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NEWSLETTER

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

FROM THE (TEMPORARY) EDITOR

Welcome to our latest Newsletter; Mike is currently unwell so I've stepped in to collate this edition. As always we hope that you find it both interesting and informative. We have exciting news from the team using our geophysics equipment and a request for you, the members, to get it deployed onto the areas you are researching. In addition I can inform you that the material for the Gazetteer of County Durham has been delivered to Mike for uploading and that Neil Buckley is about to start on the Gazetteer work for Derbyshire. With Mike's coaching, Neil Buckley and myself have been writing a User Guidance Manual for QGIS mapping including lidar, scheduled to be released to members soon.

It is with sadness that we have to inform you of the recent death of member Colin Sudlow of Somerset after a long struggle against lung cancer. Our sympathies are with Colin's widow, Sandra, who shared his interest in all things Roman.

Whilst in theory the newsletter is quarterly, we are conscious that it's been quite a while since the last one. We **are** trying to improve on this. Contributions, large or small, for future newsletters do help in this - the editor has to respond to growing material! And on that front thank you for the material in this issue, a strong input from the south west showing that we're not totally northern-centric! If you have anything of interest and related to Roman roads, send it in, either to mike@romanroads.org or to me, membership secretary Dave Armstrong dave.armstrong@romanroads.org, or preferably both!

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Roman Roads in the South West of England

Stratford Lane Roman Road 540 extended towards the 'enigmatic' Trajectus

From Tim Richards

tim.richards@terrasulis.org

In 1906 Haverfield suggested that Stratford Lane Roman Road existed on the northern slopes of the Mendips and in the 1950s Margary thought that it continued as a minor branch road to Hollowbrook and probably onwards through Pensford to Keynsham on the River Avon. The purpose of the road may have been to transport lead from Charterhouse-on-Mendip to Keynsham and beyond. The excavations prior to the flooding of Chew Valley Lake proved its existence but only so far as Hollowbrook near the, so called, Gold's Cross Roman villa site. The road does appear on some maps as a dead straight line, but whether you accept that it carries on to the Avon depends on who you read. Rahtz and Greenfield who excavated at the Chew Valley Lake in the 1950s say it does not continue but others have argued that logically it has to, but with little tangible evidence.

Well, according to [Mike Bishop's excellent online atlas](#) Margary's 540 goes pretty much through my back garden and I haven't noticed it, not that I have been looking for a Roman Road. What has bothered me though for the past twenty years or more is a steep field 250 metres to the south that I walk though on a regular basis towards Pensford. It has a couple of bell pits and hints of a diagonal trackway that just seems a bit odd. The bell pits and trackway could well be associated, perhaps it is 18th Century and something to do with the Stanton Wick glassworks, or perhaps it was associated with the 19th Century coal mine that was just nearby? These are somehow unconvincing

explanations. My neighbour tends to walk in the opposite direction towards Hollowbrook, there is no track but the footpaths lead straight there along the field boundaries. We compare notes. The grain of the landscape takes us in opposite linear directions through two rather different landscapes, one of tight hilly ridges covered in coal pits with a cross-field track; the other more open and, at the end, with an expansive view of the Mendips. Conveniently there are pubs at either end.

Being a GIS specialist and living in Stanton Drew one has to obsess about stone circles and stare for hours at Environment Agency LiDAR data hoping to 'find' something. Nothing much turns up despite much staring. The trackway and bell pits in the field are completely obvious on LiDAR and the coal industry in the area is reasonably well known, it must be just part of the early industrial coal heritage. However, after a visit to friends on Mendip a bell went off, might the trackway, despite a huge gap, be a continuation of the known section of Stratford Lane Roman Road on the south side of the Chew Valley Lake?

Heavy ploughing and hedgerow removal hasn't left much but starting from the confirmed location of RR-540 at Hollowbrook a series of existing and former field boundaries can be followed that are aligned on Stratford Lane and which cut across the hill slopes. Not nearly so obvious as near Mendip it is however possible to trace a series of linear sections between Hollowbrook and Tarnwell that is in close but not perfect alignment with the supposed straight line route of RR-540. Some field names such as *Stratfords Orchard*, *Twinway* and *Wick Mead* lend support to roadway and Roman associations.



Well preserved terrace leading down to a brook between Tarnwell and Pensford

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Roman roads in the SW continued....

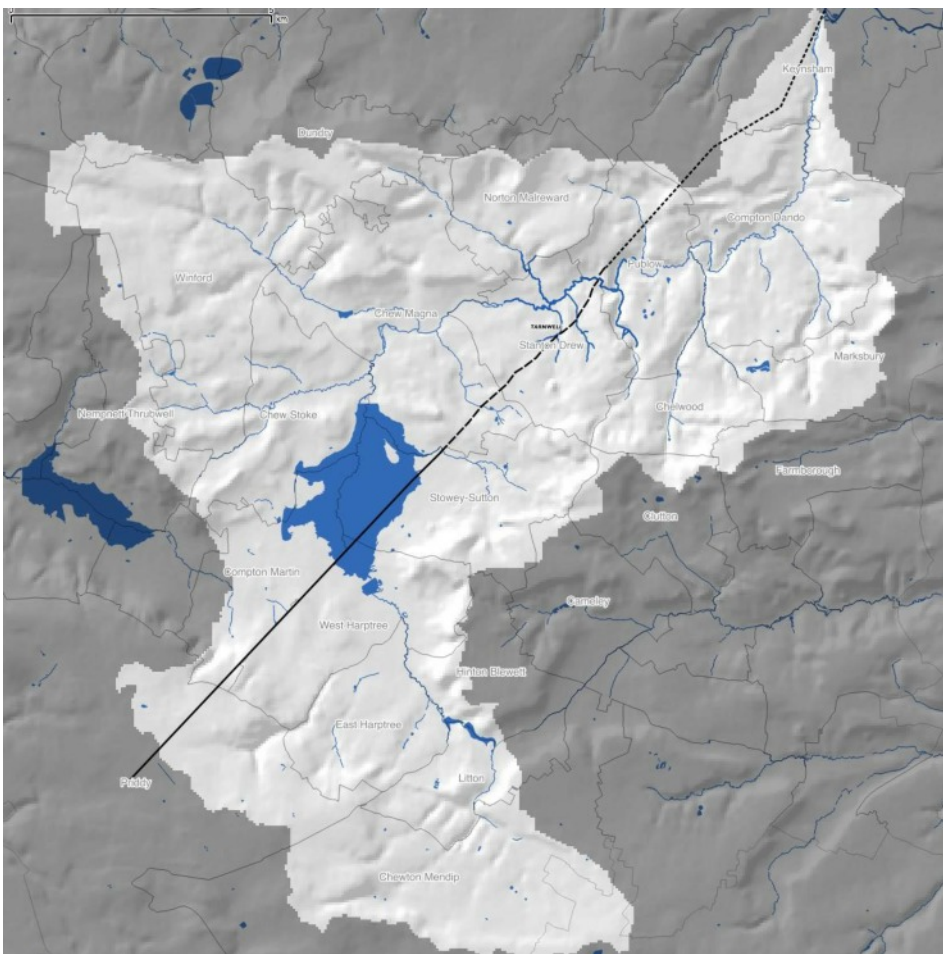
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At Tarnwell something happens, both the landscape and the nature of the evidence changes. Rather than being fossilised into the field boundaries the route now cuts across the existing field system and is suddenly visible in the LiDAR. Again the field names give a clue, *Breens Park, The Down, The Frith* all point towards a non-arable landscape that hasn't been so intensively ploughed, which was perhaps enclosed more recently and where vestiges of RR-540 still remain.

The Stanton Drew stone circles show clearly that hard artefacts can persist in the landscape for millennia and the same is true of course of Roman roads, given the chance. There are two significant brooks that the road crosses and at one there is a well preserved undisturbed terrace cut into the hillside to bring the route down to the brook crossing. A good location for direct investigation.

The route then directly passes an old mine working composed of numerous small closely spaced pits uncharacteristic of the ones mentioned above, raising the intriguing question as to whether the Romans might have been mining and transporting coal from this locality as well as lead from Mendip? Coal outcrops here close to or at the surface.

Finally the route arrives at the River Chew between Pensford and Belluton where there must have been a crossing. Having veered off the direct linear route by about 250 metres this location is now back on the direct linear projection of Statford Lane. This slight diversion has kept the precise route of the road hidden and appears to prove the logic that the route must exist.



The Chew Valley catchment showing the accepted route of RR-540 (solid), the previously unidentified section (dashed) and to be explored (dotted).

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Roman roads in the SW continued....

Continued from p.3

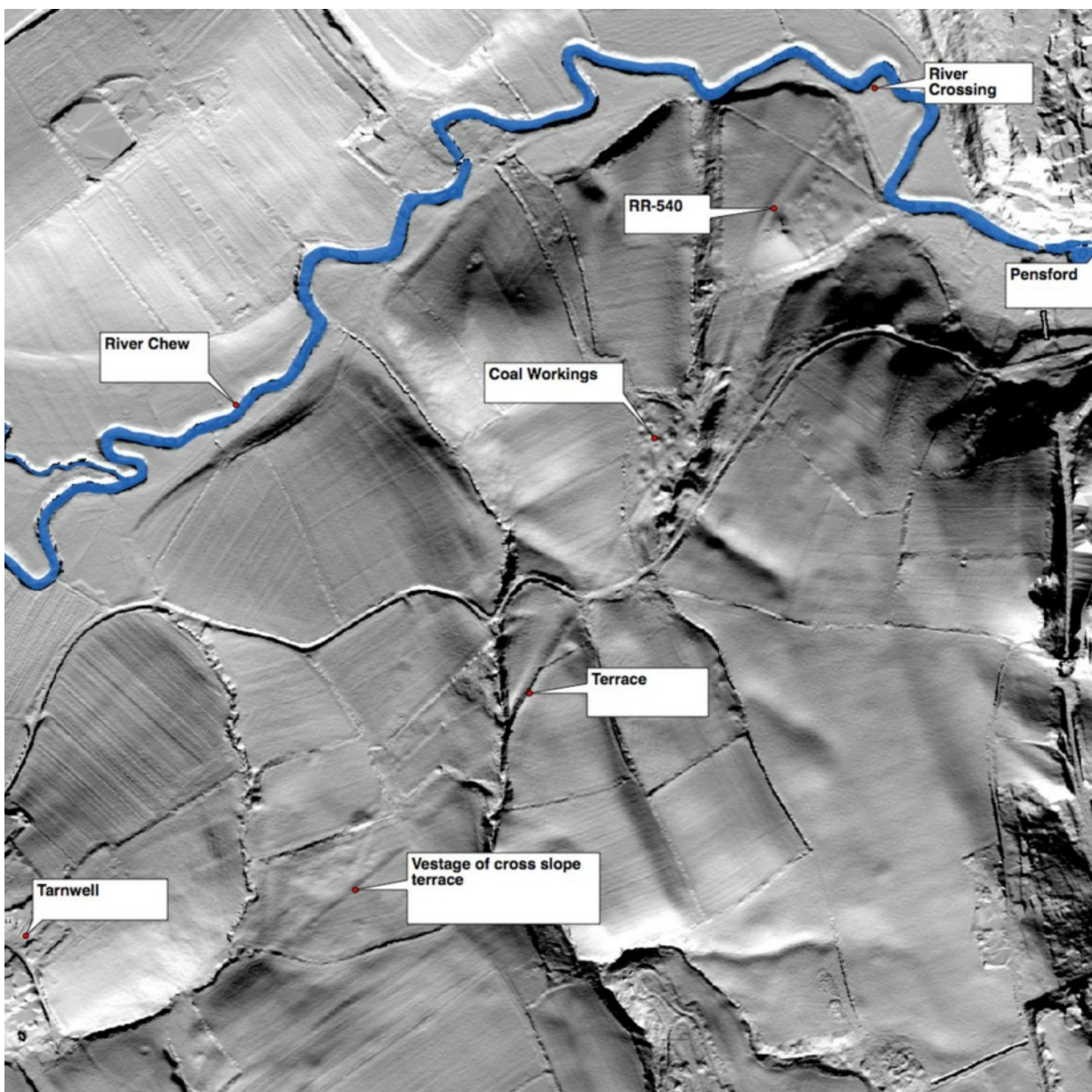
The village of Pensford is on the other side of the hill and it has been assumed a ford next to the medieval bridge at the foot of Pensford hill might be the origin of its name (Hill-Ford). Might instead a ford crossing on the RR-540 and at a much steeper but shorter hill be the actual origin of the name? It seems a worthy contender.

Having arrived at the pub the onward journey to Keynsham, via the 'Publow Gap' where the Wansdyke disappears, will have to wait for another time. This is a complex area which has some tantalising further possibilities for the RR-540 including field name and physical evidence.

Historic England also found the section of RR-540 from Tarnwell to Pensford in 2017 using earlier LiDAR data and 1946 aerial photography. Agricultural intensification and ploughing of much of this route is rapidly smoothing the land surface and features are literally fading away before our eyes. Identifying undisturbed sections and recording them may assist in their preservation.

Tools: QGIS, EA LiDAR, Garmin handheld GPS

Environment Agency LiDAR image of the Tarnwell to Pensford section of RR-540. Illuminated from the south.



Roman roads in the SW continued....

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And all this needed roads of a reasonable standard. Using the historic environment records kindly provided for us by the local archaeological officer, and also aerial photos and LiDAR, we have begun to investigate some of the possibilities in the area. Possible roads we are investigating:

1. Broad Down (where there is a lot of iron working) via Iwood Manor which may well lead to the important small town at Winthill near Banwell, involved in lead production amongst other things.

2. Nempnett church to Regil village which could be aiming for the complex site at Gatcombe, west of Long Ashton, coming from the south. Picture below looking across possible agger on the presumed Line.



3. Charterhouse lead mine settlement via Winthill/Banwell to the Uphill area where a Settlement is being excavated on Bleadon Hill, south of

Weston super Mare. Picture below is the possible line of the Road.



4. Banwell/Winthill via (for the most part) Wolverhill Road to St Georges (east of Weston-Super-Mare), where there was a Settlement and salt production 'on an industrial scale' (according to the excavators, Neil Holbrook et al) intended for 'export'.

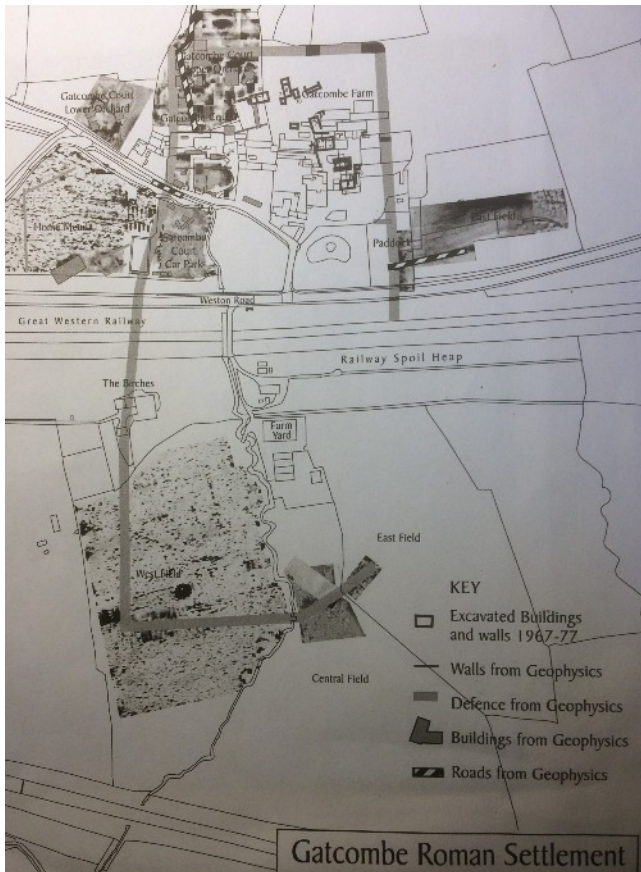
Just as in the north you might look at the connections between forts (although of course there are towns), in North Somerset we need to find connections between towns and centres of commercial production.

An example is the small town at Gatcombe. (see Britannia 2014, pp19-29, Smisson R P M and Grove P, Gatcombe Roman Settlement), which has 3 gates in the defensive walls and probably a 4th; so where do they lead, and especially how do they connect with other towns and centres of production? Particularly the latter, bearing in mind all

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Roman roads in the SW continued....

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the commercial and light industrial activity in the town.

The object is to explore not just the routes of these kinds of roads but also the non-military uses and purposes by looking at the connections they make. A document survives granting permission to a town in south Italy to construct a road in its area. The letters of the younger Pliny clearly show that in the province



THE FOSSE AT RADSTOCK, AFTER EXCAVATION, SHOWING ITS STRUCTURAL FORMATION.

of Bithynia, cities had responsibility for local municipal projects but that if mismanaged, central government would intervene. In Britain the emperor's representative was the Governor, *legatus Augusti pro praetore*; I suggest he was the person who granted authority to the *Civitates* for local administration and works, such as construction of local roads and especially their maintenance over long periods of time. For example the road south west from Exeter to the modern village of Ipplepen in Devon is about 20 miles and was repaired many times; surely this was the responsibility of the council, the 'Ordo', in *Isca Dumnoniorum*.

Of course the strategic roads could also carry mer-

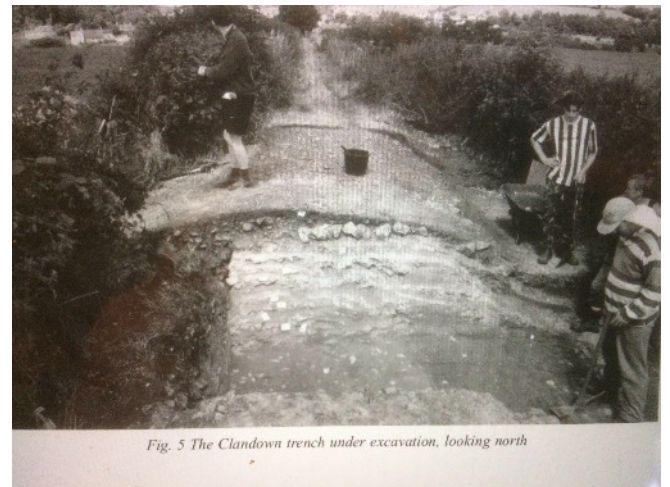


Fig. 5 The Clandown trench under excavation, looking north

chandise and provide important routes for commerce. South of Bath on the Fosseway, excavation revealed no less than 13 layers of rebuild and refurbishment including a number of former top surfaces identified by ruts and general wear and tear. Clearly once its probable original function of linking the early legionary fortresses at Lincoln and Exeter had ceased, its continued heavy use requiring such major works over a long period of time argues significant commercial traffic; there was no military presence in this area for most of the Roman period.

Editors Note; Bev has a small number of local RRRR members working together on this. If you'd like to be put in touch and take part contact Dave on dave.armstrong@romanroads.org

Roman roads in the SW continued....

Roman road and vicus found at Okehampton

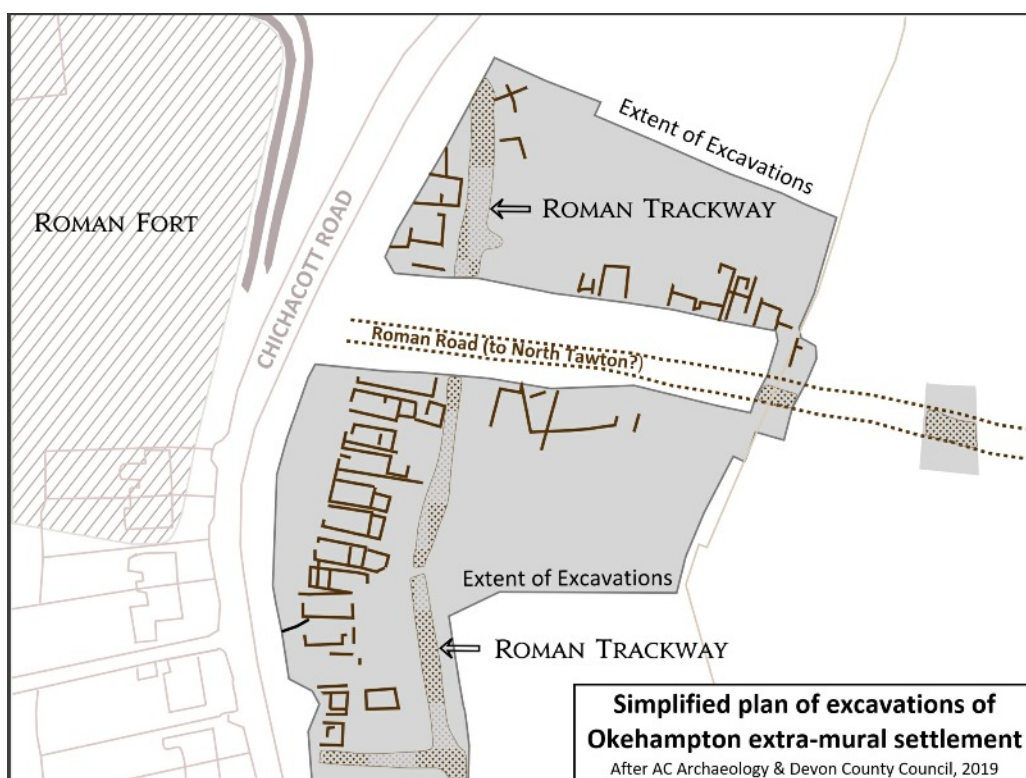
From Mike Haken

Some members may already be aware of the discovery last year of a small extra-mural settlement, or vicus, to the east of the Roman fort at Okehampton, Devon, prior to housing development. The find was well covered in the national media, as the “most south westerly Roman town in Britain” (Bell 2018), and a brief article appeared in the January 2019 edition of *Current Archaeology* (Hilts 2019). As seems usual with such things, the media may have exaggerated just a tad, as a mere twenty five or so buildings were identified, and the small vicus went out of use in c.75 AD.

The vicus was found on both sides of a length of well preserved Roman road, first spotted from the air in 1984 and visible on lidar. It is possibly the same road that heads south westwards in the general direction of Okehampton from the large Roman complex at North Tawton, first identified on lidar by Hugh Toller, and following a quite different route to that of RR492a described by Mar-

gary (Margary 1973 p.121). This road has now been confirmed by excavation to follow a single straight alignment from North Tawton as far as Church Hill Cross (Kaye & Stocker 2018), but a link from there to Okehampton two miles away has not yet been established.

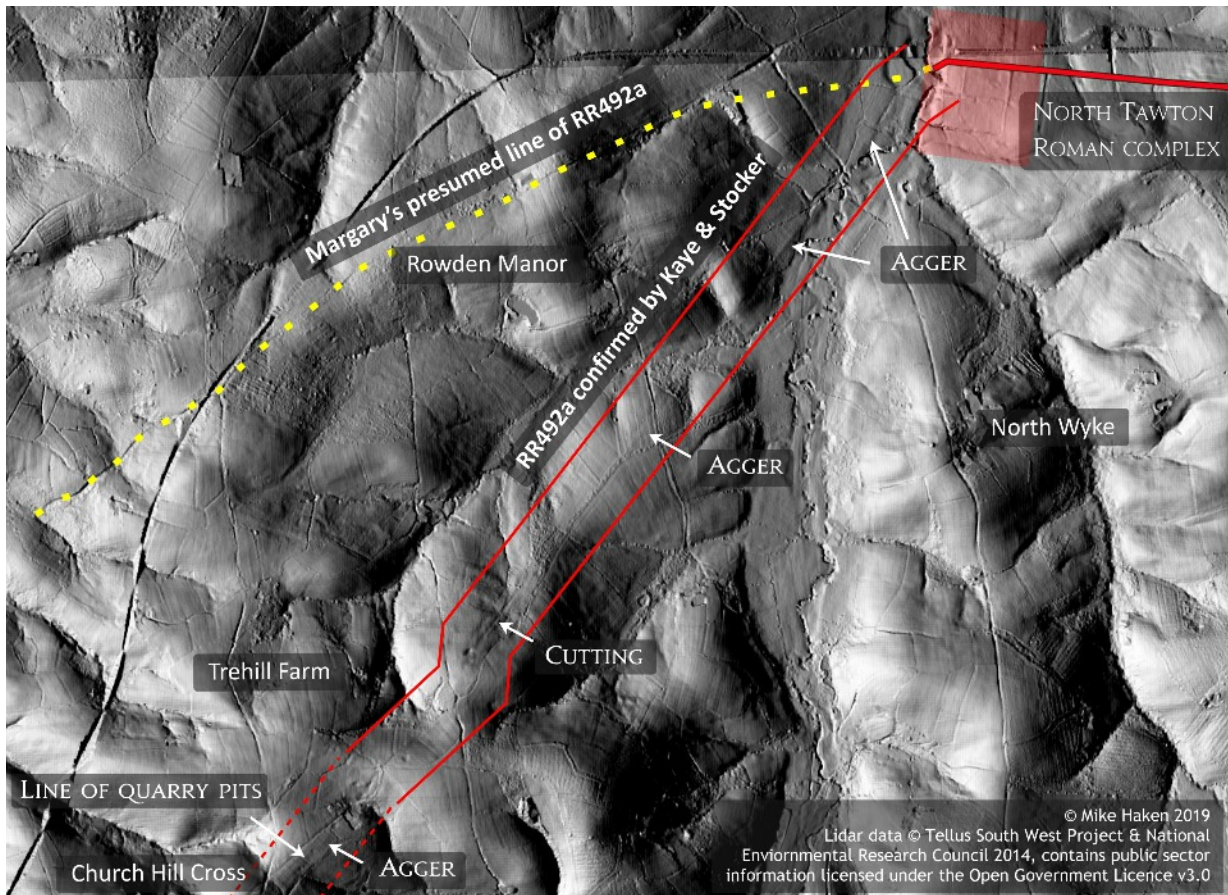
What seems not to have attracted attention, however, is the odd layout of the vicus. Whilst some of it was clearly strung out along the aforementioned Roman road as we would expect, most of the settlement was actually perpendicular to the road, with a very straight frontage facing west towards the fort with a trackway running behind the buildings to the east. Such an arrangement raises the question as whether there may have been another road heading roughly NNE – SSW, passing between the vicus and the fort. No evidence of such a road has been found, nor can any sign of one be seen on lidar imagery. Given that fort and vicus went out of use c.75AD, it is always possible that



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Roman roads in the SW continued....

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such a road was planned and may have existed as a track or routeway, but was never formally surveyed and constructed. To the south west, such a route would most probably be heading to the known fort at Calstock, in Cornwall, but a potential destination to the NNE remains a mystery.

A road heading westwards from Okehampton is known, but only from short fragments, and whether or not it follows the route of RR492a to Launceston as very briefly described by Margary (Margary 1973, pp. 120-121) is not yet known. Further south west, and not in the general A30 corridor that Margary suggested for RR492b, a length of about 6 miles of Roman road has now been identified near Lostwithiel. This road could conceivably be the same one heading west from Okehampton and an article about it will appear in an edition of this newsletter later this year (Haken, in prep.).

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- Hilts, C (ed.); *Vicus Discovered in Devon?*; Current Archaeology Issue 346, p. 10; Current Publishing, London
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News items

Roman road visible through a glass floor in a McDonalds Restaurant.

From Dave Armstrong

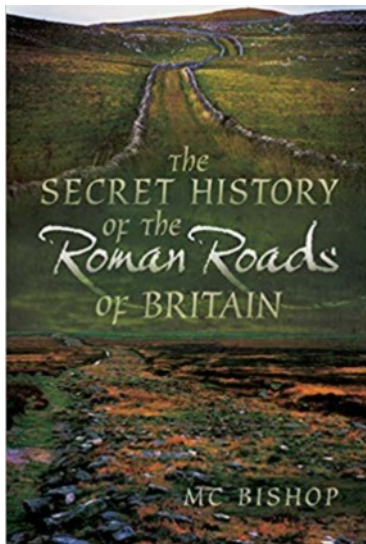
While their produce may not be to everyone's taste I would still call into the McDonalds in Frattocchie to the south of Rome. During construction a 150 foot length of Roman road was discovered under the building and this has been preserved and is visible through a glass floor. I don't think I'd

particularly relish skeletons watching me munch through a Big Mac but having a look at the road would be interesting if you're in the area. Follow [this link](#) for more information and pictures.



New Roman Roads books

From Dave Armstrong



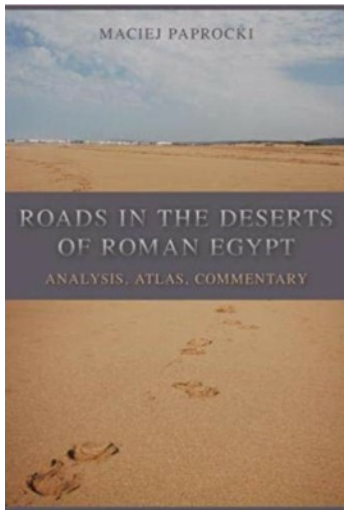
Mike Bishop is releasing a new edition of his **Secret History of the Roman roads of Britain** at the end of August 2019. Available from Amazon [here](#). The very readable current edition is still available, modestly priced for pre-loved copies.

There are a number of new books on Roman Roads in the further parts of the Empire. While a bit pricey you may want to check them out in a reference library for relevance to your own research before investing?

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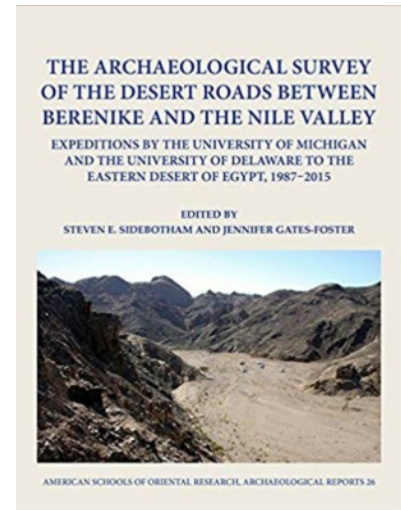
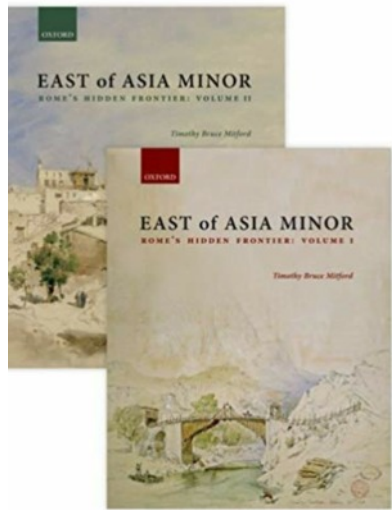
News items, continued

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Roads in the Deserts of Roman Egypt by Maciej Paprocki. Available from Amazon [here](#).

East of Asia Minor: Rome's Hidden Frontier, by Timothy Bruce Mitford. Available from Amazon [here](#).



The Archaeological Survey of the Desert Roads between Berenike and the Nile Valley, 1987-2015, The University of Michigan. Available from Amazon [here](#).

The Via Gemina in Ljubljana museum

From Bev Knott

Further abroad, I recently visited Ljubljana, the capital of Slovenia, where an original Roman road sits in the basement of the city museum in its original location. Ljubljana's Roman ancestor, the city of Julia Emona, straddled the important Via Gemina on its route over the Julian Alps to Pannonia and the Danube from Aquileia at the head of the Adriatic. Aquileia was an emporium where according to the Roman geographer Strabo "They load on wagons and carry inland the products of the sea, wine stored in wooden casks, and olive oil ". Probably this road also carried Samian ware for trade north of the Danube as far as Poland where widespread deposits of this type of pottery have been found. Pictures below are of the Roman road in the basement of Ljubljana city Museum.

Editors note; Interestingly the road is not paved as most photographs of roads elsewhere in the Empire seem to show. Construction of a well rammed conglomerate of material is fairly consistent with roads in Britannia?



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News items, continued

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The Roman road was made of layers of flattened riverside gravel mixed with sand and lime mortar, similar to modern Macadam road surfaces. The almost 8 meters wide roadway was bordered on both sides by a sidewalk made of pressed clay and sand. By the sidewalk ran a gutter for rainwater.

◀ BACK | RESULTS OF ARCHAEOLOGICAL EXCAVATIONS ▶



A section of the Via Gemina in Ljubljana City Museum with an informative caption.

Other roads in the news

Follow [the link](#) to find out more about a road discovered in Lancashire between Wigan and Walton le Dale.

And [this link](#) for a paved road in Bulgaria.



RRRA Projects Updates

RRRA's gradiometer array and our first geophysics team

From Mike Haken

In November 2018, we conducted our first two Training Days on the playing fields in front of York Psychiatric Hospital and led by James Lyall of geophiz.biz. From an archaeological perspective, putative road features showing on lidar east of Thirsk (Haken, 2018), when projected south, create an alignment that runs across the playing fields to Bootham Bar. The site presented a unique opportunity to see if there was any evidence of an early Roman road following this alignment directly from Bootham Bar, the medieval

gate on the site of the north east gate of the York's Legionary Fortress.

Irrespective of the abovementioned putative road, this site was ideal for absolute beginners, being mown grass, reasonably flat and level, and with a high chance of Roman archaeology, being adjacent to the Roman road known to be represented by modern Bootham (RR801) and just 350m from the Fortress gate.



Fig.1 York Hospital Day 1, left to right: James Lyall, Richard Gibson, Gill Firth, Dave Armstrong, Mike Haken, John Firth, Albert Hills



Fig.2 York Hospital Day 2, left to right: James Lyall, Tony Wright, Mike Haken, Mark Drake, Joe Drake, Jim Drake, Jane Houghton, Rob Entwistle, Rob Matley. David Brear had left by the time the photo was taken.

Given the poor weather forecast, the turnout on the two days was bigger than we could ever have anticipated, and despite some less than clement weather at times, everyone enjoyed the weekend. Unfortunately, we did not locate the putative road. This does not of course mean that alignment was not followed, simply that, possibly for topographic reasons, the road left York on a different line, what

is now Bootham. As you can see below, we did however, locate a previously unknown road running parallel to Bootham. A date for the road cannot be determined; it could potentially be Roman, but could equally be a late medieval back lane, running behind the buildings that lined Bootham.

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RRA Projects update, continued

Continued from p.13



Fig.3 Results of Geophysics Training days, Bootham, York, November 2018

Following on from the success of the training days, we had a cluster of volunteers from the Tadcaster/Wetherby area, coupled with a very large number of potential sites in that area, and treat their training as a pilot for the formation of other groups elsewhere in the country (including a further group in Yorkshire). Our hope was that by focusing on a group that lived relatively close to each other and to the sites being surveyed, we could quickly foster a strong team spirit. In just three months, it is clear that this concept has worked, and that we now have a stable core team willing and able to work on sites in the southern part of Yorkshire. At the time of writing, they have already surveyed some 36.6 Hectares (90 acres)!

In December 2018, the team began working on arable land west of the post medieval road and supposed Roman road known as Rudgate (RR280) near the large Roman site at Newton Kyme, North Yorkshire. Our aim was twofold. First, to establish whether there was any evidence supporting the former existence of a Roman road on the line of Rudgate, and secondly to assess

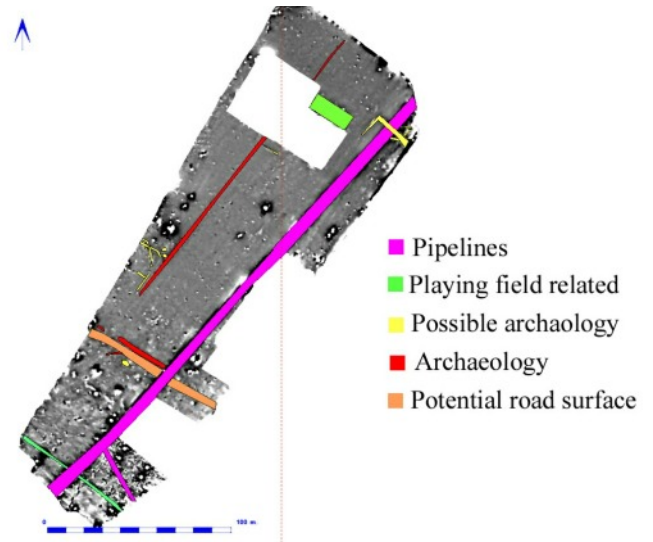


Fig.4 Interpretation of Geophysics Training days, Bootham, York, November 2018

whether we could find evidence of a Roman temporary camp thought to straddle Rudgate at this point (Monaghan, 1991 pp. 52-3). The identification of the camp from aerial photographs and excavation of a ditch had resulted in part of the land we were covering being scheduled as an Ancient Monument requiring us to obtain a licence from Historic England. It is worth noting that geophysical survey conducted in 1978 prior to the laying of a gas pipeline failed to identify any feature which could feasibly be the southern ditch of the camp (Bolton & Heathcote 1978). The work on this site is not quite finished, however the interim results are striking. In comparison with the density of archaeology east of Rudgate, to the west there is almost nothing, with no trace of the camp where it was expected to be. Three long linear features (probably ditches) were identified, one of which (fig. 5) is on a roughly parallel alignment to the predicted camp defences but much further west. It has a gap about halfway down its length, but no gate defence can be seen. It has been pointed out by Dr. Rebecca Jones that if this is part of a camp, there could well have been a defensive bank such

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RRA Projects update, continued

Continued from p.14

as a clavicular or titulus, but without an accompanying ditch, so we wouldn't see it on the geophysics (R.Jones, 2019, pers. comms.). It is not yet possible to determine whether or not this is part of the camp's defences, or something else entirely

and more work is planned to attempt to determine one way or the other. Were it to be from the camp, the camp would measure approximately 330m wide by at least 430m long, big enough for a legion plus auxiliaries.

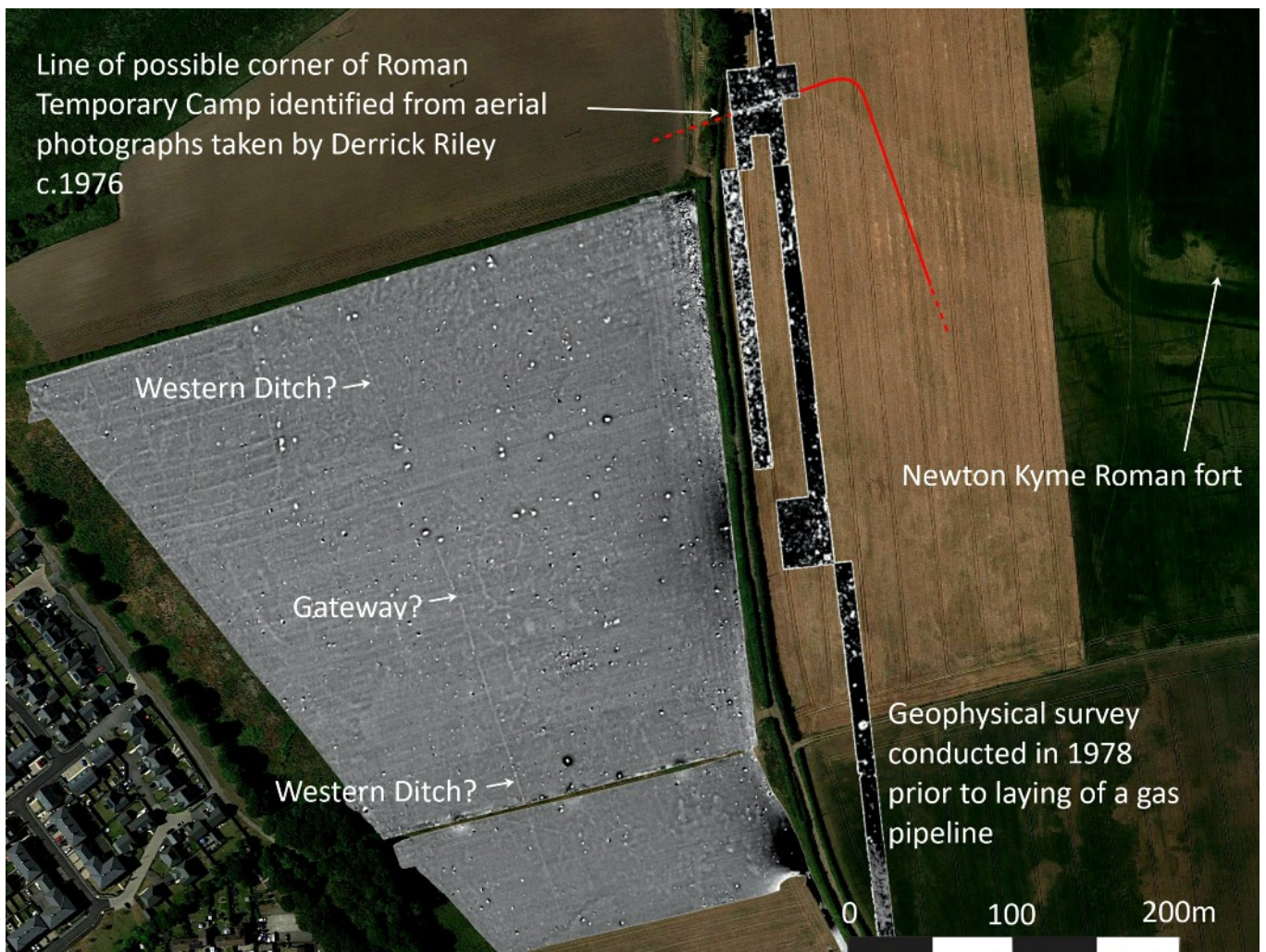


Fig.5 RRRR magnetometry west of Newton Kyme, with GSB survey (1978) also shown

More recently, the team's work has focussed on the Roman fort at Burghwallis, South Yorkshire, a site which has received very little attention since it's discovery in the early '70s. Only a small portion of the fort area survives, the rest being lost to 18th

and 19th century quarrying and to the modern A1. We suspect that some of RR28a may have avoided this destruction, just to the west of the modern dual carriageway, and we will survey that area later this year after harvest. It should also be noted

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RRA Projects update, continued

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that Michael Wood is convinced that this is the site of the battle of Brunanburh in 937 AD, the medieval battle that arguably defined modern Britain.

It had previously been assumed that there were two, possibly three superimposed forts on the site, however we can now say that it is much more complicated than that. The gradiometer plot (Figs. 6 & 7), shows the remains of at least three superimposed forts with double ditched defences, with other fragmentary defensive ditches present, which may be the remains of other superimposed forts or additional defences. The very broad ditch that seems to cut through several phases (labelled

Phase 6) is most likely late Roman, probably representing a major reduction of the fort's size, and may be contemporary with the broad ditch shown in pink (Phase 5). Crucially, what seems to be the third phase has so called "parrot beak" gateways where the outer ditch curves around to be joined by the inner ditch, and then continuing inwards. These features are usually interpreted as being of Flavian date, ie 69 – 96 AD. The clear implication is that one or even both of the earlier forts could be very early, hinting at a date potentially before the Romans are usually thought to have advanced north from the River Don in c.71AD.



Results of geophysical survey of the Roman fort at Robin Hood's Well, Burghwallis

The fort's location at first seems a little odd, being just over six miles miles along RR28b from Doncaster (Danum), and nearly eleven miles from

Castleford and on a site with no obvious topographical or strategic significance – why not site a fort roughly half way, or indeed, why bother at all?

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RRA Projects update, continued

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The possible early date may provide the answer – rather than being sited between Doncaster and Castleford, it is actually very close to halfway between the so-called vexillation fortress at Rossington, south east of Doncaster, and the fort at Castleford. The site at Rossington is thought to date from the mid 50s AD, contemporary with forts at Chesterfield and at Templeborough. We might speculate therefore that Burghwallis was founded to protect the overland route from Lincoln to the oppidum at Stanwick in North Yorkshire, the heart of the client kingdom of Brigantia. This thesis is supported by the recently discovered Roman settlement at Scotch Corner which dates from at least the early 60s AD, and we may be seeing either end of a chain of early Roman sites through Yorkshire, to date not recognised.

With only one quadrant of the fort visible, and so many phases, it is no great surprise that we cannot see a clear internal layout. That said, two areas that are clearly the remains of granaries (horrea) are visible, as are possible remain of other buildings in area “A”. The pale lines probably represent the narrow parallel trenches that held a series of posts to support a raised floor (Bidwell, 2007, p.103). The two groups seem to be from different phases, as the one at “A” would clearly have obstructed the gate of the Flavian fort and cannot belong to it, whereas “B” is on a very slightly different orientation and is perfectly aligned with the Flavian fort, and in the right place, next to the centrally placed Headquarters building, remains of parts of which may be visible on the geophysics.

The survey at Burghwallis will continue until late summer and we will release fuller details of the team’s work in due course.

As explained at the start of this article, our aim was to treat training the Tadcaster based group as a pilot project. The success of this method is already clear, and later this Spring, James, Albert and I will be releasing details of how we intend to move forwards with establishing other groups across the country. You may recall that I have previously appealed for sites to be surveyed, an appeal which had only a muted response. So please, if you can think of any Roman site related to a Roman road, ESPECIALLY IN THE SOUTH, which would benefit from a new geophysical survey, please let us know.

Mike Haken

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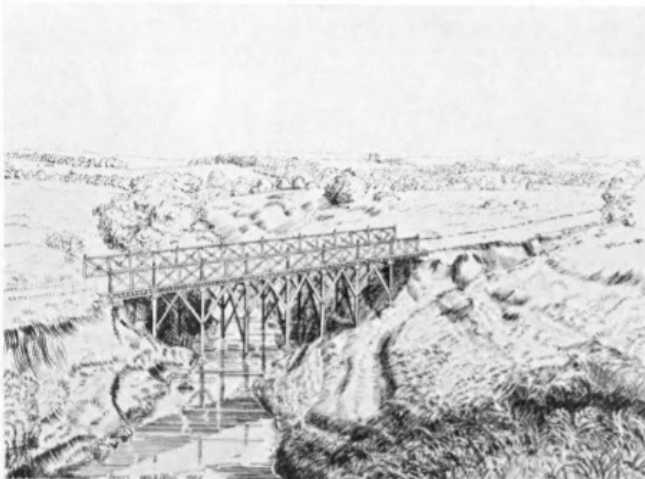
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RRRA Projects Updates, continued

Is this the most sectioned road segment?

From Dave Armstrong

While some lengths of road have been fully excavated it's unusual for a number of sections to be taken close together along one segment of road. Gathering together all the references for a Gazetteer page for RR83, the branch road from Dere Street RR8c towards Durham, made it apparent that there had been a lot of excavations in Willington at the southern end of RR83. I knew about the two older sections but found additional more recent pre-construction trial excavations in the County Durham HER, a veritable gold mine of information. In total over the last 80 years there's been four sections taken, by three separate organisations on a less than 200m length of the road. A little further on another section was taken, by yet another organisation, making five sections in a 350m length. In addition, this 350m length also contains what is suspected by Dymond to be a 'Hunwick' style small bridge and a milestone fragment has been found as well.



An artists impression of the Dere Street bridge at Hunwick, thought to be typical of how all steep narrow valley's were crossed. Some assert that stone would be a more permanent construction material but no fragments survive at the bridging sites.

The first 200m spans some allotment gardens where, adding a little colour in the report of the milestone discovery, was the observation; *'One of these gardens is worked by Police Constable Sutherland, who, to his sorrow, found that this 20 feet wide road passed right across his patch of ground at less than a foot from the surface. He dug up many tons of stones of all sizes before he could attempt crop growing. The largest ones he left in-situ.'* So; a sixth place the road had been excavated, by an unfortunate PC when trying to 'dig for victory' during WW2, he must have cursed his luck in being allocated that plot – and the Romans in general.

On a more serious note, all this information does allow us to analyse this Roman road in a number of different ways. With the very short length under consideration it's probably reasonable to expect that there wouldn't be any significant construction variations but leading on from that it's interesting how the excavated condition of the road varies, the different individuals reporting styles plus how excavation standards have changed.

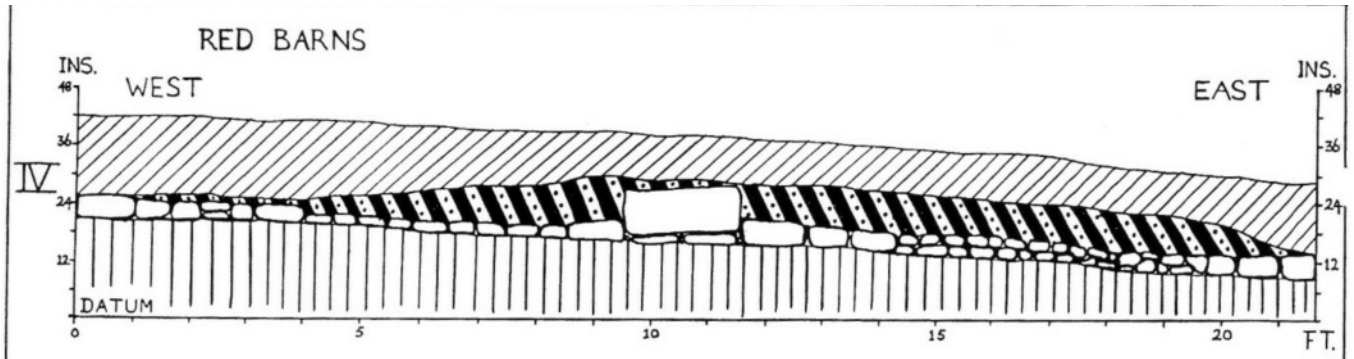
The reports, starting nearest the Dere Street junction;

At NZ 1922 3528. In 2015 pre-construction excavation close to the junction with Dere Street found within the eastern kerb *'a sequence of thin road surface layers 0.35m thick. These cemented layers of crushed stone, sands and clay included a thin gritty black layer 0.03m thick. The somewhat thicker upper surface 3m wide, 0.2m thick, a compacted orange-grey layer of crushed stone and sand, extended from the kerb to abut an apparent drain running through (from the drawings; axially along) the road surface. To the west of the drain a metalled surface 3.4m wide extended to the edge of the trench, where a number of larger sandstones appeared to indicate the presence of a further kerb extending beyond the edge of the excavations.'* An alternative interpretation to

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the central gutter type drain may be a central spine.

Also in 2015 in another section at NZ 1924 3531 was found 'Two parallel kerb features, set some 6m apart and constructed from a single course of sandstone (up to 200x440x300mm in size) were set into subsoil. Between the kerbs, a roughly cobbled surface was exposed, comprising sandstones up to 100x150x100mm.'

The next section taken in 1938 was a few yards further north. The road was 'poorly preserved, being formed of a single layer of sandstone blocks laid on subsoil clay; it was only 16' 8" wide and had no defined kerbs.'

A section at NZ 1935 3539 prior to building work in 2006 revealed badly damaged remains of the road probably as a result of garden landscaping.

At NZ 1947 3550 the road was found in the 1960's 'The bottoming lying on clayey subsoil appeared to have been laid in three sections. 1) A width of 3' from the south east kerb was of 6" water worn stones laid at an angle to the sub soil. 2) A second width measuring up to 5' was of similar 6" stones, laid flat. 3) The remaining 8' wide section was comprised of 12" stones also laid flat. While these measurements, totalling 16 feet, were 5' 6" short of the known average, the north west kerb and

therefore an unknown additional width having been lost in the dip of the rig and furrow, it was not possible to determine the original width'

A 1938 section of the same road a few miles further on at Red Barns near NZ 2344 3914 found it to be well preserved and may more closely represent how the road was constructed. '.....though built as one unit, the bottoming had been laid on the sub soil clay in five divisions. For the kerbs on either side formed part of a homogeneous strip of large sandstone blocks, making a total width of 4 feet on the west and 2 feet on the east. In the centre of the road came a similar layer of blocks as packing for one very large block, which measured 18 by 14 by 10 inches. This projected so far into the upper layer that its top was only 3 inches below the road surface. The fourth and fifth divisions of the bottoming were composed of smaller metalling, which filled in the gaps between the outer and centre strips. The bottoming which was 21 feet 8 inches wide (6.6m), was covered by a well rammed layer of gravel and small broken sandstone, which had a pronounced camber'.

Thus, if we make the assumption that the well-preserved Red Barns section was close, typically, to how the road was originally constructed; the width was around 21'6.5m wide, with either single large kerb stones or accumulations of larger cobbles as

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a kerb, a rammed cambered gravel surface with perhaps a central spine but with no excavated side ditches. One of the authors, Fawcett in the 1960's, picked up that distinct construction bands along the length of the road may reflect an early narrow surface that was subsequently widened on either side.

From the reports we can see the various states of degradation of the road in the five sections. Perhaps stating the obvious - that in itself demonstrates that a single section of a road may not necessarily be an indicator of the overall condition, the extent and depth of agriculture and development probably having a marked local effect with distinct changes over more recent years. Similarly, it's interesting to compare the styles of the various authors reports. The Red Barns report by RP Wright in 1938 set the standard of reporting Roman road excavations in north east England for many years with short simple statements, a clear section drawing and brief summary conclusion. More recent reports have detail context identification that do try to analyse the construction details and materials more closely but perhaps bring some complexity at the cost of clarity.

Are there any other roads that have multiple sections that we can glean more information from? Can anyone better more than four in 200m or five in 350m?

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RRRA Projects Updates, continued

From Roman roads to Monuments Man

From Dave Armstrong

Have you seen the film *The Monuments Men*? This was about a group of military personnel trying to recover art and treasure from the Germans at the end of WW2. In reality *Monuments Men* were a mixture of experts from all the allied nations and had other roles other than recovering artwork.

Researching the Roman roads of County Durham always brings up the work of Kenneth Steer in the 1930's. His Durham PhD thesis, [The Archaeology of Roman County Durham](#) is still a standard reference for the Roman period. This has been recognised by the University and it's now available as an on line thesis. Part of the work towards Durham's RR's Gazetteer page is to create a [short autobiography](#) of the major reference authors. How could we have managed this before we had the internet? Doing the usual Google search on Steer brought up some interesting information.

A Yorkshireman born in Rotherham in 1913 Kenneth studied History at Durham University. Graduating in 1935 he continued at Durham, excavating on Hadrian's Wall under Eric Birley and Ian Richmond, achieving his doctorate in 1938. He must have been contemporary with RP Wright at Durham who was actively sectioning Roman roads in the north east of England to scientifically confirm the (often woolly) assertions of earlier antiquaries. WW2 interrupted the start of his career with the Royal Commission on the Ancient and Historical Monuments of Scotland. Initially joining the Scottish Office he was called up into the Artillery and commissioned, like many academics, into Intelligence serving in many theatres as head of the Air Photographic Interpretation Service for 56th Division notably the landings at Salerno and Anzio in Italy, twice being mentioned in dispatches.

His history and archaeology skills were also drawn upon at the end of the war when he joined the

Monuments, Fine Arts and Archives programme. He became a Monuments Man.



Working in the North Rhine area based in Dusseldorf he initially established various collection points. He was tasked with procuring materials for first aid repairs to ancient and historic monuments heavily damaged during the war including Cologne Cathedral. At monthly meetings of the Allied Control Commission he argued for resources against competing claims for housing, schools and hospitals. What a challenging but interesting time that must have been for someone of his age.

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Returning to his career in Scotland he went on to greatly expand the influence of the Commission becoming Secretary (Chief Executive) in 1957. His work continued to draw on his academic training, and experience gained in air photograph interpretation cataloguing the historic monuments of a number of Scottish counties. He recognised the need for more field staff and drawing office support and that diverse organisations needed to combine that under his control they become what

is now the National Monuments Record of Scotland dealing with the Threatened Buildings Survey and the Afforestation Land Survey as well as a national aerial survey programme. Through all this he continued his involvement in Roman archaeology through excavation and addressing significant conferences.

Retiring in 1978 he died in Cheltenham in 2007 aged 93.

QGIS User Guidance Manual; mapping and DIY lidar for beginners

From Dave Armstrong

Creating a modern digital map for both 'county' level and detail courses of RR's is an integral part of completing a section of the Gazetteer. Neil Buckley and Dave Armstrong have just gone through this for their respective areas, coached by Mike. Whilst picking up the various aspects they have been writing notes that Neil has now collated up into a Guide.

This draft is currently in the closing stages of checking but the intention is to release the completed document to members to aid their own research. It's written in simple step by step terms with lots of screen shots to help the beginner.

If you've got a fairly new computer and basic computing skills you should be able to follow this Guide and create digital maps. As part of this you can learn how to generate and manipulate your own lidar tiles changing the sun angles and Z factor to enhance the image. Everything you need downloads as free open source - i.e. at no cost.

It is intended to make the Guide available to interested members soon. Drop me a mail if you want to try this out.

dave.armstrong@romanroads.org



QGIS 3.6 Noosa

(Also remains relevant to the stable version QGIS 3.4.5 Madeira)

User Guidance Manual

by

Neil Buckley
and
Dave Armstrong

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