

Castleshaw Roman Fort: Archaeological Excavations within the eastern annexe

2024



View looking north west across the forts with the annexe excavations on the right (drone photo credit: Joolze Dymond)

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Friends of Castleshaw Roman Forts

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Summary

As part of the Castleshaw Roman Forts Hinterland Survey, the Friends of Castleshaw Roman Forts (FoCRF) carried out an archaeological excavation of an area of land east of the defences at Castleshaw Roman Fort (Heritage Asset No. 1017837), centred on grid reference SD99830953. This took place over 21 days in summer 2024.

11 trenches and 17 test pits were excavated within the recently discovered annexe attached to the east side of the late 1st century AD fort. A further 3 test pits were dug across the proposed line of the trans-Pennine Roman highway just south of the annexe. Key results were:

- Based on last year's geophysical survey and Lidar, 3 test pits were excavated over the projected line of the main highway in Daycroft Field close to Drycroft Lane to the east of the fort. There was no evidence for the road, only deep plough soil and a potential Roman linear cut feature at c 80 cm depth. It is concluded the road has been completely removed in this area due to later disturbance.
- Three trenches were dug across the line of the annexe rampart which was shown to run at least 44 metres in a straight line eastwards from the south west corner of the fort rampart before meeting Dirty Lane. The north and south annexe ramparts survived at only around 25 cm deep which may explain why the annexe had not previously been recognised. However, in Trench 1 it was found to be up to 60 cm high, although badly truncated to the front and rear. From the 2024 and 2023 trenches it is now possible to provide a complete profile of the annexe southern rampart and ditch, with the rampart being c 3.5 m wide and the ditch 3 m wide and around 1 m deep. It was not possible to find the eastern side of the annexe due to significant post medieval disturbance witnessed in Trench 3 and Test Pits 1 and 2 in the form of medieval and post medieval buildings including Husted's farm and cottage as well as Dirty Lane (as shown in Test Pit 9) which is likely to have occupied the site of the eastern defences.
- A deeply buried line of substantial kerb stones in the south east corner of the site (in Trench 3) were found to be part of a foundation for a large building with an associated drain cutting through the top of the annexe rampart. The building was probably dismantled in the second quarter of the 19th century and is likely to be of medieval origin.
- The terminus of the fort's eastern ditch was confirmed. It runs for 22 metres from the north east corner of the fort, straddling its junction with the annexe northern rampart. Its tongue shaped terminus was filled with stone rubble and some Roman tile came from the ditch fill. It is very rare for a ditch not to extend along the whole length of a fort rampart. Given the weakened defences, this implies a strong connection between the fort garrison and the function of the annexe.
- A plethora of post holes and foundation slots for timber buildings were found to the north of the long stone platform revealed in 2022. A long line of slots/post holes was revealed running alongside the platform while further north were several internal and external wall alignments. These took the form of regularly spaced posts separated by short sections of horizontal beams ranging from 0.8 m to 1.5 m long and 15 cm wide. The north west corner of an external wall was exposed, which demonstrated the continuation of the wall line from the corner revealed in the 2023 trench to give a length of 6.5 m. As this is the only complete wall line it is not yet possible to define a complete building plan so this will be a priority for next year. A building slot was partly exposed to the south of the stone platform suggesting, along with evidence from last year's excavation, that buildings also filled the space between the east gate exit road and the stone platform.
- The phasing of last year was confirmed. The timber buildings formed the first phase but were then dismantled and the area capped with clay and shale for a second phase of intense oven and hearth activity. Several more hearths were uncovered in 2024 and one of these clearly overlay an earlier building slot (in Trench 4).
- The most interesting feature was a subterranean stone structure interpreted as a grain drying kiln. It was formed of roughly coursed gritstone walls up to 7 courses deep on 3 sides with an open end to the north for the furnace. The east and west sides were straight and the southern end gently curving giving an internal dimension of 1.1 m by 0.8 m. There was evidence for intense heat in the form of

burnt red clay deposits and burnt stone rubble filling in the disused kiln, along with deeply red oxidised clay under and to the side of the kiln. The kiln had a small flagstone floor. Adjacent post holes and a building slot to the north may have formed part of a timber superstructure to house the kiln. Unfortunately, soil analysis showed no evidence for grain or any other function residues. Pollen analysis undertaken as part of previous investigations has shown that spelt wheat was grown near the fort and it would have been essential to dry this to protect it from damp if it was to be used for bread making. The floor of the kiln shows little sign of heat reddening unlike the walls and the clay underneath which was oxidised red to a considerable depth. This suggests that the floor was a replacement and did not see much use before the kiln was abandoned. A 1.2 kg disc-shaped lead weight marked with the letter 'M' was found laid alongside the kiln. The 'M' probably stands for *Modius* which was a Roman measure of grain. The weight was formed in a mould and had been clipped on one side to achieve the desired weight. It was presumably used either to measure out the grain for distribution or to check that the grain conformed to the required dry weight. It appears to have been carefully deposited when the kiln was decommissioned.

- Immediately to the west of the kiln were remains of a stone-built bread oven, probably dome-shaped. This had been cut through by an old excavation trench, thought to be dug by Bruton in 1907/8 and not recorded. The stone walls of the flue and part of the back wall and floor of the oven survived. Two test pits provided strong evidence that more ovens or kilns existed in this area and further exposure of these will be an objective for future investigations.
- Test Pits 17 and 18 suggest, along with Thompson's 1963 trench that Roman activity dies away in the central northern part of the annexe. However, this is not the case on the eastern and western sides. In 2023 Trench 3 revealed an oven set tight against the inside north west corner of the annexe where the fort ditch met the annexe rampart. In 2024 Test Pit 19 appeared to show a building slot running east to west, roughly in line with the slot found north of the kiln in Trench 8. These might indicate the rear, northern sides of timber buildings. Towards the north east corner of the annexe Test Pit 11 and Test Pit 5 in 2018 showed good potential for Roman remains, and a burnt clay deposit in the corner of Test Pit 9 might indicate the site of an oven.
- Several pieces of Samian ware were recovered along with a few Roman coarse ware pottery sherds and nails. The artifact dating is in line with previous seasons and indicates a late 1st century AD date.
- Soil sample analysis showed no plant remains or metallurgical traces within the 11 submitted samples. However, charcoal analysis identified oak, willow/poplar and hazel – typically used for fuel purposes.
- It is theorised that the annexe had a special function connected with transport and travel on the main cross Pennine highway between York and Chester. The climb from the fort eastwards to Standedge is a very steep one and extra haulage animals would be needed to help wagons make the ascent. The southern half of the annexe is almost devoid of archaeology perhaps because it was used to park wagons and tether animals and store goods. In contrast the northern half has a great deal of activity with, in the second phase, a concentration of meat roasting clay ovens, hearths, stone ovens (for baking bread?) and a grain drying kiln. Were these to provide refreshments for travellers/officials?
- The function of the earlier timber building phase is uncertain. Perhaps the annexe served as quarters for the constructors of the fort or for an additional unit attached to the fort for a special operation.
- The annexe activity is thought to belong to the late first century fort phase however it is possible that there were early 2nd century fortlet elements as well. Around AD 120 the main highway was diverted round the back of the fortlet to make way for buildings on the flat ground opposite the south gate yet there is plenty of flat ground available in the former annexe area. Why not use this instead of having to divert the road, or was this space already taken with various activities? There is much more to find out.

Background

As part of the Castleshaw Roman Forts Hinterland Survey, the Friends of Castleshaw Roman Forts (FoCRF) carried out an archaeological excavation of an area of land east of the defences at Castleshaw Roman Fort (Heritage Asset No. 1017837), centred on grid reference SD99830953. The land is owned by United Utilities and farmed by David Hirst.

In February 2024 Scheduled Monument Consent (Ref: S00245250) was granted to undertake excavations across land to the east of the Roman fort to target and better understand archaeological remains that had been partly revealed in previous investigations. The permission was granted on 26th February and allowed for investigations to be undertaken until the end of 2024.

The 2023 excavations threw more light on the nature and extent of archaeological remains relating to the recently discovered annexe attached to the east side of the fort. Combined with the results from 2018, 2019, 2021 and 2022 it enabled the following understanding of the annexe:

The excavations in the northern half of the annexe showed a sequence of events that appeared to comprise an initial phase of timber buildings which were then dismantled and the area given over to intensive use for ovens and hearths accessed by stone platforms. The remains of 3 timber buildings and a possible fourth were revealed, although there is not yet a complete plan for any of the structures. Foundations took the form of post-in-trench construction. One of the buildings appeared to be open sided. A stone platform 10 metres long by 1.5 metres wide gave access to one of the buildings but after demolition the area was given over to cooking activities evidenced by several ovens. The ovens comprised charcoal concentrations in circular shallow depressions with, in some cases, stone aprons provided for access. Frequent pieces of daub and the character of the remains suggest these were simple clay ovens. They appeared to be short-lived as there were several phases of demolition, levelling and new build creating complex stratigraphy. Soil samples found no metallurgical residues or cereal grains, but the ashes from one oven contained calcined animal bone suggesting the cooking of meat. Two heat-reddened clay areas indicated the sites of hearths of unknown function. Frequent pieces of lead waste suggest that lead was being utilised throughout the site.

A section was excavated through the fort ditch 18.5 metres from the north east corner of the fort. It was 'V' shaped, 1.14 metres deep and 2.3 metres wide. A shallower outer ditch was revealed near the corner of the fort defences. This is the first time that archaeological investigations have been able to locate the ditch on the east side, with previous excavators (Bruton 1908, Thompson 1963 and Salford Archaeology 2014) noting its absence. At right angles to the ditch were remains of the annexe's northern rampart. It was 3.2 wide and 25 cm deep and there appeared to be an associated ditch although this was not conclusively excavated. The fort ditch terminated just beyond the junction with the annexe defences and it is estimated that the ditch is absent along the central two thirds of the fort's eastern defences. Another oven was set into the rear of the annexe rampart. There was evidence for the rampart being slighted when the fort was abandoned in the mid AD 90s.

To date, investigations have shown possible zonal planning for the annexe. To the south of the road exiting the east gate there are very few archaeological remains which suggests this half of the annexe was used perhaps for storage, as a wagon park and for tethering animals. It is a very different story for the north half of the annexe. Here there is a first phase of at least 3 timber buildings followed by re-use for intensive cooking represented by a plethora of ovens and hearths. The annexe can be interpreted as providing a form of 'staging post' with refreshments and perhaps accommodation offered to travellers using the main York to Chester highway, with extra teams of draught animals available to hitch up to wagons for the steep climb up to Standedge immediately east of the fort.

Methodology for the 2024 Investigations

For the 2024 excavation season the following programme of targeted investigation was proposed.



Contour map with previous annexe excavations shown in black. Recommendations for future investigation are the red bounded areas which are numbered with the rationale set out below.

1. A trench should be dug at right angles across the southern annexe defences, Drycroft Lane and the projected line of the main highway in Daycroft Field. This trench would incorporate and extend test pits previously excavated along this line and would provide a profile across the annexe's defences, Drycroft Lane and the Roman highway. The latter has still to be located in this area.
2. A test pit dug in 2021 located part of the annexe defensive ditch here. The rampart and ditch should be fully exposed and recorded through a section.
3. In 2021 a long narrow trench first discovered the southern defences of a military annexe attached to the east side of the fort, in the form of a ditch and the top of the rampart material. Nearby, to the east, a test pit also revealed rampart material. But the rampart has not been fully exposed or properly excavated here, nor is it known how far the rampart runs before turning northwards. This area should be excavated further to reveal the plan form of the rampart and its surviving depth and make up.
4. In 2021 a trench was excavated adjacent to the site of Husteds Cottage. It found a tightly jointed smooth gritstone surface at depth and sealed by a post medieval wall linking to the cottage. Kerb stones were also found at depth, associated with the stone surface. These remains could be part of the Roman road exiting the fort's east gate to rejoin the main highway or might relate to a potential medieval (pre-cottage) building. The trench was not completed and should be re-opened, expanded and completed.
5. The eastern arm of the annexe defences have not yet been located. Test pits should be excavated in this area beside the road to see if there is any surviving evidence for it. The road, former post

medieval buildings (Husteds Farm and Cottage) and other modern ground intrusions mean that there has been a lot of disturbance in this area.

6. This is an area that has not been evaluated and therefore is of unknown Roman potential. Test Pit 16 from the 2023 investigations suggests there is Roman archaeology in this area which is worthy of further exploration and clarification.
7. On the south side of the east gate a stone platform was partly revealed in 2021, mirroring that on the north side of the gate discovered in 2014 and further defined in 2023. The extent of the stone platform and its relationship to the rampart should be explored through further excavation.
8. This is a large area which has significant archaeology that has informed understanding of the phasing and function of the annexe. This area on the north side of the road exiting the east gate has been shown to have stone platforms giving access to timber buildings, ovens and hearths. Foundation slots and post holes were found in 2023 for possibly 4 separate timber buildings which appear to belong to the first phase of activity in the annexe. However, they have only been partly revealed and there is not yet a complete building plan nor a firm understanding of spatial relationships and phasing. It is proposed to determine through further excavation the plan form, character and function of these structures. The extent of the ovens and hearths in this area is also not yet defined and requires further investigation. Targeted open area trenches combined with test pits will be deployed.
9. In 2019 two stone ovens were revealed in plan when an old, unrecorded, excavation trench (probably by Bruton in 1908) was re-excavated. These ovens are in contrast to the clay ovens revealed in the 2023 excavations to the south and north west. It is assumed these stone ovens are for baking bread but it would be useful to further excavate the one that has been less damaged by the Bruton's trench to reveal its base and hopefully obtain samples for analysis. To the west a possible third oven was partly revealed in 2018 and this should be further examined to confirm if it was an oven forming part of a bank of three.
10. Between this year's Trench 3 and the 2014 Trench 1 (only 2 metres apart) lies the terminus of the fort ditch. It is critical for our understanding of the fort to define this terminus.
11. The northern defences of the annexe were partly exposed in Trench 3 this year, with a good section through the rampart base but with the ditch only partly excavated and not yet confirmed. It is recommended that the alignment and character of the defences should be confirmed through a new trench 5 metres to the east of Trench 3.
12. On the north side of Dirty Lane, just outside the Scheduled area, three 1 m square test pits dug in 2019 found evidence for a ditch and Roman deposits. Could this ditch be part of the annexe defences? This area should be subject to a larger excavation to better define the previously revealed features.
13. In 2014 Salford Archaeology and the Friends re-excavated an old trench that ran across the fort's eastern defences half way between the east gate and the south east corner. The rampart was revealed in section but no ditch. It is important to find the terminus of the ditch which should be a little south of Trench 7, assuming it mirrors the arrangement to the north.

It is not intended to excavate these areas fully. They are guides for where to target test pits and trenches. Area 8 will be a priority as will the establishment of the extent of the annexe defences and clarification of the road system. Further comparative research is required to better understand the ovens that have been revealed – this will be an ongoing project throughout 2024.

The 2024 excavations took place over 21 days:

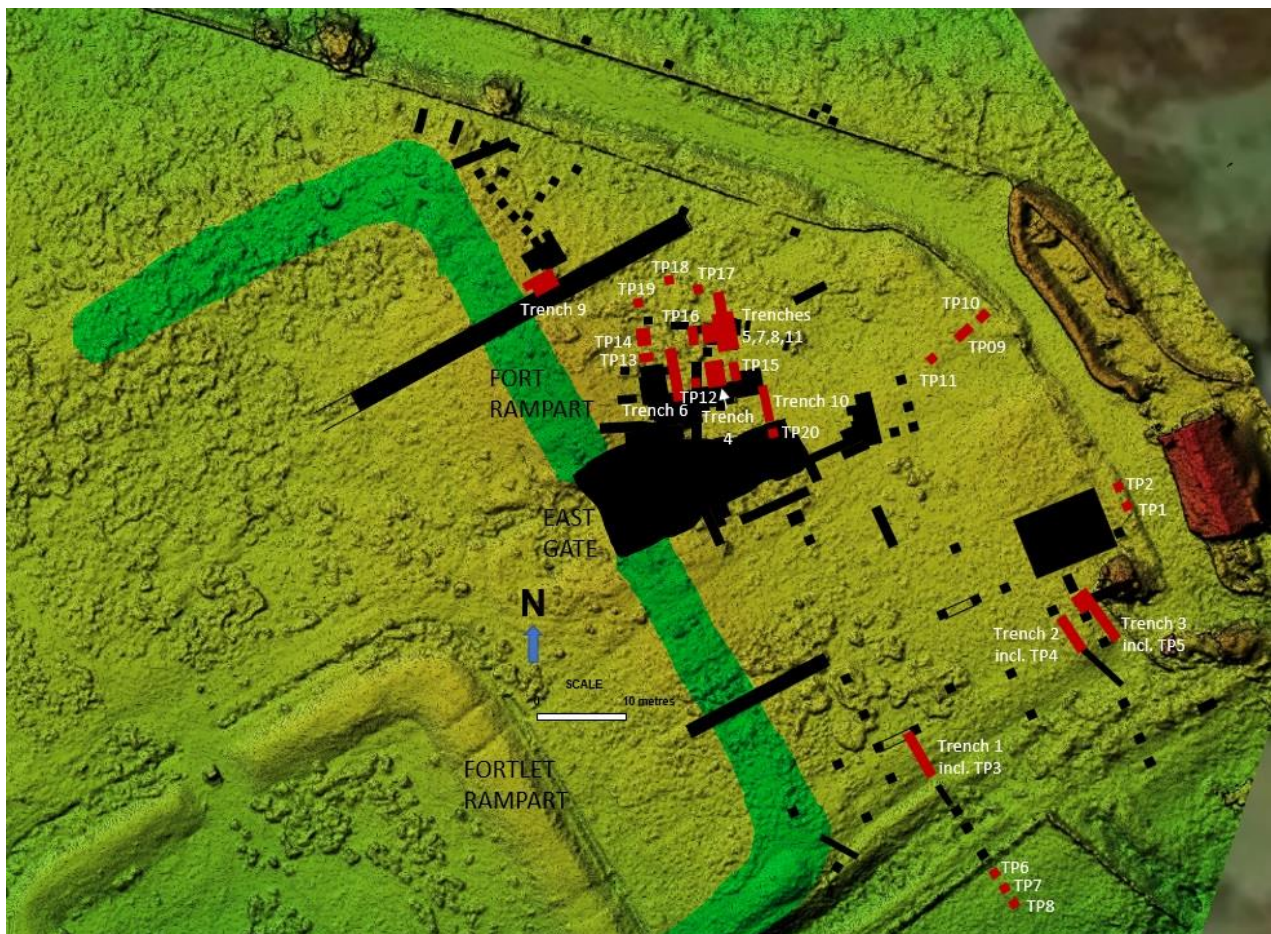
Sat 18th May, Sat 25th May, Sat 15th June and Sun 16th June, Sat 13th July, Sun 14th and Mon 15th July, Sat 28th July, Sun 29th and Mon 30th July, Sat 3rd Aug, Sun 4th Aug and Mon 5th Aug, Fri 9th Aug, Sat 10th Aug and Sun 11th Aug, Sat 24th Aug, Sun 25th Aug and Mon 26th Aug, Sat 31st Aug and Sun 1st Sept.

Norman Redhead, former Greater Manchester County Archaeologist, led the excavations which were undertaken by a total of 43 volunteers belonging to the Friends of Castleshaw Roman Forts. The investigations were undertaken in relation to research strategies 8, 9 and 10 in the 'Excavation Strategy', which also contains the excavation methodology (Redhead, 2013).

The weather was generally cool, overcast and damp – but only two days and a few hours here and there were lost to rain. When the weather was suitable for excavation, the ground conditions were perfect as the ground was softened and showed the soil colours really well, as opposed to hot and dry conditions when the high clay content soil bakes hard and loses its colours. The volunteer team did an excellent job of persevering in sometimes challenging weather.

The excavation team were fortunate to have the services of two drone photographers and the overhead photos within this report were taken either by Joolze Dymond or Nat Townsend. In May 2021 Chris Wild and Steve Tamburello of Salford Archaeology created contour mapping from their drone photography, which is an invaluable backdrop for trench plans produced in this report.

As the investigations progressed, trenches and test pits were targeted to maximise information and understanding. In total 11 trenches of varying sizes and 17 one metre square test pits were excavated in the annexe, with a further 3 test pits in Daycroft Field opposite the annexe south defences. A few of the test pits were extended to better understand potential features. The location of these is shown on the plan below.



Contour map showing trenches and test pits excavated in the 2024 excavations (in red) with previous excavations marked in black.

RESULTS

Trenches 1 to 3 were dug at right angles across the annexe southern rampart which had previously been only partly exposed. The idea was to define its character, width, alignment and any associated features



A view eastwards across the three trenches across the southern rampart of the annexe with Trench 1 in the foreground and Trenches 2 and 3 in the background.

Trench 1 incorporating Test Pit 3

Test Pit 3 was positioned on the presumed line of the annexe defences to confirm the location and character of the rampart. The test pit was aligned with the former test pits and Trench 12 (2021) to the south so that a linked-up profile could be formed across this part of the site. TP3 exposed what looked like rampart material and was therefore extended as Trench 1. This was located c 12 metres to the east of the fort eastern rampart. It was 5 metres long by 1 metre wide and dug at right angles to the projected line of the annexe southern rampart which was at this point indicated by a raised linear earthwork. Following removal of around 25 cm of topsoil 001 the rampart was apparent as a spread of yellow and cream clay with an east to west edge against brown soil to the north. A linear darker spread of material broke up the yellow and cream clay in the south part of the trench. Finds from the topsoil were made up mainly of dark glazed earthen ware sherds, a handful of coloured glazes, a fragment of brick and ceramic drain, a piece of iron and an animal bone (sheep pelvis).

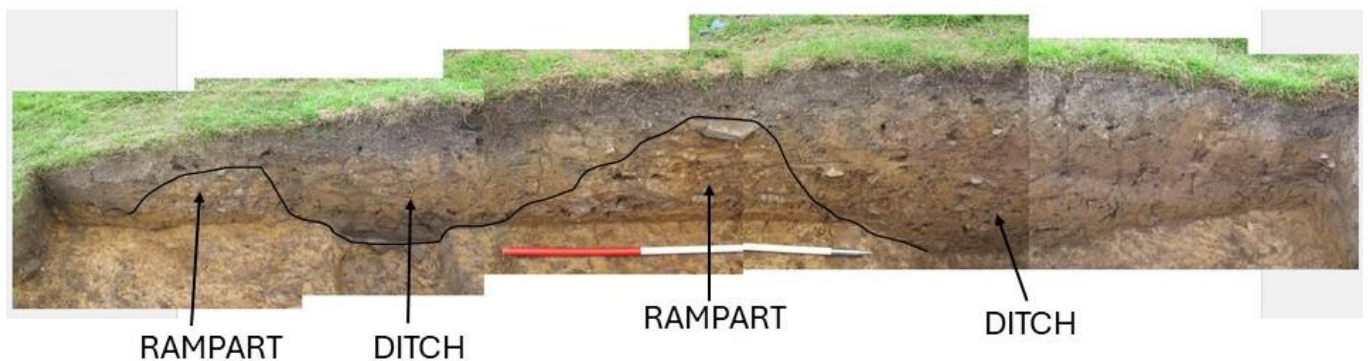


Trench 1 after removal of topsoil.

Excavation revealed the character of the surviving portion of rampart F1. It was made up of two layers: 004 was the upper deposit formed of mixed patches of cream and orange silty clay 38 cm deep and overlay 005 which was a dark yellow silty clay with frequent patches of iron pan that was 7 cm deep and overlay natural yellow clay. At this point the rampart was 45 cm deep which represented a better survival than the 25 cm depth seen in the northern rampart in Trench 3 in 2023. In this part of the site it is apparent that the south annexe rampart is represented by a shallow linear bank. However, there was clear evidence that the rampart had been disturbed on both its south and north sides. To the south deposits 004 and 005 could be seen at a shallower combined depth of 20 cm, separated by a gulley or ditch F2. The southern extent of the rampart appears to go a little beyond the south edge of the trench but the parts that were visible in the excavated section give a width of 2.8 metres with a top height in the middle part of 277.19 m Above Ordnance Datum (AOD) and a base at 276.84 m AOD.



The camber of the surviving rampart is reflected as a gently cambered earthwork. The horizontal photo scale lies on the base of the rampart, cut by features on either side.



The east facing section is shown above as spliced together photos. The rampart has been cut through by a ditch F2 on the left of the photo scale and by a larger ditch (or pit) F3 to the right of the photo scale. Despite this, the rampart's central section survives to 60 cm height and can be seen to be formed of rectangular patches of yellow and cream coloured clay, representing the original sods dug by the Roman soldiers.



Here is a view of the material making up the core of the rampart. It has the characteristic mix of deep orange clay (derived from iron staining) with light brown silty clay and cream coloured clay.

Ditch F2 was evident as a cut feature from immediately beneath the topsoil and comprised a gently sloping north edge and a steeper south edge culminating in a basal gully of 30 cm width with steep sides of 10 cm depth cut into natural yellow clay. The top of F2 was 1.5 m wide, the upper fill 002 was 30 cm deep with a top height of 277.20 m AOD. It comprised mid yellow brown silty clay loam. The lower fill 003 was formed of mid to dark grey silty clay loam and was 22 cm deep with the base at 276.44 m AOD. On the floor of the gully were some small, flat sandstones. A fragment of brick and a piece of burnt shale were recovered from within 003 showing that F2 was a post medieval feature and likely to have been cut for drainage purposes.



Detail of the base of F2, looking west.

To the north the annexe rampart was cut by F3. This was initially evident as a change in material from the mixed orange and cream clays of the rampart to a layer of mid grey brown silty clay loam with occasional small sandstones 006. This material, which was 2.25 m long before continuing through the trench north edge and a maximum of 30 cm deep, appears to be plough soil filling a depression created by the cut of F3. There were several layers filling F3 which was apparent as a 70% cut through the north side of the rampart. However, the fills of the cut feature continued through the north edge of Trench so its extent is not known, nor is it possible to say whether F3 is a ditch or pit. Further investigation would be needed to

provide better definition. F3 was sealed by a layer of mid purple grey silty clay loam with frequent small patches of dark orange iron staining 010. It was up to 8 cm deep and appears to be a decayed turf layer where grass once grew in the silted up/backfilled ditch or pit. This type of material has been seen elsewhere in excavations of the fort/fortlet defensive ditches. Under 010 was 007 comprising a maximum 18 cm deep layer of light to mid brown grey silty clay with frequent small patches of dark orange clay and moderate small sandstones. Within this layer was a patch of dark grey decayed turf which may have been part of a sod, originally part of the annexe rampart. The character of 007 suggests it contained slighted rampart material. To the south side of 007 was a 30 wide by 22 cm deep patch of concentrated small sandstones in light brown silty clay loam 008. This lay over the main layer deposit filling F3, 009, which was a mid brown grey silty clay loam with 20% small sandstones and occasional charcoal flecks measuring up to 36 cm deep and overlying natural compact grey shale at the base of the southern part of F3. Over the northern part, there was a primary layer 011 of light grey silt over a cluster of flat medium size gritstones. This layer was only 2 cm deep and extended beyond the trench north edge.



Detail of the section showing the cut of F3 through the rampart (left) and a wider view of F3 (right)

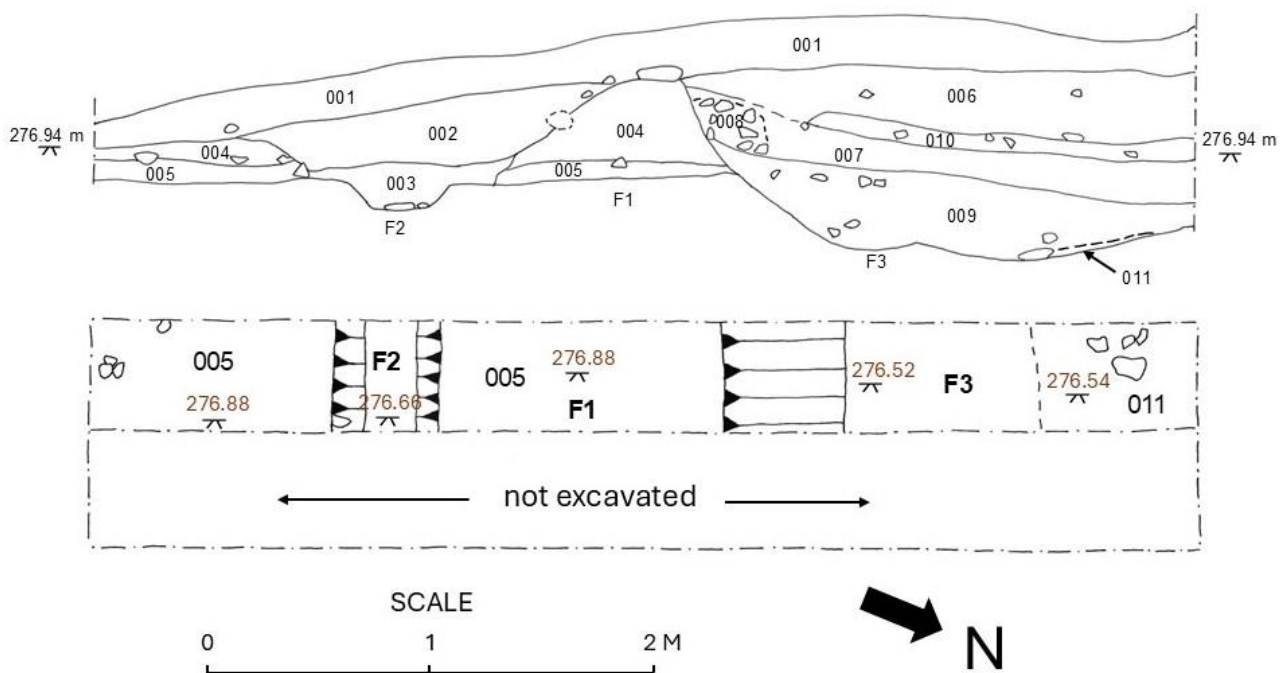


Detail of patch of decayed turf in lower fill of F3 (left) and showing the base of F3 with stones (right)

Under the plough soil 008, F3 was a maximum of 60 cm deep, with a top height (010) 277.12 m AOD and the base at 276.52 m AOD. It was 1.06 m from the modern turf level to the feature's base. There were no finds in the fills of F3, but the presence of the decayed turf layer seen elsewhere in fort/fortlet ditch fills and the possible slighted rampart material in 007 indicates a Roman origin. Are we looking at two phases here and, if it is a ditch, a revised defensive line in the second phase? This feature came as a surprise and there was not enough time to determine its full extent so it would be desirable to return to this area in the future.



Finds from topsoil 001 in Trench 1 (above and left) and from context 003 in the base of F2 (right)



Contexts

F1 Annexe south rampart. Comprises 004 and 005. Cut by F2 and F3. Roman 1st century AD
F2 Gulley or ditch cutting south side of F1. Filled with 002 and 003. Post medieval.
F3 Ditch or pit cutting north side of F1. Filled with 007, 008, 009, 010, and 011. Uncertain date.

001 Topsoil

002 Mid yellow brown silty clay loam. Upper fill of F2. Over 003.

003 Mid to dark grey silty clay loam. Lower fill of F2. Under 002.

004 Deposit of mixed patches of cream and orange silty clay forming part of rampart F2, cut by F2 and F3, over 005.

005 Dark yellow silty clay deposit with frequent patches of iron pan. Lower part of rampart F2, cut by F2 and F3. Under 004.

006 Layer of mid grey brown silty clay loam with occasional small sandstones. Possible plough soil. Over 010, 007, 008.

007 Layer of light to mid brown grey silty clay with frequent small patches dark orange clay and moderate small sandstones. Fill of F3 and probably derived from rampart material. Under 006 and 010, over 009 and abuts 008.

008 Patch of concentrated small sandstones in light brown silty clay loam. Fill of F3, under 006, over 009 and abuts 007.

009 Layer of mid brown grey silty clay loam with 20% small sandstones and occasional charcoal flecks. Lower fill of F3, under 007 and over 011.

010 Layer of mid purple grey silty clay loam with frequent small patches of dark orange iron staining. Decayed turf line sealing F3, under 006, over 007.

011 Layer of light grey silt in base of F3 lying over cluster of flat medium size gritstones. Towards north side of section/F3, under 009.

Trench 2 incorporating Test Pit 4

Test Pit 4 was designed to pick up the rear of Trench 10 from 2021 to better define the annexe rampart which had been partially exposed at that time. In 2021 Trench 10 had exposed a defensive ditch which provided the first evidence of the east annexe, but it had only exposed part of the rampart to the north of the ditch.



TP4 showing the northern terminus of the 2021 trench at the top of the test pit photo (visible as a rectangular hole).

The mixed light grey/cream and yellow clay of the rampart material was visible in the base of the 2021 trench. The rest of the test pit exposed a cobbled surface which post-dates and overlies the rampart material and was probably laid down in the 18th or 19th century for Husted's Farm and Cottage nearby. A considerable number of finds came from the topsoil and surface of the cobbles, reflecting the test pit's close proximity to the cottage site. There was a range of dark glazed earthen wares together with white glazed sherds and two clay pipe stems.



Finds from TP4

Test Pit 4 was extended at right angles across the line of the rampart to expose its full width and character. It was 4 m by 1 m trench and positioned 20 m to the east of Trench 1. Trench 2 overlapped with the rear (northern) end of a trench dug by the Friends in 2021 (Trench 10, Redhead 2022) which had exposed the ditch of the annexe, providing the first archaeological evidence for the south annexe. That trench had exposed a c 50 cm long spread of light grey/cream silty clay to the north of the ditch which had been interpreted as the rampart base, but its extent and depth had not been explored at that time as it continued through the north edge of the trench.

Topsoil 001 was c 25 cm deep under a top turf level of 278.10 m AOD. There was no plough soil but instead a thin stone surface comprised of compact, densely concentrated small to medium gritstones extending for just over 1 m south to north and with a top height of 277.90 m AOD. This was a post medieval cobbled yard probably associated with Husted's cottage and farm which lay a little to the east.

The topsoil yielded 19th and 20th century clear and coloured glass, along with dark glazed earthenware and coloured glazed ceramic sherds. From the cobble layer came a nail and a range of different coloured glazed earthen wares some of which could be attributed to the 18th century.



Trench 2 looking north, showing the cut of the 2021 trench in the foreground and the stone surface 002 under the photo scale.

Under the stone surface was 003, made up of mid yellow brown silty clay loam with moderate small to medium gritstones which probably represents rampart material. This was a maximum of 35 cm deep and came off onto the rampart base material of light grey/cream silty clay with short linear patches of orange clay above and a thin band of dark orange clay underneath. This context, 004, was only c 8 cm deep and overlay natural of mid yellow sandy clay 005. The top of natural was at 277.48 m AOD. The trench was extended by a narrow slot 1 m to the north to confirm that it joined with Test Pit 26 dug in 2022, which had revealed natural with a single post hole of unknown date (Redhead 2023, p 45-6).



The base deposit 004 of the annexe rampart with its characteristic mixed orange and cream clay appears (left). Looking north across Trench 2 (right).



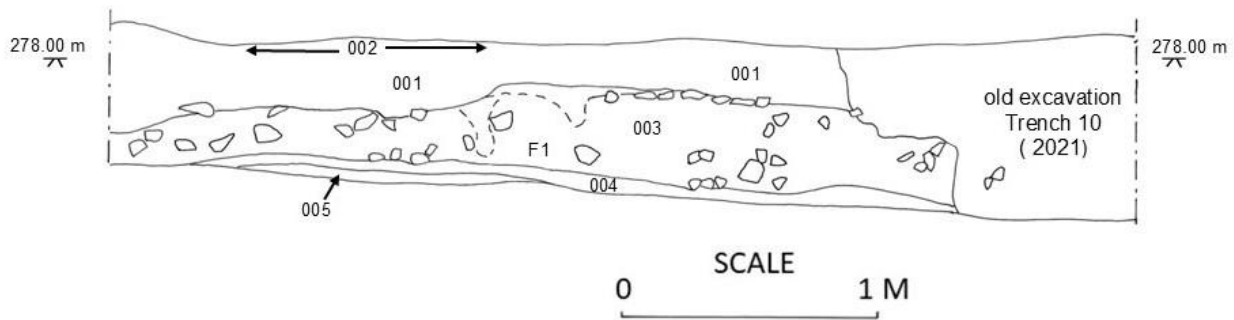
A 50cm wide slot was dug across the trench to expose the rampart in section. Natural yellow sandy clay can be seen under the 1 m photo scales.

The west facing section in Trench 2 showed the rampart material formed a camber under the dark grey topsoil and stone surface. The rampart's width could be discerned despite heavy truncation from post medieval landscaping and root activity. It was around 3.2 m in width which matched that for the north rampart as revealed in the 2023 excavation. At 45 cm maximum height it has survived better than the north rampart, perhaps due to the later stone yard surface protecting it from ploughing. Slighting of the rampart when the Romans had no more use for it followed by post medieval ploughing (across the north rampart area) and landscaping has left only vestiges of the defences – perhaps explaining why the annexe has remained unknown until recent archaeological investigations by the Friends volunteers. It is now possible to provide a profile for the southern defences of the rampart, based on this trench and the 2021 Trench 10 section across the ditch.

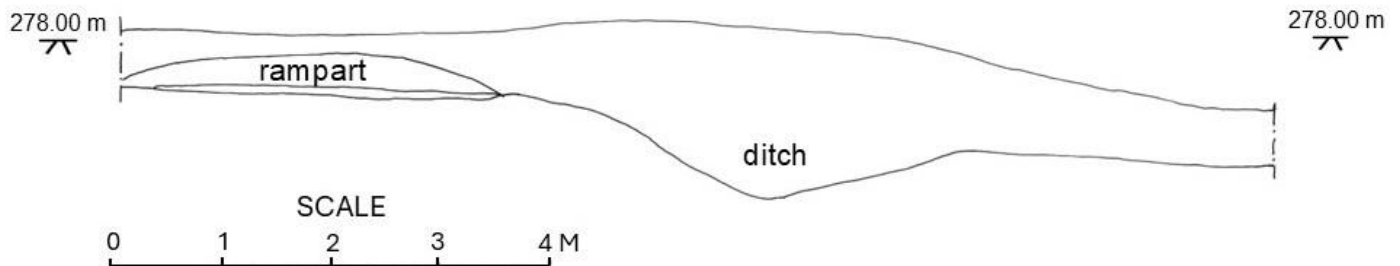


Trench 2 finds from the topsoil 001 (left) and cobbled surface 002 (right).

The topsoil yielded 19th and 20th century clear and coloured glass, along with dark glazed earthenware colour glazed ceramic sherds. From the cobble layer came a nail and a range of different coloured glazed earthen wares some of which could be attributed to the 18th century.



West facing section for Trench 2.



Profile across the annexe south defences.

Contexts

F1 Annexe rampart. Comprises 002 and 003

001 Topsoil

002 Thin layer of dense small to medium gritstones roughly laid to form a surface. Over 003 and under 001

003 Mid yellow brown silty clay loam with moderate small to medium gritstones. Rampart material, part of F1, over 004.

004 Light grey silty clay with short linear patches of orange clay above and thin band of dark orange clay under. Base material of rampart F1, under 003.

005 Mid yellow sandy clay. Natural. Under 004.

Trench 3 incorporating Test Pit 5

Test Pit 5 was located as a 2 m long slot alongside the eastern boundary fence by Dirty Lane in order to expose the rampart. It was hoped that TPs 4 (Trench 2) and 5 would show if it ran in a straight line or showed signs of curving towards a corner as the location of the eastern defences are not yet known. TP5 was 1 m by 2 m and under the topsoil 003 was found a deposit of mid yellow silty clay with frequent small patches of cream coloured silty clay and occasional charcoal flecks 012. This appeared to be material forming the annexe rampart F7 as it was similar in nature to that exposed in Trenches 1 and 2. In the northern half of the test pit a layer of angular medium sized gritstones 003 covered 012, while to the south was a linear depression F2 cutting into 012 and under 003. It was c 15 cm deep and 30 cm wide, steep sided and gently sloping towards the south. In the east section of Trench 3, the top of F7 was at 277.65 m AOD to the north and gently dropping to 277.55 m AOD towards its south edge. The turf level above the rampart was 278.15 m AOD above the north side of the rampart and 278.00 AOD above the south side. The south end of Trench 3 was extended to locate the inner edge of the annexe ditch.

A considerable quantity of 18th and 19th century pottery and other finds came from the topsoil over 003 and 012. These comprised white, brown and dark glazed earthen ware, a clay pipe stem and base, and a rounded glass bottle base. Initial interpretation was that the stone layer 003 might be a remnant of the Roman road running at an angle from the fort east gate to rejoin the main highway and running through a

gap in the rampart. However, it became apparent that the stone layer was associated with the adjacent Husted's Cottage site, given that the topsoil was immediately above the stones and that post medieval finds were coming from the stone surface, and that it overlay the rampart deposit. The character of 003 is quite different to the finer cobbling seen a few metres away in TP4 and it has the appearance of a spread of material perhaps derived from the demolition of the cottage rather than being a yard surface associated with it.



Remnants of the rampart are on the right (south) side of TP5 and have been cut by the linear depression F2. On the left is stone layer 003 which appears to overlie the rampart material.



Finds from the topsoil in TP5.

TP5 was extended to form Trench 3. This was 7 m long and 1 m wide with the northernmost 3 m being widened out to 2 m. The stone layer was found to continue northwards where it was overlain by a 1.2 m long concentrated dump of rubble in a brown soil matrix 002 immediately under the turf; this probably derived from the demolition of Husted's Cottage (which lay just to the north of the trench). Beyond the rubble at the north end of the trench was the dark soil and stony backfill belonging to Trench 14 dug in 2022 (Redhead 2023). This had found a deeply buried stone wall foundation or kerb which predated the cottage (Redhead 2023, p 30). The trench was extended to re-excavate this part of the old trench and expand outwards to better define and understand this interesting feature. Topsoil 001 varied in depth from

15 cm at the north end of the trench over rubble layer 008 to 45 cm towards the southern end over stone spread 003. The south end of Trench 3 was also extended to locate the inner edge of the annexe ditch.



Trench 3 during initial extension northwards, looking north (left) and south (right) showing the rubble deposit 002 overlying the stone layer 003.



Overhead view of the southern half of Trench 3 showing the stone layer 003 overlying rampart material 012, with the photo scale on the right image lying in linear depression F2. The cut of the annexe ditch can be seen extreme right.

Excavation showed that the stones forming 003 were only one course deep where they overlay 012, but in the middle of the trench were deeper where they infilled the continuation of the linear depression F2. Removal of some of these central stones revealed flat capstones 005 sealing a narrow drainage channel which was also lined with stones. This drain F2 cuts the Roman annexe rampart at right angles, running up to a stone wall foundation to the north and descending to the south to terminate before the annexe ditch F6. The ground at this point drops away and would have provided a good soak-away. The top of F2, represented by the surface to the capstone at the north end of the feature is 277.55 m AOD, while at the south end the capstone is 277.57 m AOD, with the base at 277.36 m AOD.



Section dug partly through north cut of annexe ditch F6.

A sondage was excavated against the southernmost east section of Trench 3 to confirm the location of the annexe ditch F6. The cut for the ditch was confirmed and several layers exposed within the narrow sondage. These were: loose clinker 8 cm deep 013, associated with the post medieval cottage and sealing a similar depth layer of mixed yellow clay and dark grey soil 014, overlying dark grey silty clay loam and 25% charcoal and pieces of fire reddened daub 7 cm deep 015, and a bottom layer 016 of light to mid grey silty clay loam with occasional small sandstones and flecks of charcoal 18 cm deep, which overlay natural clay 016. These layers continued through the south edge of the trench, so depths are only those revealed within the limits of the trench excavation. The top of 013 was 277.45 m AOD and the natural beneath 016 was 277.00 m AOD against the south trench edge. The profile and character of the fort annexe south ditch was revealed in Trench 10 in the 2021 excavations (Redhead 2022).

At the north end of Trench 3 the backfill from the old 2022 Trench 14 was re-excavated and then extended to expose more of the possible building foundation. A line of substantial foundation stones 010 were evident forming part of the building's south wall F1. The stones, which were gritstones and smooth on top, were irregularly shaped and of different dimensions. The western one was 1 m long and wedge-shaped, tapering from 32 cm wide on the west side to a point on its east side where it was offset with a rectangular block measuring 45 by 32 cm. This large wedge-shaped stone, which had a top height of 277.75 m AOD, could be for a threshold. At the base of the intersection of these stones was a flat smooth stone, partly revealed, that was clearly the commencement of the base of drain F2 showing that the wall and drain belonged to the same phase. A 20 cm cut into natural clay provided a possible western edge of the building. It was found and partly revealed close to the west edge of the trench and ran at right angles from the large wedge-shaped stone. The north and east extent of the building was not exposed due to the limits of excavation. The interior of the building was filled with stone rubble set within a light to mid brown silty clay loam 008 which also contained frequent small patches of white mortar. The top height of 008 was at 278.10 m AOD and the natural 275.75 m AOD.



Looking south across Trench 3. The stone foundation is just above the horizontal photo scale and the stone infilled drain is to the right and beyond the top photo scale.



Detailed view of the drain where it meets the wall.

Under 008 towards the eastern trench edge was a thin layer of light brown silty clay, frequent small stones and occasional brick fragments 006. This sealed a possible remnant floor surface F5 which was represented by a single flagstone 007 which was roughly diamond shaped, with its surface at 277.68 m AOD, measuring 52 by 45 cm, but with the eastern edge under the trench section. The stone was cracked and damaged so may have been larger originally. It lay on natural clay and against its northern edge was a hearth area F4 indicated by a spread of charcoal associated and integral with a small square piece of slate and a few pieces of burnt bone 009. Near the cut representing the west side of the room were 5 flat laid medium size angular sandstones 017 overlying the natural yellow clay. They could form part of an earlier floor but were very fragmentary. They were sealed under a deposit of light yellow brown silty clay with frequent small to medium gritstones 011 which in turn was under rubble infill deposit 008.

A final feature of interest was revealed in this widening trench area, this being a roughly circular post hole F3 which lay 40 cm to the south of the large wedge-shaped foundation stone. It was 52 cm diameter and a half section showed it to have steep sides. It was not bottomed at 60 cm down so would have held a substantial post. The top of the F3 was at 277.56 m AOD. The fill consisted of a loose mid yellow brown silty clay loam with occasional small to medium sandstones. Finds included dark glazed earthenware, white China, a brick fragment and a high-quality lid sherd of black basalt stone ware. Based on these finds an 18th or 19th century date can ascribed.



Detailed view of the mostly excavated room flanked by the massive foundation stones with the floor slab lower centre (left), the post hole is in the left foreground and drain in the lower centre of the right hand photo.



Drone aerial photo of Trench 3 after completion of excavations (Photo courtesy of Nat Townsend).



Another drone overhead (courtesy of Nat Townsend), this time showing the relationship of the trenches. Trench 1 is on the far left, Trench 2 is being backfilled and Trench 3 is adjacent to the fence. All the trenches showed remnants of the southern annexe rampart.

The topsoil assemblage in the southern half of the trench was dominated by 18th to 19th century pottery including dark and brown glazed earthen wares together with some white glazed sherds. Of particular interest were 4 sherds of trail slipped ware, 1 of Midland Purple and 1 early dark glazed earthen ware. These originate from the 16th and 17th centuries. There was also a piece of glass, a clay pipe stem and 2 lumps of iron.

There were a great many finds from the rubble infill 008 and these were predominantly 18th century. They included 5 buttons in a range of metals: pewter, brass and silver. There was a wide range of pottery types, including dark and brown glazed earthen wares white glazed and slip wares. Much of this collection could be assigned an 18th century date but there were also 3 earlier, 16th/17th century sherds. Other items comprised opaque window glass, a lot of red brick and daub fragments, clay pipe stems, iron work including a large key, and fire brick fragments from a hearth. The assemblage is consistent with demolition material to infill and level the site of the building.

The character of the foundations and the fact that several medieval finds have come from the surrounding area suggest a possible medieval origin for the structure. Historic mapping shows a rectangular building with two projecting wings on the 1822 Saddleworth Township map. The southern wing external wall seems to be the one partly revealed in Trench 3. By the time of the Ordnance Survey 1854 map this building has been removed and replaced by the cottage, therefore it was demolished in the second quarter of the 19th century and its stones used to build the cottage. In terms of Roman archaeology in this area, this early building, the cottage and farm nearby, together with associated landscaping, have removed any potential evidence for the Roman road exiting the east gate of the fort to rejoin the main highway, although the annexe rampart base has partially survived.



Finds from Trench 1 topsoil 001.



17th century trail slip ware including 'pie crust' rim (left), possibly 17th century dark glazed earthen ware (right).



16th century Midland Purple ware (showing exterior and interior with glaze).



Finds from Trench 1 rubble layer 008.



18th century buttons from 008. Interior (left) and exterior (right).



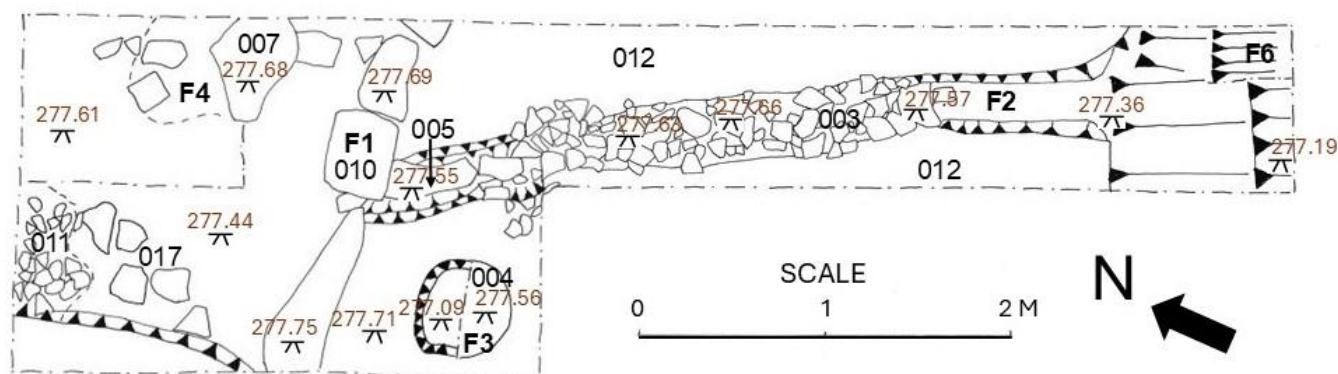
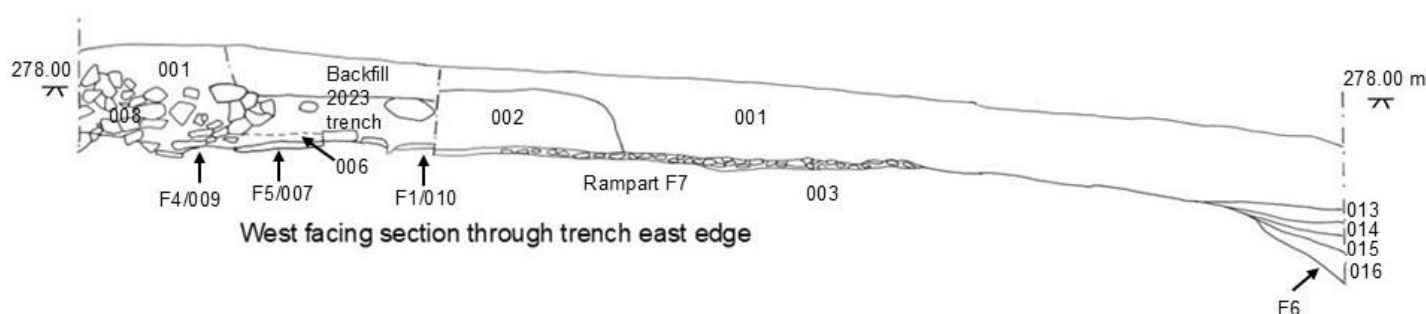
Various pieces of iron work including a key from 008 (left) and a detailed photo of 3 sherds of 16th or 17th century pottery including a rim and base.



Finds from post hole F3 which included a lid sherd of decorated black basalt stone ware (detailed right).



A single piece of burnt daub came from Trench 1 context 011.



West facing section and plan for Trench 2.

Contexts

F1 Wall foundation comprised of 010.

F2 Stone lined drain, connected to F1 and containing F2, under 002 and 003.

F3 Post hole, filled with 004.

F4 Hearth within building formed by F1, contains 009.

F5 Floor within building formed by F1, contains 007.

F6 Annexe defensive ditch, contains 014, 015 and 016.

001 Topsoil.

002 Brown soil and rubble just under turf and shallow layer of 001 and partly covering 003.

003 Deposit of stones across mid part of Trench 1, covering drain F2. Under 002, over 005.

004 Fill of mid yellow brown silty clay loam with occasional small to medium sandstones. Fill of post hole F3 Under 001.

005 Capstones of drain F2. Under 003.

006 Thin layer of light brown silty clay loam with moderate small sandstones and occasional brick fragments. Under 008, over 007 and 009.

007 Flagstone forming remnant of floor F5, under 006 and against 009.

008 Deposit of rubble in light to mid brown silty clay loam. Over 006, 009 and 017, under 001.

009 Thin deposit of charcoal and a piece of slate forming hearth F4. Under 006 and against 007.

010 Stones forming wall foundation F1

011 Deposit of light yellow brown silty clay with frequent small to medium gritstones. Under 008 and over natural mid yellow clay.

012 Layer of mid yellow silty clay with frequent small patches light cream silty clay and

013 Layer of loose clinker. Seals annexe ditch F6. Under 001 and over 014.

014 Layer of mixed yellow clay and dark grey soil. Upper fill of annexe ditch F6. Under 013 and over 015.

015 Layer of dark grey silty clay loam and 25% charcoal and pieces of fire reddened daub. Fill of annexe ditch F6. Under 014 and over 016.

016 Layer of light to mid grey silty clay loam with occasional small sandstones and flecks of charcoal. Lower fill of annexe ditch F6. Over natural clay, under 015.

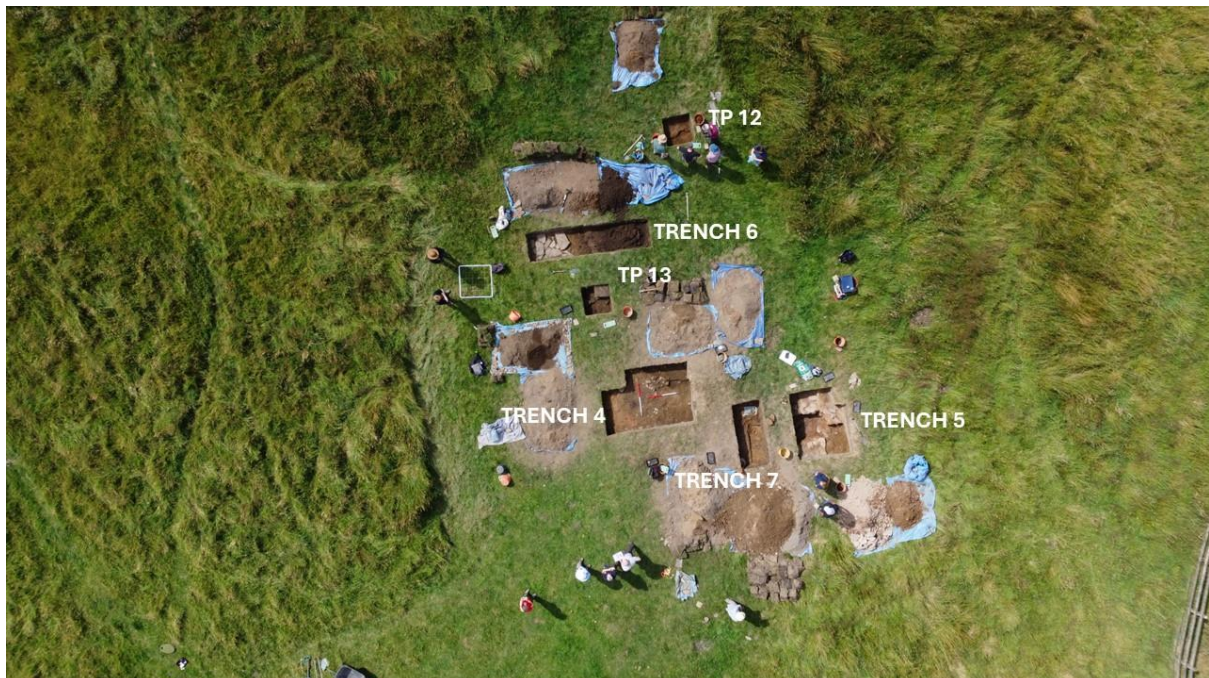
017 5 flat laid medium size angular sandstones overlying the natural yellow clay. Under 008.

Trench 4

This trench re-opened and extended Test Pit 18 which had been dug in 2018 between the stone platform (revealed in Trench 13 in 2022) and the site of two possible stone ovens revealed in the base of Bruton's old excavation trench when it was re-opened in 2018. The test pit had revealed a concentration of stones with charcoal and burnt daub. Trench 4 was eventually extended to 2 m by 3 m.



The team have removed the turf and topsoil in the extended areas and are now carefully trowelling down in spits to reveal the Roman level either side of the stone deposit (which indicates the location of the 2018 TP18).



The location of Trench 4 is shown in the centre of this drone aerial photo (Photo courtesy of Joolze Dymond).

On removal of 32 to 40 cm depth of topsoil and brown plough soil 002, the cluster of stones exposed in 2018 were found to run out in two linear patterns south eastwards and south westwards which gave the impression of being structural remains. These were given a feature number F2 and the central cluster of stones F1 as it appeared to be a more concentrated patch of stone work which was felt to have the

potential to be an oven. The two linear bands forming F2 comprised 005, which was 40 cm wide and 1.5 m long and made up of small to medium (up to 25 cm length) gritstones, and 006 on a south west alignment which was 32 cm wide and a similar length. 006 was made up of light yellow brown silty clay loam with frequent small to medium gritstones and occasional heat reddened daub pieces and charcoal flecks. The top of F2/F1 was 276.63 m AOD.

In the 'V' shaped area created by 005 and 006 was a deposit of mid yellow brown silty clay loam with a dense concentration of charcoal and burnt daub 007. This was initially interpreted as possible rake-out or a stoking area for an oven. 007 measured 1 m south to north and had a maximum width of 55 cm and a top height of 276.64 m AOD. To the south of this was a linear east to west spread of light to mid grey silty clay loam with moderate small stones and flecks charcoal 008 which ran up to the former edge of the 2022 Trench 13. The stone platform edge from old Trench 13 was partly revealed along the southernmost part of Trench 4. The top of 008 was at 276.77 m AOD. F2 was bounded to the east, north and west by a layer of dark brown grey silty clay loam with frequent charcoal flecks and occasional burnt daub pieces 003. The top height of this layer ranged from 276.62 m AOD to the south to 276.39 m AOD near the middle northern edge of Trench 4. 003 produced a range of Roman finds including 3 small sherds of Samian ware (including a bowl base), 2 dark grey slip wares with hard orange fabric (including a plate or lid rim), 2 small sherds of orange ware (including a rim), and a bent nail.

In the north west corner of the trench was a light to mid brown silty clay loam deposit 004 which is interpreted as remnant plough soil, being similar to 002. It also had some Roman finds which comprised a small rim sherd of orange ware, 5 nails, 2 pieces of white (calcined) bones, 16 pieces of daub (mostly heat reddened) and some charcoal pieces.



Trench 4 after removal of top and plough soil showing the spread of stones F2 (left) and after removal of stones 005 and 006 and layer 003 (right). The edge of the stone platform can be seen at the top of the photo.

A layer of the stones forming 005 and 006 was excavated to help define the structure they appeared to be part of, however they were found to be only 1 course deep. It was soon apparent that the concentration of stones was not structural and appear to be a dump of material. Many of the stones were fire reddened so perhaps these are from a demolished stone-built oven nearby. 003 was excavated and was also a shallow layer being only a maximum of 7 cm deep. Underneath were several layers. The north and west sides of the trench comprised a layer of mixed brown silty clay loam and fine grey shale 015. This also showed in the north east corner of the trench. A line of 4 stake holes F5 could be seen cut into 015, running east to west. The top of 015 was 276.66 m AOD to the south, sloping down to 276.32 m AOD in the north section of the trench. A curving band of very firm light grey silty clay on the east side of the trench bounded a possible hearth F4 on its west side, which was indicated by a deposit of dense charcoal, lumps of fire reddened daub and small stones 011 forming a rough circle 40 cm in diameter.

The top level for F4 was 276.64 m AOD. Against the east side of 011, was a raised hard rectangular lump of light grey clay which appeared to be part of 013. Bounding the south side of 011 was an extensive spread of burnt red clay. This formed the base of hearth F4 and continued into the south east part of the trench, where it had a top height of 276.68 m OAD. It was separated into two by the hard grey silty clay

layer 013 which appears to be interspersed with 013 and also forms part of the base of hearth F4, being of reduced clay as opposed to oxidised heat reddened. A narrow strip of 013 was also apparent on the west side of 012 where it ran up to 011. The south west side of 013 was bounded by a small patch 20 X 25 cm of light brown clay 014. All these layers, 007, 011, 012, 013 and 014 form part of hearth F4.

At the southern end of Trench 4 was a clear straight edge against the natural yellow clay alongside the stone platform (F2 in 2022 Trench 13). The edge ran east to west across the full width of the trench and was 25 cm from the platform edge. This looked similar to the edge of timber building slots seen in other trenches alongside the stone platform, for instance in Trench 13 north extension in 2023. This potential foundation trench was F3, but its northern edge was not discernible at this stage with 012 and 013 obscuring it on the east side of the trench and a cluster of medium to large gritstones 010 on the west side. 011 was initially thought to be packing for a post setting within F3, but excavation demonstrated it was a small dump of medium to large gritstones (max. length 21 cm) with no structural integrity. The stones were at a steep angle and overlapping as if they had been tipped there. 011 measured 60 x 45 cm and had a top height of 276.68 m AOD. The stones formed part of the upper fill of building slot F3 and were associated with a fill 009 of mixed mid grey silty clay and orange brown silty clay loam and occasional small stones.



Trench 4 looking west showing the edge of slot F3 on left side against the photo scale, with stone cluster 010 at the top and hearth deposits below the central photo scale. Right: The full extent of stones 010 are shown after squaring off the south west trench corner. The upper fill of F3, 009, can be seen to the right of the stones.

011 was excavated to reveal more of hearth F4. 011 was 12 cm deep and contained large pieces of charcoal one of which was an *in situ* 22 cm length of burnt wood. There were several fire reddened stones which were randomly placed and did not form a structure. The base of 011 formed a 2 cm deep circular charcoal rich deposit which was the core of the hearth. Analysis of the charcoal showed that willow or poplar was used as fuel. However, there was no evidence for macro fossils, metallurgy or burnt bones so the function of the hearth remains a mystery. Under 011 was intensely heated (oxidised) red clay which formed part of 012. This showed that the hearth formed a wide shallow bowl of c 40 cm diameter. 012 contained a few pieces of burnt daub and white calcined (cooked) animal bone. Running parallel with and close to the trench east edge was a line of 3 stake holes cut into 013, forming a right angle to those recorded as F5 and being related to that set of stake holes. These probably formed hurdling to delineate the hearth area and give some protection from wind. The base of hearth F4 was at 276.41 m AOD.



Excavation through 011 with *in situ* burnt wood (left) and section through base charcoal (right).



Red clay 012 forming the base of the hearth F4 with hard grey clay 013 bordering it (left) and the line of 3 stake holes in 013 (right).



Looking north across Trench 4 showing the hearth post excavation in middle of trench

A 50 cm wide section was dug against the north side of the trench to understand the character and depth of 015. It was found to be 15 cm deep and sealed a charcoal rich deposit of mid grey silty clay loam with moderate medium size patches of light yellow/cream silty clay and frequent flecks and pieces of charcoal 022. This was a level deposit and may have been a floor surface. Its surface was at 276.17 m AOD. 022 ran under the trench edges to the east and north but stopped at a linear feature on its west side. This linear feature F6 was also sealed by 015. A 1 m length of F6 was excavated to show that it formed a straight line running south with its north edge continuing under the north trench edge. F6 was only 14 cm wide and its vertical edges were very shallow at 4 cm depth, with a base of 276.13 m AOD. Natural light yellow clay formed its base. F6 was a foundation cut for a sill beam wall foundation. On its west side was 023, a deposit of mixed dark orange silty clay loam and mid grey silty clay loam with moderate flecks of charcoal. This could be another floor surface with F6 being an internal dividing wall. F6, 022 and 023 represent the first phase of activity within the annexe. Following dismantling of the timber building represented by F6, 015 has been laid down to create a new surface for the hearth F4.



Slot F6 with 022 left and 023 right and (right photo) showing F6 after exposing a 1 m length.



Looking towards the north section of Trench 4, with F6 under the red half of the photo scale.

A section was excavated against the south east side of Trench 4 to examine the potential timber building foundation slot F3. A post hole F7 was found as well as the cut and fill of the foundation slot. Natural yellow clay was cut through by the foundation slot to form a revetment on the south side. F7 sits against this south edge. It was circular, 90 cm deep and 18 cm diameter, with a top height of 276.63 m AOD and a base of

275.73 m AOD. The fill 017 comprised soft dark grey brown silty clay loam. F3 comprised a broader construction trench in its upper half 55 cm wide, with a narrower 16 cm wide slot against the south side which represented where a sill beam was positioned at a height of 276.45 m AOD. The fill 021 of this sill was not excavated but consisted of loose mid to dark yellow brown silty clay loam.

Under the main fill of F3 was a mixed mid to light grey silty clay with small patches of decayed sandstone 019 which was partly dug in to and which might be sub natural. The section in the east side of Trench 4 clearly showed the red clay 012 forming part of the oven/hearth F4 overlying the fill 009 of the building slot and therefore postdates it. This confirms last year's findings that the annexe has an initial timber building phase followed by their dismantling and the area being given over to intense oven/hearth activity.



Section through F3 (east side of Trench 4) showing post hole F7 and red clay 012 (arrowed) sealing the fill 009 of F3.

F3 was excavated for a length of 1 m against the west edge of the trench. The characteristics of F3 were the same as at the east side of the trench, with evidence for the sill beam setting and its fill 021, again not excavated. The base fill of F3 against its vertical north edge and over natural 019 was mid grey brown silty clay loam 020 which was only up to 5 cm deep. The base of F3 here was at 276.25 m AOD. At 65 cm from the west trench edge was a post hole F8 which appeared as mostly a rectangular shaped void reflecting the original timber dimensions of 18 cm long by 6 cm wide. This post hole was slightly angled and straddled the width of the beam slot and projected slightly into the clay edge of F3 where a fill of dark grey brown silty clay loam 018 had been left beyond the void.

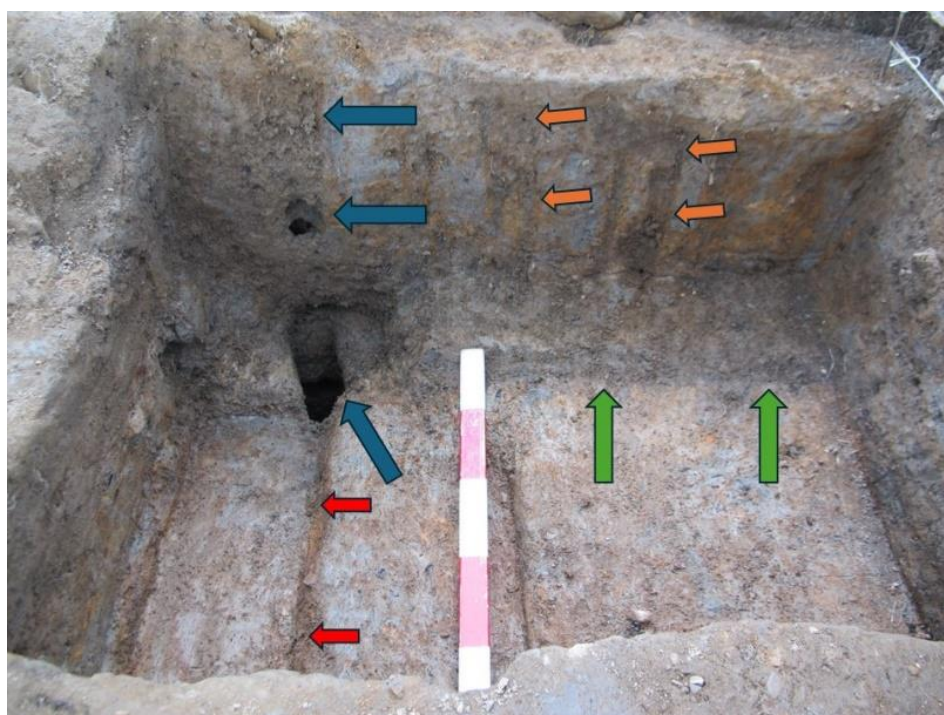
Between F8 and the west trench edge could be seen the ghost of timber uprights which had once been fitted into the now rotted sill beam. The natural clay southern revetment edge of F3 had preserved the impression of these posts which must have been set tight against the clay. It was possible to make out at least 3 closely spaced timber impressions of around 6-7 cm width, separated by similar sized gaps. The clay revetment was 35 cm high whereas the north edge of F3 was lower with a top height of 276.46 m AOD giving a stepped appearance.

Post hole F8 marked the intersection of F3's sill beam slot with F6 which was the continuation of the sill beam slot partly revealed at the north end of Trench 4. It joined F3 at right angles, mostly intersecting F3 to the east of post hole F8. A portion of F6 was excavated to prove its dimensions, 14 cm wide and 4 cm deep, the same as further north. F6 ran for 2.2 m before continuing under Trench 4's north edge. It can be interpreted as an internal timber partition wall. F3 is the southern external wall of a timber building which is founded on short sections of horizontal timbers interspersed with supporting posts set deep into the ground. A series of small posts were set vertically into the sill beam.

Trench 4 has been extremely useful in understanding the character and form of one of the timber buildings which represent the first phase of activity within the northern half of the annexe. The presence of voids and timber impressions suggest that the buildings were deliberately dismantled rather than rotting *in situ*. The area was then capped with a clay/shale deposit to allow the use of ovens and hearths as phase 2.



Left: Looking west along F3 with the sill beam and revetted clay edge visible on the left, along with the edge of stone platform furthest left. Right: overhead showing intersection of post hole F8 with slots F3 (top right) and F6 (left side).



Blue arrows indicate post hole F8, orange arrows point to impressions in the clay revetment of vertical timbers set into the sill beam (indicated by the green arrows). The internal partition wall slot F6 is shown by red arrows.



Finds from Trench 4 topsoil, including a pie crust rim sherd, detailed right.



Finds from Trench 4 topsoil: from east extension (left) and west extension (right).



A Victorian penny of c 1870 recovered from the topsoil in Trench 4 west extension. Details have eroded but the close-up image below shows the trident on the right.





Roman finds from 003 in Trench 4. Left: orange ware rim and small body sherd, grey slip plate or lid, and bent nail. Right: interior of grey ware body sherd.



Three Samian ware sherds from 003 including the base of a shallow bowl on the left.





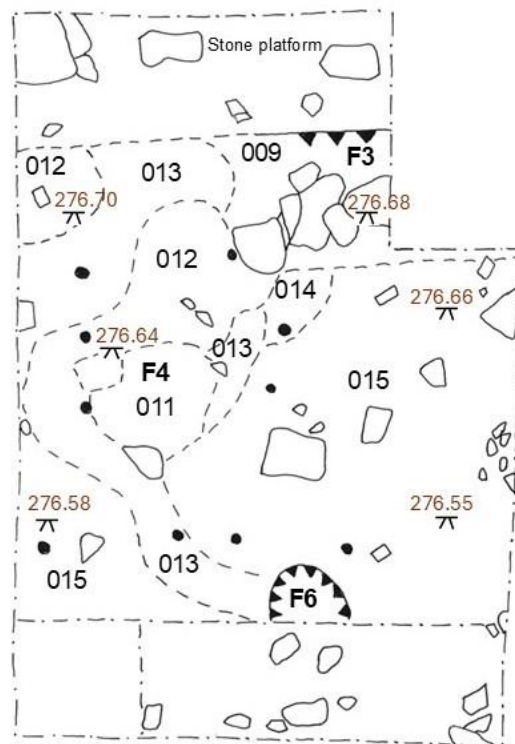
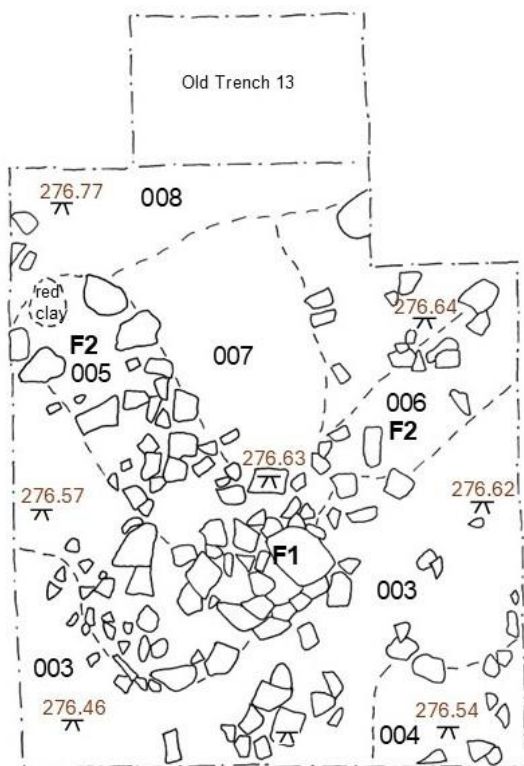
Roman finds from remnant plough soil 004 in north west corner of Trench 4: detail of three nails left, fire reddened (burnt) daub right, and below: nails, burnt (calcined white) bone, orange ware rim sherd and charcoal.

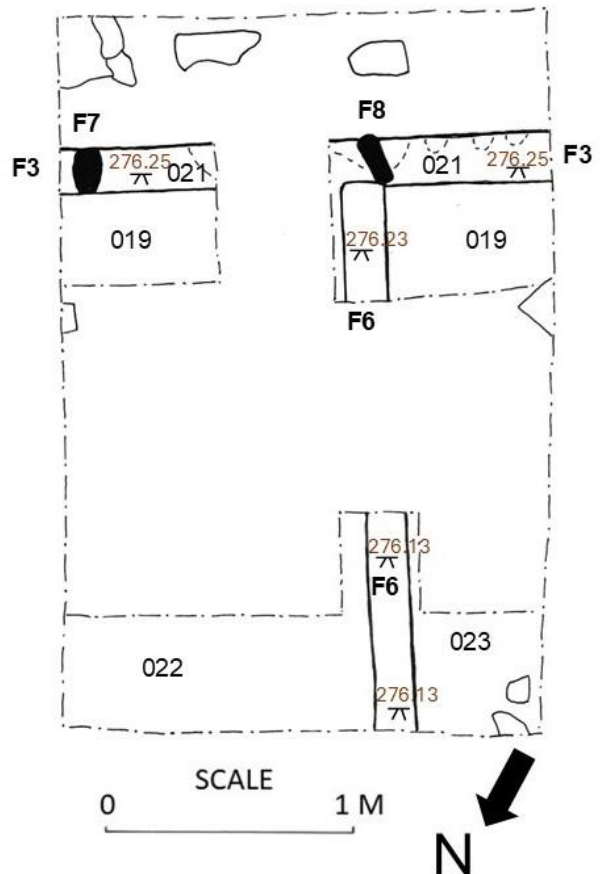
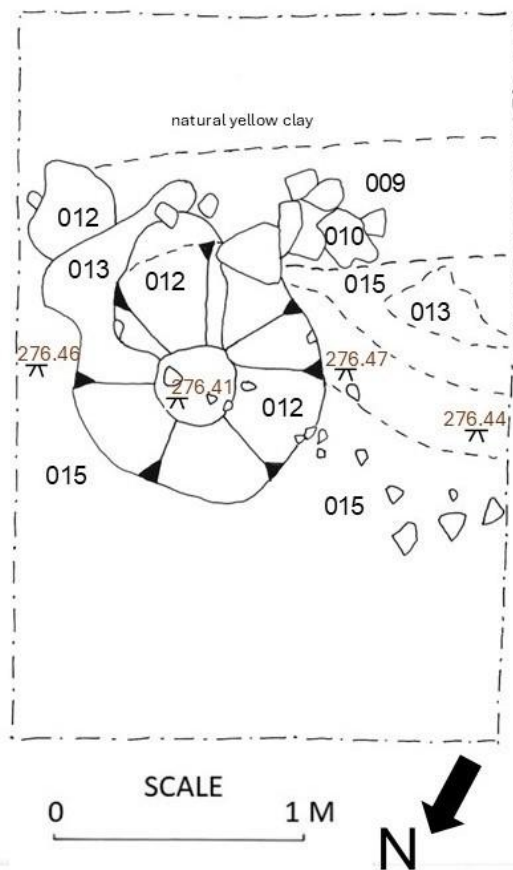


Burnt daub and charcoal pieces from context 011 in Trench 4.

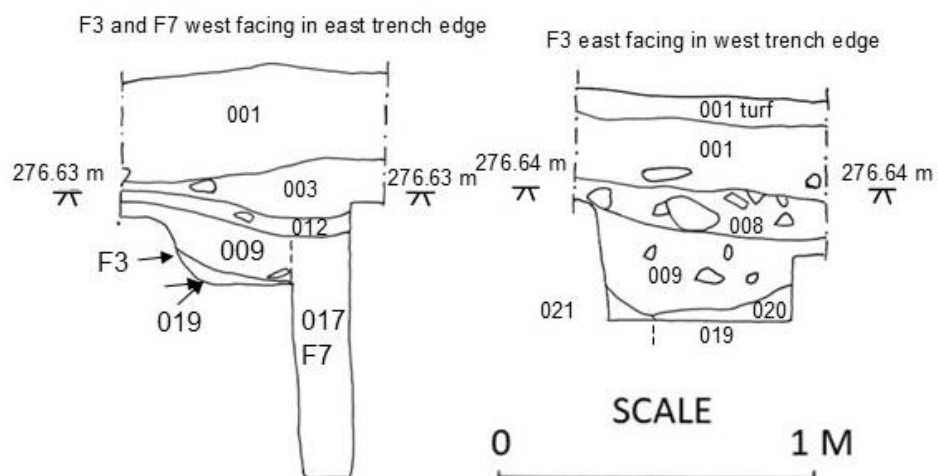
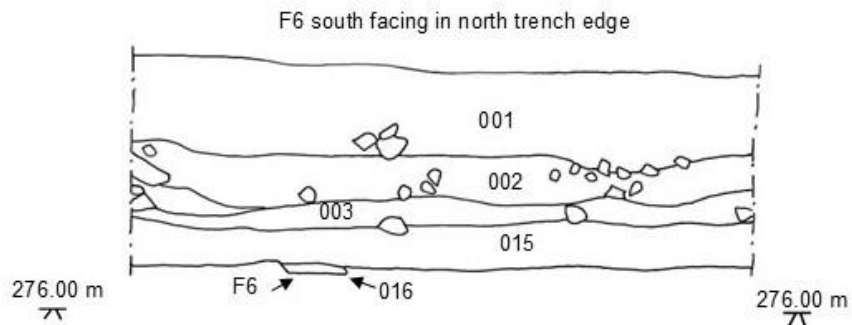


Daub and burnt bone from context 012 in Trench 4.





Phased plans for Trench 4.



Trench 4 sections.

Contexts

- F1 Possible feature formed by concentration of stones but actually part of linear spread 005 (F2).*
- F2 Possible feature represented by linear spreads of stones 005 and 006.*
- F3 Linear spread of stones forming possible wall line which on excavation became timber foundation slot. Under 008 and 012. Filled with 009, 019, 020 and 021.*
- F4 Oven base or hearth, partly over F3 and formed of 007, 011, 012, 013 and 014.*
- F5 Line of stake holes, possible fence line.*
- F6 Timber building foundation slot. Filled with 016 and under 009 and 015. Connects to F3.*
- F7 Post hole within slot F3. Filled with 017 and sealed by 012.*
- F8 Post hole within slot F3. Mainly a void but partly filled with 018. Sealed under 008.*

001 Topsoil

002 Mid brown plough soil.

003 Layer of dark brown grey silty clay loam with frequent charcoal flecks and occasional burnt daub pieces. Extends across much of trench, sealing hearth F4 and earlier timber building slots. Contained a range of Roman finds including pottery, nails and daub, mostly on west side of trench.

004 Light to mid brown silty clay loam. Remnants of plough soil in north west corner of trench. Same as 002.

005 Deposit of concentrated small to medium (up to 25 cm length) gritstones 1 course deep forming a linear arrangement. Forms F2, over F4, 011, 012, 013.

006 Deposit of light yellow brown silty clay loam with frequent small to medium gritstones and occasional heat reddened daub pieces and charcoal flecks. Forms part of linear possible feature F2 and links to 005.

007 Deposit of mid yellow brown silty clay loam with dense concentration of charcoal and burnt daub. Rake-out or stoking area? Upper fill of heart F4.

008 Layer of light to mid grey silty clay loam with moderate small stones and flecks charcoal. Overlies hearth F4 deposit 012 and edge of stone platform. Under 002.

009 Deposit of mixed mid grey silty clay and orange brown silty clay loam and occasional small stones. Upper fill of F3.

010 Small dump of medium to large gritstones (max. length 21 cm) in tight cluster within upper part of slot F3 near south west edge of trench. Under 008, contemporary with 009 and over 019.

011 Deposit of dense charcoal, lumps of fire reddened daub and small stones forming a rough circle in middle of hearth F4. Under 005 (F2).

012 Extensive spread of burnt red clay forming base of hearth F4 on east side of trench. Under 003, 005 and 008. Over F3 and 009.

013 Layer of compact light grey silty clay on east side of trench being part of the base of hearth F4. Under 005 and 011.

014 Small patch of light brown clay, part of F4. Under 006

015 Layer of mixed brown silty clay loam and fine grey shale to west of F4 containing stake holes F5. Under 003, 004 and 006. Over 016, 022, 023.

016 Shallow fill of mid grey brown silty clay loam. Fill of F6

017 Fill of dark grey brown silty clay loam in F7. Under 012.

018 Fill of dark grey brown silty clay loam around void of F8.

019 Partly excavated fill of mixed mid to light grey silty clay with small patches of decayed sandstone. Lower fill of F3. Under 009 and 020.

020 Thin fill of mid to dark grey yellow brown silty clay loam, within F3. Over 019 and under 009.

021 Partly excavated fill comprising loose mid to dark yellow brown silty clay loam, forming wedge against south edge of F3 and part of fill of the timber building slot. Under 019.

022 Charcoal rich deposit of mid grey silty clay loam with moderate medium size patches light yellow/cream silty clay and frequent flecks and pieces of charcoal. Under 015.

023 Deposit of mixed dark orange silty clay loam and mid grey silty clay loam with moderate flecks of charcoal. Under 015.

Trenches 5, 7 8 and 11

Trench 5 was located in an area that was investigated in 2019 (Trench 2) when what appeared to be the remains of two stone dome shaped ovens were exposed and planned as surface remains (Redhead, 2019). These had been badly truncated by an unrecorded old excavation trench (probably by Bruton in c 1907/8). In 2019 the surface remains were cleaned and recorded but due to lack of time no further excavation took place. The objective of Trench 5 was to excavate the easterly of the two ovens to investigate its character and confirm its function. It was also of interest to see how it related to the mass of smaller clay ovens, stone working platform and earlier phase timber buildings that came to light last year. Is there evidence of zonal planning with clay roasting ovens in one area and stone baking ovens in another? As excavation progressed a further 2 trenches (7 and 8) were added to the south and north and Trench 11 to the west to provide context and better understanding of the evolving archaeology.

Trench 5



Looking east across the oven remains (left) in early stages of the Trench 5 excavation and (right) the 2019 excavation with the photo scales along the axis of the two supposed stone bread ovens and with the old excavation trench cutting right to left through the ovens. The oven on the left side of the photo was the subject of more detailed excavation.

Careful trowelling showed a potential wall on the west side of the feature exposed at the base of the old excavation trench, with a concentration of possible collapsed stonework to the east of this. It became apparent that there is a considerable depth of infill/rubble that obscures the form of this fascinating feature. Clearly there has been a lot of heat generated in this area, which had turned the yellow clay red.



Trench 5 after removal of the old trench backfill and careful cleaning of the surface.

The rubble fill was excavated to reveal the structure it was infilling. The rubble 004 was a mixed composition of patches of mid grey, red and yellow clay, with frequent pieces and flecks of charcoal and varying concentrations of mainly medium sized gritstones mostly with flat surfaces. These suggested they had been used for structural purposes before demolition and filling in, whilst the red clay showed the presence of high heat which had oxidised to a red colour the surrounding natural yellow clay. 004 was up to 50 cm deep, with a top height of 276.02 m AOD and a base of 275.52 m AOD. As 004 was removed, vertical coursed, straight walls were revealed forming the east and west sides of a subterranean structure. A curving back wall on the south completed the wall arrangement for this structure F2. An *in situ* burnt timber was revealed near the bottom of 004 lying at an angle on a south east to north west alignment. The timber, which was very thin and broke up on lifting, was identified as willow or poplar (McKenna 2024). It is not clear if it was intended to be used as fuel or had some structural role such as part of a floor above. There were frequent flecks and pieces of charcoal within 004 at this level but very few stones.



A close-up of the rubble fill 004 (left) and the structure's wall starting to emerge (right).



Burnt timber near base of F2.

Removal of the burnt wood and remnants of 004 revealed a flag floor made up of medium sized gritstones 008. The stones had a flat surface but were angular in shape and laid in a random style, being bonded by a khaki coloured mortar. The floor surface varied a little in height but was 275.50 and 275.60 m AOD. Over the floor adjacent to the back (south wall) was a small patch of dense charcoal mixed with 30% pieces of heat reddened clay 005. This was a maximum of 30 cm across and only 3 cm deep. The floor had two deposits of very hard khaki coloured mortar 006 against the base of the east and west walls of F2. The

mortar deposits overlay the floor and were wedge shaped in section with a maximum depth of 10 cm against the walls. There was also a very thin band, less than 1 cm deep, of khaki coloured sandy silt 007 covering all the floor base 008.



Detailed view of charcoal deposit 005 (left) and base of F2 showing flagstone floor and deposits of mortar 006 (right).

The walls of the structure F2 were made up of roughly coursed thin gritstones which had been coloured red by intense heat. Strangely, there was little evidence of heat affecting the floor stones which suggests they were a secondary feature. The presence of the mortar deposits 006 left carelessly over parts of the floor indicate that the floor was not meant to be viewed and was purely functional. The best preserved of the 3 walls was the east side 010 which had 7 courses and was up to 52 cm in height. There was liberal use of mortar which had also turned a pink/red colour due to high temperatures. The south (rear) wall 009 was less preserved at 6 courses and a maximum of 37 cm depth, probably due to being under the early 20th century Bruton trench running across the top of this wall. To the south of 011 was a narrow 10 cm wide band of fire reddened clay 012 following the same curve as the wall and which marks the rear edge of structure F2.

The west side wall 011 was only of 5 courses and a maximum of 50 cm deep. 011 had the most regular coursing and thicker stones. The east and west walls were straight sided whereas the rear wall was curved. Walls 009, 010 and 011 were 1 course thick. Structure F2 was formed by digging a pit into natural clay then building the stone walls against the clay. The internal dimensions of F2 are 80 cm wide by 1.10 m long. The straight sides suggest the structure was not an oven as other excavated examples in the fort and fortlet at Castleshaw (and at other Roman forts) comprise dome shaped structures with curving side walls, large flagstone floors, and a narrower flue. F2 is interpreted as a grain drying kiln dating to the late 1st century AD. This interpretation is discussed in more detail in the concluding chapter.

On the north side of structure F2 there was no wall. Removal of 004 showed that the flagstone floor gave way to an area of deep red, heated clay. This clay formed a half bowl shape, curving round to finish at the vertical wall termini of 010 and 011. At the top of both walls were larger flat stones slightly overhanging the wall face termini. The top of the stone for the east wall terminus was 276.15 m AOD and for the west wall 276.14 m AOD. This compares with 276.06 m AOD for the top of the rear wall 009. The bottom of the east wall terminus was 275.66 and the east wall 275.72 m AOD.



Looking south across kiln F2, showing the flag floor and slightly projecting larger stones at the wall termini.



Elevations of the kiln walls: east side 010 left, (rear) south side 009 centre and west side 011 right.



Detail of east wall 010 showing character of burnt roughly coursed stones and mortar. At the top right of the wall can be seen remnant backfill of Bruton's 1907/8 trench.



Detail of mortar 006 against east wall.



Trench 5 south edge. The arrows show the base of Bruton's 1907/8 trench which cuts across the walls of the kiln at right angles. Trench 7 is in the background. From the base of the old trench, roughly where the blue arrow on the right is positioned, came this Bronze Age flint scraper in a grey flint with a retouched curved edge.



A remnant of 004 to the north of the flag floor is shown in section overlying burnt clay 019 (left). The photo on the right is looking down on 019 and shows the section dug through the centre of the stone floor.

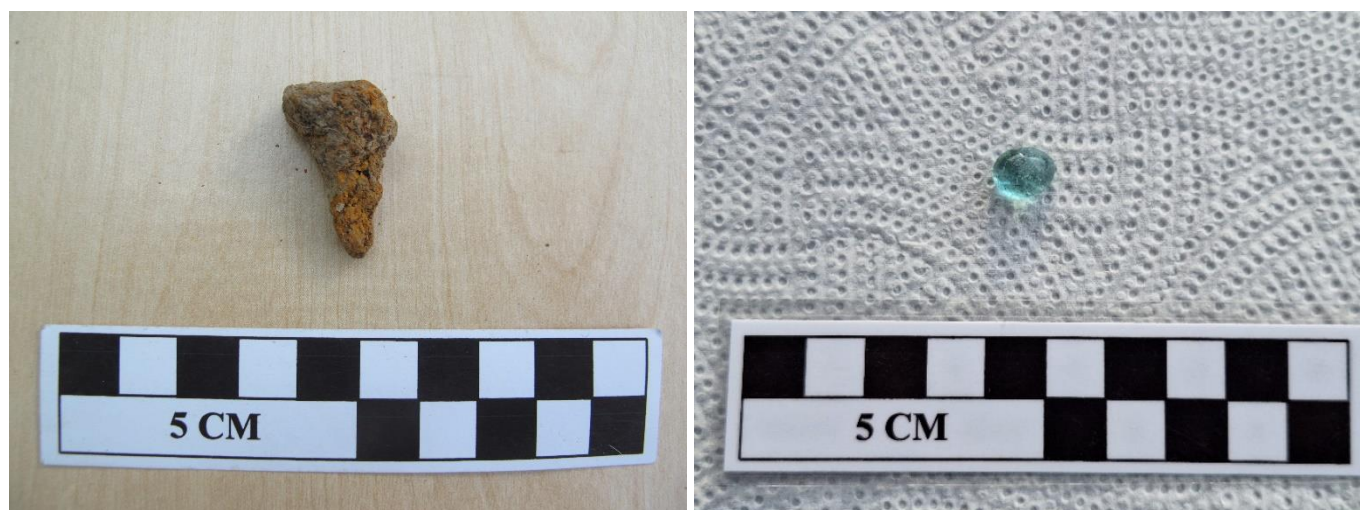
To the north of floor 008, the red clay 019 was a maximum of 35 cm wide and gave on to natural yellow clay 025 on its north side. A section was dug through the stone floor 008 of the kiln to establish its depth and make up. It was found that 008 was only one stone deep and overlay a continuation of 019 which here exhibited two shades of red representing varied heat levels. A thin layer of mortar sealed the red clay into which the floor stones were set. As the stones show no signs of heat reddening or cracking, it was clear that they are a secondary phase of activity. 019 was up to 19 cm deep, with a top height of 275.65 m AOD and bottom at 275.49 m AOD.

Given the obvious intense heat reddening of the side walls and underlying clay within kiln F2, it is suggested that the floor 008 is a replacement of an earlier one damaged by heat. This may also account for the lack of charcoal overlying it, with only one small patch 005 being present along with the charred timber in the backfill. A sample of 005 was submitted for palaeobotanical analysis. The charcoal was derived from willow or poplar and there was no evidence of burnt grain, metallurgy or calcined bone.



Detail of section through floor against side of east wall 010 (left) and through floor 008 (right).

From near the top of 004 about 1 m north west of structure F2 was found a small oval shaped piece of clear light blue tinged glass. This had a smooth bulbous surface and a flat, scored base which suggested it might have been set in to a ring. The only other find in 004, apart from small pieces of burnt red daub, was part of an iron nail.



Finds from context 004. Possible glass gemstone from ring left and nail right.



Detail of blue glass object showing upper surface left and side profile right.

On a ledge 15 cm east of the kiln's east wall and tight against the east edge of Trench 5 came two lead objects. Both were set in a layer of light to mid brown yellow silty clay loam with frequent small pieces of red or yellow clay 020. The objects were carefully excavated after an initial sweep by a metal detectorist who formed part of the volunteer excavator team. The first object to be uncovered was a disc of lead which weighed 1.2 kg. It was 12 cm in diameter and 2 cm deep. Curiously one half of the edge had been clipped so that half was hexagonal in shape. The lead had oxidised to a white colour due to reaction with the acid soil but it was possible to make out a raised 'M' on the surface. The weight appears to have been carefully laid flat next to the kiln, perhaps as part of a deposition ritual at the end of the kiln's life.

The 'M' might stand for Modius which was a Roman unit of measure for grain. If it is accepted that the adjacent kiln belongs to the fort annexe then a late 1st century date can be given for the lead object, which was probably made in a mould before clipping the edges to give the required weight. The lead could either have been used to ascertain when the grain had been dried enough through achieving the correct weight or, alternatively, for measuring out the dried grain for distribution to soldiers in the garrison for baking bread or commercially to travellers/traders. A second lead object found nearby was more difficult to define as it appeared to be folded over and is of no discernible shape.



The lead weight as first revealed (left) and the second lead object during excavation (right).



Lead weight from context 020. Surface view showing raised 'M' and clipped edges.



Lead weight from context 020 in profile left and bottom surface right.



Folded piece of lead from context 020.

Trench 7

This started as 2 m by 1 m trench positioned 1 m to the south of Trench 5 to locate the back of the kiln structure F2. Under topsoil 001 was a mid to dark plough soil 002, both of which were c 30 cm deep. 002 contained a cluster of 3 large sandstones which proved on excavation to be random and not part of any feature. However, under were revealed potential timber foundation slots and an area of burnt red clay. 001 contained 3 sherds of post medieval dark glazed earthenware while 002 had 2 small glazed post medieval pottery sherds but also a large number of pieces of mainly heat reddened daub. At least one of the daub pieces had a curved inner edge reflecting the shape of the wattle that it adhered to and possible deriving from a demolished clay oven nearby.

The trench was then extended to 2 m wide (east to west) and when it became apparent that the southern edge of kiln F2 lay under the baulk separating Trenches 5 and 7 this was removed to join up the two trenches. This allowed the full width of Bruton's old excavation trench to be exposed and the backfill fully excavated to reveal the remains of the kiln's southern wall. A number of Roman features were revealed to the south of the kiln, comprising post holes and timber building foundation slots. There was a spread of

mixed fire reddened clay and yellow clay and charcoal pieces 015 covering the western side of the trench and encompassing the south west side of the kiln.



Trench 7 looking east across the top of plough soil layer 002 (left) and after its removal (right) showing a linear feature at the top whilst in the foreground is an area of burnt clay and patches of daub.



Bruton's old excavation trench base runs under the photo scale on the left and appears as a dark grey backfill in the far trench edge, whilst on the right side of Trench 7 can be seen emerging various features against the natural yellow clay.

Two post holes appeared to relate to the kiln structure as they were symmetrically spaced adjacent to its rear corners. These were F5 to the south west and F8 to the south east. F5 was only 10 cm from the kiln's

wall. It was irregularly shaped in a rough oval measuring 26 by 20 cm. It was half sectioned and shown to contain a fill 018 comprising mid grey silty clay and pieces of charcoal including the impression of a post that has burnt in situ and underneath this a void. The charred post was 9 cm wide. When excavated the bottom of F5 was at 275.48 m AOD with a depth of 58 cm. Post hole F8 was tight against the east side of Trench 7 and also had an oval shape, measuring 24 by 14 cm. Its top had been partly disturbed by Bruton's old trench. It was only possible to part excavate this feature to 25 cm deep, at 275.68 m AOD.



Detail of F5 looking north and showing the impression of a burnt post (left). Its location in relation to the kiln can be seen in the right photo, F5 is bottom left.



Overhead view of F8 pre-excavation.

A linear feature F4 was exposed beside the west edge of Trench 7. This took the form of a 16 cm wide shallow slot with vertical edges running on a northern alignment to terminate 1.15 m from the south edge of the trench. Its base sloped slightly from 276.09 m AOD at its south end to 276.06 m AOD near the north terminal. It was a maximum of 9 cm deep and filled with mid yellow grey silty loam with moderate flecks of charcoal 015. Towards the southern end it was sealed by a spread of redeposited fire reddened clay mixed with yellow clay 015 along with plough soil 002. Just beyond the northern terminus was a substantial post hole F6 which took a circular form being 19 cm in diameter. It was half excavated with an upper fill comprising mid yellow grey silty clay loam with moderate flecks of charcoal 014. This filled the upper part of F6 for up to 20 cm, with a void underneath. The depth was 52 cm with a bottom at 275.61 m AOD. F6 lay only 6 cm from slot F4 and although slightly offset it appears to be related to the building formed by the foundation slot; perhaps the post setting marks the location of an entrance or the corner of an open sided timber building.

Two more post holes were found in Trench 7. These were located in a wide building foundation slot F3. This was 68 cm wide at the top but varied in depth. By the south edge of Trench 8 it was only 3 cm deep before tapering gently down to a deep circular post hole F7. The linear feature F3 tapering to an uneven base and curved terminus 1.25 m from the south trench edge. Here it was much deeper at around 12 cm

on the east side but the west side held another post hole F9. The fill of F3 was a mid grey silty clay loam with frequent flecks of charcoal 013. The top height was 276.04 m AOD. Post hole F7, which was up tight against the south trench edge, was circular in shape with a diameter of 26cm and a depth of 56 cm. Its side were steeply angled to a narrow base of c 8 cm. The fill was a clean, soft mid grey silty clay which was sealed under 013. The bottom of F7 was at 275.52 m AOD. Post hole F9 on the other hand was irregular in shape and depth. It had a roughly oval shape measuring 26 cm by 14 cm and was 37 cm deep, with a base at 275.67 AOD. Its fill was mid grey silty clay 027.



Overhead of linear feature F4 pre-excitation below the photo scale (left) and post hole F6 half sectioned showing void under upper fill 014 (right).



Overhead of the excavated slot F4 in Trench 7, with burnt clay lump 015 visible on the left and the two post holes F6 (by pointed end of scale) and F5 in bottom right corner. Right: post hole F7 pre excavation in base of slot F3. Below: post hole F7 after excavation.





The irregular post hole F9 at the terminus of slot F3 (left) and F3 post excavation with F7 above (right).



Overhead view of Trench 7 (left) showing slots and post holes and joined up to Trench 5 which incorporates the kiln F2, with Trench 8 off to the left of picture having also been joined up to Trench 5. (Photo courtesy of Nat Townsend)



Finds from topsoil 001 and, right, detail of a piece of curved heat reddened daub from context 002.



Finds from context 002, mainly comprising Roman daub most of which has been heat reddened.

Trench 8

This commenced as a narrow trench dug to the north of Trench 5 to examine the potential for archaeological features to the north of the kiln. The trench was widened to 1 metre and showed burnt deposits and stones which were a continuation of the infill deposit 004 excavated on the northern side of the kiln. Interestingly a separate spread of dense charcoal materialised against the north edge of Trench 8 which suggested another potential oven site. Therefore, the trench was extended further north and the 0.5 m wide baulk separating it from Trench 5 was removed so that it ended up 1 m wide by 2.5 m long. 004 was excavated and found to be a wedge-shaped deposit dropping from a thickness of 30 cm against the

southern edge of the trench to only 5 cm at 1 m northwards. Under 004 was a thin layer of light to mid grey silty clay 016 which was only 3 cm deep and came off onto natural yellow clay. The charcoal spread 017 was very thin at 1 cm and was contiguous with 016 continuing northwards from it at around 1.2 m then fading out at 2 m from the south trench edge, where 016 picked up again and ran under the north trench edge. The top of 017 was at 275.90 m AOD. The charcoal was sealed under 024, a layer of dark brown grey silty clay loam with moderate flecks of charcoal which was a maximum of 13 cm deep and under topsoil 001. It may be ploughsoil darkened by interaction with the charcoal layer.

It was found that the charcoal layer sealed a negative feature F10. This took the form of a possible building foundation slot aligned on a west to east axis. A 0.5 m wide section was dug through the feature. The profile showed a 96 cm wide slot with near vertical sides 24 cm deep going down to a shelf which was cut by a narrower lower slot which was 45 cm wide at the top and 22 cm deep, with its southern side having a gentle slope and the north side being a vertical cut to a base 30 cm wide. The bottom of F10 was at 275.38 m AOD. Under 017 was F10's upper fill 021 comprising mid to dark grey silty clay loam with occasional flecks of charcoal. This was wedge shaped, being 30 cm against the south edge and tapering to nothing towards the top of the north edge of the feature. Under this was a layer of light to mid grey silty clay loam with frequent flecks of charcoal and occasional small patches of dark orange silty clay 022. This was also wedge shaped and of a similar depth but thicker at the north side. The base fill was 023, comprising dark grey silty clay loam with frequent flecks of charcoal. The only find was a small piece of heat reddened daub from 021.

F10 can be interpreted as a foundation slot for a substantial timber building. The slot lies 3 m north of the kiln F2 and runs west to east. Its plan form is not yet known and this should be a future priority. Was it part of a structure that enclosed the kiln or did it belong to an earlier building?



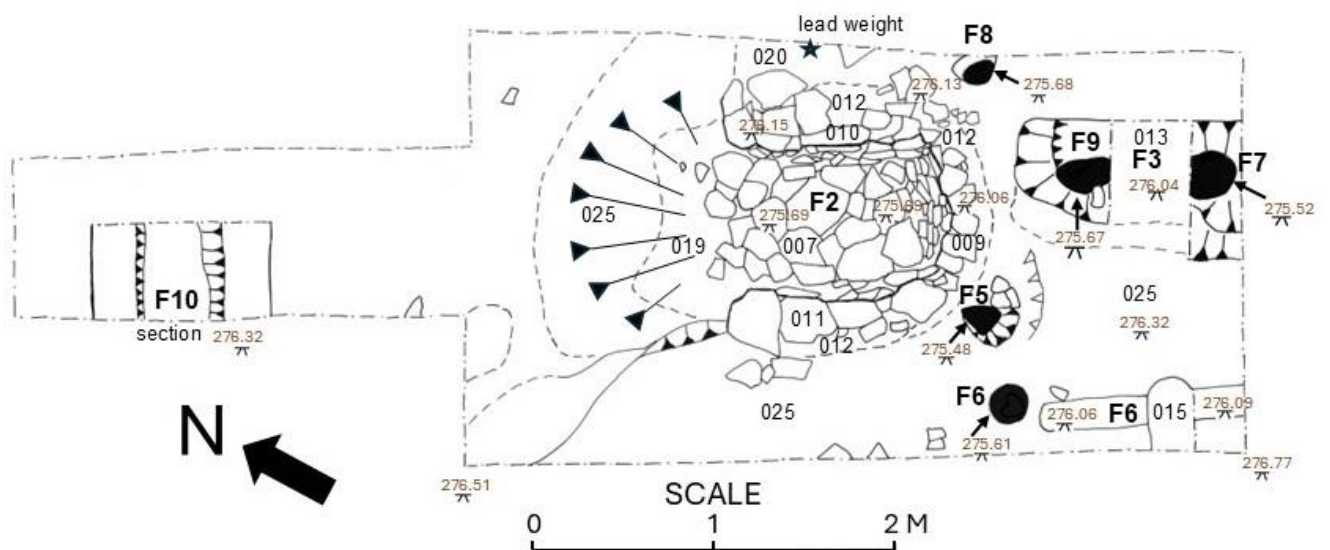
Trench 8 commencing (left) and widened to 1 metre wide showing 004 to right and a charcoal layer to the left.



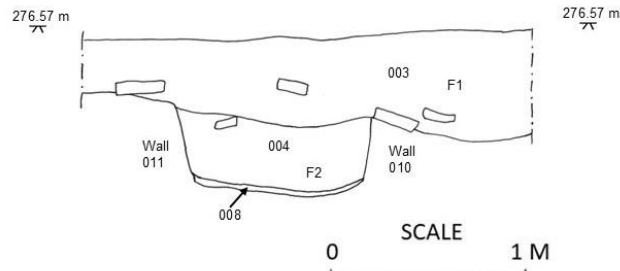
Trench 8 after removal of 004 showing 016 and charcoal layer 017 (left) and after being extend northwards the full extent of the charcoal layer could be seen (right).



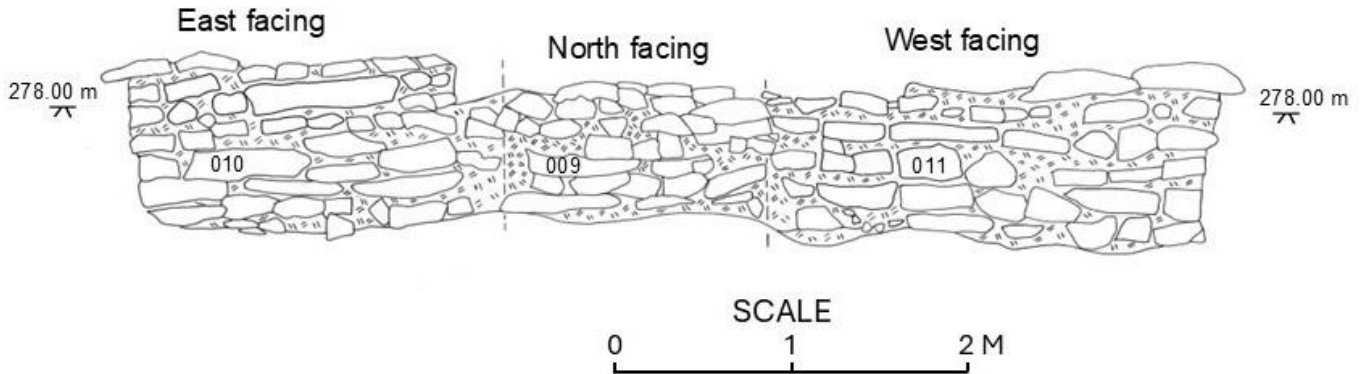
Section through F10 in the west side of Trench 8 (left) and the small piece of daub from 022 (right).



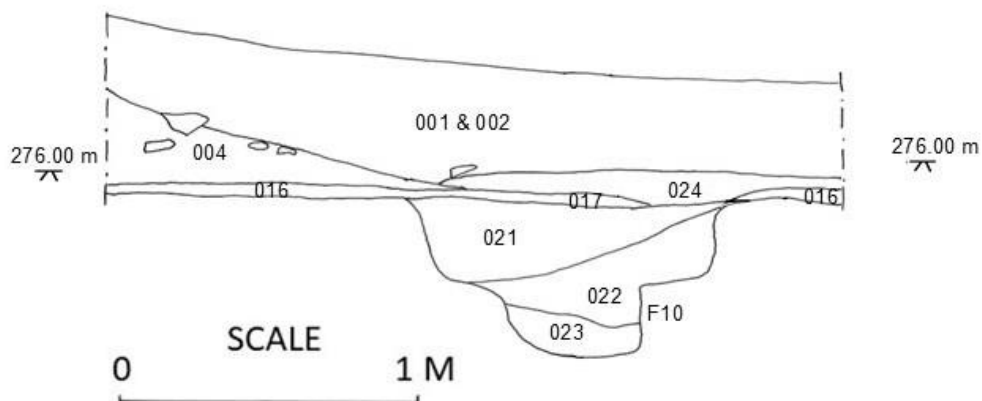
Plan of (left to right) Trenches 8, 5 and 7 joined up, and showing location of lead weight.



North facing section through kiln F2 and Bruton trench F1.



Internal wall elevations of kiln F2 in Trench 5



East facing section through linear feature F10 in Trench 8.

Contexts for combined trenches 5, 7 and 8

F1 Old excavation trench, unrecorded and probably dug by Bruton in 1908. Filled with 003.

F2 Stone walled kiln. Filled with 004.

F3 Linear feature terminating to the south of F2, filled with 013. Contains post holes F7 and F9.

F4 Linear feature alongside west edge of Trench 5, filled with 014 and under 015, linked to post hole F6?

F5 Post hole adjacent to south west corner of kiln F2 in Trench 5. Filled with 018.

F6 Post hole filled with 019, at north end of F4.

F7 Post hole against south edge of Trench 7 and part of F3. Filled with 026, under 013.

F8 Post hole against east edge of Trench 5 and adjacent to south east corner of kiln F2. Filled with

F9 Post hole of irregular shape at north end of slot F3. Filled with 027, under 013.

F10 Linear feature running east to west partly excavated against west side of Trench 8. Contains 021, 022, 023 and 024.

001 Dark grey top soil.

002 Brown plough soil in areas not previously dug in 1908 or 2018, sealing Roman levels.

003 Loose dark grey silty clay loam filling old (1908) excavation trench F1

004 Fill comprising equal parts of mixed patches of mid grey/red/yellow clay and varying concentrations of medium size gritstones (some burnt red) and moderate flecks of charcoal. Roman period backfill of kiln F2. Under 002 and 003.

005 Thin patch of dense charcoal sealed by 004 and over 008. Over floor of kiln F2.

006 Hard, compact deposits of mortar lying against angle of wall base and floor within kiln F2. Under 004, over 007.

007 Thin layer of khaki coloured silty sand directly over floor 008 and sealed by 004 and 005. Fill of kiln F2.

008 Flat angular medium to large gritstones set in khaki coloured mortar forming floor of kiln F2. Under 007 and over 019.

009 Back wall of kiln F2 forming gentle curve. Linked to 010 and 011.

010 Straight section of wall on east side of flue/channel – side wall of kiln F2. Linked to 011 and 008.

011 As for 010 but on west side.

012 Burnt red clay on outside of 009 forming outer edge of F2 on its south side.

013 Fill of mid yellow grey silty clay loam with frequent flecks of charcoal. Fill of F3. Under 002.

014 Fill of mid yellow grey silty clay loam with moderate flecks of charcoal. Fill of F4. Under 002 and 015.

015 Lump of fire reddened and yellow clay. Over 014 and seals F14.

016 Thin layer of light to mid grey silty clay north of kiln F2. Under 004 and over natural 024.

017 Thin layer of dense charcoal marking site of and sealing fills of F10. Contiguous with 016, under 024.

018 Fill comprising mid grey silty clay and pieces of charcoal including impression of post and void. Fill of post hole F5.

019 Area of intensively heated fire-reddened clay along open north side of kiln F2 and representing site of furnace. Part of F2, under 004.

020 Layer of light to mid brown yellow silty clay loam with frequent small pieces of red or yellow clay.

Adjacent to east side of kiln F2, partially excavated to extract two lead artifacts including a weight.

021 Layer of mid to dark grey silty clay loam with occasional flecks of charcoal. Fill of F10. Under 017, over 022.

022 Layer of light to mid grey silty clay loam with frequent flecks of charcoal and occasional small patches dark orange silty clay. Fill of F10. Under 012, over 023.

023 Layer of dark grey silty clay loam with frequent flecks of charcoal. Base fill of F10. Under 022.

024 Layer of dark brown grey silty clay loam with moderate flecks of charcoal. Over 017 and 016. Under 001. Could be darker version of plough soil.

025 Natural yellow clay.

026 Fill of soft mid grey silty clay. Fill of F7, under 013.

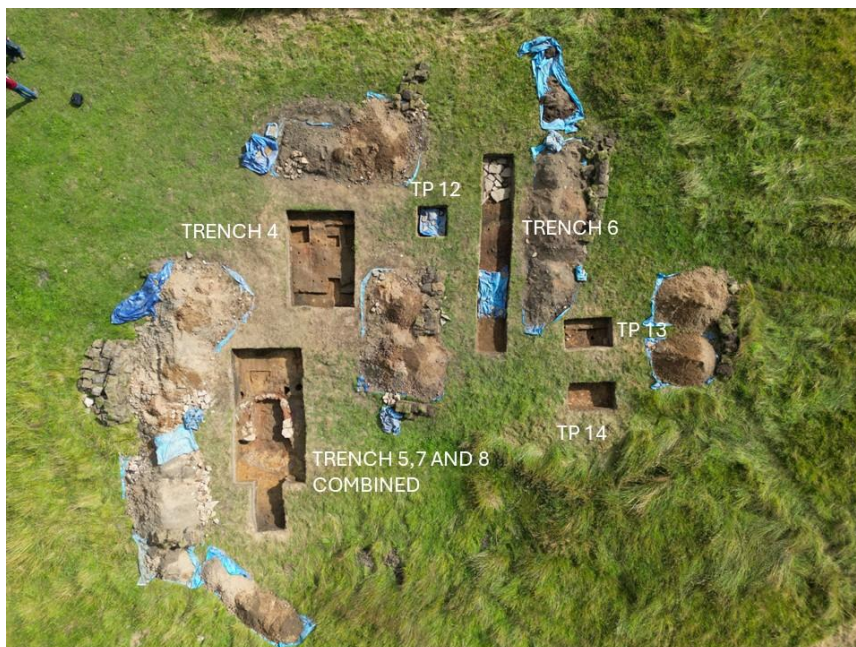
027 Fill of mid grey silty clay. Fill of F9, under 013.

Trench 6

This was located 0.5 m to the east of 2023 Trench 13 northern extension and incorporated 1.5 m of the stone platform that was revealed in the 2022 excavation. Trench 6 ran 5.4 m on a south to north orientation and was designed to pick up the possible continuation of the east to west timber building foundation revealed alongside the northern edge of the stone platform in the 2023 excavation.



Looking north east across Trench 6 in the early stages of excavation, with Test Pit 12 marked by photo scale to the right.



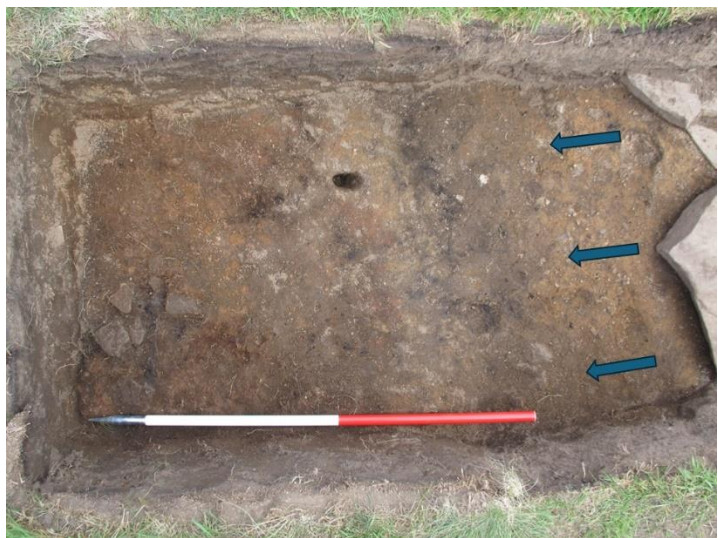
Location of Trench 6 in relation to adjacent trenches. (Photo courtesy of Joolze Dymond)

The Roman levels were sealed by 35 cm of topsoil and brown plough soil. There were no finds from the plough soil but 001 topsoil had a range of post medieval glazed sherds along with a large base sherd of brown glazed earthenware, a dark glass bottle rim, a clay pipe stem fragment and some Roman finds which comprised two iron nails, a small piece of waste lead and a piece of daub.



Finds from topsoil 001.

A wide range of layers were exposed under 002. These were carefully cleaned to demonstrate that the slot did continue into this trench. This feature F1 showed as a distinct edge between sub natural yellow clay 003 (adjacent to the stone platform) and a linear band of mid yellow grey silty clay loam with frequent charcoal flecks 004. The edge was c 25 cm from the stone platform and formed the south edge of the building foundation slot. F1's northern edge was less distinct, being more undulating against a narrow band of yellow clay 005 which had similarities with 003. F1 was not excavated as it was felt that the surface evidence was demonstration enough.



Looking south across Trench 6 (left) and an overhead photo shows the south edge of the building slot F1 (right - marked by arrows).

In the middle of the trench was a roughly circular area of charcoal, stones, and intensely heated (red) clay F2 which had the hallmarks of a hearth similar to those excavated previously elsewhere in the annexe area. The layers which appeared to be associated with this feature are described from south to north as they appeared in the trench. None of them were excavated other than to define the surface for planning purposes and within the 1 m width limits of the trench it was not possible to define the east and west edges of the contexts.

006 was to the immediate north of 005 and was a layer of mid reddish brown silty clay loam with frequent flecks of charcoal. This layer enveloped the centre of F1 on its south side. A deposit of dark red brown silty clay loam with occasional flecks of white (calcined) bone and c 25% small to medium gritstones and pieces

of charcoal 007 formed the actual hearth centre. A decorated rim sherd of Roman cooking ware, in a dark brown fabric with soot evident on the exterior, was recovered from the top of 007 during cleaning. The top of 007 was at 276.60 m AOD. To its immediate north and wrapping around its eastern side to meet up with 006 was a layer of burnt orange/red clay 008 forming a linear band a maximum of 35 cm wide as the outer part of hearth F1. A cluster of 8 potential stake holes were cut into 008. These proved to be shallow and quite random and may well be the result of root activity rather than being part of the oven structure.

Another narrow, 30 cm maximum width, band lay to the north of 008. This was made up of light yellow silty clay loam with moderate flecks of charcoal 009. It merged in with a layer of dense charcoal with frequent small patches of light grey silty clay loam 010. This in turn merged to the north with a layer of mixed, dirty yellow silty clay loam with mid dark grey silty clay loam and frequent flecks of charcoal 011 which was bounded by stones 012 to north. These stones were mainly of small to medium size and concentrated especially on the western side of the trench. They appeared to present a crescent shaped edge to contain 010 to the south, while to the north the edge was less well defined. The top level for the stones was 276.49 m AOD.

Beyond the stones to the north were three more distinctly different contexts. 013 was a layer of light brown yellow silty clay loam with frequent medium sized patches of cream/yellow silty clay and occasional charcoal flecks which occupied the western half of the trench. It was bounded to the east by a linear spread of light to mid yellow grey silty clay loam with 25% mid grey shale and occasional light yellow silty clay patches and charcoal flecks 014 which could potentially be the fill of a timber foundation slot. Finally, in the north west corner of the trench was a roughly circular deposit of mixed red clay and charcoal in a matrix of mid grey brown silty clay loam 015. The top level of 015 was 276.42 m AOD.



Overhead view of F2 showing central deposit 007 with 006 to the left and 008/009 to the right. A single rim sherd of Roman pottery came from cleaning the top of 007 (right and below).



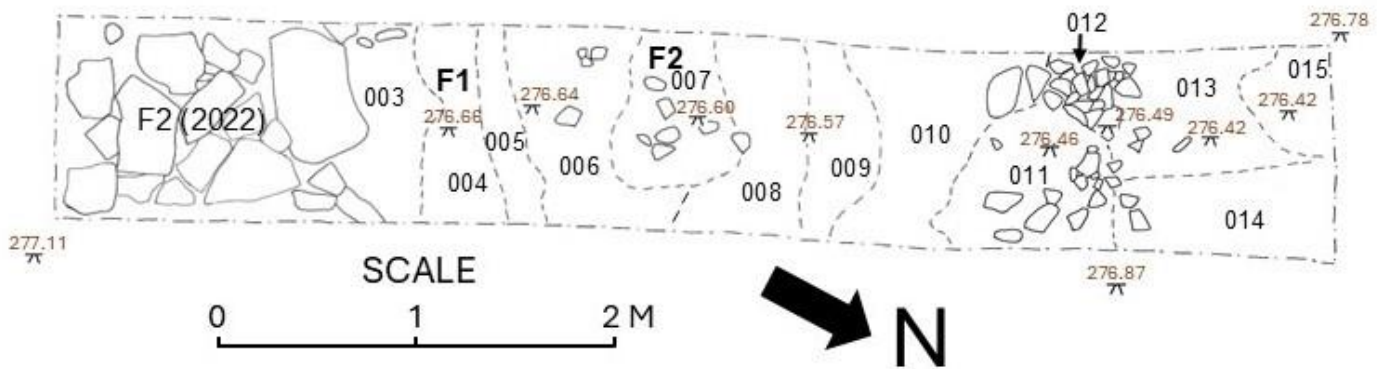


Excavated stake or root holes in 008.



Looking down at the stone concentration 012 in Trench 6, with charcoal deposit 010 and 011 to the left, and 013, 014 and 015 to the right.

Although not excavated to confirm its function, Trench 6 usefully revealed two features that can be confidently interpreted from surface remains. These are a continuation of the south wall of a timber building alongside the stone platform at the south end of the trench (F1), and a probable hearth F2 in the centre of the trench. Most of the layers/deposits are associated with F2. The rich charcoal deposit 010 could be rake-out from the hearth or even represent a separate oven feature, whilst the stone spread 012 might be the remains of a stone platform for accessing the hearth/oven or the dismantled structure. Against the north side of the trench, 015 suggests there is the potential for yet another hearth or oven and a building foundation slot is represented by 014. Trench 6 continues the complex archaeology seen in last season's excavation of the Trench 13 northern extension where a plethora of ovens and hearths overlay the site of a first phase timber building.



Trench 6 plan.

Contexts

F1 Linear feature not excavated but probable timber building foundation slot. Filled with 004.

F2 Roughly circular feature, possible hearth. Comprises 006, 007, 008m 010, 011, 012.

001 Topsoil.

002 Plough soil.

003 Sub natural yellow clay.

004 Mid yellow grey silty clay loam with frequent flecks of charcoal. Fill of F1.

005 Band of yellow clay similar to 003.

006 Layer of mid reddish brown silty clay loam with frequent flecks of charcoal. Part of F1.

007 Layer of dark red brown silty clay loam with occasional flecks of white (calcined) bone and moderate small stones and pieces of charcoal. Forms central part of F1.

008 Layer of burnt orange/red clay forming linear band as outer part of hearth F1.

009 Layer of light yellow silty clay loam with moderate flecks of charcoal forming thin band as part of F1. Abuts 008 to south and merges in with charcoal 010 to north.

010 Layer of dense charcoal with frequent small patches of light grey silty clay loam. Outer part of F1, merging with 009 to south and 011 to north.

011 Layer of mixed, dirty yellow silty clay loam with mid dark grey silty clay loam and frequent flecks of charcoal. Bounded by stones 012 to north.

012 Concentration of small and mainly medium sized gritstones bounded probably associated with hearth F1 to north. Perhaps remnants of stone platform to service hearth?

013 Layer of light brown yellow silty clay loam with frequent medium sized patches of cream/yellow silty clay and occasional charcoal flecks.

014 Linear spread of light to mid yellow grey silty clay loam with 25% mid grey shale and occasional light yellow silty clay patches and charcoal flecks.

015 Roughly circular deposit of mixed red clay and charcoal in matrix of mid grey brown silty clay loam.

Trench 9

Last year Trench 3 demonstrated that the fort ditch runs for around 20 metres along the east side of the fort defences up to and slightly beyond where the annexe northern rampart joins up to it. However, just 2 m further south of Trench 3 the ditch was not present in the trench excavated by Thompson's in 1963 and Salford Archaeology's re-excavation in 2014 (Nash et al 2014). It seemed certain that the terminus of the ditch should be found between the south edge of the 2023 Trench 3 and the earlier trenches. Therefore Trench 9 in 2024 was designed to confirm the location and character of the terminus. It ended up being 2 m wide (south to north) and 3.3 m long. Once the line of the ditch was identified only the southern 1 m width of the trench was excavated to a deeper level to confirm the character of the ditch fills and shape. The south, east and north facing sections, together with a plan, were recorded.



Excavation of Trench 9 begins (left). The dark brown and grey ditch fills under the photo scale contrast with natural yellow clay in the foreground (right). The clear dark line in the rear section of the trench represents the year 1963 with residual spoil from Thompson's excavation covering the original (decayed) turf line.

Trench 9 started off as 3 by 1 m in order to first of all locate the ditch's eastern edge which soon became apparent as there was a strong contrast between the dark purple grey decayed turf horizon 006 and a sub-natural deposit of mid yellow silty clay mixed with c 25% patches of light grey silty clay 015. The decayed turf layer had been revealed to be sealing Roman ditch deposits in the 2023 excavation, as well as in the fortlet ditch sections excavated by Greater Manchester Archaeological Unit in the 1980s (Walker et al 1989). It represents the grass that grew when the ditch had silted up and predates the period of ploughing that took place in the 18th and 19th centuries. The trench was expanded to 2 m width and the north east part of the trench was excavated until the ditch cut was clearly visible. It could be seen that the fort ditch F1 cut through both 015 (10 cm deep) and a layer under it which comprised light grey and yellow silty clay 010 (6 cm deep). This is turn overlay a deposit of natural mid yellow silty clay 011. The top of 010 was 275.67 m AOD.



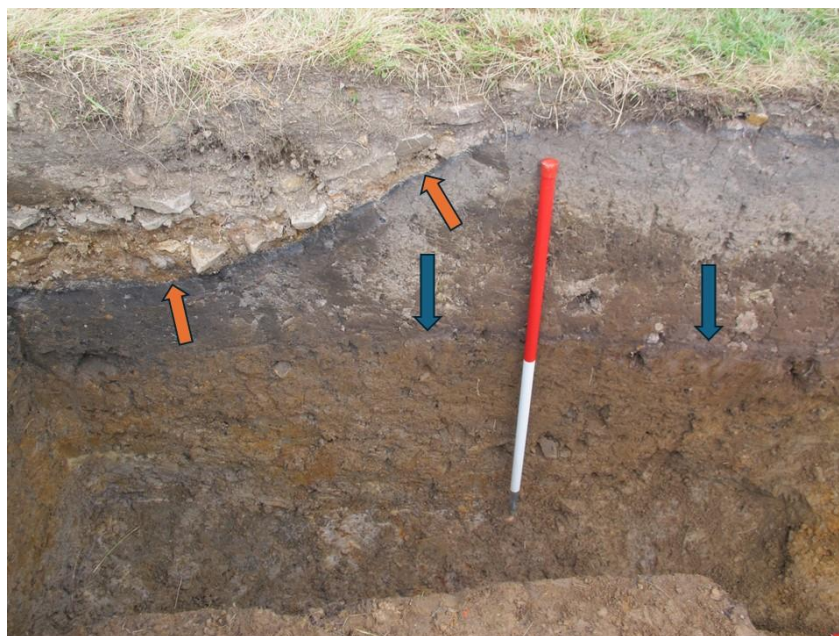
Aerial view of early stages of Trench 9 excavation, showing in plan the decayed former turf material sealing the ditch in the left side of the trench with sub natural appearing to the right (left). Right: the outside (eastern) edge of the ditch is indicated by the arrow, cutting through bands of natural yellow and white clay 015, 010 and 011.

A section was dug against the opposite, western, side of the trench to look for the western ditch edge. A clear line differentiated two contrasting layers. Immediately under the turf was redeposited topsoil, up to 35 cm deep, comprising dark grey silty clay loam 001. This overlay another redeposited material comprising mid yellow silty clay with 25% small to medium gritstones 002 which was a maximum of 20 cm deep. Under 002 was a clear dividing line formed by a very dark grey former turf line 003. The contrast was reinforced

by a former topsoil (dark grey silty clay loam) 004 c 20 cm deep. 001 and 002 were derived from Thompson's 1963 excavation trench across the fort east rampart. 002 appeared to be ex-rampart material in the character of the silty clay however the stones are an added interest. They were predominantly flat stones of the sort seen elsewhere used for structures such as ovens, so perhaps the 1963 trench had gone through and discarded remains of a stone oven. The old turf line 003 showed the landform prevalent at the time of the 1963 dig and there seems to have been a depression which the excavation spoil had filled in which might account for why it had not been used in backfilling the trench. Thompson's trench cut through the north east quadrant of the fort on a west to east alignment and continued through the fort rampart and a considerable distance beyond in the hope of finding the ditch or ditches. As it turned out there was a drain running from under the rampart but no evidence for the ditch, as noted in Thompson's report (Thompson 1967).

Under the original topsoil layer 004 was the former mid brown silty clay loam plough soil horizon 005. There were no finds from 005 and a handful of post medieval glazed pottery sherds from 004. This sealed the early decayed turf layer 006 which was clearly visible in the section and only 4 cm deep. 005 gave way to the 32 cm maximum depth upper ditch fill 007, comprising mid yellow brown silty clay loam with occasional small gritstones, which in turn gave way to the next ditch fill 008. This was 28 cm deep and formed of mid yellow brown silty clay with 15% small patches mid grey silty clay and moderate gritstones and charcoal flecks. The western ditch edge towards the rampart was not exposed. This was because the ground was sloping up to the rampart meaning that a considerable depth and quantity of material needed to be excavated to reveal it, increased also by the previous excavation spoil. However, against the western side of Trench 9 was revealed a fill of light grey silty clay with frequent charcoal and lumps of white/cream clay 090, which was seen else to be one of the lowest fills of the ditch. From this came several pieces of Roman red-orange ceramic tile, which could have been used for a floor or roof. Other than a small piece of molten glass from 007, these proved to be the only artifacts recovered from the ditch fills in Trench 9.

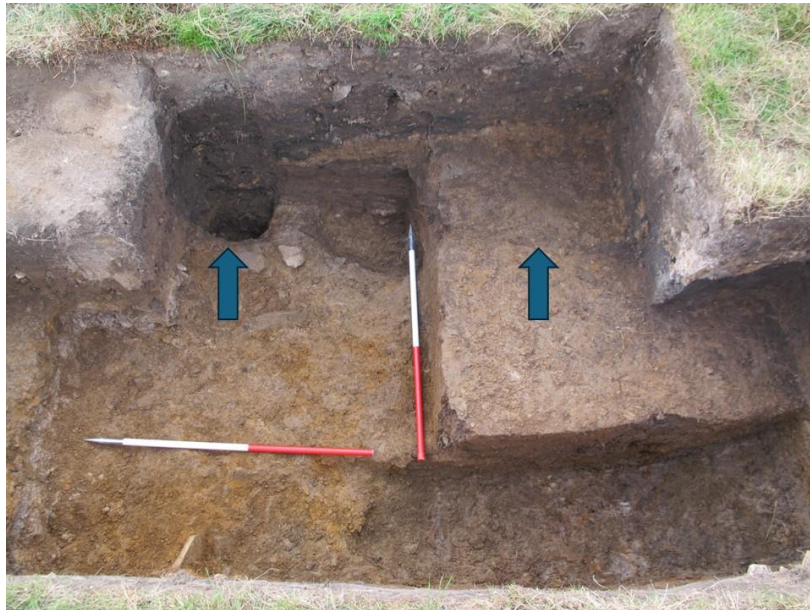
In terms of levels, the top of the old ground surface represented by 003 was 276.27 m AOD at its highest point in the middle of the trench, dropping to 275.88 m AOD 0.5 m from the west trench edge. The top of 006 was fairly level with a top height of 275.69 m AOD. The bottom of the fort ditch was not revealed as 008 was not fully excavated. It was taken down to 275.10 m AOD meaning that c 60 cm depth of ditch was exposed, with the modern turf level being 276.35 m AOD.



Trench 9, west side of north section, showing the 1963 ground surface 003 (orange arrows) and the old ditch turf line 006 (blue arrows).

The extended south side of the trench was excavated and revealed the cuts of the old excavation trenches, that of the 2014 re-excavation by Salford Archaeology (F3) on the east side, which at this point had widened Thompson's 1963 trench (F2) which was visible to the west. Salford Archaeology had found a drain running from under the rampart, as reported by Thompson, but also a compact stone deposit in the

north trench edge forming a 'U' shape – which was thought to have potential to be the fort ditch terminus, although restrictions of time and space within the trench did not allow further exploration.



The left blue arrow indicates the north edge of the old excavation trench dug by Salford Archaeology in 2014, with the right arrow indicating the Thompson trench of 1963. The fort ditch fills can be seen on the right, contrasting with dark yellow natural on the left.

The fills 007, 008 and 009 were excavated in this part of the trench in order to expose the base of the ditch. This exposed a lower fill of densely packed small and medium sized gritstones with occasional patches of dark grey and light grey silt 013, sealed by 009. The stones appeared to be a deliberate backfilling of the bottom of the ditch. On the east side ditch F1's edge was formed by a c 45 degree cut into light to mid grey natural shale and stone, while to the west was fractured bedrock in the form of large stone slabs with smaller more broken stones to the north 017. These sloped down towards the bottom of the ditch at a c 20 degree angle. The sides and the basal fill 013 tapered to the south indicating that the ditch was narrowing to its terminus. 013 was not fully excavated but in the section through the south side of the trench its top height was 274.95 m AOD down to 274.75 m AOD. The bedrock 017 was at 274.88 m AOD (midway down the stone). Above 013 was a jumbled array of old excavation backfill deposits 014 comprising mixed, loose humic dark soil, dark yellow silty clay, brown silty clay loam and frequent stones. These were clearly cut by the 2014 trench F3 which was infilled with a more consistent dark grey silty clay loam. The western trench edge section showed the steeply angled cut of the 1963 trench.



Left: looking south showing the stone fill 013 at the base of the ditch, with bedrock forming the sloping side on the right and the ditch cut through shale and stone natural on the left. The section shows backfill of previous excavation trenches. Right: overhead with arrows showing the tapering of the ditch sides towards its terminus just beyond the trench edge.



Trench 9 west side section with the 1963 old trench F2 edge visible to left of scale and ditch fills 007, 008 and 009 to right of the scale.



Detail of eastern side of ditch F1 (left) and western side with broken bedrock (right).



This photo of Trench 1 in 2014 shows what was provisionally interpreted as the stone filled ditch terminus (arrowed)., with the site of the drain visible in the bottom of the trench on the left.

Trench 9 has confirmed that the fort ditch ran 22 metres from the north east corner of the fort defences to terminate 3 m beyond its junction with the annexe north rampart. The packed stone fill 013 was only partially excavated but is clearly the same material revealed in the north side of Trench 1 in 2014. It shows that the ditch had a 'tongue' shaped terminus which respected the angled drain running out from under the east rampart. Was this a boggy area which necessitated the drain and made digging the ditch impractical? This might explain why the ditch terminus was filled with stones at this point, to create a form of soak away. Where did the stones come from? It is possible that they were from a nearby structure, however the stone fill is very clean with no daub present or other materials that might indicate a structural origin.

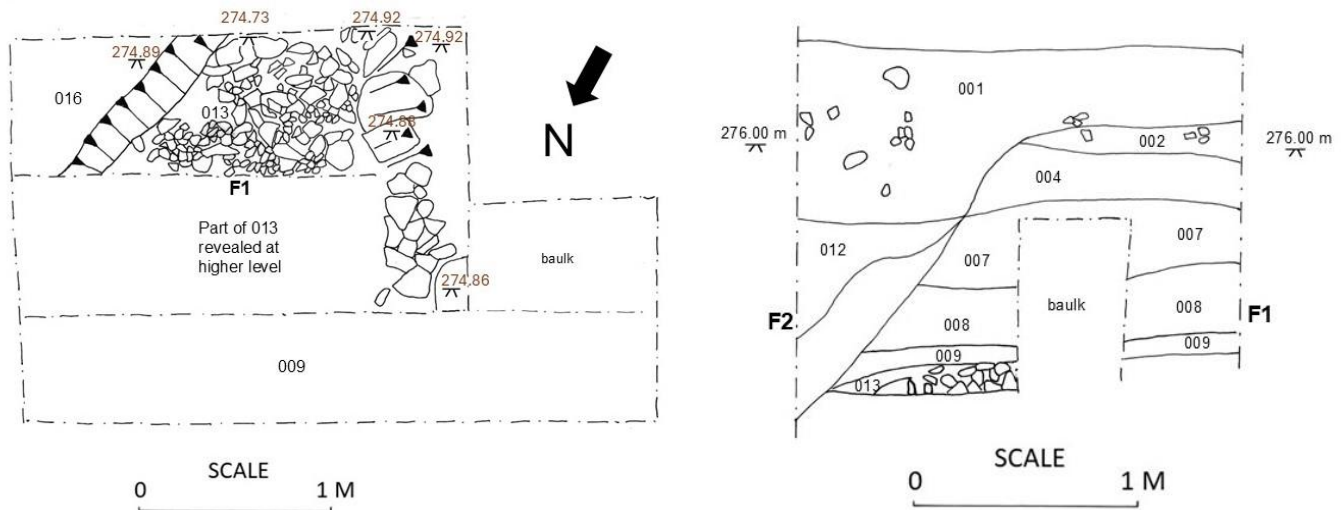
The lack of a ditch in the middle half of the east fort defences can now be interpreted as due to the presence of the annexe defences, with the fort ditch running on from the junction with the annexe north rampart to create a slight overlap. This is a rare and unusual phenomenon in Roman forts, with only a handful of examples where a ditch does not complete a circuit of the ramparts. This must surely confirm that the annexe was under military control from the adjacent fort. We do not yet know where the ditch terminated towards the southern end of the eastern defences – this should be a priority for next season's investigations.



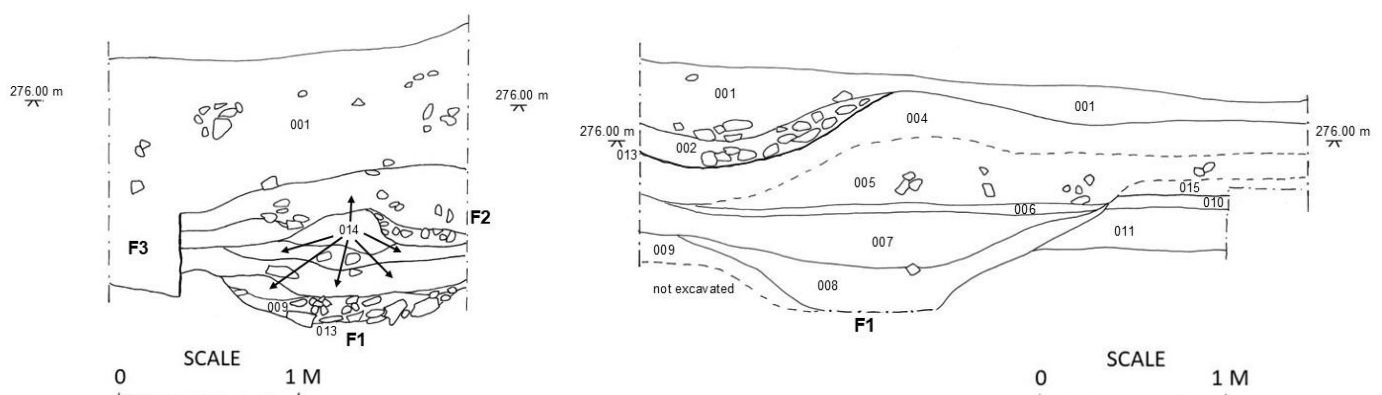
Finds from topsoil context 001 (left). Molten glass from context 007 (right).



Roman tile fragments from context 009.



Plan of F1 ditch terminus in Trench 9 and, right, east facing section.



Trench 9 north facing section (left) and south facing section (right).

Contexts

F1 Fort ditch. Contains 006, 007, 008, 009 and 013. Cuts 010.

F2 Old excavation trench dug in 1963.

F3 Re-excavation trench dug in 2014.

001 Redeposited topsoil comprising dark grey silty clay loam. Probably derived from 2014 excavation.

002 Redeposited former rampart material of mid yellow silty clay with 25% small to medium gritstones. Derived from Thompson 1963 excavation across fort east rampart.

003 Former turf line of black decayed turf sealed by 002.

004 Pre 1963 topsoil of dark grey silty clay loam.

005 Plough soil of mid brown silty clay loam. Under 004 and over 006.

006 Former turf line sealing Roman ditch, comprising purple grey silty clay loam. Under 005, over 007.

007 Fill of mid yellow brown silty clay loam with occasional small gritstones. Upper fill of fort ditch F1, under 006, over 008.

008 Fill of mid yellow brown silty clay with 15% small patches mid grey silty clay and moderate gritstones and charcoal flecks. Fill of ditch F1, under 007, over 009.

009 Fill of light grey silty clay with frequent charcoal and lumps of white/cream clay. A lower fill of fort ditch F1, under 008, over 013 and 011.

010 Deposit of white silty clay. Sub-natural cut by ditch F1 and under 009.

011 Deposit of natural mid yellow silty clay. Natural under 010 and

012 Loose fill of mid yellow orange silty clay loam mixed with dark grey silty clay loam. Backfill of previous excavation trench F2.

013 Layer comprising densely packed small/medium gritstones with occasional patches of dark grey and light grey silt. Under 009, fill of F1.

014 Deposit of mixed, loose humic dark soil, dark yellow silty clay, brown silty clay loam and frequent stones. Backfill of former excavation trench F2, cut by F3 (2014 trench).

015 Deposit of mid yellow silty clay mixed with c 25% patches of light grey silty clay. Below 005, above 010.

016 Fill of light to mid grey natural shale and stone in the base of fort ditch F1. Under 009.

017 Fractured bedrock in the form of large stone slabs and medium sized more fragmented stones.

Trench 10

In 2023 Trench 13 eastern extension revealed a potential building slot or post hole (F16) just to the east of the stone platform (F2) eastern terminus (Redhead 2024, p 53-63). Only a small part of the feature was revealed in the south east corner of the trench. Therefore Trench 10 in 2024 was designed to run south from the corner of the 2023 trench to expose more of it to help confirm its form and function. Trench 13 measured 4 by 1 m.



Trench plan showing the location of Trench 10. (Photo courtesy of Joolze Dymond)



Trench 10 is being excavated in the right foreground.

Immediately under the turf, sealing the topsoil, was a c 5 cm deep deposit of gravel that had been used for the car park next to the compound in the 1980s GMAU excavations of the fortlet. Dark grey silty loam topsoil 001 yielded the usual type of assemblage of post medieval glazed pottery sherds, a clay pipe stem and a piece of clear glass. Under this was a mid to dark brown silty clay loam plough soil 002 which contained two post medieval interior brown and yellow glazed earthenware bases together with a piece of iron, clay pipe stem and small yellow/black stripe glazed body sherd. 001 and 002 were around 25 cm deep each in the south east corner of the trench but shallowed a little further north to 40 cm total depth. The trench straddled a 70 cm by 60 cm area of the old south east corner of the 2023 trench to relocate the partly excavated feature. Therefore Trench 10 partly straddled the feature and old trench corner. Under 002 in the south part of Trench 10 was exposed a deposit of 'dirty' yellow clay containing occasional stones and with small patches and 'veins' of dark grey humic soil 005. This was the same clay material revealed in last year's excavation (context 031) which was shown to cap the cut feature (F16 in 2013).

Once the old trench fill had been emptied it was possible within the wider Trench 10 to explore the extent and form of the feature, numbered F1 in the new trench. It was found that it did not continue any further eastwards and that the eastern edge of last year's trench was very close to the actual edge of the feature which ran as a linear slot north to south for a distance of 90 cm into Trench 10's north edge. The feature was difficult to discern as it was capped by 005. In order to determine the southern extent of F1 it was necessary to over-dig 005 which came down to natural light yellow clay (006), the boundary between them being difficult to see. It became apparent that F1 did not continue southwards other than a few centimetres beyond the edge of last year's trench. A cluster of potential stake holes were more likely to be former roots as the dimensions were varied, the pattern random, the edges angled and inconsistent. However, to the west another building slot became apparent.

On the surface this slot, which joined the north to south arm of F1 to form a corner of a former timber building, was again hard to see. This was partly due to its fill 003, comprising light to mid grey silty clay with 30% yellow clay and 25% small sandstones, being quite similar to the overlying clay capping deposit. A short section of 30 cm length was exposed of the east west aligned return building slot before it disappeared under Trench 10's western edge. The fill was partially excavated, just enough to prove it was a building slot with a width of 32 cm, the same as the south to north arm of F1, and a depth of 12 cm. The base of F1 was at 276.18 m AOD. Where the two slots joined there was an un-mortared stack of 3 gritstones which may represent packing for a corner post setting.

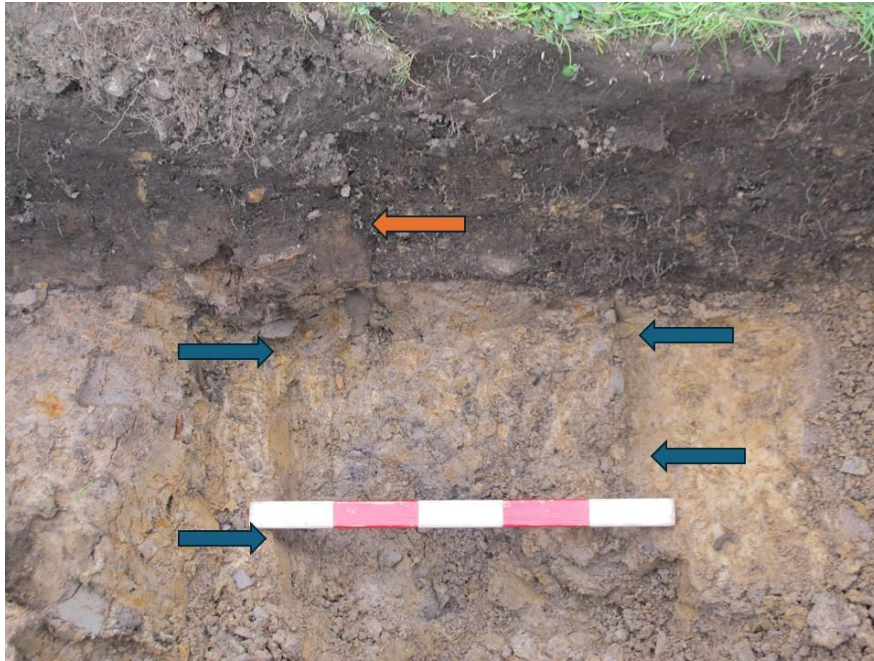
In the south half of Trench 10 the Roman level was initially masked by the remnant of plough soil 002. A 40 cm wide section was dug for a 2.5 m length along the east side of the trench running to the south edge. At only a further 4 cm depth this came down onto a layer of mid grey brown silty clay loam with frequent flecks of charcoal and patches of cream and occasional stones 004. This layer differed markedly from the 'dirty' light yellow silty clay 005 to the north, with a clear edge between the two. 004 appears to be the fill of a Roman feature, but constraints of time and space did not allow for further investigation and this should be a priority for next time. The top of 004 was at 276.62 m AOD.



Trench 10 after removal of topsoil 001 and most of the plough soil 002, looking south (left) with the corner of the 2023 trench visible as the depression in the foreground and (right) looking northwards with some of 003 surviving on the left and a slot dug through it revealed 004 lower right side of the photo.



Left: overhead view of north end of Trench 10 showing building slot F1 where the upright scale is, with possible stone packing for a post setting, and root holes visible to the right. Right: after over digging the left (south) side to confirm the lack of slot, but with the start of the return slot under the photo scale (right).



Return slot for F1, seen partly excavated with some fill in place under the scale and edges shown by the blue arrows, with the 2023 trench edge indicated by the arrow.

Trench 10 was able to confirm the presence of yet another first phase timber building, for which the south east corner has been exposed. The size and plan form of the building is not yet known but its location to the immediate east of the stone platform raises questions as to how it relates to that platform and whether or not it might pre-date it. This is an area that would justify further investigation. The phasing is in accordance with that seen elsewhere within the north half of the annexe: first phase timber buildings being dismantled and the area capped with clay, although within the confines of Trench 10 there was no evidence for oven or hearth activity but in the 2023 trench, only 1.5 m away, a hearth was recorded on top of this yellow clay capping layer beside the stone platform terminus.



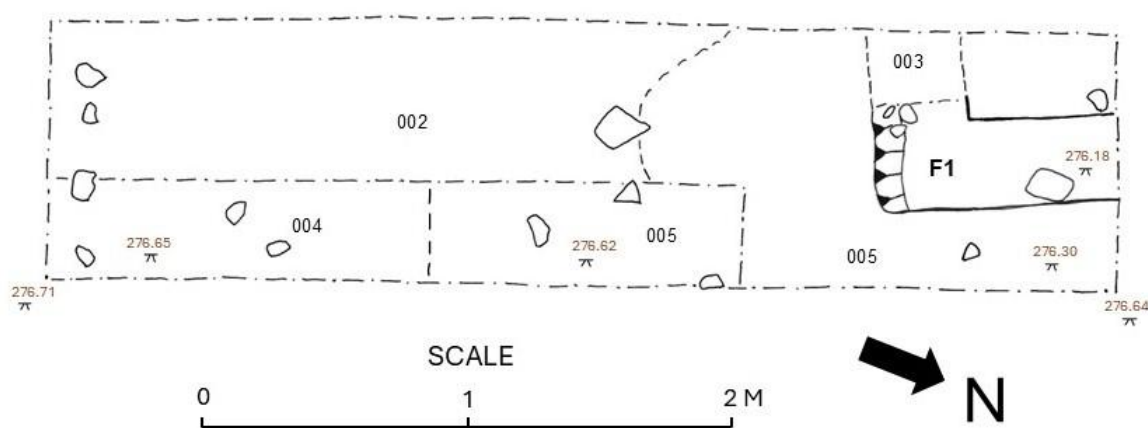
Finds from topsoil 001



Finds from 002.



Finds from slot dug along east side of trench through bottom of plough soil 002.



Trench 10 plan.

Contexts

F1 Linear features joining to form a corner of probable building slot. Filled with 003, under 005.

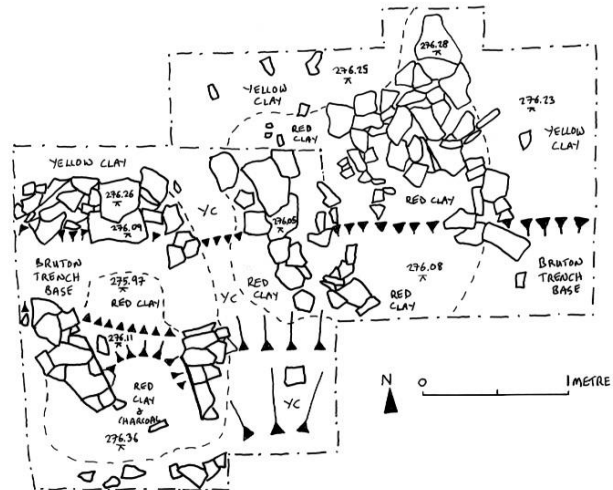
001 Topsoil

002 Mid brown silty clay loam forming plough soil. Under 001, over 005, 006, F1.

003 Fill of light to mid grey silty clay with 30% yellow clay and 25% small stones. Fill of F1, under 005.
 004 Layer of mid grey brown silty clay loam with frequent flecks of charcoal and patches of cream silty clay and occasional small to medium stones. Under 002.
 005 Deposit of 'dirty' yellow clay containing occasional stones and with small patches and 'veins' of dark grey humic soil. Capping layer under 002 and sealing F1 and 003.
 006 Natural light yellow clay.

Trench 11 and Test Pit 16

Having discovered in the Trench 5 excavation that one of the supposed pair of stone ovens revealed in 2018/19 was in fact a kiln, it was decided to revisit the partially exposed remains of the western 'oven' site so that its function and character could be better understood. Initially Trench 11 was 2 m long north to south and 1.5 m east to west, leaving a 0.5 m baulk between it and Trench 5. However, it soon became apparent that half of the flue was under the baulk so this was removed to join up with Trench 5, creating a 2 by 2 m trench. Test Pit 16 was excavated 0.5 m to the east of Trench 11 to re-investigate another previously excavated area, Test Pit 7 in 2019, which produced a potential stone feature which might be linked to the oven and so has been included in this section.



Remains of the 'oven' as exposed in 2019 together with the surface plan made at that time with the oven on the left and what turned out to be the grain drying kiln on the right. The plan also shows the old excavation trench (probably 1908) cutting through the remains from left to right (east to west).



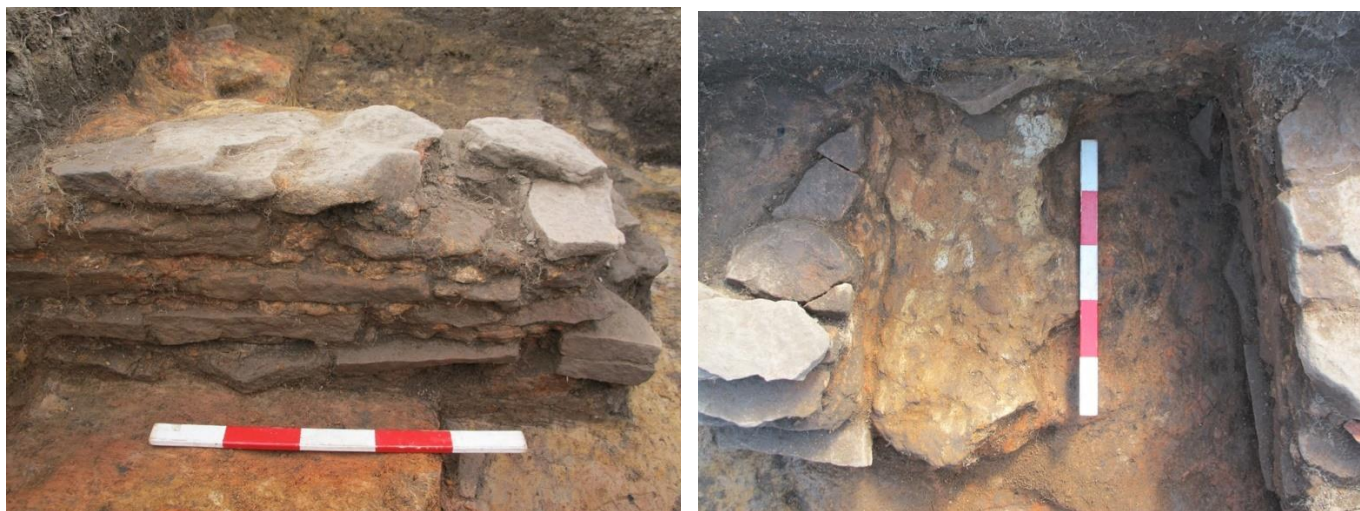
Left: work commences on Trench 11. Right: west side of the flue exposed with the east side under the left baulk.



Trench 11 looking south after removal of the baulk with the photo scale in the middle of the 1908 excavation trench. Trench 7 on the far left has been backfilled.

Once the backfill of the 2018/19 trench had been removed, the Roman levels were carefully cleaned and planned. The flue was half excavated to confirm its character and function. The rear (southern) side of the flue was not re-excavated but even so the structure was clearly very different to the adjacent kiln and can reasonably be interpreted as an oven, despite being cut through by an old excavation trench where the flue joins the walls and floor. The stone oven (F2) comprises a flue on its southern side formed by two straight-sided walls. On the west was wall 005 made up of 5 courses of flat, thin gritstones bonded by a khaki coloured mortar which was heat reddened on the inner face of the wall along with most of the stones. The wall was a maximum of 44 cm wide and with a length of 1.2 m exposed. Its top height varied slightly from 276.37 m AOD at the south end to 276.31 m AOD at the north. The wall had a base height within the flue channel of 275.98 m AOD giving a wall depth of 39 cm. The inner face was well laid and vertical whereas the outer face was much cruder and had yellow clay against it, which appeared to be part of the clay capping layer 008 which sealed an earlier building foundation slot. This suggests that the oven belonged to the second phase of activity associated with the ovens and hearths seen elsewhere. It will be important to verify this relationship in future investigations.

The opposite wall 004 on the east side was of similar construction but less well preserved being the same width but only surviving for a length of 66 cm with a maximum of 4 courses visible at the north end, the top height there being 276.27 m AOD. The walls splayed out to the south, narrowing northwards towards the oven floor. Unfortunately, Bruton's old excavation trench had removed most of the floor and north side of the flue. Within the flue was a floor surface of light khaki coloured baked clay with 30% orange/red patches and 15% white patches of hard clay 006. In section this material was 17 cm deep and came off onto a layer of dark orange red clay 007 which was the natural clay underlying the oven that had been deeply heat reddened. 007 projected through the base of Bruton's old excavation trench forming a 'ghost' of where the oven structure had been. 006 showed evidence of banding of thin layers, with a similar baked clay surface at a lower level, with a charcoal and grey silty clay loam layer separating it from the top level of baked clay. This suggests that the flue floor had been repaired. The top of 007 in the base of the Bruton trench was 275.97 m AOD and the top of 006 was 276.14 m AOD.

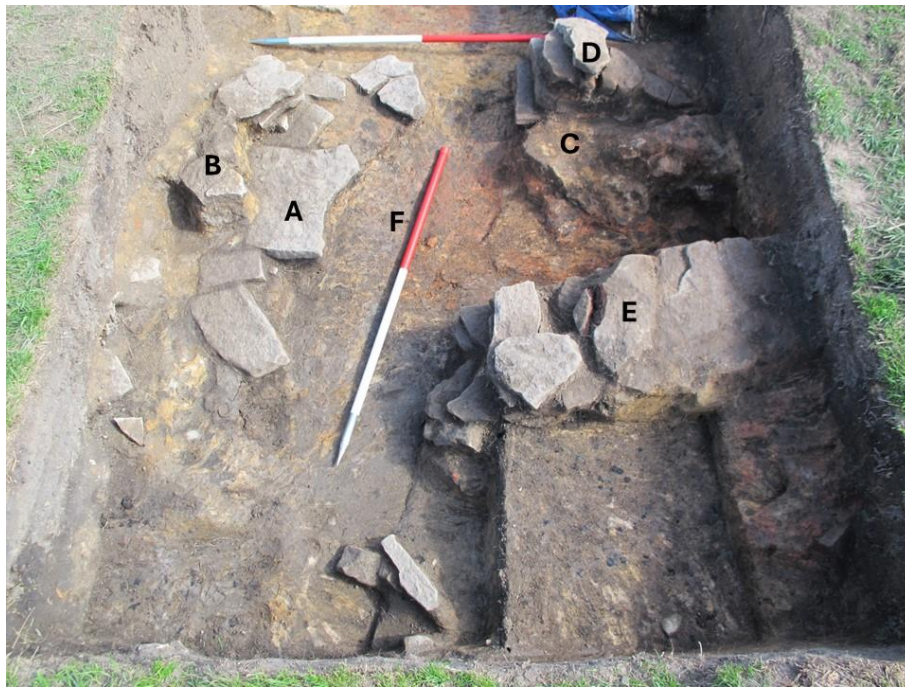


Detailed view of inner wall face of 005 (left) and looking down on the upper flue floor surface to left of scale (right).



Section through flue surfaces 006 of oven F2.

The rear (north) side of the oven took the form of a badly disturbed but still legible stone wall 003, despite the cut of Bruton's 1908 trench. There were up to 3 courses of flat medium sized stones forming a curve, encompassing a single slab stone 002 which appeared to be the remnant of a former floor for the oven F2. 002 was a horizontally laid rectangular stone measuring 42 x 35 cm, possibly damaged on its south side by the cut of old excavation trench F1. 003 was set against a light yellow clay 011 which contained frequent small patches of white clay. This was also visible between the stones and may have acted as a bonding material. The best preserved section of wall 003 was at the rear north side whilst only a single course of horizontal stones survived at the sides. Whilst substantially removed by the old excavation trench the curve of wall 003, which was a single course thick at c 30 cm, suggested it would have met up with the flue walls 005 and 004. The top height of wall 003 was 276.25 m AOD and the floor slab 002 was 276.12 m AOD. The internal dimension of the oven was approximately 60 cm across.



Looking east across Trench 11 and remains of oven F2. A = floor slab 002, B = back wall 003, C = baked clay floor of flue 006, D = east flue wall 004, E = west flue wall 005, F = base of old excavation trench indicated by photo scale.

There was some interesting archaeology west of the oven that reinforced previous observations on basic phasing of activity. A probable timber building foundation slot F3 was revealed running south to north alongside the west edge of Trench 11. This was filled with dark grey silty clay loam with 20% small lumps of yellow clay and frequent flecks/pieces of charcoal 009. In the south west corner of the trench it could be seen that F3/009 was capped by a layer of yellow and red clay 008 which seemed to be contiguous with the oven wall 005. F3 had a 'U' shaped profile at the bottom, stepping out at the upper level which was similar to the profile of F10 in Trench 8 (described above). The 'U' shaped base of the slot was 22 cm across and 16 cm deep, with the upper, stepped part being 58 cm wide and 12 cm deep. The base was at 275.92 m AOD and the top 276.20 m AOD. The slot was excavated in the north west corner of the trench and a section cut through its fill on the south side of the Bruton excavation trench. 008 was excavated back towards the trench south edge to prove its relationship with the underlying slot fill 009. Clay deposit 008 was 7-8 cm deep with a top height of 276.27 m AOD.



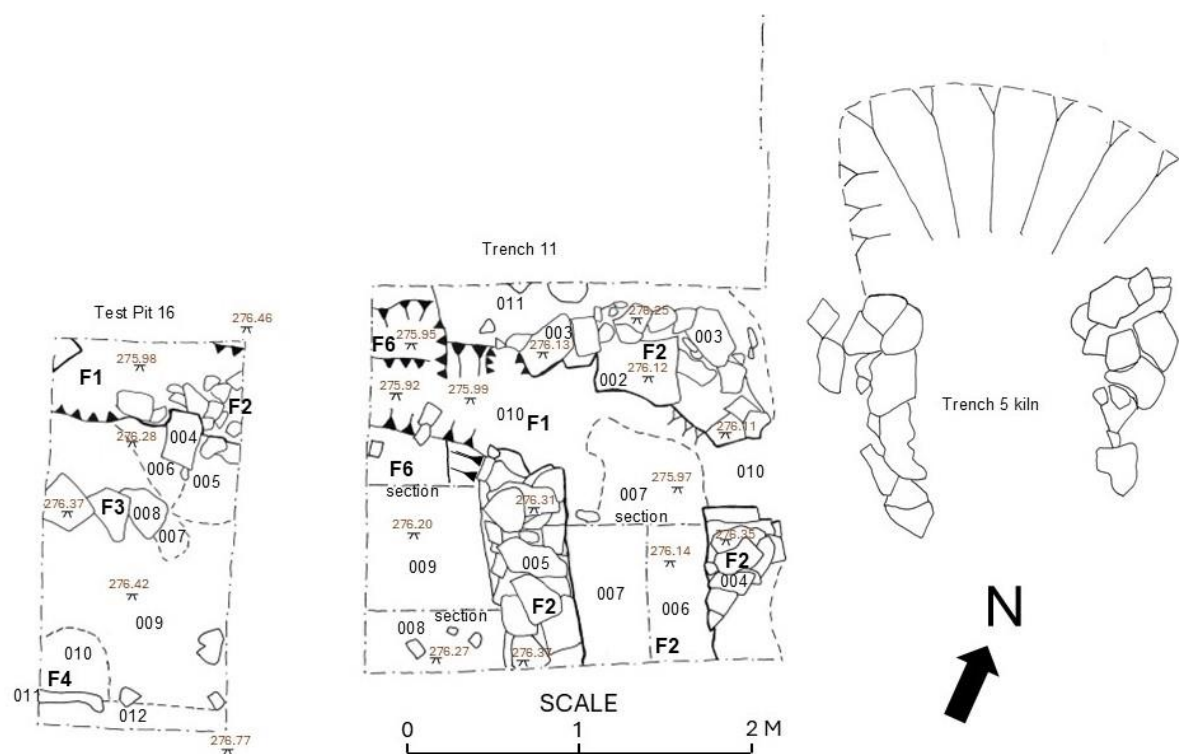
Looking down on to slot F3 which runs along bottom of the trench photo (left) and section showing its profile and fill 009 (right) with yellow clay 008 capping it in the background.

As seen elsewhere, the first phase of timber buildings, represented by foundation slots such as F3, were dismantled and covered over with a clay capping layer which was followed by a second phase of intensive oven/hearth activity. The oven appeared to be contiguous with the capping material and was therefore part of the second phase. Despite considerable disturbance by an old excavation trench it was possible to interpret the remains of F2 as a domed stone oven, probably used for baking bread. The remnants of the

curved back wall, flag floor and splayed flue walls were the key elements. Previous excavation of this area in 2019 had exposed evidence for intense burning at the narrow, south end of the flue which suggested this was where the fire was set. There were no finds in Trench 11 which is not surprising as this area was previously excavated in 2019 and the only new excavation was partial removal of Roman contexts 008, 009 and 006. The floor of the stone oven was around 60 cm higher than the floor of the adjacent kiln. They appear to be of the same phase and it would make sense that the grain was dried in the kiln before being milled then baked in the oven.



Drone photo of Trench 11 (centre) linking with Trench 5 and its kiln (right) and with TP16 to the left. (Photo courtesy of Joolze Dymond)



Plan of Test Pit 16 (left) and Trench 11 (centre), with part of Trench 5 to the right.

Contexts

F1 Old excavation trench (Bruton 1908?).

F2 Stone structure, probable oven. Comprises 002, 003, 004, 005, 006, 007. Cut by F1

F3 Linear feature, probably timber building foundation slot. Contains 009, under 008, cut by F1

001 Dark grey silty clay loam. Backfill of old excavation trench F1.

002 Single large, flat stone 42 x 35 cm and possibly damaged on south side by F1. Remnant of floor, part of oven F2.

003 Remnant of gritstone wall forming back of oven F2 and cut by F1.

004 Wall forming east side of flue of oven F2.

005 Wall forming west side of flue of oven F2.

006 Layer of light orange/cream baked clay forming floor within flue, part of oven F2.

007 Layer of heat reddened clay under 006 in base of oven F2 flue and partly surviving under old excavation trench F1. Cut by F1, under 006.

008 Layer of yellow and red clay forming capping material sealing F3 and over 009.

009 Fill of dark grey silty clay loam with 20% small lumps of yellow clay and frequent flecks/pieces of charcoal. Under 008, cut by F1.

010 Layer of light yellow/cream coloured clay forming natural.

Test Pit 16

In 2018 Test Pit 7 was dug one metre west of the oven described above. It came across the continuation of Bruton's old excavation trench together with a cluster of stones which appeared to be structural and that had been cut by the trench. To the south was a separate line of flat stones which looked as though they too belonged to a structure. In 2024 it was decided to re-open this old test pit and extend it if necessary to form a better understanding of the structures. TP 16 ended up being 1 m wide and 2 m long on a north to south axis. The plan of TP 16 is shown above, alongside Trench 11.



Left: TP 7 in 2018. Right: TP 16 in the foreground with Trench 11 in the middle and Trench 5 beyond.

The backfill 003 of Bruton's trench F1 along the north side of TP 16 was excavated to expose the stone structure F2 that was partly cut by the old trench. To the south 20 cm of dark grey silty clay loam 001 topsoil was stripped off followed by 15 cm depth of mid to dark brown silty clay loam plough soil 002. These two deposits yielded a handful of post medieval glazed pot sherds and a clay pipe stem fragment. Once 002 and 003 were removed the top of the Roman level was exposed. To the north F2 was made up of

medium to large flatly laid gritstones 003 which appeared to be at least 4 courses deep extending into the base of Bruton's trench. Immediately to the south of the stone structure, at the higher level not damaged by F1, was a spread of burnt material comprising: a large patch of heat-affected mid orange red clay 005 and a patch of pink coloured heat-affected clay 006 which was contiguous with 005 on its north west side. Both contexts ran up to the stones and were part of feature F2. Within the test pit 005 measured a maximum of 20 cm wide by 40 cm deep but its full extent was not apparent as it ran under the eastern side of the test pit. The top height for F2 was 276.28 m AOD and the base of the old trench adjacent to the lower stone course of F2 was 275.98 m AOD.

A line of 3 flat laid medium size gritstones 008 ran 65 cm on an east to west alignment and formed feature F3. The surface was at 276.37 m AOD. The stones were only one course deep and fitted tightly together. The extended trench showed that there were no more stones than the three previously revealed in 2018. They linked up to the south west side of 006. Against the eastern edge of 008 was a spread of dense charcoal 007 to the south of 005/006. The charcoal wrapped around the south edge of the easternmost stone in 008 so is probably associated with F3.

Under the plough soil was a layer of mid brown yellow silty clay loam with frequent small patches of light yellow silty clay and occasional flecks of charcoal 009 that might be sub natural as it extends across most of the test pit and Roman features are set into it (although it was not excavated to confirm this). In the central part of the southern half of TP 16 its surface height was at 276.42 m AOD. In the south west corner of TP 16 was a potential feature F4. This was apparent as a patch of light yellow clay set within a matrix of light to mid grey silty clay loam with frequent flecks of charcoal 010. The clay formed a curving terminus edge on the north side of the feature that had a diameter of 35 cm and a top height of 276.42 m AOD. It was not excavated so its function is not presently known but it has potential to be a post hole or building slot.

Partly exposed and running in a straight line parallel with the south edge of TP 16 was a linear spread of dark yellow brown silty clay loam 012 which could be the fill of a slot but as it was not excavated and runs under the section edge it was not possible in the limited time and space to determine its extent and function. F4 is bounded on its south side by a thin 5 cm wide band of charcoal and humic soil 011. This might be part of the feature or could be part of 012. It was not excavated but clearly there is good archaeological potential against the south end of TP 16 and this area should be investigated further in the future.



Test Pit 16 looking south with the stone structure F2 front left and the cut of Bruton's trench F1 in the foreground (left). The line of 3 stones F4 is under the left end of the photo scale and F3 is in the lower right corner (right).

The character of the burnt clay and arrangement of stones suggest that F2 is another stone-built oven and that further investigation will reveal flue walls similar to those in the adjacent Trench 11. The line of flat stones 012 could be the badly damaged remnant of a floor but it is not clear how it relates to the potential oven F2. It might also be a dwarf stone wall for a timber building. The humic/charcoal linear deposit 011 in the south west corner of TP 16 could be the decayed remains of a timber beam but its extent and function need further work to test this theory. Altogether TP16 yielded some significant archaeological potential that would repay further investigation in the future.



Finds from 001 and 002 in Test Pit 16

Contexts

F1 Old excavation trench (Bruton 1908)

F2 Possible stone structure (oven?) represented by cluster of stones 004 and contexts 005, 006, 007.

F3 Possible structural remains or floor represented by line of flat stones 008.

F4 Possible building foundation slot or post hole filled with 010.

001 Dark grey silty clay loam topsoil in the southern half of TP 16.

002 Mid to dark brown silty clay loam plough soil.

003 Fill of old excavation trench F1, mid to dark grey silty clay loam

004 Medium to large flat gritstones being remnant of structure forming F2 and cut by F1.

005 Large patch of heat affected mid orange red clay forming part of F2 and contiguous with 006.

006 Patch of pink coloured heat affected clay forming part of F2 and contiguous with 005.

007 Spread of dense charcoal to south of 005/006 and at east side and wrapping round south edge of last stone in 008 so probably associated with F3.

008 Line of 3 medium sized flat gritstones forming remnant of possible structure F3

009 Layer of mid brown yellow silty clay loam with frequent small patches of light yellow silty clay and occasional flecks of charcoal. Sub natural? Under 002

010 Deposit of light to mid grey silty clay loam with a large patch of light yellow clay and frequent flecks of charcoal. Part of F4.

011 Narrow band of charcoal and humic soil. Part of F4.

012 Deposit of dark yellow brown silty clay loam against south edge of TP 16.

Test Pits 1 and 2

At the start of the excavation season, in May, 2 test pits were dug by the Friends volunteers to look for evidence of the annexe eastern defences alongside Dirty Lane. The ground sloped down from the fence

marking the eastern side of the former Husteds Farm to the side of the lane. Was this a remnant of annexe rampart? The test pits were 0.5m by 1 m in size with the long axis running west to east.



Test Pit 2 being excavated (left) and Test Pit 1 beyond and looking west across TP1 (right).



Tps 1 (left) and 2 (right) after revealing the stone wall, looking west.

Under c 20 cm dark grey silty clay loam topsoil in Test Pit 1 several large stones were revealed. The two westernmost of these were stepped, laid flat and set firmly in place. One of the stones was removed to reveal cream coloured lime mortar underneath, which confirmed that this was the eastern wall of the former Husteds farmstead. The top of the wall stone against and running into the west side of the test pit was at 277.52 m AOD. The top of the bank turf level at the north west corner of TP 1 was 277.87 m AOD and at the north east corner by the lane 277.51 m AOD.

After removal of c 20 cm depth of rubbly topsoil, Test Pit 2 came down onto a layer of fine cobbles on its east side, at a height of 277.53m AOD. Overlying the cobbled layer was loose stone tumble which derived from the demolition of Husteds Farm. Further excavation showed the start of a wall foundation at which point digging ceased. The cobbled area might be the remains of the earlier, pre-tarmac Dirty Lane or a cobbled yard surface between the road and the farmhouse. The top of the bank turf level at the north west corner of TP 2 was 278.02 m AOD and at the north east corner by the lane 277.74 m AOD.

It was concluded that any potential Roman remains along this strip of land have been removed by the post medieval farmstead.

Test Pit 3

See Trench 1

Test Pit 4

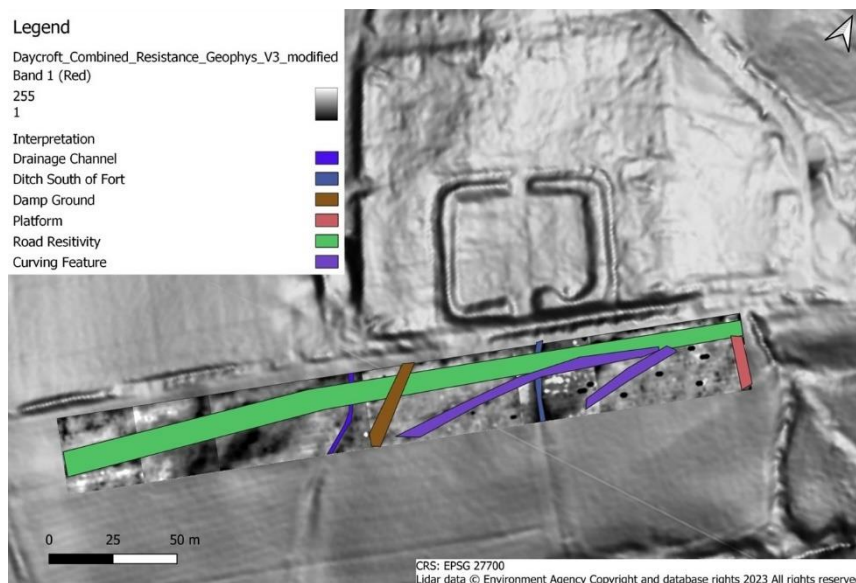
See Trench 2

Test Pit 5

See Trench 3

Test Pits 6, 7 and 8

Three 1m square test pits (6-8) were positioned at one metre intervals in a line to the south of the fence marking the north side of Drycroft Lane. They were aligned with the test pits dug on the north side of the fence across the lane in 2022. The objective was to find evidence for the main highway just to the east of the fort before it climbs up the valley slope to Standedge and from there across the moors to Slack Roman fort near Huddersfield. A geophysical survey undertaken in summer 2023, together with Lidar imagery, appeared to indicate the road running near to the fence on a spit of flat ground (Jeffery 2024).



2024 geophysics plot showing Roman road alignment in green, with the test pits being dug across the line towards the far right side. (Lidar photo by Phil Barrett).



Left: Test Pits 6-8 are being dug on the other side of the fence on the right of the photo, with Trench 3 being excavated on the left. Right: The Friends volunteers commence excavation of TP 8 (left), TP 7 (centre) and TP 6 (right).

Test Pit 6

TP6 went down through 25 cm of dark grey silty clay loam topsoil then 55 cm depth of light brown silty clay loam which revealed natural yellow clay at its base. There was no evidence of road material or Roman deposits and the soil had the character of a deep plough soil. The turf level was at 276.12 m AOD and a sondage showed natural at 275.32 m AOD.



TP 6 looking south showing the sondage and depth of plough soil.

Test Pit 7

TP 7 was a little more interesting, but also without any indication of the hoped-for Roman road. Here, under 25 cm topsoil and 54 cm of the same light brown soil was encountered natural yellow clay with an apparent feature cut into it showing as a 25 cm wide slot with grey silty clay fill and charcoal flecks (indicated by the arrows in the photo below). A large flat stone was also uncovered that could be related to packing for a post hole or a post pad. The light brown soil seems to be exceptionally deep plough soil, which makes any future hand excavation very challenging. However, there is evidence with potential for a Roman building perhaps continuing the extra mural settlement south of the fortlet entrance that was discovered in the mid-1990s evaluation by GMAU (Redhead 1997). The turf level was 276.09 and the top of the possible building slot fill was 275.28 m AOD.



TP 7 looking north with sondage in north west quarter where evidence for a building slot was found.

Test Pit 8

TP8 also showed the deep, brown plough soil deposit, with natural grey/yellow shale and clay appearing at 80 cm depth. The turf level was 276.08 and the base of the sondage was 275.28 m AOD.



TP 8 looking north showing natural at the base of the sondage.

The test pits demonstrated that the Roman road does not exist here. This was the last possible place where it could have survived in this part of the site, as the post medieval Drycroft Lane and associated linear reservoir to the immediate north have removed any possible remains there and the ground drops steeply away to the east. The geophysical survey of last year, along with the Lidar, suggested there may be some survival of the road but unfortunately this is not the case which is strange as a profusion of Roman deposits, including some road remains, have been shown to exist opposite the Roman fort only 20 metres to the west of the test pits. The three test pits produced a handful of post medieval pottery sherds but no Roman finds although the possible linear cut feature in TP7 appears to be Roman so perhaps there was a fortlet phase (c AD120) timber building here which removed remains of the earlier Agricola phase highway; it is known that at this time the highway was looped around the back of the fortlet to create space for buildings to the south of the fort. The considerable depth of the plough soil here is interesting. Could it include upcast from the creation of the 18th century linear reservoir immediately to the north?



Finds from TPs 6-8 topsoil.



Drone photo of TPs 6-8 at the end of the excavation. (Photo courtesy of Joolze Dymond)

Test Pits 9 and 10

These investigated a linear bank to the north side of the entrance gate (the north east part of the annexe enclosure). This area has never been investigated and there is potential for the bank to be part of the eastern annexe defences. Further south any potential evidence has been removed by Dirty Lane, the house and the site of Husteds Farm and cottage. Separated by 2 metres, Test Pit 10 was located at the bottom of the bank close to the fence while Test Pit 9 was on the bank top. Initially 1 m square, TP 9 was extended to 1.7 m long and TP 10 to 1.5 m long.



Early stages of excavating TP 10 (left) and TP 9 (right).

Under c 10 cm of topsoil 001 Test Pit 9 had a stone cobble surface formed of tightly packed angular medium sized gritstones 010. This was probably associated with the post medieval farmstead. 010 also overlay c 10 cm of topsoil confirming its more recent origin. The surface of 010 was at 276.98 m AOD. When TP 9 was extended eastwards, to leave a 1.3 m baulk between it and TP 10, an iron pipe was found running in a south to north direction within the turf. This pipe is a mystery. It is laid on the ground so cannot be very old, perhaps dating to the mid-20th century? It runs from the Husted's farmhouse site towards the site of a well but the latter is lower down than the farm so if it was to bring water to the farm it would have required a pump. The topsoil produced standard post medieval finds in the form of pieces of glass, a range of glazed pottery sherds and a clay pipe stem. A piece of light blue green glass came from the surface of 010.



TP 10 showing the cobble surface during and after excavation.

Under topsoil 001 and the stone spread was c 15 cm of dark brown silty clay loam 002 plough soil. This sealed a similar depth of a mixed deposit 006 comprising mid yellow brown silty clay loam with frequent small patches of dark grey silty clay, moderate small sandstones and small patches of yellow silty clay. The top of 006 was at 276.72 m AOD. Removal of 006 revealed in the east half of the trench a thin c 7 cm deep layer of mid orange brown silty clay loam with moderate small sandstones and small patches yellow clay 007. Under this, occurring just in the north east corner of the trench was a patch of rich charcoal with small patches of burnt red clay and yellow clay 011. This was not excavated as the red clay runs under the trench edge, but 5 pieces of burnt daub came from the surface which was at 276.49 m AOD.

Across the rest of the trench was a layer formed of mid to dark grey yellow silty clay with 25% small sandstones 008. A 40 cm square sondage was dug through 008 in the south east trench corner to a depth of 25 cm at which point natural hard yellow grey shale and clay 005 was encountered at 276.28 m AOD. The sondage indicated that 008 appeared to be sub-natural, having no charcoal or finds in it.

The absence of the mixed light clays and grey silty deposits found in the annexe rampart base elsewhere demonstrates that the bank cut through by Trench 9 is not part of the annexe defences. Instead, there is

the possibility of another oven or hearth in this area given the burnt clay and charcoal found in the north east corner. Further exploration of this area may be worthwhile.



Looking towards the north facing section of Trench 9, with iron pipe on the left and sondage not yet complete on the right. See section drawing for TP 10 below for detail.



Sondage in south west corner of Trench 9 (left) and the oven type material 011 in the north east corner (right).



Test Pit 9 finds from topsoil 001 and below left from stone surface 010 and below right daub from 007.



Test Pit 10

Test Pit 10 also had a layer of stones, but at shallow depth immediately below the turf and made up of broken stone roof tiles laid flat on the west to east slope. A stone slate roof tile with a peg hole was recovered from this deposit. The roof tiles might have come from the demolished farmhouse. The western surface height was 276.82 m AOD and the eastern 276.58 m AOD. The single layer of roof tiles sealed a maximum depth of dark grey silty clay loam topsoil 001 which when removed revealed two deposits suggesting the cut of a feature. This led to the trench being extended to the west to make it 1.5 m long so that these could be better understood. The topsoil yielded a range of 19th/20th century glazed pottery sherds along with a piece of glass and a ceramic marble.



Test Pit 10 showing layer of laid roof tiles 009 including one with a peg hole (detailed right) and after half sectioning to reveal 002 under topsoil below (middle photo).

Across two thirds of the trench to the east was 012, a light to mid grey silty clay loam with 10% small sandstones, while to the west was 014, formed of a mid to dark brown silty clay loam with occasional small to medium sandstones. Excavation showed that 012 filled a cut F1 into 014 which was similar in character to plough soil. Under 012, which was 40 cm deep was a rubbly fill of mid grey silty clay loam with 40% small sandstones 013. This was 12 cm deep and came off onto a similar depth fill 003 of mid to dark brown grey silty clay loam with occasional small sandstones. 013 produced a range of post medieval finds dominated by dark glazed earthenware. Both 013 and 003 curved up on the west side to show they were fills of F1 within the cut through 014. 003 was 10 cm deep with a base at 275.96 m AOD.

014 was found to be a deep deposit at 50 cm overlying a gritty mid brown grey sandy silt 015 which was 20 cm deep and ran across the whole trench being also under 003. Therefore 003 appeared to be the base fill of feature F1 which cuts 014 to the west but its other edges have not been revealed within the confines of Test Pit 10. A final, strikingly different deposit was revealed under 015. This was formed of a mixed light to mid grey silty clay with 30% shale and small sandstones and 20% loose gritty dark sand and occasional patches of light grey/yellow silty clay 004. This turned out to be the final fill, at 12 cm deep, and came off on to a hard mid grey yellow clay and shale surface, with some cobbles packed in to it on towards the east side creating a level base to the trench at 275.74 cm AOD. 004 contained a 19th century dark glazed earthenware dominated finds assemblage.

The finds show that all the deposits in this trench are post medieval in date and likely to be 19th century with some 20th century finds in the upper layers. The flat, hard base with some cobbles set in is suggestive of a road surface F2 which has then been abandoned and then 004 has washed in or been deposited before a more substantial fill of 014 which might be derived from ploughing activity or deliberate soil infill. There then appears to be a later episode when F1 has been cut through 014 but its function is unclear. Perhaps F2 was an earlier version of Dirty Lane leading more directly up to Husted's Farm before being replaced by the current tarmacked road. The post medieval activity here has removed any potential evidence for the annexe defences. Dirty Lane may well occupy the site of the annexe east defensive ditch.



Left: the layer of roof tiles just under the turf. Right: 012 changes to 014 roughly where the white changes to red on the photo scale.



North facing section through Test Pit 10. See section for details.



To the south of Test Pit 10 the long vegetation beyond the gate hides the remains of Husted's Farm so perhaps the test pit has revealed a former lane going directly to the farm.



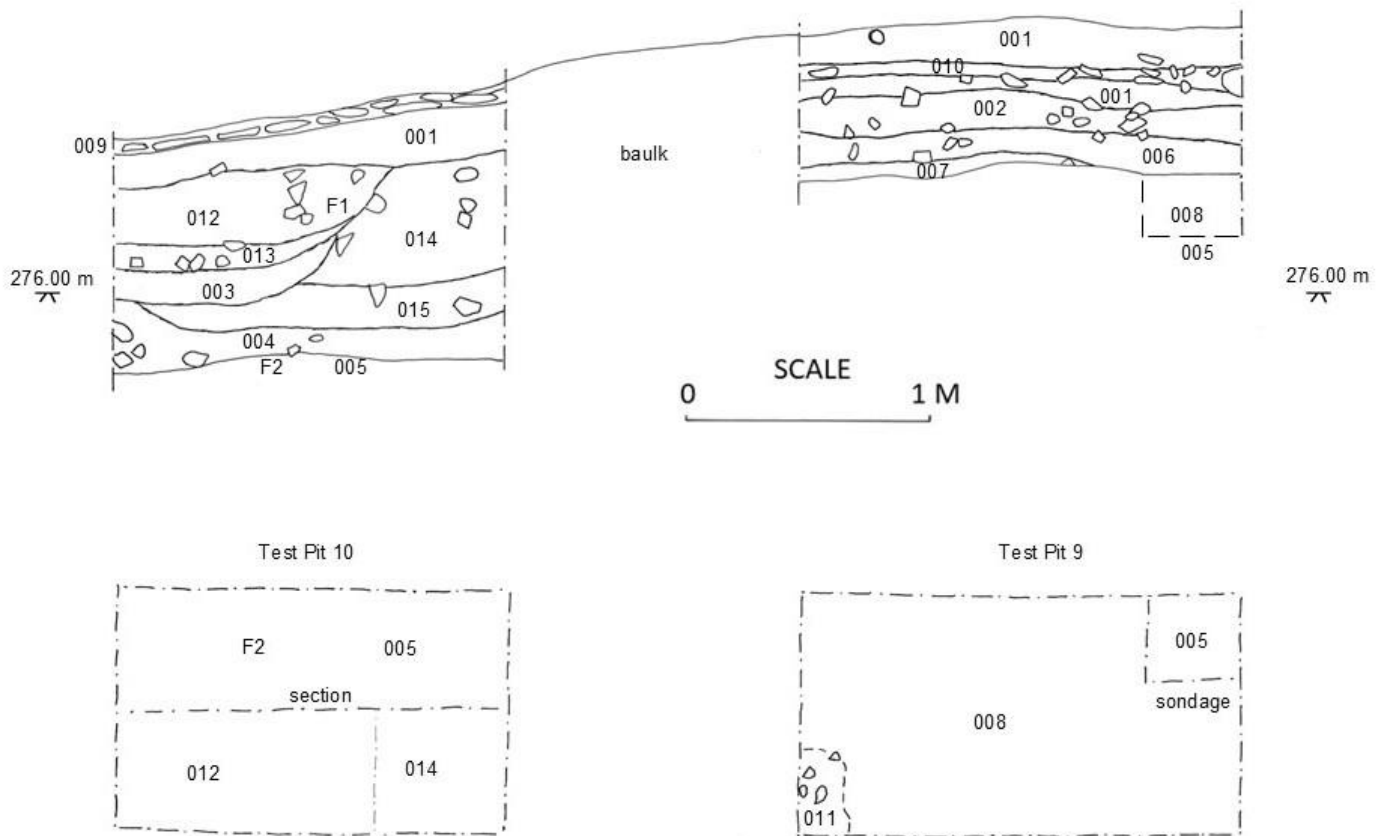
Test Pit 10 finds from topsoil 001.



Test Pit 10 finds from fill 013 of F1.



Test Pit 10 finds from lower fill 004 of F1.



Test Pit 10 and 9 sections and plans.

Contexts

*F1 Substantial cut feature creating flat base but sides not exposed. Filled with 012, 013, 014, 003 and 004.
F2 Flat based feature, possible early road surface. Filled with 004, 015, 014, under F1.*

001 Topsoil of dark grey silty clay loam.

002 Plough soil formed of dark brown silty clay loam with frequent small sandstones.

TP 9:

006 Mixed deposit of mid yellow brown silty clay loam with frequent small patches of dark grey silty clay, moderate small sandstones and small patches of yellow silty clay. Over 007 and 008, under 002.

007 Layer of mid orange brown silty clay loam with moderate small sandstones and small patches yellow clay. Over 008, under 006.

008 Mid to dark grey yellow silty clay with 25% small sandstones. Sub-natural layer in sondage.

010 Layer of tightly packed angular medium size gritstones forming rough cobbled surface within topsoil 001.

011 A deposit of mixed light yellow and burnt red clay in north east corner of TP 9, with frequent charcoal flecks nearby.

TP 10:

003 Fill of mid to dark brown grey silty clay loam with occasional small sandstones. Upper fill of F1. Under 001, 012, 014 and 013, over 004.

004 Mixed fill of light to mid grey silty clay with 30% shale and small sandstones and 20% loose gritty dark sand and occasional patches of light grey/yellow silty clay. Basal fill of F2, over 005, under 015.

005 Natural comprising hard grey shale and clay. Under F2 and 004.

009 Thin layer of stone roof tiles immediately under turf and over 001.

012 Fill of light to mid grey silty clay loam with 10% small sandstones. Over 012, under 001.

013 Fill of mid grey silty clay loam with 40% small sandstones. Under 012, over 002 and 003.

014 Fill of mid to dark brown silty clay loam with occasional small to medium sandstones. Under 012, 013, 003, over 015. Fill of F2, cut by F1.

015 Fill of gritty mid brown grey sandy silt. Over 004, under 004 and 014. Fill of F2, cut by F1.

Test Pit 11

Test Pit 11 was located 5 metres to the west of TP 9 and was aimed to checking the potential for Roman remains in the north easter quarter of the annexe in an area not previously investigated. In 2023 Test Pit 16, which was 5 m to the west, had a deep deposit of dark brown silty clay loam with charcoal flecking which was felt to have Roman characteristics but was not explored further.



Location of TP 11 in relation to TPs 9 and 10. (Photo courtesy of Nat Townsend)

Under a shallow topsoil were kerb stones which probably related to a yard for the adjacent post medieval Husteds Farm. A further thin layer of topsoil existed under the stone level then a deep deposit of dark brown plough soil. At about 70cm depth a light yellow compacted clay layer was found and at the east side a charcoal rich deposit was found to be filling a cut into a layer of light yellow clay. This appeared to be a Roman feature within the annexe but the depth and hard standing made getting access to the Roman level quite challenging, so no further work was undertaken within the limited confines of the test pit. Nonetheless, TP 11 has successfully shown, along with the 2023 TP 16, good potential for Roman archaeology in this area. The base of TP 11 and top of the charcoal was at 276.31 m AOD. The turf level on the west side of the test pit was 277.07 m AOD.



TP 11 looking east (left) and finds from the topsoil (right) which included a 1970/80s mint cracknel wrapper.

This was found to have kerb stones surviving just under the turf, presumably relating to a yard area associated with the adjacent post medieval farm. At about 70cm depth a light yellow compacted clay layer was found and, at the top (east) end of this photo a charcoal rich deposit was found to be filling a cut into the clay. This appears to be a Roman feature within the annexe but the depth and hard standing makes getting access to the Roman level quite challenging so no more work will be done in this area for the time being.

Test Pit 12

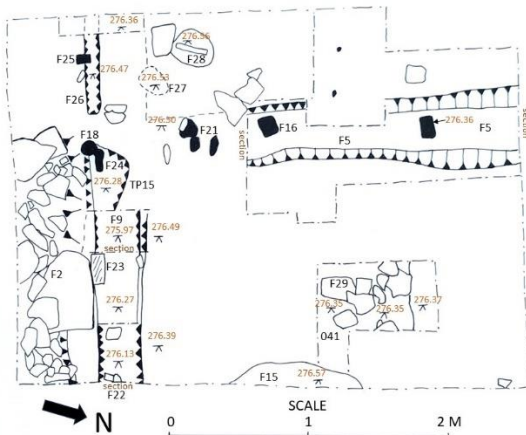
This was located 1 metre to the east of Trench 6 and was dug only enough to demonstrate the continuation of the timber building slot, the south edge of which appeared as a cut against the yellow clay that lay alongside the edge of the stone platform revealed in 2022. As seen in Trench 6 and Trench 4, the northern edge of the slot was obscured by deposits associated with the later oven phase of activity. A crude line of angled stones against the northern edge of the test pit could relate to a former structure but it was decided not to explore this feature and test pit further as this could be undertaken at another time when a larger area can be opened. Finds from the top and plough soil included 2 pieces of coloured glass, a clay pipe stem fragment, a white glazed pot sherd and a trail slip ware rim sherd (late 17th or early 18th century in date).



Looking down on TP 12 with south and the stone platform to the right and the building foundation slot edge indicated by the blue arrows (left) and, right, the finds.

Test Pit 13

This was located to 0.5 m to the north of 2023 Trench 13 Northern Extension to confirm the line of the timber building foundation slot part excavated against the north edge of that trench.



Trench 13 northern extension (left) showing the timber building slot with associated post settings in the top right part of the plan, as recorded in 2013, and (right) the location of TPs 13 and 14 (right side of the aerial photo) in relation to other trenches in 2024. (Photo courtesy of Nat Townsend)

TP13 started as 1 m square but, after reaching a promising Roman level, after removal of 25 cm topsoil 001 and 20 cm depth of mid brown plough soil 002, it was extended to 1 m by 1.5 m. The topsoil produced 3 sherds of post medieval dark glazed earthenware, a single clay pipe stem fragment, and 3 small pieces of daub. Under 002 Roman deposits and features were sealed by a deposit of mid yellow brown silty clay with occasional small to medium sandstones and moderate flecks of charcoal 003. The top of 003 was 276.49 m AOD.



Test Pit 13 after removal of 003 with the top of Roman archaeology emerging. North is on left side.

Under 003 the continuation of the south to north orientated building foundation slot was exposed as F1. It was excavated for a 60 cm length against the north side of the test pit. It was filled with an upper material of mid to dark grey brown silty clay with frequent flecks of charcoal, shale and 10% small patches yellow/orange silty clay 006. The base fill was soft mid to dark brown silty clay loam 007 which might represent a decayed timber wall plate. The width of F1 tapered from 42 cm at the top to 28 cm at the base. The top height was 276.47 and the base 276.26 m AOD. Appearing as a roughly rectangular void in the base of the building slot was a post hole F2, which measured 10 cm long and 7 cm wide and had a bottom at 275.88 m AOD. The west side of F1 was cut in to mixed light yellow and white clay 004 which is similar to that encountered in Trench 13 northern extension in 2023 and is almost certainly natural. It was very different on the east side of F1 where a layer of light to mid grey silty clay loam with 10% pieces and flecks of charcoal and 10% patches of light yellow silty clay 005 came up to its edge. This could represent a floor surface within the building associated with slot F1. 005 was not excavated but had a top height of 276.39m AOD.



Overhead view of Test Pit 13, north at the top, showing F1 and post hole F2.

TP 13 confirmed the line and character of the timber foundation slot running northwards from last year's Trench 13 northern extension. Another post hole was found to join the 3 found last year. However, the end of the building wall had still to be found so Test Pit 14 was dug one metre to the north.



Finds from topsoil 001 in Test Pit 13.

See TP 14 for plan.

Contexts

F1 Linear feature being a continuation of timber building foundation slot F5 from the 2023 excavation of Trench 13 northern extension

F2 Post hole set with in F1.

001 Dark grey silty clay loam topsoil.

002 Mid brown silty clay loam plough soil.

003 Deposit of mid yellow brown silty clay with occasional small to medium sandstones and moderate flecks of charcoal. Seals Roman level and features.

004 Mixed light yellow and white clay. Probable natural.

005 Layer of light to mid grey silty clay loam with 10% pieces and flecks of charcoal and 10% patches of light yellow silty clay. Under 003.

006 Fill of mid to dark grey brown silty clay with frequent flecks of charcoal, shale and 10% small patches yellow/orange silty clay. Fill of F1, over 007, under 003.

007 Fill of mid to dark brown silty clay loam. Soft, loose fill of base of F1. Represents decayed horizontal timber acting as wall plate for external wall. Under 006.

Test Pit 14

As with TP 13 this started as a 1 m square test pit before being extended to 1.5 m wide by 2 m long (south to north axis) to aid our understanding of the revealed features. This proved to be a very informative test pit.

Topsoil 001 and plough soil 002 were similar to that described in TP 13. There was a small assemblage of post medieval pottery from 001, mainly dark glazed earthenware, together with a clay pipe stem. 002 yielded only 3 finds: the circular head of a large nail, a small brown glazed handle and a dark glazed earthenware pancheon (large storage jar) rim. It is worth noting that the ground level sloped from south to north so that the turf level above the south west corner of the test pit was 276.76 m AOD, dropping to 276.53 m AOD above the north west corner. 001 and 002 were deeper at the south side of the test pit.



Left: looking south across Test Pit 14 in the foreground, with TP 13 beyond and Trench 6 far left. Right: overhead showing the TP 13 to the left and TP 14 in its early stage to the right with the capping layer 003 visible.

As with TP 13 the mixed deposit 003 of light yellow brown silty clay with frequent patches of yellow/orange/cream coloured clay and flecks/pieces of charcoal sealed Roman levels. Under this was encountered 005 a deposit of mid yellow grey silty clay with 25% large patches of dark orange silty clay, frequent small patches of cream or light yellow clay, burnt daub and pieces or flecks of charcoal. This deposit lay over the building slot F1 and stone feature F6, running up to the outer edge of F1 and diffusing with the upper fill 007 of the return building slot F4. The bottom of 005 was at 275.97 m AOD, with the deposit being 15 cm deep under 10 cm of 003 and then 45 cm of top and plough soil. The west edge of the

building slot F1 became clearly visible at a depth of 276.14 m AOD when the top of natural yellow and white clay 004 was exposed along the western edge of the test pit. However the eastern edge of the slot was obscured by 005 and when this was excavated the upper fill of F1 was evident. This was mid to dark grey silty clay with frequent flecks of charcoal, shale and 10% small patches yellow/orange silty clay 006.



Left: 005 during excavation. Right: after extending the test pit northwards showing the outer edge of F1 against natural yellow clay 004 (indicated by arrows).

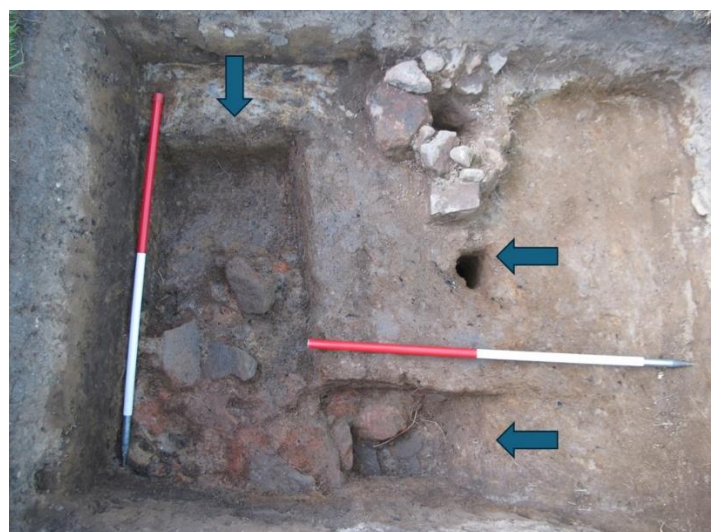
As the extent of slot F1 was still not apparent the test pit was extended by 1 metre northwards. It exposed archaeology quite different in character and succeeded in finding the north west corner of the timber building. The first clue to this was a circular arrangement of stones around a post hole F2. This appeared as a raised area against the middle west side of the test pit, with the post hole fill comprising a broken ring of small to large sandstones, many burnt red, set in a matrix of yellow grey silty clay loam 009, forming the packing for the post in F2. The post pit was 55 cm in diameter while the post pipe formed a rough rectangle 17 cm long and 12 cm wide. The post pipe was 20 cm deep and filled with similar material to the surrounding packing soil, with a steeply angled stone on the inner face of the hole on its north west side. The north side of the post hole had no packing stones at the top and so the angled stone must have compensated for this. The top height of the stones was 276.22 m AOD. The natural yellow clay could be seen going a little distance beyond the post hole but F1 did not appear to continue.

There was a very different soil in the northern half of the test pit to that noted above in the south side. A spread of light brown and orange silty clay loam resolved into three separate materials. In the centre was a circular patch of light to mid orange silty clay loam 010 which was the upper fill of a post hole F3 which turned out to be mostly a void. F3 was in the middle of the test pit just east of the stone packed post hole F2. This post hole indicated the presence of a potential building slot which was confirmed when a section against the east side produced a 45% angled outer (northern) edge for a linear feature F4. This was filled with light grey yellow silty clay with frequent flecks of charcoal and 25% patches of mid orange silty clay 007. The outer edge of F4 ran westwards to meet up with the north edge of post hole F3. To the north was 008 a layer of light yellow silty clay with occasional flecks of charcoal which might be sub-natural. The top of 008 was 276.22 m AOD. To the south 005 faded out as it met 007, so that it appeared to be filling in a depression in the south side of the test pit.



Test Pit 14 showing extension to the north marked by the photo scale, to the left of which is a well-defined patch of orange silty clay loam 010 which denoted a post setting (F3), whilst at the top of the photo the cluster of stones is clearly packing material for a central post hole F3. On the left side of the photo can be seen the unexcavated upper fill of slot F1 and beneath this the remnant of 005. Right: detail of F3 before excavation of the post pipe.

When F1's fill 006 and the adjacent deposit 005 were excavated in the southern half of TP 14, evidence emerged for another potential kiln or oven structure. This took the form of a deposit formed by a tightly packed jumble of mainly medium gritstones and clumps of mid (burnt) red clay, yellow and orange clay 011. This was similar in nature to the backfill of the kiln in Trench 5. 011 measured 60 cm by 70 cm but ran under the south and east edges of the test pit so its full dimension is not yet known. To the north, the section that confirmed the outer edge of building foundation slot F4 also found two types of stone to the south which obscured the inner south edge of the feature. There was 011, with burnt red clay and stones, overlying 3 medium gritstones 013, laid flat and forming a possible floor surface. Within this section, the north edge of 011 had two narrow stones one above the other which, although at an angle, had the same character as the stones in the kiln and oven flue walls in Trenches 5 and 11. Could these be a damaged wall for a similar structure, with 013 being the floor of that structure (F6)? The limited space available, considerable depth and time pressures meant that it was not possible to investigate this structure further but this is a priority for the next season. The surface of 013 was at 275.79 m AOD with the top of 011 being 18 cm higher. 013 was 90 cm beneath turf level. A final feature came from this area. A small square post hole was revealed against the south edge of the test pit, marking the western limit of 011. This post hole, F5, was 7 cm across and filled with dense charcoal 012 which indicates that the post was burnt *in situ*. It appeared to be associated with the potential kiln/oven structure F6, although a larger area would have to be opened to confirm this.



TP 14 overhead views, left: showing F1 cutting natural clay in the top left corner and post hole F3 in the centre, right: the arrows indicate the cut of F1 foundation slot (top left) and the edge of return slot F4 (partly excavated centre bottom of photo) plus the edge of return slot F4, while 011 has been revealed in the left hand bottom quarter.



Final excavation photo of TP 14 looking east, with 011 far right hand corner and the outer edge of linear feature F4 visible above the red part of the left hand photo scale. Post holes F2 and F3 can also be seen centre foreground.

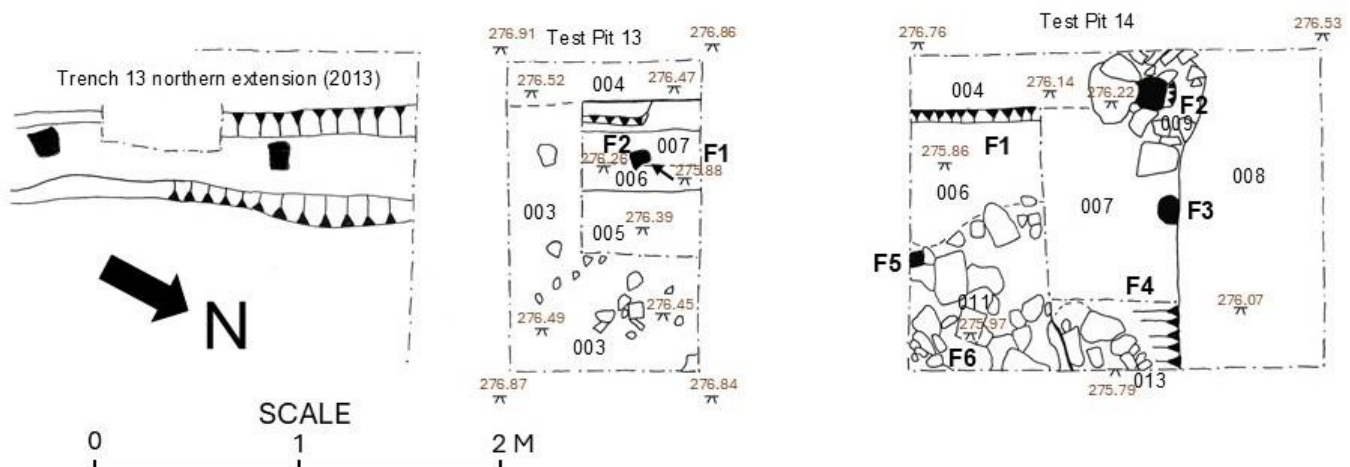


Detailed view of 011 and 013 showing possible collapsed wall (left) and detail of post hole F5 (right).

Test Pit 14 has produced some significant archaeology making an important contribution to understanding this part of the annexe. For the first time in the annexe it is possible to define and measure one side of a timber building (6.5 m long), with the north west corner revealed in TP 14 complementing the south west corner in last year's Trench 13 northern extension. The outer edges of the building foundation slots F1 and F4 were found, along with a post setting just outside the corner and a post hole in F4, but the inner edge was obscured by the burnt clay and rubble deposit 011. This is interpreted as backfill of a kiln or oven similar to those in Trench 5 and Trench 11. Slight evidence for the wall and floor of this structure F6 has been exposed. The considerable depth of these remains suggest that this is another subterranean structure similar to the kiln in Trench 5. If this interpretation is correct then, along with the structural remains in TP 16, it suggests that there was a line of stone-built ovens/kilns along an east to west axis. Confirmation of this evidence for zonal planning within the annexe should be a priority for future investigations.



Test Pit 14 finds from topsoil 001 (left) and plough soil 002 (right).



Plans of Test Pit 13 and Test Pit 14, showing continuation of building foundation slot F1 from the 2023 Trench 13 northern extension (on left side).

Contexts

- F1 Cut of foundation slot for timber building. Continuation of F1 in TP 13 and F5 in 2023. Filled with 006.*
- F2 Post hole with stone packing. Against corner of F1 and F4. Filled with 009.*
- F3 Post hole within slot F4. Filled with 010.*
- F4 Cut of foundation slot for timber building, return of F1. Filled with 007.*
- F5 Small, square post hole against south edge of TP 14. Filled with 012.*
- F6 Stone structure with burnt clay and stones infill. Oven? Comprised of 001*

001 Dark grey silty clay loam topsoil.

002 Mid brown silty clay loam ploughsoil.

003 Mixed deposit of light yellow brown silty clay with frequent patches of yellow/orange/cream coloured clay and flecks/pieces of charcoal. Seals Roman level and features. Under 002, over 005.

004 Mixed light yellow and white clay. Probable natural.

005 Deposit of mid yellow grey silty clay with 25% large patches of dark orange silty clay, frequent small patches of cream or light yellow clay, burnt daub and pieces or flecks of charcoal. Infills against outer cut of F1 and over F6. Under 003.

006 Fill of mid to dark grey silty clay with frequent flecks of charcoal, shale and 10% small patches yellow/orange silty clay. Fill of F1, under 003.

007 Fill of light grey yellow silty clay with frequent flecks of charcoal and 25% patches of mid orange silty clay. Under 003.

008 Light yellow silty clay with occasional flecks of charcoal. Sub-natural?

009 Fill comprising a broken ring of small to large sandstones, many burnt red, set in a matrix of yellow grey silty clay loam, forming the packing for the post in F2

010 Fill of light to mid orange silty clay loam filling top of post hole F3.

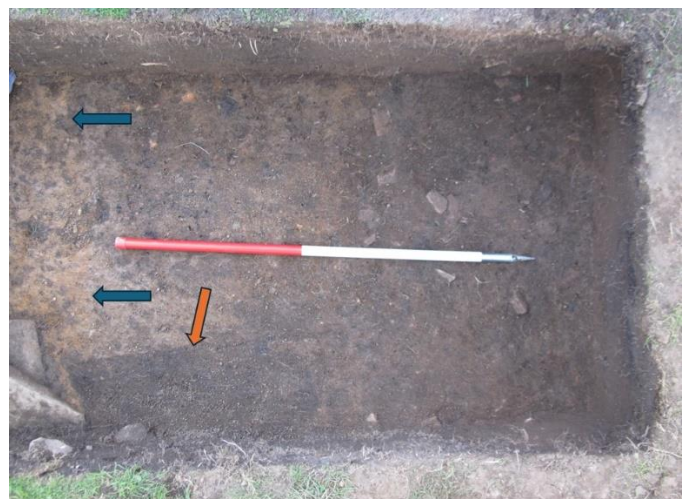
011 Deposit formed by tightly packed jumble of mainly medium gritstones and clumps of mid (burnt) red clay, yellow and orange clay. Lies over possible structure F6.

012 Fill comprising dense charcoal, probably a burnt in situ post. Fill of small square post hole F8.

013 Several flat medium sized gritstones forming part of a possible floor sealed by 011.

Test Pit 15

This was opened to follow the timber building foundation slot eastwards from Trench 4 which lay 1 m to the west. TP 15 was 2 m to the south of Trench 7. It was 1 m wide by 2 m long on a north to south axis. On the east side it overlapped with the 2013 Trench 13 eastern extension by up to 30 cm wide and 1.3 m long (from the south east corner). Removal of the old backfill together with topsoil 001 and brown plough soil 002 revealed, at around 40 cm depth, the top of Roman deposits. Finds from 001/002 included 7 small sherds of glazed post medieval pottery and a fragment of timber post. The turf level at the south east corner of the trench was 277.01 m AOD and the north east corner 276.82 m AOD. Removal of backfill revealed 3 large stones in the south east corner of TP 15 which had been previously exposed as part of the stone platform F2 near its eastern terminus in the 2023 excavation. As with Trench 4 to the west, there was a layer of natural yellow clay against the northern edge of the stone platform and the continuation of the top edge of the building foundation slot F1 could be seen.



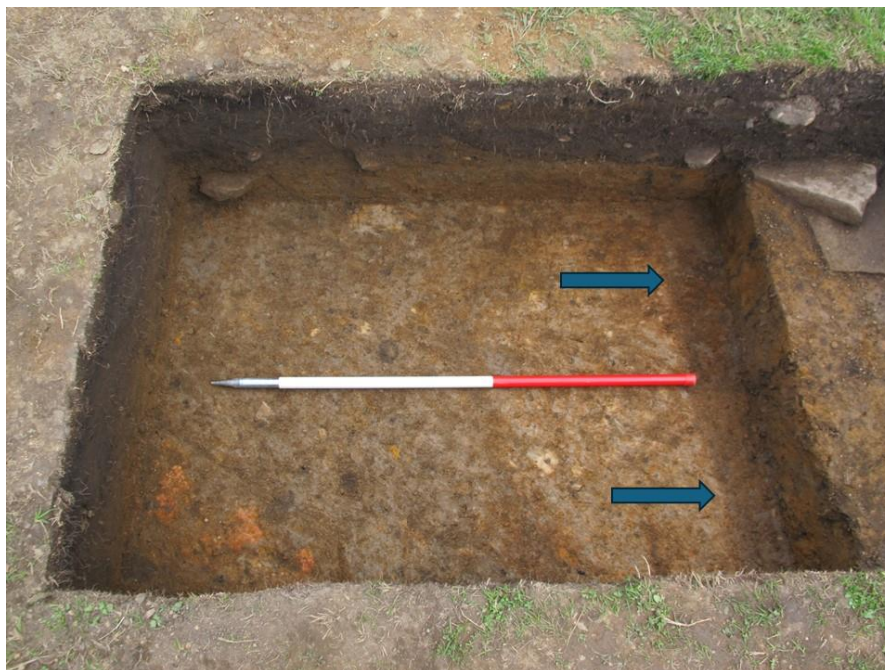
Left: looking south across Trench 7 with Test Pit 15 in the background and Trench 10 being dug far left. Right: after removal of plough soil 002 showing edge of F1 appearing on the left (indicated by blue arrows) and the north west corner of last year's Trench 13 indicated by the orange arrow with some plough soil still to be removed to the right.

Just as in Trench 4, the inner (north) edge of the slot was not visible being obscured by a layer of compact light grey brown silty clay loam with 40% shale, frequent flecks of charcoal, occasional pieces of burnt daub 003 which had a top level of 276.50 m AOD in the north west quarter of the test pit. In the north east corner was a very different material 004 which comprised mid orange brown silty clay loam with frequent flecks of

charcoal and pieces of burnt daub, and occasional burnt sandstones and moderate small pieces of burnt daub. This had a curving edge and ran under the west and north edges of the test pit, with a top height of 276.53 m AOD. 004 was found to be 22 cm deep and filling a shallow depression F6 which had a bottom at 276.31 m AOD. The edge of F6 was nebulous and gently sloping. There were 2 stake holes in the base. Given the nature of the fill and the fact it was not covered by 003, it is quite possible that F6 relates to phase 2 oven/hearth activity.

Excavation through 003 showed it to be capping various archaeological features relating to the first phase of timber buildings. Its removal allowed the north edge of F1 to be revealed. The building foundation slot was only 15 cm wide and was filled with mid grey silty clay loam with frequent flecks of charcoal 005. From the top of this fill came 2 pieces of daub and a body sherd of Roman orange ware (possibly Cheshire Plains Ware). As with Trench 4, the south side of the building slot was much higher than the north, providing a revetment cut into the natural yellow clay measuring 34 cm deep, whereas the inner (north edge) was around 10 cm. The base of the slot was 276.28 m AOD. At either end of the slot within the test pit were post holes. Both were oval in shape and 14 cm long by 8 cm wide, but F2 against the west side of the test pit was on an east to west axis whereas F3 against the eastern test pit edge was south to north. The post holes were filled with mid grey soft silty clay loam. F2 was not completely excavated and stopped at 276.17 m AOD whereas F3 was much deeper, at 42 cm beneath the slot base, with a bottom found at 275.76 m AOD. The character of these building foundation remains indicates short sections (70 cm) of horizontal timbers supported by uprights.

Another building foundation slot was revealed at right angles to F1. This was F4 which ran alongside the east section of the test pit so that half of its width was hidden under the edge. It ran to the north side of the test pit where it continued under the section. It's fill 007 was the same as 005. Although not excavated it could be seen to intersect with F1 at the post hole F3. Within F4 was another oval shaped post hole F5 which appeared as a void and was partly obscured by the section edge but could be seen to be of similar dimensions to F2 and F3. The slot F4 was not excavated but was clearly defined on the surface, with a height of 276.27. Inside the room created by the two timber wall foundation slots was a compact layer of mid to light grey silty clay with frequent small pieces of light yellow clay and occasional flecks of charcoal 006. This could be a floor surface or the top of sub-natural.

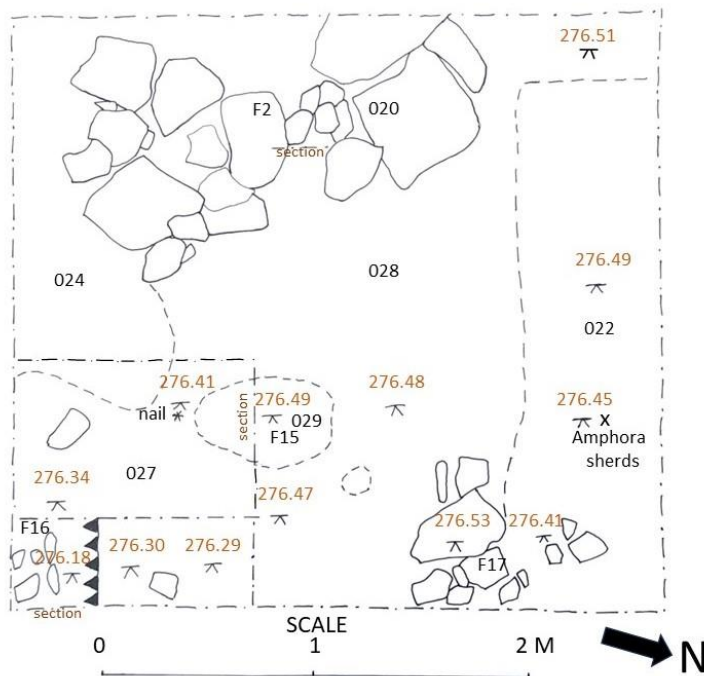


The inner (north) edge of slot F1, indicated by the arrows, can be seen emerging during excavation of 003 while in the left hand corner is 004.



Left: post excavation view of F1 and post holes F2 and F3, with the stone platform at the top. Right: slot F4 is indicated by arrows, with post hole F5 marked by the left hand arrow.

Test Pit 15 has successfully demonstrated the continuation of the timber building foundation slot alongside the stone platform revealed in 2022. This formed the south side of the building/s with F4 representing an internal partition wall or the east side wall of the building. TP15 usefully joined up with the 2023 Trench 13 eastern extension. Running eastwards along the north side of that trench was a linear deposit 022 which was partly excavated and which yielded several amphora body sherds in 2023. A couple of sections were dug through 022 but due to time pressures, it had not been possible to complete excavations. It now looks as though 022 is the top fill of the continuation of the building slot F1. If the slots revealed alongside the stone platform in the various trenches and test pits are joined up, it gives a length of 13 metres for the south wall, but if the theory for 022 is correct then the eastern end of the wall is yet to be determined. This must surely represent more than one building so a priority for the next season will be to provide a more detailed plan of the buildings.



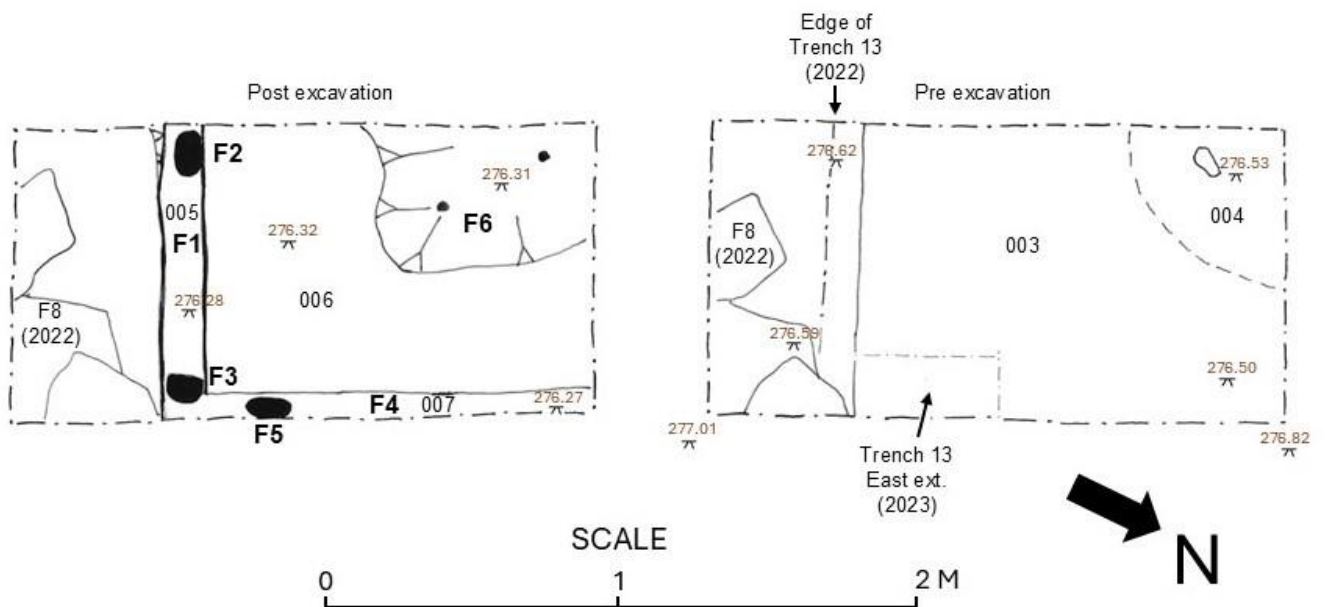
Plan of Trench 13 eastern extension from 2023 with, right, the partly excavated linear deposit 022.



Test Pit 15 finds, from top and plough soil combined (left) and top of 005 (right).



Detail of Roman orange ware body sherd, exterior and interior (right).



Plan of Test Pit 15, post excavation of features (left) and pre-excitation (right).

Contexts

F1 Linear feature being a timber building foundation slot running east to west. Filled with 005.

F2 Post hole within F1.

F3 Post hole within F1.

F4 Linear feature being a timber building foundation slot running north to south and joining F1.

F5 Post hole within F4.

F6 Shallow depression, possibly oven related. Filled with 004.

001 Dark grey silty clay loam topsoil.

002 Mid to dark brown silty clay loam plough soil.

003 Compact layer of light grey brown silty clay loam with 40% shale, frequent flecks of charcoal, occasional pieces of burnt daub.

004 Layer of mid orange brown silty clay loam with frequent flecks of charcoal and pieces of burnt daub, occasional burnt sandstones. Fill of F6, under 002.

005 Fill of mid grey silty clay loam with frequent flecks of charcoal. Fill of F1, under 002.

006 Compact layer of mid to light grey silty clay with frequent small pieces of light yellow clay and occasional flecks of charcoal. Sub-natural or floor surface. Abuts F1 and F3.

007 Fill of F4. Same as 005.

Test Pit 17

This was one of three test pits, including 18 and 19, located to test resistivity anomalies within the triangle of previously unexplored land between Bruton's 1907/8 and Thompson's 1963 trenches. The test pits lay to the north of the main area of investigation and Test Pit 17 was 3.5 m north of Trench 11.



Drone photo showing location of Test Pits 17, 18 and 19 (left side of photo). (Photo courtesy of Nat Townsend)

Under 44 cm depth of top and plough soil was a deposit of mixed yellow and cream silty clay. This had no possible Roman features and looked quite sterile. It was tested through a sondage dug in the north west corner. This revealed banding of the clay material, which also included a layer of light grey silty clay with charcoal flecks. The clay looked like natural and there was no obvious reason for high resistivity readings in this area. The sondage was abandoned at 50 cm depth. The turf level was 276.26 m AOD, the top of the clay at 275.82 m AOD and the bottom of the sondage 275.32 m AOD. The top/plough soil produced 7 dark glazed earthenware sherds, 2 white glazed sherds and a piece of clay pipe stem.



Test Pit 17 with south at the top and, right, section revealed in the sondage.



Finds from Test Pit 17.

Test Pit 18

This was 3 m to the west of TP 17 and 1 m further north. Here the top and plough soil horizons were relatively shallow being only 25 cm at the north side of the test pit. Finds were all post medieval and comprised a dark glazed handle, 2 brown glazed sherds, a trail slip ware body sherd, a dark glazed rim, 2 white glazed sherds and a section of clay pipe stem. The plough soil came off onto the same clay material recorded in TP 17 and this was confirmed by a sondage in the north west corner. TP 17 and 18 suggest that there was little or no Roman activity beyond the building foundation slot identified in Trench 8, and that the geophysical anomalies do not represent archaeological features.

The turf level beside the south east corner was 276.05 m AOD dropping to 275.93 m AOD at the north east corner. The natural clay level fell from 275.79 m AOD in the south to 275.68 m AOD in the north.



Test Pit 18 with south at the top and showing the sondage (right).



Finds from Test Pit 18.

Test Pit 19

This was positioned 2.5 m north of TP 14 and against the north side of the old Bruton trench from c 1908 which was visible as a linear earthwork depression at this point. In 2018 Test Pit 8 had been dug in the base of the old trench, adjacent to TP 19's location, but was found to be sterile. The c 25 cm depth of topsoil was sealed by a 10 cm deep upcast deposit derived from the old excavation trench. Finds from the topsoil comprised 4 dark glazed earthenware and 3 white/blue patten glazed sherds, with 1 piece of clear glass and all post medieval. Plough soil of 15 cm depth gave onto a friable layer of light to mid brown grey silty clay loam in the southern two thirds of the test pit. A clear dividing line separated this from a very different material which comprised light to mid grey yellow silty clay with several patches of soft light brown silty clay loam. These patches included 2 rectangles and 1 circle and appear to be post holes set within a building slot. No further excavation took place but this evidence suggests there is good potential for a Roman building in this area and should be the subject of more expansive investigation in the future. It should be noted that the alignment of the potential slot in TP 19 runs east to west and roughly matches up with that of slot F10 in Trench 8. The turf level beside the south east corner was 276.38 m AOD 275.40 m AOD at the north east corner. The top of the archaeology horizon was 275.98 m AOD in the south to 275.94 m AOD in the north.



Test Pit 19 after cleaning the surface under the plough soil. North is on the right side.



Finds from Test Pit 19.

Test Pit 20

The final test pit of 2024 was dug 1 metre south of Trench 10. It aimed to investigate the potential for Roman archaeology identified in the trench running south beyond the section edge and also to relocate the edge of the 2014 Trench 6. Topsoil and plough soils were relatively shallow, under a gravel layer that was laid down for car parking for the 1980s excavation outside the compound. Finds from 001 were 2 clay pipe stems and 4 sherds glazed post medieval pottery. There was not time to complete excavations within the test pit but it did identify a cluster of angled stones against its north side which might relate to packing for a post hole. The edge of the 2014 trench was identified in the north west corner of the test pit. Under the plough soil was a deposit of yellow clay which might mask earlier features, as has been found elsewhere.

This area will be worth further investigation. The turf level above the north east corner was 277.28 m AOD and the clay surface was at 276.90 m AOD.



Test Pit 20 with north to the right and, right, looking north with the cut of the 2014 trench showing on the left side, just missing the stone cluster.



Finds from Test Pit 20.

Overview and Discussion

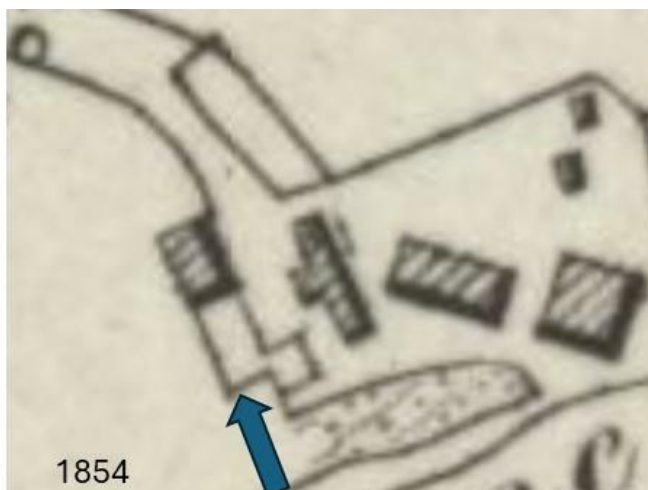
11 trenches and 17 test pits were excavated within the annexe attached to the east side of the late 1st century AD fort. A further 3 test pits were dug across the proposed line of the trans-Pennine Roman road just south of the annexe. Key results are as follows.

Based on last year's geophysical survey and Lidar, 3 test pits (6,7 and 8) were dug over the projected line of the main highway in Daycroft Field close to Drycroft Lane to the east of the fort. There was no evidence for the road, only deep plough soil and a possible Roman building slot at c 80 cm depth. It is concluded that the road has been completely removed in this area due to later disturbance. This took the form of, firstly, reconfiguration of the site around AD 120 when the main highway was diverted around the rear of the fortlet to make room for buildings on the flat ground opposite the southern defences. The linear Roman feature may belong to this phase of building activity. Secondly, the cutting of Drycroft Lane to facilitate a linear reservoir in the 18th century led to considerable ground disturbance. Thirdly, there appears to have been a long period of ploughing in Daycroft Field which has denuded Roman features and buried them at considerable depth under a homogenous brown soil. This soil could also be made up of upcast from the excavation/cleaning out of Drycroft Lane.

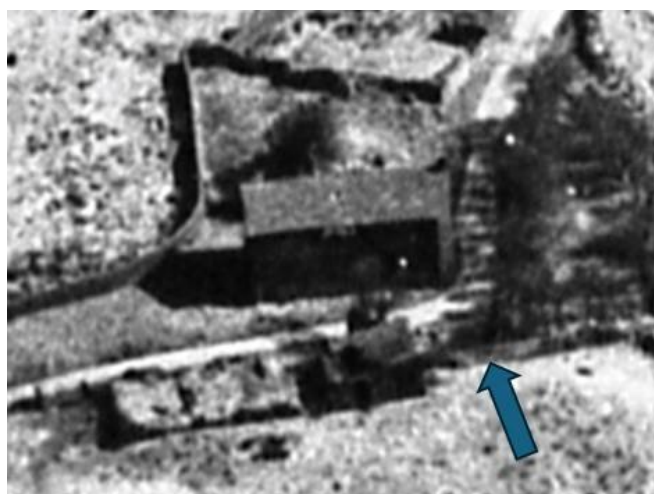
The annexe rampart was shown through Trenches 1, 2 and 3 to run at least 44 metres in a straight line from the south west corner of the fort rampart before meeting Dirty Lane. Trench 1 provided evidence of post rampart land use, with a post medieval drain/ditch cutting through the southern side whilst the northern edge of the rampart had been removed by a deep cut feature possibly a pit or ditch. The latter is of unknown date but the character of its fills suggested a Roman origin. The southern half of the annexe is characterised by a lack of Roman features which makes the survival of this feature of especial interest. The north and south annexe ramparts survived at only around 25 cm deep which may explain why the annexe had not previously been recognised. However, in Trench 1 it was found to be up to 60 cm high, although badly truncated to the front and rear. From the 2024 and 2023 trenches it is now possible to provide a complete profile of the annexe southern rampart and ditch, with the rampart being c 3.5 m wide and the ditch 3 m wide and around 1 m deep.

It was not possible to find the eastern side of the annexe due to significant post medieval disturbance witnessed in Trench 3 and Test Pits 1 and 2 in the form of medieval and post medieval buildings such as Husted's farm and cottage as well as Dirty Lane (as shown in Test Pit 10) which is likely to occupy the site of the eastern defences.

In Trench 3 a deeply buried line of substantial stones were found to be part of a foundation for a large building with an associated drain cutting through the top of the annexe rampart. The building was probably dismantled in the second quarter of the 19th century and is likely to be of medieval origin. A scatter of medieval pottery sherds have been found in this area over the years and, whilst they are from unstratified contexts, they do indicate medieval settlement here. The map extracts and old photographs below show the location of the stone foundation and confirm that it belongs to an early structure.



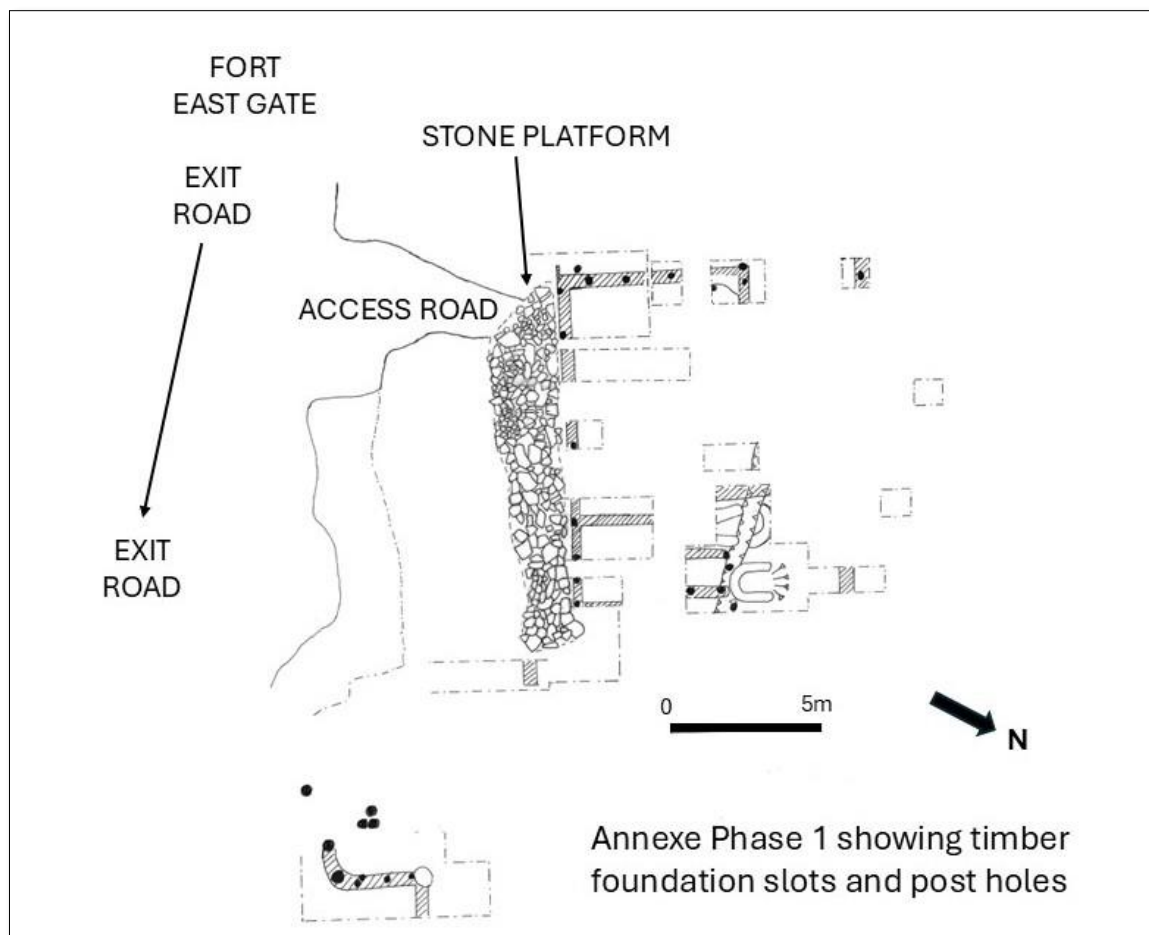
Location of the wall foundation excavated in Trench 3. Left: Saddleworth Township Map of 1822 showing large rectangular building with projecting wings. Right: Ordnance Survey 6" to 1 mile map of 1854 showing the southern part of the building no longer in use.



Aerial photos of the ruined site of Husted's Farm in the 1960s (left) and the cottage ruin in the 1970s (right), with the arrow showing the location of the Trench 3 wall foundation for the earlier building shown on the 1822 map.

The terminus of the fort's eastern ditch was confirmed in Trench 9. It ran for 22 metres from the north east corner of the fort, extending a little beyond its junction with the annexe northern rampart. Its tongue shaped terminus is filled with stone rubble and some Roman tile came from the ditch fill. The possible terminus was first identified in Salford Archaeology's 2014 re-excavation of Thompson's 1963 trench where the concentrated stone layer was visible in the north section of the trench but not the south. It is very rare for a ditch not to extend along the whole length of a fort rampart. Given the weakened defences, this implies a strong connection between the fort garrison and the function of the annexe.

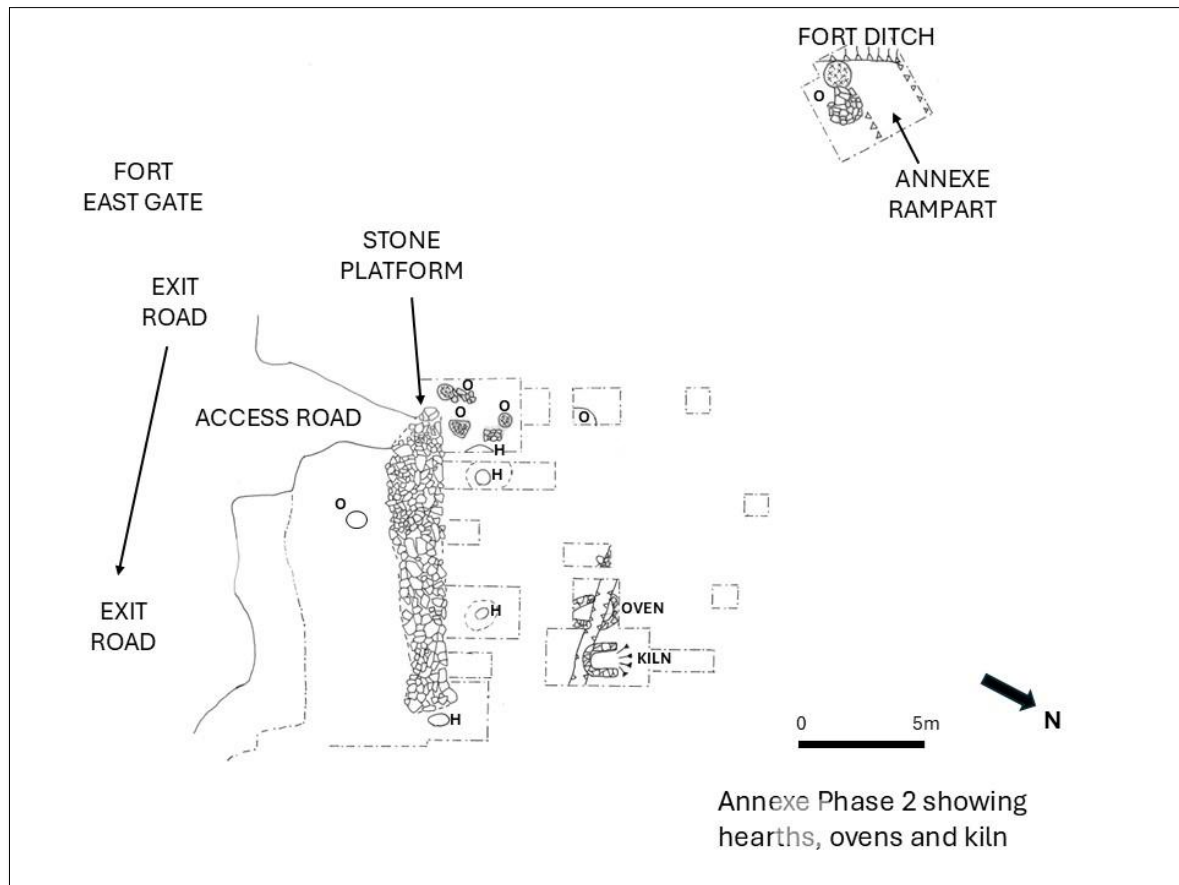
A plethora of post holes and foundation slots for timber buildings were found to the north of the long stone platform revealed in 2022. In Trenches 4 and 6 and Test Pits 12 and 15 a long line of slots/post holes was revealed running alongside the platform. These took the form of regularly spaced posts separated by short sections of slots for horizontal beams ranging from 0.8 m to 1.5 m long and 15 cm wide. Trenches 4 and 7, and Test Pit 15 provided evidence for internal wall foundations in the same style. Interestingly, two slots in Trench 8 terminated with post holes with no return slot so may have been open ended structures. Test Pits 13 and 14 demonstrated the continuation of an external timber wall foundation from that revealed in Trench 13 northern extension in 2023. The north west corner of an external wall was exposed in TP 14, which demonstrated the continuation of the wall line from the corner revealed in the 2023 trench to give a length of 6.5 m. This is the only complete wall line that has been established so far which means it is not yet possible to define a complete building plan so this will be a priority for future investigations. A building slot was partly exposed in Trench 10 to the south of the stone platform suggesting, along with evidence from last year's Trench 1 excavation, that buildings also filled the space between the east gate exit road and the stone platform.



Plan showing excavated post holes and timber building foundations in relation to the stone platform which was accessed from the fort east gate via a cobbled track shown as 'Access Road'.

The phasing of last year was confirmed. The timber buildings formed the first phase but were then dismantled and the area given over to intense oven and hearth activity. Clay or shale capping of the building foundation trenches and post holes provided a firm surface for intensive oven/hearth activity which was the second phase, as could be seen in Test Pit 15. Two more hearths were uncovered (in Trenches 4

and 6) and the one in Trench 4 clearly overlay an earlier building foundation slot. Additionally, the bread oven in Trench 11 and a possible oven/kiln in Test Pit 14 appeared to be later than adjacent timber building slots.

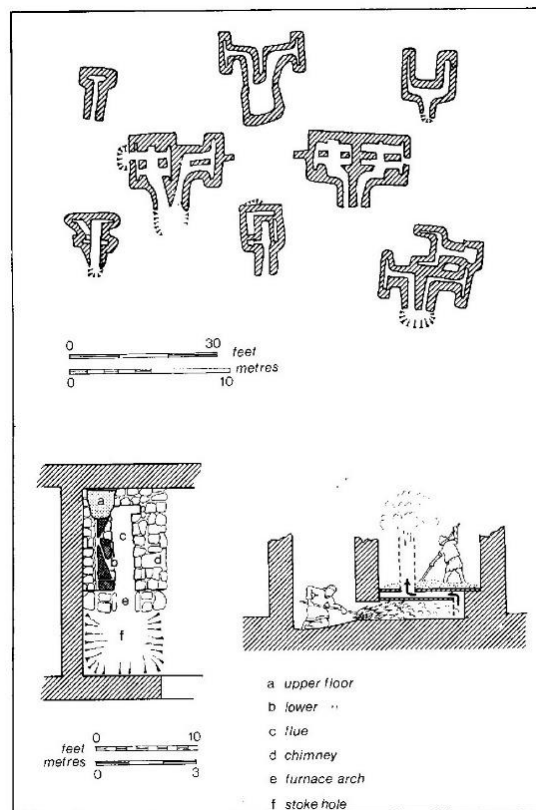


Plan showing excavated hearths, ovens and the kiln in northern half of the annexe.

The most interesting feature came from Trench 5 and was a subterranean stone structure interpreted as a grain drying kiln. It comprised 8 course deep walls on 3 sides with an open end to the north for the furnace. There was evidence for intense heat in the form of burnt red clay deposits and burnt stone rubble filling in the disused kiln, along with deeply red oxidised clay under and to the side of the kiln. The kiln had a small flagstone floor. Adjacent post holes to the south in Trench 7 and a building slot to the north in Trench 8 may have formed part of a timber superstructure to house the kiln. However, it is worth noting that the backfill of the kiln comprised heat reddened clay and stone rubble, which may have come from a demolished stone superstructure or adjacent kiln/oven. Unfortunately, soil analysis showed no evidence for grain or any other function residues. Pollen analysis undertaken as part of previous investigations (Ref: Redhead 1997, Nash 2014) has shown that spelt wheat was grown near the fort and it would have been essential to dry this to protect it from damp if it was to be used for bread making. Intriguingly, the floor of the kiln shows little sign of heat reddening unlike the walls and the clay underneath which were oxidised red to a considerable depth. This suggests that the floor was a replacement and did not see much use before the kiln was closed down.

A 1.2 kg disc shaped lead weight marked with a raised letter 'M' was found laid alongside the kiln. The M probably stands for *Modius* which was a Roman measure of grain. This weight was probably formed in a mould and had been clipped on one side to achieve the desired weight. It was presumably used either to measure out the grain for distribution or to check that the grain conformed to the required dry weight. It appears to have been carefully deposited when the kiln was decommissioned. The shape of the kiln does not conform to the standard 'T' shape encountered at many Romano-British rural sites, but the shapes of kilns have been shown to be very varied for instance at Hambledon villa, Buckinghamshire, where 14 different types were excavated (Goodchild 1943). Initial research has struggled to find comparative examples but this might be due to there being so few excavated kilns from late 1st century military sites – most excavated kilns coming from rural 3rd or 4th century AD contexts. It is frustrating that grain has not survived on the floor of the kiln to help interpretation. This might be due to the late replacement floor not

seeing much use before the kiln stopped operating. There was a small patch of charcoal-rich material on the floor but this was made up of charred willow or poplar used as fuel. The flat tops of the wall suggested, along with the lead weight placed at the same level alongside the east wall, that this was the original raised floor level where the grain would have been placed, perhaps on wooden slats, with heated air rising from below in a similar arrangement to a hypocaust underfloor heating system. This arrangement is illustrated in the Hambledon villa image below.



Different types of corn dryers excavated at Hambledon villa (from Goodchild 1943).

Immediately to the west of the kiln in Trench 11 were remains of a stone-built dome-shaped bread oven. This had been cut through by an old excavation trench, thought to be dug by Bruton in 1907/8 and not recorded. The stone walls of the flue and part of the back wall and floor of the oven survived. This was enough to indicate a standard form of oven observed at many fort excavations, including the interior of Castleshaw fort and fortlet. In the adjacent Test Pit 16 part of another possible stone oven was identified while near the southern edge of the test pit was a possible timber building related feature. Further to the west, Test Pit 14 revealed part of a possible stone oven or kiln structure. Further investigation of these will be an objective for future excavations. It looks as though there is a line of stone ovens and kilns on a west to east alignment in the north half of the annexe. This suggests zonal planning. No evidence for iron smelting or working has been found in the eastern annexe but previous evaluation of the area to the north of the fort found iron working debris (Redhead 2017).

Test Pits 17 and 18 suggest, along with Thompson's 1963 trench that Roman activity dies away in the central northern part of the annexe. However, this is not the case against the eastern and western sides. In 2023 Trench 3 revealed an oven set tight against the inside north west corner of the annexe where the fort ditch met the annexe rampart. In 2024 Test Pit 19 appeared to show a building slot running east to west, roughly in line with the slot found north of the oven in Trench 8. These might indicate the rear, northern sides of timber buildings. Towards the north east corner of the annexe Test Pit 11 and Test Pit 5 in 2018 showed good potential for Roman remains, and a burnt clay deposit in the corner of Test Pit 9 might indicate the site of an oven.

Several sherds of Roman Samian ware were recovered along with a few Roman coarse ware pottery sherds and nails. Most of these artifacts were recovered from Trench 4. Another piece of lead was found in Trench 5 next to the lead weight, but its shape was unrecognisable as it had been squashed and folded. In the same trench, from the top of the kiln backfill, came a possible finger ring 'gemstone' in the form of an

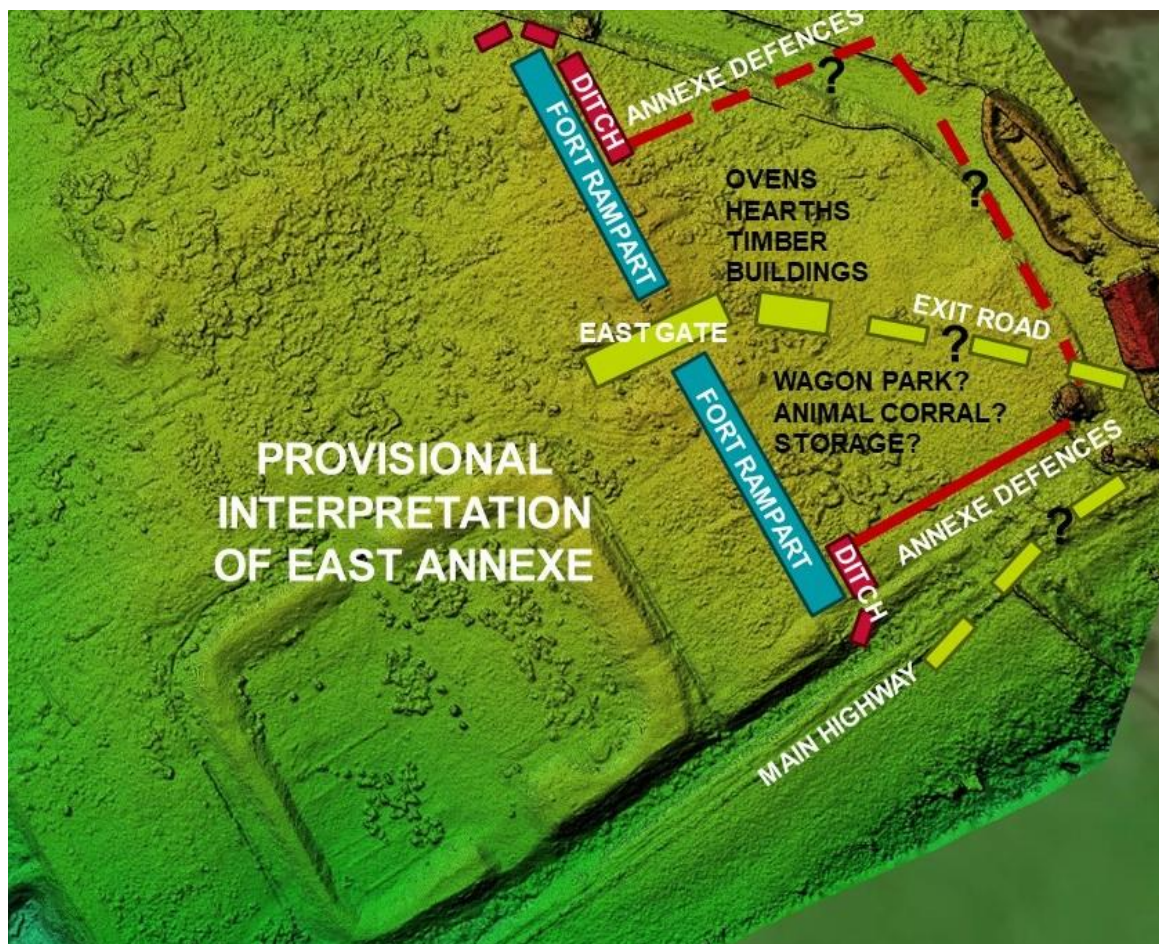
oval piece of smooth polished blue-green glass. Dating of the 2024 Roman finds is in line with previous seasons and indicates a late 1st century AD date.

Soil sample analysis showed no plant remains or metallurgical traces within the 11 submitted samples. However, charcoal analysis identified oak, willow/poplar and hazel – typically used for fuel purposes.

It is theorised that the annexe had a special function connected with transport and travel on the main cross Pennine highway between York and Chester. The climb from the fort eastwards to Standedge is a very steep one and extra haulage animals would be needed to help wagons make the ascent. The southern half of the annexe is almost devoid of archaeology perhaps because it was used to park wagons and tether animals and store goods. In contrast the northern half has a great deal of activity with, in the second phase, a concentration of meat roasting clay ovens, hearths, stone ovens (for baking bread?) and a grain drying kiln. Were these to provide refreshments to travellers/officials?

The function of the earlier timber building phase is uncertain. Perhaps the annexe served as quarters for the constructors of the fort or for an additional unit attached to the fort for a special operation.

The annexe activity is thought to belong to the late first century fort phase however, it is possible that there are elements of early 2nd century fortlet as well. Around AD 120 the main highway was diverted round the back of the fortlet to make way for buildings on the flat ground opposite the southern defences yet there is plenty of flat ground available in the former annexe area. Why not use this instead of having to divert the road, or was this space already taken with various activities? There is clearly much more to find out.



Contour map with suggested arrangement of annexe defences and interior.

Discussion

It is worth repeating the discussion from the 2022 report as the results from the 2023 and 2024 excavations reinforce most of those comments:

So why an annexe and not a *vicus*? An annexe was a military enclosure attached to a fort which was dedicated to essential functions not usually undertaken in the fort; this might include the housing of animals, goods in transit, food processing or minor industrial processes. The emerging evidence suggests all of these could be applicable to Castleshaw. Here the fort lies next to the main trans-Pennine highway which would have been busy with travellers who, going eastwards, were faced with a very steep climb up to Standedge. Perhaps draught animals were held in the annexe to be hitched up to wagons before making the ascent. Accommodation, food and drink may have been prepared for travellers and the team looking after the animals. This scenario would accord with the southern half of the annexe being a levelled, blank area which may have been a corral for the animals and a wagon park. The northern half, by contrast, is busy with timber buildings, ovens, and hearths. Despite the east side of the fort being the flattest, and therefore the most vulnerable side, the fort's east rampart is not defended by a ditch for much of its length – a most unusual and rare situation for Roman forts. This is due to the presence of the annexe. A *vicus* is a civilian settlement attached to a fort and sometimes defended by a rampart or/and ditch, but it would be unthinkable and unique for there to be no ditch separating the civilians from the fort.

The Agricola fort at Elginhaugh in Scotland was, like Castleshaw, a short-lived site with perhaps a decade of occupation. The site was fully excavated and provides a fascinating and contemporary comparator for Castleshaw. Hanson, in his publication of 2007, describes the excavation and function of what he interpreted as an annexe attached to the fort (Hanson 2007, p 87-100). He pointed out the issue with comparative analysis in that so few annexe interiors have had extensive archaeological investigations, and that defended *vici* may be confused in some instances with annexes. He considered the rampart and ditches surrounding the Elginhaugh annexe to be very slight compared with the fort defences and more to demarcate the annexe as an ancillary enclosure. Similarly, at Castleshaw the bank and ditch that have been discovered on the south and north side of the annexe are much less substantial than the defences of the fort. He also mentions that at Malling and Cargill forts in Scotland the annexe is separated from the fort by only a rampart. It is worth noting that Slack fort near Huddersfield, 8 miles east of Castleshaw and possibly built by the same unit, also has a section of rampart with no ditch; this coincides with the location of the bath house (Bidwell et al 2018). It is not clear if the bath house at Slack sat within a defended enclosure and, to date, no bath house has come to light at Castleshaw fort. At Elginhaugh there were several phases of activity in the annexe even though it was a short-lived site. This was particularly true of the industrial processing areas where there was intensive use. The road was the focus for activity, with hearths, ovens, pits and iron working. Foundation slots for simple, timber strip buildings were found. Activity decreased away from the road and in one largely blank area evidence for a possible rail fence was found which may have served to tether horses. Hanson suggested this area was used as a wagon park and for horse grazing. It is suggested that a similar arrangement existed at the Castleshaw fort annexe.

The 2023/24 excavations showed that the fort ditch does exist on the east side but runs for only 22 metres to a point just beyond the junction with the north annexe defences; if this arrangement is mirrored to the south then around two thirds of the central section of the eastern fort defences are without a ditch. As with Elginhaugh the focus of activity appears to be alongside or near to the road running through the annexe from the east gate. This year's excavation has shown a number of phases and relatively complex stratigraphy within a discrete area of the annexe. There was an initial phase of timber buildings, of currently uncertain form, so we cannot say yet if they were simple strip buildings as at Elginhaugh. The second phase saw intensive use of ovens, a number of simple clay ones for what appears to be meat cooking together with what is emerging as a line of stone structures including ovens and a kiln. A long, narrow stone platform provided access. There is evidence for sub-phases as the clay ovens appear to have had a short life span and were constantly being replaced. This activity, as at Elginhaugh, probably took place over a short span of years. Unlike Elginhaugh, the focus of activity did not straddle both sides of the road but was limited to the north side. Another difference is that there is as yet no evidence for metal processing although lead debris has been found on and near the stone platform. However, iron smelting waste has been found outside the northern defences at Castleshaw by archaeological evaluations carried out by the Friends in 2016 and 2017, so this might be the area that was the focus of metal working. The area to the north of the fort is badly truncated by post medieval ploughing; however, investigations have demonstrated the presence of a fort double ditch, the terminus of the fort north exit road 50 m from the north gate, together with evidence for a building platform and stone surface (Redhead 2016 and 2017).

A recent review of Hartley's 1968-9 excavations at Slack Roman Fort near Huddersfield included a short discussion on comparative fort annexes (Bidwell et al 2018). Slack is the next fort eastwards from

Castleshaw being only 8 miles away. It has a larger enclosure to the north which incorporated the main trans-Pennine highway that the fort guarded. This was a large annexe enclosing a *vicus* (civilian settlement) with defences being added in the early 2nd century AD. There is also a much smaller annexe attached to the fort's south east corner that encompasses a bath house. Interestingly, as with Castleshaw, the fort defences opposite the annexe lack a ditch. The bath house at Castleshaw has yet to be revealed and when that happens it will be interesting to establish if it sits within a defended enclosure. The study considers that annexes were commonplace in the late first and second centuries, for instance of 16 Roman forts in Wales and the Marches where substantial archaeological investigations have taken place no less than 13 have one or more annexes. But many of these are defended civilian settlements rather than those with a military function such as the one containing the bath house at Slack. It would appear that the range of sizes, characteristics and functions, and of course dates, vary tremendously so that they cannot easily be assigned simplified types or groups. Castleshaw will make a significant contribution to the discussion on annexe typology but further investigations are first of all necessary to define its size, shape, and function. The fact that the Castleshaw annexe has two phases of very diverse character only adds to its considerable research interest.

Research Strategy

In terms of the archaeological research strategy for Castleshaw Roman Forts (Redhead 2013), the 2022 to 2024 investigations have contributed to:

Research Objective 8: Understanding how the fort functioned.

Research Objective 9: Understanding the road network.

Research Objective 10: Understanding the immediate hinterland.

The greatest contribution has been towards Objective 8, in relation to emerging evidence for the presence of a military annexe attached to the east side of the fort and its relationship and function in relation to the fort. Objective 9 has seen limited progress due to post medieval disturbance, although some areas of potential Roman road survival can now be dismissed. Objective 10 is all about what is happening immediately beyond the fort defences. The discovery of an annexe on the east side is a major step forward. The 2022 to 2024 excavations have made significant progress on understanding the layout and function of the annexe.

It is suggested that the annexe is of late 1st century date based on its relationship with the fort's eastern defences. However, this does not preclude re-use of the area during the later fortlet occupation. Reasons for interpretation as a military annexe rather than a civilian settlement (*vicus*) are set out in the discussion above. This means that we still do not know if the fort was in use long enough to establish a civilian settlement as no evidence has yet been found for a *vicus*, although an extra-mural civilian settlement attached to the later fortlet and dated to around AD 120 was postulated for remains excavated on land opposite the southern defences by GMAU in 1996-7 (Redhead 1997). So, based on our current knowledge, the Agricolan fort at Castleshaw is in a similar situation at Elginhaugh where there was very little evidence for a civilian presence.

The recently revised Historic Research Framework for the North West of England (Nevell & Redhead eds, 2023) has a section dedicated to research questions under the Roman agenda theme *R3: Military Activity* (Philpott, 2023, 109). Two of the questions have relevance to the current investigations at Castleshaw:

Q11. *How can we identify typologies and the development of military sites and Roman road systems?*

Q14. *What were the date, extent, function and changes over time of extra-mural settlement (vici) in the region?*

As set out above, the discovery of an annexe attached to the east side of the late 1st century AD fort is a significant advancement in our knowledge of the character, form and development of the Castleshaw site. The main highway linking Chester to York fortresses is clearly visible in the Castleshaw valley as it approaches the fort from the west and as it climbs out of the valley to Standedge to the east of the fort. But its alignment near the Agricolan fort is uncertain, partly due to it being diverted around the north side of the

fortlet in c AD 120, so there is more research to do on this. In this regard, it is worth noting that in 2023 a separate piece of archaeological investigation was undertaken by Phil Barrett and Tim Jeffrey in Daycroft Field opposite the southern fort defences to look for the road. It combined Ground Penetrating Radar, Resistivity and Magnetometer surveys supported by Lidar analysis (Jefferey with Barrett 2024). The results were positive in showing the original highway running close to the fort's southern defences. The reference in Q14 to *vici* is interesting as there is a gap in the research agenda relating to military annexes - in terms of their distribution, chronology, form, and relationship to a fort and *vici*. Hanson has identified the paucity of archaeological excavation of annexe sites in Scotland and possible confusion with *vici*; does this also apply to the North West of England?

Recommendations

The 2024 excavation has allowed us to zoom in to a few key outstanding areas, which will be the focus of the 2025 investigations. These are shown edged in red on the plan below and comprise:

- 1) This large area is designed to allow targeted excavations within the northern half of the annexe to build on previous trenching/test pits to: define the plan form of the first phase timber buildings and establish the extent and character of oven/kiln/hearth activity within the northern half of the annexe including the line of stone-built structures partly revealed in 2024. The excavations will take the form of test pits and trenches.
- 2) Define the line of the annexe defences on the north side. A section through the rampart was recorded in Trench 3 in 2023 but the form of the ditch and the line of the northern defences requires further investigation.
- 3) Determine the line of the eastern annexe defences. It has been established that Dirty Lane and Husted's Farm/Cottage appear to have removed traces of the rampart/ditch along most of the likely location of the eastern defences. However, in 2019 three test pits (31, 32 and 33), located on a narrow strip of flat ground against the stone wall on the opposite (north side) of Dirty Lane, exposed Roman deposits cut by a ditch. This might be the annexe ditch and if so then this area could potentially reveal the north east annexe corner, allowing a projection of the eastern defensive alignment.
- 4) Investigate the relationship/terminus of the fort ditch where it meets the annexe south rampart. The last two seasons of excavation identified the terminus of the fort's eastern ditch to the north where it runs a little way past its junction with the annexe north rampart. But is this arrangement replicated to the south? The alignment of the now established line of the south annexe rampart intercepts the fort ditch much closer to the corner of the fort than in the north. The ditch was not present in the old excavation trench which was re-dug as Trench 7 in 2014 by Salford Archaeology (Nash et al 2014). This was about 20 metres from the south east corner of the fort. Therefore the fort ditch must terminate somewhere within that 20 metres.



Archives

Finds from the Friends excavations at Castleshaw are deposited with the Saddleworth Museum in Uppermill and a small band of Friends volunteers have been working through past excavation assemblages to fill in card catalogues for the finds deposited with the museum. These records include providing accession numbers and will be computerised at a later date.

Concern was raised at the large quantity of 19th and 20th finds with little or no archaeological value that were being accessioned. Most of these have come from the topsoil and are therefore unstratified. Norman Redhead, as archaeological adviser to the Friends, sought and obtained permission from the Museum Curator, Historic England and the landowner United Utilities to re-bury these more recent finds on site. This applies to the excavations from 2021 onwards so that for these years all Roman and Medieval period finds and a selection of later artifacts are retained for the museum. The bulk of the 19th and 20th century assemblage was reburied in spring 2024 in a hessian sack on the edge of the site. This was located just south of the cottage site in the backfill of Test Pit 19 from the 2021 excavation (grid reference: SD 99978 09676).



Site of finds reburial.

Acknowledgements

A successful excavation season saw 43 Friends volunteers take part in further excavation of the annexe over 21 days spread out over the summer but predominantly in late July and August. During the dig days Jayne Redhead showed a total of 312 visitors around the site. A Dig Diary was maintained to show progress, and this was accessed through the home page of the Friends Castleshaw Archaeology website, together with regular Facebook and X (formerly Twitter) posts by Jayne. See <https://www.castleshawarchaeology.co.uk/>.

We are indebted to Phil Barrett for maintaining the Friends website and to Jayne Redhead for running social media and assisting with compiling the Dig Diaries. Thanks to Sue Exon and Janet Hannah who helped Norman strim the relevant areas ahead of the excavation. The author is grateful to Lesley Mills for undertaking valuable ongoing research on comparative archaeological sites.





None of our excavations would have been possible without the incredible hard work, dedication and expertise of our fantastic digging team so it's a massive thank you to the 43 volunteers who took part:

Jayne Redhead, Tim Jeffrey, Gill Hoyle, Sue Exon, Bob Mawhinney, Jan Mawhinney, Janet Hannah, Nat Townsend, Nick Brook, Ian Rowley, Steve Milne, Mark Townsend, Mike Lloyd, Andrew Church, Brian Gibson, Harrison Duddle, Daniella Blewitt, Kurt Hunter-Mann, Roy Barnes, Lesley Mills, Joolze Dymond, Stephen Morley, Lauren Davies, Hannah Collingridge, Nicola Whitehead, Jim Grady, Craig Almond, Sam Hannah, Dominic Wathey, Penny Meadowcroft, Mark McNulty, Nige Toone, Kirsty Chesters, Marlene Nolan, Liz Davies, Richard O'Neil, Helena Wilson, Mark Wrigley, Rod Steele, Carol Antrobus, Vanessa Taylor-Wrigley, Kevin Taylor-Wrigley, Luke Lancaster.



A group of visitors being given a guided tour of the site

Many thanks for the drone photography provided by Nat Townsend and Joolze Dymond which has helped enormously to improve our interpretation of the site.

A big thank you to the wonderful Linda Orritt who kindly provided the digging team with much appreciated refreshments.

Thanks also to Lee Wolstenholme and Matt Topliss for facilitating access and permission for the excavation on behalf of the landowner United Utilities and Andrew Davison, Inspector of Ancient Monuments at Historic England, for support and encouragement, along with other members of the Castleshaw Working Party.

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Appendix 1a

Castleshaw Roman Fort Annexe excavations 2024 - potential soil samples for analysis Norman Redhead, Friends of Castleshaw Roman Forts, 17th Sept 2024

Trench 4

Sample 1 – charcoal from base of hearth/oven F4 context 011 Trench 4 – 1.85kg



Sample 2 – charcoal/burnt wood from 011 above oven F4 Trench 4 – 230g



Trench 5

Sample 3 – charcoal from context 014 Trench 5 – c 25g



Sample 4 – fill of post hole F7 context 019 Trench 5 – c 225g



Sample 5 – fill of post hole F5 context 018 Trench 5 – c 530g



Sample 6 – charcoal deposit from kiln F2 floor context 005 Trench 5 – c 1.25kg



Sample 7 – charcoal from within 004 north end of Trench 5 – c 325g



Sample 8 - burnt clay and rubble infill of kiln F2 context 004 Trench 5 – c 1.25kg



Sample 9 – mortar sample from base of kiln F2 context 006 Trench 5 – c 2.45kg



Sample 10 – charcoal/burnt wood from above kiln floor F2 and within context 004 Trench 5 – c 450g



Trench 9

Sample 11 – silt from base of fort ditch F1 context 009 Trench 9 – c 690g



Appendix 1b

Assessment of paleoenvironmental samples from Castleshaw Roman Fort Annexe, Saddleworth, Oldham, Lancashire

Rosalind McKenna

Introduction

Eleven samples were taken during a volunteer led archaeological excavation at Castleshaw Roman Fort Annexe, Saddleworth, Oldham, Lancashire. Recent archaeological excavations have uncovered a military annexe against the east side of the fort revealing a number of oven bases represented by charcoal and stone platforms, together with oxidised red clay indicating possible hearths. The samples taken are:

Sample Number	Context Number	Trench	Sample Info.
1	011	4	Charcoal at base of hearth / oven
2	011	4	Charcoal above oven F4
3	014	5	Charcoal
4	019	5	Post hole fill
5	018	5	Post hole fill
6	005	5	Base of kiln – S. wall
7	004	5	Charcoal – N. end of trench
8	004	5	Burnt deposit above red clay / furnace for kiln feature F2
9	006	5	Mortar sample – base of kiln
10	004	5	Charcoal above floor of F2
11	009	9	Silt from base of fort ditch

Methods

Eleven samples were submitted for an assessment of their paleoenvironmental potential. The samples were processed by the author using the bucket flotation method (Miller 1988). The light fraction (flot) was collected in a 250 micron sieve, and the heavy residue in a 1mm sieve. Once dry, a magnet was run through the heavy residue to recover any magnetic material that may include hammerscale (Dungworth & Wilkes 2007). The heavy residue was scanned in entirety and recorded using a semi quantitative scale: any artefacts or bones were removed and recorded, and any plant macrofossils / charcoal identified.

The flot was examined under a low-power binocular microscope at magnifications between x12 and x40. A four point semi quantitative scale was used, from '1' – one or a few specimens (less than an estimated six per kg of raw sediment) to '4' – abundant remains (many specimens per kg or a major component of the matrix). Data were recorded on paper and subsequently on a personal computer using a Microsoft Access database. The results of this can be seen in Table 1 at the end of this report. Identification was carried out using published keys (Jacomet 2006, Biejerinck 1976, Jones – unpublished and Zohary & Hopf 2000), online resources, the authors own reference collection. Taxonomy and nomenclature follow Stace (1997).

The flot was then sieved into convenient fractions (4, 2, 1 and 0.3mm) for sorting and identification of charcoal fragments. Identifiable material was only present within the 4 and 2mm fractions. A random selection of ideally 100 fragments of charcoal of varying sizes was made, which were then identified. Where samples did not contain 100 identifiable fragments, all fragments were studied and recorded. Identification was made using the wood identification guides of Schweingruber (1978) and Hather (2000). The full species list appears in Table 2 at the end of this report.

Results

After the samples were processed, they produced ten flots and ten heavy residues. The presence of root / rootlet fragments and earthworm egg capsules within most of the samples provides evidence of bioturbation, and therefore some disturbance of the archaeological features.

No hammer scale was present within the samples thus indicating no evidence of metalworking in these features. Bones / burnt bone fragments were absent from the samples. Plant macrofossils were also absent from the samples. Mortar was the only component reordered from Sample 9. The mortar was not indicative of date but is broadly indicative of building activity in the area at some point during the Roman period.

Charcoal fragments were present in ten of the flots and nine of the heavy residues, scoring between a '1' and a '4' on the semi quantitative scale. The preservation of the charcoal fragments ranged from poor to good. The majority of the fragments were too small to enable successful fracturing that reveals identifying morphological characteristics. Where fragments were large enough, the fragments were very brittle, and the material crumbled or broke in uneven patterns making the identifying characteristics difficult to distinguish and interpret, and so only a limited amount of environmental data can be gained from the samples. Identifiable remains were however present in six of the flot samples and eight of the heavy residue samples. The results of this analysis can be seen in Table 2 below.

The total range of taxa comprises oak (*Quercus*), willow/poplar (*Salix/Populus*) and hazel (*Corylus avellana*). These taxa belong to the groups of species represented in the native British flora. A local environment with a relatively small range of trees and shrubs is indicated from the charcoal of the site. All of the samples produced varying but generally small amounts of charcoal. As seen in Tables 2a and 2b, willow / poplar was the most frequently recorded species in terms of frequency and volume. It dominated four of the flot samples and four of the heavy residue samples. Oak dominated two of the flot samples and two of the heavy residue samples. Hazel dominated one of the heavy residue samples. A further heavy residue sample contained an equal mix of willow / poplar and oak charcoal. It is possible that these were the preferred fuel woods obtained from a local environment containing a broader choice of species.

Bark was also present on some of the charcoal fragments, and this indicates that the material is more likely to have been firewood, or the result of a natural fire. The compositions of the samples are all similar, it is probable therefore that these small assemblages of charcoal remains reflect the intentional deposition or in situ burning of fuel wood.

Generally, there are various, largely unquantifiable, factors that affect the representation of species in charcoal samples including bias in contemporary collection, inclusive of social and economic factors, and various factors of taphonomy and conservation (Thiery-Parisot 2002). On account of these considerations, the identified taxa are not considered to be proportionately representative of the availability of wood resources in the environment in a definitive sense, and are possibly reflective of particular choice of fire making fuel from these resources.

Discussion

Few artefactual remains were recovered from this phase of excavation, especially that could be used for dating evidence. The mortar provides evidence for some building activity at or in the vicinity of the site during the Roman period. An absence of hammer scale indicates that the burning activity was highly unlikely to be associated with iron working.

No charred plant remains that may have provided information relating to the human diet and the function of the ovens / hearths were recovered from any of the samples. The presence of charcoal within the samples did offer information regarding which samples were present in the local environment and utilised as fuel.

The charcoal remains showed the exploitation of several species native to Britain. Oak has good burning properties and would have made a fire suitable for most purposes (Edlin 1949). Oak is a particularly useful fire fuel as well as being a commonly used structural/artefactual wood that may have had subsequent use as a fire fuel (Rossen and Olsen 1985.) Willow/Poplar are species that are ideal to use for kindling. They are anatomically less dense than for example, oak and ash and burn quickly at relatively high temperatures (Gale & Cutler 2000, 34, 236, Grogan *et al.* 2007, 29-31). This property makes them good to use as kindling, as the high temperatures produced would encourage the oak to ignite and start to burn. Hazel is recorded as a good

fuel wood and was widely available within oak woodlands, particularly on the fringes of cleared areas (Grogan *et al.* 2007, 30).

Radiocarbon dating may help to determine the period represented by the hearths / ovens. Suitable material is as follows:

Sample Number	Context Number	Trench	Suitable material for C14 dating
2	011	4	Willow / poplar charcoal
3	014	5	Willow / poplar charcoal
4	019	5	Willow / poplar charcoal
5	018	5	Willow / poplar charcoal
6	005	5	Willow / poplar charcoal
7	004	5	Willow / poplar OR Hazel charcoal
8	004	5	Willow / poplar charcoal
10	004	5	Willow / poplar charcoal

Recommendations

The samples have been assessed, and interpretable data has been retrieved and is the basis of this report. No further work is required on the samples. Any material recovered by further excavations should be processed to 0.3mm in accordance with standardised processing methods such as Kenward *et al.* 1980, and the English Heritage guidelines for Environmental Archaeology

Archive

All extracted fossils and flots are currently stored with the site archive in the stores at the Saddleworth Museum / Friends of Castleshaw Roman Fort, along with a paper and electronic record pertaining to the work described here.

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Table 1: Components of samples - Complete list of material recovered from excavations at Castleshaw Roman Fort Annexe, Saddleworth, Oldham, Lancashire

Sample Number	1	2	3	4	5	6	7	8	9	10	11
Context Number	011	011	014	019	018	005	004	004	006	004	009
Trench Number	4	4	5	5	5	5	5	5	5	5	5
Feature Type	Hearth / Oven	Oven	Charcoal	Post hole	Post hole	Base of kiln – S wall	Charcoal – N end of T5	Burnt deposit – Kiln F2	Mortar – base of kiln	Above floor of F2	Silt – base of fort ditch
Charcoal fgts.	3	4	4	3	3	3	4	3		4	4
Earthworm egg capsules	1	1	1	1	1	1	1	1		1	1
Mortar									4		
Root/rootlet fgts.	4	3	2	4	3	3	2	3		3	2
Sand			3	2	4	4	4	4		4	3

Table 2a: Charcoal (flots) - Complete list of taxa recovered from excavations at Castleshaw Roman Fort Annexe, Saddleworth, Oldham, Lancashire
Taxonomy and nomenclature follow Schweingruber (1978). Numbers are identified charcoal fragment for each sample.

Sample Number		1	2	3	4	5	7
Context Number		011	011	014	019	018	004
Trench		4	4	5	5	5	5
Feature Type		Hearth / Oven	Oven	Charcoal	Post hole	Post hole	Charcoal
No. fgts.		100+	48	100+	11	100+	50+

Max. size (mm)		10	16	34	5	23	16
Latin	Vernacular						
<i>Corylus avellana</i>	Hazel						
<i>Cf. Salix / Populus</i>	Willow / Poplar		15	29		13	8
<i>Quercus</i>	Oak	5			1		
Indeterminate	Indeterminate	95	18	71	10	87	42

Table 2b: Charcoal (heavy residues) - Complete list of taxa recovered from excavations at Castleshaw Roman Fort Annexe, Saddleworth, Oldham, Lancashire
Taxonomy and nomenclature follow Schweingruber (1978). Numbers are identified charcoal fragment for each sample.

Sample Number		1	2	3	4	6	7	8	10	10
Context Number		011	011	019	018	005	004	004	004	004
Trench		4	4	5	5	5	5	5	5	5
Feature Type		Hearth / Oven	Oven	Charcoal	Post hole	Base of kiln S. wall	Charcoal N. end T5	Burnt deposit - kiln	Charcoal – above floor	Charcoal – above floor
Sub sample										Hand picked charcoal
No. fgts.		400+	500+	36	5000+	3000+	1500+	2000+	2000+	300+
Max. size (mm)		12	16	7	42	37	26	11	21	25
Latin	Vernacular									
<i>Corylus avellana</i>	Hazel						100			
<i>Cf. Salix / Populus</i>	Willow / Poplar		100	2	100	95		19	100	100
<i>Quercus</i>	Oak	100		2		5		45		
Indeterminate	Indeterminate			32				36		