HARDSTANDING ON EAST BANK OF NANT CWMFELIN BOETH RUNNING NE OF

KNOWN ROMAN ROAD CROSSING. To be read in conjunction with separate 'stream plan' and 'stream sections' drawings

DESCRIPTION OF FEATURE

This consists of a broken line of 'concreted' slabs of stones fused together in an unknown matrix, projecting from the E bank of the Cwmfelin Boeth stream for a length of 25m and 700mm above the summer water level, just N of the Roman road crossing. These are being eroded underneath by flooding, yet still maintain a cantilever until the shear force becomes too much and they break off into the water leaving a fresh concreted edge showing behind. A number of small slabs of this broken-off material can be found under water in the vicinity on the river bed; but the largest remains where it has fallen, a triangular piece ex. 870 x 650 x 300 thick. Although this material looks like modern concrete, it is weaker and the smaller lumps could easily be smashed by a blow from a hammer.



Broken off lump viewed from stream ex. 870 x 650 x 300mm

The top slab is not the only part of the feature. Below this is a filling material that appears to vary between gravel, small stones, and in one place (half-way along the bank section), an apparent mix of clay and gravel which has resisted erosion better. Sometimes the top slabs are so undermined that it is difficult to see under them what this filling material is.

Below this filling material is a low-lying foundation layer, at present just 50mm or so above the summer water level, also of stones fused together. This is of unknown thickness because it extends under water and below the stream bed. The stream bed looks very similar: small black stones, but this foundation layer is not loose, the stones are fused together. So in summary, we have a sandwich of hard concreted layers with un-concreted fairly random stone filling between.

At the NE end of the stream bank section (left on the drawing), the feature ends quite clearly with a near-vertical cut into the river silt. Beyond that is clayey flood silt. At the SW end of the section (right on the drawing) the top and bottom layers touch and the filling material ends. It is possible that this last bit is part of the Roman road, but the latter is unlikely to extend beyond the tree.

NATURE OF INVESTIGATION

The river bank has been photographed, but with so much vegetation, photos do not show the feature well. So the section has been measured and drawn using a long tape and measuring staff. No levels were taken and the gradient of the stream is estimated. There is a short length of minature rapids at the centre of the section.

Since it is not believable for the Roman road to suddenly widen to 25-30 metres width near the crossing, it was originally surmised that this feature was the eroded side of another branch road, coming off the Roman road near the ford and headed NE. This would originally have followed the stream, and the latter was thought to have migrated east and eaten into it. However, following the discovery of the feature coming to a complete and obvious stop after 25m, a short street or an access to a building seemed more likely. The top surface had clearly been elevated with all that filling to bring it above flood levels.

As the top slab was not visible in a couple of places (near the tree and where there had probably been a cattle ramp down to the river), there was a danger that the slabs were nearly worn right back, soon to disappear. We therefore, with kind permission from the owners, decided to uncover the top of the slab at right-angles to the river bank in an area of scrub which was in from the field. There were two provisos:

1) To start a little distance in from the stream edge to avoid encouraging erosion of the river bank from flooding.

2) Despite the fence, to avoid removing scrub and brambles because they kept cattle from the river edge.

AIMS

To see how far the slab continued in width to the SE, note the nature of the surface, produce a cross-section of the surface and uncover a length of SE verge. Photograph and record.

UNCOVERING REPORT

The uncovering was done 2m from the NE end of the feature where the scrub was least daunting.



The location is marked on the bank section. Unfortunately, the E bank of the stream creeps round from NE to ENE, and a skewed uncovering trench, not normal to the river bank, made the error worse, so that the trench ended up N-S instead of NW-SE.

Uncovering trench looking from south

The surface of the hard concreted material was immediately found 300mm down and uncovered as it rose inland into the scrub away from the stream.



'concreted' hardstanding surface

After 1200mm in, the surface changed to a hard black gravel layer, but the concreted layer continued on about 75mm beneath this. It was assumed that floods had removed the gravel layer nearer the stream.



Edge of gravel layer with 'concreted' layer passing underneath it.

About 3 metres in, the overlying ground layer was so thin and matted, it could be peeled back like a carpet, revealing a pristine surface, not unlike grey tarmac in appearance, underneath.

The verge was discovered (verge 2) 4.6 metres in (6m from the stream) with a short opposite fall descending to it, and all seemed to make sense for a small street or short access road of some kind. But an attempt to uncover more verge clouded the picture, so that eventually 3 verges were found with linking verges running almost N-S in a zigzag (see stream plan). This pattern seemed to be continuing S, but the brambles became impenetrable.

E of these verges was a light yellow powdery clay which was punctuated with dark dots on the trench wall. At first they seemed like rotted roots being cut through, but several cinders were found and it is thought that many more were concealed by clay sticking to them.

A portion of ceramic jug (probably where the base of the handle met the jug body) was found near the third verge.





part of ceramic jug 2 views

Two test holes were dug to the east. One (hatched in magenta on 'stream plan') showed the concreted surface continuing, but the other (yellow on stream plan) revealed the same pale yellow clay with dots and below this a light rust-coloured soil. No hard surface.

No sign of any buildings, either timber or stone, was found anywhere.

It should be noted that whilst the stream section is all measured and ditto the cross-section as far as verge 2; the stream plan has been enlarged from DTM Lidar and is an approximation of the stream and general area. However, the plan of the dig trench on that drawing and the northernmost riveredge slab which section A-A cuts through have been measured and plotted using a compass. The position of the two test holes is an approximation.

SUMMARY

We have an elevated 'concreted' hard-standing about 300mm thick probably originally all covered with about 75mm of hard stream gravel. Its dimensions are 25 metres x approximately 8.5 metres, though the latter width dimension is by no means certain. It is laid on about 400mm of stone/ gravel filling and below this a 'concreted' base layer at stream level, possibly on rock. The trench for this hard-standing was cut into river silt. No deep construction hole was dug during the uncovering, so this deep construction does not necessarily continue for the whole width of the feature.

The hard-standing falls towards the stream with a gradient of about 1 in 8 at the point of uncovering.

The chance discovery of the zigzag verge shows that it is by no means certain that the hardstanding covers the whole area. We know from the northernmost test hole that rather than the width simply reducing at the zigzag verge, it is more likely that there is a cutaway area with no hard surface. And if there is one in number, there could be others.

CONCLUSIONS

These 'concreted' slabs are not unique; they have been found on three other suspected river sections of a Roman road.

1)At the 'High Noon' garage, White Mill, E of Carmarthen, which shows a probable long section of the established Carmarthen to Llandeilo Roman road in the river bank, with similar bits being undermined, then breaking off.

2) At a suspected Roman road crossing of the Western Cleddau at Red Hill, Haverfordwest, where a large chunk of road, complete with agger slope, is stranded out in mid-river by the bank migrating east.



'Concreted' section of road in Western Cleddau

3) A long section of 'concreted' road, believed to be on the Cae Gaer to Trawscoed route, is gradually being undermined in the Mynach river, E of Devil's Bridge. **See below**.



These similar 'concreted' suspected Roman examples and the fact that this example is apparently joined onto a known Roman road crossing make it that much more likely that this feature is also Roman, and it appears to be ramping up from the Roman road itself.

In guessing at the function of this hardstanding, it has to be significant that it is next to a road and next to a river at a river crossing.

STREET OR ACCESS TO BUILDING IDEA

The hardstanding may be raised as an access to or in relation to a building which has now disappeared, this building having been built above flood levels. Perhaps a *mansio* or a villa. The west side of the hardstanding may originally have been in from the river bank, but now eroded by the stream migrating east.

The river location might have favoured water via a leat coming from upstream for baths and/or ablutions and then outfalling to the stream.

As an access road, this heavy-duty construction would however seem excessive. It is also very wide. A narrow road of limited thickness would make more sense.

POSSIBILITY OF WHARF IN CONJUNCTION WITH A LIGHT INDUSTRIAL PROCESS

The stream edge construction and associated hardstanding might indicate a wharf in association with a light industrial process such as pottery. This would depend on the Cwmfelin Boeth stream being navigable down to the Taf. It is of course easier for a water course to be navigable for taking loads downstream only and restricting the upstream journey to empty barges.

The wharf front would need a stone wall to hold back the filling layer and there is no trace of this. But it could easily have been robbed away. The wall end would have to return into the bank on the upstream side to prevent water creeping behind it and no vertical pocket is visible; but again, this could have eroded back.

The siting of a wharf upstream of the Roman road crossing, presumably a ford, would seem odd because it creates a conflict between river traffic and a ford; but such a conflict must have been commonplace and overcome by barges that drew very little depth and a ford of adequate depth. Or a bridge. If a water leat was coming south to the site, then the conflict between a leat and a road would be worse and so this would justify a site N of the road.

PROXIMITY OF THE ABBEY

The old abbey is about a mile and a quarter away and the Roman road will have been in use for at least part and possibly all the life of the abbey. The possibility has to be considered that this feature is related to the abbey in some way. Ken Murphy of Dyfed archaeology has also guessed from the photo that the pottery find is late Medieval.

The abbey of course has its own stream, the Gronw, which is on its doorstep. So there would have to be a good reason for some riparian function in relation to the abbey at this location. If, however, a Roman wharf still survived here and the Cwmfelin Boeth was navigable, it might be worth using it. The most obvious function in relation to the Abbey is not goods out but goods in, namely stones; but it is beyond the scope of this amateur report to assess whether the gradient of either this stream or the Gronw would allow upriver traffic of this kind. The Roman road crossing of the Taf ³/₄ mile to the west might be a better bet.

CONCRETING

An explanation for the concreting effect was provided to me by an archaeologist/geologist (?) who I believe stated that the stones got bound together by metal deposits (particularly manganese) which were left by rapid capillary action. For this to be true, it has to be explained why the central 'filling' layer of the sandwich, equally exposed to river water, is not concreted in this river bank section, whereas the layers above and below it are.

It also has to be said that John Dyer and myself, having both lived in the country and seen river and stream banks over a lifetime, have only ever seen slabs of this kind where there was a known or suspected Roman river section.

ACKNOWLEDGEMENTS

Vera Evans of Henglos farm for permission to uncover some of this feature in the scrub area E of the stream.

John Dyer, for obtaining permission, doing heavy spadework despite a bad shoulder, assisting in detective work and putting me right about the orientation of the dig trench.

MARTIN DAVIES 2/10/22