ROMAN·ROADS·RESEARCH ASSOCIATION

R·R·R·A

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FROM THE EDITOR

The title at the top declares this to be the Spring newsletter: even with the climate in the north east of England it is hard to deny that we aren't into Summer now! In my defence, producing *Itinera* has kept us very busy and the bumper size of this newsletter edition has taken some constructing. I suspect that this edition may span us right through to the Autumn. I hope you find it stimulating for your own research.

Itinera Volume 2 is now released and the printed copies should be with you by the time you read this. To follow up Volume 1 with an equally well packed quality journal is an enormous achievement for the Association, well done and thank you to all those who have contributed or helped in any way. Printed copies are available for immediate dispatch if you haven't already obtained a copy - to me, it is more preferable for reading through than the downloadable pdf.

Our AGM has been another casualty of the focus on *Itinera*. We promised to hold one, on-line through Zoom, early in this year. We do still intend to discuss with you our current status and future plans and give you the opportunity to input through an AGM. We will be in touch regarding this. Our small 'HQ' team do get help arranging our talks schedule, editing this newsletter and are now having some work towards our website undertaken by a couple of members, but we are seeking further support, drawing on your own abilities to help move the Association forward.

Creating a newsletter is only possible with material you provide. Thank you to this editions' contributors and please keep sending it to me.

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Roman Road Construction and Camps

From Keith Hopkinson

Summary

A great deal has been written about Roman Roads; their routes, alignments, and compositions. One aspect that bears further scrutiny is the logistics of how Roman soldiers built their roads.

Hundreds of miles of roads were built linking towns and forts right across the Roman Empire. However, many of these miles of road were some distance from the nearest town, fort or camp. How did the road builders manage their construction?

This thesis looks at this issue, and concludes that the roads could only have been built by soldiers living in temporary camps along the marked-out routes. These temporary camps have not survived, probably due to their systematic removal as part of the road building process. However, looking at the build logistics and a remaining earthwork along one of the best-preserved stretches of Roman Road in England, it is possible that the remains of one such temporary construction camp have been identified.

Ryknild Street between Wall and Metchley

Ryknild Street, Figs. 1 & 2, is the name of the Roman Road running from Gloucestershire to Yorkshire that passes through Bourton-on-the-Water, Bidford-on-

Fig. 1, Ryknild Street in Sutton Park © K Hopkinson 2021

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Roman Road Construction, continued

Continued from p. 2

Fig. 2, A section of exposed surface on the Ryknild Street agger in Sutton Park © K Hopkinson 2021

Avon, Birmingham, Lichfield, Derby and Chesterfield (Margary1973, RR18b).

The forts at Metchley, near Edgbaston, Birmingham, and Wall, near Lichfield were both built in the years soon after the AD43 invasion, to help conquer and pacify the Midlands region. It is likely the section of the Ryknild Street linking these forts was built at this time, with the soldiers based at the forts providing the labour.

Within 20 years the military use of the road largely ceased when the fort garrisons were moved elsewhere. The area around Sutton Coldfield, south of Lichfield, remained as heathland, just as it had been in Roman times, with no farming or ground disturbance right up to being incorporated into the suburbs of the expanding industrial city of Birmingham. The 2400 acres occupied today by Sutton Park however escaped this fate. The area was made into a Royal deer park by Henry I, 900 years ago, which preserved the landscape right up to the present day, and took out of use the 1.6 miles of Ryknild Street that passes through the park. As a result, this landscape provides one of the best-preserved sections of Roman Road in the country. (Hodder 2013)

The Roman Road here was built by compacting material from the abundantly available pebble beds that exist throughout Sutton Park. The road material was quarried from quarry pits along the line of the road, with the pits surviving just as they were dug by the Romans nearly 2000 years ago. The 9m wide central *agger* is flanked by intermittent side ditches 5m from its edge.

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Roman Road Construction, continued

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Building the Roman Road between Metchley and Wall

The distance between the two forts at Metchley and Wall is about 15 miles, which is a day's march for soldiers carrying equipment. Once marked out, the road between the forts could have been built by the soldiers taking out supplies, picks, shovels and carts from the forts for the day's work. However, this approach would clearly not have worked in the middle section of this stretch of road furthest from the two forts, where marching there and back in a day would have left almost no time to carry out the roadbuilding. To overcome this, there would only have been one solution – to create temporary camps on the road so that the soldiers did not have to return to the forts each evening.

Creating just two camps, each positioned about one third of the way from each fort, could have resolved this issue. Based on the time estimate of one soldier completing one yard of road per day (Bishop, 2014, citing John Peddie), one centuria of 80 soldiers could have built around 500m of road in a week. By siting one centuria in each camp, and with two centuriae building the road out from each fort, the whole road could have been built in around 8 weeks by the six centuriae (a total of 480 soldiers). Each centuria would each been responsible for 4km of road, with the camp-based centuriae building the 8km of road that were furthest from the forts. This set up minimises the number of legionnaires in camp, as well as keeping relatively low the non-productive time walking to and from the workplace. With this scenario, the position of the southern camp would have been somewhere just north of Perry Barr. The position of the northern camp would have been in Sutton Park.

An alternative arrangement, with more camps, would have minimised non-productive time still further. Four camps would have resulted in a maximum of one hours' walk for everyone to any part of the road construction (each camp containing one centuria, as well as one centuria working out from each fort). In this scenario, the six centuriae would still have completed the road in around 8 weeks.

With either scenario, the road would have been built quickly, after which the temporary camps would have been abandoned.

This theory of construction camps being used to build Roman Roads has also been put forward by Paul Smith, a member of the RRRA (Smith, 2021).

The Golf Course Earthwork alongside the Roman Road in Sutton Park,

This site on the 13th fairway of the Sutton Coldfield Golf Course, at grid reference SP 08570 97493, Fig. 3, was identified in 2009 in a lidar survey funded by the then English Heritage. It is recorded in the Birmingham HER as MBM2590 and National Heritage List for England NHLE 1020420. It was subsequently recorded in ground truthing (Hodder, 2010a & b) Further ground inspection and a measured sketch survey (carried out by M. Hodder and K. Hopkinson) have shown that it consists of an almost square

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Roman Road Construction, continued

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Fig. 3, The Earthwork, © M Hodder 2019

Fig.4, Carrying out a geophysics survey on the Earthwork site © M Hodder 2019

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Roman Road Construction, continued

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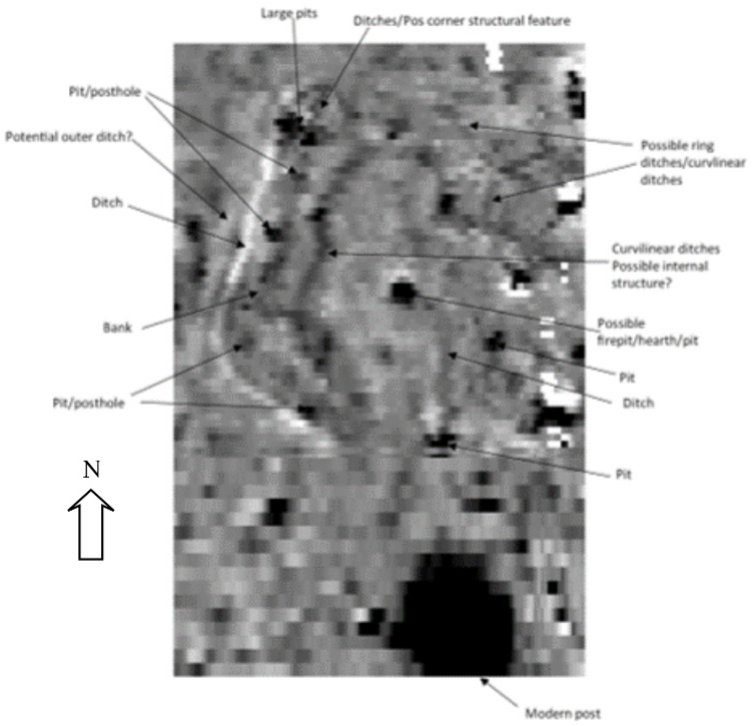

Fig. 5, Geophysics survey carried out by Allen Archaeology in February 2019 (interpretation by M. Hodder 2019). The survey on the eastern side of the feature was hampered by the presence of trees.

enclosure about 20m across defined by a bank with an external ditch. It is adjacent to the quarry pits of the Roman Road and on the same alignment as the road, factors that suggested that it could have been a Roman signal station or fortlet contemporary with the road. Gradiometry, Figs. 4 & 5, revealed anomalies suggestive of a fence or stockade on the bank together with a scatter of possible pits and postholes, and a hearth or firepit (Hodder, 2021).

An archaeological investigation by Birmingham University (White et al, 2021) was carried out in May 2021. This involved opening a single trench across the northern bank and ditch. A turf bank and ditch were uncovered, with evidence that the bank could have been slighted at some point in time, reducing its height. No specific dating evidence or occupation evidence was found. The design construction showed no specific Roman characteristics (no V-shaped slotted ditch) so it was concluded that the earthwork was more likely to be modern in date.

However, an examination of the findings and the evidence on the ground point strongly to the Earthwork being considered as a temporary Roman construction camp associated with the building of the road.

- The concentration of Roman quarry pits at the Earthwork are unlike anything found along the rest of the Roman Road in Sutton Park. The pits are packed together along this small section of the road, extending from the road ditch line up to the eastern edge of the Earthwork and around the north eastern corner rampart (see Fig. 6 below). Yet the ground for hundreds of yards in either direction has the same abundance of stones available for quarrying road material. Elsewhere in the Park, the Roman quarry pits are dug almost entirely in a single line beside the Roman road (see Fig. 7 lidar image below).

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Roman Road Construction, continued

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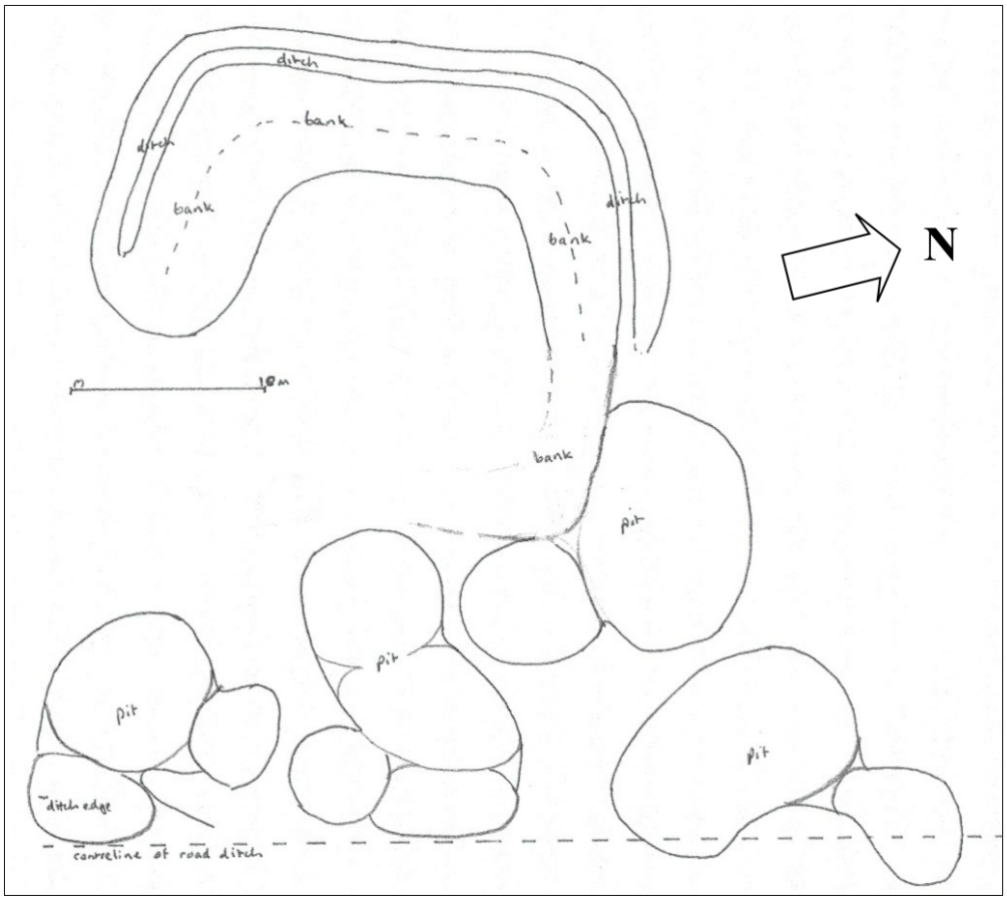

Fig. 6, Diagram showing nearby Roman quarry pits in relation to the Earthwork and the road ditch line

- The Earthwork is positioned parallel with the line of the road, and right on the edge of the road construction zone.
- It is in the right place for a construction camp, being 10km from the Roman fort at Wall.
- The size of the Earthwork is just the right size to accommodate a centuria of Roman soldiers.
- The whole eastern side of the Earthwork facing the road is missing. This includes the southeast corner and the return bank and ditch to what is presumed to have been the entrance to the site. Considering the possible abandonment of the site by the Romans after road construction, the necessity for slighting the camp becomes obvious; leaving a fortified camp yards away from the road would have allowed a hostile force to hide close to the road. Completely flattening the eastern bank, as far as the southern entrance, would have made

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Roman Road Construction, continued

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it impossible for anyone to use or hide within the camp. Evidence from the 2021 archaeological dig showed the bank in the excavated trench could also have been slighted, suggesting that the soldiers could have reduced the height of all the surviving banks on the site as well as erasing the eastern bank completely.

- Experts on Roman Camps have concluded that the rampart was the most important defensive feature of a camp, rather than the ditch. Differences exist in the scale of ditches, with some camps recorded as having no ditch at all. The differences in the scale of ditches were likely due to the varying threats from the surrounding area; a small ditch or no ditch in areas that had been pacified or were peaceful (Jones, 2012, Welfare and Swan, 1995). The shallow nature of the ditch around the Sutton Park Earthwork should therefore not in itself rule out a Roman origin of the structure.
- Entrances to camps represented defensive weak points. The majority of camps found in Britain have entrance protection features built into the camp design. One of these features, the *clavicula*, has an angled projection of the rampart and ditch on the right-hand side facing out from the camp. This results in an angled entrance, so that in a gate attack, the assailants' shields would be facing away giving an advantage to the defenders. Only the western side of the Sutton Park Earthwork entrance survives, but this is angled away from the rectangular layout, suggesting the possible existence of a *clavicula*.

Alternative possibilities to explain the earthwork

In addition to being a Roman road construction camp, three other possibilities have been mooted to explain the earthwork.

An Animal Stockade

There are no examples of an earthwork animal stockade in Sutton Park, other than the large-scale medieval deer park subdivisions. After the abandonment of the deer park, the area around the Earthwork was used for centuries as open heathland grazing. However, grazing animals would have been housed in the farms and homesteads on the better-quality land surrounding the Park, and would have no need to be stockaded on the heathland, without access to feed.

The construction of this earthwork bank and ditch is significantly in excess of what would have been needed for a stockade. Also, an animal stockade does not account for the precise location and orientation of the Earthwork, or the absence of the eastern bank and ditch.

A Military Training Exercise

Military training took place in the park in the nineteenth and twentieth centuries. Military training camps were established in known parts of the park, and together with contemporary records, account for the various military earthwork remains that exist to

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Roman Road Construction, continued

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the current day. No military activity has been recorded near to the Golf Course Earthwork.

The design of the earthwork does not match with any military feature of either the 19th or early 20th century. Also, a military training feature does not account for the precise location and orientation of the Earthwork.

A Golf Course Feature

Alister Mackenzie was a renowned Scottish golf course designer who redesigned Sutton Coldfield Golf Course in 1919. He designed more than 50 golf courses including three that remain in the top 10 golf courses in the world (Golf Digest 2017); Augusta National Golf Club and Cypress Point Club in the US, and Royal Melbourne Golf Club in Australia. Mackenzie worked in an era before large scale earth moving equipment and his designs are renowned for incorporating natural and existing features into his courses. This can be seen in Sutton Park as Mackenzie retains and incorporates the Roman road, sixteenth century wood boundary banks and ditches, and medieval subdivision banks and ditches into his designs. The land around the 13th fairway was ancient heathland before Mackenzie laid out this part of the golf course in 1919. Maintaining an existing earthwork found on site of the proposed course would have followed his established design principles.

Mackenzie's own golf earthwork designs, such as bunkers and earth mounds, are well documented and understood. The Earthwork on the 13th fairway does not look like any type of golf feature.

In addition, a golf course feature also does not account for the precise location and orientation of the Earthwork.

A possible explanation for the number of quarry pits at the Earthwork

It is interesting to postulate as to why such a large number of quarry pits exist to the eastern side of the Earthwork.

When the detachment of troops, with all their equipment and supplies, set out from the Wall fort on the first morning to build the road, they would have arrived at the camp site after a four- or five-hour march. Their first priority would have been to dig the ditch and create the rampart so that the camp was built and secure by nightfall. Road building would then have started the following morning. However, before the jobs of carting, grading, and *agger* construction could take place, a sizeable amount of earth would have to have been dug out first. Rather than have people stood around waiting for earth and stone to be dug out, all available hands would have been tasked with digging on that first morning to get the road building underway – thus creating the multiple quarry pits that are seen only at this point on the road.

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Roman Road Construction, continued

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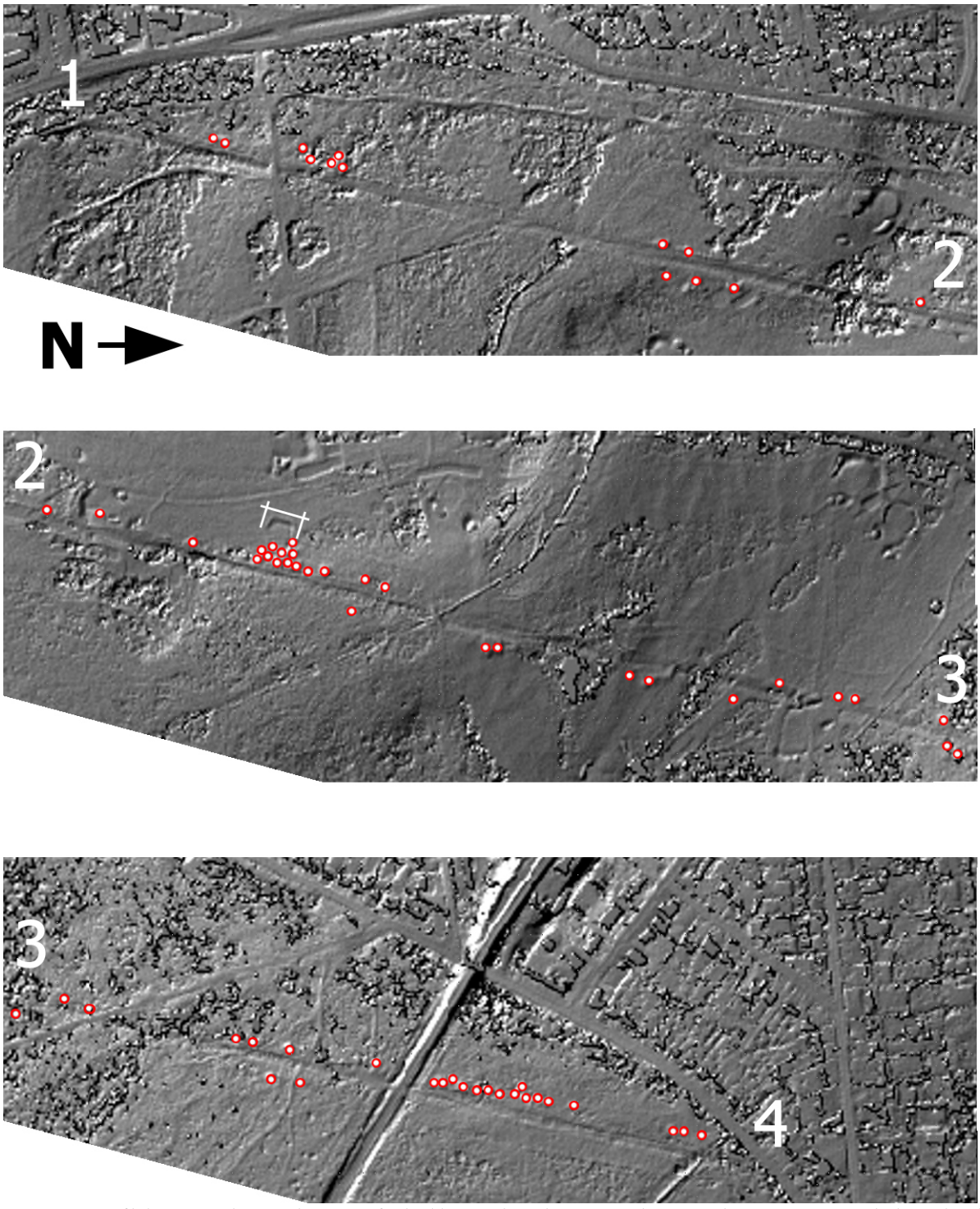

Fig. 7, Series of lidar images showing the course of Riknild Street through Sutton Park. Potential quarry pits are marked in red and the earthwork with a white frame between 2 and 3. Lidar data, © Crown Copyright 2019, Open Government Licence v3.0.

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Roman Road Construction, continued

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Conclusion

Of all the possibilities considered to explain the existence of the Golf Course Earthwork, only one possibility satisfies the extant features of the Earthwork and explains its location, orientation, design, and condition – that is as a Roman construction camp, set up in order to build the Roman road in the first century AD. The proven existence of such a camp would represent a significant step forward in understanding how the Romans managed road construction in Britain.

Roman road dual carriageway

As the Roman road sweeps crosses a tributary of the Longmoor brook, a few hundred yards to the north of the Golf Course Earthwork, a second *agger* diverges from the

Fig. 8, Roman dual carriageway. Original agger on the left, second agger in the centre, quarry pits on the right, © K Hopkinson 2021

original *agger*. This second *agger* runs between the original *agger* and the outer ditch line, with the second *agger* slightly overlaying the edge of the original *agger*, Fig. 8. The second *agger* runs for approximately 100 yards from the north until the road crosses the stream. It is not visible to the south of the stream. A quarry pit alongside this second *agger* seems to have been enlarged to provide material for this rebuild.

The purpose of the second *agger* is not known. It seems likely that it is related to the stream crossing. Possibly the original *agger* was washed away by big floods, which

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Roman Road Construction, continued

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have occurred in the Park. However, this does not account for why the original *agger* was not simply rebuilt. It also does not explain why the second *agger* exists so far back up the slope away from the stream, and not on the other side of the stream. Further analysis and investigation are needed.

Possible Further Work

A further small-scale excavation, or core sample, of the hearth or fire pit, identified by the geophysics in the centre of the site, could enable radiocarbon dating, and yield possible dateable artefacts, to confirm the approximate age of the Earthwork. A small trench across the south eastern side of the Earthwork would confirm whether a bank and ditch ever existed on this side of the site and whether the site entrance was a *clavicula*.

No complete survey of the quarry pits has ever been carried out along the length of the Roman Road in the Park. Such a survey would confirm the unusual concentration of pits adjacent to the earthwork. The remarkable preservation of the road landscape would mean the survey would also give a valuable insight as to how the Romans used earth and road surface material to grade and construct the road.

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RRRA Projects, update

The Roman Roads of Cumbria – Some Recent Developments, Part 1

From David Ratledge

The Stainmore Roman Road, Maiden Castle to Brough, RR82

The course of the Roman road dropping down into Cumbria from Stainmore has always been difficult to decipher as there are clearly a multitude of routes from pre-Roman times right up to the present day - and all intertwined together. However, the release of series 2 lidar covering the Maiden Castle to Brough section has enabled progress to be made and the routes of the Roman roads – yes plural - are now determined with high confidence (fig 1).

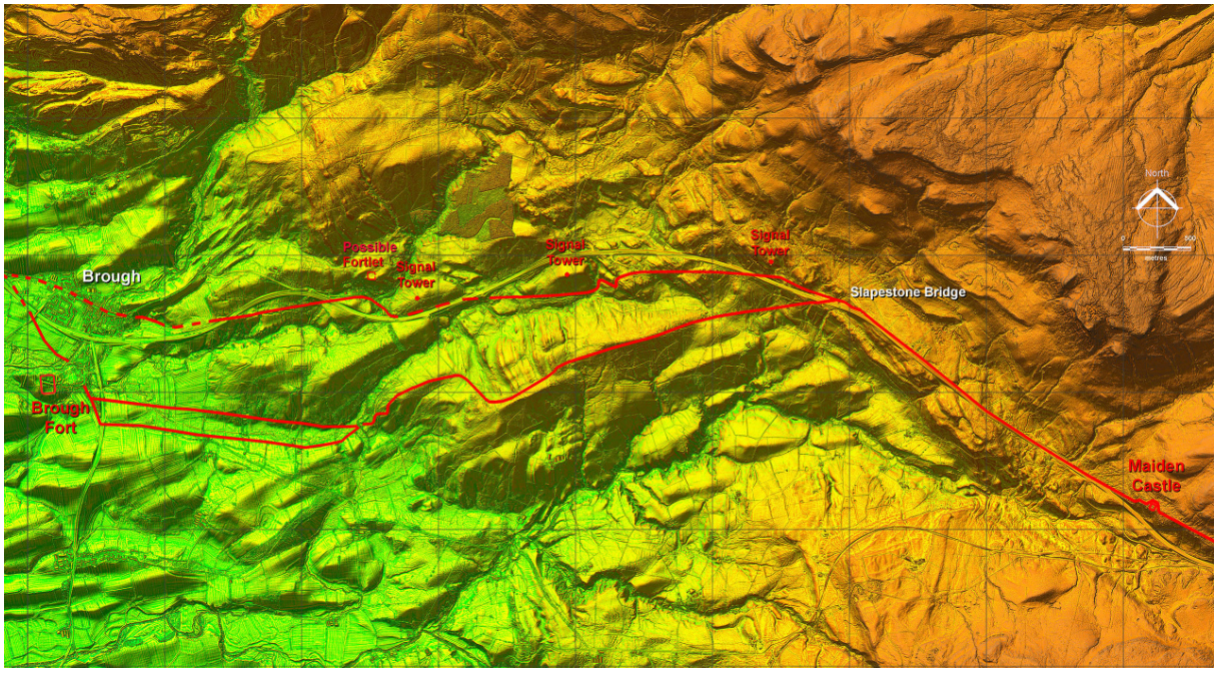

Figure 1: There were clearly two main Roman routes west of Slapestone Bridge with the southern one even having its own (probably) later diversion. The locations of the Signal (Watch) Towers and the possible Fortlet are also shown. Base lidar data is © Crown Copyright 2021.

We will examine the Roman roads in what is believed to be their chronological order of construction rather than in order of discovery.

Common Route – Maiden Castle to Slapestone Bridge

Lidar indicates the Roman road was aligned through the centre of the fortlet (fig 2) but took a tight detour around the north-eastern rampart (NY 87231 13194). There is a

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Roman Roads of Cumbria, Part 1, continued

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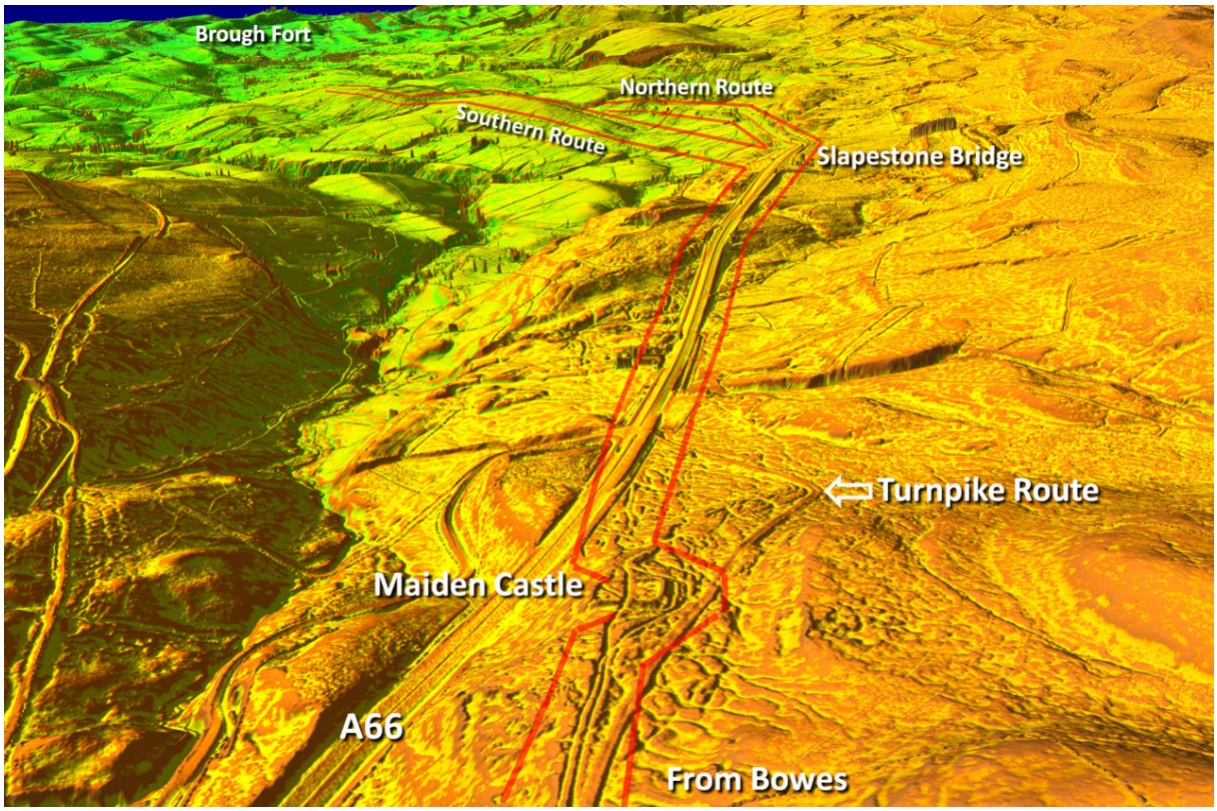

Figure 2: Oblique lidar image looking north-west over Maiden Castle Roman fortlet. The northern and southern routes share a common course as far as Slapestone Bridge. Base lidar data is © Crown Copyright 2021

very prominent curving road further north-east but this is more suggestive of the turnpike route. Beyond the fortlet there is a small zig-zag to negotiate a ridge (NY 87084 13220) before it merges into the current A66 (NY 86890 13310), which then generally overlies the Roman route to Slapestone Bridge. Note this is not to be confused with Slapestones and Slapestonesike Bridge. Slapestone Bridge crosses Smeltmill Beck, about 1 mile north-west of Slapestones. Here the northern and southern routes diverge (NY 84910 14676).

Northern Route - Slapestone Bridge to Brough

The route of a Roman road had been depicted by the Ordnance Survey as passing over Long Rigg. Correct in principle, as we shall see later, but not in detail. However, located away from this route were three known Signal or Watch Towers (fig 1). They are far too close together to make sense as signal towers. However, they were much more likely watch towers but then they would be in the wrong place for watching a road over Long Rigg. A northern route had therefore always been suspected, one that would have passed close to the towers but convincing evidence had not been forthcoming. The proximity of the old A66 and its modern dual carriageway

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Roman Roads of Cumbria, Part 1, continued

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replacement was likely to have destroyed much of the evidence. Fortunately though sufficient lidar evidence has survived to confirm there was indeed a northern route and also determine most of its course.

From Slapestone Bridge the old course of the A66 (pre-dual carriageway) passing Litts Garth marks the Roman line but when the former swings off at Bluebell House (formerly Blue Bell Inn) then the Roman *agger* becomes visible (fig 3), (NY 83498 14859). There follows a series of typical Roman zig-zags down the slope (NY 83299 14776 & NY 83177 14825). At the bottom the route is then through sparse woodland, which OS first edition maps call Low Street (NY 82954 14717). This was examined by Drury (CWAAS, 1998) as part of the A66 Improvement and she found "It comprised a well-constructed stone revetted terrace which formed a level surface accommodating a cobbled surface." She concluded it was most likely Roman. With lidar evidence extending this section a considerable distance both to its east and west we can confidently now attribute this to be part of the missing northern Roman road.

The Low Street alignment continues as far as the A66 dualling scheme (NY 82359 14689), which destroyed the next 500 metres or so. However, the route re-emerges on the north side of the A66 near Augill Bridge (NY 81623 14563 & NY 81420 14690) to a "chicane" or "side-step" through a natural valley (fig 4). There then follows another straight alignment passing Forest Farm (NY 80717 14587). Beyond there the evidence is a little vague but it was clearly targeting another little valley (fig 5), where the *agger*

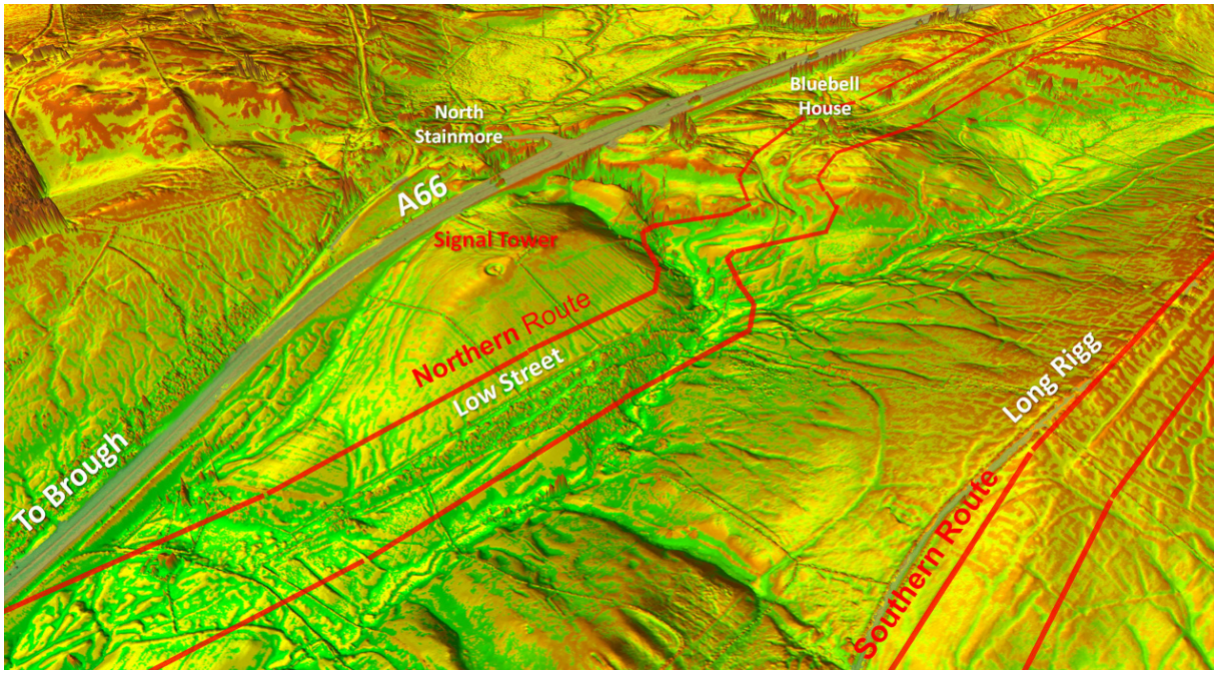

Figure 3: Oblique lidar image showing the northern route passing Bluebell House and Low Street. Also visible is the (higher) southern route over Long Rigg no doubt why Low Street got its name. Base lidar data is © Crown Copyright 2021.

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Roman Roads of Cumbria, Part 1, continued

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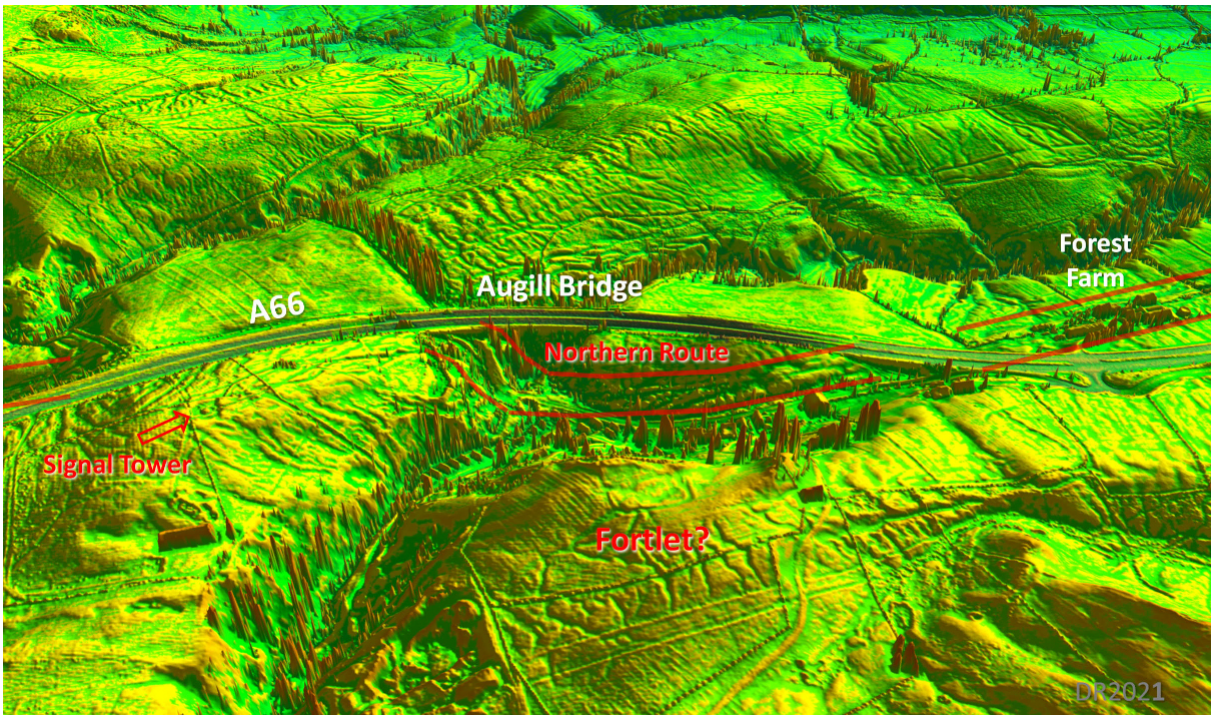

Figure 4: Oblique lidar view looking south over the possible Roman fortlet near Augill Bridge. The Roman road indicated is the northern route and its proximity to one of the Signal Towers is evident. Base lidar data is © Crown Copyright 2021.

is evident turning towards a stream crossing (NY 79879 14539). More *agger* traces are visible representing an easy climb heading for the modern road through the middle of Brough village, which surely is on or very close to the Roman line.

Southern Route - Slapestone Bridge to Brough Fort

This route, which is much more targeted on Brough Fort, branches off the common route at Slapestone Bridge. This arrangement strongly suggests that the northern route was the earlier. The road is first visible as a terrace (NY 84623 14643) on a direct line to Long Rigg. Before the release of lidar for here I had spotted this on aerial photographs and lidar has now confirmed this as correct.

The Ordnance Survey mark the modern road over Long Rigg (fig 6) as the Roman line but it is clearly visible in the field to its south (NY 83316 14333) both on the ground and in lidar imagery. Beyond Cocklake Hills the Roman line does eventually merge into the modern road (NY 82797 14115) and follows it as far as Limes Head. The Roman route then takes large turn to the north to drop down the slope there. This incline is easily visited as a public footpath runs along it and traces the *agger* with its foundation stones are evident (NY 82284 14010). At the bottom of the inline the road resumes its general westerly direction and the *agger* is again clear (NY 81810 14035) all the way to the top

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Roman Roads of Cumbria, Part 1, continued

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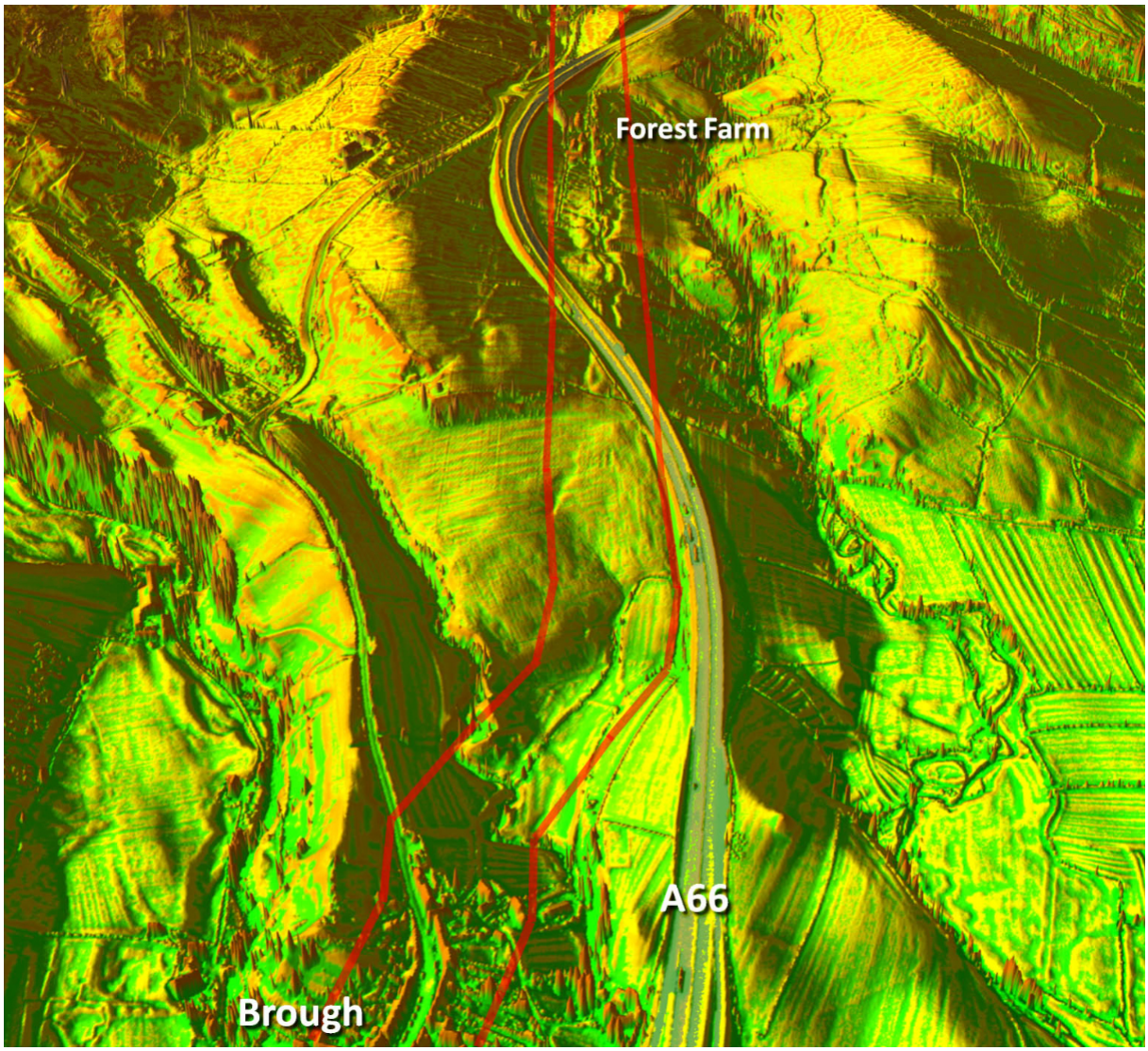

Figure 5: Oblique lidar view looking east from over Brough towards Forest Farm. The alignment at Forest Farm is aimed at a natural little valley. At the bottom of this there is a turn with an agger visible heading for a stream crossing. Base lidar data is © Crown Copyright 2021.

of a pair of zig-zags, which descend the next slope. These zig-zags were the discovery of the late Hugh Toller (fig 7).

At the bottom of these zig-zags the road splits into two (NY 81444 13760). The northern option heads more directly to Brough via Augill Castle and was originally spotted by Bryn Gethin. However, this route has to cross low lying ground (NY 80228 13875), which must have proved unsatisfactory. This area is known to flood regularly.

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Roman Roads of Cumbria, Part 1, continued

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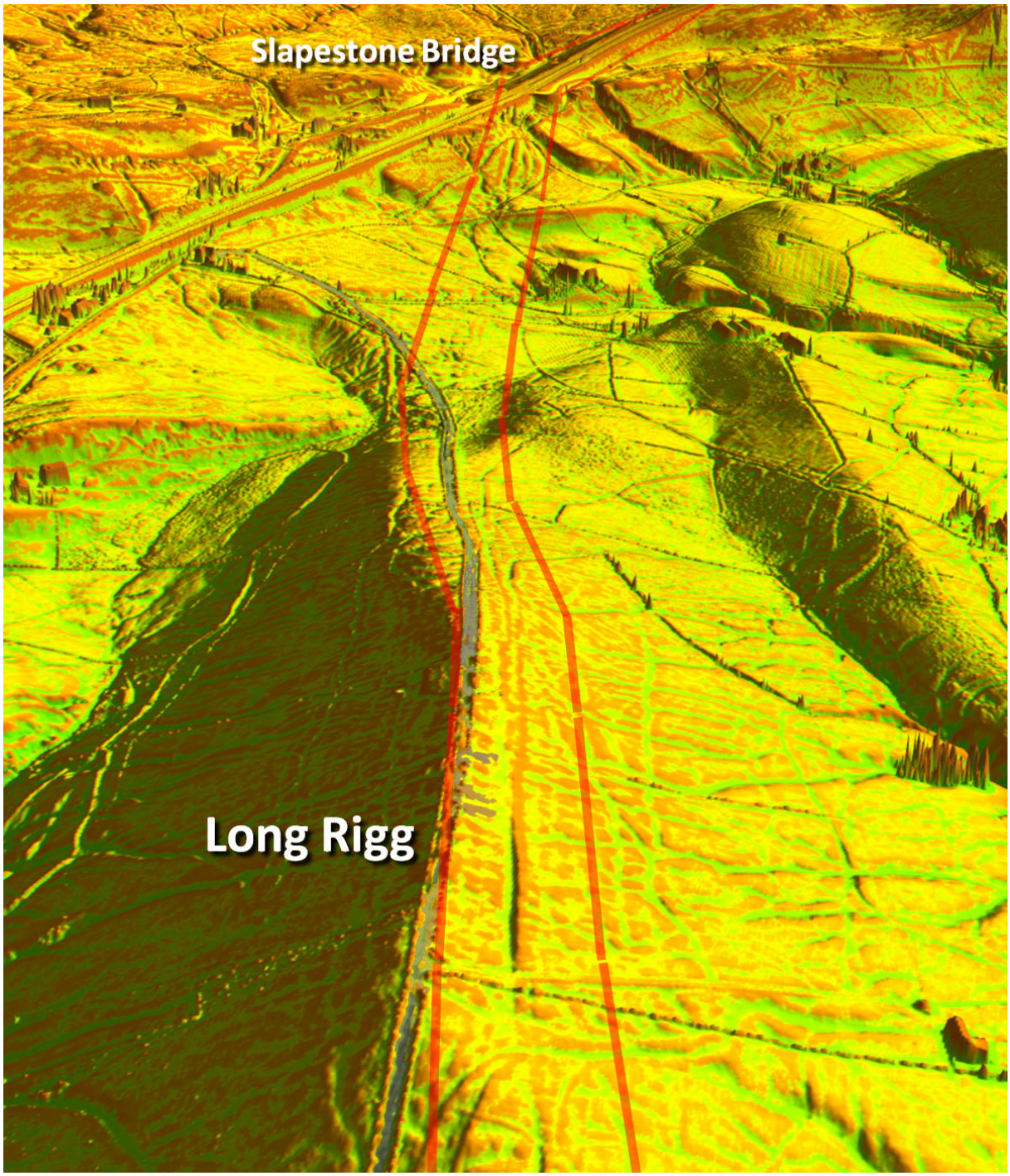

Figure 6: Oblique lidar view looking back towards Slapestone Bridge from Long Rigg. Quite why the modern road was assumed to be the Roman route is a mystery as the true course is easily visible from the modern road on its south side (right in this view). Base lidar data is © Crown Copyright 2021.

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Roman Roads of Cumbria, Part 1, continued

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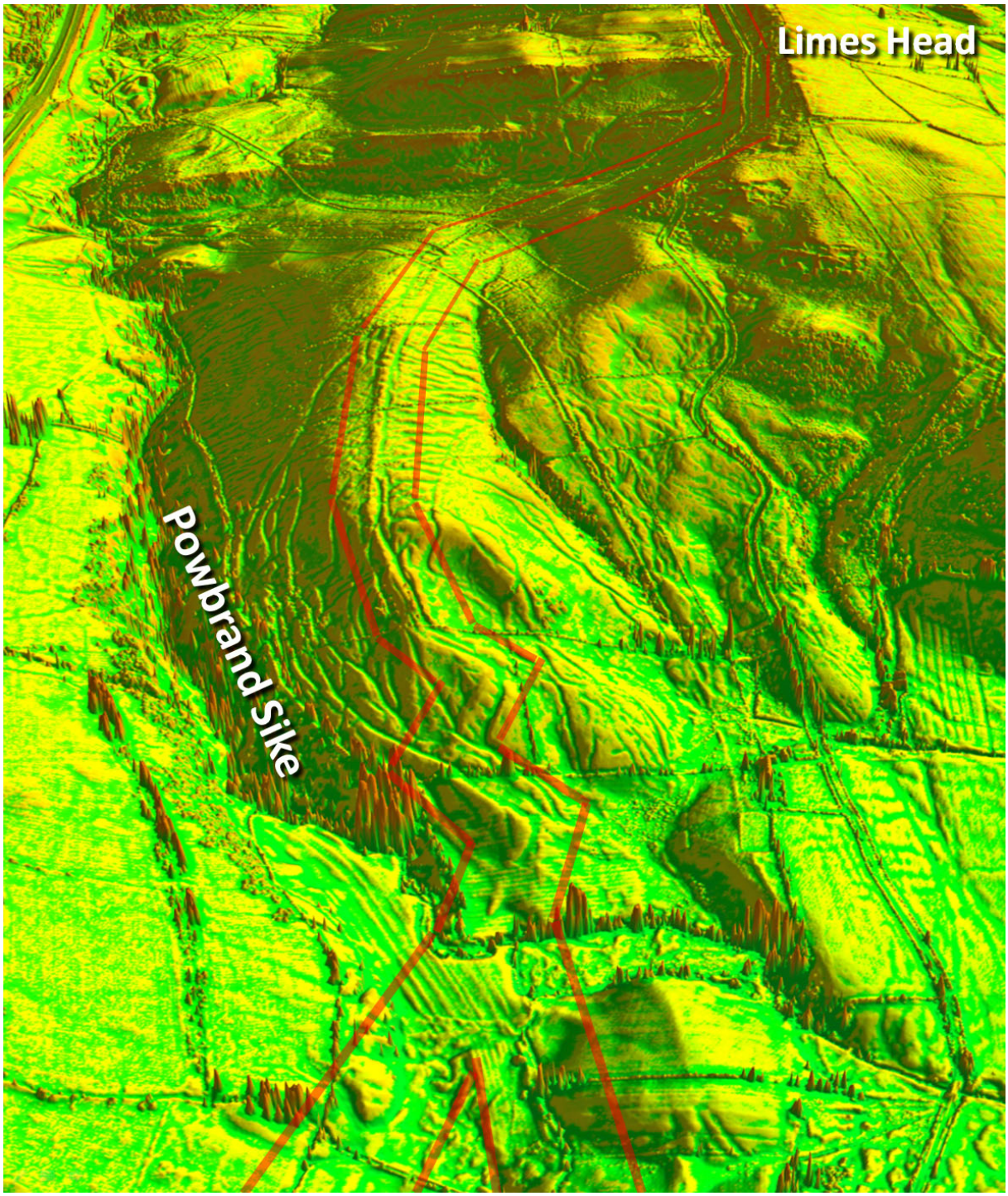

Figure 7: Oblique lidar view looking east over the Roman zig-zags down to Powbrand Sike. The point where the two southern route options divide is towards the bottom in the view. Base lidar data is © Crown Copyright 2021.

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Roman Roads of Cumbria, Part 1, continued

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It would appear that it was replaced by a more practical southerly option, which runs parallel (NY 80228 13693) but keeps to higher ground (fig 8).

Possible Fortlet - Augill Bridge

Whilst tracing the Roman routes a possible fortlet was noticed on a headland overlooking the northern route and close to the signal stations (figs 1 & 4). It appears to have an eastern entrance and is centred on NY 81511 14851. It could make sense as an early support site for the towers.

Summary

The arrangement of the Roman routes would seem to strongly suggest the northern route with its "watch" towers plus a possible supporting fortlet was the original Roman route. This was subsequently replaced or supplemented by a southern route over Long Rigg, presumably when Bowes Fort was commissioned. The southern route was later amended to make its approach to Bowes further south via higher and drier ground.

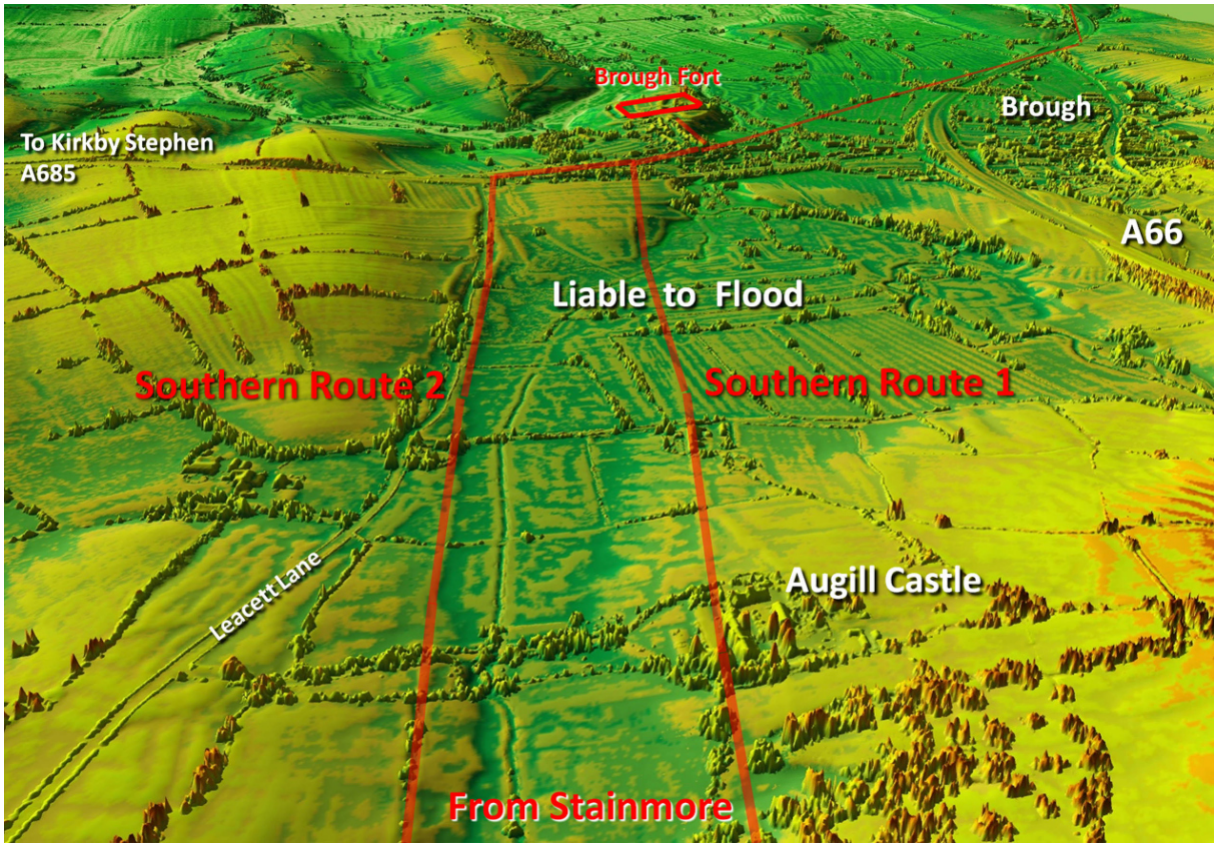

Figure 8: The Southern route and the two approaches to Brough Fort. The original via Augill Castle passed through an area subject to flooding. What surely must be its later replacement, keeps to higher ground. Base lidar data is © Crown Copyright 2021.

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Roman Roads of Cumbria, Part 1, continued

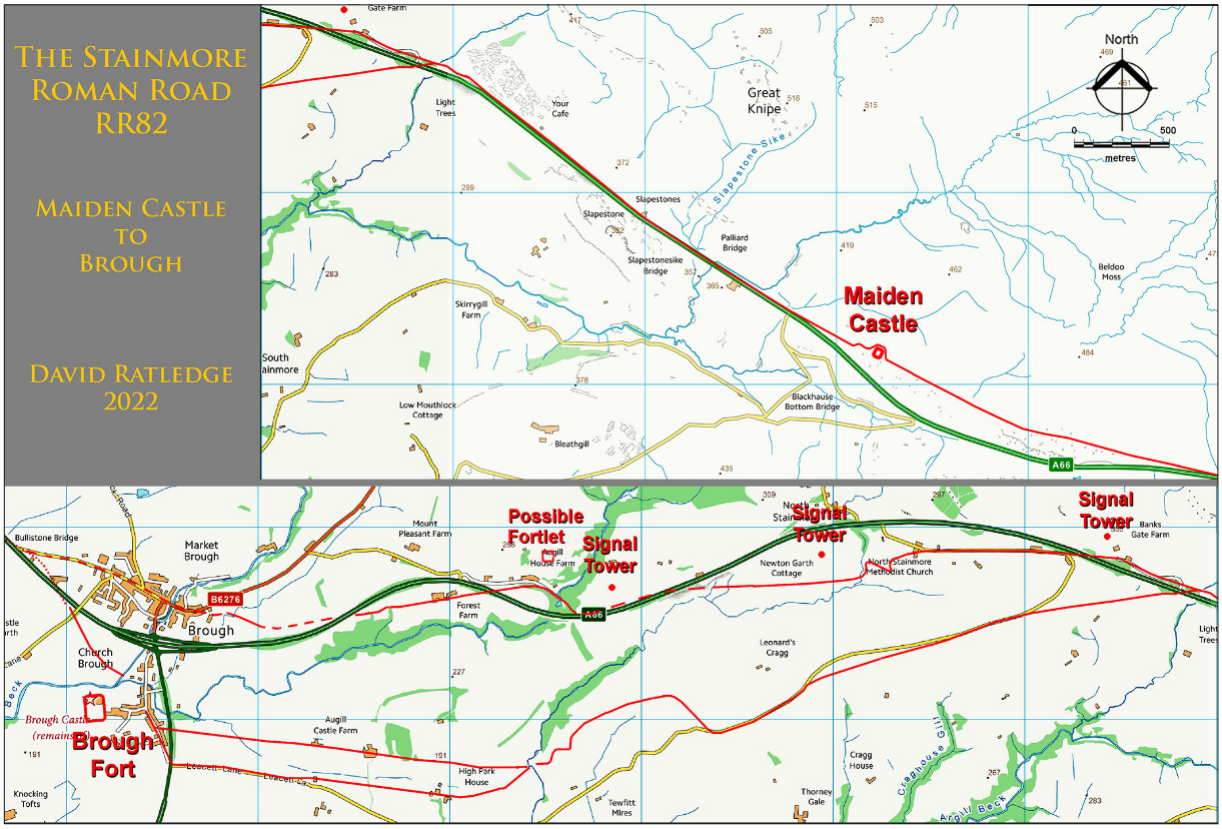
Continued from p. 20

The northern and southern routes would have recombined at a junction west of Brough around NY 78788 14878. This too is suggestive of the southern route being the later.

A lidar video flyover is available. This follows the Southern Route from Brough Fort up to Rey Cross on the county boundary before returning via the Northern Route to Brough village. https://youtu.be/dj-MBbX61kA

Appendix 1 – Route Map

(Base mapping is OS Opendata © Ordnance Survey)



RRRA Projects, update

Locating Roman Forts / Towns in the East Midlands

From Alan Bradwell

Editors Note; This article is a re-submission of a similar piece published under the Darley Abbey Historical Group as 'The Locations of 'Lost' Roman Forts and Towns in the East Midlands'. Full permission for this has been granted by the author and the Group, © the author and Darley Abbey Historical Group. Any other use must have the approval of the author(s) and the Group Chairman. It describes an interesting technique that could be deployed by other members, that we already do intuitively in our heads filling in gaps. This when coupled with field survey of the topography can suggest suitable fort and settlement locations and then the potential for a road network. Note that this was originally written in 2017 utilising a 1950's OS map of Roman Britain, additional forts, settlements and roads have been since added to our understanding of this area.

INTRODUCTION

The Ordnance Survey map of Roman Britain (Fig. 1) shows the Forts/Towns and Roads of the East Midlands. There are several anomalies, represented by large areas with no Roman features, suggesting that the map and our knowledge are incomplete. These anomalous areas are :-

- there is only one known crossing of the River Trent, at Wychnor, in over 60 miles of river; this cannot have been the case.
- an area of 35km. x 25km. between Derby, Burton, Wall, Mancetter & Leicester has no Roman features or Roads, despite being on the boundary between civilised (Towns) and military (Forts) society.
- an area of 25km. x 20km. of the White Peak between Derby, Matlock, Chesterfield, Brough, Buxton and Rocester has but one Roman Road and no Roman features, despite being one of the major centres of Roman lead production and having several of the warmest baths in Britain.
- an area of 30km. x 40km. of Sherwood Forest between Nottingham, Chesterfield, Doncaster and Lincoln has but one villa and no other Roman feature or Roads, despite being on an easily-worked coal-field and iron-field, both products being of interest to the Romans.

This Report describes techniques to determine the likely locations of potential 'lost' Forts/Towns in these areas, and thereby to determine the likely routes of 'lost' Roman Roads.

TECHNIQUES

From the OS map of Roman Midlands and North England, (Fig. 1), it is clear that known Forts/Towns occur at regular distances; knowing that distance allows the next Town/Fort to be plotted, and the next, thereby filling the empty areas; this is called "Mean Distance Plotting".

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Roman Forts / Towns in the E. Mids, cont.

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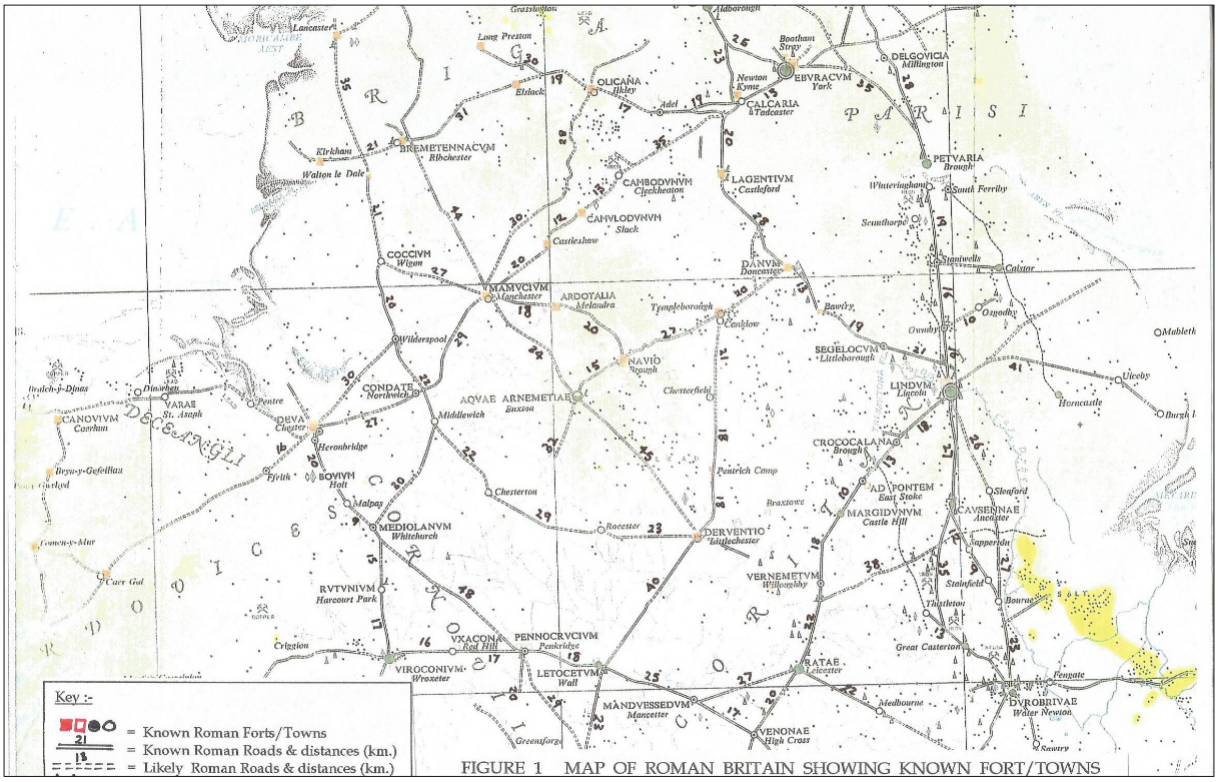

FIGURE 1 MAP OF ROMAN BRITAIN SHOWING KNOWN FORT/TOWNS

Each known Fort/Town has a circle of influence, and Forts/Towns would be placed at regular distances to ensure the whole land was supervised. Plotting the circles of influence of known Forts/Towns allows unsupervised areas to be determined and thereby the location of 'lost' Forts/Towns to be found; this is called "Circle of Influence Plotting".

Where an empty area of land (as above) is surrounded by known Forts/Towns, the Centre of Gravity (C.of G.) of a 'lost' Fort/Town can be calculated from the OS Grid co-ordinates of the known sites; this is called "Centre of Gravity Calculation".

These techniques, which give the optimum locations, are elaborated below. The final location of Forts/Towns would be decided by the Romans on the basis of land topography, availability of resources (water, river crossings, fuel, food supplies) and on the safety from attack (defences).

Mean Distance Plotting

The distances between known Roman Forts/Towns in the East Midlands area bounded by Birmingham, Leicester, Lincoln, Doncaster, Barnsley, Manchester, Stoke and Stafford has been measured on the OS Roman map (Fig. 1). The mean distance is 23km. with a Standard Deviation of 8.7km. This distance has then been used to draw arcs of circles round each of the known Towns/Forts and where the arcs coincide is

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Roman Forts / Towns in the E. Mids, cont.

Continued from p. 23

the likely site of a 'lost' Fort/Town. Ideally several arcs will co-incide exactly at one place, but it is more likely that an area will be defined in which the Fort/Town lies.

Using this technique, new Forts/Towns are potentially to be found as in Table 1.

Figure 2 shows the general locations of the overlapping arcs.

Figures 3A-C show the detailed locations of the overlapping arcs.

Only two sites have good co-incidence of arcs; Worksop and Thurlestone. In most Areas the overlapping arcs define one or two triangular areas of about 5km. side (shown hatched); the sites quoted above are the centres of each triangular area. In the National Forest Area, the technique suggests there may be two 'lost' sites, one East and one West. Two sites in the White Peak Area, East and West, are predicted by the technique, but the overlapping arcs produce large triangles of 10km. side, making exact location more difficult. The Sherwood Forest Area is far too large for a single site;

TABLE 1 POTENTIAL LOCATIONS OF 'LOST' FORT/TOWN AT OVERLAPPING ARCS

Area	Zone	'Lost' Fort/Town at Centre of Overlap of Arcs	OS Grid Reference	Area of triangle within Overlaps
The National Forest, South Derbys/Leics.	East	Thringstone, Leics.	SK 42/17	5x 5x 6 km.
	West	Castle Gresley/ Stapenhill, Burton	SK 26/19	10x10x6 km.
White Peak, Derbys	East	Roystone Grange/ Minninglow, Derbys.	SK 20/58	10x10x6 km.
	West	Bradnop, Leek, Staffs.	SJ 01/55	10x10x10km
Sherwood Forest, Notts.	South	Old Clipstone, Mansfield	SK 60/64	7x 7x 12 km.
	North	Worksop	SK 60/79	3x 3x 3 km.
Dark Peak, Derbys.	West	Thurlestone, Penistone	SE 23/04	2x 5x 5 km.
	East	Royston, Barnsley	SE 34/10	10x10x10km

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Roman Forts / Towns in the E. Mids, cont.

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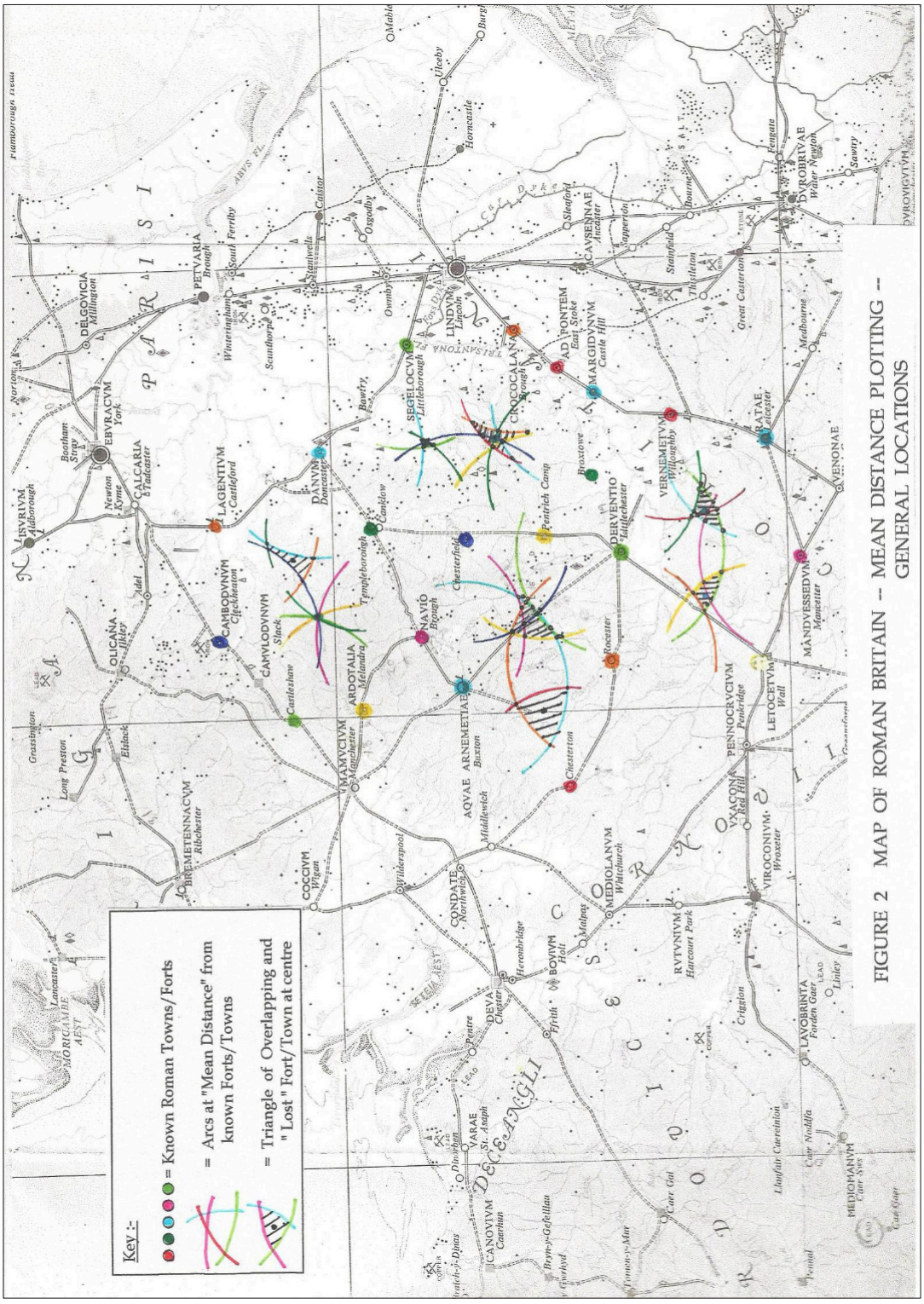

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Roman Forts / Towns in the E. Mids, cont.

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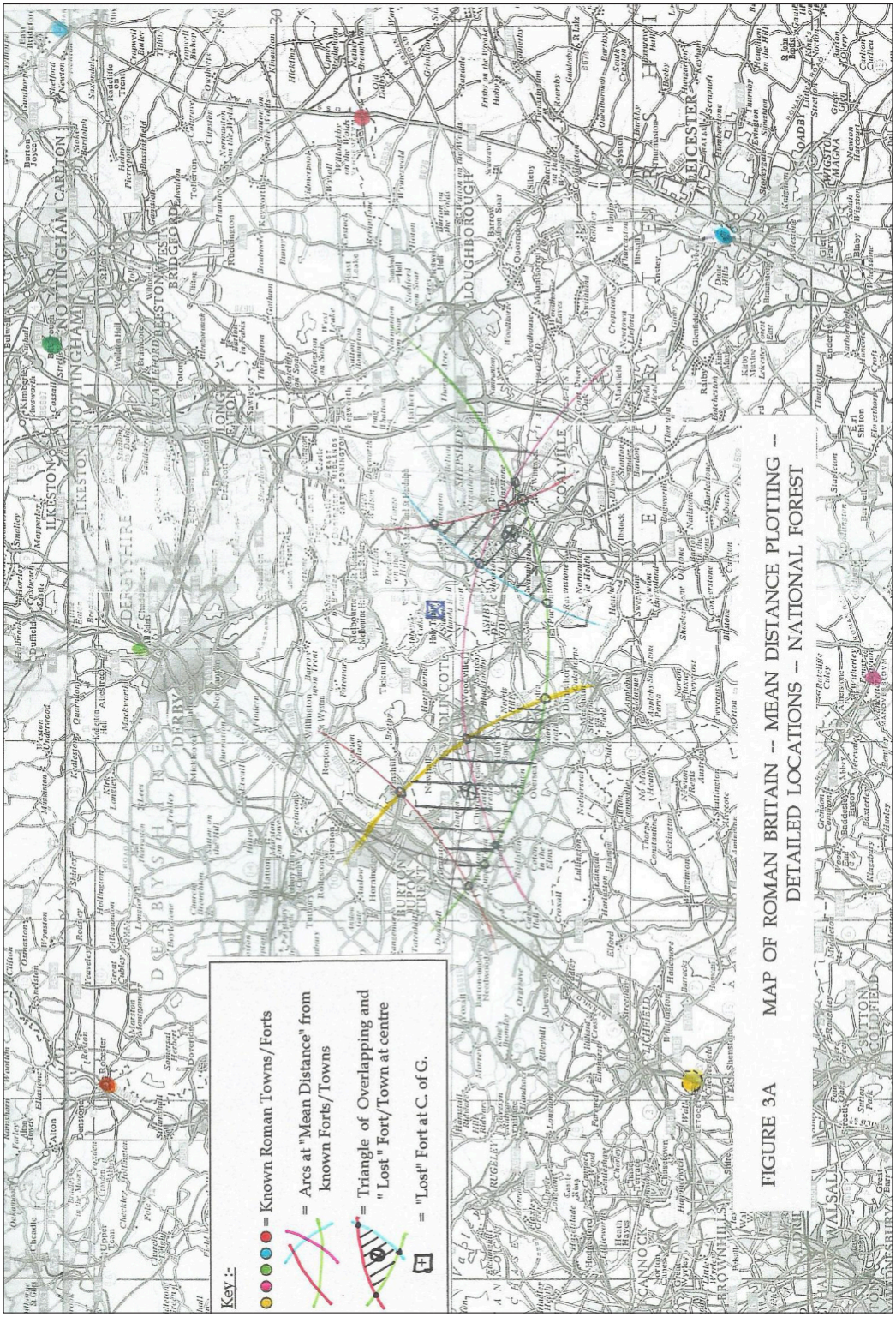

FIGURE 3A

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Roman Forts / Towns in the E. Mids, cont.

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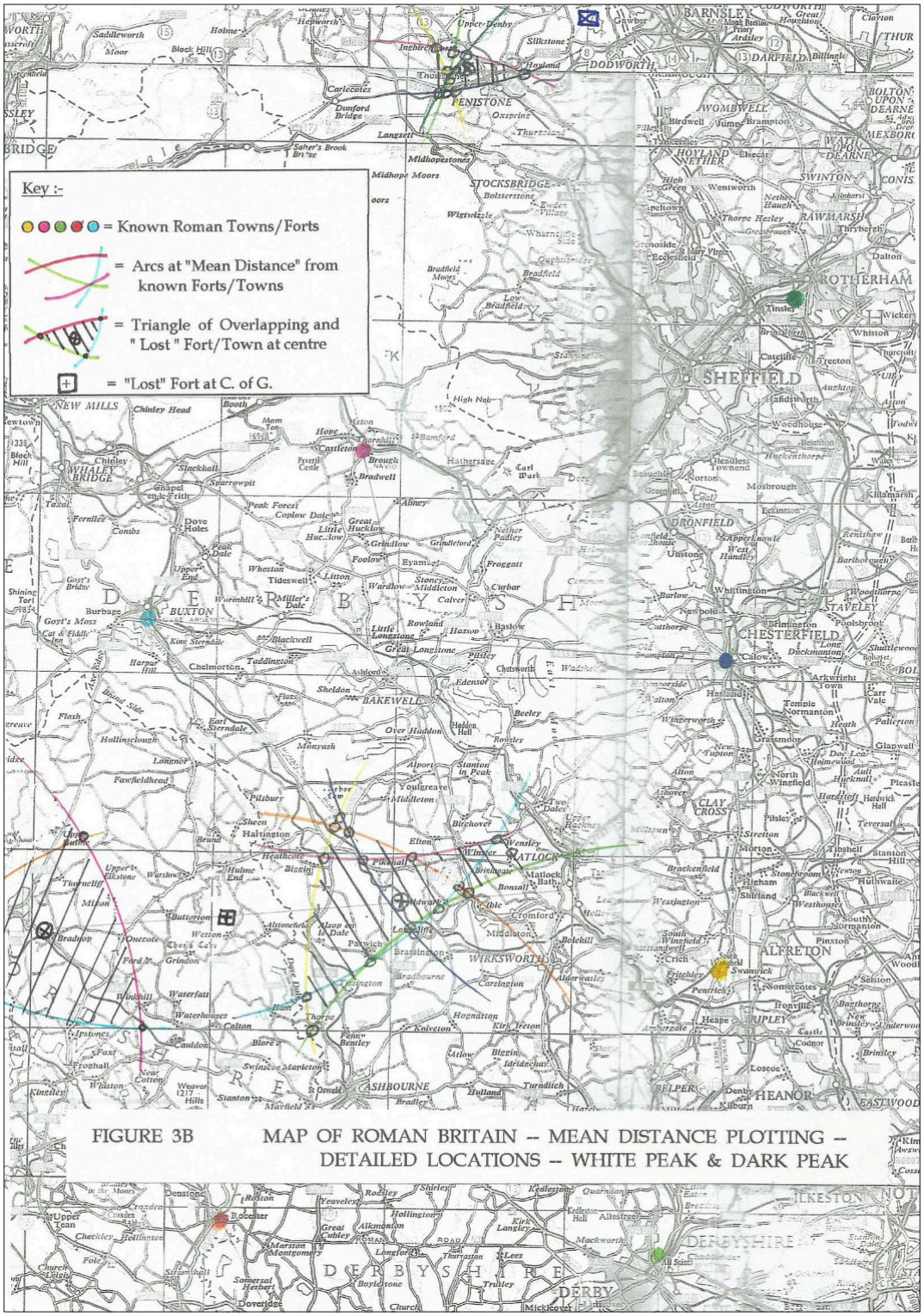

FIGURE 3B MAP OF ROMAN BRITAIN -- MEAN DISTANCE PLOTTING -- DETAILED LOCATIONS -- WHITE PEAK & DARK PEAK

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Roman Forts / Towns in the E. Mids, cont.

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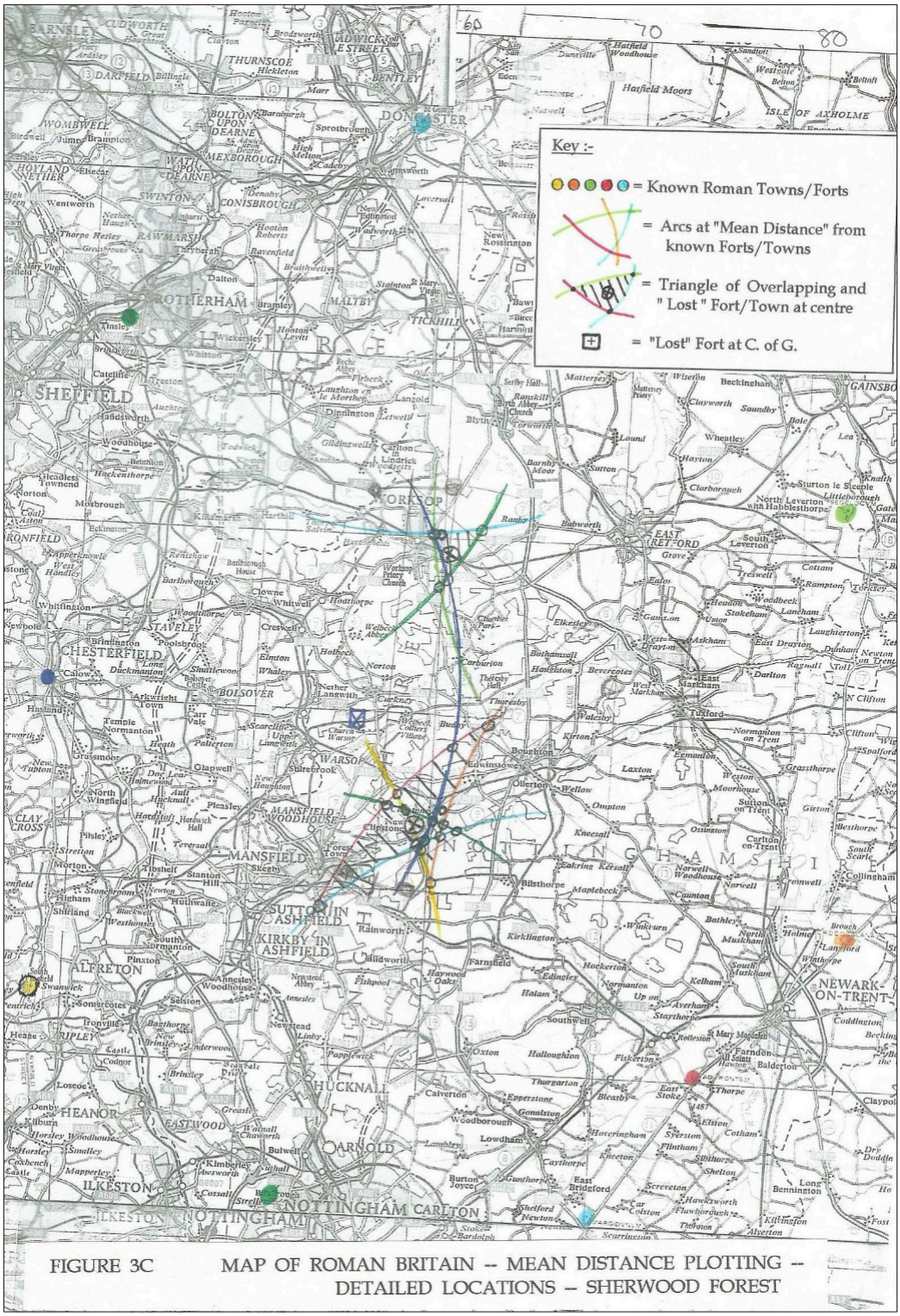

FIGURE 3C MAP OF ROMAN BRITAIN -- MEAN DISTANCE PLOTTING -- DETAILED LOCATIONS -- SHERWOOD FOREST

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Roman Forts / Towns in the E. Mids, cont.

Continued from p. 28

the technique suggests two sites, the North site being well-defined at Worksop and the South site being less well-defined near Mansfield. The Dark Peak Area is served by two sites, one very well-defined at Thurlstone, another less so at Royston, north of Barnsley.

Since each area is served by two 'lost' sites, another criterion can be used to refine the locations; the two lost sites must also be "The Mean Distance (23km.)" apart and

TABLE 2 POTENTIAL LOCATIONS OF 'LOST' FORTS/TOWNS IN UNSUPERVISED AREAS VS. CIRCLE SIZE

Area/Colour Code	No. of Circles (Forts/Towns) to cover Area		'Lost' Fort/ Town at Centre of Circle	OS Grid Reference	Diameter of Circle (* =Mean Distance)
The National Forest, S. Derbys./ Leics.(Dark Green)	1		Blackfordby, Ashby	SK 35/17	34km
	2	East	Osgathorpe/ Thringstone	SK 44/19	23km*
	2	West	Branston, Burton	SK 22/21	23km*
	3	North	Ratcliffe	SK 44/18	12km
	3	East	Coleorton	SK 39/16	20km*
	3	West	Burton	SK 25/23	12km
White Peak, Derbys. (Light Green)	1		Whetton	SK 11/57	34km
	2	East	Roystone Grange	SK 21/57	23km*
	2	West	Bradnop, Leek	SK 01/54	23km*
Sherwood Forest, Notts. (Blue)	1		Edwinstowe/ Budby	SK 62/71	36km
	2	North	Manton, Worksop	SK 58/79	23km*
	2	South	New Clipstone	SK 59/62	23km*
Dark Peak, Derbys. (Black)	1		Dodworth, Barnsley	SE 17/08	34km
	2	West	Thurlestone, Penistone	SE 22/04	23km*
	2	East	Royston, Barnsley	SE 38/11	23km*

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Roman Forts / Towns in the E. Mids, cont.

Continued from p. 29

should lie on a Roman Road, not necessarily a 'known' Road, but probably on a 'lost' Road. This tends to push the 'lost' sites further apart along a line between them into the extreme edge of the triangles. Thus Branston in The National Forest West on Rykneld Street and Roystone in The White Peak East on The Street are better defined, making Winwick in The National Forest East and Leek in The White Peak West more likely. This criterion also moves the two Dark Peak and the two Sherwood sites further apart, on 'lost' Roman Roads, but does not change the locations significantly.

Circle of Influence Plotting

Each known Fort/Town has a neighbour at a distance of 23km. on average, the "Mean Distance"; the diameter of the Circle of Influence of each Fort/Town is therefore also this distance. These circles are plotted in Fig. 4 on the Roman Map. They show that large areas of the National Forest, of The White Peak, of Sherwood Forest and of the Dark Peak are unsupervised; this is the area where the 'lost' Fort/Town would be located. Each of the unsupervised areas has been colour-coded. Circles of diameter "mean distance" have been drawn in these unsupervised areas, showing where the lost town/Fort would be located. These are shown in Table 2. This Table also includes circles of larger and smaller diameter to try to better encompass the whole of the unsupervised areas.

TABLE 3 POTENTIAL LOCATIONS OF 'LOST' FORT/TOWN BY CENTRE OF GRAVITY CALCULATION

Area	C. of G. of 'Lost' Fort/Town	OS Grid Reference	Surrounding Forts/Towns
The National Forest, South Derbys./Leics.	Calke/Staunton Harold	SK 37/21	Rocester, Derby, Broxtowe, Willoughby, Leicester, Mancetter, Wall.
White Peak, Derbys.	Roystone Grange	SK 19/58	Rocester, Buxton, Brough, Stoke, Templeborough, Chesterfield, Pentrich, Derby.
Sherwood Forest, Notts.	Church Warsop	SK 56/69	Broxtowe, Pentrich, Chesterfield, East Stoke, Templeborough, Bawtry,
Dark Peak, Derbys.	Thurlestone, Penistone	SK 23/06	Brough, Melandra, Castleshaw, Slack, Cleckheaton, Doncaster, Templeborough.

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Roman Forts / Towns in the E. Mids, cont.

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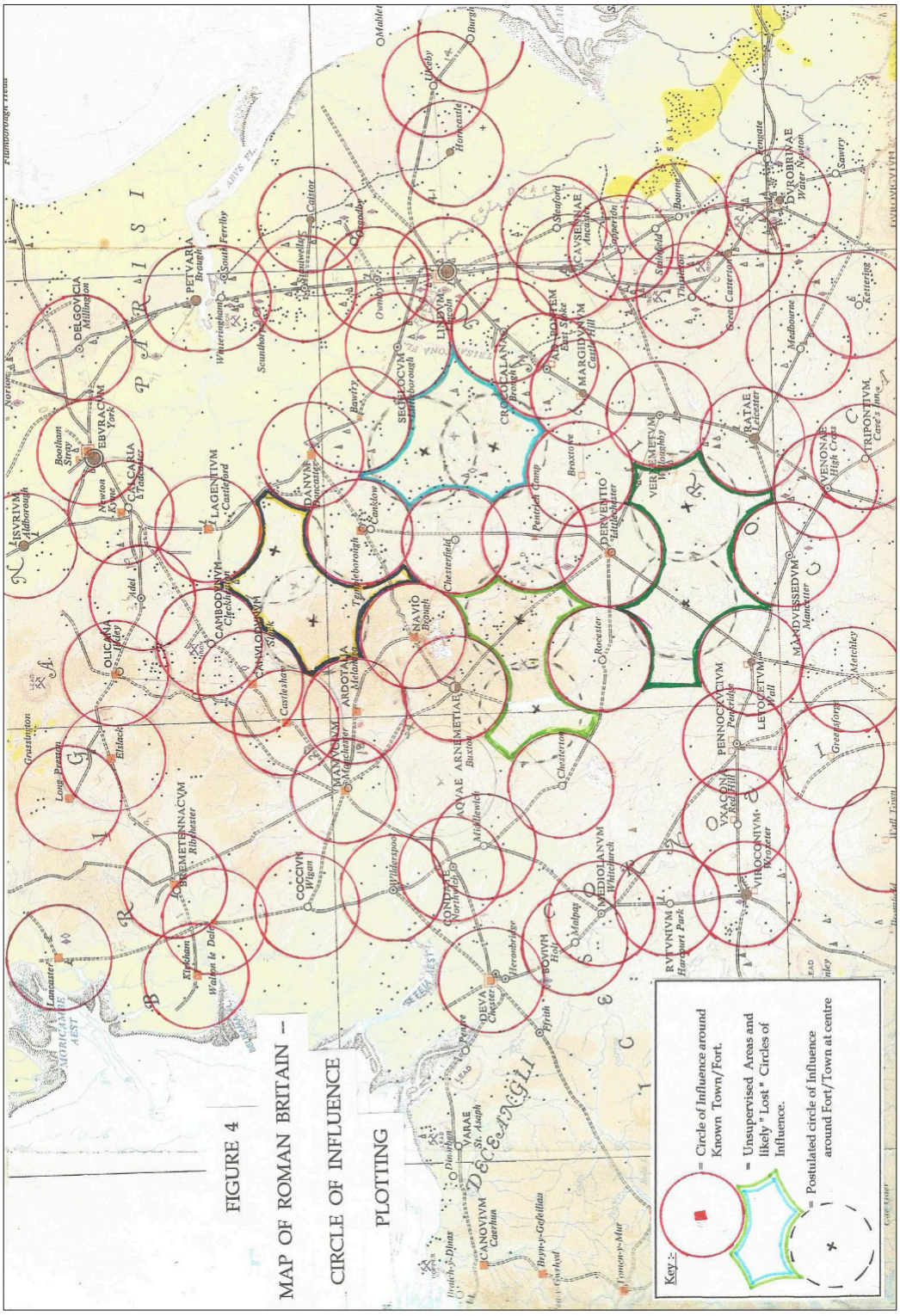

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Roman Forts / Towns in the E. Mids, cont.

Continued from p. 31

A single site in the National Forest (Ashby) is unlikely, because the distance to the known Forts/Towns would be 34km., way above the "mean distance" of 23km. The most likely is two sites at Thringstone and Branston, each having the correct "mean distance" of 23km. Three sites are possible, but there is large overlap between circles of influence, and the "mean distances" are small.

In the White Peak, a single site is possible at Whetton, close to the old copper mines at Ecton (Porter & Robey, 2000), but the "mean distance" of 34km. is larger than the norm. Two sites are more likely, at Roystone Grange in the east and at Bradnop (Leek) in the west.

In Sherwood Forest, a single site at Edwinstowe is unlikely because the "mean distance" at 36km. is much too large. Two sites are more likely at Worksop in the North and at New Clipstone in the South, both at the normal "mean distance".

In the Dark Peak, a single site at Dodworth is unlikely because the "mean distance" at 34km. is too large. Two sites are more likely, at Thurlestone in the West and at Royston in the East. There is close correlation between the sites found by "Mean Distance" and by "Circles of Influence"; both use the same concept of distance.

Centre of Gravity Calculation

There are four areas in the East Midlands where an unsupervised area is surrounded by known Forts/Towns :- viz. National Forest, White Peak, Sherwood Forest and Dark Peak (Fig. 4). The 'lost' Fort/Town for these areas can be found by finding the Centre of Gravity (C.of G.) from their OS co-ordinates. This calculation assumes there is a single Fort for the area, which previous plots (Sections 2.1 & 2.2) have shown is not necessarily true. Figure 5 shows the 'lost' C.of G. locations; these are as (Table 3).

DISCUSSION

Centre of Gravity Calculations

These produced different locations for the 'lost' Forts/Towns in the National Forest and Sherwood Forest compared with the "Mean Distance" and "Circle of Influence" plots, but not for the White Peak or Dark Peak. This is because the two Forests are much larger unsupervised areas and need two centres, as the latter plots indicate. Nevertheless for the National Forest, Calke/Staunton is a possible Roman centre by virtue of the out-cropping chalk and lead mines (Ticknall & Dimmingsdale) in the vicinity (but not known to have been worked by the Romans), by being an Abbey and by lying on the anticipated Leicester-to-Rocester Roman Road.

For Sherwood Forest, a Roman site at Church Warsop/Nether Langwith is possible, because this has one of only five early churches in Derbyshire dedicated to St. Helen, the mother of Constantine, the Roman emperor who adopted Christianity to the Roman world. Langwith is not far from the Roman villa at Pleasley, the only villa in the

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Roman Forts / Towns in the E. Mids, cont.

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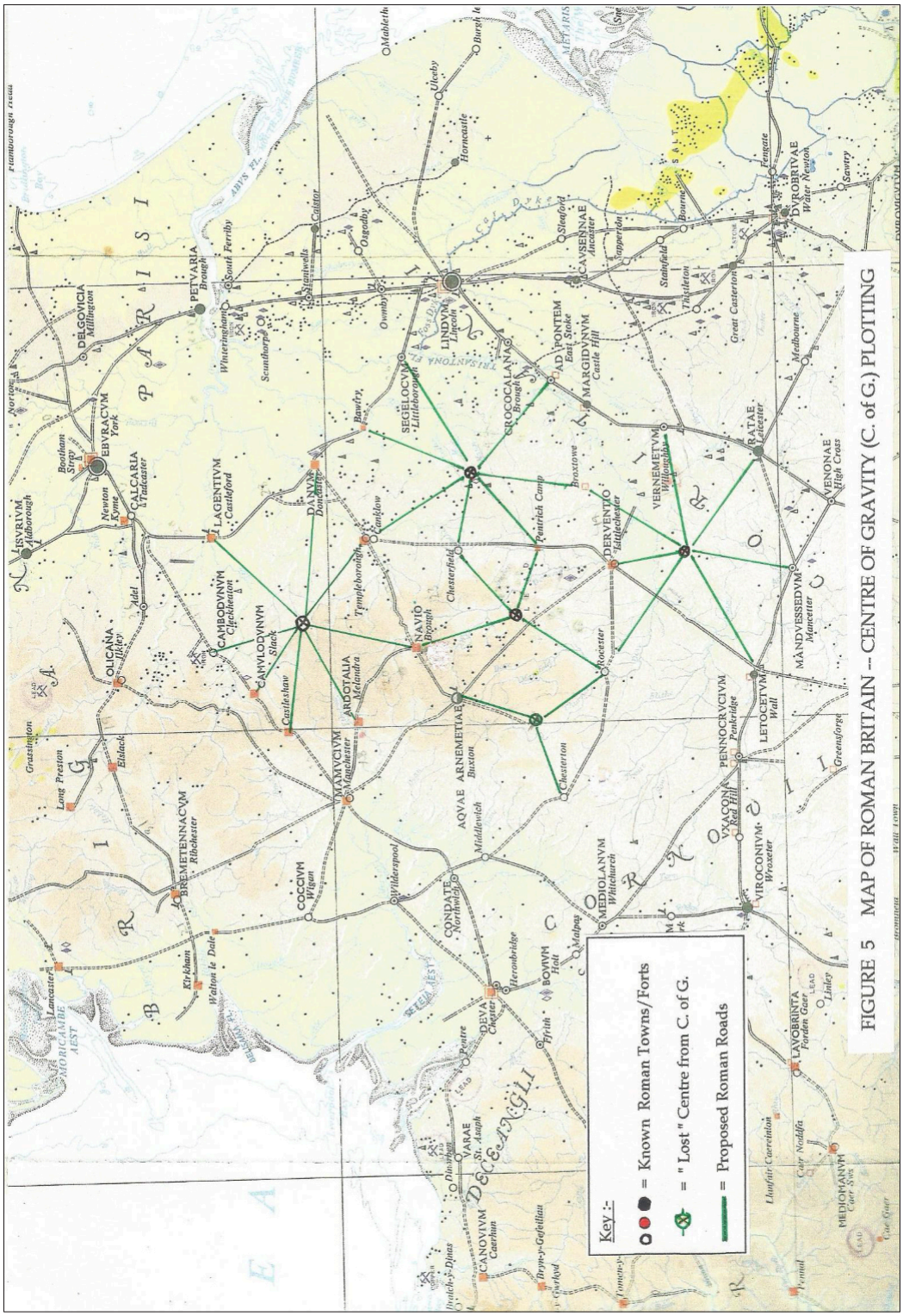

FIGURE 5 MAP OF ROMAN BRITAIN -- CENTRE OF GRAVITY (C. of G.) PLOTTING

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Roman Forts / Towns in the E. Mids, cont.

Continued from p. 33

East Midlands north of the Trent (Fig.1). Langwith means "long ford" in Danish (Ekwall, 1990)

In the White Peak the C.of G. location at Roystone is similar to the location suggested by the other two techniques, so that this area is well-defined. Roystone lies close to the major Roman Road, The Street, and is well-placed in the centre of the lead-field. There is a known Romano-British settlement at Roystone (Chadwick & Evans, 2000, 101-122); a Fort has already been discovered at Carsington, within 5km. (Wacher, 1998).

In the Dark Peak, the site at Thurlestone, Penistone is the same as that suggested by the other techniques.

Mean Distance and Circle of Influence Plots

In the East of the National Forest, the preferred site from both plots is Thringstone. Thringstone also has an Abbey (Grace Dieu) and is on the anticipated Leicester-to-Rocester Roman Road.

In the West of the National Forest, the preferred site is at Branston, Burton-on-Trent, a known Roman Road (Rykneld Street), where there is an established Roman Site at Stapenhill (Wilson & Fowler, 1955, 1-19), an Abbey at Burton, a Priory and Castle at Gresley and old crossings of the Trent at Walton and Burton.

In the South of Sherwood Forest, the preferred site is Old Clipstone. This is the site of King John's Palace, a medieval hunting lodge with Roman finds also. The Roman villa at Pleasley is not far away, as is the ancient Forest Moot Stone at Lyndhurst Farm (English Heritage); it is on the River Maun. One lead pig from the Derbyshire lead-field on its way to the Trent and Hull was lost (and found) at Rainworth (Lane, 1986). There is a Roman settlement at Farnsfield and a Roman Road at Belle Eau (Bishop, 2001).

In the North of Sherwood Forest, the potential site is Worksop. It has a Priory, which is often an indicator of a Roman Road, and is on the River Ryton.

In the Dark Peak, the potential site is Thurlestone at Penistone. The "Pen-" name is often an indicator of a Roman Road; it lies on the River Don.

In the East of the White Peak, the site is at Roystone Grange, which has several Romano-British settlements in the area (Chadwick & Evans, 2000, 101-122). The West of the White Peak site is at Leek and falls at the end of the 'known' Roman Road from Buxton (Fig. 1); no Fort is known in this area, but there is a Wall Grange to the south of Leek and Dieulacress Abbey to the north, both possible indicators of Roman sites.

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Roman Forts / Towns in the E. Mids, cont.

Continued from p. 34

PRELIMINARY FIELD-WALKING SURVEYS AT PROPOSED 'LOST' SITES

Identifying the approximate locations of 'Lost' Roman Forts/ Towns will allow more detailed searches via maps, aerial photos and field-walking to be made. Since these Forts/Towns most likely would lie on Roman Roads, it also enables new Roman Road routes to be drawn in, from the known Towns/Forts, allowing new searches for the Roads. Figure 5 shows the Roads possible based on the C. of G. locations. That the 'lost' sites will be situated on Roman Roads could limit the searches to the 'known' Roman Roads of "The Street" (Brassington to Buxton for the Roystone site), "Rykneld Street" (Derby to Lichfield for the Burton site) and "Leek Road" (for the Bradnop site). However none of the other proposed sites lies on a 'known' Roman Road, but there is likely to be a number of 'lost' Roman Roads, and certainly between each pair of 'lost' sites.

Field-walking has been completed already in some of the proposed areas and has identified disturbed ground with ditched enclosures. Since Carsington Fort in The White Peak is already found (Ling & Courtney, 1981, 58-87), and is 5km. SE of the predicted site of Roystone, there may be another 'lost' Fort site near Bakewell, making three sites in this Roman industrial area.

Field-walking has identified large ditched enclosures at High Cademan, Winwick and at Sinai Hill, Burton-on-Trent in The National Forest East and West respectively, as predicted by the above techniques. The remaining areas have not yet been surveyed.

CONCLUSIONS

Large areas of the East Midlands are devoid of Roman influence, according to the locations of known Towns/Forts and Roads; this cannot be true, knowing the interest of Romans in lead production, iron and coal production, pottery and food production for the armies further north. There must be more sites waiting to be discovered.

Four areas lacking supervision from known sites have been identified on paper.

The locations of 'Lost' centres (Forts/Towns) have been identified in these unsupervised areas.

The lines of 20 new Roman Roads have been proposed on paper from these 'lost' centres to the known Towns/Forts.

Field-walking in four of the proposed locations has identified disturbed ground, which could be the sites of the 'Lost' Forts.

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Roman Forts / Towns in the E. Mids, cont.

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RRRA Projects, update

The Roman Road from Manchester to Melandra Castle

From Neil Buckley & David Ratledge

Introduction

In Newsletter No 13 (Spring 2020) we were able to announce that, with the assistance of lidar mapping, progress had been made in locating with high confidence the long suspected, but lost Roman road between Manchester and Melandra Castle near Glossop in Derbyshire. In that report it was shown that an almost entirely straight alignment can be traced between the top of Pin Mill Brow in Manchester and the Harrop Edge gap north west of Mottram-in-Longdendale, a distance of just under 8 miles. Having passed through the Harrop Edge gap it was evident that this road was not aligned on Melandra fort at all but on a route into the Longdendale Valley. Since that discovery there has been a more extensive release of lidar data by the National Lidar Programme enabling the Harrop Edge/Roe Cross area to be more effectively searched for further evidence of the road's route towards the Longdendale Valley, but also to reveal if possible, the course of the suspected branch road down to Melandra Castle from Roe Cross.

The Mately Lane Evidence

Figure 1: Lidar Image and Opendata map. This was the breakthrough length of agger spotted on lidar imagery at Matley. Matley Lane itself is rarely on the Roman line. Base lidar data is © Crown Copyright 2022.

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Manchester to Meldandra, continued

Continued from p. 37

When the line of the Matley Road agger was extended eastwards, further traces in the lidar imagery were discovered, which aligned with an old cutting across the hill side of Harrop Edge (SJ 98302 96612). This was a strong indication that the road alignment was directed at the Longdendale Valley rather than the Melandra fort. We therefore have the possibility of a very direct route from Manchester to the Longdendale Valley that passes by Melandra fort one mile to its north. An earlier lidar discovery in the Longdendale valley, near to Bottoms Reservoir Tintwistle (SK 02844 96718), appears to show a road agger and fork junction. At that fork the main alignment up the Longdendale Valley from the eastern gate of the fort connected to an agger from the north west that is on a close alignment with the possible road from Harrop Edge. On the west side of the fort, the existence of a western link road between the fort and the Harrop Edge to Manchester road seemed to be self evident but despite the short distance involved, its possible route has been little more than speculative, usually based on the course of the ancient looking Coach Road. But that road is not what it seems.

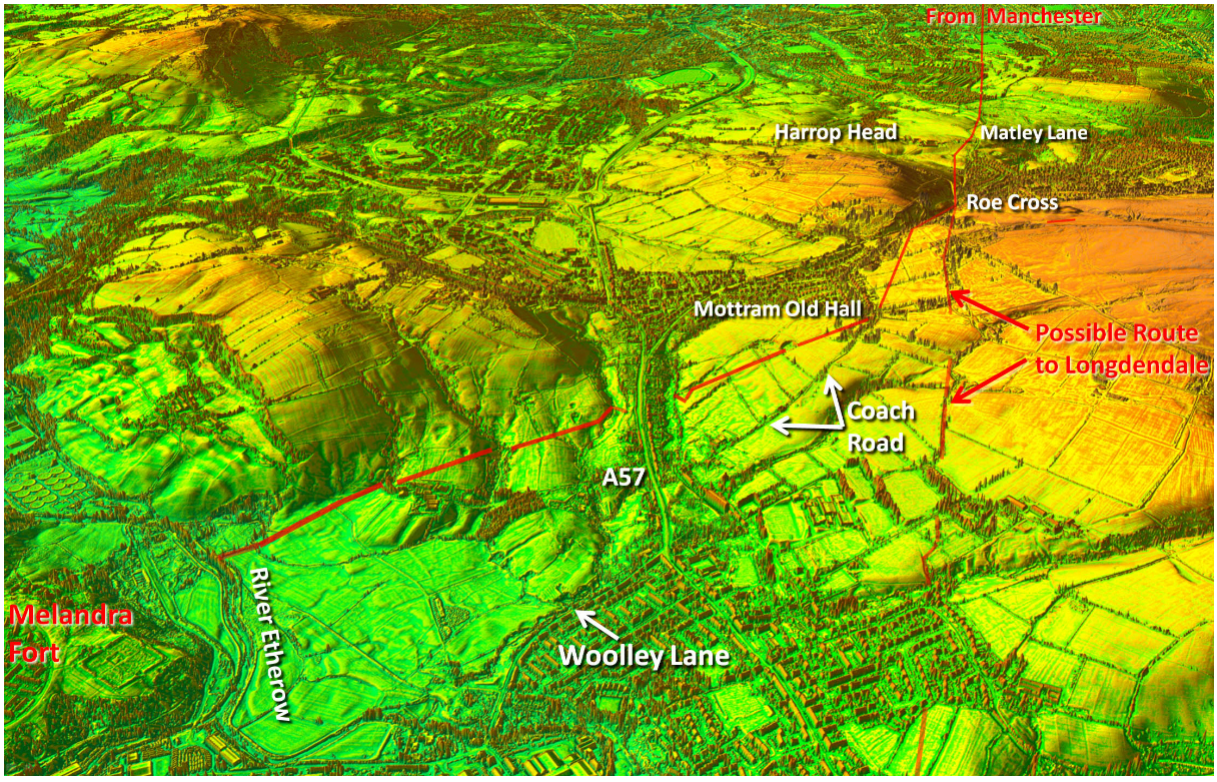

Figure 2: The possible roads through Roe Cross. Coach Road was the 'obvious' link to Melandra. Lidar 3D map by David Ratledge. Base lidar data is © Crown Copyright 2022.

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Manchester to Meldandra, continued

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The Coach Road

On modern maps, the most likely course from the Roman road from Harrop Edge to Melandra appears to follow a south easterly direction that includes the old Coach Road between Mottram Old Hall and its Mottram Moor Road (A57) junction in the lost hamlet of Wedensough Green. But, despite having a name that suggests possible turnpike origins, Coach Road first appeared on the 1831 Bryant map of Cheshire. Its construction might be linked to extensive park landscaping around the Old Hall that is shown on the same map. There is some evidence of its relative modernity in local field names. About a third of the way down the Coach Road, a field on the Cheshire Tithe Map called Bretland Meadow was clearly dissected by it. This created fields numbered 353 and 354, one on each side of the road and both were called 'Part of Bretland Meadow'. (Later OS Maps show these fields as number 248 and part of 245). Also both the 1777 Burdett map and the 1819 Greenwood map show that the only road to the Old Hall was Old Hall Lane from Lane Ends, Mottram. Consequently Coach Road is thought to be an entirely early 19th century feat of civil engineering. This could explain why there is no evidence of a connecting road section running down hill from a junction with the suspected Manchester to Longdendale alignment above the Old Hall.

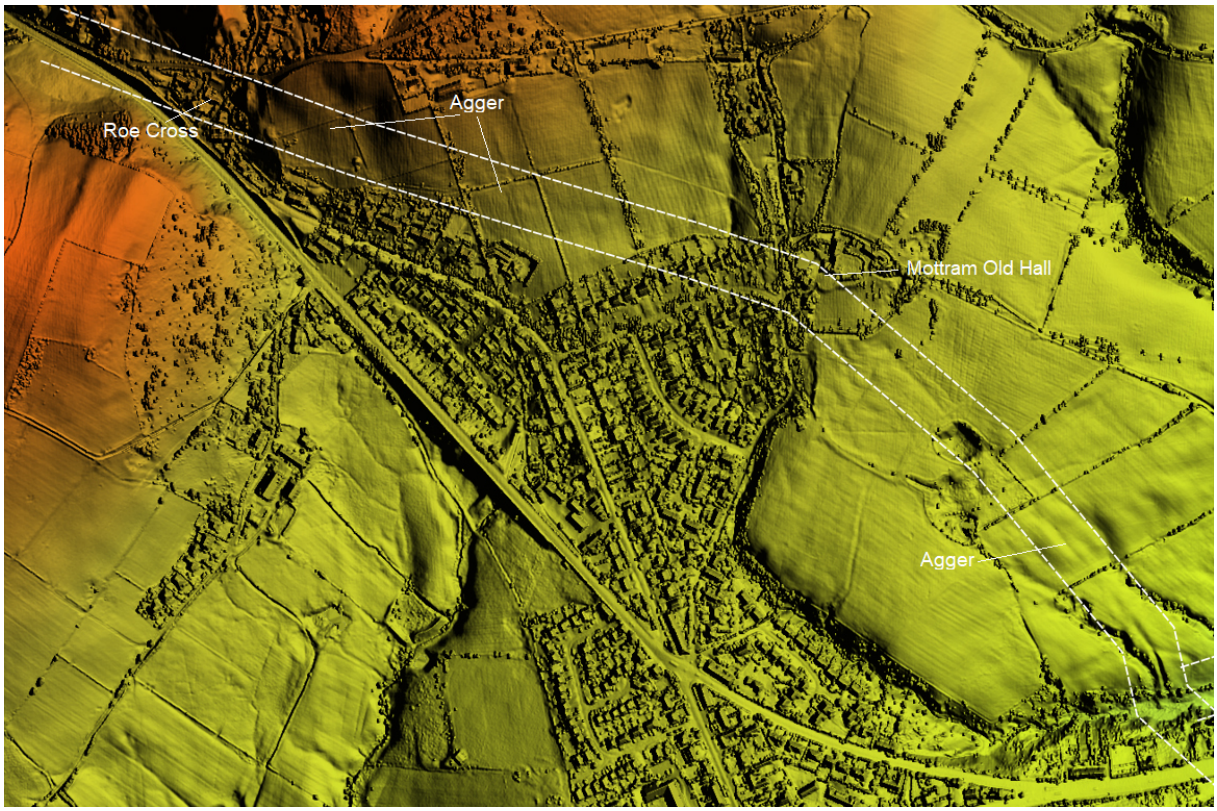

Figure 3: Roe Cross to Old Hall - lidar trace of agger remains. Lidar processing by QGIS. Base lidar data is © Crown Copyright 2022.

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Manchester to Meldandra, continued

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Similarly south of the Mottram Moor Road, there is only fragmentary evidence of possible continuation of a Coach Road alignment down to the river. The 1831 map does show that a footpath ran down from the Carrhouse Road/A57 junction to the river through the lost hamlet of Woolley but this has now faded from the map. However, as a result of the improved lidar coverage of the area, a potential alternative route has emerged some sections of which are only detectable using lidar mapping. This route also passes close to Mottram Old Hall but it appears to provide access to the fort via the west gate.

The Probable Western Link Road

The lidar evidence for the new route requires careful analysis of the terrain picture from Roe Cross to Mottram Old Hall but a definite line of what looks like a badly deteriorated *agger* can be identified branching off the main road near the centre of Roe Cross and crossing the fields as far as the Old Hall.

From the Old Hall a clear track leads to a pair of cuttings, one direct, one possibly a gradient reducing dog-leg, both then drop down into Meg Clough at the rear of the houses on the A57/Mottram Moor Road (SJ 99728 95882).

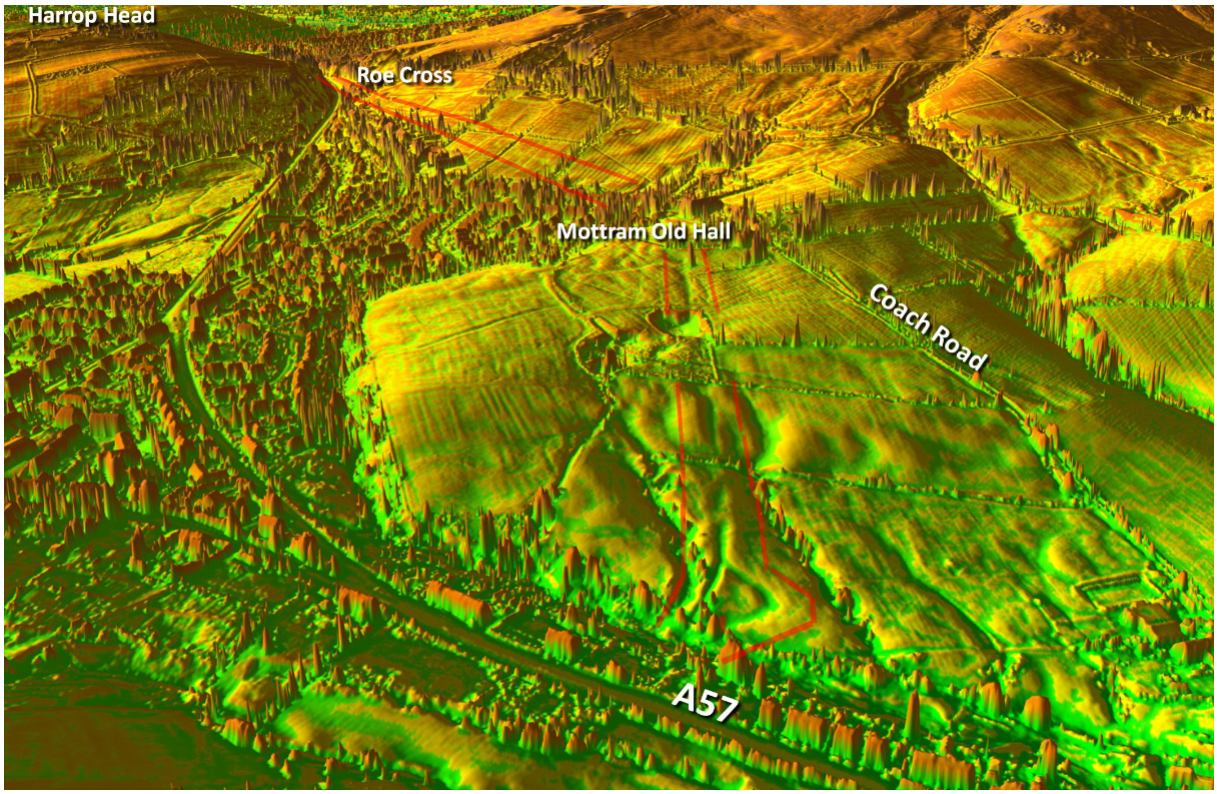

Figure 4: Roe Cross to A57 via Mottram Old Hall. Lidar 3D map by David Ratledge. Base lidar data is © Crown Copyright 2022.

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Manchester to Meldandra, continued

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On the same alignment on the south side of the A57, again careful analysis of the lidar reveals faint but credible evidence of a continuous alignment as far as the point at which it crosses Carr House Lane (SK 00213 95294). Beyond that point, three field boundaries lead straight down to the river where presumably there was a ford. The actual location of the ancient river crossing may now be in a field on the Derbyshire side of the river because old maps show that the river was diverted at this location, apparently to supply a small, long abandoned Manchester Corp. Water Works reservoir on the north bank of the river and to the west of the possible road route. The reservoir was fed by two brooks and most likely by water taken from the River Etherow. Old OS maps show that in this area the Cheshire/Derbyshire boundary ran along the east bank of the Etherow. Some time between 1819 (Greenwood map) and 1831 (Bryant map) the reservoir was built and the river was diverted, but the County border line continued to follow the old course of the river. As a result the boundary became the eastern side of a field on the Derbyshire bank of the river. This is evidence that the river ran much closer to the fort before the County boundary was established.

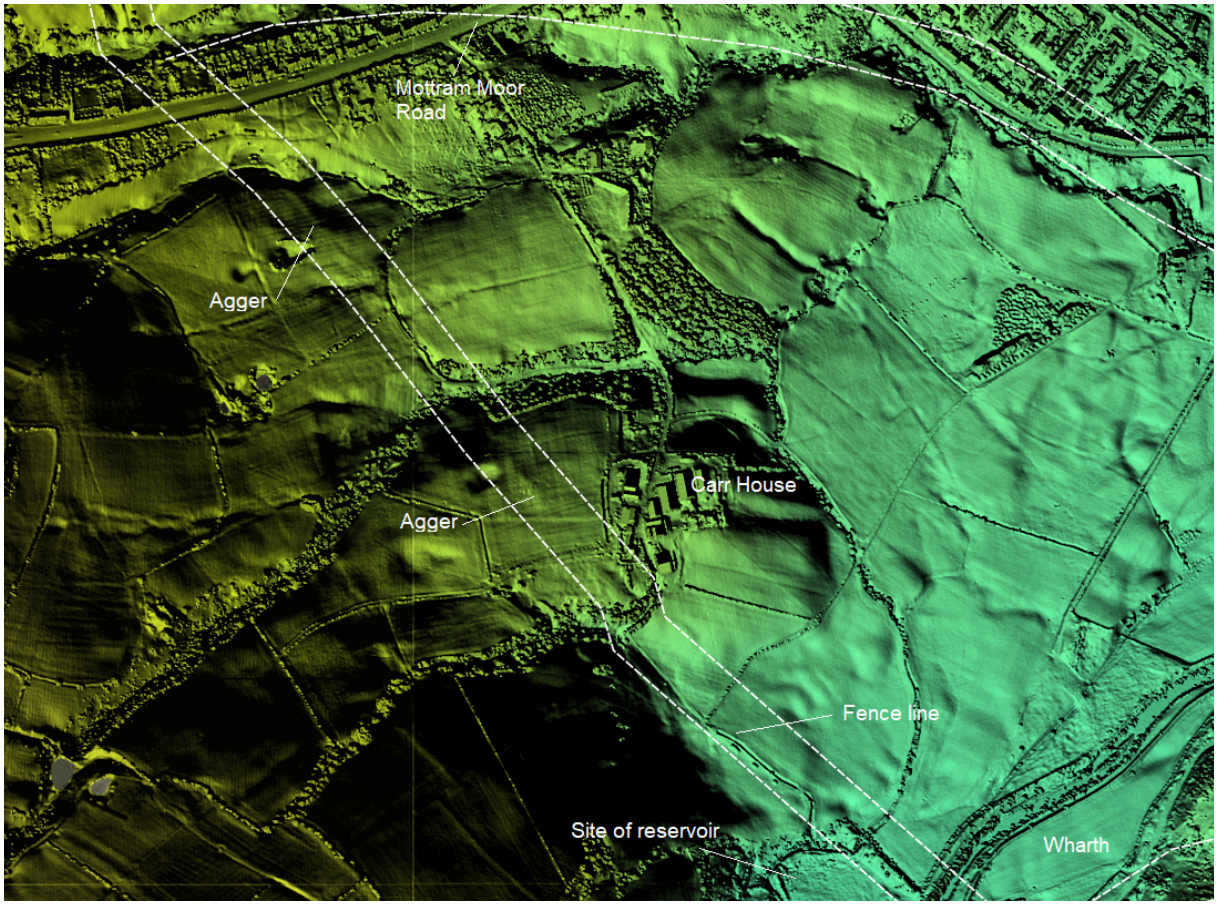

Figure 5: Mottram Moor Road to the River Etherow. Lidar processing by QGIS Base lidar data is © Crown Copyright 2022.

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Manchester to Meldandra, continued

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The Cheshire Tithe Map reveals that the field cut off on the Derbyshire side of the river was/is called Wharth. Wharth is thought to be an alternative spelling of the Old/Middle English word warth [1] meaning ford. Further back in history the Old Norse word vath meaning ford evolved into the Old English word wath [2] and in some cases the spelling was warth. Although a warth could also be a river bank or water meadow [3] there is a strong suggestion here that the old Roman river crossing point would have been somewhere in or close to the field called Wharth. The latest OS maps show that the county boundary has now been moved to follow the current course of the River Etherow leaving Cheshire's Wharth field for ever in Derbyshire. On the old Derbyshire river bank the course of the possible road to the west gate of the fort has been lost owing in part to extensive erosion and landslip below the fort's walls.

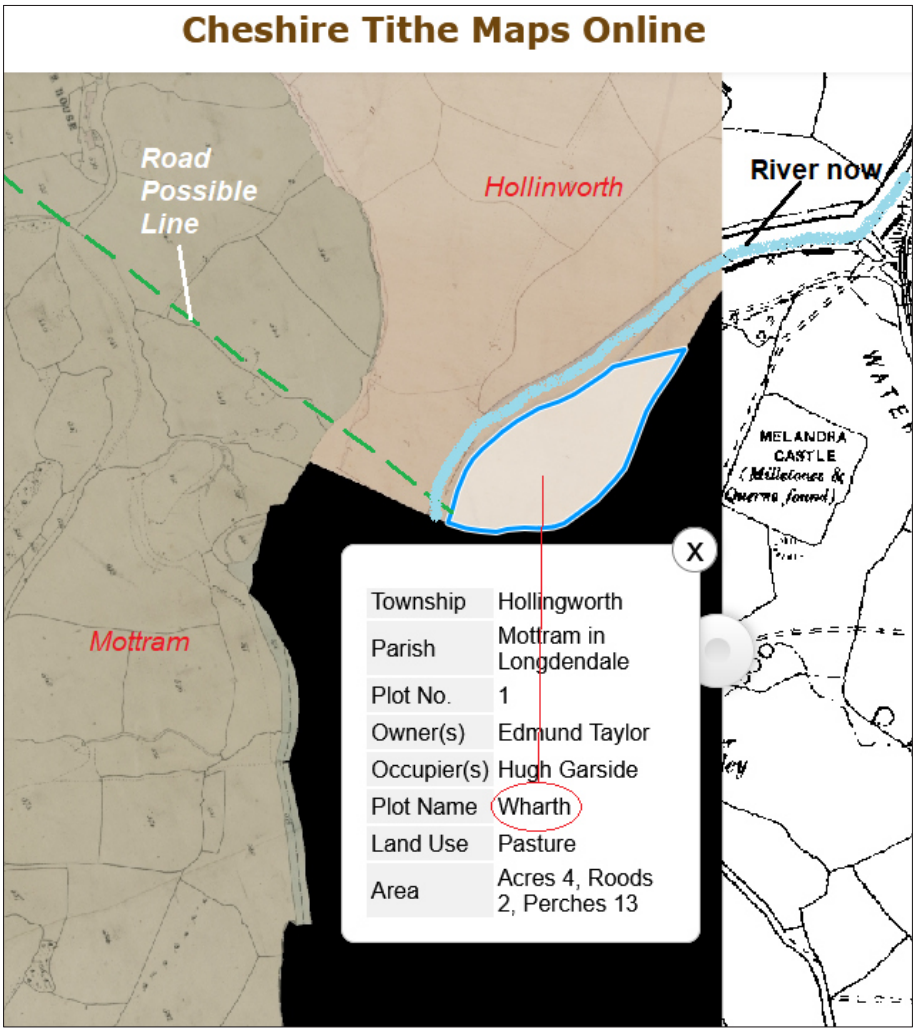

Figure 6: Cheshire Tithe Map and OS Map shows the location of Wharth field. Cheshire Archives & Local Studies. © Crown Copyright and database rights 2022

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Manchester to Meldandra, continued

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Woolley Lane

Based mainly on lidar evidence, the case has been made for a direct road to Melandra fort starting at a fork in the Roman road at Roe Cross, crossing the river at a ford close to Wharth field and terminating at the fort's west gate. But the 1882, 6 Inch and 1885-1905, 1 inch maps, the Ordnance Survey tell us that the section of the A57 going east from the bottom of Coach Road and connected to the top of Woolley Lane was a Roman Road, although later OS Map issues removed the label. It is not known what the early OS surveyors had seen that made them label this length of Woolley Lane as Roman but with its ford and early turnpike bridge, Woolley's status as an ancient river crossing point is well established. The Woolley ford may have been used by the Romans but, as yet there is no evidence to support that theory.

The Direct Route from Harrop Edge to Bottoms Reservoir

The discovery that the Manchester to Mately Lane alignment forked right down to the Melandra fort west gate at Harrop Edge/Roe Cross begs the question, was this the principal road or was the direct route to the Bottoms Reservoir fork the main road? There is little doubt that there were two routes, the Bottoms Reservoir fork confirms that. But there is now more evidence that the western link road was an established route whereas the route of the Longdendale Valley link through Hollingworth remains a speculative for most of its course. It may have been totally lost because it was only a secondary route, if it was actually completed.

Conclusion

On cartographic evidence we can safely say that Coach Road is only about 200 years old and has nothing to do with the Roman route to Melandra fort. Based mainly on lidar evidence, the route from Roe Cross to the River Etherow via Mottram Old Hall, Carr House and Wharth field is a plausible candidate for the west facing link road to Manchester. The current paucity of evidence for the direct route to the Longdendale Valley through Hollingworth, by-passing Melandra, may suggest that the alignment follows a secondary road and that the link roads, west and east, were actually part of the main road to the Longdendale Valley.

Foot notes

1. Wiktionary: Chambers 12th Century Dictionary (1908) – UK dialect warth meaning a ford

2. The Landscape of Place-Names, Gelling & Cole (2014) – Old Norse vath meaning ford evolved to wath.

3. Wikipedia (but no reference): Warth is an old or dialect word for river bank or flat meadow beside a river.

Other Road News

Do you ever get funny feelings about some Roman roads?

From John Poulter

Congratulations to David Ratledge. His elucidation of the final course of the Stanegate, Margary RR85a, between the North Tyne and Corbridge is a landmark achievement. I must also say that I'm very pleased to find that his work has largely confirmed the prediction about part of the route which I had presented to the Arbeia Conference in 2012. However, that prediction had arisen from an experience which I couldn't hope to publish in a serious journal. You see, I'd had a funny feeling.

Let me explain. Although I've lived for many years in the Home Counties, I'd bought my car at Hexham in Northumberland, and so I'd always tried to take it back there for routine servicing and for any other attention required. On one such occasion, about ten years ago, explored Hexham quite thoroughly on previous occasions and so, this time, thanks to the availability of a courtesy car, I'd decided to drive into the network of minor roads immediately to the north of Hexham, just to see what the countryside looked like there. See Figure 1.

The minor roads just north of Hexham are a network of narrow lanes, and after I'd turned on to one of these – which was running roughly west-northwest towards the isolated church of St John Lee - I suddenly had the feeling that I was on a Roman road. The feeling was so strong that I had little doubt about it. But what could a Roman road have been doing there?

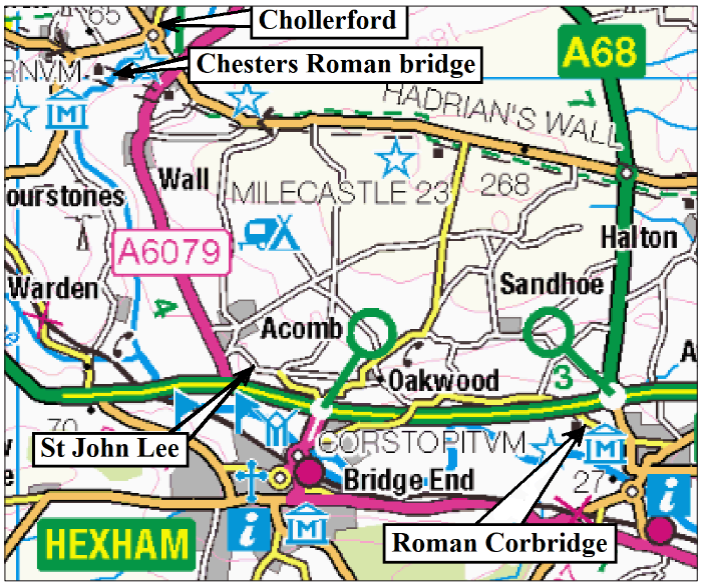

Figure 1: the area immediately to the north of Hexham in Northumberland. Contains OS data © Crown copyright Opendata 2022.

When I got home, I checked the newly-published English Heritage Archaeological Map of Hadrian's Wall and was excited to see there that the little stretch of lane upon which I'd been travelling was exactly aligned upon the exit which the Map showed the Stanegate to have taken when heading westwards from Corbridge. Moreover, when I extended this alignment to the west beyond St John Lee I found on the Map that it ran exactly to two recently-discovered crop marks of Roman camps which were positioned right beside the River Tyne.

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Do you ever get funny feelings about some Roman roads? Continued

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Up to that time, like everybody else, I'd been looking further north for the course of the Stanegate between the North Tyne and Corbridge. For instance, I thought that the road might have run in a south-easterly direction towards Corbridge from somewhere near the village of Wall. However, like everybody else, I'd found nothing along that line. So, I now wondered: might this new more southerly line have been the course of the Stanegate instead? This musing was greatly encouraged when Paul Bidwell mentioned that the history of St John Lee went back a very long way, and that it had once been the site of an oratory at the time of Bede. Wew!

At this point, logic took over. I'd examined the known course of the Stanegate in the 1990s, and had noted that, unlike many Roman roads, the Stanegate's central and eastern sectors at least had not been set out upon any long-distance alignment. Rather, this Roman road had apparently been curved so as to run past each fort and fortlet in turn along the way. However, I'd also noticed that this curving had mostly been carried out when the road was out of sight of its nearest fort or fortlet. It was only as the road approached such sites would it generally run straight, as it came into their fields of view. So, I wondered: might this also have been the case with this potential new line from St John Lee to Corbridge? Well – yes it was! After checking the landscape profile digitally, I found that for the first two-and-a-half miles from Corbridge this line would have been in full view from the Roman site.

For me, that was it – a straight alignment, good sight-lines, Roman features at each end, and a pre-Norman conquest oratory along the way, together with the need to locate a missing link. It gave me enough confidence to make the prediction to an Arbeia Conference. But did I tell the attendees how it had all begun? No I didn't: serious scholarship isn't supposed to start that way!

And so you might ask: have I had similar feelings about other Roman roads? Well, yes I have, but it needs to be qualified. I have now been following Roman roads on foot and by car for more than 60 years, and I must admit that when I'm bowling along the motorised versions of them I do quite often get to feel that there's no doubt that they're Roman. But where they're known to be Roman roads, the weakness with this is that such knowledge could just be feeding my imagination. In other words, when I have known the road to be Roman, I could be just fooling myself about my feelings. The more important question is, therefore: did I ever get the feeling when I didn't know that the road was Roman? Well, the answer is yes, too, in at least three cases.

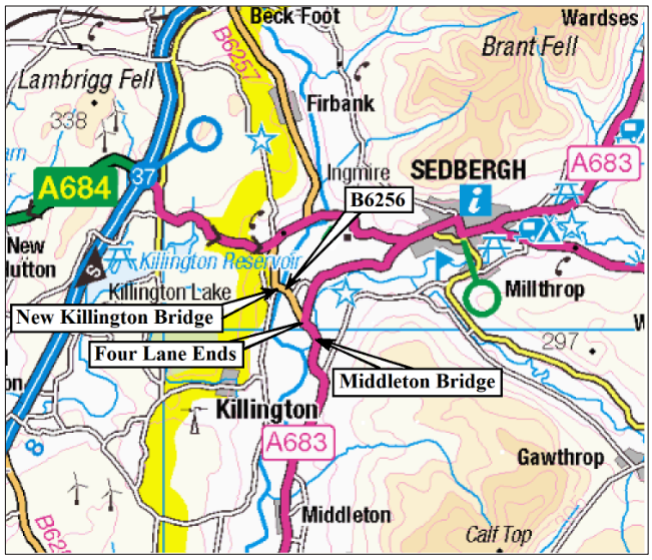

Figure 2: the area in the valley of the River Lune to the west of Sedbergh in Cumbria. Contains OS data © Crown copyright Opendata 2022.

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Do you ever get funny feelings about some Roman roads? Continued

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The first came to me several times along the line of the B6256 road, which runs just to the west of Sedbergh in Cumbria. See Figure 2. This short B-road crosses the valley of the River Lune from New Killington Bridge to Four Lane Ends, where it is then joined by the A683 which continues the line to Middleton Bridge, on the eastern side of the valley. With friends living in the area, this was a road on which I happened to drive quite often, and almost every time I did so, especially when travelling from north to south, I gained a powerful feeling that this particular stretch of road was Roman. And yet I felt I had to dismiss this possibility every time. It had long been known – and indeed it remains clear on the ground – that the well-known Roman road through Middleton (Margary RR7c) had continued straight on northwards to remain on the eastern side of the Lune valley on its way up to the fort at Low Borrowbridge. Then, in early 2020, David Ratledge, through the use of lidar, discovered to his and everyone else's surprise that the Romans had built a branch road from Middleton to cross the valley to Killington Bridge, so as to provide an alternative route up the western side of the Lune. And this was exactly the road on which my feelings had been so powerful. So, contrary to my very many dismissals, my feelings had been right all along! An account of David Ratledge's discovery can be found in RRRA Newsletter No.13, Spring 2020, pages 2-6.

A second example has appeared even more recently. After staying quite frequently with friends in the upper North Tyne valley, I would often travel on the A6079 road from Chollerford to Acomb, in order to get to Hexham or Newcastle upon Tyne. See Figure 1 again. In doing so I would not infrequently get a sensation that would make me wonder if this road might have been Roman too. It wasn't as powerful a sensation as with the previous example, but it tended to raise a question mark with me, even if only spasmodically. I have since found out that Paul Bidwell and Neil Holbrook, in their book

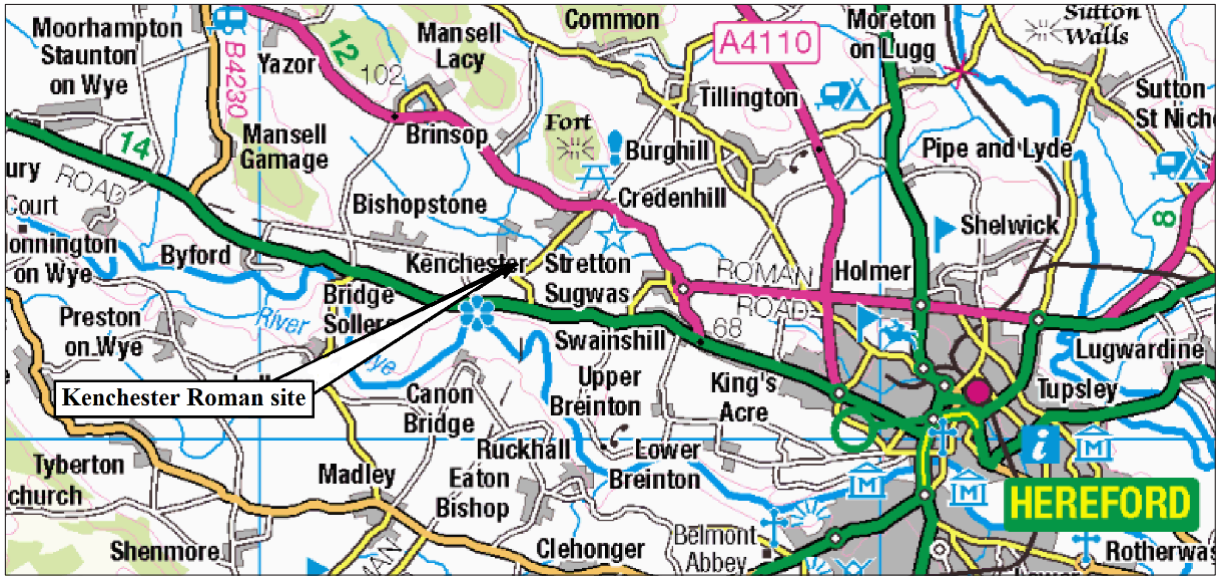

Figure 3: the site of Roman Kenchester and area to the west of Hereford. Contains OS data © Crown copyright Opendata 2022.

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Do you ever get funny feelings about some Roman roads? Continued

Continued from p. 46

Hadrian's Wall Bridges, had remarked upon the antiquity of this road and indicated that its course might have formed part of the Roman road network in the area (see pages 137-38 and Figure 1 in their book), but at the time this was something that I'd overlooked or forgotten about. Hence I was pleasantly surprised to find that, in his latest examination of the lidar evidence, published in the most recent issue of the RRRA Newsletter (No 21, Winter 2022, pages 14-19), David Ratledge has shown that this road had indeed been another leg of the Stanegate as it returned from crossing the Tyne at Chesters to run towards Acomb, not far from St John Lee.

A third example shows that I don't just get these feelings when up north. I was staying with an old school friend in Malvern, and we had driven over to the Hay-on-Wye area, probably to have a look at Offa's Dyke. On the way back, I'd remembered that we would pass quite close to the known Roman site at Kenchester, near Hereford. See Figure 3. Since I was driving I asked my friend who was doing the map-reading to see if he could divert us off the main road and past the site of Kenchester, just in case there might be anything to see there. After we had taken a few turns I suddenly felt – and said – that we were on a Roman road. My friend was astonished and asked: how can you tell that? But he checked the map, and I was right.

So: how can I explain why I get these feelings? Firstly, let me state that I don't get them with Roman roads everywhere – far from it. For instance, take the aforementioned Margary RR7c Roman road where it runs southwards from Middleton. This stretch continues to be mostly occupied by the modern A683 road, as it makes its somewhat wandering way down the Lune valley towards Casterton, but I get no feeling from this part at all, and this applies to many other known Roman roads. Further, the feelings seem to arise of their own accord. I don't attempt to provoke them. Indeed, I wouldn't know how to do so. They just come upon me when they do, quite unexpectedly.

I suspect that the explanation must come down to my sensing how the road had been laid out over the landscape, and, as I've indicated, I've had a lifetime's experience of examining that. Roman roads are well known for running in straight lengths, of course, but it is not just a matter of straightness. Many enclosure roads run straight for considerable distances, too, but I don't get any feelings from them. Rather like enclosure roads, though, Roman roads often seem to have been laid out across the countryside regardless of the topography, and it is perhaps the manner in which these latter roads muscle their ways across the landscape to reach their intended destinations which is what I am picking up.

Might these feelings help to prove the existence of a Roman road? I'd be wary of claiming that. In my experience their nature has too much of the will-of-the-wisp about them. Firmer evidence, from excavations, lidar studies, and long-distance alignments are really required in order to offer reliable indications of such existences. Nevertheless I must say that if I do get a funny feeling along a road again, I'll be looking carefully at what might have been the cause.

So, to conclude with a question, then: does any other RRRA member find that they get feelings – even funny ones – about possible Roman roads?

Other Road News

Itinera Volume 2 published

At last, after much effort by many involved, Volume 2 of our annual journal *Itinera* has been published. The on-line pdf version is available to members from the *Itinera* page, here and by the time you read this the printed copies will have been delivered to those who have ordered. Copies are still available to be ordered and speedily delivered from the same page link above. As part of our aversion to paywalls, now that the members have had a year accessing Volume 1 as a membership benefit, it has been made open access on-line.

And the circle goes on; we are now seeking papers for Volume 3. If you have some work related to Roman roads or roadside structures, that you believe should be published please get in touch with our editor Rob Entwistle. Guidance on how the paper should be constructed is available from the *Itinera* page as per the above link.

The Malton Roman Festival, Sunday July 24th

From Pete Wilson

This Festival is part of the #Hadrian1900 celebrations and coincides with Malton Museum's 'What Lies beneath?' exhibition. A family fun day, one not to be missed for those in the area. For more details follow this link. Mike is 'manning' a RRRA stall at the event and would be delighted for any members, or prospective members, to come and have a chat, perhaps taking over the stall for a few minutes to let him have a look around himself.

Help needed for excavation of a Roman road near Pendle Hill

David Brear noted from the *Craven Herald and Pioneer:* The Pendle Hill Landscape Partnership is running an excavation from July 18 to July 29 and is welcoming anyone from the area to go along and take part. The dig, which will see volunteers working alongside professional archaeologists, is an continuation of an excavation that took place last year of a short section of Roman road RR72a between Clitheroe, Worston and Chatburn (as reported in Volume 2 of *Itinera*).

The route of the road can be seen on OS maps and using lidar technology. There is a high chance of finding Prehistoric, Roman and Medieval artefacts along the route, due to the rich historic nature of Pendle Hill. The partnership says the community dig will be an opportunity to learn about excavation and geophysical survey, and is also a great training opportunity.

Northern Archaeological Associates will be leading the way, showing how excavations involve the meticulous removal of earth from specific trenches.

Jess Wight, co-ordinating the volunteer effort on behalf of the Pendle Hill Landscape Partnership said: "Our excavation is absolutely free, we just need volunteers to sign up via our weblink so we can keep everyone safe on site. Please bring your enthusiasm and a packed lunch, we can sort out the rest. Please dress for the weather and expect to get muddy."

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Other Road News, continued

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The dig will take place on the private Henson cement works at Clitheroe. It is open to all, including children of at least seven years old, but they do need to be accompanied by an adult. Digs will take place every day from 9am to 4pm, sign up at: https://www.trybooking.co.uk/BQBL

Ackling Dyke, RR4c exposed

From Penny Jackson

Penny Jackson has found a section of Ackling Dyke (RR4c) which has been cut across by a modern road in a such a way which exposes the Roman construction. Having never been to an excavation she had never actually seen the layers in real life, so this was well worth the trip, and RR4c is such an enormous road they are especially clear. It's a little obscured by vegetation but you can see the different layers very clearly when actually there.

In order to visit it, take the A354 south west from Salisbury, and there's a narrow road toward Monkton up Wimborne. There is a small car park (only room for about 2 cars) where the track crosses line of woods parallel to the Roman road, and the section through the road is right next to the car park.

Be careful, there is no pavement, the road is quiet with a clear view for drivers and the Roman road section is only a few metres from the car park, but drivers may not be expecting pedestrians.

Google maps location: Dropped pin https://maps.app.goo.gl/PYgkSNpySLZ5udfCA

Grid reference: SU 0074 1442

Wickham: Roman roadside settlement and wells

From David Brear

Excavations by Cotswold Archaeology Andover in 2018-19 prior to housing development at Wickham, Hampshire, revealed the remains of a Roman road and an associated roadside settlement. This was not unexpected: Wickham lies on the Roman road network between Winchester, Chichester and Southampton and would have been an important trading post, serving the local community as well as passing travellers. Excavations revealed the remains of Roman enclosures, structures and pits – and a surprisingly large number of deeply cut wells and waterholes – indicating a thriving settlement. Follow this link for more information.