

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
Taylor Wimpey North East

Land at Durranhill Road
Carlisle
Cumbria

post-excavation assessment

report 4775
December 2018

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1. Summary

The project

- 1.1 This report presents the a post-excavation assessment of the results of an archaeological excavation conducted in advance of a development on land at Durranhill Road, Carlisle. The works comprised the strip, map and record excavation of five areas, with a total area of just under 1ha.
- 1.2 The works were commissioned by Taylor Wimpey North East and conducted by Archaeological Services Durham University.

Results

- 1.3 A large ditch cut into the natural subsoil crossed the northern end of Area 4 and continued into Area 5; this cut by a pit of probable prehistoric date.
- 1.4 Archaeological deposits comprising pits of prehistoric date, cut into the natural subsoil, were present in Areas 3 and 4. Environmental and artefactual evidence suggests they range from Neolithic to Bronze Age and possibly Iron Age in date.
- 1.5 A palisade slot cut into the natural subsoil, and partial remains of a second such feature, was found in Area 4. By analogy with similar features found elsewhere in the region, they are thought to be of Late Bronze Age to Iron Age date.
- 1.6 Archaeological deposits comprising ditches, pits and a cremation, cut into the natural subsoil and containing Roman artefacts, were present in Areas 1, 2, 3 and 4. They indicate the presence of a series of enclosures containing Romano-British settlement and funerary activity on the site. Palaeoenvironmental evidence suggests that activity in some of these features may have extended into the early medieval period.
- 1.7 Furrows cutting into the natural subsoil, the remains of medieval or post-medieval ploughing were recorded in Area 3. Post-medieval land drains were recorded in all areas.
- 1.8 An assemblage of pot sherds, flints, metal objects and other artefacts was recovered from the archaeological features, indicating that they are likely to date from the Neolithic through to the Romano-British periods. These will contain significant information on the settlement economy of the site. Cremated bone was present in the Roman cremation urn. This will contain significant information on the individual cremated and on funerary practices in this period.
- 1.9 Samples collected from the features comprise a significant palaeoenvironmental resource, with a number of large and well-preserved charcoal and charred plant macrofossil assemblages present. The identified crops include barley (naked and hulled) and spelt wheat, which are largely consistent with the prehistoric and Roman dates suggested by artefactual evidence, although the presence of rye and seaweed is unusual and warrants further analysis.

Recommendations

- 1.10 As a significant archaeological resource was uncovered by the excavation, full analysis of the data and its publication is recommended. An Updated Project Design which lists the tasks to be undertaken to achieve this has been provided.

2. Project background

Location (Figure 1)

- 2.1 The site is located on land south of Durranshill Road, Carlisle (NGR centre: NY 4307 5532). It is irregular in plan and covers an area of approximately 9.5 ha. To the south is the Newcastle-Carlisle railway line, to the north-west are Durranshill Road and residential properties, and to the east are another field and then the M6 motorway.

Development proposal

- 2.2 A residential development with associated roadways, greenspaces, services and access has been consented.

Objective

- 2.3 The objective of the scheme of works was to identify, excavate and record significant archaeological features within the area in advance of development.

Research Objectives

- 2.4 The regional research framework *An Archaeological Research Framework for North West England* (Brennand 2005) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation. In this instance, the scheme of works was designed to address the following research priorities: A) Transitional zones; and B) Landscape analyses.

Specification

- 2.5 The works have been undertaken in accordance with a Written Scheme of Investigation provided by Archaeological Services Durham University (reference DS17.236r) and approved by the planning authority.

Dates

- 2.6 Fieldwork was undertaken between 26th February and 20th April 2018. This report was prepared for December 2018.

Personnel

- 2.7 Fieldwork was conducted by Hilly Andrews, Jonathan Goldberg, Meghan McCarthy, Steph Piper, Rachel Wells and Andy Platell (supervisor). Sample processing was undertaken by Anna Finneran, Ben Matus and Jeff Lowrey. This report was prepared by Andy Platell, with illustrations by David Graham. Specialist reporting was conducted by Dr Anwen Caffell (cremation), Alex Croom (prehistoric and Roman pottery), Dr Helen Drinkall (lithics), Vicky Garlick (X-radiography), Dr Louisa Gidney (animal bone), Jennifer Jones (other artefacts) and Dr Charlotte O'Brien and Lorne Elliott (palaeoenvironmental). The Project Manager was Daniel Still.

Archive/OASIS

- 2.8 The site code is **CDR18**, for **Carlisle, Durranshill Road 2018**. The archive is currently held by Archaeological Services Durham University and will be transferred to Tullie House Museum in due course. The palaeoenvironmental residues were discarded following examination. The flots and charred plant remains will be retained at Archaeological Services Durham University. Archaeological Services Durham University is registered with the **Online Access to the Index of archaeological investigationS project (OASIS)**. The OASIS ID number for this project is **archaeol3-334892**.

3. Landuse, topography and geology

- 3.1 At the time of this excavation, the proposed development area comprised two fields of pasture.
- 3.2 The summit of Durranhill lies immediately southwest of the site, at an elevation of around 37m OD. Ground slopes down eastwards and northwards from this hilltop, reaching a minimum elevation of around 24m OD towards the north-eastern end of the site.
- 3.3 The bedrock geology of the area comprises Triassic sandstone of the Kirklington Sandstone Formation, which is overlain by Devensian till (www.bgs.ac.uk).

4. Historical and archaeological background

- 4.1 A detailed archaeological desk-based assessment (Archaeological Services 2017a), geophysical survey (Archaeological Services 2017b) and trial trench evaluation (Archaeological Services 2017c) have been conducted for the proposed development; the results of these are summarised below.

Desk-based assessment

- 4.2 There is direct evidence for possible prehistoric / Romano-British remains within the study area. This comprises a small sub-oval enclosure identified as a cropmark on aerial photographs. The presence of significant and extensive sites dating from the Neolithic to the Roman period in the immediate vicinity, including a later prehistoric palisaded enclosure and an Iron Age / Romano-British settlement to the west of the site, indicated that it had the potential to contain a significant resource.
- 4.3 Below-ground evidence for agricultural exploitation of the area during the medieval and post-medieval period may be present.

Geophysical survey

- 4.4 A series of enclosures, ditches and pits have been detected, which almost certainly represent the remains of Iron Age or Romano-British settlement, as previously identified in archaeological excavations to the west of the proposed development area.
- 4.5 Former field boundaries have been identified, as shown on historic Ordnance Survey maps.
- 4.6 The survey has not detected any evidence for a possible cropmark enclosure in the east of the site.
- 4.7 Land drains and former ploughing have been detected throughout the surveyed areas.

Archaeological evaluation

- 4.8 Archaeological deposits comprising ditches, gullies and pits cut into the natural subsoil were present in Trenches 6, 7, 8, 9, 16, 17, 20 and 21. These indicate the presence of a series of enclosures containing Roman settlement activity, mainly over the higher part of the site in the west of the southern field and northwest of the northern one.

- 4.9 No archaeological deposits were recorded in the other trenches.
- 4.10 No evidence was found for any feature that could have caused the aerial photographic cropmark investigated by Trenches 4 and 5, confirming the geomagnetic conclusion that this cropmark was not of archaeological origin.
- 4.11 A small assemblage of pot sherds were recovered from the archaeological features, indicating that they are likely to date from the Roman period. Palaeoenvironmental analysis of samples from the features indicates that they contain significant information on the settlement economy and the environment. The samples comprise evidence of domestic activity at the site and indicate the cultivation of spelt wheat and barley. Spelt wheat first appears in England during the middle to late Bronze Age, but is usually associated with Iron Age or Roman deposits in England, which is consistent with the provisional dating for the site. Evidence for the use of naked barley is of interest as this cereal crop is usually associated with Neolithic or Bronze Age deposits, although later use of this crop has been noted. Small concentrations of coal, cinder and charred heather twigs are noted in the deposits recovered from Trenches 20 and 21, which may reflect later activity.

5. The excavation

Introduction

- 5.1 Five areas were machine-excavated by a 360° tracked excavator equipped with a toothless ditching bucket and working under archaeological supervision. They were then cleaned, recorded and sample-excavated by hand. There were two large areas (Areas 3 and 4) close to the top of the hill and three smaller areas (1, 2 and 5) on the periphery of this main concentration. In total the excavated area covered 0.97ha. The excavated areas are shown in Figure 2.

Area 1 (Figure 3)

- 5.2 Area 1 was rectangular with an area of 674 sq m and was located over a right-angled ditch intersection that had been detected geophysically. Natural subsoil, a red-brown silty sand containing lenses of clay [2], was identified at a depth of 0.3m. Two ditches were identified, corresponding with the two arms of the geomagnetic anomaly, although the northern one extended beyond the corner of the anomaly, continuing at least as far as the limits of excavation, and forming a T-junction with the other ditch.
- 5.3 The northern ditch was orientated West-North-West / East-South-East and had two cuts, an earlier and deeper one [F298: 1.5m wide by 0.45m deep] to the north, filled by a dark grey-brown sandy clay [297], recut by a shallower ditch southwards [F230: 2.0m wide by 0.25m deep], filled by a dark grey-brown sandy silt [299] (Photograph 1; Section 1). These two cuts were still present 10m to the east [here F306 and F308 respectively], at the junction with the southern ditch.
- 5.4 The southern ditch [F294: 1.3m wide by 0.35m deep; Section 2] was orientated North-North-East / South-South-West and was filled by a dark brown sandy silt [293] containing Roman pottery. At its northern end [here F304: 0.13m deep] it became very shallow, ending as a butt end as it approached the other ditch, so that very little relationship was present between them (Section 3). It was possible that the northern ditch had been excavated first.

- 5.5 The southern ditch continued southwards as a geomagnetic anomaly to reappear in Area 3, where it was excavated as [F182] (below, Area 3). The northern ditch continued eastwards as a geomagnetic anomaly (although changing slightly in alignment) to reappear in Area 2, where it was excavated as [F263] (below, Area 2).

Area 2 (Figure 4)

- 5.6 Area 2 was rectangular with an area of 805 sq m and was located over a ditch and possible circular enclosure. Natural subsoil, a red-brown silty sand containing lenses of clay [2], was identified at a depth of 0.3m. The ditch corresponding with the geomagnetic anomaly was identified, although it extended beyond the length of the anomaly, continuing at least as far as the eastern limit of excavation. A second ditch, not identified geomagnetically, branched off northwards from a T-junction with the first ditch and continued at least as far as the northern limit of excavation.
- 5.7 This northern ditch [F272: 1.8m wide by 0.65m deep] was the earlier of the two. It contained two fills, a lower one of red-grey sandy clay [288: 0.2m deep], then an upper fill of red-brown sandy clay [271: 0.45m deep]. It had been recut twice; firstly to the east by a shallower gully [F274: 0.3m wide by 0.14m deep] filled by a red-brown sandy clay [273], with this in turn being recut eastwards by a second gully [F283: 0.6m wide by 0.1m deep] filled by a similar red-brown sandy clay [282] (Section 6). At its junction with the east-west ditch, the main cut (here excavated as [F281]) contained three fills, a lower one of red-brown sandy clay [280], a middle fill of red-brown clay [279] and an upper one of grey-brown silty clay [278] (Section 5). The recuts were not seen in this section.
- 5.8 The main ditch was cut by the east-west ditch [F277], here containing two fills, a lower one of red-brown sandy clay [276] and an upper one of grey-brown silty clay [275], containing a hammerhead mortarium of 3rd to 4th century date. At the western end of Area 2, this ditch was fully sectioned, and consisted of a single cut [F264: 2.5m wide by 0.4m deep; Section 4] containing a single fill of red-brown sandy silt [263]. A grooved rim mortarium of probable 3rd century date was recovered. The ditch had previously been sampled in Trial Trench 6 as part of the evaluation (Archaeological Services 2017; context [F5]).
- 5.9 A pit [F285: 0.6m wide by 0.14m deep] was present at the northern end of the trench. It was filled by a grey-brown silty clay containing charcoal flecks [284]. An environmental sample from the pit fill produced non-oak charcoal, with alder charcoal being common. This would allow the obtaining of a radiocarbon date for the pit. The top of the natural subsoil in this part of the trench was slightly undulating, with the dips filled by slightly deeper than normal deposits of silt. It is probable that these had conspired to form the faint 'circular' geomagnetic anomaly that the trial trench had been located to sample. No evidence for any circular archaeological feature was identified in the trench.

Area 3 (Figure 5)

- 5.10 Area 3 was rectangular with an area of 3553 sq m and was located over several ditch intersections. Natural subsoil [2] was identified at a depth of 0.3m. It varied noticeably across the trench. Towards the north-east corner it consisted of a red coarse sand, westwards it changed abruptly to a red-brown clayey silt. This change was particularly clearly visible following heavy rain (Photograph 2). It was noticeable that the features detected geomagnetically were all located on the sand; although a

large concentration of features were present in the remainder of the trench, they had not produced a strong enough geomagnetic signal to be detected by this means. It was also noted during excavation that fills of features on the silt were very similar to the surrounding subsoil.

- 5.11 Area 3 contained a rectangular network of interconnected ditches of Roman date, as well as a scatter of pits and other features. Most of these did not display any stratigraphic relationships to each other or with any other features. On the basis of recovered finds, some can be provisionally dated to the prehistoric period, some can be provisionally dated to the Roman period and some are currently undated.

Phase 1: Prehistoric

- 5.12 Two pits in the north-centre of the area are interpreted as being of prehistoric date. The first of these [F208: 0.9m by 0.7m by 0.37m deep], located close to the centre of the northern baulk, was lined by a black silt containing frequent charcoal pieces [207: 0.07m thick], and then filled by an orange-brown silty sand [206]. Several sherds of Bronze Age pottery were recovered from both fills, and environmental samples produced large quantities of charcoal. Around 12m to the south-west was the second pit [F186: 0.85m by 0.8m by 0.25m deep; Section 11], filled by a dark grey-brown sandy silt [185] containing charcoal and burnt bone, although this was too fragmentary to be diagnostic. No pottery or other dateable finds were recovered. The burnt bone was scattered throughout the pit fill rather than forming a discrete concentration, suggesting that it is midden waste
- 5.13 In the north-west corner of Area 3 were a group of more irregular pits, all containing similar mottled light and dark grey sandy silt fills. One contained a prehistoric flint flake; the others are all undated but have been grouped together by analogy. This first pit [F248: 1.3m by 1.1m by 0.3m deep] was filled by a mottled light and dark grey-brown sandy silt containing frequent stones [247]. A flint flake was recovered from the fill. Around 5m to the west, pit [F226: 1.6m by 1.5m and 0.11m deep] was more regular in outline and was filled by a similar mottled light and dark grey-brown sandy silt containing frequent charcoal flecks [225]. Species present in the charcoal are suggestive of a Bronze Age date; a radiocarbon date may be able to confirm this.
- 5.14 Around 5m to the south-west was a line of more irregular pits on a broadly north-west to south-east alignment. At the western end, pit [F302: 1.2m by 0.95m by 0.1m deep] was very irregular and was filled by a mottled light and dark grey-brown sandy silt [301]. Around 3m to the east, pit [F268: 0.65m by 0.5m by 0.11m deep] was also very irregular and was filled by a mottled light and dark grey-brown sandy silt [267]. A fragmented hazel nutshell was recovered from an environmental sample. This is suggestive of a prehistoric date for the pit. Around 5m further east were two pits close together. Pit [F292: 1.0m by 1.0m by 0.3m deep] was filled by a light grey-brown sandy silt [291]. Almost immediately to the east, pit [F287: 1.1m by 0.8m by 0.2m deep] was filled by a mottled light and dark grey-brown sandy silt [286].
- 5.15 Around 10m to the south-west was a second line of irregular pits. At its western end, pit [F250: 0.95m by 0.6m by 0.1m deep] was filled by a mottled light and dark grey-brown sandy silt [249]. Around 5m further east, pit [F260: 2.0m by 0.9m by 0.35m deep] was filled by a mottled light and dark grey-brown sandy silt containing frequent stones and some charcoal flecks [259]. Around 2m further east, pit [F252: 0.45m by 0.4m by 0.15m deep] was more regular in outline and was filled by a

mottled light and dark grey-brown sandy silt [251]. Another 2m further east, pit [F262: 0.7m by 0.5m by 0.1m deep] was filled by a mottled light and dark grey-brown sandy silt [261]. Another 2m further east, pit [F258: 0.9m by 0.65m by 0.2m deep] was filled by a mottled light and dark grey-brown sandy silt [257].

- 5.16 Between these two rows of pits were a group of three interconnected small pits. The largest of these [F240: 0.5m by 0.45m by 0.2m deep] was filled by a mottled light and dark grey-brown sandy silt [239]. Immediately to the west was a very small pit [F242: 0.3m diameter by 0.15m deep] filled by a mottled light and dark grey-brown sandy silt [241] and to the east was another similarly sized small pit [F238: 0.25m by 0.15m by 0.05m deep] filled by a mottled light and dark grey-brown sandy silt [237]. These may have originally been one single pit, disturbed by animal burrowing.
- 5.17 A north-west to south-east aligned linear gully [F222: 7.0m by 1.0m by 0.2m deep], containing a fill of very light grey sandy silt containing very frequent rounded cobbles and frequent charcoal flecks [221], was present to the north of the northernmost line of pits. This displayed no stratigraphic relationships to any other features (except for being earlier than medieval / post-medieval gully [F224] – see below) and no finds were recovered from it, so it is undated. However, it contained a fill very similar to those of the pits in this part of the site and is broadly on the same alignment as the two rows of pits. It has therefore been grouped together with them.

Phase 2: Roman

- 5.18 A rectangular grid of interconnected ditches was present across the centre and east of Area 3, dividing this part of the site into rectangular enclosures. These were all aligned either North-North-East / South-South-West or else West-North-West / East-South-East, and when dateable finds were recovered, all were of Roman date. Projected southwards, the ditches directly line up with features recorded in previous works to the south of the site (Jackson 2016) and can be correlated with them.
- 5.19 Ditch [F203=F174: 2.3m wide by 0.4m deep] was aligned West-North-West / East-South-East (*i.e.* almost directly along the southern baulk of Area 3) and was only partially exposed. It was filled by a light grey-brown clayey silt [202=173: 0.35m deep] overlain by a thin deposit of red-brown clay silt [211: 0.05m deep]. Calcite-gritted pottery of the late 3rd century onwards was recovered from the lower fill. At its north-east end, it turned through 90° towards the south and disappeared again under the baulk. A second ditch [F220=F176=F290: 1.7m wide by 0.4m deep; section 7] extended North-North-East from this corner to beyond the northern baulk of Area 3. This ditch could be seen to post-date the first one as it had a slightly darker fill, and to come to a terminal within the fill of the corner of that ditch. In most of its extent, it had a single fill, a light grey-brown clayey silt [219=175=289], although around 3m north of the terminal, and for a distance of around 8m, this was overlain by a patchy deposit of very dark grey-brown clayey silt [218] that may have been a former turf line. Charred heather twigs were common in this deposit. Around 10m further north, the ditch fill (here just the single fill [219] again) contained frequent large (*c.*0.1-0.2m in diameter) rounded cobbles. This part of the ditch was at the closest approach to stone spread [F138] and the stones were probably derived from that feature (see below).

- 5.20 Around another 10m further north again, a third ditch [F256: 1.7m wide by 0.45m deep; Section 8] extended East-South-East from the former one. This ditch started at a terminal within the former one, widening and deepening slightly at this point, presumably due to having been cut into soft ditch fill here. It was filled by a brown clayey silt [255=265]. Eastwards, it came to another terminal [F266] 8m further on, forming one side of an entrance to the enclosure. Around 4m further on, the ditch resumed at a second terminal [F236: 2.2m wide by 0.7m deep] and then continued for a further 20m before turning through 90° to the south and continuing to the southern baulk.
- 5.21 The fills of both of the termini to the entrance contained large quantities of rounded cobbles, mainly in the 0.1m to 0.3m range, but also including boulders up to 0.5m in diameter. These termini were at the closest approach to stone spread [F138] and the stones were probably derived from that feature (see below). The eastern terminus [F236] contained a deposit of black to brown clayey silt containing charcoal [235: 0.15m deep] below the main, stony clay silt fill [234: 0.45m deep], and an upper stone-free clay silt [233: 0.1m deep]; the main, stony fill contained much late Roman pottery, while the environmental sample of the lower silt contained a slightly unusual plant assemblage with frequent heather twigs, charred rhizomes and charred barley grains. This could potentially imply an early medieval date for the ditch. The western terminus just contained a single fill [265: 0.45m deep].
- 5.22 Two further sections were excavated through this ditch. At its corner, the ditch [F232: 2.3m wide by 0.7m deep; Section 9] contained a main fill of red-brown clayey silt [231: 0.55m deep] overlain by a grey-brown clayey silt [230: 0.1m deep]. Few stones were recovered from the either fill. Against the southern baulk, the ditch [F229: 2.95m wide by 0.75m deep] contained a main fill of red-brown clayey silt [228: 0.6m deep] overlain by a grey-brown clayey silt [227: 0.15m deep] (Photograph 3). Again, few stones were recovered from the either fill.
- 5.23 Another North-North-East / South-South-West aligned ditch [F182: 1.7m wide by 0.22m deep], filled by a grey-brown silty sand [181], was present at the northern end of Area 3. This ditch was slightly offset by about 5m westwards from the North-North-East / South-South-West aligned section of the previous ditch described above. It continued beyond the northern baulk as a geomagnetic anomaly, continuing as far as Area 1, where it reappeared as ditch [F294] (see above). Southwards, after extending just 5m into Area 3, it was truncated by another West-North-West / East-South-East aligned ditch [F184], and was not seen again beyond this point.
- 5.24 This latter ditch [F184: 1.3m wide by 0.4m deep] extended for around 30m across the northern end of Area 3 before turning through 90° to the south and continuing for 45m across the eastern end of Area 3. It was filled by a red-brown silty sand [183]. Towards the west, the ditch split into two cuts, the southern one [F195: 0.7m wide by 0.2m deep] was the earlier but tapered out within 2m of the fork. The northern cut continued as far as North-North-East / South-South-West ditch [F220; here numbered F201], where it was truncated by that cut. It could not be traced beyond the junction.
- 5.25 Eastwards, the ditch was excavated as [F296: 1.4m wide by 0.4m deep] at its corner. Around 16m to the south, the ditch narrowed abruptly. A section excavated here

[F210] showed this was a real change in profile of the ditch and was not simply due to differences in post-Roman truncation. Within the space of 1m, the ditch narrowed from 1.1m wide and 0.23m deep to 0.75m wide and 0.19m deep. Southwards from here, the ditch continued for another 25m before gently tapering out [F197].

- 5.26 Around 3m south of the corner and enclosed within it was another short section of West-North-West / East-South-East aligned ditch [F205: 1.9m long by 0.7m wide by 0.36m deep] filled by a dark reddish brown silty clay [204]. This ditch terminated towards the west and was truncated by the main ditch [F210] towards the East.
- 5.27 Another North-North-East / South-South-West aligned gully [F270: 1.0m wide by 0.16m deep] was present parallel to ditch [F220] and 5m to its west. This gully extended for 38m from the southern baulk before gently tapering out [F188]. The gully possibly curved slightly towards the east immediately before ending, although little survived at this point to confirm this. It was filled by a light grey-brown clay silt [269=187]. Towards the southern end of Area 3, the gully (here excavated as [F199]) appeared to truncate a shallow rectangular pit [F193: 1.8m by 1.4m by 0.3m deep] filled by a light grey-brown silty clay [192], although the relationship was heavily disturbed by a modern land drain. Slightly to the north, the gully (here excavated as [F215]) was truncated by medieval / post-medieval gully [F213=F217], described below.
- 5.28 Towards the north-east end of Area 3 was a substantial, steep-sided and deep pit [F170: 3.3m long by 1.9m wide by 0.73m deep; Section 12]. This had four fills; the lowest was a black to dark brown silty sand containing much charcoal [191: 0.13m deep], overlain by a slightly irregular deposit of red sand [190: 0.05m deep], then a deposit of dark red-brown sandy silt, again containing much charcoal [189: 0.13m deep] (Photograph 4). Given the quantity of charcoal in the upper and lower of these two deposits, it is possible that the intervening red sand had been burnt before being deposited. Above all these deposits, the remainder of the pit was filled by a more typical deposit of brown silty sand [169: 0.43m thick]. There was a wider but very shallow depression [F168: 3.5m by 3.2m by 0.1m deep] above the pit, particularly on its northern side, and filled by a very similar brown silty sand [167]. Roman pottery was recovered from this fill. Although the depression was recorded separately, it is probable that it had been produced by erosion of the ground surface during use of the pit, and both had filled up at the same time.
- 5.29 Environmental samples from both the lowest silt [191] and the upper silts [167 and 169] all produced large quantities of charred cereal grain, dominated by barley with some possible oats. They contained no evidence for hammerscale or other material that could suggest an industrial use for the pit, and the fills are interpreted as a midden deposit filling an earlier pit. The original function of the pit is unclear.
- 5.30 Almost centrally located in the trench, a pit [F140: 1.05m by 0.85m by 0.2m deep] was filled by a grey-brown silty clay containing charcoal and burnt clay [139]. Sherds of calcite-gritted pottery dating from the late 3rd Century onwards and including a complete pot base, were recovered from the fill. An environmental sample from the fill produced a large flot with abundant charcoal, and charred grains of (abundant) barley, spelt wheat, oats, weed seeds and chaff and heather twigs. Full analysis of this sample is recommended.

- 5.31 Another pit [F246: 1.17m by 1.12m by 0.32m deep] was present towards the southern edge of Area 3. This contained a thin deposit of light grey sandy clay [245: 0.05m deep] overlain by a light pinkish-grey clayey silt containing frequent large rounded stones up to 0.3m in diameter [244: 0.2m deep] and then by a light grey sandy clay containing charcoal flecks [243: 0.14m deep]. Roman pottery was recovered from this upper horizon. An environmental sample produced a large quantity of charcoal but no cereal grains.
- 5.32 Two stone spreads were present in the western side of the main enclosure. The southern one [F136: 4.5m by 3.5m and 0.15m deep; Section 10] was an oval spread of rounded cobbles about 0.1m to 0.2m in diameter set in grey-brown sandy clay. The cobbles were significantly larger than the stones in the natural subsoil, and were packed quite densely to form a single layer upon the natural ground surface (Photograph 5). The northern array [F138] was very disturbed but consisted of a scatter of similar sized cobbles covering a similar area (Photograph 6). As described above, concentrations of similarly sized cobbles were present in the fills of the Roman ditches immediately to the north and east, suggesting that this had once been a more substantial feature and it had been disturbed at a time when the Roman ditches were still open.
- 5.33 A sherd of calcite-gritted ware with a Huntcliff-type rim, dating from after 360 AD, was recovered from under the more complete of the two spreads, while pit [F140], containing Roman pottery of the 3rd Century onwards (above, 5.30), was adjacent to the more disturbed one and had possibly originally been covered by it. The stone spreads therefore are late Roman or later in date.

Phase 3: Medieval / post-medieval

- 5.34 Two shallow gullies, on a slightly different alignment to the Roman ditches, crossed Area 3. One of these [F217=F213: 1.8m wide by 0.1m deep] clearly cut ditch [F220] as it crossed the ditch at a point where it was filled by the black possible turf layer [219] (above) and this was noticeably truncated by the gully. It also cut gully [F270] to the west (here recorded as [F215], filled by [214]). The second gully [F224: 0.3m wide by 0.05m deep], was on a similar alignment and cut a possible prehistoric gully [F222] in the north-west corner of Area 3. The gullies are believed to be of medieval or post-medieval date.

Area 4 (Figures 6 and 7)

- 5.35 Area 4 was L-shaped with an area of 4567 sq m and was located over numerous ditches and also a narrow curving gully that had been identified in one of the trial trenches. Natural subsoil [2] was identified at a depth of 0.3m. It consisted of a red sand. In places (such as towards the north-east end of the area) this was an almost pure sand, but in other places (such as the centre of the western baulk) it was mixed with a little silt. In marked contrast to Area 3, archaeological features had been detected geomagnetically with a high degree of reliability across this area. Only the smallest of features, with the smallest of magnetic signatures, had not been detected.
- 5.36 As in Area 3, archaeological features consisted of a series of interconnected ditches, most of which were demonstrably of Roman date, and a large number of isolated pits. Some of these pits contained prehistoric artefacts, some contained Roman ones

but most were undated and have been grouped together by analogy with the dated features.

Phase 1a: Prehistoric ditch

- 5.37 A substantial ditch, around 4m wide, was present running parallel to the northern baulk of Area 4. It extended across the full width of the excavated area and then continued as a geomagnetic anomaly as far as Area 5, where it was identified archaeologically again (see below). It therefore extended for a minimum of 135m across the site. Westwards it continued beyond the boundaries of the site, but was in the correct location and on the correct orientation to continue as one of the ditches identified in 2011 (ditch F12 in Jackson 2016), although there was a 35m uninvestigated gap between these two areas. The ditch had very sandy fills, noticeably different to the more silty fills of the other ditches in this area, and could be seen to predate them (Photograph 7). Its fills were cut by two of the pits that spread across Area 4. Both are undated, but an environmental sample from one of them (pit [F135] – see below) contained a plant assemblage consistent with a prehistoric date. The ditch has therefore provisionally been given a prehistoric date as well. This contrasts with the Roman date assigned to the possible continuation of this feature to the west recorded in 2011, although it was recognised that the ditch there consisted of two phases and only the latter phase had been dated (Jackson 2016, 154).
- 5.38 Two full sections were excavated across the ditch in Area 4, as well as a partial section to demonstrate its relationship to Roman ditch [F118]. In the eastern one (Section 17) on the steepest part of the down-slope, four deep but narrow gullies were present at the base of the cut; the earliest one [F97: 0.5m wide by 0.4m deep] was towards the south and was filled by an almost pure red-brown sand [96]. To the north this was truncated by the second gully [F99: 0.6m wide by 0.3m deep], filled by a slightly browner sand [98]. To the north this was truncated by the third gully [F101: 0.3m wide by 0.25m deep], filled by a similar sand [100]. To the north this was truncated by the fourth gully [F103: 0.35m wide by 0.2m deep], filled by a similar sand [102]. All four cuts were truncated by a much wider cut [F105: 3.3m wide by 0.85m deep] containing a significantly siltier fill [104], although this was still significantly less silty than the fills of the Roman ditches described below. A sherd of calcite gritted ware of late Roman date was recovered from the surface of this ditch during machining. Although it was collected under this context number, its location on the surface when found makes this sherd insecure as dating material.
- 5.39 Given the extremely sandy nature of the natural subsoil in this part of the site, and its subsequent friability, it is improbable that deep, narrow gullies would have maintained their form for any length of time. The gullies at the base of the ditch are probably erosional scars in the base of a single larger ditch, caused by heavy rainfall shortly following excavation, and before vegetation regrowth had stabilised the ditch sides. The main ditch had been recut once [F107: 1.5m wide by 0.6m deep], towards the north, and this was filled by a light brown silty sand [106].
- 5.40 In the western section close to the top of the hill, three gullies were present in the base of the cut. Towards the south, gully [F318: 1.15m wide by 0.35m deep] was filled by a red-brown silty sand [317]. To the north, but not quite showing any relationship to it, the second gully [F320: 0.45m wide by 0.3m deep] was filled by a similar red-brown silty sand [319]. Northwards again, this was cut by the third gully

[F322: 0.55m wide by 0.3m deep], filled by a similar red-brown silty sand [321]. All three gullies were truncated by a larger ditch [F316: 2.4m wide by 0.35m deep] filled by a slightly darker silty sand [315]. A shallower recut [F314: 3.8m wide by 0.5m deep] filled by a similar silty sand [313] was present to the north, although in this case it was thought to truncate the whole of the fill of ditch [F316]. Although the natural subsoil in this part of the site was slightly siltier, making it slightly more consolidated, the similarity of the group of narrow, deep gullies at the base of these two sections suggests a similar origin for them. None of the environmental samples, from any of the fills of the various recuts, produced much by way of environmental evidence (except for small quantities of charcoal that could be intrusive). This is a reflection of the very sandy nature of the fills of this ditch.

Phase 1b: Prehistoric pits

- 5.41 Pits were scattered across the north-east arm of Area 4. Some of these could be dated to the prehistoric era on the basis of recovered finds. Others were similar in character and have been assigned to this phase by analogy. In the north-east corner of Area 4, pit [F109: 0.7m diameter by 0.25m deep] contained a fill of dark brown silty sand [108] containing many large angular stones between 0.05m and 0.15m in diameter. A flint scraper of prehistoric date, three other flint flakes (including one with possible Mesolithic affinities) and Bronze Age pottery were all recovered from the fill. An environmental sample produced much charcoal and some nutshell fragments.
- 5.42 Around 5m to the west, pit [F129: 0.46m diameter by 0.36m deep; section 19] was filled by a red-brown sand containing some larger stones [128] and had been recut [F325: 0.22m diameter by 0.25m deep], this time filled by a dark brown to black silty sand containing charcoal, burnt bone, prehistoric pottery and several flint flakes [127]. Some of the burnt bone could be identified as animal bone, but most was too fragmentary to positively identify. The flints showed evidence for having been affected by fire. An environmental sample from the fill of the original cut ([128]) produced much charcoal, including oak, hawthorn and hazel, which is an assemblage typical of Neolithic contexts. The environmental sample from the fill of the recut ([127]) contained some hawthorn charcoal, possibly redeposited from the original cut.
- 5.43 A scattered line of undated pits were present to the south of these dated pits. Most were only clearly visible following rain, when differential drying of the very sandy natural subsoil defined the siltier and slower drying pit fills. Around 5m south, pit [F158: 0.27m diameter by 0.07m deep] was filled by a grey-brown silty sand [157]. Around 6m further south, pit [F152: 0.37m diameter by 0.21m deep] was filled by a red-brown silty sand [151]. Around 4m further south, pit [F166: 0.371.1m by 0.65m and 0.3m deep] was ovoid and filled by a red-brown silty sand [165]. A Bronze Age pot sherd was recovered from the fill and an environmental sample produced a moderate number of charred cereal barley and possibly rye grains. Around 4m further south, pit [F164: 0.25m diameter by 0.24m deep] was filled by a red-brown silty sand [163]. Around 3m further south, pit [F160: 0.3m diameter by 0.18m deep] was filled by a red-brown silty sand [159]. Around 8m to the west, pit [F154: 0.35m diameter by 0.15m deep] was filled by a red-brown silty sand [153].
- 5.44 Around 12m further west, pit [F81: 0.58m diameter by 0.25m deep] was filled by a black silty sand containing a large quantity of fire-cracked stones between 0.05m

and 0.1m in diameter [80] (Photograph 8). An environmental sample produced a little charcoal but no plant macrofossils. Around 9m to the north-west, pit [F77: 0.6m in diameter by 0.22m deep] was filled by a dark brown silty sand containing angular stones [76]. Several flint flakes, one of greenstone tuff, prehistoric pottery and charcoal were recovered from the fill. An environmental sample produced much charcoal, dominated by oak but with other species also present. The charcoal species present would be consistent with a Neolithic date. Around 1m to the west, pit [F79: 0.4m in diameter by 0.18m deep] was filled by a dark brown silty sand containing angular stones [78]. Flint flakes and a possibly prehistoric pot sherd were recovered from the fill. The pot sherd recovered was slightly different to other prehistoric pottery found on the site, and it has been suggested that it could possibly be Iron Age or even Roman in date (see Paragraph 6.3 below).

- 5.45 Around 10m to the west, and beyond palisade enclosure trench [F41/F53] (see below) were two more pits. To the north, pit [F35: 0.4m in diameter by 0.3m deep] was filled by a dark red-brown silty sand containing frequent stones [34]. Small fragments of possibly prehistoric pot were recovered from the fill. An environmental sample produced much charcoal and some charred nutshell fragments, consistent with a pre-Iron Age date for the pit. Around 3m to the south, pit [F37: 0.35m in diameter by 0.25m deep] was filled by a light brown silty sand containing frequent stones [36] (Photograph 9).
- 5.46 Around 25m to the north was another cluster of pits. Pit [F89: 0.5m in diameter by 0.21m deep] was filled by a red-brown sandy silt containing charcoal flecks [88] (Photograph 10). An environmental sample produced many charred cereal grains including spelt wheat, barley and emmer wheat. This is an assemblage typical of an Iron Age or Roman date. Around 3m to the west, pit [F83: 0.35m in diameter by 0.26m deep] was filled by a similar red-brown sandy silt containing charcoal flecks [82]. No plant macrofossils were recovered but the charcoal assemblage was consistent with a prehistoric date for the pit. Around another 3m to the west, pit [F91: 0.25m in diameter by 0.13m deep] was filled by a similar red-brown sandy silt containing charcoal flecks [90]. Again the charcoal assemblage was consistent with a prehistoric date. Around another 1m to the west, pit [F93: 0.25m in diameter by 0.18m deep] was filled by a similar red-brown sandy silt containing charcoal flecks [92]. The charcoal assemblage was consistent with an Iron Age or Roman date. Around 1m to the north, pit [F87: 0.25m in diameter by 0.16m deep] was filled by a similar red-brown sandy silt containing a little charcoal [86]. This was also consistent with an Iron Age or Roman date. Around 1m to the north-east, pit [F85: 0.35m in diameter by 0.24m deep] was filled by a similar red-brown sandy silt containing a few charcoal flecks [84]. This pit slightly cut the southern edge of ditch [F107=F314] described above.
- 5.47 Around 6m to the north-west, and directly in the centre of the fill of ditch [F314], pit [F135: 0.5m in diameter by 0.07m deep] was filled by a dark red-brown sand containing densely concentrated patches of charcoal [134]. These were particularly concentrated around the edges of the pit and suggest that it originally had a wicker lining. An environmental sample produced roundwood, branch wood and twig charcoal, reinforcing the suggestion that the pit had originally had a wicker lining. Plant macrofossils were common, including barley and other species, and weeds of redshank. The material would be suitable for radiocarbon dating and has the

potential to significantly constrain possible date ranges for the underlying ditch [F314].

- 5.48 A small number of pits were present in the south-west arm of Area 4. Two of these contained prehistoric pottery, the others are undated. Towards the south-east end of this area, pit [F20: 0.70m by 0.56m by 0.25m deep, section 15] was filled by a red-brown silty sand [19] containing a large quantity of Bronze Age pottery. The pot consisted of substantial remains of two vessels, although they do not appear to have been broken *in situ* and were fragmentary when placed in the pit (Photograph 11). Some charcoal fragments and small quantities of burnt bone were recovered from the fill; this was undiagnostic but more likely to be animal bone than cremated human bone. An environmental sample produced much charcoal and charred nutshells and would allow a radiocarbon date to be obtained for the pottery.
- 5.49 Around 1m to the north, pit [F18: 0.6m in diameter by 0.1m deep] was filled by a red-brown silty sand [17]. Small quantities of prehistoric pottery and a flint flake were recovered from the fill. One pot sherd had incised decoration and was possibly earlier than the remainder, although it was too small to confirm this. An environmental sample produced a small quantity of charcoal. Immediately to the north was a small vertical-sided posthole [F16: 0.28m diameter by 0.2m deep] filled by a brown silt [15]. No finds were recovered and it is unclear whether this posthole is related to either of the two pits in this area or not.
- 5.50 Two pits were present around 10m to 15m to the west. Both are undated. Pit [F150: 0.5m by 0.35m by 0.3m deep] was filled by a dark brown silty sand containing frequent stones [149]. No finds were recovered, although a small quantity of charcoal was collected from the environmental sample. Around 7m to the south-west, pit [F156: 0.5m by 0.4m by 0.3m deep] was filled by a dark grey-brown silty sand, again containing frequent stones [155]. The environmental sample produced more coal and cinder than charcoal; the charcoal was suggestive of an Iron Age or Roman date.
- 5.51 Around 30m to the north-east, and close to the eastern bank of Area 4, pit [F22: 0.5m by 0.3m by 0.2m deep] was filled by a black sand [21]. A large quantity of oak charcoal was recovered from the environmental sample and would have the potential to date the pit.

Phase 2: Bronze Age/Iron Age palisaded enclosure

- 5.52 A palisade slot [F41/F53] was present towards the western end of the northern arm of Area 4. A poorly-preserved second such slot [F126] was also present towards the east. By analogy with similar features seen on other sites in the region, they are provisionally dated to the Late Bronze Age / Early Iron Age.
- 5.53 The better preserved of these two slots survived for about 18m on a broadly south-west to north-east alignment, although curving slightly towards the north throughout this length (Photograph 12). It crossed the line of Trial Trench 19, but had been misinterpreted as a land drain during the evaluation, as it was of similar width and on the same orientation as one phase of the land drains at this point. It consisted of two discrete sections, with a 2m-wide gap in the centre.

- 5.54 The southern section [F53=F57: 0.15m wide by 0.1m deep] started at a distinct butt end towards the south, and continued as a vertical-sided and flat-bottomed trench for 8m before ending in a distinct and deeper posthole [F51; 0.3m diameter by 0.28m deep]. It was filled by a light brown silty sand [52=56], from which a sherd of prehistoric pottery was recovered, with the terminating posthole being filled by a similar light brown silty sand [50]. Environmental samples produced few macrofossils, although the limited assemblage present would be consistent with an Iron Age or Roman date. A second posthole [F323: 0.23m diameter by 0.24m deep] was present in the centre of this section of the slot, filled by a similar silty sand [324]. This contained a more extensive charcoal assemblage that would be consistent with a prehistoric date. A third posthole [F61: 0.16m diameter by 0.13m deep] was present immediately west of the palisade slot towards its southern end, filled by a similar silty sand [60]. A possible stakehole [F55: 0.05m diameter by 0.07m deep] filled by a silty sand [54] was present in the base of the slot towards its northern end. The relationships between these various postholes and the palisade slot are uncertain; their fills were indistinguishable from that of the palisade slot and they were only noticed as deeper areas of fill following removal of the slot fill (except for posthole [F61] which showed no relationship). On constructional grounds, it is probable that they were contemporary.
- 5.55 The northern section [F41=F43: 0.25m wide by 0.23m deep; Section 18] was separated from the southern one by a 2m wide gap. Again it was filled by a light brown silty sand [40=42]. The very small flake of modern pot glaze recovered from this fill was almost certainly intrusive. At its southern end, the slot began at a very slight widening [F45: 0.3m wide by 0.2m deep], filled by a similar light brown silty sand [44], that may have represented a larger than typical post in the palisade, although the widening was too ephemeral to be certain about this. It then continued for 8m in an almost straight line before curving slightly towards the east and coming to a butt end. It was cut by a modern land drain about 1m from its northern end. The final section to the north of this drain ([F63], filled by a silty sand [62]) was slightly offset from the remainder of the slot and there were some indications that these two parts of the slot were separate features and were coming to termini in the vicinity of the land drain, although any relationship between them had been lost due to construction of the drain. A small sherd of prehistoric pottery was recovered from this final section of the slot. Again environmental samples from this northern section of the palisade produced few macrofossils, although the limited assemblage present would be consistent with an Iron Age or Roman date.
- 5.56 A post-medieval animal burial ([F71] – see below) and a number of shallow, irregular pits and gullies ([F65; F67; F69; F73 and F75]) were investigated to the immediate north of the palisade slot. In one case (gully [F69]) post-medieval pottery was recovered from the fill; it was concluded that they were all the product of animal burrowing around the decaying animal burial. In a similar vein, a shallow pit [F59] truncating the southern end of the southern section of the slot may also have been an animal burrow.
- 5.57 Around 20m to the east, a narrow, gently curving gully, which had first been identified in Trial Trench 16, was reinvestigated. In spite of careful machining which did not fully remove the trench backfill, leaving a little to be removed by hand, the gully could not be traced any further to either the north or to the south than had been recorded during the evaluation, and could not be identified anywhere outside

the confines of the former trial trench. The gully [F126: 5m long by 0.15m wide and 0.1m deep] was filled by a grey-brown silty sand [125] (Photograph 13). Traces of hazel branchwood charcoal were collected from the environmental sample and would allow a radiocarbon date to be obtained. A small possible stakehole [F124: 0.1m diameter by 0.03m deep] filled by a similar grey-brown silty sand [123] was recorded immediately outside its northern end, but no other features were identified associated with it.

- 5.58 The surviving dimensions of this eastern gully suggest that it was a similar feature to the palisade slot to the west. The two slots curve away from each other so are unlikely to be the two sides of a single palisade; they are interpreted as partial remains of two separate palisade slots. Two palisade slots were identified on land to the west of the site in 1997-8 (Jackson 2016).

Phase 3: Roman

- 5.59 A rectangular arrangement of ditches on a North-North-East / South-South-West alignment or at right angles to this was present along the full length of the western edge of Area 4. Where they extended towards the west beyond the site boundary, they could normally be directly correlated with ditches recorded by previous works here (Jackson 2016). These ditches, as well as a small number of pits and other features in the same area, all produced material of a Roman date.
- 5.60 Ditch [F9=F11=F33=F49=F118] entered the site half way along its western baulk, ran for 15m on a West-North-West / East-South-East alignment, then turned through 90° towards the north and continued for a further 42m before coming to a terminus within the fill of earlier ditch [F105] (see above). The Roman ditches contained significantly siltier fills that were darker in colour than this earlier ditch, so that even before excavation began, the relationship between them could be clearly deduced (Photograph 7).
- 5.61 The western arm of this ditch [F9: 1.2m wide by 0.8m deep] was filled by a red-brown silty clay [8]. An iron object, as well as Roman pottery, was recovered from the fill. At the corner, the ditch [F49: 5.0m wide by 1.0m deep] widened significantly but still contained a single fill of red-brown silty clay [48]. A small quantity of burnt bone, as well as pottery and a flint flake were recovered from the fill. Around 5m to the north, where the ditch was sampled in the evaluation (Archaeological Services 2017c, F23), it had narrowed considerably to 2.8m wide by 0.6m deep. Another 10m to the north, the ditch [F33: 2.7m wide by 0.75m deep; Section 14] was of similar proportions and was largely filled by a red-brown sandy clay [32], containing a Huntcliff-type rim of calcite-gritted pottery, dating from 360 AD onwards. In its centre, this fill was overlain by a thin deposit of grey-brown sandy silt [27] containing four calcite-gritted pot fragments. An environmental sample from this latter deposit produced much charcoal and charred cereal macrofossils, including spelt wheat, barley and possibly some rye. This was possibly part of a vessel and its contents, discarded into the ditch fill. Another 15m to the north, the ditch [F11: 1.55m wide by 0.65m deep] was filled by a red-brown sandy silt [10]. Again calcite-gritted pottery and an iron object were recovered from the fill. The ditch terminus [F118: 1.4m wide by 0.3m deep; Section 16] was a rounded terminal filled by a brown silty sand [116] and cutting into the centre of the upper fill (here [117]) of earlier ditch [F105]. The fact that the later ditch terminated in the centre of the earlier one suggests that it had still been visible as an earthwork feature at the time the later one was cut. A

Roman amphora sherd was recorded as coming from the fill [117] of the earlier ditch, but may have derived from the later one; the excavator had problems differentiating the two ditch fills during excavation.

- 5.62 A smaller ditch [F122] ran parallel to this ditch, around 5m to the north-west. Like the former ditch, it entered the site from the western baulk and ran for around 10m before turning through 90° towards the north and continuing for a further 20m before coming to a terminus. Its western arm [F122: 1.5m wide by 0.6m deep] was filled by a red-brown silty sand [121]. Immediately beyond its turn, where it was sampled during the evaluation (Archaeological Services 2017c, F17), it had similar dimensions. Around 18m further north, the ditch [F31: 0.9m wide by 0.3m deep] terminated in a rounded butt end, filled by a brown silty sand [30]. Roman pottery was recovered from this fill.
- 5.63 Entering the site around 8m to the south of the southern end of ditch [F9] was another ditch [F7: 1.1m wide by 0.27m deep], filled by a dark brown silty sand [6] (Photograph 14). This ran for 15m in a West-North-West / East-South-East direction before turning towards the north. In Trial Trench 21 it was still a single cut of similar proportions (Archaeological Services 2017c, [F19]), but shortly beyond this point, the ditch (here [F180: 1.05m wide by 0.25m deep] filled by sand [179]) was recut [F178: 0.55m wide by 0.25m deep] to the south, with this recut being filled by a dark red-brown sand [177]. As the ditch began to turn, the recut deepened rapidly (here [F144: 0.45m deep], filled by sand [143]) while the original cut remained at a consistent depth (here [F146: 0.3m deep], filled by sand [145]). A charred seaweed fragment, as well as some alder branchwood charcoal, was recovered from the environmental sample. This seaweed fragment is more consistent with an early medieval date than a Roman one, although this would contradict the stratigraphic evidence for this feature being the earliest cut amongst a group of intercut Roman ditches. A radiocarbon date from the seaweed fragment has the potential to resolve this. Immediately beyond this point, both ditches were truncated by later ditch [F111=F142] (see below).
- 5.64 Around 4m to the south was a gully [F95: 0.5m wide by 0.23m deep] filled by a dark red-brown sand [94]. It started at a rounded butt end in the centre of this arm of Area 4 and continued East-South-East for about 10m, crossing Trial Trench 21 (where it had been sampled as Archaeological Services 2017c, [F21: 0.7m wide by 0.25m deep]), before ending at a junction with ditch [F113=F142]. Shortly before the junction, the gully [F115: 0.7m wide by 0.3m deep] was filled by a dark red-brown sand [114].
- 5.65 Ditch [F111=F142] entered the site close to the south-west corner of Area 4 and ran parallel to the southern baulk (i.e. on a more closely east-west orientation to other ditches on the site) for around 25m before turning northwards and running on the same North-North-East / South-South-West orientation as shown by other ditches here. Towards its south-west end, the character of the natural subsoil (here a rather mixed deposit) made the ditch very poorly defined. It only became clearly visible from the area of Trial Trench 21 (where it had been sampled as Archaeological Services 2017c, [F26: 2.1m wide by 0.65m deep]).
- 5.66 Around 6m further east, where it turned the corner, the ditch [F111: 2.4m wide by 0.53m deep; Section 13] was filled by a dark red-brown sandy clay [110] (Photograph

- 15). Around 25m to the north, the ditch [F310: 2.0m wide by 0.4m deep] was filled by a red-brown sand [309]. A group of iron hobnails were collected from this ditch section, as well as a large sherd of decorated Samian pottery of 2nd century date. From this point onwards, the ditch curved slightly towards a more easterly direction.
- 5.67 Around 3m further to the north, the ditch came to a junction with gully [F95=F115] described above. Here the ditch [F113: 2.0m wide by 0.5m deep] was filled by a dark red-brown sand [112], almost identical to gully fill [114]. No clear relationship could be determined between the two fills and it was felt that they may have been contemporary and part of a single fill. A large quantity of iron objects were recovered, including a rusted together mass of iron. Dissection and cleaning in the laboratory showed these to be a collection of tool and implement fragments, probably of domestic, agricultural or craft origin (see below, Paragraphs 6.50-6.60). These objects came from both features, reinforcing the suggestion that they were contemporaneous.
- 5.68 Around 5m further to the north, ditch [F111=F142] came to a junction with ditch [F7=F144=F146]. Here it was determined that the former ditch [recorded here as F142: 2.5m wide by 0.62m deep, filled by dark red-brown sand 141] truncated the latter one. Around 8m further north, the ditch came to a terminus [F47: 2.0m wide by 0.45m deep], filled by a red-brown sandy clay [46], immediately adjacent to the outer edge of the corner of ditch [F9] described above. It only slightly cut the uppermost part of the fill to this northern ditch.
- 5.69 Several large, fairly rectangular pits were present inside the enclosure demarked by ditch [F9]. One of them (or two including the pot fragments from environmental samples) can be dated to the Roman period by included pottery. The other pits are undated but have been provisionally placed in this phase by analogy with this former pit. Pit [F29: 1.6m long by 0.7m wide and 0.3m deep] cut the western side of inner ditch terminus [F31] and contained Roman pottery. It was filled by a brown silty sand [28]. Around 3m to the south, and also just west of this ditch, was a second pit [F148: 1.5m long by 0.6m wide and 0.12m deep] filled by a dark brown silty sand [147]. A large quantity of charcoal and plant macrofossils was recovered from an environmental sample, including charred grains of oats, barley and wheat. This assemblage would be consistent with an early medieval date for the pit. Fragments of calcite-gritted ware of Roman date were also recovered.
- 5.70 Around 7m to the south-east, and between the inner and outer ditches, was a third pit [F39: 1.5m long by 0.7m wide and 0.16m deep] filled by a dark red-brown silty sand [38]. A palaeoenvironmental sample produced significant quantities of charcoal as well as charred grains of spelt wheat, barley and possibly rye. Around 6m north of the terminus to the inner ditch was a large, rectangular pit [F120: 1.7m long by 1.3m wide and 0.31m deep] filled by a red-brown silty sand [119]. No finds were recovered by excavation, but a palaeoenvironmental sample produced small quantities of charcoal and charred grains of spelt wheat and barley, consistent with a Roman date for the pit.
- 5.71 A pit [F14: 0.5m diameter by 0.2m deep] containing a Roman cremation urn [13] surrounded by a red-brown silty sand [12] was present between the parallel corners of the inner and outer ditches (Photograph 16). The urn was a non-Dorset copy of a black burnished ware vessel, which in standard Dorset-produced pottery would date

from the late 2nd or early 3rd century, although as it was a copied form, this vessel may have had a more extended life currency. The cremation contained 881g of cremated bone in reasonably good condition, and has the potential to provide information on the age, sex and pathology of the individual and details of the cremation process (below, paragraphs 6.24-6.28). Fragments of a decorated bone handle and a copper alloy metal sheet were also recovered from the fill of the cremation (below, paragraphs 6.37-6.39 and 6.59). All showed evidence for having passed through the cremation process.

Phase 4: Post-medieval

- 5.72 Four pits [F131: 0.7m by 0.6m and 0.2m deep]; [F71: 0.9m by 0.6m and 0.25m deep]; [F24: 0.6m by 0.6m and 0.2m deep] and [F26: 0.7m by 0.7m and 0.2m deep], all containing reasonably well-preserved sheep burials in red-brown silty sands [130; 70; 23 and 25 respectively], were spread across the centre of Area 4 on a broadly north-south line. One of them [F71] was partly cut through the topsoil and two of them [25 and 70] contained 19th/20th century glazed pottery. Since virtually no other unburnt bone was found anywhere on the site, either during the evaluation or during the excavation, and given the well-drained, sandy nature of the subsoil, which would produce acidic conditions not suited to the long-term survival of bone, it is probable that the undated ones are post-medieval as well.

Area 5 (Figure 8)

- 5.73 Area 5 was rectangular with an area of 166 sq m and was located over a possible terminus to the large east-west ditch [F105] that crossed the northern end of Area 4. Natural subsoil here was a mottled red-brown sandy silt. The ditch [F133: 4.1m wide by 0.83m deep; Section 20] was traced across the full length of the trench without any evidence of terminating. Just a single cut was present here, filled by a grey-brown sandy silt [132]. No evidence was found for any gullies in the base of the cut, as had been seen in Area 4. No artefacts were recovered and an environmental sample produced little by way of environmental evidence.

6. The artefacts

Pottery assessment

Summary

- 6.1 The assemblage consists of 574 sherds weighing 11988g, although almost half of this total (by sherd count) comes from just three vessels. It consists of both prehistoric and Roman pottery, made up of 333 prehistoric sherds (6423g), 195 Roman sherds (4797g) and a further 46 sherds (768g) from a Roman cremation vessel.
- 6.2 There are a large number of sherds from two incomplete Later Bronze Age vessels, and sherds from other prehistoric vessels that are likely to also be Bronze Age in date, but which could possibly be Iron Age. The Roman pottery ranges in date from the 2nd century to the late 4th century, although it is likely most of the occupation dates to the late 3rd century and later. Use of the site continued until at least the late 4th century. A spot dating table can be found below (Table 1.2).

Results

Bronze Age pottery

- 6.3 There were 333 sherds of prehistoric pottery (6423g) (plus a large quantity of crumbs) most of which come from the substantial remains of Later Bronze Age

pottery in pit [F20]. It is probable that two vessels, both wide-mouthed jars, are represented (one with a reduced interior and almost cream exterior and a plain bulbous rim, and one with an oxidised interior and impressed decoration on the top of the bulbous rim). Both have a series of pre-firing holes near the rim. Sherds from other vessels, in at least two fabrics, were found in nine other contexts. Where the rim survives, almost all appeared to be plain rims from barrel- or bucket-shaped wide-mouthed jars; the majority of the body sherds are also thick-walled. The one possible exception is a minute fragment of a thin-walled, everted rim that could be Iron Age, or just possibly Roman [78]. There are three sherds of pottery in oxidised fabric with incised decoration. These may be earlier in date than the wide-mouthed jars, but are all very small body sherds, contexts [17, 76, and 128].

Roman pottery

Amphorae

- 6.4 There were nine sherds in total, all but one from olive-oil carrying Dressel 20s.

Samian

- 6.5 There were five sherds from three contexts. Context [311] produced a large decorated sherd in good condition.

Mortaria

- 6.6 There were eight sherds from seven vessels, including two 2nd-century and two 3rd- or 4th-century hammerheads.

Fine and Coarse wares

- 6.7 The only fine wares present were two sherds of Lower Nene Valley colour-coated ware, both from thick-walled vessels. One, from context [46], is a bowl, most likely to be 4th-century in date.
- 6.8 Although there are a few coarse ware sherds that are likely to be early in date they are mainly featureless body sherds. The main wares present are BB1, Crambeck reduced ware and calcite-gritted ware. A BB1 cooking pot, made at an unidentified source, was used as a cremation vessel [12].

Discussion

- 6.9 The wide-mouthed jars with perforations, from context [19], are similar to other Late Bronze Age vessels in Cumbria (Barnes 1955, figs 4-5; Gilks 1987, 40), although the few sherds of decorated wares might be earlier in date. There are further simple rims and body sherds from other features which may be Bronze Age in date, but as they lack the distinctive perforations it is difficult to date them, since similar vessel forms in the same fabrics continued to be made throughout the Iron Age and into the Roman period.
- 6.10 The Roman assemblage is of interest as material from few rural sites has been studied in this area. Although there were sherds of 2nd century pottery, including some samian vessels, late Roman pottery was found in a larger number of contexts. One of the most common wares present is calcite-gritted ware, which was made from the Iron Age to the early 5th century in Yorkshire, but which was only in widespread use in the north from the late 3rd century onwards. Therefore, although calcite-gritted ware could have reached a northern site before c.270, on a site that

has produced very definite 5th-century forms among the ware (as here), it is most likely that any context containing it is late 3rd century or later in date.

- 6.11 Use of the site continued until at least c.360, as four vessels with Huntcliff-type rims were recovered. While the date range of the pottery is similar to that recovered from nearby at Scotby Road, there is a higher proportion of late Roman pottery in the Durranhill Road assemblage (Hird and Stoakley 2016, 166).
- 6.12 The assemblage consists mainly of cooking pots and bowls; there is a lack of drinking vessels, although the presence of 2nd century samian and 4th century colour-coated bowls show that some less utilitarian ware was present throughout the life of the site.
- 6.13 The cremation vessel from context [12] is a BB1 cooking pot in a fabric from an unknown source. The rim form and decoration on a Dorset product would date the vessel to the late 2nd or early 3rd century, but similar decoration may have been used for longer at other BB1 production sites.

Recommendation

Archive report

- 6.14 The pottery requires a fully quantified Ceramic Archive catalogue (as defined by the *Study Group for Roman Pottery* guidelines: Darling 1999). This should comprise a detailed descriptions of the various fabric types, and their quantification by weight, sherd count and EVE (estimated vessel equivalents) as well as the dating of individual vessels.

Publication report

- 6.15 The prehistoric pottery should be studied by a Bronze Age ceramics specialist. It is likely that five rims will require illustration, while the three decorated sherds could be photographed.
- 6.16 The Roman pottery requires a report with a table listing the fabrics present, a catalogue of illustrated vessels and a brief discussion of the assemblage. It should also include a short report on the decorated samian sherd. About 12 vessels would be included in the catalogue.

Condition and curation

- 6.17 Most of the pottery is in fairly good condition and requires no work. All the pottery should be retained.
- 6.18 The fragment of tile and the scraps of fired clay (bagged separately) should be discarded (Table 1.3).

Post-medieval pottery assessment

Results

- 6.19 Three very small sherds (<10g wt) were found. A flake of yellow glaze came from gully fill [40], a body sherd of transfer-printed earthenware was found with the animal burial in context [68] and a further small body sherd of transfer-printed earthenware was found with the modern sheep skeleton in context [70]. All are of 19th or early 20th century date.

Recommendation

- 6.20 No further work is recommended.

Animal bone assessment

Results

- 6.21 Poorly preserved bones from comparatively recent sheep burials were found in contexts [23 and 25]. Further bones from recent animal burials, from contexts [70 and 130], were not retained for identification but were presumably also from sheep natural mortalities.
- 6.22 The stratified archaeological finds were recovered from pit, ditch and gully fills. The soil conditions appear to be hostile to the preservation of bone, as the majority of the finds were tiny, unidentifiable calcined scraps, mostly found in the sample residues. Scraps of cattle tooth enamel were hand-recovered from context [116]. The only stratified find of unburnt bone was a poorly preserved fragment in the sample residue of context [235], accompanied by a charred, but not calcined, distal sheep first phalanx. The number of finds contexts are summarised in Table 1.4.

Recommendation

- 6.23 No further work on the present assemblage is recommended and the site does not appear to have any potential for the recovery of further identifiable faunal remains.

Human remains assessment

Introduction

- 6.24 A pit [F14] measuring 0.5m in diameter by 0.2m deep was located between two parallel enclosure ditches, at the point where these ditches made a 90° turn. This pit contained a black burnished ware cremation urn, SF2, dating to the Roman period, surrounded by red-brown silty sand [13]. Cremated bone was present within the urn, which was excavated in six spits. Cremated bone associated with this burial was also recovered on site, and during the initial cleaning of the vessel. Fragments of one bone object and a least one copper alloy object were recovered from the fill of the cremation vessel (below, paragraphs 6.37 & 6.59).

Methods

- 6.25 The cremated bone was assessed following English Heritage guidelines (Mays *et al.* 2002). The material was weighed in the bags and the overall weight was recorded. The condition of the bone was evaluated, and a quick assessment was made regarding whether identifiable fragments were present.

Assessment of Condition

- 6.26 The overall weight of the cremated bone was 881g, and it was in reasonably good condition with little evidence for erosion. Identifiable bone fragments were present, and it was possible to confirm the presence of human bone.

Potential and Recommendations

- 6.27 Although only one cremation burial was discovered, and therefore the amount of information at the population level is limited, analysis of this burial would provide insight into funerary practices at this site and in this region. The weight of the bone recovered from the cremation burial, and the good condition of the remains, indicate that full analysis would yield further information on the human remains and the cremation process. It should be possible to identify bone fragments, and assess

whether there is evidence for the burial of more than one individual. Any evidence for the age or sex of the individual(s) would be recorded, along with evidence for pathological conditions. The condition and colour of the bone would be examined in order to retrieve information on the funerary practices and pyre technology.

Recommendation

- 6.28 It is recommended that the cremated remains are recorded according to current standards (e.g. McKinley 2014; 2017), and the data on the skeletal remains and funerary practices placed into the context of other sites of the relevant period. Consideration should be given to the value of radiocarbon dating the remains to gain a better understanding of the date, although the urn itself may provide a date based on typology.

Lithics assessment

Summary

- 6.29 The assemblage comprises 74 pieces from 19 contexts. The majority of this is in the form of knapping debitage such as chips and fragments. Further evidence of manufacture on site is in the form of a core, whilst processing activities are indicated by scrapers and flake tools. A number of pieces have manganese staining and others display cracks due to heating. Most are flint, with a few pieces of chert. A flake of greenstone tuff comes from [76] and a piece recovered from [48] is greenish black in colour and of a very fine grained material, which might be pitchstone. The general character of the assemblage suggests a Neolithic or perhaps early Bronze Age date, with one or two pieces displaying possible earlier Mesolithic affinities.

Results

- 6.30 Over half the assemblage can be classed as knapping debitage in the form of chips. The majority of these come from pits provisionally assigned to a prehistoric phase, contexts [19], [34], [76], [78], [88] and [128]. Of these contexts [76] and [128] produced larger quantities of artefacts, with flakes, tools and blades also present. A breakdown of artefact type by context is given in Table 1.5. Gully fill [56] produced a small, almost triangular shaped core, which is multidirectional with five platforms. The size and flaking methods suggest an earlier date, perhaps late Mesolithic or Neolithic.
- 6.31 Flake tools were recovered from contexts [74], [76], [108] and an unstratified piece from Area 4 near the palisade slot (Paragraphs 5.52-56 above). This latter piece is a fragment of a thick knife or large scraper and is badly cracked through having being heated at some point. The form suggests a Neolithic or Bronze Age date. A similar date is suggested for the piece from [76] which has a steeply retouched butt, and the large scraper from [108], SF6, which is a side and end scraper with retouch extending across the distal end and down the left side. Context [108] is interesting because in addition to the scraper, it contains another three retouched pieces. Two have been retouched in a rather ad-hoc fashion, but the third has very delicate retouch along the right side and, whilst it is unifacial, the shape and form indicates use as an arrowhead or point and may be Neolithic or earlier. Interestingly, there is also a small, thin blade from this context which may also have Mesolithic affinities. Similarly, the small flake from [74] has very fine removals along the distal end and may be of a similar Neolithic or earlier date, although this needs more investigation.

- 6.32 A number of pieces display manganese staining and evidence of heating, including the unstratified knife / scraper fragment from Area 4. Context [128], especially, produced a number of artefacts which have fine cracks and have been damaged through heating. Other burnt pieces come from [8] and [88].
- 6.33 The majority of the assemblage is flint, with the occasional rougher piece of chert present, as well as a single piece of greenstone tuff, a small flake, from pit fill [76], the presence of which also hints at a Neolithic date for the assemblage. A curious greenish-black fragment of an unusual material comes from [48]. The piece is battered, but there is bulb of percussion present. The material is fine grained and almost waxy in appearance despite damage on the dorsal side and edges. This might be a type of weathered pitchstone, or some other similar material and needs further investigation.

Discussion

- 6.34 The core from [56] and large number of chips, especially those originating from contexts [76] and [128] which display similarities in raw material, show that manufacture was taking place on site. This is not a primary manufacture site, as much more debitage would be present, but the presence of a number of retouched tools, mainly scrapers and retouched flakes, suggest the site had more of a processing or domestic role.
- 6.35 Lithic typologies in the region are currently not clearly understood and technological traditions are generally less defined than those of southern Britain, upon which a lot of our typological definitions are based. In addition, many assemblages in the area originate from surface scatters or contexts which are not accurately dated. The regional research framework for Cumbria (Hodgson and Brennand 2007) has highlighted these as areas that need further research. This assemblage has the potential to add to the regional knowledge. The association of artefacts with pits which contain potential environmental and dating evidence could help aid the chronological anchoring of lithic typologies and inform about site use in a more domestic context.

Recommendation

- 6.36 The assemblage should be recorded in detail, focusing on technological and typological attributes, raw material, site function and landscape position. A full catalogue should be produced and selected artefacts (core, flake tools) drawn or photographed.

Bone object assessment

Results

- 6.37 Eighteen small fragments from a calcined, decorated bone ?handle were found in the fill of the Roman cremation vessel SF2. Pieces were scattered through spits 1-6 of the excavated fill. The diameter of one partly intact end is estimated to be c.13mm. The ?handle has a plain, undecorated band 8mm deep at its intact edge, below which is an incised line. The remainder of the surviving surface has horizontal ribbed decoration. Dimensions of the object, beyond its approximate diameter, could not be determined at this stage.

Discussion

- 6.38 The exact form and type of object cannot yet be determined. As the bone is calcined, it would seem that the object to which it was attached was included in the cremation process.

Recommendation

- 6.39 The fragments should be cleaned, stabilised and reconstructed as far as possible. The object should then be studied by appropriate specialists to identify the species from which the bone derived and to determine object type, function and date.

Glass assessment

Results

- 6.40 Three small fragments of glass were found. An unweathered, curved piece of blue/green ?bottle glass (SF12) was found unstratified in the topsoil overlying ditch [F300]. Very small fragments (<5mm x 5mm) of unweathered, water-white glass came from the samples from pit fill context [88] and ditch fill context [106]. All three pieces are likely to be of recent origin.

Recommendation

- 6.41 No further work is recommended.

Smoothing stone assessment

Results

- 6.42 Ditch fill context [104] produced an almost undamaged, rounded river pebble of fine-grained, buff/pink sandstone. The natural stone is a long, irregularly-shaped oval 192mm long x 42mm wide x 62mm thick max, with rounded ends, one of which has possibly been deliberately shaped by intention or use. The stone fits comfortably into the hand. The 'lower' face (as grasped) and part of one of the sides have been worn and smoothed by use. The smoothed face and side have light, longitudinal scratches in the stone and there are many other short, multi-directional scratches on other areas. It cannot be determined what use the stone was put to during its life, but its size, shape and the signs of wear/use indicate that it was probably employed in some unspecified 'industrial' or craft activity.

Recommendation

- 6.43 No further work is recommended.

Building materials assessment

Results

- 6.44 A small piece of Roman tile 70 x 72 x 36mm thick, with one short length of original edge was found in context [234], a fill of the eastern terminus of the entrance to the enclosure in Area 4. Made in a fairly hard-fired pink/red fabric, with sparse small pebble temper, the tile fragment has part of a very highly corroded iron ?nail adhering to one face.

Recommendation

- 6.45 No further work is recommended.

Fire-cracked stones assessment

Results

- 6.46 A total of 154 pieces of heat affected and fire-cracked stones and pebbles were retained from 23 contexts, recovered mainly from the environmental samples (Table 1.6). Pieces were found in ditch, gully and pit fill contexts, with the majority (110) coming from pit fills. Most of the fragments are less than 90mm in length/diameter.
- 6.47 Some 6 fragments from ditch and pit fill contexts [8, 36, 38, 121, 185 & 218] have traces of characteristic shaping or smoothing which suggests they are pieces of re-used quern stones.
- 6.48 Heated stones were used extensively over a long period in the past to heat water, to cook food and also in aspects of industrial activity. Once shattered beyond a usable size, the pieces would be disposed of. Fragments used may sometimes include broken querns. Undateable alone, the presence of heat-affected stone fragments confirms occupation and/or industrial and domestic activity in the area.

Recommendation

- 6.49 The possible quern fragments should be examined by a suitable specialist to confirm identifications. No further work is recommended for the remainder of the stones.

Iron objects assessment

Results

- 6.50 A total of 169 iron objects and object fragments were recovered during excavations (Table 1.7), including a group of around 100 footwear hobnails, SF16 from ditch fill context [309], four objects from ditch fill context [112] (SF5, 7 & 8) and a group or deposit of 49 mainly fragmentary objects from ditch fill context [114] (SF9, 10 & 11). Excavators consider that contexts [112 & 114] are likely to be contemporaneous (Paragraph 5.67 above). All the iron was X-radiographed.
- 6.51 Objects from contexts other than [112 & 114] consist mainly of single (fragmentary) nails, tacks and sheet fragments, though an apparently complete nail, 80mm long with a circular head, came from context [280]. The group of hobnails, SF16 from [309], were probably once attached to a piece of foot wear, the leather now lost.
- 6.52 The four objects from ditch fill [112] include a section of pierced bar, SF5, which is possibly a hinge fragment, a tanged cleaver missing its tip and a 'T' shaped holdfast missing one arm of the 'T' - together SF7 - and an apparently complete penannular brooch with ?knobbed ends, SF8.
- 6.53 The 49 objects from ditch fill [114] were found tangled together and were block excavated along with their accompanying soil for disassembly in the laboratory. Following X-radiography, examination found that the objects were only loosely associated by corrosion and soil and could be separated quite easily (Photographs 17 & 18). However, their close association in the ground suggests that they were deposited together, at the same time, possibly within a container. Unfortunately, the coarse-grained, sandy soil which surrounded the objects does not easily hold impressions of mineralised organic materials such as leather wood or textile, which might give an indication of the type of container which once held the objects. Microscopic examination of the surfaces of several of the objects found no evidence of mineralised organic material other than occasional vegetative impressions.

- 6.54 Many of the 49 fragmentary objects are not identifiable in their current corroded state. However, preliminary examination has identified socketed tool/implement fragments, a swivel and loop, a double spiked loop, three collars or collar ferrules of varying size, a loop-headed spike or latchlifter, part of a second cleaver blade, two possible ploughshare tips, a possible drill bit, a carpenter's dog, bar and sheet fragments, a nail, a possible spade or hoe blade and a padlock. The mass of objects also contained four small, thin fragments of copper alloy sheet (Paragraph 6.60 below), found adhering to the iron.

Discussion

- 6.55 It seems likely that the objects from contexts [112 & 114] were deliberately deposited and all possibly at the same time. Some can be given a Roman date by comparison with similar objects from elsewhere, e.g. the cleaver, SF7 from [112], which finds a parallel in Manning's work (Manning, 1985, Q97). However, dateable examples mainly have a broad date range.
- 6.56 Probably the most closely dateable object is the penannular brooch, SF8, again from [112]. Iron penannular brooches are much less common than copper alloy examples, but a parallel for this brooch (though the exact shape of the terminals of SF8 currently remains obscured) is from the West Yorkshire settlement site of Dalton Parlours, for which Mackreth postulates a later first or second century date (Mackreth 1990, 94). Assuming that contexts [112 & 114] are indeed contemporaneous, this brooch should give a near date for the deposit of the whole 49 object assemblage.
- 6.57 There is nothing with military associations among the artefacts identified so far. Object types seem to be domestic, agricultural or craft-related. Many appear to be damaged, broken or fragmentary – though a join was made between two of the bar fragments and more joins may be found following conservation. Broken and fragmentary objects suggest material collected for later re-use, but this does not explain the rather restricted range of object types present or the reason for deliberately burying them.

Recommendation

- 6.58 Several of the objects from [112 & 114] would benefit from further X-radiography for elucidation and investigative conservation. The majority of the 49 objects from the two contexts should undergo selective corrosion removal to reveal form and surface detail. A further three objects from contexts [136, 243 & 280] should also undergo investigative conservation. The entire assemblage (excluding the hobnails, SF16) should then be studied by a suitable specialist for further identification of object type, function and dating.

Copper alloy objects assessment

Results

- 6.59 Five small pieces of copper alloy sheet were recovered. One was found in spit 2 of the excavated fill of Roman cremation vessel SF2. This irregularly-shaped fragment is 22mm long x 18mm wide x 0.8mm thick. It has one short length of original, finished edge, but all the other edges are broken. The surfaces are buckled and distorted and it is likely that the metal has been through the cremation process.

- 6.60 The other four, small sheet fragments were among the 49 iron objects which make up SF11 (Paragraph 6.53 above). The metal is very thin and the surfaces are contaminated with discontinuous iron corrosion. The largest piece is 29 x 18 x 0.9mm and the smallest is 7 x 5 x 0.9mm. None has any original edges and they appear to be undecorated. Similarities of colour, surface and metal thickness make it likely that they once were all part of the same object.

Recommendation

- 6.61 All five fragments should be cleaned and stabilised. They should then be studied by a suitable specialist alongside the iron objects above.

Conservation assessment

Results

- 6.62 All the metalwork plus the bone object was examined. The ironwork was found to be moderately to highly corroded and mainly stable, with only a few longitudinal cracks and corrosion blisters visible. The copper alloy fragments were found to be moderately corroded and stable.
- 6.63 The loose iron objects were X-radiographed in plan view. SF11, the mass of iron objects was X-radiographed before dismantling, but proved to be too dense to produce usable plates. The objects or groups of objects were then re-X-rayed as they were disassembled.
- 6.64 The calcined bone object recovered from cremation vessel SF2 was found to be fragile but stable.

Recommendation

- 6.65 The metalwork should be stored in airtight containers at a stable temperature and preferably below 20% RH (relative humidity), to inhibit further corrosion. The RH should be controlled by active silica gel, which is regularly monitored and regenerated as necessary.
- 6.66 The bone object should be protected from physical damage by suitable packing materials. It may be stored in conditions of ambient temperature and RH.

7. The palaeoenvironmental evidence

Summary of results

- 7.1 The samples comprise a significant palaeoenvironmental resource, with a number of large and well-preserved charcoal and charred plant macrofossil assemblages present. The identified crops include barley (naked and hulled) and spelt wheat, which are largely consistent with the prehistoric and Roman dates suggested by artefactual evidence, although the presence of cf. rye and seaweed is unusual and warrants further analysis.

Methods

- 7.2 Following the evaluation, from which small charred plant macrofossil assemblages were recovered (Archaeological Services 2017), palaeoenvironmental assessment was carried out on 104 bulk samples taken from pit, ditch and posthole fills of prehistoric and Roman origin. The samples were manually floated and sieved through a 500µm mesh. The residues were examined for shells, fruitstones,

nutshells, charcoal, small bones, pottery, flint, glass and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to x60 magnification using a Leica MZ7.5 stereomicroscope for waterlogged and charred botanical remains. Identification of these was undertaken by comparison with modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (2010). Habitat classifications follow Preston *et al.* (2002).

- 7.3 Selected charcoal fragments were identified, in order to provide material suitable for radiocarbon dating. The transverse, radial and tangential sections were examined at up to x500 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Schweingruber (1990) and Hather (2000), and modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University.
- 7.4 The works were undertaken in accordance with the palaeoenvironmental research aims and objectives outlined in the regional archaeological research framework and resource agendas (Hodgson & Brennand 2007; Philpott & Brennand 2007; Hall & Huntley 2007; Huntley 2010).

Results

- 7.5 Finds from the sample residues include pottery, fired clay, calcined bone, flint, heat-cracked stones, small glass fragments and a nail. Context [114], associated with SF11, comprises a few small flakes of corroded metal and a tiny indeterminate bone fragment. The flots range from <10ml to 1600ml in size and contain varying quantities of charcoal, coal and cinder. The common presence of modern roots probably reflects the shallow nature of the features. Large charcoal assemblages are noted in 26 of the samples including both prehistoric and Roman contexts. Charcoal on the site is general in good condition, although some of the assemblages are poorly preserved with frequent mineral inclusions. Oak is frequently present, with species noted including hazel, alder, willow/poplar, holly, elm and Maloideae (Hawthorn, apple, whitebeams). A fragment of hazel branchwood charcoal was hand-recovered from context [231]. Charred heather twigs are noted in several samples.
- 7.6 Charred cereal remains are recorded in 38 contexts, with large assemblages noted in ditch fill [27] and pit fills [38], [88], [134], [139], [167], [169], [191] and [225]. The remains include grain and/or chaff of hulled and naked barley, spelt wheat and oats. Grains resembling rye and emmer wheat have been noted, although further analysis is required to confirm these identifications. Further work is also needed to establish if the oats are from wild or cultivated species.
- 7.7 Charred hazel nutshell fragments are recorded in low to moderate numbers. In some contexts provisionally dated as prehistoric, they occur with charcoal as the only charred plant remains. Other charred remains from the site include assemblages of weed seeds and occasional tuber/rhizomes. Context [145], fill of ditch F146, comprises a charred frond fragment of seaweed.
- 7.8 The results are summarised in Table 1.8. Material for radiocarbon dating is available for many of the samples, although some of this material may be unsuitable due to long-lived species or insufficient weight of carbon.

Discussion

- 7.9 The samples comprise evidence of domestic activity, with the use of wild-gathered foods and a range of cultivated cereal crops indicated. The presence of naked barley is consistent with the early prehistoric dates suggested by some of the pottery and lithic finds (Greig 1991). Deposits comprising large quantities of charcoal with charred hazel nutshell are also frequently recorded on Neolithic or Bronze Age sites in northern England. There is evidence for the use of spelt wheat and hulled barley, which were the main field crops of the late prehistoric and Roman periods (Greig 1991; Hall & Huntley 2007).
- 7.10 The substantial charcoal assemblage points to the importance of the woodland resource for fuel and structural materials. The presence of less frequently recorded species like elm and holly suggests the exploitation of a variety of woodland habitats. Heathland plants have also been used at the site.
- 7.11 The presence of seaweed in the fill of ditch F146 is unusual for prehistoric or Roman deposits, and may indicate some post-Roman activity on the site. In this region, charred remains of seaweed have frequently been recorded on sites dating to the early medieval period, including sites which are some distance from the coast such as Brougham, Cumbria (Huntley 1992).

Recommendations

- 7.12 There is clear artefactual and palaeobotanical evidence for several phases of activity at this site, potentially including Neolithic, Bronze Age, Iron Age, Roman, early medieval and later periods. The presence of a number of large and well-preserved charcoal and charred plant macrofossil assemblages offers the opportunity to analyse changes in the palaeoenvironment, crop husbandry practices, diet and fuel resources throughout these periods. Such analyses have the potential to address research objectives outlined in the regional research agenda particularly relating to the paucity of evidence from sites in the west of northern England and dating from the earlier prehistoric periods (Hall & Huntley 2007; Hodgson & Brennand 2007; Philpott & Brennand 2007). Targeted radiocarbon dating would be necessary to support this work, with particular focus on dating the use of naked barley, rye and seaweed at this site.

8. The archaeological resource

- 8.1 A large ditch cut into the natural subsoil crossed the northern end of Area 4 and continued into Area 5. Dating for this feature is still insecure; it is believed to be of prehistoric date as it is cut by a pit also of probable prehistoric date. It would be possible to obtain a radiocarbon date from the pit fill.
- 8.2 Archaeological deposits comprising pits proven or believed to be of prehistoric date, cut into the natural subsoil, were present in Areas 3 and 4. Environmental and artefactual evidence suggests they range from Neolithic to Bronze Age and possibly Iron Age in date. They indicate the presence of prehistoric settlement on the site.
- 8.3 A palisade slot cut into the natural subsoil, and partial remains of a second such feature, was found in Area 4. By analogy with similar features found elsewhere in the region, they are believed to be of Late Bronze Age to Iron Age date.

- 8.4 Archaeological deposits comprising ditches, pits and a cremation, cut into the natural subsoil and containing Roman artefacts, were present in Areas 1, 2, 3 and 4. They indicate the presence of a series of enclosures containing Romano-British settlement and funerary activity on the site. Palaeoenvironmental evidence suggests that activity in some of these features may have extended into the early medieval period.
- 8.5 Furrows cutting into the natural subsoil, the remains of medieval or post-medieval ploughing were recorded in Area 3. Post-medieval land drains were recorded in all areas.
- 8.6 An assemblage of pot sherds, flints, metal objects and other artefacts was recovered from the archaeological features, indicating that they are likely to date from the Neolithic through to the Romano-British periods. These will contain significant information on the settlement economy of the site. Cremated bone was present in the Roman cremation urn. This will contain significant information on the individual cremated and on funerary practices in this period.
- 8.7 Samples collected from the features comprise a significant palaeoenvironmental resource, with a number of large and well-preserved charcoal and charred plant macrofossil assemblages present. The identified crops include barley (naked and hulled) and spelt wheat, which are largely consistent with the prehistoric and Roman dates suggested by artefactual evidence, although the presence of rye and seaweed is unusual and warrants further analysis.
- 8.8 The regional research framework (Brennand 2005) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation with respect to archaeology. In this instance, the archaeological resource addresses research priorities: A) Transitional zones; B) Landscape analyses.

9. Recommendations

- 9.1 As a significant archaeological resource was uncovered by the excavation, full analysis of the data and its publication is recommended. An Updated Project Design has been included as Appendix 3, which lists the tasks to be undertaken to achieve this.

10. Sources

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Appendix 1: Data tables

Table 1.1: Context data

The * symbols in the columns at the right indicate the presence of artefacts of the following types: P pottery, B (animal) bone, M metals, F flint, H human bone (cremated), G glass, C ceramic building material, O other materials.

No	Area	Description	P	B	M	F	H	G	C	O
1	All	Topsoil	*							
2	All	Natural								
3	4	Upper fill of F5								
4	4	Lower fill of F5								
F5	4	Gully – proved to be a variation in the natural								
6	4	Fill of ditch F7	*							
F7	4	Cut of ditch								
8	4	Fill of ditch F9	*		*	*				
F9	4	Cut of ditch								
10	4	Fill of ditch F11	*		*					
F11	4	Cut of ditch								
12	4	Cremation urn	*		*					
13	4	Fill of cremation urn pit F14			*		*			*
F14	4	Cut for cremation urn								
15	4	Fill of posthole F16								
F16	4	Cut of posthole								
17	4	Fill of pit F18	*			*				
F18	4	Cut of pit								
19	4	Fill of pit F20	*			*				
F20	4	Cut of pit								
21	4	Fill of pit F22								
F22	4	Cut of pit								
23	4	Fill of post-medieval animal burial F24		*						
F24	4	Cut of post-medieval animal burial								
25	4	Fill of post-medieval animal burial F26	*	*						
F26	4	Cut of post-medieval animal burial								
27	4	Burnt deposit in top of ditch F33	*							
28	4	Fill of pit F29	*			*				
F29	4	Cut of pit								
30	4	Fill of ditch F31	*							
F31	4	Cut of ditch								
32	4	Fill of ditch F33	*							
F33	4	Cut of ditch								
34	4	Fill of pit F35	*			*				
F35	4	Cut of pit								
36	4	Fill of pit F37	*							
F37	4	Cut of pit								
38	4	Fill of pit F39								
F39	4	Cut of pit								
40	4	Fill of gully F41	*			*				
F41	4	Cut of gully								
42	4	Fill of gully F43								
F43	4	Cut of gully								
44	4	Fill of posthole F45								
F45	4	Cut of posthole								
46	4	Fill of ditch F47	*		*					
F47	4	Cut of ditch								
48	4	Fill of ditch F49	*			*				
F49	4	Cut of ditch								
50	4	Fill of posthole F51								
F51	4	Cut of posthole								
52	4	Fill of gully F53	*							
F53	4	Cut of gully								
54	4	Fill of stakehole F55								

No	Area	Description	P	B	M	F	H	G	C	O
F55	4	Cut of stakehole								
56	4	Fill of gully F57				•				
F57	4	Cut of gully								
58	4	Fill of pit F59								
F59	4	Cut of pit								
60	4	Fill of posthole F61								
F61	4	Cut of posthole								
62	4	Fill of gully F63	•							
F63	4	Cut of gully								
64	4	Fill of posthole 65								
F65	4	Cut of posthole								
66	4	Fill of gully F67								
F67	4	Cut of gully								
68	4	Fill of modern gully F69	•							
F69	4	Cut of gully								
70	4	Fill of post-medieval animal burial F71	•	•						
F71	4	Cut of post-medieval animal burial								
72	4	Fill of pit F73								
F73	4	Cut of pit								
74	4	Fill of pit F75				•				
F75	4	Cut of pit								
76	4	Fill of pit F77	•			•				
F77	4	Cut of pit								
78	4	Fill of pit F79	•			•				
F79	4	Cut of pit								
80	4	Fill of pit F81								
F81	4	Cut of pit								
82	4	Fill of pit F83								
F83	4	Cut of pit								
84	4	Fill of pit F85								
F85	4	Cut of pit								
86	4	Fill of pit F87								
F87	4	Cut of pit								
88	4	Fill of pit F89				•		•		
F89	4	Cut of pit								
90	4	Fill of pit F91	•							
F91	4	Cut of pit								
92	4	Fill of pit F93								
F93	4	Cut of pit								
94	4	Fill of gully F95	•							
F95	4	Cut of gully								
96	4	Fill of ditch F97								
F97	4	Cut of ditch								
98	4	Fill of ditch F99								
F99	4	Cut of ditch								
100	4	Fill of ditch F101								
F101	4	Cut of ditch								
102	4	Fill of ditch F103								
F103	4	Cut of ditch								
104	4	Fill of ditch F105	•		•					•
F105	4	Cut of ditch								
106	4	Fill of ditch F107						•		
F107	4	Cut of ditch								
108	4	Fill of pit F109	•			•				
F109	4	Cut of pit								
110	4	Fill of ditch F111								
F111	4	Cut of ditch								
112	4	Fill of ditch F113			•					
F113	4	Cut of ditch								
114	4	Fill of ditch F115			•					
F115	4	Cut of ditch								

No	Area	Description	P	B	M	F	H	G	C	O
116	4	Upper fill of ditch F118	•	•						
117	4	Lower fill of ditch F118	•							
F118	4	Cut of ditch								
119	4	Fill of pit F120	•							
F120	4	Cut of pit								
121	4	Fill of ditch F122	•							
F122	4	Cut of ditch								
123	4	Fill of stakehole F124								
F124	4	Cut of stakehole								
125	4	Fill of gully F126	•							
F126	4	Cut of gully								
127	4	Fill of pit F129	•							
128	4	Fill of pit F325	•			•				
F129	4	Cut of pit								
130	4	Fill of post-medieval animal burial F131		•						
F131	4	Cut of post-medieval animal burial								
132	5	Fill of ditch F133								
F133	5	Cut of ditch								
134	4	Fill of pit F135								
F135	4	Cut of pit								
F136	3	Stone spread – possible cairn	•		•					
137	3	Silt under cairn F136								
F138	3	Cut for cairn F136								
139	3	Fill of pit F140	•							
F140	3	Cut of pit								
141	4	Fill of ditch F142	•							
F142	4	Cut of ditch								
143	4	Fill of ditch F144								
F144	4	Cut of ditch								
145	4	Fill of ditch F146				•				
F146	4	Cut of ditch								
147	4	Fill of pit F148	•							
F148	4	Cut of pit								
149	4	Fill of pit F150								
F150	4	Cut of pit								
151	4	Fill of pit F152								
F152	4	Cut of pit								
153	4	Fill of pit F154								
F154	4	Cut of pit								
155	4	Fill of pit F156								
F156	4	Cut of pit								
157	4	Fill of pit F158								
F158	4	Cut of pit								
159	4	Fill of pit F160								
F160	4	Cut of pit								
161	-	Void								
162	-	Void								
163	4	Fill of pit F164								
F164	4	Cut of pit								
165	4	Fill of pit F166	•							
F166	4	Cut of pit								
167	3	Fill of pit F168	•							
F168	3	Cut of pit								
169	3	Upper fill of pit F170								
F170	3	Cut of pit								
171	3	Fill of pit F172	•							
F172	3	Cut of pit								
173	3	Fill of ditch F174	•							
F174	3	Cut of ditch								
175	3	Fill of ditch F176								
F176	3	Cut of ditch								

No	Area	Description	P	B	M	F	H	G	C	O
177	4	Fill of ditch F178			•					
F178	4	Cut of ditch								
179	4	Fill of ditch F180								
F180	4	Cut of ditch								
181	3	Fill of ditch F182								
F182	3	Cut of ditch								
183	3	Fill of ditch F184	•							
F184	3	Cut of ditch								
185	3	Fill of pit F186	•							
F186	3	Cut of pit								
187	3	Fill of gully F188	•							
F188	3	Cut of gully								
189	3	Fill of pit F170 below 169								
190	3	Fill of pit F170 below 190								
191	3	Fill of pit F170 below 191								
192	3	Fill of pit F193	•			•				
F193	3	Cut of pit								
194	3	Fill of ditch F195	•							
F195	3	Cut of ditch								
196	3	Fill of gully F197								
F197	3	Cut of gully								
198	3	Fill of gully F199	•							
F199	3	Cut of gully								
200	3	Fill of ditch F201								
F201	3	Cut of ditch								
202	3	Lower fill of ditch F203								
F203	3	Cut of ditch								
204	3	Fill of ditch F205								
F205	3	Cut of ditch								
206	3	Upper fill of pit F208	•							
207	3	Lower fill of pit F208	•							
F208	3	Cut of pit								
209	3	Fill of gully F210	•		•					
F210	3	Cut of gully								
211	3	Upper fill of ditch F203								
212	3	Fill of ditch F213								
F213	3	Cut of ditch								
214	3	Fill of gully F215								
F215	3	Cut of gully								
216	3	Fill of furrow F217								
F217	3	Cut of furrow								
218	3	Upper fill of ditch F220								
219	3	Lower fill of ditch F220								
F220	3	Cut of ditch								
221	3	Fill of gully F222								
F222	3	Cut of gully								
223	3	Fill of gully F224								
F224	3	Cut of gully								
225	3	Fill of pit F226	•			•				
F226	3	Cut of pit								
227	3	Upper fill of ditch F229								
228	3	Lower fill of ditch F229								
F229	3	Cut of ditch								
230	3	Upper fill of ditch F232								
231	3	Lower fill of ditch F232	•							
F232	3	Cut of ditch								
233	3	Upper fill of ditch F236								
234	3	Mid fill of ditch F236	•		•				•	
235	3	Lower fill of ditch F236		•						
F236	3	Cut of ditch								
237	3	Fill of stakehole F238								

No	Area	Description	P	B	M	F	H	G	C	O
F238	3	Cut of stakehole								
239	3	Fill of posthole F240								
F240	3	Cut of posthole								
241	3	Fill of stakehole F242								
F242	3	Cut of stakehole								
243	3	Upper fill of pit F246	•		•					
244	3	Mid fill of pit F246								
245	3	Lower fill of pit F246								
F246	3	Cut of pit								
247	3	Fill of pit F248				•				
F248	3	Cut of pit								
249	3	Fill of pit F250								
F250	3	Cut of pit								
251	3	Fill of pit F252								
F252	3	Cut of pit								
253	3	Fill of ditch F254								
F254	3	Cut of ditch								
255	3	Fill of ditch F256	•							
F256	3	Cut of ditch								
257	3	Fill of pit F258								
F258	3	Cut of pit								
259	3	Fill of pit F260								
F260	3	Cut of pit								
261	3	Fill of pit F262								
F262	3	Cut of pit								
263	2	Fill of ditch F264	•							
F264	2	Cut of ditch								
265	3	Fill of ditch F266	•		•					
F266	3	Cut of ditch								
267	3	Fill of pit F268								
F268	3	Cut of pit								
269	3	Fill of gully F270								
F270	3	Cut of gully								
271	2	Fill of ditch F272	•							
F272	2	Cut of ditch								
273	2	Fill of ditch F274	•							
F274	2	Cut of ditch								
275	2	Upper fill of ditch F277	•							
276	2	Lower fill of ditch F277								
F277	2	Cut of ditch								
278	2	Upper fill of ditch F281								
279	2	Mid fill of ditch F281								
280	2	Lower fill of ditch F281			•					
F281	2	Cut of ditch								
282	2	Fill of gully F283								
F283	2	Cut of gully								
284	2	Fill of pit F285								
F285	2	Cut of pit								
286	3	Fill of pit F287								
F287	3	Cut of pit								
288	2	Primary fill of ditch F272								
289	3	Fill of ditch F290	•		•					
F290	3	Cut of ditch								
291	3	Fill of pit F292								
F292	3	Cut of pit								
293	1	Fill of ditch F294	•							
F294	1	Cut of ditch								
295	3	Fill of ditch F296	•							
F296	3	Cut of ditch								
297	1	Fill of ditch F298								
F298	1	Cut of ditch								

No	Area	Description	P	B	M	F	H	G	C	O
299	1	Fill of ditch F300								
F300	1	Cut of ditch								
301	3	Fill of pit F302								
F302	3	Cut of pit								
303	1	Fill of ditch F304								
F304	1	Cut of ditch								
305	1	Fill of ditch F306								
F306	1	Cut of ditch								
307	1	Fill of ditch F308								
F308	1	Cut of ditch								
309	4	Fill of ditch F310			•					
F310	4	Cut of ditch								
311	-	Overdug natural	•							
312	-	Not used								
313	4	Fill of ditch F314								
F314	4	Cut of ditch								
315	4	Fill of ditch F316								
F316	4	Cut of ditch								
317	4	Fill of gully F318	•							
F318	4	Cut of gully								
319	4	Fill of gully F320								
F320	4	Cut of gully								
321	4	Fill of gully F322								
F322	4	Cut of gully								
F323	4	Cut of posthole								
324	4	Fill of posthole F323	•							
F325	4	Recut to pit F129								

Table 1.2: Pottery spot dating

Context	Sherd no's	Wt (g)	Dating evidence	Spot date
0	8	34	calcite-gritted ware Huntcliff-type rim	360+
1	1	3	LTW	prehistoric
6	2	30	BB1 cooking pot with line above obtuse angled lattice	250+
8	14	270	calcite-gritted, Crambeck reduced	270+
10	5	307	calcite-gritted everted rim	late C3+?
12	46	768	BB1 (non Dorset) cooking pot, complete profile, cremation vessel	mid C2+/poss C3
17	7	38	scraps BA?; incised decoration, very fragmentary	prehistoric
19	152	4785	two vessels with expanded rounded rim LTW; scrap glazed <8>	prehistoric
25	1	8	glazed	Modern
27	4	65	calcite-gritted	I C3+?
28	6	137	calcite-gritted	I C3+?
30	8	80	calcite-gritted; CRAM RE flanged bowl	270+
32	4	60	calcite-gritted Huntcliff-type rim	360+
34	1	3	LTW or fired clay scraps	prehistoric
46	3	71	LNV coarse ware form bowl	C4
48	3	25	CRAM RE	270+
52	1	13	LTW	prehistoric
62	1	7	LTW scrap rim	prehistoric
76	2	33	two LTW vessels; one with pebble inclusions, one with groove	prehistoric
78	0	0	scrap everted rim; ID uncertain as less than 10mm long	Iron Age or Roman?
94	0	0	scraps	-
104	1	7	calcite-gritted	I C3+?
108	7	166	LTW plain rim vessel	prehistoric
116	13	40	scraps, possibly including calcite-gritted	I C3+?
117	1	263	Dr 20 amphora	Roman
119	1	10	battered oxidised ware	Roman
121	0	0	scraps of BB1	Had+
128	5	44	decorated LTW	prehistoric
136	1	45	calcite-gritted ware Huntcliff-type rim	360+
139	25	275	SF14 and SF15, calcite-gritted	I C3+?
141	1	85	Dr 20 amphora	Roman
147	0	0	calcite-gritted	I C3+?
165	1	52	LTW	prehistoric
167	4	19	BB1 cooking pot rim	Had+
171	2	40	BB1	Had+
173	2	110	calcite-gritted	I C3+?
183	1	165	grey ware wide-mouthed bowl rim	C3
187	0	0	scrap of BB1	Had+
192	1	1	scrap of oxidised ware	Roman
194	1	327	Dressel 20 amphora	Roman
198	2	25	grey and oxidised ware	Roman
206	2	73	two vessels of LTW	prehistoric

Context	Sherd no's	Wt (g)	Dating evidence	Spot date
207	1	6	LTW	prehistoric
209	2	119	BB1	Had+
231	12	264	calcite-gritted ware Huntcliff-type rim with two grooves rim	360+
234	41	705	hammerhead mortarium; calcite-gritted; Dr 44 imitation	C3-C4
243	2	10	reduced ware	Roman
255	4	635	BB1 plain-rimmed dish	mid C2+
263	2	185	grooved rim mortarium	C3?
265	8	158	grey ware flat-rimmed bowl, BB1 cooking pot	Had+
271	2	74	local mortarium, very poor condition	C2
273	1	7	grey ware, possibly early fabric	Roman
275	2	28	hammerhead mortarium	C3-C4
289	1	14	Samian form 18/31 bowl	Had-Ant
293	1	5	grey ware	C1/C2?
295	1	49	Dressel 20 amphora	Roman
311	2	45	large decorated samian sherd	C2

Key

BA	Bronze Age
BB1	black burnished ware fabric 1
CRAM RE	Crambeck reduced ware
Had-Ant	Hadrianic/Antonine
Had	Hadrianic
LNV	Lower Nene Valley colour-coated
LTW	Local tradition ware: native pre-Roman wares that continued to be made in the Roman period

Table 1.3: Stone, fired clay or pottery too battered for identification

Context	Wt (g)
8	3
36	120
90	36
125	53
127	54
185	117
207	81
225	90
263	101
317	121
324	124

Table 1.4: Number of contexts producing hand-recovered or bone from samples

Number of contexts with:	Hand-recovered	Samples
Cattle	1	
Sheep/goat		1
Indeterminate only	9	17

Table 1.5: Lithics typology and numbers by context

Context	Flake	Flake tools	Blade	Core	Fragment	Chip	Natural	Totals
Area 4 u/s		1						1
8						1	1	2
17					1			1
19	1					1		2
28					1			1
34						1		1
40	1							1
48	1							1
56				1				1
74		1						1
76	2	1				13		16
78						3		3
88						2		2
108	1	4	1					6
128	5		1			25		31
145	1							1
192							1	1
225					1			1
247	1							1
Total	13	7	2	1	3	46	2	74

Table 1.6: Heat-affected stone fragment numbers by context and context type

Context	Context type	Fragments
8	Ditch fill	1
10	Ditch fill	1
19	Pit fill	10
34	Pit fill	3
36	Pit fill	6
38	Pit fill	4
40	Gully fill	1
46	Ditch fill	3
80	Pit fill	8
90	Pit fill	3
108	Pit fill	13
121	Ditch fill	3
127	Pit fill	10
128	Pit fill	5
139	Pit fill	3
149	Pit fill	2
185	Pit fill	23
191	Pit fill	4
204	Ditch fill	2
207	Pit fill	17
218	Ditch fill	3
221	Gully fill	28
321	Gully fill	1
Total		154

Table 1.7: Iron object numbers by context

Context	SF	Context type	No of objects
8		Ditch fill	4
10		Ditch fill	1
46	SF3	Ditch fill	1
104		Ditch fill	1
112	SF5, 7, 8	Ditch fill	4
114	SF9, 10, 11	Ditch fill	1
114	SF10	Ditch fill	1
114	SF11	Ditch fill	47
136		Stone spread	1
177		Ditch fill	1
209		Ditch fill	1
234		Ditch fill	1
243		Pit fill	1
265		Ditch fill	1
280		Ditch fill	1
289		Ditch fill	1
309	SF16	Ditch fill	101
Total			169

Table 1.8: Data from palaeoenvironmental assessment

Sample	Context	Area	Feature	Volume processed (l)	Flot vol (ml)	C14 available	Rank	Notes
2	6	4	F7	9	20	?	*	Wheat grain pitted poor condition looks like spelt (Roman?)
3	8	4	F9	16	100	Y	*	Some charcoal + some wood?
4	10	4	F11	14	150	Y	*	Some charcoal + some charred cereal grains (Roman?)
5	12	4	F14	5	20	Y	*	Some charcoal
6	15	4	F16	6	20	Y	*	Small flot, small amount of charcoal, small fragment sizes, no charred macrofossils (Prehistoric?)
7	17	4	F18	14	300	Y	**	Some charcoal (possibly BA or NEOLITHIC)
8	19	4	F20	58	1200	Y	****	Abundant charcoal + nutshells charred (possibly early BA)
9	21	4	F22	5	250	Y	***	Lots of oak charcoal (Prehistoric or Roman)
10	28	4	F29	8	400	Y	***	Charcoal is common with several species noted (Roman?)
11	34	4	F35	9	350	Y	***	Charcoal is common (mainly oak), some nutshell charred (probably pre IA)
12	27	4	F33	14	350	Y	***	Abundant charred macros, charcoal is common, grain mainly spelt, some barley and ?rye (Roman)
14	38	4	F39	15	1000	Y	***	Abundant charcoal and grain (spelt and barley mainly + ?rye), heather common, range of weed seeds (?Roman)
15	40	4	F41	7	50	Y	*	Small amount of charcoal, one small barley grain, grass seed and hazel nutshell fragment (Roman/IA)
16	42	4	F43	7	50	?	*	Small amount of charcoal, one indet grain, 2 nutshell fragments (Roman/IA)
17	50	4	F51	4	15	?	*	Small amount of charcoal, no charred plant macrofossils
18	52	4	F53	7	40	?	*	Some charcoal, one barley grain, one nutshell (Roman/IA)
20	56	4	F57	5	25	Y	*	Small amount of charcoal, small charred barley grain
26	76	4	F77	10	200	Y	***	Charcoal is common, oak mainly but other species present. No charred macrofossils (Could be NEOLITHIC NEED C14)
27	78	4	F79	4	200	Y	***	Common charcoal, oak and other species, stemwood and roundwood. No charred macrofossils noted
28	80	4	F81	7	100	Y	**	Some charcoal. No charred plant macrofossils noted
29	46	4	F47	14	30	Y	*	Some charcoal. One barley grain, one wheat grain and a possible charred small pea
31	48	4	F49	9	50	?	*	Small flot small amount of charcoal small fragment sizes No charred macrofossils (Roman/IA?)
32	82	4	F83	5	150	Y	**	Common charcoal mainly oak slivers other species noted could be alder. No charred macrofossils noted (Prehistoric ?)
33	84	4	F85	5	30	Y	*	Small amount of charcoal
34	86	4	F87	4	50	Y	*	Small amount of charcoal. No charred macrofossils (Roman/IA?)

Sample	Context	Area	Feature	Volume processed (l)	Flot vol (ml)	C14 available	Rank	Notes
35	88	4	F89	14	300	Y	****	Common charred cereal grains, mixed preservation (spelt wheat / barley / emmer?) charcoal common but often small size (Roman or IA)
36	90	4	F91	7	250	Y	***	Charcoal common, more than one species noted, oak and hazel, insect tunnels (Prehistoric?) hazel nutshell low numbers
37	92	4	F93	3	20	Y	*	Small amount of charcoal. Mainly oak slivers with some rapid growth alder. No charred macrofossils (Roman/IA?)
38	94	4	F95	8	70		*	Small amount of charcoal small fragment sizes, no charred macrofossils (Roman/IA?)
39	96	4	F97	8	10	?	*	Tiny flot, small amount of charcoal, small fragment sizes, no charred macrofossils (Prehistoric?)
40	100	4	F101	7	5	?	*	Small amount of charcoal and heather twigs
41	102	4	F103	9	5	?	*	Small amount of charcoal
42	104	4	F105	17	40	?	*	Small amount of charcoal and a small nutshell fragment
43	106	4	F107	9	20	?	*	Small amount of charcoal and a small nutshell fragment
44	98	4	F99	9	3	?	*	Small amount of charcoal
45	108	4	F109	8	100	Y	**	Common charcoal and some nutshell (Prehistoric)
46	110	4	F111	15	40	?	*	Some charcoal and two small nutshell fragments
47	116	4	F118	7	50	Y	*	Small amount of charcoal and a few grains (barley and wheat) in poor condition
49	114	4	F115	8	15	?	*	Small amount of charcoal and a brome seed (Roman?)
50	119	4	F120	14	200	Y	**	Low numbers of charred cereal grains and chaff, barley & spelt wheat, small amount of charcoal, oak sapwood hazel branchwood, 6-row barley rachis fragments (Roman)
51	121	4	F122	14	120	Y	*	Low numbers of charred cereal grains barley & spelt wheat small amount of charcoal (Roman)
53	125	4	F126	3	50	Y	*	Small flot with trace of hazel branchwood charcoal
54	127	4	F325	6	80	Y	**	Small quantity of charcoal comprising Maloideae (cf. hawthorn) (IA / Roman?)
55	128	4	F129	20	400	Y	***	Common charcoal includes oak, Maloideae and hazel typical of Neolithic contexts (C14 DATE MAY BE REQUIRED)
56	132	5	F133	15	20	?	*	Small flot generally comprising small fragments of coal and cinder and occasional charcoal (IA / Roman)
57	134	4	F135	2	400	Y	***	Common charcoal including roundwood and twigs, oak small branchwood noted, grains common, barley and other species, weeds of redshank (Prehistoric?) MAY NEED C14 DATE
58	134	4	F135	8	250	Y	***	Common charcoal including roundwood and twigs, oak small branchwood noted, grains common, barley and other species, weeds of redshank (Prehistoric?) MAY NEED C14 DATE
59	139	3	F140	31	800	Y	****	Large flot, charcoal abundant, charred grains abundant barley, spelt wheat, oats, weed seeds and chaff, heather twigs. FULL ANALYSIS NEEDED (Roman)
60	145	4	F146	6	40	Y	****	Small flot, some charcoal alder branchwood in poor condition and charred seaweed fragment C14 DATE MAY BE REQUIRED (early med?)

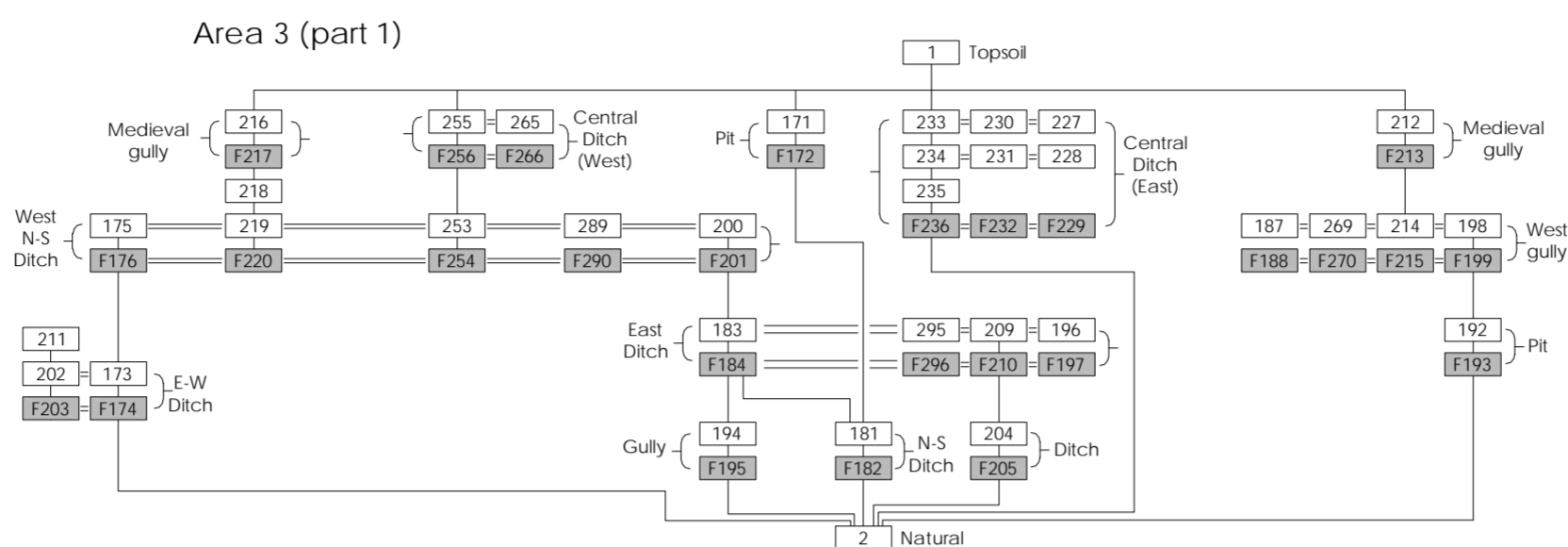
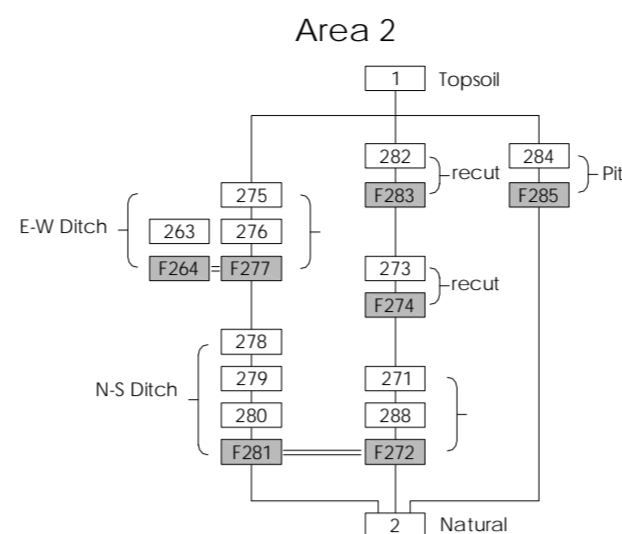
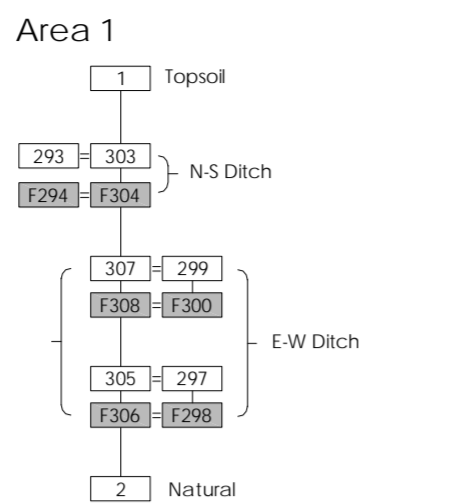
Sample	Context	Area	Feature	Volume processed (l)	Flot vol (ml)	C14 available	Rank	Notes
61	147	4	F148	15	450	Y	****	Large flot, charcoal common, charred grains in moderate numbers, oats, barley and wheat, heather twigs common C14 DATE FOR OAT (early med?)
62	149	4	F150	8	70	Y	*	Small amount of charcoal, oak and alder and charred heather twigs (Prehistoric?)
63	151	4	F152	14	150	Y	*	Small amount of charcoal, oak and diffuse porous and heather twig (Prehistoric?)
64	153	4	F154	2	15	Y	*	Tiny flot, small amount of charcoal small fragment sizes mainly oak. Charred false oat-grass tuber (Prehistoric?)
65	157	4	F158	2	15	?	*	Tiny flot with trace of alder stemwood charcoal. Small fragment (Prehistoric?)
66	159	4	F160	2	15	Y	*	Tiny flot with small amount of charcoal oak sapwood and quick growing alder - longshoot?. Charred hazel nutshell (Prehistoric?)
67	155	4	F156	8	60	Y	**	Small flot contains more coal and cinder than charcoal. Maloideae charcoal identified. Charred heather twigs. Roman?/Late Prehistoric?
68	165	4	F166	8	100	Y	***	Small amount of charcoal and moderate numbers of charred cereal grains barley and possibly rye. MAY NEED A C14 DATE FOR RYE
69	163	4	F164	4	40	Y	****	Small flot small amount of charcoal oak sapwood hazel branchwood and naked barley grain NEED C14 DATE FOR NAKED BARLEY (Prehistoric?)
70	165	4	F166	10	60	Y	****	Moderate charcoal and grain dominated by naked barley NEED C14 FOR NAKED BARLEY (prehistoric?). Possibly need 2 dates if rye present
71	171	3	F172	7	50	?	*	Small amount of charcoal. Poorly preserved barley grain and nutshell
72	185	3	F186	36	800	Y	***	Abundant charcoal - oak mainly but other species present. Burnt bone, possible cremation or midden?
73	187	3	F188	5	30	?	*	Small amount of charcoal. One poorly preserved indet cereal grain. Fly puparia
74	167	3	F168	16	150	Y	***	Moderate charcoal and grain common (mainly barley)
75	169	3	F170	15	150	Y	***	Common charcoal (including elm roundwood C14 NEEDED). Common grain dominated by barley with some possible oats
76	191	3	F170	12	450	Y	***	Common charcoal and abundant grain dominated by barley with some possible oats. Weed seeds noted
79	204	3	F205	13	100	?	*	Small amount of charcoal and a broken wheat grain and brome seed
80	206	3	F208	17	300	Y	***	Common charcoal (oak and alder noted). Some nutshell (possibly Bronze Age)
81	207	3	F208	10	350	Y	***	Common charcoal (oak and alder noted). Some nutshell (possibly Bronze Age)
82	202	3	F203	15	400	Y	*	Some charcoal (mixed species)
83	209	3	F210	16	150	?	*	Small amount of charcoal and a charred wheat grain
84	183	3	F184	15	60	Y	*	Small amount of charcoal and a charred barley and cf. rye grain
86	221	3	F222	16	140	Y	**	Charcoal common but in poor condition. Alder appears to be common. * GET A C14 DATE OR TWO FOR USE OF ALDER WHETHER ROMAN OR PREHISTORIC
87	218	3	F220	18	350	Y	**	Some charcoal and charred grains (mainly barley). Charred heather twigs are common.

Sample	Context	Area	Feature	Volume processed (l)	Flot vol (ml)	C14 available	Rank	Notes
88	219	3	F220	17	140	Y	**	Some charcoal and charred heather twigs. A few charred cereal grains.
89	223	3	F224	9	40	?	*	Small amount of charcoal
90	225	3	F226	15	400	Y	***	Common charcoal oak sapwood with rapid growth willow and alder branchwood/twigs nutshell charred (Bronze Age?) C14 WOULD BE USEFUL FOR ANALYSIS
91	228	3	F229	15	40	Y	*	Small flot a few small fragments of charcoal and charred rhizomes (Roman)
92	235	3	F236	3	70	Y	**	Small amount of charcoal heather twigs are common charred rhizome noted barley grain charred UNUSUAL CONTEXT (C14 DATE MAY BE REQUIRED) Roman? Or IA or Early med?
93	237/239	3	F238/F240	8	40	Y	*	Small flot a few fragments of oak charcoal with radial cracking and vitrification (Prehistoric?)
94	243	3	F246	13	400	Y	***	Charcoal common oak/hazel/Salicaceae charred heather twigs common possibly no macros (Roman) C14 MAY BE REQUIRED IF NO ARTEFACTUAL EVIDENCE (Roman)
95	247	3	F248	8	50	Y	*	Small flot a few fragments of charcoal includes oak sapwood (Prehistoric?)
96	249	3	F250	4	20	Y	*	Small flot a few fragments of charcoal (Prehistoric?)
98	257	3	F258	9	40	Y	*	Small flot a few fragments of oak charcoal (Prehistoric?)
99	259	3	F260	8	40	?	*	Small flot comprising mineralised oak charcoal (Prehistoric?)
101	263	2	F264	20	50	Y	*	Small flot with a few fragments of charcoal (Roman?)
102	267	3	F268	9	30	Y	*	Small flot with trace of charcoal and fragmented hazel nutshell probably all from a single hazelnut (Prehistoric?)
103	269	3	F270	16	200	Y	**	Small quantity of charcoal oak and hazel noted trace of heather twigs (Roman?)
104	284	2	F285	15	150	Y	**	Moderate quantity of charcoal non oak - Alder appears to be common (Roman?) * GET A C14 DATE OR TWO FOR USE OF ALDER WHETHER ROMAN OR PREHISTORIC
106	276	2	F277	10	30	?	*	Trace of charcoal, oak sliver and fragment of birch noted
107	289	3	F290	8	30	Y	*	Small quantity of fragmented charcoal, a trace of charred heather twigs and a poorly preserved spelt grain (Roman)
108	271	2	F272	8	20	?	*	Small quantity of fragmented charcoal, oak and holly possibly too small for C14 dating (Roman)
109	288	2	F272	7	20	N	-	Small quantity of fragmented charcoal, oak and cf. alder probably too small for C14 dating (Roman)
110	282	2	F283	9	60	?	*	Small quantity of fragmented charcoal and a spelt type wheat grain in poor condition (Roman)
112	293	1	F294	15	70	Y	*	Small quantity of charcoal. One charred barley grain (Roman)
113	295	3	F296	7	10	?	*	Small quantity of charcoal. One charred nutshell and barley grain in poor condition (Roman)
114	297	1	F298	8	10	?	*	Small quantity of fragmented charcoal. One indeterminate cereal grain (Roman)
115	299	1	F300	9	40	?	*	Small quantity of fragmented charcoal (Roman)
117	185	3	F186	49	1600	Y	***	Abundant charcoal. Mainly oak stemwood but other species present. Charcoal is mineralised and in poor condition. Some charred nutshell (Prehistoric).
118	309	4	F310	8	20	Y	**	Some charcoal mixed species and occasional charred grain, chaff and weed seeds (barley, spelt and brome)(Roman)

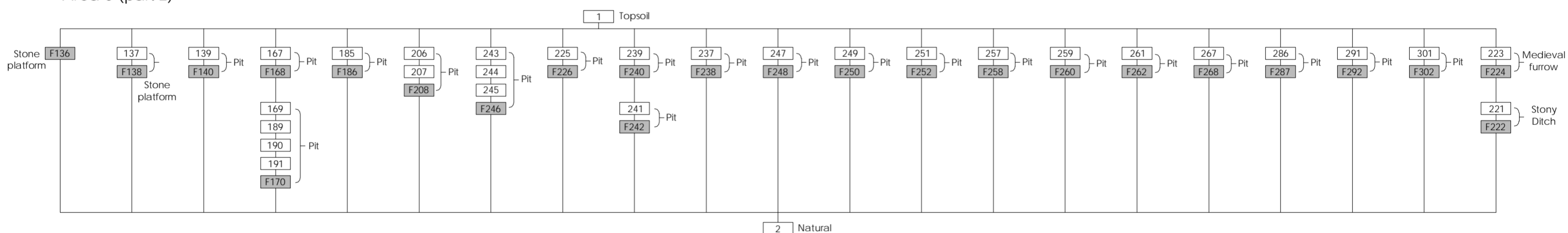
Sample	Context	Area	Feature	Volume processed (l)	Flot vol (ml)	C14 available	Rank	Notes
120	36	4	F37	10	300	Y	***	Large quantity of charcoal oak is common alder with vitrification low numbers of charred barley grains and hazel nutshell (Prehistoric?)
121	317	4	F318	7	20	Y	*	Small flot with small quantity of oak and hazel charcoal no charred plant macrofossils (Roman?)
122	319	4	F320	7	20	?	*	Small flot, small quantity of charcoal, oak and alder possibly too small for C14 dating (Prehistoric?)
123	321	4	F322	8	20	?	*	Trace of charcoal oak and hazel possibly too small for C14 dating (Prehistoric?)
124	324	4	F323	7	120	Y	***	Moderate quantity of charcoal oak is common alder branchwood with insect tunnels noted in several fragments trace of hazel charcoal and low number of nutshell (Prehistoric?)

[Rank: *: low; **: medium; ***: high; ****: very high potential to provide further palaeoenvironmental information. ?: radiocarbon material may be unsuitable for dating due to size or species]

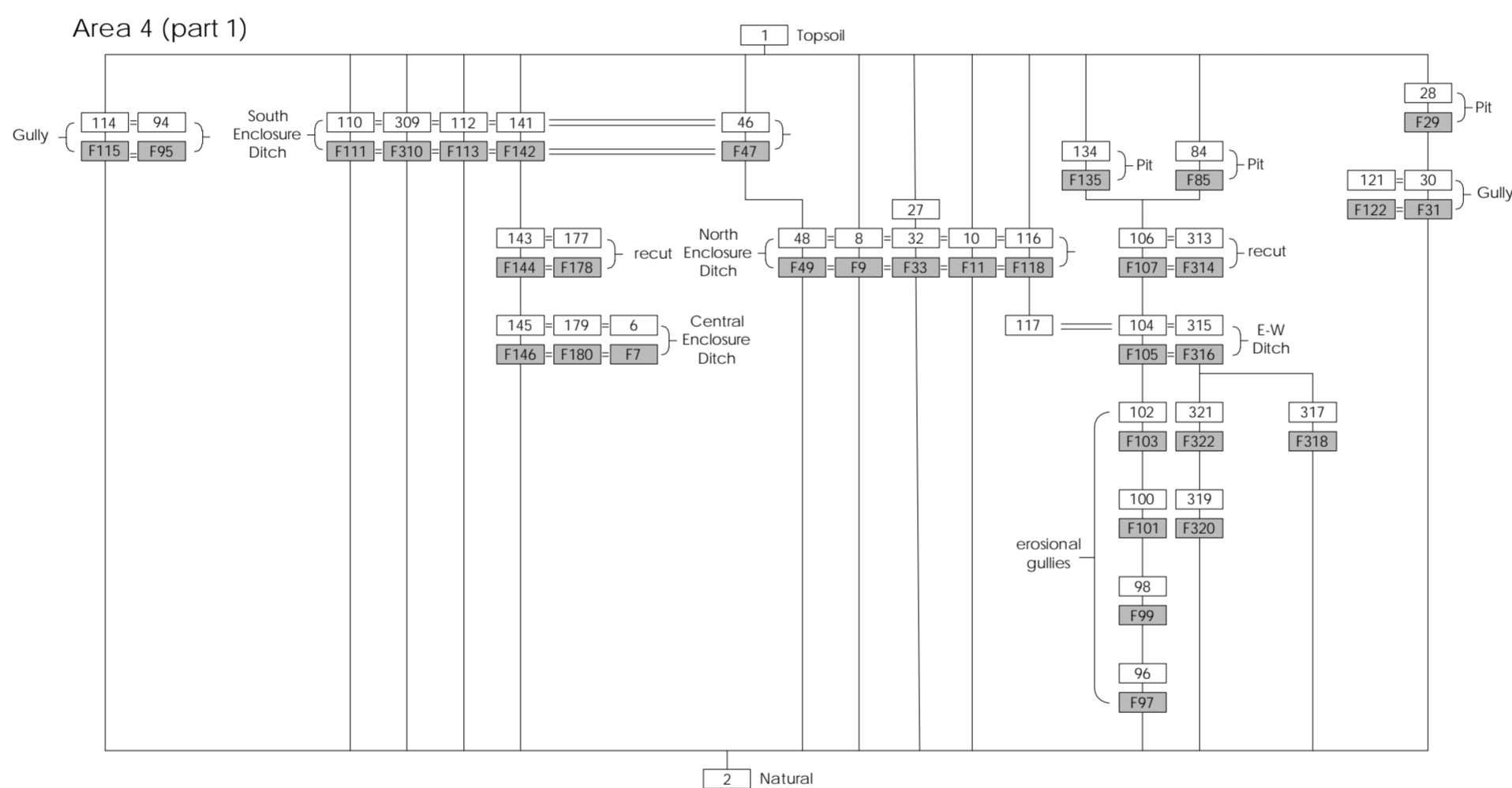
Appendix 2: Stratigraphic matrices



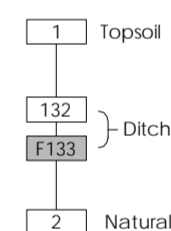
Area 3 (part 2)



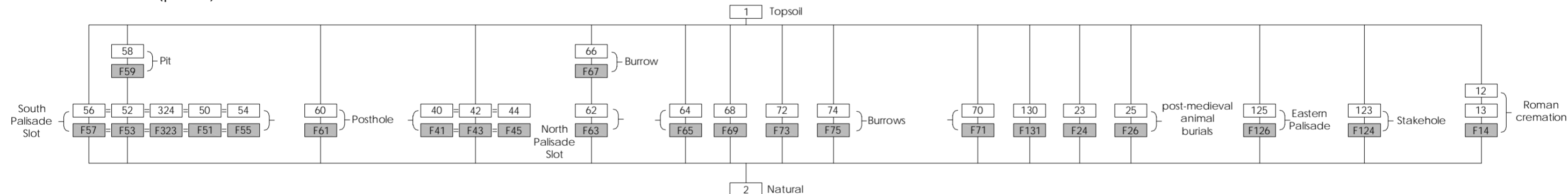
Area 4 (part 1)



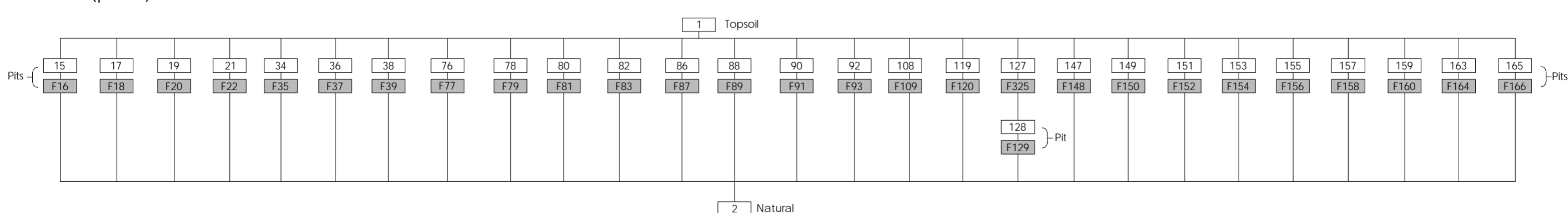
Area 5



Area 4 (part 2)



Area 4 (part 3)



on behalf of
Taylor Wimpey North East

ARCHAEOLOGICAL SERVICES
DURHAM UNIVERSITY

Land at Durranhill Road
Carlisle
Cumbria
post-excavation assessment
report 4775
Appendix 2
Stratigraphic matrices

Appendix 3: Updated Project Design

Project objectives

1. The works will be conducted in fulfilment of the *Archaeological Research Framework for North West England (Brennand 2005)*.

Conservation

2. Investigative conservation of iron objects from context [112, 114, 136, 243 and 280].
3. Cleaning and stabilisation of the copper alloy objects SF2 and SF11.
4. Cleaning, stabilisation and reconstruction of the bone object from SF2.

Ceramic assemblage

5. Full analysis of the prehistoric ceramic assemblage by a Bronze Age ceramics specialist.
6. Full analysis of the Roman ceramic assemblage by a Roman ceramics specialist. This will include material recovered during the evaluation.

Cremated bone

7. Full analysis of the cremated remains from SF2, with the data on the skeletal remains and funerary practices being placed into the context of other sites of the relevant period.

Lithic assemblage

8. The lithic assemblage should be recorded in detail. A full catalogue should be produced.

Bone object

9. The bone object from SF2 should be studied by appropriate specialists to identify the species from which the bone derived and to determine object type, function and date.

Fire-cracked stones

10. The possible quern fragments from contexts [8, 36, 38, 121, 185 & 218] should be examined by a suitable specialist to confirm identifications.

Metal objects

11. The entire assemblage of copper alloy objects and all the iron ones excluding the hobnails (SF16) will be studied by a specialist to further identify object type, function and dating.

Palaeoenvironmental analysis

12. Update of palaeoenvironmental analysis following radiocarbon dating.
13. Full analysis of the charcoal from appropriate samples among contexts 19, 21, 27, 28, 34, 36, 38, 76, 78, 88, 90, 108, 128, 134, 139, 145, 147, 165, 167, 169, 185, 191, 206, 207, 225, 243, 284, and 324 will be undertaken; this analysis will be incorporated with the existing data, including the macrofossils, and the data from the evaluation, and revised in light of the full analysis of the data structure for the site.
14. Full analysis of the plant macrofossils from appropriate samples among contexts 27, 38, 88, 134, 139, 147, 165, 169 and 191 will be undertaken; this analysis will be incorporated with

the existing data, including the charcoal, and the data from the evaluation, and revised in light of the full analysis of the data structure for the site.

Radio-carbon (AMS) dating

15. Twenty-five features have been selected as suitable candidates for radio-carbon (AMS) dating. Substitutes may be used where sample dating fails:
16. Context 17 (sample 7) – fill of pit F18
Context 19 (sample 8) – fill of pit F20
Context 21 (sample 9) – fill of pit F22
Context 34 (sample 11) – fill of pit F35
Context 40 (sample 15) – fill of palisade trench F41
Context 56 (sample 20) – fill of palisade trench F57
Context 76 (sample 26) – fill of pit F77
Context 78 (sample 27) – fill of pit F79
Context 88 (sample 35) – fill of pit F89
Context 134 (sample 57) – fill of pit F135 cutting large E-W ditch
Context 108 (sample 45) – fill of pit F109
Context 128 (sample 55) – fill of pit F129
Context 145 (sample 60 - seaweed) – fill of ditch F146
Context 147 (sample 61 - oat) – fill of pit F148
Context 163 (sample 69 – naked barley) – fill of pit F164
Context 165 (sample 68 – rye or naked barley) – fill of pit F166
Context 185 (sample 72) – fill of pit F186
Context 191 (sample 76) – fill of pit F170
Context 207 (sample 81) – fill of pit F208
Context 221 (sample 86) – fill of ditch 222
Context 225 (sample 90) – fill of pit F226
Context 243 (sample 94) – fill of pit F246
Context 284 (sample 104) – fill of pit F285
Context 324 (sample 124) – fill of pit F323
Evaluation context 14 (eval. sample 5 – naked barley) – fill of palisade trench F124

Artefact illustration

17. Selected pottery sherds will be illustrated.
18. Selected lithic artefacts will be illustrated.
19. The bone object from the cremation will be drawn if recommended by the relevant specialist.
20. Selected metal objects will be drawn if recommended by the relevant specialist.

Artefact photography

21. The three decorated prehistoric pottery sherds will be photographed and the photographs included in the report.

Digitising

22. Selected plans and sections from the site archive will be digitised.

Excavation graphics

23. Phased plans and section drawings will be prepared for the full analysis report.

Report preparation

24. Phased data structure incorporating the results of the evaluation and excavation will be written and integrated with the illustrations.
25. Preparation of report, including collation of specialist reports and illustrations.
26. Integration of specialist reports into data structure.
27. Research into relevant parallels for the data and analysis of the data will be conducted in accordance with defined research objectives.
28. A synthesis of the site will be prepared, bringing together all the results of the excavations.
29. The report will be edited by the Project Manager.
30. Full analysis report production.

Publication

31. Preparation of text for publication.
32. Reformatting of illustrations for publication.
33. Editing of publication text by the Project Manager.
34. Submission of publication report to the editor of the *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*.
35. Revision of text / illustrations following referee's comments

Archive

36. Transportation of artefacts between specialists.
37. Preparation of the project archive.
38. Deposition of the site archive in Tullie House Museum.

Programme

39. The analysis report can be completed within 10 months of commission.



Photograph 1: Area 1, ditches F298/F300, looking east



Photograph 2: Area 3 looking south-west, showing change in natural subsoil



Photograph 3: Area 3, ditch F229, looking south



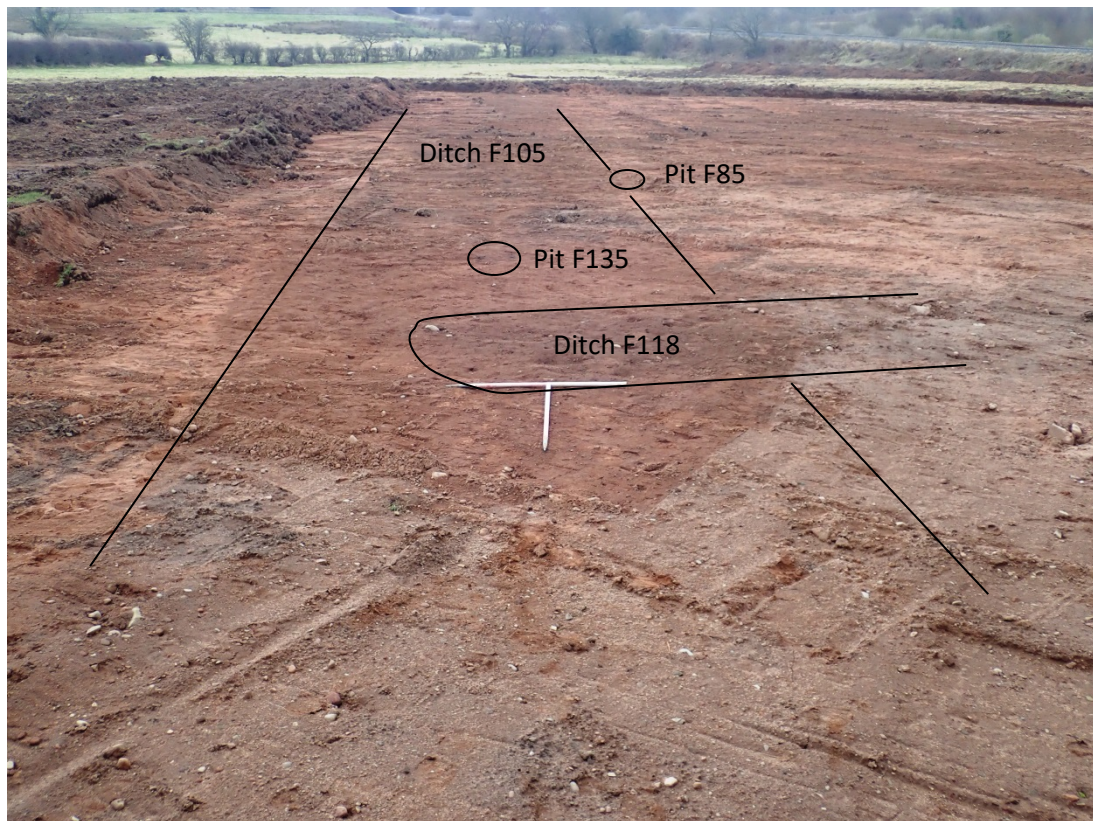
Photograph 4: Area 3, Pit F170, looking north-east



Photograph 5: Stone spread F136, looking west



Photograph 6: Stone spread F138 and pit F140, looking south-east



Photograph 7: Area 4, ditch F105 pre-excitation, looking east



Photograph 8: Area 4, pit F81, looking south-west



Photograph 9: Area 4, pit F37, looking west



Photograph 10: Area 4, pit F89, looking north-east



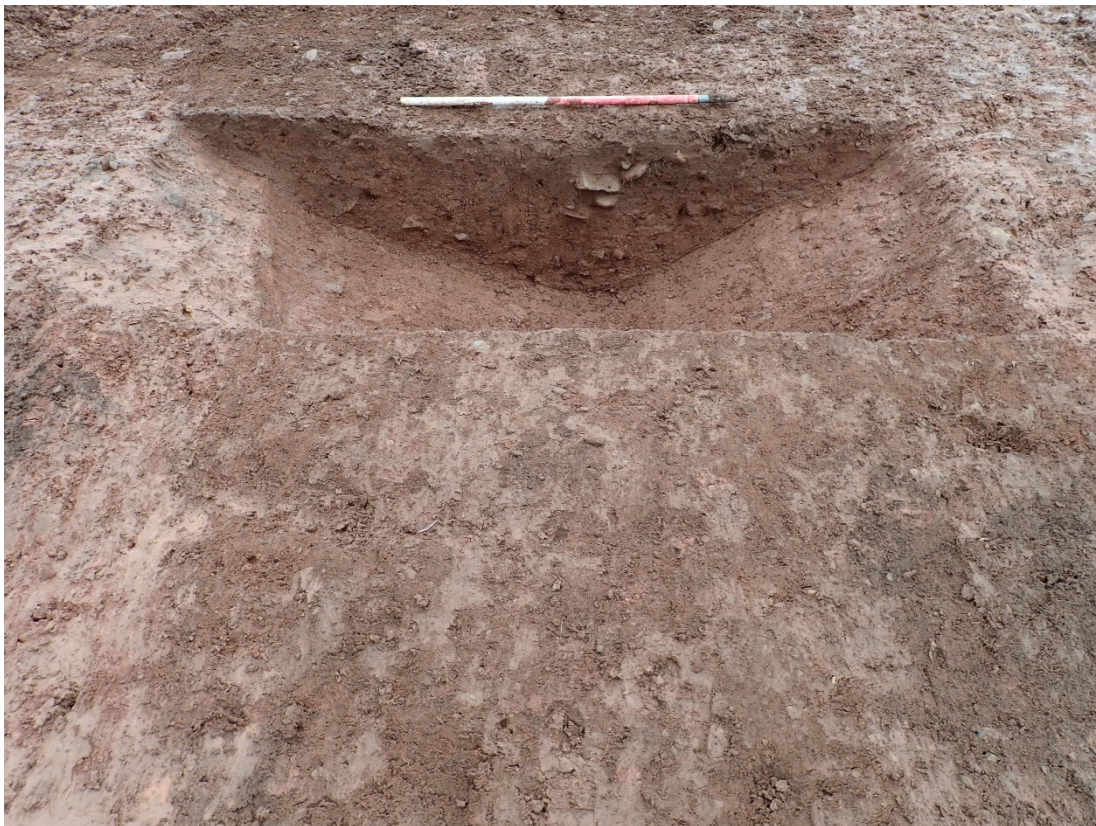
Photograph 11: Area 4, pit F20, looking south-east



Photograph 12: Area 4, palisade slot F41/F53, looking north



Photograph 13: Area 4, palisade slot F126, looking north-east



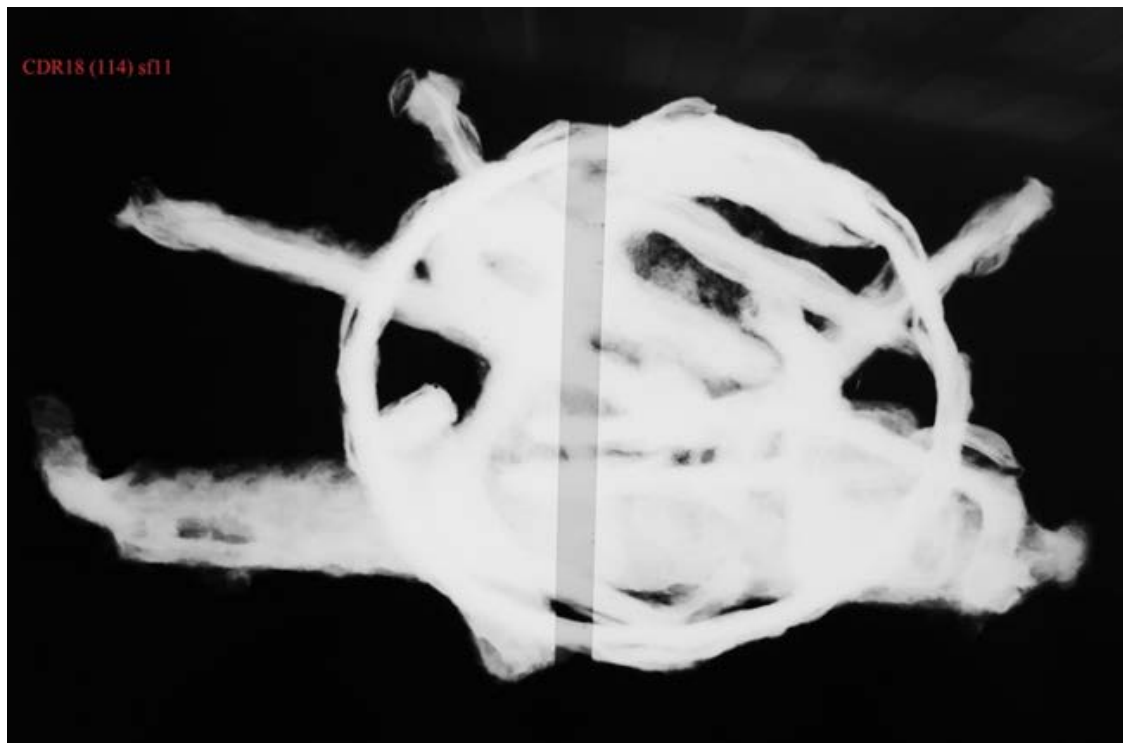
Photograph 14: Area 4, ditch F7, looking north-east



Photograph 15: Area 4, ditch F111, looking east



Photograph 16: Area 4, Cremation F13, looking south-west



Photograph 17: X-radiograph of some of the SF11 objects before disassembly



Photograph 18: SF11 X-radiograph showing the swivel and loop and a socketed tool / implement

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 site boundary

0 1km
scale 1:25 000 for A4 plot

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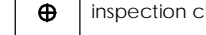
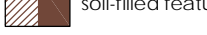






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Figure 2: Location of excavation areas

0 100m
scale 1:2000 for A3 plot

- | | | | |
|---|-----------------------|---|--------------------|
|  | site boundary |  | ridge and furrow |
|  | magnetic survey |  | inspection chamber |
|  | soil-filled feature |  | feeders |
|  | service | | |
|  | drain | | |
|  | former field boundary | | |
|  | cropmark from HER | | |
|  | excavation area | | |
|  | evaluation trench | | |
|  | ditch | | |
|  | feature | | |
|  | pipe/drain | | |
|  | furrow | | |






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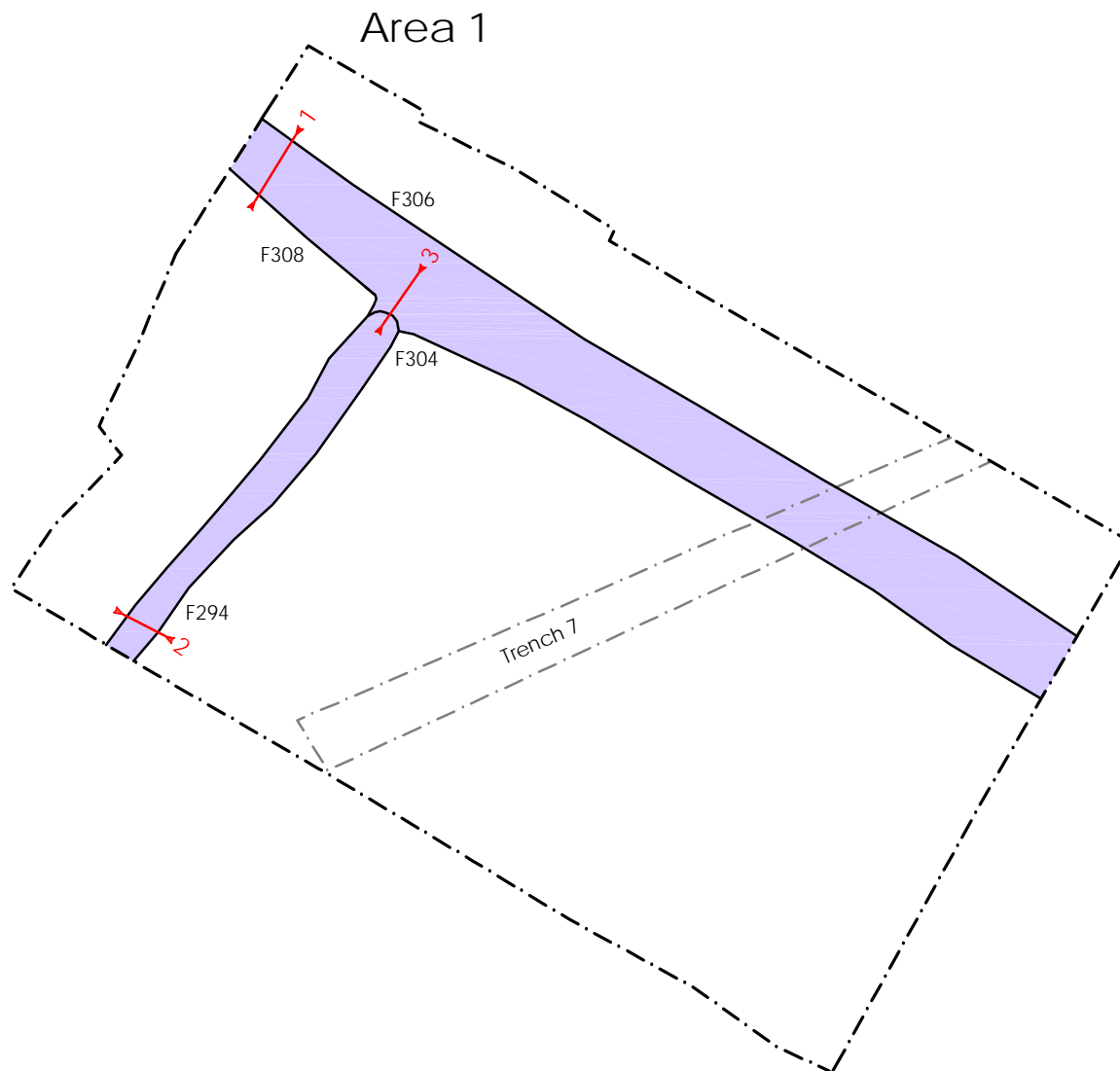
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Figure 3: Area 1, plan of main
features

0 10m
scale 1:250 for A4 plot

-  extent of excavation
-  section
-  ditch







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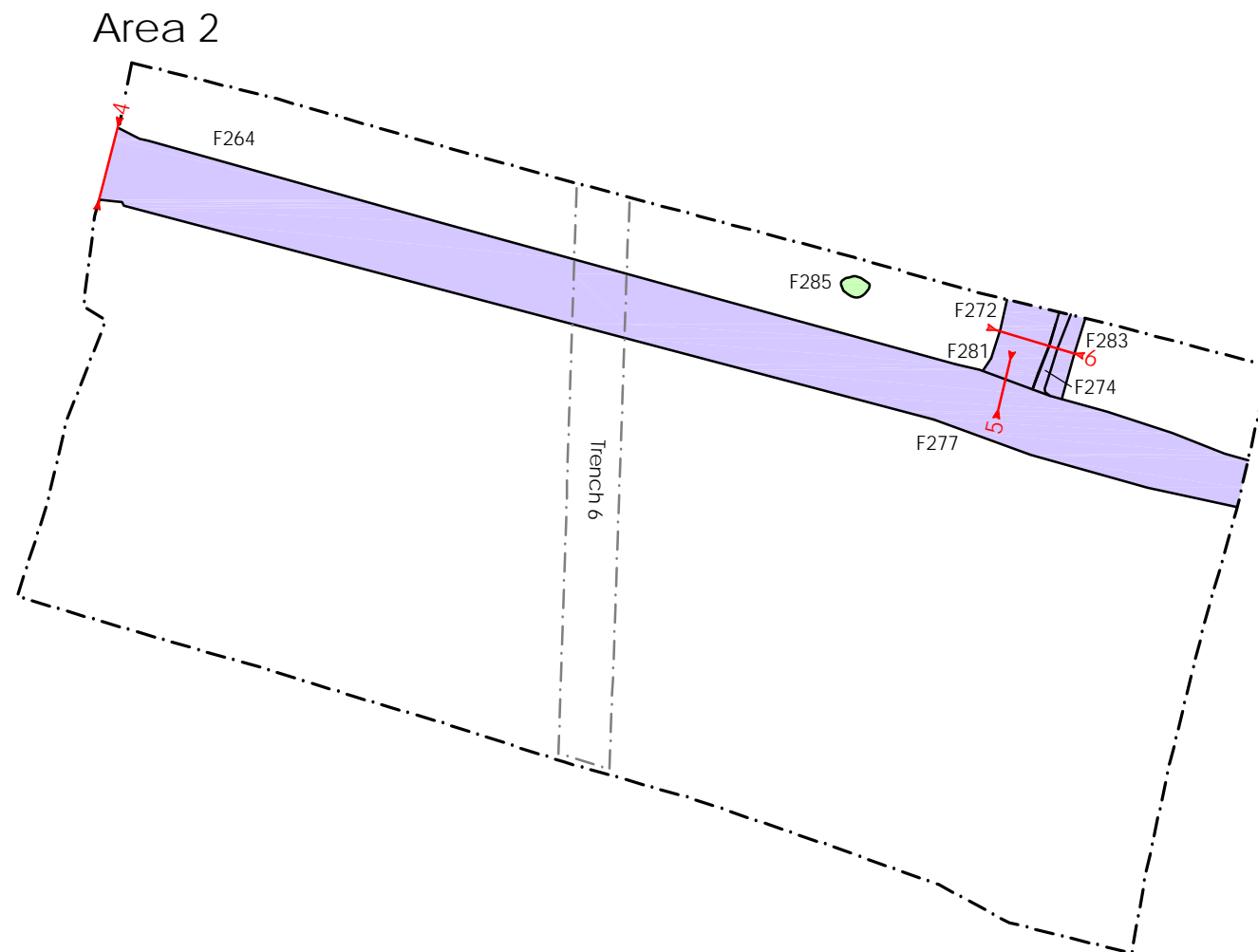
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Figure 4: Area 2, plan of main
features

0 10m
scale 1:250 for A4 plot

-  extent of excavation
-  section
-  ditch
-  feature



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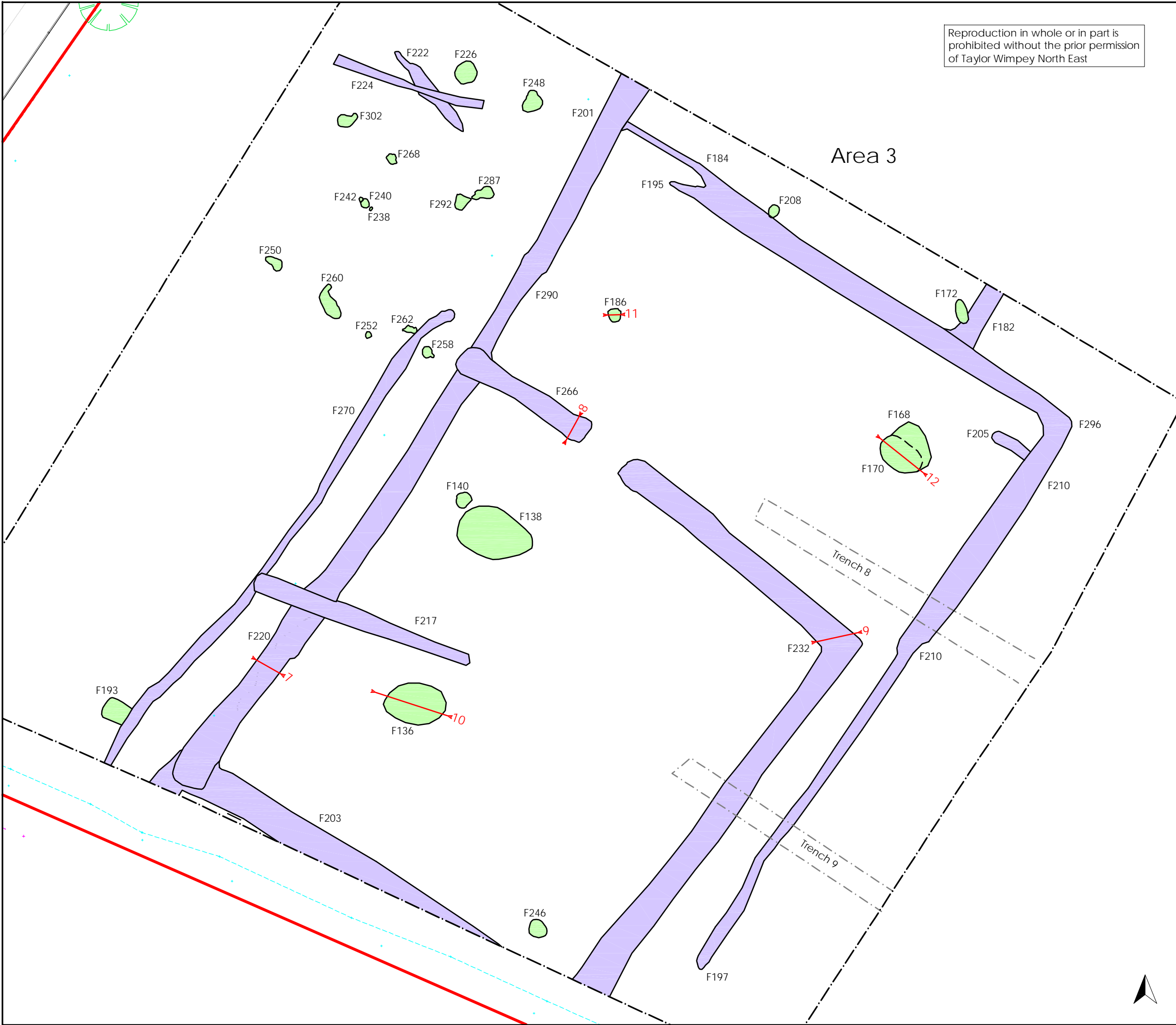
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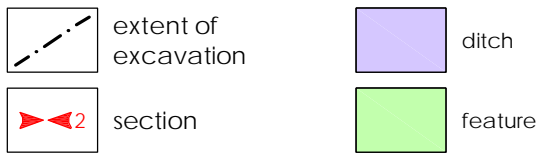
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Figure 5: Area 3, plan of main features

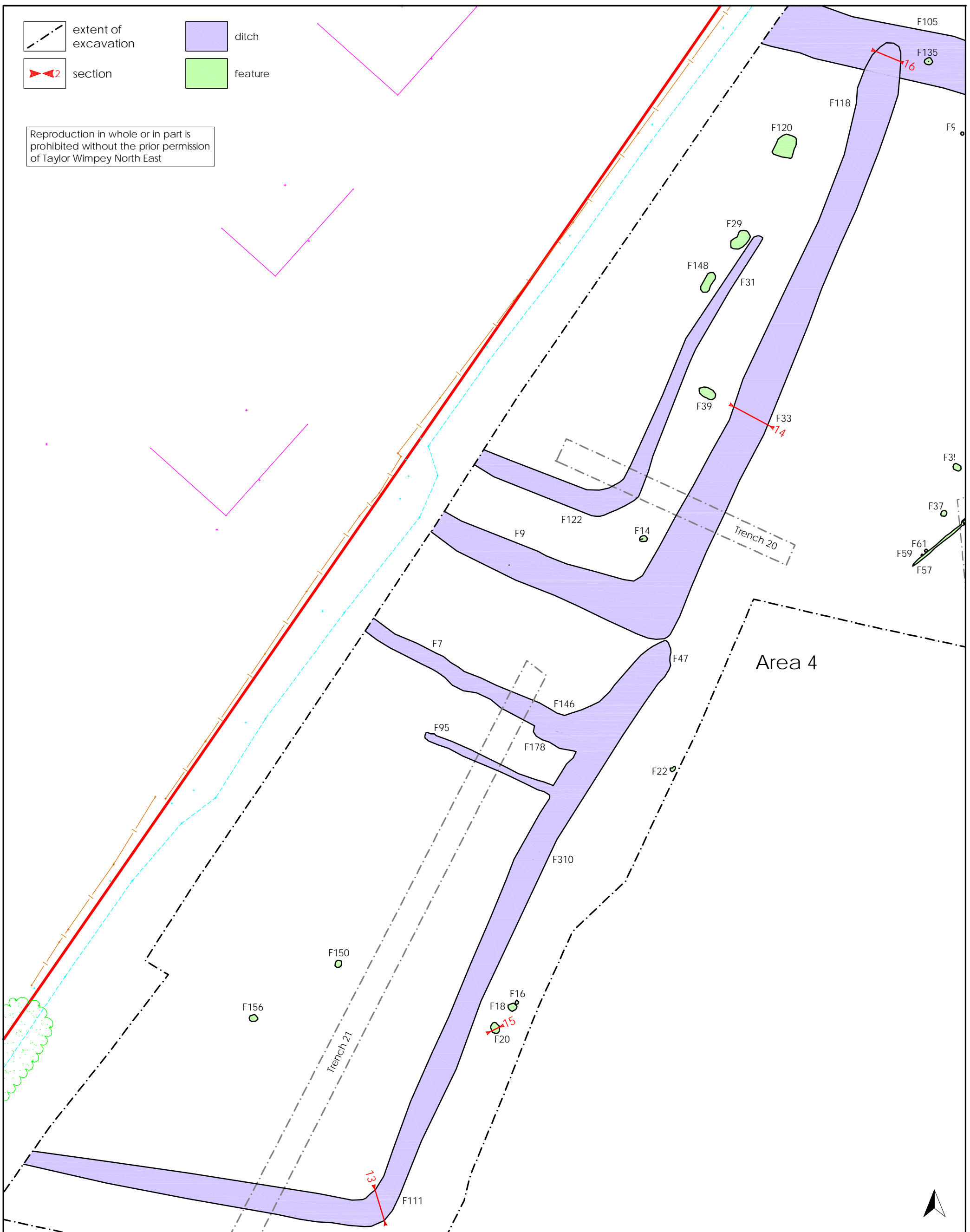


- extent of excavation
- section
- ditch
- feature



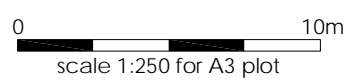


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Figure 6: Area 4 (West), plan of main features

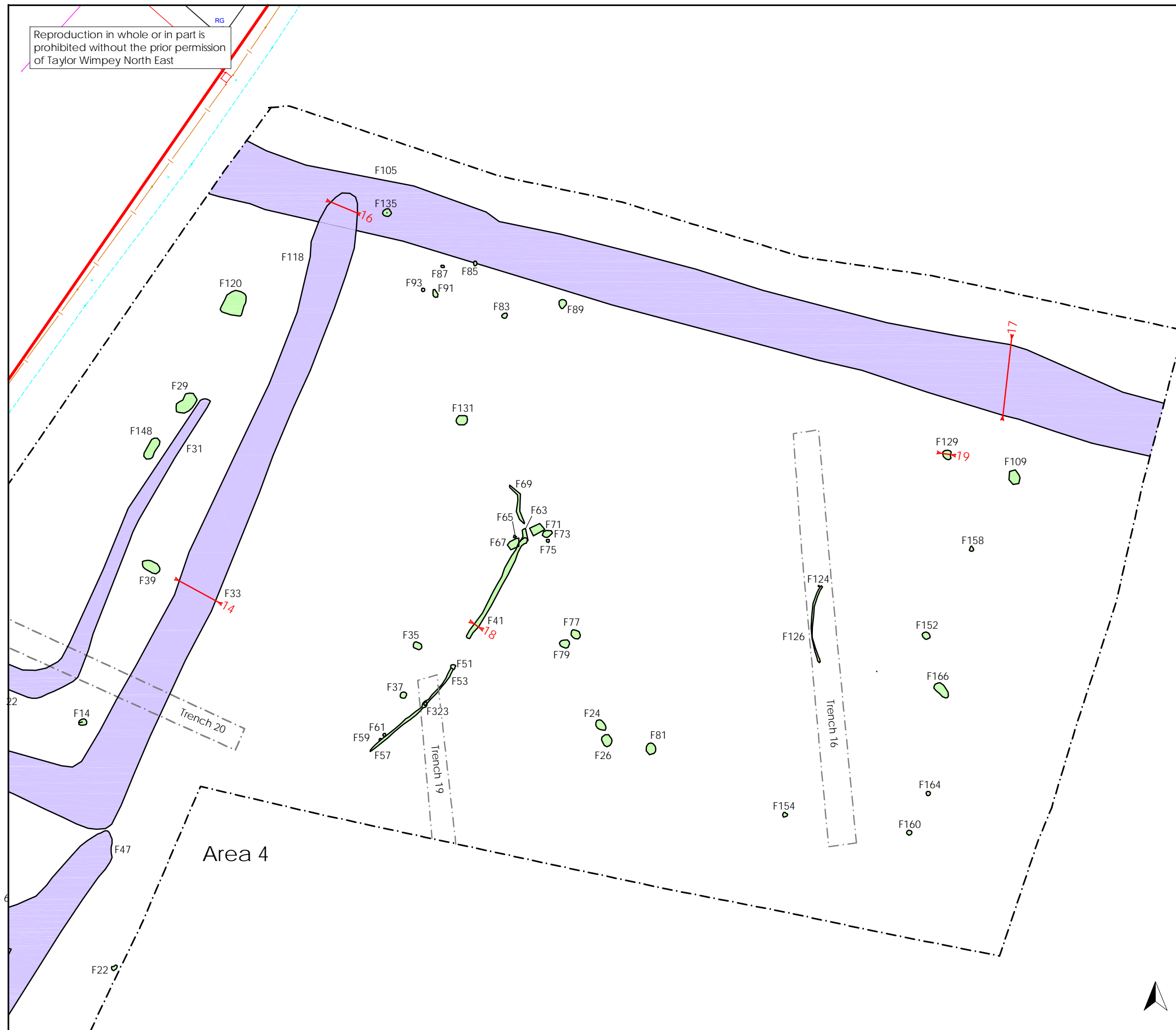
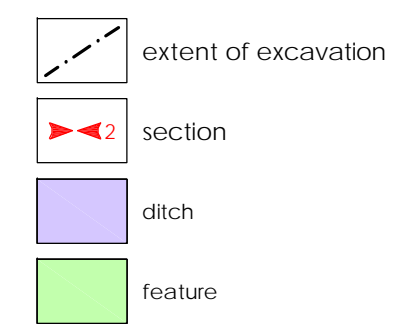
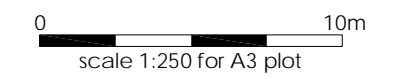
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Figure 7: Area 4 (East), plan of main features






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Figure 8: Area 5, plan of main
features

0 10m
scale 1:250 for A4 plot

-  extent of excavation
-  section
-  ditch

Area 5

