

MAGNA ARCHAEOLOGICAL EVALUATION

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Prepared for Mike Collins and Don O'Meara, Historic England by:

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Carvoran/Magna Roman fort and Hadrian's Wall and vallum between the unclassified road to Old Shield and the field boundary west of the fort in wall miles 45 and 46, Scheduled Monument No: 1010991.

The Vindolanda Trust plans to expand the footprint of the Roman Army Museum by building an extension to its current galleries with the construction of an activity centre adjacent to the western wall of the current museum film theatre building. This extension would cross land situated between the film theatre (gallery 2) and a dilapidated Nissen shed.

Foundation trenches over the length of the proposed build works would be required on two sides, (east and south) which would cross over the divide between unscheduled land (in which most of the project area sits) and a small area of scheduled land which protrudes between the location of the current Museum buildings and the location of the Nissen shed.

Given the potential archaeology of the area, which is within 30m of the north-eastern corner of Magna fort, a SMC was granted (REF: SMC S00242262) to conduct an exploration of this area with a single north/south trench of approximately 6m length by 2m width to ascertain the nature of deposition within the projected development area.

The area was expected to be heavily disturbed by the nearby construction of the Nissen shed c. 1950, the older 1860's farm buildings and the more modern museum extension of gallery three. It was expected that the remains of one or more large trees, visible in the 1950's and 1960's aerial photographs of the site would be encountered. The site was further complicated by the discovery of one of the 19th century farm rubbish pits, filled with ash, broken crockery and old leather shoes. The natural landscape, made from boulder clay, was encountered at a depth of approximately 1.7m and a small V-shaped trench, possibly for drainage, had been cut into the base of the natural clay and this may have either been an original Roman feature or a 19th century drain cut associated with farming activities. The fill of the V-shaped trench was full of 19th century debris and no Roman artefacts or ceramics, levels or features were encountered either within the V-shaped ditch or wider trench area.

2. Project background:

Carvoran/Magna proposed development and reason for evaluation

In 2021 the Vindolanda Trust received permission from the National Heritage Lottery Fund to develop a project aimed at characterizing the archaeological site, and through both tightly targeted intrusive and non-intrusive investigation produce a robust long-term management and monitoring strategy for Magna. An important element of this project proposal is to construct a small extension between the current museum and an existing Nissen shed, to create a new activity room and facilities for the museum. The proposed development area is not directly within the Carvoran/Magna scheduled area, but it is

adjacent to a scheduled protrusion which extends towards the back of the museum (south-western side) between the museum gallery two and the Nissen shed (see figure 3).

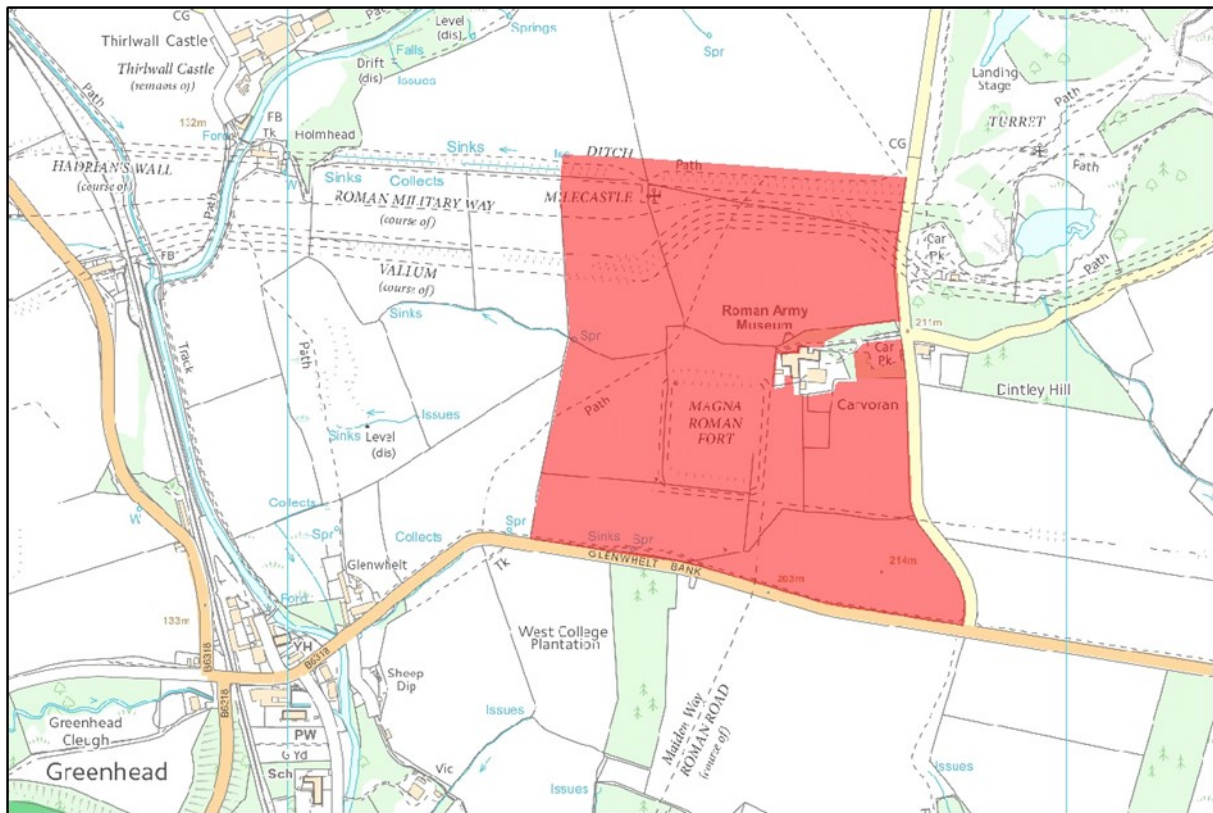


Figure 1. The fort at Carvoran/Magna with the scheduled area shown in red.

After consultation with Mike Collins, the Inspector of Ancient Monuments for Hadrian's Wall, in December 2021, the Trust was advised that it would be prudent to put an evaluation trench into the area of the proposed development to assess the nature of the archaeology within this space in relation to the Scheduled area.



Figure 2. The location of Magna fort with the evaluation trench (marked in red)

3. The evaluation strategy and location

The Vindolanda Trust excavated an evaluation trench, running north/south between gallery two at the Roman Army Museum and the existing agricultural Nissen shed, within the proposed development site area (figures 2, 3). The trench was excavated by the Trusts experienced archaeological team, with the work undertaken under the direct supervision of the Vindolanda Trusts Director of Excavations and CEO, Dr Andrew Birley in February 2022.

The trench had a width of 2m and a length of 6m. The evaluation trench started in parallel to the existing southern wall of the Nissen shed and in the unscheduled area, extending into the scheduled area to a length of 6m to the south. This area illustrated the close relationship between the scheduled and unscheduled areas with no discernable differences apart from the location of a V-shaped trench running East/West at the very edge of the scheduled and unscheduled boarder. The space between the Nissen shed and the museum was already known to be heavily disturbed by agricultural outbuildings and activities and that includes the deeply set circular concrete plinth shown in figure 2 which was the foundation for a grain silo, demolished over 50 years ago before the farm became the property of the Vindolanda Trust in 1972.

The line of the evaluation trench was chosen to avoid this known feature to its south and west.

Once the evaluation trench was completed and recorded it was backfilled with the same material removed from the trench and the ground surface was made good once more. This backfilling took place on the 18th of February 2022.

4. The Trusts archaeological team

The archaeological team for this evaluation was led by Dr Andrew Birley, CEO and Director of Excavations for the Vindolanda Trust. The team included Marta Alberti (Assistant Director of Excavations) and Penny Trichler (Vindolanda Site Archaeologist) the limited and non-Roman material encountered, a series of small ladies' 19th century leather shoe soles and ceramic vessels were curated and conserved by Barbara Birley and Patricia Birley (Museum Curator and conservation team for the Vindolanda Trust).

5. Recording and Reporting

The trench features and stratigraphic sequences were recorded using the single context recording system and a full photographic and illustrated record accompanies the work. The boundaries of the trench, its features, and the location of any of the artefacts recovered from within it were recorded using a Builder Series Total Station and a Magna GIS system was started for the project. A 3D model of the trench was created using photogrammetry and Meta software.

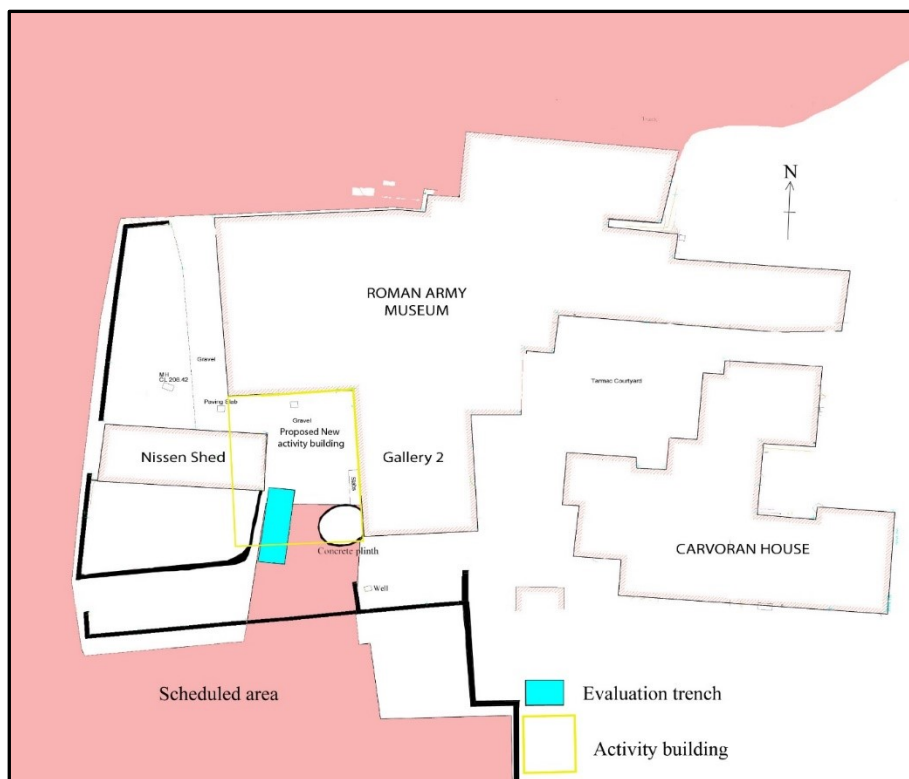


Figure 3. Showing the scheduled area (red) in relation to the proposed development (Activity building) and position of the evaluation trench (in blue).

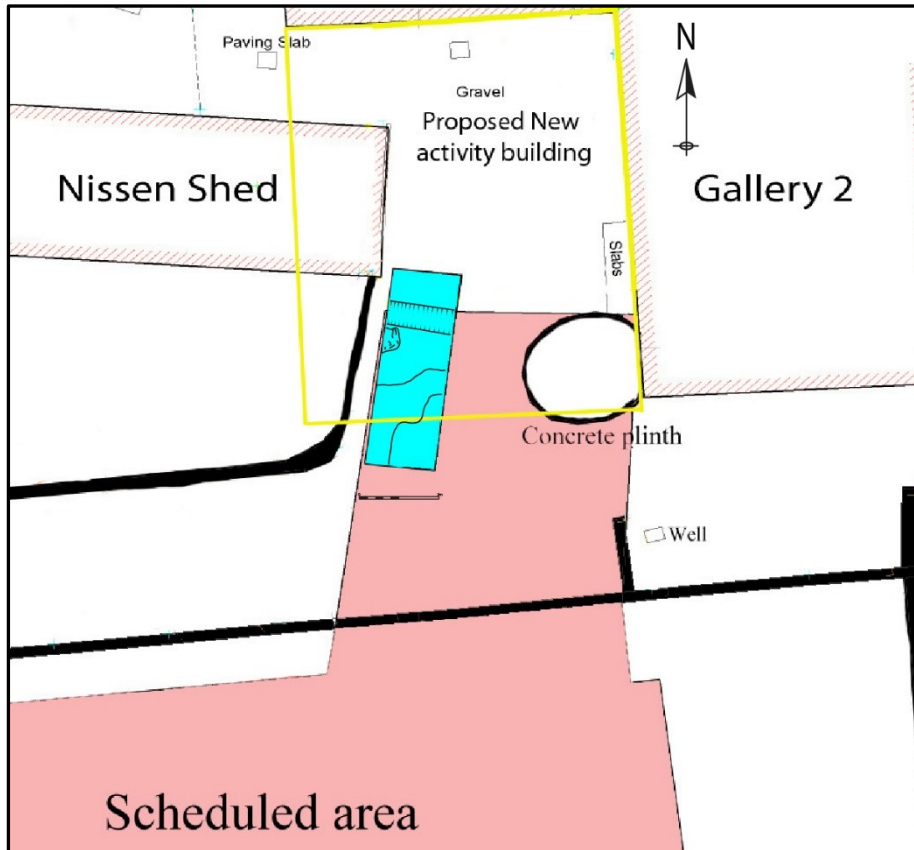


Figure 4. A closer look at the location of the Magna evaluation trench (in blue) with features included.

6. The archaeological fill and stratification:

Removal of the turf and a thin layer of topsoil (Context M2022-1, 10-12cm) revealed a compressed surface made from whinstone chippings which had been laid to a depth of 20-30cm over the entire surface area of the trench. This whinstone road surface was laid down in 1983-1984 to provide vehicle access for the construction of the Roman Army Museums gallery three to the north of the Nissen shed. The whinstone level included sand, cement, and the broken debris of several breeze blocks like those used for the thermal insulation layer of the Museum construction (Context M2022-2).

Below the whinstone surface was a layer of darker organic soil filled with general farming rubbish that may be associated with the pre-1972 farming activities at the site (M2022-3). This level varied in depth from between 32cm in the north to 43cm in the southern side of the trench. Several rusted iron tools including a chisel and trowel and the iron fireguard from a domestic hearth or oven were recovered from this context which mainly consisted of a large amount of ash. Some mid-20th century pottery, cups and fourteen large 6-inch nails were present in this context. 1.3metres from the southern side of the trench were the rotting and wet remains of a large tree trunk (M2022-4) surrounded by the general debris

from M2022-3. The tree, last seen in an aerial image taken of Carvoran (Figure 5) in June 1964, must have either fallen or been cut down shortly after that photograph was recorded.



Figure 5. Showing the position of the tree seen located in the Magna evaluation trench. Last recorded standing in this photograph taken in June 1964 (Birley et al 2022: 1).

The tree roots dropped down into a layer of dark and moist soil which appears to have represented the original ground build up and surface of the 19th century. This fill is associated with the last years of occupation of the site by the Carrack family (Birley, R 1997) and the construction of the new farmhouse at Carvoran with its inclusion into the Clayton Estate in the 1860's. The level started with a thin capping of lime, presumably put down to degrade any nightsoil deposited from the farm latrines and cesspits. Material from below the lime level was black and organic (M2022-5) and dropped directly onto a solid red/grey clay subsoil base some 48-50cms below the lime cap. Items that were recovered from this mid-19th century nightsoil fill included a great number of broken ceramic dishes and cups, as well as several well-preserved items of female footwear (made from leather) which were typical of the period. Those items are now undergoing conservation in the Vindolanda Trusts

laboratory for potential inclusion into future displays about the early modern inhabitants of the site.

M2022-5 ran the entire length of the trench, and the depth of the farming nightsoil fill was consistent throughout, extending into every section of the trench edge. At the northern 1.5m of the trench a V-shaped cut, running east/west had sliced through the natural subsoil and clay deposits. It is possible that this feature (M2022-6) was either used as a drainage channel for the new farm buildings or represented the pre-existing base of a Roman or pre-Roman feature in the landscape which was later cleaned out by farming activities. Its fill was identical to the nightsoil deposits above it.

The V-shaped cut had a maximum width of 40cm and was steeper on its southern side with an almost 45degree angle (figure 7). It was placed to carefully avoid an in-situ whinstone boulder on its southern edge and had a maximum depth of 27cm above the relatively flat clay surface above. The colour of the clay matrix in the sides of the trench was a mottled red/grey/white which is consistent of the subsoil found elsewhere at the site (Birley, Andrew R 2003: 280-295).

The feature's fill (figure 6) was similar in nature to M2022-5 although slightly more waterlogged in nature as water gathered in this cut. No Roman or pre-19th century material was recovered from within M2022-6. Its true nature, Roman or otherwise may only be determined if it is explored beyond the limited boundaries of the current evaluation trench (figure 4).



Figure 6. The V-shaped cut through the natural subsoil at the base of the north-western edge of the evaluation with the whinstone boulder in situ on the southern side of the V-cut. The depth of nightsoil above the cut is almost 1m from the base to the thin layer or lime.

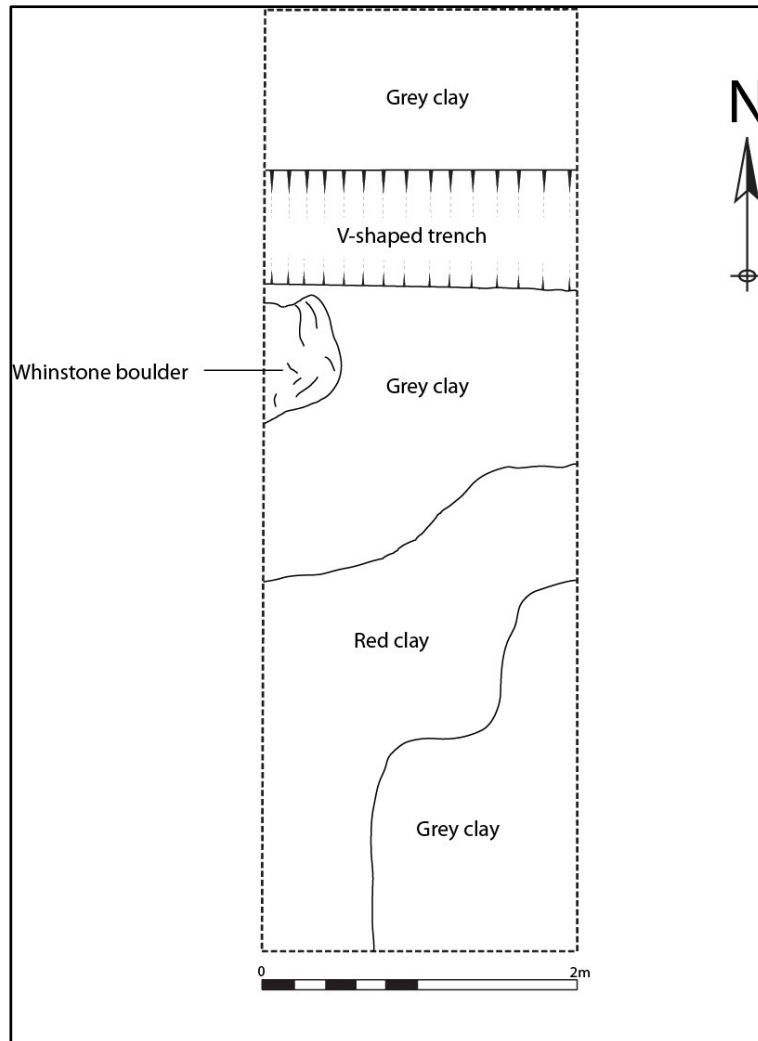


Figure 7. A plan of the trench showing the location of the V-cut trench, boulder, and main layering of coloured natural boulder clay.

7. Conclusion:

The evaluation trench, SMC S00242262, failed to positively identify beyond doubt any Roman features or material either within or without the Scheduled area between the museum and the site of the Nissen shed in a scheduled protrusion between the two structures. The V-shaped trench which was the only feature encountered cut into the natural boulder clay subsoil, may or may not have been a Roman feature. If it did have an earlier origin, this information was lost by later truncation and clearing out by later farming activities.

The evaluation trench encountered subsoils at a depth of between 1.7m to 1.5m north to south, across the 6m long trench area. The pre-excitation assumption that this space was heavily influenced by the proximity to the 19th century and later farmhouse and buildings proved to be the case and the trench produced an extensive deposit of farming waster with pits for the deposal of nightsoil. This was a common feature of the 19th century and early

20th century living in Northumberland before the advent of regular rubbish collection by the County Council in the second half of the 20th century.

While it is disappointing that there were no Roman features in such proximity to the north-eastern corner of the fort, we can be clear that the fort defensive ditch system did not extend into the area covered by the evaluation trench, and this will help targeting future research at the site. This is of particular importance as such features are likely withhold waterlogged deposits and will be instrumental in understanding not only preservation landscapes at the site but also how to manage and mitigate the future challenges of climate change at Magna (Birley, Andrew R & O'Meara, D.P 2022 forthcoming).

The evaluation has suggested that it is unlikely that the proposed development, if it takes place, will encounter any Roman archaeology in this space due to the intense nature of the farming activities in such proximity to the main farm and barns at Carvoran.

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