

The Pack, Burgh by Sands, Carlisle, Cumbria Archaeological Evaluation Report

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Client: Paula and Dan Hewson

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Written by Aidan Parker with John Zant illustrations by Mark Tidmarsh

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Summary

Oxford Archaeology North (OA North) was commissioned by Dan and Paula Hewson to undertake a trial-trench evaluation on a disused agricultural storage yard at The Pack, Burgh by Sands, Carlisle, Cumbria (NY 3270 5920). The evaluation was intended to inform a planning application for the construction of a new residential property and garage. Given that the proposed buildings are immediately adjacent to a Scheduled Monument within the World Heritage Site of Frontiers of the Roman Empire: Hadrian's Wall, close to the north-west corner of the Roman fort known as Burgh II, perhaps *Aballava* to the Romans, the Cumbria County Historic Environment Service advised that it would be necessary to assess the impact the proposed build would have on buried archaeological remains.

A small trial-trench evaluation was undertaken over two days on 20-21 March 2018. Two trenches were excavated, each finding significant archaeological remains within the proposed area of study. A large ditch was identified within Trench 2, which is of Roman military character and might have been associated with either the Wall or the nearby fort. It is, as such, significant for the understanding of this part of the Roman frontier that has not been intensively studied.



Acknowledgements

Oxford Archaeology North would like to thank Dan and Paula Hewson for commissioning this project. Thanks are also extended to Malcolm Wilson, acting for Black Box Architects (agents for the clients), Jeremy Parsons, who monitored the work on behalf of Cumbria County Council's Historic Environment Service (CCCHES), and Mike Colllins (Historic England) for his advice.

The project was managed for Oxford Archaeology by Fraser Brown. The fieldwork was directed by Aidan Parker, who was supported by Steve Clarke. Survey and digitising was carried out by Aidan Parker and the illustrations were produced by Mark Tidmarsh.



1 Introduction

1.1 Scope of work

1.1.1 Oxford Archaeology North (OA North) was commissioned by Dan and Paula Hewson to undertake a trial-trench evaluation at the site of The Pack, Burgh by Sands, Carlisle, Cumbria (Fig 1). The work was undertaken to inform the Local Planning Authority in advance of a submission of a Planning Application. A brief was issued by Cumbria County Council's Historic Environment Service (CCCHES; J Parsons *pers comm*), and a written scheme of investigation (OA North 2018) was produced by OA North accordingly. This document outlined how OA North would implement CCCHES's requirements.

1.2 Location, topography and geology

- 1.2.1 The site lies at 21-22m aOD, at NY 3270 5920, within the small village of Burgh by Sands, just over 9.5km north-west of the city centre of Carlisle. The area of proposed development is situated on the northern edge of the village, towards its eastern end, close to St Michael's Church (Fig 1).
- 1.2.2 The proposed development area comprises a former agricultural yard covering approximately 0.12ha. Within this were existing storage sheds standing within waste ground, some of which was covered with detritus. The intended development will include two residential structures (a house and a separate garage) as well as landscaping within the area (Black Box Architects 2017; Fig 2).
- 1.2.3 The geology of the area is Sedimentary bedrock of the Mercia Mudstone Group, overlain by a sand, silt, clay diamicton of the Gretna Till Formation (BGS 2016a; 2016b).

1.3 Archaeological and historical background

- 1.3.1 When the Roman army moved into what is now northern England, in the early AD 70s (a fort was founded at Carlisle in the autumn/winter of AD 72-3 (Zant 2009)), a system of forts connected by roads was established. The reign of the emperor Hadrian (AD 117-38) saw a dramatic change in philosophy within the Empire, the extent of which was now formally defined. On the northern frontier, this resulted in the construction of Hadrian's Wall, probably in *c* AD 122-3 (Breeze and Dobson 2000). The western sector of the Wall was initially built of turf and timber (*ibid*), for reasons that continue to be debated (Shotter 2004; Wilmott 2009). The Turf Wall was subsequently rebuilt in stone, seemingly after *c* AD 160 (Hodgson 2009, 30), apart from in the vicinity of the River Irthing, where rebuilding began late in Hadrian's reign (Breeze 2006).
- 1.3.2 The present development site is immediately beyond the north-western corner of the Hadrian's Wall fort, known as Burgh II (*Aballava* on Figure 1), one of the least explored and understood of all the Wall forts. According to current theories (Hodgson 2009, 152), when the Turf Wall was built in the early AD 120s (Breeze and Dobson 2000), the fort associated (Burgh I) was detached, being placed 1km to the south, perhaps because it had been established before Hadrian's Wall was constructed. Precisely when Burgh II, the stone Wall fort, was built is uncertain. The alignment of the Vallum



ditch to the east and west suggests that the fort was built over, and therefore, postdates, this feature (Austen 1994, 49), and what was thought to be the Wall ditch itself was recorded in 1993 at Demesne Farm in the centre of the stone fort (Breeze 2006, 352). It must follow, therefore, that Burgh II is later than the Turf Wall, but how much later is open to debate. On the one hand, excavations in the extramural settlement south-east of the fort found little indication of occupation before the third century (Breeze and Woolliscroft 2009), and on this basis it was suggested (Austen 1994, 53) that Burgh II may not have been built until the early third century. However, investigations in the settlement south of the fort yielded evidence for second-century occupation, but little later activity (Masser and Evans 2005; Hodgson 2009, 152), which suggests an earlier origin. Perhaps, therefore, Burgh II was built during the mid-late second century, being contemporary with the reconstruction of the Turf Wall in stone (Section 1.3.1). In this regard, what is known of the alignment of the Stone Wall adjacent to the fort is not especially helpful. During the nineteenth century, the Stone Wall was seemingly observed in the modern road east of the fort (Daniels 1978, 247), where its alignment suggested that it may have joined the fort defences at a right angle, close to the east gate (op cit, 246). This also accords with the alignment of the Stone Wall recorded beneath Burgh Castle, which once stood to the east of the village (Hogg 1954). However, on geophysical survey evidence (Linford 1992; Breeze and Woolliscroft 2009), it has been argued that the Wall was realigned at some stage to meet the northern corners of the stone fort. Whilst this could have occurred at the time the stone fort was built, it might equally have been a later modification.

- 1.3.3 A civilian settlement existed south and south-east of Burgh II (Masser and Evans 2005; Breeze and Wooliscroft 2009; Section 1.3.2), and investigations east of the fort also yielded evidence for extramural occupation, including intensive industrial activity (OA North 2002). In view of the present site's close proximity to the north-western corner of the stone fort, it is possible that elements of the outer fort defences, notably the ditches, may extend across part of the site. It is even conceivable that the Stone Wall itself, and/or the large ditch fronting it, might impinge on the site, if, indeed, the Stone Wall was realigned (Breeze and Woolliscroft 2009).
- 1.3.4 The medieval village at Burgh was focused on the stone fort, and developed around the twelfth-century church of St Michael, south-east of the study area, which is constructed largely from reused Roman stones. The present site lies outside the fort, and there is, consequently, no evidence for medieval occupation in the immediate vicinity, though the possibility cannot be completely discounted.



2 EVALUATION AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The trench evaluation aimed to investigate the sub-surface deposits within the footprints of the proposed new buildings, to determine the potential for the survival of buried archaeological remains and to characterise any that were found to be present. This was to enable an informed decision to be made following submission of the planning application.

2.1.2 The specific project objectives were:

- i. To determine the general nature of the deposit sequence;
- ii. To understand the formation processes on the site;
- iii. To determine the presence or absence of any archaeological remains;
- iv. To determine the extent, as far as possible, and state of preservation of any archaeological remains;
- v. To retrieve information which will help with the dating and general characterisation of any archaeological remains, and the palaeoenvironment of the site;
- vi. To record accurately the findings of the evaluation and present them so that the significance of the site can be determined, allowing the information to inform the construction design and the planning decision.

2.2 Methodology

- 2.2.1 Two trenches were excavated, measuring 30m² and 10m² respectively (Fig 2). Each trench was placed within the footprint of one of the proposed buildings, with the larger sited within the proposed house and the smaller within the adjacent garage to the east.
- 2.2.2 Each trench was accurately located and surveyed with a handheld GPS. Prior to excavation, each area was photographed and scanned for buried services with a CAT4 cable-detecting tool.
- 2.2.3 Excavation was undertaken by a mechanical excavator fitted with a toothless ditching bucket. In each case, the overburden (topsoil and subsoil) was removed in spits of approximately 0.10m under archaeological supervision, to reach the appropriate level to observe potentially surviving archaeology. Where necessary, to assist in interpretation and characterisation of the remains, additional sondages were excavated, again under supervision by experienced OA North personnel.
- 2.2.4 Recording of the results was achieved by means of photography, hand-drawn plans and textual recording on OA North's pro-forma trench sheets. This was supported by further surveying with a hand-held GPS unit.



3 RESULTS

3.1 Introduction

3.1.1 The results of the evaluation comprise a stratigraphical description of each trench. The full details of the trenches, with dimensions and depths of all deposits, can be found in *Appendix A*. Context numbers reflect the trench numbers unless otherwise stated (for instance, pit *102* is a feature within Trench 1, while ditch *204* is a feature within Trench 2).

3.2 General soils and ground conditions

- 3.2.1 The soil sequence within both trenches was fairly uniform. The natural geology comprised reddish brown silt/clay, overlain by a soft, plastic, mid-brown, silt/clay subsoil, which in turn was overlain by a compact topsoil.
- 3.2.2 Ground conditions throughout the evaluation were generally good, and the trenches remained dry throughout. However, the existing buildings and detritus over the site influenced where the trenches could be sited and their extents. Archaeological features, where present, were easy to identify against the underlying natural geology.

3.3 General distribution of archaeological deposits

3.3.1 Archaeological features were present in both trenches. However, the most significant remains occurred within Trench 2, with a probable pit in Trench 1, although enigmatic, seemingly being of lesser importance.

3.4 Trench 1

3.4.1 Trench 1 (Fig 2) was the smaller of the two, a roughly 'L'-shaped intervention covering an area of 10m². The trench was moved 1m west from its intended position, due to the presence of several tree stumps, and the remnants of a modern concrete fence (Plate 1). However, it still remained within the footprint of the proposed garage.





Plate 1: Location of Trench 1 (pre-excavation)

3.4.2 Trench 1 was excavated to a maximum depth of 1.4m, this depth being attained in the southern half of the trench, where the underlying natural deposit (*102*) dropped away towards the south (Plate 2). The remainder of the trench had an average depth of 0.9m once topsoil *100* (0.4m thick) and subsoil *101* (0.5m thick) had been removed.



Plate 2: Trench 1 post-excavation (looking east)



3.4.3 Archaeological remains comprised a single feature (a probable pit; **103**; Fig 3), extending from the eastern limit of excavation. This measured 1.2m north to south with an observed width of 0.36m and depth of 0.35m. The single fill (deposit **104**) was a mid-brown silt-clay with frequent, fairly large stones (Plate 3). No finds were recovered.



Plate 3: Feature 103 within Trench 1

3.4.4 Due to the presence of existing structures adjacent to the area of investigation, it was not practicable to extend the trench in order to expose pit **103** fully. The pit appeared to be archaeological in nature but any interpretation of its date or function would be speculative.

3.5 Trench 2

- 3.5.1 Trench 2 was aligned north/south across the proposed footprint of the house (Fig 2). Again, the position had to be altered due to the presence of several piles of debris within the intended placement. The trench was moved 3m to the east, keeping its original alignment, which again was still within the proposed development footprint.
- 3.5.2 Trench 2 was excavated to a maximum depth of 1.9m (excluding an exploratory sondage within the base; Fig 4; Section 3.5.7). At the northern end, approximately 0.9m of overburden was removed, comprising topsoil 200 (0.4m thick) and subsoil 201 (0.5m thick; Fig 5). After a further 1m of excavation without the natural geology (deposit 205) appearing, it was considered that the trench must have been placed directly over a substantial feature, and excavation of the remainder of the trench continued to the south, with the natural geology (205) becoming visible halfway along its length, at 0.9m below the ground level. At the southern end of the trench, the depth of the overburden was shallower, with deposit 205, being visible at approximately 0.7m below the ground level.





Plate 4: Trench 2 post-excavation (looking north)

- 3.5.3 The presence of a substantial archaeological feature was therefore suspected early within the excavation of Trench 2. Once the trench was fully excavated, two features were identified: a large, east/west-aligned, ditch (204, Plate 4; Fig 4), in the north of the trench, and a modern rectangular pit to the south.
- 3.5.4 The large ditch occupied the northernmost 6m, although it was clearly much wider, with its northern edge lying outside the trench (Fig 5; Plate 4). Given the proximity of existing structures, debris and other obstructions, however, it was not possible to expand the trench to expose the ditch fully. As such, there are some anomalies within it that are not entirely understood.
- 3.5.5 Confusingly, in the north-western corner of the trench, a deposit of apparently natural geological material (207) occurred at *c* 1.6m below the ground level (Plates 4 and 5). This continued under the western edge of the trench and could not be further investigated, due to the depth of the trench and the presence of debris immediately beyond. It is therefore uncertain whether this is indeed a change in the profile and form of the ditch, perhaps even an intersection with another feature extending generally northwards, or whether this is actually redeposited material.





Plate 5: Anomalous redeposited or geological deposit 207 (looking west)

3.5.6 A sondage was excavated along the eastern section of the trench, at the southern edge of ditch **204** (Plate 6). The purpose of this was both to define clearly the cut of the ditch and also to test whether what seemed to be natural geology was indeed *in situ* or whether it was redeposited upcast. It was found to be the former, which, if truncation can be precluded, could suggest a level berm on the southern side of the ditch.





Plate 6: Southern cut of ditch **204** and sondage suggesting a possible berm (looking east)

3.5.7 A second sondage was excavated to establish the depth of **204**. This exploratory trench was excavated to a maximum depth of 2.6m below the present ground level, exposing the base of the ditch. There was the suggestion of a deeper slot running along its axis in the southern part of its base (Figs 4 and 5; Plate 7), which may tentatively be interpreted as a defensive 'ankle breaker'. No finds were recovered during the excavation.





Plate 7: Possible 'ankle breaker' in the base of ditch 204 (looking east)

3.5.8 The rectangular feature to the south was, initially, partially exposed, extending westwards beyond the limit of the excavation. The trench was expanded as far as possible to the west to expose more of this feature, so it could be excavated and understood. During excavation, several examples of modern debris were found, and the shape of the cut (straight long edges with sloping curves at either end) pointed to the pit having been machine-excavated. It has therefore been interpreted as a modern rubbish pit (Plate 8).





Plate 8: Modern rubbish pit in Trench 2



4 DISCUSSION

4.1 Reliability of field investigation

4.1.1 The evaluation was able reliably to identify archaeological remains within the area of proposed development, with features appearing in both trenches. Due to the presence of detritus and standing buildings, however, it was not possible to extend the trenches to expose these features fully.

4.2 Evaluation objectives and results

4.2.1 The results of the evaluation satisfied the original objectives (Section 2.1.2). The deposit sequence and the site formation processes were characterised. The presence and state of survival of archaeological features was determined, although these could not always be exposed in full. Although dating material was lacking, several of the archaeological features did not appear to be modern, being sealed below substantial deposits of topsoil and subsoil. The nature of the fills and the size of ditch 204 is consistent with it being a defensive Roman military feature. The findings were recorded as accurately and as fully as possible and have been presented in this document (Section 3). The following interpretation of these results and their significance should inform the planning process.

4.3 Interpretation

4.3.1 It seems likely that the east/west-aligned ditch (204; Section 3.5) within Trench 2 was related to the Roman military activity that is known in the vicinity of the site. Certainly, its size and profile (especially the provision of a possible 'ankle-breaker' at the base (Johnson 1983, 45-7)) would be consistent with this hypothesis, whilst the lack of associated finds (and, therefore, dating evidence) is not unusual in Roman military contexts (Symonds and Mason 2009). In view of its position, beyond the north-west corner of the stone fort (Burgh II), 204 may represent a defensive ditch in front of the fort wall. Alternatively, if the stone phase of Hadrian's Wall was realigned at some stage to meet the northern corners of the stone fort (Section 1.3.1), as geophysical evidence might suggest (Linford 1992; Breeze and Woolliscroft 2009), it could be part of the large ditch fronting the Wall, which is typically c 8m wide and c 2.75m deep (Breeze 2006, 62), though there is considerable variation in both size and profile (*ibid*). However, given the very limited exposure, it is not possible, on present evidence, to determine which of these hypotheses is the more probable. In either case, the chronology of the ditch must, in the absence of any dating evidence from the site, remain uncertain, since the date at which Burgh II was constructed remains a matter for debate (Austen 1994, 53; Hodgson 2009, 152), nor is it known at what date the Stone Wall may have been realigned to the northern corners of the fort. All that can be said regarding the chronology of 204 (assuming it was indeed associated with either Burgh II or the realigned Stone Wall) is that it probably dates somewhere in the period from the mid-late second century AD to the early third century, if present theories pertaining to the development and chronology of the stone fort and the Stone Wall at Burgh (Section 1.3.1) are broadly correct.



- 4.3.2 Evidence for civilian Roman settlement around the study area has largely been found to the south and east of Burgh II (Bidwell 1999, 178-9), and, indeed, none of the archaeological remains uncovered during the evaluation appeared to be related to Romano-British civilian activity. The precise significance of deposit 207, recorded at the north end of Trench 2, is unclear. That it might hint at an archaeological feature impinging on the ditch 204, seems likely, but it yielded no dating evidence and could not be characterised within the area investigated. That it had a direct stratigraphic relationship with the northern edge of the ditch seems probable, but this could not be established within the constraints of the evaluation trench.
- 4.3.3 There was no material evidence for medieval occupation. However, it is possible that ditch **204** remained open and visible, and may even have served as a boundary feature during this period.

4.4 Significance

4.4.1 As the fort at Burgh by Sands is one of the least understood along the Wall, any findings within its vicinity can be considered as significant to the understanding of its layout and construction history. This is also true of the Wall itself. Due to the fragmentary nature of the findings in this evaluation, and the limitations of such small trenches, any conclusions that can be drawn are limited. However, it is possible to speculate, based on its massive size, form and location, that ditch **204**, recorded in Trench 2, is of Roman military origin. Further, more extensive, archaeological excavation could establish this with greater certainty and provide more information regarding the dating and character of the ditch. This might also help with the understanding of the wider evolution of the frontier system, including the date of the construction of the Burgh II fort.



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APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1							
General o	descriptio	n	Orientation	N/S			
Trench co	ontaining	Length (m)	3.0				
natural geology of silty clay.					Width (m)	2.0	
					Avg. depth (m)	0.90	
Context	Type	Width	Depth	Description	Finds	Date	
No.		(m)	(m)				
100	Layer	-	0.40	Topsoil	-	-	
101	Layer	-	0.50	Subsoil	-	-	
102	Layer	-	-	Natural geology	-	-	
103	Cut	0.36	0.35	Cut of pit	-	-	
104	Fill	0.36	0.35	Fill of pit	-	-	

Trench 2							
General o	description	n	Orientation	N/S			
Trench co	ntaining t	wo large	Length (m)	10			
overlying	natural ge	eology of	silty clay		Width (m)	3.0	
					Avg. depth (m)	0.90	
Context	Туре	Width	Depth	Description	Finds	Date	
No.		(m)	(m)				
200	Layer	-	0.40	Topsoil	-	-	
201	Layer	-	0.50	Subsoil	-	-	
202	Fill	4.20	0.70	Fill of ditch 204: orange-	-	-	
				brown sandy silt with			
				angular stone inclusions			
				(5%)			
203	Fill	0.60	0.60	Fill of ditch 204 : orange-	-	-	
				brown sandy silt with			
				angular stone inclusions			
				(10%)			
204	Cut	6.00	1.60	Cut of east/west-aligned	-	-	
				ditch			
205	Layer	-	-	Natural geology	-	-	
206	Fill	3.00	0.60	Fill of ditch 204 : mid-grey	-	-	
				sandy silt			
207	Layer?	3.00	?	Possible natural geology	-	-	
208	Fill	5.50	0.40	Fill of ditch 204 : orange	-	-	
				silty sand with angular			
				stone inclusions (20%)			



APPENDIX B SITE SUMMARY DETAILS

Site name: The Pack, Burgh by Sands, Carlisle, Cumbria

Site code: BBS18

Grid Reference NY 3270 5920 **Type:** Evaluation

Date and duration: 20/03/18 – 21/03/18 (2 days)

Area of Site 0.12ha

Location of archive: The archive is currently held at OA, Mill 3, Moor Lane Mills, Moor

Lane, Lancaster, LA1 1QD, and will be deposited with Carlisle

Archives Centre in due course.

Summary of Results: Trench 1 contained a small undated pit. Trench 2 recorded a large,

east/west-aligned, Roman military-style ditch, with no finds, and a modern pit. It is possible that the ditch was associated with *Aballava* (known as Burgh II), the Hadrian's Wall fort, or the stone

phase of Hadrian's Wall.

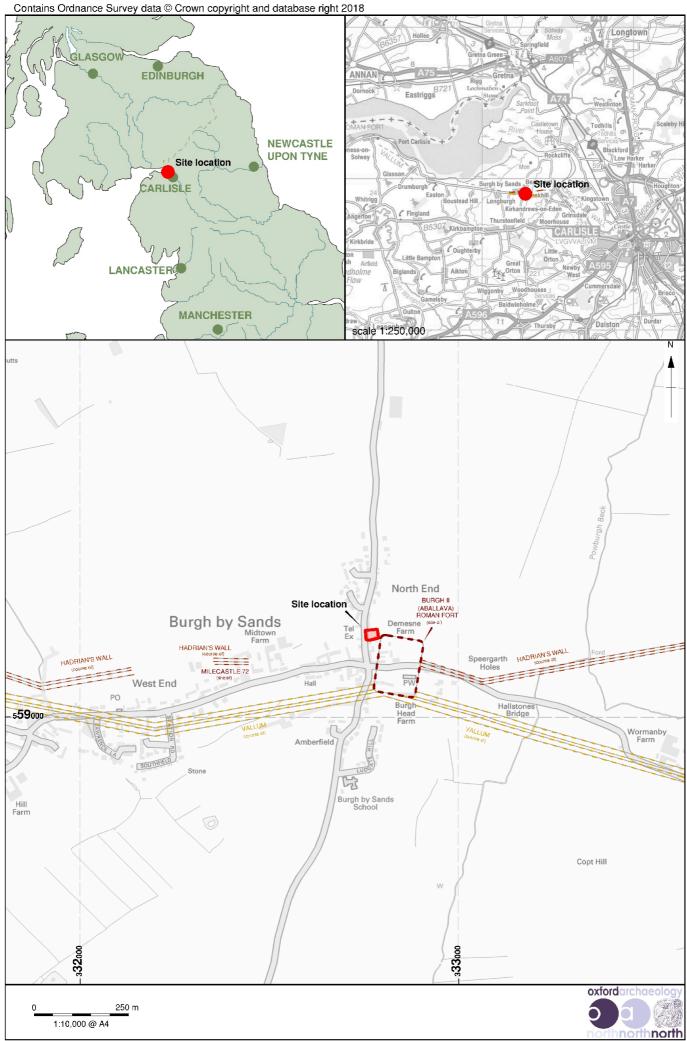


Figure 1: Site location

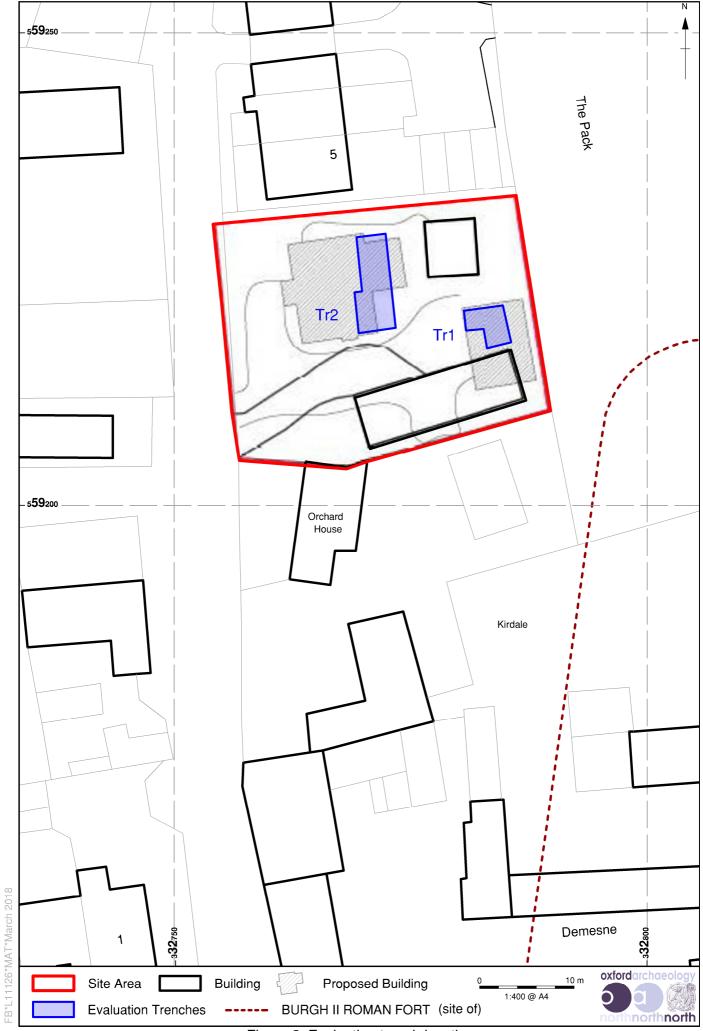


Figure 2: Evaluation trench location

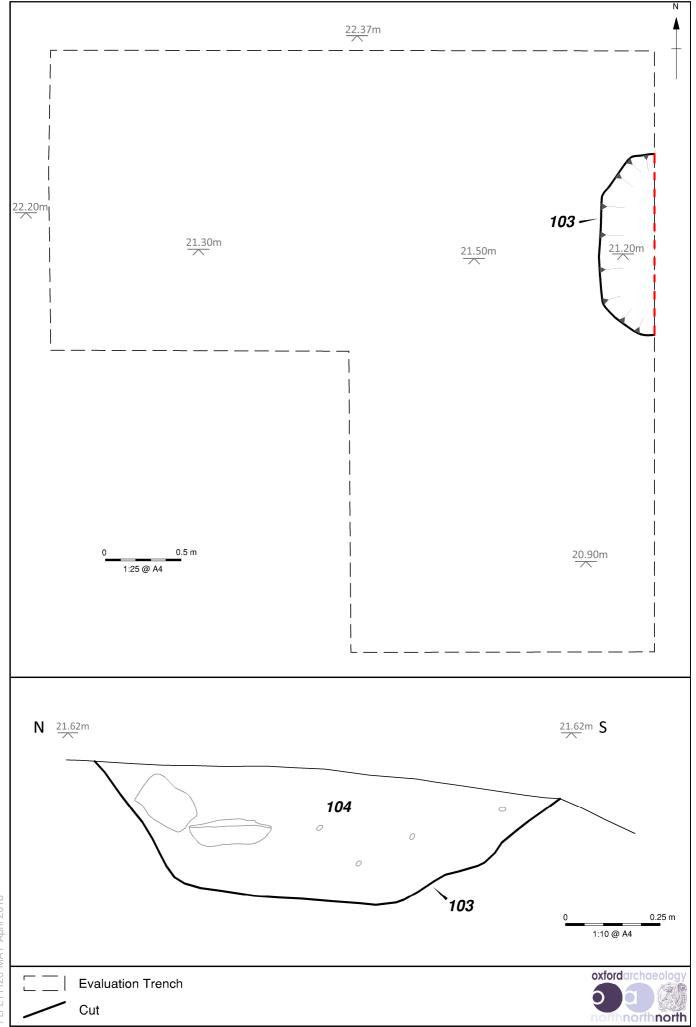


Figure 3: Plan of Trench 1 and section of pit 103

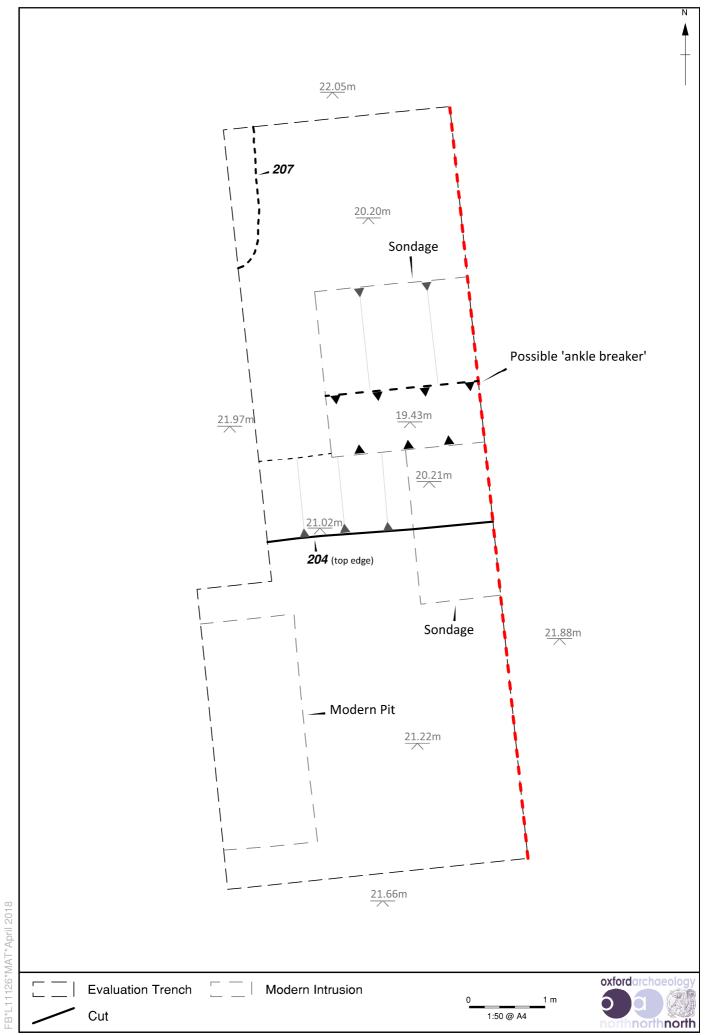


Figure 4: Plan of Trench 2

Figure 5: West-facing-section of ditch 204, in Trench 2

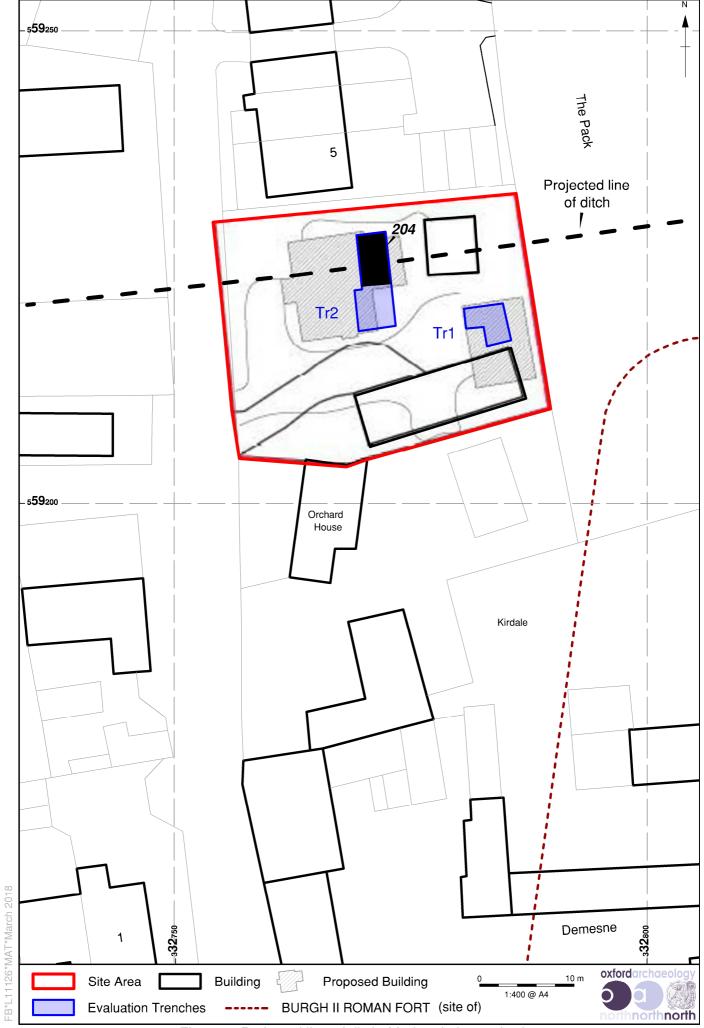


Figure 6: Projected line of ditch 204 in relation to the fort





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