

# ROMAN·ROADS·RESEARCH ASSOCIATION

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No.12

## NEWSLETTER

WINTER 2020

### FROM THE EDITOR

**A**LTHOUGH THIS MAY be a slimmer newsletter than the previous bumper Autumn issue, none the less, there's useful and interesting information enclosed. David Ratledge concludes his survey of Norfolk with a second part including some interesting and unusual features, he's starting to work on Suffolk next. Also here is a link to David's 'fly by' lidar over Jeffery Hill in Lancashire. Not only is the lidar impressively linked as a moving 3D video but there's the clever application of a white layer giving the impression of a winter snow scene. Generating these winter snow scenes are becoming a Christmas tradition from David.

Also enclosed is the latest summary from the Yorkshire geophysics team, in advance of formal publication, updating us on their work around Newton Kyme seeking out RR280 thought to be under the current Rudgate Lane. While the road has proven to be elusive, a complex of temporary camps have been found. There's more to come in this area and the team are still working on it, get in touch if you want to be involved

In the books section; if you haven't already got a copy, note the special offer open to RRRRA members for Rob Enwistle's new book '*Britannia Surveyed*', an insight into the early days of Roman Britain with the context of surveying and laying out alignments by the mensores, the military surveyors.

I appreciate the good copy material provided by the contributors, thank you and please keep sending me your news and other snippets.

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# RRRA Projects, update

## RRRA Gradiometer Survey in Search of Rudgate (Part One)

### Introduction

*From Richard Gibson*

In late 2018 and early 2019 members of the RRRA and Tadcaster Historical Society under the guidance of Mike Haken and geophysicist James Lyall, carried out an extensive gradiometer survey over land to the east of the modern-day road and trackway known as the Rudgate to the west of Tadcaster and the village of Newton Kyme. The team members were Sonia Anderson, Richard Anderson, Gill Firth, John Firth, Richard Gibson, Mike Haken, Albert Hills, James Lyall, Alison Mason, Rob Matley and Ian Sanderson (West

Yorkshire Archaeology Advisory Service) who joined us for a day.

The survey was carried out on two sites, with Site 1 located to the west of modern Rudgate and between the A659 to the south and the River Wharfe to the north, surveyed with the permission of Mr. & Mrs. Watson. Site 2 was to the south of Watsons Lane and west of Rudgate, surveyed with the permission of Mr. McGettigan and Mr. & Mrs. Watson.

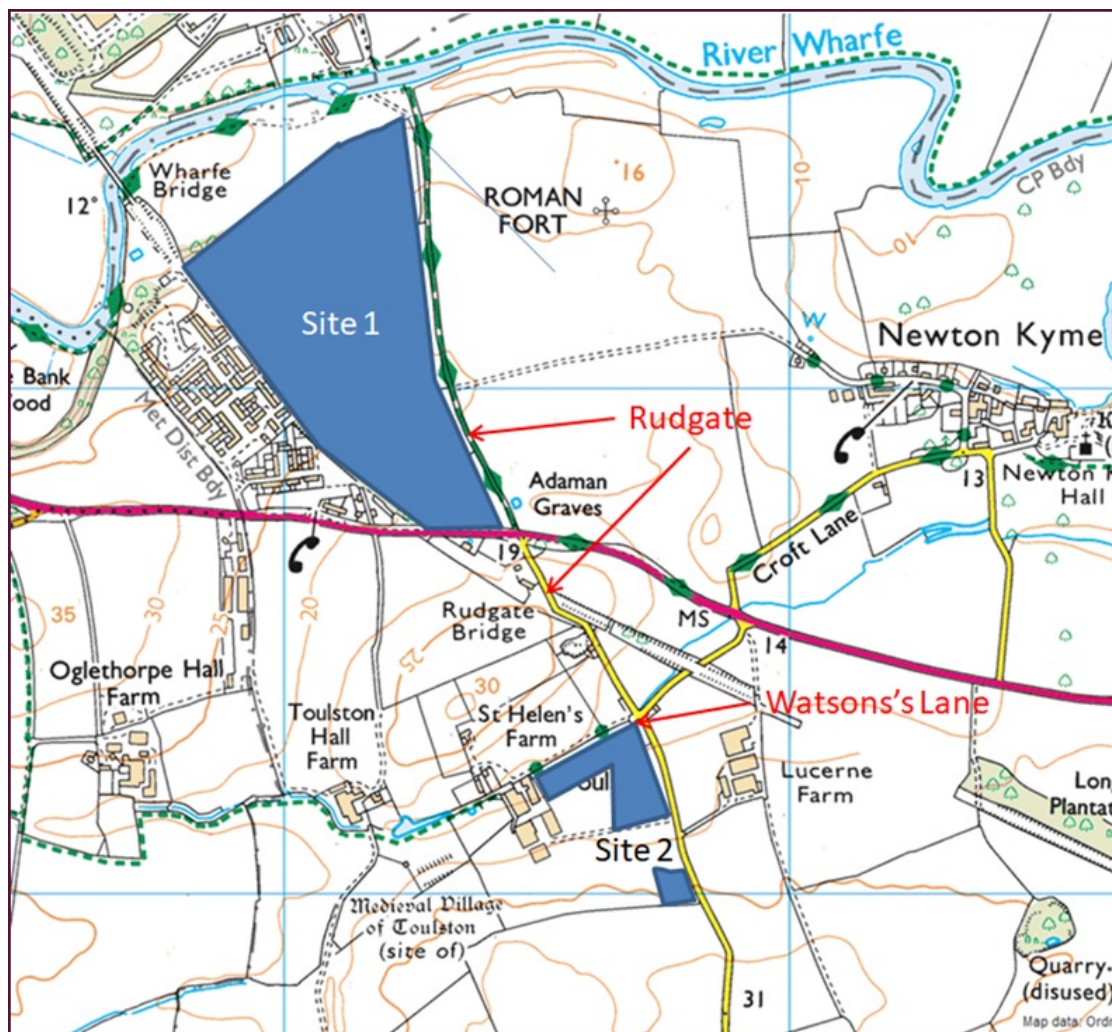


Fig. 1 Ordnance Survey 1:25000 map indicating the site locations. Contains Ordnance Survey data ©Crown copyright and database right 2019.

*Continued on p.3*

## RRRA Gradiometer Survey in Search of Rudgate, continued

*Continued from p.2*

Despite what, at times, were adverse weather and ground conditions, we were able, over the course of nine days spread over a two-month period, to survey an area of 24.1 Ha averaging around 2.67 Ha per day. Our aim was to find evidence for the Roman road RR280 (Margary, 1973, p.417) known to cross the Wharfe in the area of the Roman site at Newton Kyme which lies immediately to the east of the Site 1 survey area.

RR280 branches from the RR28b - the main overland route from Lincoln to York via Doncaster and Castleford - north of modern day Aberford. It is crossed by the RR729 and RR72b as they approach Tadcaster (York) from the west, before approaching the Wharfe.

The existence of RR280 can be detected in aerial photographic images at its junction with the RR729 immediately south of Toulston Polo Club, and is

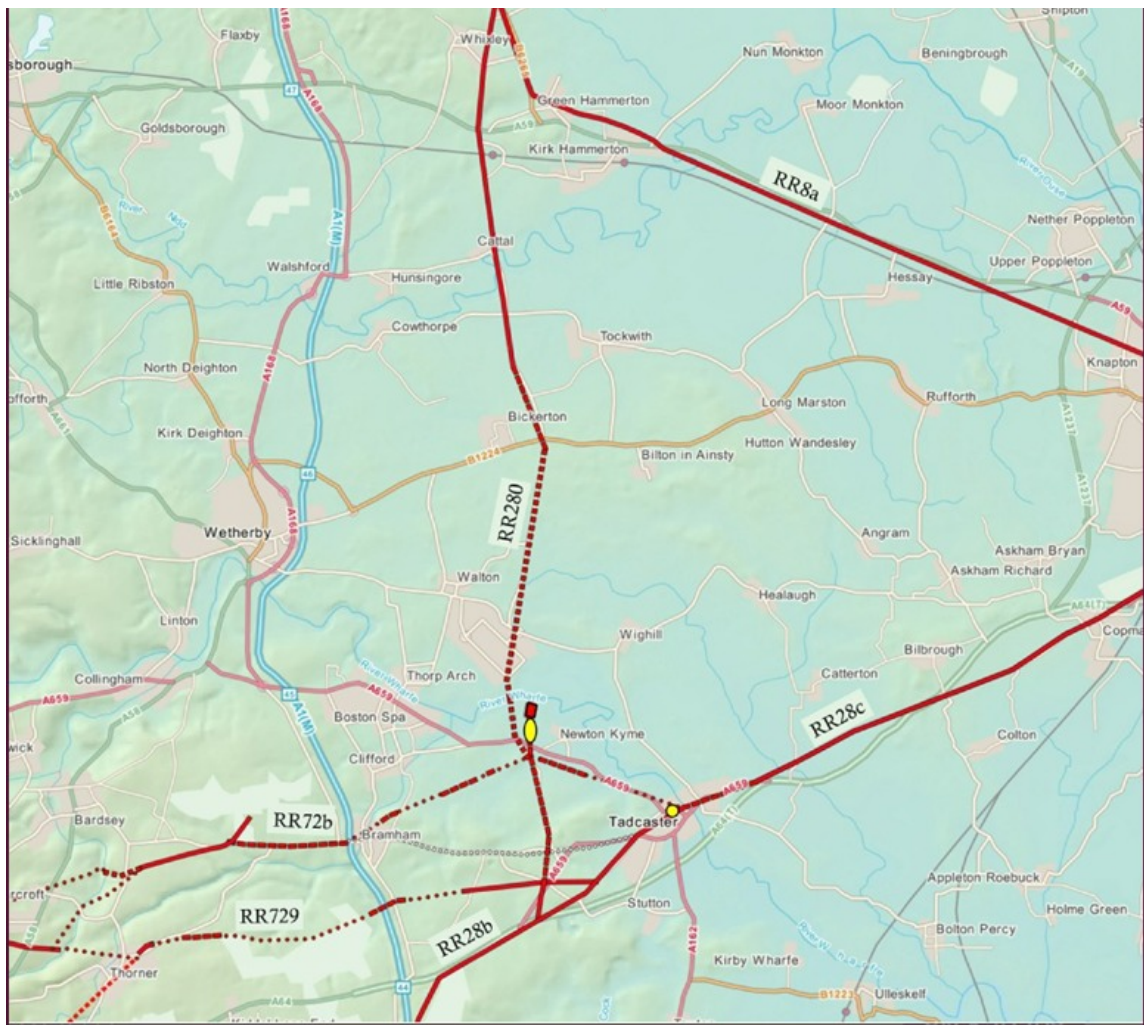


Fig. 2 Plan of known and projected Roman Roads West of Tadcaster (Haken, 2018).

*Continued on p.4*

## RRRA Gradiometer Survey in Search of Rudgate, continued

*Continued from p.3*

shown on the 1849 Ordnance Survey 6" to the mile map crossing the fields as far as Robshaw Hole. North of this point its exact course is unknown, as is its crossing point on the Wharfe, although traditionally it has always been assumed to have been marked by the rather sinuous course of Rudgate (Margary, 1973, p.417). Our survey hoped to identify the line of the Roman road cutting across the many bends in Rudgate as it approaches the Wharfe from the south, along with any roadside activity such as enclosures which

might be expected close to a major river crossing and settlement.

There is no doubt that there was a significant Roman presence along the southern bank of the Wharfe west of the modern village of Newton Kyme. Aerial photography of a large Roman fort and associated civilian settlement (along with a Neolithic henge) is exceptional and can be seen clearly on Google satellite imagery as well as Lidar data acquired by the Environment Agency. The



Fig. 3 Plan of fort and vicus at Newton Kyme, transcribed from aerial photographs. After Boutwood (1996).

*Continued on p.5*

## RRRA Gradiometer Survey in Search of Rudgate, continued

*Continued from p.4*

RCHME (Boutwood 1996) produced a detailed interpretation of this data, much of which was confirmed by Roberts et al. (2010) during the National Mapping Programme Magnesian Limestone Project.

Of particular relevance to our survey are the two features designated A and B in the Boutwood plan and interpreted by her as the ditches of two temporary camps. Feature A includes the NE corner of a camp and feature B the NE side and SE corner of a second camp. The date of Camp A



Fig. 4 Site 1: Gradiometer survey of land west of Rudgate & south of R. Wharfe. (Map data ©Google 2018).

*Continued on p.6*

## RRRA Gradiometer Survey in Search of Rudgate, continued

*Continued from p.5*



*Fig. 5 Site 2: Gradiometer survey of land west of Rudgate & south of Watson's Lane. (Map data ©Google 2018).*

cannot be determined, however analysis of recent aerial photography by Mike Haken shows that the north eastern ditch of camp B predated the permanent structures at the site and must be of Flavian date at the very latest, and possibly earlier (Haken, in prep.).

Our gradiometer survey for Site 1 showed numerous archaeological features, however Site 2 had no anomalies which we could confidently identify as representing archaeological features.

Our interpretation of the various features in Site 1 is shown on the accompanying slide. We believe we have evidence of pre-Roman agricultural activity consisting of enclosures, field systems and pits, Medieval rig and furrow and agricultural features, areas of quarrying, underlying geology, modern features caused by overhead cables and a gas pipeline (evident in the southern portion of the survey and at its extreme eastern edge) and a

*Continued on p.7*

## RRRA Gradiometer Survey in Search of Rudgate, continued

Continued from p.6

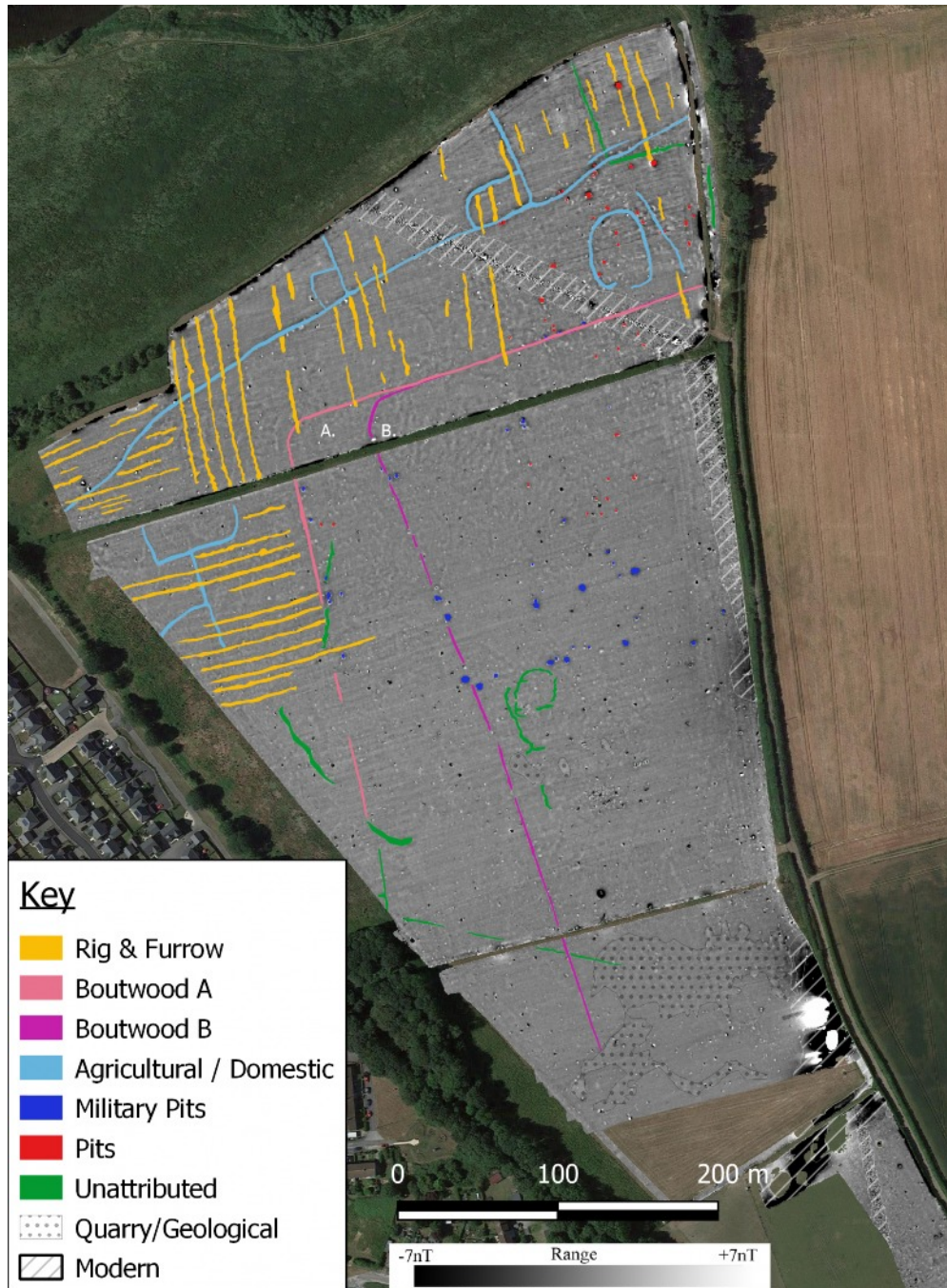


Fig. 6 Interpretation of geophysical anomalies. (Map data ©Google 2018).

number of unattributed features for which we cannot confidently provide an explanation.

There appears to be no indication of RR280 running through any part of the survey area in

either Site 1 or 2, nor do there appear to be any Roman period enclosures that might suggest the presence of a Roman road underlying Rudgate We must, therefore, conclude that either the road is not detectable using magnetic survey methods, or that

Continued on p.8

## RRRA Gradiometer Survey in Search of Rudgate, continued

*Continued from p.7*

the road ran farther to the east either between the surveyed area and the fort or most probably through the fort itself.

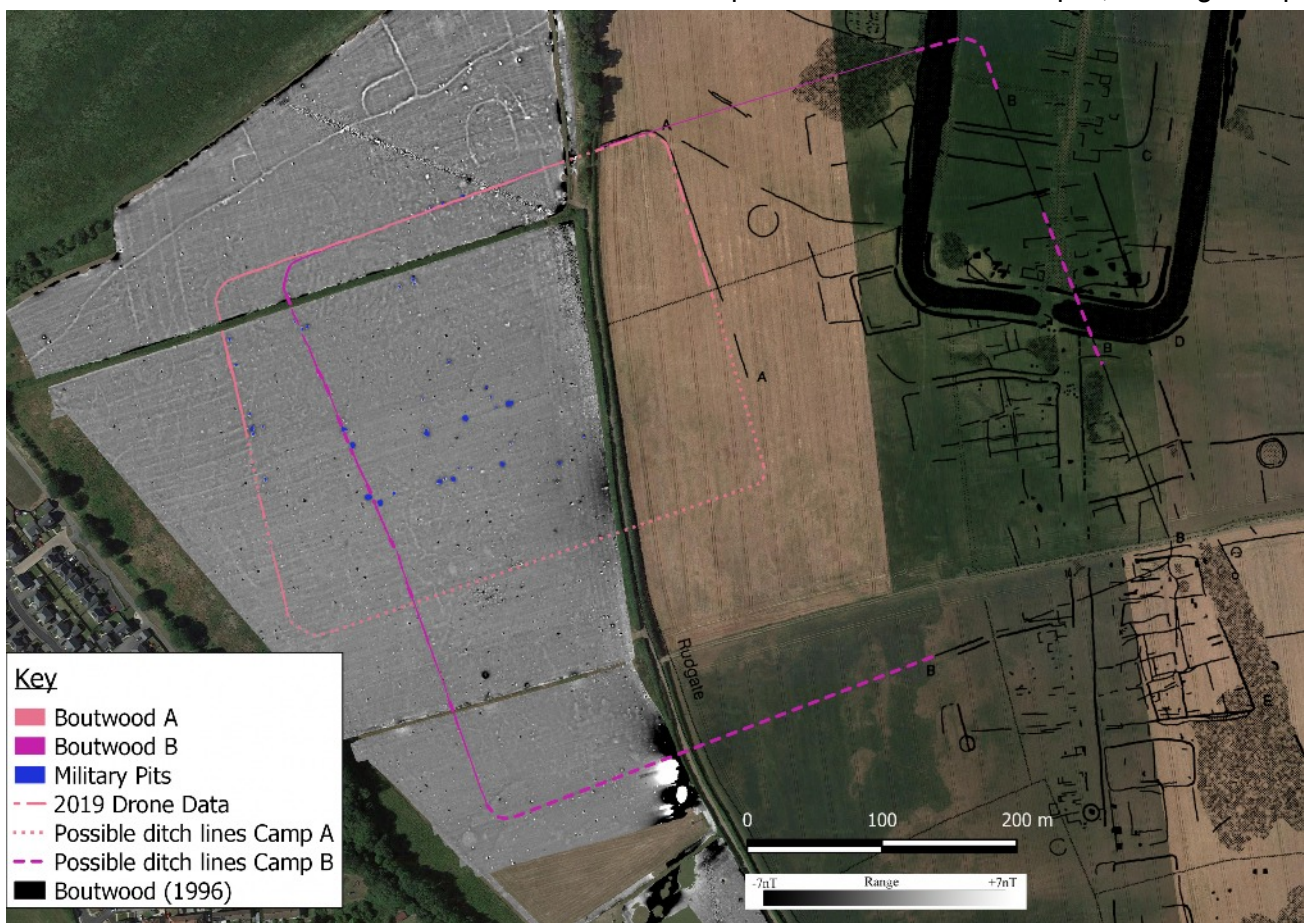
The most significant anomalies in Site 1 are what we are interpreting as Roman military ditches, marked A and B on fig. 6. These appear to represent temporary camp ditches. The two potential camps appear to share the same northern ditch for a large portion of their length with Camp A extending beyond the NW return of Camp B. We can see a reasonable length of their ditches heading south but there is no sign of the southern (east/west) ditch of either camp. We believe this is due to either later quarrying/agricultural activity or erosion as the areas we would expect them to occupy is on a low ridge above the rest of the site.

Additionally, there are small anomalies which we are interpreting as either fire pits or rubbish pits, which would have been between the rows of tents.

We have enough information, however, to speculate on what may have been the original layout of the two camps by combining the RCHME aerial photography interpretation and our survey results along with more recent aerial photography, including a very tenuous crop mark which may represent the SE corner of Camp A, captured by Mike Haken using drone photography.

Synthesising this data, we propose the following layout for the two camps.

This would give an area of approximately 9.3 Ha for Camp A and 23.4 Ha for Camp B, making Camp B



*Fig. 7 Composite diagram combining current gradiometer survey and Boutwood (1996) aerial photographic interpretation, superimposed on satellite imagery using QGIS software. (Map data ©Google 2018).*

*Continued on p.9*



## RRRA Gradiometer Survey in Search of Rudgate, continued

*Continued from p.8*

the largest known Roman temporary camp in England – just! There are, however, many much larger camps in Scotland. Detailed scrutiny of the dimensions of Camp B have revealed that it was set out along its main axes, which, measured between the ramparts, were exactly 15 by 12 Actus, an Actus being 120 Roman feet (Haken, in prep.).

Modern estimates of occupancy levels of Roman temporary camps vary considerably, and are usually much less than those set out in the anonymous classical work *de munitionibus castrorum*, whose figures would give camp B an occupancy of 23,000 men. Using the occupancy range proposed by Rebecca Jones of between 480 – 690 men per hectare (Jones 2012, p.58), we might suggest that Camp A would hold approximately a legionary strength force of between 4,000 and 6,500 men, while Camp B, would be capable of holding between 11,000 and 16,000 men. This would suggest campaign strength assemblies of troops, Camp B holding a substantial battle group. Small scale excavation of the ditches and some of the pits might cast more light on the use of the camps and, if dating evidence could be retrieved, help us understand which campaigns, presumably against the Brigantes, that these camps belonged to.

To conclude, we still haven't found RR280 north of Toulston or its crossing point on the Wharfe, and given the Roman propensity for bridge building and the importance of RR280 as the main route north to Aldborough, Catterick, Hadrian's Wall and Scotland (bypassing the detour to York) there must be a bridge there somewhere! However, our results have thrown up some intriguing possibilities regarding the use of the site at a very early point in the Roman thrust into the north of Britain.

Ideally, we may at some point be able to confirm and extend our results by small scale excavations of the ditches and further gradiometer surveys to the east of Rudgate, although this land is currently in different ownership.

The RRRA has carried out surveys of two further sites in the vicinity of Toulston Polo Club approximately one mile to the south of the Rudgate/Wharfe site. The work in that area is not yet complete but we will report back on our findings in that location in a future edition of the newsletter.

The team members would like to express their gratitude to the landowners for allowing us to access their property and carry out the surveys and to James Lyall for his eternal patience in the face of monumental incompetence!!

### References

Boutwood, Y., 1996. Roman Fort and Vicus, Newton Kyme, North Yorkshire. *Britannia*, Volume 27, pp. 340-344.

Haken, M., 2018. *The Roman Roads of Britain, A Gazetteer*.

Available at:  
<http://roadsfromromanbritain.org/gazetteer/yorkshire/rr280.html>

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Jones, R., 2012. *Roman Camps in Britain*. Stroud: Amberley Publishing Limited.

Margary, I. D., 1973. *Roman Roads in Britain*. London: John Baker.

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<https://doi.org/10.5284/1000131>

# RRRA Projects, update

## Roman roads in Norfolk, Part 2

*From David Ratledge*

### Introduction

In my first article on Norfolk’s Roman roads I reported on the discovery of the route of the road from Brampton south to Caistor St Edmund (Venta Icenorum). I next turned my attention to the road west from Caistor that was believed to go to Crownthorpe, a temple site near Wymondham. This logically would have continued westward to the Roman forts and settlement at Saham Toney located on the Peddars Way Roman road. However, the HER and other published works

(Norfolk Origins 2 and James Albone’s excellent online [PhD Thesis](#)) had not succeeded in making that through connection. Fortunately the Environment Agency’s new LiDAR release covered the area in question enabling the connection issue to be resolved but, in doing so, it raised an even bigger puzzle!



Fig. 1 The Roman Road for Norfolk is largely complete – well as complete as a Roman road map can be as there are still some puzzling missing links, so the investigation continues

*Continued on p.11*

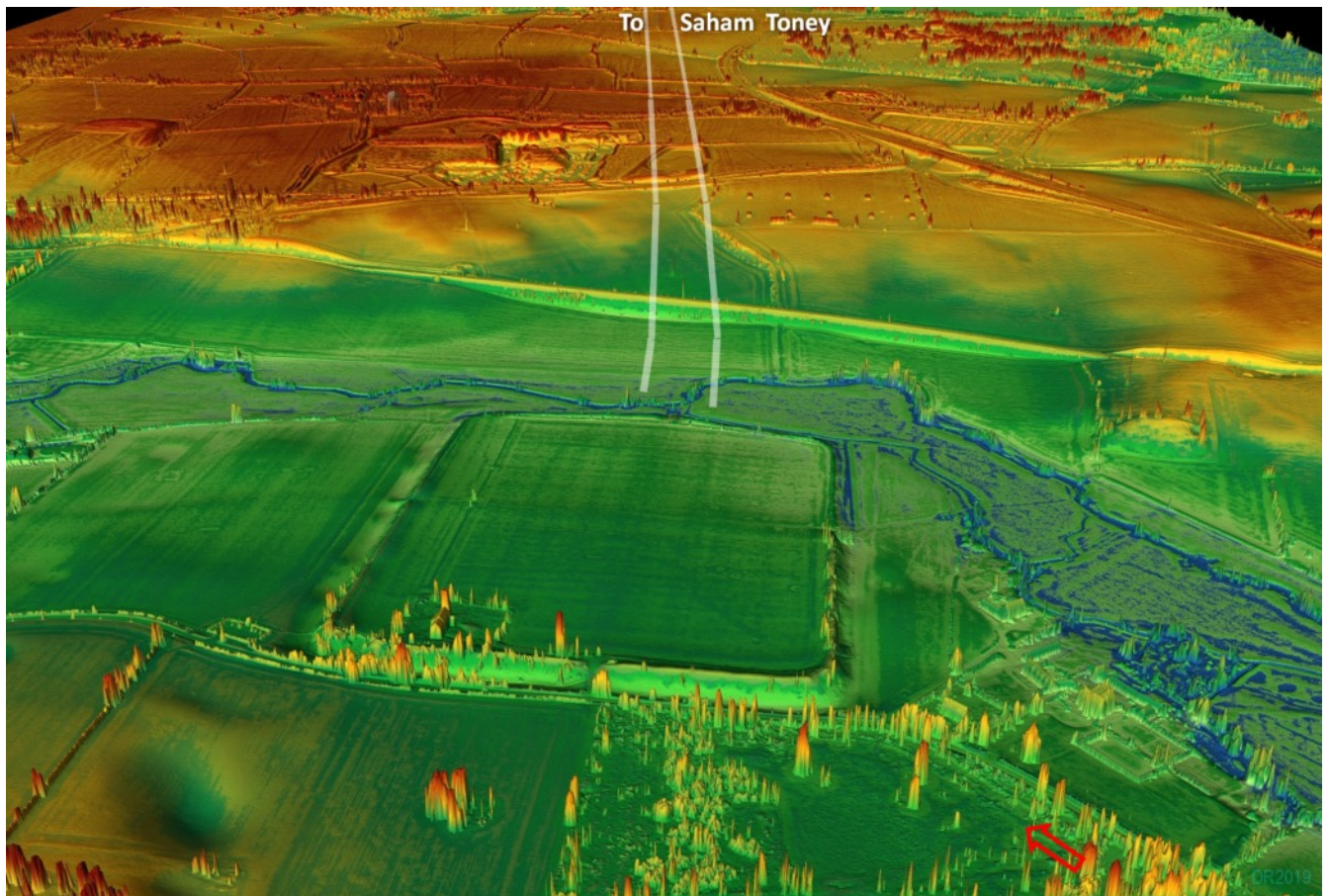
## Roman roads in Norfolk, Part 2, continued

*Continued from p.10*

### Roman Road from Caistor St Edmund to Saham Toney

Generally this road is pretty obvious in the LiDAR data but for some reason the first kilometre is very faint. However, there are enough intermittent

clues to assume a straight line from the likely bridge position outside the city's west gate.



*Fig. 2 Our road heads out of the west gate of the city to what must have been a bridge over the River Tas before beginning its first main alignment towards Saham Toney. The red arrow marks the road in from Brampton described in the last newsletter*

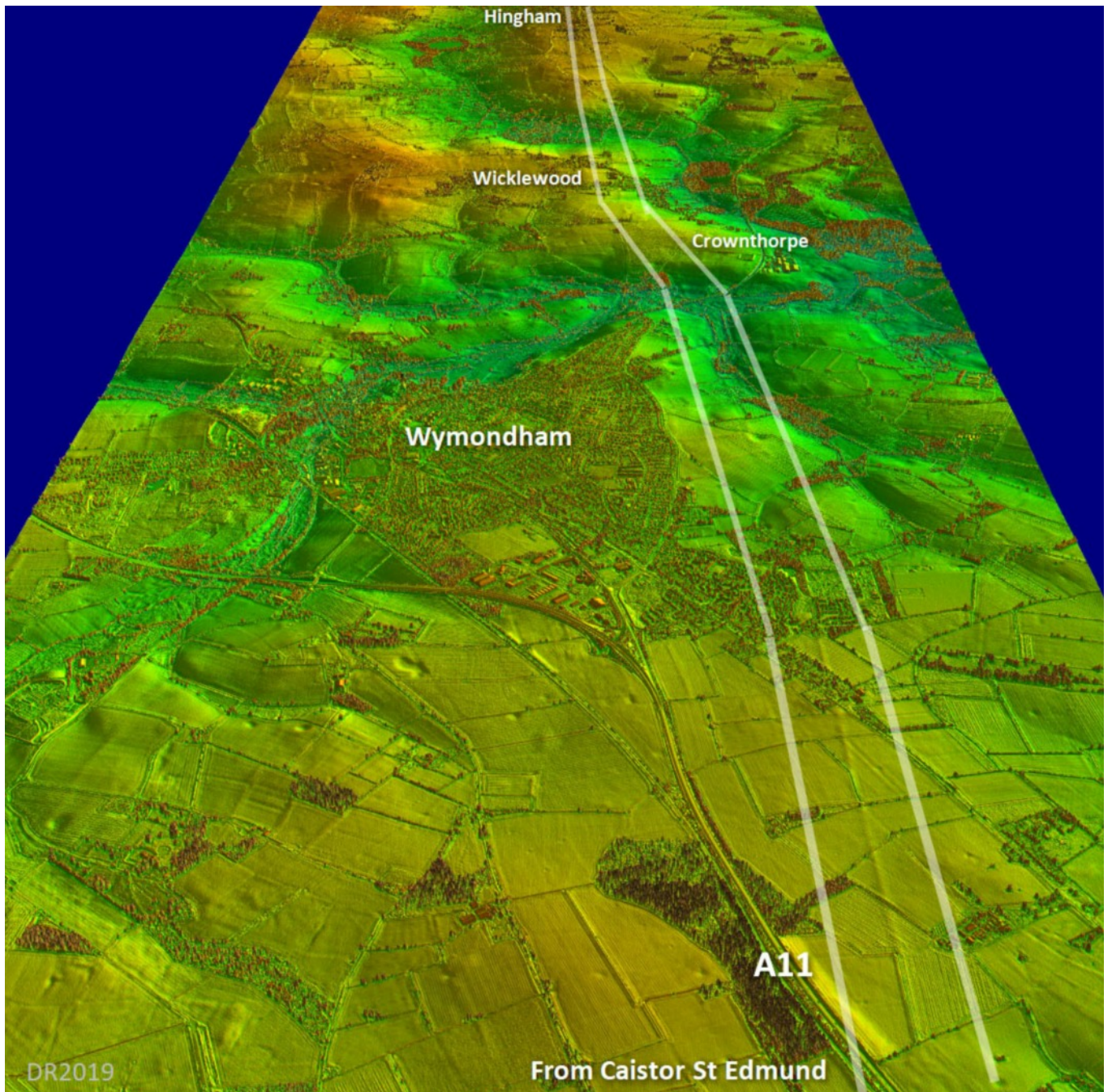
Once we have crossed the A11 the road agger becomes very clear and must have survived well as it approaches Wymondham. Note for non-locals: Wymondham is pronounced *Win-dum*. The slight dog-leg just west of Wymondham is where the

Roman settlement of Crownthorpe was situated. There was a roadside temple here (HER54693) and evidence for a small settlement as well. However, the field in which the settlement and temple are located appears to have been subject to

*Continued on p.12*

## Roman roads in Norfolk, Part 2, continued

*Continued from p.11*



*Fig. 3 Unmistakable indications of the Roman agger once we have crossed the A11 main road. A Roman temple site was located alongside the road at Crownthorpe*

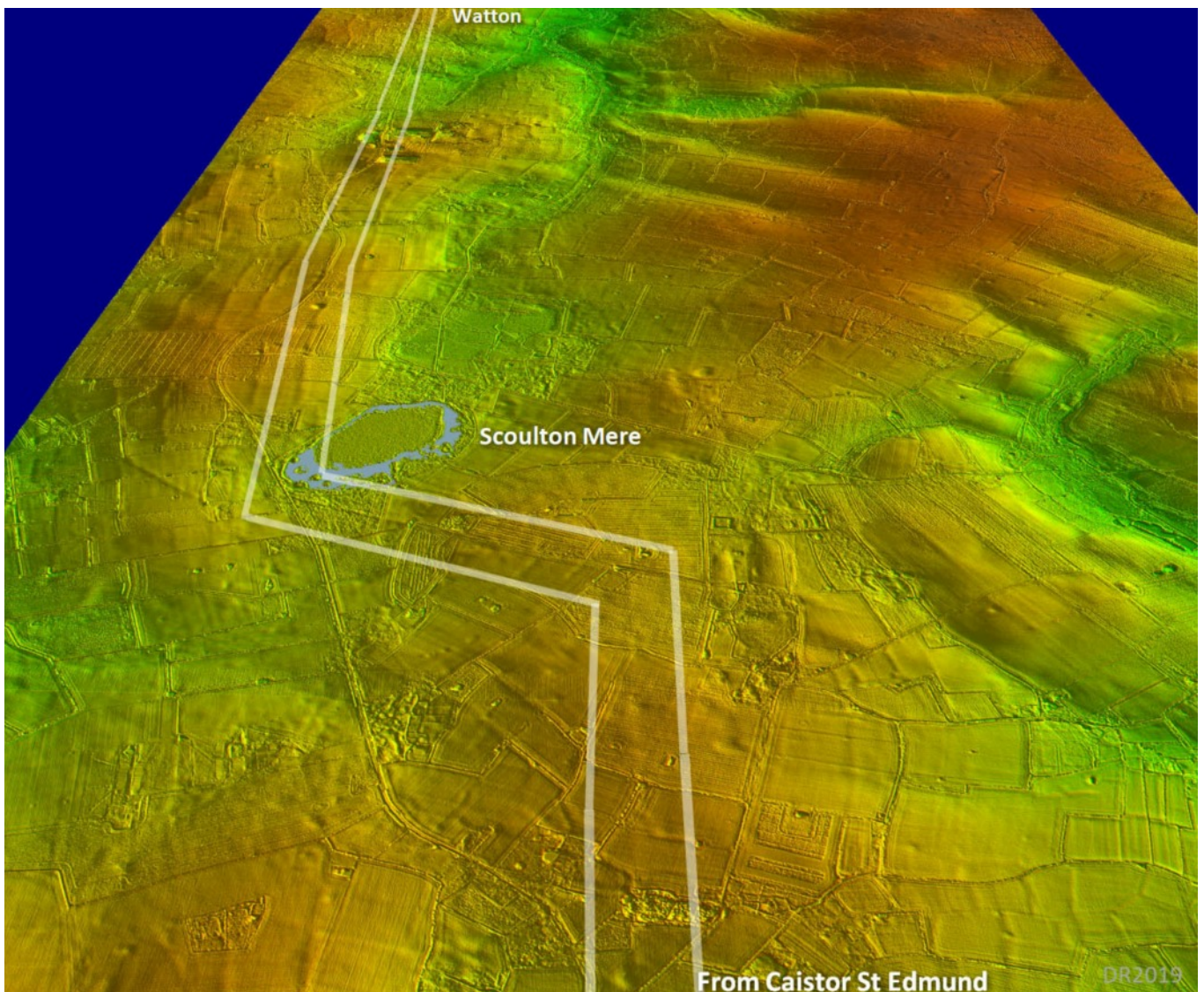
*Continued on p.13*

## Roman roads in Norfolk, Part 2, continued

*Continued from p.12*

Continuing on via Hackford and Hingham the road agger is again clear. Across Hingham it is lost under developments but re-emerges on the same alignment when west of the village so we can be confident in its course here. When tracing this road west of Hingham I originally came to a dead end. The straight alignment I had been following ended abruptly just north of Scoulton Mere. How could a road so obvious in the LiDAR data for literally miles suddenly disappear? It would take me a month of LiDAR detective work to solve this conundrum.

The 3D LiDAR software I use enables me to rotate the Sun position in real time – critical for revealing the shadows of the road agger. Only when I eventually thought of trying different illumination angles did the answer pop into view. The road took a 70 degrees turn to the south followed by another of around 68 degrees on the south side of the Mere. Wow - I have never come across anything like this before and it was totally unexpected.



*Fig. 4 Scoulton Mere must surely have had some ritual or religious significance to justify this Roman road arrangement. Perhaps the temple that the road passed at Crownthorpe was linked in some way*

*Continued on p.14*

## Roman roads in Norfolk, Part 2, continued

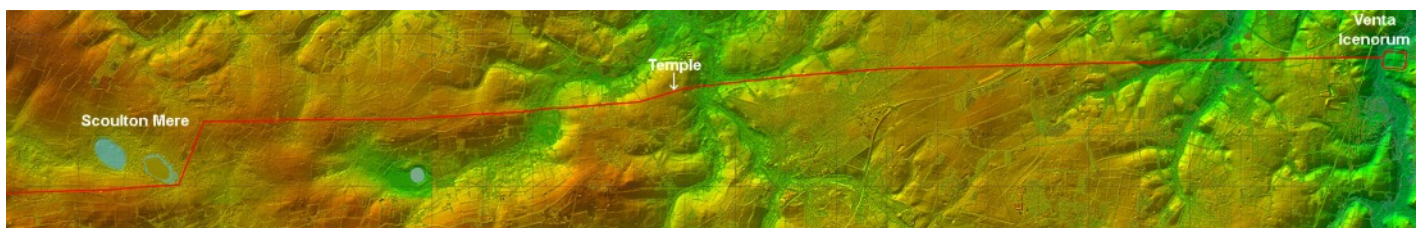
*Continued from p.13*

The 70 degrees turn seems far too extreme to be justified for finding the best route for the road. A shallower angle could have been used shortening the distance but for some reason it was not. Originally the Mere seems to have been about twice as big. An area to the west of the current mere has clearly been drained and looks to have been either a separate one making a twin mere or perhaps one connected to the existing. The west drained mere has clear indications of a settlement within it reached by causeways - one from the north bank and one from the south bank. Norfolk's answer to Flag Fen? Note though Scoulton Mere is private.

Anyone familiar with Time Team will recall that when anything inexplicable cropped up then the

standard answer was it must be a "ritual site". In this case could that description be true?

James Albone in his thesis (see reference) suggested the road from Caistor and one coming the other way from Saham Toney could have had a common destination of a religious site at Sea Mere (another mere located south of Hingham). His suggestion could well have been correct in principle but with a different mere – it was Scoulton Mere. The temple at Crownthorpe could now perhaps be linked in. Was it a roadside temple on the route from Venta Icenorum to an important ritual or religious site at Scoulton Mere?



*Fig. 5 Is it putting two and two together to link in Scoulton Mere to the roadside temple at Crownthorpe? I have coloured the western (drained) mere blue to give an impression of its former size*

Beyond Scoulton Mere, the straight main road through Watton (B1108) has always been assumed to be Roman and now we have connected it up to the road from Caistor then this can confidently be stated to be the case. It does look Roman - it is straight and aims directly for the Roman site at Saham Toney. Despite this it seems whenever the road is dug up for services no Roman foundations are spotted.

The route just to the west of Watton, approaching the Peddars Way Roman road and the Saham Toney settlement, is subtle and perhaps a bit tentative. There is an alternative route in to the central fort (shown dotted in figure 6). This site has

a complex history and was clearly one of Norfolk's most important.

The small southern fort with annexe is the earliest (Claudian according to the HER) and Peddars Way aims directly at the annex's southern gateway. On its western and northern sides down to the river appears to be a vicus settlement with a road running through it. This could have been the through route for Peddars Way or perhaps there was a bypass road on the east side of the fort (dotted).

North of the river is a later odd shaped fort. Peddars Way goes through this fort and perhaps, when it came into being, a road out of its east gate

*Continued on p.15*

## Roman roads in Norfolk, Part 2, continued

*Continued from p.14*

was constructed (dotted). This would align with the straight road through Watton so could have been a more direct connection.

Finally, there is what looks like another fort to the north aligned with Peddars Way. This is unrecorded in the Norfolk HER (but I have reported it).

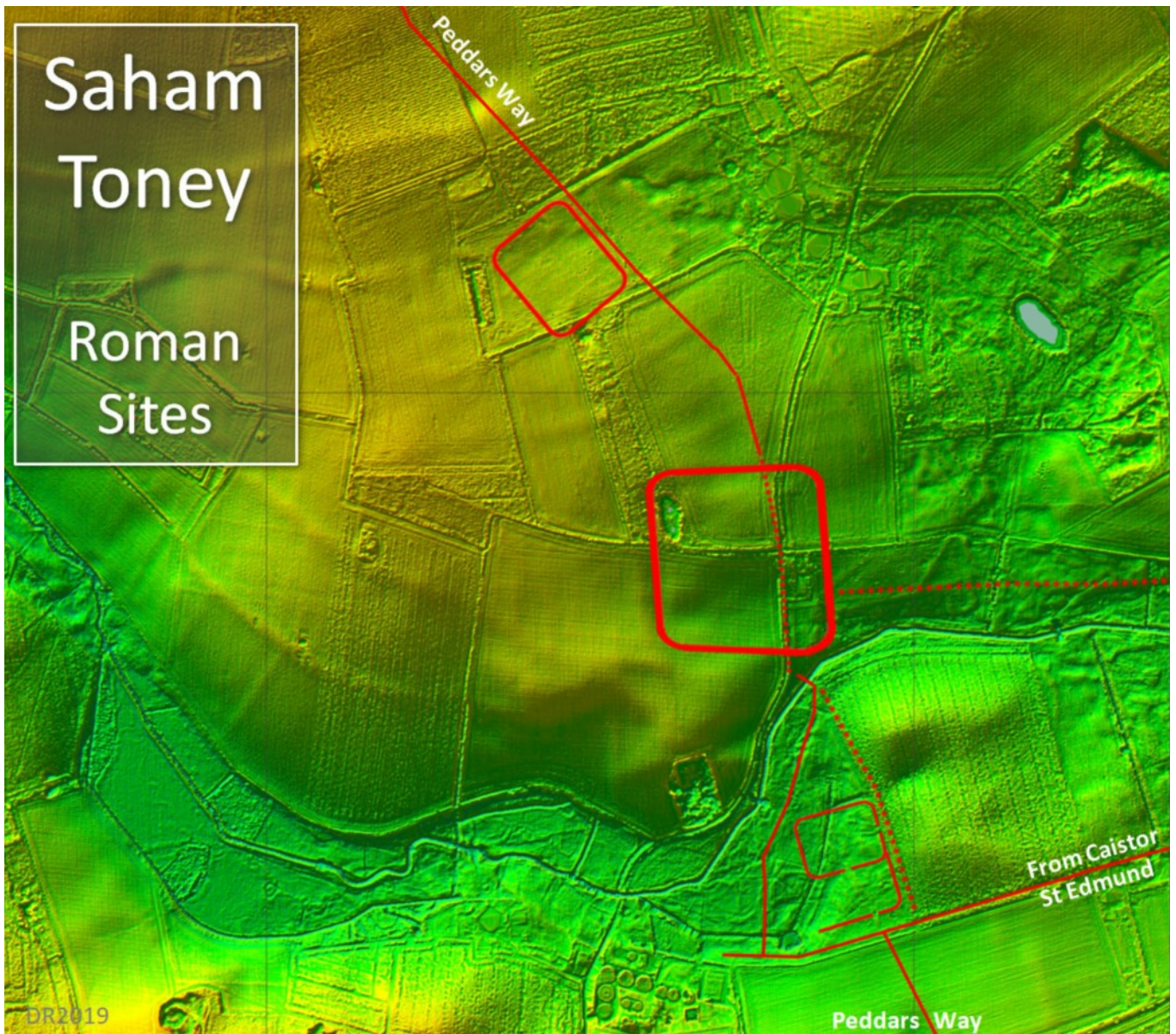


Fig. 6 There was an important Roman settlement at the junction with the road from Caistor and Peddars Way Roman road at Saham Toney

*Continued on p.*



## Roman roads in Norfolk, Part 2, continued

*Continued from p.15*

### Conclusion

One of the strangest roads I have ever come across. No wonder the missing connection proved so elusive. Who would have thought that a massive 70 degree chicane would be involved? There is a saying "Normal for Norfolk" so perhaps we should not have been surprised. One thing I have noticed in tracing all of the Roman roads of Norfolk is that several of them do pass alongside meres.

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### References:

Robinson, B & Rose, EJ, 2008, *Norfolk Origins 2 - Roads and Tracks*, Poppyland Publishing

Albone, J, 2016, *Roman roads in the changing landscape of eastern England c.AD410 – 1850*,, ethesis from the University of East Anglia, also available <https://ueaeprints.uea.ac.uk/id/eprint/63543/>, here Accessed Jan 2020

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### Lidar 'fly by' snow scenes!

*From David Ratledøe*

In addition to the normal view lidar as David has done in Norfolk above, he is also very proficient in manipulating lidar data to give a video clip over a length of road. This gives the impression of a 'fly by' and you have to keep reminding yourself, it's a lidar view. In addition by the clever application of a white layer preferentially to horizontal surfaces the

impression is given of a snow scene. All very impressive and stimulating. The latest fly by is of Jeffery Hill on the Ribchester to Burrow road in Lancashire. It's available on [YouTube here](#). Others are linked off this down the right hand scroll panel, they're worth viewing!!

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### The Eleventh Hadrian's Wall Archaeology Forum

**Hexham Queens Hall, Saturday 29 February 9.45am - 4.00pm**

Tickets: £25.00 (includes tea/coffee and lunch at Hexham Abbey)

The programme will include reports on

Results of the 2019 season at Vindolanda (Dr Andrew Birley)

Recent excavations outside the fort at Benwell (Richard Carlton; Tony Liddell)

Fieldwork undertaken as part of the Wallcap project (Dr Rob Collins)

The results of further analyses of burials excavated at Birdoswald in 2009 (Tony Wilmott)

A study of coinage in the northern frontier zone (Douglas Carr)

**Please note: The price this year - £25.00 - includes tea/coffee mid-morning AND LUNCH, both to be taken in rooms at the nearby Abbey.**

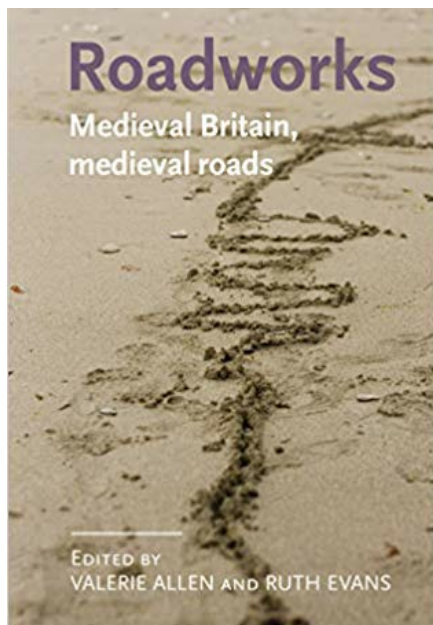
Book directly through [Queens Hall Hexham](#) or for further information please contact:

Dr David Mason ([david.mason@durham.gov.uk](mailto:david.mason@durham.gov.uk)) Tel: 03000 267012

## Other roads in the news; bits and pieces .. continued

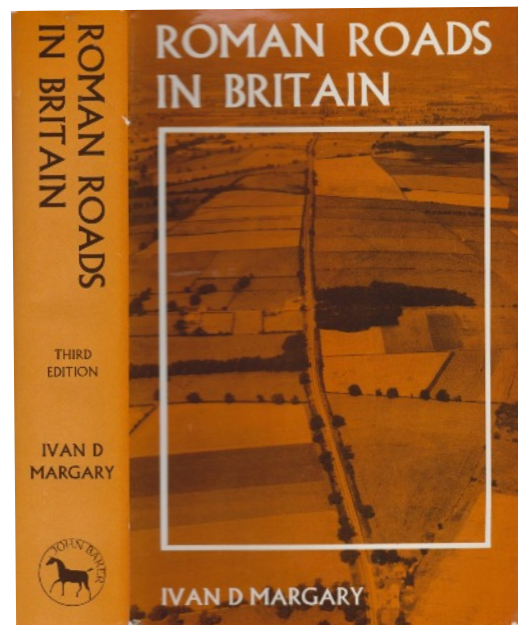
### More Roman Roads books

From Dave Armstrong



**Roadworks, Medieval Britain, medieval roads**, essays edited by Valerie Allen and Ruth Evans available from Amazon [here](#) with a summary of:

*This collection of essays offers an interdisciplinary study of roads and wayfinding in medieval England, Wales and Scotland. It looks afresh at the relationship between the road as a material condition of daily life and the formation of local and national communities, arguing that the business of road maintenance, road travel and wayfinding constitutes social bonds. Setting Britain's thoroughfares against the backdrop of the extant Roman road system, it argues for a technique of road construction and care that is distinctively medieval and challenges the long-held picture of a medieval Britain lacking in technological sophistication. This accessible collection draws out the imaginative, symbolic and cultural significance of the road. It synthesizes information on medieval road terminology, roads as rights of passage and the road as an idea as much as a physical entity. Individual essays look afresh at sources for the study of the medieval English road system, legal definitions of the highway, road-breaking and road-mending, wayfinding and the architecture of the street and its role in popular urban government. The book also explores subjects including hermits and the road as spiritual metaphor, royal itineraries, pilgrimage roads, roads in medieval English romances, English river transport, roads in medieval Wales and roads in the Anglo-Scottish border zone. This book will appeal to scholars of early and late medieval Britain in all disciplines. Its theoretical foundations will also ensure an audience among scholars of cultural studies, especially those in urban studies, transport studies and economic history.*



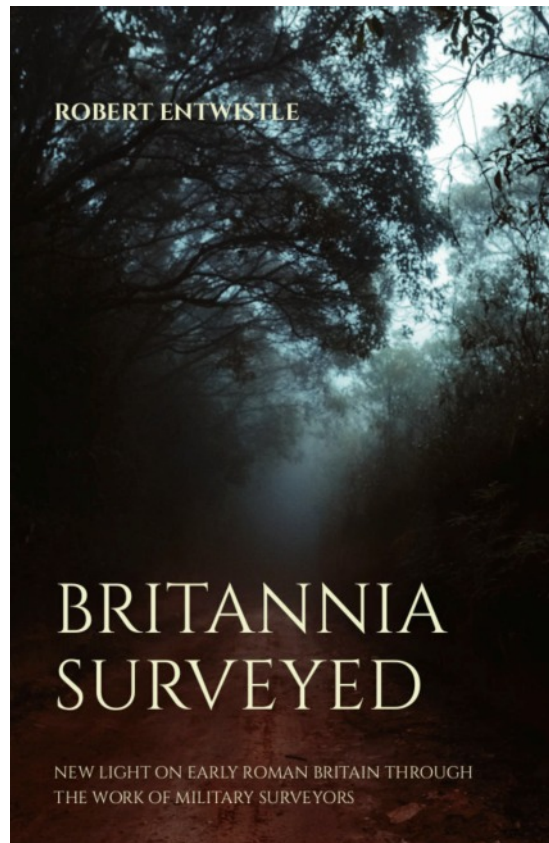
**Roman Roads in Britain** by Ivan D Margary, Published by John Baker London, Third Edition, 1973. Available from Amazon [here](#);

You may be wondering why this well known reference is in a book listing that usually highlights books you may not be aware of. Well; this is still the go to reference for Roman roads despite the last edition being almost 50 years old. Second hand copies are available from Amazon but do tend to be pricey, if you see a decent copy for less than about £40, it's a bargain. However, while I believe there aren't any transcriptions or scanned copies available on line I would point out that most of the Ordnance Survey Margary road files [available on our site here](#) have the relevant pages scanned in, so you can view a copy of the road you're interested in that way. If you prefer a tactile 'real' copy go for the third edition with the orange paper dust cover, the previous 1950's in two parts, and 1960's combined editions won't have as full coverage. This 'oracle' includes some fragile pull out maps so try and ensure the copy has these and preferably undamaged.

While Amazon seem to have cornered the second hand book market, they do tend to be the pricey way of buying books (and the Victor Meldrew part of me doesn't like paying via Luxembourg), try [ABE books](#) and other book outlets - Google search on the book title with author and see what comes up, I've found with other books that sometimes you can often find an open access copy on line or a more economical bargain elsewhere.

**Other roads in the news; bits and pieces .. continued**

**More Roman Roads books - offer to RRRRA members still open**



**BRITANNIA SURVEYED**

**New light on early Roman Britain through the work of military surveyors**

The story of the Roman Invasion and Conquest is familiar – yet uncomfortable gaps remain in what we know. This book offers new insights into unsuspected surveying achievements of the mensores (military surveyors), underpinning campaigns and consolidating control of territory.

Referencing recent academic research, the author carries the reader with him through an investigation which breaks new ground.

Contents include;

- Introduction
- Chapter 1. Order within complexity: the roads
- Chapter 2. The coming of the legions: strategic campaign support
- Chapter 3. Encompassing the early province: strategic consolidation
- Chapter 4. The King in the South: boundaries

- Chapter 5. The Queen in the North: intervention and control
  - Chapter 6. The Art of Surveying: methodology
  - Conclusion
  - Bibliography
  - Index
- viii + 128 pp, 13 maps, 23 figures.  
ISBN 9781910238172

This book has just been released; Mike Bishop, RRRRA member, archaeologist, author and publisher has generously made a special offer to RRRRA members; **£10 plus £2.50 P&P** for UK delivery. Cheque's should be made payable to '**MC Bishop**' and sent to **Flat 1, 39-41 High Street, Pewsey, Wiltshire SN9 5AF**. Payment can also be made through PayPal, account [mcbishop@pobox.com](mailto:mcbishop@pobox.com).