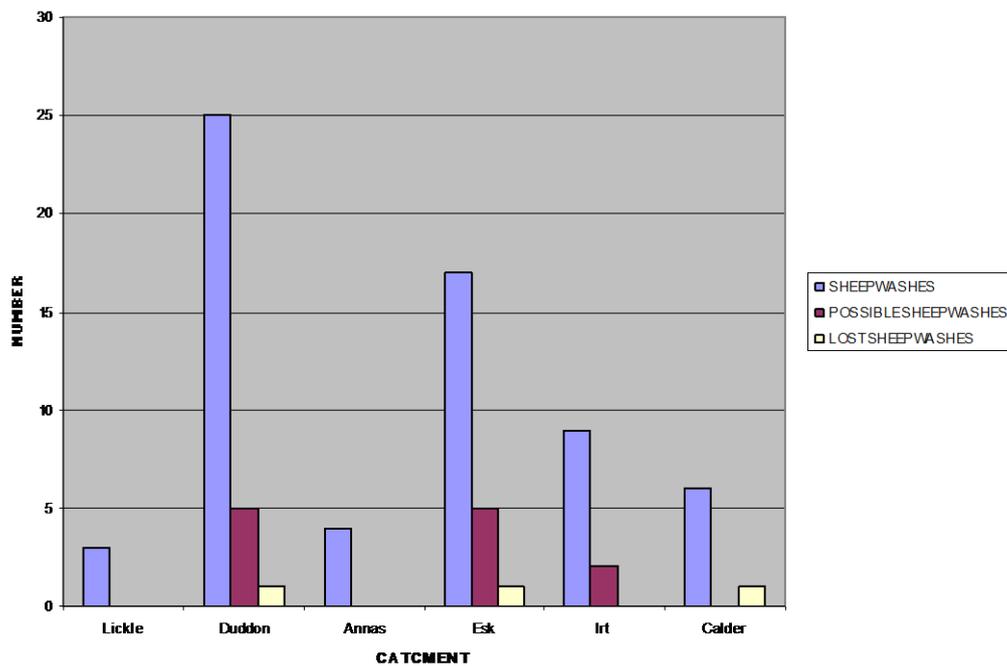
1. There were incomplete map sets for the study area at each CRO, necessitating visits to the Whitehaven office for former vice county Cumberland and Barrow office for former vice county Lancashire sites.
2. Sheepwashes are not consistently identified on early OS maps. They are shown as sheepfold, fold, sheepwash, wash fold or wash dub. This required any site adjacent to a watercourse to be considered as a potential sheepwash resulting in a significant increase in fieldwork and number of 'false positives' being encountered during field surveys.
3. On no occasion could I find a farmer that could remember a local sheepwash being used by himself, his father or grandfather. As such this source of information did not prove very helpful.
4. A maximum of 4 structures was surveyed in a day, more usually one or two. More than 60 structures were eventually found and almost as many visited and found not to be sheepwashes. This is a time consuming task and is better carried out by a team of surveyors.

FIELD SURVEY RESULTS

Appendixes 3 to 8 contain survey data, location map & a data summary spreadsheet for each sheepwash. Appendix 10 lists additional possible sheepwash structures

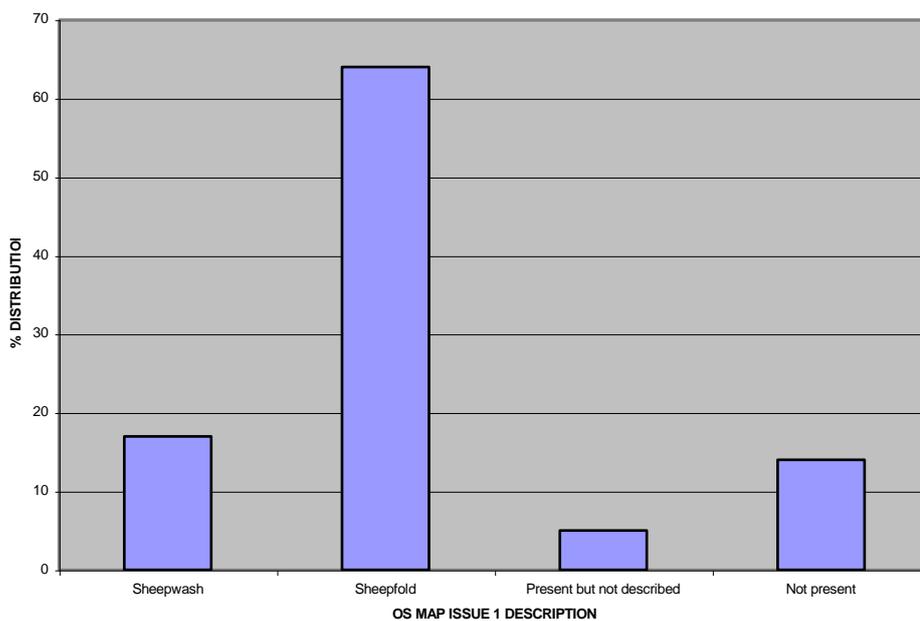
Number of structures located

The chart below illustrates the number of confirmed, possible and lost sheepwashes located in each catchment.



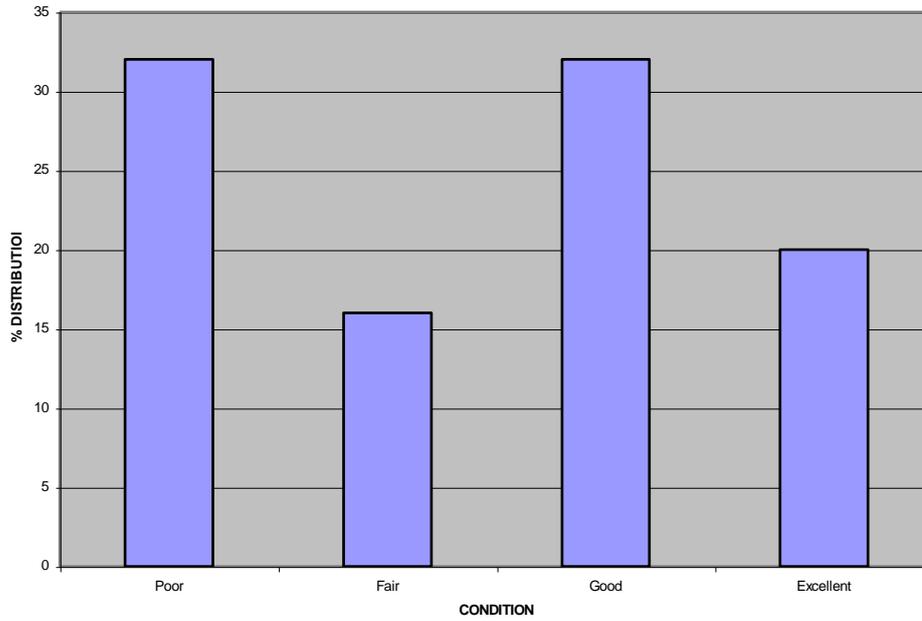
Ordnance Survey map description.

The following bar chart illustrates how sheepwashes are described on the Ordnance survey first edition maps



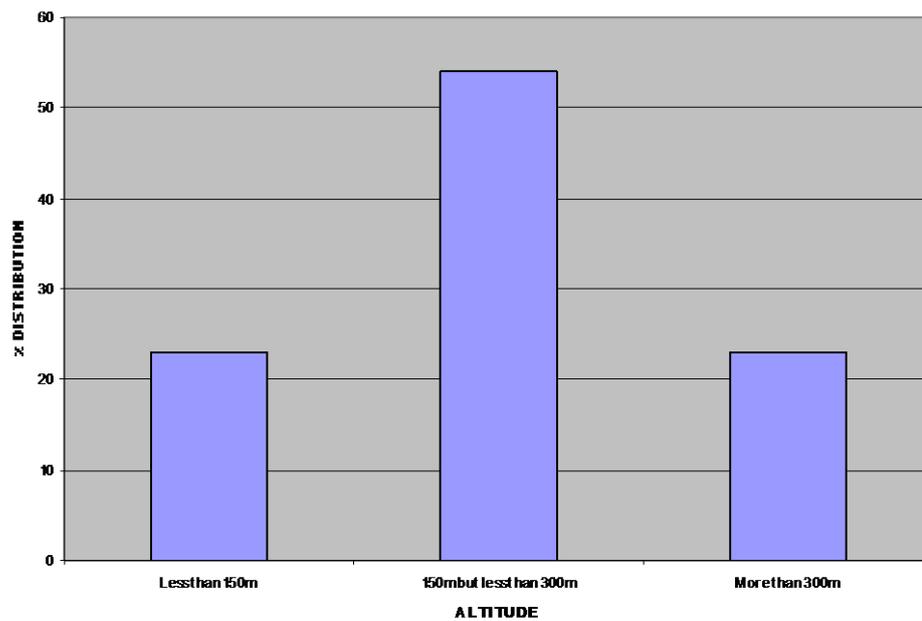
Condition

The following bar chart shows the distribution of structure condition as defined in Appendix 2.



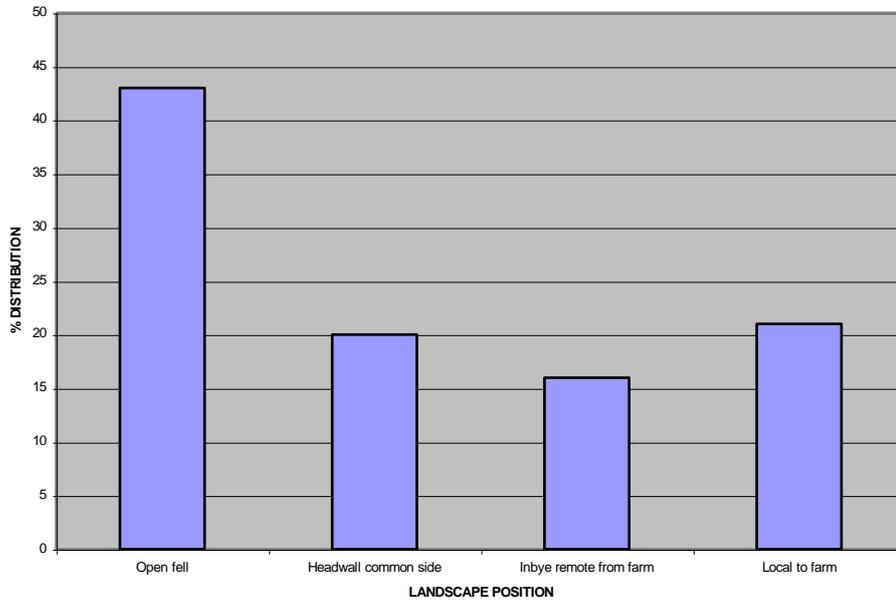
Altitude

The following bar chart shows the altitude distribution at which structures are located



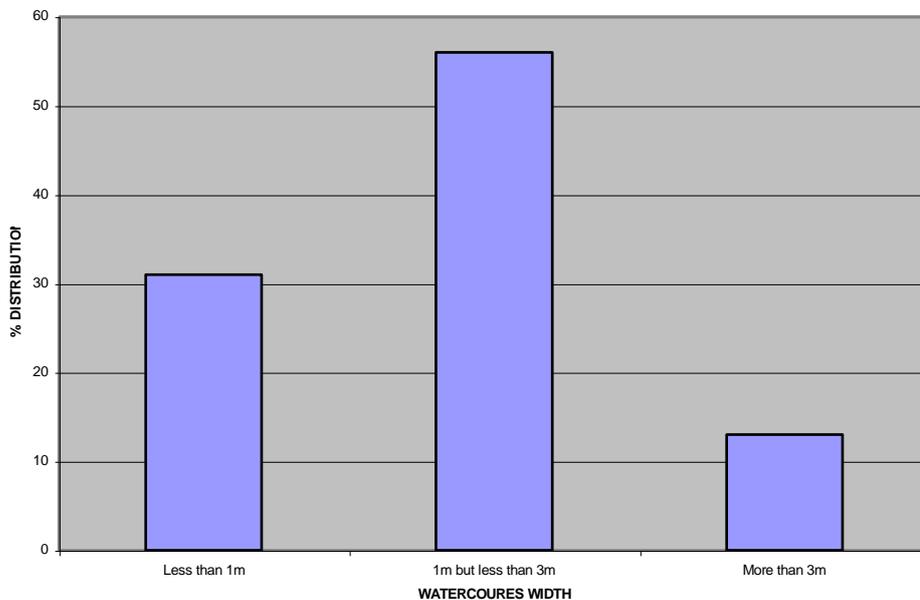
Landscape Location

The following bar chart shows the distribution of sheepwashes by location within the upland landscape.



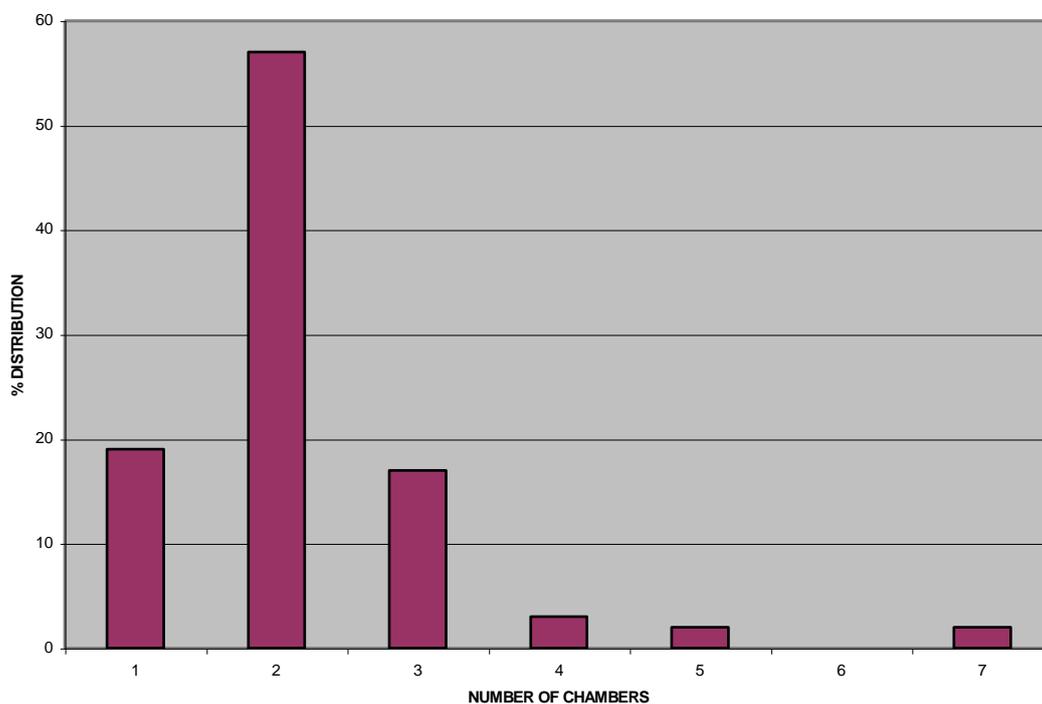
Watercourse width

The chart below shows the distribution by width of watercourse on which a sheepwash is located



Number of chambers

Wash folds within the study area were found to have between one and seven compartments or chambers as illustrated in the bar chart below.



DOCUMENT SEARCH RESULTS

The aims of this part of the project are threefold, to ascertain when sheep washing began and when it ceased as an agricultural practice, where and why it was carried out and the method by which it was done.

Background

In medieval times wool was a valuable commodity and indeed was the mainstay of the English economy, with huge volumes of wool being exported to Holland and Belgium where it was turned into cloth (Hurst et al pg 5 ref 1).

Later, wool was used principally for the domestic textile industry and the export trade diminished.

Key word searches of the internet reveals that there is evidence in the form of place names that sheep washing was carried out the length and breadth of the UK and overseas. A list of such places is shown in Appendix 9

Locally, Kendal was the centre for the woollen industry, it is geographically well placed, has ample supplies of water power to drive mill machinery and plentiful supplies of locally produced wool to manufacture the famous 'Kendal Green' cloth. Packhorse roads from all over the district and beyond converge on Kendal and for many years would have carried wool from producer to the mills.

Although Kendal was at the heart of the industry, there were many small fulling mills throughout the area used to produce crude cloth for the local market and these would also have been a customer for locally produced wool.

Why sheep were washed.

Wool will obviously become soiled with all manner of dirt whilst it is on the sheep and it also contains a natural grease, Lanolin, that helps to shed water and keep the skin supple.

This is a problem for unsophisticated spinning and weaving processes and prior to the development of factory based cleaning processes a premium price was paid for clean wool.

The amount of dirt and grease in a fleece can be reduced by washing in water, the easiest way being to wash it whilst it is still on the sheep.

There is a natural detergent in the wool that helps to lift grease from the wool when it is wet which perhaps explains how washing in cold water will remove or at least reduce the grease content of a fleece.

Whilst the principal reason for sheep washing is to obtain a premium price for the fleece, a clean fleece is also easier and more pleasant to remove during clipping, will be lighter for transporting and is less prone to deterioration in storage. (Hurst et al pg 8 Ref 1).

When sheep washing was carried out

In June wash thy sheep where the water doth run:
And keep them from dust but not keep them from sun.
Then shear them and spare not, at two days anende,
The sooner the better their bodies amend.
Thomas Tusser 1557

Shrill whistles barking dogs and chiding scold
Drive bleating sheep each morn from fallow fold
To wash pits where the willow shadows lean
Dashing them in their fold stained coats to clean
Then turned on sunning sward to dry agan
They drove them homeward to the clipping pen

John Clare 1827

Once people started spinning and weaving wool to manufacture cloth, it would have become necessary to wash the wool as part of the manufacturing process. No machinery existed in the early days to wash and dry wool and it was simpler and more practical to do this on the sheep.

There is evidence in medieval place names that designated locations were used for washing sheep, and the verse above illustrate that the process of washing sheep was certainly well established by the mid 16th century.

By the end of the 19th century machinery had been developed to wash wool at the mill and so the need for washing sheep came to an end. In spite of this Craig (The Washfold at Melmerby Ref 2) quotes an elderly resident of Melmerby in Cumbria who could remember the village sheepwash being used in the 1920`s and a resident of a Cotswold village is referred to in ‘Washpool’ project newsletter (Cotswold AONB partnership, Ref 3) who could recall the village sheepwash being in use up until the 1930`s

Method of washing sheep.

Several sources, including Winchester (Harvest of the hills: pg 59 ref 5) states that Late June or early July was when sheep were washed in readiness for clipping which was usually carried out within a week or so.

Documentary, photographic and anecdotal evidence points to two differing methods being used within the wash dub.

Either a man or men are placed in the water and manually clean the sheep using a variety of actions or men are placed on the bank of the wash dub and manipulate the sheep with long poles.

Evidence for the ‘in water’ method is provided by Mark Hodgson, farmer at Wasdale Head Hall Farm who states that he has an old photograph of family members in Derbyshire standing in the dub washing sheep.

Furthermore, an Internet paper by the University of Illinois (Pond washing of sheep Ref 4) states:

‘The washing process itself consisted of swinging the sheep to and fro through the water, after going out just deep enough to float the sheep’

The alternative method of men operating the sheepwash from outside the dub using poles is shown in the splendid photograph on the cover sheet, taken somewhere in Cumbria.

This method is also supported by local anecdotal evidence quoted by Craig (The washfold at Melmerby Ref 2) as follows:

The Oldest man in Melmerby, Cumbria remembers the village fold in use in the 1920`s

‘They dunked the sheep into t’water on their backs and they puddle them round wi a long pole. They got onto their feet again, t’where t’road is and they shook theirsels dry’

There is also anecdotal evidence quoted in ‘Washpool’ newsletter (Cotswold AONB partnership, Ref 3) of a ‘hybrid’ method!

A resident of Uley, a Cotswold village recalls the village sheepwash being used as follows:

‘The sheep were put in and gradually let loose into the pool. There would be a man in the middle standing in a barrel holding a long pole to dunk the sheep’

DISCUSSION

Method

Whilst doing a key word Internet search I found a similar project had been carried out in 2002 within the Cotswold ANOB. That project used professional archaeologists to locate potential sheepwash sites with volunteers local history groups then being trained & directed to carry out field surveys. The project was funded by a Local Heritage Initiative grant.

It is interesting to note that the method I developed independently was the same as that used earlier in the Cotswold project. i.e. using first and second edition OS maps to locate potential sites for subsequent field work.

The method worked well and 88% of sites were located on the early OS maps. The remaining 12% were located in the field by visual surveys from vantage points using binoculars. I found that the 6" map series was easier to use than the 25" series for locating sites because the level of information is the same on both but there are far fewer sheets to check if the 6" series is used.

During early stages of the fieldwork it became clear that by no means all structures built beside watercourses were sheepwashes. The decision as to whether a structure was a sheepwash or not was further clouded in some instances by the poor condition of the remains. For this reason I developed a protocol (Appendix 1) against which to evaluate sites, and inevitably, had to revisit and re evaluate some sites against the criteria in the protocol.

It was foreseeable at the outset that the condition of each structure would need to be assessed, so the condition assessment protocol (Appendix 2) was written before field surveys began and worked well throughout.

The field surveys entailed many miles of walking across the lower fells often to places that are almost certainly never visited today except by shepherds. Every step was a delight.

To minimise mileage I found it was important to carefully plan routes to maximise the number of structures that could be visited on a walk.

Low cloud and snow were significant obstacles to effective surveying and eventually such conditions were avoided. Once Bracken starts growing in earnest many of the remains are covered and surveying becomes impossible.

Field survey results

Whilst a few sheepwashes are adjacent to a farm, it has not proved possible to ascertain which farms owned / used the majority of the structures.

In every catchment there are more farms than sheepwashes so assuming that all farms washed sheep, there must have been some degree of shared usage.

In some cases sheepwashes were held in common ownership and the use of them was managed by manor court law (Winchester, Harvest of the Hills pg 59 and 60 Ref 5)

The number of structures found in the study area and in some cases their proximity to one another would tend to suggest private ownership with only a limited degree of shared usage.

Further study entailing which farms had rights on which commons may shed more light on this aspect.

Only 18% of sheepwashes were described as such on the first edition OS map with 64% described as sheepfolds. The fact that some structures were correctly described illustrates that some surveyors at least, were aware of the difference between a fold and a sheepwash (perhaps through dialogue with a farmer) and choose to describe it correctly on the map. Others, it seems, did not or could not differentiate between the two types of structure.

Sheepwashes in the study area are generally in an intact condition and their purpose is clear to the experienced eye. 68% were in fair, good or excellent condition with 52% being good or excellent. Only three sites were found totally destroyed without trace. This part of our agricultural heritage has survived well, probably because most are in relatively remote locations. Survival is also a function of build quality and structures in parts of the Duddon and Annas valleys where the country rock is poor quality slate have suffered accordingly.

There is a clear link between the altitude at which sheepwashes are located and landscape location. The majority (55%) are located between 150m and 300m altitude with 63% located against the enclosure head wall or on open fell relatively close to it. Utilising the head wall as part of the structure saves construction effort and if the enclosure award documents for such locations can be traced a more accurate construction date may be ascertained.

There is a clear trend for sheepwashes to be built on watercourses that are no more than 3m wide, with the majority on watercourses between 1 to 1.5 m wide. In many cases this is a function of the decision to build around the headwall at 300m altitude where watercourses tend to be in their infancy. However I believe another factor is that whilst not much water is required to operate a sheepwash effectively once the dub is filled, there is evidence that structures on larger watercourses have suffered damage or total destruction due to floods (especially where they are located on the outside of bends) and so construction on larger rivers has been avoided.

The three structures found to be totally destroyed were located on the rivers Duddon, Esk and Worm gill, all powerful rivers and destructive in spate conditions.

76% of the sheepwashes were single or two chambered structures with the majority (57%) being two chambered.

The single chambered design was relatively quick to build and functional as a washing structure whereas the two chambered design enabled sheep to be driven in a receiving chamber first and from there released into the washing chamber in a more controlled manner. Other sheep management tasks could also be carried out in the receipt chamber prior to washing.

More complex folds with up to 7 chambers are unusual and it is possible that in some cases these were originally more simple structures that were subsequently enlarged.

Where washfolds were found in a totally collapsed condition, often features associated with the wash dub such as stone revetments, remains of a dam or a launching slab remained to identify the structure positively as a sheepwash site.

Differences in building style reflects both local geology and vernacular style. The vast majority of structures were built in the standard dry stone wall style. However a small area of the central Duddon valley either side of Caw uses large vertical interlocking flags of slate dug into the ground to form partitions (e.g. structure L02 figure 1) and structures in parts of the Calder catchment are built using the west Cumberland stone and turf dyke (e.g. structure C01 figure 2).

Figure 1
Structure L02 Tail Crag
(Caw)
Compartment walls
formed by Interlocking
slate flags



Figure 2
Structure C01
Stockdale Moor
Built in the West
Cumberland stone
& turf dyke style

Whilst most structures exist in their original state, a few have been modified and their purpose changed.

The most common modification (e.g. structure D19, figure 3) has been to wall up the exit gate to the washdub thereby making the structure into a standard containment fold.

Figure 3
Structure D19
Thwaites Fell
Exit door to dub
walled up, location
shown in red



Two structures (D23 figure 4 and part of D21) had inlet and exit gates walled up to create a sheep proof enclosure within which trees were planted. In both cases the trees are large and mature indicating the enclosure was formed many decades ago.



Figure 4
Structure D23 Park
Head Road North
Inlet and exit gates
walled up to create
sheep proof tree
enclosure

In one case (structure D15) the water holding capacity of the wash dub has been utilised for a domestic water supply, and a modern concrete dipping tub has been constructed within the fold.

Three structures have been ‘conserved’ by rebuilding. One of these (structure I04 Figure 5) has been very well done, but the other two (structures E17 and D12 figure 6) have failed to appreciate, or ignored the fact these were sheepwashes unfortunately resulting in the structure being rebuilt as a standard containment fold rather than a sheepwash.



Figure 5
Structure I04
Overbeck
Example of a
sympathetically and
well conserved
sheepwash

Figure 6
Structure D12 Dale
Head
Example showing
structure incorrectly
rebuilt as a fold with
former exit gate
located centre of
nearest wall walled up



Document & Internet survey

A search of the CRO`s and Lake District National Park databases reveals that no comprehensive survey of cumbrian sheepwashes has been carried out, and the small amount of information that exists is general in nature and does not contain photographs or diagrams of the remains. A document by local amateur historian, Susan Johnston containing a list and very brief description of some sheepwashes in the Eskdale area was found in the archive of Eskdale & District Local History Society (Ref 7).

Dating structures proved impossible in the timescales allowed by this project although more research of enclosure award documentation or tithe maps may be informative. I can say with certainty that almost all the structures remaining in the study area were present in the mid 1850`s when the first edition of Ordnance Survey maps were surveyed. I can also say the practice of sheep washing was carried out for at least 300 and perhaps 500 years prior to this.

Winchester refers to an entry in the manor court record for Skirwith in the 1650`s concerning the construction of a communal washpool, so we can see that sheepwash structures were being built locally at that time (Harvest of the Hills pg 59 and 60 Ref 5)

The structures we see today reflect centuries of development, and were used until the 1920`s or 30`s several decades after factory washing of wool became the norm. Perhaps this reflects a reluctance to abandon long established farming tradition or perhaps wool buyers continued to levy a cost penalty on unwashed wool long after it was justified on technical grounds.

Moving on to how sheepwashes were used, initially perhaps, washing was carried out by driving sheep into carefully chosen points on streams or making them swim across naturally deep pools. In ‘Pond washing of sheep’ (Ref 4) it is stated that bends in rivers were favoured washing places. The sheep could be put in to deep water on the outside of the bend and made to swim across and get out on the inside of the bend where water depth is shallow and the bank clean and stony.

Many sheepwashes in the study area are located on a bend in the watercourse

Over the years these places probably became traditional locations for washing sheep and it is likely that as farming prosperity increased in the early 18th century, enclosures would have been built at these long used places to more easily manage the flock through the washing process and the wash dub itself would have been optimised in terms of size and shape to give an efficient wash as easily and quickly as possible.

As we have seen, there is photographic and documentary evidence that the method of washing sheep within the wash dub also differed. Using poles from the relative comfort of the bank side probably reflects a logical development and an understandable desire to avoid standing for hours in thigh deep freezing water that would be at best unpleasant and at worst hazardous to health.

It is likely that using poles did not clean the fleece as thoroughly as manually washing sheep within the dub. Perhaps a less thorough clean was also, on balance, most economic. Farmers were conscious of the fact that although a higher price per pound

was received for washed wool, because a given volume of clean wool weighed less than the same volume of dirty wool a balance existed.

Chetty states 'In the 1890`s Howgill Castle estate compared prices received for washed and unwashed wool and it was concluded that Black Faced sheep made 2 1/4d and Grey Faced 2 1/2d more unwashed than washed so sheep were never subsequently washed.'

He goes on; 'the proportion of sheep clipped in the unwashed state increased rapidly, for example from 11% to 30% between 1882 and 1892. (Chetty S 'Andy Goldsworthy Sheepfolds' pg 61 ref 6)

CONCLUSION

There is place name evidence to suggest sheepwashing was carried out widely across the world, probably wherever sheep were farmed for wool. It began as an agricultural practice in medieval times, and started to decline in the last two decades of the 19th century when factory washing of wool became a practical proposition. Anecdotal evidence suggests the practice ended entirely by the 1920`s or early 1930`s.

The method used in this project to identify, survey, record and research sheepwashes was an effective means of achieving the project aims. If this project is repeated elsewhere, it is recommended that small groups of volunteer surveyors should be used to carry out the field survey phase after receiving appropriate training.

In excess of 60 structures were found in the study area, it is estimated that 300 to 400 structures could be present across the Lake District National Park.

The majority of structures found were in good condition with characteristic features well preserved. It is recommended they should be systematically surveyed across the Lake District national park and the best structure of each type in a catchment conserved and perhaps listed by English Heritage to avoid losing this little known part of our agricultural heritage

GLOSSARY OF TERMS

Exit gate. The point at which sheep were taken from the washfold and put into the wash dub.

Headwall. The highest wall between enclosed land and open fell.

Inbye land. All that land which is enclosed within the head wall.

Inlet chamber. The compartment where sheep first entered the washfold

Inlet gate. The point at which sheep entered the washfold

Launching slab or launching stone. The firm surface on which the man throwing sheep into the dub stood. Usually a solid slab of rock or a stone constructed platform.

Open fell. All un-enclosed common land outside the headwall.

Sheepwash or washfold. A structure usually comprising a walled fold associated with features of a wash dub

Wash chamber. The chamber in which sheep were held prior to washing in the dub.

Wash dub or dub. A deep pool in which sheep were washed. There is often a dam downstream of the dub and other features as described in Appendix 1

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ACKNOWLEDGEMENTS

Help, advice and encouragement is gratefully acknowledged as having been received from the following individuals and organisations:

- Friends of the lake District for providing a student grant to assist with costs incurred during this project
- Dr Caroline Langdon, Tutor University of Lancaster, for her personal interest and enthusiastic support
- The Search Room staff at Whitehaven and Barrow branches of the Cumbria Records Office for their cheerful help and assistance.
- Local farmers John Bolton (Windhall farm, Gosforth) Alan Watson (Hurlbarrow farm, Ponsonby) Mark Hodgson, (Wasdale Head Hall farm, Wasdale), John Harrison (Brotherikeld farm, Eskdale) and Jimmy Long (Scargreen farm, Ponsonby) For their time discussing sheepwashes on their land.
- Eleanor Kingston, Archaeologist, Lake District National Park Authority for providing access to LDNPA archive information
- Jamie Lund, National Trust Archeologist, for providing information on the historical landscape survey of Wasdale Head.
- Mark Connely, Cotswold ANOB Partnership, for providing a copy of their 2002 Cotswold Sheepwash Project report.
- Abbot Hall Art Gallery, Kendal, for the front cover photograph
- Eskdale & District Local History Society, for access to their archive.



PLATE 2

STOCKDALE MOOR SHEEPWASH

