

Masterclass: Random walling (part 3).

The end is nigh, but first...

Plumbing the depths

I've had a query about "plumb" vis-à-vis "running" joints - someone must actually read these articles. For many the terms plumb and running are interchangeable. However to my mind there is a distinction which I have applied within these articles. Given that a running joint is any set of aligned joints vertically, diagonally or staggered then there is merit in referring to that set which are aligned vertically as a "plumb" joint. I however would take the distinction further. Two or three stone joints are far more common than long 'running' joints, a two stone joint can hardly be referred to as 'running' and three stones are hardly breaking into a jog. A whole world of possibilities has just sprung to mind; maybe a two stone joint should be a sprint; a joint stretching from footing to cope – a marathon; might a diagonal joint be a relay. Sorry I digress, it must be the after effects of the shock, or even euphoria, from getting a query. Not only are two stone joints more common as I mentioned last time in some patterns they are an integral component, but '(vertical) two stone joint' is an unwieldy phrase 'plumb joint' says it all and rolls off the tongue (and onto the page) better. I rest my case.

Meanwhile there is also an addendum to the rebating of stones to fit around others. This might all be very well where the rebates are relatively small compared to the stone the rebate is in. If you rebate thinner stones then there is a danger that any movement will create pressure points, and all you are doing is replicating the problems that you would have with using a "shim" as discussed last time...

There is an order to all things

In part 1 I introduced a number of patterns of random wall, in part 2 I outlined a technique used for random wall which with subtle variations leads to these patterns. Just to remind you...

Broken down to its absolute basics, random walling is just about employing snecks and jumpers with a bit of coursing; although it may well be that the coursing is in effect just levelling two adjacent stones, and no more.

How you put these together creates the pattern – from very random or random rubble through to much more formalised coursed random as we saw in Stonechat 17. Stone shape/type obviously plays a part but in this respect it is primarily because this determines how you implement the putting together bit.

Now I will introduce a couple more random patterns and look at how all these basic patterns can themselves be subtly varied in association with different stone type/shape, to produce a cornucopia of styles. Hopefully following on from parts 1 and 2 it will now be clear how to simply describe a wall as simply being random is perhaps to do it an injustice. More likely I shall just muddy the waters further.

Simple Random and revisiting Random Rubble

Having suggested in part 1 that the default for random walls is random rubble, which in dry stone walling terms is generally particularly irregular stone. However regular stone can be used to form a very irregular random pattern as in this example, from Low Bradley, near Skipton, North Yorkshire At around 5 feet high including covers and copes, most of the building stones are under 2" thick. Normally thin flat stone would be associated with coursed walling

The wall shown at the top of the next page could be classified as 'random rubble' since strictly speaking rubble really only means not dressed. However wallers tend to apply 'rubble' to more angular stone and hence a distinction can be made between 'random rubble' and 'simple' random or just 'random' if no other pattern can be readily distinguished. At a basic level simple random and random rubble are essentially the same.

Joints are frequent in this style of wall although they can be avoided with care. Where this is achieved it tends towards a slightly less random face, mistaken by many for coursed walling. However the walls are not coursed as many of the adjacent stones are of differing heights, this is more obvious where larger and less regular stone is used. A wall where many of the stones are around 6" (15 cm) high with adjacent stones around an inch (25 mm) lower looks obviously random, where the stones are only around 1 ½" (38 mm) thick a difference in height between stones of only (6 mm) is proportionately the same, although nowhere near as obvious. Hence the wall is only well structured, rather than coursed. The more regular the stone, the finer becomes the distinction.



Low Bradley, Skipton. © Sean Adcock

Random Brought to Courses

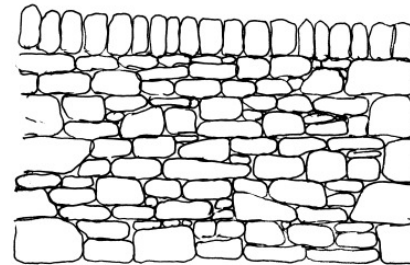


Diagram after McAfee p.42

In dry stone walling it tends to be found where the stonework is levelled along the length of the wall prior to the installation of through-stones although many wallers shy away from it as a method unless the levelling stones are quite thick as it can lead to bands of thin stone within the face of the wall. It can also be found in some areas with 'slabby' flat sandstones. Here

Penrhyn Castle park wall, alongside old A55 near Llandegai . © Sean Adcock

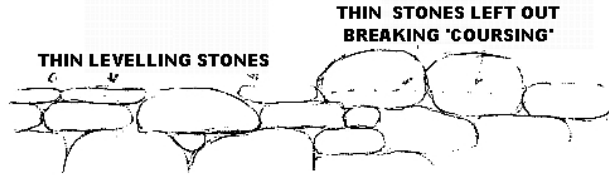
Most well structured random walls are to some extent "random brought to courses". True random brought to courses walls are brought to a level on two, three, or more occasions (depending on their height and stone size) as they are built up.

P.McAfee (*"Irish Stone Walls"*. The O'Brien Press, Dublin 1977.) provides a useful stylised diagram.

In practice dry stone duplication of this pattern is rare, it is more common in masonry walls, a noted example being the 7 mile Penrhyn Castle Park Wall (shown below).



every time you need to get a longer stone or slab on you have to level off, hence it can be expedient to level off a section to facilitate the placing of several of these stones. The whole problem of tracing a number of long stones next to each other is of course another kettle of fish which has been dealt with elsewhere. (*Stonechat 11*)



More normal practice is a rough levelling of the wall without using small stone in the smaller dips, instead placing a larger stone on them in effect breaking the coursing.

The end result can produce a well structured random face, which under close examination reveals some lines of levelling off. This is similar to breaking coursing on slopes as mentioned in part 2, and hence one reason why that specific practice is a good illustration of this principle.

Other patterns

There are several masonry terms I have not yet introduced, partly because they tend to be used by some rather than most writers. For example JM Nickey (*The Stoneworkers Bible* TAB Books, Pennsylvania, 1979) refers to **snecked rubble**, which in dry stone walling terms could be seen to make some degree of sense although following my analysis in part 2 its likely to apply to most 'random' walls. Another pattern Nickey uses is **snecked coursing** – at first this appears slightly oxymoronic although think about it and it does make some sense within coursed random work,

Another masonry term "**squared random rubble uncoursed**", is a bit of a mouthful. We are in danger of stringing all sorts of terms together to come up with descriptions, However within masonry it of course makes perfect sense - squared in masonry means slightly worked with a hammer, random rubble is rough stone, un-coursed is random so applied to dry stone work it just means a random wall built of fairly regular stone. However within masonry the pattern itself has lots of snecks and soldiers, jumpers and even upright jumpers, which if duplicated in dry walling would be frowned upon as inappropriate. An issue we shall briefly return to.

Using and combining these masonry terms allows us to better describe random walls, and maybe we could go even further and come up with our own new definitions. Could Derbyshire Limestone walls be dubbed "extravagant random snecked"?

Stonechat 15 dealt with **polygonal** walls in some detail. It is of course a random pattern in its own right, but I daresay if we lived in an area where polygonal walls predominated we'd be identifying more patterns as in the very least stone type would influence the exact pattern. Food for thought, and some questions for Miguel Ramis. Watch this space.

Anyway just as a reminder of polygonal, here are a couple of photos from Mallorca (right and top of next page).



Retaining wall inside Capdepera fortress, Mallorca
© Sean Adcock



Retaining wall Sa Colabra, Mallorca
© Sean Adcock

As noted in *Stonechat15* polygonal is not a type of wall readily/frequently identified in this country. However many 'very' random walls of irregular shaped stone verge on it. The key is to whether or not the stones are generally set with the long axis of their set to the horizontal.

The stonework at Winskill farm near Settle, North Yorkshire verges on the polygonal (see below). Frequently such stonework would just be put down to poor workmanship however it is thought to be over 200 years old and whilst its longevity is at least partly due to ground conditions (very hard/thin soil), it cannot be dismissed out of hand. To simply refer to it and the Low Bradley wall as "random" hardly tells the story, does it really differ significantly from the wall at Sa Colabra?



Limestone wall, Winskill Farm near Settle
© Sean Adcock

To finish off I'd like to look at a number of Lake district walls which whilst different patterns, are subtly similar in many ways. Hopefully they will serve to illustrate how just a few changes (whilst still using same basic constructional approach) lead to a variety of similar patterns with the first markedly different to the last.



Left Garden wall Grange, Cumbria. Right near Rosthwaite, Cumbria. Both © Sean Adcock

If we start this sequence at Grange in Borrowdale, Cumbria, with a formal cobbles and slate garden wall, verging on the coursed.

Moving out of the village towards Rosthwaite the walls become slightly less formal



Left wall near Rosthwaite, Cumbria. Right near Buttermere, Cumbria. Both © Sean Adcock

Beyond Rossthwaite and more into the countryside less slates and somehow more random, into Buttermere more or less the same mix of stone but more random.

The wall at the top of the next page from further south in Eskdale and much further north in Munngrisdale. Neither has slates, the eskdale wall is somewhat more regular, than Buttermere but still a random structure. Munngrisdale has a very different stone type, and far more regular build. Yet quite similar to both Eskdale and especially the first Rosthwaite wall when you analyse its structure.



Left wall near Eskdale, Cumbria. Right Munngrisdale. Both © Sean Adcock

Getting closer to home we can see how different stone can produce in some way similar results to a couple of the Lakeland examples.



Left, Wall at Rhiw Goch, Ffestiniog Railway. © Sean Adcock
Right, Wall near Llanwrtyd Wells. © Richard Leishman

The wall on the left is from the Ffestiniog railway, near Rhiw Goch. Many of the walls to the east of Penrhyndeudraeth, in and around Coed Cae Fali replicate this pattern, which in its own way isn't a million miles away in terms of pattern to those around Grange. Then there's this wall from near Llanwrtyd in Powys whilst it differs from the slate cobbles walls it should be possible to see that it is only a step or two away given style and structure from those around Grange, and how any one of the walls is in reality only a small step away from any other, even though at first sight they might look quite dissimilar.

To replicate or not to replicate that is the question

This whole mini-series started off with some philosophising so I suppose I might as well end with some ruminations...

Infinite Variety

"Age cannot wither her, nor custom stale her infinite variety"
Shakespeare Antony & Cleopatra Act II Scene ii



Purbeck sloping stonework, Langton Maltravers, Dorset © Sean Adcock

Many of the walls in Purbeck have the stone sloped like this one near Langton Maltravers, Dorset, which if you orientate your head (or the page) correctly is obviously random. Others are built with slightly more regular stone and are a little more coursed. How do we categorise it, should we categorise it? Even an idiot can see it's different, you'd hope repairs replicated the original – that is if a local style isn't going to die out. Some of the walls have been around a while so it cannot be completely wrong. This wall at Spy Way Barn a national trust farm is one of the apparently untouched walls on the site (or at least it was in 1997). No wall that I saw showed any signs of gapping, many had been completely rebuilt fairly recently (back then that is), all the rebuilds were to a more 'normal' horizontal pattern. Are we to believe that only 'normal' walls have been rebuilt rather than the more unique ones destroyed. A lack of skill,? A lack of sympathy? A misplaced notion that the sloping walls are wrong? Maybe the rebuilds were all 'normal' walls, in which case the 'wrong' sloping walls must be better as they've lasted, in which case why not rebuild 'normal' walls sloping and help revive/save a technique? Shakespeare obviously didn't have any dealings with the National Trust.

If we have a variety of random patterns then they must deviate from the 'norm' which inevitably means that somewhere along the line supposed rules are not adhered to. Does this make the walls 'wrong', if repaired should they be 'corrected'?

We looked at the use of thin levelling stone in part 2, the Grange/Rossthwaite walls definitely deviate from the concepts outlined there. Mungrisdale too could be criticised for its structure in this respect and the Llanwrtyd wall could certainly be deemed as having an excessive number of 'pins', but then compare it to the "Rogues Gallery" wall of "Stonechat 15". These last 2 walls exhibit a level of craftsmanship in a different class to the other walls, here the perceived problems are not weaknesses, and something special if not quite unique has been created.

I repaired a wall in Mynydd Llandegai several years ago, it was a mixture of slate and rounded fieldstone not dissimilar in nature to the Rossthwaite walls, and not very old. It was collapsing largely due to ground conditions and a road. I believe the structure was exacerbating the problems. In certain circumstances different types of stone do not mix well as for a number of reasons. For

example they do not always bind well, consequently liberally mixing them can cause problems. I rebuilt the extensive gaps/lengths by using all the fieldstone to an approximate level, levelling off on this with slate before utilising longer slates for a regular course of throughs (there had been few if any in the original wall) and building the second lift entirely of slate. To date it's bearing up well, we shan't know for a fair time if it was a good idea, it looks different but I'd like to think striking.

None of this is straightforward. Should re replicate everything? Maybe we should homogenise everything? Isn't there a space for the creation of a new heritage? Should we rebuild bad walls, badly? Why build walls at all?

This is giving me a headache so it must be time to go, but not before one more contribution from The Bard.

"There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy".
Shakespeare, Hamlet Act I scene v

All this Shakespeare - must be the influence of that Waller & Dyker upstart Craig Arbennigol



Some walls perhaps defy our trying to define them. This wall from Golden Bay, Malta is possibly an example of "squared random rubble uncoursed" as mentioned earlier, perhaps 'squared random coursed sneaked with running joints' would be a better appellation, maybe we should attach several other epithets, let your imagination run riot. Personally I'd plump for "completely inappropriate use of stone" and leave it at that, but then where would local tradition and infinite variety be?

Sean Adcock

Roadside wall, Golden Bay, Malta
© Sean Adcock