

Recent Roman Lancaster geophysical investigations at Castle Hill

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With heaps of field support from former Lancaster University students and expert input and guidance from archaeologist Jason Wood (Heritage Consultancy Services)

Lancaster
Environment Centre



Confession



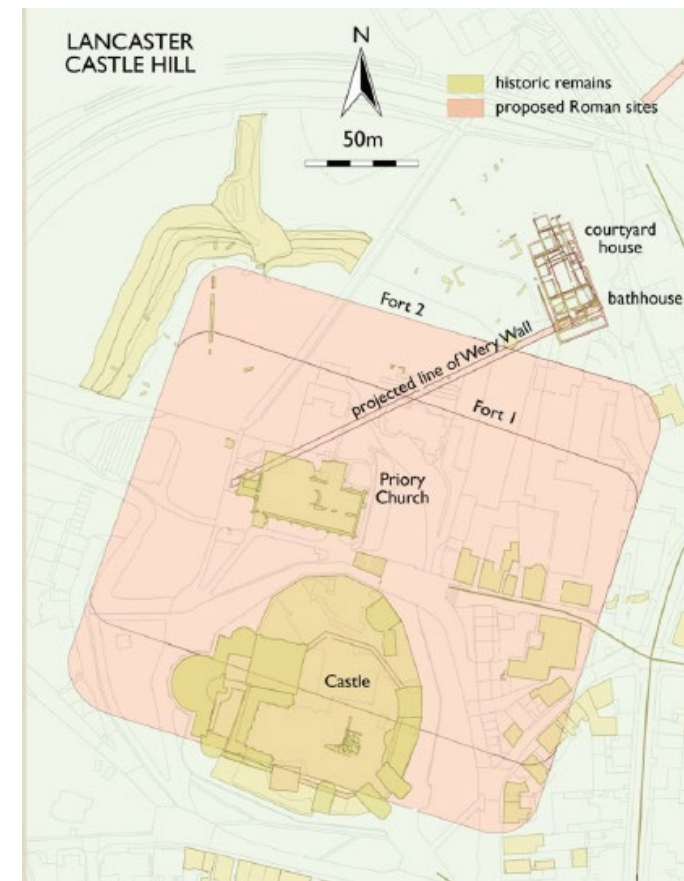
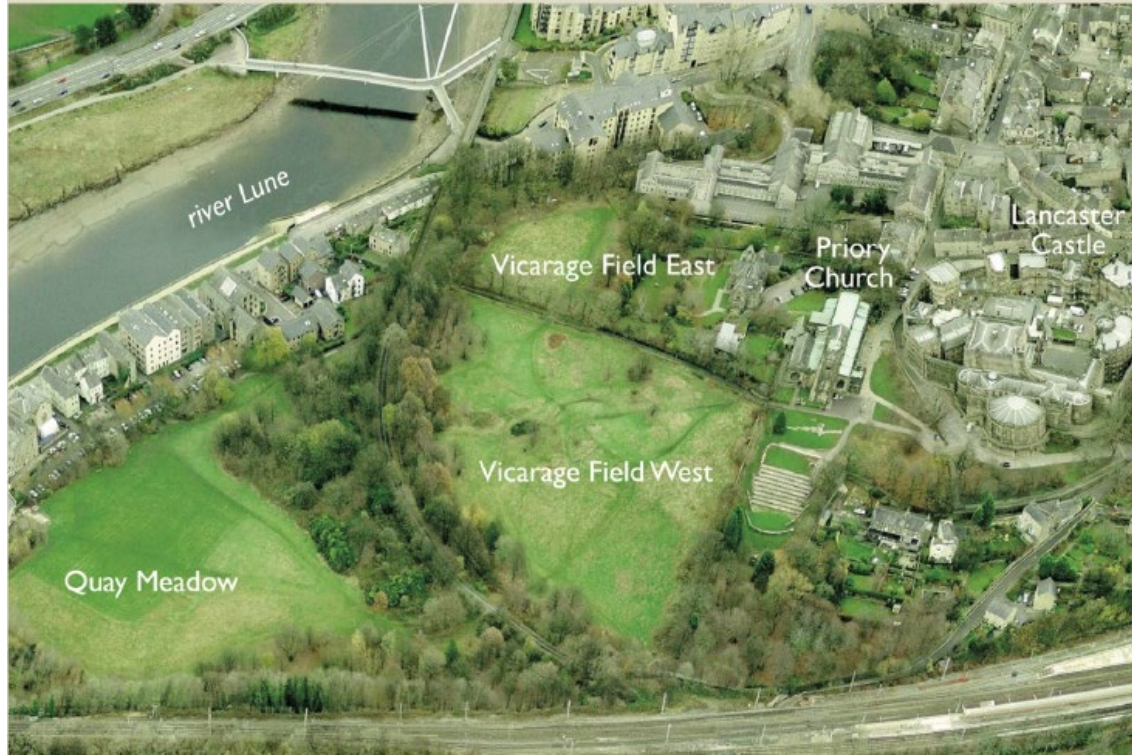
Geophysics – seeing into the subsurface



Roman Fort, Lancaster Castle

The Romans built a fort on the hill where Lancaster Castle is today.

A few archaeological surveys have been performed in the fields surrounding the site but the entire area has not been fully explored.



Extent of the Roman fort

Starting 2016, we have been carrying out geophysical surveys to try to give more insight into historic activities – some of these surveys have changed our view of Roman presence in the area.

Timeline of activities

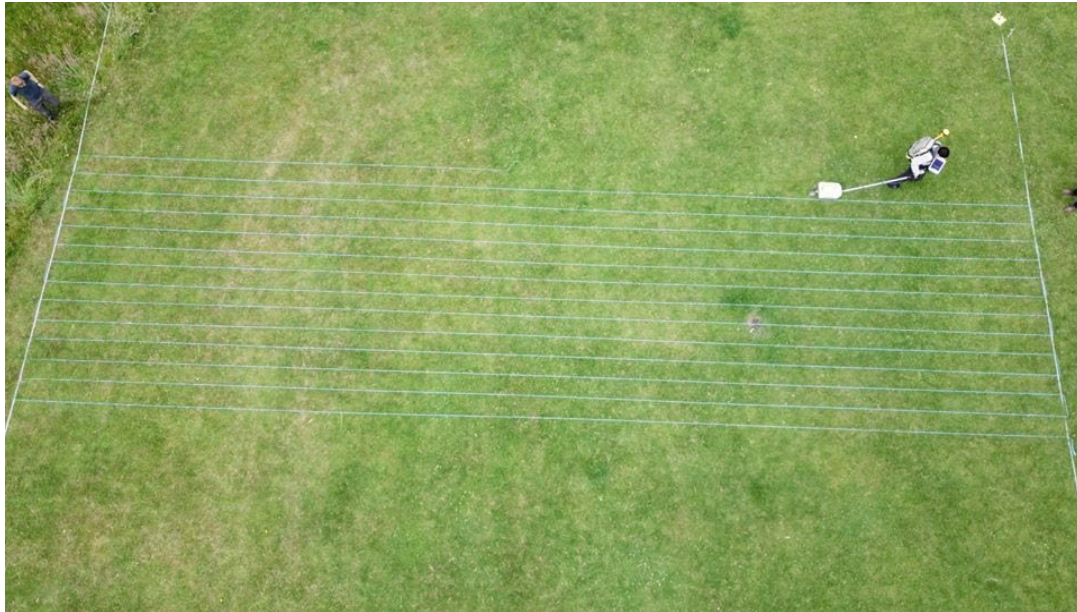
- 2014 *Beyond the Castle* project starts.
- 2016: we were approached by Lucia Marquart (LCC) and Jason Wood about the potential to carry out further geophysical surveys to complement those done by Oxford Archaeology North in 2014 as part of the *Beyond the Castle* project.
- 2017-2019: A series of geophysical surveys carried out, some in areas not previously explored. **Significant find noted in Quay Meadow site.** Results reported in *Beyond the Castle* report.
- 2021: More complete survey of Quay Meadow carried out. Findings reported in *British Archaeology* article.
- 2022: Geophysical surveys carried out in the grounds of Lancaster Priory and adjacent land (Hillside).



Wood (2022) *Beyond the Castle* report

<https://www.lancaster.gov.uk/sport-and-leisure/museums/roman-lancaster>

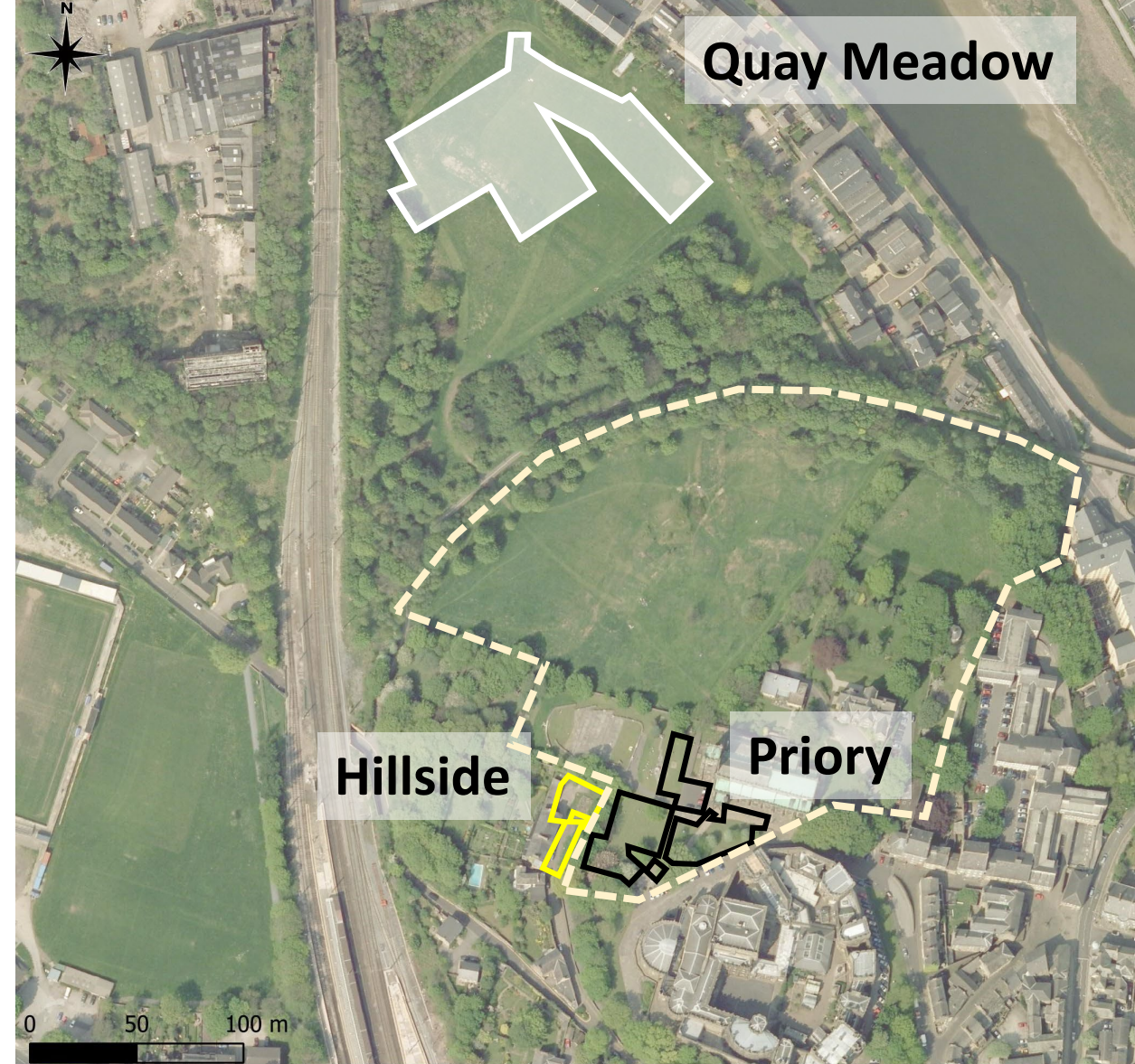
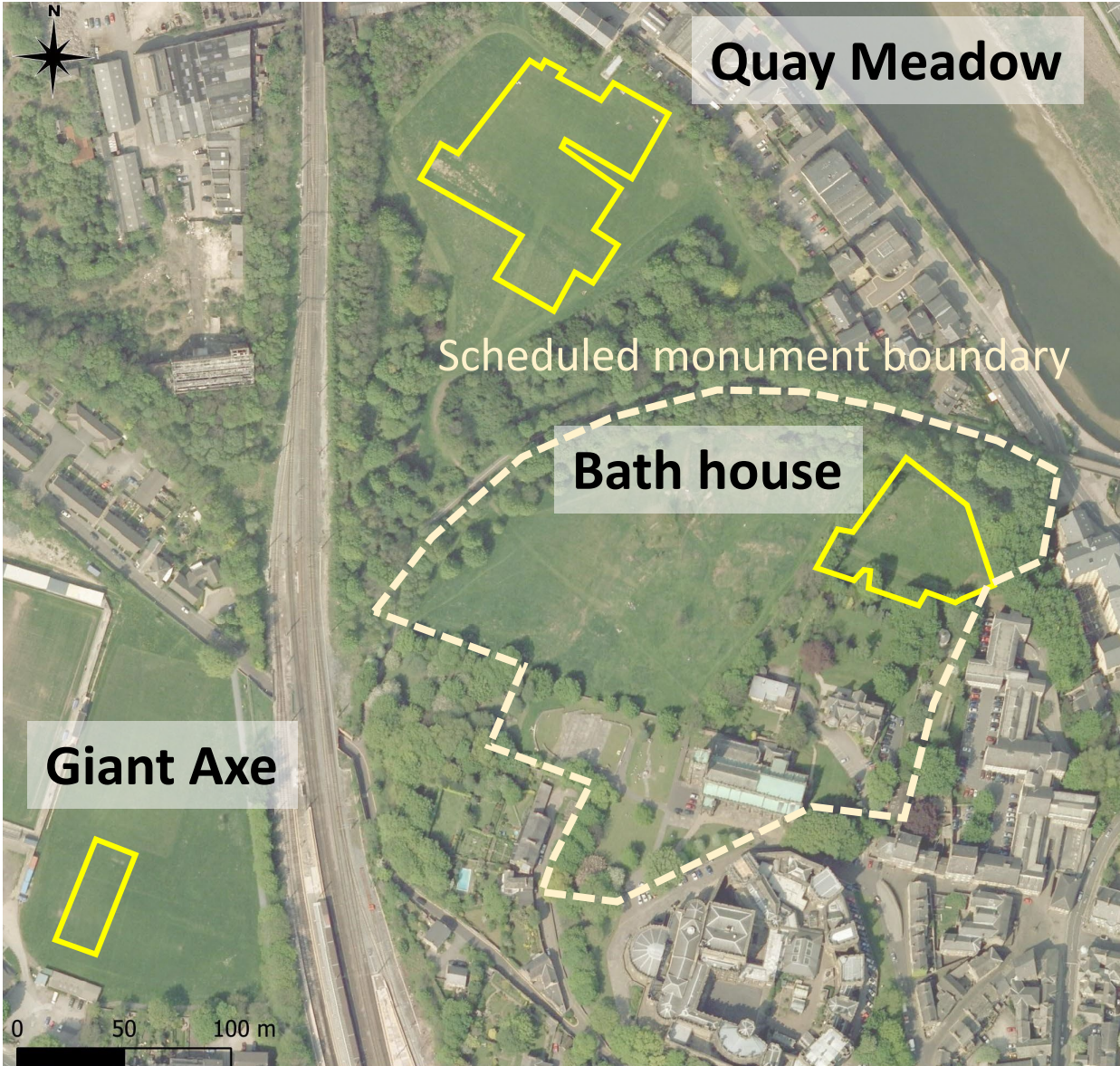
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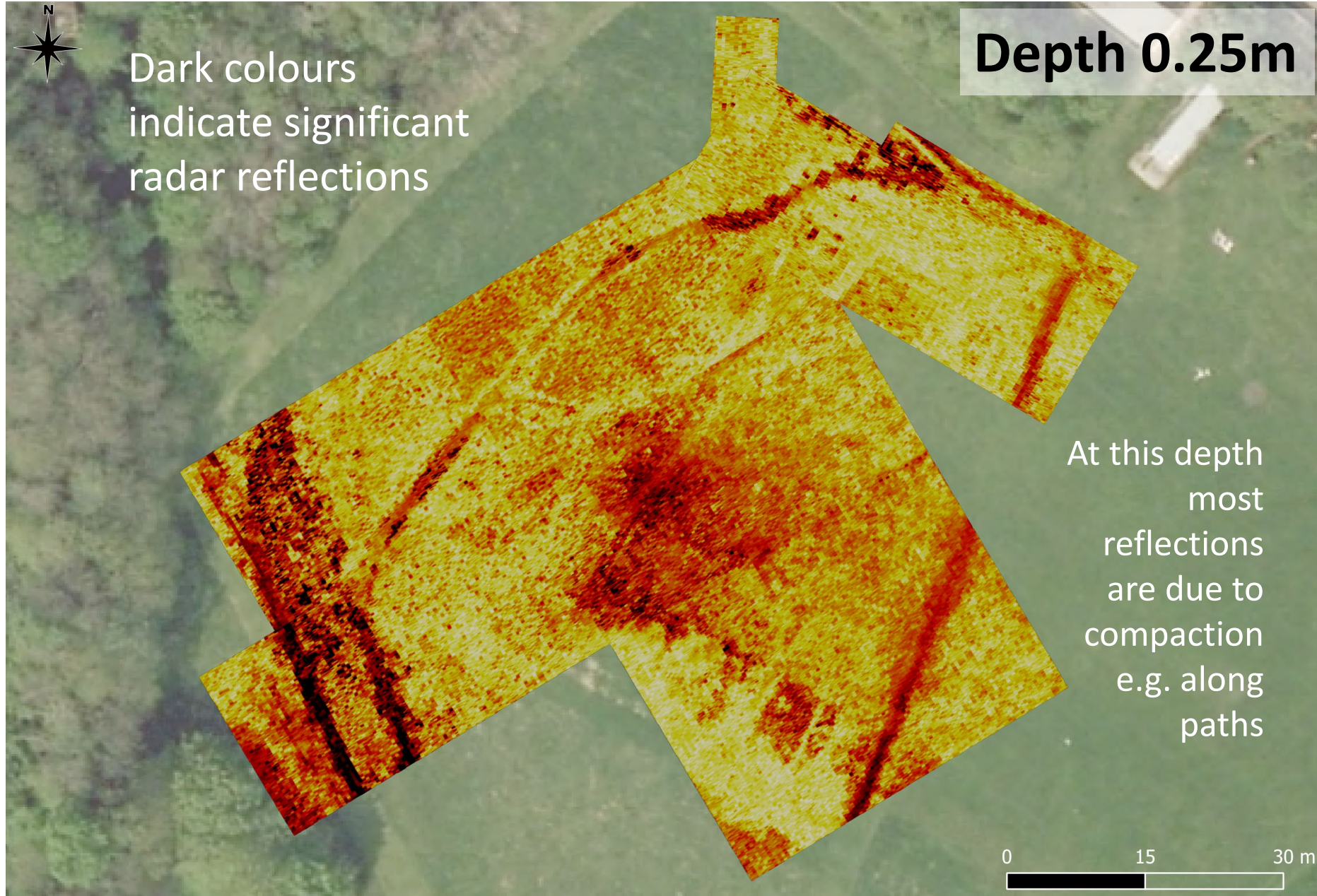
2017-2019 survey areas

2020-2021 survey areas



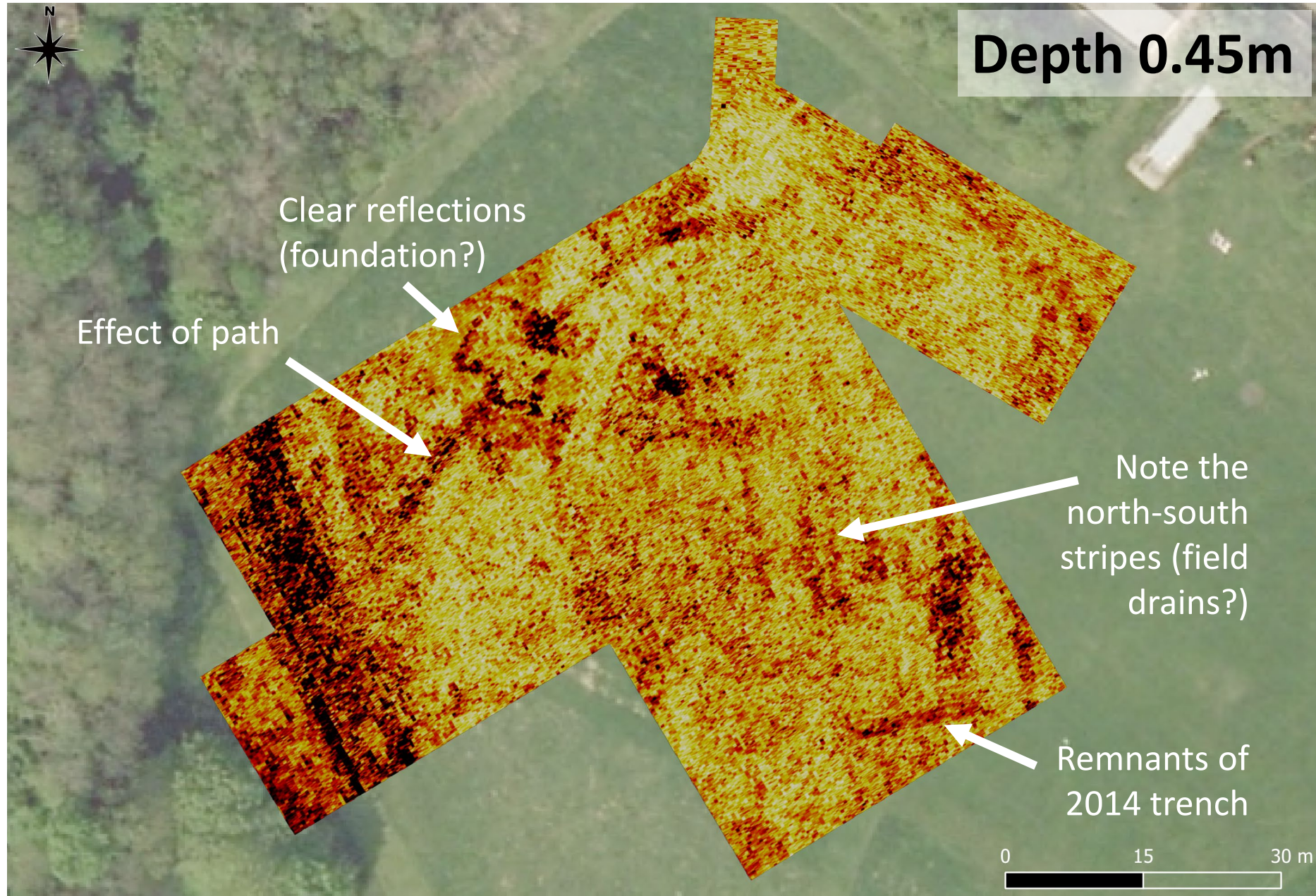
Quay Meadow GPR 2021

Using depth slices, GPR reveals anomalies that suggest significant infrastructure at the site.



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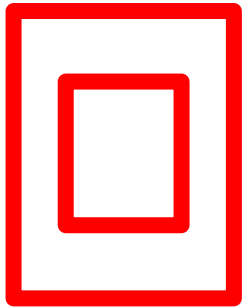
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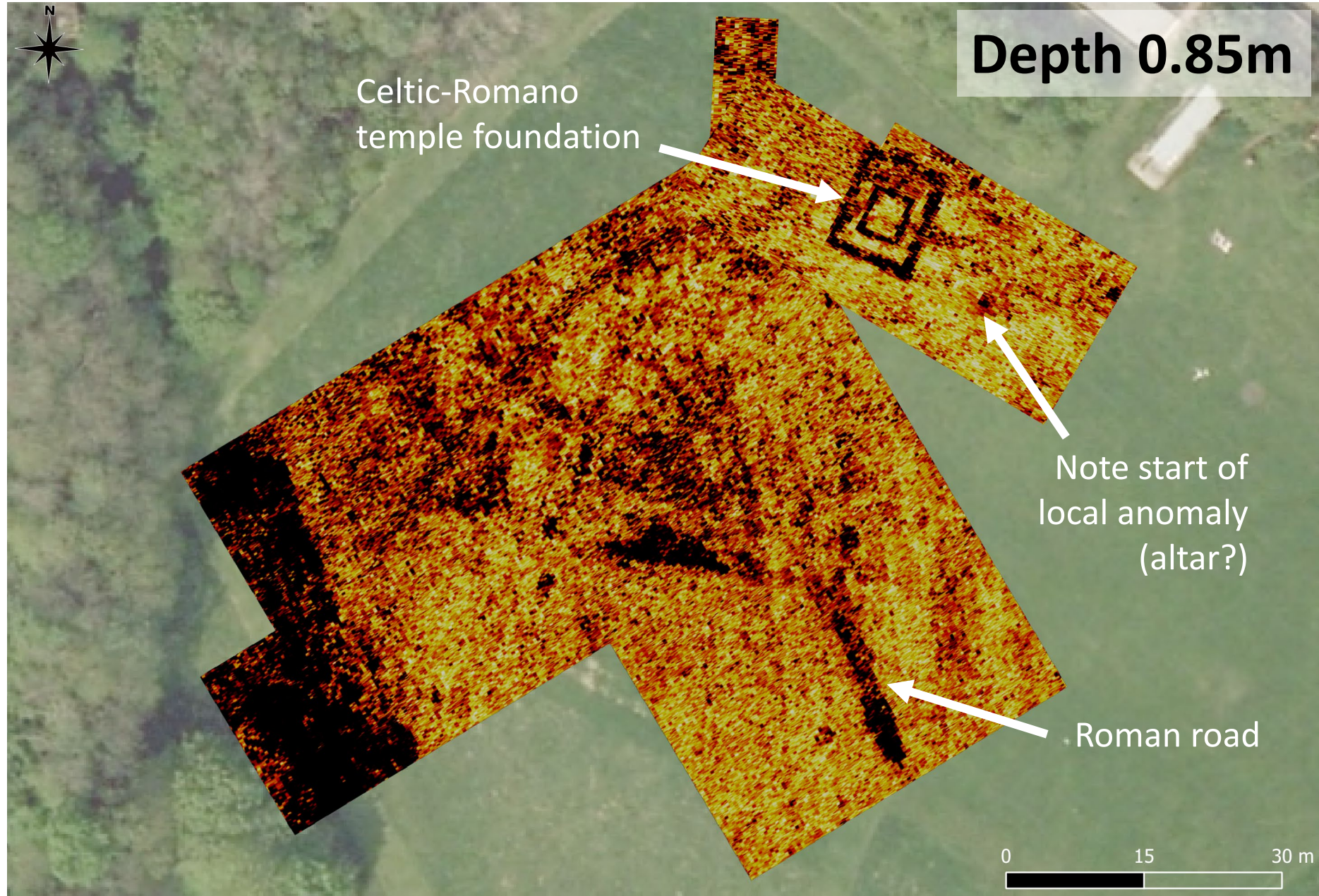
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Celtic-Romano temple



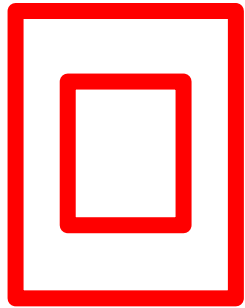
Roman Road



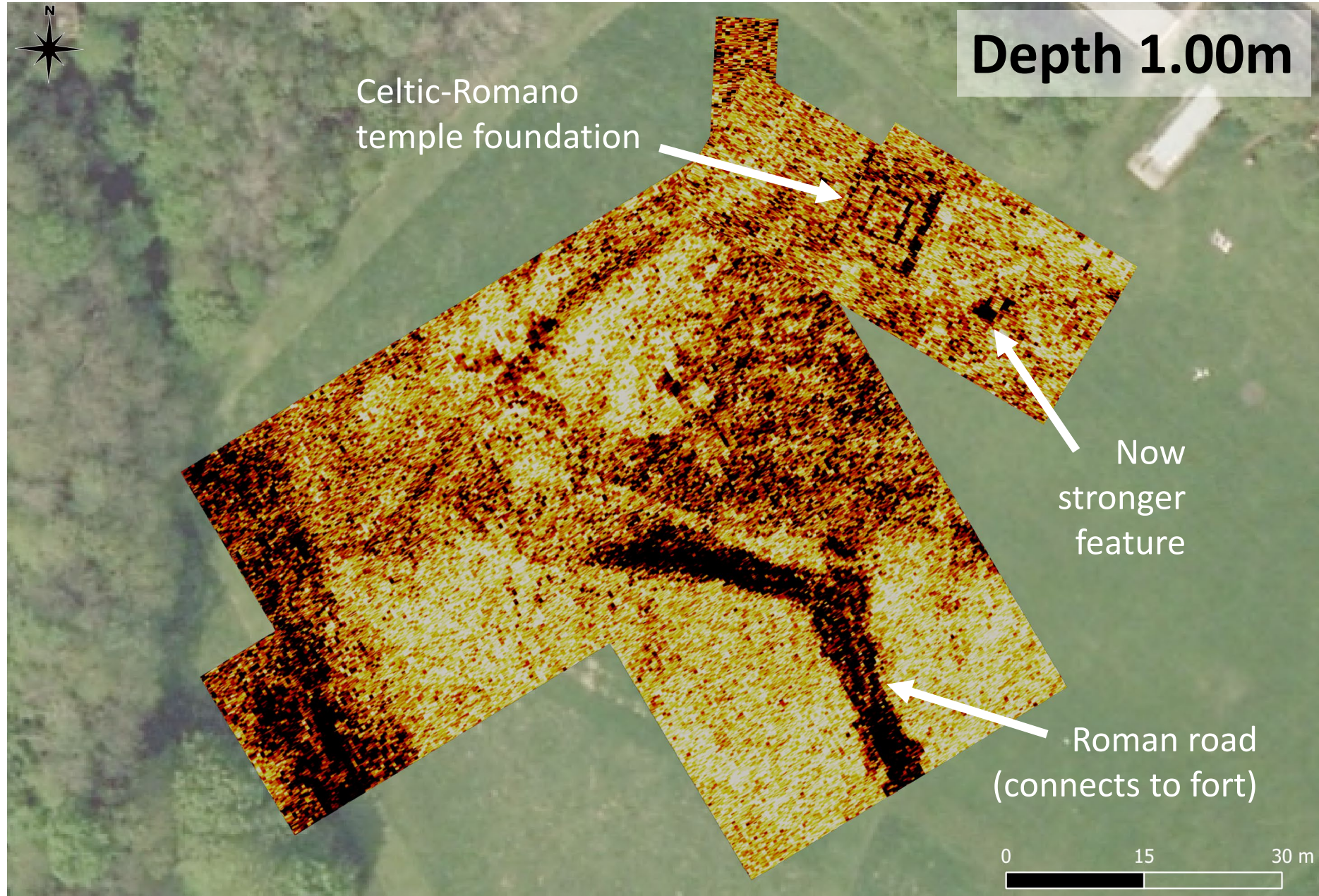
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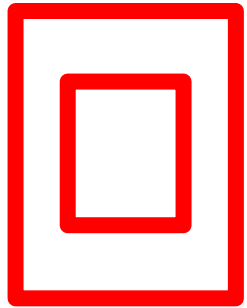
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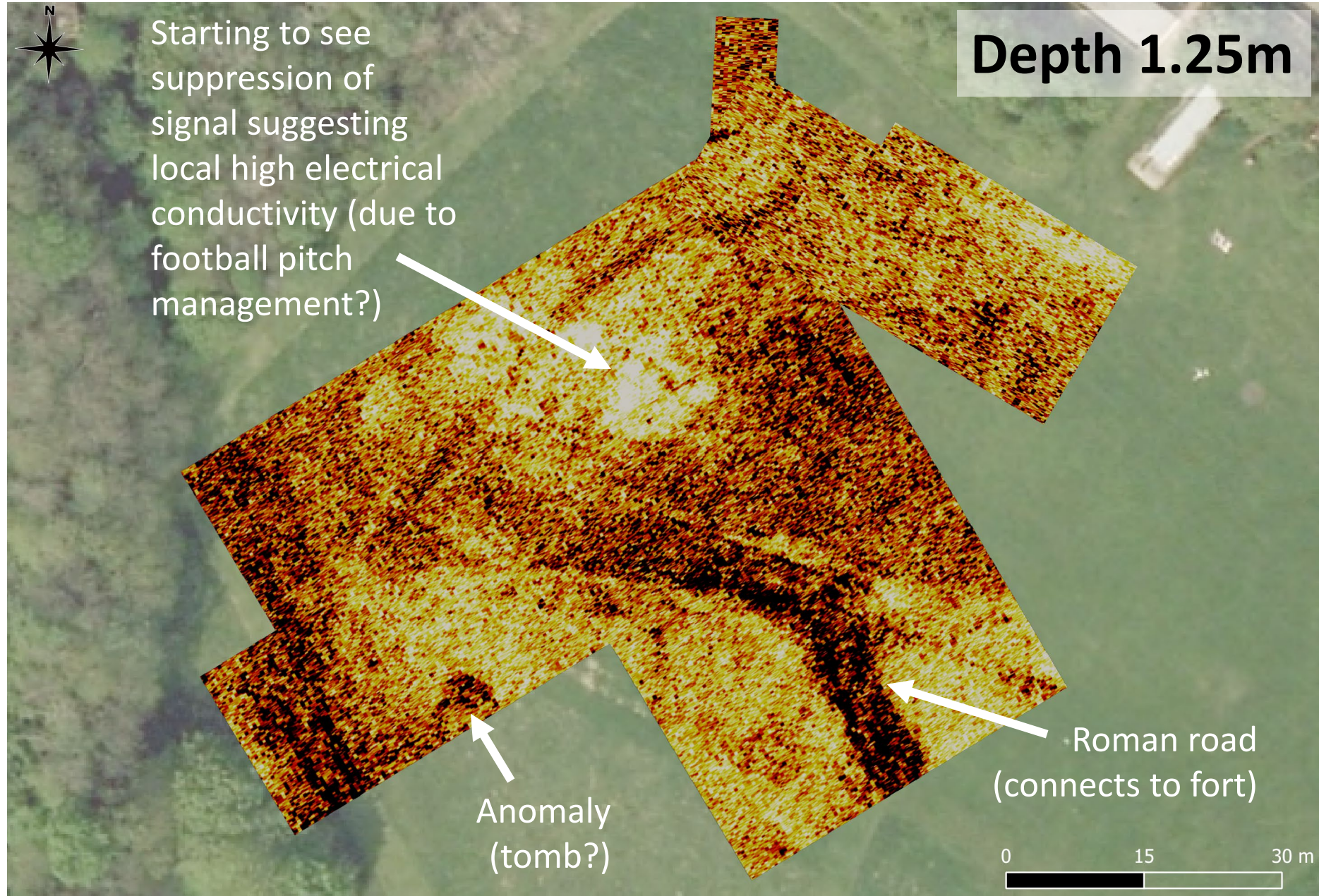
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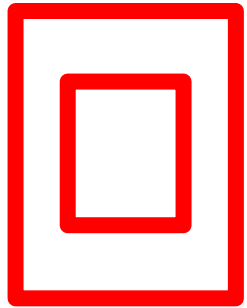
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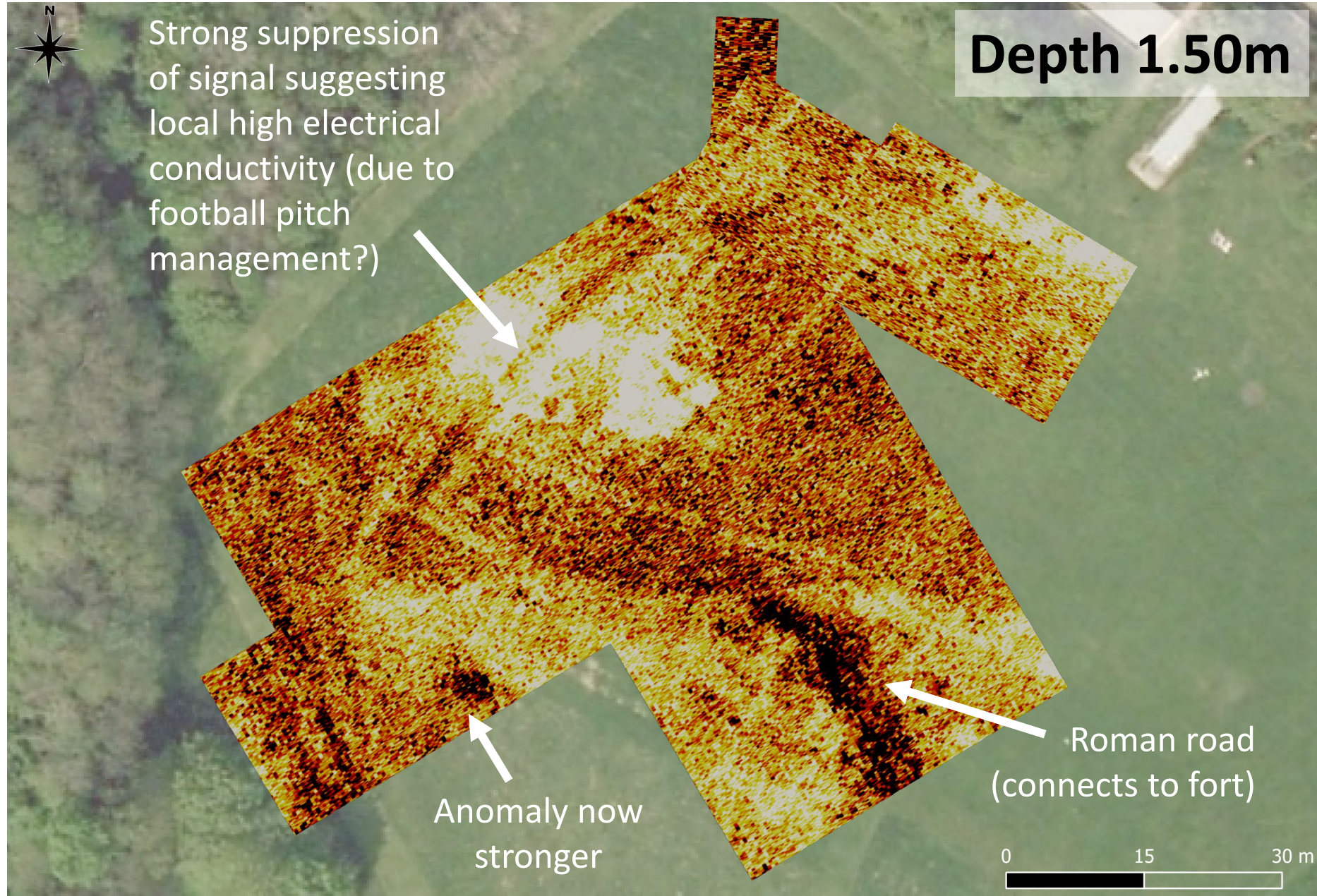
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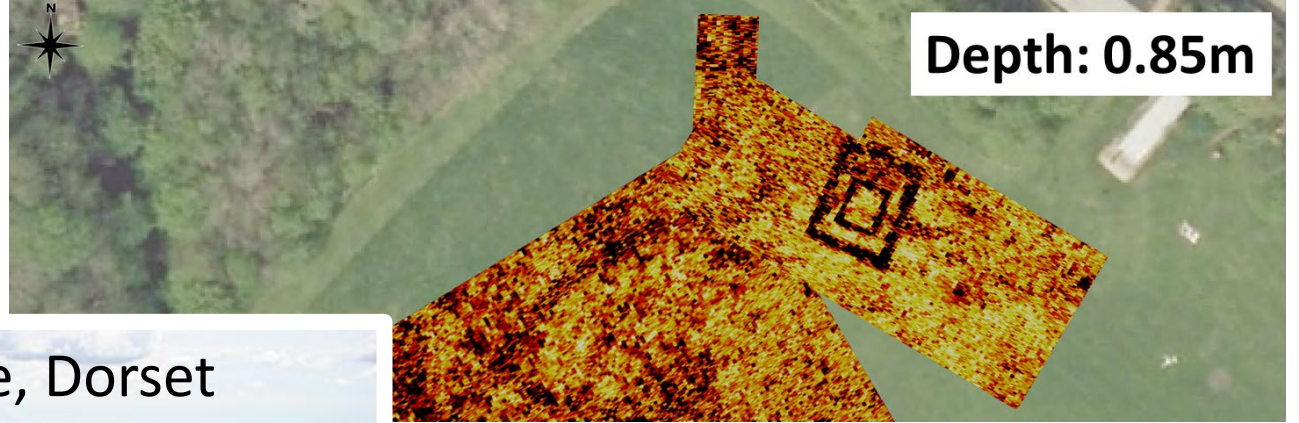


Roman Road



Celtic Romano temple

The only other Celtic Romano temple in the northern province is that at Vindolanda near Hadrian's Wall.



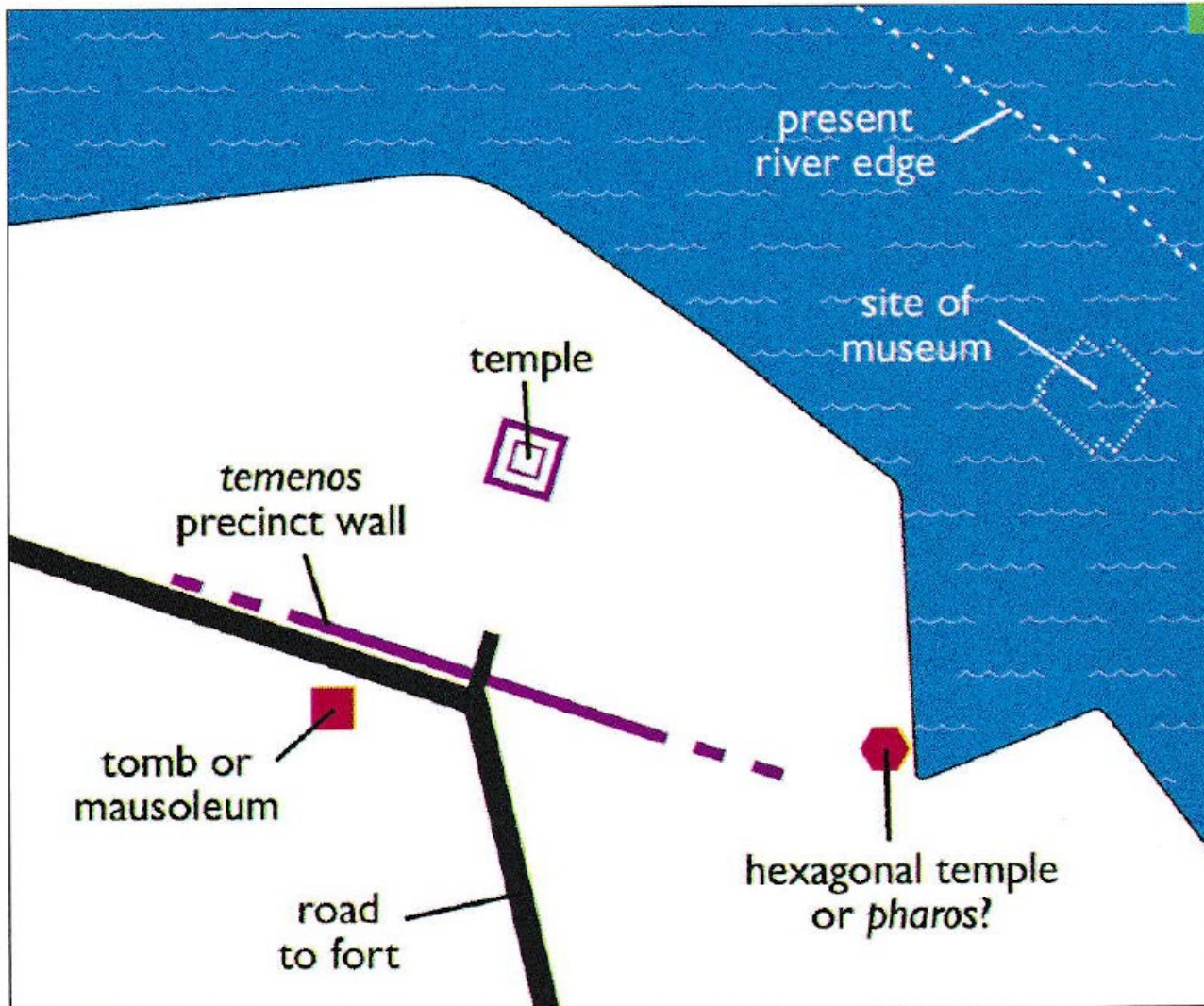
Other example: Maiden Castle, Dorset



Reconstruction of the Romano-British temple at Maiden Castle
© Historic England (illustration by Peter Dunn)

New interpretation

Wood et al. (2021)



news+

News+ is written by readers of British Archaeology

Right: 2015 excavations in Quoy Meadow



Above: GPR survey on Quoy Meadow with 50 MHz antenna

Right: CRA president Raksha Dave in Trench 2 (2015), using a replica dolabra (Roman pickaxe) under the watchful eye of the project's very own Roman soldier, Duane Alexander



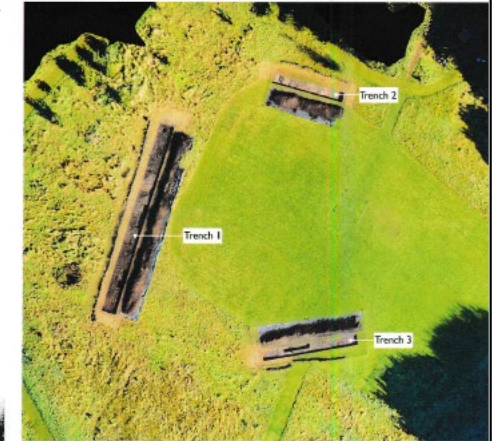
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Lancaster Romano-Celtic temple is significant find

Archaeologist Jason Wood and geophysicists Andrew Binley & Guillaume Blanchy report on new surveys revealing a riverside Romano-Celtic temple and temenos

North-west of the Roman fort at Lancaster is Quoy Meadow, where geophysical surveys and trial excavations are revealing further suspected Roman remains, including a riverside Romano-Celtic temple, only the second to be identified in northern Britain.

Situated between Castle Hill and the River Lune, the site was initially surveyed in 2014 using magnetometry and resistance. Electromagnetic induction, electrical resistivity tomography and ground penetrating radar (GPR) followed in 2017–20, and



supporting walls, and narrower inner walls dividing a central space from aisles or corridors either side. The two lines of postholes could be evidence for an earlier building or a timber lean-to structure against the eastern wall. The building's location, just set back from the presumed Roman riverfront, gave rise to hypotheses about its size and function. Initially it was thought to be the southern end of a long, aisled building, perhaps a waterfront warehouse or boathouse. Subsequent geophysical surveys, however, have now led us to a radical revision of this theory.

We submitted the western half of Quoy Meadow, specifically the area between Trenches 1, 2 and 3, to a full GPR survey. Crucially, the survey located the northern return of the outer wall, proving that the structure was not in fact long as first interpreted, but square. Also, the inner walls could now be traced demonstrating that they too clearly formed a square within the outer walls – a concentric arrangement typical of a Romano-Celtic temple.

Three kinds of such temple are known in Britain. Type 1 consists of a square tower-like shrine (*cella*) with clerestory lighting surrounded on all sides by a lower enclosed ambulatory or open portico; Type II has an all-over

roof; and Type III is an open *cella* surrounded by a roofed ambulatory or portico. As the foundations of the inner walls of the Trench 2 building are much narrower than the outer walls, this would seem to rule out the Type I arrangement, as a tower-like *cella* would have required thicker walls. It appears, therefore, that the inner walls supported no more than a screen partition or perhaps columns, while the outer walls carried the roof – a Type II or possibly a Type III temple.

Moreover, we now think that some



Going forward

- We have surveyed a number of areas of the site but are keen to do more (e.g. more in Quay Meadow and more adjacent to the bath house).
- How will our findings at Quay Meadow be used? Lancaster doesn't really promote well its Roman heritage – need to sing and dance a bit more perhaps?
- What happens post *Beyond the Castle*? Need someone to drive more exploration of the site. In 2021 an Archaeological Advisory Group was setup by LCC. Is it still active? Are its discussions in the public domain?