ART. VI. – A Roman Bridge Stone from the River Eden, Carlisle.
By Ian Caruana and J. C. Coulston

The stone which is the subject of this paper is in the collections of Carlisle Museum who, however, have no information on its provenance or date of receipt by the Museum. Among the papers of the late Miss D. Charlesworth brought to the Carlisle Archaeological Unit for sorting and publication is a photograph of the stone showing where it was found. The stone can be identified as being part of a Roman bridge and is the first such stone associated with the Roman road bridge across the Eden. The purpose of this article is to bring it to notice and to consider some of the implications of its discovery for the character and position of the bridge. The stone has now been accessioned by Carlisle Museum as 109-1986.

The Findspot

Miss Charlesworth’s photograph (Plate 1) clearly shows the stone lying in a river bed among a number of other similar sized stones. A manuscript note in Miss Charlesworth’s handwriting on the packet containing the photographs reads “CARLISLE: Stone in
river bed by bridge". The photograph itself shows the lower part of a pier in the background. In low water during January 1986 the pattern on this pier was matched with that of the concrete on the fourth pier on the east side of the modern road bridge, i.e. the 1932 widening of the Smirke bridge over the Eden. In other words the stone was found below the fourth arch from the Stanwix bank beneath the southbound carriageway. Similar stones to those in the foreground of the photograph still exist in the same position on the river bed but none show evidence of a Roman origin.

The date of the discovery cannot be established. The stone must have arrived at the Museum before 1978 when the present keeper of archaeology took up post. Reference to the reconstructed rolls of film of Miss Charlesworth's excavations show that her picture is not from a film taken during the excavating seasons. If it were to date from the 1970s it must have been exposed on a role of film devoted entirely to non-excavation subjects which seems unlikely. Other slight indicators tend to put the discovery before Miss Charlesworth's series of excavating campaigns in Carlisle began in 1972. The best guess that can be offered is for a possible date in the late 1960s.

The Stone (Fig. 1)

The red sandstone block has maximum dimensions of $540 \times 400$ mm with a height of $430$ mm. All the faces are dressed flat. Around the face with the head and the adjacent face to the left there are drafted margins $20-35$ mm wide. There are no cramp holes or lewis holes. There is a slight amount of weathering on the outside faces of the stone.

![Diagram of the bridge stone: dimensions.](image)

Despite the absence of lifting or cramp holes the size and shape of the stone indicate that it is almost certainly from a bridge. Probably only the two faces with drafted margins were exposed, the others being in the body of the bridge pier or abutment. The angle between these two faces suggests that the stone comes from the "shoulder" where the cut-water widens to the full width of the pier.

The Sculpture By J. C. Coulston

The block is roughly chisel-dressed and in the middle of one of its eight faces is a
small male head executed in relief, measuring 10 cm high and 9 cm wide. The head has a thick beard and hair, and large eyes (Plate 2).

The significance of this head hinges upon the identification of the block as having belonged to a bridge structure. Despite the lack of large dovetailed clamp features, this seems very likely considering the findspot and the massiveness of the parent structure inferred from the size of the block. Moreover, it is an interesting coincidence that nearly all of the bridges associated with Hadrian's Wall have produced sculptures.

The bridge at Newcastle may have had a shrine on it housing the altars to Neptune and Oceanus found in the Tyne (C.S.I.R. I, 1: no. 213, 216). Phalli were carved in relief by the stoncutters dressing down the blocks on the Chesters and Willowford bridges (C.S.I.R. I, 6: no. 404, 457). A crudely incised human figure, perhaps a Celtic horned god, has also been found in association with the Willowford bridge (C.S.I.R. I, 6: no. 365). Phalli are very common in the Wall area for the apotropaic aversion of the evil eye and bad luck, dangers perhaps particularly felt whilst crossing bridges over water.

The Eden head, like the bridge phalli, is a primary feature associated with the original stone dressing which suggests a more thoughtful application than was the case with the incised heads and human figures found on many Wall sites (e.g. C.S.I.R. I, 6: no. 339, 352, 354). This being so, it might tentatively be suggested that the head represented a river god of the type familiar from the bearded, reclining Chesters figure (C.S.I.R. I, 6: no. 94). Although found in the bath-house attached to the commandant's house, the latter piece may conceivably have originally been associated with the nearby bridge.

Discussion (Fig. 2)

The position of the Roman road bridge across the Eden has been little considered by Carlisle's historians and archaeologists. Ferguson, without written comment, placed a road bridge just east of the Wall bridge position (Ferguson 1893, Diagram I). Haverfield (1917, 240) argued that the A7 follows the line of the Roman road but as it comes into Stanwix the modern road deviates to the west. The original road line is fossilized in field and parish boundaries as it make its way towards the fort at Stanwix. However, he made no comment on the implications of this for the site of the bridge. The evidence for the alignment of the road north of Roman Carlisle and the position of the Roman bridge was considered by Robert Hogg in his exhaustive discussion of the Eden Bridges (1952, 131-59). Following on from Haverfield, Hogg deduced that the Roman trunk road could be projected directly south to miss the western side of Stanwix fort and cross the River Eden 60 yds west of the medieval and modern bridges. He suggested that topographical indications bore this out. Such a line would be better directed towards the Roman town than its successors and, moreover, by contrast the medieval bridges were orientated on the medieval gate and streets (ibid., 155). Further, he proposed an Agricolan date for this bridge (ibid., fig. 7). Since Hogg's article the little new information which has been reported, though circumstantial, has tended to go against his ideas.

Leaving aside the Hadrian's Wall bridge which is of no direct relevance to the present discussion, the remains of two bridges pre-dating the Smirke bridge are known and, in fact, still visible in the bed of the Eden. These are the two wooden pier foundations directly below the modern bridge (Hogg 1952, 138-40) and the stone pier slightly
upstream (ibid., 140-3). The second of these is convincingly attributed to the Priestbeck Bridge of 1601 or just after. The wooden piers are regarded by Hogg as late sixteenth century in date, probably after 1597 (ibid., 137). Whether this is correct or not, and the chronology raises some lingering doubts, the important point established by Hogg is that the Priestbeck channel was newly broken through after 1571 (ibid., 137). Prior to that date the Eden looped to the south and the early channel was in the area of the modern Civic Centre and Hardwicke Circus. In medieval times the single bridge must have been over this channel and is known to have been of wood, having several times been washed away and rebuilt with oak from Inglewood Forest (CW2, liii, 220).

New information is now available from the Stanwix side of the river. Recent observations (1986) during construction work on the site of the Miles MacInnes Hall revealed traces of what appeared to be Roman road metalling running north-south at the western end of the site. At least four separate surfaces were identified extending from 750 mm below modern ground level to the top of the buried soil at 1.42 m. If these cobble surfaces are the remains of the Roman trunk road to the north, as seems probable, two conclusions follow. Firstly the Roman road is more or less below the modern road but possibly has drifted a little to the west or was much wider than the road is to-day. Secondly, the road must have been making for a bridge close to the modern bridge position.

Knowledge of topographical detail in Roman Carlisle when Hogg wrote was limited
and in many cases was based on quite subjective interpretations of incompletely understood observations by earlier archaeologists. Whatever the status of early material below Tullie House and the Cathedral it is now clear that the Agricolan military site lay under Annetwell Street and the Castle (contra Hogg, 1952, Fig. 7).

A watching brief by the Carlisle Archaeological Unit when services were put into Scotch Street in 1981 revealed what was apparently road metalling almost down to the buried soil (at A on Fig. 2). Excavation in the Lanes, just east of Scotch Street showed that the earliest features, the so-called praetorium and the ditch, pre-dated the establishment of this road (Caruana 1983). The ditch was identified on either side of Scotch Street, both in the Lanes and below Vaseys (unpublished excavations by T. Clare). In the Lanes the subsequent phase of Roman buildings appeared to be aligned on the road line below Scotch Street. The dating of these changes is at present a little uncertain. Dendrochronology by M. G. Baillie of Queen's University, Belfast suggests that wood from a pit belonging either to the praetorium, or just before, dates to the 8os (QUB 4483, 4484). Unfortunately none of the structural timbers of the praetorium have been dateable. However, evidence from the subsequent period points to a date for it in the 9os. QUB 4440 with 16 sapwood rings dates to after A.D. 73 and was probably felled between 80 and 98 (89±9). QUB 4447 has the heartwood/sapwood boundary at A.D. 67 giving a probable felling date between 90 and 108 (99±9). Two further timbers which are not within this stratified sequence but which are assigned on wider stratigraphic grounds to the temple/praetorium phase have been dated to A.D. 88 and 89 (±9) (QUB 4426, 4432).

The lack of bark on the dendrochronology samples so far examined has left the situation imprecise. Careful analysis of the date ranges given above shows that they are internally consistent with the site stratification. The temple/praetorium complex probably dates to the late 8os. Some time in the early 9os the complex was dismantled and the replanning took place which saw the introduction of the road under Scotch Street and, by implication, the building of a bridge over the Eden.

This new evidence suggests that the developed Roman road system was not markedly different to the medieval lay-out on the east side of the town. The Roman roads in Carlisle and Stanwix point to the existence of the Eden crossing being in the area of the modern bridge. The finding of the stone is, therefore, an interesting discovery coming as it does in the expected position.

However, the point made by Robert Hogg concerning the position of the river channel prior to the sixteenth century has also to be borne in mind. There is no reason to believe that the river in Roman times was in any other course than that it held before 1571. The findspot of the Roman bridge stone is, therefore, not actually in the vicinity of the river channel. An explanation must be sought. One possibility is that the stone was simply re-used in the neighbourhood of its findspot in post-Roman times. Two things argue against this. The stone is virtually unworn and does not seem to have been subject to prolonged and varied exposure to weathering. Moreover, if it can be contended that there was no need for a Roman pier at this point in the Eden floodplain, the argument applies with even stronger force to the post-Roman period until 1571. There would, therefore, be no occasion until after 1571 when a Roman bridge stone could have been incorporated in a later bridge. The wooden piers are the only realistic candidate for such
Fig. 2. — Carlisle and Stanwix.
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The 1601 bridge is slightly upstream and is also undoubtedly built of freshly quarryed stone.

A second explanation is that the Romans did not merely bridge the Eden channel but constructed piers to carry the bridge the whole distance from the Stanwix bank to the Carlisle bank. The low-lying areas beside the river are still subject to extensive flooding and until very recently no building has occurred in the floodplain of the river for this very reason. It is also possible that the river itself was considerably more braided in the past with a number of minor channels. The Priestbeck stream, right on the northern edge of the floodplain, appears on an Elizabethan map showing the newly broken-through channel of the Eden (Ferguson 1894, opp. 100). Other early modern maps show islands in the main river channels (1684: ibid. frontis.; 1752: ibid. opp. 1). It is possible that the collection of Roman bronzes recovered from a depth of 15-16 ft in Kings Meadow was actually from an old stream bed (Collingwood 1931, 69).

Investigations by the Cumberland Excavation Committee to trace the remains of Hadrian's Wall as it crossed the Eden met with problems which may throw light on the problems of the road bridge (CW1, ix, 1887, 167-77). Despite persistent efforts to locate the Wall between Hyssop Holme well on the Stanwix bank and the east side of the Caledonian railway line they were in vain. Trenching is recorded at the Sauceries in the angle between the Eden and the Caldew where the bridge stones were dredged from the river in 1951, though to the south of the actual line of the wall (CW1, ix, 1887, 171; Hogg 1952, 150). More significantly, trenching along the wall from its last known exposure showed that the Wall foundations simply petered out (CW1, ix, 172). The solution proposed by Chancellor Ferguson was that the Wall had been carried across the whole alluvial flats on piers. Such a distance, about one third of a mile, would have entailed a bridge of 50 piers (ibid. 173). The situation of the road across the Eden further to the east could well have been directly comparable.

Two pieces of circumstantial evidence for the bridge position should also be noted. When excavations for the early nineteenth century bridge were taking place two columns were recovered from Lonsdale land on the Stanwix side of the river. Two separate literary traditions record the memory of these finds. Lysons' Cumberland (1816, cxxxix-cxl) followed by Hodgson (1840, 219) records the first find in 1813: a Doric column 5 ft 6 ins high. Lyson specifically mentions that the discovery took place while excavating for one of the piles of the bridge. The second column must have been discovered between 1813 and 1816 when Lysons' Cumberland was published. The second tradition from Jefferson (1838, 331-2) and copied word for word in Whellan (1860, 140) calls the column Tuscan and puts the find date in 1812. Further details appear in this account. The column was 15 ins in diameter and found lying horizontally at a depth of 4 ft. An aqueduct was also said to have been found. The second column “with pedestal” was found at a depth of 5 ft “near the same place, in 1815”. Confirmation of the findspot is given by two early nineteenth century maps which show the position of Lonsdale land at the time (c. 1800: Ferguson 1894, opp. 284; Wood's 1821 map of Carlisle). Although one at least of the columns was taken to Lowther Castle efforts to trace its present whereabouts have not been successful. The column base which for a long time lay outside the Edenside cricket pavilion and is now in Carlisle Museum (Acc. 59-1984) should not be confused with the 1812 find. This base was found in the Eden west of the pavilion in 1951 (Hogg Diary 24.4.1962 in Carlisle Museum).
The importance of these finds lies in the association of columns with bridges (Bidwell pers. com.). The Severan bridge at Chesters was almost certainly adorned with columns, some of which with 18 in. diameter shafts actually survive around the site (Daniels 1978, 108; Bidwell and Holbrook, forthcoming). Columns were also found upright in position but buried by silt at Risingham on what appears to have been the northern abutment of the bridge over the Rede. While it is possible to envisage other sources for the Stanwix columns, such as the principia of Stanwix fort or even funerary monuments alongside the road to Scotland, neither is particularly convincing and a source on the bridge is as likely as either.

The second find which is of some importance is the cache of seven asses of Vespasian found on the Stanwix bank of the river in 1962 (Robertson 1968). Their date and condition clearly link them to the Agricolan conquest period and it is very tempting to claim that they were lost by a member of the invading army as it crossed the river Eden. Given the tentative date proposed above for the bridge, it seems more likely that they point to the position of the river crossing than that they are directly associated with bridge construction (Robertson 1968; Daniels 1978, 242). Even if this is taking the evidence too far, it should be remembered that the find was on the northern bank of the river. Contemporary settlement was, as far as is known, confined to the Carlisle bank in the late 70s and 80s. Although there is a considerable body of evidence from stray finds to suggest that occupation at Stanwix pre-dates the founding of the Hadrianic Wall fort none suggests that it is as early as the Agricolan period. Among the scatter of pottery finds from Stanwix there are rare Flavian pieces, but looked at in total the evidence is suggestive of Trajanic occupation rather than earlier. The small group of asses must be related to the route passing through Stanwix rather than as evidence of settlement on the north bank of the Eden. Whether or not the early first century glass phalera from a well west of Scotland Road (Toynbee & Richmond 1953; Hogg 1974) is also relevant cannot be determined now, in the absence of dating for the context from which it derived.

Conclusion

The sculpted stone described here is, on the basis of its size and shape, almost certainly from a Roman bridge. The iconography of the face is consistent with this. Topographical considerations suggest that there are problems with the findspot as an indication of the position for the Roman road bridge. However, archaeological evidence from Stanwix and from the town of Carlisle tends to confirm the position and to suggest a tentative date in the 90s for the road, if not also for the bridge. The hoard of Vespasianic asses probably indicates the Agricolan road line but not necessarily an engineered road. The two column fragments may be further elements in the bridge superstructure. The wide alluvial flats could have required a long bridge of many arches, or causeways and arches, rather than one which merely spanned the river channel. This would account for the findspot at some distance from the likely channel. Some corroboration of this proposition is given by the surviving state of Hadrian’s Wall in the Eden floodplain.

One final point should be made. The supposition that the road and bridge system need to date from the period of the Agricolan conquest seems unnecessary. Dating for Dere Street and hence, presumptively, for the first bridge at Piercebridge is in the 90s
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The earliest date for the bridge at Corbridge must surely also relate to the transfer of the fort from Red House to Corbridge in about 90.

Acknowledgements

A preliminary version of this paper was given in South Shields at a day conference devoted to recent work on Hadrian’s Wall. It has benefited considerably from ideas put forward there by Paul Bidwell and Neil Holbrook. We are also grateful to Paul Bidwell for reading a draft of this paper and suggesting some improvements. The drawings are by Ursilla Spence and John Martin. Plate 2 is by Guy Pawle of Carlisle Museum. Colin Richardson kindly made the stone accessible for study.

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