The Roman road between Low Borrowbridge and Kirkby Thore

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Evidence from Lidar imagery and fieldwork has revised the course of the Roman road northwards from the Roman fort at Low Borrowbridge (Margary 7d). It has been found to run to Kirkby Thore. This confirms what was thought prior to 1920 when Percival Ross carried out fieldwork on the road. He failed to find any evidence for the road to Kirkby Thore and therefore concluded that the road must have changed course towards Brougham. The possibility remains that there was a secondary branch road to Brougham at a later date. Beyond Kirkby Thore the road from Low Borrowbridge continues to Whitley Castle and Carvoran (Margary 84) and is known as the Maiden Way. Lidar imagery has provided new evidence for part of the route of this road past Kirkland.

Introduction

Lidar imagery depicts the surface of the ground as a three-dimensional image. It is produced by measuring the distance to the ground of numerous laser beam pulses fired from an aircraft and converting this data into an image. It is used primarily for environmental purposes such as flood control but it also has several uses for archaeologists. In one mode it can create a landscape image that removes all structures, trees and foliage. This enables archaeological features to be seen that would not be visible on an air photograph such as the agger of a Roman road running through woodland.

In 2011 a new Roman marching camp on Loups Fell, Tebay was discovered on Lidar imagery along with evidence for the line of the Roman road running north from Low Borrowbridge, Margary 7d¹. In 2012 a survey of the camp was undertaken². Fieldwork on the Roman road confirmed previous suggestions that it took a direct course across Loups Fell between Roundthwaite and the Tebay motorway service station³. Further research into Roman roads in the surrounding area involved an examination of the Lidar imagery available. One discovery from this was that there was good Lidar evidence for remains of this Roman road continuing towards Kirkby Thore. From Tebay onwards the course of the road has been known since 1861 as far as Crosby Ravensworth⁴ but no certain traces have been established beyond. Until Ross’s work in 1920 the road was thought to continue to Kirkby Thore because of the way in which it was laid out and aligned and the reasons for this. These alignment details require explanation in order to understand the opinion of its course held at that time and the support they provide for the evidence presented below.

The layout of the Roman road is determined by the fixed point where it emerges from the Lune gorge at Tebay and the best course to adopt towards its intended destination. There are no major topographical obstacles for any onward course between north north-west towards Brougham and Carlisle and east north east towards Brough under Stainmore. The railway and the modern roads (A6 and M6) head off towards the north north west which is the easiest and most direct route to Penrith (Brougham) and
Carlisle. The initial course of the Roman road is more northerly towards a shoulder in the high ground of Crosby Ravensworth Fell, although it has three slight changes of course en route. This suggests that the road was not going towards Brougham and Carlisle and that the objective lies more to the north or north-east. After 7 km at the high point between Howenook Pike and Long Scar Pike at NY 599100 the road alignment changes to the north north east towards Kirkby Thore. This reinforces the idea that the road is not going towards Brougham and Carlisle and that the road is heading more to the north east. In fact the medieval route towards Carlisle branches off north west from the Roman road after 1 km at Coalpit Hill. These two major alignments led all commentators prior to 1920 to assume that the destination was Kirkby Thore or the spurious fort invented at Appleby by Camden.

In 1920 Ross published a study of this road that suggested it changed course towards the north and continued towards the Roman fort at Brougham. This was later confirmed by Margary although one can infer that he did not carry out fieldwork himself. This finding has been reversed here. It is contentious because the concept of the road continuing to Brougham has become an established element in the topography of Roman Britain since the 1920s. It has been repeated whenever a map of Roman Cumbria has been published since the first edition of the Ordnance Survey Map of Roman Britain in 1924 by Crawford. That map depicted the road with solid lines which signify certainty of interpretation as a Roman road as far as the crossing of the River Leith in Cliburn (NY 569253) and this has remained the case subsequently on all editions of the Ordnance Survey Map of Roman Britain. It has also been endorsed by Margary which has given it added weight that has to be counter argued here in detail.

However, as Ross implied, his conclusion was reached by default because he could not find evidence for the road towards Kirkby Thore and therefore had to search for an onward course elsewhere. He made a case for a Roman road towards Brougham based on alignments of field boundaries and place names but this was a weak case without any certain physical evidence that has been accepted by default. The argument made here is that the primary alignment of this Roman road was to Kirkby Thore and that the evidence for this is certain although difficult to detect on the ground without assistance from Lidar imagery. This explains why Ross and others have had such difficulty tracing the road. There may also be a secondary road branching towards Brougham but the evidence for this is partial and uncertain and is discussed below.

Fieldwork here has been based on recent research in Wales that has attempted to record the Roman road network with certainty where previous studies of Roman Wales omitted to do so. This involved dealing with all previous reports on Roman roads that had been recorded with varying degrees of quality from certain to hypothetical. Criteria were defined for establishing certainty over the identification of Roman roads that could only be based on physical evidence however much circumstantial evidence there might be. These criteria are (a) the physical form of the road being an agger terrace with or without one or two ditches (b) the surface of the road being gravel or small stones (c) the width of the road being 4.5 to 5m normally with a range from 3.0m minimum width up to 5.5m in upland areas (d) quarry pits usually set back
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from the road and not always present (e) the route of the road being as straight as the
terrain allows with zig-zags on steep slopes. Without evidence of this form certainty
cannot be determined and it is argued here that this approach should also be adopted
in other upland areas of Britain.

Recently Lidar imagery has become available to the general public and can be
purchased from Geomatics, which is part of the Environment Agency. It is two-
dimensional imagery and coverage is limited so that there are often gaps at crucial
points. It has less application than the full electronic data that can be manipulated but
nevertheless has been very productive for archaeological research. It is particularly
useful for revealing traces of Roman roads because they stand out as continuous linear
features across landscapes that full of later elements. They have a consistent width
and line and can therefore be identified with certainty on the imagery even when the
remains are not distinct on the ground.

Lidar imagery for the area between Crosby Ravensworth Fell and Kirkby Thore and
also towards Brougham was examined to see if light could be shed on the course of
this road beyond Ewe Close, where the last certain traces of it were known. Definite
evidence of agger and terrace were observed at six points on the Lidar imagery
between Ewe Close and Kirkby Thore. Such evidence can be regarded as certain if it
shows a continuous linear bank or terrace of constant width proceeding on a direct
alignment that is overlain by more recent landscape features such as field boundaries
and woodland. The DTM (digital terrain model) mode of Lidar imagery enables the
landscape to be viewed with woodland, field boundaries and buildings removed so
that archaeological features such as a Roman road agger running through woodland
can be seen clearly on the imagery when they would be obscured by vegetation on the
ground.

These archaeological features were examined on the ground and confirmed to be the
remains of the Roman road in three places; at the fourth location traces of Roman
construction could not be defined with certainty, although there were suggestive
ground features. The alignment has also been confirmed here by observation of the
parchmark of the road on an oblique air photograph in the National Monument
Record in Swindon.

It is now certain that the change of alignment of the Roman road on top of Crosby
Ravensworth Fell towards Kirkby Thore was continued north eastwards to the Roman
fort there, and that another road, or perhaps the same road, on the same general
alignment continues beyond as the Maiden Way to Whitley Castle and Carvoran.

Historical background

A great deal of argument about the layout of the Roman road network in this area
has taken place since the seventeenth century. In order to place the current work in
context it is necessary to sketch the history of this debate and relate what evidence for
this road has been identified before. It is also necessary to examine the evidence that
Ross cited for the possible branch road towards Brougham and to examine the extent to which Margary checked his work before he endorsed it.

Camden and later antiquaries concerned themselves with research into many aspects of the history and geography of Roman Britain of which consideration of Roman road routes was one. They derived information about Roman roads from personal observation, but more often from correspondence with other antiquaries and from earlier sources. Most of these sources focused on analysis and discussion of the 15 road routes recorded by the Antonine Itinerary. Four of these routes crossed Northern Britain (Itineræ 1, 2, 5 and 10), and it is with these that most discussion of Roman roads in the North was concerned until county histories were written and area surveys were undertaken from 1816 onwards. Iter 1 runs through from Corbridge to Catterick and York so does not concern us. Itineræ 2 and 5 run from Carlisle to Catterick along the Roman road through the Stainmore pass (Margary 82) and these identify the Roman names of the forts at Brough under Stainmore, Kirkby Thore, Brougham and Old Penrith and confirm the distances between them. These were well known and understood by Camden and all later antiquaries.

Iter 10 was the main problem for them in Northern Britain and remains so for us, although a plausible solution has been established by Haverfield which takes it from the coast at Ravenglass through Kendal to Ribchester and Manchester.

The confusion surrounding the long debate over Iter 10 concerns us because it created a false picture of the layout of Roman roads between Carlisle and Ribchester with no evidential basis. Horsley summarized what had been established by Camden, Gibson, Gale and others but was forced to admit that he had no knowledge of the remains of a Roman road running south from Cumbria into Lancashire until Overborough was reached. He reports ‘as for the military way from these parts leading towards Overborough and Ribchester in Lancashire, I can get no certain intelligence of it. I am afraid we have no remains that are sure and considerable to guide us here. Every one supposes a military way, but nobody traces it out’. He and others had inferred that Iter 10 ran north to south down the western side of Britain because it was heading for Mancunio, Condate and Mediolano. These place names were known to be the Roman fort at Manchester and two locations in Cheshire and Shropshire because they occurred in Iter 2 and were fixed there by reference to Deva (Chester). Although it was known that there were Roman forts at Kendal and Ambleside there was no knowledge of any Roman roads into the Lake District from Lancashire. Therefore they attempted to place the start of Iter 10 towards the north or north east and to the south of Hadrian’s Wall.

This presented a problem because their route for Iter 10 would have crossed the route of Itineræ 2 and 5 at a point where one of the forts would have stood, but there were no place names common to both routes. They would have expected one of the known fort sites to be common to both if this route for Iter 10 were correct. Consequently they had to invent a hypothetical Roman site at Appleby on Iter 10 to enable their argument. The picture became very confused and was described later by
Collingwood\textsuperscript{10} who pointed out the extent of the confusion as recorded in detail by Ferguson\textsuperscript{11}.

The course of the road south was to remain uncertain for some time. Horsley had stated that ‘the military way from Appleby to Overborough is very probable, as I have shewn in my Essay on the Itinerary’\textsuperscript{12}. Overborough was known to be a Roman fort and the course of the road from Ribchester was described briefly by Rauthmell but he made no mention of any road continuing northwards\textsuperscript{13}. Warburton was aware of the road and mapped its course fairly accurately from Ribchester to Kirby Lonsdale and then had it crossing west of the Lune and heading on northwards. Interestingly he described it as ‘this road is continued to Barnard Castle and from there goes into Scotland by the name of the Devil’s Causeway’ but he may have been thinking that it went there via Bainbridge rather than via Low Borrowbridge\textsuperscript{14}. West reported ‘(Overborough) afterwards the Roman road goes through Casterton and Middleton, and, as some think, by Borrow-bridge and Orton, to Apulby’\textsuperscript{15}. This information was recorded or repeated by Leman who states that ‘from the Wall Horsley mentions a road called the Maiden Way to Kirby thence perhaps to Boroughbridge near Orton over Gradrige (Grayrigg?) Fell and by the banks of the Lune to Overborough from whence Mr Rauthmell has described its course to Ribchester (v. Warburton’s map)\textsuperscript{16}. Bennet, who wrote the section on Roman Roads in Lyson’s Cumberland, made no mention of any road south from Kirkby Thore or Brougham\textsuperscript{17}.

The remains of the fort at Low Borrowbridge were first mentioned by Britton\textsuperscript{18} but he did not mention the road. Whitaker noted the site and said that ‘all appearances of a military way have vanished. From this place the road would gently ascend by Tebay and Orton, and then gently fall almost in a right line along the course of the river Livennat to Whinfield Park, and thence immediately to Brougham\textsuperscript{19}. This is the earliest suggestion that the road may have led to Brougham.

During the 1840s John Just began work on the Roman roads of Lancashire. In 1849 he reported that north of Overburrow the road ‘crosses the Leek brook, passes by the farm house called the Gales, falls in with the road to the house, then joins the long level of the high road from Kirkby Lonsdale to Ingleton, and having here crossed the boundary between Lancashire and Westmorland, stretches up along Wandale’s lane in Casterton, straight forward up the vale of the Lune’\textsuperscript{20}. In 1853 he continued

‘A recent visit enabled me to extend my knowledge of the line of the military road considerably beyond the station pointing directly towards Kirkby Thore. To the north of the station are the remains of the abutment of a bridge across the Borrow, supposed to be Roman, a part of the grouting of the bridge still adhering to the rock of the foundation, spite of the floods of fourteen centuries. The Roman road is visible just beyond this bridge; and, though lost for a considerable distance beyond this point, directs itself towards Kirkby Thore, as we hope soon to determine’\textsuperscript{21}.

This was the first record of the alignment of the road towards Kirkby Thore. Sadly Just died in 1852 so he never continued his fieldwork. Watkin concurred with Just and reported that the road ‘takes the direction of Kirkby Thore’\textsuperscript{22}. The history of the site at Low Borrowbridge and previous research is related in detail by Birley\textsuperscript{23}.  

The first detailed evidence for the course of the Roman road north of Low Borrowbridge beyond Tebay and the Lune Gorge came from Nicholson in 1861. He reported that ‘with respect to the military way north of Borough Bridge, I can now speak with some degree of certainty. Thanks to Thomas Bland and John Bland his nephew a clue has been discovered which unravels almost all difficulties. Mr. John Just spoke, from tradition, of the road proceeding ‘over Orton-Low Moor to Brougham’. Now, proceeding from Borough Bridge, the Romans crossed the River Borough by a bridge, of which the grout-work may still be seen, close to this station; and the road is also clearly seen beyond; they thence went right on to the Lune, on the west side of the village of Orton, over a depression in the long range of Orton Fell. The road, forward, descends Crosby Ravensworth Fell, by Wicker Street Thorn, where, for two miles it is plain as a pike staff over ground which still retains the significant name of Wicker Street’.

At this point the road has reached the crossing of the Dalebanks Beck 1 km south-west of Crosby Ravensworth at NY 610140. The alignment has changed by 28 degrees on top of Crosby Ravensworth Fell from north north west to north north east. This alignment is now direct towards Kirkby Thore 12 km further on. This is the point at which surface traces of the road have been thought to cease by Ross and the Ordnance Survey. However, between 1861 and 1920 Nicholson and others thought differently and this has now been confirmed by Lidar imagery and recent fieldwork. They considered that the road continued towards Kirkby Thore but that traces of it were obscure.

Nicholson continued ‘it is at this point where John Bland made the grand discovery I before alluded to. The line of the road is unquestionable, pointing direct to Kirkby Thor. Skirting Crosby Ravensworth, the road goes about half a mile west of the house where Addison’s father was born (south of Maulds Meaburn at NY 625157), up to another Borwens (a good Roman name) (unlocated), passing between the mounds at Borwens and a field called vulgarly “Crenylings,” which should be Caerl-eng (unlocated). Thence to two places of significant meaning, “Lofters,” and “Castrigg” (Caster-rig), both in the township of King’s Meaburn (both unlocated). These places are, successively, in order, going straight towards Kirkby Thor, and I have traversed the road for thirteen out of the seventeen miles between Borough Bridge and Kirkby Thor. Brougham is now so far to the left, or north, that it is out of the line. In the meantime I stand upon the conviction that a Roman road communicates between Borough Bridge and Kirkby Thor’.

Nicholson has described here the general course of the road without citing any evidence other than place names that he could draft in to sound significant, a conventional antiquarian ploy to add weight to one’s argument for a particular line of road. However, none of these place names seem to have any particular significance. Ferguson described the same route without going into detail.

In 1910 Bland reported that recent examination of the route had confirmed Nicholson’s findings: ‘from Borough Bridge the road had gone nearly directly to Kirkby Thore, traversing the whole length of the vale of Lyvennet. Many antiquarians supposed it
went to Brougham, but the name Wicker Street applied to an extensive hill on the west side of Crosby – a name significant of a Roman way – led to examination a few years ago and a road was found traceable from near Black Dub to Dale Banks, a distance of more than two miles, indisputably in the direction of Kirkby Thore: it is regularly formed and rounded in the middle, about 30 feet across, the ground being generally hard and dry; no trace of paved work is to be found’. This again takes us to Dalebanks Beck. He continues ‘it is traceable to the bottom of the hill, where it has crossed the beck, after which all further traces have been obliterated by enclosures and the plough; the direction, however, is straight for Kirkby Thore, crossing the Lyvennet near Dairy Bridge, where there is an ancient paved wath, then past Lofters and over Castriggs in King’s Meaburn township, across the Eden about 200 yards above the present bridge at Bolton, where there are remains of an abutment, as of a bridge, with mason-work and grouting now overgrown with brushwood; thence in the direction of Kirkby Thore joining the more important road known as Watling Street from Bowes in Yorkshire. No remains of decided Roman character have ever been found in connection with this road’27. Codrington summarized the route as ‘a road through Crosby Ravensworth to King’s Meaburn, but beyond that there is no trace; the road probably went on to the camp at Crackenthorp, or to Kirkby Thore, joining the Roman road from Catterick to Carlisle, and continuing northwards by the Maiden Way’28.

In 1916 Ross attempted to discover the remains of the road between Dalebanks Beck and Kirkby Thore and he commenced by studying the alignment towards Kirkby Thore as marked on a map between two diverging lines of possible variation for the road alignment5. He concluded that

‘I have searched the ground with the help of the six-inch Ordnance map in the direction of the two straight lines drawn above (towards Kirkby Thore), and not a trace of a road or tradition of one amongst the inhabitants is to be met with. There is no report of any road remains ever having been found by farmers. If the six-inch Ordnance map be examined it will also be seen that there is not a field fence nor a footpath, a farmer’s road, nor a highway which coincides even for a short distance with either of the straight lines towards Kirkby Thore. There being no trace of any kind whatsoever of a road to Kirkby Thore I think we are justified in concluding that there has never been a Roman road between Low Dalebanks ford and Kirkby Thore’.

When one considers the slight nature of the surviving evidence for the road described below Ross can be forgiven for concluding that it did not exist. He then went on to investigate the possibility that the road turned north and proceeded to Brougham and concluded that it did because that seemed to be the only solution to his problem of where the road was leading to.

Ross published his report in 19205. He described the proposed course of the Roman road in three straight sections from Dalebanks Beck to Brougham. The evidence he cited was of three forms; landscape features, physical remains and ‘street’ place names. The landscape features comprised straight lengths of field boundaries, woodland boundaries, tracks and roads. The physical evidence was a report of a hard buried surface near Haber farm (NY 610143) and two locations where Ross observed features that he considered to be ‘the ridge of the road’ (NY608163 and NY 584218). The place
names were Street House (NY 575236) and Street Head Wood in Great Strickland (NY 580228). All three are suggestive of the course of a Roman road but they are not proof. Certainty can only be established through further fieldwork and excavation. Linear landscape features can be misleading, banks and ridges can resemble aggers but be natural, and not all ‘street’ names derive from Old English ‘straet’ that often signifies a Roman road. Unfortunately Lidar coverage is missing for the sections of this route where possible physical remains are recorded so this cannot assist. For the sections where Lidar is available it does not show any traces of a road. Air photographs of Brougham Roman fort do show the parch mark of a Roman road starting off in a south south easterly direction so there may be a road on this line but it is not known how it continued. If it did connect with the road from Low Borrowbridge to Kirkby Thore it would have been a secondary branch from that road. We can conclude that the existence of such a Roman road is possible but not yet proven.

We need to delve into the subsequent literature on the road to explain why the route described by Ross beyond Dalebanks Beck has become accepted although based on no certain evidence. Since 1920 Ross’s route has remained the accepted route and never been questioned. It was depicted on Crawford’s first edition of the Ordnance Survey map of Roman Britain who would have derived his information from Ross. This was later confirmed by Margary who repeated the description of the route by Ross without, it seems, carrying out any fieldwork himself. The first edition of Margary’s survey of Roman roads in Britain was published in two volumes in 1955 and 1957, and then re-published in one volume in 1967 and again in 1973. It has remained the standard reference work for Roman road studies since then and formed the basis for all sites and monuments and historic environment records.

Consequently it is now contentious to question the accuracy of Margary’s reports although he is clear that he did not carry out detailed fieldwork in all cases. He had to arbitrate over whether particular supposed roads were in fact Roman or not. If he decided that they were Roman in origin then he included them in his corpus but some are open to doubt either in whole or in part. His methods for compiling his survey would have involved collecting all previous published and unpublished accounts of Roman roads, with which task he was assisted by the staff of the library of the Society of Antiquaries and the Ordnance Survey Archaeological Division, assessing the merits of each one to be classed as Roman, visiting the road if possible and then writing a summary report on its remains. He states that ‘almost every road was visited during the first preparation of this book. The author does not claim to have walked along the whole course of the derelict portions’.

The problematic section of Margary’s road 7d is that between Dalebanks Beck and Brougham. If one compares Ross’s account of the road with Margary’s it becomes clear that Margary’s text follows that of Ross closely. Margary also probably visited the road and made one observation. Ross quotes two instances of possible agger remaining and describes them as ‘the ridge of the road is evident’ and ‘I saw the ridge’. Margary’s version of these is ‘the agger is plain’ and ‘the agger is visible’. Margary then also adds further on at the end of a long straight modern road called ‘the street’ that ‘there is a faint ridge across the corner of a field into a wood’. This observation does not occur
in Ross’s account. Therefore it seems likely that Margary visited ‘the street’ and made this observation prior to 1957. These observations do not amount to proof that the suggested route is a Roman road but it has become accepted as such. If one applies the criteria cited above from Wales for proving a Roman origin for a road these are not yet met by the road towards Brougham suggested by Ross and endorsed by Margary.

In the 1970s the Ordnance Survey Archaeology Division prepared a linear archive file and the usual strip maps at 6 inch scale for Roman road 7d. Their annotations show that between 1972 and 1974 they carried out fieldwork between Low Borrowbridge and Crosby Ravensworth but apparently did not carry out any further north between Crosby Ravensworth and Brougham. They did not consider the possibility of the road running to Kirkby Thore.

During the 1970s Barri Jones and Nick Higham carried out air photography in the area and photographed the road over Loups Fell but did not investigate it on the ground. The Ordnance Survey Archaeology Division prepared a linear archive file and the usual strip maps at 6 inch scale for Roman road 7d. Their annotations show that between 1972 and 1974 they carried out fieldwork between Low Borrowbridge and Crosby Ravensworth but apparently did not carry out any further north between Crosby Ravensworth and Brougham. They did not consider the possibility of the road running to Kirkby Thore. They also noted a vertical air photograph that showed the road on Loups Fell. In 1984 Allen also suggested that the road ran directly across Loups Fell.

The evidence for this road consists of a mixture of Lidar imagery, surface evidence, aerial photography and antiquarian records. The road itself splits into three sections over 25km. The central section from the crossing of the Birk Beck to the north west of Tebay runs for 9km to the crossing of Dalebanks Beck south west of Crosby Ravensworth. This length is well known and has been described in detail by Ross and others and mapped by the Ordnance Survey. The first and third sections have not been defined before and are described here for the first time. The first section runs for 4 km from the Roman fort at Low Borrowbridge to the crossing of the Birk Beck, and the third section for 12 km from Crosby Ravensworth to Kirkby Thore.

Low Borrowbridge to Birk Beck (Figs. 2,3,4)

The Roman fort at Low Borrowbridge is positioned in the Lune Gorge to control the main north-south passage between the Pennines and the Lake District. It was probably occupied throughout the Roman period. The road from the north gate of the fort was described by Just and Nicholson who observed it for a short distance beyond the River Borrow. An earlier road terrace east of the modern road and to the south of the bridge may be the Roman road. To the north of the bridge there are now no traces. For the next 2 km the Roman road is overlain by the modern A685 and the lane branching off this to Roundthwaite before the Lune crossing. The Roman road stays to the west of the Gorge and the river. Previously it was thought to cross...
to the east of the Lune at Lune’s Bridge as does the modern main road. Nothing is
visible now until Roundthwaite is reached where a 5m wide terrace descends to the
Roundthwaite Beck south of the village at NY 6096 0312.

There is no trace through the village and up the slope to Loups Fell where a slight
change of direction to due north takes place close to the southern rampart of Loups
Fell marching camp. Unfortunately both the remains of the road and the rampart have
been destroyed here by modern enclosure and farming. Within the area of the 15.2ha
marching camp the remains of the road become evident after passing through an area of bog. The certain remains of the road start with a short length of 8m wide cutting at NY 6086 0437 and then a well preserved length of 6m wide agger runs north from this point for 145m with later road braiding alongside to the east. This is the feature that was so conspicuous from the air that it was observed by Jones, Higham and the Ordnance Survey.

A braided cutting descends the northern slope of Loups Fell into an area of bog and towards the probable site of the north gate of the camp. Beyond the bog and towards the railway crossing at Loups Fell Side other substantial lengths of road terrace and cutting survive in rough ground (Fig. 4). In the pasture between Loupsfell side and

Fig. 2. Low Borrow Bridge to Loups Fell.

Fig. 3. Loups Fell to camp rampart.
the Birk Beck there is no trace of the road although the line of the road is preserved by a field wall, nor is there any evidence for a river crossing.

The crossing of the Birk Beck to the crossing of Dalebanks Beck (Figs 3, 5, 6)

This is the central section of the road that is well documented. From the Birk Beck to Ewe Close the Roman road has been examined and described in detail by Bland, Ross and the National Monuments Record. Detailed fieldwork has also been carried out by the Ordnance Survey. Therefore the description of the remains here will be restricted to a summary of the evidence.

At the river crossing the road changes alignment away from grid north to ten degrees west of north. This appears to have been done in order to pass over the shoulder of Crosby Ravensworth Fell at Howe Nook Pike 5km further on (NY 519100). When that high point is reached at the shoulder between Long Scar Pike and Howe Nook

![Diagram](tcwaas_003_2014_vol14_0005)

**Fig. 4. Loups Fell Lidar. © Environment Agency 2013. All rights reserved**

**Fig. 5. CR Fell to Coalpit Hill.**
Pike the alignment changes by 28 degrees to the north east towards Kirkby Thore so that it is running 18 degrees east of grid north from that point.

As the road climbs north of the Birk Beck an eroded terrace appears alongside a wall to the south of Tebay North Services on the northbound carriageway of the M6 motorway. The two carriageways of the motorway are widely separated here and traces
of the agger of the road remain between them. Ross reported that the road remained in good condition here: ‘at one place for about 250 yards on the flat of the moor and a little before crossing the highway leading from Orton to Greenholme the road is perfect, 21ft wide to the inner edge of the ditches; the paved surface may be narrower when bared by excavation; the surface is slightly rounded and the ditches are still open 3ft deep. The road is very little elevated above the ground on either side’.

Beyond this modern road and the motorway the agger continues mutilated and ‘cut across by watercourses’. Past Sproatgill farm the agger is visible 21ft wide between ditches and it continues as a low, mutilated agger with a field wall on its eastern edge. This is the boundary wall between the improved land and the fell. Ross pointed out that there was no evidence of ditches here and attributed this to the underlying geology. This seems unlikely given that the material for the road appears to have come from excavations alongside the road and the ditches reappear beyond the pass.

Beyond the Orton to Shap road the field boundary turns north east and the road and footpath continue to the gap in the ridge west of Howe Nook Pike where the

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**Fig. 8. Lidar Haber. © Environment Agency 2013. All rights reserved**

**Fig. 9. Prickly Bank to High Whitber.**
Fig. 10. Lidar Prickly Bank. © Environment Agency 2013. All rights reserved

Fig. 11. Lidar Lowfield. © Environment Agency 2013. All rights reserved

Fig. 12. Lidar Turnbank. © Environment Agency 2013. All rights reserved
The Roman road between Low Borrowbridge and Kirkby Thore changes direction towards Kirkby Thore. This is the length known in the past as Wicker Street. The low agger and ditches are visible and the road has been mapped precisely by the Ordnance Survey (Fig. 6). The road is much clearer here now from the air than on the ground. In 1972 the Ordnance Survey field surveyor recorded that there was ‘no trace’ of the road on Coalpit Hill and that towards Ewe Close the road was ‘slightly visible as a broad ground swelling’.

The gully of the Blea Beck was crossed with an embankment which survives in a denuded state. This was surveyed in detail by the Ordnance Survey. The road continues to Ewe Close as a grassy strip approximately 6.5m wide between broad ditches.

An oblique air photograph shows the Roman road passing Ewe Close settlement and making two very slight changes of alignment as it does so. When Collingwood excavated the settlement he suggested that this may have been a diversion because the settlement pre-dated the road. The photograph suggests that the changes of alignment were more practical and topographical in the descent to the crossing of the Dalebanks Beck. They enabled the road to avoid an awkward gully on the direct alignment and make use of a spur of higher ground alongside. The photograph shows that the road continued straight to pass just to the east of Low Dalebanks farm although this is not clear on the ground. It also shows that the two changes of alignment were firstly more to the west and then secondly back towards the east and the original alignment towards Kirkby Thore. It also shows scoops on either side of the agger of the road that appear wider than normal road side ditches along with an absence of regular quarry pits alongside the road. This suggests that the construction of the road here may have been more from material scooped out of the ditches on either side than from quarry pits. The total width of the road here between ditch centres is approximately 12m.

**The crossing of the Dalebanks Beck to Kirkby Thore (Figs 7–16)**

There is no trace of the road across the valley floor or for 250m on the slope beyond to the east of Haber farmhouse. This is the point at which previous fieldworkers were unable to trace the road remains further. The Ordnance Survey field surveyor recorded in 1972 that there was ‘no trace in pasture fields’ although he may only have examined the line suggested by Ross running just west of north from the beck crossing. Fortunately we now have the added information available from Lidar imagery and this shows the remains of the road continuing on the same alignment. A length of agger 10m wide survives for 80m diagonally across a pasture field 200m north east of Haber just north east of where the access road to the farm crosses a small stream (Figs. 7 and 8). There is a hollow in the field on the eastern edge of the road that is probably a quarry pit.

Lidar shows the road remains continuing over the next field to a point where it coincides with the western bank of a gully for a short distance. There are indications of the road remains beyond but they are overlain by ridge and furrow and field boundaries which render them very faint.
For the next kilometre there is no trace across pasture and arable fields. The parchmark of the road has been recorded by chance on an oblique air photograph between NY 6153 1671 and NY 6157 1703 although there is no trace in the arable field. In the next field east of Prickly Bank Wood traces of agger appear on the ground and are also visible on Lidar. This is the beginning of a length of road where Lidar evidence confirms the course of the agger over 2.75km.

The agger survives as a spread ploughed bank for a short distance to the north of an east-west field boundary to the east of Prickly Bank Wood but then has been removed (Figs. 7, 9 and 10). It reappears faintly in the next field approx 5m wide and descends to cross the Low Wood beck through a shallow cutting. These remains can be traced on the ground once one is aware of them from the Lidar but without the Lidar evidence they would be difficult to identify. Beyond the beck there is no trace until the line enters Morland Bank Wood where pieces of agger under the tree cover can be seen on the Lidar. Beyond the lane from Maulds Meaburn to Morland the agger is visible.
on the Lidar imagery under the tree cover but difficult to trace on the ground. Where the road emerges from the woodland into pasture south of Lowfield the agger is clear for a short distance but then becomes indistinct on the ground (Figs. 9 and 11). The Lidar imagery shows the agger climbing directly over the steep slope of Barnskew Bank passing under a field boundary and it is clear for the next 1.5km past Lowfield and Turnbank although difficult to identify on the ground.

This length of road from Prickly Bank to Turnbank is the crucial evidence for the Roman road. The Lidar imagery shows a continuous agger on a direct but curving alignment for almost 3km. It is overlain by modern field boundaries and woodland which demonstrates its age. The reason that it deviates westwards away from the direct alignment to Kirkby Thore is to avoid the valley of the River Lyvennet. The agger can be traced down the slope south of Turnbank farm although it has been ploughed and is spread and its traces are faint. Fortunately it survives in good condition to the north of the farm on the floodplain where it has not been ploughed. Here it survives as a low agger 9m wide between ditches on either side for 170m (Figs. 9 and 12). Beyond here for 600m the course of the road is uncertain. The floodplain becomes narrower and sinuous and the road may have followed this or run higher up the slope. Two quarry pits are evident from which road material was probably extracted. The River Lyvennet would have been crossed west of High Whitber but no trace of the road remains across the floodplain here.

After crossing the river the road climbs the slope towards Kings Meaburn and there are traces of a terrace and a slight cutting. However, there are no certain remains until the arable field is reached at the top of the slope. Here the agger becomes evident on Lidar converging with a farm track running to Kings Meaburn (Figs. 13 and 14). This length also shows as a parchmark on Google Earth vertical imagery.
The village of Kings Meaburn is situated along a ridge of high ground that runs from north west to south east. The Roman road descends from this ridge on the east side of the village as a large 10m wide terrace running south west to north east for 70m on the same alignment as previously held by the road (Figs. 13 and 14). A small stream is crossed at the foot of the slope and then the road runs diagonally across several narrow fields orientated east-west. These are enclosures of areas of strip fields with pronounced ridge and furrow in most of them. On the Lidar imagery the agger of the Roman road can be seen to lie under the ridge and furrow for some distance although this is not detectable on the ground (Fig. 14).

The Roman road is heading direct for the south-west gate of the Roman fort at Kirkby Thore 4 km away. Lidar coverage ceases for the next 2 kilometers but coverage is available again from Hill Top onwards. The agger of the road can be distinguished overlain by ridge and furrow from a point 300m east of Mansgrove at NY 6295 2323 to Kirkgate at NY 6323 2430 (Fig. 16). There is no trace for the last kilometre across the floodplain of the river Eden. The road is aligned directly towards the Roman fort at Kirkby Thore46.

The ascent of the Maiden Way to Bank Rigg at Kirkland

The Roman road known as the Maiden Way (Margary 84) continued beyond Kirkby Thore towards Whitley Castle and Carvoran47. Lidar imagery has also elucidated the course of this road as it climbed towards Melmerby Fell beyond Kirkby Thore. The road continued from the north-east gate of the fort. It was recorded by Bainbridge running east of Hale Grange and parchmarks are visible on Google Earth imagery from NY 639260 to 641270. These indicate that it continued to follow as direct an alignment as possible. The course from here to Stubmire Moor (NY 646315) has been recorded by Bainbridge and mapped by the Ordnance Survey.

However, from here to Bank Rigg beyond Bank Hall farm the course has been presumed to run through Kirkland village and Bank Hall farm. Bainbridge described it in the other direction as ‘down a steep slope towards the Bank Farm House which is at the foot of the hill. It is said to pass under the present back kitchen of the house –
Fig. 17. Lidar Kirkland.
Condition – No traces. Supposed to pass through the fields on the north west of Kirkland Church and for one mile and a half to Wythwaite Pasture. Condition – No traces.

This hypothetical course has been followed by the Ordnance Survey and mapped as the route of the road.

This can now be shown to be incorrect. Lidar imagery shows the agger of the road from a point 185m east of Kirkland church (NY 64783252) running north north-east to pass around the eastern side of a hillock 250m east of Bank Hall farm (Fig. 17). It curves north west around the slope as an embanked terrace and then climbs through a copse as a faint terrace up onto Bank Rigg where it survives as an agger on a curving course that converges with the farm track running north from Bank hall farm. This brings it back onto the traditional course. The course south from Kirkland church can be presumed to proceed straight to Stubmire Moor. This is a more direct route than suggested by Bainbridge.

Discussion

Definition of the route of this Roman road should contribute to our knowledge of Romano-British history but may pose more questions than it answers. There are now four main Roman routes northwards from York and Chester towards Scotland. The east-coast routes run from Stamford Bridge to Newcastle and also from York to Corbridge, another runs across the Pennines from York to Carlisle via the Stainmore Pass and this road from Low Borrowbridge to Kirkby Thore is one part of the fourth route from Chester to Carvoran. If Roman road routes represent campaign routes consolidated at a later stage then this fourth road represents an early campaign proceeding to Carvoran. However, this hypothesis is unproven. Carlisle is the only Cerialan site known on the Solway Tyne isthmus at present.

We can be certain that the road from Kirkby Thore to Low Borrowbridge does not represent the course of Antonine Iter 10 because we know that the Roman name for Kirkby Thore was Bravoniacae. We cannot follow Horsley and circumvent this problem by alleging a Roman site at Appleby.

The Roman cavalry fort at Kirkby Thore sits on a bluff above the Trout Beck shortly before it joins the Eden. It appears to have at latest an Agricolan origin and to have been occupied throughout the Roman period. The road from York to Carlisle passes 250m south west of the fort. As we have seen the course of the road from Low Borrowbridge can be presumed to have run direct to the south-west gate of the fort. It continues beyond the fort and runs north east to Whitley Castle and Carvoran.

Thus we know now that we have two main routes crossing here, both dating from early in the Roman period. The possibility remains that a later branch road was built from the Low Borrowbridge to Kirkby Thore road turning north towards Brougham along or close to the line suggested by Ross. At Brougham there is air photographic evidence for the parch mark of a Roman road leaving the south-east gate of the fort and running south south east for 220m across a field. The parchment appears to continue in the next field alongside a field boundary that then continues for another 800m. This may
represent the beginning of a road continuing south along or close to the line suggested by Ross but there is no further surface evidence for this.

Several problems of the Roman road network in the North West remain. In time Lidar imagery should help to resolve some of these too.

**Surface evidence – south to north**

NY 6109 1430 to 6112 1438 – Haber terrace
NY 6112 1433 – Haber quarry pit
NY 6158 1710 – Prickly Bank Wood agger north of hedgerow
NY 6165 1731 – Howebec faint agger c 5m wide
NY 6167 1744 – Howebec probable cutting
NY 6180 1823 – Morland Bank agger
NY 6187 1884 to 6187 1903 – Lowfield ploughed agger
NY 6180 1950 to 6182 to 6185 1967 – Turnbank agger
NY 6180 1975 and NY 6185 2005 – two quarry pits north of Turnbank
NY 6225 2105 – Kings Meaburn terrace
NY 6295 2323 to NY 6323 2430 – Mansgrove to Kirkgate agger

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