



KIRKANDREWS- ON-EDEN,

Cumbria

Archaeological Evaluation



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SUMMARY

The Hadrian's Wall Path National Trail, opened in May 2003, and developed by the Countryside Agency (now Natural England), aims to help conserve the Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site, whilst allowing the public to enjoy access to the Wall and its setting. The Path has been designed to ensure that it is not intrusive on the surrounding area, and that the structures installed (gates, stiles, signposts, and so on) are in positions that will not adversely affect the Monument. In the western sector of the route, through Cumbria, and particularly west of Carlisle, much of the development work related to an existing Public Right of Way. Most of the route was upgraded to National Trail standard, but one short section, at the western end of Kirkandrews-on-Eden, was not upgraded at that time, and existing structures were left in place. Subsequently, it has become necessary to upgrade certain structures in order to comply, where feasible, with the Disabilities Discrimination Act (1995), it being proposed that all existing stiles should be replaced with gates.

The element of the Monument with which this report is concerned lies between the village of Kirkandrews-on-Eden and the Monkhill Beck, between NY 3529 5869 and NY 3518 5903. All the proposed works lie within the Scheduled Monument of *Hadrian's Wall between the field boundary to the south of the site of St Andrew's Church and Eden Bank at Beaumont, in Wall Miles 69 and 70*, designated as SM26115. Scheduled Monument Consent was granted to remove the existing stiles and install gates in their stead, and also to install an additional gate towards the western end of the scheme. The level of ground disturbance necessitated by these works in the vicinity of Hadrian's Wall made it likely that there would be an impact upon sensitive archaeological remains, and therefore it was agreed with English Heritage that the sites of three structures should be evaluated prior to a decision being made as to the precise type and design of each gate. The work was undertaken by Oxford Archaeology North in March 2011.

This report presents the results obtained from the evaluations. Trench 1 revealed the remains of the stone phase of Hadrian's Wall, which comprised up to three courses of mortar-bonded, roughly hewn stone, disturbed by recent activity on its north-eastern side. No artefacts were recovered, however. Trenches 2 and 3, which were placed on the edge of the river bluff, did not reveal any archaeological remains, suggesting that the line of the Wall lay either just to the south, or perhaps had been lost as a result of riverine erosion.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank David McGlade, the Hadrian's Wall Path National Trail Officer, for commissioning the work, and the Hadrian's Wall Path National Trail Field Team for their co-operation during the course of the project. Mike Collins, the Hadrian's Wall Archaeologist for English Heritage, is also thanked for his advice and continued support during the works.

For OA North, the evaluations were directed by Jeremy Bradley and Andy Bates, assisted by Kelly Clapperton and Paul Dunn. This report was compiled by Jeremy Bradley, and the illustrations were produced by Mark Tidmarsh. The project was managed by Rachel Newman, who also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 The Hadrian's Wall Path National Trail, opened in May 2003, and developed by the Countryside Agency (now Natural England), aims to help conserve the Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site, whilst allowing the public to enjoy access to the Wall and its setting. The Path has been designed to ensure that it is not intrusive on the surrounding area, and that the structures installed are in positions that will not adversely affect the Monument. In the western sector of the route, through Cumbria, and particularly west of Carlisle, much of the development work related to an existing Public Right of Way. Most of the route was upgraded to National Trail standard, but one short section, at the western end of Kirkandrews-on-Eden (between NY 3529 5869 and NY 3518 5903), was not upgraded at that time, and existing structures were left in place. This lay within the Scheduled Monument of *Hadrian's Wall between the field boundary to the south of the site of St Andrew's Church and Eden Bank at Beaumont, in Wall Miles 69 and 70*, designated as SM26115. Subsequently, it has become necessary to upgrade certain structures in order to comply, where feasible, with the Disabilities Discrimination Act (1995), converting stiles to gates. Scheduled Monument Consent was sought and granted to remove two existing stiles and install gates in their stead, as well as installing a new gate at the western end of the section, to prevent cattle using the Path up the river bluff.
- 1.1.2 The Path east of Kirkandrews-on-Eden follows a route to the north of Hadrian's Wall, below the bluff on which the Wall once stood. From the east, the route climbs the slope to the crest of the bluff close to the village hall, and the route is there being realigned slightly to allow walkers to climb the slope by means of an existing set of steps, which have been upgraded, before following the crest of the bluff for approximately 280m. The structures that needed to be either replaced or installed lay close to or on the projected line of Hadrian's Wall. Given the level of ground disturbance necessitated by such structures, English Heritage required that the sites of all the structures should be evaluated prior to a decision being made as to the precise type and design to be used (Fig 1).
- 1.1.3 Oxford Archaeology North (OA North) has provided advice to the Countryside Agency (now Natural England) since 1996 on archaeological matters relating to the development and ongoing management of the Hadrian's Wall Path National Trail. A project design for the proposed works was submitted in December 2010 (*Appendix 1*), as part of the application for Scheduled Monument Consent. Following the granting of Scheduled Monument Consent in February 2011, OA North undertook the works in March 2011. This report presents the results obtained from the evaluations, together with a brief discussion of the significance of the results.

2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 A project design (*Appendix 1*) was compiled by OA North as part of the application for Scheduled Monument Consent. All work was carried out in accordance with this project design, the work being consistent with the relevant standards and procedures of the Institute for Archaeologists (IfA 2010), and generally accepted best practice.

2.2 EVALUATIONS

2.2.1 In total, three small trenches were excavated (Fig 1), one at each of the particularly sensitive locations where gates were to be installed (Table 1). In addition, a fourth trench was excavated on behalf of Carlisle City Council, at NY 3529 5869 (Site 4 on Figure 1), which is subject to a separate report (OA North 2012). Each trench was excavated by hand in a stratigraphical manner, down to the depth of the uppermost archaeological deposits, or the natural geology. Any deposits of antiquity, and thus of archaeological significance, were examined by hand, but excavation was limited to an assessment of the nature, date and survival of the deposits, rather than full excavation. The upper surface of any archaeological layers was identified, cleaned and recorded, both in plan and section. All spoil was scanned for artefacts.

| Trench | Grid Reference | Size |
|--------|----------------|----------|
| 1 | NY 3519 5901 | 2 x 2m |
| 2 | NY 3524 5886 | 1.5 x 1m |
| 3 | NY3527 5878 | 1.5 x 1m |

Table 1: Locations of the evaluation trenches

2.2.2 **Recording:** recording comprised a full description and preliminary classification of the deposits and materials revealed, on OA North *pro-forma* sheets. The evaluations were located with a differential GPS (accuracy $\pm 0.01\text{m}$) and tied to the National Grid. Hand-drawn plans were produced in the field showing the contents of the trenches, with representative sections being drawn at a scale of 1:10 or 1:20, as appropriate. The field survey data were incorporated with digital map data in a CAD system to create the figures used in this report.

2.2.3 A full and detailed photographic record of the trenches was maintained. Photography was undertaken using 35mm cameras on archival black and white film, as well as colour transparency. A 7.1 megapixel digital camera was also used and provided the illustrations for the present report.

2.3 CONDITION SURVEY

2.3.1 The earthworks to the west of the Hadrian's Wall Path, on the east side of Monkhill Beck, which are thought to represent the Wall ditch, were recorded at the same time as the evaluations were being undertaken, to provide a context for any material identified in these. Measurements were taken using a

differential GPS with an accuracy of $\pm 0.01\text{m}$ in relation to the National Grid. These were manipulated in a CAD package to produce a hachured plan of the earthworks.

- 2.3.2 Subsequently, slight changes were made to the agreed methodology for the installation, and position, of the westernmost gate (Trench 1), and, as a result, English Heritage requested a site visit to establish that the revised position of the gate had not impinged on the remains of Hadrian's Wall found in this evaluation trench. A site visit was made on 27th May 2011, to investigate this, recording both the position of the gate as built, and the depth that the posts had been driven into the ground, by means of GPS survey and photography.

2.4 ARCHIVE

- 2.4.1 The results of the archaeological evaluations have formed the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (1991; 2006) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (Walker 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. 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 in that organisation's Code of Conduct (IfA 2010).
- 2.4.2 OA North conforms to best practice in the preparation of project archives for long-term storage. It is intended that the paper archive should be deposited with the Cumbria Record Office (Carlisle), and copies of the report will be lodged with Cumbria County Council's Historic Environment Record (HER) in Kendal, and the English Heritage Hadrian's Wall Archaeologist in Newcastle, whilst a further copy of the archive can be made available for deposition in the English Heritage Archive. The paper archive generated from the evaluations will be transferred in accordance with current guidelines on archive transfer (AAF 2007). In addition, the Arts and Humanities Data Service (AHDS) online database project *Online Access to the index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.

3. BACKGROUND

3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

- 3.1.1 **Location:** the element of the monument with which this report is concerned lies between the village of Kirkandrews-on-Eden and the Monkhill Beck, between NY 3529 5869 and NY 3518 5903. All the proposed works lie within Scheduled Monument SM26115 - *Hadrian's Wall between the field boundary to the south of the site of St Andrew's Church and Eden Bank at Beaumont, in Wall Miles 69 and 70*. The evaluated sites lay on the crest of the steep bluff which today forms the south bank of the River Eden. The surrounding landscape is predominantly pastoral, enclosed by hedgerows (Countryside Commission 1998, 19).
- 3.1.2 **Geology:** the underlying solid geology of the area comprises poorly exposed Liassic mudstones and limestones, which overlie the Permo-Triassic rocks (*op cit*, 20).

3.2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 3.2.1 At the time of the Roman invasion of southern Britain in AD 43, what is now northern England probably lay within the tribal territory of the Brigantes. The Brigantian queen, Cartimandua, seems to have entered into a treaty with Rome (Hanson and Campbell 1986, 73), which would probably have kept the region free from military occupation. However, this arrangement was shattered in or about AD 69, when the Roman world was plunged into civil war following the death of the emperor Nero (Webster 1970, 196). The army in Britain was taken by surprise when Cartimandua was ousted by her former consort Venutius, who was by this time actively hostile towards Rome. In the war which followed, Venutius was eventually defeated and the whole region was occupied (Braund 1984; Hanson and Campbell 1986), the newly conquered territory being held down by means of an extensive network of forts and roads.
- 3.2.2 During the late AD 70s and early AD 80s, Roman military strategy in Britain seems to have envisaged conquest of the whole island (Shotter 2000, 39), and to this end, the army had penetrated as far as what is now north-east Scotland by *c* AD 83 (Shotter 2004, 37-9). However, by the early second century, a complete withdrawal south to the Tyne-Solway line had taken place (Daniels 1989, 34). The principal reason for this is likely to have been the inability of the army to hold Scotland in the face of extensive troop withdrawals for service on the Rhine and Danube (Breeze 2006, 26).
- 3.2.3 It is generally acknowledged that, following this withdrawal, the Tyne-Solway corridor was held by a slightly greater concentration of military units than elsewhere in the North (Jones 1991), stationed in a series of large forts placed at reasonably regular intervals and connected by an east-west road. Until recently, this disposition was seen by most scholars as marking the establishment of a frontier system (the so-called Stanegate frontier) extending from Corbridge in the east to Carlisle in the west. In some quarters, the concept of this frontier has been challenged (Dobson 1986; Bidwell 1999),

though the most recent review of the evidence (Hodgson 2000) concluded that the Stanegate 'system' could have performed a frontier control function.

- 3.2.4 Whatever the precise situation, the emperor Hadrian ordered the construction of an elaborate frontier system on the Tyne-Solway line following his visit to Britain in AD 122. Work probably commenced on Hadrian's Wall in AD 122-3 (Breeze and Dobson 2000, 66), and was largely complete by *c* AD 128, though work continued to the end of Hadrian's reign in AD 138 (Breeze 2006, 28).
- 3.2.5 As originally planned, the system comprised a stone curtain wall, approximately ten Roman feet (*c* 3m) wide, with small fortlets (milecastles) at intervals of one Roman mile and turrets every one-third of a mile (two between each pair of milecastles). The milecastles and turrets were originally intended to be garrisoned from the 'Stanegate' forts located a short distance to the rear (Breeze and Dobson 2000, 39-40), but at an early stage in construction, a decision was made to place full-sized forts on the line of the Wall itself (*op cit*, 74), and it was from these that the garrisons of the smaller installations would have been drawn. During the course of the construction programme, the width of the Stone Wall was also reduced to around eight Roman feet (*c* 2.4m) or narrower (Breeze 2006, 51, 54).
- 3.2.6 The majority of the Wall was built of stone, but west of the River Irthing it was initially constructed of turf and timber, for reasons that remain obscure (Breeze 2006, 59). This structure was *c* 6m wide at the base, presumably with a timber breastwork on the top. The original milecastles in this sector were also of turf and timber, but the turrets were stone-built from the outset. Eventually, the Turf Wall and its milecastles were rebuilt in stone, but in some places this does not seem to have occurred until the late AD 150s, or even later (*op cit*, 60).
- 3.2.7 The Wall was fronted, for most of its length, by a V-shaped ditch, whilst to the south was the Vallum, an enigmatic earthwork comprising a large, flat-bottomed ditch, flanked to north and south by low mounds. The purpose of this is unclear, but it may have marked the boundary of a 'militarised zone', from which unauthorised persons were excluded (Breeze 2006, 86).
- 3.2.8 Hadrian's Wall was temporarily abandoned in the early AD 140s, following the Roman reoccupation of southern Scotland under the emperor Antoninus Pius and the establishment of a new frontier, marked by the Antonine Wall, on the Forth-Clyde isthmus. However, Pius' conquests had been abandoned by *c* AD 160, and Hadrian's Wall was recommissioned (*op cit*, 28-9). Thereafter, it continued to mark the northern frontier of Roman Britain to the end of Roman administration in the fifth century AD. As such, it underwent periodic refurbishment during the third and fourth centuries, most notably in the late second/early third centuries and a century or so later (*op cit*, 32-3).
- 3.2.9 There is increasing evidence that some elements of the Wall, particularly some forts, remained occupied beyond the formal end of Roman administration in the early fifth century (Wilmott 1997), though details remain unclear. Little is known of the history of the Wall through the early medieval period, but from

early post-Roman times to the nineteenth century, the monument provided an ideal source of building materials and was extensively robbed of its stone, particularly in the densely populated eastern sector, within what is now urban Tyneside, and in the west, on the Cumberland Plain.

- 3.2.10 **Condition of monument:** the Hadrian's Wall Path between Kirkandrews-on-Eden (NY 3551 5839) and Beaumont (NY 3503 5947) lies immediately to the north of the presumed line of Hadrian's Wall, before following the river bluff on the approximate alignment of the Wall almost as far as Monkhill Beck. There it deviates north again and remains north of the Wall to Beaumont. The Wall, as far as its course is known, follows the bluffs forming the south bank of the Eden, and was identified by the Carlisle Archaeological Unit in 1977 north-north-west of Brae Lees (Goodburn *et al* 1978, 423), to the north of the old Kirkandrews School. At Monkhill Beck, however, it begins a sharp turn to the west, towards the village of Burgh-by-Sands. Its course was identified in 1928 in the extension to the churchyard at Beaumont (Breeze 2006, 349), but otherwise it is not firmly known. The line of the Wall ditch is also uncertain, and it is presumed that the river served in its stead for most of this section. However, hollow-ways on either side of Monkhill Beck, between NY 3503 5916 and NY 3510 5900, have been interpreted as developing from stock utilising the Wall ditch as a route down to water in the beck (NMR Archive, PD Colquhoun 1951-2). This is the only element of the Monument visible in the vicinity, the position of Milecastle 70 being uncertain, despite geophysical survey of the presumed site in 2000 (Hodgson 2009, 151), and it is possible that the milecastle has disappeared as a result of the collapse of the river bluff. Turret 70a is again only estimated as being somewhere within Beaumont. A centurial stone, now built into a structure in Beaumont, was recovered from the river in the vicinity in the earlier part of the nineteenth century (Daniels 1978). Similarly, the course of the Military Way is largely unknown; the Vallum lies some distance to the south, well away from the line of the Path. Evaluation of Milecastle 71 (Wormanby) in 2000 found that it had been comprehensively robbed of its stone (Hodgson 2009, 151), though traces of the east wall and a possible internal structure were recorded, together with remnants of the Turf and Stone Walls.

4. RESULTS

4.1 INTRODUCTION

4.1.1 Evaluation trenches were excavated at three locations (Fig 1), with a further site being excavated to the south of the Hadrian's Wall Path, on behalf of Carlisle City Council. Mike Collins, the English Heritage Hadrian's Wall Archaeologist, was consulted where appropriate at each stage of the works. An overview of the results is presented below, and a more detailed description of each deposit and archaeological feature within the evaluation trenches is provided in *Appendix 2*.

4.2 TRENCH 1

4.2.1 Trench 1, the northernmost of the trenches, was located at NY 3519 5901 (Fig 1), on top of, and at the lip of, the scarp of the river bluff, the ground falling away steeply to the north-east. Although originally measuring 1.9 x 1m, the trench was expanded when it became apparent that the remains of the stone phase of Hadrian's Wall had been exposed. The investigated area was therefore extended to both the north-east and south-east in order to define acceptable positions for the new gate posts that did not impinge on the remains of the Monument (Fig 2). Ultimately, the trench was broadly Z-shaped and measured 2 x 2m at its greatest extent, being excavated to a maximum depth of 0.5m (Fig 2; Plate 1). The natural sandy silt subsoil (**102**), which lay at 18.17m aOD, was directly overlain by the foundations of the Stone Wall (**101**), which filled almost the entire trench (Fig 2), being over 2m wide and surviving to three courses in height. It was composed of sandstone flags and rubble, including fragments of red and yellow sandstone and grey mudstone measuring up to 0.4 x 0.17m, bonded with a friable, sandy pink mortar. These were located at the lip of the scarp slope, the northern side of the Wall having been clearly affected by the erosion of the slope (Plate 2). No dressed stones were noted, nor was any trace of either face of the Wall found. The inner (south-western) face of the Wall lay outside the trench, whilst the outer (north-eastern) face may have been completely destroyed at this location. Whilst this could conceivably have occurred fairly recently, possibly when the existing steps leading down the scarp slope were built, presumably when the Cumbria Coastal Way was created, the facing stones might equally have been robbed far earlier, or the face of the Wall may simply have fallen down the river bank. The surviving stonework was sealed beneath 0.17m of modern topsoil (**100**) (Fig 2; Plate 3). It should be noted that some stones presently exposed on the edge of the bluff immediately north-west of Trench 1 are probably also part of the fabric of the Wall.

4.3 TRENCH 2

4.3.1 Trench 2, excavated at NY 3524 5886 (Fig 1), was rectangular, measuring 1.7 x 1m, and was aligned north-east/south-west (Fig 3). It was placed on the edge of the river bluff, on the presumed line of Hadrian's Wall, and was excavated to a maximum depth of 0.6m, within a deeper sondage at the south-eastern end (Fig 3; Plate 4). The natural sandy silt subsoil (**202**) at the base of the trench,

which also preserved the break of slope on the bluff, was overlain by 0.45m of subsoil (**201**); this presumably represented an accumulation of relatively modern ploughsoil on the edge of the slope. Modern topsoil (**200**) formed the uppermost stratigraphic unit. No trace of Hadrian's Wall (or any other significant archaeological deposits) was found, and no artefacts were recovered, suggesting either that the Wall lies west of its presumed line at this point, or that it lay to the east, in which case it has probably been completely destroyed by erosion of the river bluff since Roman times.

4.4 TRENCH 3

4.4.1 Trench 3 was excavated at NY 3527 5878 (Fig 1), on a north-east/south-west alignment, and measured 1.5m in length, 1m wide, and up to 1.1m deep (Fig 4; Plate 5). The trench was placed below the scarp edge, on the presumed line of Hadrian's Wall. The earliest deposits (**304** beneath **303**) were colluvial in character and increased in depth to the north-east, attaining a maximum thickness of 0.7m. Layer **303** was directly overlain by topsoil (**302**), into which a 0.95m wide depression had been worn by passing feet; this contained a surface of sub-angular pebbles (**301**), which had subsequently been sealed by a later footpath deposit (**300**). No significant archaeological deposits were recorded, and no artefacts were recovered. As in Trench 2 (*Section 4.3.1*), this suggests that Hadrian's Wall lay to the side of the path, although whether to the west or to the east, and therefore destroyed, remains unknown.

4.5 EARTHWORK SURVEY

4.5.1 The opportunity was taken to undertake a brief topographical survey of the earthworks on the south side of the Monkhill Beck (Plate 6), in order to check the apparent change of alignment of the Wall in this area. These were recorded with a GPS, creating a hachure plan (Fig 5), and showed that, whilst eroded and clearly affected by later activity, the remains of the Wall ditch were still visible. These were aligned approximately north-west to south-east, and demonstrated that there was a change in the alignment immediately to the south of the extant remains, where the Wall seems to have left the lip of the bluff to turn inland towards Beaumont and Burgh-by-Sands, effectively cutting off the low lands between the river and the beginning of the estuary.

4.6 CONDITION SURVEY

4.6.1 A visit to the site was made on 27th May 2011, after the new gate had been installed in the area of Trench 1, in order to assess whether the slightly revised position of the new structure to that agreed at a site meeting in March 2011 had compromised the Monument (Fig 6). The structure had been designed to be free-standing, taking its integrity from itself, rather than being dependent on deeply embedded posts, and thus no excavation was found to have been required in its construction (Plate 7). Thus, whilst it stood almost directly on the stones forming Hadrian's Wall, it had not had any deleterious impact on them. It should be noted, however, that extreme care will be needed when any refurbishment or replacement of this structure is required in the future.

5. CONCLUSIONS

5.1 DISCUSSION

- 5.1.1 In total, three evaluation trenches were excavated in association with works for the upgrading of the Hadrian's Wall Path National Trail at the western end of Kirkandrews-on-Eden. Despite being excavated on, or very close to, the presumed line of Hadrian's Wall, two of the three evaluation trenches proved to be archaeologically sterile. The exception was Trench 1, the northernmost area of investigation, on Cowen Bank, where the disturbed remains of the Stone Wall were recorded.
- 5.1.2 The masonry exposed in Trench 1 formed part of the foundation for the Stone Wall. In this sector, the Turf Wall was seemingly replaced in stone no earlier than the AD 160s, after the Roman withdrawal from the Antonine Wall (Breeze 2006, 60). As far as can be ascertained from the limited excavations to the west of Carlisle, the Stone Wall in this area was, on average, *c* 2.4-2.5m wide, intermediate in width between the Broad Wall (*c* 2.9m) and the Narrow Wall (*c* 2.3m); for this reason, it is often referred to as the Intermediate Wall (*ibid*). At Kirkandrews, the full width of the foundation could not be established, since the stonework extended beyond the trench edge to the south, but it was in excess of 2m wide.
- 5.1.3 No trace of the Turf Wall was seen in any of the areas investigated, and its precise location in the vicinity is unknown. However, where evidence is available, the Intermediate Stone Wall appears to have been built either immediately behind the demolished Turf Wall, or directly over it (Breeze 2006, 60), as was seen at Knockupworth, only a mile to the east (OA North 2011). In the churchyard at Beaumont, *c* 450m north-west of Trench 1, the flagstone footing of the Stone Wall was found in 1928, overlying a clay and cobble foundation, *c* 0.3m deep (Breeze 2006, 349). It is thought this may have been the Turf Wall foundation, since similar cobbling has been found beneath the remains of the Turf Wall near Burgh-by-Sands (*op cit*, 60). However, provision of such a foundation was by no means universal (none was found at Knockupworth, for instance; OA North 2011), and it may have been a design feature unique to one of the legions employed in constructing the Wall (Breeze 2006). At Kirkandrews, it was thought that the Stone Wall had been laid directly upon the natural subsoil, but the surviving masonry was not removed to test this.
- 5.1.4 Though sited on the presumed line of Hadrian's Wall, no trace of the Wall, nor, indeed, of any other archaeological deposits, was recorded in Trenches 2 and 3, close to Brae Lees, despite the excavations being taken to the level of the natural subsoil. This suggests that the Wall lay to one side of the projected alignment shown on Ordnance Survey maps at this location, either to the west, beneath modern properties, or to the east; if the latter, the Wall is likely to have been completely destroyed by erosion of the river bluff since Roman times. That this may be the case was suggested by a geophysical survey

undertaken in 2000 on the measured position of Milecastle 70 at Braeales, which failed to locate any trace of this structure (Wilmott 2009, 182).

- 5.1.5 It has been argued that Hadrian's Wall was planned by the Roman military surveyors in much the same way as long-distance roads (Poulter 2010, 81). Initially, it is suggested, a chain of long-distance alignments was established, within each of which a series of deviations was surveyed to take account of local topography, and to meet local objectives (*ibid*). In the case of Hadrian's Wall, the existence of three long-distance alignments has been postulated in the sector west of Carlisle, from Bowness-on-Solway to Drumburgh; from Drumburgh to Beaumont; and from Beaumont to Carlisle (*op cit*, 90-1), with Kirkandrews lying within the latter.
- 5.1.6 When it came to surveying the line of the Wall in detail between Beaumont and Carlisle, the steep bluffs which form the Eden's south-west bank for much of this sector were clearly the most significant topographical feature. From Milecastle 67 (Stainton) west to Grinsdale, the Wall follows these bluffs, but heads away from the river beyond Grinsdale, north-westwards towards Kirkandrews, following a natural shelf or bluff overlooking the river flats (Breeze 2006, 347; Poulter 2010, 96). At Kirkandrews itself, the alignment shifts sharply north-westward, taking the Wall briefly on a north-north-west alignment along the bluffs forming the west bank of the Eden at this point; it is along this stretch of the Wall that the evaluation trenches were excavated (Fig 1). At or near the site of Trench 1, the Wall changed direction again, turning north-westwards, away from the river, towards Beaumont. In fact, modern mapping suggests two possible alignment changes immediately north-west of Trench 1, with the Wall taking a slightly more northerly line for a short distance immediately north of the area investigated, before shifting slightly westwards again. The work undertaken in Trench 1 was unable to shed further light on this, other than confirming the existence of the Wall at this specific point, since, as neither of the Wall faces was visible, the precise alignment of the monument could not be determined. However, *c* 150m north-west of the trench, immediately south-east of the Monkhill Beck, the earthwork remains of the Wall ditch suggest a possible change in alignment at or around this location (Fig 5), though it is not clear if a second alignment change would have been necessary south of this to align with the foundation fragment recorded in Trench 1. Whatever the precise details may have been, each re-alignment would have been marked out independently, to make best use of local topographical features (probably, in this case, the precise position of the edge of the river bluff), and to meet the specific objectives of the surveyors and Wall builders (Poulter 2010, 81).

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APPENDIX 1: PROJECT DESIGN

Oxford Archaeology North

November 2010

KIRKANDREWS ON EDEN

CUMBRIA

ARCHAEOLOGICAL EVALUATION

Proposals

The following project design is offered as part of an application for Scheduled Monument consent (SM26115) for the installation of four structures at the western end of Kirkandrews on Eden, Cumbria. This will necessitate an archaeological evaluation of the proposed positions of the structures, to inform their design so that the monument is not adversely affected by their construction.

1 INTRODUCTION

- 1.1 The Hadrian's Wall Path National Trail, opened in May 2003, and 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 western sector of the route, through Cumbria, and particularly west of Carlisle, much of the development work related to an existing Public Right of Way. Most of the route was upgraded to National Trail Standard, but one short section, at the western end of Kirkandrews on Eden, was not upgraded at that time, and existing structures were left in place. It is now important to upgrade structures to bring them in line with the Disabilities Discrimination Act (1995), and where feasible, there is a proposal that all stiles should be converted to gates.
- 1.2 The Path from east of Kirkandrews on Eden now follows a route to the north of Hadrian's Wall, below the bluff on which the Wall once stood. At present, the route climbs the slope to the crest of the bluff close to the village hall, although it is proposed that this should be realigned slightly to allow walkers to climb the slope by means of an existing set of steps, before following the crest of the bluff for approximately 280m. In four places, structures need to be either replaced or installed, which are close to or on the projected line of Hadrian's Wall. Given the level of ground disturbance necessitated by such structures, English Heritage has asked that the sites of all structures on the bluff should be evaluated prior to a decision being made as to the precise type and design.
- 1.3 Oxford Archaeology North (OA North) has provided advice to the Countryside Agency (now Natural England) since 1996 on archaeological matters relating to the development and implementation of the Hadrian's Wall Path National Trail and through this 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.
- 1.4 **Site Location**
- 1.4.1 The element of the monument with which this project design is concerned lies between the village of Kirkandrews on Eden and the Monkhill Beck, between NY 3529 5869 and NY 3518 5903. All the proposed works lie within the Scheduled Monument of *Hadrian's Wall between the field boundary to the south of the site of St Andrew's Church and Eden Bank at Beaumont, in Wall Miles 69 and 70*, designated SM26115.
- 1.4.2 Given that all of the proposed structures lie on or close to the line of Hadrian's Wall, it is proposed that a single trench be excavated within the footprint of each, in positions as marked on the accompanying plan (NY 3529 5869, NY 3527 5878, NY 3524 5886 and NY 3519 5901). These will evaluate the presence or absence of significant archaeology. If significant archaeological remains are present, the condition and depth will be assessed, in order to inform the type of structure that can be inserted at these locations and, if necessary, to develop a mitigation strategy to prevent any direct adverse impact on the World Heritage Site. Such a mitigation strategy will be agreed on site with the Hadrian's Wall Archaeologist, on behalf of the Secretary of State, before each trench is closed.

2 AIMS AND OBJECTIVES

- 2.1 The purpose of the evaluation will be to establish the presence or absence of significant archaeological stratigraphy at the proposed locations of the structures, and, if present, to validate the purpose, and to establish the condition and extent, character and integrity of the archaeological remains. The objective will be to quantify and qualify the archaeological potential of these limited areas, with a view to informing the type of structure that can be installed without adversely impacting on the archaeology of the monument, and, if necessary, to develop a strategy for the preservation and management of the archaeological remains, so that the proposed structures 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 Evaluation Trench

- 3.1.1 A single trench will be excavated in the position of each of the proposed structures (see the accompanying plan). These will be excavated following the removal of the present structures and the limited demolition of the boundary fences. Each trench will measure approximately 2m square, and will not exceed 1.2m in depth. The work undertaken will be carried out in compliance with the Code of Practice and the Standards and Guidance for Archaeological Field Evaluations of the IfA.
- 3.1.2 All excavation will be exclusively manual and will proceed in a stratigraphical manner. Excavation will be restricted to the topsoil and any build-up of soil below this, as the aim of the work is to clarify the structure of the monument, which will not be disturbed. The upper surface of any archaeological layers will be identified, cleaned and recorded, both in plan and, if feasible, in section. Any deposits of antiquity, and thus of archaeological significance, will be examined by hand, but excavation will be limited to an assessment of the nature, date and survival of the deposits, rather than full excavation (the main exception to this will be where the upper archaeological horizon is considered to be of post-Roman date, and where, after discussion with English Heritage, it is deemed necessary to excavate into this material to provide information about the survival and importance of any underlying archaeology). Any finds recovered will be retained for assessment and spot dating.
- 3.1.3 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 prints and colour transparency and digital photographs) to identify and illustrate individual elements of the monument. Each trench will be located with respect to surrounding landscape features and the National Grid, by electronic means, and all deposits, including the basal deposits in the trench, will be three-dimensionally recorded.
- 3.1.4 Results of all field investigations will be recorded using a system, adapted from that used by the former Centre for Archaeology of English Heritage, based on *pro forma* contexts, object records (for both individual finds and bulk groups from individual contexts as appropriate), and survey sheets and, if stratified deposits are encountered, a 'Harris' matrix will be compiled for each trench. The archive will include both a photographic record, with a clearly visible, graduated metric scale, and accurate large-scale plans and sections at an appropriate scale (1:50, 1:20, and 1:10). Indices of both photographs, by type, and plans and sections, will be compiled. 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), and to an appropriate timetable, to minimise deterioration. All finds where appropriate will be washed and marked with indelible ink, and then appropriately bagged and boxed, with box lists compiled. Primary records will be available for inspection at all times.
- 3.1.5 If necessary, access to conservation and specialist advice on finds and facilities can be made available immediately. OA North maintains close relationships with 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 appropriate legislation, such as the 1996 Treasure Act and the 1857 Burial Act, will be adhered to in full.
- 3.1.6 The deposition of finds will be agreed with the legal owners and with the appropriate museum (the Great North Museum) prior to the work taking place. The legal owners (through Northumberland County Council) will be encouraged to deposit such finds. Any discard policy will be agreed with the recipient museum during the course of the work.

- 3.1.7 Samples where appropriate will be collected for technological, pedological, palaeoenvironmental and chronological analysis. If feasible, samples for deposit characterisation, potential radiocarbon dating, and macrofossil analysis will be 30 litres in volume, whilst samples to assess the potential for buried soils will be collected as monoliths, where appropriate, using plastic drainpipe, as recommended by OA North's in-house paleoenvironmentalist, 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.
- 3.1.8 Complete backfilling is not likely to be required, as, following agreement between Northumberland County Council and English Heritage as to the type of structure appropriate to each position, and any mitigation measures, such as design modification, that prove necessary, the structures will be inserted into each excavated trench immediately following the archaeological work, although it is likely that some limited backfilling may be required as part of the mitigation measures. If, however, it becomes apparent that a significant amount of time will elapse between the evaluation and the structure being installed on the site with the agreement of English Heritage, then the base of the trench will be covered with a membrane and earth backfilled on to this, to seal the deposits whilst discussions are ongoing.

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 (1997 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 If necessary, each trench will be fenced temporarily to prevent access, in a manner that will not adversely affect the monument.
- 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 Hadrian's Wall Heritage Limited is requested to arrange all access and any provisions for the removal of the existing structures, as well as those elements of the existing boundaries that need to be demolished to allow larger structures to be installed, provision of membrane on which all spoil can be placed, requirements for temporary fencing, and any limited backfilling, under archaeological supervision.

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 in Morpeth and any material archive with the Great North Museum, Newcastle, with the land owners' permission, unless English Heritage deems otherwise.

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, containing a non-technical summary, an account of the circumstances of the project, methods used, a description of the results, and an interpretation of these, together with a statement as to their significance, as well as a bibliography and a copy of this project design. This report will be illustrated with line drawings, including finds if necessary, and, if suitable, photographs.

7.3 Two copies of this report will be submitted to English Heritage, to inform the decision-making process as to the type of structure appropriate to this location. A copy of the report will be deposited for inclusion in the Cumbria Historic Environment Record, and a further copy will be deposited with the RCHM(E) database for Hadrian's Wall.

7.4 Confidentiality

7.4.1 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 Publication

7.5.1 If the results of the evaluation justify such a course of action, the work should be published as a short article, submitted to *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*.

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 Northumberland County Council's Archaeology Service will be informed of the commencement of the project in writing.

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 OA North 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 thereunder. For all other claims to cover the liability of OA North in respect of personal injury or damage to property by negligence of OA North or any of its employees, there applies insurance cover of £5m for any one occurrence or series of occurrences arising out of one event.

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 notification. It is estimated that the evaluation will take one day to complete on site, if both trenches are excavated at the same time. 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 If both trenches are excavated together, a team of four on site (two for each trench) would be required. All staff will be suitably qualified and experienced for this type of project. The work will be directed on site by a Project Supervisor who has previously undertaken evaluatory work on Hadrian's Wall. In addition, three Project Assistants would work on site.
- 11.2 The project will be managed by **Rachel Newman BA FSA** (Senior Executive Officer: OA North) who has acted since 1996 as the archaeological consultant to the Countryside Agency in the development of the Hadrian's Wall Path National Trail.

APPENDIX 2: TRENCH DESCRIPTIONS

Trench 1 Maximum Dimensions: 2 x 2m Orientation: north-west/south-east

| Context | Category | Description | Depth |
|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 100 | Layer | Topsoil. Dark orange-brown fine sandy silt. | 0.17m |
| 101 | Structure | Hadrian's Wall foundation: three courses of roughly hewn red and yellow sandstone with grey mudstone, measuring 330 x 230 x 70mm - 400 x 170mm, and bonded by pink friable, sandy mortar, with 5% rounded pebbles. No facing stones visible. The feature measured over 2m wide, and was aligned north-west/south-east. | 0.54m |
| 102 | Layer | Subsoil: reddish-brown sandy silt, with 2% sandstone fragments (10-50mm). | - |

Trench 2 Dimensions: 1.7 x 1m Orientation: north-east/south-west

| Context | Category | Description | Depth |
|------------|----------|-------------------------------------------------------------------------------------------------------------------------------|-------|
| 200 | Layer | Topsoil. Dark orange-brown sandy silt, with occasional small sub-rounded and sub-angular stone inclusions. | 0.15m |
| 201 | Layer | Ploughsoil. Orangey-brown sandy silt with frequent sub-rounded pebbles, a maximum of 40mm in size. | 0.45m |
| 202 | Layer | Natural geology, comprising mid-brownish-orange silty sand with frequent rounded stone inclusions, a maximum of 50mm in size. | - |

Trench 3 Dimensions: 1.5 x 1m Orientation: north-east/south-west

| Context | Category | Description | Depth |
|------------|----------|-----------------------------------------------------------------------------------------------------------------------|-------|
| 300 | Layer | Footpath surface: dark grey firm silt with 2% modern hardcore. | 0.08m |
| 301 | Layer | Footpath surface: mid-grey loose silt with 70% hardcore. | 0.06m |
| 302 | Layer | Topsoil. A mid-greyish-brown sandy silt. | 0.35m |
| 303 | Layer | Colluvium: mid-orange-brown sandy silt with 10% sub-rounded limestone gravels (40mm). | 0.47m |
| 304 | Layer | Colluvium: light pinkish-brown, very compact coarse clay sand, with 25% sub-rounded limestone and sub-angular stones. | 0.4+m |

ILLUSTRATIONS

FIGURES

Figure 1: Site location

Figure 2: Plan and east- and south-east-facing section of Trench 1

Figure 3: Plan and north-west-facing section of Trench 2

Figure 4: Plan and south-west-facing section of Trench 3

Figure 5: Survey of the Wall ditch to the south of Monkhill Beck, north of Trench 1

Figure 6: The position of the new gate, as installed, in relation to Hadrian's Wall in Trench 1

PLATES

Plate 1: The foundations of the stone phase of Hadrian's Wall (**101**) in Trench 1, looking south-east

Plate 2: The foundations of the stone phase of Hadrian's Wall (**101**), on the edge of the scarp slope, looking north-west

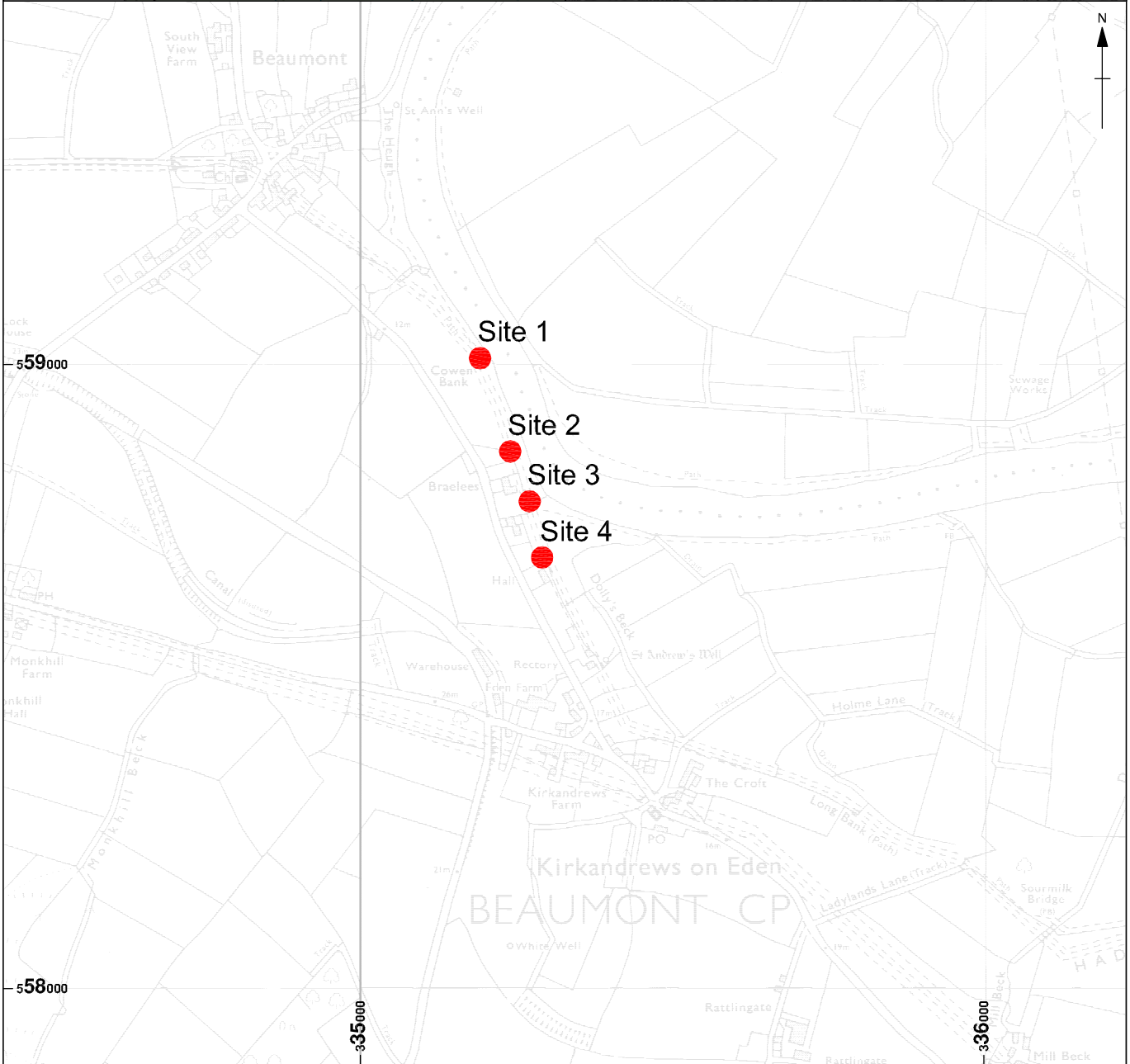
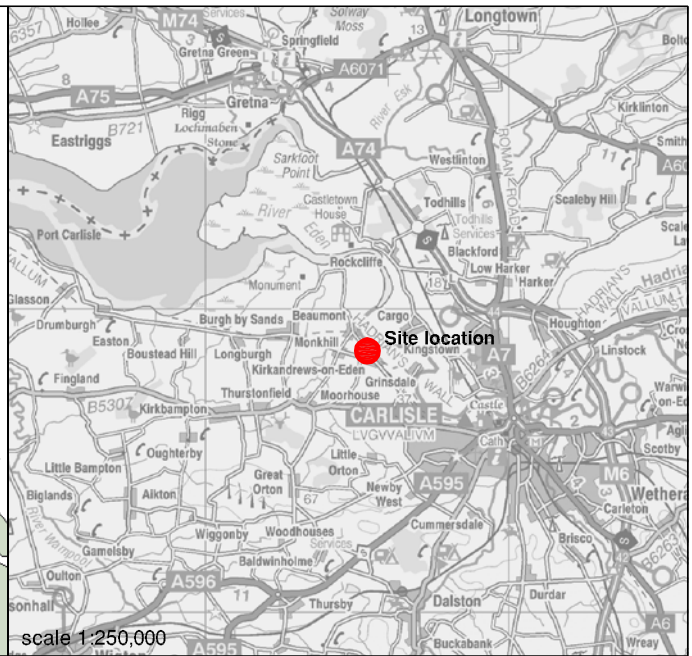
Plate 3: Hadrian's Wall (**101**), looking west, showing the shallow nature of the topsoil and remnants of the mortar bonding

Plate 4: Deposits within Trench 2, looking north-east

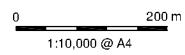
Plate 5: Deposits within Trench 3, looking south-west

Plate 6: The Wall ditch as it descends towards Monkhill Beck, looking north-west

Plate 7: The gate as installed, over the foundations of Hadrian's Wall

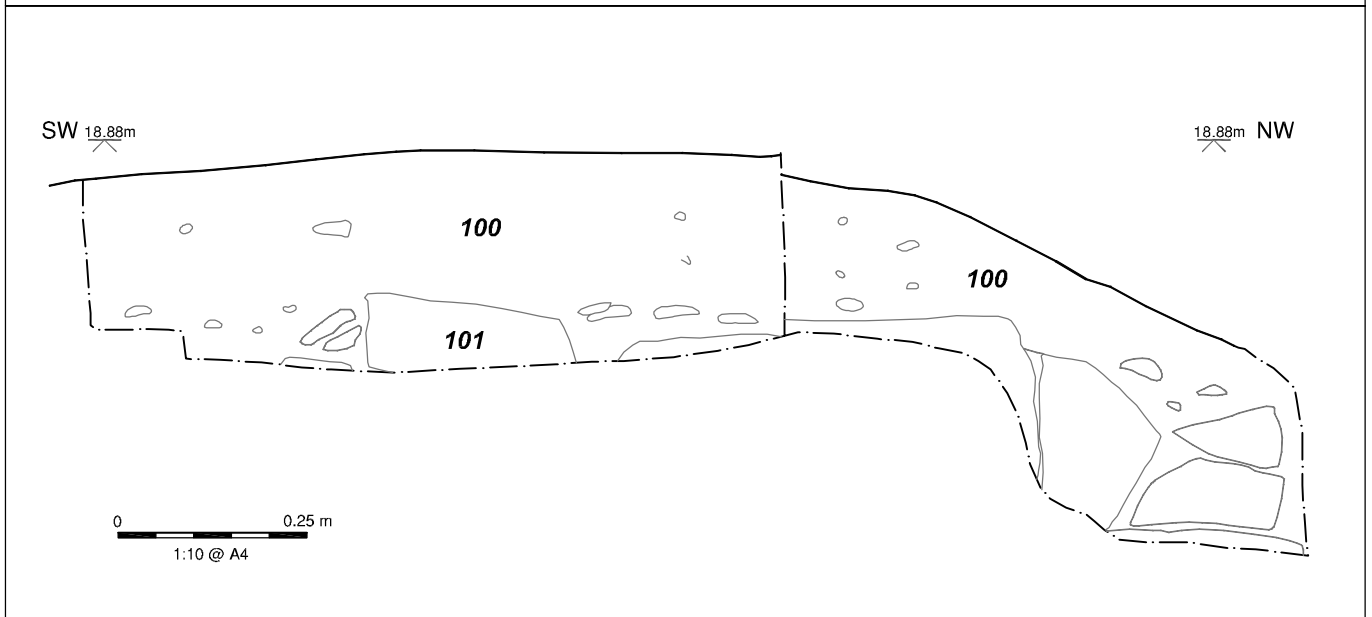
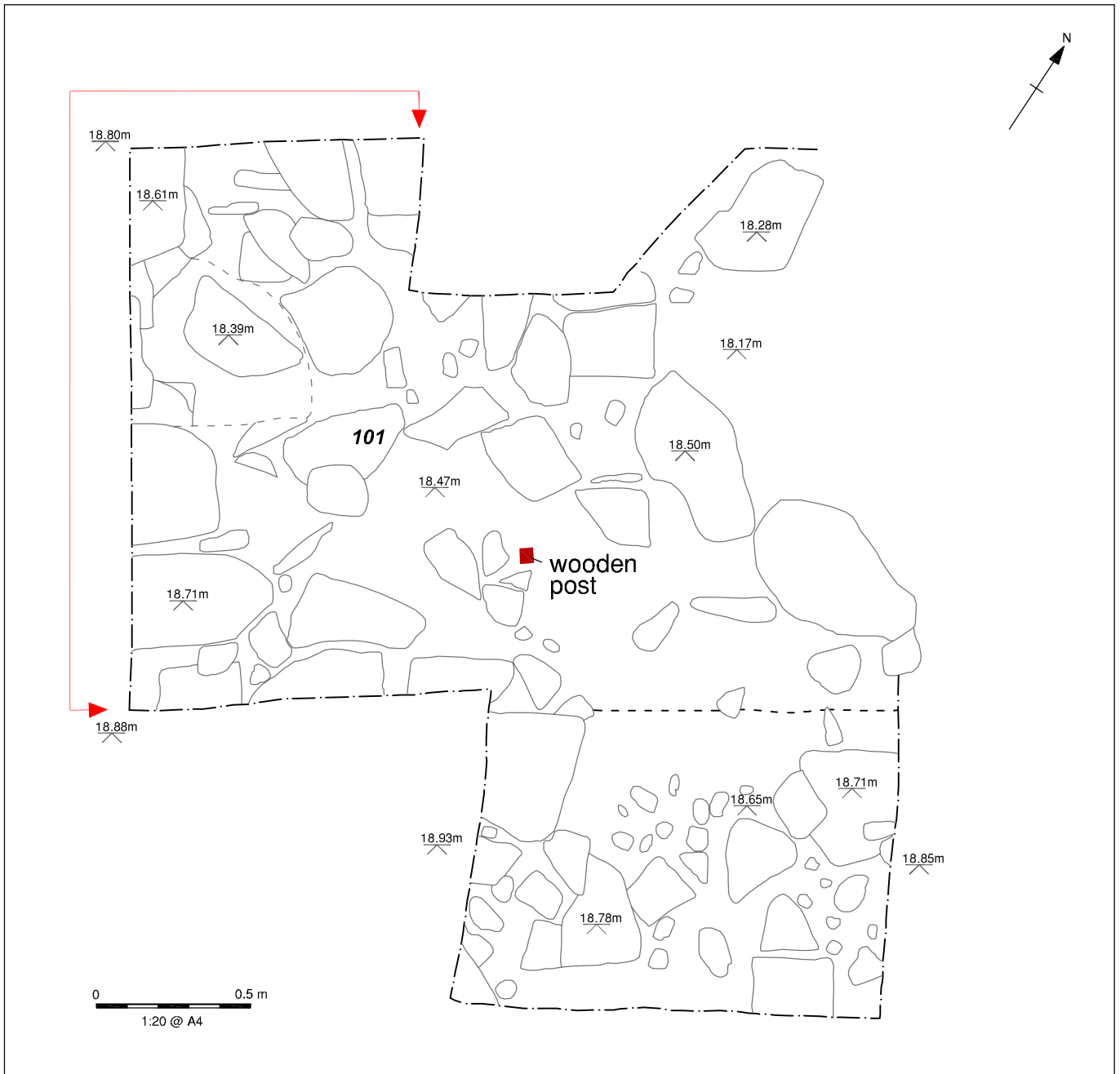


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Figure 1: Site location





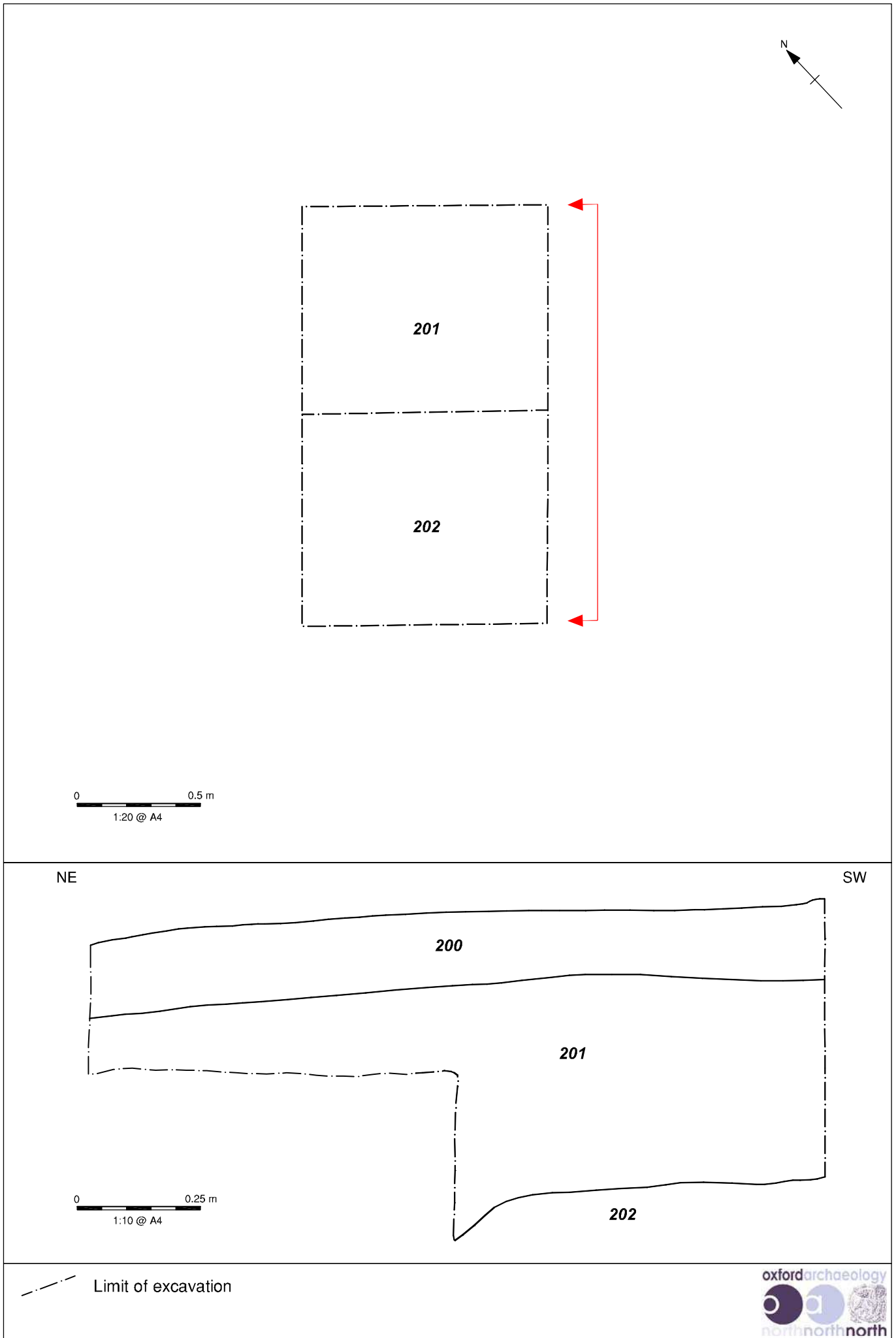
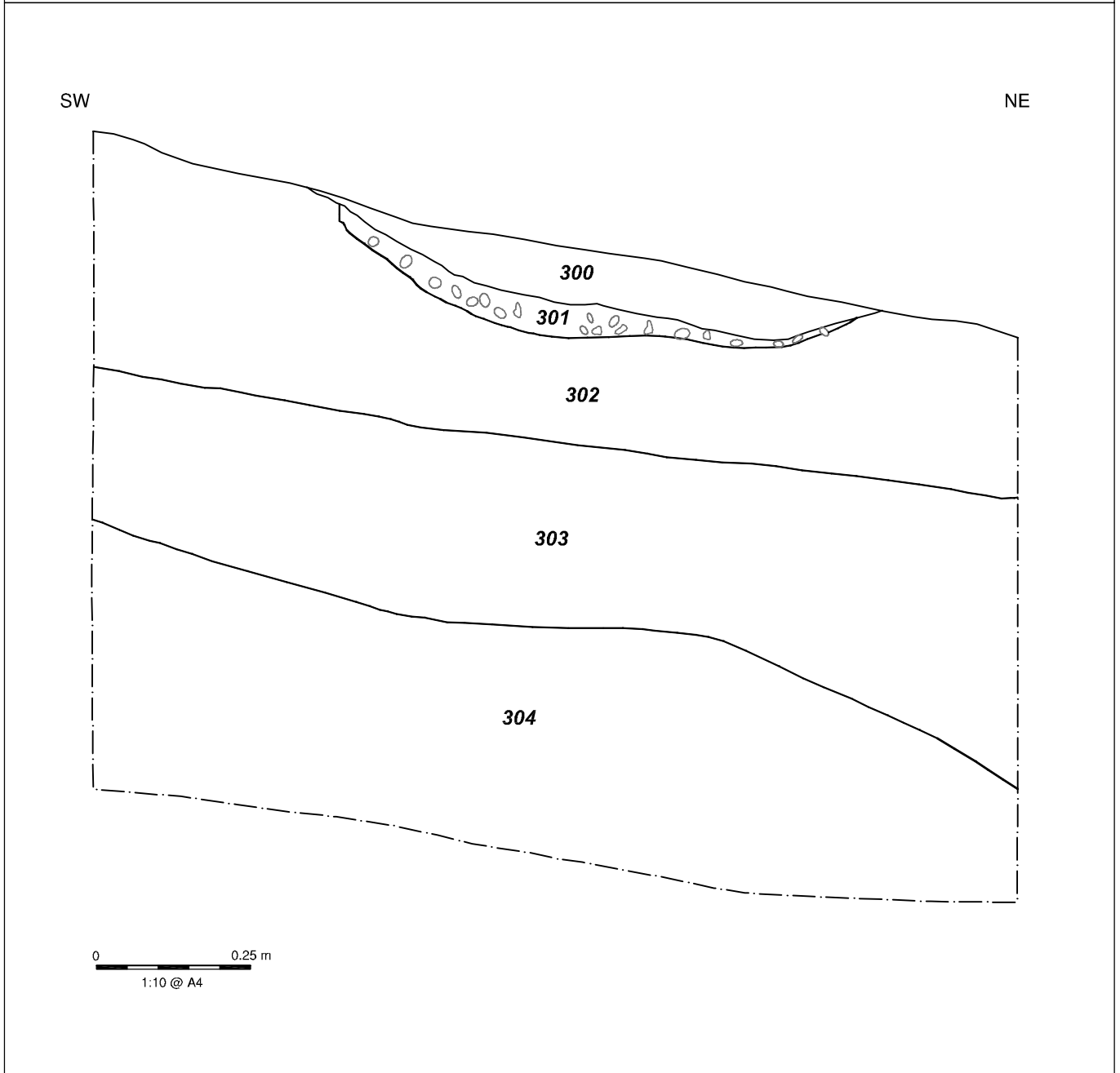
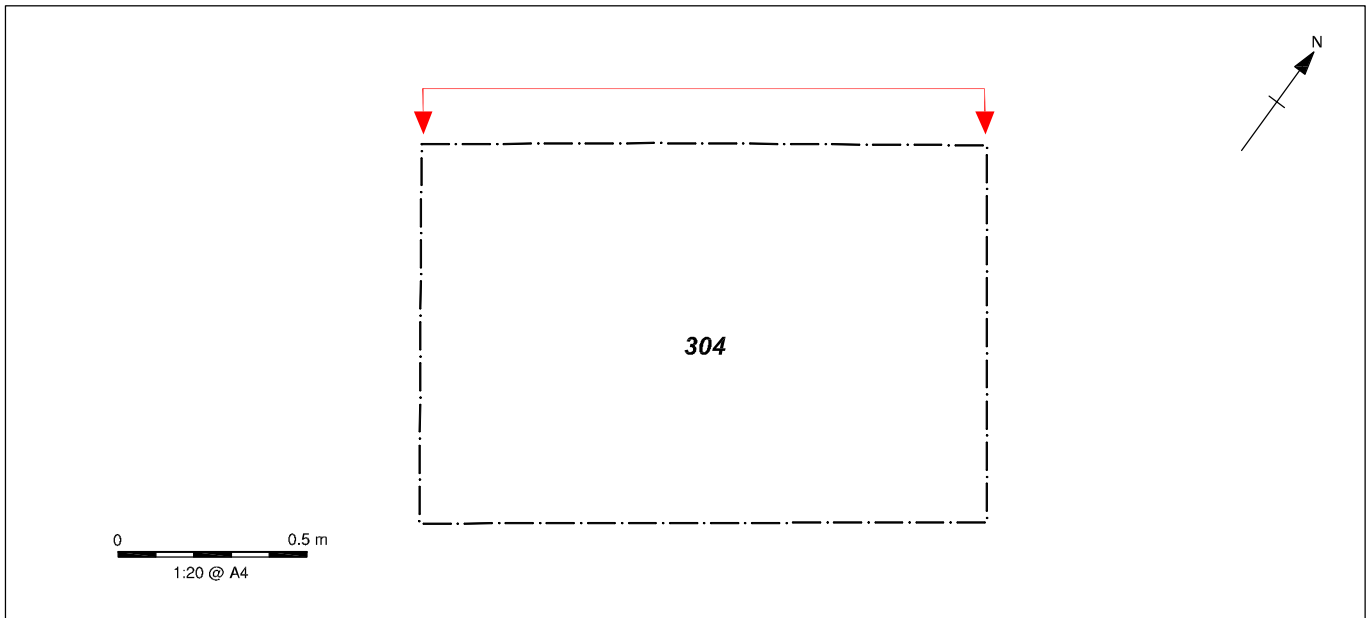
 Limit of excavation
 Section position

Figure 2: Plan and east and south-east-facing section of Trench 1



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Figure 3: Plan and north-west-facing section of Trench 2

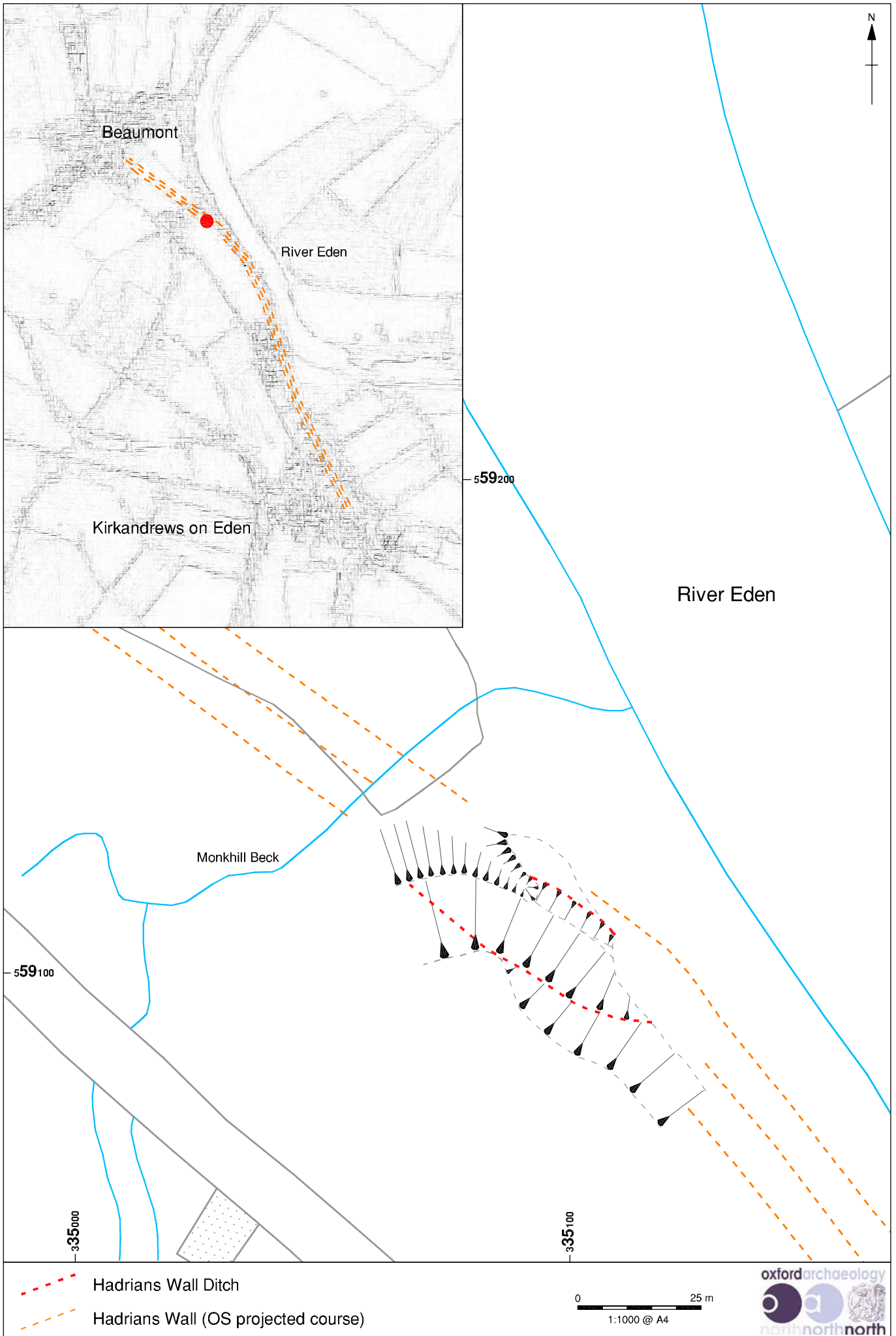


--- Limit of excavation
 --- Section position



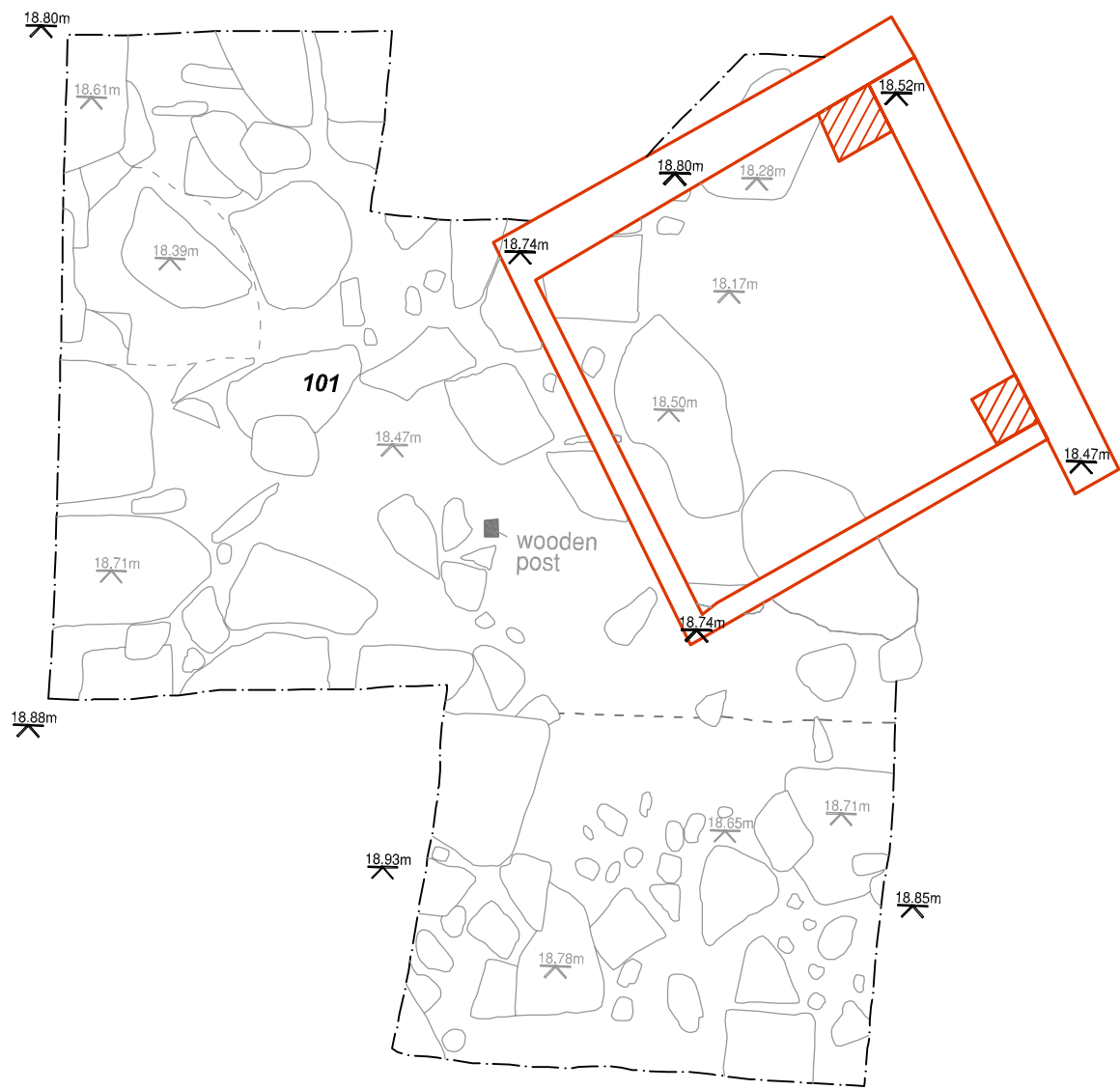
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
Figure 4: Plan and south-west-facing section of Trench 3



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Figure 5: Survey of the Wall ditch to the south of Monkhill Beck, north of Trench 1



-  Limit of excavation
-  New gate timbers
-  18.88m Level, above ground
-  18.47m Level, below ground

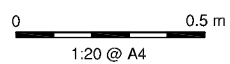


Figure 6: The position of the new gate, as installed, in relation to Hadrian's Wall



Plate 1: The foundation of the stone phase of Hadrian's Wall (**101**) in Trench 1, looking south-east (1m scales)



Plate 2: The foundation of the stone phase of Hadrian's Wall (**101**), on the edge of the scarp slope, looking north-west (1m scale)



Plate 3: Hadrian's Wall (**101**), looking west, showing the shallow nature of the topsoil and remnants of the mortar bonding (left)



Plate 4: Deposits within Trench 2 (1m and 0.5m scale), looking north-east



Plate 5: Deposits within Trench 3 (1m scale), looking south-west



Plate 6: The Wall ditch, as it descends towards Monkhill Beck, looking north-west



Plate 7: The gate as installed, over the foundations of Hadrian's Wall