

Floating Road

Timber-rafterd Roman causeway at Scaftworth

Between the Barrow Hills and the northern outskirts of Bawtry the line of the Roman road linking Ermine Street and Doncaster had not until now been located. In this article Dr David Kennedy of the University of Sheffield describes how this road was found and details the results of the ensuing excavation.

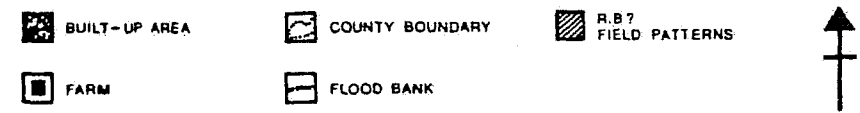
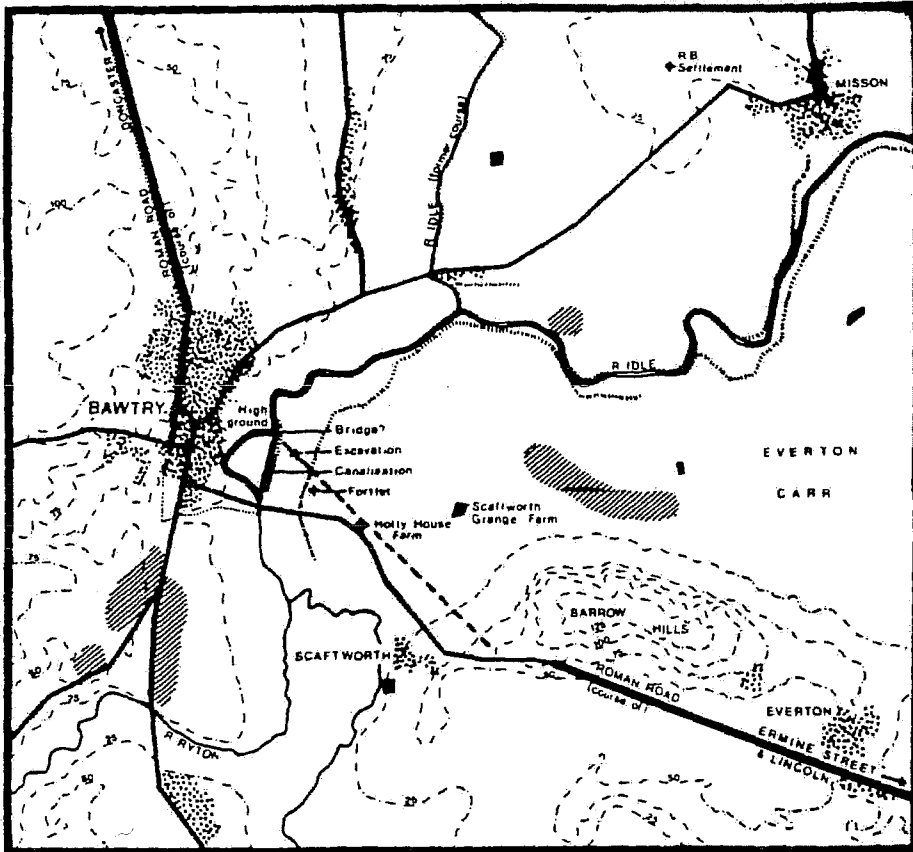
covered, partially burnt, in the new field. The surviving portion of this last squared, has a section 17 x 20 cms, has been diagonally cut at one end, pierced by a nail at that point and has oak pile, 1.61 metres long, broken one end (33cms diameter), pointed the other and still preserving the sapwood. Both pieces, especially the latter are extremely hard. A section of the pile was submitted for dendrochronologic and C14 dating: the latter produced result of 1690 BP, the date probably falling somewhere between AD 260 and 400.

That much more was to be uncovered was evident from the section exposed in a new deep drainage ditch which cut diagonally across the apparent alignment exposing both the metalling of the road and, beneath, the projecting ends of no less than 15 logs of varying sizes set in a fine sand sandwiched between metalling and peat. Though intact, these logs were waterlogged and quite soft.

It was inferable from the above that we were dealing with a road across marshy ground, the metalling of which was supported on logs laid on the original peat surface as a corduroy, the ends being supported on large trunks at right angles and evidently placed along the edges of the intended roadway. The precise function of the vertical piles was not clear but was assumed to be similar to those excavated on the *U Mansuerisca* where it crosses marshy ground in the Haut-Fagnes in Belgium, where they helped pin the corduroy in place on what was a very plastic unstable surface.

Drainage of the land involving lowering of the water table and the drying-out of some of the peat seemed to pose a threat to what was clearly well-preserved timber causeway support, similar in function if not in precise detail to examples on the continent; and to that which crossed the marshy ground to the Thames at Southwark⁴. A test excavation was, therefore, carried out in August 1983 to determine something of the nature of the corduroy, its degree of preservation and to assess the threat posed by drainage and farming.

Peat to a depth of 56cm overlies the highest part of the road surface at its central point. The metalling itself, some 18-20 metres across, consists of very hard-packed sand and river gravel to a depth of 33cms. Piercing this metalling



Map showing position of Roman road at Scaftworth.

TRADITIONALLY and plausibly, it had been supposed that the road continued its line as it came past the hills, south of the late fortlet on the eastern edge of the floodplain of the R Idle and crossed the river itself at or near Bawtry Bridge before turning north towards Doncaster.¹ In 1979, astute observation by my colleague Dr D. D. Gilbertson led him to propose that the road should more sensibly pass north of the fortlet to take advantage of the sole area of higher, hard ground to be found immediately on the west bank of the river. This suggestion, supported by traces on aerial photographs taken by Dr D. N. Riley and consistent with my own soundings beside the fortlet in

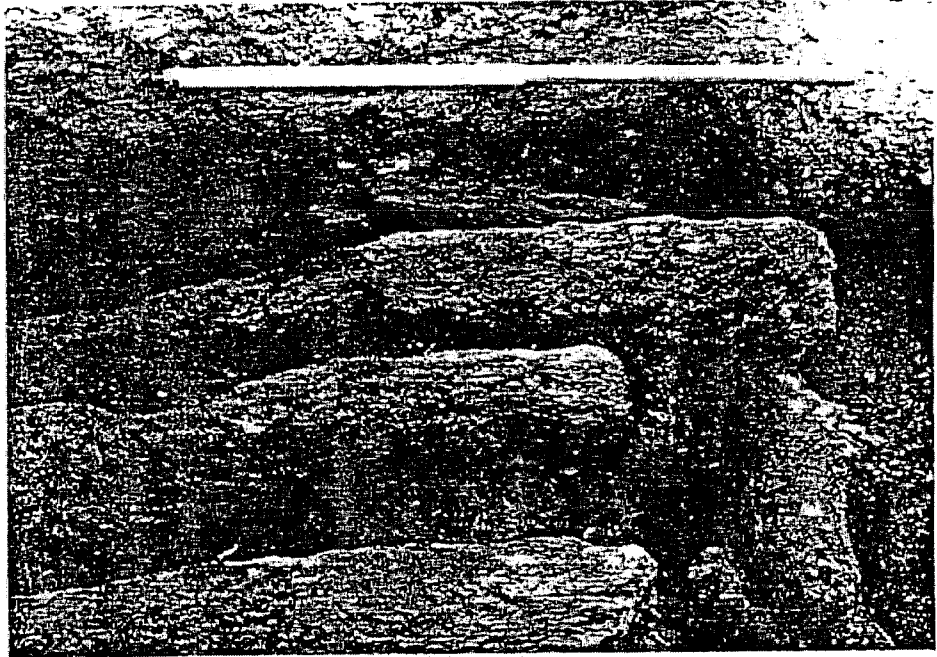
1979, has now been borne out by the developments consequential upon the draining and reclamation of the marshy floodplain between the fortlet and the river. Initial ploughing of this new land in 1982 suggested to the farmer that two parallel rows of substantial timbers placed vertically in the ground a few metres apart and ending only a few centimetres beneath the surface, crossed obliquely the north-south direction of his furrows. In his subsequent search for sunken, unwelcome bog oak, four of these timbers were in fact pulled out: two were burned by him, a third was saved and handed over to this department, and the fourth was later dis-

on the south side were found a row of 7 pointed stakes, some 8-12cms in diameter. On the north side, 7 metres distant, a single similar stake was found and, close by, a much larger pointed timber reminiscent of the lower part of the pile saved by the farmer, 82cms long and 19cms in diameter. Whatever the original length of the small stakes, all that now remained was some 25-30cms angled in along the road edge at intervals of 30-40cms. Subsequent removal of about 1sq metre of the metalling revealed a very substantial trunk, still with bark on, 38cms in diameter and laid parallel to and some 50cms north of the line of stakes; a second but smaller trunk partially filled the space between. At right angles to these, laid in two levels, the ends of the uppermost overlapping the large trunk, were logs of some 15-20cms in diameter. Some of the upper layer had been squared. Two small stakes were inserted on the south side of the large trunk. Traces of charcoal and also of what appeared to be smears of tiny decayed samian fragments were noted in the finer sand in which the logs were packed, and occasionally elsewhere in the metalling itself. Most of the timbers, though well-preserved in form, some still retaining distinctive bark (one looked like silver birch), were very soft. The major trunk, however, possibly because of its sheer bulk, had been pressed into peat to some extent and was much firmer.

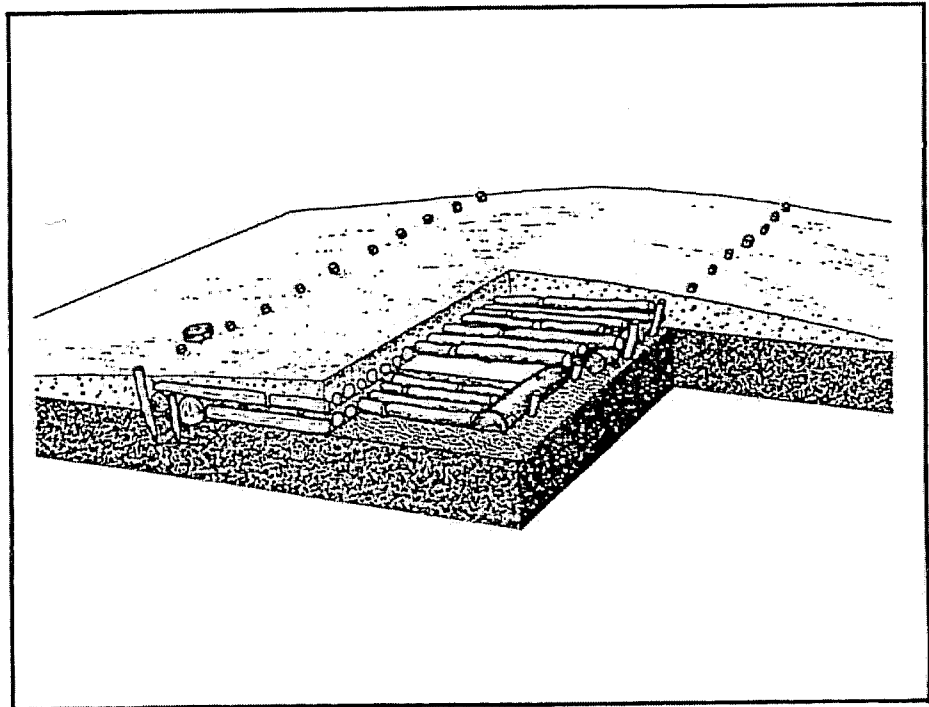
No further examples of the substantial pile found by the farmer were recovered, and, it is to be assumed, the explanation both for our failure to trace more and for the great hardness of the example found is that they are located beyond the small stakes on either side and are sunk directly through peat rather than the sand and gravel of the roadway which leaves the timber soft.

This method of carrying roads across the unstable ground is of course not peculiar to the Roman period. From that period itself there are a number of attested cases, most, however, from the continent. In Britain the relatively small area open for investigation at Southwark is the only recent scientifically investigated example known to me. There is evidence for something similar at three other sites in this country, all, however, given little attention at the time, and for which no detailed records are available.¹ The circumstances at Scaftworth are such that we seem likely to have a length of as much as 100 metres available for investigation.

A further larger scale excavation is planned for spring 1984 when it is



Timbers of the Roman Causeway at Scaftworth.



Schematic drawing of section through timber-raftered Roman causeway.

hoped to examine a wider area of the causeway closer to the point at which the bridge run-up must have begun.

Chevallier, *Roman Roads*, London, 1976, 90.

3. See the references cited in Chevallier, *op cit* 90.

4. H. Sheldon, (ed), *Southwark Excavations 1972-4*, I, London, 1978, 57-65, and briefly in P. Marsden, *Roman London*, 1980, 27f & figure.

5. Street, Somerset: J. Morland, *Som Arch Nat Hist Soc Proc* 27, p43; Lincoln: I. A. Richmond, *Arch J*, 103 (1946), p45; Strood, Rochester, Kent: *Arch Cant*, 35, p130, Cf D., Dymond, *Arch J*, 118 (1961), 150. □

Notes

1. I. D. Margary, *Roman Roads in Britain*,³ London, 1973, 411; J. E. Bartlett and D. N. Riley, "The Roman fort at Scaftworth near Bawtry", *Transactions of the Thoroton Society of Nottinghamshire*, 62 (1958), 24-35.

2. J. Mertens, *Industrie*, no 10, Oct 1955, 38-42; more easily seen in R.