

Conflict in the Lake District: The Attack on Ambleside Roman Fort

Manuel Fernández-Götz, John H. Reid, and Stuart Campbell

Abstract

Lead sling bullets (*glandes*) have been found for over a century at and around the Roman fort in Ambleside (Lake District). The *glandes*, together with the discovery of a remarkable inscription on a tombstone from the site, suggest the possibility of a conflict scenario. This article summarises the previous evidence and presents the results from a new research project that comprised two fieldwork campaigns (2021 and 2023) in the environs of the fort. The results confirm the hypothesis of a scatter of *glandes* to the north and east, which can be plausibly interpreted as the fort undergoing an external attack, during which the garrison troops defended themselves by shooting missiles outwards.

Keywords

Ambleside fort; Roman Britain; Conflict Archaeology; Metal detecting; Sling bullets.

Introduction

The Roman fort at Ambleside (Lake District, Cumbria, NW England) is situated on the northern shoreline of Lake Windermere, in a position that today renders this installation one of the most scenically attractive in the British Isles (**Figure 1**). It is, however, reasonable to assume that aesthetics was not an imperative for the Roman army when it built the fort amidst potentially hostile hills and maintained a garrison there from probably the late 1st century AD to the 4th century AD. In the Roman period, the site was located in a strategic position guarding the road that went from the fort of Brougham near Penrith to the port of Ravenglass on the Cumbrian coast, passing other important locations such as the fort of Hardknott¹.

Traditionally, Ambleside Roman fort has been identified with the site of *Galava*, mentioned in the Antonine Itinerary, although a link with *Clanoventa* has also been suggested². The fort itself covered an area of ca. 1.2 ha on a relatively marshy plateau with a number of rocky outcrops. In addition, there is evidence for a relatively large

¹ Shotter 1998.

² Smith 1997.

extramural settlement that extended to the northeast. In terms of occupation sequence, the first fort seems to have been built of turf and timber in the late 1st century AD. Some decades later, probably in the reign of Emperor Hadrian, the fort was rebuilt in stone. These are the excavated remains that visitors can currently see at the site, including parts of the ramparts, gates, granaries, headquarters, and the commander's residence. Unfortunately, no unit inscriptions that might identify the garrison have been found so far, but the fort plan would suggest a 500-strong auxiliary cohort.

While the fort had been recognised as a Roman installation for a long time, the first systematic investigations were carried out by the two prominent Oxford scholars F.J. Haverfield and R.G. Collingwood in the second decade of the 20th century. Their fieldwork was written up almost immediately and published over successive volumes of the *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*³. In the preface to the first paper, Haverfield drew the allusion of the fort's remote position being a Roman parallel of an imperial outpost in northern British India⁴. Subsequent work at the fort and/or its environs was carried out by archaeologists such as M.E. Burkett⁵, R.H. Leech⁶, and D. Drury et al.⁷ over the course of the second half of the 20th century. To this we need to add various watching briefs by Oxford Archaeology North in the early 21st century⁸.

Although overlooked by the potentially threatening mountains of the Lake District, the fort lies in a reasonably strong defensive position, being surrounded on two sides by water (providing easy egress to the lake to the south). It can only be satisfactorily approached on foot along relatively narrow corridors of solid land to the north and east. The fort's wider strategic context, lying as it does almost equidistant from the even more remote Hardknott to the west, and Brougham to the northeast, makes sense in terms of local command and control. Due to its location at the intersection of various communication routes, Ambleside could have acted as a regional Roman supply-base that would have also benefited from the transport of goods by boat through Lake Windermere.

Conflict at Ambleside? Previous evidence and new research

³ Collingwood 1915, 1916, 1921; Haverfield and Collingwood 1914.

⁴ Haverfield and Collingwood 1914: 434-435.

⁵ Burkett 1977.

⁶ Leech 1993.

⁷ Drury et al. 2004.

⁸ Howard-Davis 2012; Taylor 2013.

Over the years, a number of Roman lead sling bullets (*glandes*) have been found at the fort and its environs (**Figure 2**). As is generally recognised within battlefield archaeology research, a high concentration of sling bullets at the same location can suggest a storage place, but a wide scatter of finds is more likely to signify a conflict scenario. Although some bullets can be found in clusters beside or within forts, such as at Vindolanda⁹ or Strageath¹⁰, wide scatters outwith Roman military structures are rare and point to evidence of conflict, such as the *glandes* from Windridge Farm near St Albans¹¹, or the scatter of lead bullets outside the Roman fort of Velsen in the Netherlands¹².

The fact that at Ambleside sling bullets have been found during various spatially limited interventions (e.g. road repairs, drainage channels) that disturbed the ground surface to the north and east of the fort¹³ suggests the possibility of many more bullets being distributed over a wider area, thus pointing to a violent confrontation. Of interest is also the discovery of a ballista bolt tip¹⁴. Although the numbers of projectiles recovered over the decades at Ambleside remained relatively small, the widespread distribution of Roman lead sling bullets would be consistent with at least one episode of violence. In this context, we can also recall Haverfield's (1915) mention that the stratigraphy of the towers could indicate that the fort was destroyed once or twice, although the evidence from the early excavations is not completely clear in this regard.

Be that as it may, another remarkable find is a Roman gravestone (currently displayed at the Armitt Museum in Ambleside) that was discovered in 1962, ca. 100 m to the east of the fort¹⁵. This pivotal discovery carried an extraordinary inscription that bore testimony to an assault on the fort by unidentified 'enemies', which resulted in the death of possibly two of the garrison's soldiers (perhaps father and son), one a retired centurion and the other an *actarius* (clerk)¹⁶ (**Figure 3**). The term used in the

⁹ Greep 1987.

¹⁰ Frere and Wilkes 1989.

¹¹ Reid et al. 2022.

¹² Bosman 1995.

¹³ See Drury et al. 2004; Leech 1993.

¹⁴ Drury et al. 2004.

¹⁵ *RIB* 3218; see discussion in Thorley 2002.

¹⁶ *Perhaps* D(is) (Manibus) (et) B(onae) M(emoriae)

Fla(vius) Fuscinus eme(ritus)

ex ordi(nato) vixi(t) an(n)is LV

D(is) (Manibus) (et) B(onae) M(emoriae)

Fla(vius) Romanus act(arius)

vixit anni(s) XXX V

inscription is *hostibus*, ‘by enemies’, as opposed to *latronibus* meaning ‘by thugs or brigands’. The term *hostibus* tends to be reserved for enemy forces in times of war, suggesting that the soldiers may have died as part of a significant event. At the same time, the fact that the tombstone could be erected does suggest that occupation at the fort resumed after the attack. Unfortunately, there is no certainty in relation to the chronology of the tombstone, with possibilities ranging from the 2nd to the 4th centuries AD (although a date in the late 2nd or early 3rd century AD is considered more likely by Thorley 2002).

The combination of these different sources of evidence (projectiles, tombstone inscription, and perhaps also destruction as indicated above for the towers) served as the starting point for a new conflict archaeology research project that we initiated in 2021. The work was the result of a collaboration between members of the Trimontium Trust and the University of Edinburgh. Building upon techniques of non-invasive wide-area metal detection developed at Burnswark Hill in southwest Scotland¹⁷, and recent conflict archaeology more generally¹⁸, we hypothesised that more bullets could be found in a random scatter to the north and east of the fort. We also reviewed all previously known sling bullets from Ambleside, determining that a total of 23 *glandes* had been recorded prior to our investigations.

A two-season fieldwork project was conceived. The first campaign aimed to determine the distribution of metal objects in the topsoil in areas available for surface survey outside the fort. The second campaign, for its part, was intended to retrieve a selected subset of these finds for detailed study where access would not threaten subsurface structures. Two principal caveats were acknowledged at the outset of the project:

- 1) That extensive recreational use of the area around the fort over the last couple of centuries would almost certainly have resulted in considerable metallic contamination.
- 2) That emergence of sling bullets into the topsoil from deeper levels beyond the optimal reach of modern detectors for objects of this size (>15cm) would be serendipitous dependent on random agricultural activity.

in cas(tris) int(er)f(ectus) ab hosti(bus).

Translation: “To the shades of the dead (and) of good memory. Flavius Fuscinus, retired former centurion, lived 55 years. To the shades of the dead (and) of good memory. Flavius Romanus, actarius, lived for 35 years. Killed in the fort by enemies”

(<https://romaninscriptionsofbritain.org/inscriptions/3218>).

¹⁷ Reid and Nicholson 2019.

¹⁸ Fernández-Götz and Roymans 2018, 2024.

As a mitigating factor, our hypothesis predicted that, as at the Roman fort of Velsen in the Netherlands¹⁹, the numbers of bullets that may have been deployed by defending Roman forces would be sufficient to at least partly counter these issues. In essence, like all diagnostic tests, the positive predictive value (PPV) of our technique (the prospective identification of lead bullets by metal detection) would increase with increasing prevalence (in this case, the likely high number of Roman lead missiles expended in a conflict scenario).

The 2021 survey

In light of recent developments in battlefield landscape assessment, we used LiDAR data and aerial images to plan a non-invasive metal detector survey to acquire new datapoints to help define the choreography of the suspected conflict. The survey took place between the 17th and 21st September 2021 with the help of volunteers linked to the Trimontium Trust²⁰.

Metal detector surveys were completed in 14 sectors of the site, focusing on the areas to the north and east of the fort. The southern and western sides of the fort were excluded from the survey, since these areas are covered by the lake itself and the boggy land around the adjacent River Rothay. The fieldwork was carried out using seven machines set in 'all metal' mode to ensure as complete a capture of data as possible. Point data were resurveyed using a single reference detector to ensure conformity of metal profiling. The likely metal type and hand-held GPS coordinates were individually recorded to < 1m accuracy on a survey database.

The results of the survey yielded over 1,000 data points corresponding to metal 'targets' of all types. After discarding some undetermined iron signals, the coordinates for 837 data points were recorded (**Figure 4**). Subsequently, an attempt was made to trim the evidence down to possible lead artefacts. Modern metal detectors (for example, the XP Deus MK II, which was used as the reference machine) have a digital readout function that allows a broad correlation with the type of metal and can easily differentiate, for example between iron (0-9), lead (75-88) and most copper alloys (89-96). The detectorists taking part in this study were familiarised with replica lead bullets buried on a test site and became acquainted with their specific machine's confidence levels for these types of targets. Each signal was then

¹⁹ Bosman 1995.

²⁰ Fernández-Götz et al. 2022.

reassessed by the lead detectorist (JR) using a single reference machine (XP Deus MK II) as the final arbiter. This triage allowed the identification of approximately 250 objects that could potentially represent Roman missiles, spread out in an arc to the north, east, and southeast of the fort. While not all would correspond to Roman lead sling bullets (confounding factors could include Victorian coinage and non-Roman lead debris), comparison with the fieldwork carried out at Burnswark suggested that if the prevalence of lead missiles was high enough, as might be predicted in a conflict scenario, a significant number of them could actually represent Roman projectiles (**Figure 5**).

The 2023 survey and excavation

In order to test this hypothesis, a new fieldwork campaign was carried out between the 21st and 24th August 2023, again involving the participation of volunteers linked to the Trimontium Trust. The main aim was to carry out a detailed metal detector survey in a reduced area to the east of the barn, where signals during the more extensive but less intense 2021 survey had identified 24 signals that might be consistent with lead sling bullets. The selected area was located adjacent to Borrans Road and comfortably within the margin of the likely casting range of bullets slung from the northeast corner of the fort. The casting range of lead bullets from slings in use by the Roman army has been estimated to be between 200m and 250m, but it is likely that expert slingers could cast lead *glandes* significantly further (Griffiths 1989; Skov 2011). This area would be in the direction of, but not necessarily within, the suspected fort *vicus*. At this time, too little is known about the dating and siting of the *vicus* to speculate whether buildings would have been present in this area at the time of the proposed assault upon the fort.

The 2023 high-resolution survey was accompanied by micro-test pits at locations where the signal suggested a potential lead object in order to allow the extraction of finds immediately below the surface. Previous geophysics had suggested that few subsurface structures survived in this area (Taylor 2013), so there was very low risk of damaging *in situ* archaeology when extracting the objects.

The 2023 survey was organised in 20x20 m squares, with ropes being used to create a series of 2 m wide north-south transects that were systematically surveyed. All signals were plotted using a DGPS with an accuracy of <2cm, and British National Grid (OSGB36) was employed for all coordinates. Data was collected using MapIt Spatial

on an Android tablet and plotted using QGIS. The aim was to extract ca. 40 targets linked to the most likely signals that might be associated with lead sling bullets. In total, detecting for all metals, the 2023 survey yielded 258 signals near the barn (compared to approximately 63 signals recorded in this area during the less intensive 2021 survey), to which we added a further 6 signals in the garden of Galava Shiel, just across Borrans Road (**Figure 6**).

The density of survey signals during the first day of fieldwork was used to calculate an optimal set of signals for extraction. A total of 33 signals were identified as high priorities during this process as they matched the profile of potential lead sling bullets, using the same criteria as in 2021, and checked using the same reference instrument, operator, and settings. Another group of 6 additional signals were initially screened out as less likely to be significant but were selected as worth investigating, particularly to check whether the threshold for significance had been appropriate.

All extracted targets were in the topsoil. This was always within 20 cm of the present ground surface, and frequently the objects were very close to the surface. Thus, excavation caused minimal disturbance and only developed soils were excavated with no indication of any archaeological features. Out of the 39 extracted targets, 7 contained individual Roman lead sling bullets, thus increasing the number of known *glandes* from Ambleside fort and its environs from 23 to 30 (**Figures 7-8**).

From a methodological perspective, the results were rather positive in regard to the utility of metal detectors to identify the potential presence of lead sling bullets. It is interesting to note that no lead sling bullets were found amongst the 6 lower probability targets that were extracted, and we would argue that the miss rate of sling bullets in the topsoil during this survey was probably very low. Conversely, all sling bullets recovered resulted from the 33 signals predicted to have a high significance. Given the range of possible objects and materials, as well as the subjective element both in instrument and operator, recovering 7 *glandes* from 33 high probability signals should be seen as a relatively efficient process of sling bullet location. The results also suggest that many more Roman sling bullets remain in the ground in the environs of the fort, since a considerable number of the data points recorded during the 2021 survey could indeed correspond to *glandes*.

Among the high significance signals that did not result in a sling bullet, there were several old pennies and notably a series of metal objects with holes in them (e.g. buckles and even a curtain ring). While the former were expected, as there is a known

overlap between the signals from older copper alloy coins and sling bullets, the latter correlation is both significant and interesting. The morphology of an object is known to impact the detector signal and it seems that metal objects (often iron) with a large hole within them can produce the same signal as a lead sling bullet (see Cool and Baxter 2016 for similar issues with annular objects, although copper alloy rather than iron).

Sling bullet analysis

As mentioned above, in addition to the fieldwork we also reviewed the previously known Roman sling bullets from Ambleside. The morphology of the objects makes it possible to identify two clearly differentiated groups of *glandes* (**Figure 9**), and microscopic samples of lead were extracted and sent for isotopic analysis to S. Klein and R. Müller (Deutsches Bergbau-Museum Bochum, Germany). The preliminary results are very interesting, as the lead used to manufacture the projectiles appears to have originated from two separate sources that align with the two different morphological groups²¹. The more regular group of sling bullets appears to have close similarities to the bullet shape and lead ore of many of the missiles used by Roman troops at Burnswark around the mid-2nd century AD, whereas the second more irregular group has a more hastily manufactured appearance and an as yet unidentified source.

Samples from the 7 newly found sling bullets from the 2023 campaign were also sent for isotope analysis, alongside lead slag from Collingwood's excavations and galena samples from local lead mines (**Figure 10**). The preliminary results show that the 7 most recent bullets (red triangles) conform to one or other of the two main groupings of previously excavated missiles (yellow triangles), strengthening the temporal relationship. Moreover, there appears to be an association between one of the main bullet clusters with a group of lead slag samples from the site, suggesting that at least some of the bullets used by the fort's defenders were manufactured from lead available at Ambleside.

Conclusion: A battle at Ambleside

²¹ A final, more comprehensive discussion of the results from the isotopic analysis will be presented in a separate paper.

In terms of wider interpretation, the new results derived from the 2023 campaign have confirmed our hypothesis that part of the ‘high suspicion’ signals from the 2021 survey actually correspond to a spread of Roman lead sling bullets. This significantly reinforces the interpretation that the Roman fort at Ambleside suffered at least one attack by an external enemy, during which the Roman soldiers defended themselves by shooting out projectiles in the form of lead sling bullets. This is one of the very few archaeologically documented cases in the whole of Europe of a Roman military camp being attacked by an external enemy, thus comparable to the cases of Andagoste in 1st century BC northern Spain²² and Velsen in the Netherlands during the 1st century AD²³. In the case of the latter, the assault is thought to have taken place in AD 28, when the Frisii revolted in response to excessive taxation by the occupying Roman forces. The Roman sling bullets documented at Velsen were also of varying quality of craftsmanship, with indications that many had been made rapidly under highly stressful conditions. As indicated above, something similar can be suggested for Ambleside.

However, many questions remain open. For example, we do not know the identity of the attackers at Ambleside. Were they locals from the Lake District as part of an uprising against Roman power? Or are we dealing with the remains of an attack by fighters from the north that had crossed Hadrian’s Wall? The chronology of the event is also unclear. The lead sling bullets from Ambleside, which weigh on average 50g, can most likely be attributed to the 2nd century AD, due to strong morphological similarities (biconical ovoid with nipple -shaped extremities) of some of the Ambleside group to other examples, found elsewhere in 2nd century contexts, notably at Burnswark Hill (Reid and Nicholson 2019). The morphology of Roman lead sling bullets from the Late Republican period into the 1st century AD tends to be lighter (<45g) and more almond-shaped, such as those found at Windridge Farm (Reid et al. 2022). Where lead bullets have been recovered from 3rd and 4th century contexts such as Corbridge, Vindolanda, and Krefeld-Gellep, they tend to be heavier (>60g), irregular in shape, or spherical (Reid and Nicholson 2024). Roman troops also utilised clay bullets, but none have been found at Ambleside. It is interesting to note that baked clay missiles appear to be mainly associated with 1st century installations²⁴. However, the dating of the inscription is more uncertain and could potentially be later

²² Ocharán 2017.

²³ Bosman 1995.

²⁴ Reid and Nicholson 2024.

than the lead sling bullets. Thus, we cannot exclude the possibility of the fort being attacked more than once.

Despite these uncertainties, we believe that the combination of previous findings and new investigations allow us to establish the existence of at least one battle event at Ambleside, during which the fort was attacked and the garrison defended itself by a missile barrage possibly from the walls and towers of the fort. This new research has also attracted public attention, as reflected for example by the exhibition “A Battle of Ambleside” organised by the Armit Museum between February and December 2025 (<https://www.armitt.com/a-battle-of-ambleside/>). In any case, the example of Ambleside demonstrates the possibility of violent confrontations in the territories south of Hadrian’s Wall several generations after the initial Roman conquest, thus adding to the growing corpus of conflict archaeology evidence in the borderland regions of the Roman Empire.

Acknowledgements

We would like to thank the Cumberland and Westmorland Antiquarian and Archaeological Society for their financial support, which made possible the two fieldwork campaigns. Special thanks also go to all the volunteers from the Trimontium Trust that participated in the fieldwork, as well as to Eleanor Kingston (Lake District National Park Authority), Jamie Lund (National Trust), Pete Owen (Historic England), and Faye Morrissey (Armit Museum). Sabine Klein and Regine Müller (Deutsches Bergbau-Museum Bochum) kindly carried out the isotopic analysis. Finally, we would like to thank Lawrence Keppie and Rachel Cartwright for providing comments on an earlier version of this article.

Bibliography

Bosman, A.V.A.J. 1995: ‘Pouring lead in the pouring rain: Making slingshot under battle conditions’. *Journal of Roman Military Equipment Studies* 6: 99-103.

Burkett, M.E. 1977: ‘Rescue dig in Ambleside’. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 77: 179-180.

Collingwood, R.G. 1915: ‘The exploration of the Roman fort at Ambleside. Report on the second year’s work (1914)’. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 15: 3-62.

- Collingwood, R.G. 1916: 'The exploration of the Roman fort at Ambleside: Report on the third year's work (1915)'. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 16: 57-90.
- Collingwood, R.G. 1921: 'Explorations in the Roman Fort at Ambleside (fourth year, 1920) and at other sites on the Tenth Iter'. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 21: 1-42.
- Cool, H.E.M. and Baxter, M.J. 2016: 'Exploring morphological bias in metal-detected finds'. *Antiquity* 90(354): 1643-1653.
- Drury, D., Dunwell, A., Clarke, C.M., Dickinson, B., Finlayson, B., Hird, L., Howard-Davis, C., and Sands, R. 2004: 'Excavation and watching briefs at Borrans Road, Ambleside 1990-93'. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 4 (series 3): 71-103.
- Fernández-Götz, M., Reid, J., Keppie, L., and Hardwick, I. 2022: 'A battle in the mists of the Lake District? Ambleside Roman fort under attack'. *Current Archaeology* 393: 52-55.
- Fernández-Götz, M. and Roymans, N. (eds.) 2018: *Conflict Archaeology: Materialities of Collective Violence from Prehistory to Late Antiquity*. New York/Abingdon: Routledge.
- Fernández-Götz, M. and Roymans, N. 2024: *Archaeology of the Roman Conquest: Tracing the Legions, Reclaiming the Conquered*. Cambridge/New York: Cambridge University Press.
- Frere, S.S. and Wilkes, J.J. 1989: *Strageath, Excavations within the Roman Fort, 1973-86*. London: Society for the Promotion of Roman Studies.
- Greep, S.J. 1987: 'Lead sling-shot from Windridge Farm, St Albans and the use of the sling by the Roman army in Britain'. *Britannia* 18: 183-200.
- Griffiths, W.B. 1989: The sling and its place in the Roman Imperial army. In C. van Driel-Murray (ed.), *Roman Military Equipment: The Sources of Evidence*. Oxford: BAR International Series 476: 255-279.
- Haverfield, F.J. 1915: *Roman Britain in 1914*. London: Oxford University Press.
- Haverfield F.J. and Collingwood, R.G. 1914: 'Report on the exploration of the Roman fort at Ambleside, 1913'. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 14: 433-465.

Howard-Davis, C. 2012: *The Roman fort at Ambleside, Cumbria. Consolidation works 2011-12: Finds Report*. Lancaster: Oxford Archaeology North and The National Trust.

Leech, R.H. 1993: 'The Roman fort and vicus at Ambleside'. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 93: 51-74.

Ocharán, J.A. 2017: 'Combate a muerte en Andagoste (Álava). Un enfrentamiento romano-indígena hacia el año 38 a. C.'. *Desperta Ferro: Antigua y Medieval* 44: 62-64.

Reid, J., Müller, R., and Klein, S. 2022: 'The Windridge Farm *glandes* revisited'. *Britannia* 53: 323-346.

Reid, J. and Nicholson, A. 2019: 'Burnswark Hill: The opening shot of the Antonine reconquest of Scotland?'. *Journal of Roman Archaeology* 32: 459-477.

Reid, J. H., and Nicholson, A. 2024: 'Roman slingshot from North Britain: Some new observations'. *Journal of Roman Military Equipment Studies* 23/24: 85-99.

Shotter, D.C.A. 1998: 'Three Roman forts in the Lake District: Ambleside, Hardknott and Ravenglass'. *Archaeological Journal* 155: 338-351.

Skov, E. 2011: 'Sling technology: Towards an understanding of capabilities'. *Nebraska Anthropologist* 26: 112-126.

Smith, I.G. 1997: 'Some Roman place-names in Lancashire and Cumbria'. *Britannia* 28: 372-383.

Taylor, K. 2013: *Ambleside Roman Fort, Ambleside, Lake District: Geophysical Survey Report*. Lancaster: Oxford Archaeology North and The National Trust.

Thorley, J. 2002. 'The Ambleside Roman gravestone'. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, 3rd series, 2, 51-58.

Figure Captions

Figure 1: Ambleside Roman fort and Lake Windermere looking south (image: Trimontium Trust).

Figure 2: Location plan of Ambleside fort and find spots of sling bullets uncovered prior to our new fieldwork (image: Trimontium Trust).

Figure 3: The unique double gravestone of Flavius Fuscinus and Flavius Romanus. The stone is on display in the Armitage Museum in Ambleside (image: Trimontium Trust).

Figure 4: Ambleside fieldwork 2021: Distribution map of metal-detecting signal locations, with colour-coded predictions (image: Trimontium Trust; map data from OpenStreetMap).

Figure 5: Ambleside fieldwork 2021: Distribution map of metal detecting signal locations, where the predictions suggest a high possibility of lead (image: Trimontium Trust; map data from OpenStreetMap).

Figure 6: Ambleside fieldwork 2023: Metal detecting signal locations (image: Trimontium Trust; image data: Google 2026; Airbus).

Figure 7: Ambleside fieldwork 2023: Location of the Roman sling bullets (image: Trimontium Trust; image data: Google 2026; Airbus).

Figure 8: Composite photograph of the 7 Roman sling bullets recovered during the 2023 fieldwork campaign (image: Trimontium Trust).

Figure 9: Lead sling bullets from investigations at Ambleside. The top two exhibit the conventional biconical ovoid shape, and the lower six show varying degrees of dysmorphism, which may indicate hasty or improvised production (image: Trimontium Trust).

Figure 10: Isotopic analysis of the Ambleside sling bullets, galena, and slag, incorporating the 2023 finds (image: R. Müller).