

KING ARTHUR'S WELL, HADRIAN'S WALL, NORTHUMBERLAND

Archaeological evaluation report



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King Arthur's Well, Hadrian's Wall, Northumberland Archaeological Evaluation Report

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Summary

King Arthur's Well lies immediately south of Hadrian's Wall, between the curtain wall and the Military Way, at the base of one of the many steep defiles ('nicks') that punctuate the Whin Sill escarpment (on the crest of which the Wall was constructed) in the vicinity of Walltown Farm, Northumberland (NY 6806 6664), within the *Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site*. At this locale, the earthwork remains of a rectilinear stone structure, aligned perpendicular to the Wall, and probably appended to its southern face, are visible. The character, date and function of this are obscure, since it does not conform to the dimensions of the Wall's 'regular' installations, namely the milecastles and turrets, and its position, between Turret 44b (Mucklebank), on the east, and Milecastle 45 (Walltown), to the west, is also anomalous.

In 2008, it was agreed that a flagged section of the Hadrian's Wall Path National Trail should be created across the marshy area in the vicinity of the well, which would cross the structure. Following discussions with English Heritage (now Historic England), it was agreed that a limited programme of archaeological investigation should be carried out in advance of the work, to assess the character and preservation of the structure and to inform a strategy for its *in situ* preservation, and to minimise potential disturbance by those using the Path. Oxford Archaeology North (OA North) was commissioned by the then Hadrian's Wall Trust, to undertake the archaeological works, which were completed in September 2008.

A single trench was excavated across the structure, perpendicular to its apparent north/south alignment, on the proposed line of the flagged path. At the south-west corner of this was a narrow dog-legged extension, the purpose of which was to determine if the structure had any relationship with a possible wall foundation further to the south, which was visible as a low earthwork. For the most part, excavation was limited to the minimum required to establish the character, preservation and date of the putative building. Most of the archaeological remains recorded were retained *in situ*.

The structure proved to have two phases (Phases 1 and 2), although evidence for the earliest, comprising part of the west wall and an internal hearth, was limited to a narrow east/west sondage along the northern edge of the area investigated. Calcined bone from the hearth yielded an early/middle Iron Age radiocarbon determination, but a fragment of alder charcoal from the same deposit was dated to the late first- to mid-third century AD, and a small amount of 'Romanised' pottery was also recovered, so it would seem that the bone sample was residual. The structure was probably a roofed stone building, rather than some kind of enclosure. In Phase 2 it was 5.4m wide, externally, east to west, and at least 4.4m, north to south, within the area investigated. Its northern end lay outside the site, but the visible earthworks appeared to abut the inner (south) face of Hadrian's Wall (though this relationship was not certainly established). If this is correct, the building would have been *c.* 7.7m long and aligned perpendicular to the Wall. Pottery from a Phase 2 construction trench suggests that it was erected no earlier than the mid-second century AD, and was, therefore, a later addition to the Wall, a view supported by its apparent spatial relationship with the curtain wall and its seemingly anomalous size and location. Although a post-Roman date cannot be completely discounted, almost all the artefacts recovered, including all of those associated directly with the building, are Roman, being consistent with a date in the second- to mid-third century AD for its construction and use.

Given the structure's probable date, and its proximity to the curtain of Hadrian's Wall, a military function seems likely, but if so, its purpose is far from clear. At Peel Gap, an additional turret was located at the base of a steep defile that was not completely visible from the adjacent turrets. However, at King Arthur's Well, the nick would have been covered by Turret 44b, which occupies a commanding position on the crags immediately to the east, and it is therefore unlikely that an additional installation was required. The proximity of the building to the well suggests a possible connection, but what this might have been is impossible to determine. The investigations also yielded an unstratified Roman intaglio and a fragment of a sandstone altar (uninscribed), the latter from demolition debris.

In view of its fanciful associations with King Arthur, and a tradition (albeit recorded in the eighteenth century) that it was the place where St Paulinus baptised a seventh-century king, it is possible that the well was venerated in antiquity, and that the structure was in some way related to this. However, this can be no more than speculation, and it is, perhaps, unlikely that the Roman military would have permitted the establishment of a 'shrine' immediately adjacent to the Wall. Some other non-military function is conceivable but, given the associated dating evidence, which would appear to rule out a date in the very late Roman or early post-Roman period, the only time when the erection of a non-military structure immediately adjacent to the Wall might have been tolerated was during the Antonine 'interlude' of the AD 140s-50s. Even then, it is debatable whether the army would have allowed non-military activity in such close proximity to the curtain wall, and it is not clear what the purpose of the structure might have been in such a context.

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For OA North, the fieldwork was directed by Jeremy Bradley, who also authored the first draft of the report, which was subsequently revised and expanded by John Zant. The illustrations were produced by Mark Tidmarsh, with the finds, the animal bone and the charred plant remains and charcoal being assessed and reported by Christine Howard-Davis, Ian Smith and Denise Druce respectively. The report was edited by Rachel Newman, who also provided quality assurance for the project as a whole.

1 INTRODUCTION

1.1 Circumstances of the Project

- 1.1.1 The Hadrian's Wall Path National Trail, developed by the Countryside Agency (now Natural England), aims to help conserve the monument whilst allowing the public to enjoy the great drama and beauty of the Wall and its surroundings. In the central sector of the route, within the Northumberland National Park, much of the development work related to existing footpaths or areas of access and was concerned with proactive measures to deter or halt erosion, in some cases involving the adjustment of these to ensure the integrity of the monument. At King Arthur's Well, close to Walltown Farm (Fig 1; *Section 1.2*), the public Right of Way lies immediately south of the Wall, and was created before the opening of the Trail in May 2003, to harmonise the route of the Hadrian's Wall Path and the Pennine Way. The latter, whilst formally some distance to the south, had been promoted for many years as following the line of the Wall, and, indeed, stiles had been installed on the Wall mound itself to facilitate the route. Whilst the removal of these, and their replacement, some 5-10m to the south, had the effect of removing walkers from the fragile, turf-covered Wall mound (Pl 1), it inadvertently created another issue, since proposed works to lay a section of the Path across the marshy area in the vicinity of the well would have an impact upon the earthwork remains of a rectilinear stone structure aligned perpendicular to the Wall itself and seemingly appended to its southern face, the character, date and function of which were obscure.



Plate 1: King Arthur's Well from the east, with the grassed 'platform' on the south side of the Wall mound, across which the flagged path has yet to be laid

- 1.1.2 Since the area around the well is constantly wet, it was proposed that a length of flagged path should be installed, as a proactive measure to prevent poaching on the newly established route. Following discussions with English Heritage (now Historic England), it was agreed that a limited programme of archaeological investigation should be carried out in advance of this work, to assess the character, date and preservation of the structure, to inform a strategy for its *in situ* preservation, and to minimise potential disturbance by those using the Path.
- 1.1.3 Oxford Archaeology North (OA North) provided advice on archaeological matters relating to the development and implementation of the Hadrian's Wall Path National Trail from 1996 to 2013, firstly to the Countryside Agency, and latterly to Natural England and Hadrian's Wall Heritage Limited (later the Hadrian's Wall Trust). Through this work, OA North developed a detailed knowledge of the archaeology of Hadrian's Wall and its associated features. Consequently, following the production of a Project Design (*Appendix A*), OA North was commissioned to undertake the archaeological works in the vicinity of King Arthur's Well, which were completed in September 2008.

1.2 Location, topography and geology

- 1.2.1 King Arthur's Well lies to the north-east of Walltown Farm (NY 6806 6664; Fig 1), in Wall Mile 44 (Breeze 2006, 277-8). This is within the Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site, in the Scheduled Monument of *Hadrian's Wall between the track to Cockmount Hill and Walltown Quarry East, in Wall Miles 43, 44 and 45* (SM 26066; NHLE 1017535).
- 1.2.2 In its central sector, Hadrian's Wall occupies a north-facing escarpment formed by the Great Whin Sill, a roughly horizontal outcrop of dolerite, an igneous rock, intruding into Carboniferous sedimentary rocks (Countryside Commission 1998, 50). The escarpment is punctuated by many deep defiles, or 'nicks', and King Arthur's Well is situated in the centre of a particularly wide nick (Pl 2), between Turret 44b (Mucklebank), on the east, and Milecastle 45 (Walltown), to the west.



Plate 2: King Arthur's Well during excavation

1.3 Archaeological and historical background

- 1.3.1 A well has been known for many years to exist at this locale, being recorded by William Hutchinson, in the late eighteenth century (Hutchinson 1778), and depicted on nineteenth-century Ordnance Survey (OS) maps, including the First Edition, surveyed c 1861 (OS 1865), and the Second Edition (OS 1896; Pl 3).



Plate 3: King Arthur's Well on the Ordnance Survey (OS) 25-inch map, second edition (OS 1896)

John Collingwood Bruce (1884, 184) describes it as ‘a spring, surrounded by masonry, now much disordered, called the King's Well; the present inhabitants call it King

Arthur's Well', but also notes that 'modern drainage has about taken its water away' (*ibid*). On the historical mapping, it appears merely as a small circle, with no indication of the existence of a nearby structure, and it is unclear if Collingwood's 'masonry' relates to the structure revealed in 2008 or not. However, the building is depicted, schematically, on more recent OS mapping (*eg* OS 1954; Pl 4), where it is shown as a north/south-aligned, rectangular structure, 'attached', as it were, to the south side of Hadrian's Wall.

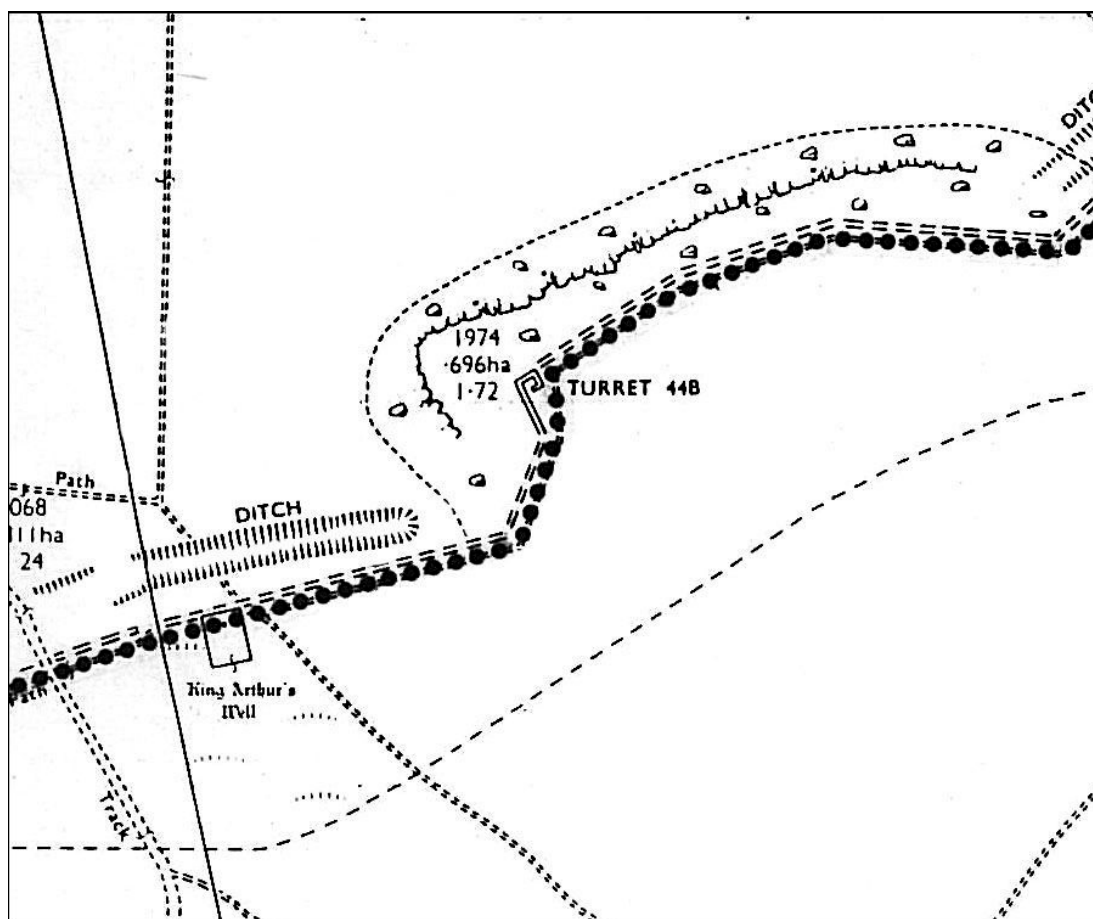


Plate 4: King Arthur's Well on mid-twentieth-century OS 1:2500 mapping (OS 1954) showing the investigated structure

- 1.3.2 Hutchinson (1778) relates a tradition that this was the place where St Paulinus baptised 'King Egbert', but, since there was no contemporary Northumbrian king of this name, as Collingwood Bruce (1884, 184) suggested, the king was more likely to have been Edwin (AD 616-33). However, whilst the Venerable Bede records that Paulinus did indeed baptise Edwin of Northumbria, in 627 (Plummer 1896), this is said to have taken place at York, and it seems probable, therefore, that the tradition recorded by Hutchinson has no basis in fact.

2 METHODOLOGY

2.1 Project Design

- 2.1.1 The OA North project design (*Appendix A*), submitted as part of the application for Scheduled Monument Consent, was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute for Archaeologists (now the Chartered Institute for Archaeologists (CIfA; CIfA 2014a; 2014b; 2014c)).

2.2 Evaluation

- 2.2.1 A single trench was excavated across the structure in the position agreed during an on-site meeting between OA North, Hadrian's Wall Heritage Limited and English Heritage (now Historic England; Fig 2). It was placed, approximately east to west, on the proposed line of the path, perpendicular to the alignment of the building. The main area of investigation measured 6 x 5.34m, from which a dog-legged extension, up to 2m wide, extended south for a further 4m, the purpose of which was to determine if the structure had any relationship with a possible wall foundation, visible as stones protruding through the turf of a low bank.
- 2.2.2 Turf and topsoil were removed by hand, in level spits, and where feasible the material was stacked neatly for replacement at the conclusion of the investigation. The excavation then proceeded stratigraphically, with the upper surface of all archaeological layers being cleaned and recorded, both in plan and section. Any material of antiquity, and thus of archaeological significance, was examined, excavation being limited, on the whole, to the minimum required to establish the character, preservation and date of the structure. Most of the archaeological remains were retained *in situ*, though deposits that were clearly going to be adversely affected by construction of the flagged path were subject to more extensive excavation.
- 2.2.3 The position of the trench was located with respect to surrounding landscape features and the National Grid, and all deposits were three-dimensionally recorded, using a Leica 1200 GPS real time differential survey instrument, with an accuracy of ± 20 mm. All the archaeological information recovered was recorded stratigraphically, using a system adapted from that used by the former English Heritage Research Department, based on *pro forma* contexts, object records, and survey sheets, with sufficient pictorial records to identify and illustrate individual elements of the structure, including plans and sections at appropriate scales (1:50, 1:20, 1:10), and both black and white and colour photographs (English Heritage 1991). A summary listing of all contexts recorded is presented in *Appendix B*. Where appropriate, soil samples, up to 30 litres in volume, were collected for technological, pedological, palaeoenvironmental and chronological analysis. All finds were retained for assessment and spot dating (*Section 3.5; Appendix C*).

2.3 Archive

- 2.3.1 A full professional archive was compiled in accordance with the Project Design (*Appendix A*), and in accordance with relevant guidelines (Walker 1990; English Heritage 1991). The archive will be deposited with The Great North Museum, with copies of the report being submitted to the Northumberland National Park and Northumberland County Council Historic Environment Records. The Arts and Humanities Data Service (AHDS) online database Online Access to index of

Archaeological Investigations (OASIS) will also be completed as part of the archiving phase of the project.

3 RESULTS

3.1 Introduction

- 3.1.1 Within the area of investigation, the modern ground surface lay at 232.62m above Ordnance Datum (aOD) on the north and 231.22m aOD, to the south. The topsoil, 0.2-0.3m thick, was removed by hand, revealing several features and deposits of archaeological significance, which could be divided, on stratigraphical evidence, into three broad phases of activity (Phases 1, 2, 3).

3.2 Phase 1

- 3.2.1 The natural geology, an orange-yellow silty clay containing decayed sandstone fragments, was recorded only in a narrow, east/west sondage that was excavated to a greater depth across the north end of the area investigated (Fig 3). There, the earliest features were a well-made north/south wall (**109**), which extended across the full width of the sondage (*c* 1.5m) but clearly continued to the north and south, and a hearth (**120**), located *c* 1.5m to the east. Whilst these presumably formed part of the building's primary phase (**109** being the putative west wall), too little was seen for the structure to be characterised, and no floors or occupation deposits were recorded.
- 3.2.2 The wall (Pl 5), 0.8m wide, survived as a single course of roughly squared, clay-bonded sandstone rubble, *c* 0.15m high. This had a very neat external edge and had seemingly built directly on the natural silty clay. The hearth may have been roughly circular, *c* 1.1m in diameter, but extended north of the area investigated. It comprised a deposit of dark red-brown, charcoal-rich silt (**116/117**), the edges of which were seemingly defined by a 'kerb' of sandstone fragments. The silt contained four small amphora sherds (*Section 3.5*) and a sample of alder (*Alnus* sp) charcoal that yielded a radiocarbon determination of cal AD 80-240 (1860±30 BP; SUERC-22148 (*Appendix D*)), suggesting a Roman date for the Phase 1 building. However, the silt also produced a fragment of calcined animal bone, from which a radiocarbon determination of 540-380 cal BC (2370±30 BP; SUERC-22149) was obtained. In view of the other dating evidence, it must be assumed that the dated bone represents residual pre-Roman (early/middle Iron Age) material that had been redeposited in the hearth.



Plate 5: Phase 1: wall **109**, looking north

3.3 Phase 2

- 3.3.1 Wall **109** was sealed by a layer of clay (**114**; not illustrated), 80mm thick, whilst hearth **120** was overlain by a 0.18m-thick layer of compacted, dark grey silt (**115**; Fig 4), which contained a small amount of burnt stone and five sherds of abraded Roman-period pottery, including a single fragment of Black-burnished ware Fabric 1 (BB1), dating to the second century AD, after *c* AD 120 (Section 3.5). These materials may have been laid to level the area prior to the reconstruction of the building, with **115** possibly also serving as the floor of the Phase 2 structure.
- 3.3.2 The west and east walls of the new building (**103**, **105**; Fig 4) were 0.7-0.78m wide, constructed of undressed and roughly squared blocks of dolerite and sandstone (approximately 70:30 in proportion), with a rubble core but no obvious bonding medium. This was noticeably less well faced than the earlier wall. Only a single course of stonework, *c* 0.15m high, survived in **103** (Pl 6), but **105** had two courses remaining, and was up to 0.35m high. Both were set in construction trenches (respectively, **113**, **110**) backfilled with mixed clay, earth and large stone fragments (**111**, **108**). The latter yielded several sherds of Black Burnished ware 1 pottery, datable to around the middle

of the second century AD (*Section 3.5*). The south wall (**107**), of similar width and construction to the others, was also revealed (though it was not investigated in any detail), demonstrating that the Phase 2 structure was *c* 5.4m wide, externally (*c* 3.7m internally) and at least 4.4m long, within the area investigated. To the north, the building extended beyond the site, and its relationship to Hadrian's Wall could not certainly be established, but if, as seems likely, it was appended to the south face of the Wall, it would have been approximately 7.7m, north to south.



Plate 6: Phase 2: wall 103, looking south

- 3.3.3 The east wall (**105**) had a marked discontinuity in its alignment, about 2m north of the building's south-east corner (Fig 4; Pl 7), with the masonry to the north exhibiting a slightly more north-east to south-west alignment than that to the south. As the walls were not fully excavated, the precise reason for this could not be ascertained, but it is possible (perhaps likely) that it indicates a partial reconstruction of this wall, perhaps in its northern section. Furthermore, both this wall, and its counterpart on the west (**103**), were seen to lean outwards, suggesting that the building may have become unstable. It is possible that some of the large stones within **III**, the fill of the construction trench for the west wall, some measuring as much as 0.47 x 0.38m, were inserted to bolster wall **103**, though this is not certain.



Plate 7: Phase 2: demolition rubble overlying the remains of the building

- 3.3.4 No internal features or deposits were found in association with the Phase 2 structure, though this may have been due, in large part, to the fact that much of the interior, and beyond, was filled with demolition rubble (**102**, **104**, **106**; Fig 4; Pl 7), mostly retained *in situ*, which could have masked occupation evidence. A possible entrance at the south-west corner of the building was marked by an apparent gap, *c* 2m wide, between the west end of the south wall (**107**) and the inner face of the west wall (**103**). The existence of this putative doorway could not, however, be conclusively proven, since it is just possible that the relevant section of the south wall was also masked by unexcavated building debris. Whether these rubble spreads were formed by the collapse of the walls or were the result of robbing (or both), is not certain; either way, they clearly marked the end of use of the Phase 2 structure. Whatever their precise significance, they yielded a small number of Roman finds, including an uninscribed altar fragment and several amphora sherds (*Section 3.5*).

3.4 Phase 3

- 3.4.1 The narrow, dog-legged extension (*Section 2.2.1*) was opened for 4m to the south of the main area of investigation, in order to investigate a low bank that seemingly represented the remains of a stone-built structure, parts of which were visible, protruding through the turf. On investigation, this proved to be the remains of a north/south-aligned drystone wall foundation (**119**; Fig 4), up to 1.2m wide, located *c* 1m west of **103**, the west wall of the Phase 2 building, and on a similar alignment. It remained unexcavated and had no stratigraphic relationship with the Phase 2 structure, but is thought to have been of post-medieval date. A few post-medieval artefacts,

including sherds of pottery and glass, were recovered from the topsoil across the site (Section 3.5).

3.5 Artefacts

- 3.5.1 In all, 43 artefacts were hand-collected during the investigation (Table 1). With the exception of a small assemblage of Roman-period pottery, a Roman intaglio gemstone and a fragment of a Roman altar, all the material is of recent date.

Context No	Pottery	Stone	Ceramic Building Material	Glass	Totals
101	11		2	2	15
102		1			1
104	1				1
106	1				1
108	11				11
115	6				6
116	3				3
117	1				1
Unstratified	1	1	1	1	4
Totals	35	2	3	3	43

Table 1: Distribution of artefacts by context

- 3.5.2 There are 32 small, badly-abraded fragments of Roman pottery, principally comprising Black Burnished ware 1 (BB1) and amphora sherds. A lack of diagnostic fragments limits the potential of the material for dating, although a broad mid-second- to third-century date seems likely. Several fragments from the rim of a BB1 jar, datable to the mid-second century (Gillam 1976), came from **108**, the fill of the construction trench for the east wall (**105**) of the Phase 2 building, and therefore provide a *terminus post quem* for the beginning of this phase.
- 3.5.3 An almost complete nicolo paste intaglio gemstone (OR 1000; Pl 8) was unstratified. The figure depicted seems most likely to be the god Mercury, a popular deity seen as a protector of trade and commerce (Henig 2007). Nicolo gemstones do not appear in Britain before the second century AD, when they seem to have become relatively widespread, maintaining their popularity throughout the third century (Henig 2007). Demolition rubble **102**, which had been deposited largely in the interior of the Phase 2 building, yielded part of the base of a small sandstone altar (OR 1003; Pl 9). This is worn, and nothing survives of any inscription, but the piece is carved with several roll-mouldings, one of them cabled, and is clearly of Roman date.



Plate 8: Roman intaglio (OR 1000)



Plate 9: Fragment of a sandstone altar (OR 1003), from Phase 2 demolition rubble 102

3.6 Animal bone

- 3.6.1 During the investigations, a small fragment of calcined bone was recovered from fill **116** of Phase 1 hearth **120** (Section 3.2.2), and a further nine very small fragments came from layer **115**, a 'make-up' deposit that may also have served as an earthen floor for the Phase 2 structure (Section 3.3.1). The fragment from **116** was used for radiocarbon dating and is described on the radiocarbon-dating certificate (Appendix D) as being part of a 'medium-sized mammal'. The material from **115** is extremely poorly preserved, corresponding, approximately, to Behrensmeyer's stage 5 (Behrensmeyer 1978). One fragment does appear to be an 'end' with a tiny portion of articular surface surviving, though some fragments are in an even more degraded condition. Consequently, all that can be said is that the collection comprises highly comminuted mammalian bone fragments, not identified to anatomical element or species, that have been subject to high temperatures of at least 450-500° C (Lyman 1994, 389). The possibility that some or all of the material is human cannot be ruled out completely but, in view of its context, this seems unlikely.

3.7 Charred plant remains and charcoal

- 3.7.1 A targeted programme of palaeoenvironmental sampling was implemented during the excavations in order to assess the site's potential for containing palaeoenvironmental remains, and to recover material suitable for radiocarbon dating. Four bulk samples were taken during the investigations, which comprise deposit **116** from Phase 1 hearth **120**, a backfill (**111**) from Phase 2 construction trench **113**, and two Phase 2 levelling deposits (**114** and **115**).
- 3.7.2 **Methodology:** the samples were either wet sieved through a 250µm mesh, and kept wet, or floated, where the flot was caught in a 250µm mesh, and air dried. The retents of the floated samples were washed through 2mm and 500µm meshes and air dried. The samples were scanned using a Leica stereo microscope and any plant material, including fruits, seeds and charcoal, was recorded. Other remains, such as bone, insects, small artefacts, ceramic building material (cbm), industrial/metal waste, and coal/heat-affected vesicular material (hvm), were also noted. Any surviving fruits/seeds were provisionally identified using the modern reference collection held at OA North, and with reference to the *Digital Seed Atlas of the Netherlands* (Cappers *et al* 2006). The presence of modern roots, earthworm eggs and modern seeds was also noted to ascertain the likelihood of any contamination. The remains were quantified on a scale of 1–4, where 1 is rare (one to five items); 2 is frequent (6 to 50 items); 3 is common (51–100 items); and 4 is abundant (greater than 100 items). Plant nomenclature follows Stace (2010). The assessment results were recorded on a proforma, part of the site archive.
- 3.7.3 Charcoal fragments over 2mm in size were quantified and scanned to assess preservation and wood diversity. Wood maturity was also noted to assess wood type (*ie* heart wood, sap wood, or roundwood) and to identify suitable material for radiocarbon dating. Alder (*Alnus glutinosa*) and hazel (*Corylus avellana*), which are anatomically similar in transverse section, were not separated during assessment. They were, however, separated for radiocarbon assay, whereby a high-powered binocular microscope was used to observe both tangential and radial sections. Identification and classification of the charcoal was aided by Hather (2000).

3.7.4 **Results:** other than charcoal retrieved from the >2mm retents from levelling deposit/earthen floor **115** and hearth **120**, all four deposits were devoid of charred plant remains. Levelling deposit **114** and construction trench backfill **111** contained rare to common uncharred seeds. However, these, along with insect eggs (including earthworm eggs), insect fragments, and roots, are likely to comprise modern intrusive material. Levelling deposit/earthen floor **115** produced common charcoal, including identifiable (>2mm) fragments dominated by alder/hazel (*Alnus glutinosa*/*Corylus avellana*), including fragments of small roundwood, with a smaller component of other taxa, including heath/heather (*Erica* sp/*Calluna vulgaris*) and oak (*Quercus* sp). The origin of this material is unclear, but it may represent the remains of a hearth, which was subsequently incorporated into the floor. A fragment of alder charcoal from hearth **120** (deposit **116**) provided an early Roman date (Section 3.2.2).

3 DISCUSSION

4.1 Introduction

- 4.1.1 The archaeological works undertaken at King Arthur's Well resulted in the exposure of part of a rectangular stone structure of a type seemingly not excavated previously on Hadrian's Wall. The building had probably been constructed against the inner (south) face of the Wall, with the Wall itself forming its north side, though this could not be conclusively proven, given the extent of the excavation. Two principal construction phases were evident, the first apparently well-built, but structural problems may ultimately have led to the building's collapse and/or demolition. A final phase of activity (Phase 3) was represented by a drystone wall foundation further to the south. This had no clear association with the structure and may have been part of a post-medieval field wall.

4.2 Chronology

- 4.2.1 Regarding the date of the Phase 1-2 building, there are essentially four main 'possibilities':
- it pre-dates the construction of Hadrian's Wall, being either a pre-Roman 'native' structure or a 'pre-Wall' Roman feature that was subsequently incorporated into the Wall system;
 - it is contemporary with the construction of the Wall, and formed an integral part of the Hadrianic frontier system from its inception;
 - it was built during the Roman period, but sometime after the Wall was first constructed;
 - it was built and occupied in the post-Roman period.
- 4.2.2 The idea that the structure is of prehistoric origin can be swiftly dismissed, not least because the building was clearly rectangular. The only indication of pre-Roman activity was provided by the early/middle Iron Age radiocarbon determination (540-380 cal BC (2370±30 BP; SUERC 22149)) obtained from a fragment of burnt bone in Phase 1 hearth **120** (*Section 3.3.2; Appendix D*). However, whilst this is of interest as an indicator of Iron Age activity on or in the vicinity of the site, the fact that the same deposit produced a second radiocarbon date that is firmly within the Roman period, together with four small amphora sherds (*Section 3.6*), leaves little doubt that the bone was residual. Furthermore, if, as seems likely, the north side of the structure was formed by Hadrian's Wall itself, any notion of a pre-Roman origin can be discounted.
- 4.2.3 That the building may have been constructed in the post-Roman period cannot be completely ruled out, since, historically, the emphasis of Hadrian's Wall studies has (understandably) been on the Roman structures, and comparatively little research has been undertaken on the numerous elements of the World Heritage Site that seem to post-date the initial construction of the frontier system. Consequently, little is known of the history of Hadrian's Wall in the period of a millennium or more from its demise as a coherent frontier system at the end of the Roman period to the first antiquarian records of the sixteenth and seventeenth centuries (Breeze 2006, 15; Hodgson 2009, 41). The Wall fort at Birdoswald continued to be occupied into the fifth and (possibly) sixth century by a community that may have evolved from a residual Roman garrison (Wilmott 1997, 224-31), and there is increasing evidence from other forts, both on the Wall and in its immediate hinterland, for continuity of use long after the traditional

'end' of Roman administration, *c* AD 410 (Wilmott 1997, 224-31; 2000, 14-18; Zant 2009, 465-7). However, the idea that the entire Wall system may have been 'recommissioned' for a time during the fifth-sixth century (Dark 1992) is not generally accepted, and what (if anything) was happening on the Wall more generally during the early medieval period is far from clear (Collins and Symonds 2019, 74-6). There is presently little or no evidence for post-Roman activity in milecastles or turrets (Hodgson 2009, 40), and indeed, in the central sector of the Wall at least, many turrets were demolished during the Roman period (Breeze 2006, 72). The tradition that St Paulinus undertook a royal baptism at King Arthur's Well during the early seventh century (*Section 1.3.2*), is unlikely to have any basis in fact, but the Wall clearly remained an imposing monument long into the post-Roman period, as is evidenced both by the remains that survive today, and by numerous literary references, the earliest being those of Gildas, in the sixth century (*op cit*, 15), and Bede in the early eighth century (*ibid*).

- 4.2.4 Other than serving as a convenient stone quarry for the later inhabitants of the area, there is little indication of the uses to which the surviving remains of the Wall may have been put during the later medieval and earlier post-medieval periods. However, there is increasing evidence, particularly from the central sector of the frontier, where preservation is best, for the existence of many structures and/or enclosures that appear to have been built, in the majority of cases, on the south side of the Wall (RM Newman *pers comm*). Like the structure at King Arthur's Well, virtually all these survive only as low earthworks, and hardly any have been excavated; their date and purpose therefore remain largely conjectural. The few post-Roman structures that have been excavated on the line of the Wall, such as the sixteenth-century buildings on *Mons Fabricius*, in Wall Mile 38 (Breeze 2006, 257), tend to be aligned parallel to the Wall (RM Newman *pers comm*), unlike the structure investigated, the long axis of which was clearly perpendicular to it. Some 35m north-east of King Arthur's Well, the earthwork remains of a roughly square seemingly stone-built structure are visible, located on a slightly higher, drier ground *c* 10m north of the Wall Ditch (Pl 10) As this has never been excavated, its character and date are unknown, but there is no evidence to associate it with the building to the south.



Plate 10: King Arthur's Well, looking south-west from Mucklebank, showing the square structure north of the Wall Ditch (right) and the investigated building, visible as a 'platform' across which the flagged path has yet to be laid

- 4.2.5 The dating evidence found in the investigated building (with the exception of the Iron Age radiocarbon date), or unstratified, or from the modern topsoil, is, however, strongly suggestive of a Roman, rather than a post-Roman, origin for the structure. The most significant evidence came from Phase 1 hearth **120**, which yielded a radiocarbon determination of cal AD 80-240 (1860±30 BP; SUERC 22148 (*Appendix 4*)), as well as four amphora sherds. More Roman pottery was found in association with the Phase 2 building, including several sherds from a Black-burnished ware 1 jar, in the construction trench for the east wall (**105**; *Section 3.3.2*), and another undiagnostic fragment in the same fabric, together with undiagnostic sherds of greyware (one fragment) and orange oxidised ware (three fragments), from silt **115**, which was deposited at the beginning of Phase 2. The Black-burnished ware 1 provides a probable *terminus post quem* (*tpq*) of c AD 120-5 for the commencement of this phase, since this is the period at which its institutional supply to the garrisons of the North is thought to have commenced (Tyers 1999), though small amounts probably reached the region before this (Swan *et al* 2009, 603). The form and fabric, however, might indicate a date in the mid-second century or after. The remainder of the Roman ceramic assemblage, comprising grey wares, oxidised orange wares, and amphorae bodysherds, is not closely datable, though the material would not be out of place in a mid-second/third-century context. With the exception of two small, abraded amphora sherds, from rubble deposits **104** and **106** (*Section 3.3.4*), the deposition of which marks the end of the Phase 2 building, and a single unstratified Black-burnished ware 1 sherd, this material came from the shallow modern topsoil.

- 4.2.6 Other finds support the idea of a Roman date for the building (*Section 3.5*) including the altar fragment, from rubble deposit **102** (*Section 3.3.4*), associated with the end of the Phase 2 structure, and the intaglio, which was unstratified. Whilst it is conceivable that the altar could represent a 'carry' from an adjacent turret or milecastle, being reused as building material in the structure investigated, the intaglio is, perhaps, unlikely to have moved far from its point of loss.
- 4.2.7 On balance, therefore, it seems likely that the structure is Roman, being constructed and used, in all likelihood, sometime during the second/mid-third century AD. The radiocarbon date from hearth **120** (*Section 3.2.1*) suggests that Phase 1 occurred at some point between the late first century AD and the mid-third century, with Phase 2 certainly commencing no earlier than the AD 120s (and perhaps after *c* AD 150), but further chronological precision is not possible. It appears that the building developed structural problems, which may have led to its eventual collapse and/or demolition. The limited dating evidence would not be inconsistent with a late second-early third-century date for this event, broadly contemporary with the demolition of many of the turrets in the central sector of the Wall (Breeze 2006, 72), and the building does not appear to have continued in use much beyond the mid-third century, at the latest. Certainly, there is nothing in the ceramic assemblage from the site that suggests activity during the late third/fourth century.
- 4.2.8 With the exception of a few fragments of late post-medieval pottery and glass, the only evidence for (probable) post-Roman activity on the site was provided by drystone wall foundation **119** (Phase 3; *Section 3.4*). The precise chronology and significance of this feature is unclear, but it did not appear to have any association with the Phase 1-2 building and may, perhaps, have been the remains of a post-medieval field wall.

4.3 The building form and function

- 4.3.1 If it is accepted that the structure is Roman, then it must have been in some way associated with the construction and use of Hadrian's Wall, being either an earlier feature that was incorporated into the Hadrianic frontier system, a structure that formed an integral part of the Wall system from the outset, or a later addition. It also remains to be asked what its precise character and purpose might have been. The presence of an internal hearth suggests that it was a roofed building rather than something akin to a walled enclosure. There is insufficient evidence to demonstrate whether or not it was entirely stone-built, though the thickness of the walls (at *c* 0.7-0.8m, only slightly less substantial than the narrowest turret walls (Breeze 2006, 69)), and the presence of quite large amounts of building rubble, suggest that it may have been wholly of stone. However, the total absence of ceramic tiles or stone slates provides a strong indication that it would have been roofed with a perishable organic material, such as wooden shingles or thatch, since even the most thorough robbing of a tiled or slated roof would have left behind a few broken fragments.
- 4.3.2 Although the structure was not fully exposed, the investigations demonstrated that it was *c* 5.4m wide, externally (*c* 3.7m, internally), whilst the visible earthwork remains suggest that it may have measured approximately 7.7m, north to south, presuming it did indeed extend up to the south face of the Wall. It was therefore considerably smaller than a milecastle, which usually measure *c* 60 x 50 Roman feet (17.76 x 14.80m (Breeze 2006, 65)), but somewhat larger than a turret, which were normally about 20 Roman

feet (5.79m) square, externally (*op cit*, 69). Its positioning is also anomalous, between Turret 44b, on the east, and Milecastle 45, to the west, in a position that does not correspond to the generally regular disposition of milecastles and turrets along the line of the Wall (*op cit*, 64-9).

- 4.3.3 The possibility that the structure represents a pre-existing Roman military feature that was incorporated into the Wall system can probably be discounted. Certainly, some pre-Wall installations were retained and subsumed, notable examples being the stone-built watchtowers at Pike Hill, between Milecastle 52 and Turret 52a, and at Walltown (Turret 45a), the latter only a short distance west of King Arthur's Well (Breeze 2006, 278-9, 320-1). However, the idea that something similar occurred in the case of the structure investigated seems unlikely, for the original function of the Pike Hill and Walltown installations is reasonably clear (*op cit*, 50), and the tactical value of retaining them is obvious, but it is difficult to see what military purpose the King Arthur's Well structure could have served in isolation.
- 4.3.4 A possible clue to the building's function is provided by its unusual positioning relative to the 'regular' Wall installations, together with its location at the bottom of a deep nick in the crags. At Peel Gap, an extra tower was discovered in 1987 in a broadly analogous position, at the bottom of a steep descent from the adjacent crag (*op cit*, 258), halfway between two 'regular' turrets (39a and 39b). Although of similar size to the turrets, it abutted the south face of the Wall, and appears to have been demolished in the late second/early third century AD (*op cit*, 260). It has been suggested that this additional tower was built to cover the gap, which may not have been fully visible from the adjacent turrets (*op cit*, 259), and it could be argued that the structure at King Arthur's Well had a similar purpose. However, unlike the situation at King Arthur's Well, the Peel Gap tower was located on a stretch of the Wall where the spacing of milecastles and turrets was exceptionally wide (*op cit*, 259-60), which made the provision of an additional installation all the more necessary. Furthermore, it seems very unlikely that visibility into the bottom of the nick at King Arthur's Well was ever an issue, since Turret 44b, to the east, was sited well away from its theoretical position, instead occupying a commanding site on the crags immediately east of the nick (Collins and Symonds 2019, 38), affording a clear view into the base of the defile (Pl 11).

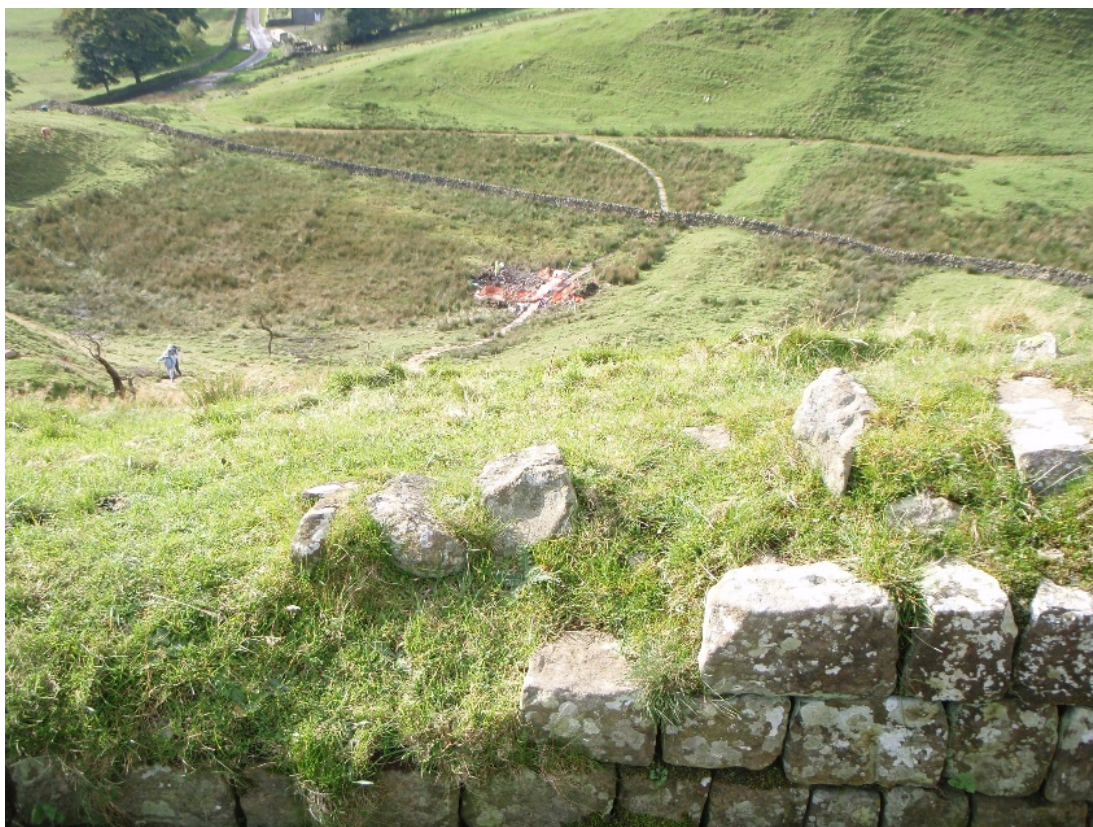


Plate 11: The site of the investigations, looking south-west from Turret 44b (Mucklebank)

- 4.3.5 Whatever its precise purpose, the fact that the building investigated did not conform to the standard dimensions of the 'regular' Wall installations (*Section 4.3.2*) suggests that it was a later addition. Given its proximity to the curtain of Hadrian's Wall, a military function is probable, but the possibility that it was not overtly military in character should also be considered, unlikely though it may seem. Following this hypothesis, it is possible that the proximity of the building to King Arthur's Well is not entirely coincidental, but the nature of any association (if, indeed, there is any) is impossible to determine. The well's association with King Arthur, and the tradition that it was the place where St Paulinus baptised a seventh-century king (Hutchinson 1778; Collingwood Bruce 1884), hint that the site might have been venerated in antiquity. Whilst the former association is clearly fanciful, and the latter very probably so, the recovery, during the 2008 investigations, of a sandstone altar fragment and an intaglio (*Section 3.6*) is clearly noteworthy. However, no other evidence for 'ritual' or religious activity was found at the site and, in any case, it seems improbable that the Roman army would have permitted the establishment of a 'shrine' or some other ritual/religious focus actually on the Wall itself.
- 4.3.6 Some other non-military function is conceivable but, for this to be the case, the structure must have been constructed at a time when the Wall was not in commission. That it belongs to the very late Roman or early post-Roman period, when the Wall no longer functioned as an integrated system under effective military control, is not borne out by the excavated evidence, which suggests a second/third-century date for its construction and use. If this is correct, the only time when the erection of a non-military structure at the back of the Wall might have been permitted is the period from the early AD 140s

to the late AD 150s, when the Hadrianic frontier was abandoned following the Antonine reoccupation of southern Scotland and a new frontier line, represented by the Antonine Wall, was established on the Forth-Clyde isthmus (Breeze 2006, 28).

- 4.3.7 The only possible, very broad, parallel is provided by the 'native' settlement at Milking Gap, in Wall Mile 38, which is positioned between the Wall and the Vallum (*op cit*, 256), a situation that would not have been tolerated when the Wall was in use. This, however, comprised roundhouses rather than any rectangular structures (Kilbride-Jones 1938). In addition, whilst it is conceivable that the settlement was established and occupied in the AD 140s-50s, the fact that it appears to have had a long life suggests it is more likely to have been in existence before the Wall was built, the inhabitants presumably being displaced by the Roman military when construction of the frontier system began (*ibid*).
- 4.3.8 It has also been suggested that the army may never have been entirely convinced that the advance into Scotland was a 'permanent' venture (Collins and Symonds 2019, 61), in which case, the prohibition of non-military activity adjacent to Hadrian's Wall (except at the extramural settlements outside the forts) might never have been relaxed. The structure therefore remains an enigma, clearly 'Roman' in plan, yet not conforming in any way to any surrounding features.

4.4 Conclusion

- 4.4.1 Despite the limited nature of the project, and the many uncertainties that remain regarding the purpose of the structure investigated, the archaeological work undertaken at King Arthur's Well provided rare and important evidence for the chronology and character of an 'anomalous' building associated with Hadrian's Wall, a structure that appears, moreover, to have been constructed and used during the Roman period. Therefore, whilst details of its precise chronology and function remain uncertain, the project has demonstrated that not all the 'irregular' structures associated with the Wall are necessarily post-Roman, but could represent modifications to the frontier works, carried out during the Roman period, or even non-military activity during the Antonine 'interlude' of the mid-second century.

5 BIBLIOGRAPHY

5.1 Primary sources

Ordnance Survey, 1865 25-inch : 1 mile map, Northumberland, LXXXII.16, first edn

Ordnance Survey, 1896 25-inch : 1 mile map, Northumberland, LXXXII.16, second edn

Ordnance Survey, 1954 1 : 10,000 map, Northumberland, Sheet NY66NE

5.2 Secondary sources

Behrensmeyer, AK, 1978 Taphonomic and ecologic information from bone weathering, *Palaeobiol*, **4**, 150-62

Breeze, DJ, 2006 *J Collingwood Bruce's Handbook to the Roman Wall*, 14th edn, Newcastle upon Tyne

Breeze, DJ, and Dobson, B, 2000 *Hadrian's Wall*, 4th edn, London

Cappers, RTJ, Bekker, RM, and Jans, JEA, 2006 *Digitalezadenatlas van Nederland, digital seed atlas of the Netherlands*, Groningen

Chartered Institute for Archaeologists (CifA), 2014a *Standards and guidance for archaeological evaluation*, Reading

Chartered Institute for Archaeologists (CifA), 2014b *Standards and guidance for the collection, documentation, conservation and research of archaeological materials*, Reading

Chartered Institute for Archaeologists (CifA), 2014c *Code of conduct*, Reading

Collingwood Bruce, J, 1884 *The Handbook to the Roman Wall*, 2nd edn, Newcastle upon Tyne

Collins, R, and Symonds, M, 2019 *Hadrian's Wall 2009-2019: a summary of excavation and research*, Kendal

Countryside Commission, 1998 *Countryside character, Volume 2: North West*, Cheltenham

Dark, KR, 1992 A sub-Roman re-defence of Hadrian's Wall?, *Britannia*, **23**, 111-20

English Heritage, 1991 *Management of archaeological projects*, 2nd edn, London

Gillam, JP, 1976 Coarse fumed ware in northern Britain, *Glasgow Archaeol J*, **4**, 57-80

Hather, JG, 2000 *The identification of Northern European woods: a guide for archaeologists and conservators*, London

- Henig, M, 2007 *A corpus of Roman engraved gemstones from British sites*, BAR Brit Ser, **8**, 3rd edn, Oxford
- Hodgson, N (ed), 2009 *Hadrian's Wall 1999-2009: a summary of recent excavation and research*, Kendal
- Hutchinson, W, 1778 *A view of Northumberland with an excursion to the abbey of Mailross in Scotland*, 2 vols, Newcastle upon Tyne
- Kilbride-Jones, HE, 1938 The excavations of a native settlement at Milking Gap, High Shield, Northumberland, *Archaeol Aeliana*, 4 ser, **15**, 303-50
- Lyman, RL, 1994 *Vertebrate taphonomy*, Cambridge
- Plummer, C (ed), 1896 *Bedae Historia Ecclesiastica Gentis Anglorum*, Oxford
- Stace, C, 2010 *New flora of the British Isles*, 3rd edn, Cambridge
- Swan, VG, McBride, RM, and Hartley, KF, 2009 The coarse pottery, in C Howard-Davis (ed), *The Carlisle Millennium Project: excavations in Carlisle 1998-2001. Volume 2: finds*, Lancaster Imprints, **15**, Lancaster, 566-660
- Tyers, P, 1999 *Roman pottery in Britain*, London
- Walker, K, 1990 *Guidelines for the preparation of excavation archives for long-term storage*, London
- Wilmott, T, 1997 *Birdoswald: excavations of a Roman fort on Hadrian's Wall and its successor settlements, 1987-92*, English Heritage Archaeol Rep, **14**, London
- Wilmott, T, 2000 The late Roman transition at Birdoswald and on Hadrian's Wall, in T Wilmott and P Wilson (eds), *The late Roman transition in the North: papers from the Roman Archaeology Conference, Durham 1999*, BAR Brit Ser, **299**, Oxford, 13-23
- Zant, J, 2009 *The Carlisle Millennium Project: excavations in Carlisle 1998-2001, Volume 1: stratigraphy*, Lancaster Imprints, **14**, Lancaster

APPENDIX A PROJECT DESIGN

May 2008

**Oxford Archaeology
North**

KING ARTHUR'S WELL NORTHUMBERLAND

ARCHAEOLOGICAL EVALUATION: PROJECT DESIGN

Proposals

The following project design is offered in response to a request received from Mr D McGlade of Hadrian's Wall Heritage Limited, for an archaeological evaluation of the structure immediately to the south of Hadrian's Wall at King Arthur's Well, Northumberland, to inform the design of improvements to the Hadrian's Wall Path National Trail in this locality.

1. Introduction

- 1.1 The Hadrian's Wall Path National Trail, developed by the Countryside Agency (now Natural England), aims to help conserve the monument whilst allowing the public to enjoy the great drama and beauty of the Wall and its surroundings. In the central sector of the route, through the Northumberland National Park, much of the development work related to existing footpaths or areas of access and was concerned with proactive measures to deter or halt erosion, in some cases involving the adjustment of these to ensure the integrity of the monument. At King Arthur's Well, in Wall mile 44 (NY 6806 6664), the Public Right of Way lies immediately to the south of the Wall and was created before the opening of the Trail in May 2003 to harmonise the Hadrian's Wall Path and the Pennine Way. The latter route, whilst formally some distance to the south, had been promoted for many years as following the line of the Wall, and, indeed, stiles had been installed on the Wall mound itself to facilitate the route. Whilst the removal of these structures, and their replacement some 5-10m to the south, has had the effect of removing walkers from the fragile, turf-covered Wall mound, it has inadvertently raised another issue. Although a well named King Arthur's Well has been known for many years to exist in the nick close to Walltown Farm, and an enclosure is marked in this position on the Ordnance Survey map, it was not until the *Juncus* was removed during the establishment of the Path that a building was recognised. This lies at right-angles to the Wall mound, and seems to use the Wall as its northern side. The area around the well is constantly wet and thus it was agreed that a length of flagged path should be installed, as a proactive measure to prevent poaching on the newly established route. This was not, however, implemented in the vicinity of the building, the walls of which clearly lie immediately below the turf. Following discussions with English Heritage, it has been agreed that a limited programme of archaeological work should be carried out in advance of the installation of this section of flagged path to minimise potential disturbance by visitor pressure of significant archaeological deposits.
- 1.2 Oxford Archaeology North (OA North) has provided advice on archaeological matters relating to the development and implementation of the Hadrian's Wall Path National Trail, firstly to the Countryside Agency, and latterly to Natural England and Hadrian's Wall Heritage Limited. Through this work over the last 12 years, OA North has developed a detailed knowledge of the archaeology of Hadrian's Wall and its associated features. OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. The organisation operates subject to the Institute of Field Archaeologists (IFA) Code of Conduct and is a Registered Archaeological Organisation (number 17).
- 1.3 The element of the monument with which this project design is concerned lies to the north-east of Walltown Farm, centred on NGR NY 6806 6664. This lies within the Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site, in the Scheduled Monument of *Hadrian's Wall between the track to Cockmount Hill and Walltown Quarry East, in Wall Miles 43, 44 and 45*, designated as SM 26066.
- 1.4 The emphasis on Hadrian's Wall studies has naturally been on the Roman structures, and remarkably little research has to date been undertaken on the numerous elements of the World Heritage Site that seem to be post-Roman in date. Such structures and enclosures have been increasingly recognised in recent years, many of them being appended to the south side of the Wall, but few have been excavated. From the low earthworks that are visible today, the building would appear to be up to 15m long by less than 10m wide, built on an approximately north/south alignment, at right-angles to the Wall. This would appear to be very different in nature from the Peel Gap Tower, the only one of the structures on the south side of the Wall to have been investigated that proved to be of Roman date. The few shielings that have been excavated, such as those on Mons Fabricius, tend to be aligned parallel to the Wall, in stark contrast to this structure. Little of the work to investigate ancillary structures has been published, and any opportunity to investigate other such features is of considerable archaeological importance.
- 1.5 The area is shown as an enclosure or building, built across the line of the Wall, on contemporary Ordnance Survey mapping, and King Arthur's Well is marked on the First Edition Ordnance Survey map (1865), although any features associated with the label are indistinct. Antiquarian tradition has it that the well was surrounded by masonry, but at the current time there is no indication that there is a well actually within the building and, indeed, the wettest area seems to be to the south of the structure. This site was reported in the eighteenth century as the place where Paulinus baptised 'King Egbert' (Daniels 1978), but given that there was no contemporary king of this name in Northumbria, the latter being the king of Kent who invited the Augustine mission to the country, and Paulinus' ministry in the North was in the reign of Edwin, this seems extremely unlikely. There seems no other evidence to substantiate this and the site therefore remains steeped in mystery.

- 1.6 It is proposed that a single trench be excavated across the southern part of the structure, on the line of the Hadrian's Wall Path National Trail, to evaluate the condition, date, and character of the structure, in order to provide information to assist in the design of the sacrificial path required across it.

2. Aims and Objectives

- 2.1 The purpose of the evaluation will be to investigate the structure to the south of Hadrian's Wall at King Arthur's Well, to establish the condition and extent, character and integrity of the archaeological remains, and, if possible, their date. The aim will be to understand, quantify and qualify the archaeological potential of this limited area, with a view to informing a strategy for the preservation and management of the archaeological remains, so that the proposed sacrificial surface will not compromise significant deposits, nor the integrity of the monument. The results will be placed in the public domain in a manner appropriate to their significance.

3. Methodology

- 3.1 A single trench will be excavated across the structure in the position agreed on site in a meeting between Hadrian's Wall Heritage Limited and English Heritage (Fig 1). It will be placed on the line of the Hadrian's Wall Path National Trail, on an approximately east/west alignment, at right-angles to the structure. It will measure approximately 11m by 6m, covering the southern part of the structure, and should certainly not exceed 1.2m in depth.
- 3.2 Turf and topsoil will be removed by hand, in level spits, and where feasible material will be stacked neatly for replacement at the end of the excavation. Excavation will then proceed stratigraphically.
- 3.3 The upper surface of any archaeological layers will be identified, cleaned and recorded, both in plan and section. Any material of antiquity, and thus of archaeological significance, will be examined, although excavation will be limited to an assessment of the nature, date and survival of the deposits, rather than full excavation, unless the material will be affected by the installation of the flagged path, or further excavation is necessary to characterise the site. In this case, a decision will be taken in consultation with English Heritage, on the level and extent of excavation. Any finds recovered will be retained for assessment and spot dating.
- 3.4 All information identified in the course of the site works will be recorded stratigraphically, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual elements of the structure. The trench will be located with respect to surrounding landscape features and the National Grid and all deposits three-dimensionally recorded, all using a Leica 1200 GPS real time differential survey instrument with an accuracy of $\pm 20\text{mm}$, or a TST linked to a data logger, depending on the timing of the project.
- 3.5 Results of all field investigations will be recorded using a system, adapted from that used by English Heritage, based on *pro forma* contexts, object records, and survey sheets. The archive will include both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:50, 1:20, and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration. Primary records will be available for inspection at all times.
- 3.6 Samples where appropriate will be collected for technological, pedological, palaeoenvironmental and chronological analysis. Samples for deposit characterisation, potential radiocarbon dating, and macrofossil analysis will be 30 litres in volume. Samples to assess the potential for buried soils will be collected as monoliths, if appropriate, using plastic drainpipe, as recommended by OA North's in-house palaeoenvironmentalist, following discussion with Jacqui Huntley, English Heritage's Scientific Advisor for the North East. These will be packaged appropriately and stored for possible future analysis.
- 3.7 If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with Ancient Monuments Laboratory staff at the University of Durham and also employs artefact and palaeoecology specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation. All legislation, such as the 1996 Treasure Act and the 1857 Burial Act, will be adhered to in full.

- 3.8 The backfilling of the site will be subject to discussion between Hadrian's Wall Heritage Limited and English Heritage and the extent will depend on the results of the programme of archaeological work. It is intended that the flagged path be laid immediately after the completion of the archaeological work, and elements of the excavation will act as a tray for the flags. A membrane will be laid to separate the archaeological material from the backfill in the trench. Those areas excavated that are not within the area of flags will be backfilled and the turf reinstated.

4. Health and Safety

- 4.1 OA North considers health and safety to be of paramount importance on all its projects. OA North has considerable experience in applying modern health and safety practices in large and small-scale archaeological projects.
- 4.2 OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1996 rev.). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.
- 4.3 Where necessary, trenches will be fenced temporarily to prevent access, although given that this evaluation will take place on private land, such a necessity is not expected.
- 4.4 OA North will undertake a Cat scan as a matter of course in advance of the commencement of excavation.

5. Attendances

- 5.1 None are anticipated, although the timetable of the work needs to be co-ordinated to ensure that the flagged path is installed and the site made good, immediately following the completion of the on-site archaeological works.

6. Archive

- 6.1 The results of the evaluation will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. It will include summary processing and analysis of any features and finds recovered during fieldwork, in accordance with UKIC guidelines. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA.
- 6.2 The paper archive will be deposited with the Northumberland Record Office and any material archive with the Museum of Antiquities at Newcastle University, with the land owner's permission, unless English Heritage deem otherwise. A copy of the report will be deposited for inclusion in the Northumberland Sites and Monuments Record and in the Northumberland National Park Sites and Monuments Record, a further copy will be deposited with the RCHM(E) database for Hadrian's Wall.
- 6.3 All finds will be treated in accordance with OA North's standard practice, which follows current IFA guidelines.

7. Report

- 7.1 A report of the findings will be compiled following completion of the fieldwork. This report will examine and describe the archaeology and, if appropriate, the palaeoenvironment of the site. The report will also seek to establish the significance of the results.
- 7.2 The report will consist of a typescript illustrated with line drawings, including finds if necessary, and, if suitable, black and white or colour photographs.
- 7.3 Two copies of this report will be submitted to Hadrian's Wall Heritage Limited, to inform the decision-making process as to improvements to the Hadrian's Wall Path National Trail in the area. Further copies will be submitted to English Heritage, the Northumberland National Park Authority, and Northumberland County Council.

7.4 The report is designed as a document for the specific use of the Client, for the particular purpose as defined in this project design, and should be treated as such; it is not suitable for publication, save as a note, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

7.5 The work should be published as a short article, submitted to *Archaeologia Aeliana*, as long as the results justify such a course of action.

8. Project Monitoring

8.1 Any proposed variations to the project design will be agreed with English Heritage. OA North will arrange a preliminary meeting, if required, and English Heritage and both the Northumberland National Park Archaeologist and Northumberland County Council's Archaeology Service will be informed of the commencement of the project.

9. Other Issues

9.1 Insurance in respect of claims for personal injury to or the death of any person under a contract of service with the Unit and arising out of an in the course of such person's employment shall comply with the employers' liability (Compulsory Insurance) Act 1969 and any statutory orders made there under. OA North has professional indemnity to a value of £2,000,000, employer's liability cover to a value of £10,000,000 and public liability to a value of £15,000,000. Written details of insurance cover can be provided if required.

9.2 Excavation will be undertaken on the basis of a five day week, within daylight hours only.

10. Work Timetable

10.1 OA North could commence the evaluation within two weeks of receiving Scheduled Monument Consent. It is estimated that the evaluation will take one to two weeks to complete on-site, depending on the complexity of the archaeology revealed. OA North would be able to submit the report on the evaluation to English Heritage within two months of the completion of the fieldwork.

11. Project Team

11.1 The work will be directed on site by a Project Officer, probably Jeremy Bradley BA, who has previously undertaken evaluatory work on the line of Hadrian's Wall as part of the implementation of the Hadrian's Wall Path National Trail. In addition, one Project Assistant would work on site.

11.2 The project will be managed by Rachel Newman BA FSA (Director OA North) who has acted since 1996 as the archaeological consultant to the Countryside Agency (now Natural England), and latterly to Hadrian's Wall Heritage Limited, in the development and ongoing maintenance of the Hadrian's Wall Path National Trail.

12. Bibliography

Daniels, C, 1978 *John Collingwood Bruce's Handbook to the Roman Wall*, 13th edn, Newcastle upon Tyne

APPENDIX B CONTEXT LIST

Context no	Interpretation	Description
100	Unstratified material.	
101	Modern topsoil.	Dark grey, slightly organic silt, 0.15-0.2m thick.
102	Demolition rubble of Phase 2 building.	Stone rubble above wall 103 , mostly dolerite whinstone, with a small amount of sandstone. The deposit covered an area c 4.5 x 1.3m.
103	West wall of Phase 2 building.	North/south-aligned stone wall, 0.7-0.78m wide and in excess of 4.15m long.
104	Demolition rubble of Phase 2 building.	Stone rubble above wall 105 , mostly dolerite, with a small amount of sandstone. The deposit covered an area c 3 x 3m.
105	East wall of Phase 2 building.	North/south-aligned stone wall, 0.7m wide and at least 5.1m long.
106	Demolition rubble of Phase 2 building.	Deposit of whinstone and sandstone located above and to the south of wall 107 .
107	South wall of Phase 2 building.	East/west-aligned stone wall, 0.75m wide and 3m long.
108	Backfill of wall construction trench 110 .	Pale/mid-orange-yellow clay and stones.
109	West wall of Phase 1 building.	North/south-aligned stone foundation, 0.74-0.8m wide and at least 1.58m long.
110	Construction trench for east wall of Phase 2 building.	Cut for wall 105 , 1.78m wide and over 0.1m deep.
111	Backfill of wall construction trench 113 .	Pale/mid-orange-yellow clay and stones.
112	Number not used.	
113	Construction trench for west wall of Phase 2 building.	Cut for wall 103 , greater than 1.8m wide and over 0.28m deep.
114	Clay 'levelling' deposit over Phase 1 wall 109 (Phase 2).	Pale/mid-orange-yellow clay above wall 109 , 80mm thick.
115	Possible 'levelling' deposit/earthen floor (Phase 2).	Very dark grey silt, 0.18m thick.
116	Fill of Phase 1 hearth 120 (=117).	Dark reddish-brown, charcoal-rich, clay silt.
117	Fill of Phase 1 hearth 120 (=116).	As 116 .

Context no	Interpretation	Description
118	Natural geology.	Orange-yellow silty clay containing decayed sandstone.
119	Drystone wall footing, probably post-medieval (Phase 3).	North/south-aligned drystone wall foundation, 1.2m wide and over 2.7m long.
120	Phase 1 hearth (stone edging).	Sandstone fragments forming 'kerb' for hearth.

APPENDIX C FINDS CATALOGUE

Context no	Object (OR) no	Material	Description	Approximate date
100	1000	Paste	Nicolo paste gemstone with impressed seated figure, possibly Mercury.	Roman; c second- to third century
100	1010	Ceramic	Small fragment of field drain.	Modern
100	1011	Ceramic	One small fragment of Black-burnished ware 1.	Roman; second century
101	1001	Ceramic	Three fragments of greyware; four fragments of orange oxidised ware; one small fragment of amphora; three fragments of black-glazed redware; one fragment of ?tile; one field drain fragment.	Roman and modern
101	1002	Glass	Base fragments from a dark olive-green wine bottle.	Eighteenth century
102	1003	Stone	Worn fragment of an altar in coarse sandstone. Uninscribed, but with several low mouldings, one of them cabled.	Roman
104	1004	Ceramic	Small, abraded amphora fragment.	Roman; first- to third century
106	1005	Ceramic	Abraded amphora fragment.	Roman; first- to third century
108	1006	Ceramic	Abraded fragments from a Black-burnished ware 1 jar.	Roman; second century
115	1007	Ceramic	One fragment of greyware; three fragments of orange oxidised wares.	Roman
115	1012	Bone	Small fragments of calcined bone.	Presumably Roman
115	1013	Charcoal	Small fragments.	Presumably Roman
115	1014	Iron	Small fragments of a possible nail.	Presumably Roman
115	1015	Ceramic	Small abraded fragment of Black-burnished ware 1.	Roman; second century
116	1008	Ceramic	Small amphora fragments.	Roman; first- to third century

APPENDIX D RADIOCARBON DATING CERTIFICATES



Scottish Universities Environmental Research Centre

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RADIOCARBON DATING CERTIFICATE

17 February 2009

Laboratory Code	SUERC-22148 (GU-18028)
Submitter	Elizabeth Huckerby Oxford Archaeology North Mill 3, Moor Lane Mill Moor Lane Lancaster LA1 1GF
Site Reference	King Arthur's Well, Hadrian's Wall, Cumbria
Sample Reference	KAW08 A (sample 3 Context 116)
Material	Charcoal : <i>Alnus</i>

$\delta^{13}\text{C}$ relative to VPDB -27.3 ‰

Radiocarbon Age BP 1860 \pm 30

- N.B.**
1. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
 2. The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal3).
 3. Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

Date :-

Checked and signed off by :-

Date :-

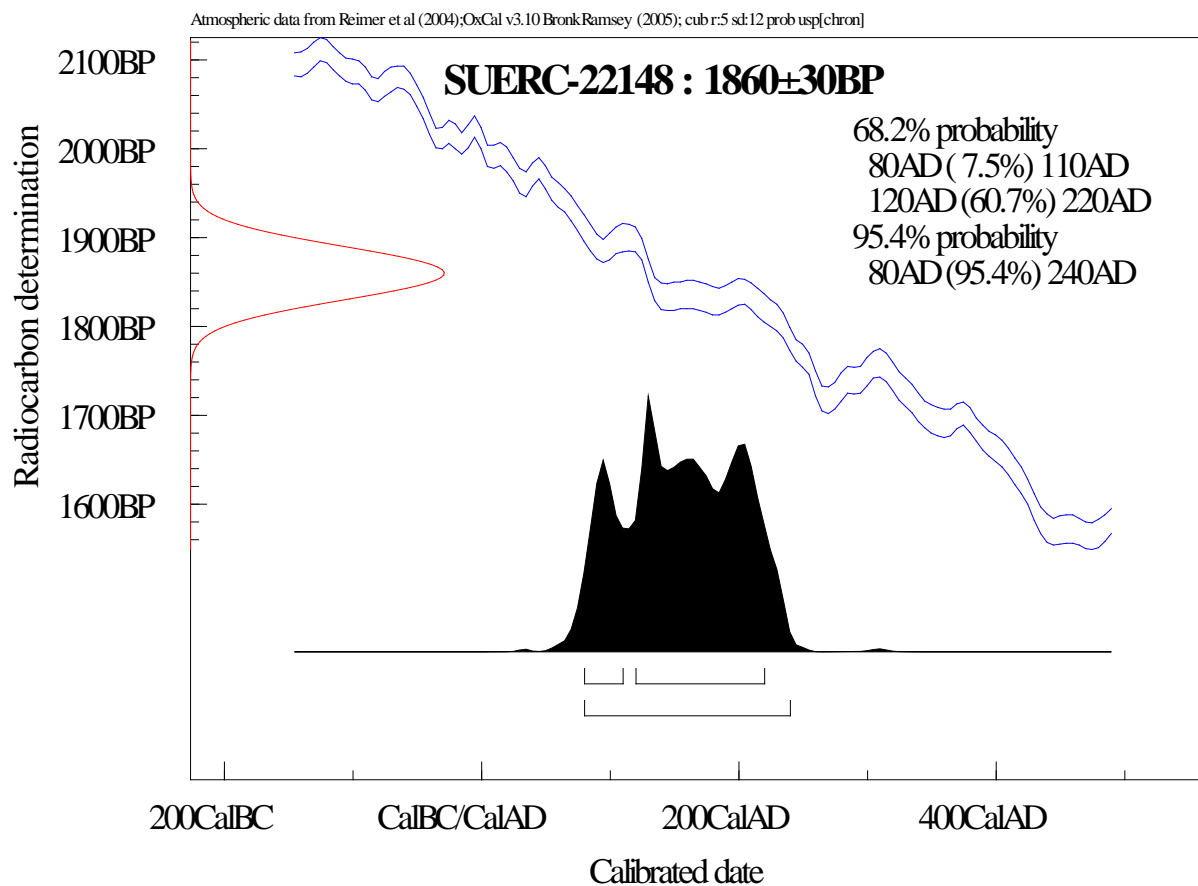


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Calibration Plot





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RADIOCARBON DATING CERTIFICATE

17 February 2009

Laboratory Code	SUERC-22149 (GU-18029)
Submitter	Elizabeth Huckerby Oxford Archaeology North Mill 3, Moor Lane Mill Moor Lane Lancaster LA1 1GF
Site Reference	King Arthur's Well, Hadrian's Wall, Cumbria
Sample Reference	KAW08 B (sample 3 Context 116)
Material	Cremated Bone : Sample 1 medium-sized mammal
$\delta^{13}\text{C}$ relative to VPDB	-24.7 ‰
Radiocarbon Age BP	2370 \pm 30

- N.B.**
1. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
 2. The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal3).
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Conventional age and calibration age ranges calculated by :-

Date :-

Checked and signed off by :-

Date :-

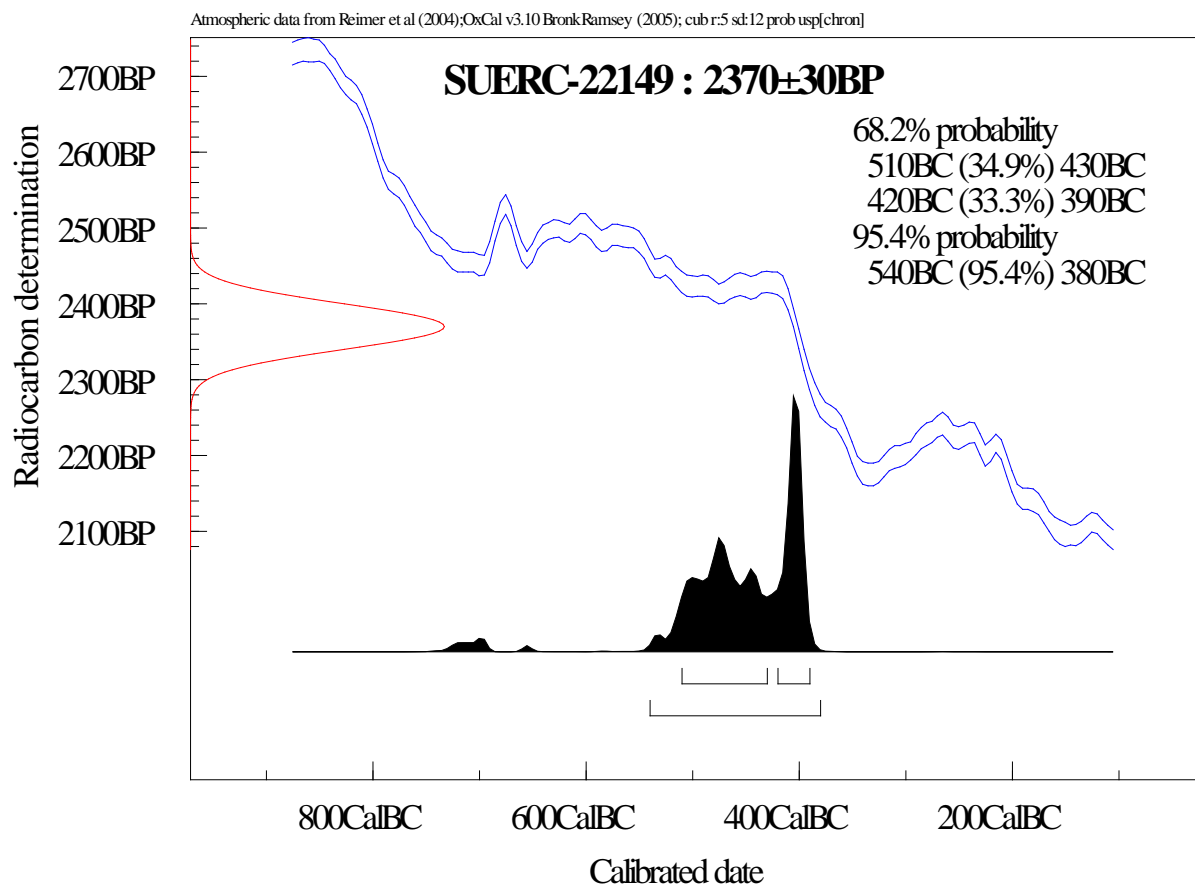


The University of Glasgow, charity number SC004401

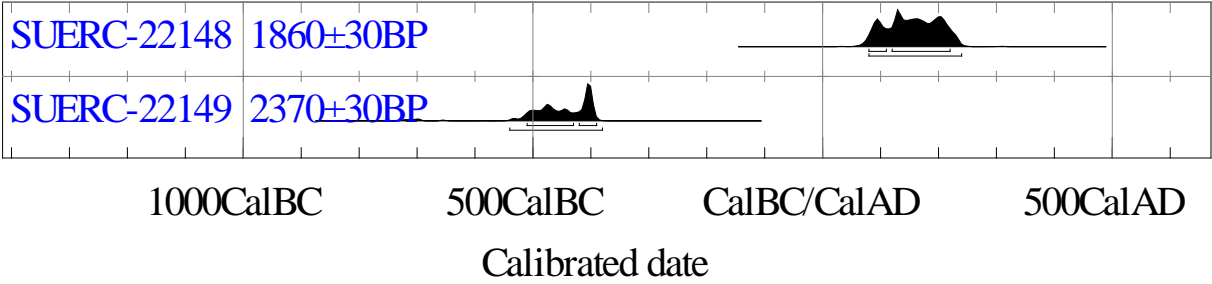


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Calibration Plot



Atmospheric data from Reimer et al (2004); OxCal v3.10 Bronk Ramsey (2005); cub.r:5 sd:12 prob:usp[chron]



List of Illustration

Figure 1	Site location
Figure 2	Trench location
Figure 3	Phase 1 features
Figure 4	Phases 2 and 3

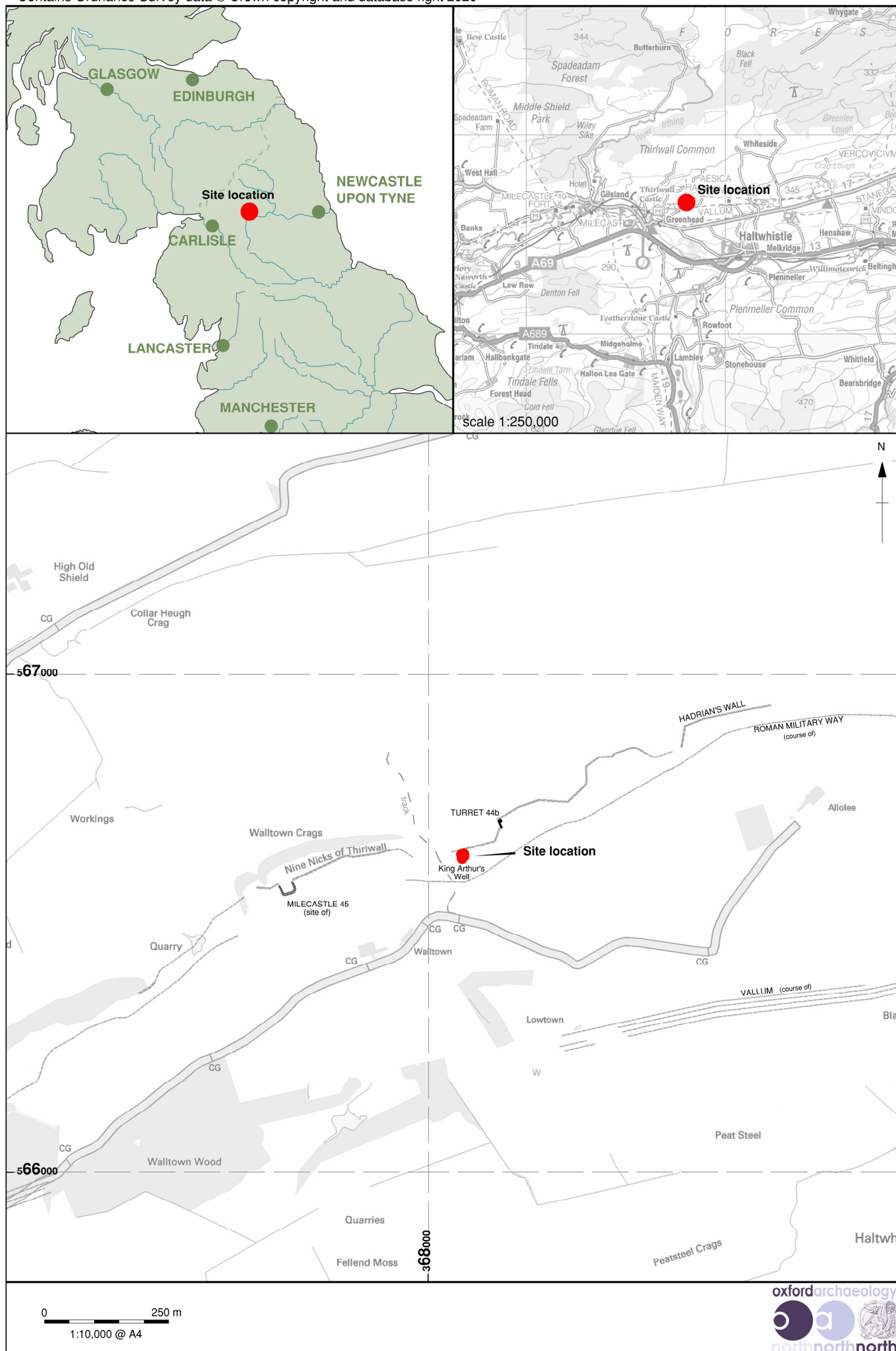


Figure 1: Site location

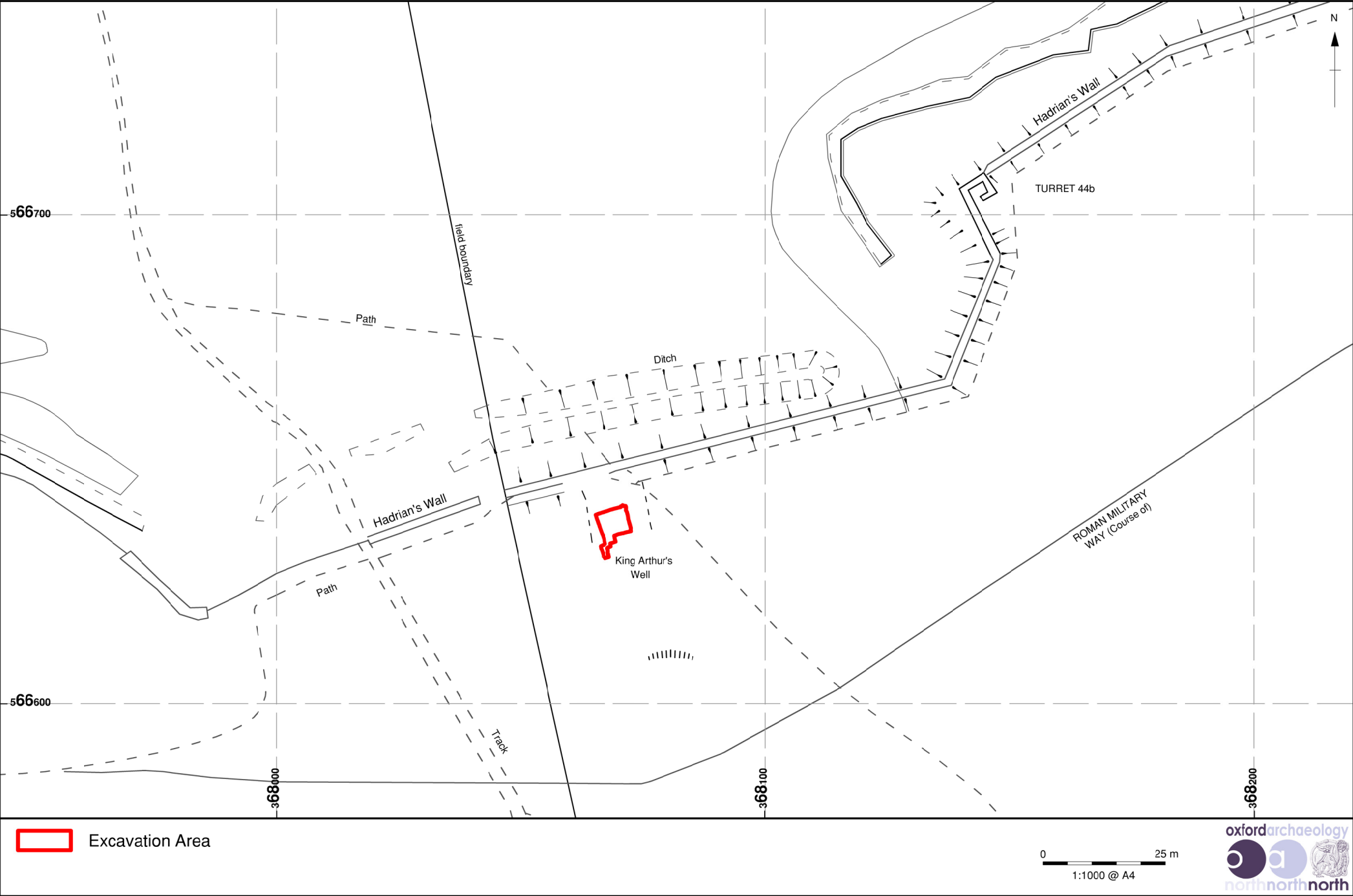


Figure 2: Trench Location

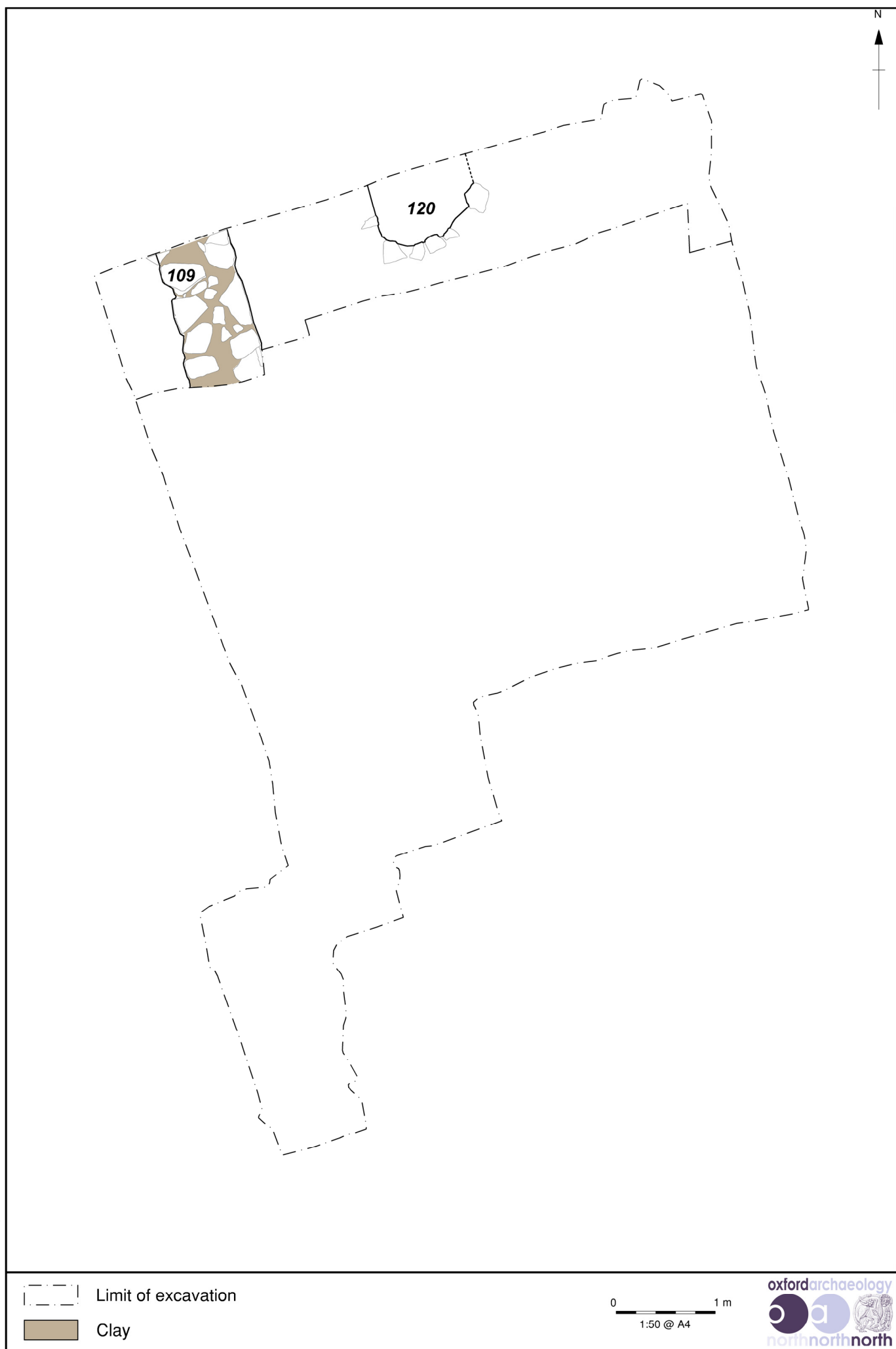
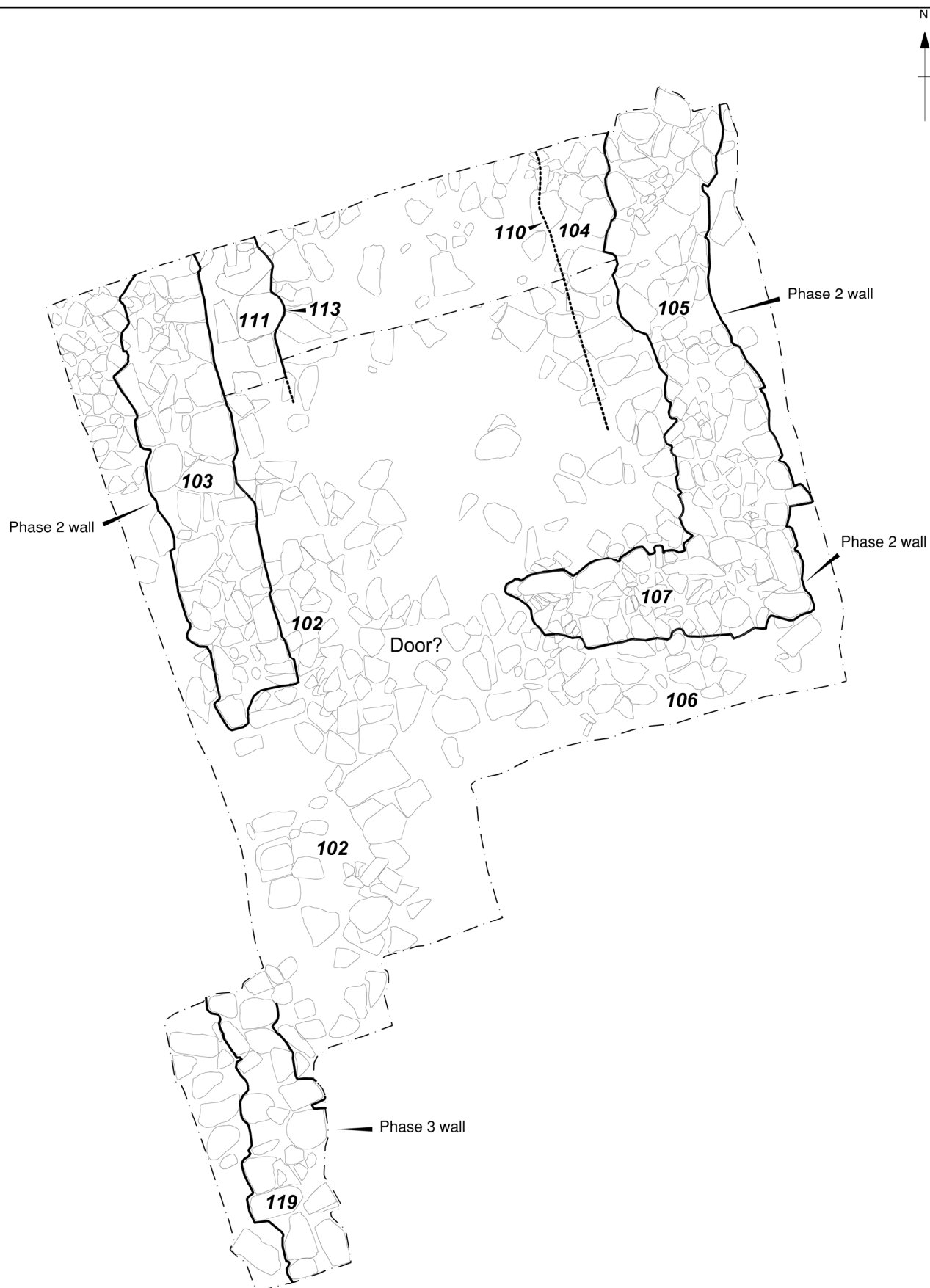


Figure 3 :Phase 1 features



Limit of excavation

0 1 m
1:50 @ A4

Figure 4: Phases 2 and 3



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