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Summary

Within the study area, an archaeological brief for an evaluation was set by Northumbria County Council to try and locate the course of Hadrian's Wall and any associated features such as a counterscarp.

In total, two archaeological trenches and three test pits were excavated within the study area at Green Croft, Gilsland, Northumberland.

In trench 1, the denuded traces of stone rubble **11** marked the former core of Hadrian's Wall and followed the predicted course of the Wall.

In Trench 2, a possible bank formed from clean soil **26** and sealed by a clay membrane **24** may represent a berm or *glacis* that rested behind a putative albeit unobserved Wall ditch.

1. INTRODUCTION

1.1 Project Origins

Historic England has been consulted and through the agency of Mike Collins the Hadrian's Wall Officer and Northumberland County Council, an outline mitigation strategy in regard for the construction and renovation of a series of redundant agricultural buildings at Green Croft, Gilsland was formulated.

An archaeological response to the proposed development was advocated by the curatorial authority (Northumberland County Council) comprising a combination of trial trenching and test pitting in a formal response dated 19th March 2018 based on pre-application advice.

An instruction from the client's agent required an Archaeological Heritage Statement in support of the pre-planning application as the development directly impacted upon an unscheduled ancient monument but still subject to significant archaeological interest.

This was produced by the client's agent and a number of archaeological interventions were suggested by both Northumberland County Council and Historic England.

Based on current understanding of the study area, a Working Scheme of Investigation was formulated by Gerry Martin Associates Ltd and accepted by the curatorial authority, Northumberland County Council to expedite the archaeological evaluation works.

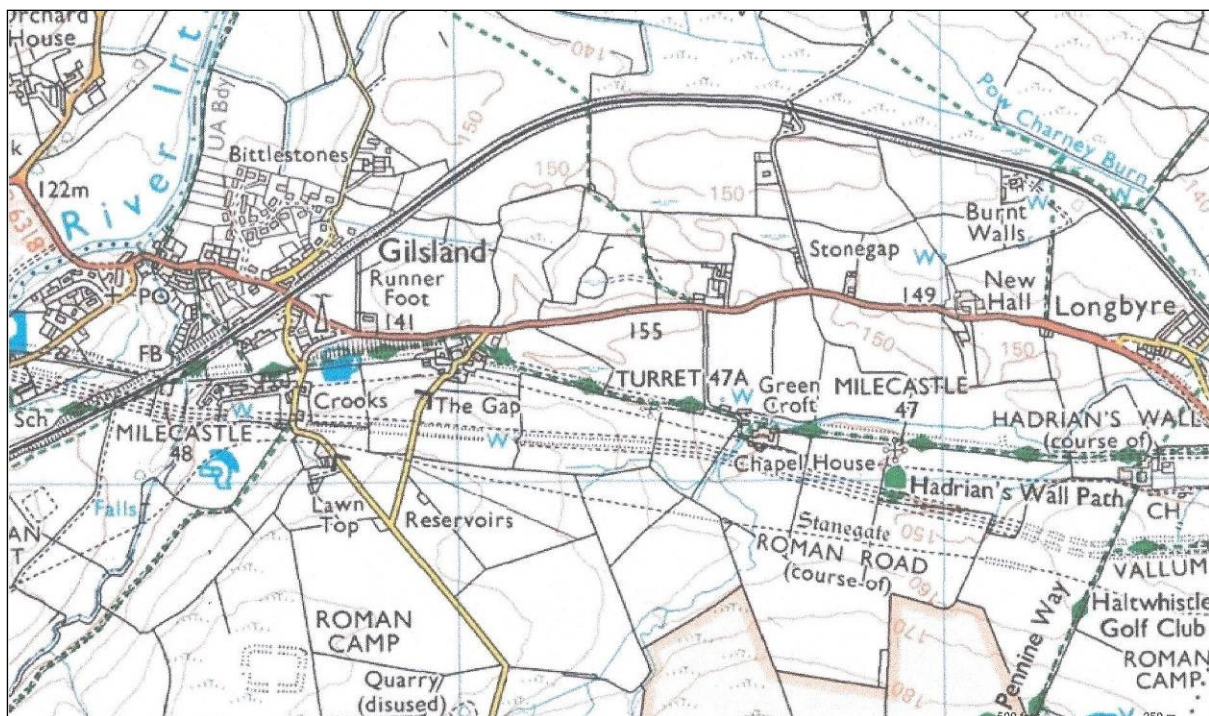


Figure 1. Location of study area. (OS copyright licence no. 100044205).

The results of the archaeological evaluation will provide the curatorial authority an informed assessment regarding the onward trajectory for the project.

All projects conducted by Gerry Martin Associates Ltd are carried out in accordance with NPPF (2016) policy and the guidelines and recommendations issued by the Chartered Institute for Archaeologists (2007 and 2014) and Historic England.

2. METHODOLOGY

2.1 Project design

An archaeological evaluation with a rapid desk-based assessment was requested by Northumberland County Council as potential and significant archaeological remains may be encountered. The desk-based assessment was addressed as an Archaeological Heritage Statement compiled by Gerry Martin Associates Ltd (GMA Report 237).

Gerry Martin was commissioned by Amanda Drago and Kit Haigh to prepare a Specification of Works for a Programme of Archaeological Evaluation relating to the renovation and improvements to buildings at Green Croft, Gilsland.

The WSI document outlined the contractors' professional competence as well as general project objectives, including the methodology and the resources needed for the successful expedition of this work.

The development of the study area will involve the machine removal of topsoil and overburden within the proposed footprint and reconstruction of derelict agricultural buildings.

The archaeological evaluation sought to construct a model of the archaeological potential of the site from which an informed mitigation strategy can be formulated to preserve *in situ* any significant archaeological remains. Its aims were to:

- Provide a detailed account of surviving archaeological strata and structures
- Determine the depth of survival of any significant archaeological deposits
- Characterize the extent, date, form and importance of any encountered cultural activity

Regarding this particular project, the fieldwork sought to identify the course of Hadrian's Wall, any associated landscape elements and define any commensurate associated monuments that had adapted Roman defensive assets.

All archaeological projects are carried out in accordance with NPPF (2016) and the guidelines and recommendations issued by the former Institute of Field Archaeologists and English Heritage. Gerry Martin, the Archaeological Project Manager has achieved the accreditation level of MCIfA (Member) with the Chartered Institute of Archaeologists (CIfA).

The following report has been assembled to the relevant standards and protocols of the former Institute of Field Archaeologists (Standard and Guidance for Archaeological Field Evaluation, 2008), combined with accepted best practice and in accordance with the brief prepared by the curatorial authority.

The archaeological evaluation took place on June 6th to June 8th 2018, conducted by Gerry Martin and Rea Carlin.

2.2 Archive

The archive has been compiled in accordance with the project design and the guidelines set out by the former English Heritage (1991) and the Institute of Field Archaeologists (1994, 2001 and 2007).

The archive will be deposited with an appropriate repository, Hexham Museum, and a copy of the report donated to the County Sites and Monuments Record. The archaeological report will be deposited with the online archaeological resource *Oasis*.

A note will be forwarded to the local archaeological journal for publication should a significant discovery ensue..

3. BACKGROUND

3.1 Location, topography and geology

The study area (NY 64630 66140) lies upon a slight ridge, at a height of approximately 160m OD overlooking rough pasture and Pow Charney Burn to the North.

The area has traditionally been subject to poor drainage with burns discharging to the north from higher ground from the south. The underlying drift geology comprises pink sandy Boulder Clay and Till of glacial origin overlying Old Red Sandstone from the Permian or Triassic period.

At this location, Hadrian's Wall, the vallum and the Stanegate converge with a minor Roman road leading southwards to one of four temporary Roman camps or forts (figure 2).

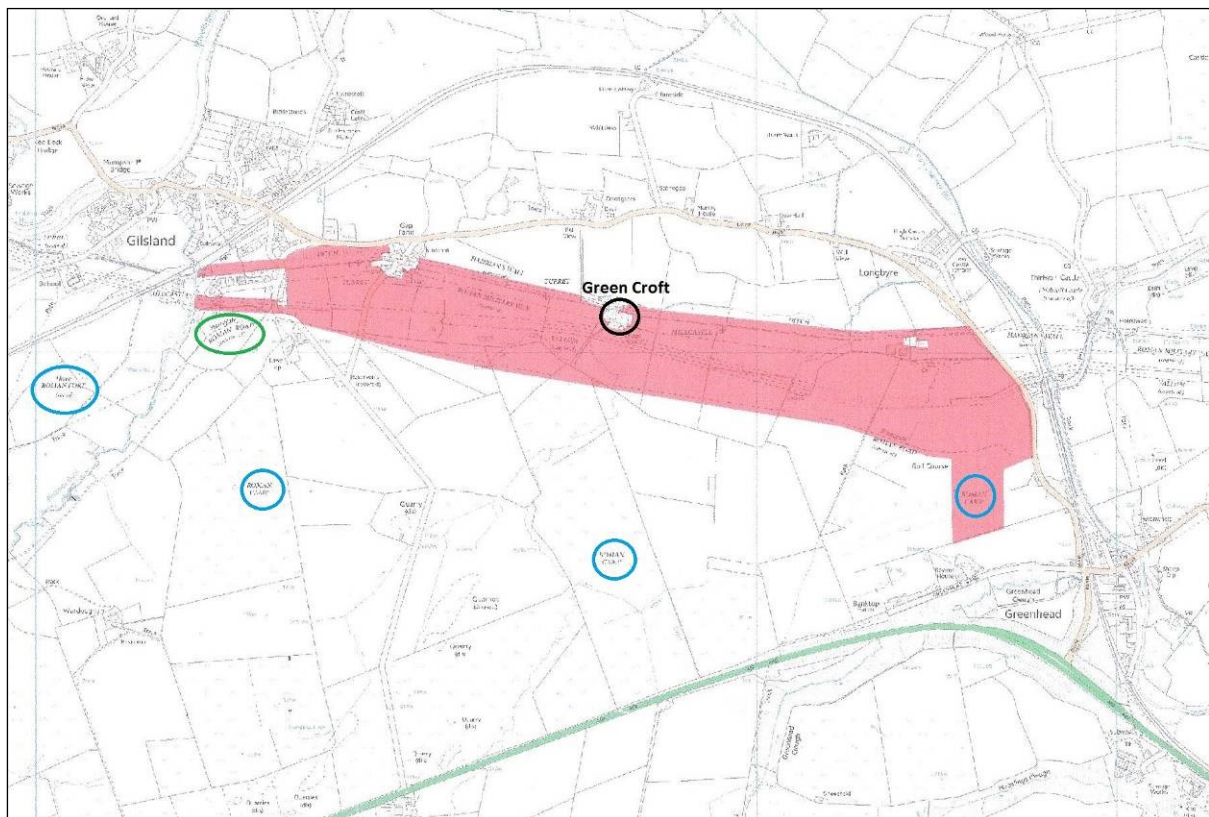


Figure 2. Location of study area regarding scheduling

A small burn traverses the Wall and vallum separating the later properties of Green Croft from Chapel House Farm, collectively referred to as Foul Town on account of earlier pollution of the stream.

The Barony of Gilsland Survey conducted in 1603 did not infringe the study area as it was concerned with an area that begun at the head of Croglin Water proceeding northwards along the county boundary until it met the River Irthing close to Gilsland Station and then following northwards on the eastern side of the Irthing before switching back towards Bewcastle (Ferguson 1880, 452-453).

On Ogilby's 1675 map of the Wall, the study area is entitled Furley, a vill; a term used in English history to describe the basic rural land unit, roughly comparable to that of a parish, manor, or tithin albeit located north of the Wall course.

4. HISTORICAL CONTEXT

4.1 Historical background

The study area lies between Hadrian's Wall (SAM 26085; list entry 1010989) and its vallum (SAM 26086; list entry 1010990) within wall miles 47 and 48 between the B6318 road to Gilsland and Greenhead at Oldwall and Poltross Burn. The official Historic England citation describes the Wall and vallum at this location as the following:

The monument includes the section of Hadrian's Wall and vallum and their associated features between the B6318 road in the east and the Poltross Burn in the west. All the upstanding remains of Hadrian's Wall and the milecastle in this scheduling are Listed Grade I. Hadrian's Wall survives as a buried feature throughout this section except for a short section of Wall less than 10m long which was excavated in 1957 ahead of road widening. The Wall here is consolidated and of broad wall foundation, 3.3m wide and up to 0.5m high. Between this section and milecastle 47 the Wall can be traced as a turf covered scarp measuring 3.5m wide and 0.4m high. A modern wall partly overlies this scarp. West of turret 47b the remains of the Wall are again visible as a turf covered scarp, 0.4m high, with a field wall occupying the centre line of the Wall. In the woodland above the east bank of Poltross Burn the Wall survives as a bank of tumbled stone which has a maximum height of 0.5m. Elsewhere the Wall survives as a buried feature with no remains visible above ground, being overlain by a field wall for most of its course. At Chapel House, farm buildings overlie the course of the Wall. As archaeological remains have not been confirmed to survive here this area is not included in the scheduling. The wall ditch survives intermittently as a feature visible on the ground. Where extant it averages 2m deep, but elsewhere it is silted to varying degrees and in some sections there are no surface traces. The upcast mound from the ditch, usually referred to as the glacis, survives as a ploughed down feature to the north of the ditch in parts of this section. Milecastle 47 is situated about 250m east of Chapel House. It survives as a slight turf covered ploughed down platform. Dressed stones from the gate lie to the north on a modern causeway across the wall ditch. Excavations in 1935 uncovered large barrack blocks either side of the central space within the milecastle. An oven was found in the north-west corner. This milecastle measures internally 21.2m north to south by 18.5m across. The exact location of turret 46b has not yet been confirmed. On the basis of the usual spacing its remains would be expected to lie under one of the outbuildings of Wall End farm.

No upstanding remains are visible above ground. As archaeological remains have not been confirmed to survive here, Wall End farm is totally excluded from the scheduling. The exact location of turret 47a has not yet been confirmed. On the basis of the usual spacing it is expected to lie about 220m west of Chapel House. The exact location of turret 47b has not yet been confirmed. On the basis of the usual spacing it is expected to be located beneath the house and garden of 'Meadow View'. No upstanding remains are visible above ground. As archaeological remains have not been confirmed to survive here, The Gap, including 'Meadow View', is not included in the scheduling. The exact course of the Roman road known as the Military Way, which ran along the corridor between the Wall and Vallum linking turrets, milecastles and forts, is not known with certainty throughout the whole of this section. The only visible remains survive as a terrace in a north facing slope to the south and west of Wall End farm. Elsewhere it survives as a buried feature beneath the turf cover with few traces visible above ground. The vallum survives as an intermittent earthwork visible on the ground in parts of this section. Elsewhere it has been ploughed down and its remains survive as buried features masked by the turf cover. In the area of Greenhead Golf Course the extant ditch survives up to 1.8m deep and the north and south mounds up to 0.8m high. Either side of the Poltross Burn the vallum ditch is visible on the rim of the gorge where it measures 0.6m deep. The east-west Roman road known as the Stanegate, which was a pre-Hadrianic construction dating to the early 80s AD, survives intermittently in this section as a feature visible on the ground. Where visible it survives as a linear turf covered mound, 0.4m high. Elsewhere its remains survive as buried features. A Roman temporary camp, known as Glenwhelt Leazes, is situated on Greenhead Golf Course. It is situated on the east end of a spur overlooking the gap in the Whin Sill escarpment cut by the Tipalt Burn. It survives as a series of earthworks visible on the ground. The defences are best preserved to the east of the north gateway where the rampart is up to 4m wide and 0.7m high and the outer ditch is 3m wide and 0.5m deep. This north facing rectangular camp measures 150m north to south by 80m across and encloses an area of 1.2ha. The four gateways are particularly significant in that each has both an internal and external defence bank and ditch visible on the ground. The interior has been ploughed and drained creating a levelled area. Wall End farm is totally excluded from the scheduling. All field boundaries, except those built directly on the line of Hadrian's Wall, all road and track surfaces and buildings are excluded from the scheduling, but the ground beneath all these features is included.

In close proximity, the locality illustrates four major Roman landscape features (figure 1) listed in chronological order:

- The Stanegate, a strategic late first century AD road when the northern frontier was based on the line of the Forth and Clyde, and only later became part of the frontier when the Romans withdrew from what is now Scotland. An indication of this is that it was provided with forts at one-day marching intervals (14 Roman miles or modern 13 miles (21 km), sufficient for a strategic non-frontier road.
- Hadrian's Wall, a defensive fortification, begun in 122 AD in the reign of the emperor Hadrian that ran from the banks of the River Tyne to the Solway Firth and was the northern limit of the Roman Empire.

- The Wall ditch, a defensive structure directly in front of the Wall that would slow down an attacking force and provide a killing zone for the defenders of the Wall.
- The Vallum, a huge earthwork located just to the south of Hadrian's Wall and constructed shortly afterwards complementing the defensive frontier and probably initiated as part of a restricted military zone.

The Stanegate differed from most other Roman roads in that it often followed the easiest gradients, and so tended to weave around, whereas typical Roman roads followed a straight path. The road utilised the margin between a marshy, impenetrable moss to the north and various river systems to the south.

The natural advantages of the topography were further employed approximately forty years later when Hadrian's Wall was built *circa* AD 122 and the vallum added shortly afterwards.

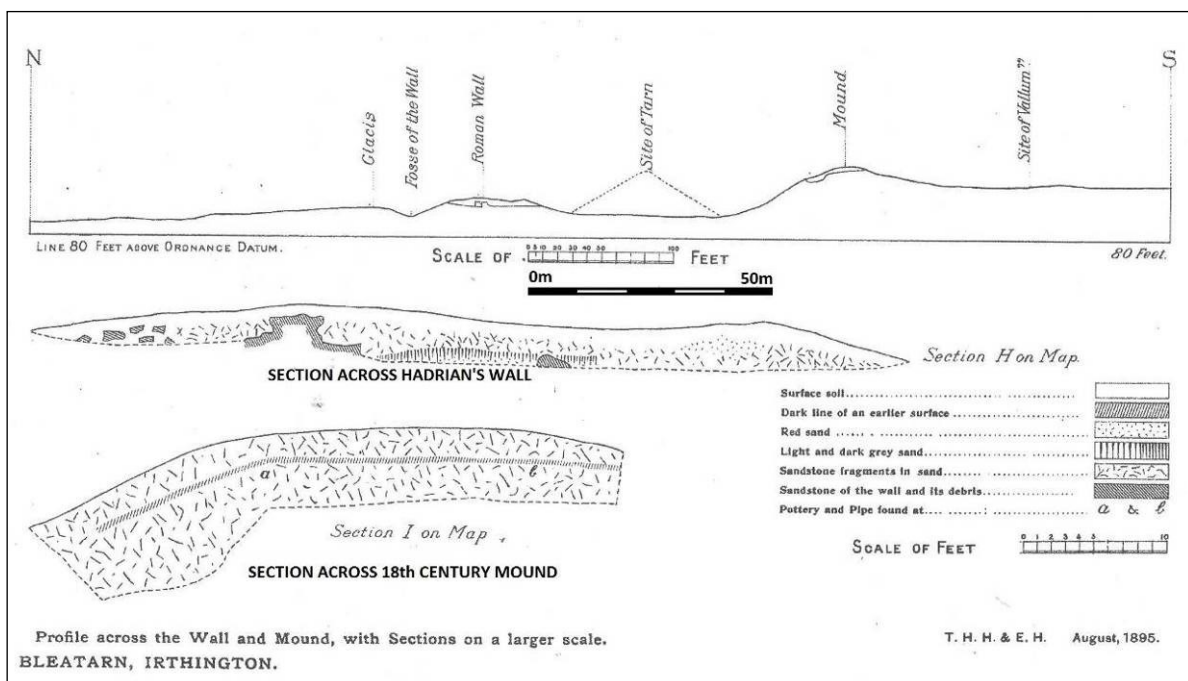


Figure 3. Topographic features in sections including Hadrian's Wall and a mound

Antiquarians had misunderstood the disposition of the vallum believing that it was an earlier first century AD fortification built by Agricola. By 1840, John Hodgson realised that it was undertaken during the reign of Hadrian but it was not until 1893 that the first section was cut across the vallum at Heddon-on-the Hill in Northumberland followed by Bleatarn near Irthington, Cumbria in 1894.

The late 19th century began a period when archaeological thought and practice in Roman frontier studies was evolving from casual identification allied to classical scholarship, to understanding process through empirical observation and recording physical data.

F.J.Haverfield was an early pioneer in discussing archaeological deposits as part of a wider cultural process leading to a theoretical discourse that produced his ground-breaking work *Romanisation of Roman Britain* in 1905 and the subsequent creation of the academic discipline of Romano-British studies.

The disposition of ancient topography was typified at Bleatarn Park where the classical sequence of *glacis*, wall ditch (*fosse*), Hadrian's Wall, tarn, mound and vallum was observed (figure 3).

An early travelogue of 1801 by Reverend John Skinner is of particular interest regarding the Wall and this location.

He walked the course of the Wall making comments and sketching artefacts of antiquarian interest. He traced the Wall from Thirlwall Castle as only a distinct trench (Wall ditch) for one mile with little sign of the Wall fabric. He compiled the following commentary regarding the study area:

“Tho a wall has been built for some distance on the ancient foundation. On making enquiries about $\frac{3}{4}$ mile beyond Thirlwall respecting some ruins, I observed to the south of the Wall, a farmer informed me a few years since there was a building there called the Chapel. This was enclosed by walls of prodigious thickness. On destroying this to build his farmhouse, they discovered underground some wrought stones of a very large size which he blew up with gunpowder in order to to employ his work..... He further added that the quarry was about $\frac{1}{2}$ mile off where the stones were taken..... Many stones with inscriptions the farmer said, were purchased at that time by a man who walked about the county as I did, that for his own part his scholarship could never make them out”.

A $\frac{1}{2}$ hour walk west from this location he completely lost any trace of the Wall (Coombs 1978, 45-47).

4.2 Map regression

A further cartographic survey was conducted in 1829-1830 that illustrated the study area as within the Manor of Thirlwall (DHN V/40/1). Depicted on the map was an enclosure that represented Green Croft and four independent buildings that comprised Chapel House Farm, collectively known as Foul Town and a place of some renown as it was illustrated in bold type. Just east of Green Croft was a small linear wood on the north side of a burn, still extant in 1861.

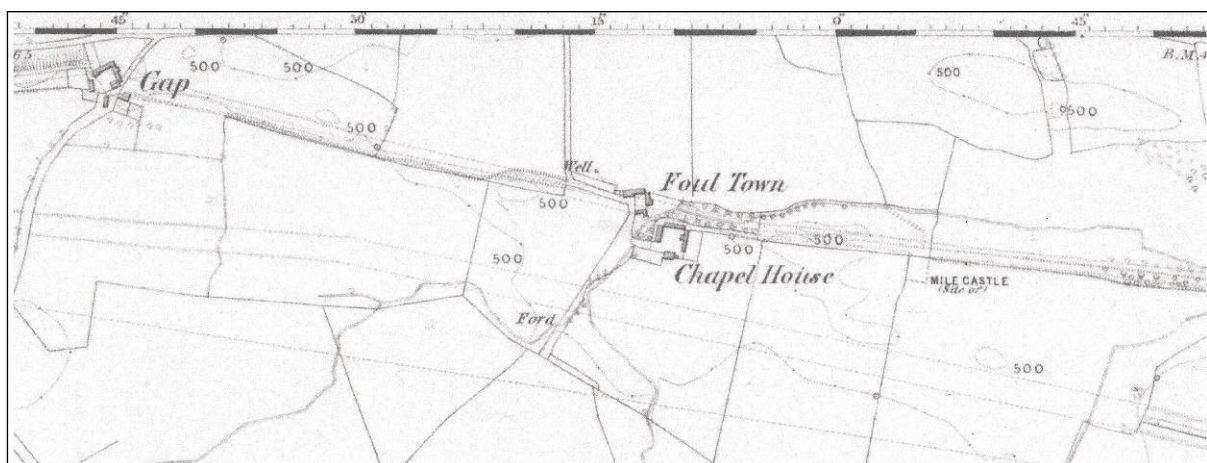


Figure 4. First edition Ordnance Survey map surveyed on 1861

The earliest Ordnance Survey map of the area dates to 1861 that shows a collection of farm buildings forming a courtyard straddling Hadrian's Wall (figure 4). The same spatial arrangement was illustrated on subsequent Ordnance Survey maps of 1898 (figure 5), 1925, 1946 and 1952.

The map shows that the farmhouse, threshing barn and stores were all extant in 1861.

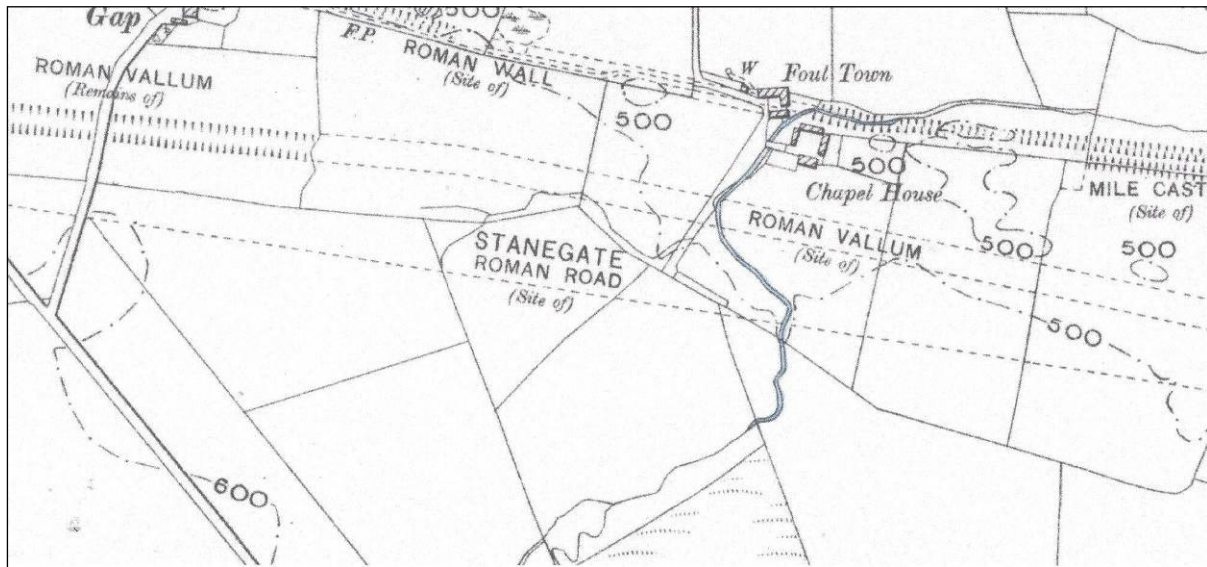


Figure 5. Second edition Ordnance Survey map of 1898

4.3 Site visit

Hadrian's Wall and accompanying wall ditch were anticipated to pass within the study area; the Wall ditch perhaps passing beneath a threshing barn and the Wall proper beneath the southern stores.

A site visit was conducted on April 1st 2018 to ascertain the issues involved with the development and to assess the viability of the programme of works equating to the Working Scheme of Investigation.

4.4 House and buildings

The existing farmhouse appeared to obey a typical Cumbrian two unit house current between 1650 and 1810. It originally consisted of a large room or kitchen containing the principal hearth and a space in which food preparation, domestic tasks and crafts were conducted. A second lesser room served as a parlour in which the main bedroom was located. Uniting the two rooms was a roof-space that later had the walls heightened in order to provide extra bedrooms (figure 6) served by an external staircase (Brunskill 2002, 64-67).

An outshut with cat-slide roof (figure 7) was probably added in the second half of the 18th century when the present windows of the original farmhouse were also installed.

The farm buildings formed a central cobbled courtyard now largely grassed over (figure 8). Courtyard lay-outs suggested in North Cumbria were for large farms over 250 acres (101.8 ha) with the buildings in this case the byre attached to the farmhouse as a contiguous arrangement (figure 8) and at right-angles to other structures (Ibid, 101).

Farm lay-outs were usually an accretion of buildings especially with land under Lowther control as slowly more land was enclosed and taken into cultivation. This included a threshing barn executed in stone with added porch (figure 9) and an ornate arrangement of air vents in the southern gable end (figure 10). There was no evidence for joists supporting a hayloft suggesting that this was an earlier barn possibly confirmed by a stone flag floor essential for winnowing the sheaths. The propensity of ventilation slits suggests that the barn was not used for storage, the crop either stored externally in stackgarths or sent to be milled.



Figure 6. Elevation of farmhouse



Figure 7. Outshut housing staircase



Figure 8. Cobbled courtyard



Figure 9. Threshing barn



Figure 10. Gable end of threshing barn



Figure 11. Derelict southern stores

An ancillary pig-sty was probably added around 1800 when animals were no longer accommodated close to the farmhouse and is featured on the first edition Ordnance Survey map.

The farm arrangement was completed with a southern range of stone buildings (stores) that currently are adjacent to a long distance footpath and a burn (figure 11). This was a larger structure that extended to a farm track but around twenty or thirty years ago was demolished and roofs were removed from the pigsty and the remaining store (figure 12).



Figure 12. Aerial view of Green Croft showing buildings with extant roofs

4.5 Site topography

The location of the farmstead of Green Croft, formerly Foul Town, may be due to the survival of stone from Hadrian's Wall, an available source of building material.

One hundred metres east of the study area, the Wall ditch is well-articulated by a pronounced linear depression with the adjacent Wall represented by a ridge upon which a dry-stone wall has been supplanted (figure 13), an account similar to Rev. Skinner in 1801.



Figure 13. Wall ditch east of the study area



Figure 14. Possible Wall ditch impinged by burn

The Wall ditch dissipates towards the study area (figure 15) impinged by a burn that may have adopted the course of the Wall ditch at a later date although in 1829 the course of the burn was the same as now (figure 14).

There is some possible evidence for a remnant wall as an adjacent stone agricultural building appears to sit on a shallow plinth of dressed stone that accords with the projected course of the Wall (figure 15). This observation appears to validate the Rev. Skinners account of 1801 where he noted what he believed to be a new wall built upon the bed of Hadrian's Wall (op cit, 10).

The course of the Wall was compromised by the presence of a burn. Assuming that this was not a post-Roman topographic feature, the Wall engineers would have had to deal with this encumbrance. The easiest solution would be to bridge over at right-angles with presumably a grille within the stream bed prohibiting clandestine access. The course of the Wall would "kink" over the burn resuming a linear course westwards.

This linear feature may veer northwards to overcome a burn as an arched bridge (figure 16) before resuming a westward course though a derelict range of stores (figure 11).

There are no longer any large structural stones present but an account from 1801 suggests that such stones were *in situ* up to around 1780 when gunpowder destroyed any such putative structure in order to build Chapel House.

A Roman trackway from this location southwards to a quarry ½ mile away gives further credence to the possibility of a substantive Roman building at Chapel House Farm.



Figure 15. Stone plinth representing the Wall



Figure 16. Bridge abutment for possible Wall

As the location is approximately midway between Milecastle 47 and expected Turret 47A it is possible that Skinner inadvertently observed a small fortification of some pretension (the alluded inscriptions including a Roman dedication stone (N6029) built into Chapel House and observed in 1849) especially as it was titled "The Chapel", still the name of an adjacent farm to Green Croft.

Alternatively, a building with walls of "prodigious thickness" may represent a late medieval bastle although the sub-surface large stones and the use of gunpowder in its demise tend to suggest a formalised structure of Roman origin.

Traditional thought, places Skinners' encounter at Milecastle 47 (N6024) where a medieval chapel (N6032) was thought to exist and which in 1935 excavation revealed traces of large barrack blocks surrounding a central courtyard and an oven (op cit, 9). This presumption dates back to 1716 when John Warburton walked the length of the Wall. He noted:

"FR o M Carrvoran, down to Tippal water, both the walls and ditches are very conspicuous.....Farther weft, at a house called the Chapel, which stands within a Castellum, the walls are about five chains (100.58 metres) distant from one another ; and all the works are visible. At Fowl-town the military way is lost, but the wall and ditch are pretty large".

J.Collingwood Bruce's *The Roman Wall* published in 1851 appears to dispute the location of Milecastle 47. He asserts:

"Chapel-house and Fowl-town, two contiguous farm-houses, are next met with in our course. Chapel-house is probably the site of a mile-castle, it having been constructed out of the materials of aprior building, which boasted walls of great thickness". Furthermore, he notes an inscribed stone to be seen lying in an out-house, from the walls of which it has recently been taken (Bruce 1851, 240).

This account is then contradicted by Henry Maclauchlan in 1858 who claims:

"The site of this castle (sic Milecastle) was formerly known as The Chapel from a chapel that once stood on the spot, probably built out of the ruins of the Castle. This Chapel was taken down about 55 years since to build the Chapel-house farm, which is about 300 yards further to the westwards There are two farm-houses at this place, one on each side (sic) the course of the Wall, the name of the other is Fowltown. This it appears was the name of the estate before the two farms were separated and it is possible that it may be derived from the Roman camp, which stands on the property on Chapel-rigg, about 3 ½ furlongs (704 metres) due south" (Maclaughlin 1858, 51).

However, the vulnerability of defence created by a burn could mean that Turret 47A was located where the burn traversed the Wall course, whilst of course there is no replacement farmhouse at Milecastle 47, a central tenet to Skinners account. A "priority milecastle" has been postulated as a solution to vulnerability whilst constructing the Wall (Wilmott 2009, 139). Topographic considerations would outweigh any uniformity of spacing e.g. Pike Hill (Martin 2014, 7).

5. RESULTS

5.1 Development proposals

Green Croft represents a cluster of buildings within a bounded curtilage that lies to the north of the east-west aligned margin that includes the Wall ditch, course of Hadrian's Wall, the course of the vallum to the south and the Stanegate/Military Way, the predecessor of the Wall defensive system and used for later infrastructure. Current buildings are located with an unscheduled area (figure 2).

The development entails the renovation of a series of existing agricultural buildings, the introduction of sub-surface services drain runs 1 and 2 and a patio area (figure 4). These include the following elements:

- A pigsty
- A former derelict store
- A threshing barn
- A north-south drain run (blue outline, figure 18)

A heritage, design and access statement has been produced by the client's architect that addresses the key issues involved with the development. The development seeks to provide accommodation for long-distance walkers and ramblers and provide space for art installations. A small refreshment service is also envisaged developing Green Croft into an arts and recreational facility with a focus on the local topography both past and present.

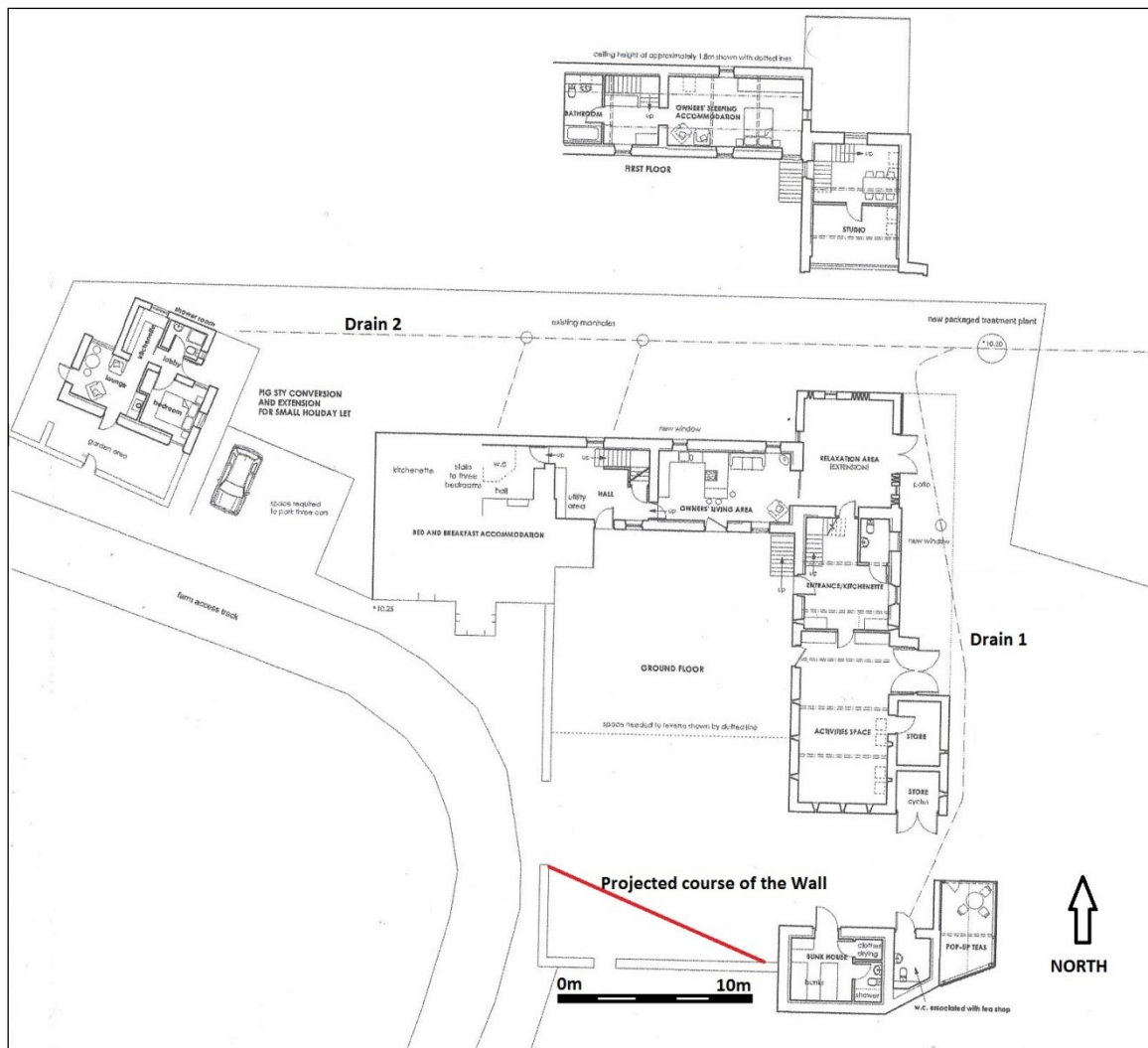


Figure 17. Location of development proposal

5.2 General methodology

The objective of the evaluation was to carry out a formal programme of archaeological observations and investigations during any operations on site that may disturb or destroy archaeological informative deposits or remains.

In order to achieve these objectives, a record of all archaeological informative deposits encountered during the evaluation were made consisting of detailed context records on individual pro-forma sheets and field drawings, according to the protocols set out in the GMA manual.

5.3 Evaluation methodology

The study area was archaeologically evaluated in early June 2018 and comprised three trenches and two test pits (figure 18) around 1.20m-1.50m in width.

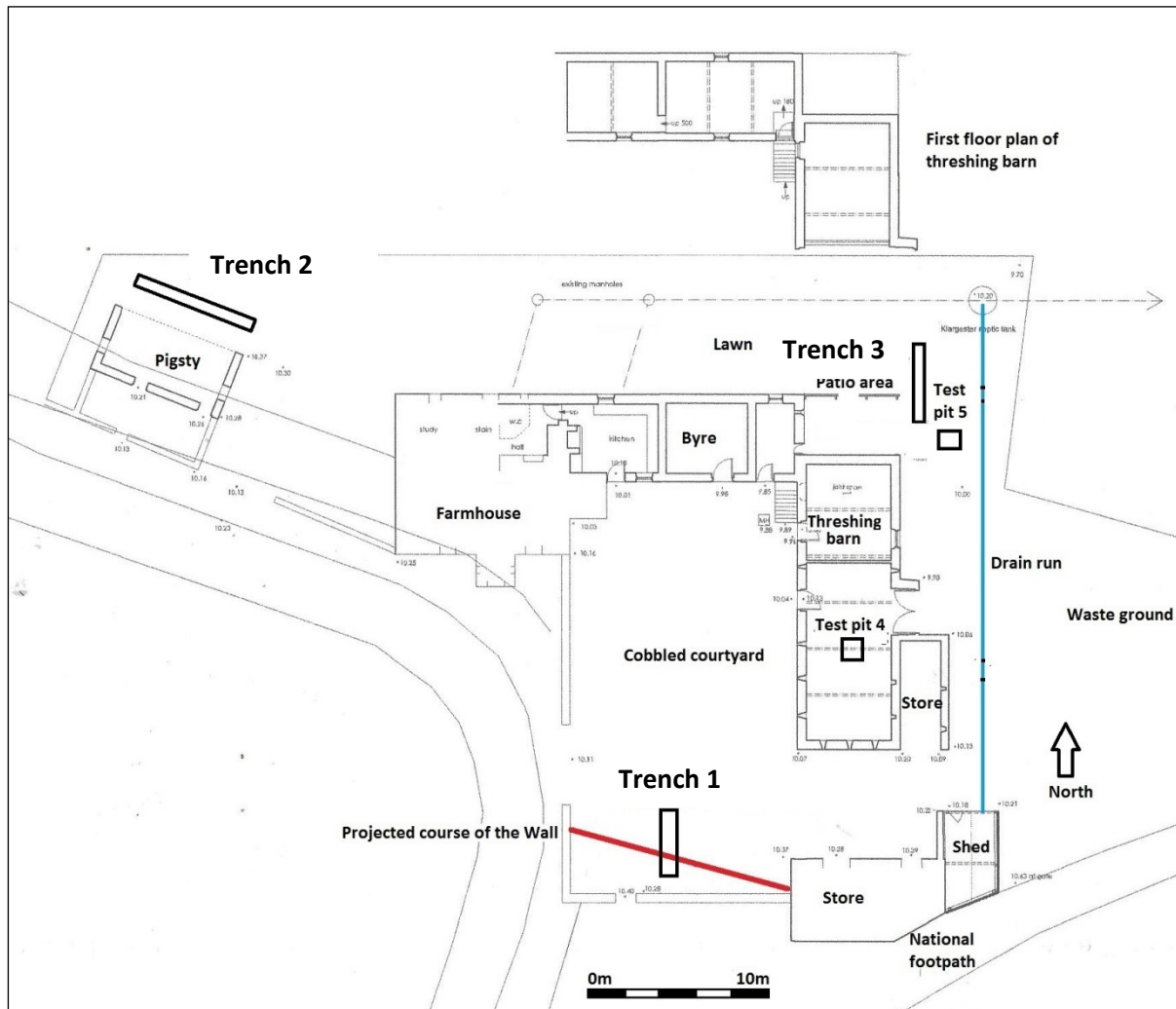


Figure 18. Location of archaeological interventions

Areas were stripped of any extraneous overburden using a small 1.5 tonne mini digger with a toothless ditching bucket under strict archaeological supervision. Machine excavation ceased at either the first contact with the underlying archaeological horizon or natural drift geology

The underlying horizon was hand cleaned in order to identify and define archaeological features. A base plan comprising scale plans at 1:20 were drawn from which archaeological deposits were assessed.

Limited excavation followed a purely stratigraphic sequence.

Within test pit excavation, a shallower invert depth of 1.00m was utilised.

Horizontal deposits were cleaned, photographed, planned and documented as per the protocols outlined in the Gerry Martin Associates Ltd Field Manual.

5.4 Evaluation results

The evaluation results are summarised in Table A of which only Trenches 1 and 2 produced positive archaeological results.

Trench	Location A	Location B	Summary description	Result
1	NY64601 66124	NY64598 66121	Robbed remains and foundation core to Hadrian's Wall	Wall
2	NY64565 66153	NY64570 66151	Counterscarp or glacis	Berm
3	NY64608 66152	NY64609 66148	Modern soil	Sterile
TP4	NY64604 66131	NY64604 66133	Modern dumping	Sterile
TP5	NY64610 66147	-	Topsoil	Sterile

Table A. Trench summaries

Trench 1

Trench 1 (figure 19) measured 4.00m x 1.40m and was located above the footprint of a demolished agricultural building, a former stone store NY64601 66124.

The stone demolition horizon of approximately 0.10m to 0.15m in depth was removed by mini-digger to reveal a fairly concordant surface **11** of large angular and rounded stones between 0.10m-0.25m in size within a largely unseen and unexcavated east-west aligned cut **10** (figure 20).

Cut **10** equated to the course of Hadrian's Wall but it was not proved with absolute certainty, whether stone rubble **11** represented the stone core of the Wall or was fill of an unseen robber trench that had removed the wall fabric and facing stones.

A linear east-west alignment of angular and ovoid stones **13** approximately 0.10m-0.20m in size filled a poorly defined east-west aligned linear cut **12**. This feature marked the post-medieval or 18th century foundation for the demolished store. A north-south aligned spread of stones **14** probably represented an internal partition within a former stone store.

Natural drift geology was observed as yellow clayey sand.

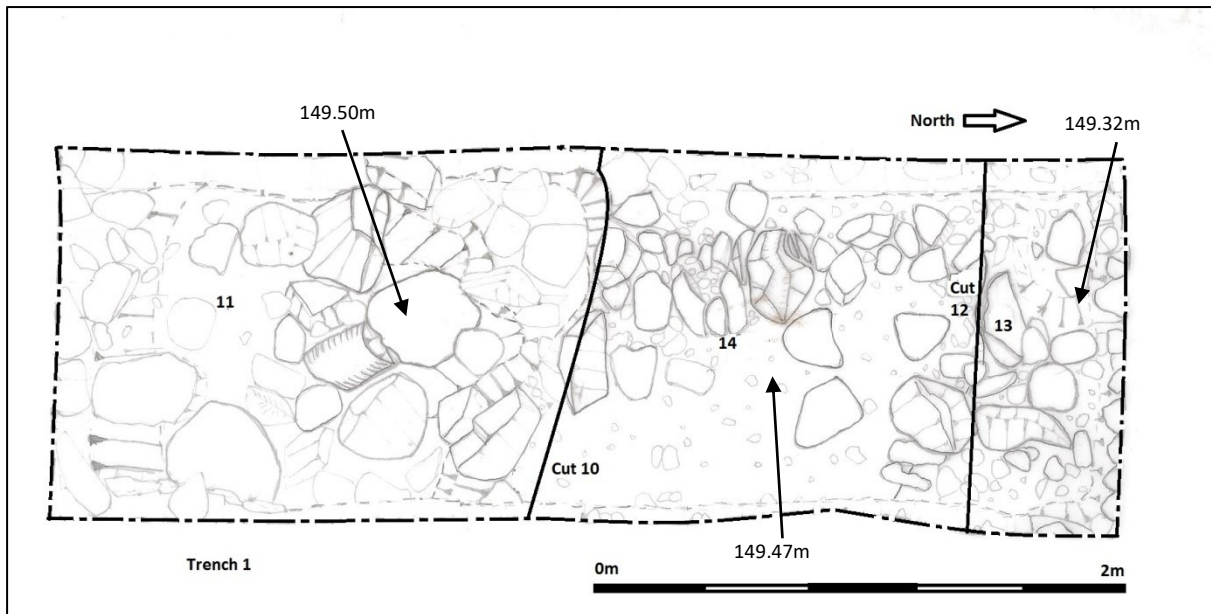


Figure 19. Trench 1 showing the fill of the course of Hadrian's Wall and remnant store foundations



Figure 20. Core of Hadrian's Wall 11



Figure 21. Cut 21

Trench 2

Trench 2 located at NY64565 66153 measured 4.40m x 1.20m and was located beside a former pigsty constructed during the early 19th century (figure 22).

A stony topsoil forming overburden of approximately 0.30m to 0.40m in depth was removed by mini-digger to reveal a concordant surface **24** of clean orange-brown clay with an oxidised interface measuring 0.22m in depth where it met a very clean orange-brown silty clay **26** measuring 0.40m in depth conspicuous for a lack of stones that rested above natural orange-brown clay sand.

The combination of clay membrane **24** and soil bank **26** formed a possible counter-scarp or bank measuring 0.45m in thickness within artificial intervention **25** raised above natural drift geology (figure 23).

To the west, layer **24** was truncated by a north-south aligned cut **21** filled by dark grey-brown silty clay **20** that contained the articulated remains of a pig skeleton (figure 21).

Cut **21** in turn truncated a probable unseen cut **22** that contained a basal fill of medium grey-brown silty clay **23** that was penetrated by a lens of orange-brown sandy clay **27** that probably represented root or animal bio-turbation overlain orange-brown silty clay **28** with a high propensity of angular stones (figure 24).

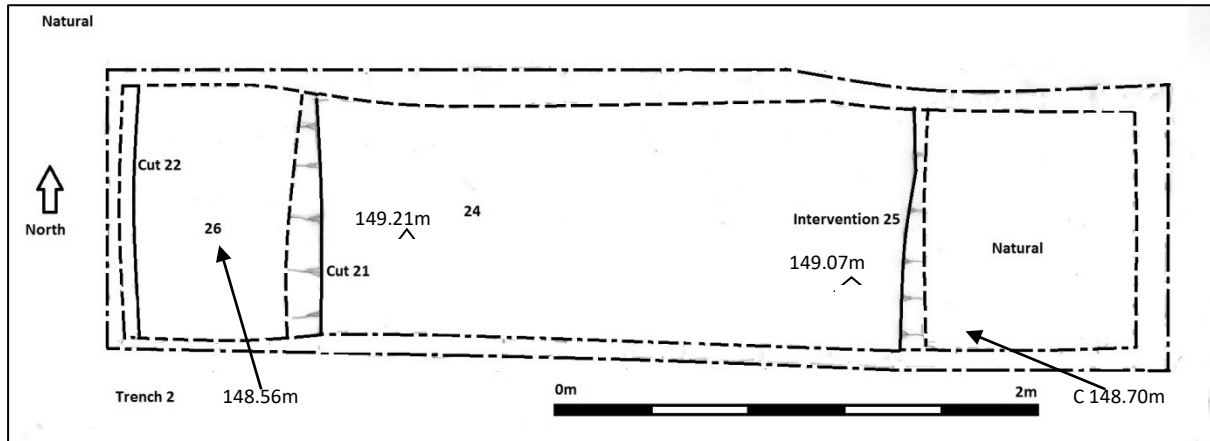


Figure 22. Plan of Trench 2



Figure 23. Section through intervention **25** showing clay membrane **24**

Both cuts **21** and **22** were probably relatively recent acts associated with the pigsty hence the pig skeleton in fill **20**.

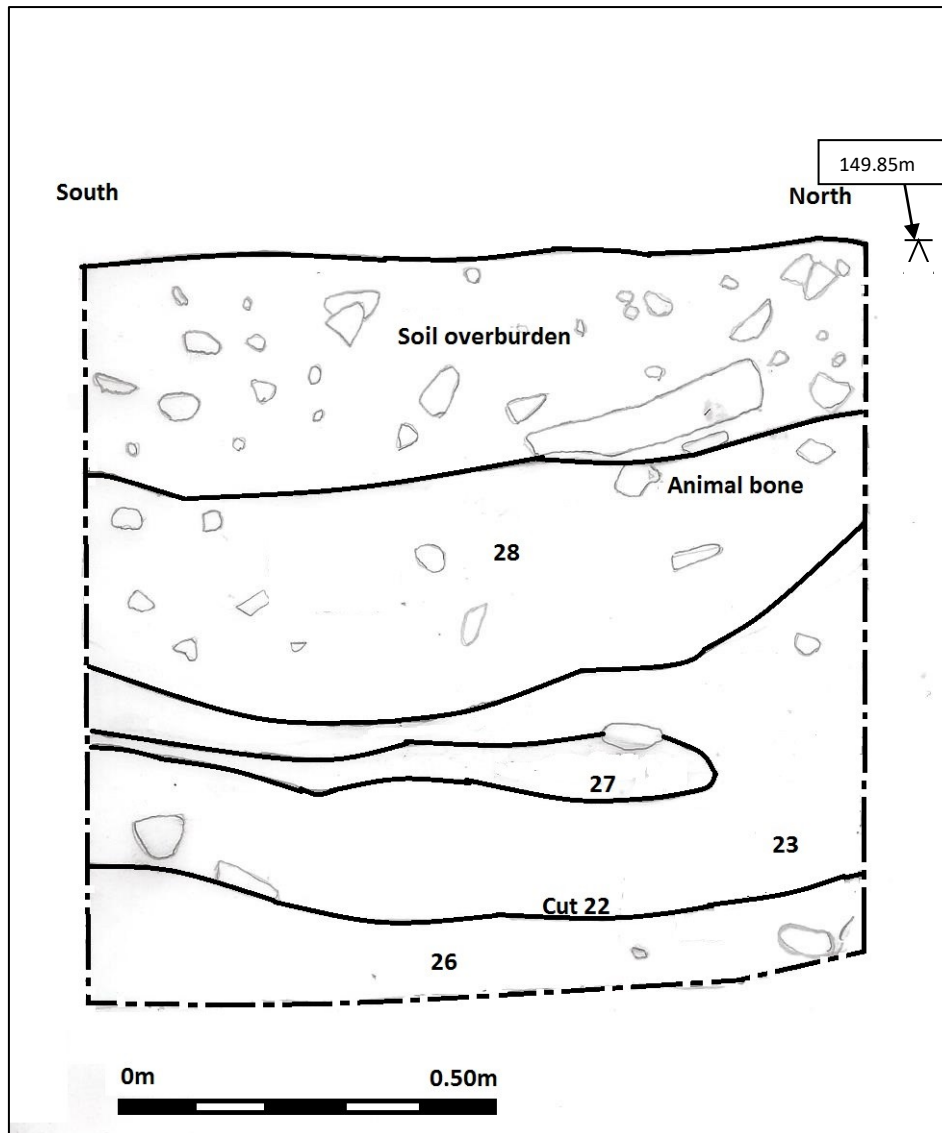


Figure 24. Section through cuts 21 and 22

Trench 3

Trench 3 measured 4.00m x 1.20m (figure 26) and was located beside a “lean-to” structure with the trench cutting a modern lawn located at NY64608 66152.

The trench declined in gradient from south to north terminating where a modern water pipe and gravel back fill were located (figure 25).

Natural drift geology consisting of coarse brown sand and gravel was encountered that was sealed by brown clayey sand topsoil.

There was no evidence for any cultural remains of any antiquity within this intervention.

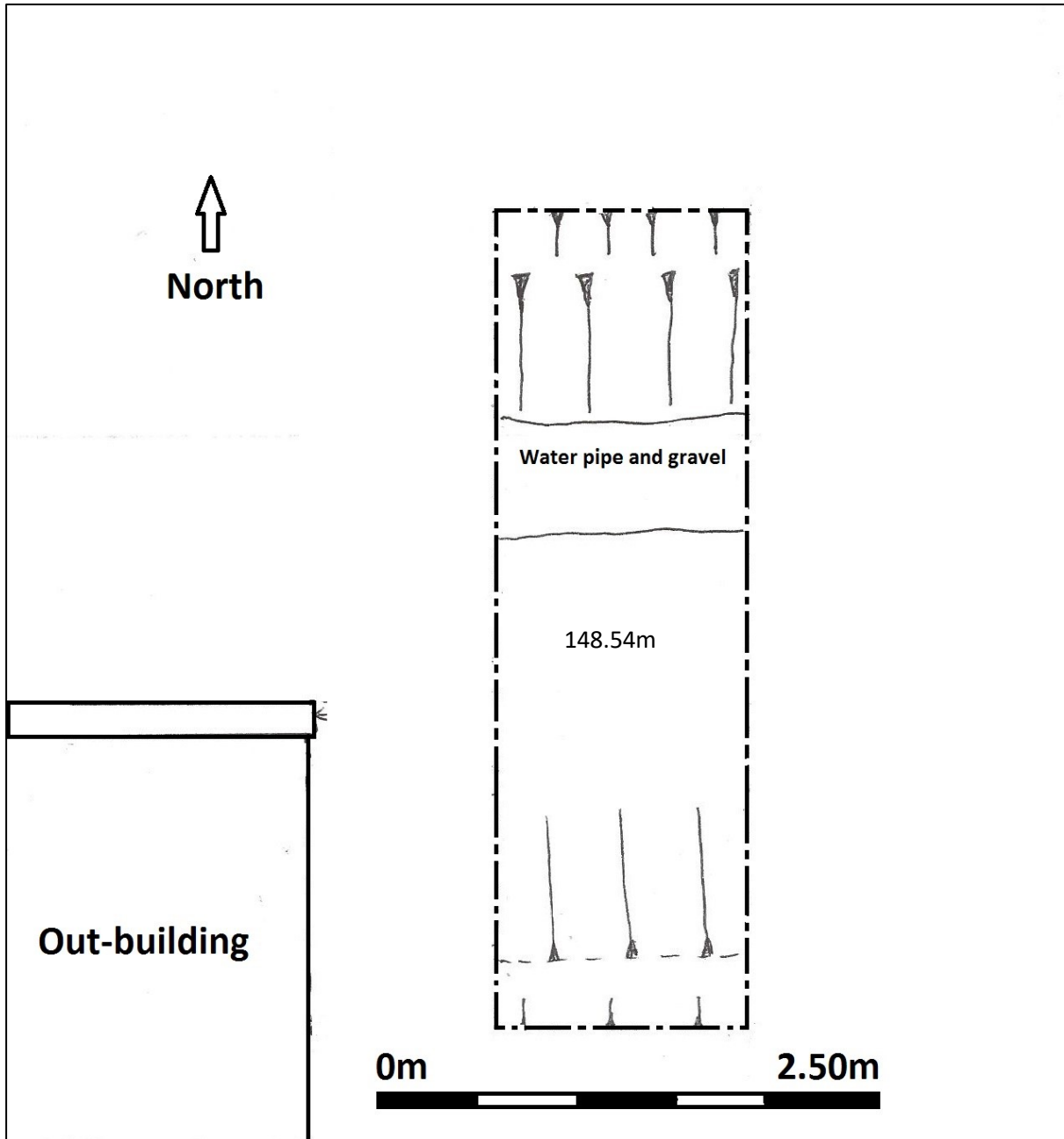


Figure 25. Plan of Trench 3



Figure 26. Trench 3



Figure 27. Test pit 4

Trench 4

Test Pit 4 was located within a threshing barn located at NY64040 6134 and measured 1.10m x 1.00m, reduced to a depth of 0.30m (figure 27). The flagstone floor of the threshing barn had been lifted to reveal a sequence of modern dumping and informal activity.

The latest deposit was clean soot or coal overlying yellow-orange clean sand that formed a blinding for the flagstones. Dark grey–brown silty clay with large stones embedded formed a coarse surface above brown pebbly silty clay drift geology.

Trench 5

Test Pit 5 was located outside a threshing barn located at NY64610 66147 and measured 1.30m x 1.20m, reduced to a depth of 0.60m.

Natural drift geology consisting of coarse brown sand and gravel was encountered that was sealed by brown clayey sand topsoil (figure 28).

There was no evidence for any cultural remains of any antiquity within this Trench.



Figure 28. Test Pit 5

5.5 Finds

Occasional 19th century porcelain was encountered within topsoil and overburden but was not collected.

An articulated pig skeleton was identified within the backfill of cut **21** but as the feature was adjacent to a pigsty it would appear highly unlikely that this bone assemblage was anything other than relatively recent.

5.6 Environmental samples

No deposits merited analysis as they belonged to modern features (cuts **21** and **22**) or had no stratigraphic security e.g. Wall deposit **10**.

Soil **26** beneath membrane **24** was exceptionally clean without extraneous material. No sign of buried or preserved turf-lines were apparent.

5.7 Discussion

The location of stone horizon **11** in Trench 1 appeared to conform to the predicted course of the Wall.

The course of Hadrian's Wall was almost certainly identified within Trench 1 represented by a rubble horizon **11** within an east-west aligned cut **10**. A later stone building had probably utilised the Wall foundation as part of its floor and therefore the Wall foundation was heavily obscured.

The identification of a possible *glacis* and counterscarp arrangement in Trench 2 was a surprising discovery.

The *glacis* or counterscarp was a device of classical fortification designed to enhance the depth of the frontal Wall ditch by artificially increasing the height of the outer face of the ditch using spoil from the excavation. The terminology sometimes becomes a little confused when applied to the Wall ditch (it is sometimes referred to as an 'upcast mound') but there is no doubting its function: to enhance the outer lip of the Wall ditch.

The arrangement only survives intermittently along the northern edge of Hadrian's Wall and evidence suggests it may not have been a continuous feature. The application of this defensive device to the study area remains inconclusive.

To the east (figure 13), the Wall ditch is pronounced but remains close to the course of Hadrian's Wall with no evidence for *glacis* or counterscarp. The Wall ditch was then intercepted by the northerly progress of a burn before the fortifications resume to a familiar Wall ditch and Wall arrangement west of Green Croft (figure 29).

At Green Croft, Trench 3 and Test Pits 4 and 5 found no evidence for a former Wall ditch, the corollary being that based on current knowledge none exists at this location. Most probably, the existence of a burn created topographic challenges that required an alternative or a none engineering solution (figure 14). This response was consistent with Wall engineering where pragmatism overcomes dogmatic attention to detail.

At the western margin of the study area, the forward defences re-emerge as a shallow bank **26** sealed by a clay membrane **24** (figure 30).



Figure 29. Disposition of topographic features west of Green Croft

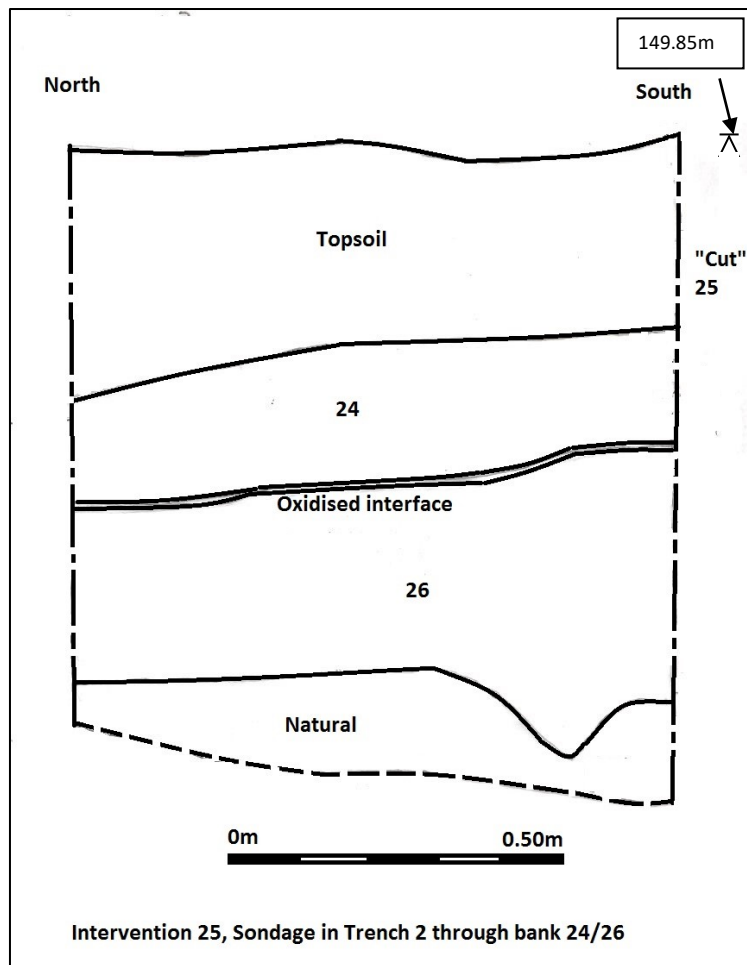


Figure 30. Section through bank 24 and 26

The closest parallel would be the *glacis* identified at Appletree, Cumbria in Wall Mile 50 where the 16.50m wide mound stood to a height of 0.49m resting on natural drift geology following removal of the turf (Wilmott 2009, 108).

This observation appears close on character to the intervention at Green Croft excepting that a clay membrane sealed the mound (at Appletree it was truncated by ploughing) and that the bulk of the mound was formed from very clean soil lacking stone, most probably capture of topsoil rather than excavated spoil from a Wall ditch.

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