

This is going to be both late and short. Sorry. Life continues at a frantic pace. I have been chasing round the country and whenever at home either building equipment for the next site visit or trying to tidy up my life without Sue.

I spent the last three days on site near Newcastle and on my way to the train home got a daylight look at the bridge over [Dean Street and Side in Newcastle](#). I presume “Side” refers to castle side but who knows and I don’t have time to look just now.

This is actually two bridges for the price of one. The original (1848) is of (local?) sandstone and must have carried the two tracks north from Newcastle station on the way to Edinburgh.



It must have been quite magnificent when new. It looks to be semi elliptic. There is a nice photo [here](#) from high level which also shows the approach viaduct.

The elegant string course is beautifully decorative, on a scale to suit the bridge and the viewpoint.



Note the weathering of the five layers of stone beneath the string. This provides a very clear indication of the level of solid backing. On the other side, the drainage emphasises the level because it has been severely neglected.

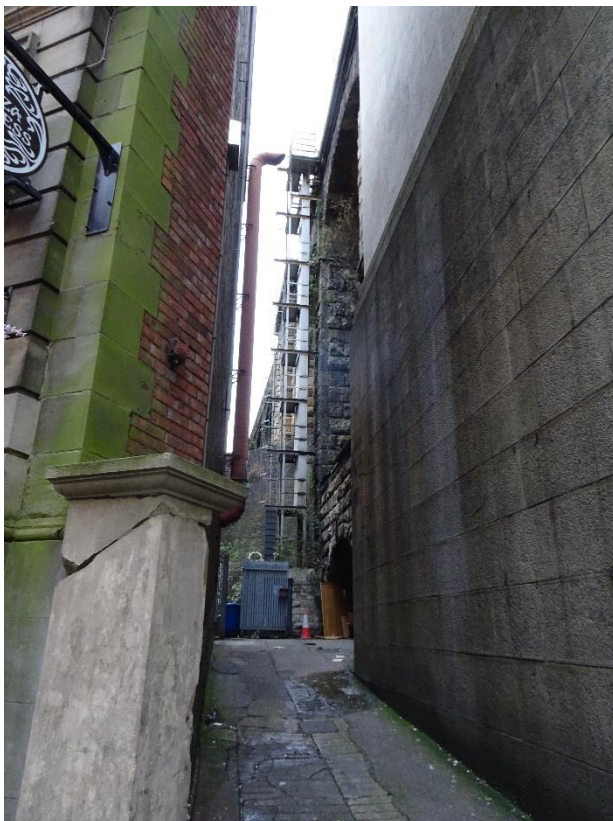




There is a lower level arch just visible in the next span. It doesn't go full width and is obviously there to provide a strut to carry the thrust of the big arch to the rock behind.



There is a similar strut behind the new part on the opposite side.





The bridge was widened up hill in 1896. The road gets significantly wider and a greater span was therefore needed 106ft instead of 80ft. Whether it was really necessary to import granite for the larger span is debateable. The cut through the parapet and ugly metal inserts are a bit hard to forgive, especially as they create an ugly water run.



Looking from below, there is a lot to see. First, the different colour of the granite voussoirs at the edge of the newer bridge. Is the remainder actually sandstone? I will need to go again and look. There clearly isn't such a difference on the other side of this part so we can assume that, as usual, there is no spandrel wall on this edge. The water runs on the soffit of both halves give further indication of the top of backing level.

One last thing I nearly missed:





This is zoomed in and hand held. The low light makes it a struggle, but I am almost certain that the new voussoirs are cut slightly into the old. The scale says it might be a 50mm step which would be ample to interlock the structures. Another slightly blurry shot suggests that the chase extends almost to the crown and is effective in preventing with water runs so common in such joints.



Next Wednesday I am off to New Zealand for a family hug. Not back till 16<sup>th</sup> March but may manage a BoM while I am away. Then I will also begin planning some seminars.