



Chichester and District Archaeology Society

Investigation of the Route of R155 Around Robin's Farm

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July 2020

Introduction

The course of the Roman road from Chichester to Silchester (Margery 155) is well known other than for a short section around Robin's Farm, south of Milland, where the road crosses an escarpment. This investigation sets out to determine which of two possible routes is most probable.

Background

Robin's Farm lies 2km to the south of Milland. Two routes have been proposed by James Kenny, Archaeology Officer at Chichester District Council. These are outlined in figure 1 (the East route and the West route).

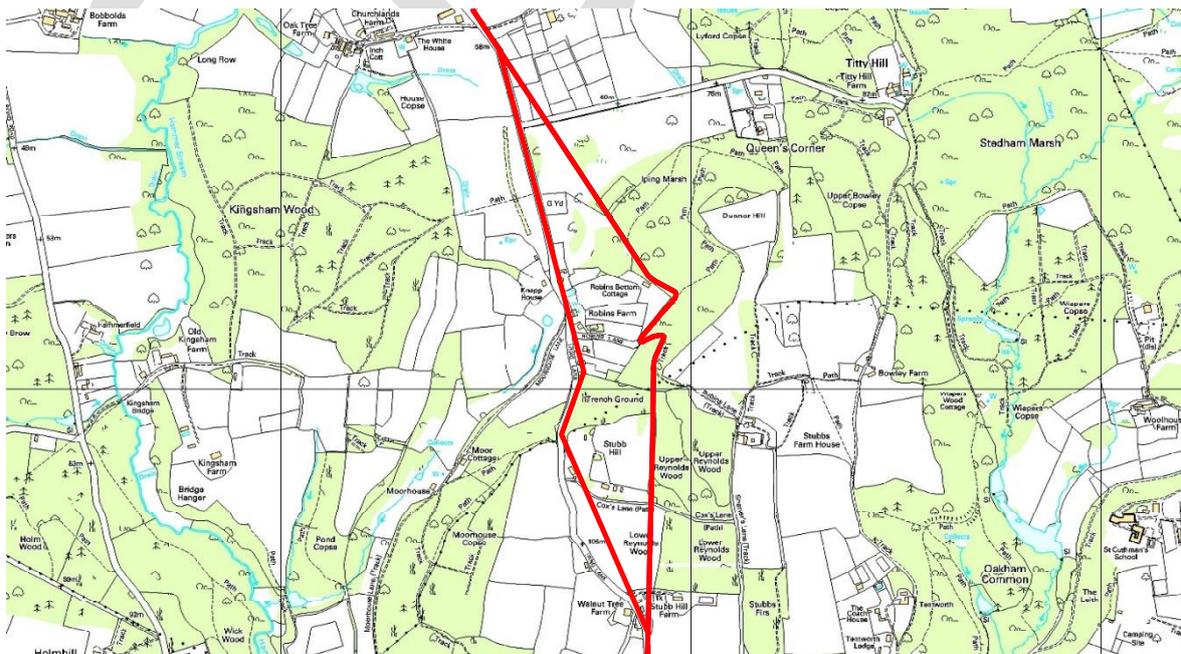


Figure 1. The two possible routes for M155 around Robin's Farm

Methodology

Desk work was carried out using Environmental Agency LiDAR, Google Earth historic images and historic maps from the National Library of Scotland and the Old Sussex Mapped site of Portsmouth University. This was followed by fieldwork. The LiDAR was processed using RVT version 2.2.1 and QGIS version 3.12. The gradients of tracks were calculated from the Profile Tool plugin on QGIS.

Findings

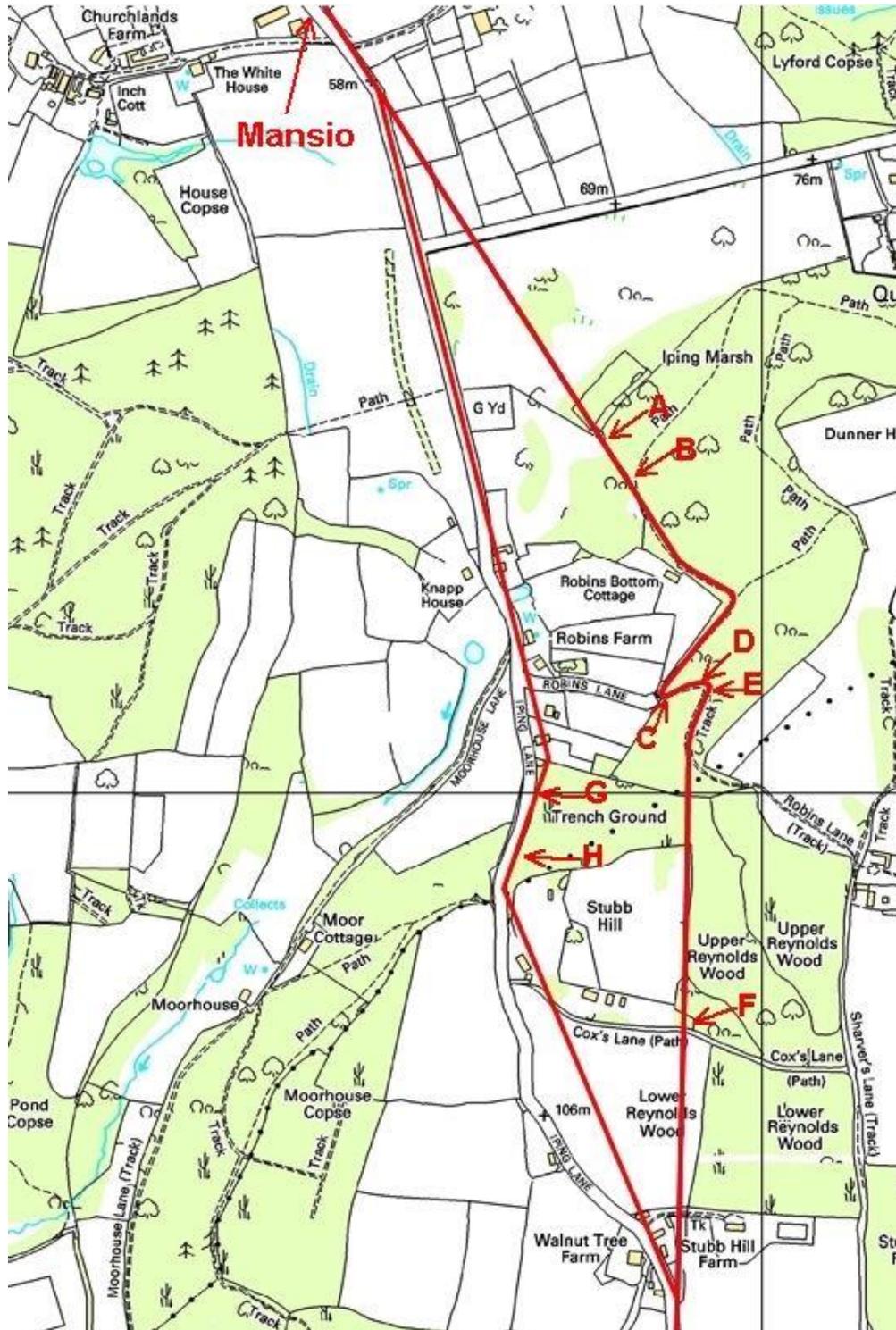


Figure 2. The two possible routes marked up with sections of interest

East Route

The east route starts as a continuation of the original road from the Mansio with a slight turn to the south. This section could not be examined on site as public access was difficult. It was examined on Google Earth historic images and LiDAR. No trace of a road could be seen in either. The LiDAR in particular would be expected to show a cutting on steeper slopes.

The proposed route then joins an existing track (the continuation of Robins Lane) which bends sharply to the right. This was investigated on site and found to be a steep rough track which is particularly steep where it bends sharply right.(Fig 2 marked as D-E)

The gradient of the proposed course was measured using LiDAR in three places (see fig. 2, A-B, C-D and D-E). The gradients were:

A-B 24%

C-D 23.5%

D-E 30% (on the inside of the curve)

It is believed that these gradients are too steep for a Roman road. Only short sections of Roman road climbed as much as 10-15% (Klee, 2010).

Roman engineers also tried to avoid tight curves (switchbacks) as Roman wagons had a turning circle of 5.6m (Hertzog, 2019). This restriction would make this bend (D-E) additionally difficult.

The proposed route then continues to the south with a maximum elevation of 128m. The crossing of the proposed route with Cox's Lane was investigated (point F). A possible route appeared on LiDAR in this position. However, on the ground, this was merely a valley bottom with no sign of any modification (see fig. 3)



Figure 3. Crossing of proposed Eastern route with Cox's Lane looking south

West Route

The proposed West route starts from the Mansio on the same line as the East route. However, it changes to a more southerly direction to follow the Milland Road. It continues along this line until just after Robins Farm. On approaching the escarpment, the road bends to the right to cut diagonally across the slope and reduce the incline.

The course of the road up the incline is shown on LiDAR. This is about 20m to the east of the current road and is not visible from the road itself. On climbing the steep side of the road, a holloway was found extending between points G-H. See fig 4.

The holloway (see fig 5) had a remarkably consistent gradient of 8.5%. This is consistent with other holloways used by carts.

The holloway ended at a cutting at the side of the current road (see fig 6). It is proposed that the holloway continued originally to the top of the escarpment close to the course of the current road. The original top of the escarpment, before it was cut by the current road, could have been reached by exactly the same gradient (8.5%) as the rest of the holloway. The view to the top of the escarpment from the current road is shown in fig 7. The top of the escarpment lies at 110m.



Figure 4. The Holloway on LiDAR (SVF)



Figure 5. The Holloway



Figure 6. The top of the Holloway ends at a cutting at the side of the road



Figure 7. The top of the escarpment from the current road. The holloway would have finished in a similar position.

The proposed course of the track was examined where it crosses Cox's Lane. The path is generally fairly flat. However, there is a raised section at point I. This is about 20m to the east of where the original proposed route would cross the lane. (see fig 8). The width of this section is about 8m. Cox's Lane lies at an angle to the proposed route of 45°, which would be consistent with a road width of about 5m.

There used to be an old fence that ran from point I along the proposed course of the Roman road. This was shown on old Google Earth images before 2005. This may just be a coincidence.



Figure 8. The raised section of Cox's Lane lies between the two CDAS members.

The route to the south lies along higher ground (see fig 9).



Figure 9. The proposed route running SE from point 1

Conclusion

The west route is the most probable course of the Roman road. There is considerably more evidence for it on the ground and on LiDAR. It has a steady incline to the top of the escarpment with a maximum gradient of 8.5%, compared with 30% for the east route. The west route is the most direct, measuring 1,574m compared with 1,723m for the more twisty eastern route and it crosses the escarpment at a lower elevation of 110m compared with 128m for the east route.

Next Steps

To confirm the west route, a geophys survey could be carried out on the field south of Cox's Lane (see fig. 9). The zonal ditches (approx. 17m apart) should show up.

Bibliography

Hertzog, I., 2019. *Reconstruction of Roman Roads in Southern German*. Bonn: s.n.
Klee, M., 2010. *Lebensadern des Imperiums. Straßen im Römischen Weltreich (Lifelines of the empire. Roads in the Roman Empire)*. Stuttgart: Konrad Theiss Verlag.

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