Masterclass - Coping 2

Rubble

In this part of the world many walls seem to have had their coping removed. However this is not always the case in many instances they never had any in the first place. These walls more or less peter out without having a formal coping., being finished instead with a random capping of whatever was left over, otherwise known as rubble coping.

Rubble topped wall, Llanrug, near Caernarfon

It is difficult to determine formal patterns with this type of coping. Settlement takes it toll, which coupled with the generally insecure nature of the top and repairs/replacements -probably just haphazard replacement of dislodged stone means the top may well bear little resemblance to its original state. Equally it might have changed very little.

Generally these walls tend to have quite a wide top. The rubble rarely traverses the wall top, so it has to be wide enough to take at least two independent `rows` without them being easily displaced. These stones however rough still cap the wall, holding the top courses in place so they need to sit well and not be easily displaced. Consequently they tend to be larger than the previous layers, and generally sat on their largest surface.

As a general rule you should still try to achieve a more or less level finish. Setting a string is not necessary but can be useful especially where additional rubble used to fill gaps/dips or even as a third row across centre/join of first 2. There is no point putting a big stone in a small hole/dip and a small stone in a large one. Using a string just leads to efficient use of stone.

Sometimes the two outer layers of rubble are capped by a central line of rubble, somewhat bigger than shown over, which serves not only to increase the height of the wall, but also to effectively tie the two outer rows together, adding greatly to their stability.

Tyddyn Isa, Tal y Bont, Bangor

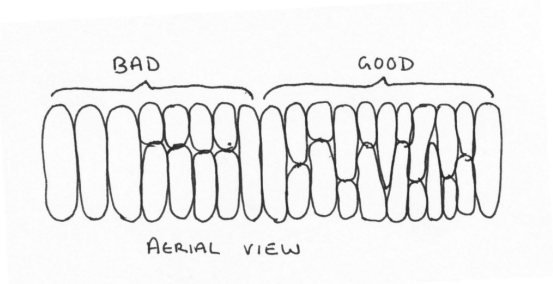
Where the rubble is either thinner and/or smaller it can be advisable to set the stones on edge as for normal coping. If you stand stones up whilst individually not necessarily stable you can lock them together far more than the case when sat “flat”.

Blaen y Nant, Nant Ffrancon, Bethesda

Basically there are not necessarily right and wrong approaches to rubble coping, rather better and worse (or maybe `not so bad and worse’ given its inherently unstable nature compared to normal coping). This gives plenty of room for improvisation. In my opinion a better use of stone tends to be achieved through more formalised approaches producing a tighter and more stable top.

The commonest fault/problem is building the wall too narrow to take what will almost inevitably be in effect a double coping. If aiming for around 20cm rubble then the top needs to be at least 40cm wide and nearer 50 or even 60 in order that the stones can be laid length in, ie longer than they are tall.

If you have any longer stones that more or less cross whole of the top these should be regularly spaced rather than grouped. There is little point in grouping and getting one good bit. They are good stones to key up to tightly when wedging, hence the whole cope can benefit if they are regularly spaced.



A problem tends to arise in that you should really do both sides at once to ensure they complement each other rather than the side you do second having a lot of compromises to get around the stones laid first. Practicalities tend to lead to one side being done first so you should try to mix the stones with shorter and wedge shapes to facilitate good stones on the second

side. The odd poor stone is not a problem when two good neighbours hold it in, a run of several poor stones can be disastrous as none really helps hold the others in.

Roadside, Penisarwaun, Caernarfon

With all the rubble copes you would try and top wedge them as far as you can to tighten them.

Slabs

Another rarer but not exactly scarce form of coping in these parts is composed of larger stones or slabs set flat. This has the advantage of requiring fewer stones than a standard cope, but it does require the body of the wall to be built higher to achieve the same degree of stock proofing as standard coping. Hence walls topped this way tend to be slightly more time consuming.

In effect this type of coping is a "coverband" without the subsequent vertical coping, plus the stones tend to be larger than in a more traditional coverband as they are reliant on their own weight to keep them in place.

There are essentially two approaches to setting these stones (which are generally relatively flat), either setting the slabs on top of the levelled wall, or setting the tops of the slabs level with the wall top levelling varying in height below them.

To create a flat top slab cope...
Work out which are the thickest slabs. Set one of these on an initially levelled piece of wall. Run a string from the top of this slab at a constant height along the wall. Place slab on wall see how much needs building up, (even place stone on top of the slab level to the string). Remove slab and build a bit of wall to take slab.

This can be tricky. Sometimes it is an idea to in effect prop each corner and then pin under the stone, especially with larger slabs that you don not want to have to keep removing and replacing. As with

Large slab top,Dulusau, Ysbyty Ifan.

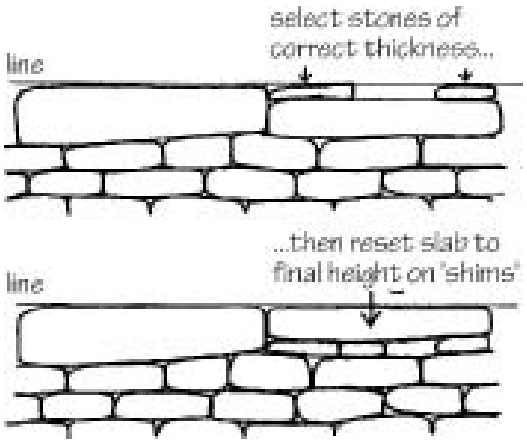


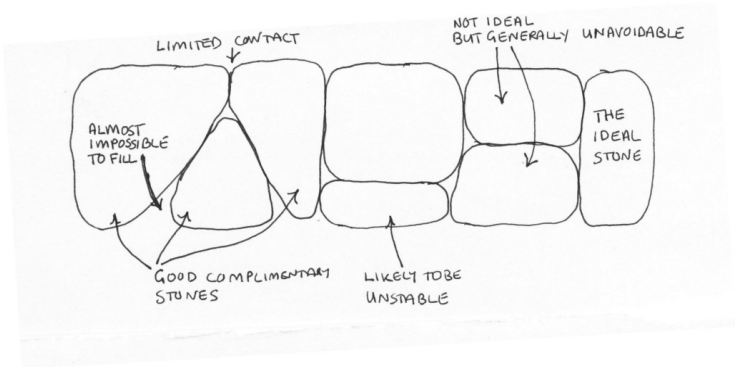
Diagram from BTCV "Dry Stone Walling". P135

everything in walling it becomes mush easier with practice. Given that I come across a significant stretch of this type of cope every five years or so I'm not sure I'll live long enough to become truly proficient!

An easier approach is to level the wall and set the slabs on this. The stones should be set to get some sort of flowing top. Where a stone is noticeably thinner, it is usually worth building it up a bit (as in the previous method) and if s a stone is particularly thick you can always remove a few stones off the top course.

As with standard coping these slabs should completely span the wall and be sat to complement their neighbours. If this is not achieved they do not hold the levelling stones in place, and individual slabs are more easily displaced. This can be a particular drawback with this type of cope as it is far more difficult to securely wedge any gaps compared to standard coping. It is very rare to find walls (other than consumption) with a double row of slab copes as they need to be particularly wide to accommodate them. Even then it is usually necessary to "trace" a fair few. If a double row is employed take great care to avoid leaving spaces that will only allow narrow, easily displaced stone on one side. Here less regular slabs are a godsend

Blaen y Nant, Nant Ffrancon, Bethesda



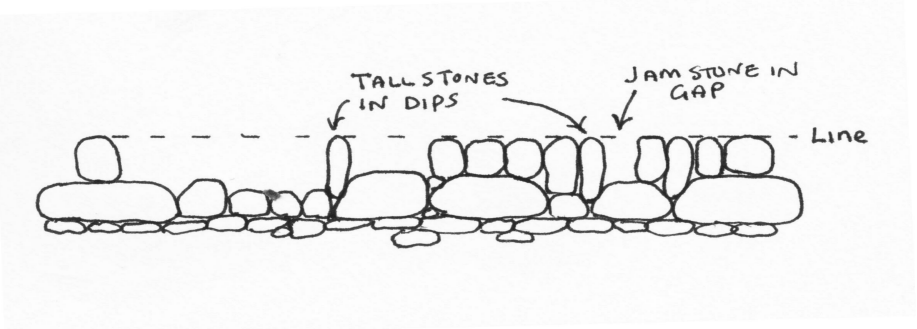
as triangular `plans` allow the two sides to complement each other, which is probably more important than maintaining good contact between adjacent stones.

Having said rubble coping gives plenty of room for improvisation it is probably worth mentioning the following method, which in many ways combines slabs and rubble. I have only found this method in short sections of as couple of walls in Nant Ffrancon but have used it extensively to cap two walls there, one several hundred metres long.

It is useful where you have a lot of stones that are so long they would have to go very low in the wall but are actually too small face wise to really go there. Coupled with judicious saving and use of some larger

slabs and normal coping you use these stones to create a coverband akin to slabs but much more random with steps and undulations as in the photo (again Blaen y Nant) below.

Then you set two copes to the required height (It is best to set chunky copes on flat covers for this) and run a string between them. You then fit the rest of your copes and rubble wherever they best sit to meet the line. Taller ones in dips, shorter ones on rises, jamming others into the gaps between



short completed sections similar to building cloddiau. Again the point of the line is to act as a guide, there is no point putting a tall stone where it pokes up if somewhere else you end up with a stone that is too short on a low bit thus creating a dip. Ending up with a level top is essentially a by-product of using the string, not its sole purpose.

If you have a number of taller copes you can set these on the wall as normal butting covers up to them (similar to bookends). If needs be you can double up thinner covers. You just vary it according to what stone you have. It thus becomes a very efficient way of using up a mix of coping, leftovers and rubble. The most important aspect is the cover as this will hold the top of the wall together even if the coping becomes displaced. In this respect you are just finding a good, efficient way of piling your left over stone on the finished wall to gain a bit of extra height in a way that will hopefully last.

In the photo the rubble is set to one side of the wall (the lower uphill side) as is often the case for standard coping (see last issue) with the `back` subsequently wedged.

There are of course many other variations and types of coping regionalised or local. One method I particularly like is a variation on castellated/buck & doe, as seen on the cover and found along the Ffestiniog Railway (I have also seen similar but not as extensive on Saddleworth Moor, Pennines). Here a great deal of height is gained through extra tall copes. It does however tend to be a little fragile as the does are a bit too small. Interestingly around Blaenau Ffestiniog you can find a more formalised version where roofing slates are used as the bucks, in some instances with their corners cut at diagonals. Must remember to take a photo one day.

Anyway coping could go on forever so unless you have specific questions about specific types of coping Masterclass will leave the subject there for the time being.

Sean Adcock