Cresswell Pele Tower Community Archaeology Project

Evaluation Trenching

The west-facing elevation of Cresswell Pele Tower during the excavations.

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Archaeological Research Services Ltd

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ARS Ltd Report 2017/55
April 2017

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LIST OF ILLUSTRATIONS

EXECUTIVE SUMMARY

Project Name: Cresswell Pele Tower Community Archaeology Project. Evaluation Trenching
Site Code: CW17
Planning Authority: Northumberland County Council and Historic England
Geology: Pennine Middle Coal Measures overlain by till
NGR: NZ 29364 93356
Date of Fieldwork: February 2017
Date of Report: March 2017

The Cresswell Pele Tower Community Archaeology Project is led by Cresswell Parish Council and the Greater Morpeth Development Trust. Creswell Pele Tower is thought to date to the 14th or 15th century and represents a well-preserved example of a border tower house or 'Pele'. The tower is a Scheduled Monument (NHLE: 1014509) and a Grade II Listed Building (NHLE: 1042148).*

The archaeological evaluation trenching described in this document was undertaken as part of a Heritage Lottery Funded project which aims to remove the tower from the Historic England Heritage at Risk Register and also provide public access to the tower. The project will conserve the tower for future generations to enjoy. As well as the evaluation trenching, the current programme of archaeological work includes geophysical survey, fieldwalking and a watching brief. All aspects of the archaeological work have been conducted in collaboration with the local community allowing for local engagement with the project and the tower, and providing training and participation opportunities in heritage and archaeological activities and skills.

The aim of the archaeological evaluation trenching was to identify and assess archaeological features in the vicinity of Cresswell Tower in order to:

- *Inform on the presence, condition and potential significance of buried archaeology on the site*
- *delimit the extent of buried archaeological remains across the site*
- *determine the nature and date of any archaeological features encountered*
- *provide information on the form, function and development of the site over time including site phasing*
- *identify whether any further archaeological work would be required and whether any of the planned works on the site for visitor access and conservation have the potential to impact on any buried remains and what the best management responses might be to mitigate any such impacts*

A total of nine evaluation trenches were excavated within Fisheries Field (Trenches 1-9) to the east and south of the pele tower. A further three, hand-dug evaluation trenches (10, 11 and 12) were excavated in the vicinity of the tower.

Found within Trench 4 in Fisheries Field were two, intercutting, Early Bronze Age burial cists. The acidity of the soil meant that no bone had survived however the form of the cists is very typical of Early Bronze Age burials, such as those seen at nearby Low Hauxley (Waddington and Bonsall 2016). Also found within the evaluation trenches in

Fisheries Field was evidence for Stone Age activity in Trenches 6 and 9 in the form of stone tools and evidence of medieval ridge and furrow ploughing in Trenches 7 and 8.

The hand-dug trenches around the pele tower produced important new evidence for buried archaeological remains. The wall foundation of the front of the 18th century mansion house that once stood on the site was found within Trench 11. An important discovery in the same trench, however, was evidence for an earlier building consisting of a cobbled floor surface and a rough but substantial wall foundation on a different alignment to the tower and the Mansion House. Analysis of the pottery assemblage has placed it in the 12th-14th centuries, predating the tower and providing further evidence for a medieval building existing on the site prior to the tower's construction.

In hand-dug Trench 10 a well-built, stone-lined drain, a linear ditch and a stone-lined gully of unknown function and date were revealed. Significantly, Trench 10 also contained two pit features, one small and one very large, both containing a number of stones within their fills and some chipped flint flakes. The large pit also produced a very large lump of red ochre buried at depth below its upper stony fill and the small pit produced a substantial ironstone boulder below its stony fill.

1. INTRODUCTION

1.1 The Cresswell Pele Tower Community Archaeology Project is led by Cresswell Parish Council and the Greater Morpeth Development Trust. Creswell Pele Tower is thought to date to the 14th or 15th century and represents a well-preserved example of a border tower house or 'Pele'. The tower is a Scheduled Monument (NHLE: 1014509) and a Grade II* Listed Building (NHLE: 1042148).

1.2 The archaeological evaluation trenching described in this document was undertaken as part of a Heritage Lottery Funded project which aims to remove the tower from the Historic England Heritage at Risk Register and also provide public access to the tower. The project will conserve the tower for future generations to enjoy. As well as the evaluation trenching, the current programme of archaeological work includes geophysical survey, fieldwalking and a watching brief. All aspects of the archaeological work have been conducted in collaboration with the local community allowing for local engagement with the project and the tower, as well as providing training and participation opportunities in heritage and archaeological activities and skills.

2. SITE LOCATION AND GEOLOGY

2.1 Cresswell is located at the southern end of Druridge Bay. The tower is centred at NGR NZ 29364 93356 (Figure 1).

2.2 The tower and its surrounding grounds occupy a prominent position within Cresswell, on a raised area of land at a height of *c*.16m aOD, which provides clear views both up and down the coast to the north and the south and east out to sea.

2.3 Fisheries Field is an 'L'-shaped field located to the east and south of the tower and covers an area of approximately 11.57ha. The field's long axis runs from north-west to south-east. The elevation of the field ranges from 8m aOD in the northern corner of the field to 18m aOD in the far south-west. The field rises gradually from the east towards the west with the incline becoming more pronounced at the southern extent of the field. The south-west portion of the field is situated on a relatively flat plateau.

2.4 The solid geology of the site comprises Pennine Middle Coal Measures of mudstone, siltstone and sandstone overlain by superficial deposits of glacial till (BGS 2017).

Site name:	Cresswell Pele Tower
Date:	February 2017
Drawn by:	PC
Scale:	Varies

Key:

Site boundaries

N

Figure 1:
Site location

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3. AIMS AND OBJECTIVES

3.1 The aim of the archaeological evaluation trenching was to identify and assess archaeological features in the vicinity of Cresswell Tower in order to:

- inform on the presence, condition and potential significance of buried archaeology on the site
- delimit the extent of buried archaeological remains across the site
- determine the nature and date of any archaeological features encountered
- provide information on the form, function and development of the site over time including site phasing
- identify whether any further archaeological work would be required and whether any of the planned works on the site for visitor access and conservation have the potential to impact on any buried remains and what the best management responses might be to mitigate any such impacts

4. METHODOLOGY

4.1 A full evaluation trenching methodology is set out in the Written Scheme of Investigation that was compiled prior to the commencement of fieldwork (see Appendix II).

4.2 A total of nine evaluation trenches were excavated within Fisheries Field (Trenches 1-9) to the east and south of the pele tower. A further three, hand-dug evaluation trenches (Trenches 10–12) were excavated in the vicinity of the tower. Trench 10 measured 10m from north-east to south-west and 4.7m from north-west to south-east, in an 'L' shape. All the other trenches were simple linear trenches, usually 2m wide and varying lengths.

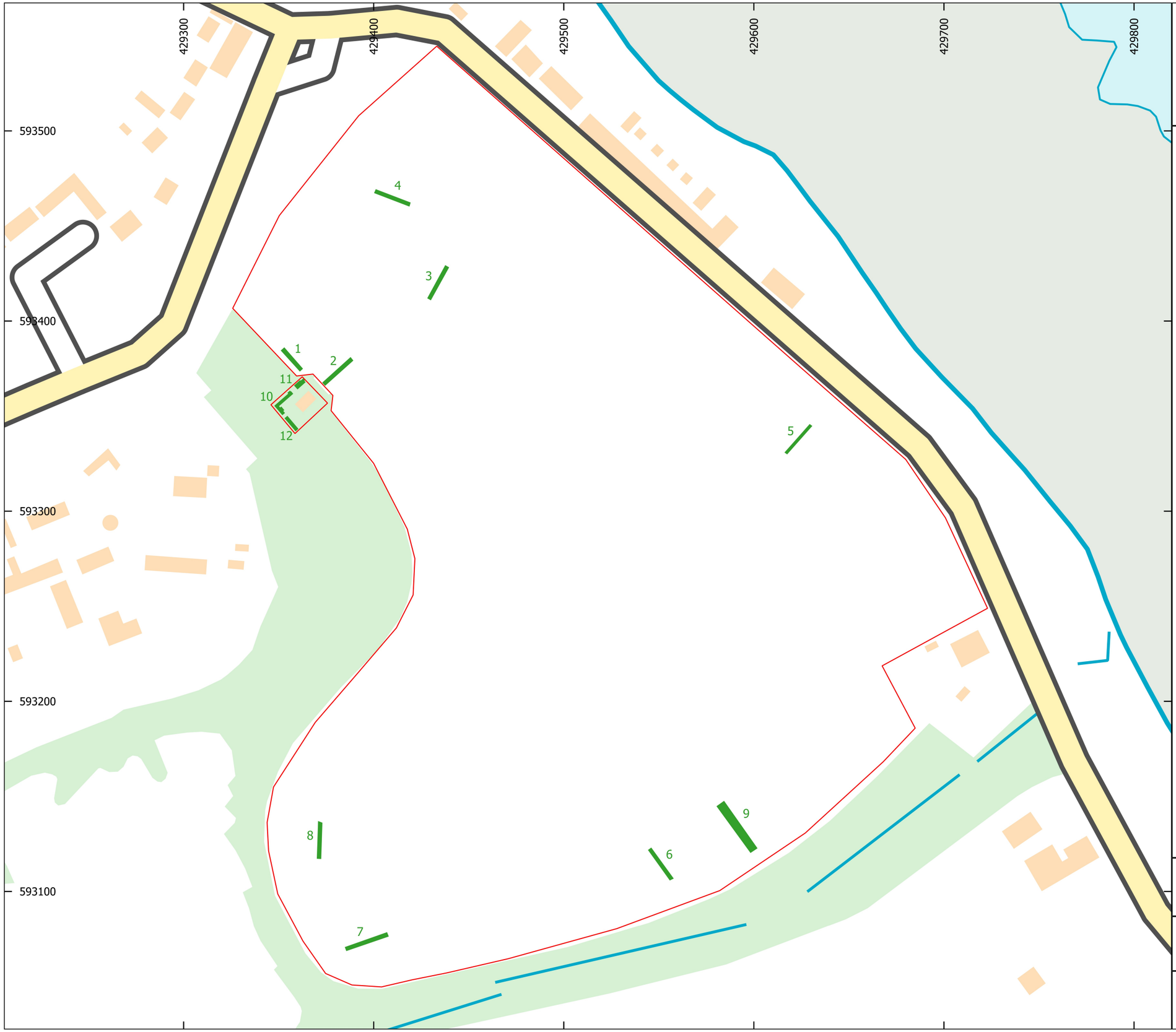

Figure 2:

Trench plan.

Scale = 1:2000 at A3

Key:

- Trenches
- Site boundaries

0 10 20 30 m

N

Site name: Cresswell, Northumberland
Date: February 2017
Drawn by: PC
Scale: 1:2000 at A3

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5. RESULTS

5.1 Trench 1

5.1.1 Trench 1 was located towards the northern end of Fisheries Field, 40m from the north-west corner, running parallel with the western boundary (Figure 2 and Figure 6). It was orientated from north-west to south-east. The trench measured 15 x 2m and was excavated to a maximum depth of 1.3m BGL (below ground level).

5.1.2 Trench 1 was excavated through ploughsoil (101) which averaged 0.23m thick and covered the entire field. This was situated above a coarse deposit of made ground which consisted of crushed sandstone, brick and mortar amongst grey sandy clay (102). This deposit also contained abundant fragments of coal which is present throughout the local geology. Beneath this layer of made ground was dark grey sandy clay (103) which contained no inclusions and is likely to be the original topsoil. At the southern extent of the trench soil (103) was found to be sitting directly upon natural till (105) which continued beyond the limits of excavation. At a distance of 3.2m from the southern extent of the trench, what appeared to be a large circular cut was present within the natural clay. Filling this 'cut' was an additional deposit of made ground consisting of sandstone rubble and brick (104) which continued beyond the limits of the excavation (Figure 3). It is possible that this was a large pit, possibly for clay extraction or possibly for the purpose of dumping waste. However, it is also a possibility that the natural clay (105) dropped away at this point and that (104) had been deposited in order to level out the ground prior to the construction of the 18th century mansion house that once adjoined the pele tower. It is clear that the deposits exposed in this trench are highly disturbed and represent a deliberate build-up of the ground surface for the construction of the Mansion House.

Figure 3. Trench 1, looking south-east (scales = 0.5m graduations).

Figure 4. Trench 1, north-east facing section (long scales = 0.5m graduations).

5.2 Trench 2

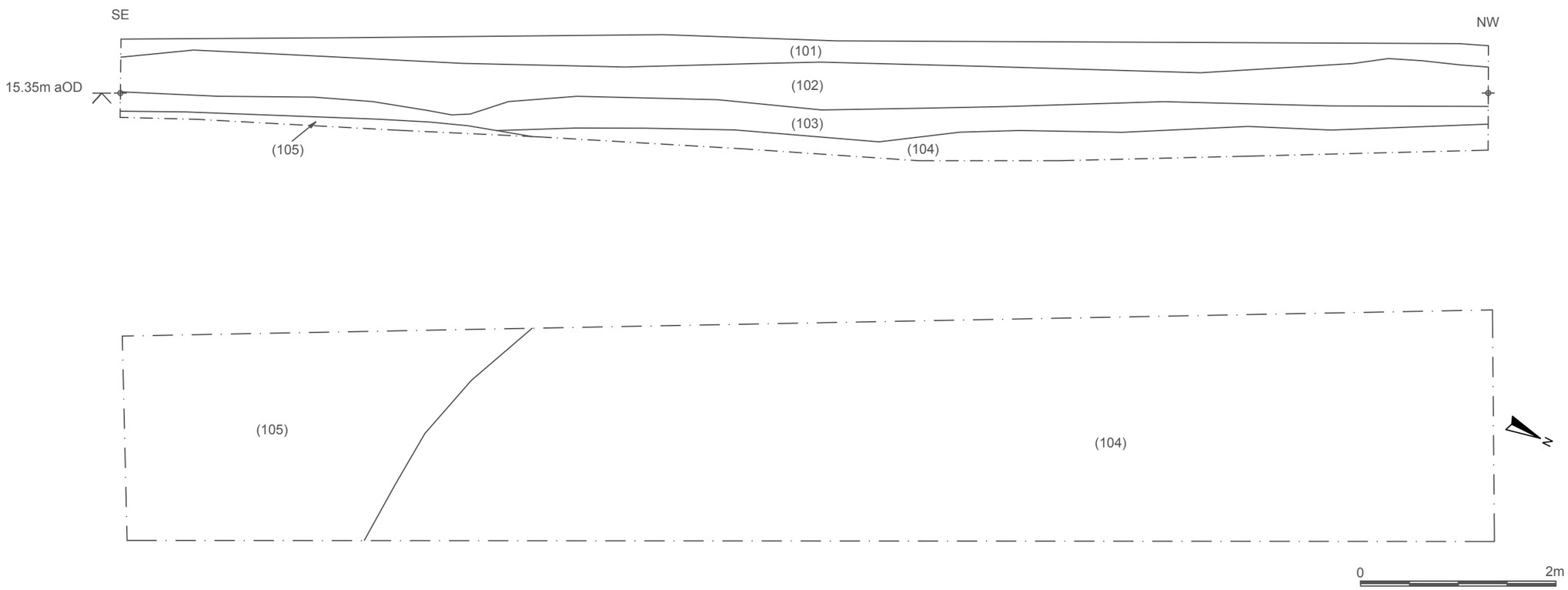
5.2.1 Trench 2 was located *c.*16m to the south-east of Trench 1, running at right angles to the western field boundary, and was orientated from south-west to north-east (Figure 2 and Figure 6). The trench measured 2 x 20m and was excavated to a maximum depth of 0.8m BGL.

5.2.2 Trench 2 was excavated through ploughsoil (201) onto a natural deposit of grey clay (202). At the western end of the trench only, clay (202) overlay a layer of crushed sandstone (203) which was in turn above a layer of ash and coal (204). A deposit of dark grey clay (205) was present at the base of the trench. These deposits have been interpreted as layers of made ground, probably deposited in order to build up the level of the field. It is possible that until this time, the pele tower had been sat upon a small mound, possibly within a small barmkin, and that the field was levelled after the demolition of the barmkin prior to the construction of the 18th century Mansion House. Immediately upon stripping the trench started to fill with water. With wet weather throughout much of the excavation the trench never cleared of water and it got deeper as time went on. This made recording awkward and not as detailed should the trench have not become submerged. Further excavation is required in this area to fully understand what is going on on this part of the site, however, any further excavation should take place in the drier months of the year.

5.2.3 Situated in the centre of Trench 2 was a 4.3m wide setting of medium-sized stones (206) set within grey clay deposit (205) (Figure 5) running north-south. Due to the flooding of the trench stone deposit (206) could not be fully investigated. It is possible that this feature represents the robbed-out remains of a wall base associated with a potential barmkin which may have once encircled the pele tower.

Figure 5. Trench 2, looking north-east with the raised area within the water being the main area of the north-south running stone setting (206). The trench was unable to be fully excavated due to the water level (scales = 0.5m graduations).

Trench 1



Trench 2

Figure 6:

Plans and sections of Trenches 1 and 2.

Scale = varies at A3

Key:

5.3 Trench 3

5.3.1 Trench 3 was situated *c*.51m to the north-east of Trench 2. The trench was orientated south-west to north-east and measured 2 x 20m (Figure 2 and Figure 7). The trench had a maximum depth of 0.7m BGL.

5.3.2 Deposits in the trench included very dark brown sandy clay topsoil (301) overlying paler brown sandy clay subsoil (302) and finally stiff, yellow natural clay (till) at the base of the trench. The trench did not contain any archaeological features or buried land surfaces.

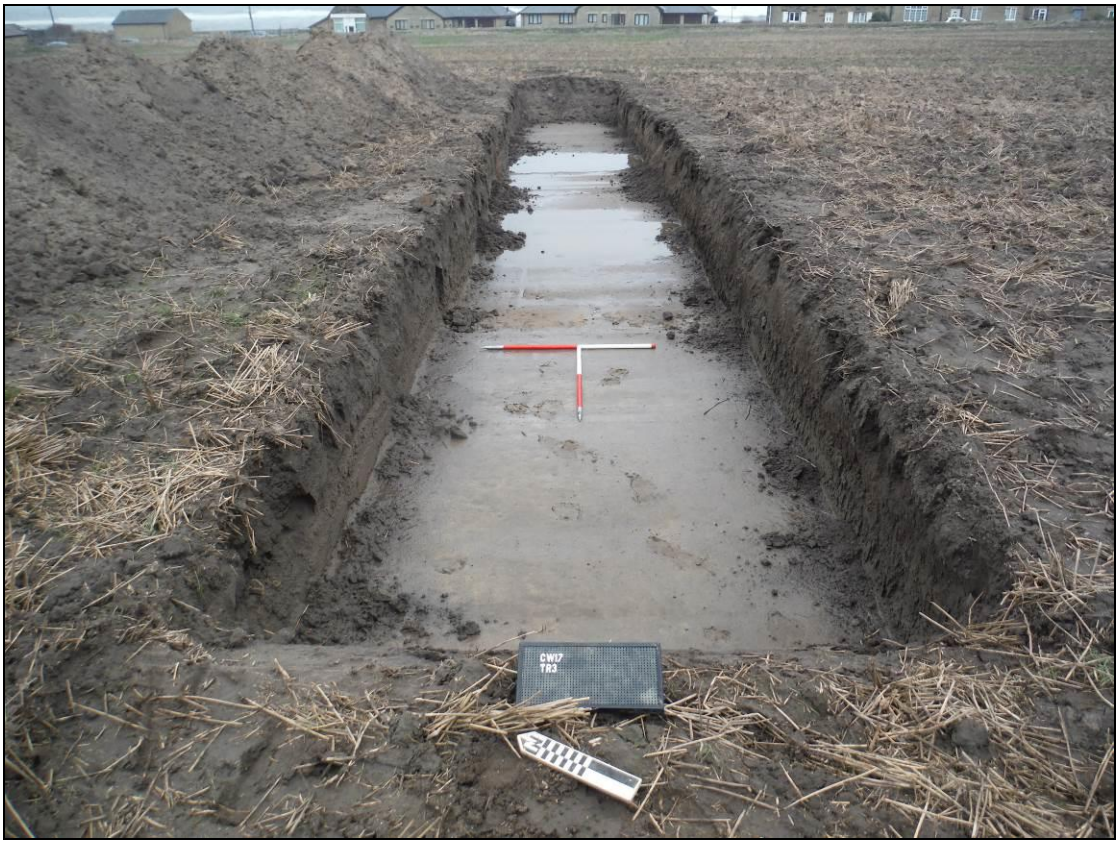


Figure 7. Trench 3, looking north-east (scales = 0.5m graduations).

5.4 Trench 4

5.4.1 Trench 4 was located *c*.36m to the north-west of Trench 3 and positioned to test an area of ground in proximity to the natural spring situated to the immediate west of the trench. It was orientated west-north-west to east-south-east (Figure 2, Figure 8 and Figure 16). The trench measured 2 x 20m and had a maximum depth of 1.2m BGL.

5.4.2 The deposit sequence within Trench 4 consisted of dark brown sandy clay topsoil (401) overlying a thick deposit of wind-blown relict dune sand (402). The sand did not display any visual evidence of laminations suggesting the possibility that it may have been deposited during a single, high energy event. It is preliminarily thought that this sand deposit is part of the same one observable all the way along the length of Druridge Bay, the laying down of which has been dated to the early 1st millennium cal BC during the Late Bronze Age-Early Iron Age transition at Low Hauxley (Waddington and Bonsall 2016). Beneath the sand (402) was a dark brown sandy palaeosol (403). A brown/grey relict subsoil (404) existed beneath buried topsoil (403). This was, in turn, sat upon the natural yellow clay till (408) (Figure 10).

5.4.3 Exposed within the central portion of the trench were two, stone-built cist boxes that had been cut through palaeosol (403) and into relict subsoil (404) and till (408). Neither cist contained any human remains, probably due to the acidity of the soil. The lower, earlier of the two cists (hereafter Cist 1), measured 0.46 x 0.88m internally (Figure 10) and had been constructed using a number of medium-sized, flat sandstone slabs with smaller stones used to fill in the gaps between them. A number of flat stones lined the base of the cist along with a 'pillow stone' at its north-west end upon which the buried person's head may have rested (Figure 11). During the machine excavation of this trench one of the capstones for this cist was dislodged and this gave rise to the recognition of the potential for a buried feature to survive here. It was of insufficient size to cover the cist and so several capstones would have originally been used. The fill of the cist (409) was a dark grey sand that had percolated into the void subsequent to the burial and probably after the dune sand was deposited over the top of the burials. The height at the base of Cist 1 was 9.54m aOD. No small finds were recovered from the cist fill.

5.4.4 The upper, later Cist 2 cut the eastern end of Cist 1 and had truncated it so that the original, eastern slab of Cist 1 was no longer present. Cist 2 measured 0.6 x 0.8m internally and was orientated north-west to south-east. Cist 2 had been constructed in a very similar fashion to Cist 1 in that a number of medium-sized flat sandstone slabs had been used to create a box. The cist had flat stones lining the base and a 'pillow stone', similar to Cist 1, situated at its east end (Figure 12). The fill of Cist 2 (413) was dark grey sand unable to be differentiated from the filling of Cist 1. The height at the base Cist 2 was 9.68m aOD and was therefore 0.14m higher than the base of Cist 1.

5.4.5 Located to the north-west of the two cists was a deep, circular posthole (410). The feature measured 0.49 x 0.5m wide and was 0.4m deep. The sides of the posthole were very steep and it had a flat base. The fill of the feature consisted of very dark grey sand which contained a number of large rounded stones that had been deliberately placed within it. The depth of the feature and the steepness of the sides as well as the stone packing suggests that it most probably held a straight timber measuring at least

c.0.45m wide. This may have been as a marker or totem, indicating the location of the cists.

5.4.6 A narrow linear ditch (415) was also noted within the central portion of the trench, running in a north-east to south-west direction (Figure 9). The cut of the ditch [416] was steeply sided with a concave base and the fill of the ditch (415) consisted of grey sand containing no inclusions. The fill of the ditch produced sherds from an unusual vessel that is probably a cooking pot due to the sooting and discolouration on the fabric. It could date to the 12th or early 13th century (see Section 6.4 - Pottery).

5.4.7 Initially it appeared as though Cist 2 was cutting linear ditch (415) and was therefore later than it, however on inspection it became clear that the ditch was, in fact, later then the cists and that the south-east end of Cist 2 had been left in position when the ditch was cut, although any capstone at this end of the cist had been removed when the linear ditch was cut. It was not clear from the section at what depth the linear ditch had been cut from, that is, whether it had been cut through the sand dune deposit (402) or whether it had been cut through the earlier palaeosol (403 and 404) and into till (408) prior to the deposition of the dune sand.

5.4.8 No small finds were recovered from the cists. However, the linear ditch fill (415) did produce some chipped flint fragments a limpet and periwinkle shell in addition to the two sherds of unusual pottery. The fills of the cists and the linear ditch were sampled for flotation but very little organic material was present and no samples suitable for radiocarbon dating were recovered. The sea shell could potentially provide a date but they are from the linear ditch fill and therefore could be residual material that was incorporated into its backfill or possibly material that came out of Cist 2 after it was disturbed. Either way its insecure context means they are not ideal samples for dating.

Figure 8. Trench 4, looking south-east. The cists can be seen within the central portion of the trench (scales = 0.5m graduations).

Figure 9. Ditch (415) after excavation (scale = 0.5m graduations).

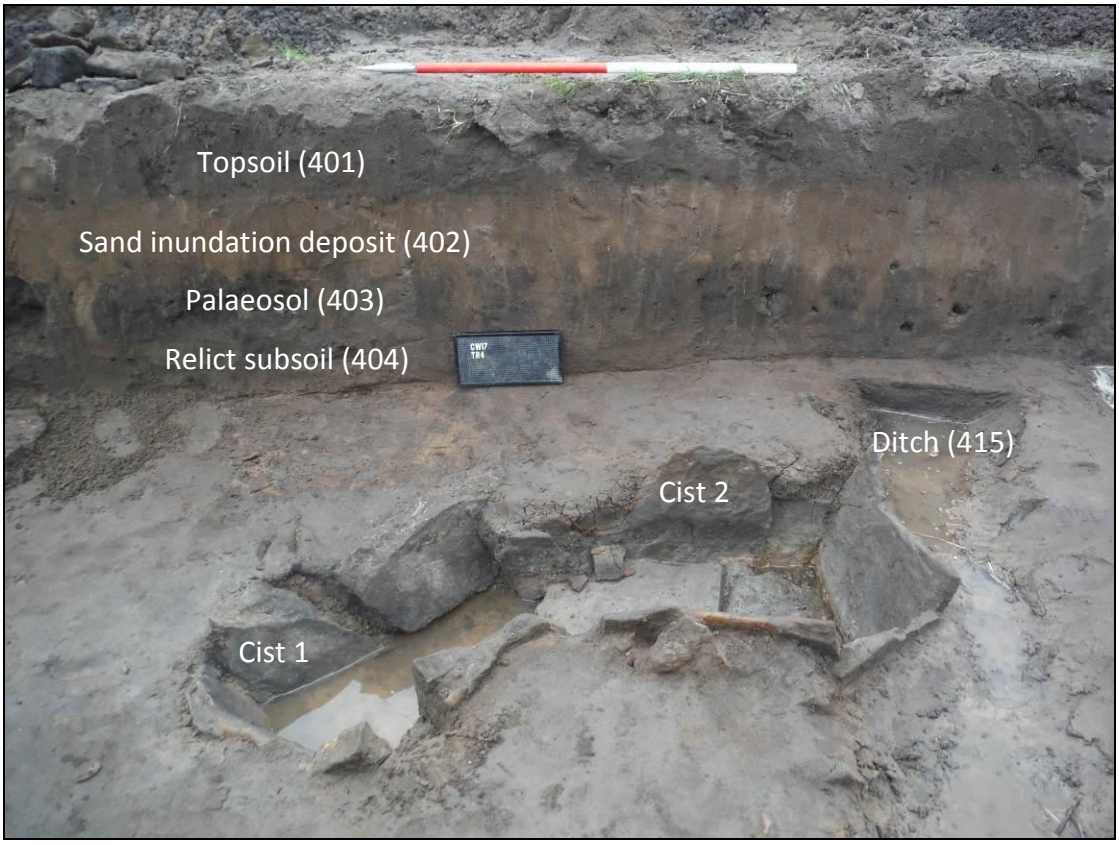


Figure 10. The two Early Bronze Age burial cists within Trench 4 after being excavated. The deposit sequence can be seen in the trench section (scales = 0.5m graduations).

Figure 11. Cist 1 showing the 'pillow stone' *in-situ*. Scale = 0.25m.

Figure 12. Cist 2 showing the 'pillow stone' *in-situ*. Scale = 0.25m.

Figure 13. Posthole (410) after partial excavation showing the large stones, *in-situ*. Scale= 0.25m.

5.5 Trench 5

5.5.1 Trench 5 was situated close to the eastern field boundary, 132m from the south-east corner of the field. The trench measured 2 x 20m and was orientated north-east to south-west (Figure 2, Figure 14 and Figure 16). The trench had a maximum depth of 1.09m BGL. The purpose of this trench was to investigate the deposit sequence within this part of the field.

5.5.2 Deposits within the trench comprised, from the top downwards, dark brown topsoil (501) overlying brown medium-fine textured sand layer (502) (Figure 15) which is an extensuion of the buried dune sand evidenced in Trench 4. Beneath this was a layer of darker, organic material (503) representing a relict palaeosol which in turn directly overlay the natural, stiff, yellow clay till (504).

Figure 14. Trench 5, looking south-west (scales = 0.5m graduations).

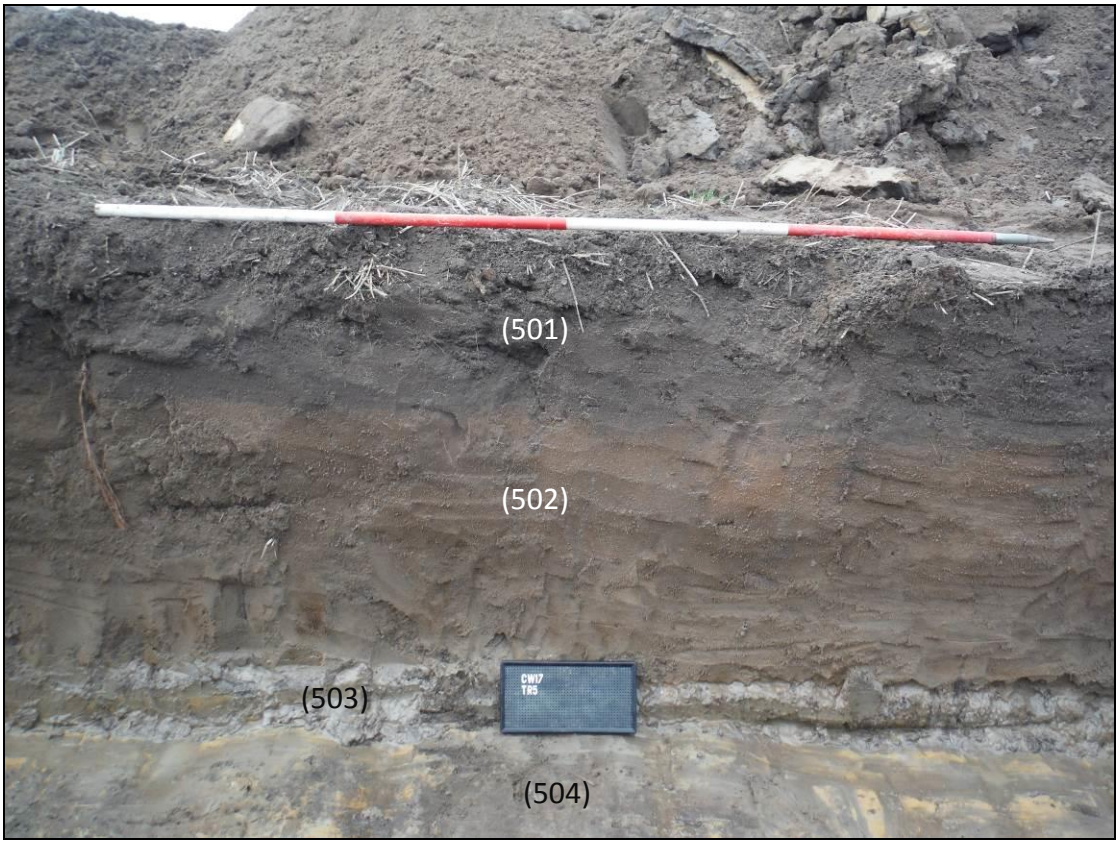
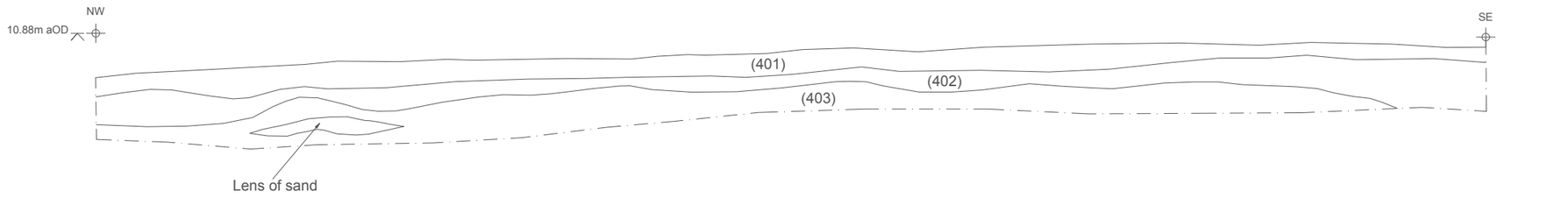


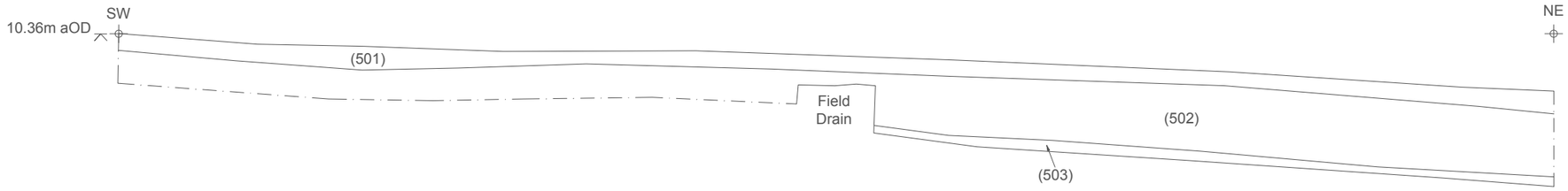
Figure 15. Trench 5, south-east facing section (scale = 0.5m graduations).

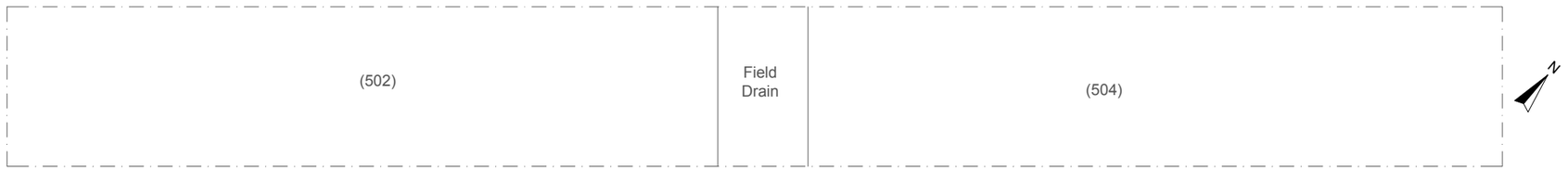
Trench 4



0 4m

Trench 5





0 4m

Figure 16:

Plans and sections of Trenches 4 and 5.

Scale = 1:75 at A3

Key:

N

5.6 Trench 6

5.6.1 Trench 6 was located towards the southern extent of Fisheries Field, *c*.20m from the southern field boundary. The trench was orientated north-north-west to south-south-east and measured 2 x 20m. Trench 6 was excavated to a maximum depth of 0.33m BGL (Figure 2 and Figure 17).

5.6.2 The deposits within Trench 6 included dark brown sandy clay topsoil (601) which measured 0.33m deep and which in turn lay directly above the natural yellow clay till (602). There were no archaeological features or buried land surfaces within Trench 6.

Figure 17. Trench 6, looking north-west (scales = 0.5m graduations).

5.7 Trench 7

5.7.1 Trench 7 was located *c*.147m to the west of Trench 6, towards the western boundary of Fisheries Field (Figure 2). The trench was orientated west-south-west to east-north-east and measured 2 x 23.5m with a maximum depth of 0.3m BGL (Figure 18 and Figure 20).

5.7.2 The deposit sequence within Trench 7 comprised dark brown topsoil (701) which measured 0.3m thick and directly overlay natural yellow clay till (702). Cut into the till at intervals of *c*.3.7m from each other were three parallel wide furrows representing past 'ridge and furrow' ploughing activity. The fill of the furrows was brown sandy clay (703), (705) and (707). Each furrow measured *c*.3.6m wide and was orientated north-north-west to south-south-east. The width of the furrows suggests that they were created by ox or horse-drawn ploughs and therefore are considered to be more likely to be of medieval than post-medieval or Victorian date.

Figure 18. Trench 7, looking west, showing three parallel plough furrows (scales = 0.5 graduations).

5.8 Trench 8

5.8.1 Trench 8 was situated *c*.50m to the north-north-west of Trench 7 (Figure 2). The trench was orientated from north to south and measured 2 x 20m in length. The trench had a maximum depth of 0.3m BGL (Figure 19 and Figure 20).

5.8.2 The deposit sequence within Trench 8 comprised dark brown topsoil (801) which measured 0.3m thick and directly overlay natural yellow clay till (802). Cut into the till were two parallel wide furrows representing past 'ridge and furrow' ploughing activity that cut across the trench at an oblique angle from north-west to south-east. The fill of the furrows was brown sandy clay and were not considered worth excavating. The width of the furrows suggests that they were created by ox or horse-drawn ploughs and therefore are considered to be more likely to be of medieval than post-medieval or Victorian date. They are considered to be part of the same ridge and furrow activity as that evidenced in Trench 7 as they are on the same alignment.

Figure 19. Trench 8, looking south-east, showing two wide furrows cutting across the base of the trench at an oblique angle, although they are on the same alignment as the furrows observed in Trench 7 (scales = 0.5m graduations).

Trench 7

0 4m

Trench 8

0 4m

Figure 20:

Plans of Trenches 7 and 8.

Scale = 1:75 at A3

Key:

5.9 Trench 9

5.9.1 Trench 9 was located 41m to the east of Trench 6 and was orientated north-north-west to south-south-east (Figure 2). The trench measured 4 x 40m and had a maximum depth of 0.41m BGL (Figure 21).

5.9.2 Trench 9 was positioned in order to test the results of the fieldwalking that was carried out in Fisheries Field in January 2017 (Cockburn 2017). A distinct concentration of chipped Mesolithic flint material had been recorded on the slope in the southern area of the field and Trench 9 was excavated immediately to the west of it, upslope, where the lithics are likely to have originated on an area of plateau.

5.9.3 The deposit sequence comprised a dark brown topsoil (901) overlying the upper, 'brash' layer of the natural sandstone bedrock (903) which lay close to the surface in this part of the field. Natural brown/red clay (902) had settled into the gaps within the brash (weathered upper bedrock horizon). This trench was cleaned by hand and produced a number of chipped flints and flakes. The conclusion made in the fieldwalking report (Cockburn 2017), based on the concentration of Mesolithic lithics, was that the flat plateau, in the very south-west part of Fisheries Field, is most likely to have been the location of some form of Mesolithic site. A stream runs along the southern boundary of the field just a few metres beyond the south end of the evaluation trench, providing a nearby fresh water source, and local beach flint from the nearby shore provided the raw material for much of the stone tool material found within the trench but also from the fieldwalking. The lithics picked up during the fieldwalking had been moved from their original location due to ploughing, exacerbated by the natural slope of the land which falls to the east, but the results from the evaluation suggest that most of this material did indeed originate from this area of dry plateau immediately upslope from the main flint scatter.

Figure 21. Trench 9, looking south-east with white tags indicating the location of chipped lithics encountered during the trowel cleaning of the top of the brash layer (scales = 0.5m graduations).

5.10 Trench 10

5.10.1 Trench 10 was the first of the trenches to be opened in the vicinity of the pele tower (Figure 2 and 26). An initial trench measuring 4.6 x 2m was excavated immediately to the north-west of the tower, in a north-east to south-west orientation. This trench was extended at various points throughout the excavation so that it ended up being an 'L' shape, measuring 10m from north-east to south-west and 4.7m from north-west to south-east.

5.10.2 The trench was excavated through very dark brown clay silt topsoil and leaf litter (1001) which extended across the wooded area surrounding the tower. Beneath the topsoil, at a height of 16.3m aOD and 0.18m BGL, was a layer of crushed sandstone with brick rubble and broken roof tiles (1002) (Figure 22). This is evidently demolition material that was used to level the ground before the wooded area was established. It was created during the robbing-out of the mansion house that had been built on to the north-east and south-west elevations of the pele tower, in two separate phases, in the 18th century. Phase 1 of the construction consisted of the main mansion house building which had a double pitched roof and extended to the north-west from the north-west pele tower elevation wall. The construction groove for the gable end of this pitched roof can still be seen in the north-west pele tower elevation wall (Figure 34). Phase 2 of the construction saw the addition of a single-storey extension with a single pitched roof which abutted the Phase 1 construction and wrapped around the south-east elevation of the pele tower (Figure 32). Evidence of this can also be seen on the north-west pele tower extension wall where the angle of the roof pitch groove changes.

5.10.3 Demolition deposit (1002) extended across most of the trench. The demolition deposit could be seen to fill a robber trench cut [1012] for what had evidently been the later phase western wall of the Mansion House. Deposit (1008) was dark brown/grey sandy clay containing occasional stones that produced sherds of medieval green-glazed pottery. Deposit (1008) was present only at the south-west extent of Trench 10. At the western corner of Trench 10, a patch of crushed mortar (1013) formed part of the demolition deposit (1002) evidently resulting from the robbing out of the Mansion House west wall.

5.10.4 Layers (1002), (1008) and (1013) were removed to a depth of 0.39m BGL onto a deposit of grey loamy silt (1003) which extended across the trench, increasing in depth from east to west and which probably represents the surviving basal layer of the original topsoil. Cut through this deposit and into the natural yellow clay till (1007) beneath, at the very northern corner of Trench 10, was a brick-built square structure (1004) (Figure 23). This feature measured 0.6 x 0.54m internally and had been constructed using one row of red bricks bonded with lime mortar and laid with a stretcher bond. Situated within the confines of the square structure was a corroded metal pipe with a diameter of 0.25m. This feature is most probably the foundation of a domestic appliance that was once within the 18th – 19th century Mansion House, such as part of a boiler or hot water system.

5.10.5 Also cut through deposit (1003) and into the clay till was a narrow socket running in a roughly north-east to south-west direction. Set within the socket was a remarkably well made culvert or drain formed primarily by flat, thin sandstone slabs (1006), angled towards each other at the top so as to create a triangular profile (Figure 24). The cut for this feature was context [1009]. Smaller, cobble-like stones had then been used to fill the gaps between the flat slabs and the socket's edge to keep the slabs in place. A partial, hand-made red brick was noted in the drain construction, although it is not clear whether it was a later patch repair or was contemporary with the original drain construction. The feature had suffered some truncation by the time of excavation, presumably when the mansion had been demolished, but it was well-preserved at the western end of the trench. The base of the ditch was unlined and instead a ridge had been created within the clay at the base of the ditch on either side of it for the slabs to sit in. There was a noticeable drop in height of 0.13m from the western end of the feature to the eastern end which allows for the conclusion that it was a drain, potentially used to collect excess ground water and transport it away from the site where it would have discharged into Fisheries Field, and eventually towards the shore beyond. It is possible that the drain was created prior to the construction of the 18th century Mansion House and it may even relate to the medieval use of the pele tower, being later re-used as a drain below the Mansion House extension. The stonework is quite remarkable and somewhat unusual and therefore an early origin for this feature cannot be discounted.

5.10.6 Towards the western end of the drain, on its southern side, was a narrow brick feature (1005) which entered the trench from the south-east and ran towards the drain where it terminated (Figure 25). The feature comprised two rows of red bricks laid with a stretcher bond, end-to-end within a linear cut [1011] so that a gap of 0.13m was left between the two rows. These bricks possibly represent the truncated remains of a later drain that was constructed to run into the main stone drain (1006).

5.10.7 At the western end of Trench 10, once deposit (1003) had been removed, a shallow but distinct cut [1020] was noted within the natural yellow clay running parallel with the south-west elevation of the pele tower. This cut is the same as cut [1012] which was seen at a higher level within the deposit sequence and was created for the construction of the Phase 2 Mansion House west wall foundation. Cut [1020] was possibly created by the weight of the wall pressing the stones into the natural clay (1007). The cut was only visible for a short distance from south-east to north-west before it graded out.

5.10.8 A shallow, linear cut [1023] was noted at the extreme north-east end of Trench 10, cut through the natural clay. This cut was 0.05m deep and 0.5m wide. Due to the change in the pitch of the mansion house roof which is demonstrated by the groove still visible in the north-west pele tower elevation wall, it was determined that this cut belonged to the west wall of the Phase 1 mansion house construction (Figure 33).

5.10.9 Also at the western end of the trench, to the north-west of cut [1020] was a very substantial sub-circular pit (1022) sealed below the demolition layer and a short surviving length of the mansion House's Phase 2 west wall foundation (1015) composed of five roughly-dressed sandstone blocks, displaying no evidence of bonding material, that were set in alignment and which married up with the cut of the wall's foundation layer [1020] (Figures 23 and 30). The short length of the stone foundation wall (1015) measured 1.12 x 0.49m and had survived because they sat at a slightly lower level than the surrounding surface as they had slumped due to having been directly over a large stone-lined pit (1022). It is possible that additional stones to the south were also part of the foundation but that they had become dislodged (see Figure 30). Only one course of the foundation survived and this is the only surviving structural evidence for the Phase 2 south-west wall of the mansion house found during the evaluation.

5.10.10 The large stone-filled pit (1022) measured 2.27m from north-west to south-east and 2.39m from south-west to north-east, although the north-east extent of the pit was not exposed due to the limited extent of the trench (Figure 27). Time restraints meant that the pit was not fully excavated and the base was not reached. The cut of the pit [1025] was steep-sided and the fill consisted primarily of boulders, mostly slightly rounded beach cobble material, around which a brown, finely textured silty sand (1018) had percolated down after the initial rock-filling of the pit had taken place. This was further evidenced by the discovery of voids within the fill of the pit during the excavation of the non-completed section. The pit fill (1022) produced three tiny sherds of medieval pottery as well as four undiagnostic chipped flints. The outstanding find so far from this remarkable pit, also found within fill (1022), was a very large lump/boulder of red ochre measuring 0.48 x 0.32m (Figure 27 and Figure 28). Red ochre was commonly used within Early Bronze Age funerary contexts, possibly as a representation of blood, but it is by no means clear whether this is a burial pit. Indeed it could well turn out to have had a completely different purpose. While red ochre is occasionally found within archaeological contexts, a lump as large as the one found at Cresswell is very uncommon. While the majority of the large stones within the fill of the pit were sandstone, two very dark, virtually black, stones were recovered immediately above and to the east of the red ochre boulder that was in a central position at a depth of 0.33m below the pit's surface, and these may also have been specially selected due to their colour (Figure 29).

5.10.11 Located immediately to the south-east of brick structure (1004) at the eastern end of Trench 10, and sealed by the demolition layer (1002) and cut directly into the clay till (1007), was a circular pit (1024) measuring 0.63m in diameter (Figure 30). The upper part of the pit was packed with large stones and deliberately selected smaller stones that had been used to plug the gaps between the large stones and the pit edge. A medium-sized ironstone boulder had been intentionally placed centrally at the base of the pit (Figure 31). A single chipped flint was recovered from the pit fill but it is not clear whether this is associated with the functional use of the pit or whether it is residual material from, earlier Stone Age activity that has become incorporated into the pit when it was filled.

Figure 22. Trench 10 after initial excavation and removal of the topsoil overburden (scales = 0.5m graduations).

Figure 23. Square brick structure (1004) (scale = 0.5m graduations).

Figure 24. Stone-lined drain (1006) (scales = 0.5m graduations).

Figure 25. Brick drain (or possible building foundation) that ran into stone drain (1006) (scale = 0.5m graduations).

Figure 26. Large stone-filled pit (1022) looking east before excavation showing the remains of wall foundation (1015) within the red box (scales = 0.5m graduations).

Figure 27. Large, stone-filled pit (1022) after incomplete half-sectioning showing the location of the large boulder of red ochre in situ (scale = 0.5m graduations).

Figure 28. The large boulder of red ochre that was recovered from pit (1022) (scale = 8cm).

Figure 29. One of the large, dark grey boulders recovered from pit (1022) (scale = 8cm).

Figure 30. Small, stone-filled pit (1024) after half-sectioning (scale = 0.25m). The ironstone boulder lays sealed below the largest filling stone.

Figure 31. The ironstone boulder that had been placed at the base of pit (1024) (scale = 8cm).

Figure 32. The south-west pele tower wall elevation with an arrow showing the difference in colour between the upper and lower masonry. This indicates where the 18th century mansion house roof would have extended to as it wrapped around this side of the building from the pitched roof groove visible on the north-west elevation. This also lines up with the evidence for the Phase 2 west wall foundation of the Mansion House in Trenches 10 and 12.

Figure 33. Wall foundation cut [1023] and the north-west pele tower elevation wall showing where the 18th century mansion house would have abutted it. Scale = 0.5m graduations.

Figure 34. The north-west elevation wall of the pele tower showing the construction groove for the 18th century mansion house pitched roof. Note where the pitch changes angle, demonstrating the two separate construction phases of the 18th century mansion house.

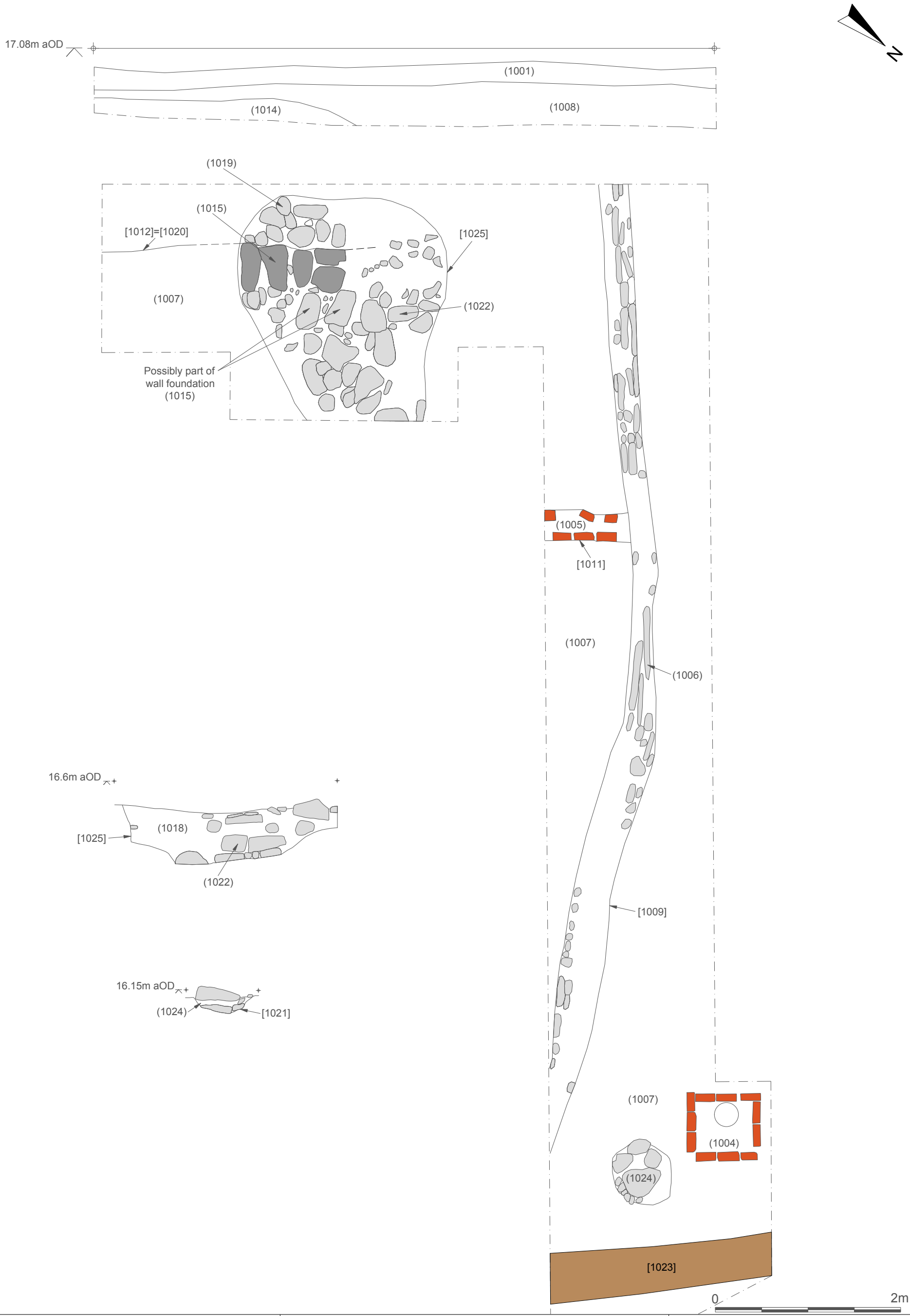


Figure 35:

Plans and feature sections of Trench 10.

Scale = 1:40 at A3

Key:

5.11 Trench 11

5.11.1 Trench 11 was situated immediately to the north-west of the pele tower, parallel with the north-west elevation (Figure 2 and Figure 38). The trench measured 2.7 x 6.11m and was orientated south-west to north-east.

5.11.2 The trench was excavated through very dark brown clayey silt topsoil and leaf litter (1101) which extended across the wooded area surrounding the tower and is the same as (1002) in Trench 10. Beneath the topsoil that averaged 0.28m thick, at a height of 16.26m aOD, was a layer of crushed sandstone with brick rubble and broken roof tiles (1102) which was the same demolition deposit as (1002) and measured 0.2m deep.

5.11.3 Removal of this layer revealed the Mansion House's north-east wall foundation (1107), the principal façade of the house, which was running in a south-east to north-west orientation, in-line with the north-east elevation wall of the pele tower (Figure 36) and the surviving *in-situ* main entrance door that lay *c*.5.4m beyond the trench. The wall foundation had been constructed using faced sandstone blocks which formed an outer skin within which a rubble core had been laid. The wall measured 0.86m wide and had been bonded using a lime mortar. The trench that had been cut into the natural clay till [1112] to hold the foundation wall coincided with the foundation wall face on its north-east side, but was wider on its south-west side, extending on average 0.28m from this side of the wall. The construction trench on the south-west side of the wall foundation had then been packed with sandstone rubble into which silty soil had percolated (1106).

5.11.4 On the eastern side of wall foundation (1107), also beneath rubble layer (1102), was a deposit of compacted sandstone rubble within dark brown loam (1109). This deposit continued beyond the limit of the excavation but abutted wall (1107) on its eastern side. This deposit appeared to be the same made ground deposit as was seen within Trench 1 in Fisheries Field, context (102). Sitting above this made ground layer in Trench 11 was a single flat sandstone slab and a number of long, thin sandstone blocks (1111) which appeared to be the remnants of a paved surface that extended beyond the excavation trench. The maximum visible area of the surface measured 1.2 x 0.9m. It is possible that these stones represent an external paved terrace or path which ran along the frontage of the Mansion House's principal facade. There was no evidence of the stones having been bonded together.

5.11.5 On the west side of wall foundation (1107), once rubble layer (1102) had been removed, a layer of orange clay mixed with broken sandstone fragments (1103) was exposed. This has been interpreted as resulting from the debris of constructing the wall and undertaking final dressing of the ashlar stone blocks used to construct the principal façade of the Mansion House. Sealed below this layer it could be seen that the western edge of the foundation trench for wall (1007) cut across an earlier cobbled floor surface (1105) (Figure 37). The rounded cobbles had been roughly laid and embedded in a layer of charred/ashy material and what appeared to be beaten earth (1110) and showed evidence of heavy use and repair. The edge of the floor surface was defined on its west side by the foundation course of a rough but substantial sandstone wall (1104) that was on a different alignment to either the Mansion House or pele tower walls and evidently pre-dates them both. There was no evidence of bonding material on or around the

walls stones. The wall foundation (1104) measured *c*.0.7m wide and was visible across the width of the trench for 2.8m. The wall had been constructed within trench [1113] which had been cut into the natural yellow clay till (1112) and backfilled with pale brown sandy clay.

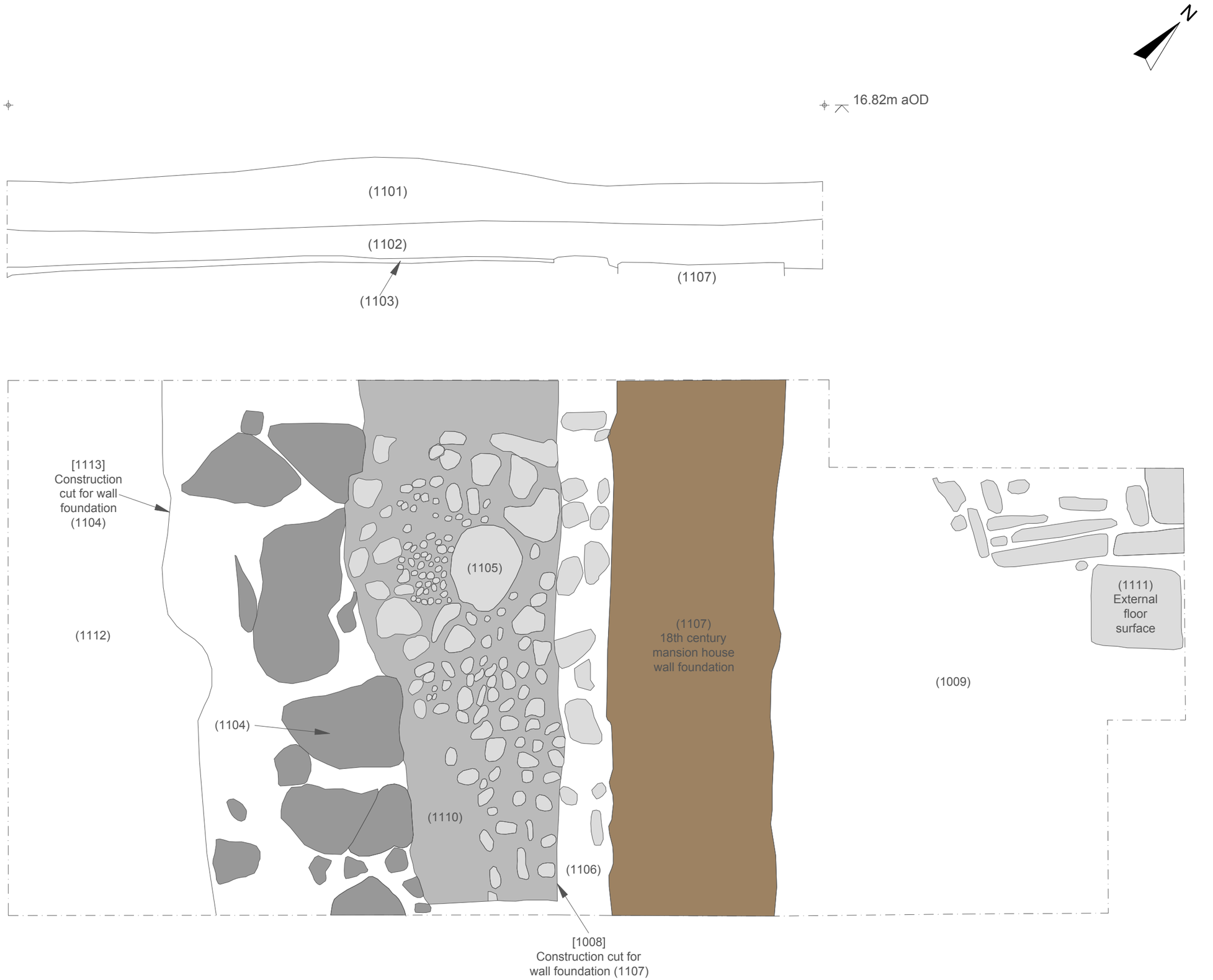
Figure 36. Sandstone wall foundation (1107), belonging the 18th century Mansion House, showing its alignment with the north-east wall of the pele tower (scale = 0.5m graduations).

Figure 37. Trench 11 showing wall foundation (1107), earlier cobbled floor surface (1105) and its associated eastern stone wall foundation (1104) with the natural yellow clay till in the foreground (scales = 0.5m graduations).

Figure 38:

Plan and section of Trench 11.

Scale = 1:20 at A3



Key:

5.12 Trench 12

5.12.1 Trench 12 was situated on the south-west side of the pele tower and measured 2 x 9m (Figure 2 and Figure 42). The trench was orientated north-west to south-east (Figure 39) and positioned to identify the extent of the Phase 2 Mansion House west wall and whether it had wrapped around the west side of the pele tower.

5.12.2 Trench 12 was excavated through very dark brown clayey silt topsoil and leaf litter (1201) which extended across the wooded area surrounding the tower and was the same layer as (1002) and (1102) in Trenches 10 and 11 respectively.

5.12.3 Beneath topsoil (1201), but only occupying the north-eastern half of the trench, was a deposit of dark brown/black silty clay containing large amounts of clinker and ash (1202). Abutting this deposit and occupying the south-western half of the trench was a deposit of very dark brown sandy clay containing sandstone rubble (1203). Separating these deposits was cut [1204] which, similarly to cut [1020] in Trench 10, is understood to be the cut for the trench that held the Phase 2 Mansion House west wall. The trench was backfilled with demolition deposit (1202).

5.12.4 Beneath deposits (1202) and (1203) was the natural yellow clay till (1205). Visible within the surface of the clay was the cut [1204] for the rear wall trench of the Phase 2 Mansion House which ran for a length of 4.32m from north-west to south-east before turning at a right angle towards the pele tower for a short distance adjacent where the pele tower west elevation wall terminates. Towards the southern extent of the trench a ditch had been cut into the natural clay. The fill of the ditch (1206) comprised brown clay containing rubble and the cut [1207] had gently sloping sides and a concave base (Figure 40). The function and date of this ditch remain unknown as it had no clear relationship with any other feature in the trench. Located 1.2m to the south-east of ditch (1206) was a stone-lined gully, running parallel with the ditch (Figure 41). Gully (1208) was located at the very extreme south-east end of the trench and was not fully exposed as a result as it continued into the baulk. A width of 0.38m of the gully was visible and it had a depth of 0.25m. The base of the gully had been lined with flat, sandstone slabs and it appeared to have had smaller, irregular stones pressed into the clay along its sides. The gully had been filled with dark brown sandy clay and irregular, angular stones (1210). It was not evident whether this backfilling was deliberate or not, however at the north-east end of the gully it appeared as though one or two capstones had remained *in-situ*. It is considered probable that this gully is a stone-lined drain with a rectangular profile but that the majority of the capstones had been robbed resulting in the drain becoming filled with soil and rubble.

Figure 39. Trench 12, looking north-west with ditch (1206) and gully (1208) visible in the foreground, both running across the trench (scales = 0.5m graduations).

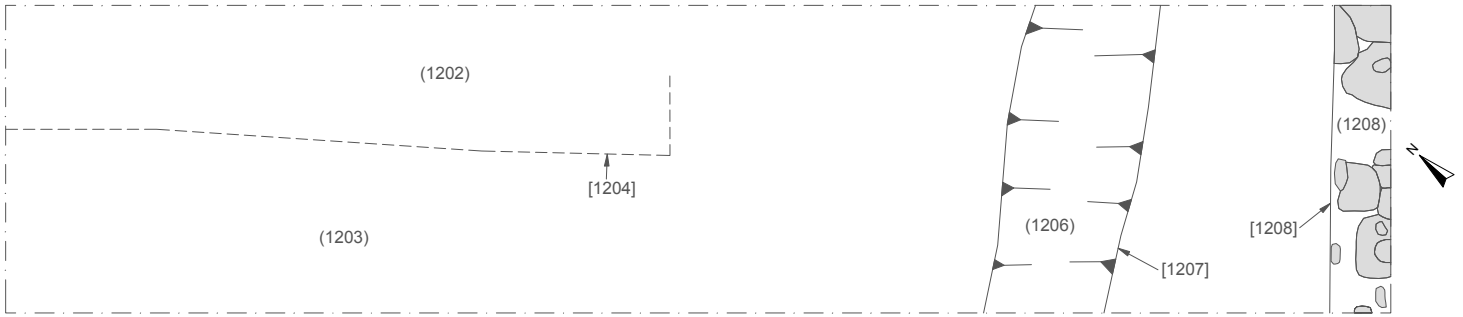
Figure 40. Ditch (1206) (scale = 0.5m graduations).

Figure 41. Stone-lined gully (1208) (scale = 0.5m graduations).

Figure 42:

Plan of Trench 12.

Scale = 1:50 at A4



Key:

0 2m

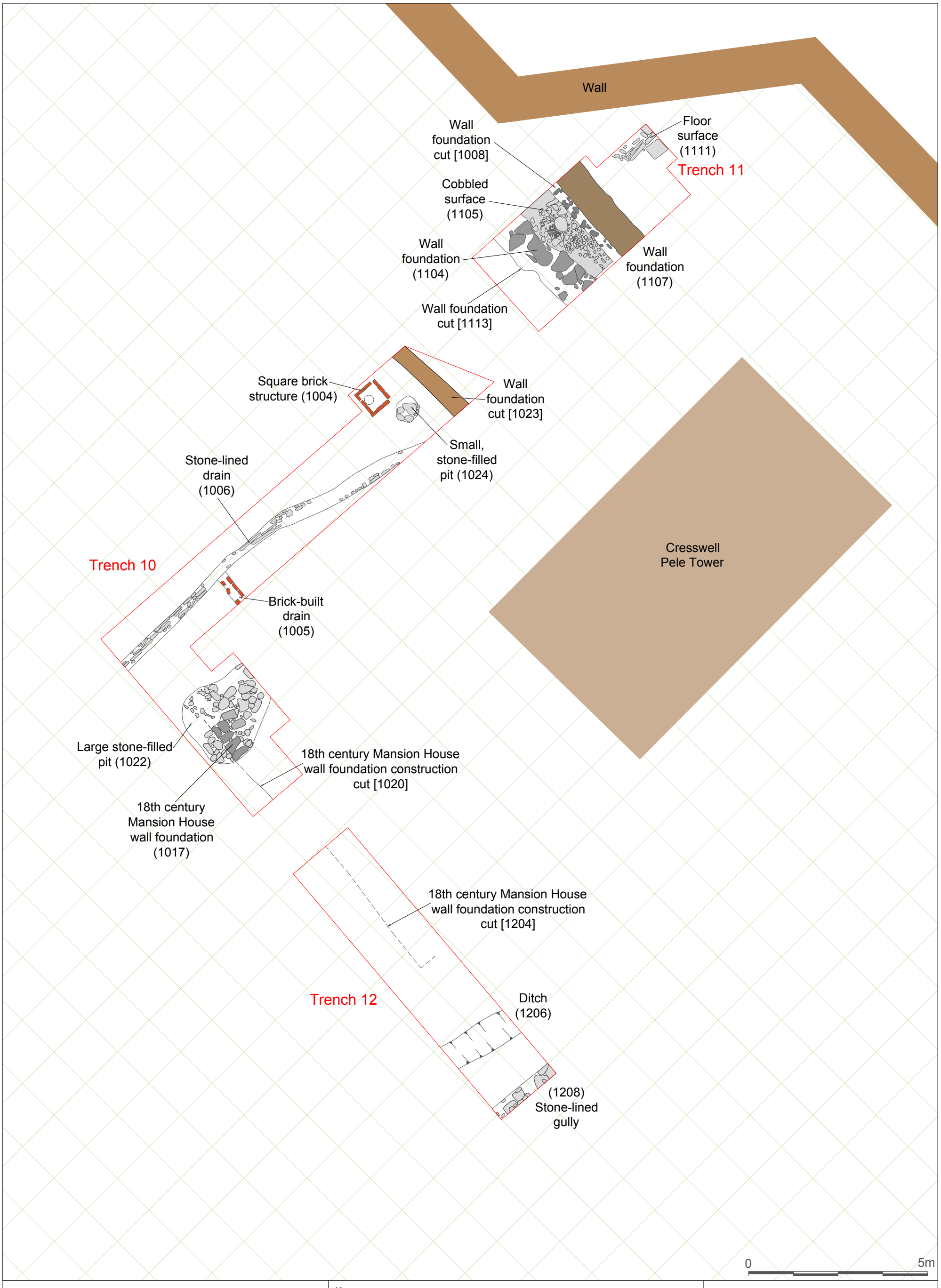


Figure 43:

Plan of the pele tower and the hand-dug trenches surrounding it showing the loction of excavated features.

Scale = 1:100 at A3

Key:

Trenches

N

6. SPECIALIST REPORTS

6.1 Animal bone analysis

Milena Grzybowska

Material

6.1.1 The material consisted of nearly 1 kg of animal bone derived from predominantly post-medieval contexts.

Methods

6.1.2 The analysis follows English Heritage MAP2 (1991) and Animal bones and Archaeology: Guidelines for best practice by English Heritage (Baker and Worley 2013).

6.1.3 The bones were identified by species or a taxonomic group where possible. Ribs and vertebrae (excluding the axis and atlas) and unidentifiable specimens were assigned to size class (large/medium/small).

6.1.4 Taphonomic traces were recorded. The state of surface preservation was scored using a five stage system (bad, poor, moderate, good, excellent). The presence or absence of gnawing and burning was recorded. The preservation and the location of butchery marks were recorded using a zoning system devised by Dobney and Rielly (1988).

6.1.5 Tooth eruption and wear for cattle was recorded and Mandible Wear Stages (MWS) assigned using Grant (1982). Epiphyseal fusion stages were recorded and ages assigned using Silver (1969).

6.1.6 Measurements of mature specimens were taken following the standards of von den Driesch (1976).

6.1.7 Tabulation of the results is provided below.

Results

6.1.8 A total assemblage of 40 refitted fragments of animal bone was analysed. All contexts included disarticulated remains.

6.1.9 The surface preservation of animal bones was mostly moderate/good and occasionally poor. One fragment of mammal bone showed evidence of burning, whereas a proportion of the bones were affected by gnawing.

6.1.10 Demolition deposit (1002), levelling layer (1003) and demolition/levelling layer (1008) from Trench 10 contained mostly sheep and goat, followed by medium to large mammal specimens. Half of these specimens carried butchery marks, however the small size of the assemblage precluded analysis of the butchery practice. Among small bovids the most abundant element was metapodium (metatarsal or metacarpal), and radius. Epiphyseal fusion stage of all the observable elements indicated that the individuals were mature at death. Metric data obtained for sheep and goat specimens was consistent with measurements obtained from contemporaneous British assemblages (ABMAP).

6.1.11 The bone recovered from the topsoil in Trench 10 (1001) comprised domesticated species in similar proportions with dominating sheep and goat specimens

followed by cattle and large mammal, whereas levelling deposit (202) in Trench 2 and the fill of the stone-lined drain in Trench 12 (1210) contained mainly cattle, and occasionally pig (202).

Context	Taxon	Element	R/L	Weight (grams)	Zone (>50%)	Zone (<50%)	Butchery	Gnaw.	Burn.	Fusion	Pres.	Comments/ measurements
202	Cattle	Metatarsal	L	191.2	1, 2, 3, 5, 6, 7, 8	-	4 X C at 2	-	-	Fd	M	-
202	Cattle	Radius	L	148.6	1, 2, 5	E	-	Y	-	Fp	G	-
202	Cattle	Ulna	R	51.1	B, c	E	-	-	-	-	G	-
202	Large mammal	-	-	56.0	-	-	Lt	-	-	-	M	-
202	Large mammal	Rib	-	7.7	-	3	-	-	-	-	M	-
202	Large mammal	Metatarsal	-	25.9	-	Shaft	-	-	-	-	G	-
202	Large mammal	Rib	R	8.8	-	2, 3	-	-	-	-	M	-
202	Large mammal	Long bone	-	6.2	-	Shaft	-	-	-	-	P	-
202	Medium mammal	Long bone	-	6.1	-	Shaft	Lt	-	-	-	M	-
202	Pig	Ulna	R	11.7	C,d,e,f,g,h	B	-	Y	-	-	M	-
202	Medium mammal	Femur	L	9.5	3,5,6	-	-	-	-	Up	G	Immature
415	Unidentified	-	-	2.1	-	-	-	-	-	-	M	
415	Unidentified	-	-	2.2	-	-	-	-	-	-	M	-
415	Mammal	Long bone	-	0.9	-	-	-	-	-	-	M	-
415	Mammal	Long bone	-	0.7	-	-	-	-	Burnt	-	G	Grey
415	Mammal	-	-	0.7	-	-	-	-	-	-	M	-
415	Unidentified	-	-	1.9	-	-	-	-	-	-	Mx	3 fragments
1001	Sheep/goat	Metacarpal	-	8.3	-	5, 6	-	Y	-	-	M	-
1001	Sheep/goat	Metacarpal	L	10.0	-	2, 5, 7	Lt	-	-	Fp	G	-
1001	Sheep/goat	Metapodium	-	5.3	-	3, 7	Lt	-	-	Fd	G	-
1001	Cattle	Incisor	R	2.6	-	-	-	-	-	-	M	-
1001	Large mammal	-	-	12.1	-	-	-	-	-	-	M	-
1002	Large mammal	Long bone	-	30.4	-	Shaft	H, C	-	-	-	G	-
1002	Medium mammal	Rib	R	4.9	-	3	-	-	-	-	G	-
1002	Sheep/goat	Upper M3	L	6.7	crown	Root	-	-	-	-	G	-
1002	Sheep/goat	Metatarsal	L	6.8	1, 2	5, 6	-	-	-	Fp	G	Bp:19.5
1002	Sheep/goat	Metatarsal	L	3.7	-	1, 2	-	-	-	Fp	G	-
1003	Sheep/goat/rd	Metapodium	-	6.9	-	5, 7, 3	H	-	-	Fd	G	-
1008	Sheep/goat	Radius	L	11.5	1, 2, 5, 6, 7	E	H at 1, 2	-	-	Fp	G	Bp:32.4
1014	Large mammal	Rib	-	57.3	-	3	3 X C	Y	-		G	Green staining
1014	Large mammal	Rib	-	13.0	-	3	-	-	-	-	P	2 fragments
1014	Sheep/goat	Radius	R	6.7	-	2, 5	Lt	-	-	Fp	G	-
1014	Sheep/goat	Axis	-	20.0	1, 2, 3, 4	-	-	-	-	-	M	-
1102	Large mammal	Long bone	-	33.9	-	Shaft	Lt	-	-	-	M	-

1210	Medium mammal	Long bone	-	22.0	-	Shaft	-	Y	-	-	G	-
1210	Mammal	-	-	3.7	-	-	5x C	-	-	-	G	-
1210	Cattle	Lower M1	L	16.5	Crown	-	-	-	-	TWS: g	G	W:25.8
1210	Cattle	Lower M2	L	19.0	Crown	-	-	-	-	-	G	W:29.0

Table 1. Animal bone.

6.2 Lithics and Shell

Clive Waddington

6.2.1 Two fragments of shell were recovered comprising one limpet and one edible periwinkle, both from ditch fill (403) in Trench 4 that had cut Cist 2. It is unclear where these shells had come from as they could potentially have formed part of the cist fill or alternately have been deposited in the ditch when it was backfilled or could just be earlier residual material that was incorporated into the ditch fill. It is worth noting, however, that clusters of limpets and other shell were found associated with the Beaker period – Early Bronze Age burial cairn excavated at the north end of Druridge Bay at Low Hauxley (Waddington and Bonsall 2016).

6.2.2 The lithic assemblage comprised 47 chipped stone lithics. Of these 39 were debitage (flakes, chips and blades), 5 were cores, 2 were retouched pieces and there was 1 small segment from a narrow blade microlith. Most of the debitage was from the secondary stage in the core reduction sequence, although occasional primary chips were also present. This indicates that stone tool production and maintenance took place on the site with most of the initial rough chipping of nodules taking place elsewhere. As most of the material that can be provenance is of beach flint origin the location of the primary chipping is likely to have been the beach where the pebbles were collected. It is notable that there are a few pieces of nodular flint present indicating the use of flint that has come a considerable distance. This material is also unpatinated suggesting a younger age than the more frequently patinated beach flint pieces. This suggests that two broad phases of activity are represented within the flint assemblage. The microlith and the much of the debitage is indicative of Mesolithic activity, particularly in Trench 9. However, the presence of some nodular flint and also some fresh and squat flakes is suggestive of potential late Neolithic, or more likely Early Bronze Age, activity in the vicinity of both Trench 9, and the Pele Tower and the Cists in Trench 4.

6.2.3 The tiny fragment from a microlith is evidently from a small narrow blade microlith. These types of microlith define the 'Later' Mesolithic in England and can potentially date from any time between *c*.8400 – 4000 cal BC. No other pieces in the excavation assemblage are sufficiently diagnostic to provide a more refined estimate of age.

6.2.4 It is notable that the presence of Mesolithic material in trench 9 corresponds with the character of the flint scatter found immediately downslope to the east of Trench 9. This implies that the ploughsoil material recovered from the fieldwalking must have come from the area of plateau where Trench 9 was situated. This suggests the presence of a Mesolithic processing/domestic site on this area of plateau as mentioned above.

Context No	Context	Trench	Find Nos	Debitage (flakes chips & blades)	Cores	Retouched pieces	Microlith	Total
403	Ditch fill	4	106 107, 108, 114	4				4
901	Base of topsoil	9		28	5	1	1	35

1021			112	1				1
1022		10	101 102, 103, 104	4				4
1001		10	105	1				1
1203		12	111			1		1
			113	1				1
Total				**39**	**5**	**2**	**1**	**47**

Table 2. Summary of chipped stone lithics by context.

Cresswell Lithics and Shell Catalogue												
Context	**SF No.**	**Material**	**Colour**	**Provenance**	**Type: General**	**Type: Specific**	**Reduction sequence**	**Period**	**Max L (mm)**	**Max W (mm)**	**Max T (mm)**	**Comments**
1022	101	flint	med grey		chip	debitage	sec					Broken
1022	102	flint	light grey		flake	debitage	sec		20	20	3.5	
1022	103	flint			flake	debitage	sec					Broken and burnt
1022	104	flint	med grey	nodular	flake		sec					Broken
??	105/10.1	flint	brown		flake		sec		21	23	3.5	
403	106	flint			flake		sec					Broken and burnt
403	107	flint			blade		sec		25	14	4	Patinated
403	108	flint	brown		flake		sec					Broken
403	109	shell	white		limpet							
403	110	shell	white		periwinckle	edible						
1202/3	111	flint	light grey	beach	utilised blade		ter	mes	38	14	5	oblique break across distal end
901	25	flint	light grey		chip	debitage	sec					Broken
1021	112	flint	med grey		blade		sec					Broken and burnt
901	11	flint	light grey		chip	debitage	sec					Broken
???	113	flint	brown		flake	debitage	prim					Broken
901	15	flint			core	multi-platform	sec	mes	12	20		Patinated
901	24	flint	med grey		flake	debitage	sec		13	9	6	
901	23	flint			flake	debitage	sec					Broken and patinated
901	1	flint	light grey		retouched flake		ter					Broken
901	26	flint	light grey		microlith	narrow blade	ter	mes				Broken tiny fragment of a narrow blade microlith

901	27	flint	light grey		flake		sec					Broken
901	22	flint	light grey		flake		sec					Broken
901	19	flint	light grey		core	exhausted	sec	mes	13	17		
901	20	flint	light grey		flake		sec		13	8	5.5	
901	3	flint	med grey	nodular	core		sec					Broken
901	4	flint			core	exhausted	sec	mes	15	16		Patinated
901	2	flint	light grey	nodular	core		sec					Broken
901	8	flint	light grey		flake		sec					Broken
901	21	flint	light grey		flake	debitage	sec					Broken
901	18	flint	light grey		flake		sec		11	7	4.5	
901	16	flint	light grey		flake	debitage	sec					Broken
901	5	flint	orange		flake	rejuvenation	sec		9	3.5	3.5	
901	6	flint	med grey	beach	core	pebble	sec		12	19		Patinated and
901	17	flint	light grey		flake	rejuvenation	sec		19	11	5	
901	10	flint	light grey		flake	debitage	sec					Broken
901	12	flint	light grey		flake	debitage	sec		13	11	5	
901	13	flint	light grey		chip	debitage	sec		8	5	3	
901	14	flint	light grey	nodular	flake	debitage	sec					Broken
901	7	flint	light grey		flake	core flake	sec		22	30	18	
901	9	flint	light grey		flake	rejuvenation	sec		9	11	4	
901	29	flint	white	beach	flake	debitage	prim		8	10.5	1.5	
901	31	flint			chip	debitage						Broken and patinated
901	30	flint	red brown		flake		sec		20	10	3.5	Patinated
901	35	flint	med grey		flake		sec		14	20	5.5	
901	28	flint	light grey		flake	debitage	sec		19.5	12	6	

901	34	flint	med grey	beach	flake	debitage	prim		10	12	11	
901	33	flint	light grey	nodular	flake	debitage	sec					Broken
901	32	flint	med grey		flake	debitage	sec					Broken
403	114	flint	red brown		flake	debitage	sec					Broken

Table 3. Lithics and shell catalogue.

6.3 Palaeoenvironmental Residues

Luke Parker

6.3.1 Palaeoenvironmental remains were recovered via floatation from four archaeological contexts (1022 and 1024 – both circular stone-filled pits from Trench 10, 415 – ditch fill) and and 409 – fill of lower burial cist from Trench 4).

Context Number:	409	415	1022	1024
Recovered Palaeoenvironmental Remains:	Burnt ash	Two fragments of English maple heartwood charcoal and three fragments of oak heartwood charcoal	A single fragment of oak heartwood charcoal	Small amounts of modern ligneous material contamination

Table 4. Summary of palaeoenvironmental assessments for the Cresswell material.

6.3.2 None of the samples contained palaeoenvironmental remains suitable for ^{14}C dating. Context 409, the fill of Cist 1, contained quantities of burnt ash which cannot be dated.

6.3.3 Context 415, a ditch which contained sherds of medieval pot, did contain charcoal fragments, however these are from the heartwood of long-lived tree species and so would contain a large 'in-built age' which renders them impractical for dating. This same issue is present for context 1022 which contains a single fragment of oak heartwood charcoal.

6.3.4 The palaeoenvironmental remains recovered from context 1024 contained only modern ligneous material.

6.4 Pottery

Jenny Vaughan

Summary

6.4.1 A total of 145 sherds of pottery weighing 1799 gms was recovered from four of the trenches excavated, the majority of sherds coming from Trench 10 (see Table). Trenches 4, 10 and 12 produced a small quantity of medieval pottery, broadly 12th to 14th century in date, the bulk of the rest of the assemblage appeared to be late 18th/early 19th century.

Trench	Sherds	Weight	Comment
4	3	26	All medieval
10	109	1504	Eight sherds medieval
11	24	137	
12	9	132	Four sherds medieval

Table 5. Pottery by trench.

Trench 4

6.4.2 These sherds were from a single vessel, probably a cooking pot as the sherds were partly sooted and discoloured, mainly greyish in colour, although the fabric appeared to be made from a light-firing clay. It was coarsely gritted. This could be late 12th or early 13th century in date.

Trench 10

6.4.3 Three of the medieval sherds from Trench 10 joined making up nearly half of the rim of a jar with wide everted rim. The fabric was oxidised to a bright orange-brown with a dark grey core and contained some coarse grits. There was a partly green-glazed fragment in the sandy fabric of the early green-glazed wares. The other medieval sherds from this trench were much smaller. The fabric of one was similar to the gritty wares found further north, particularly round Bamburgh. Others were not particularly diagnostic.

6.4.4 There were three main groups amongst the post-medieval material: red earthenwares, all but two sherds glazed, undecorated refined cream-coloured earthenware, and factory (or industrial) slipware.

6.4.5 Most of the red earthenware sherds were from bowls with an internal white slip coating, a number of these also had brown mottling on top of the slip. These are typical of 18th/19th century kitchen wares. There was a small sherd from a smaller thin walled vessel with slip decoration (a blob) rather than a coating, and a black-glazed base.

6.4.6 The undecorated refined wares have all been designated 'creamware' although some are less obviously cream than others. The sherds are from tablewares, mainly plates and bowls, and an estimated ten vessels were present. One sherd with a creamware body had some brown sponged decoration.

6.4.7 There were sherds of four vessels of factory slipware. Two were simple hemishperical bowls. The others could not be definitely identified but may also have been bowls. Decoration consisted of simple bands, chequer-board, marbling and speckling.

6.4.8 There was a smaller group of pearlwares, including three blue shell-edged plate rims and a few sherds with decoration. In addition to these main groups there were three sherds of tin-glazed earthenware and three of white salt-glazed stoneware, including a plate rim with typical moulded 'barleycorn' pattern. There were also single sherds of china/porcelain, pink lustreware, burnt ?creamware and an unidentified earthenware.

Trench 11

6.4.9 There was no medieval pottery from this trench but otherwise it produced a few sherds of all the other types seen in Trench 10 including tin-glazed earthenware and white salt-glazed stoneware. One of the creamware sherds appeared to be a jug rim. In addition to this there were two small sherds of refined white earthenware from the topsoil.

Trench 12

6.4.10 The four medieval sherds were not particularly diagnostic although broadly 13th/early 14th century. A black-glazed redware base came from the same context. A small redware sherd with slip and a fragment of a ridged jam jar were also present in the trench as well as two burnt fragments of some sort of refined ware.

Discussion

6.4.11 Medieval activity is indicated in three of the trenches although, apart from Trench 4, in all but one context in Trench 10 [1022] it occurred residually amongst later material. Dating such a small group cannot be precise but there is no indication of later medieval activity (i.e. later 14th century onwards) and the sherds from Trench 4 could well be as early as the 12th century.

6.4.12 The post-medieval material is of some interest. The condition (fragments were relatively large) and nature of the assemblage from Trench 10 suggests a primary deposit. Creamware was the dominant tableware in the second half of the 18th century and continued in use becoming paler, into the early 19th. Pearlware, with a whiter glaze was introduced in the late 18th century and continues into the first half of the 19th. Cobalt (blue) was added to the glaze and can be seen most clearly where the glaze is thicker, e.g round a ring base. Factory slipwares were produced using both these bodies. Although this type of decoration continues later into the Victorian era the combination of the presence of the plain creamwares and the almost complete absence of fully developed 'whtewares' and transfer printed wares suggest a domestic waste dump of the early 19th century.

6.4.13 Red earthenwares of this type (the contemporary term was 'brownwares') first appearing in the 18th century continue throughout the 19th century and into the early 20th and are dated here by association with the other ceramics. Further study of dated groups of 18th and early 19th century ceramics might reveal that there are some chronological developments but currently this is uncertain. A few of the fragments here are lighter red in colour and may be contemporary with the few sherds of earlier 18th century pottery present, i.e. the tin-glazed earthenware and white-salt-glazed stoneware. Both these types decline in use during the mid 18th century being superceded by creamware.

6.4.14 Apart possibly for the fragment of preserve jar the post-medieval ssemblage reflects the relatively short life of the mansion house attached to the pele tower. It is perhaps surprising that the small medieval component does not appear to relate to the tower as there is no obviously late medieval pottery present.

6.4.15 This is an interesting small group of material and worthy of retention.

Abbreviations (where not obvious) used in catalogue:

med medieval
tge tin-glazed earthenware
wsglst white salt-glazed stoneware
gre glazed red earthenware: l = late, bl = black, ..sl = slip-coated, dec = lines, blobs etc rather than coated ('gre' used where sherds may be slightly earlier type – see text)
factsl factory slip
pm ew post-medieval earthenware, not further identified
pnt painted
wgle white glazed earthenware (i.e. late pm), tp = transfer printed
gg green-glazed (r = reduced)
SV same vessel

Trench	Context	Fabric	shs	wgt	form_sh	Comment
4	415	med - gritty	3	26		Ridged body sherds, sooted/discoloured but appears to be light brown-buff otherwise. Coarsely gritted.
10	1001	tge	1	5	r	Blue flaking glaze, rim of open ves.
10	1001	wsglst	2	8	r	Plate rim with 'barleycorn' moulded pattern, thin body sh of hollow ves.
10	1001	blgre	1	25	b	With bead running round (too small to be called 'clubbed')
10	1001	lgre	1	21		Ext surface much flaked off
10	1001	lgresl	8	116	2b	Ring bases
10	1001	ungre	2	45		
10	1001	cream	6	84	3b	Bases are ring, recessed (SV in 1002) and flat.
10	1001	pearl	3	10	b	Ring base, one is transfer printed
10	1001	pm ew	1	10		Part reduced red-brown fabric with streaky brown gl.
10	1002	med - ox	2	86	r	Wide everted jar rim, oxidised ext with grey core, mod ill-sorted incl with occasional large quartz grits. More of same rim in 1014
10	1002	tge	1	3		Dark blue lines on white.
10	1002	gresl dec	2	12		Misc - lines and blob
10	1002	lgresl	6	106	r	Flanged bowl rim, with brown mottling (SV in 1010), ungl ext
10	1002	lgresl	5	81	b r	Splayed ring base, chunky rim not SV, prob all mottled, gl ext
10	1002	cream	1	3	r	Simple rim with yellow gl band with 4 grooves, brown sponge dec.
10	1002	cream	10	144	3b 2r	2 recessed bases (1 SV as jn 1001), 1 ring base (SV 1003), 3 plate rims (2 are SV), small handle.
10	1002	factsl	3	7	r	2 simple rim sherds (SV) with brown chequerboard band round, other ?SV
10	1002	factsl	4	129	prof	Hemi-spherical bowl on ring base - another rim in 1003, dark brown bands, lower body covered in mid brown with dark brown speckles
10	1002	factsl	4	68	r	(Creamware body) simple shaped bowl with bands of dark and lighter brown. Apart from band below rim surface

Trench	Context	Fabric	shs	wgt	form_sh	Comment
						coverrd with pale brown with dark brown speckles - not like other speckled ves.
10	1002	factsl	4	22	r	Blue band round rim, rest has joggled/marbled slip in shades of brown and cream.
10	1002	pearl	3	25	2r b	2 shell-edge rims (?SV), base (small ring) probably belongs to one (or both)
10	1002	pearl pnt	2	17	b	Ring base with green, brown and orange foliage dec, other has blue foliage
10	1002	pearl pnt?	1	4		Painted or smudged transfer, line of gilding
10	1002	burnt?	1	4		Probably pearl or cream
10	1002	china	1	2		Thin china/porcelain with orange and black dec
10	1002	lustre	1	3	b	Recessed, pink
10	1003	wsglst	1	9	r b	Is profile but only small portion
10	1003	cream	8	177	4b 2r	Complete ring base, 2 joining SV in 1002, 1 other ring, 1 plain base, 2 plate rims
10	1003	factsl	1	35	r	As in 1002 - bowl [counted in 1002 as profile there]
10	1003	pearl	3	28	prof	Blue shell edge profile, 2 other small frags
10	1008	med - early gg	1	29		
10	1008	blgre	1	2		Not sure about this - glaze looks a bit like Cistercian ware but int is ungl.
10	1010	tge	1	1		Blue on blue
10	1010	lgresl	1	25	r	Joins rim in 1002
10	1010	cream	2	13	r	Plate rim
10	1013	gresl	3	37	r	Horiz rim on globular vessel, lighter red than much 'lgre'
10	1013	gresl dec	1	1	r	Sl everted rim small vess with slip blob int - so ?bowl rather than mug
10	1013	lgresl	4	35	b	Prob all mottled, ring base
10	1014	med - ox	1	57	r	As in 1002
10	1014	gresl	1	5		Brown line on yellow
10	1022	med - bam type	1	4		'Bamburgh' type
10	1022	med - grey sandy?	1	1		
10	1022	med - sandy coarse	1	4		
10	1022	med - ww gl	1	1		Coarse white fabric, yellowish gl
11	1101	wgle tp	2	2	h	V small handle ?tea cup
11	1102	tge	3	7		A few remaining traces of pale blue
11	1102	wsglst	1	14	b	Plate/dish
11	1102	blgre	2	17		
11	1102	gre	1	4		Has thin swirl of white slip int but sherd too small to tell if this could be agate ware.
11	1102	gresl dec	2	19	r	Expanded rim with slip band on top edge and on body, other sherd has slip lines possibly combed
11	1102	lgresl	2	16		
11	1102	cream	3	32	r	Rim looks as if could be part of a jug spout.

Trench	Context	Fabric	shs	wgt	form_sh	Comment
11	1102	factsl	1	1	r	Blue and brown bands, sl everted simple rim.
11	1102	pearl	2	10	2r	Blue edged rims - not sv
11	1102	lustre	1	3		Part of a ?handle with thin pink lustre
11	1102	porcelain	1	3		Pale blue grey fabric, light red ?painting with overglaze gilding
11	1102	wgle	3	9		Not sure about these - glaze seems slightly bluish ?pearlware
12	1201	med - rgg	1	5		
12	1201	util	1	32		Ridged jam jar
12	1203	med -	1	17	h	Very battered looking fragment, smallish strap handle. Sandy dark grey fabric with pale margins and light orange brown surface coloration where not worn away. Could be an early green gl type.
12	1203	med - buff	1	6		A sandy fabric, some traces of glaze
12	1203	med – iron rich coarse	1	42		Thick-walled dark grey with red brown ext. Some quartz inclusions but not frequent.
12	1203	blgre	1	11	b	Club base
12	1203	wgle?	2	14	b	Burnt/discoloured to vitrification - or may be a stone china
12	1210	gresl dec	1	5		Thin walled ves with area of slip int - too small to interpret if pattern/zone/blob
		total	145	1799		

Table 6. Pottery descriptions.

6.5 Ceramic Building Material

John Nolan

6.5.1 The assemblage comprised thirty-seven pieces of ceramic building material and two pieces of mortar. All came from three trenches (10, 11 12) dug as part of a community excavation at Cresswell Tower, Cresswell, Northumberland (site code CW17).

6.5.2 Much of the material was not intrinsically closely datable, but all appeared to span the late 18th to 20th centuries.

6.5.3 Of the ceramic building material, the largest quantity (29) were pieces of pantile or probable pantile. There were two pieces of common brick, one of firebrick, one fragment of chimney pot, and at least one floor tile.

6.5.4 The material was examined, measurable dimensions taken where appropriate, and described. This data was entered into an Excel spreadsheet catalogue by context and trench number. The context numbers in this report are given in square brackets.

Pantile

6.5.5 All fragments were in an red or orange-red fabric, and ranged between 13-15mm in thickness. Outer surfaces were smoothly 'wiped', and the undersides were rough from sand used as a separator in the moulding process. Some were clear-glazed externally, the underbody giving the glaze a dark brown appearance. One from [1002] had a nib moulded on the underside for hanging onto a lath. Traces of white lime mortar from bedding or torching were noted on some fragments. The earliest

appearance of pantiles archaeologically in the north-east region is in the second half of the 16th century (Harbottle and Ellison) but the Cresswell finds are not in themselves closely datable.

Brick.

6.5.6 There were no complete bricks. The two fragments of common brick from [1002] and [1010] were both hand-moulded. The fabrics were mid-dark red and the fragment from [1010] contained large sandstone inclusions. That from [1002] had a pale whitish-yellow wash on some of its faces, a feature frequently seen on bricks of the later 18th and first half of the 19th century. The upper bedding (stretcher) faces were 'wiped', and on one the lower showed traces of a shallow 'combed' frog. One had coarse lime mortar adhering to the stretcher bedding faces.

6.5.7 A fragment of firebrick from [1203] was press-moulded. It had heavily vitrified residues on the upper, side and end faces, indicating contact with a source of considerable heat, possibly as part of a lining to a boiler or flue.

6.5.8 The only measurable dimensions which could be obtained for the common brick fragments suggest a late 18th or more probably early 19th century date. They may be products of local brick and tile works. The firebrick is likely to date from the second half of the 19th century or later.

Floor tile

6.5.9 One complete square red quarry tile came from context [1203]. This was press-moulded, with the maker's mark JCE and RUABON in relief on the ribbed underside. The surface was plain and smoothed from wear, and the bedding face and edges showed traces of mortar. This was a product of the firm of James Coater Edwards' Trefynant Works at Ruabon, North Wales, which produced terra-cotta and earthenware tiles between *c.*1880 and 1958 (Godden, 1991). Edwards' tiles appear to have enjoyed a wide distribution, examples having been reported in Scotland (www.scottishbrickhistory.co.uk).

6.5.10 A small fragment of what appears to be another floor tile (or possibly wall tile?) came from context [1002], this was in a yellow fabric with a highly polished surface upper surface speckled with fine red sandy and micaceous inclusions. There was white mortar on the bedding face.

6.5.11 The Ruabon tile is clearly of late 19th - 20th century date. The presumed floortile fragment was probably of a similar date.

Chimneypot

6.5.12 One identifiable fragment of chimney pot came from context [1002]. This had a bold basal flange and was heavily sooted internally. Its appearance suggests a late 19th or 20th century date.

Mortar

6.5.13 One piece of mortar from [1203] was a hard, grey-coloured, Portland cement from within the frog of a late, press-moulded, brick impressed with the manufacturer's initials. The resulting 'cast' appears to include the letters '..P C..'. This is insufficient to confidently identify the brick maker and source, though two possibilities are 'A P C' -

Axwell Park Colliery, 1901-1957, or 'B PC' - Bearpark Colliery Brickworks, 1888 – 1973 (Davidson 133; 197).

6.5.14 Another mortar fragment with traces of external white paint from [1001] appeared to be part of a rim, perhaps from a cast cement garden ornament or plant holder.

Discussion.

6.5.15 The pantile which made up the bulk of this group of material could well derive from the the house which was built onto the north side of the tower in the 18th century and which was demolished in the early 19th century. There is clearly some later, possibly even early 20th century, material present which may perhaps be the result of informal rubbish dumping.

6.5.16 Perhaps the most noteworthy item in the assemblage is the Ruabon tile, which is of interest as as example of the wide distribution of this North Wales manufacturer's products.

Archiving (Retention/disposal).

6.5.17 It is recommended that the complete Ruabon floor tile should be retained, as also the possible floor tile fragment and cement 'cast' from the frog of a stamped brick, in case either can be more firmly identified.

6.5.18 It is considered that none of the other fragments have significant potential for further analysis, closer dating, or provenancing. Unless usable for teaching or display, these could justifiably be discarded.

Trench	Context	Type	Qty	L mm)	W (mm)	Th (mm)	Description	Date
10	1001	pantile	1	0	0	0	unglazed, spalled outer surface of edge	18-19C
10	1001	cement?	1	0	0	0	moulded rim? Painted white.	19-20C
10	1001	pantile	1	0	0	13	brown glazed	18-19C
10	1001	pantile	1	0	0	0	brown glazed edge fragment	18-19C
10	1001	pantile	1	0	0	0	flake, inner surface	18-19C
10	1001	pantile?	1	0	0	0	flake	18-19C
10	1001	CBM?	2	0	0	0	plain, red, sooted	18-19C
10	1002	brick	1	0	110	53	half, hand-moulded, mid-dark red, pale wash side and end, upper face wiped, mortar on bedding faces, side, and end.	18-19C
10	1002	pantile	7	0	0	0	plain orange-red, one has nib on underside. Some have traces of bedding mortar	18-19C
10	1002	chimneypot	1	0	0	12	base flange, sooted internally	19-20C
10	1002	pantile	6	0	0	15	brown glazed, some edge fragments, some with white lime mortar	18-19C
10	1002	floortile?	1	0	0	12	yellow with fine red sand/mica inclusions, upper	Late 19C-20C

Trench	Context	Type	Qty	L mm)	W (mm)	Th (mm)	Description	Date
							face very smooth, mortar on bedding face	
10	1003	pantile	1	0	0	15	plain red edge fragment	18-19C
10	1010	brick	1	0	110	53	end fragment, hand-moulded, mid-red, some large s/stone inclusions. Upper face wiped, lower sanded. Combed frog. Mortar traces	Late 18C-early 19C
10	1013	pantile	1	0	0	0	plain surface flake fragment	18-19C
10	1013	pantile	1	0	0	0	plain red fragment	18-19C
10	1013	pantile	1	0	0	13	plain fragment	18-19C
10	1013	pantile?	1	0	0	0	plain red fragment	18-19C
10	1014	pantile	1	0	0	15	plain fragment with reduced core	18-19C
11	1101	pantile	1	0	0	13	brown glazed	18-19C
11	1102	pantile	1	0	0	15	brown glazed fragment	18-19C
11	1102	pantile	1	0	0	12	plain edge fragment	18-19C
12	1203	quarrytile	1	103	104	18	press-moulded, quarry tile. Unglazed (or very worn surface), underside marked JCE and RUABON - J.C.Edwards, , Trefynant Works, Ruadon N. Wales c.1880-1958).	late 19C - 20C
12	1203	firebrick	1	0	0	40	fragment, white fabric, press-moulded, heavily vitrified upper face and edges	mid 19C-20C
12	1203	cement?	1	0	0	0	from inside the frog of a brick with relief impression of letters P C? (possibly APC? - Axwell Park Colliery 1850-1906)	Late 19C-20C
12	1203	pantile	1	0	0	0	brown glazed surface flake	18-19C
12	1210	pantile	1	0	0	15	plain. red	18-19C
		total	39					

Table 7. Ceramic building material catalogue.

6.6 Clay Tobacco Pipe

6.6.1 One length of clay pipe stem and one partial pipe bowl were recovered during the evaluation at Cresswell. The pipe stem was found within demolition deposit (1002) while the bowl fragment was found within topsoil (1001), both in Trench 10. The stem has a surviving length of 53mm and is 7mm wide at the narrowest end, widening to 9mm at the other. It is made of white fired clay and has a bore width of 3mm which dates it to the early 18th century (CAFG 2012).

6.6.2 The bowl fragment is also made of white clay and has a flat-bottomed but angled 'spur' at the base measuring 5mm in length (Figure 44). The bowl rim had been trimmed parallel to the angle of the pipe stem and has a leaf or branch pattern on it, to cover the seams between the bowl's halves, and a ribbed pattern covering the rest of the bowl. Based on these features this pipe is thought to date to the late 18th century (CAFG 2012), more specifically 1780-1820.

Figure 44. Clay pipe bowl fragment (scale = 1cm graduations).

6.7 Glass

6.7.1 Small fragments of glass were recovered from contexts (202), (1001), (1002), (1003), (1013), (1014), (1102), (1201), (1203) and (1210).

6.7.2 The majority of the glass is thick-walled and a dark green colour. Many of the shards are from the bodies of bottles, probably wine bottles, although there are a few examples of partial and complete bases. A complete bottle base measuring 9.3cm in diameter from context (1002) has a concave, but also slightly pointed, punt and appears to have come from a squat cylindrical or medium cylindrical bottle dating to the latter part of the 18th century (Figure 45). Also from the same context is a partial base from a thicker-walled vessel which has more of a rounded concave punt. This is most probably from a tall cylindrical bottle but could have come from an earlier mallet or transitional mallet style of vessel that was common in the early 18th century. A similar example of a bottle base with a concave, rounded punt was found within

context (1003). This material is likely to originate from the occupation of the Mansion House.

6.7.3 Most of the glass has a brown or sometimes gold iridescent patina on it as a result of a chemical reaction between the soil and the glass. Beneath this thin patina, the glass can be seen to have an iridescent sheen to it as a result of the lead content of the glass.

Figure 45. Glass bottle base showing the concave, pointed punt (scale = 1cm graduations).

6.8 Coarse Stone

6.8.1 The large lump of ochre recovered from large pit fill (1022) has maximum dimensions of 0.45 x 0.25 x 0.24m. It is a very bright red/orange colour that easily stains the skin red if rubbed. The boulder is a sub-ovoid shape but is very uneven and has not been shaped.

6.8.2 The ironstone boulder retrieved from small, stone-filled pit (1024) has maximum dimensions of 0.31 x 0.24 x 0.19m. Patination has turned some of the surface white while the orange ironstone can be seen showing through in other places. There is no evidence of the boulder having been cut or worked in any way.

7. DISCUSSION

7.1 The archaeological evaluation carried out at Cresswell was successful in meeting the Project's aims and objectives, and the archaeological discoveries made on the site during the two week period were greater than had been expected. Through their involvement in the project a number of local volunteers were taught excavation and recording skills, and the open day that was held on Sunday 19th February attracted around 500+ visitors.

7.2 The earliest activity evidenced across the site, but particularly in Trench 9 on the area of plateau above the main lithic scatter identified by the fieldwalking study, was of Mesolithic date and was evidenced by the spread of chipped flint pieces in Trench 9.

7.3 Previous archaeological excavations carried out on the coast of Northumberland, such as those at Howick (Waddington 1997) and Low Hauxley (Waddington and Bonsall 2016), as well as excavations carried out in Amble by Greenwell in 1890 (Greenwell 1890) have demonstrated the tradition of burying people in coastal locations during the Beaker and Early Bronze Age periods. While the discovery of two Early Bronze Age, probably Beaker Period, burial cists in Trench 4 in Fisheries Field near to the natural spring was unexpected, their location is not unusual considering the numerous other examples of coastal cist cemeteries in the vicinity (see Figure 11.12 in Waddington and Bonsall 2016, 284). Furthermore, the Cresswell cists were located very close to a natural spring. The siting of Beaker Period cemeteries near to freshwater estuaries is also a common pattern which has been noted in previous discoveries in the region. While the two cists found in Trench 4 at Creswell no longer contained either human remains or pottery vessels that could provide dating evidence, their form is typical of Beaker Period cists. In addition to this, the stratigraphic position of the cists set within a palaeosol below the substantial sand dune deposit which itself lies below the current thick topsoil indicates the substantial age of these features. If the sand dune material is the same as that noted elsewhere along Druridge Bay then the deposition of this sand is likely to date to the early 1st millennium cal BC.

7.4 The lack of human remains within the cists can be attributed to the acidity of the soil and the poor preservation conditions, however it is suggested, due to the small size of the cists, that they are most likely to have contained crouched child inhumations, as was the case at Howick (Waddington *et al*. 2006). There was no surface evidence of the cists and they did not show up on the results of the geophysical survey (Durkin 2017), due to their depth of burial, and therefore their discovery was fortuitous and would indicate that more cists exist beyond the limits of the excavated trench.

7.5 Located immediately to the south of Cist 2 in Trench 4 was a linear ditch spanning the width of the trench. This ditch produced two unusual pottery sherds from the same vessel, together with some undiagnostic chipped flint and two shells. It had truncated Cist 2, slightly dislodging the south-east slab from its original position. It is possible that the cists were robbed of any artefacts such as Beakers when the linear ditch was dug sometime after the cists had been constructed. The purpose of this ditch is unknown, however it could possibly be part of a much larger agricultural field system, or even part of a later settlement.

7.6 Potentially prehistoric in date was the small, stone-filled pit encountered within Trench 10 adjacent to the pele tower (1024). The fill of the pit produced chipped flint and an ironstone boulder. The stone packing within the pit was very deliberate indicating that it was a 'structured' deposit. No other associated postholes or features were found within the trench due to its limited extent, however it is possible that prehistoric activity took place in the vicinity of the Pele tower as also indicated by other chips of flint found in other features around the tower. The flat, elevated location on which the pele tower was constructed would have been an attractive location to early communities due to it commanding wide views, being freer draining than much of the surrounding soil. The natural spring within Fisheries Field would have been a source of fresh water and the coast nearby would have provided abundant seafood as well as the ready availability of pebble flint. The large stone-filled pit (1022), also in Trench 10, could also possibly be prehistoric in date due to the finds of chipped flints and the large lump of red ochre within its fill. The association of red ochre with prehistoric burials, possibly due to its representation of blood, and the appearance of it within the pit led could suggest it contained a burial. No bone was found during excavation, which may be due to the acidity of the soil, however the pit was not completely excavated due to time constraints. A medieval date is also possible, as hinted by the discovery of three tiny fragments of medieval pottery from the upper part of the pit fill.

7.7 The hand-dug trenches that were excavated in the vicinity of the pele tower established the location of the front wall of the Mansion House. Probably the most key discovery was that of an early, probably medieval, building that survives in part in Trench 11 and pre-dates the pele tower. The Mansion House sandstone wall foundation, also within Trench 11, was situated on the same alignment as the north-east wall of the pele tower which confirmed that the Mansion House had projected directly from the north-west pele tower elevation, as contemporary illustrations show. Furthermore, the few remaining stones belonging to the Phase 2 rear wall foundation of the Mansion House found in Trench 10, along with the construction cuts that had been made into the natural yellow clay in Trenches 10 and 12, have provided information regarding the two phases to the Mansion House build as well as the extent of the building and how it incorporated the pele tower. The excavations confirmed that after the western extension was built the Mansion House had been wider than the pele tower, *c*.24.6m from north-east to south-west, and that it had extended around the south-western side of the tower, as opposed to only projecting from the north-western elevation as it had in its first phase of build. Differential weathering of the stones on the south-western pele tower elevation wall and the effect of damp, which has differentially eroded the masonry above, demonstrates where the roofline of the mansion house would have extended to when it wrapped around the pele tower (Figure 32). This two phase build for the Mansion House was not known before and was another unexpected discovery resulting from the evaluation work.

7.8 Associated with the mansion house was the small square, brick structure, which has been interpreted as part of a heat system, possibly for a boiler of some sort, and the stone-lined drain, both within Trench 10. The triangular construction of the drain is unusual but well thought-out as it negated the need for separate capstones. The drain was narrow and was therefore probably not intended to carry large amounts of water, such as household waste, but was probably rather intended to carry ground water

away from beneath the Mansion House, or more intriguingly could potentially be medieval and have been constructed to take water away from the pele tower until it was built over by the Mansion House.

7.9 Of unknown date and function are the ditch and stone-lined gully discovered within Trench 12. The cut for the Phase 2 Mansion House west wall did not continue as far the ditch and therefore it was not possible to ascertain the relationship between these features and the Mansion House. The ditch was cut through deposit (1203) which produced ceramic building material and pottery sherds. Deposit (1203) had also been truncated by the rear Mansion House wall construction cut [1204] which means that deposit (1203) pre-dates both the Mansion House and the gully. It is probable that the gully was another drainage feature, and may be contemporary with the Mansion House.

7.10 While the evaluation was very successful in providing new information regarding the history of Cresswell and the pele tower and Mansion House, it has generated many new questions. The limited scope of an evaluation does not always allow for the full investigation of some features due to the constraints of trench sizes as well as time limits. For example, it is probable that more Bronze Age cists exist beyond the extent of what was exposed within Trench 4 and therefore any further excavation on the site should aim to establish the extent of the cemetery site. This would also provide an opportunity to extract some reliable dating evidence. Further excavation in the vicinity of the tower itself would allow for further investigation and dating of the earlier building seen in Trench 11, as well as the large pit feature in Trench 10 and the ditch and gully within Trench 12.

7.11 based on the above discussion it is recommended that the following form priorities for shaping the archaeological strategy for the Development Phase of the project:

- Further excavation around the cists (Trench 4) to recover dating evidence and to establish the extent of the remains and also whether there are associated structural features such as the stone-lined post hole
- Complete excavation of large stone-filled pit (1022) in Trench 10 to establish its form, function and date.
- Extend Trench 11 to expose, delimit and date the surviving parts of the building that pre-dates the pele tower and to understand its function.
- Characterise the potential wall base identified in submerged Trench 2 and undertake further evaluation trenching to establish its course and therefore whether it did form a barmkin for the pele tower.
- Extend Trench 12 around the south side of the pele tower to examine what might survive there.
- Undertake further fieldwalking to characterise and date prehistoric activity around Cresswell and its immediate environs.
- Undertake further targeted geophysical survey, such as on the village green, to characterise and date other archaeological remains around Cresswell and its immediate environs.

- Geophysical survey of the sub-circular cropmark in the field to the south of Golden Sands Holiday Park at Cresswell for evidence of late prehistoric occupation of the Cresswell area.
- Evaluation trenching of the sub-circular cropmark in the field to the south of Golden Sands Holiday Park at Cresswell for evidence of late prehistoric occupation of the Cresswell area.

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APPENDIX I: CONTEXT SUMMARY TABLE

Trench 1

Context Number	Description/*Interpretation*	Depth Below Ground Level
101	Dark brown-grey, sandy-clay with frequent medium sub-rounded stones: overlies deposit (102): ***Topsoil***	-
102	Grey silty-sand with frequent mortar, brick and sandstone fragments: Underlies (101) and overlies deposits (103) and (105), same as deposit (1113) within Trench 11: ***Made ground***	0.23m
103	Grey sandy clay: underlies (102) and overlies (104): ***Sand deposit between layers of made ground***	0.63m
104	Grey clayey sand with frequent sandstone and brick fragments: underlies (103): ***Made ground of demolition material***	0.88m
105	Pink-yellow sandstone: Underlies deposit (102): ***Natural substrate***	0.95m

Trench 2

Context Number	Description/*Interpretation*	Depth Below Ground Level
201	Dark brown sandy-loam with occasional small sub-rounded stones: ***Topsoil***	-
202	Mid grey-brown, silty-clay with occasional angular stones: Overlies deposit (203) and (206): ***Made ground***	0.25m
203	Yellow, Sandstone fragments: Underlies deposit (202) and overlies deposit (2004): ***Made Ground located within the west end of the trench***	0.40m
204	Grey-black, silty sand: Underlies deposit (203) and overlies deposit (204): ***Made ground***	0.50m
205	Dark-grey, clay with medium angular stones: Underlies deposit (204): ***Made ground***	0.55m
206	Yellow sandstone fragments: Underlies (202): ***Possible stone structure, trench waterlogged***	0.25m

Trench 3

Context Number	Description/*Interpretation*	Depth Below Ground Level
301	Dark brown, sandy-loan with occasional medium sub-rounded stones: Overlies subsoil (302): ***Topsoil***	-
302	Mid brown sand: Underlies topsoil (301) and overlies natural substrate (303): ***Subsoil***	0.35m
303	Yellow-red boulder clay: underlies subsoil (302): ***Natural substrate***	0.70m

Trench 4

Context Number	Description/*Interpretation*	Depth Below Ground Level
401	Dark brown, sandy-loam with occasional small-medium sub-rounded stones: overlies sub-soil (402): ***Topsoil***	
402	Mid brown sand: Underlies topsoil (401) and overlies buried topsoil (403): ***Subsoil***	
403	Dark brown sand with frequent charcoal flecks: Underlies subsoil (402) and overlies buried subsoil (404): ***Buried topsoil***	
404	Brown-grey sand: Underlies buried topsoil (403), overlies natural substrate (405), ditch fill (411) and is truncated by	

	ditch [416], cists (407), (417) and posthole [410]: ***Buried subsoil***	
405	Yellow clay with pockets of sand: Underlies buried subsoil (404): ***Natural substrate***	
406	Rectangular cut: Filled by stone cist (407) and backfill (409): Truncated buried subsoil (404): ***Cut for stone cist (407)***	
407	Stone slabs arranged in a box with a pillow stone located at the base; Fill of cut [406] and filled by deposit (409): ***Stone lined cist***	
408	Rectangular cut: Filled by stone cist (417) and backfill (413): Truncated buried subsoil (404): ***Cut for stone cist (4017)***	
409	Dark grey silty-sand: ***Fill of stone cist (407)***	
410	Circular cut: Filled with deposit (414): ***Post hole, possible a marker post associated with cists (407) and (417)***	
411	Dark brown silty-sand: ***Fill of ditch [412]***	
412	NW-SE linear: Truncated natural (405) and filled by (411): ***Ditch***	
413	Dark grey sand: ***Fill of stone cist (417)***	
414	Dark grey sand with large sub angular stones: ***Packing material within posthole [410]***	
415	Grey silty-sand: ***Fill of ditch [416]***	
416	NE-SW linear: Truncating buried subsoil (404) and stone cist (417): filled by (415): ***Ditch***	
417	Stone slabs arranged in a box with a pillow stone located at the base; Fill of cut [408] and filled by deposit (413): Disturbed by ditch [410]: ***Stone lined cist***	

Trench 5

Context Number	Description/*Interpretation*	Depth Below Ground Level
501	Mid grey, sandy-loam with occasional small sub-rounded stones: Overlies subsoil (502): ***Topsoil***	-
502	Light brown, silty sand: Underlies topsoil (501) and overlies buried topsoil (503): ***Subsoil***	0.32m
503	Grey-brown, Sandy-clay: Underlies subsoil (503) and overlies natural substrate (504): ***Buried topsoil***	1.2m
504	Yellow clay: ***Natural substrate***	1.33m

Trench 6

Context Number	Description/*Interpretation*	Depth Below Ground Level
601	Mid brown sandy-loam with occasional small sub-rounded stones: Overlies natural substrates (902) and (903): ***Topsoil***	-
602	Mid brown-red, sandy-clay: ***Natural clay deposit***	0.33m

Trench 7

Context Number	Description/*Interpretation*	Depth Below Ground Level
701	Dark brown, sandy-loam with occasional sub-rounded stones: Overlies natural substrate (702) and furrows [704], [706] and [708]: ***Topsoil***	-
702	Red-orange bounder clay: truncated by furrows [704], [706] and [708]: ***Natural substrate***	0.35m
703	Mid brown clay marl: ***Fill of furrow [704]***	0.34m

704	NW-SE linear :Filled by (703): ***Furrow***	0.34m
705	Mid brown clay marl: ***Fill of furrow [706]***	0.35m
706	NW-SE linear :Filled by (705): ***Furrow***	0.35m
707	Mid brown clay marl: ***Fill of furrow [708]***	0.33m
708	NW-SE linear :Filled by (707): ***Furrow***	0.33m

Trench 8

Context Number	Description/*Interpretation*	Depth Below Ground Level
801	Dark brown, sandy-loam with occasional small-medium sub-rounded stones overlies natural substrate (802): ***Topsoil***	-
802	Red-orange bounder clay: truncated by furrows [804] and [806]: ***Natural substrate***	0.30m
803	Mid brown clay marl: ***Fill of furrow [804]***	0.31m
804	NW-SE linear :Filled by (803): ***Furrow***	0.31m
805	Mid brown clay marl: ***Fill of furrow [804]***	0.29m
806	NW-SE linear :Filled by (805): ***Furrow***	0.29m

Trench 9

Context Number	Description/*Interpretation*	Depth Below Ground Level
901	Mid brown sandy-loam with occasional small sub-rounded stones: Overlies natural substrates (902) and (903): ***Topsoil***	-
902	Mid brown-red, sandy-clay: ***Natural clay deposit between underlying bedrock (903)***	0.41m
903	Sandstone bedrock: ***Natural substrate***	0.41m

Trench 10

Context Number	Description/*Interpretation*	Depth Below Ground Level
1001	Dark brown loam with frequent small sub-rounded stones: Overlies landscape deposit (1002): ***Woodland vegetation and topsoil***	
1002	Dark black-brown, loam and clinker in a small-medium, sub-angular stone matrix: Underlies topsoil (1001) and overlies (1003): ***Landscape deposit***	
1003	Grey-brown, sandy-clay: underlies deposit (1002) and is truncated by brick drains (1004), (1011) and stone drain (1006): Overlies pit [1021]: ***Former subsoil deposit***	
1004	Square brick built structure bonded with lime mortar: Truncates deposit (1003) and underlies deposit (1002): ***Brick built drain***	
1005	Brick built structure with no bonding: Within cut [1011] and overlain by deposit (1002): ***Brick build drain***	
1006	Stone built structure: Fill of construction cut [1009] and filled by deposit (1010): Overlain by (1002): ***Stone built drain with brick repairing***	
1007	Orange clay: truncated by features (1004), (1011), (1009), [1021] and [1025], Overlain by deposits (1002), (1014) and (1008): ***Natural substrate***	
1008	Dark brown clay with crushed mortar and occasional stone inclusions: Overlies deposit (1014) and large pit [1025] and truncated by wall construction cut [1017]: ***Levelling deposit***	
1009	E-W linear truncating deposit (1003): Contained stones	

	(1006) and fill (1010): ***Construction cut for stone drain (1006)***	
1010	Dark brown silty sand with occasional CMB fragments: ***Fill within drain (1006)***	
1011	Cut for brick structure [1005]: ***Cut for brick built drain***	
1012	NW-SE linear truncating deposits (1008), (1014), (1018) and (1022) and natural substrate (1007): Same as [1017] and [1020]: Filled with (1015) and (1002): ***Construction cut for mansion house extension***	
1013	Light cream-brown mortar: overlies deposit (1002) and underlies topsoil (1001): ***Crushed mortar deposit presumably the result of the demolition of the mansion house***	
1014	Mid brown clay, Overlies natural substrate (1007) and pits deposits (1018) and (1022): ***Redeposited natural***	
1015	Stone built structure: within construction cut [1017] and overlain by deposit (1002): ***Fragmented remains of the stone wall foundation of the mansion house extension***	
1016	VOID	
1017	NW-SE linear truncating deposits (1008), (1014), (1018) and (1022) and natural substrate (1007): Same as [1012] and [1020]: Filled with (1015) and (1002): ***Construction cut for mansion house extension***	
1018	Mid brown, silty-sand: overlies stone deposit (1022): ***Fill of large pit***	
1019	Stone deposit abutting wall (1015): Overlies deposit (1018): ***Possible wall tumble***	
1020	NW-SE linear truncating deposits (1008), (1014), (1018) and (1022) and natural substrate (1007): Same as [1017] and [1012]: Filled with (1015) and (1002): ***Construction cut for mansion house extension***	
1021	Circular pit: Filled by (1024): Truncates natural (1007): ***Small pit***	
1022	Large stone deposit including a large fragment or red ochre: Overlain by fill (1018): ***Deliberate backfill within large pit [1025]***	
1023	NW-SE linear, truncating natural (1007): Filled by (1024): ***Construction cut for western elevation (rear) of the mansion house***	
1024	Dark brown silty clay: Fill of [1023]: ***Back fill within wall construction cut after the removal of the stone blocks.***	
1025	Large sub-circular cut: Filled by deposits (1022) and (1018) and truncates natural (1007): large circular pit of unknown function. ***It predated the construction of the manor house extension***	

Trench 11

Context Number	Description/*Interpretation*	Depth Below Ground Level
1101	Dark brown loam with frequent small sub-rounded stones: Overlies landscape deposit (1102): ***Woodland vegetation and topsoil***	
1102	Dark black-brown, loam and clinker in a small-medium, sub-angular stone matrix: Underlies topsoil (1101) and overlies (1003): ***Landscape deposit***	
1103	Orange-brown, sandy-clay with mortar and CBM fragment	

	inclusions: Underlies (1101) and overlies natural substrate (1112): ***Clay interface between deposit (1102) and natural substrate (1112)***	
1104	NW-SE aligned flagstone blocks: Abutted by cobbled surface (1105) and overlain by deposit (1102): ***Truncated remains of wall footings predating the Pele Tower***	
1105	Medium rounded cobbles, truncated by wall foundation cut [1108], abuts flagstones (1005) and overlies charcoal deposit (1110): ***Cobbled floor surface***	
1106	Sandstone fragments and silty loam mix: Abutting wall (1107) and within construction cut [1108]: ***Wall foundation construction cut backfill***	
1107	NW-SE sandstone wall: Abutted by construction cut backfill (1106) and abuts deposit (1109), within construction cut [1008]: ***Foundation wall of the eastern elevation of the manor house***	
1108	NW-SE linear, truncating cobbled surface (005), cobbled bedding material (1110) and levelling deposit (1109): Filled with stone wall (1007) and backfill (1006): ***Mansion foundation wall construction cut***	
1109	Dark brown silty-loam with sandstone fragments: Truncated by wall foundation cut [1108] and overlain by structure (1111) and deposit (1102): ***Levelling deposit***	
1110	Black charcoal: Underlies cobbled surface (1105) and is truncated by wall construction cut [1108]: ***Charcoal bedding deposit for cobbled surface (1105)***	
1111	Sandstone structure: Overlies (1109) and underlies (1102): No binding material evident: ***Possible external flooring associated with the mansion house***	
1112	Yellow-orange clay: ***Natural substrate***	

Trench 12

Context Number	Description/*Interpretation*	Depth Below Ground Level
1201	Dark brown loam with frequent small sub-rounded stones: Overlies landscape deposit (1203) and fill (1202): ***Woodland vegetation and topsoil***	
1202	Dark black-brown, loam and clinker in a small-medium, sub-angular stone matrix: Underlies topsoil (1201): ***Fill within [1204]***	
1203	Small-medium sub angular stones and dark black-brown loam mix with pockets of yellow clay: Overlies natural substrate (1205) and is truncated by [1204], [1207] and [1209]: ***Landscape deposit prior to the construction of the mansion House extension***	
1204	NW-SE linear truncating deposit (1203): Filled by (1202): ***Construction cut for the mansion house extension***	
1205	Yellow-orange clay: ***Natural substrate***	
1206	Dark brown, silty-loam with frequent small-medium, sub-angular stones: ***Fill of [1207]***	
1207	NE-SW linear truncating deposit (1203): Filled by (1202): ***Ditch of unknown function***	
1208	NE-SW stone constructed drain: within cut [1209]: ***Stone drain***	
1209	NE-SW linear truncating deposit (1203): ***Construction cut for stone drain***	

1210	Dark brown, silty-loam with occasional small sub-angular stones: ***Fill of (1208)***	

APPENDIX II: WRITTEN SCHEME OF INVESTIGATION

Creswell Tower

Written Scheme of Investigation for Archaeological Works

1. Introduction

1.1. Project Background

1.1.1. The Cresswell Tower project is led by Cresswell Parish Council and the Greater Morpeth Development Trust. The archaeological works set out within this document will be undertaken as part of a Heritage Lottery Funded project aimed at removing the tower from the Historic England Heritage at Risk Register and providing public access as well as volunteer opportunities and public engagement activities as part of the project. The project will conserve the tower for future generations to enjoy. The programme of archaeological work includes geophysical survey, fieldwalking, archaeological evaluation trenching, building survey, watching brief and archival research. All aspects of the archaeological work are to be conducted in collaboration with the local community allowing for local engagement with the project and the tower, and providing training in heritage skills.

1.1.2. Cresswell Tower House is a Scheduled Monument (NHLE: 1014509) and a Grade II* Listed Building (NHLE: 1042148). The tower is centred at NGR NZ 29364 93356 (Figure 1), at the south end of Druridge Bay. It is currently closed to the public and is included in Historic England's Heritage at Risk Register with its principal vulnerability being recorded as vandalism.

1.1.3. Creswell Tower House is thought to date to the 14th or 15th century and represents a well-preserved example of a border tower house or 'Pele'. The tower is unlikely to have stood in isolation, and probably had an associated external hall and other ancillary structures that have not survived. The tower was first shown on historic mapping on Armstrong's map of 1769 when it was labelled as 'Cresswell Hall'. By this time the tower had an adjoining mansion house. By 1840 the mansion house had been demolished, but the tower was retained as a feature in the landscaped grounds of a new hall. This hall's carriage ride ran past the tower and a mounting block was built in order to allow visitors to disembark and view the old building. In the 20th century the estate was sold to the Ashington Coal Company after a decline in fortunes of the Barker-Cresswell family. The new hall was demolished in the 1930s, but the tower remained and was used occasionally for parties and local events. After the Second World War, however, the tower went into a period of general decline (Ryder 2003, 73-4). In recent years the tower has stood on the edge of a caravan park, closed to visitors, but subject to vandalism.

1.1.4. The tower was surveyed by Peter Ryder as part of a small conservation program undertaken in 2000 (Ryder 2003). Ryder's survey of the tower followed the opening up of blocked access on the ground floor allowing for inspection of the tower's interior. The survey includes drawn plans, cross sections and elevations of all walls and it provides a description of the fabric and historical development of the building (Ryder 2003).

1.1.5. The tower was the subject of an archaeological watching brief in 2014 undertaken as part of preliminary investigations into the structural integrity of the building. This monitored the removal of a build-up of soil and debris at first floor level, exposing a flag-stone floor, the date of which could not be established at the time of the watching brief (Eadie 2014).

1.1.6. This document is a written scheme of investigation (WSI) setting out the required archaeological fieldwork to be undertaken as part of the project.

1.2. **Aims**

1.2.1. The aims of the programme of archaeological works are as follows:

- To investigate Cresswell Tower within its wider geographical and chronological setting.
- To record in detail the structural features and below-ground remains associated with consolidating the tower and providing public access.
- To increase the knowledge and awareness of the heritage of Cresswell for a wide audience, to include schools, young people, volunteers, visitors, and the local community.
- To provide volunteers, school children, young people and members of the public with participation and training opportunities in archaeological fieldwork and historical assessment and the chance to contribute to safeguarding an important heritage landmark of south-east Northumberland. Provision must be made for at least 50 volunteers to participate and receive training in the works outlined below together with provision for up to 100 school children.

1.2.2. Any changes to the agreed WSI will be discussed with, and agreed with, Northumberland County Council (NCC) and Historic England before implementation.

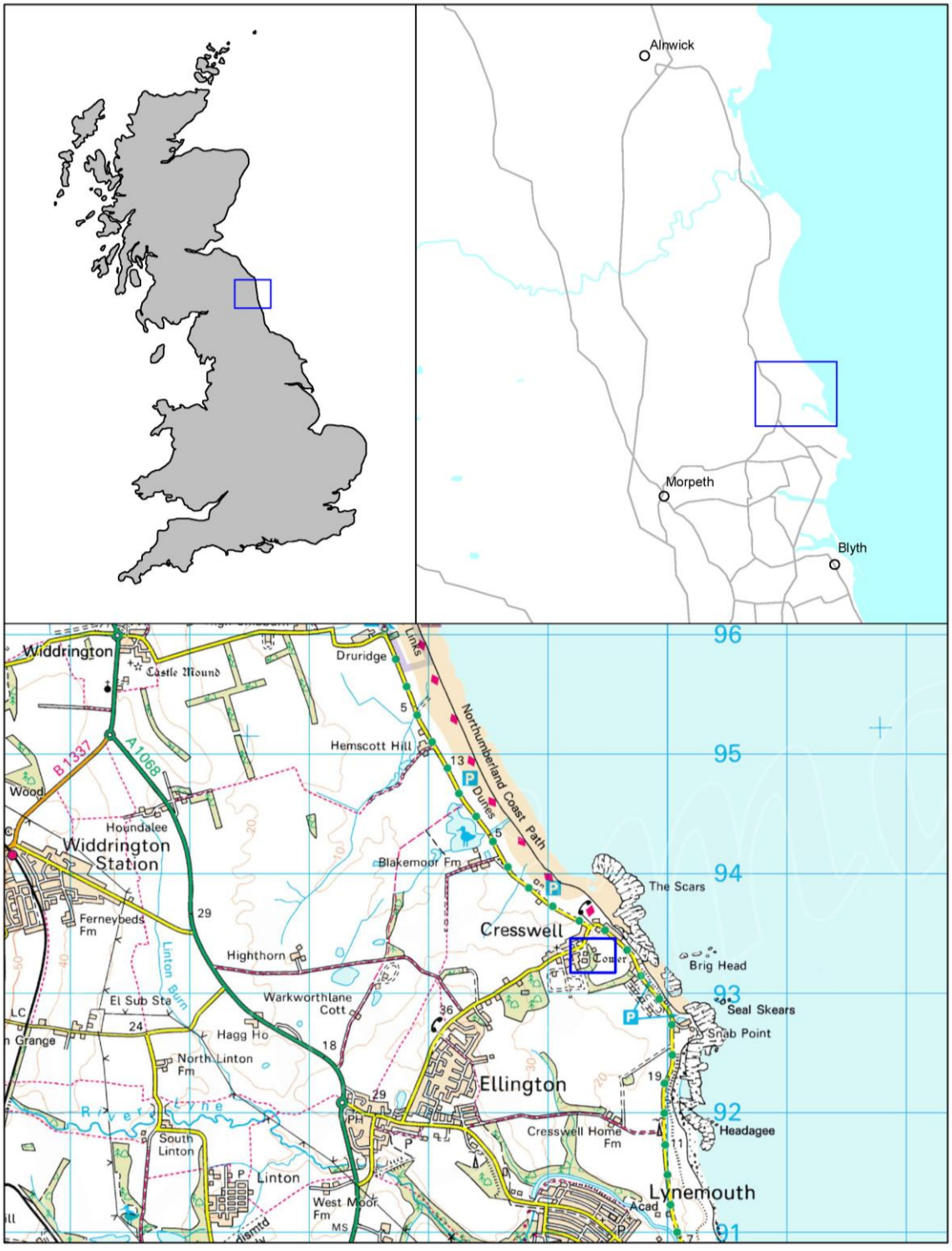

Figure 1. Location of Cresswell Tower.

2. Geophysical Survey

2.1. **Coverage**

2.1.1. A geophysical (magnetometer) survey is to be undertaken across the field to the east and south-east of the tower and within a small walled garden to the west of the tower. This covers an area of *c*.11.5 ha (highlighted in blue on Figure 2 at the end of this document). Provision must be included for public participation and showcasing the technique to volunteers, the public and school groups.

2.2. **Selected technique**

2.2.1. The geophysical survey technique selected for the site is magnetometry.

2.3. **Objectives**

2.3.1. The objective of the detailed gradiometer survey is to identify anomalies of possible archaeological origin within the survey area (see Figure 2) in order to inform the location and potential significance of any buried archaeology on the site. The survey will be used to identify targets for archaeological evaluation.

2.3.2. The presentation and interpretation of the results will be carried out in accordance with the *Code of Conduct of the Chartered Institute for Archaeologists* (CIfA 2014a) and will follow the English Heritage guidelines (2008a) *Geophysical Survey in Archaeological Field Evaluation* and the CIfA *Standard and Guidance for archaeological geophysical survey* (2014c). The contractor undertaking the survey should be a corporate member of the International Society of Archaeological Prospection (ISAP).

2.4. **Methodology**

2.4.1. A survey grid comprising 30m x 30m individual grids will be set up over the selected survey areas. The survey grid must be accurately positioned and co-registered to the Ordnance Survey National Grid.

2.4.2. The grids are to be surveyed using a Bartington Grad 601-2 gradiometer or superior model. The Grad 601-2 has two gradiometer sensors and therefore collects two lines of data during each traverse. Data are collected in a zigzag fashion within the grid starting in the north-west corner, facing east. Readings are taken every 0.25m on traverses 1m apart. This equates to 3600 readings in a complete 30mx30m grid. Sensor balance will be checked and adjusted at regular intervals.

2.4.3. All staff employed on the geophysical survey will be suitably qualified and experienced for their respective project roles and have practical experience of geophysical survey.

2.4.4. All staff will be made aware of the archaeological potential of the area and will be fully briefed on the work required by this WSI.

2.4.5. Provision must be made to demonstrate the technique to volunteers, allow them to

have a go at undertaking traverse surveys, as well as to ensure the areas are fully professionally surveyed. Provision also needs to be made to demonstrate data processing and the use of the software to produce images.

2.5. **Data Processing, Interpretation and Report**

2.5.1. Data processing will be undertaken by an experienced geophysicist using *Geoscan Geoplot V3*. Anomalies will be digitised and geo-referenced. They are to be colour coded to provide the most likely interpretation. Anomalies will be numbered and catalogued as systematic groups or individual anomalies as appropriate. The report will include a graphical and textual account of the techniques undertaken, the data obtained and an archaeological interpretation of that data and conclusions about any likely archaeology. The report will describe the work undertaken and the results obtained. It will (as a minimum) include the following.

- A Non-technical summary
- Introduction
- Geological and topographical setting
- Methodology
- Discussion of archaeological and historical background
- Discussion on the results of the survey
- Conclusions and recommendations
- Sources
- Copy of brief
- Figure showing location of the site
- Figure showing location of survey grids and referencing
- Figure showing processed data
- Figure showing trace plots of processed data
- Figure showing abstraction and interpretation of anomalies.

3. Fieldwalking

3.1. **Introduction**

3.1.1. The field to the east and south-east of Cresswell Tower has recently been brought under crop. When the field is freshly ploughed and has had some time to weather down it will be suitable for fieldwalking. It is to be fieldwalked using the methodology outlined below. This covers an area of *c*.11.4 ha (highlighted in orange on Figure 3).

3.2. **Methodology**

3.2.1. Fieldwalking undertaken at close-spaced intervals of 2m walking transects provides a *c*.100% surface coverage assuming each person observes the ground 1m either side of their transect and that the field in question is walked when there is bare soil or limited sprouting crop. The field is to be line-walked at 2m intervals following the detailed methodology set out below as detailed in Passmore and Waddington (2009).

3.2.2. All walkers will be asked to keep to this range of visibility to ensure consistency throughout the survey. Every find spot will be point-referenced with a total station or survey-grade GPS and the field boundaries surveyed so that the field plan can be related to the Ordnance Survey grid.

3.2.3. Each find will be marked by a cane inserted into the ground and the find inserted into a plastic bag for ease of cataloguing and identification.

3.2.4. The field will be mapped according to slope unit (morphometric mapping) so that each find spot can be ascribed to the type of slope on which it was found. The slope unit categories will be based on those devised for fieldwalking projects elsewhere in England (Waddington 1999, 45-6), which were abstracted from standard slope types identified by Butzer (1982, 58).

3.2.5. Slope type will be recorded as this has important implications for the interpretation of surface artefact distributions as geomorphic processes operating on different slope units will affect artefact distribution and retrieval in different ways (Waddington 1999, 85-91). These processes need to be taken into account before meaningful inferences can be made.

3.2.6. A catalogue of all finds must be produced noting type, date, measurements and material *etc*. for the various finds. A report is to be produced containing an accurate field plot showing slope units and numbered findspots of different types of material as well as text descriptions of each field, together with discussion.

3.3. **Report**

3.3.1. A report will be produced detailing the results of the fieldwalking. The report will describe the work undertaken and the results obtained. It will (as a minimum) include the following.

- A Non-technical summary
- Introduction
- Archaeological and Historical Background
- Methodology
- Discussion on the results of the survey including specialist analyses.
- Conclusions and recommendations
- Figure showing location of the site
- Figure showing location of the fieldwalking finds.
- Colour photographs of selected artefacts.

4. Archaeological Evaluation

4.1. **Objectives**

4.1.1. The aim of the archaeological evaluation excavation work is to identify and assess archaeological features in the vicinity of Cresswell Tower in order to inform on:

- the presence, condition of preservation and potential significance of buried archaeology on the site
- delimit the extent of buried archaeological remains across the site
- determine the nature and date of any archaeological features encountered
- provide information on the form, function and development of the site over time including site phasing
- identify whether any further archaeological work is required and whether any of the planned works on the site for visitor access and conservation have the potential to impact on any buried remains and what the best management responses are to mitigate any such impacts

4.1.2. This will allow for the development of a broad understanding of the history of the site, both before and after the tower's construction. The location of the evaluation trenches will be, in part, determined by the results of the geophysical survey and fieldwalking exercises. Further evaluation trenches will be placed in the immediate vicinity of the tower in order to investigate the potential for the survival of remains associated with the tower's lost contemporary buildings, as well as the later hall built onto its north side.

4.2. **Methodology**

4.2.1. Once the results of the geophysical survey and fieldwalking have been compiled, a targeted programme of archaeological evaluation trenching will be recommended and a trench location plan agreed with NCC and Historic England. It is likely that this will involve the excavation of three 20mx2m trenches and two 10mx2m trenches positioned within the field to the east and south-east of the tower house, as well as in the vicinity of the tower house and within the walled garden to the west. Provision should be made for the excavation of 200m^2 of evaluation trenches together with provision for the inclusion of volunteers together with school groups during the course of this work.

4.2.2. All archaeological work must comply with:

- *Regional statement of good practice for archaeology in the development process, Yorkshire, the Humber & the north east* (SYAS 2011 - available for download from the SYAS website).
- The Chartered Institute for Archaeologists (CIfA) *Code of Conduct* (2014a) and *Standard and Guidance for Archaeological Field Evaluation* (CIfA 2014b).
- Relevant English Heritage best practice guidance documents (see below).

4.2.3. Any changes to the agreed WSI will be discussed with, and agreed by, NCC before implementation.

4.2.4. All turf, topsoil and backfilled spoil will be carefully removed by machine and turfs carefully stacked on plastic sheets with turf laid on to turf and soil laid on to soil to prevent degradation of the turf. Once the trenches have been cleaned, features will be examined by sectioning as appropriate.

4.2.5. Excavation of archaeological features will be undertaken as far as is required to

characterise them, identify sequence and, where possible, to establish their date.

4.2.6. All archaeological features and deposits will be excavated by hand using trowels and small tools unless unusually large feature fills, such as large ditch deposits, occur when in such instances larger hand tools may be used. All archaeological deposits and features will be recorded with an above ordnance datum (AOD) level.

4.2.7. The site will be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. The site archive will include plans and sections at 1:50; 1:20 or 1:10 as appropriate with long sections of each trench and sections and profiles of each feature, a photographic record, and full stratigraphic records on recording forms/context sheets. Each context will be recorded on pro-forma records which will include the following: character and contextual relationships; detailed description (dimensions and shape; soil components, colour, texture and consistency); associated finds; interpretation and phasing as well as cross-references to the drawn, photographic and finds registers. Each context will be recorded on an individual record.

4.2.8. A photographic record will be maintained including photographs of all significant features and overall photographs of each area or trench. All images will be taken in black and white print and colour digital format, and will contain a graduated photographic scale. The main photographic archive will comprise 35mm b/w SLR print film, supplemented by digital SLR (minimum 7 megapixels).

4.2.9. All stratified finds will be collected by context or, where appropriate, individually recorded in 3 dimensions. All finds and pottery will be retained other than material which is 19th century or later.

4.2.10. Any deposits relating to funerary/ritual activities, such as burials and cremation deposits, will be left in situ, where feasible. However, should it be deemed necessary to remove any such human remains, this will be undertaken in line with best practice (English Heritage 2004a; English Heritage and The Church of England 2005; APABE/English Heritage 2013; Brickley and McKinley 2004). Domestic/industrial activity (such as walls, postholes, floors, hearths) will be sufficiently excavated to understand their form and function and to recover potential dating evidence and artefact and ecofact assemblages. Typically this will be a minimum of 20% of all linear features, half-sections of discrete features (e.g. post holes) and 100% of hearths or artefact-rich pits which have high potential for recovery of artefacts and ecofacts.

4.2.11. Area deposits such as buried soils, or middens, will be hand excavated at a minimum 10%. Subsequent excavation by machine will be considered.

4.2.12. Historic England's Science Advisor for the North East, will be provided with advance notice of the commencement of the fieldwork and afforded the opportunity to visit the site once the fieldwork is underway. For all securely stratified deposits not contaminated by high-levels of residual material and relevant to the aims of the sampling strategy, 40-60 litres of sample will be taken, or 100% of the sample if smaller. This material will be floated and passed through graduated sieves, the smallest being a 300µ mesh. Should other types of environmental deposits be encountered appropriate specialist advice will

be sought and an appropriate sampling strategy devised. Samples will be assessed by a suitable specialist with provision for further analysis as required. All environmental sampling will be undertaken in line *with Environmental Archaeology a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2011).

4.2.13. Each evaluation trench will be scanned with a metal detector to assist in identifying any metal objects. All spoil heaps material will also be scanned.

4.3. **Finds Processing and Storage**

4.3.1. All finds processing, conservation work and storage of finds will be carried out in compliance with the CIfA *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (2014d) and those set out by UKIC (1990).

4.3.2. Artefact collection and discard policies will be appropriate for the defined purpose.

4.3.3. Bulk finds which are not discarded will be washed and, with the exception of animal bone, marked. Marking and labelling will be indelible and irremovable by abrasion. Bulk finds will be appropriately bagged, boxed and recorded. This process will be carried out no later than two months after the end of the excavation.

4.3.4. All small finds will be recorded as individual items and appropriately packaged (e.g. lithics in self-sealing plastic bags and ceramic in acid-free tissue paper). Vulnerable objects will be specially packaged and textile, painted glass and coins stored in appropriate specialist systems. This process will be carried out within two days of the small find being excavated.

4.3.5. Metal finds will be sampled, processed and analysed in line with *Centre for Archaeology Guidelines: Archaeometallurgy* (English Heritage 2001), and *Guidelines on the X-radiography of archaeological metalwork* (English Heritage 2006a). Any waterlogged artefacts or ecofacts will be sampled, processed and analysed using *Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood* (English Heritage 2010) and *Waterlogged Organic Artefacts. Guidance on their Recovery, Analysis and Conservation* (English Heritage 2012).

4.3.6. Artefacts, ecofacts and deposits suitable for dating purposes will be identified and obtained in line with *Dendrochronology: Guidelines on producing and interpreting dendrochronological dates* (English Heritage 1998), *Archaeomagnetic Dating: Guidelines on producing and interpreting archaeomagnetic dates* (English Heritage 2006b), and *Luminescence Dating: Guidelines on using luminescence dating in archaeology* (English Heritage 2008b).

4.3.7. Any surface finds will be collected, recorded and processed in line with *Our Portable Past: a statement of English Heritage policy and good practice for portable antiquities/surface collected material in the context of field archaeology and survey programmes (including the use of metal detectors)* (English Heritage 2014) and any finds

deemed to constitute 'treasure' under the terms of the *Treasure (Designation) Order 2002* will be dealt with in line with *The Treasure Act 1996 Code of Practice* (England and Wales (DCMS 2008). Any metalwork recovered by the excavation will be analysed and reported on by a relevant specialist. The metalwork recovered from the original excavation has now been analysed and reported on and this will be integrated with any further analysis resulting from this excavation and included in the site report.

4.3.8. During and after the excavation all objects will be stored in appropriate materials and storage conditions to ensure minimal deterioration and loss of information (including controlled storage, correct packaging, and regular monitoring, immediate selection for conservation of vulnerable material). All storage will have appropriate security provision.

4.3.9. All retained artefacts and ecofacts will be cleaned and packaged in accordance with the requirements of the recipient museum.

4.3.10. A risk assessment will be undertaken before commencement of the work and health and safety regulations will be adhered to at all times.

4.3.11. A site information board will be mounted in an accessible position for visitors to the excavation and regular site tours will be given. An open day will also be held during the excavation.

4.4. **Report**

4.4.1. Following completion of the excavation the contractor will produce a report which will include:

- A non-technical summary.
- Introduction and objectives of the excavation.
- Methodology of the excavation.
- An objective summary statement of results.
- A phased stratigraphic discussion of the archaeological features.
- An interpretive discussion of the results, placing them in a local and regional framework and an assessment of the importance of the remains.
- Appropriate supporting illustrations, including a site plan, trench and section plans, feature sections and plans and a phased site plan.
- A site location plan at 1:2500 or 1:10000 as appropriate and a phased interpretation of the site as appropriate.
- The results of an assessment of artefacts, ecofacts and industrial residues carried out by suitable specialists, who will be furnished with relevant contextual and stratigraphic information.
- If sufficiently significant remains are recovered then an analysis of the above based upon the specialist assessment recommendations.
- A detailed context index and supporting data in tabulated form or in appendices.
- An index to and the proposed location of the archive.
- References.
- A copy of the brief and OASIS form

- Photographs of work in progress on the site.

4.4.2. Within the report:

- All plans will be clearly related to the national grid.
- All levels will be quoted relative to ordnance datum.

4.4.3. Copies of the final report will be submitted to NCC as a paper copy and a digital copy on CD or DVD.

4.4.4. Additional project dissemination will be undertaken as required by the significance of the archaeological finds and deposits encountered. Additional dissemination may include: an article for Archaeology in Northumberland, talks at local archaeology days or conferences, more formal dissemination such as a journal article.

4.5. **Archive Deposition**

4.5.1. A digital, paper and artefactual archive, which will consist of all primary written documents, plans, sections, photographs and electronic data will be submitted to archive. Advice on the retention and discard of finds and samples will have been provided by specialists during the assessment and/or analysis phases and this information will be discussed with the museum when preparing the site archive. Arrangements for the deposition of the finds and site archive will be made with The Great North Museum and Woodhorn Archives in advance of commencement of fieldwork. Following agreement with the client, details of archiving arrangements will be incorporated into the project design. The digital archive will be prepared in line with current best practice outlined in Archaeology Data Service /Digital Antiquity Guides to Good Practice (ADS/Digital Antiquity 2011) and a copy will be deposited with the Archaeology Data Service at the University of York.

4.5.2. The contractor will either arrange for copyright on the deposited material to be assigned to the archive, or will licence the archive to use the material, in perpetuity. This licence will allow the archive to reproduce material, including for use by third parties, with the copyright owner suitably acknowledged.

4.5.3. All artefacts and associated material will be cleaned, recorded, properly stored and deposited in the archive (see above), in line with *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (Brown 2007), and *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA 2014e).

4.5.4. A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts will be supplied to the HER and deposited with the archive as digital images on a CD ROM that will be attached with the report.

4.5.5. NCC will be notified on completion of fieldwork, with a timetable for reporting and archive deposition.

4.5.6. Written confirmation of the archive transfer arrangements, including a date (confirmed or projected) for the transfer, will be included as part of the final report.

4.5.7. An OASIS online record http://ads.ahds.ac.uk/project/oasis/ will be initiated for the project. Key fields will be completed on Details, Location and Creators forms. All parts of the OASIS online form will be completed for submission to the HER. This will include an uploaded .pdf version of the entire report (a paper copy will also be included within the archive).

4.5.8. NCC will be notified of the final deposition of the archive.

5. Building Survey

5.1. **Objectives**

5.1.1. The objective of the building survey is to record the tower to modern technological surveying standards in order to facilitate its consolidation and future management and to produce accurate graphics for use in the site's interpretation. This phase of work will also provide a record of the flag-stone surfaces on the ground and first floors of the building which are due to be lifted and re-set. This meets a recommendation from the 2014 watching brief report (Eadie 2014, 13).

5.2. **Methodology**

5.2.1. Detailed photography of the internal and external elevations of the tower for photogrammetric purposes will be carried out using a digital SLR camera mounted on a pneumatic extendable mast with a height of 10m.

5.2.2. Overlapping photographs which overlap by at least 50% will be taken with the camera positioned at a set distance from the elevation and aligned parallel to the building façade, such that the photographs can be rectified using PhoToPlan software or equivalent to minimise camera distortion.

5.2.3. The rectified photographs will be scaled using targets placed on the elevation and surveyed using a Total Station. At least four targets will placed within each photograph as per the methodology set out in Historic England's guidance on measured survey techniques for historic buildings (English Heritage 2003).

5.2.4. The scaled, rectified photographs will form the basis for the production of accurate scale drawings using AutoCAD software, or equivalent. These will be used for structural analysis of the building, as well as to aid with the production of site interpretation artworks and for assisting long term management of the building by the availability of accurate digital elevations and plans.

6. Watching Brief

6.1. **Objectives**

6.1.1. The objective of the watching brief is to identify any archaeological features present and to define their form, function and date in relation to the findings from the earlier phases of archaeological works outlined in the previous sections.

6.2. **Methodology**

6.2.1. The watching brief will be undertaken during the lifting of the floor surfaces on the ground and first floor levels of the tower, as well as during groundworks associated with the installation of electrical cables and other infrastructure.

6.2.2. The watching brief will be undertaken after the building survey when a full record of the existing floor surfaces has been produced.

6.2.3. The floor surfaces will be lifted by hand and the resultant surface will be cleaned and inspected with the particular aim of recovering datable evidence for the tower's construction and/or the laying of the floor surfaces.

6.2.4. The excavation of service trenches will be undertaken using a mechanical excavator fitted with a toothless ditching bucket. All excavations will be carried out under archaeological supervision.

6.2.5. The watching brief will be undertaken by a suitably qualified archaeologist who will be fully appraised of the archaeological potential of the site. The archaeologist will be given the opportunity to stop site work within a given area in order to investigate potential archaeological features and be allocated adequate time to allow for the recording of any such features.

6.2.6. The watching brief will be undertaken in accordance with the Chartered Institute for Archaeologists *Code of Conduct* (2014a) and *Standards and Guidelines for Archaeological Watching Briefs* (2014f).

6.2.7. Where archaeological features and/or deposits are identified during the watching brief, then the features will be investigated by hand to allow their form, character, date, phasing and degree of survival to be ascertained. An accurate plan of the excavated areas will be maintained, features noted and section lines recorded to Ordnance Datum. Should archaeological features be present then the locations and height AOD of the features will be accurately fixed, surveying in either the planning baselines or the features themselves.

6.2.8. A photographic record will be maintained including photographs of all significant features and general working images. All images will be taken in black and white print and colour digital format, and will contain a graduated photographic scale. The main photographic archive will comprise 35mm b/w SLR print film, supplemented by digital images (minimum 7 megapixels).

6.2.9. Provision must be made for obtaining up to two radiocarbon dates.

6.2.10. All excavation, post-excavation processing, reporting, and archiving will be carried out in accordance with relevant guidance and will follow the methodology outlined for archaeological evaluation in Section 4 of this document.

7. Archival Research

7.1. **Objectives**

7.1.1. Archival research into the history of the tower and the surrounding area will enhance the interpretation of features identified through the various archaeological methods employed, as well as providing potential targets for further research and investigation during the Delivery Phase. This will also feed into the public dissemination of the results of the project in the form of a guide book and interpretation panels within the tower.

7.2. **Methodology**

7.2.1. Archival research will be led by the contractor and will include contributions undertaken by volunteers co-ordinated and trained by the contractor. The work will be carried out in accordance with the guidance of the Chartered Institute for Archaeologists (CIfA 2014g) and will include the following:

- Geotechnical data (if available)
- Cartographic Sources
- Photographic sources including aerial photographs (NMR, HER and other collections as appropriate) and provision to be made for training of volunteers specifically in aerial photograph analysis and transcription
- Historical documents held at local and national archives, as well as those held in any relevant private archives identified during the course of the investigation
- Records and indexes
- Archaeological, historical or industrial journals, books or documents
- HER covering the area of the farm and its immediate environs.
- NRHE and NHLE records covering the area of the tower and its immediate environs.

7.2.2. The results of the archival research will be used to place the tower within its wider geographical, historical and chronological context.

8. Volunteer Involvement and Outreach

8.1.1. One of the principle aims of the project is t*o provide volunteers, school children, young people and members of the public with training and experience in recording and looking after historic and archaeological remains*. The project will require the professional archaeological contractor to provide training in archaeological techniques. Volunteers will be involved in all elements of the project outlined above. Training in archaeological excavation and recording techniques will be provided, alongside participation opportunities to assist with specialist survey equipment such as the gradiometer, the total station and high level photography. Provision by the archaeological contractor must also be made for the training volunteers in the archaeological analysis of standing

buildings and in finds identification and to participate in post-excavation processes such as finds processing and archiving, as well as the production of digital reports and illustrations. Training must also be provided in research techniques and introductions to common archival resources.

8.1.2. The appointed contractor must undertake a programme of walks, talks and presentations open to the public, key stakeholders, and specialist groups. This should be a rolling programme that takes place throughout the duration of the project.

8.1.3. Provision must also be made to facilitate site visits from schools, local groups, and specialist audiences such as The Castle Studies Group and the Society of Antiquaries of Newcastle upon Tyne.

8.1.4. A one-day guided study tour of the site and relevant comparanda sites in the local area will be provided by the archaeological contractor for members of the Castle Studies Group.

9. Publication

9.1.1. The results of all phases of the archaeological works and research will be collated into an academic publication, taking the form of a short book. This will have a print run of 200 copies in softback for distribution and sale.

9.1.2 The book will be professionally typeset, copy edited, refereed, indexed and proofed.

10. Monitoring Arrangements

10.1.1. The contractor will liaise with Northumberland County Council and Historic England at regular intervals throughout the course of the work so that appropriate monitoring visits can be arranged

11. Project management

11.1.1. The contractor directing the work on behalf of The Parish Council and the Greater Morpeth Development Trust will be a Registered Organisation with the Chartered Institute for Archaeologists (CIfA). Registered Organisations are continuously assessed to ensure that the highest standards of work are carried out, in line with the *Code of Conduct* of the CIfA (2014a). Given that the site in question is both a Scheduled Monument and Listed Building this is deemed an essential requirement.

11.1.2. All staff employed on the project will be suitably qualified and experienced for their respective project roles and have practical experience of the necessary specialist tasks. The staff must also have experience of community-based archaeological projects and working with the public and young people and have undergone safeguarding training. All staff will be made aware of the archaeological importance of the area surrounding the site and will be fully briefed on the work required by this specification. Each member of staff will be fully conversant with the aims and methodologies and will be given a copy of

this WSI and risk assessment to read. All professionals employed on the works will be fully qualified and experienced archaeologists to ensure that appropriate decisions regarding excavation and sampling will be made in the field.

12. Staff and Specialists

12.1.1. The Project will be managed by an experienced archaeologist with 'Member' status of the Chartered Institute for Archaeologists.

12.1.2. Only specialists who can provide the required level of expertise will be employed to carry out specialist analytical work. The contractor must engage with a specialist on late-medieval castles who can provide advice throughout the project. The successful contractor will be required to provide a list of specialists for approval in advance of works commencing.

13. References

APABE/English Heritage. 2013. *Science and the dead: A Guideline for the Destructive Sampling of Archaeological Human Remains for Scientific Analysis.*

Archaeology Data Service/Digital Antiquity. 2011. *Guides to Good Practice.*

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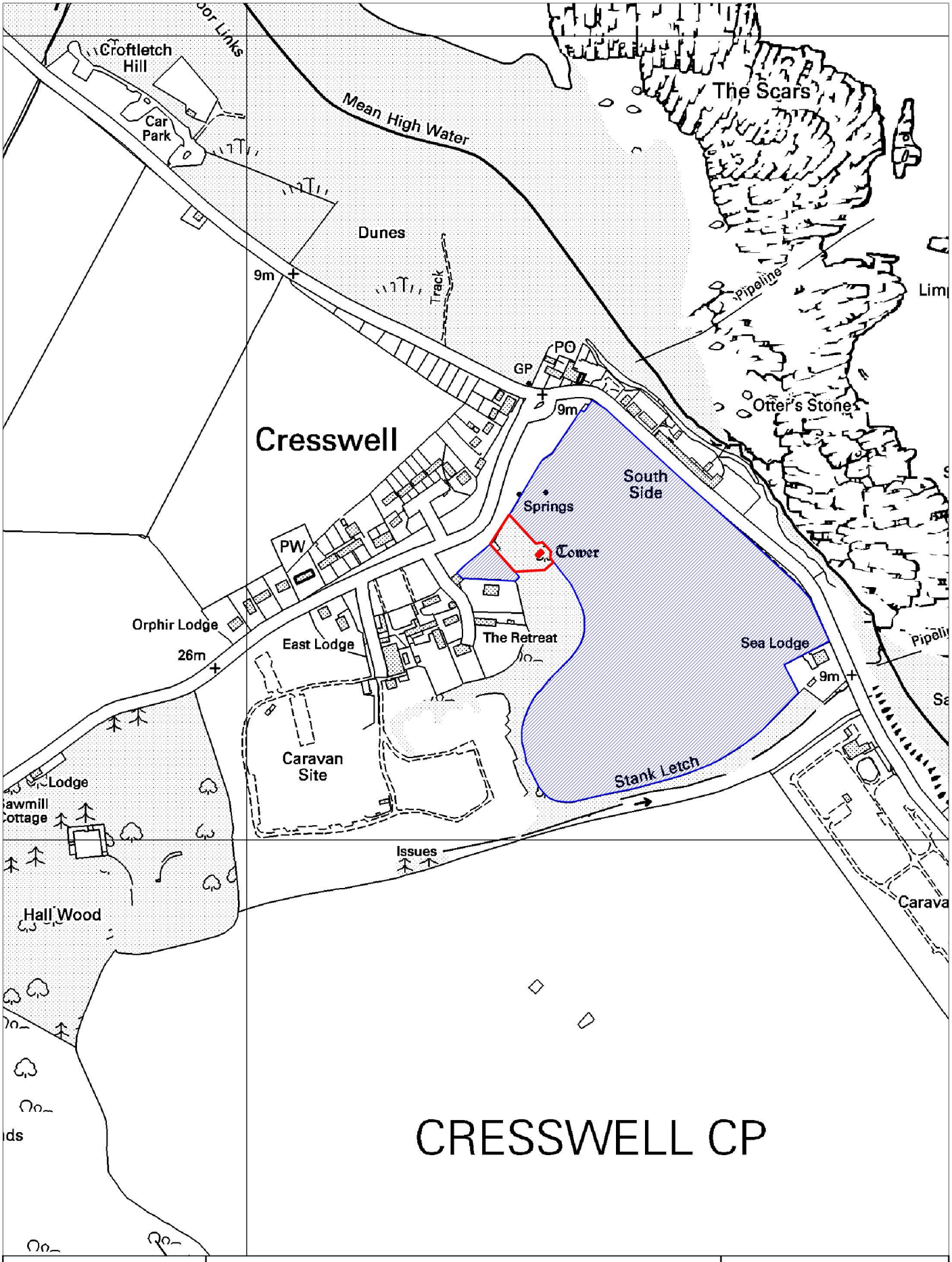


Site name:	Cresswell Tower House
Date:	August 2015
Drawn by:	GS

Key

Site Boundary Geophysics Area

N

0 50 100 150 200 m

Figure 2: Geophysical Survey Area

Site name:	Cresswell Tower House
Date:	August 2015
Drawn by:	GS

Key

Site Boundary Fieldwalking Area

N

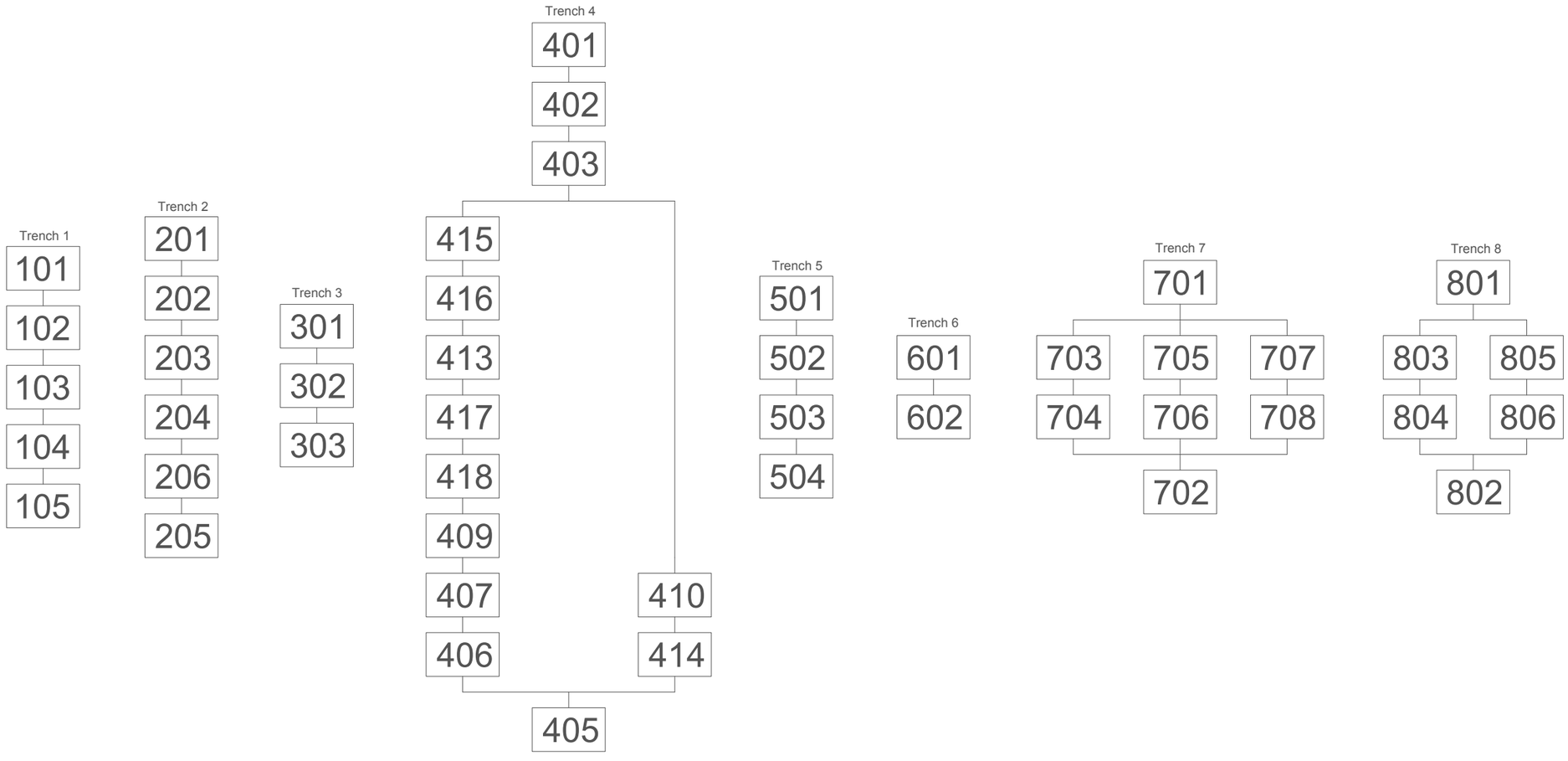
0 50 100 150 200 m

Figure 3: Fieldwalking Area

APPENDIX III: HARRIS MATRICES

Harris Matrices

Key:



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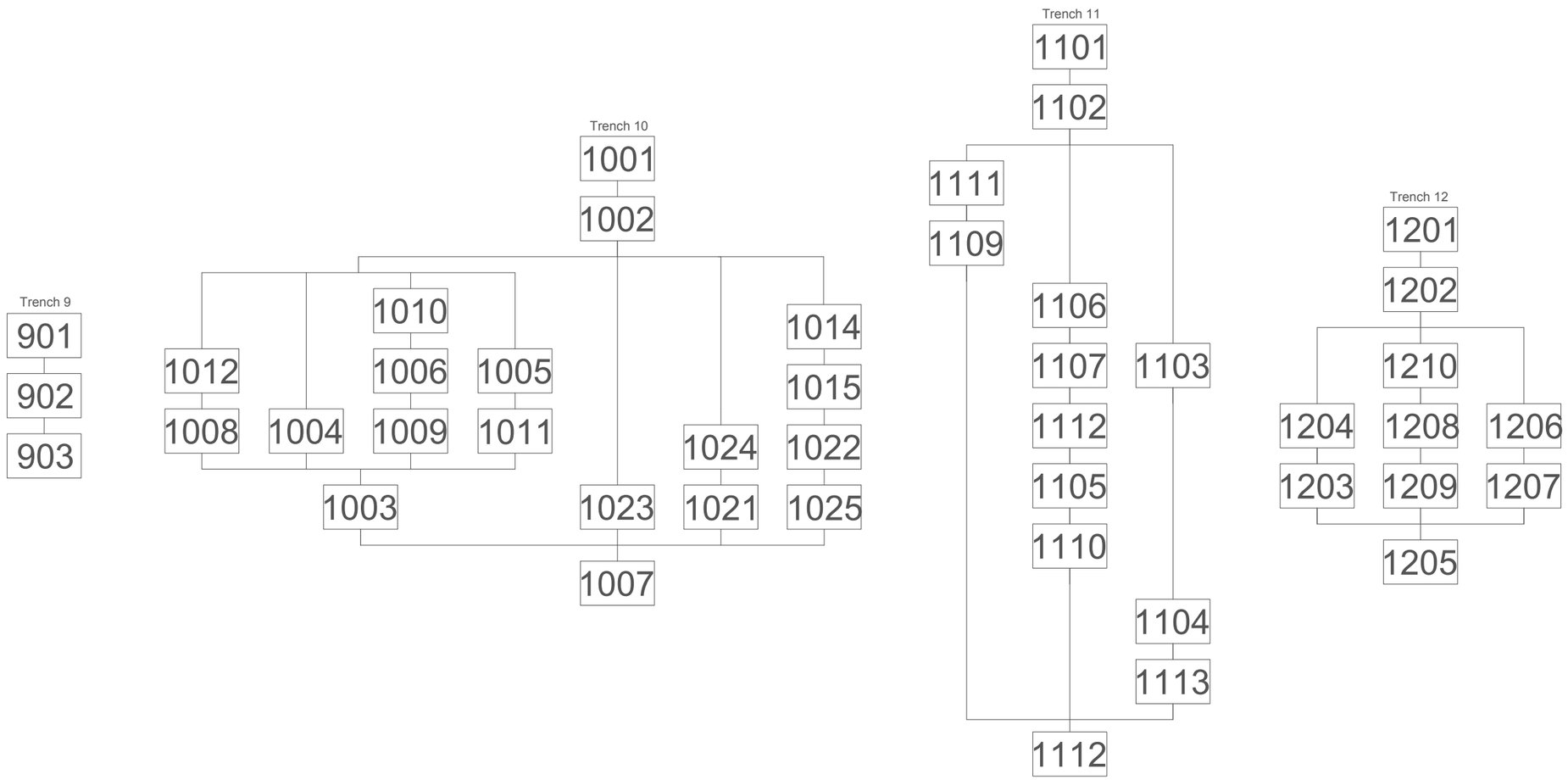
Harris Matrices



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APPENDIX IV: OASIS FORM

OASIS DATA COLLECTION FORM: England

Printable version

OASIS ID: archaeol5-278789

Project details

Project name	Cresswell Pele Tower Community Archaeology Project. Evaluation Trenching
Short description of the project	The Cresswell Pele Tower Community Archaeology Project is led by Cresswell Parish Council and the Greater Morpeth Development Trust. Creswell Pele Tower is thought to date to the 14th or 15th century and represents a well-preserved example of a border tower house or 'Pele'. The tower is a Scheduled Monument (NHLE: 1014509) and a Grade II* Listed Building (NHLE: 1042148). The archaeological evaluation trenching was undertaken as part of a Heritage Lottery Funded project which aims to remove the tower from the Historic England Heritage at Risk Register and also provide public access to the tower. The project will conserve the tower for future generations to enjoy. As well as the evaluation trenching, the current programme of archaeological work includes geophysical survey, fieldwalking and a watching brief. All aspects of the archaeological work have been conducted in collaboration with the local community allowing for local engagement with the project and the tower, and providing training and participation opportunities in heritage and archaeological activities and skills.
Project dates	Start: 06-02-2017 End: 20-02-2017
Previous/future work	Yes / Yes
Type of project	Field evaluation
Monument type	CIST Bronze Age
Monument type	WALL FOUNDATION Post Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	POTTERY Middle Iron Age
Methods & techniques	"Targeted Trenches","Test Pits"
Development type	Building refurbishment/repairs/restoration
Prompt	Conservation/ restoration
Position in the planning process	Not known / Not recorded

Project location

Country	England
Site location	NORTHUMBERLAND CASTLE MORPETH CRESSWELL Cresswell Pele Tower

Entered by	Philippa Cockburn (philippa@archaeologicalresearchservices.com)
Entered on	9 March 2017

OASIS:

Please e-mail Historic England for OASIS help and advice