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NEWSLETTER

WINTER 2021

MILLE·VIAE·DUCUNT·HOMINES·PER·SECU·LA·ROMANI

FROM THE EDITOR

Goodbye to 2020 with all its problems, here's looking forward into a brighter 2021. While the background news in 2020 was pretty dire, the RRRRA has gone from strength to strength. Our membership has doubled in the year from 131 to 274 and we now have over 700 Twitter followers and a similar number on FaceBook. Perhaps this is an outlet from being locked down? Thank you to all who have decided to join us and be involved.

There's lots of positive news in this edition. Many responded to the RRRRA skills survey, and a short initial summary of the returns is enclosed. It is still not too late to input if you haven't already done so. There's news on the progress of *Itinera* issue 1, with a taster of some of the content that will be coming to you in a few months time. Added to which is a call for new papers for the second, 2022 edition, and links to some helpful guidance for authors (for any type of publication).

The main rump of this bumper edition, our biggest so far, are four road summaries; a continuation of David Ratledge's LiDAR review of East Anglia, and another David Ratledge contribution on the revealed line of RR71a from Little Chester to Buxton. We have a summary of the Roman roads observed in a LiDAR survey by the Beacons of the Past project in the Chilterns area. Finally, there's a report of the northern end of RR732(x) from Bainbridge giving clarity that Bowes was the destination.

This newsletter is only possible if you continue sending me good material, thank you to all the contributors. dave.armstrong@romanroads.org

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RRRA Projects, update

RRRA survey summary

From Reb Ellis

So to begin, 25 of you have so far responded. I know this is hardly everyone's highest priority right now, but we can't do things you would like to see or do unless you tell us about it! We will be closing the survey on the 1st of March so if you have thought of something, you still have time to forward us a response. Thank you, however, to those who have responded so wonderfully. The following figures and information are based on these responses.

Currently, members are taking part in no fewer than 28 independent (non-RRRA directed) projects which cover vast swathes of the country, from Yorkshire to Wales, from Surrey to Manchester, from Oxfordshire to Cumbria. These are reported to make use of the resources we already provide. Though some of them are on a more casual free time basis, many are also full time and in full swing! A select few members are involved with on-going projects – good luck to you all.

We are very grateful for your wonderful and positive feedback on our website resources (including OS files), geophysical opportunities and training, the excavation at Aldborough Moor Farm and the Newsletter. You were all very polite about things we could improve upon, and they very much flow into what skills, training opportunities and online events you thought we could help facilitate.

Firstly, the most common responses were more opportunities to get out in the field both in terms of geophysics and excavation. Whilst Covid-19 has hampered this we most certainly plan on more geophysical work and are investigating possibilities to acquire a second geophysics cart. Some of you also mentioned about using different techniques such as Ground- Penetrating- Radar – we are pleased to announce that we are now able to borrow a machine from the Dept. of Archaeology at the University of York when the world has returned to normal. Naturally, many of you want to get back out in the field and excavate. We are looking to return to Aldborough Moor Farm this year, and have other sites in Durham, Lancashire and Nottinghamshire lined up for the future, although of course these and any other opportunities depend entirely on the pandemic situation.

Many also asked about the possibility of an introduction to archaeological report writing, as well as general help and guidance when presenting research results. Guides were also requested for GIS software, namely QGIS, the basics and use of LiDAR, as well as more specific training on Roman Road construction and spotting

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RRRA Projects, update, continued

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Roman roads in the landscape. Therefore, we will look to put together a series of guides, zoom lectures and tutorials on these subjects. These will also cover the request for Zoom lectures and meetings.

We also understand that some of you wanted further guidance on how to run projects along with organisational hints and tips. We will look to work on providing guides covering project planning and organisation over the coming years, but it will take some time to achieve.

Several individuals have informed us about some of their skills which include archival research, excavation skills, use of GIS, amongst many others, and we will be looking to see how we can put them to good use. This may possibly include the creation of a skills directory for those willing to share their talents with others, but we would need more members to come forward for this to really work.

We have only given a brief overview of the most frequent requests and observations and will give a full list in the next newsletter, once we have hopefully received many more completed surveys! Thanks again for those of you who have responded so far – and if you have lost your survey and require another email Reb at Reb.Ellis@romanroads.org.

Wishing you all well in the New Year, Reb

2021 the year of *Itinera*

From Rob Entwistle (Hon. Editor)

We all hope for so much from 2021, having seen more than enough of 2020. And 2021 brings something new from the RRRA: the launch of *Itinera*, the RRRA journal of Roman road studies. The first annual volume will be published this spring, bringing together papers on a wide range of topics.

2020 has seen a huge amount of work behind the scenes as a Call for Papers went out, an editorial board came together, and a team of referees was established. Dave Armstrong, at RRRA Towers, has taken on the enormous task of typesetting the new publication. *Itinera* will be a professional academic production.

In recent years Roman roads, as a major aspect of the Roman legacy in Britain, have come under renewed focus, with the RRRA at the forefront in helping to bring the subject centre-stage. Developments in technology (LiDAR and geophysics) have transformed research, supported by archaeological investigations linked to

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RRRA Projects, update, continued

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commercial development, and the enthusiasm of local groups.

Itinera will offer authoritative articles on the gamut of road-related issues, aimed at both the archaeological community and enthusiasts. The range of papers is considerable – for example a reappraisal of the road from Birdoswald to Bewcastle through LiDAR (David Ratledge), a major investigation of the so-called ‘Proto Dere Street’ (Bill Trow, with supporting commentary from John Poulter and Mike Haken including the allocation of a Margary road number), the conclusions drawn from geophysics surveys around *Bannaventa* (Stephen Young), and a study considering the British evidence for Roman road transport (David Picker-Kille, USA). We will also see a 2020 update of Roman road discoveries around Britain, Roman Roads in 2020, from our growing network of local correspondents.

A digital version of the Journal will be issued free to RRRA members as a benefit of membership, but of course *Itinera* will also appear in print. Purchasing details are to be finalised, but we expect the price to be around £20 for a 300+ page quality journal.

Publication of an annual journal is a true coming-of-age for RRRA.

Call for papers - *Itinera* issue 2

From Mike Haken

Papers are invited with a deadline of 15 November 2021 for consideration for the second edition, which will be issued in spring 2022. Notes for intending contributors, explaining the submission process and format required, are available at the links on the [Itinera page on our site](#). The deadline for submissions is 15th November, but please let us know as soon as possible if you are thinking of submitting a paper. Contact the Editor using the link on the [Itinera page](#). November may seem a long way off but papers do take a lot of research and writing.

Illustrating your article

From Dave Armstrong

I’m part of the team putting together *Itinera*, plus I’m the newsletter editor. As part of these roles I see lots of good material, articles and papers that contain maps and LiDAR images. Often there is no attribution for the source of these and I have to scabble around with the authors to ensure we don’t fall foul of copyright, often looking up and writing in the references myself. I’m not moaning about this, it seems par for an editors role, but it occurred to me that a Guide for how to locate LiDAR and map attributions would be helpful to all, not just those contributing material to these and

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Other Roads in the News, bits & pieces

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other publications.

Great minds think alike and in parallel Mike Haken has generated a Guide for just this, available [here on our site](#). It is targeted at *Itinera* authors but the information is relevant for other reports, articles and papers. This is not just useful at the writing stage but is helpful during the research phase advising on convenient sources of mapping, pre-processed LiDAR and LiDAR data downloads, giving the appropriate attributions. Just because something is up on-line doesn't necessarily mean it can be used without copyright - beware - and read the small print! Also covered is the standard of photograph images needed for a good publication. For this you have to be thinking ahead while you're out in the field - the quick snaps taken on your phone will probably not be sharp enough to support your article or paper. And beware of processing or embedding any images through software packages; they can, unbeknown and unrevealed, downsize and subsequently reduce the clarity of your illustrations.

The other Guides for *Itinera* authors, also on the [Itinera page](#), are useful to help with the preferred way of constructing an article or paper including the reference listing that everyone seems to have their own idea of what the correct style should be. I hope you find this useful and I look forward to less involvement in the future!

British Museum makes map collection available online

From David Brear

David, who seems to be able to sniff out lots of useful on-line sources spotted this news. You may find something pre-OS to help your research through [this link](#). But as above watch out and take note of any copyright statements.

The Wigan milestone

From David Brear

Also spotted by David was [this local newspaper article](#) covering the restoration and a marking plaque for a milestone in Wigan. The Wigan Archaeological society are a [little more circumspect](#) in its Roman origin, but it is good to see the information about Roman roads and road furniture being made public.

Donate to your chosen Charity through Amazon Smile

From Dave Armstrong

Amazon is great way of sourcing and obtaining books on Roman roads, or any subject for that matter. How did we manage before the digital age? While some dislike dealing with these big Corporations and what they stand for, Amazon is certainly a convenient way of getting what you want, press the button and it turns up a few days later through

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RRRA Projects, update

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your letter box, perfect for our current situation. What is not well known is that Amazon make charity donations out of their transactions. They have a parallel site [Amazon Smile](#) that enables your chosen Charity to receive a donation of 0.5% from relevant Amazon purchases.. The site looks and works in exactly the same as the main Amazon portal with this extra facility built in. Your Amazon account transfers straight across and you can see how much of a donation your purchases have generated in My Account. You may think that 0.5% isn't a great deal but across a number of purchases across a group of people this could add up to a significant amount to help the charity organisations that are hard pressed in the current circumstances.

You may have your own preferred charity and can link to them in Smile, but I would point out that RRRA is a charity and funds would be useful to us too. If you use Amazon why not transfer to Smile and start donating to a charity - enter Roman Roads Research Association if you've no other preference? The [link to the Smile site is here](#). Why not save it as a favourite on your computer instead of the usual Amazon site.

The Stanegate RR85 uncovered in Northumberland

From Dave Armstrong

Local [north east papers](#) ran an article over Christmas about the Stanegate RR85 being found during Northumbrian Water Board work at Settlingstones. This road that is believed to have formed the Roman frontier just prior to the construction of Hadrian's Wall linking together a number of Roman forts, Vindolanda to the west of Settlingstones and Newbrough to the east. The Roman road is thought to be under the modern road and the recent discovery of a link road from it to Housesteads ([RRRA newsletter No. 15 August 2020](#)) nearby that did not show any evidence of crossing the modern road suggested that this is correct. The brief newspaper report and photos suggest that the cobbled road surface is quite close under the modern tarmac. It was constructed using rounded cobbles set in a layer measuring around 15cm deep, with around 25cm of gravel surfacing laid on top. Archaeological Research Services who conducted the watching brief have been mailed seeking more information but, as yet, there's been no response.

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RRRA Projects, update

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The Roman road remains discovered by Northumbrian Water at Settringstones. Picture: Archaeological Research Services Ltd.



With the surface cut through, at Settringstones. Picture: Archaeological Research Services Ltd.

RRRA Projects, update

The Buxton to Little Chester Roman Road, Margary RR71a; Southern section found

By David Ratledge davidr@deep-sky.co.uk

Introduction

Heading south-east from Buxton over the limestone uplands is a very well-known and direct Roman road aligned apparently on *Derwentio*, Little Chester, Derby. It is locally known as “The Street” and on the limestone uplands, with little or no deep ploughing, it has survived extremely well and can be traced as far as Longcliffe near Brassington.



Fig. 1: Location map of the Buxton to Little Chester Roman road, Derbyshire. Ordnance Survey Opendata - © Ordnance Survey

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Buxton to Little Chester, RR71a, continued

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Beyond Longcliffe, two suggested options for the route divide. Did the Street turn left for Wirksworth or carry straight-on? A two hundred year old puzzle. The Wirksworth Archaeological Society did not sit on the fence: “...after years of trying, there was nothing to support the idea of a straight line route. There never will be: The Street did not follow this route and did not go directly to Little Chester. It went to Wirksworth”.

Ivan Margary was a bit more circumspect and hedged his bets somewhat. He describes the “left-turn” indirect option i.e. a route via the Derwent valley and hence Wirksworth (he was describing the road in the opposite direction). However, he cautioned this with “if a directly aligned road was not made..” Without giving the game away his caution was well placed.

So a re-evaluation without any hidden preferences was long overdue. My RRRA colleague, Neil Buckley, was diligently searching the indirect Wirksworth option and had shown me some of the features traditionally claimed as evidence for it. To me though they were not typically Roman so I decided to take a close look at direct route possibilities. The series 2 LiDAR data was now available for much of it so a proper study could be carried out.

Almost certainly associated with this road is the lost Roman site of *Lutudarum*. This is listed next to *Derwentio* (Little Chester) in the *Ravenna Cosmography* and was probably the country’s major Roman lead mining site. Lead pigs with the stamp of *Lutudarum* have been found in a wide variety of locations – many in Derbyshire, four in Sussex and nine near Brough on Humber. Finding the road might go some way to pinning down this elusive site’s location.

The Road is Found

The direct straight-line option south of Longcliffe and Carsington would be at a lower level and cross farmland that would have been ploughed. It would not be as well preserved as it was across the limestone upland. If it had been it would have been spotted in the past.

Ostensibly it would run along the west side of the Ecclesbourne valley and would have to deal with several smaller valleys entering the main one. Nevertheless it was quickly spotted from Quarndon Hill (north west of Derby) heading in a straight alignment to Windley, a distance of about 3 miles. That was a start.

It took another few days work of varying the illumination angles in the LiDAR model to tease out the complete route to Carsington. Despite those side valleys it was amazingly direct. At Carsington the LiDAR currently runs out but the reservoir construction works had revealed significant Roman remains plus there were earlier

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Buxton to Little Chester, RR71a, continued

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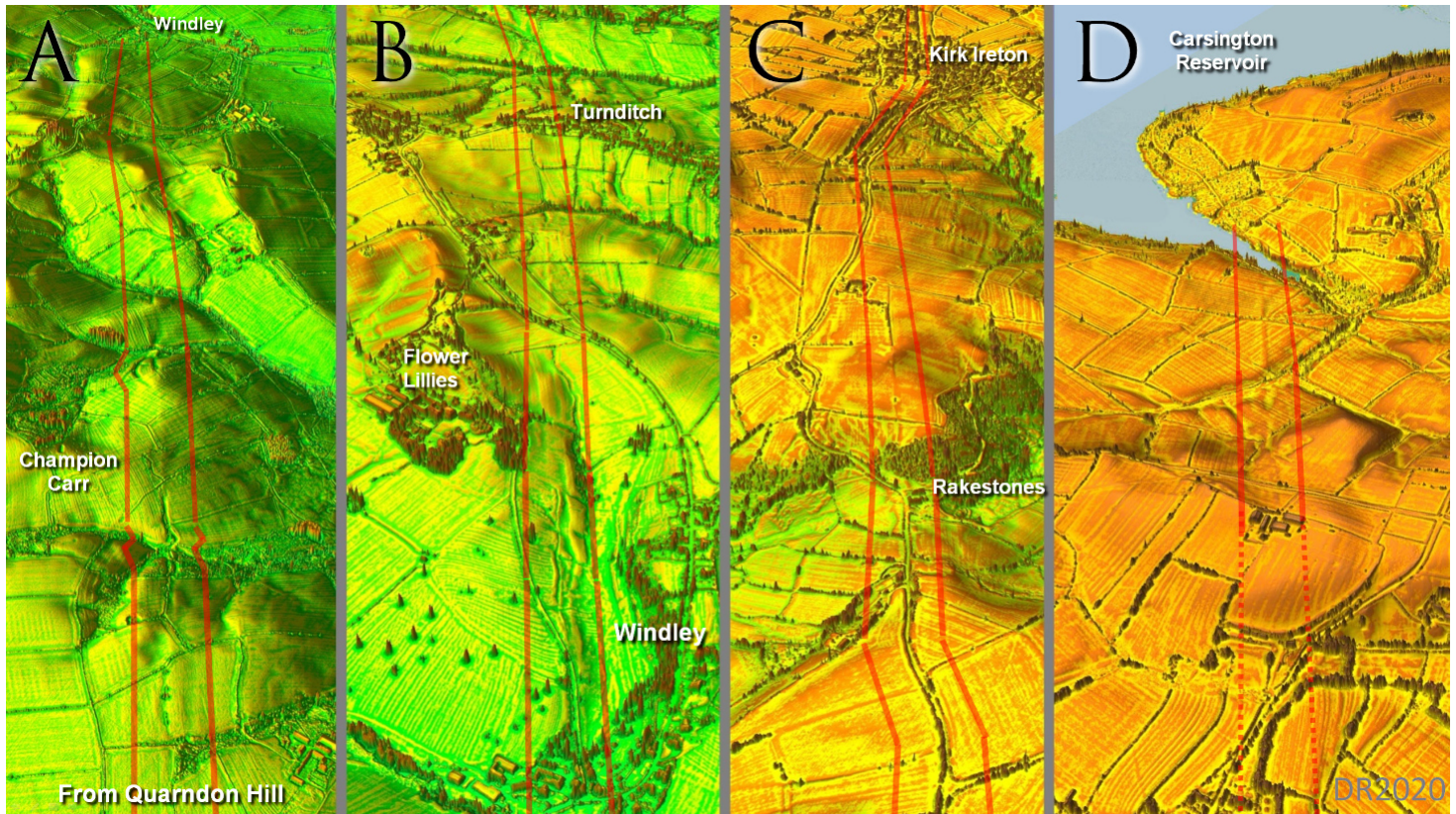


Fig. 2: The LiDAR evidence in the direction of Little Chester towards Buxton. It was finding all these views that convinced me there was a direct road from Little Chester to Carsington. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved

finds of 2 of those lead pigs from *Lutudarum*. Just north of Carsington reservoir, near Brassington, are numerous old lead mines. It was all coming together.

After independently finding the road I was doing some background research and I found an unpublished paper by Adrian Farnsworth and Paula Whirrity from 2006. Largely based on field boundaries they had suggested two direct routes, some parts of each had described a similar route over a section of the route I had found. That was reassuring, not that I had any doubts in what the LiDAR had already revealed – it was unambiguous.

The Route in Detail

The Little Chester Roman site at Derby was founded early and has a complex history. There was a very early fort (c.50AD) on the west bank of the River Derwent but this was quickly replaced by a second fort on the east bank c.80AD. It is the latter fort that

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Buxton to Little Chester, RR71a, continued

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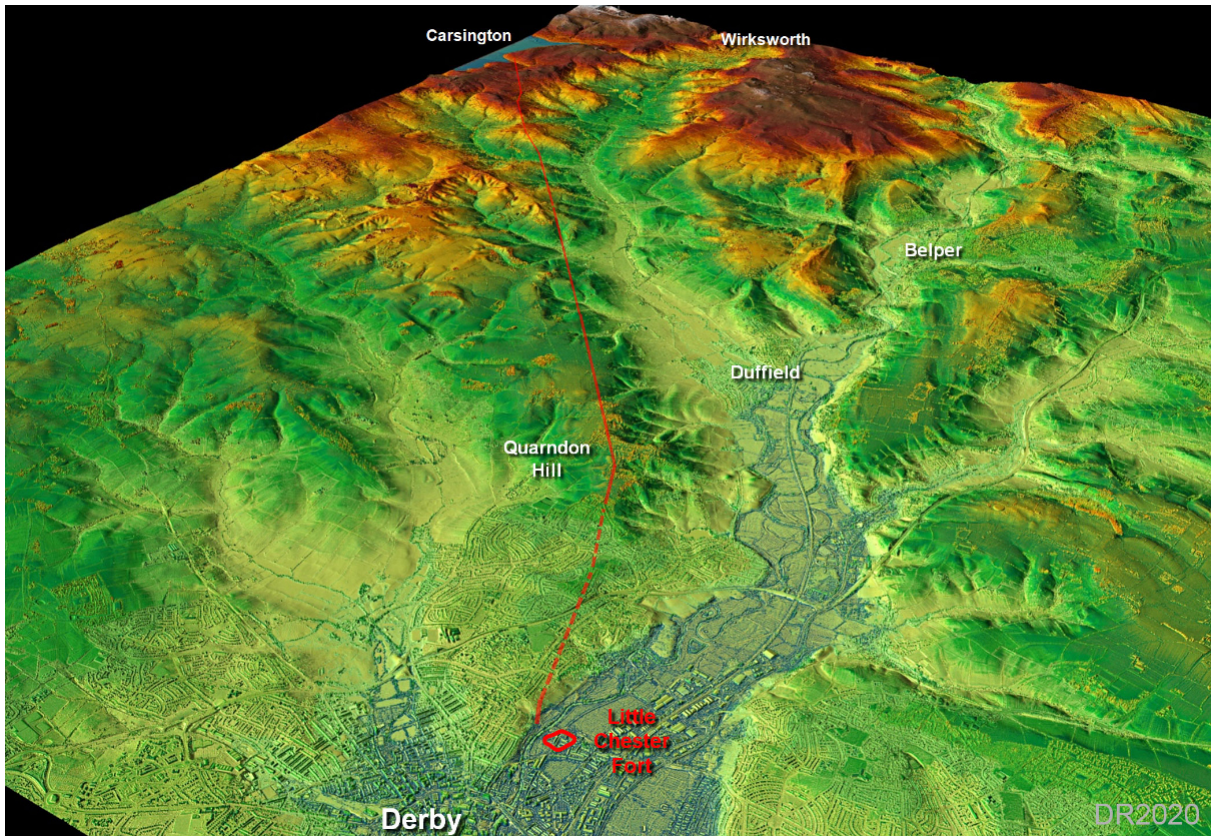


Fig. 3: The Roman surveyors found the easiest and shortest route via Carsington keeping out of the valley bottoms as was their trait. A route via Wirksworth would have made the journey longer, more onerous and have had to traverse much hillier terrain. Hardly ideal if you were transporting heavy lead pigs. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved

developed extensively and today references to *Derwentio* are generally taken to mean the east bank site. The fort lay at the junction of several Roman roads including the famous Ryknield Street.

William Stukeley visited the site in the 1720s and recorded stone walls and ditch plus the remains of a bridge crossing the River Derwent, just to the north of the fort. Visible on the west bank, opposite the west gate of the fort rather than the bridge remains, are perhaps the beginnings of the road to Buxton. It joins Darley Grove, now a park path, which angles up the slope very Roman like. Did this stretch of Darley Grove make use of the old Roman road?

Beyond Darley Grove then there is the extensive modern development of Allestree and tracing the road to Quarndon Hill is somewhat speculative. There is an old boundary on the west edge of Allestree Recreation Ground that might be the line. However, short

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Buxton to Little Chester, RR71a, continued

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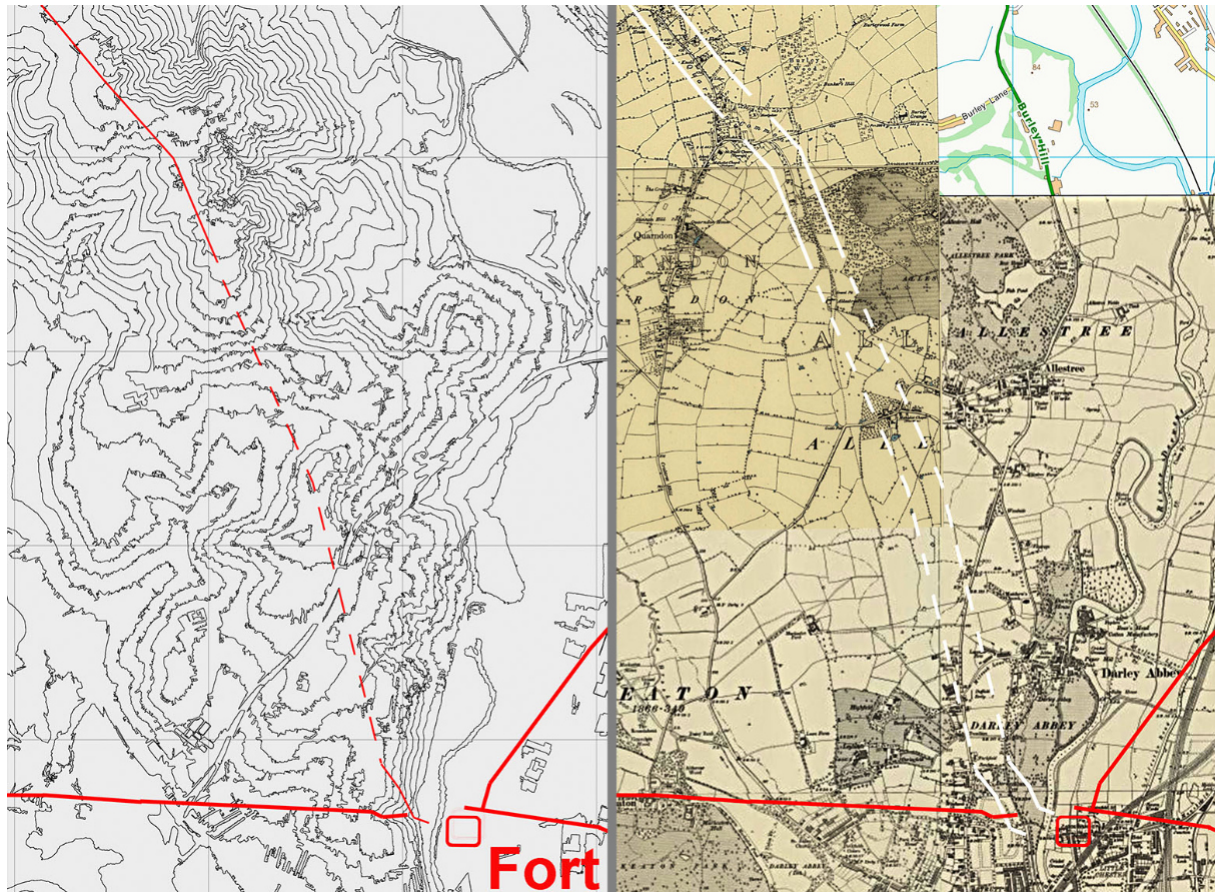


Fig. 4: From Little Chester to Quarndon Hill proving the route is all but impossible with modern development. A contour map gives some clues as to the likely course and the OS First Edition Map (right) adds a boundary or two as support. First Edition OS mapping courtesy National Library of Scotland under CC-BY-NC-SA licence. Contour data derived from DEFRA LiDAR data © Crown Copyright 2020

of someone digging up the road in their back garden here we are reliant on (intelligent?) guesswork. For this I used a contour map and the OS First edition mapping (figure 4). This section is logical but, of course, unproven.

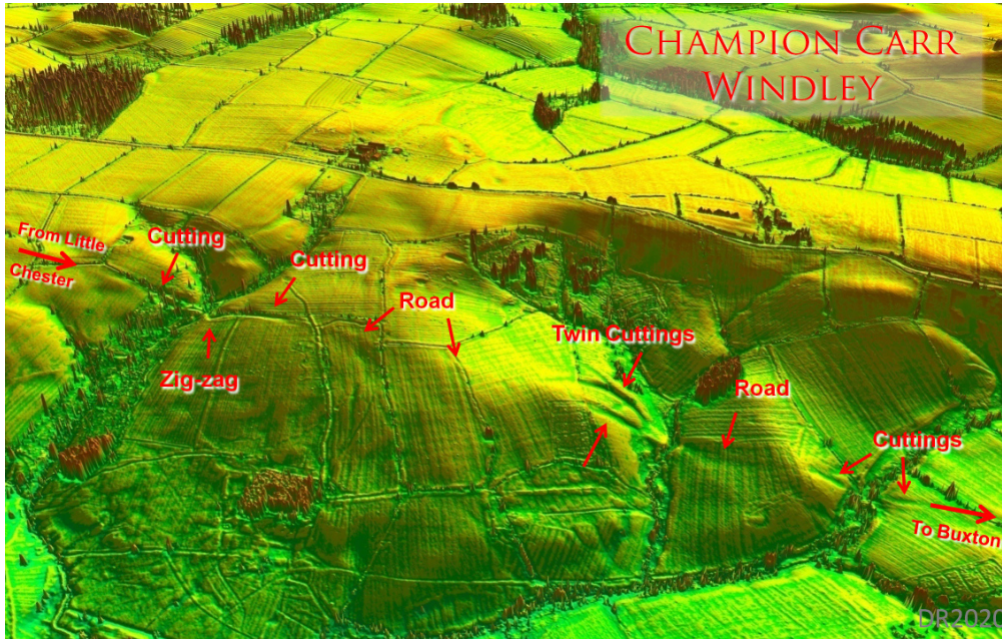
The high ground of Quarndon Hill was obviously the setting out point for the main alignment and Woodlands Road is the logical Roman route up the hill. The road then made a turn on the hill and my assumption is that the Roman surveyor sighted from here to the high ground near Blind Lane, Kirk Ireton. 3D LiDAR shows they are inter-visible and the road is never far away from a straight line joining them.

From Quarndon Hill then the clues become visible (figure 2A) and there are enough of them to dispel any doubt. A feature of this road, well the southern half that is, are the

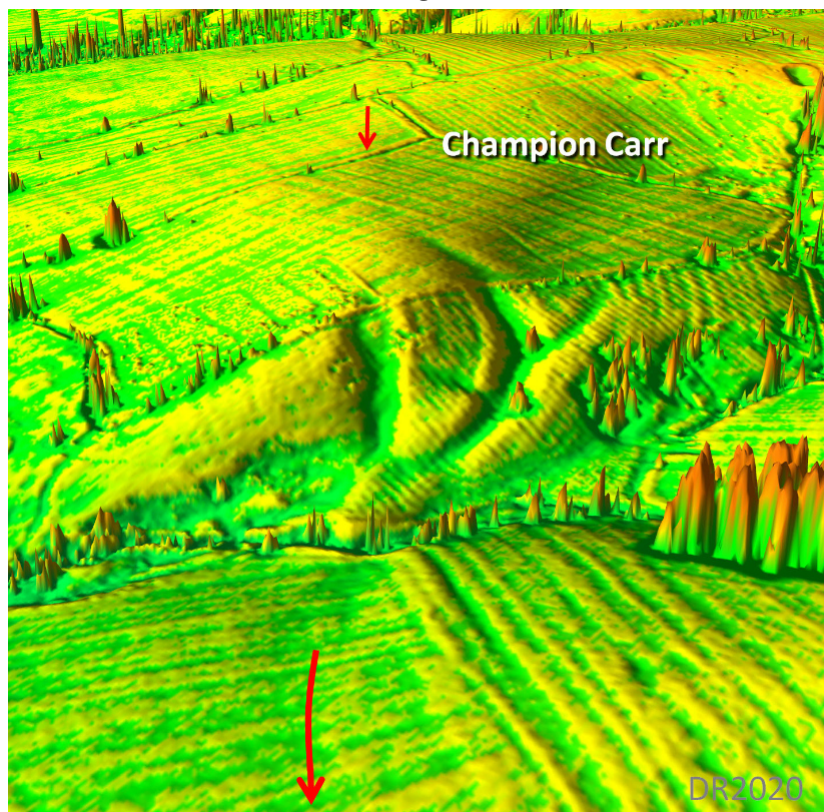
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Buxton to Little Chester, RR71a, continued

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Figs. 5 & 6: In this oblique 3D LiDAR view of Champion Carr the incredible engineering that went into this road becomes obvious. The close-up view below shows the twin cuttings section at its best. Was this to ease the climb for lead traffic? Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved



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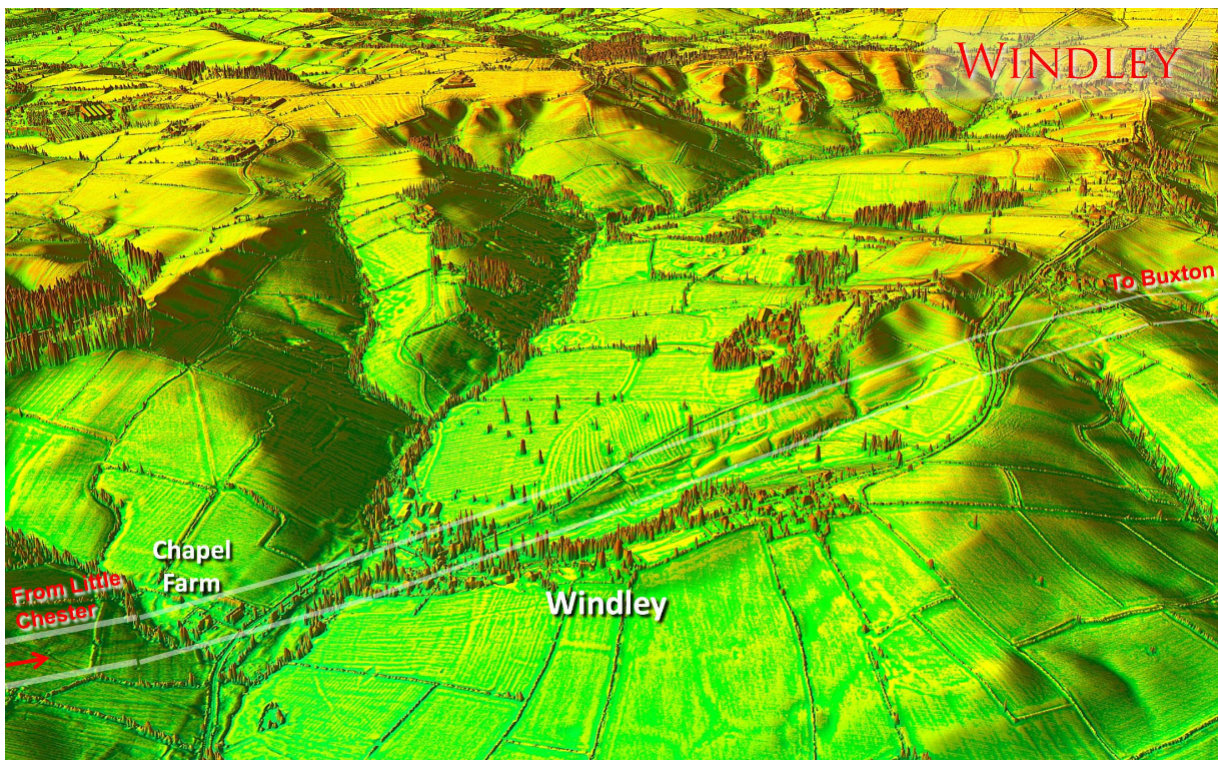
Buxton to Little Chester, RR71a, continued

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number of cuttings. To get a straight alignment, obviously a high Roman priority, then crossing the side valleys of the Ecclesbourne valley necessitated frequent earthworks. The advantage for us nearly 2000 years later is that cuttings survive rather well as they are much harder to plough out. There is an amazing sequence of them between Quarndon Hill and Turnditch.

Beyond The Common on Quarndon Hill then the road becomes visible, faintly at first, but here begins the series of cuttings to negotiate the several side valleys around Champion Carr. The first needed a little zig-zag in addition and then comes the most amazing survivor – twin cuttings for the descent to the next valley.

The twin cuttings are so spectacular that I make no excuse for having included two images of them (figures 5 & 6). One cutting is clearly on the direct line and the second, the curving one, obviously a relief route with reduced gradients. Why two cuttings? Was the original one too steep for those heavy lead pigs coming from the *Lutudarum* mines?

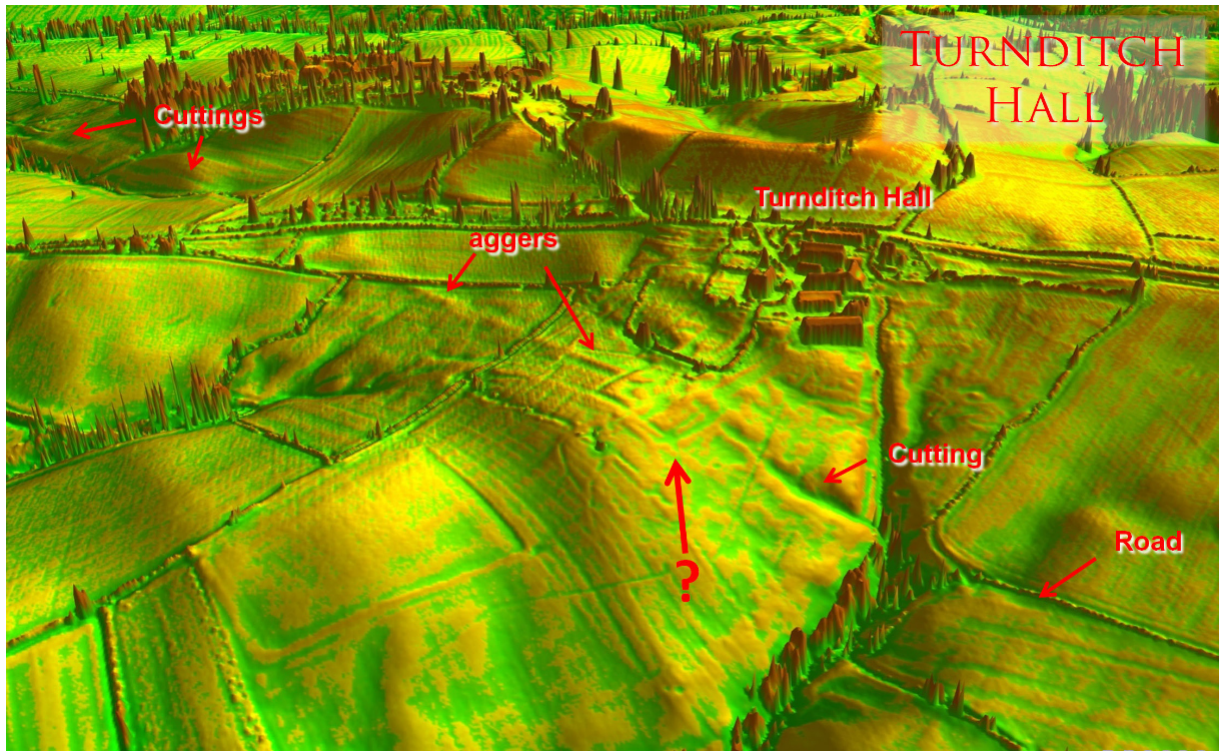


Figs. 7: The ascent at Windley traversing side sloping ground would have necessitated revetments which today are much disturbed but still evident. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved

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Buxton to Little Chester, RR71a, continued

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*Fig.8: At Turnditch Hall (below) we see prominent aggers and a feature (?) straddling the road followed by yet more cuttings
Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.*

This is quickly followed by another valley and yet another pair of cuttings. After these there is a little wobble around a hillock (Windleyhill?) before we descend to Windley (figure 7). The main alignment seems to have been selected to make use of a natural valley for the ascent from Windley. Even so it appears considerable work was needed to construct the road on side sloping ground. A long terrace with revetment would have been needed and this has survived albeit much disturbed now.

We are now approaching the high ground of Turnditch but first passing Turnditch Hall (figure 8) there is a stretch of surviving aggers – a rarity so far, no doubt due to all that ploughing. There is a feature astride the road there but opinion is divided on what it may be.

The road then crosses the A517 at the ridge of Turnditch village. From here the road is clear across Ridgeway Brook (apt name) with a small cutting and on to Sherbourne Brook, where for once those cuttings were not needed. Beyond Sherbourne Brook the road alignment was left with a deviation to the west. This was to avoid a deep valley and make use of ridge of high ground at Rakestones (figure 9).

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Buxton to Little Chester, RR71a, continued

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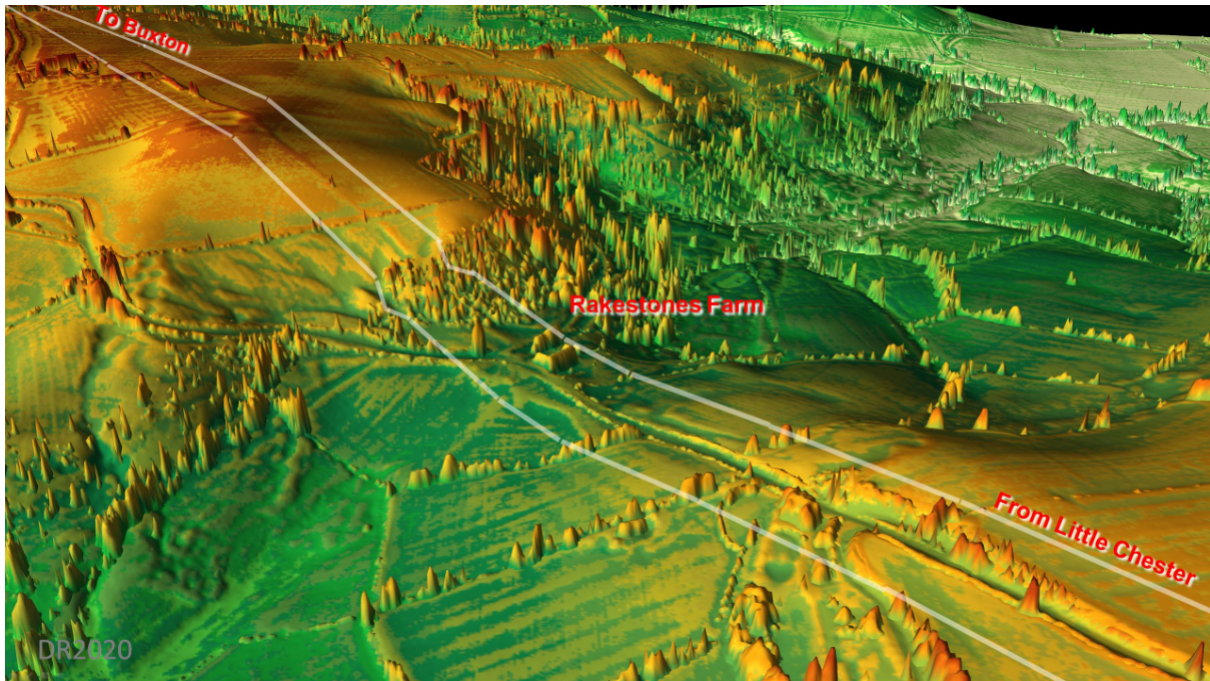


Fig. 9: It is obvious in this oblique LiDAR view just why the road deviated towards this spot at Rakestones. It a natural watershed ridge linking the two high grounds together. There was a small zig-zag in the woods. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved



Fig. 10: Approaching Kirk Ireton and alongside Nether Lane the Roman line follows the row of trees in the field. Image Google Streetview.

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Buxton to Little Chester, RR71a, continued

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Fig. 11: Unmistakably Roman! Who else could engineer such a straight main alignment across all those side valleys. Contains OS Opendata – Reproduced under Open Government Licence v3.0

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Buxton to Little Chester, RR71a, continued

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At Rakestones a length of modern road overlies the Roman line but the agger becomes visible beyond the farm (figure 9). Approaching Kirk Ireton then the road angled back towards the main alignment and is visible as a hedgeline about 50 metres above (west) of the modern Nether Lane (figure 10).

The direct alignment is regained at Kirk Ireton and approaching Carsington Reservoir is the final visible evidence in the form of a prominent agger (figure 2D). Beyond the reservoir there is currently no LiDAR data so we are reliant on aerial photographs. However, the easiest route for the climb up to the limestone plateau is that through Brassington village. There is a possible feature visible in aerial photographs and on the ground just where such a line would join the modern road (Town Street) south of Brassington (SK2346 5330) but the HER has an entry (MDR15163) on a different alignment so it will be prudent to await LiDAR coverage.

Conclusion

The centuries old puzzle is finally resolved and we can now be certain Margary RR71a, The Street, did adopt a direct alignment. A stunning feature of this road is the sheer number of cuttings – more than I have come across before - surely indicative they needed to ease the transport for all those heavy lead pigs. This does make a lot of sense. With *Lutudarum* listed next to *Derwentio*, 2 lead pigs found at Carsington and the discovery of this road, then the logical conclusion is that the lead traffic came this way. It would provide a direct connection to navigable rivers i.e. the Derwent at Little Chester and/or the Trent (via Margary RR182) at Long Eaton. Those 9 lead pigs found near Brough on Humber obviously got there by boat.

However, the precise location of *Lutudarum* will probably need the next release of LiDAR to be resolved providing, of course, it is not under the waters of Carsington Reservoir.

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Other roads in the news

Roman Roads in the Chilterns region: observations on a LiDAR based reassessment in light of new data

From Nigel Rothwell, Edward Peveler & Wendy Morrison of the Beacons of the Past Project, Chilterns Conservation Board

Summary

Acquisition of high-resolution LiDAR imagery over the Chilterns Area of Outstanding Natural Beauty (AONB) for the National Lottery Heritage Funded (NLHF) 'Beacons of the Past' (BotP) project has revealed a rich picture of Late Prehistoric and Romano-British occupation. These data have been used to re-evaluate the Roman road network across the region.

Evidence for surveyed and engineered Roman roads is sparse, essentially being confined to the major routes of Watling Street RR1e, Akeman Street RR16a, RR22 and RR163. Even with these major, well understood roads the data reveal some surprises. The LiDAR also shows that a convincing new alignment for RR163 between *Verulamium* and *Calleva Atrebatum* is supported.

Only minor indications of construction and alignment are seen along the remaining routes. This lack of evidence for significant prototypical Roman roads within the region is perhaps consistent with the view that the area assimilated Roman culture and influence early, therefore not requiring substantial military presence and infrastructure.

Ivan Margary described most of the documented roads in this region as minor local routes, and this review supports that. Clearly such a network of local routes would have been required to service an intensely cultivated landscape, and it is likely that this network built on pre-existing routeways, connecting local centres and farmsteads. A tripartite division of "Roman road" types is adopted here as a means of identifying and distinguishing between the diversity of routeways which served different purposes.

Introduction

The Chilterns Conservation Board's NLHF funded [Beacons of the Past project](#) acquired 1400 km² of high-resolution LiDAR data in the winter of 2018/2019, centred on the Chilterns AONB. With a minimum ground point density of 16 points per m², this became the largest high-resolution survey for archaeology in the UK, allowing the creation of a 25 cm resolution digital terrain model covering parts of southern Oxfordshire, central and southern Buckinghamshire, central Bedfordshire and Hertfordshire.

The data was made [publicly viewable](#) with a first of its kind "Citizen Science Portal," presenting LiDAR visualisations in a geospatial context alongside modern and historic mapping, and satellite imagery. Since the Portal's launch in August 2019 over 10,000 features have been recorded by volunteers. Amongst the most significant are a previously unrecorded Iron Age hillfort, extensive prehistoric and Roman field systems

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Roman Roads in the Chilterns region, continued

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and farmsteads, deserted medieval villages, and remains of WWI and WWII infrastructure. Access to the LiDAR data is currently only through the project portal; the interpreted findings will be provided to the county HER's and the raw LiDAR data made publicly downloadable towards the end of the project in 2022.

The high-resolution LiDAR data, visualised with techniques that maximise the visibility of subtle earthwork remains has allowed the Roman road network of the region to be re-evaluated. This article discusses in brief some of the major findings from the study of Roman roads in the data, including a newly identified alignment for RR163, which links the Roman towns of Silchester (Calleva Attrebatum) and St Albans (Verulamium). The observations presented here are largely derived from remote-sensing data and documentary sources; Covid restrictions have limited opportunities for extensive field-checking of results.

Earlier Work

Within the Chilterns region, the work of Margary and the Viatores represents the key evidential baseline. Margary's 1st edition (1955) itself borrowed upon and updated Codrington's (1903) work. The Viatores, with Margary as chairman, described in great detail the major roads and "lesser routes" in the South Midlands (1964). Margary's 3rd edition (1973) represents the latest overview survey.

More recent publications on Roman roads in the Chilterns include Malpas (1987) on the route between Dorchester-on-Thames and Henley, Oxon; Morris, Hargreaves, and Parker (1968) on the Lower Icknield Way along the northern foot of the Chilterns; Morris, Hargreaves and Parker (1970) on the possible RRX021 route along the A40 corridor; Harrison (2003) on the Icknield Way; Gover (2017) on the route of RR163 seen in Environment Agency LiDAR in Pollards Wood, Little Chalfont, Bucks; an excavation report (Anon. 2005) for part of Watling Street (Aston Clinton bypass); and a geophysical survey at Cow Roast on Akeman Street, near Berkhamsted, Herts. (Harrison, 2015).

Further information is contained within Ordnance Survey (OS) working files available from the Roman Roads Research Association, which include surveyors' critiques of the Margary and Viatores routes. Zeepvat and Radford (2007, p. 7) reference Zeepvat's (1987) work on the River Ouse / Ouzel region to the north of the Chilterns and Simco's (1984) work on Bedfordshire, questioning Viatores' minor roads as "suspect." Branigan (1985, p. 65) in his overview of the Late Iron Age Catuvellauni considers the Viatores' routes "optimistic".

Roman roads in the Chilterns

For this study a baseline was created using the Viatores' (1964) mapping of routes, plus one additional road identified by Margary (1973, p. 166), and three others identified in the OS files. A total of 21 previously identified Roman roads were investigated, including major routes such as Watling Street and Akeman Street, and

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Roman Roads in the Chilterns region, continued

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the many minor routes. Margary notes that the majority of the routes identified in the Chilterns “must have been of a local character” (1973, p. 176.)

The LiDAR data was searched for evidence suggestive of a potential Roman road along the alignments of the mapped routes. Surveyed and engineered Roman Roads, built by and for the military, might be expected to have some or all of the following characteristics: substantial straight sections, with measured changes of direction; built up aggers (embankments or causeways) or excavated cuttings; roadside ditches or quarry pits, for drainage and extraction of construction material. These features would probably be lacking from roads constructed prior to the Roman invasion, and such practices seemed to cease around the end of the Romano-British period, not generally used again until the improvements to turnpike roads of the 18th and 19th centuries, particularly through the work of Telford and McAdam (Albert 1972, p. 132 *ff*).

The identification of an agger is often used as a key indicator of a Roman road, and is one the Viatores often cite, sometimes combined with the discovery of flints or cobbles below the surface through physical probing (e.g. 1964, p. 42). The LiDAR data gives an improved view of such features, being sensitive enough to detect very subtle changes in the topography which are difficult to see on the ground, particularly under vegetation cover. Critically the LiDAR offers a whole-landscape view, allowing investigation of whether such embankments continue for any distance and alignment.

Some difficulty lies in distinguishing a possible road agger from the remains of prehistoric, Roman or medieval field boundaries, built in the Chilterns from mounded flints. Mounded field boundaries might themselves have been used to enable travel across the terrain, and routeways also formed boundaries to cultivated land, so for many minor routes there is a complicated interplay of routes and fields systems, and the two should be investigated together more thoroughly.

Another pitfall, identified by Margary (1973, p. 514), lies in the Viatores' observation (e.g. 1964, p. 141) of the coincidence of Roman roads with administrative boundaries (e.g. parish, county, manorial). Administrative boundaries typically run in more or less consistent directions for some length, with fields and woodland boundaries respecting them, and they are often marked by earthworks. Whilst these do sometimes lie along Roman roads, in many cases they do not in fact align, and so caution must be used when making inferences.

The BotP LiDAR data has also further highlighted diversity in Roman roads: all were not created equal, and the term describes a multitude of routeway types. The prototypical, engineered, major Roman road, built in stretches of straight alignments, on an agger, with roadside ditches, can clearly be distinguished in form and function from minor roads and trackways in use in the period. The major routes are typically seen as being constructed for rapid and efficient movement by the army or administration, and enabling inter-regional travel via urban centres or forts. The best-

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Roman Roads in the Chilterns region, continued

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preserved example of a road with these characteristics within the Chilterns is the newly recognised section in Hodgemoor Wood, Bucks. (see RR163 below).

More minor roads (see especially Booth 2011) would likely provide intra-regional networks accessing minor population centres, rural settlements, and industrial sites, and link these into the major road network. These minor roads might have reused pre-existing routeways (cf. Booth 2011, pp. 4-6), or have been created *de novo* to accommodate and access newly reorganised settlement patterns. Some of these routes may exhibit characteristics of a “Roman road” but many will be difficult to distinguish from prehistoric or medieval routeways in their habit; without excavation or scientific dating techniques, generally the only clue to the date for such routes lies in the places they connect.

The LiDAR survey, and the heavily wooded Chilterns landscape, offer a unique opportunity for studying the greater whole of the ancient routeway network. In the discussion below a tripartite route hierarchy is proposed, between “A-roads,” “B-roads,” and “C-roads.” This hierarchy is in part based on the writings of Siculus Flaccus (146L), a Roman land surveyor, who records the distinction between three main types of road: *viae publicae*, built and maintained by the state, forming the major routeways across the landscape; *viae vicinales*, local roads, maintained by local communities, often linking major roads; and *viae privatae*, built and maintained by local landowners, and not necessarily publicly accessible (Laurence 1999, p. 61-62). These definitions, of unknown date in the Roman period, were probably written with regard to Italy. Whilst we make no claim that such a legal hierarchy is in place in Roman Britain, nor that roads fit into a rigid trichotomy, it does perhaps represent a useful device to test.

Thus, for our purposes, A-roads, having characteristics typical of a “Roman road”, are the most major, running for tens or hundreds of miles, facilitating long distance travel, and almost certainly created on the orders of the military or provincial administration. B-roads are of lesser significance, running for shorter distances, perhaps possessing some characteristics of a prototypical Roman road, linking A-roads together and connecting smaller settlements into the main road network. C-roads, generally lacking any of the prototypical “Roman road” features, frequently appearing simply as subtle hollows in the landscape, generally between pairs of field boundaries, are the most minor, connecting rural settlements to field systems, local market centres, and the wider road network. This last category of routes is seldom identified except in particularly ideal cropmark conditions or in open-area excavation.

Some examples of these road types, for which evidence is seen in the LiDAR, are discussed below to illustrate points of agreement and deviation from the courses mapped by Margary and the Viatores, and to show the merits and pitfalls of such a LiDAR-based study (Fig. 1).

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Roman Roads in the Chilterns region, continued

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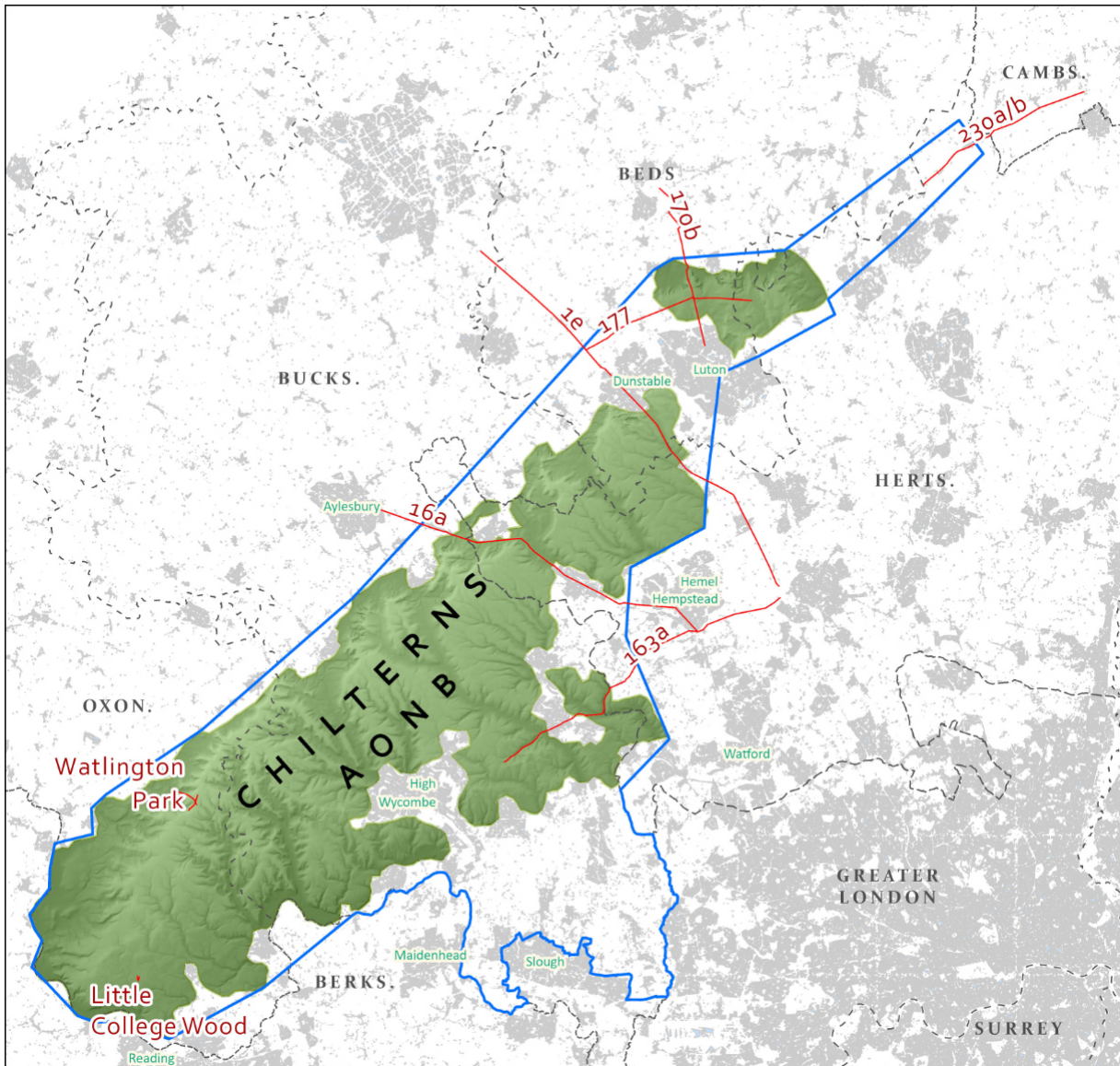


Fig. 1: A map illustrating the road segments discussed in this text (red). The LiDAR survey area is shown in blue. Contains OS data © Crown copyright and database right (2020).

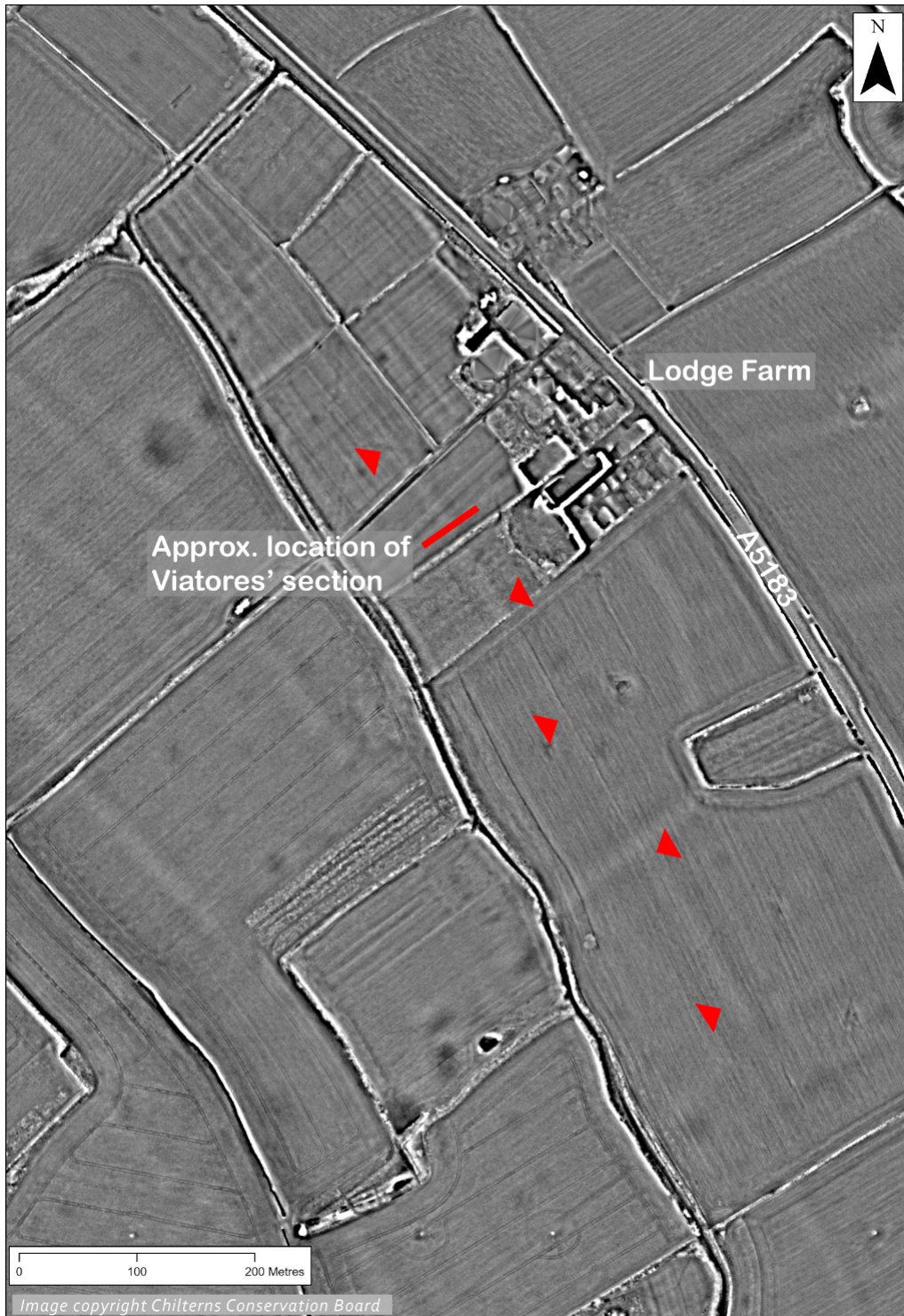
“A-roads”

For the major roads of the region, physical remains are rare: modern highways have been constructed over long sections, notably over Akeman Street, Watling Street, and RR22. These were almost certainly precisely surveyed and well-constructed Roman roads, but their modern widening and re-engineering has destroyed most Roman

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Roman Roads in the Chilterns region, continued

Continued from page 23



(Fig.2: The course of RR1e as identified by Viatores around Lodge Farm, Kensworth CP, Bedfordshire. A clear bank is seen along part of this route, but is not apparent along its full length, particularly to the south of this segment. Image copyright CCB.)

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Roman Roads in the Chilterns region, continued

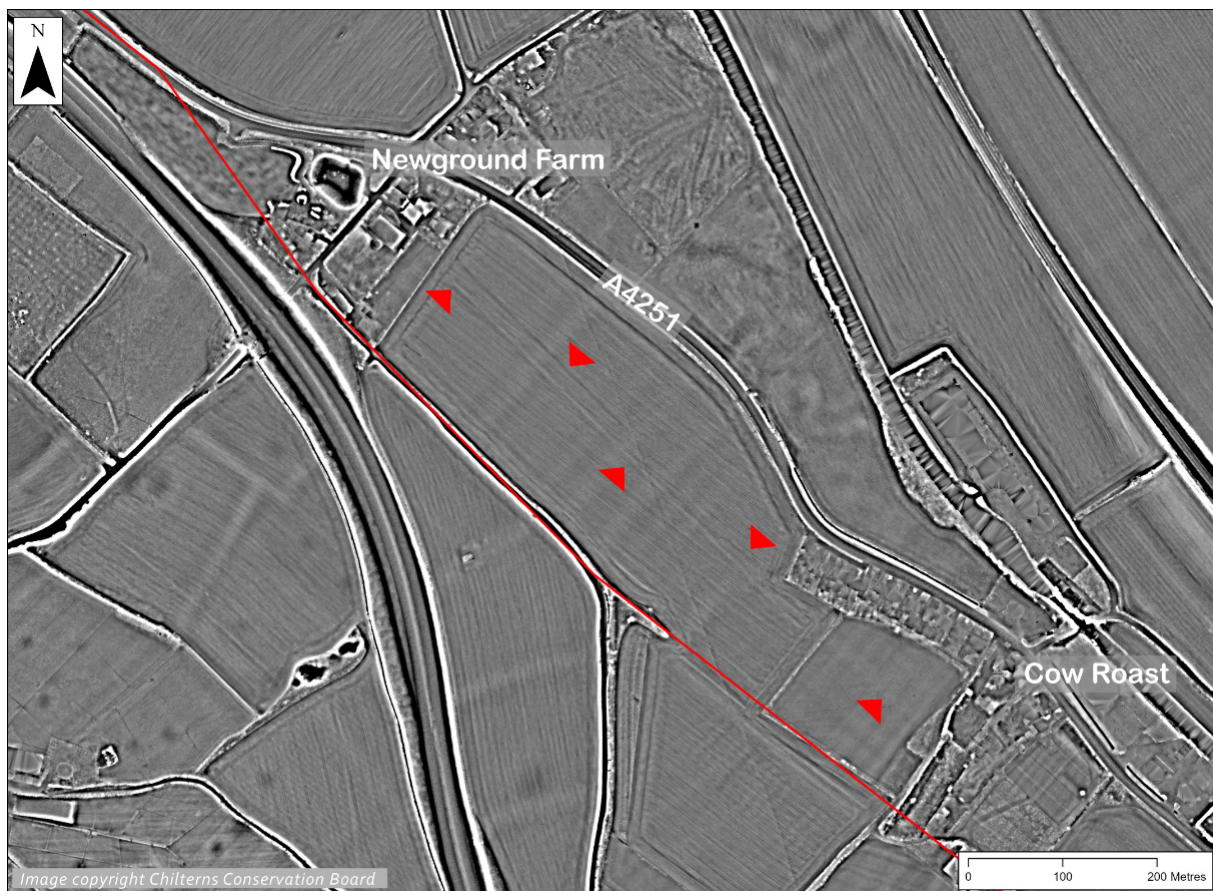
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remains. However, there are a few sections surviving unharmed by later road building, and the LiDAR gives some evidence for these.

RR1e Watling Street

The course of RR1, from Dover to London, St Albans, and ultimately Wroxeter, is relatively well-known, and through our study area lies within the corridor of the modern A5, A505, and A5183. Its course is marked on modern maps as Watling Street.

For the most part the route is under modern roads. There is a segment in Bedfordshire, between the junction of the A5183 and the B4540 at the south, and Lodge Farm, Kensworth CP at the north, which the Viatores (1964, p. 362 and 517) map to the west of the modern road rather than along it (Fig.2). They record an excavation of part of this alignment, illustrating a presumed road surface. At the northern part of this segment there is a clear earthwork in the LiDAR corresponding to this; however,



(Fig. 3: The course of RR16a north of Cow Roast, Herts. A pair of parallel features visible in the LiDAR and aerial images corresponds with the results of an earlier magnetometry survey, offering a new alignment from that proposed by Viatores (red line). However, it is not certain that these features are indeed part of a Roman road. Image copyright CCB.)

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Roman Roads in the Chilterns region, continued

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further south, whilst there are various field boundaries and banks visible in the LiDAR, it is difficult to see these linking together into a consistent course. Either this road does not survive here as an earthwork, illustrating the challenges of identifying even very major roads in the LiDAR, or the Viatores' confidence in the identification of this "certain route" needs tempering and we must conclude the course of RR1e here too aligns with, and has been destroyed by, the modern road.

RR16a Akeman Street

The course of this major route, joining St Albans to Cirencester, is again mostly obscured by modern roads in our area, particularly the A4251 through Berkhamsted to Tring. Between Dudswell and Cow Roast, north of Berkhamsted, the route is mapped by the Viatores 100m west of the modern road, on an alignment of hedges and trackways (Fig.3). However, a geophysical survey (Harrison 2015, an excerpt of the interpretation of the magnetometry survey is [available on-line here](#), accessed

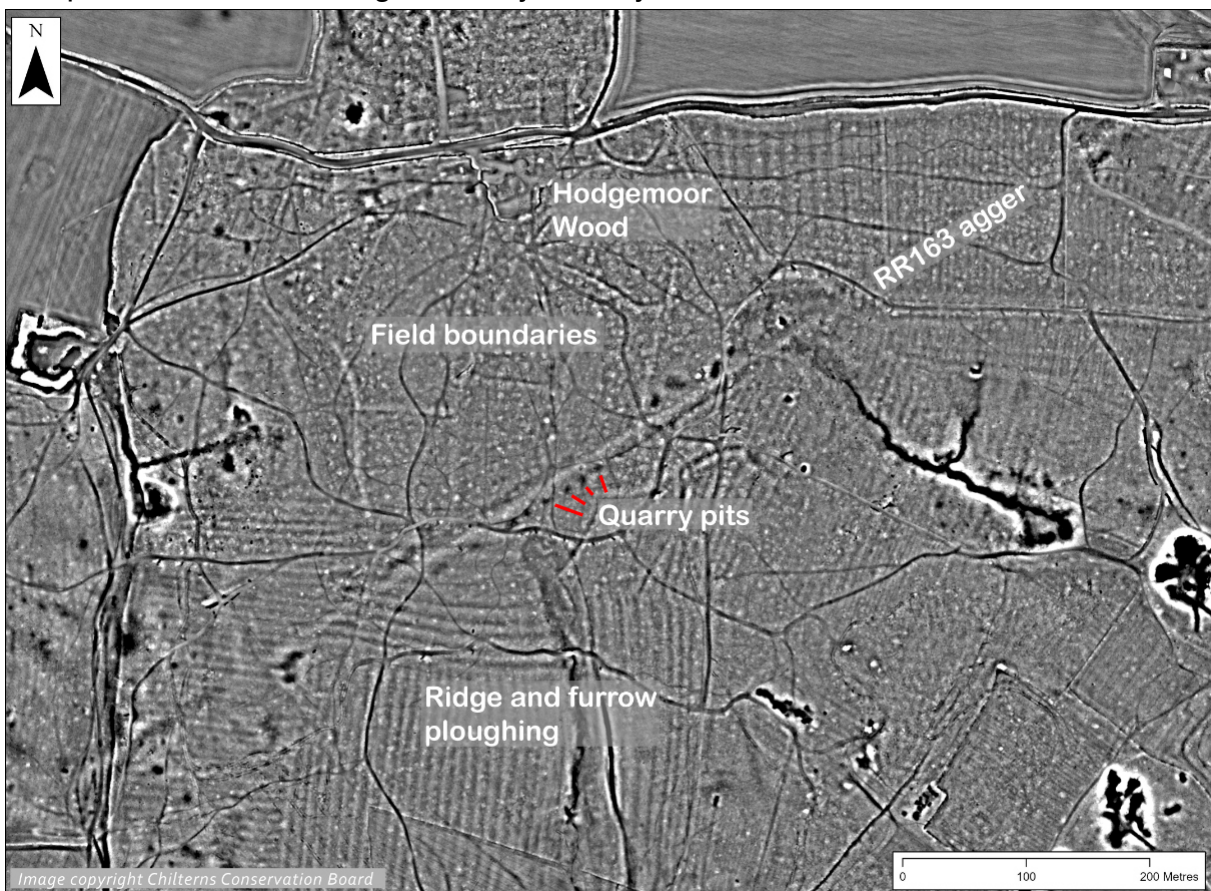


Fig. 4a An exceptionally well-preserved section of RR163 through Hodgemoor Wood, Bucks., newly identified in the BotP LiDAR data, showing a well-built agger and roadside quarry pits. A coaxial field system borders the road, and the whole has been subject to ridge and furrow ploughing in the medieval period before the woodland grew up. Image copyright CCB.

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Roman Roads in the Chilterns region, continued

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15/12/20) identified a pair of parallel linear anomalies c. 20 m apart on the correct bearing, but between the modern road and the Viatores' suggested course, and which were interpreted as roadside ditches. These features are faintly visible in 1940s aerial photographs on Google Earth, and appear in the LiDAR as shallow ditches, with no hint of an agger between them. The clarity of these features in the LiDAR is unexpected, and so the possibility that they result from another fortuitously aligned feature must be entertained, perhaps 19th century water pipelines from Newground Farm Pumping Station. If this is the case then the Viatores route may be correct.

RR163 Calleva – Verulamium

New evidence of this route is one of the most exciting outcomes from the data, with a well-preserved 1 km length of agger, with quarry pits alongside, showing up in Hodgemoor Wood, Seer Green CP (Fig.4a). This finding confirms the discovery by Gover (2017) of a section of this route through Pollards Wood, Chalfont St Giles CP,



Fig. 4b: This finding confirms the earlier work of Gover (2017) in demonstrating an alternative route to that mapped by Viatores (red line). Image copyright CCB.

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Roman Roads in the Chilterns region, continued

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and allows for further investigation of its course in the Environment Agency LiDAR (Fig. 4b). A fuller discussion of this route is to be published in a future edition of *Itinera*.

“B-roads”

Large sections of these roads also underlie modern roads which have obliterated the Roman remains. Many of these roads have sections that follow obvious landscape



Fig. 5a A well-preserved agger confirming Viatores' inferred route of RR 170b south of Streatley, Beds. Image copyright CCB.

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Roman Roads in the Chilterns region, continued

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features, e.g. valley bottoms and ridges, and, where these can be traced in the LiDAR data, they generally lack many of the prototypical Roman road features.

RR170b Limbury – Greenfield

This route in Bedfordshire runs roughly north from the Icknield Way as it leaves the north eastern edge of Luton, through Streatley, Sharpenhoe, and on towards Pulloxhill. The LiDAR verifies the Viatores' "inferred" route between what was Great Bramingham



Fig 5b: To the north of Streatley the Viatores map the road diverting to the west, as the modern road does; the LiDAR however shows some evidence that the route may have taken a straighter route down the escarpment. Image copyright CCB.

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Roman Roads in the Chilterns region, continued

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Farm, now Keech Hospice, north of Warden Hill, and Streatley, with a clear agger seen running on a straight bearing through fields and George Wood (Fig.5a). At Streatley the modern road covers its course, but where the modern road curves slightly west to run down a sunken way off the escarpment, there is a suggestion in the LiDAR that another course, possibly the original Roman course, heads straight down the escarpment at the head of a small dry valley immediately west of Sharpenhoe Clappers, with a faint trace of a hollow way detectable in the field at the foot of the slope, in between Sharpenhoe Clappers and the modern road (Fig. 5b). This alignment would match more truly to the continuing road, with the LiDAR giving evidence where Viatores concluded there was “no sign... apparent on that line” (1964, p. 295).

RR177 Tilsworth – Hexton

This route is recorded by Viatores running roughly east-west along the chalk escarpment, from Watling Street in the west, through Streatley (crossing 170b, above), joining the Icknield Way north of Lilley. Through the village of Upper Sundon part of the alignment can be seen in the LiDAR as hollows preserved amongst medieval earthworks. Around Streatley the route is less clear, with an array of banks representing possible courses eastwards to reach the Barton Hill Road. This landscape preserves well several possible B- and C-road routeways (not identified by Viatores) branching off RR177, including for example at the junction of RR177 with RR168, heading south to Lilley.

RR230 (a, b) Ashwell Street

This route runs north east from RR22 (the A1) near Baldock Services, Herts., via Ashwell, to the vicinity of Royston, Cambs., and is commonly known as Ashwell Street. It is interesting from the point of view that it is one of few routes that Viatores acknowledge may have prehistoric origins (after their re-evaluation of evidence from earlier researchers) (1964, p. 240). Viatores propose two possible routes, a more northerly, (a), and a more southerly, (b), running on different sides of the Iron Age hillfort of Arbury Banks. The LiDAR illustrates that both routes, or a combination, are possible, with banks, potential aggers, visible along both routes. The picture is made complicated by the good preservation of numerous lengths of bank in this region, some of which can be correlated with field boundaries marked on the tithe map for Ashwell, suggestive of medieval enclosed fields, although their small size and irregular enclosure lends the possibility that the system may be older.

“C-Roads”

None of the routes identified for this region by Margary and Viatores would likely be classified as “C-Roads”. In this group are an array of trackways or hollow-ways identified in the LiDAR data, predominantly in woodland, and some related to coaxial field systems or earthwork enclosures which are considered plausibly Roman in date (although based on the LiDAR data alone firm dating is impossible). The relative

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Roman Roads in the Chilterns region, continued

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paucity of known Roman rural settlement sites in the Chilterns, on account of low levels of modern (post-PPG16) development and the high proportion of woodland, puts us at an early stage in trying to understand the totality of the settlement patterns and route networks of the region. Two examples are presented here.

Kidmore End

A well-preserved example of a pair of trackways can be seen in Little College Wood, Kidmore End CP, Oxon. (Fig. 6). Surviving as a slight hollow between two banks, these trackways are dated as possibly Roman on account of the adjacent coaxial field system and nearby rectilinear enclosure in woodland called The Hocket. With only 250m or so preserved, it is difficult to identify a longer alignment or destination for either trackway.

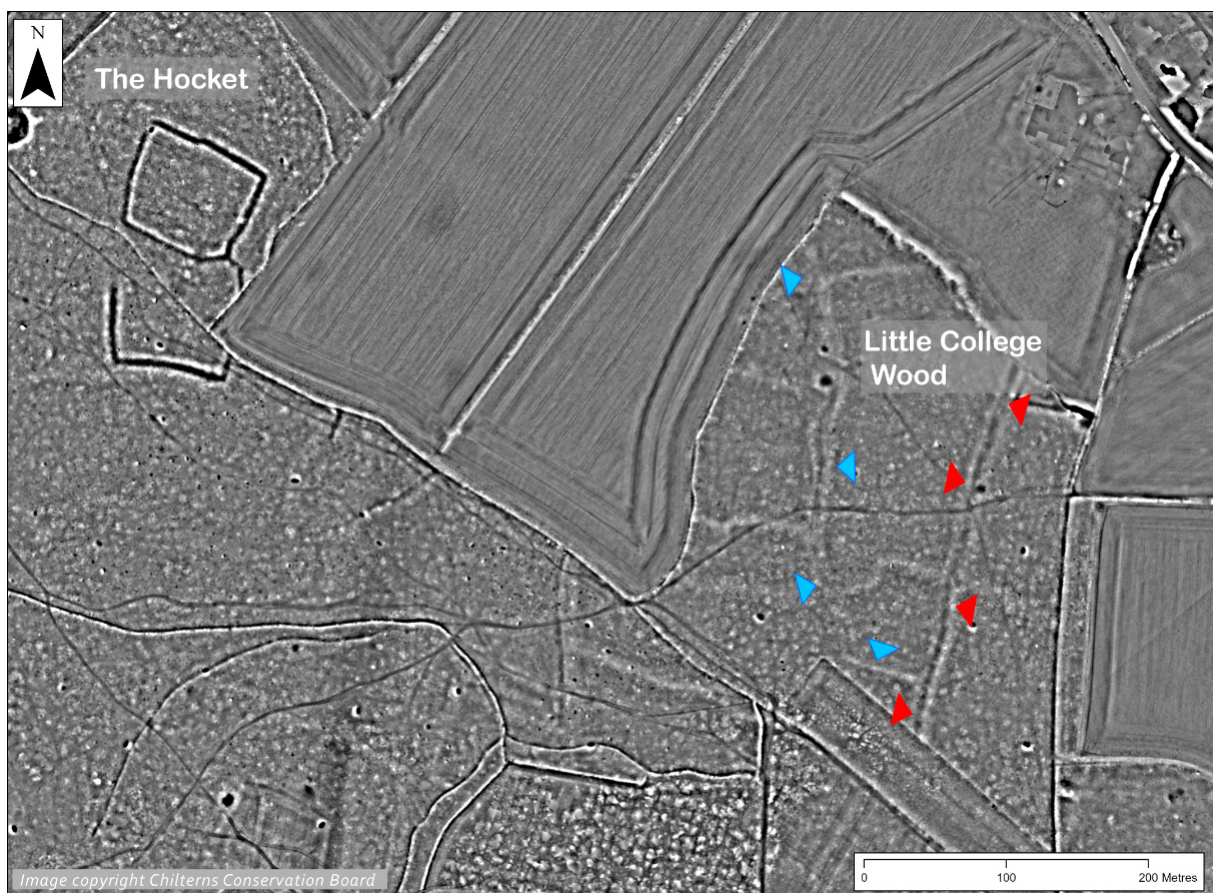


Fig. 6: A pair of trackways in Little College Wood, Kidmore End CP, Oxon., newly identified in the BotP LiDAR. These are tentatively dated as Roman on account of the surrounding coaxial field system and nearby, newly identified rectilinear enclosure (top left). Image copyright CCB.

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Roman Roads in the Chilterns region, continued

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Watlington Park

Another area with good preservation of similar hollowed trackways is in Greenfield Copse and Watlington Park, Watlington CP, Oxon. Here a length of hollowed trackway between two banks is visible in the LiDAR data running roughly east – west along the top of the escarpment, within a coaxial field system preserved in ancient woodland (Fig.7). A long branch of track is identifiable from a junction turning north, running down the escarpment, and continuing as a visible agger to the north-west through fields and into Watlington. A shorter branch is visible heading south from this junction, but cannot be traced beyond the Christmas Common road.

The total length of trackway visible here is about 1.5 km. They are identified here as C-roads since their destinations are unclear, they are associated simply with field systems, and they lack the prototypical features of Roman roads. However, it is

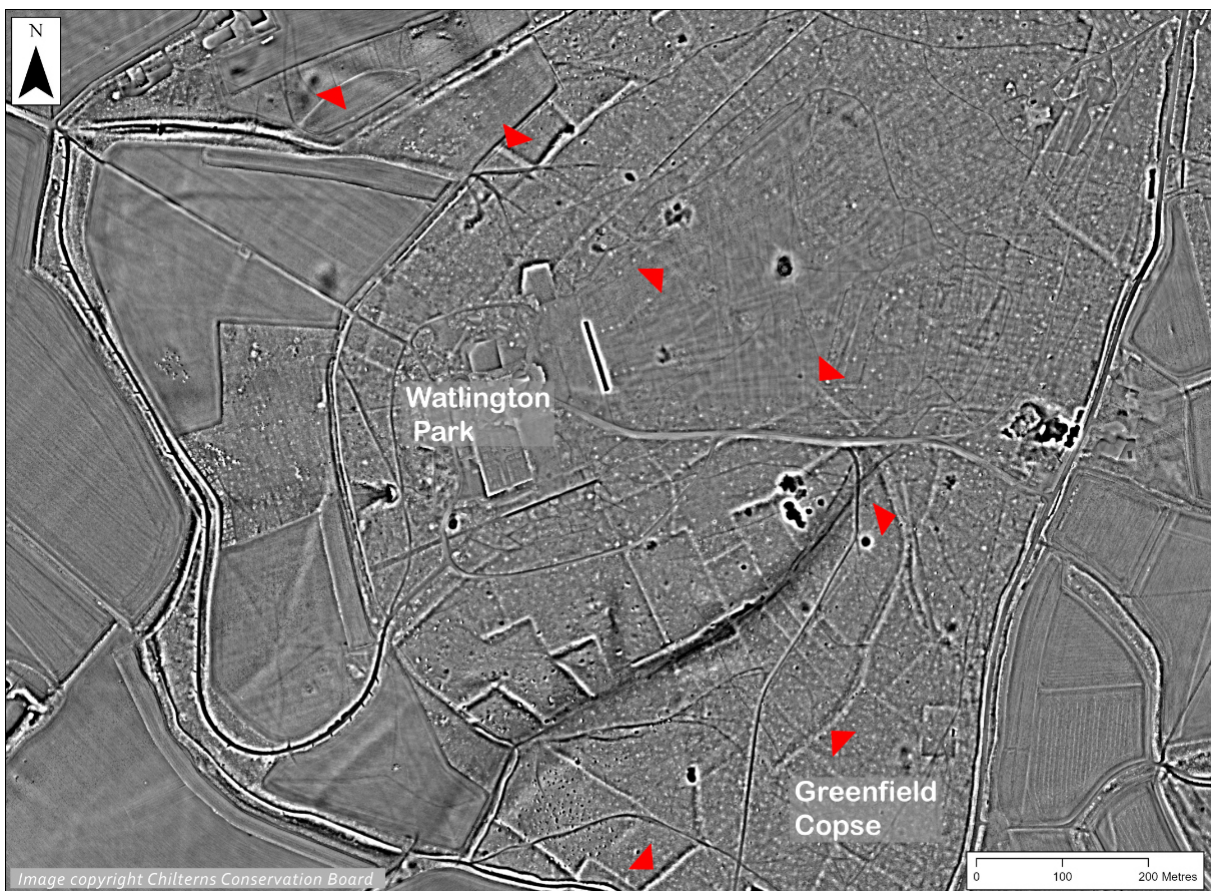


Fig. 7: Trackways in Greenfield Copse and Watlington Park, Watlington CP, Oxon. The length running north west – south east may form part of a ridge route, whilst that turning north west, appearing as a well-built agger, may be a more major route than first thought. Image copyright CCB.

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Roman Roads in the Chilterns region, continued

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plausible that both the route along the top of the escarpment and that heading north west into the Thame valley may be longer distance routes, i.e. B-roads. The former may be part of a long-hypothesised “ridgeway,” and the latter might tentatively be traced running through Watlington becoming Brook Street and the Cuxham Road.

Conclusions

High-resolution LiDAR acquired over the Chilterns has created opportunity for re-appraisal of the Roman route networks of the region. It has allowed the precise routes of the established major roads, “A-Roads” in our study, to be queried and checked, with a new segment of RR163 a particularly exciting find. In two cases examples have been presented where this survey challenges detailed elements of these routes, demonstrating that caution needs to be taken in accepting the Viatores- or Margary-documented routes, and in relying wholeheartedly on LiDAR alone.

The LiDAR has offered a clearer perspective on the lesser roads documented by Viatores and Margary, our “B-Roads”. These do not generally show especially distinctive characteristics of “Roman roads;” many are covered by medieval and modern minor routes, and thus are generally difficult to identify with confidence. It is likely that there remains a more comprehensive network of such roads still to be identified.

A particular strength of the LiDAR lies in its ability to reveal very minor routes, our “C-Roads” linking rural settlements and agricultural landscapes, particularly given the unexpected identification of a dense pattern of coaxial field systems across the region, preserved in woodland. Fieldwork is certainly needed to attempt to date many of these routes and their associated field systems more closely, and with that we might hope to learn significant new details about the organisation of this landscape through the Later Prehistoric and Roman period.

The tripartite hierarchy of routes suggested here is used as an heuristic tool rather than a Romano-British framework of route planning and construction. However, we feel it has value in ensuring researchers consider the full array of route types that may have existed, the variation that may be seen within what are documented as “Roman roads,” and that it can contribute to a fuller understanding of control, mobility, and use of the Romano-British landscape.

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RRRA Projects, update

RR732(x), Bainbridge northwards, to Bowes

By Gary Whitaker

RR732(x) is the Roman road linking Bainbridge (*Virosidum*) in North Yorkshire to either Bowes (*Lavatris*) or Greta Bridge. This road has been known about since 1717 but the most northerly segment and hence its destination has never been traced. In 2012 Hugh Toller established the southern segment of this road with the use of LiDAR. Unfortunately, LiDAR coverage did not reach further north than Stang Side as discussed by Mike Haken in the RRRA gazetteer of Yorkshire (Haken, 2018). <http://roadsofromanbritain.org/gazetteer/yorkshire/rr732.html>

In Spring of 2020 Defra released more LiDAR data and luckily for us this did cover the area from Stang Side to both Bowes and Greta Bridge. It did not take long to find four



Fig. 1, Overall LiDAR view from Stang side to Bowes, segments of road shown within a white corridor. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

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RR732(x), Bainbridge northwards, to Bowes, continued

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good segments of road leading to the east of Bowes, approximately where the east vicus would have ended. These LiDAR segment can be seen marked in red in Fig. 1.

Filling in the gaps between visible LiDAR segments we can plot a proposed route. This has been done in Fig. 2. The proposed route is quite direct up to the east of Bowes with a deviation in the middle to avoid a hill which has a very steep descent on its north face. The solid white lines show the location of the road visible by LiDAR. The dotted white line show the proposed route where there is little or no LiDAR evidence. The four LiDAR segments have been labelled so we can examine them one at a time.

LiDAR Segment 1

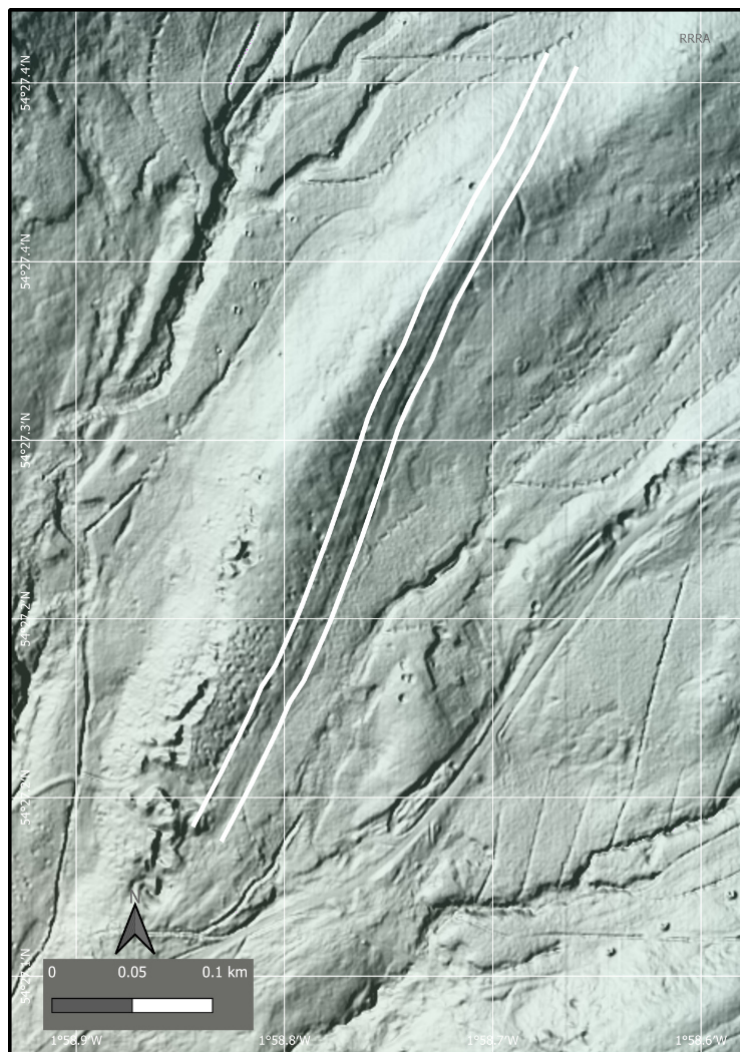


Fig. 2, LiDAR view of segment of road shown within a white corridor climbing out of Stang side deviating from modern road. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

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RR732(x), Bainbridge northwards, to Bowes, continued

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Fig. 3, Drainage channel cut across the road showing elements of its construction, stick set at 1metre length

In Fig. 2 you can clearly see the proposed Roman road leaving Stang Lane in a NNE direction. This segment of road is so visible it can be seen on normal satellite-based maps. This proposed segment has been walked by members of the RRRA a number of years ago. It was decided then that this was probably not Roman. But in light of the discovery of the other segments of road that link to this and make a connection directly with Bowes it was decided that another look might be a good idea.

In May 2020 a small team went to explore Segment 1. Parking in the small layby visible at the bottom left of Fig. 2 they headed NNE. Not far north from the layby you can see a drainage channel dug about a 1m deep. Within this channel a surface can be clearly seen, see figure 3.

For reference the walking stick is set to 1m long. The metallised surface was constructed of small stones set in a hard substrate and was very distinct from the surrounding ground.

Continuing NNE the road was easily found. It was 5.5m wide with ditches to the side and edge in large stones. The soil depth in the middle of the road was 10cm deep and curved off the edge of the road to a depth of 15-20cm which is exactly what we would

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RR732(x), Bainbridge northwards, to Bowes, continued

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Fig. 4, Above, agger and side ditch of road in segment 1 is clear climbing north out of Stang.

Fig. 5, Left, Kerbstones visible in segment 1.



expect if it were indeed Roman. The entire segment as seen in the LiDAR result was walked and these results were consistent for the whole length.

In Fig. 4 the left edge and ditch of the road can be seen. The walking stick again is set to 1m for reference.

In Fig 5 the stone kerbing of the road is visible.

Based on the evidence found while field walking and the alignment to the other LiDAR segments, this segment does appear to be Roman.

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RR732(x), Bainbridge northwards, to Bowes, continued

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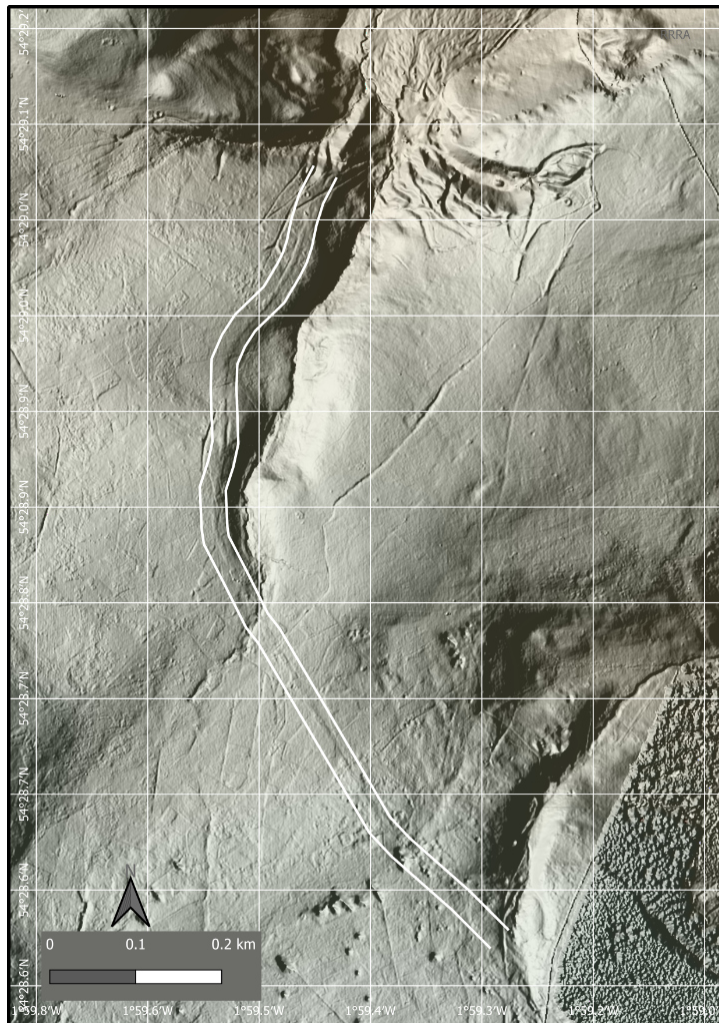


Fig. 6, LiDAR view of segment 2 of road shown within a white corridor starting the descent towards the River Greta. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

LiDAR segment 2

In Fig. 6 the road can be clearly seen coming out of the woods in the bottom right heading NNW where it then turns north curling around the west edge of the valley and then drops down to a lower level. This segment cleverly keeps to the higher ground avoiding crossing narrow and steep stream valleys skirting around in what at first appears to be a curved route but is probably a series of short straights.

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RR732(x), Bainbridge northwards, to Bowes, continued

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Fig. 7, Road crossing the moor towards Bowes, the road is just to the left of the middle sheep in this image



Fig. 8, Remains of the road crossing a small beck alongside a modern track

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RR732(x), Bainbridge northwards, to Bowes, continued

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This segment was also walked by the same team as investigated LiDAR segment 1. On the ground this road was harder to initially locate but once found it was easy to follow.

Again the road measured 5-6m wide but the ditches were harder to find so this is not a very accurate measurement. The soil above the road was once again measured to



Fig. 9, Following the road around the left hand side of the valley more edging stones became visible with the help of a little demossing

be 10cm and falling off to 15-20cm at the edges.

In Fig. 8, the road can be seen crossing a beck. A modern track also crosses alongside at this point. Beneath and all around the area of this modern crossing evidence of an earlier one can be seen.

LiDAR segment 3

At the northern end of LiDAR segment 2 the road descends into the valley avoiding a cliff. Quarrying rubble now lays on top of the road but when the rubble layer ends the road is once again visible. Fig. 10 shows the road appearing bottom middle just after the beck which marks the edge of the quarry waste. The road starts NNE and then circles around the edge of the hill to an NNW direction.

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RR732(x), Bainbridge northwards, to Bowes, continued

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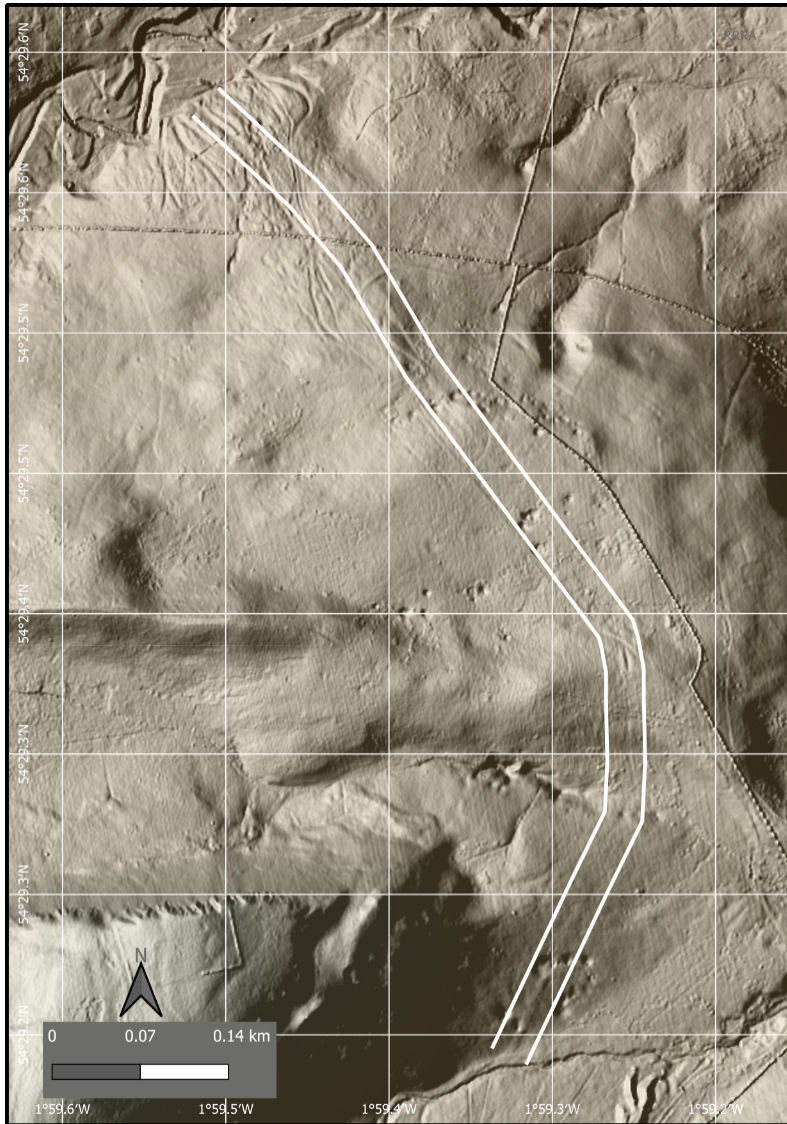


Fig. 10, LiDAR view of the road segment 3 shown within a white corridor emerging from the quarry and aligning towards Bowes, Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

The large hill and cliff, bottom left, has been avoided with an alignment that is now directly towards Bowes. This segment has not yet been walked.

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RR732(x), Bainbridge northwards, to Bowes, continued

Continued from page 42

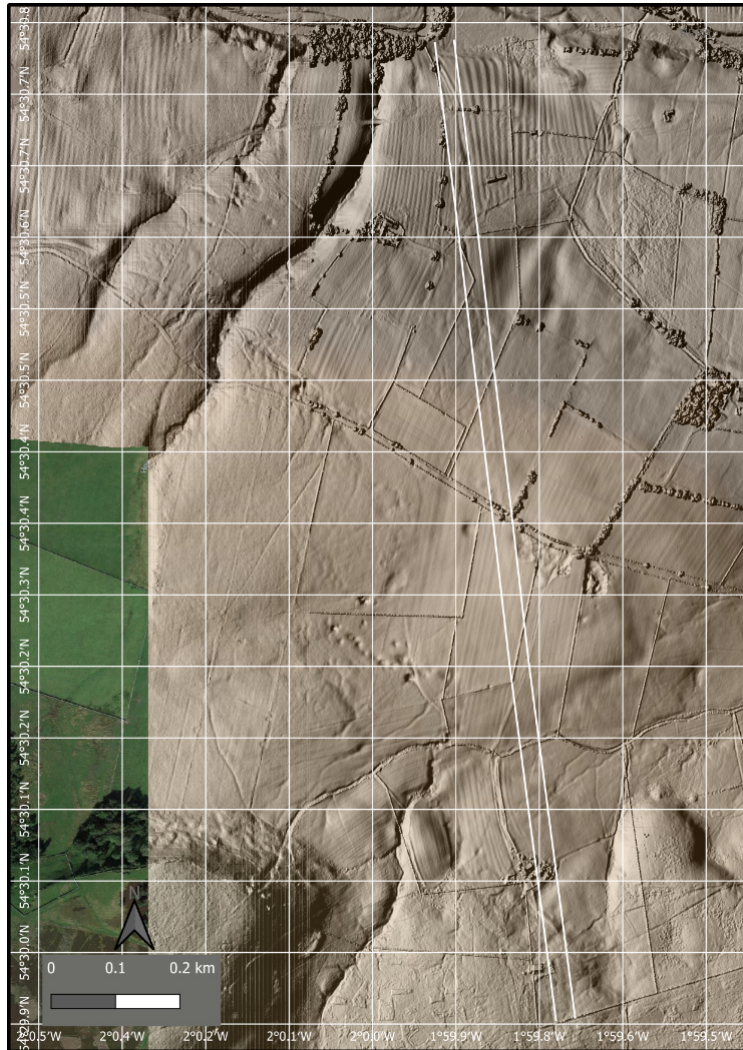


Fig. 11, LiDAR view of segment 4 of the road shown within a white corridor on the run down towards the River Greta. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

LiDAR segment 4

Following NNW from the end of LiDAR segment 3 the road crosses another beck and then becomes visible in field heading towards to river Greta, Fig. 11.

The road approaches the river Greta to the east of the Bowes fort probably at the end of the Vicus, just like it does when it leaves the fort at Bainbridge. This can be further confirmed as during this research into the RR732(x) the end of the RR820 was also

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RR732(x), Bainbridge northwards, to Bowes, continued

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Fig. 11, LiDAR view of roads to the east of Bowes, RR732(x) and RR820 within a white corridors converging on a similar point at the River Greta. RR82 (modern A66) shown in red. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

spotted crossing fields and meeting the RR82 in a similar location to the east of Bowes. Fig. 12. For a report on the finding of this segment of RR820 please refer to the August 2020 No 15 Newsletter [available here](#).

Greta Bridge

Research was also conducted to investigate if RR732(x) also branched to Greta Bridge fort. No strong evidence could be found on LiDAR to indicate such a road. Given that the Greta Bridge fort is generally thought to have been built much later than that of Bowes and it could appear to have a less strategic importance, maybe RR732(x) only had one point of termination, that being Bowes. We will keep looking though.

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RR732(x), Bainbridge northwards, to Bowes, continued

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Conclusion

It would appear that we now have a very good idea of the entire route of the RR732(x). This still needs excavating to be 100% sure, which which the RRRA is hoping to undertake in the coming year or two. There are still questions to be answered as to when it was built and why. So still plenty for us to look forward too.

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RRRA Projects, update

Roman Roads in East Anglia ;

A LiDAR Reappraisal - Part 4, The Roads around Colchester

By David Ratledge davidr@deep-sky.co.uk

Introduction

In the last issue we looked at some the recent updates to the Roman roads in Suffolk. This time will be in Essex and look at the roads around Colchester, the Roman Camulodunum. Originally it was to be the capital of Roman Britain and is often claimed to be Britain's first city. *Camulodunum* - the 'Fortress of the War God Camulos', was laid waste by Boudica but was rebuilt with town walls, impressive town houses with under floor heating and fine decorated mosaic floors, no less than 3 theatres and the only Roman chariot-racing Circus in the country. It was therefore bound to be the centre of an impressive, if somewhat complicated, road system. Thanks are due to Geoff Lunn and the Roman Road Team at Colchester Archaeology Group for their advice – there is no substitute for local knowledge.

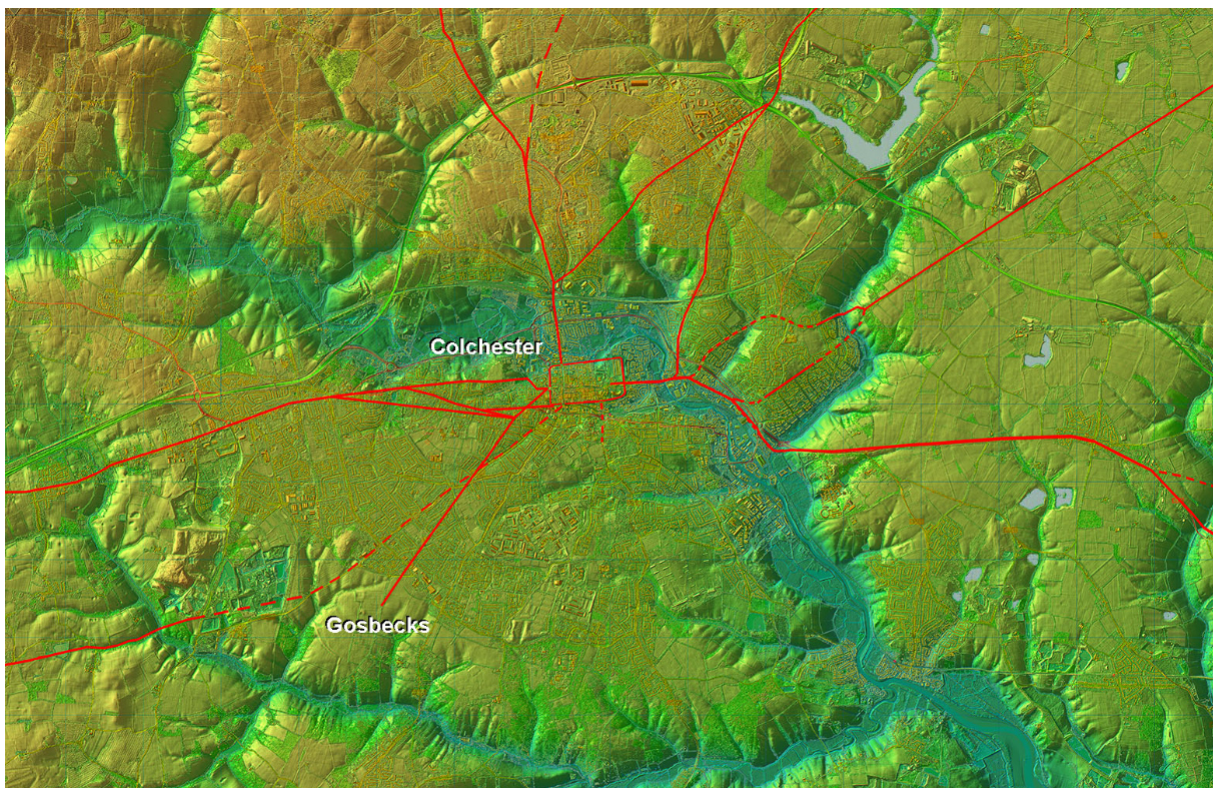


Fig. 1: The Roman Road network around Colchester compiled following a LiDAR reappraisal. Gosbecks was the site of the pre-Roman tribal capital of south eastern Britain but continued into the Roman period. South-west of the city walls was a complex arrangement of roads. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

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Roman Roads in East Anglia; continued

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Colchester to Lawford (Mistley?) and Harwich

These roads were covered in part 2 but there have been some developments to report. Starting at the Colchester end then the logical and shortest route to join the main alignment to Lawford would have been via the modern Harwich Road (A137) and then Bromley Road (left option in figure 2).

I think this is still perhaps the favourite but I noticed a very agger-like feature at Greenstead - the red arrow in figure 2 and the white arrow in figure 3. In the first (south field) it does look very convincing but is unfortunately disturbed in the second field – by perhaps a drain or sewer? This route is a bit longer but it does look like a Roman road.

I suspect there is also a road south-east from Colchester possibly to St Osyth and the Greenstead road could then be a branch off it (see later). This could explain the slightly longer route. The first (common) mile could have already been constructed.

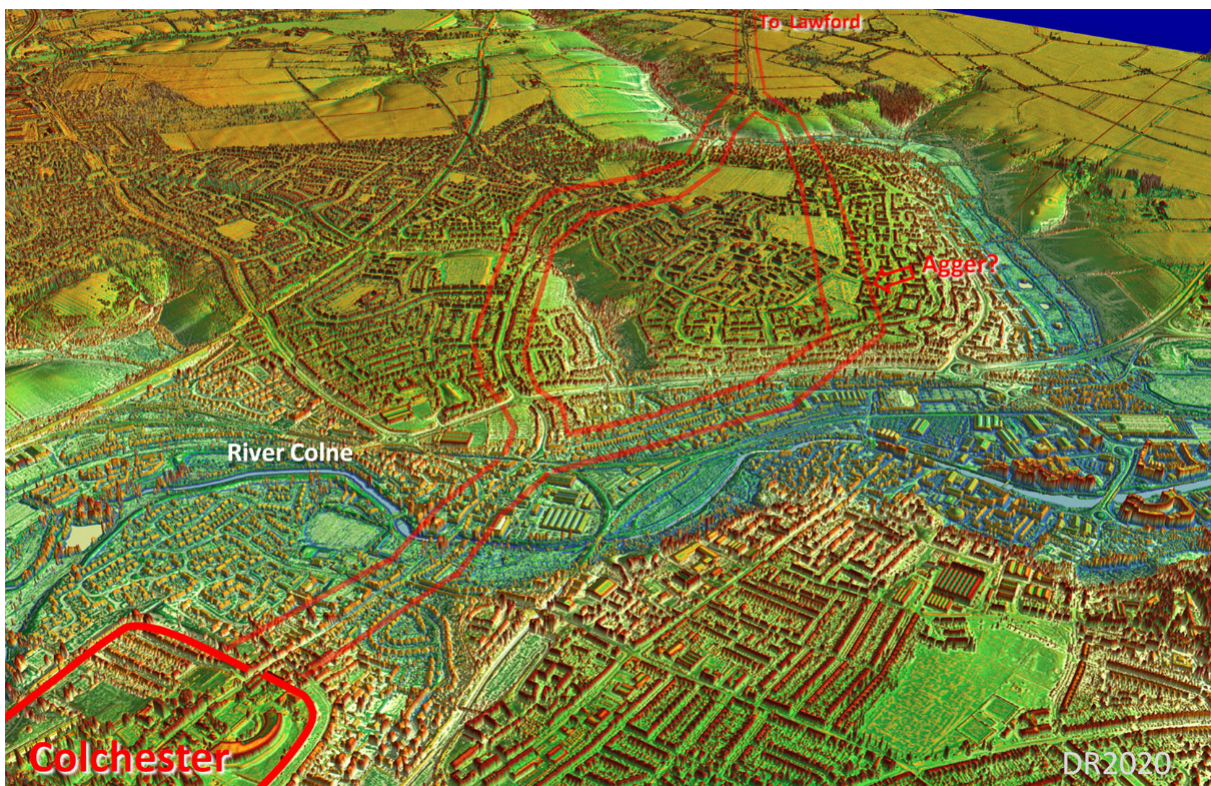


Fig. 2 Oblique 3D LiDAR view north-east from Colchester. My original assumption for the road to Lawford was the left option, it is the shorter. However, the agger spotted at Greenstead (red arrow) certainly is persuasive. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

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Roman Roads in East Anglia; continued

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Fig. 3 Oblique 3D LiDAR image looking along the agger(?) at Greenstead. Its direction is towards a small valley which would make the climb easier. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

It could also be that both routes existed so still a puzzle but Geoff Lunn and the Roman Road Team are on the case!

The other end of the road at Lawford is perhaps still not certain. The definite LiDAR traces run out at Lawford House. Logically it must have continued to the Stour Estuary. Mistley is often suggested and the Via Mistley Roman Road Group have some very persuasive aerial photographs of it continuing past Mistley Hall. Strangely LiDAR shows absolutely nothing for this but I have come across this before when a road has been ploughed out. All that is left are traces of the ditches in aerial photographs.

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Roman Roads in East Anglia; continued

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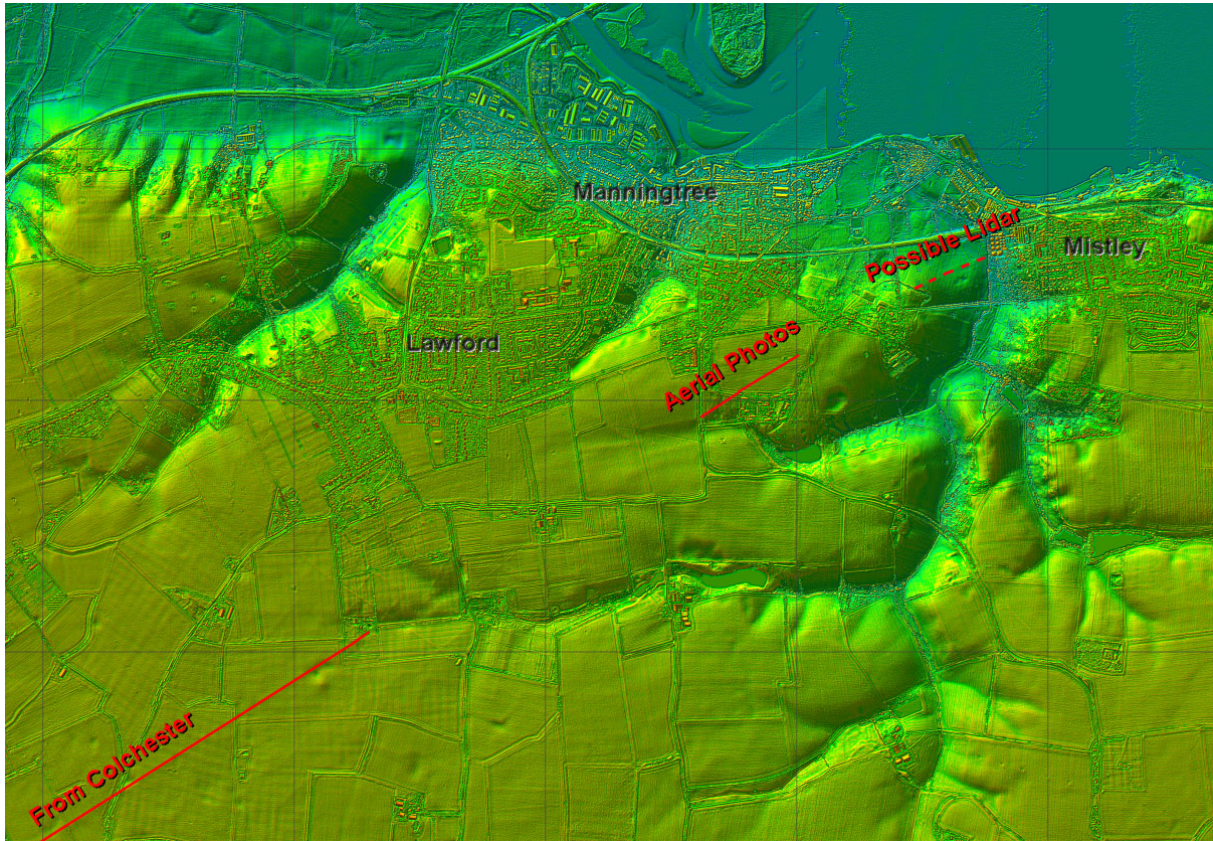


Fig. 4: The extension to Mistley based on aerial photographs and a possible agger visible in the LiDAR data. Nothing being visible in the gap is a little worrying though. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

So best guess is it probably headed for a port on the Stour Estuary near Mistley (figure 4).

Link Road to Colchester's North Gate

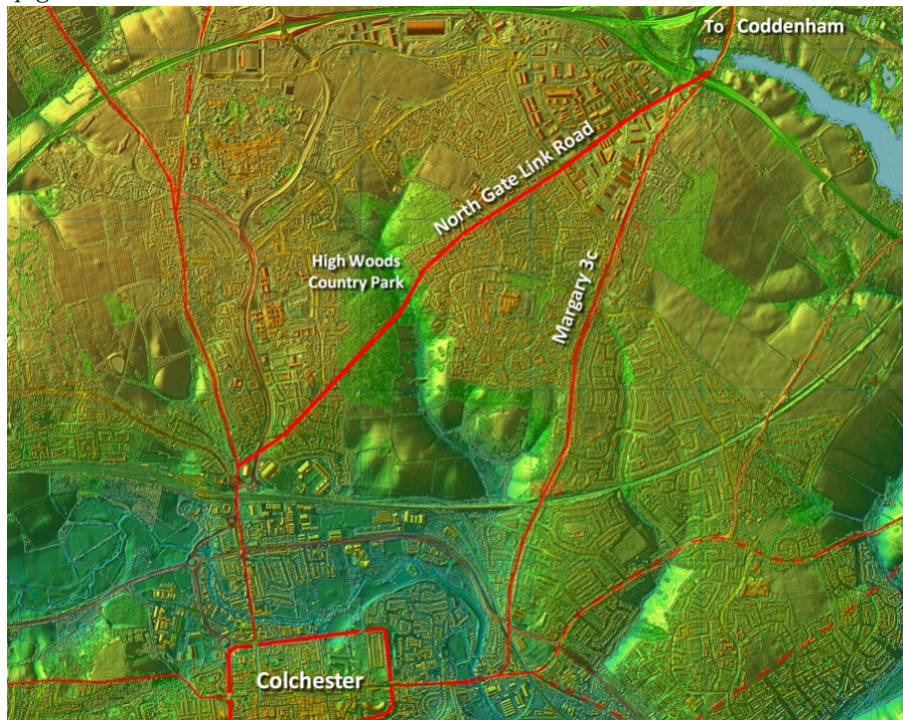
This appears to be a branch off the Coddendam to Colchester road (Margary RR3c) heading to Colchester's north gate rather than its east gate. I am a bit worried about this road. It is so blatantly obvious but why has it not been suggested before? It would provide an approach to Colchester using a different bridge over the River Colne.

The road is clearest across High Woods Country Park – in fact the cuttings are so massive I wonder if this is the original Margary RR3c? Old roads on the OS first edition maps line up with the High Woods stretch so it all fits together (figures 5 & 6).

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Roman Roads in East Anglia; continued

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Figs. 5 & 6: The full route of the link road (above) and a LiDAR DTM of it crossing High Woods (below). Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

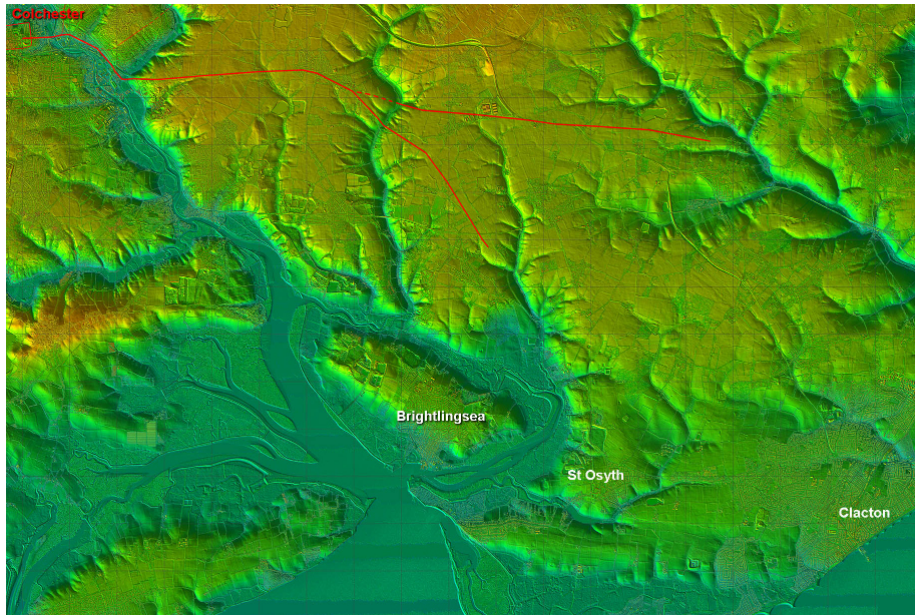


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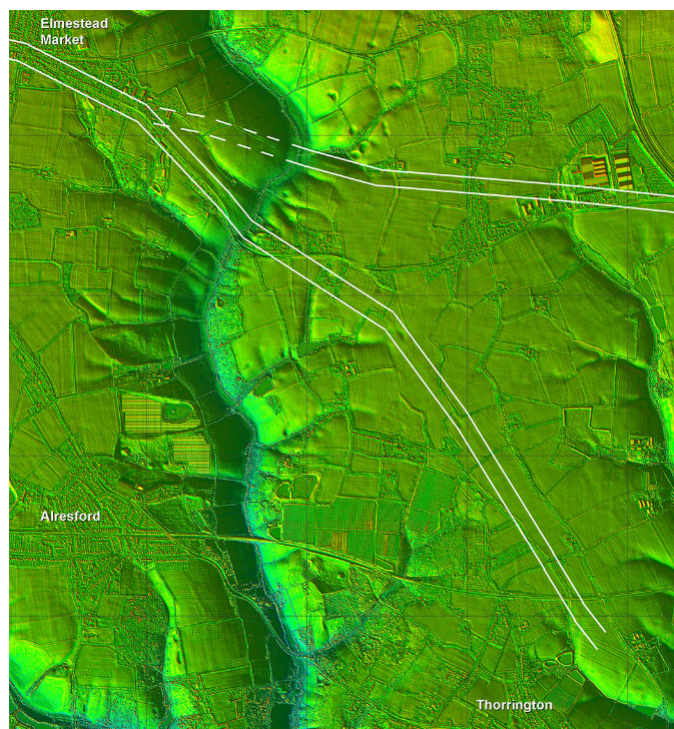
Roman Roads in East Anglia; continued

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The Roman Road(s) from Colchester to the South-East



Figs. 7 & 8: LiDAR images of the possible routes but with unknown destinations. For the southern route then the LiDAR evidence looks real but runs out approaching Thorrington. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.



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Roman Roads in East Anglia; continued

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Perhaps reasonable confidence in that there were two roads heading to the south-east from Colchester. However in both cases their destinations are unknown. The LiDAR clues simply run out. For the more southerly then there is some support with Roman finds at Brightlingsea and possible villa sites around St Osyth. The direction of this branch perhaps aims more for St Osyth than Brightlingsea but this is getting speculative. For the easterly heading branch then its destination is even more vague (figure 7).

What is likely is that the sheer importance of Colchester in Roman times would have been a magnet with roads heading for the city from all directions. Many would have been just local ones bringing in people and goods from the surrounding settlements, farms and villas. These two possible roads could well fall into that category.

Colchester to Gosbecks, Margary RR320

Considerable doubt as to whether this road actually exists. Margary included it (RR320), Kemble (after Going) showed it on his map, the Ordnance Survey list it as

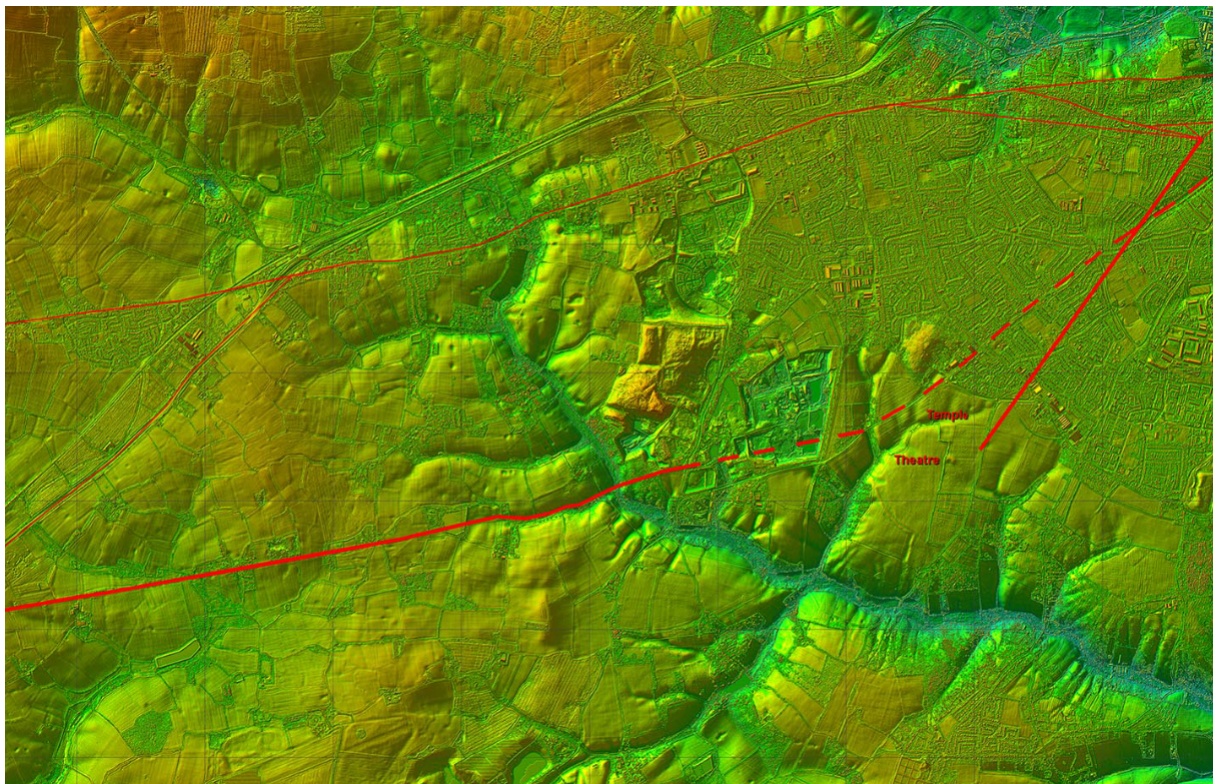


Fig. 9: It would seem that the intention of this road was to connect Gosbecks to both Colchester and south to Chelmsford and ultimately London. The second road to Gosbecks is also shown. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

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Roman Roads in East Anglia; continued

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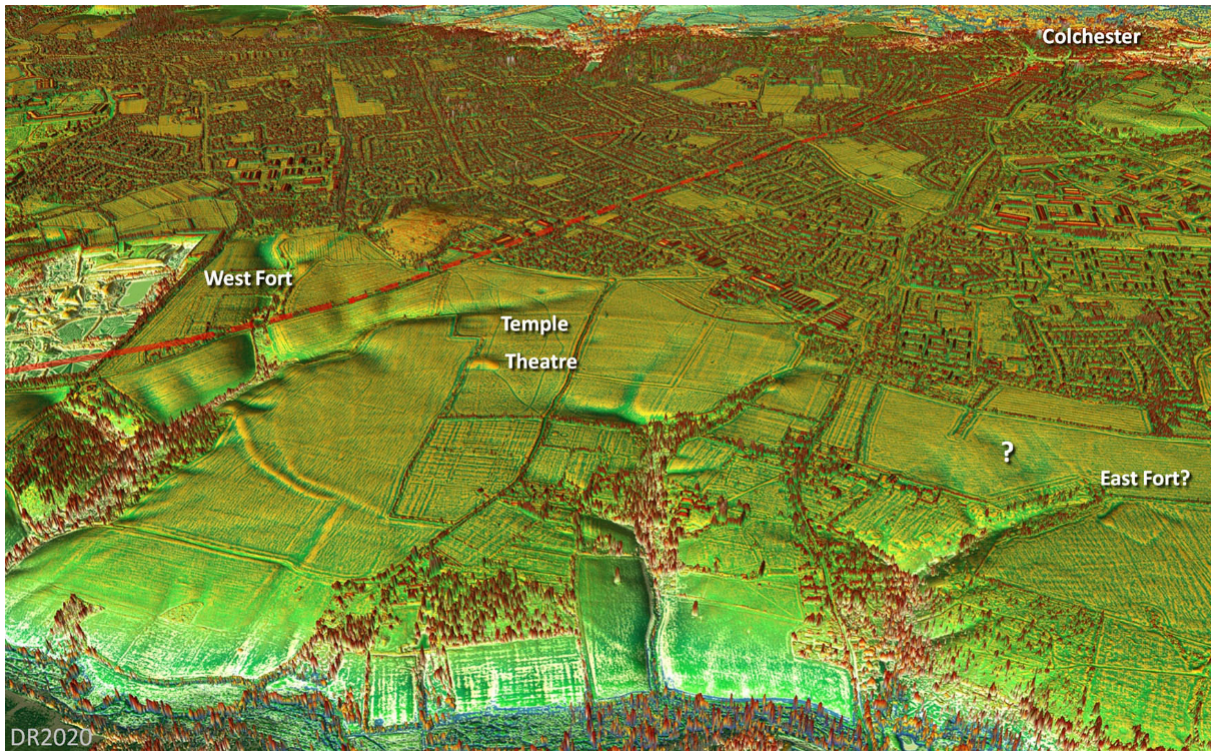


Fig. 10 : The Gosbecks Site – it was clearly of major importance with a theatre and temple plus what appears to be 2 flanking forts. The local road does not show at all in the LiDAR. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.

"Roman Road" at Easthorpe and the Colchester HER has a suspected stretch recorded near the Roman River. It does look very obvious and logical plus Malden Road, which it is assumed to follow, is aligned on Colchester's south gate.

Gosbecks lies to the south-west of Colchester and is believed to be the pre-Roman tribal capital of south eastern Britain. It continued into Roman times with a temple and theatre of its own. Such an important site needed to be connected into the Roman road system and Margary RR320 would fit well. However, it also had another road in from Colchester - see figure 9. The latter does not show in the LiDAR imagery (figure 10) so the assumption is that it was a less substantial local road and tracing it with LiDAR has not proved possible.

Having passed the Gosbecks site, Margary RR320 turns more westerly but is lost for a short length in quarries. Some evidence resumes at Roman River - an apt name if ever there was one – and its straight alignment continues through Easthorpe to join the main road to Chelmsford and London, north of Kelvedon.

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Roman Roads in East Anglia; continued

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Stane Street (Colchester west), Margary RR32



Fig. 11; The famous Balcerne Gate. Creative Commons Image licensed under CC BY-SA 2.0.

Essex has its own Stane Street. This one runs west from Colchester via Braintree and Great Dunmow to Braughing in Herefordshire, where it meets up with Ermine Street. Oddly perhaps this appears to be the earliest road to Colchester as the road in from London looks to be a branch off Stane Street at Marks Tey. So did Ermine Street pre-date Colchester?

The Balcerne Gate was obviously the main entrance to the city and was meant to impress but Stane Street was not aligned directly on it. There is a valley west of the gate so perhaps the road had to keep to higher ground but nevertheless its approach is still odd (figure 12). One solution would be that Stane Street was aligned on an earlier entrance further north (pre Boudica?) and needed a dog-leg when (the later) Balcerne Gate was constructed.

The southern routes seem to aim for the south side of the city - was this the tradesman's entrance? The Colchester HER has a complex road junction at the Royal Grammar School (figure 13). These presumably were local roads serving some important location i.e. a forum/market?

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Roman Roads in East Anglia; continued

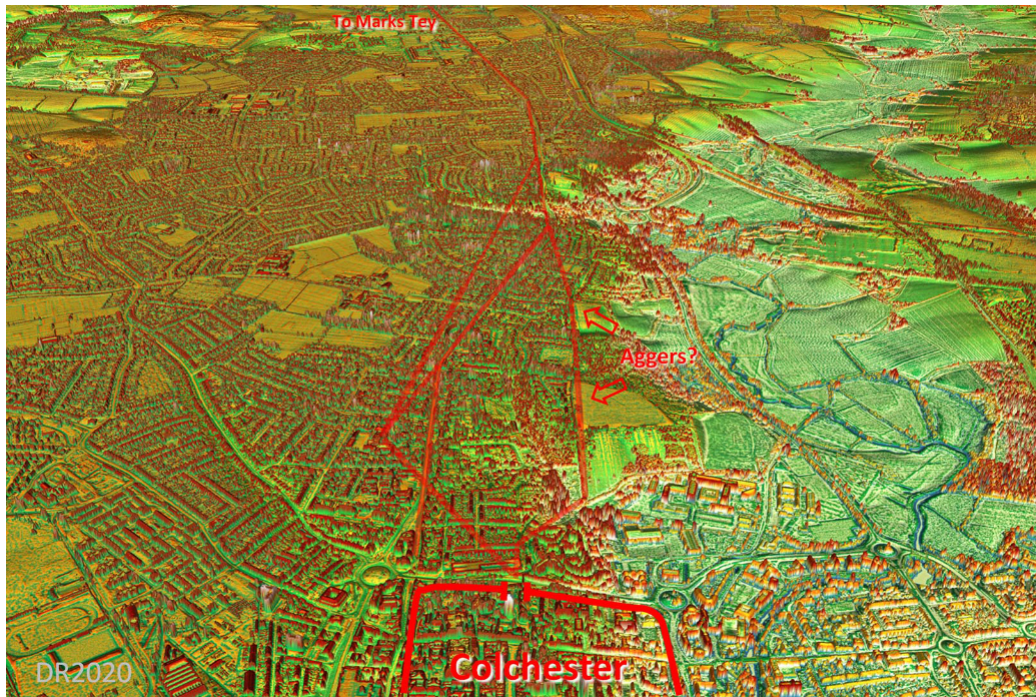
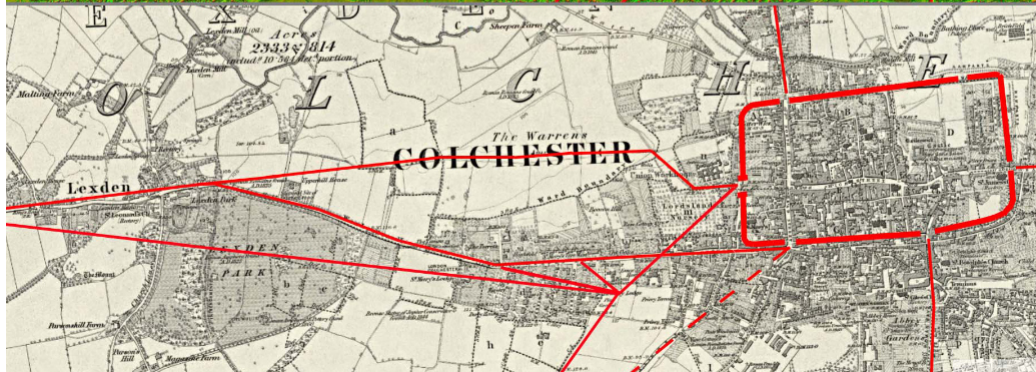
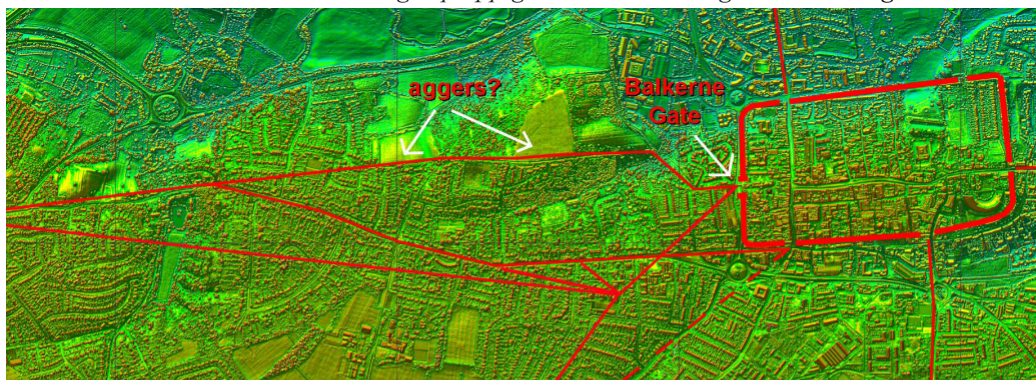


Fig. 12: Above. Oblique 3D LiDAR view looking west from the Balkerne Gate. Was the alignment of the direct road from Ermine Street via Marks Tey laid out before the Balkerne Gate was constructed? It appears to have been set out well to the right (north) of the Balkerne Gate.. Fig. 13: Below. What a complicated road system! The northern road shown here is not recorded in the Colchester HER but it is a logical extension of the known road coming in from the west via Marks Tey. There are two agger-like features to lend some support to this. Lidar data © Environment Agency copyright and/or database right 2020. All Rights reserved.



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Roman Roads in East Anglia; continued

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Colchester North, Margary RR322

Very much a puzzle. Margary takes it to Long Melford but with very little firm evidence. At Great Horkesley (3 miles north of Colchester) this road is marked as "Roman Road" on modern OS maps. Clues run out at the River Stour crossing short of Nayland and so far nothing on the north bank has been spotted for its continuation onwards to Long Melford. The possibility is, of course, that it could just have been a local road but more work is needed to decide.

Conclusion

What we have looked at is just the main roads but clearly there were many local roads too. So the story of Colchester's Roman roads is far from complete. Does Margary RR320 exist? Geoff Lunn and Colchester Roman Roads Team are going to be busy for many years to come.

The plan for next time is that we will look at some of the "new" roads in Essex.