

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
E.ON

Butterwick Moor Wind Farm
Sedgefield
County Durham

archaeological post-excavation
assessment

report 2442
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1. Summary

The project

- 1.1 This report presents the results of an archaeological excavation conducted in advance of a development at Butterwick Moor Wind Farm, Sedgefield. The works comprised an open area of excavation.
- 1.2 The works were commissioned by E.ON, and conducted by Archaeological Services Durham University.

Results

- 1.3 The excavation identified a complex series of phased ditches and gullies indicative of a significant Romano-British enclosure system. The ditches form a pattern of aligned large rectangular enclosures with occasional small, circular ditched enclosures. Gullies and postholes indicate the presence of timber structures including probable fence lines. The features inter-cut each other, indicating that the site was re-modelled on several occasions. Part of a building built in wood which may have been rebuilt in stone was identified in the north-east corner of the trench. A further stone structure was recorded near the centre of the trench. Artefacts uncovered included c.200 sherds of pottery, fragments of quern stones and a jet object. A charred seed assemblage was also recovered. The data is supplemented by the geophysical survey and evaluation trenching.

Recommendations

- 1.4 A scheme of full analysis of the data is recommended, leading to an archive report and a publication in a regional archaeological journal. The tasks to be undertaken to achieve this are listed in Appendix 2: Updated Project Design. The works will include the result from the previous schemes of geophysical survey and evaluation trenching conducted on the site.

2. Project background

Location (Figure 1)

- 2.1 The site is located in fields at Butterwick Wind Farm, Sedgfield, County Durham (NGR centre: NZ 397 310). It covers an area of approximately 32ha. The area of excavation was located around the site of turbine 10 and was 2650m².

Development

- 2.2 A wind farm is being installed on the farm. A turbine is to be constructed on the site of the excavation.

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.

Methods statement

- 2.4 The works have been undertaken in accordance with a Written Scheme of Investigation provided by Archaeological Services Durham University (reference DS07.328revised) and approved by the planning authority.

Dates

- 2.5 Fieldwork was undertaken between 22nd April and 3rd June 2010. This report was prepared for 7th September 2010.

Personnel

- 2.6 Fieldwork was conducted by Clare Dunscombe, David Graham, Paul Murtagh, Alan Rae, Natalie Swann, Dave Webster and Matt Claydon (Supervisor). This report was prepared by Matt Claydon, with illustrations by David Graham. Specialist reporting was conducted by Helen Drinkall (flint), Victoria Cunningham (querns), Alex Croom (ceramics), Jennifer Jones (conservation and other finds) and Angela Vitolo (palaeoenvironmental). The Project Manager was Daniel Still.

Archive/OASIS

- 2.7 The site code is **BMS10**, for **Butterwick Moor Wind Farm, Sedgfield 2010**. The archive is currently held by Archaeological Services Durham University and will be transferred to the Bowes Museum in due course. 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 **archaeol3-81130**.

3. Landuse, topography and geology

- 3.1 At the time of this assessment, the area of excavation comprised a field under pasture.
- 3.2 The survey area was on a gradual incline with an elevation rising from approximately 94m OD in the south to 97.5m in the north.
- 3.3 The underlying solid geology of the area comprises Magnesian limestone, which is overlain by boulder clay and morainic drift.

4. Historical and archaeological background

- 4.1 A discussion of the archaeological and historical background of the development area is presented in the cultural heritage section of the Butterwick Moor Wind Farm Proposal: Environmental Statement (Wood 2006). A summary is provided below.
- 4.2 The remains of a possible prehistoric mound have been identified directly to the north of the site.
- 4.3 The remains of the former medieval village of Butterwick survive in the form of earthworks around West Butterwick Farm. These earthworks are in relatively poor condition and many have been partially ploughed out since first being noted on aerial photography.
- 4.4 Two farmsteads of probable 19th-century date have been identified to the north of the site.
- 4.5 Several 19th-century wells have been identified within the survey area. A drainage system of similar date has been identified to the north of the site.
- 4.6 The name 'mill hill' on early estate and tithe maps indicates that a mill may have been present towards the south of the site, though presumably it had fallen out of use or been removed completely by the time the maps were produced.
- 4.7 A geophysical survey was undertaken over the wind farm in 2007. The survey identified several linear and curvilinear positive magnetic anomalies interpreted as enclosure ditches in and around the area of the excavation trench (Archaeological Services 2007a, 9).
- 4.8 A subsequent evaluation was undertaken by Archaeological Services in December 2007. Trenches 13-16 were located over the enclosure ditches identified in the geophysical survey. Several features including ditches, pits, and postholes were recorded. Pottery from these features indicated this to be part of a Romano-British settlement (Archaeological Services 2007b, 6-7).

5. The excavation

Introduction

- 5.1 The area of excavation was located around the site of turbine 10, the area of its associated crane pad and its access road. Topsoil and areas of subsoil formed by accumulated hill wash were removed under archaeological supervision using a 360° mechanical excavator fitted with a toothless ditching bucket. The area was then hand-cleaned and identified features were sample excavated (Figures 4-14).
- 5.2 At the north end of the site a north/south aligned ditch [F381: 4.5m+ by 0.81m, 0.11m deep] cut the natural clay subsoil [101]. The ditch may have been heavily truncated, with gradually sloping sides and a concave base. It was filled with dark grey-brown silty clay [380] from which several sherds of Local Traditional ware (LTW) were recovered. At the north end the ditch terminal was cut by an east-west aligned ditch which extended the full width of the trench. The ditch [F428: 11m+ by 0.6m, 0.2m deep] was U-shaped in profile and was filled with mottled grey and yellow slightly silty clay [429]. Extending north from this feature was a similar ditch [F424:

16m+ by 1.06m, 0.38m deep] also filled with mottled grey and yellow slightly silty clay [425]. These two ditches had identical fills, and it is probable that they are contemporary.

- 5.3 South of these features was a north-east/south-west aligned gully [F389: 2m by 0.4m, 0.15m deep] filled with dark grey clay [390]. It was cut at the north-east end by a small pit or posthole [F391: 1m by 0.9m, 0.2m deep] filled with dark grey clay with charcoal flecks [392]. This was cut by a very substantial east/west aligned ditch [F402: 9m+ by 4.4m, 1m deep]. The ditch was stepped on the south side. Two recuts were recorded. The earliest recut [F396] cut through primary fills of dark grey-brown clay [399, 397] under redeposited natural yellow clay [400, 398]. A dark grey-brown clay [401] overlay this on the north side. The recut was 3.1m wide and 1m deep and followed a similar profile to the original ditch cut, with a step on the south side. It was filled with orange-grey clay [395]. Down the centre of the ditch was a second recut [F394: 1.2m wide, 0.8m deep]. This was significantly narrower and slightly shallower with a U-shaped profile. It was filled with mottled orange-grey slightly sandy clay [393].
- 5.4 South of this was a shallow, probably heavily truncated, pit [F415: 1.2m by 1m, 0.1m deep]. It was filled with dark grey clay [416]. To the south was an east/west aligned ditch [F419: 6.5m+ by 2.2m, 0.5m deep]. The ditch contained a primary fill of orange-brown clay-silt [420] 0.05m thick, overlain by grey-brown clay-silt [421]. It was cut by a curvilinear ditch [F344=F433: 18m+ by 1.05m, 0.5-0.65m deep]. This ditch was steep-sided with a flattish base and was filled by 0.25-0.3m of mottled orange-brown clayey silt [346=434] overlain by 0.25-0.4m of grey-brown clayey silt [345=432]. The ditch extended from the east edge of excavation on a south-west alignment, and then appeared to turn southwards, petering out after 9m.
- 5.5 To the south and east of this ditch was evidence for a timber and stone structure. The structure was formed by four postholes [F360: 0.35m+ by 0.4m, 0.2m deep]; [F356: 0.35m by 0.3m, 0.2m deep]; [F354: 0.3m by 0.3m, 0.2m deep]; [F378: 0.3m by 0.3m, 0.1m deep]. These were filled with dark grey clay containing charcoal flakes; [361], [357], [355], and [379] respectively. A fifth posthole [F347: 0.2+m by 0.4m, 0.2m deep] may also have formed part of the structure, although it had a distinctly different fill of grey-yellow clay [348]. A possible beam slot [F375: 1.5m+ by 0.3m, 0.2m deep] containing a primary fill of 0.1m of mottled grey-yellow clay [377] overlain with 0.1m of dark grey clay with charcoal flakes [376] was also identified. Over these features was a roughly rectangular stone structure [F314], of which only the foundation course survived (Figure 4). This comprised two parallel east/west aligned walls of unbonded roughly hewn sandstone blocks. A concentration of smaller stones formed the possible remnants of a west wall. The structure extended 3m into the trench from the east edge of excavation and was 4m wide. A 0.2m-thick layer of grey-brown silty clay [343] overlay the internal area of this structure and extended west overlying ditch [F344]. Several sherds of pottery were recovered from the deposit.
- 5.6 Extending south from the north edge of excavation was a large ditch [F374=F272: 18m+ by 3m, 0.6m deep] which then curved to the east. The ditch had a U-shaped profile with an uneven base. Shallow depressions in the base suggested posts may have been set into it, but the evidence was inconclusive. At the north end the ditch had a 0.2m-thick primary fill of orange-brown clay [373] overlain by mottled orange,

yellow and grey clay [372]. At the south-east end a single fill of grey clay was identified [273] filling the ditch terminal. This was cut by a curvilinear gully [F302: 5m by 0.35m, 0.2m deep] filled with grey clay [303]. A similar feature was identified to the north-east of it where a curvilinear gully [F438: 7m by 0.4m, 0.1m deep] extended west from the east edge of excavation before turning north. It was filled with grey-brown clayey silt [437]. To the north of this a small elongated pit or gully terminal [F412: 0.6m+ by 0.55m, 0.2m deep] extended south-west from the east edge of excavation. The feature was filled with dark orange-brown silty clay [411].

- 5.7 Immediately west of ditch [F374=F272] was another ditch [F368=F246: 12m by 1m, 0.7m deep] following a similar curvature. At the south end it was filled with 0.4m of mottled orange clay [253] overlain by 0.1m of grey clay [247]. At the north end it was filled with 0.45m of mottled orange clay [370], cut by a recut [F371] of the ditch filled by mottled orange, yellow and grey clay [369]. The evidence for this recut is slight as both ditches [F374=F272] and [F368=F246] were cut here by an east/west aligned ditch with a U-shaped profile [F367=F306: 30m+ by 1.8m, 0.7m deep]. This later feature also removed evidence for a direct relationship between the two earlier ditches. Towards the east end the ditch was filled by 0.15m of orange-brown clay [366], overlain by 0.15m of dark grey silty clay [365]. This was overlain by mottled yellow and grey clay [364]. Towards the west end the primary fill comprised grey silty clay [308] which banked up against the north side of the base of the ditch. This was overlain by mottled yellow-grey silty clay [313] and mottled grey silty clay [307].
- 5.8 A parallel ditch [F317: 12m by 0.9m, 0.5m deep] with a distinct 'V'-shaped profile ran to the north of this. It contained a primary fill of 0.15m of mottled grey silty clay [318] overlain by brown-grey silty clay [319]. At the east end it joined ditch [F374=F272] where no distinction could be made between the upper fills of the ditches. At the west end this ditch and ditch [F367=F306] joined ditch [F351: 25m+ by 0.9m, 0.35m deep]. This north/south aligned ditch was filled with 0.25m of dark grey-brown silty clay [352] overlain by 0.1m of grey-brown silty clay with occasional small stones [353]. Here also no distinction could be made between the fills. Immediately west of ditch [F351] was a roughly parallel ditch [F341=F305: 10m+ by 1m, 0.6m deep]. This ditch had a shallow concave profile with a vertical-sided, flat-based gully at the base. The feature was filled with grey-brown silty clay [342] from which a sherd of grey ware and a sherd of LTW were recovered. At the southern end excavation [F305: 1.2m wide, 0.27m deep] showed a shallow, flat-based profile filled with grey-brown silty clay [304], without the gully in the base. Immediately west of the ditch was a large north/south aligned ditch [F337: 10m+ by 2m, 0.85m deep], with a primary fill of dark yellow-brown silty sandy clay [340] banked against the east side. This was overlain by 0.53m of dark yellow-brown silty clay [338]. Dark grey-brown silty clay [339] with occasional small stones filled the remainder of the ditch (Figure 5). The edges of these three north-south ditches merged: the upper fills of the ditches were very similar which may indicate they were deposited contemporaneously.
- 5.9 Towards the centre of the trench, at the northern end, was a north/south aligned gully [F409: 5m by 0.3m, 0.25m deep]. The gully had very steep sides and a flat base, filled with mottled yellow, grey and brown silty clay [410]. East of this was a heavily truncated ditch [F405: 3m by 0.7m, 0.13m deep] on a parallel alignment. Only a short section of this was identified. It was filled with grey-brown silty clay [406] from

which 17 sherds of a LTW triangular rimmed bowl were recovered. Between these features was another north-south aligned gully [F407: 7m by 0.33m, 0.17m deep], filled with grey-brown silty clay [408]. The gully was cut at the south end by a north-west/south-east aligned ditch [F350=F280=F383: 12m by 1m, 0.45m deep]. This ditch was filled with grey-brown silty clay [349=279=382]. This feature was cut at the north-west end by ditch [F351], and at the south-east end by ditch [F252=F330=F359=F284]. South-west of ditch F350 was a small pit or possible posthole [F321: 0.4m diameter, 0.15m deep]. It was filled with grey silty clay [320].

- 5.10 Towards the centre of the eastern side of the trench was a small, elongated pit or short gully [F212: 1.1m+ by 0.4m+, 0.25m deep]. The feature was steep-sided with a flat base and was filled with orange-grey clayey silt [211]. Its full extent was undetermined as it was cut on the west side by a curvilinear gully [F214: 10m by 0.4m, 0.3m deep]. The gully was steep-sided with an uneven base. It contained a primary fill of burnt clay and oak charcoal [256] 0.1m thick. This burning had probably occurred *in situ* as the natural clay through which it was cut was scorched. It was overlain by dark grey silty clay [213] which contained several rounded stones. At the southern terminal of the gully was a small posthole [F255: 0.6m by 0.55m, 0.1m deep] filled with dark grey silty clay [254], the same as the upper fill of the gully. These features may be the remains of a timber fence or other structure, which later burnt down. Another possible posthole [F436: 0.35m by 0.3m, 0.1m deep] was identified immediately east of posthole [F255], filled with grey-brown silty clay [435]. East of these features was a north/south aligned ditch [F206: 1.1m, 0.35m deep]. It had a U-shaped profile and was filled with orange-brown clay [205]. This ditch was cut on the west side by a larger parallel ditch [F210=F220=F222=F312=F387]. This ditch also cut gully [F214] and pit [F212].
- 5.11 This ditch [F210=F220=F222=F312=F387] extended 20m from north to south. At the south end was a rectangular terminal. A sample excavation here recorded the ditch as 1.1m wide and 0.7m deep with a U-shaped profile and a flat base, filled with 0.45m of grey silty clay [219=311] from which a fragment of quern stone (SF6) was recovered. This was overlain by 0.25m of grey sandy clay [230]. The ditch was recut [F215: 1.2m wide, 0.25m deep] with a shallower, concave profile. This was filled with orange-grey clay [218]. Further north another sample excavation through the ditch recorded a similar profile, although here the lower fill comprised 0.4m of orange-brown clay [209]. The recut [F208] was narrower and deeper than [F215]. It was filled with 0.35m of grey-brown silty clay [207] overlain by 0.2m of orange-brown clay [229]. This had been cut by a narrow trench for a field drain [F228: 0.1m wide, 0.5m deep] which was backfilled with the same material [227]. Against the east edge of the trench was an oval pit [F141: 1m by 0.65m, 0.2m deep] filled with grey-brown silty clay [140].
- 5.12 At the north end the ditch turned west, extending across the full width of the trench where it was cut by ditch [F351]. Along this part of the ditch only one fill was evident, mottled grey-orange silty clay [221=388] and no recut was apparent. At the west end the ditch was cut by a possible posthole [F384: 0.4m diameter, 0.15m deep]. This was filled with grey silty clay [385]. This feature may have been associated with posthole [F321] that lay 3m to the north-east. Towards the west end of the trench the ditch was cut by a north/south aligned ditch [F336: 12m by 0.8m, 0.45m deep] filled with grey-brown silty clay [335]. To the east of the ditch was a posthole [F431: 0.75m by 0.85m, 0.4m deep] filled with dark brown silty clay [430]

and several large packing stones. Further east the north side of the ditch was cut by a curvilinear ditch [F245: 9m by 0.7m, 0.3m deep]. It had a wide U-shaped profile and was filled with mottled orange-brown silty clay [244]. A similar concentric ditch [F238=F240: 8m by 0.7-0.85m, 0.25-0.45m deep] cut this feature to the north, filled with dark orange-grey silty clay [237=239]. This may be a recut of ditch F245, forming a small enclosed area (Figure 6). These features were cut by a north/south aligned ditch [F217=F199]. The ditch was steep-sided (noticeably steeper on the west side) tapering to a flat base. It was filled with dark grey-orange silty clay [216=198]. Immediately east of the concentric ditches was another similar feature. This ditch [F278=F286: 10m by 1.05m, 0.65m deep] formed a half circle. Its sides sloped at 45° down to a concave base. It was filled with mottled orange-brown silty clay [277=285]. The three half-circular ditches and linear ditches [F336] and [F217=F199] were all cut at the north end by east-west aligned ditch [F252=F330=F359=F284]. This ditch also cut the southern ends of features [F350=F280=F383], [F368=F246] and [F302]. There was no evidence that any of the features extended beyond this ditch. Ditch [F252=F330=F359=F284: 26m+ by 1.3, 0.5m deep] extended west from the east edge of excavation. The ditch was filled with 0.2m of dark brown silty clay [250] overlain by 0.3m of mottled brown and orange sandy silty clay [251=329=358=283].

- 5.13 Towards the west side of the trench, south of ditch [F210=F220=F222], was the heavily truncated base of a pit [F323: 1.2m by 0.9m, 0.05m deep]. The pit was filled with black clayey silt [322] with frequent burnt material including charcoal and fragments of burnt clay. South of this was a short linear gully or elongated pit [F418: 1.2m by 0.35m, 0.15m deep]. The gully was filled with black silty clay containing burnt material [417] and possible packing stones. South of this was an elongated pit [F327: 2m by 0.5m, 0.35m deep] aligned north-west/south-east, with a roughly U-shaped profile, undercutting itself on the south-west side. Mottled yellow and grey clay [328] was deposited against the edges of the pit, possibly from slumping. This was overlain by a dark grey clayey silt [326] with very frequent charcoal flakes.
- 5.14 To the west of this, from the west edge of the excavation a gully [F423: 2m by 0.4m, 0.05m deep] filled with grey-brown silty clay [422] extended east into the trench. Here it joined a north/south aligned gully [F427=F226: 5m by 0.4m, 0.15m deep] with a similar fill [426=225]. These gullies had been heavily truncated by ploughing. Gully [F423] may have formed part of a gully identified intermittently across the trench: there were stretches in the centre of the trench [F442=F325: 5m by 0.2m, 0.05m deep], with the same fill [443=324]. A short fragment turned south and terminated, where it met the end of ditch [F217=F199], although a relationship with the ditch could not be established due to identical fills. To the east of here a similar intermittent gully was identified [F444=203: 6m+ by 0.5m, 0.1m deep] filled with dark grey silty clay [443=202]. This gully turned south at the west end. These gullies may represent a fence-line, with the 2m-wide funneled gap between the gullies conceivably being an entranceway. The gully may have continued as F203, with a short stretch with an identical fill heading to the north [F440: 1m by 0.4m, 0.2m deep] filled with grey silty clay [439]. This gully [F440] was cut at the north end by a circular pit [F197: 1.5m diameter, 0.35m deep]. The pit was steep-sided with an uneven base. It was filled with 0.15m of mottled orange-grey clay [204] overlain by 0.2m of dark grey silty clay [196] from which a flint tool and Roman pottery was recovered.

- 5.15 East of gully [F423] was a ditch [F234: 4m by 0.55m, 0.3m deep] aligned north-west/south-east. It had a 'V'-shaped profile and was filled with dark grey-brown silty clay [233]. It was cut at the south end by a large roughly east/west aligned ditch [F224=F190=F292=F310: 22m by 1.36m, 0.8m deep] which extended across the trench and beyond to the east. The western terminal was excavated [F224]. Here it was 1.36m wide and 0.5m deep with a U-shaped profile, filled with mottled yellow, grey and brown silty clay [223]. Further east a sample excavation recorded the ditch as [F292]. Here it was filled with dark grey silty clay [291]. It was recut on the south side [F289=F297: 1m wide, 0.45m deep], the recut filled with mottled yellow and grey clay [290=296]. East of this another section through the ditch was recorded [F190: 0.9m wide, 0.5m deep]. Here it was filled with 0.25m of brown silty clay [188] overlain by 0.25m of grey-brown silty clay [189]. At the east side of the trench a further section was excavated through the ditch where it was recorded [F310: 1.2m wide, 0.5m deep]. Here it was filled with grey clay [309]. Towards the centre of the trench the recut ditch was cut by a shallow circular pit [F288: 2.3m diameter, 0.3m deep]. This was the construction trench for a stone platform [F195] formed by a 2m square surface of large sub-rounded stones with two upended stones forming a short flue from the east corner which contained a 0.1m-thick layer of grey clay [295] at the base (Figure 7). A fragment of a millstone (SF2) and a fragment of quern (SF7) were incorporated into this surface. The structure was originally interpreted as a possible corn dryer, but palaeoenvironmental analysis showed no evidence of plant remains. The construction trench was backfilled with grey clayey silt [287].
- 5.16 South of ditch [F224=F190=F292=F310] was a parallel ditch [F178=F231: 24m by 1m, 0.5m deep] (Figure 8). At the west end the ditch had a circular terminal, becoming 'V'-shaped in profile 1m further east. A primary fill of 0.05m of yellow clay [177] lined the base and sides, probably indicating slumping of the clay edges. This was overlain by 0.25m of grey silty sandy clay [176], over which was 0.2m of grey sandy silty clay [175]. Further east a second section was excavated through the ditch [F231] where only one fill was identified, mottled dark grey and orange clay [232]. Towards the centre of the trench a short forked gully [F448: 2m by 0.4m, 0.01m deep] linked the parallel ditches. It appeared to be cut by both, but the feature was so heavily truncated that it survived only as a grey stain [447] on the natural clay subsoil. Similarly, a north/south aligned heavily truncated ditch-like feature [F445: 9m by 1m, 0.01m deep] extended south from ditch [F224=F190=F292=F310]. The grey fill survived only as a stain and could not be distinguished from either ditch fill.
- 5.17 To the south of the ditches, on the west side of the trench was a short north-east/south-west aligned gully [F450: 3m by 0.3m, 0.01m deep], also surviving only as a grey stain [449]. South-east of this was gully [F299: 0.6m by 0.2m, 0.1m deep], steep-sided with an uneven base. It was filled with black charcoal and clay [298], which also contained pieces of daub. Discolouration to the natural clay suggests that the burning occurred *in situ*. To the south-east of this gully was another gully [F301: 2m by 0.4m, 0.15m deep, aligned north/south, containing a very similar fill [300] and oak charcoal, suggesting these features may form a burnt down fence line (this gully is also aligned with gullies [F187] and [F135], although these features show no evidence of burning).
- 5.18 Extending 5m east into the trench from the west edge of excavation was ditch [F174: 5m by 0.8m, 0.6m deep]. The ditch had steep sides, tapering to a flat base, with a 0.1m-thick primary fill of orange-brown sandy clay [173] overlain by 0.1m of dark

grey silty clay [172]. Over this was 0.4m of orange-grey-brown sandy clay [171]. The ditch was recut centrally by a narrower, shallower ditch [F180: 5m by 0.5m, 0.3m deep] with a similar tapered profile, filled with dark grey-brown silty clay [179]. The original ditch was also cut on the north side by a parallel ditch [F170=F149=F265=F125=F261: 40m by 0.7-1.8m, 0.5m deep]. This ditch had a U-shaped profile with a concave base (Figures 10 and 12). It had a primary fill of 0.15m of orange-grey sandy clay [169]. This was overlain by 0.1m of grey-brown sandy clay [168] which was banked against the south edge. Over this was dark grey-brown clay [167]. Further east a section through the ditch [F149] revealed a U-shaped profile containing a 0.05m-thick primary fill of brown-grey sandy silt [152], overlain by dark grey-brown sandy clay [148]. The ditch extended 27m into the trench where it turned south for a further 14m. A sample excavation through the corner showed a similar U-shaped profile in the north section [F261: 0.55m wide, 0.5m deep], filled with 0.22m of grey silty clay [260] overlain by orange sandy silt [259]. This was recut by a shallow concave ditch [F258=F263=F131: 1m wide, 0.22m deep], filled with grey silty clay [257]. A small bowl-shaped pit, or possible posthole [F249: 0.2m+ by 0.4m, 0.4m deep], was cut by the corner of the ditch. It was filled with grey-brown clayey sand [248]. In the south section the original ditch [F265: 1.1m wide, 0.65m deep] contained only one fill, a grey sandy clay [264]. Here it was recut [F263], which was filled with orange-brown silty sandy clay [262]. At the south end the original ditch [F125] was at least 0.7m wide and 0.6m deep. It was filled with grey clay [126]. It had been heavily truncated by a wide U-shaped recut [F129: 1.15m wide, 0.5m deep]. This was filled with mottled grey and orange silty sandy clay [130]. This feature was in turn recut by ditch [F131: 1.15m wide, 0.4m deep] of similar profile, offset to the west side. This ditch was filled with mottled orange and grey sandy clay [124].

- 5.19 South of the east/west extent of ditch [F170=F149=F265=F125=F261] was a parallel ditch [F154: 23m by 1.1m, 0.5m deep]. This had a U-shaped profile, with a primary fill of 0.3m of grey silty sandy clay [156], overlain by 0.4m of grey clayey silt [155] and 0.2m of orange-brown clay [153] (Figure 9). At the west end the ditch turned southwest. Here it was much shallower and was completely truncated by a plough furrow. A small rectangular pit [F143: 0.7m by 0.5m, 0.15m deep] filled with grey clayey silt [142] may be the ditch terminal. At the east end the ditch was cut by ditch [F170].
- 5.20 To the south of this was a small oval pit [F193: 1m by 0.55m, 0.25m deep]. It had gradually sloping sides with a deep concave base, suggesting a possible post setting. It contained a primary fill of 0.15m of dark grey clayey silt [192] overlain by orange clay [191]. East of this was a north/south aligned gully [F187: 4.5m by 0.5m, 0.4m deep]. This was steep-sided with a flat base. It contained a 0.25m-thick primary fill of light grey-brown sandy clay [186] overlain by dark grey-brown clayey sand [185]. South of this- continuing the same alignment- was a narrow gully [F135: 9m by 0.3m, 0.1m deep]. It was filled with grey-brown clayey silt [134]. Parallel to this to the west was a further gully [F139: 6m by 0.5m, 0.35m deep]. This was filled with grey silty clayey sand [138]. At the north end this was cut by a sub-rounded pit [F137: 1.95m by 1.8m, 0.3m deep]. The pit had gradually sloping sides and an uneven base. It was filled with mixed black and orange silt and clay [136]. To the west of this was a heavily truncated oval pit [F147: 2.05m by 1.1m, 0.05m deep]. This was filled with grey-brown sandy silt [146]. These features were cut on the north side by a curvilinear gully [F118: 28m by 0.35, 0.15m deep] which curved south at the east

end. This was filled by grey brown silty clay [117]. The gullies are likely to have been foundations for a series of fence lines. To the west of gully [F139] was a small oval pit [F133: 1.1m by 0.95m, 0.15m deep] filled with grey-orange silty sand [132].

- 5.21 Extending north from the south edge of the trench was a large curvilinear ditch with gently sloping sides and a concave base [F241=F116: 16m by 2m, 1.1m deep]. It was filled with 0.35m of mottled grey-brown sandy clay [242] overlain by mottled grey-brown sandy silty clay [243=115]. The ditch turned west at the north end where it was completely truncated by a wide ditch [F106=F162: 28m+ by 2.5m, 0.7m deep] with 45° sides and a flat base (Figure 13). This ditch extended across the full width of the trench on an east-west alignment. It contained a 0.2m-thick primary fill of black silty clay [110], overlain by mottled grey-orange silty clay [105=161]. The ditch also cut the south end of ditch [F170] and gullies [F139] and [F135]. It was recut down the north side by ditch [F452=F453: 1.2m wide, 0.6m deep] which was filled with grey silt-clay [451=157]. At the west end of the trench the ditch cut a spread of colluvial silty clay [184] which had accumulated over the natural subsoil in the north-west corner of the site.
- 5.22 West of ditch [F241] was a roughly parallel curvilinear ditch [F268: 7m by 1.3m, 0.7m deep]. The ditch was wide at the top and stepped in towards the base. It contained a primary 0.3m-thick fill of yellow-brown sandy clay [271]. This was overlain by yellow-brown silty clay on the west side [269] and grey silty clay [270] on the east side. These fills were separated by a recut [F266: 1.15m wide, 0.45m deep]. This was filled with mottled yellow and grey sandy silty clay [267]. To the east of the ditches was a small oval pit [F274: 1m+ by 0.8m, 0.6m deep]. This contained 0.1m of grey silty clay [276] overlain by mixed brown-grey sandy silty clay [275]. This pit and ditches [F241] and [268] were cut by an east/west aligned ditch [F107=F113: 16m+ by 1.1m, 0.45m deep]. The ditch had a wide U-shaped profile filled with mottled grey-brown sandy silty clay [108=114]. The ditch was cut on the north side by a probable recut [F104: 1.3m wide, 0.4m deep]. This ditch had a similar profile and was filled with mottled light orange-brown sandy silty clay [109]. At the west end ditch [F107] narrowed and became much shallower before petering out. It was cut by a north-south aligned gully [F111: 10m+ by 0.25m, 0.25m deep]. This gully was filled with mottled brown-grey silty clay [112]. A similar gully [F120: 5m+ by 0.4m, 0.2m deep] ran parallel to the west. This was filled with mottled dark grey-brown sandy silty clay [119]. West of this was a further parallel gully [F150: 9m+ by 0.45m, 0.15m deep]. This was filled with dark yellow-grey silty sandy clay [151]. It was cut at the north end by a pit [F122: 1.8m by 0.8m, 0.4m deep]. This had a primary fill of mottled yellow-brown sandy silty clay [123] 0.2m deep, overlain by grey-brown silty clay [121].
- 5.23 West of this was a short linear ditch [F200: 3m by 0.6m, 0.25m deep]. The ditch had an irregular profile with an uneven base. It was filled with mottled brown-grey clay [201]. It was cut at the north end by a curvilinear ditch [F181=F164: 22m+ by 1.3m, 0.6m deep]. This ditch extended north for 1m from the southern edge of the trench then turned sharply west beyond the west edge of the trench. The western part of the ditch was overlain by a colluvial spread [184]. The ditch had a wide U-shaped profile (Figure 11). It was filled with 0.1m of black silty clay [194] overlain by 0.25m of yellow-grey silty clay [182] under 0.25m of mottled yellow-grey silty clay [183]. At the west end of the feature one fill was apparent, a mottled orange-brown silty clay [163]. North of this was another ditch [F166: 10m by 1m, 0.65m deep] overlain by

the colluvium. This ditch was filled by mottled orange-grey silty clay [165]. The ditch ran parallel to ditch [F106] which it was cut by at the east end.

- 5.24 In the southeast corner of the site was an oval pit [F103: 2.5m by 1.35m, 0.65m deep]. The pit had steep sides and a flat base and was filled with mixed dark brown clay, sand and silt [102]. North-east of this was a shallow, heavily truncated pit [F281: 1.7m by 0.8m, 0.1m deep]. This was filled with grey-brown silty sandy clay [282].
- 5.25 Colluvial spreads overlay the features in the extreme north part of the site [386] and some features in the south-west corner [184]. Undulating ridge and furrow was apparent across the site. The furrows [F236, F316] were approximately 4m apart. They survived up to 1m wide within the trench, filled with mixed grey-brown clayey silt [235], [315]. A series of north/south aligned field drains [F228, F363] backfilled with the redeposited fills of features and the clay subsoil [227, 363] were apparent, often cut through the furrows. Topsoil [100] overlay them.

6. The finds

Roman pottery assessment

Summary

- 6.1 The site produced 178 hand-recovered sherds of pottery from 42 contexts, the majority of which were ditches and gullies; there were also 12 unstratified sherds. Four contexts produced pottery fragments from environmental samples. There is a large quantity of Local Traditional Ware that could be either Iron Age or Roman in date, a small quantity of 2nd-century pottery, and some late 3rd- or 4th-century pottery.

Results

Samian

- 6.2 There are only two sherds of samian, from two different vessels, both in very poor condition.

Fine and coarse wares

- 6.3 There are sherds from three different colour-coated beakers, one represented by a complete pedestal base, but the others by very small sherds. Over a third of the whole assemblage is made up of Local Traditional ware, in at least three different fabrics. There is a minimum of five separate vessels. The Roman pottery consists of a minimum of 31 vessels, although the great majority of these are represented only by a single, often small, sherd. The vessel forms are bowls, cooking pots and a coarse ware beaker. The base of a grey ware cooking pot from context [355] has been deliberately cut down to form a large disc, possibly for use as a pot lid.

Mortaria

- 6.4 There are two sherds, from two different vessels.

Tile

- 6.5 There are three pieces of tile. One from context [100] is a fragment of post-medieval pantile, and a smaller fragment from the same context is likely to be the same. The other piece comes from a stratified context [273], but is an undiagnostic scrap. There is also one fragment of daub.

Discussion

- 6.6 Local Traditional ware is a term used to describe the hand-made pottery produced during the Iron Age, which continues to be made in the Roman period. The range of vessel types made during the Iron Age in this region is very varied, as shown in the assemblage found at the settlement at Thorpe Thewles (Swain 1987, figures 44-6), and includes most of the rim forms present at Butterwick Moor. However, as the same forms continue to be made during the Roman period, it is difficult to give them an accurate date. There are a number of sherds of 2nd-century pottery, most of which are represented by single, often worn, sherds, suggesting they are residual in their contexts. The flanged bowl and Crambeck reduced ware from context [339] date to after 270, whilst there is an unstratified calcite-gritted rim of the late 3rd century or later. Four other contexts containing body sherds of calcite-gritted ware may have a similar date. The flanged bowl in context [339] appears to be made in a local fabric. Local production of Roman pottery was common in the 2nd century, but due to changing supply systems, tended to die out in the 3rd century. As the form of this bowl indicates a late 3rd-century date, this vessel may represent an unusual example of a late Roman pottery industry in the Tees Valley region.
- 6.7 There is a single vessel which definitely dates to the 4th century. This is a Huntcliff-type rim in calcite-gritted ware from context [345], dating to after 360. This is an unusual rim with two deep internal grooves. Excavations in 2002 in Sedgfield produced 2nd- and 3rd-century material but no 4th-century material, while Local Traditional ware made up less than 1% of the assemblage (TWM Archaeology archive report). Excavations in 2005-07 have produced further pottery of similar date, but this has not yet been published. See Appendix 1.2 for spot-dating.

Recommendations

- 6.8 It is recommended that a full publication report is produced for this group of pottery, including the pottery from the evaluation trenches. This should comprise a detailed description of the various fabrics and forms, their quantification by weight, sherd count and EVE (estimated vessel equivalents) as well as the dating of the individual vessels within each numbered deposit. There should also be a catalogue of the vessels of particular interest, illustration of approximately 17 vessels and a discussion of the group, concentrating on the Local Traditional ware and the possible local 3rd-century production. The pottery requires a fully quantified ceramic archive catalogue (as defined by the *Study Group for Roman Pottery* guidelines: Darling 1999).

Post-medieval pottery assessment

Results

- 6.9 Two sherds of post-medieval domestic and utilitarian wares were found in context [100]. One is a piece of blue banded ware, and the other a base from a green stoneware vessel. Both are 19th-century in date.

Recommendation

- 6.10 No further work is recommended.

Animal bone assessment

Results

- 6.11 Seven contexts from the site produced undateable, hand-recovered fragments of cattle tooth enamel ([115, 157, 188, 196, 232, 273 and 395]). A post-medieval cattle

tibia, with clear evidence of butchery saw marks at both ends, was recovered unstratified. Context [395] also produced bone fragments in environmental sample <121>, as did a further 8 contexts: [194] <41>, [221] <53>, [287] <77>, [338] <102>, [345] <104>, [380] <116>, [399] <120> and [420] <129>.

Recommendation

- 6.12 No further work is recommended.

Ceramic building materials and fired clay assessment

Results

- 6.13 A small fragment of earthenware brick or tile with no original surfaces was found in context [364]. Pieces of fired or semi-fired clay or daub were hand-recovered from 9 contexts, and in environmental samples from a further 11 contexts. The total weight of the material was 848g (Table 1.3). The largest quantities came from contexts [136] (201g) and [256] <66> (204g). The colour of the fragments varies from buff [338] through to red [349] and red with blackened areas [209]. Some pieces have visible marbling and laminations in the clay. Many of the pieces are small and abraded, and few have any original surfaces, though a few show minimal shaping ([105], [136], [343]) or possible fingermarks. No evidence for a substrate to the clay was observed.

Recommendation

- 6.14 There is no evidence for the function of these fragments, and little deliberate shaping of the pieces has survived. No further work is therefore recommended.

Jet assessment

- 6.15 A fragment of a jet or shale object of unknown use came from ditch fill [F273], which also produced Roman pottery. The piece is sharply curved in both plan and profile and is 14mm long and 9mm wide. Both its long edges appear original and have different projected diameters of c.10 and c.15mm. The object has the appearance of a ring or possibly a fastener, but its sharply curved profile and the differing diameters of the two edges are unusual. No parallels have so far been found.

Recommendations

- 6.16 Further study of this object is strongly recommended in order to seek parallels, assign function and provide dating.

Stone assessment

- 6.17 Three contexts produced small pieces of stone with traces of deliberate shaping. A piece of coarse sandstone came from context [184], and pieces of micaceous sandstone from contexts [161] and [437], both of which are reddened by burning.

Recommendation

- 6.18 No further work is recommended.

Quern assessment

Summary

- 6.19 Three medium sized hand querns and a probable small millstone were recovered. The querns are all made of local material and are consistent with a non-military site.

Results

SF1 Context [100] - Disc Upper

- 6.20 Approximately 70% of a well tooled medium sized upper quern, diameter 390mm, ht 80mm. The hopper is 95mm wide and 35mm deep, and shows evidence of rind fixing. The diameter of the feed-pipe is also 95mm. There is no evidence of sockets for handles, but iron staining around the circumference reveals that a handle was most likely fixed onto an iron band surrounding the stone. The outer surface is regularly pecked, and there is clear evidence of at least 2 separate tools being used in this process, the first a hammer point of 8-9mm, and the second a hammer point of 2-3mm. Perhaps the larger tool was used to create the basic shape of the quern, and the smaller tool to give a neater finish. The grinding face is concave with evidence of sooting and iron surface concretions. The quern is made from reddish brown, medium grained sandstone. The lithic contains no inclusions and is most likely sourced locally.

SF7 Context [F195] - Disc Upper

- 6.21 Approximately 35% of a small upper quern that has been broken radially, diameter 300mm, ht 60mm. The hopper is 75mm wide and 40mm deep, and the feed-pipe is 60mm wide. The quern has been constructed from an adapted boulder. There is evidence of tooling to the feed pipe and hopper area, though this has mostly been worn away through use. The tool used originally on this area perhaps had a hammer point size 2mm. Most of the grinding surface has been lost due to the poor quality lithic from which the quern is made, which has flaked away both as a result of use and of post-depositional processes. The quern exhibits no evidence of how a handle was attached. An area of iron staining around the feed-pipe and hopper perhaps indicates some kind of rind fixing. The quern is made from light brown to medium grey fine grained sandstone of poor quality. The lithic contains no inclusions and is most likely sourced locally.

SF6 Context [219] - Beehive Base

- 6.22 Approximately 95% of a small beehive quern that is still largely in good condition, diameter 340mm, ht 120mm. The base has been constructed from an adapted boulder of light brown fine grained sandstone, with tooling to the grinding face created by a hammer point size 3-4mm. However some polishing of the stone (through wear) has occurred, suggesting it has been well used since its last re-working. The spindle hole is present measuring 30mm in diameter and approximately 50mm depth, no spindle remains in the hole however. The grinding surface shows evidence of sooting, and ferruginous concretions on the grinding face suggest that this quern has been used to grind iron ore during its life span. The lithic contains no inclusions and is most likely sourced locally.

SF2 Context [F195] - Millstone

- 6.23 Approximately 45% of a well tooled small millstone, broken radially, diameter 600mm, ht 115mm. The hopper is 80mm in diameter and also depth, and the feed-pipe is 70mm in diameter. The outer surface and grinding face of the millstone have been well dressed by a tool with a hammer point of approximately 10-15mm. The quern is made from medium grey, very coarse Millstone Grit with no inclusions.

Discussion

- 6.24 The assemblage from Butterwick is typical both of the period and of the area in which it was found. The pottery found at the site is mainly Roman and the querns re-

affirm this date. Quern SF6 perhaps shows evidence of re-use of materials from the Iron Age, as it is of an earlier form than the rest. All four querns are of local source; however Quern SF2 could have travelled from a Millstone Grit source in Yorkshire rather than a closer outcrop in Durham. The other three querns are most likely adapted boulders as shown by the generally poor milling properties of the lithology. Surface concretions on Querns SF1 & SF6 would also suggest that querns were being used not only to grind domestic materials such as grain, but also for industrial materials such as iron ore. This would suggest that some level of industrial activity was taking place at Butterwick, though most likely on a small, domestic scale. Overall the querns suggest that what we see at Butterwick is a small habitation site, with both domestic and industrial activity taking place during the late Iron Age to early Roman period.

Recommendations

- 6.25 None of the querns is particularly unusual, though they show an interesting snapshot of everyday life. No further work is recommended. Querns SF1 & SF6 are recommended for illustration at the analysis stage.

Fuel residue assessment

- 6.26 Small quantities of burnt shaley coal came from contexts [201] and [432].

Recommendation

- 6.27 No further work is recommended.

Metal objects assessment

- 6.28 Four pieces of iron were found. Nail fragments, confirmed by X-radiography, came from contexts [100], [308] and [358] and were recovered unstratified. A broken iron wedge-shaped fragment, possibly the end of a tool or agricultural implement (SF9) was recovered unstratified. A single fragment of corroded lead (SF8: 42x26mm, weight 51g) came from context [395]. It is irregularly shaped, and part of one original long edge survives, the other edges being broken and/or damaged. One face is rounded and irregular, as though the molten metal has cooled on a rough surface. The other face is worked and partly angular, though irregular, with faint impressions of possible decoration. This surface also has a deep, straight cut mark. This item is possibly part of a discarded partly formed object of unknown form and use.

Recommendation

- 6.29 No further work is recommended for the ironwork. Further study is recommended for the lead object to assign function and provide possible dating evidence for the context.

Industrial residues assessment

- 6.30 Context [319] had two similar fragments, weight 68g, of highly fired red clay with a dark, fused inner surface. These may be fragments from an oven or kiln. No areas of original outer surface survive.

Recommendation

- 6.31 No further work is recommended.

Glass assessment

- 6.32 Very small chips of undateable pale green glass came from sample <18> context [142] and sample <110> from context [355].

Recommendation

- 6.33 No further work is recommended.

Flint assessment

Results

- 6.34 The assemblage comprises nine hand-recovered flint artefacts, including four fragments from contexts [100], [209], [257], and [273], the latter two exhibiting cracking associated with burning. In addition, context [309] produced a small flake with more than 50% surface cortex, suggesting some form of primary working took place on site. A further small flake was recovered from sample <45> from context [202]. The remaining four flints are more interesting. Context [196] produced two pieces, the first being a Neolithic thumbnail scraper on brown flint, and the second a blade fragment on good quality light brown flint with white patination. There is another retouched tool from context [410], although this is less standardised, being made on a thin flake fragment, with a small amount of retouch down the right dorsal side. It also has a circular piece of flint fractured off naturally on the ventral side, creating a circular depression which could have been used as a thumb hold. The last piece is a finely made blade from context [304] (SF4), on high quality red/brown flint.

Discussion

- 6.35 In terms of raw material, the assemblage appears to consist of a variety of types, suggesting that a variety of sources were in use. Two pieces are made in red flint, the fragment from context [209] and the finely made blade from context [304]. The others include four pieces on grey flint from contexts [100], [257], [309] and [410], very light brown flint from context [196] and two on greenish-brown material, the thumbnail scraper also from [196] and the fragment from [273]. In terms of dating, the thumbnail scraper is indicative of a Neolithic date, and the form of the blade from context [304] suggests a similar date.

Recommendation

- 6.36 No further work is recommended.

7. Palaeoenvironmental assessment

Methods

- 7.1 A palaeoenvironmental assessment was carried out on 60 bulk samples, taken from a variety of Romano-British features, mainly ditches and gullies. Approximately 10 litres of each sample were manually floated and sieved through a 500µm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery, 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 Environmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (1997).

Results

- 7.2 The residues comprised mainly charcoal and coal, with a few small finds, including pottery sherds, glass fragments, small fragments of bone and teeth. One flint flake was found in context [202], fill of a gully. The flots contained mostly modern roots and charred heather twigs, with some charcoal and coal. Charred plant remains where present included cereal grains, grasses and one weed seed (a sedge nutlet in [399]). The cereal grains identified consisted of *Hordeum* sp (barley, some hulled) in the following contexts: [192], [194], [213] and [256]; and *Triticum* sp (wheat species) in the following contexts: [194], [207] and [291]. Unidentified cereal grains were noted in [192], [194], [213], [221] and [256], although they resembled either barley or wheat. The cereal grains were generally present in low numbers, apart from contexts [194] and [256]. The former contained some hulled barley grains and brome caryopses. One fruitstone of *Crataegus monogyna* (hawthorn) was found in context [355]. A few uncharred seeds were noted, but these are likely to be intrusive material.
- 7.3 Charcoal fragments were generally present in low numbers and consisted mainly of *Quercus* spp. (oak), however context [256] contained about 100 fragments of various taxa, including some roundwood. Material suitable for radiocarbon dating is present in ten contexts. Results are shown on Table 1.4.

Discussion

- 7.4 The presence of bone, pottery, glass and a few charred plant macrofossils indicates the remains of domestic waste. Some cereal grains were not identifiable, due to their poor condition. Due to the absence of chaff it is not possible to identify the wheat to species, however spelt wheat is commonly found on Roman sites in Britain (Greig 1991). The presence of a hawthorn fruitstone suggests the use of gathered food, alongside the cultivated crops of barley and wheat.
- 7.5 Charcoal fragments were generally too small to allow identification. Context [256] is the only one with enough fragments of different taxa to warrant further analysis. Context [300] also contained over 100 fragments, but they all consisted of oak, which might have been part of a structure.

Recommendations

- 7.6 Further work is recommended for context [194] for plant macrofossils, and context [256] for plant macrofossils and charcoal in order to provide further information about diet, crop husbandry practices and fuelwood use. The full analysis report should include the full data from this excavation and the previous evaluation at the site.

8. The archaeological resource

- 8.1 The excavation identified a complex series of phased ditches and gullies indicative of a significant Romano-British enclosure system. The ditches form a pattern of aligned large rectangular enclosures with occasional small, circular ditched enclosures. Gullies and postholes indicate the presence of timber structures including probable fence lines. The features inter-cut each other, indicating that the site was re-modelled on several occasions. Part of a building built in wood which may have been rebuilt in stone was identified in the north-east corner of the trench. A further stone structure was recorded near the centre of the trench. Artefacts uncovered included

c.200 sherds of pottery, fragments of quern stones and a jet object. A charred seed assemblage was also recovered. The data is supplemented by the geophysical survey and evaluation trenching.

9. Recommendations

- 9.1 A scheme of full analysis of the data is recommended, leading to an archive report and a publication in a regional archaeological journal. The tasks to be undertaken to achieve this are listed in Appendix 2: Updated Project Design. The works will include the result from the previous schemes of geophysical survey and evaluation trenching conducted on the site.

10. Sources

- Archaeological Services 2007a *Butterwick Moor Wind Farm, Sedgefield, County Durham: geophysical survey*. Unpublished report **1730**, Archaeological Services Durham University
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- Swain, H P, 1987 'The Iron Age pottery', in Heslop, D. H., *The Excavation of an Iron Age Settlement at Thorpe Thewles, Cleveland, 1980-1982*, C. B. A. Res. Rep. **65**, 57-71
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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 finds of the following types: P pottery, B bone, M metals, F flint, I industrial residues, Q quern, C ceramic building material/fired clay, O other materials.

No	Feature	Description	P	B	M	F	I	Q	C	O
100		Topsoil	•		•	•		•		
101		Natural								
102	F103	Fill of pit								
F103		Cut for pit								
F104		Cut for ditch								
105	F106	Fill of ditch	•						•	
F106		Cut for ditch								
F107		Cut for ditch								
108	F107	Fill of ditch								
109	F107	Fill of ditch								
110	F106	Lower organic fill of ditch	•							
F111		Cut for NE-SW linear								
112	F111	Fill of linear								
F113		Cut for NW-SE linear								
114	F113	Fill of linear	•							
115	F116	Fill of feature		•						
F116		Cut for feature								
117	F118	Fill of curvilinear gully	•							
F118		Cut for curvilinear gully								
119	F120	Fill of gully								
F120		Cut for gully								
F121		Cut for ditch								
122	F121	Fill of ditch								
123	F121	Lower fill of ditch								
124	F125	Fill of ditch								
F125		Cut for large NE-SW ditch								
126	F125	Primary fill of ditch								
127		Void								
F128		Void								
F129	F125	Recut of ditch								
130	F129	Fill of recut								
F131	F125	Recut of ditch								
132	F133	Fill of circular pit								
F133		Cut for circular pit								
134	F135	Fill of gully								
F135		Cut for shallow curvilinear gully								
136	F137	Fill of pit							•	
F137		Cut for pit								
138	F139	Fill of gully								
F139		Cut for gully								
140	F141	Fill of pit								
F141		Cut for pit								
142	F143	Fill of pos pit/ditch terminus								•
F143		Cut for pos pit/ditch terminus								
144		Void								
145		Void								
146	F147	Fill of pit								
F147		Cut for shallow pit								
148	F149	Fill of ditch								
F149		Cut for NW-SE ditch								
F150		Cut for gully								
151	F150	Fill of gully								
152	F149	Primary fill of ditch								
153	F154	Fill of ditch	•							
F154		Cur for ditch parallel to F149								

No	Feature	Description	P	B	M	F	I	Q	C	O
155	F154	Lower fill of ditch								
156	F154	Primary fill of ditch								
157	F106	Upper ditch fill (same as 105)		•						
158		Void								
159		Void								
160		Void								
161	F162	Fill of ditch	•							•
F162		Cut for ditch								
163	F164	Fill of gully								
F164		Cut for gully								
165	F166	Fill of gully	•							
F166		Cut for gully								
167	F170	Upper fill of ditch								
168	F170	Lower fill of ditch								
169	F170	Primary fill of ditch							•	
F170		Cut for ditch								
171	F174	Upper fill of ditch								
172	F174	Lower fill of ditch								
173	F174	Primary fill of ditch								
F174		Cut for ditch								
175	F178	Upper fill of ditch	•							
176	F178	Lower fill of ditch								
177	F178	Primary fill of ditch								
F178		Cut for NW-SE ditch								
179	F180	Fill of ditch								
F180	F174	Ditch recut								
F181		Cut for ditch								
182	F181	Fill of ditch								
183	F181	Fill of ditch								
184		Layer of hill wash	•							•
185	F187	Secondary fill of gully	•							
186	F187	Primary fill of gully								
F187		Cut for curvilinear gully								
188	F190	Lower fill of ditch		•						
189	F190	Upper fill of ditch	•							
F190		Cur for ditch								
191	F193	Secondary fill of pit								
192	F193	Primary fill of pit								
F193		Cut for pit								
194	F181	Black fill of ditch		•					•	
F195		Stone structure						•		
196	F197	Fill of pit	•	•		•				
F197		Cut for pit								
198	F199	Fill of ditch							•	
F199		Cut for ditch								
F200		Cut for ditch								
201	F200	Fill of ditch	•							
202	F203	Fill of gully				•				
F203		Cut for gully								
204	F197	Lower fill of pit								
205	F206	Fill of ditch	•							
F206		Cut for ditch								
207	F208	Fill of recut ditch								
F208		Recut for ditch								
209	F210	Fill of ditch				•			•	
F210		Cut for ditch								
211	F212	Fill of gully								
F212		Cut for short gully								
213	F214	Charcoal fill of linear	•						•	
F214		Cut for linear								
F215		Cut for ditch terminus								

No	Feature	Description	P	B	M	F	I	Q	C	O
216	F217	Fill of gully	•						•	
F217		Cut for gully								
218	F215	Fill of ditch								
219	F220	Fill of ditch	•					•		
F220		Cut for ditch								
221		Fill of ditch	•	•						
F222		Cut of ditch								
223	F224	Fill of ditch								
F224		Cut for ditch								
225	F226	Fill of gully								
F226		Cut for narrow gully								
227	F228	Fill of field drain								
F228		Cut for field drain								
229	F208	Secondary ditch fill								
230	F220	Upper fill of ditch								
F231		Cut for ditch								
232	F231	Fill of ditch		•					•	
233	F234	Fill of ditch								
F234		Cut for ditch								
235	F236	Fill of furrow	•							
F236		Cut for furrow								
237	F238	Fill of gully								
F238		Cut for gully								
239	F240	Fill of feature								
F240		Cut for feature								
F241		Cut for ditch								
242	F241	Fill of ditch								
243	F241	Fill of ditch								
244	F245	Fill of ditch	•							
F245		Cut of ditch								
F246		Cut for ditch								
247	F246	Fill of ditch							•	
248	F249	Fill of pit								
F249		Cut for pit								
250	F252	Lower fill of ditch								
251	F252	Upper fill of ditch	•							
F252		Cut for ditch								
253	F246	Lower fill of ditch								
254	F255	Fill of posthole								
F255		Cut for posthole								
256	F214	Primary fill of gully							•	
257	F258	Fill of ditch	•			•				
F258	F261	Recut of ditch								
259	F261	Fill of ditch								
260	F261	Fill of ditch								
F261		Cut for ditch								
262	F263	Fill of ditch								
F263		Recut for ditch F265								
264	F265	Fill of ditch								
F265		Cut for ditch								
F266		Recut for ditch								
267	F266	Fill of recut								
F268		Cut for ditch								
269	F268	Fill of ditch								
270	F268	Fill of ditch								
271	F268	Fill of ditch								
F272		Cut for ditch								•
273	F272	Fill of ditch	•	•		•				
F274		Cut for oval pit								
275	F274	Fill of pit								
276	F274	Fill of pit								

No	Feature	Description	P	B	M	F	I	Q	C	O
277	F278	Fill of gully								
F278		Cut for gully								
279	F280	Fill of ditch	•							
F280		Cut for ditch								
F281		Cut for shallow feature								
282	F281	Fill of feature								
283	F284	Fill of E-W ditch								
F284		Cut for E-W ditch								
285	F286	Fill of gully								
F286		Cut for curvilinear gully								
287	F195	Fill of F288		•						
F288	F195	Construction cut for stone structure								
F289		Cut for ditch								
290	F289	Fill of ditch								
291	F282	Fill of ditch								
F292		Cut for ditch								
293		Void								
294		Void								
295	F195	Fill of possible flue								
296	F297	Fill of ditch								
F297		Cut for ditch								
298	F299	Fill of gully							•	
F299		Cut for gully								
300	F301	Fill of gully								
F301		Cut for gully								
F302		Cut for ditch								
303	F302	Fill of ditch	•							
304	F305	Fill of ditch				•				
F305		Cut for ditch								
F306		Cut for linear feature								
307	F306	Fill of linear	•							
308	F306	Fill of linear	•		•					
309	F310	Fill of ditch				•				
F310		Cut for ditch (same as F190)								
311	F312	Fill of ditch	•							
F312		Cut for ditch								
313	F306	Fill of linear								
F314		Stone structure								
315	F316	Fill of furrow								
F316		Cut for furrow								
F317		Cut for linear feature								
318	F317	Fill of linear							•	
319	F317	Fill of linear					•			
320	F321	Fill of posthole								
F321		Cut for posthole								
322	F323	Fill of pit							•	
F323		Cut for pit								
324	F325	Fill of gully								
F325		Cut for gully								
326	F327	Fill of short gully/pit								
F327		Cut for short gully/pit								
328	F327	Lower fill of short gully/pit								
329	F330	Fill of shallow E-W ditch							•	
F330		Cut for shallow E-W ditch								
331		Void								
332		Void								
333		Void								
334		Void								
335	F336	Fill of ditch								
F336		Cut for ditch								
F337		Cut for ditch								

No	Feature	Description	P	B	M	F	I	Q	C	O
338	F337	Fill of ditch		•					•	
339	F337	Fill of ditch	•							
340	F337	Fill of ditch								
F341		Cut for ditch								
342	F341	Fill of ditch	•							
343	F314	Soil matrix of stone structure	•						•	
F344		Cut for ditch								
345	F344	Fill of ditch	•	•						
346	F344	Primary fill of ditch								
F347		Cut for posthole								
348	F347	Fill of posthole	•							
349	F350	Fill of ditch							•	
F350		Cut for ditch								
F351		Cut for ditch								
352	F351	Fill of ditch	•							
353	F351	Fill of ditch								
F354		Cut for posthole								
355	F354	Fill of posthole	•							•
F356		Cut for posthole								
357	F356	Fill of posthole								
358	F359	Fill of ditch			•					
F359		Cut for ditch								
F360		Cut for posthole								
361	F360	Fill of posthole								
362	F363	Fill of field drain cut	•							
F363		Cut for field drain								
364	F367	Upper fill of ditch							•	
365	F367	Fill of ditch								
366	F367	Primary fill of ditch								
F367		Cut for ditch								
F368		Cut for ditch								
369	F368	Fill of ditch								
370	F368	Fill of ditch								
F371		Recut for ditch								
372	F374	Fill of ditch								
373	F374	Fill of ditch								
F374		Cut for ditch								
F375		Cut for foundation slot								
376	F375	Fill of slot								
377	F375	Primary fill of slot								
F378		Cut for posthole								
379	F378	Fill of posthole								
380	F381	Fill of gully	•	•						
F381		Cut for N-S gully								
382	F383	Fill of ditch								
F383		Cut for ditch								
F384		Cut for possible posthole								
385	F384	Fill of possible posthole								
386		Overburden in N part of site								
F387		Cut for ditch								
388	F387	Fill of ditch	•							
F389		Cut for gully								
390	F389	Fill of gully								
F391		Cut for posthole								
392	F391	Fill of posthole								
393	F394	Fill of ditch								
F394		Recut-for ditch		•						
395	F396	Fill of ditch			•				•	
F396		Recut for ditch								
397	F402	Fill of ditch								
398	F402	Fill of ditch								

No	Feature	Description	P	B	M	F	I	Q	C	O
399	F402	Fill of ditch		•					•	
400	F402	Fill of ditch								
401	F402	Fill of ditch								
F402		Cut for large E-W ditch								
403		Void								
404		Void								
F405		Cut for ditch								
406	F405	Fill of ditch	•							
F407		Cut for ditch								
408	F407	Fill of ditch	•							
F409		Cut for ditch								
410	F409	Fill of ditch	•			•				
411	F412	Fill of gully								
F412		Cut for gully								
413		Void								
414		Void								
F415		Cut for pit								
416	F415	Fill of pit								
417	F418	Fill of pit								
F418		Cut for pit								
F419		Cut for ditch								
420	F419	Lower fill of ditch	•	•						
421	F419	Upper fill of ditch								
422	F423	Fill of shallow ditch								
F423		Cut for shallow ditch								
F424		Cut for ditch								
425	F424	Fill of ditch								
426	F427	Fill of ditch								
F427		Cut for ditch								
F428		Cut for ditch								
429	F428	Fill of ditch								
430	F431	Fill of posthole								
F431		Cut for posthole								
432	F433	Primary fill of ditch	•							
F433		Cut for ditch								
434	F433	Fill of pit								
435	F436	Fill of posthole	•							
F436		Cut for posthole								
437	F438	Fill of curvilinear gully								•
F438		Cut for curvilinear gully								
439	F440	Fill of gully								
F440		Cut for gully								
441	F442	Fill of gully								
F442		Cut for gully								
443	F444	Fill of gully								
F444		Cut for gully								
F445		Cut for ditch								
446	F445	Fill of ditch								
447	F448	Cut for gully								
448		Fill of gully								
449	F450	Fill of gully								
F450		Cut for gully								
451	F452	Fill of recut								
F452		Recut of ditch F106								
F453		Recut of ditch F106								

Table 1.2: Pottery
Roman pottery types and spot dates

Context	Feature	Context description	Sherd nos	Roman	Pot type and date
U/S			8	R	LTW plain-rimmed bowl; everted cal grit rim, late C3
100		Topsoil	4	R	BB1 base sherd, Nene Valley colour-coated ware C3, base Mancetter-Hartshill mortarium, C3-C4
105	F106	Fill of ditch	1		LTW
110	F106	Lower organic fill of ditch	1	R	Grey ware base sherd
114	F113	Fill of linear	1		scrap
117	F118	Fill of curvilinear gully	1	R	flange of oxidised ware bowl C2
153	F154	Fill of ditch	1		LTW bowl rim
161	F162	Fill of ditch	2	R	base north-east mortarium C2, BB1 flat-rimmed b/d C2
165	F166	Fill of gully	2	R	LTW, grey ware
175	F178	Upper fill of ditch	2	R	LTW, flagon
184		Layer of hill wash	2	R	cal grit
185	F187	Secondary fill of gully	4	R	small coarse ware beaker, all from same vessel
189	F190	Upper fill of ditch	2	R	scraps black-slipped ware, C2-C3
196	F197	Fill of pit	11	R	most shh from BB1 plain-rimmed dish, C2+
201	F200	Fill of ditch	1		LTW
205	F206	Fill of ditch	1	R	scrap oxidised ware
213	F214	Charcoal fill of linear	1		LTW
216	F217	Fill of gully	1		LTW scrap
219	F220	Fill of ditch	4		LTW, all from same vessel, a large rimmed bowl
221		Fill of ditch	1		LTW
235	F236	Fill of furrow	1	R	flagon
244	F245	Fill of ditch	1	R	cooking pot rim in micaceous reduced ware
251	F252	Upper fill of ditch	2		LTW rim
257	F258	Fill of ditch	2		LTW
273	F272	Fill of ditch	5	R	LTW, cream fabric bowl
279	F280	Fill of ditch	2		LTW
303	F302	Fill of ditch	3		LTW
307	F306	Fill of linear	11	R	most from single vessel, hand-made BB1 cooking pot copy

Context	Feature	Context description	Sherd nos	Roman	Pot type and date
308	F306	Fill of linear	1	R	very worn sh of samian, Dr 18/31, C2
311	F312	Fill of ditch	3		LTW
339	F337	Fill of ditch	35	R	16 sherd from one vessel, a locally made flanged bowl, 270+; 2 shh CRAM RE, 270+, LTW
342 <100>	F341	Fill of ditch	2		scraps
342	F341	Fill of ditch	2	R	LTW, grey ware
343	F314	Soil matrix of stone structure	15	R	LTW, cal grit, base sherd of grey ware bowl, C2; pedestal base of colour coated beaker
345	F344	Fill of ditch	6	R	Huntcliff-type cooking pot rim in cal grit, unusual, 360+
348	F347	Fill of posthole	3		LTW scraps
352	F351	Fill of ditch	2	R	BB1 cooking pot
355	F354	Fill of posthole	8	R	7 shh of cal grit from same vessel; grey ware cooking pot base, cut down to form disc
362	F363	Fill of field drain cut	1	R	small cooking pot rim, C2-C3
380	F381	Fill of gully	7		LTW all from one vessel
388	F387	Fill of ditch	2		LTW flat-rimmed vessel
406 <123>	F405	Cut for ditch	2		scraps
406	F405	Cut for ditch	17		LTW all from one vessel, a triangular rimmed bowl
408	F407	Fill of ditch	1		LTW scrap
410 <125>	F409	Fill of ditch	1		scrap
420 <129>	F419	Fill of ditch	3		scraps
432	F433	Primary fill of ditch	2	R	cal grit
435	F436	Fill of posthole	7		LTW all same vessel

Table 1.3: Fired clay by context and weight

Context	Weight (g)
105	84
136	201
136 <15>	70
169 <33>	<1
194 <41>	19
198	5
209	26
213 <49>	40
216 <50>	4
232	7
247	8
256 <66>	204
298 <81>	35
318 <90>	1
322 <92>	<1
329 <96>	3
338	10
343	67
343 <104>	46
349	5
349 <106>	<1
395 <121>	2
399 <120>	5
Total	848

Table 1.4: Data from palaeoenvironmental assessment

Sample	1	4	7	8	11	14	15	17	18	20	24	25	30	32	33	37	38	40
Context	102	110	117	119	126	134	136	140	142	148	156	161	177	173	169	186	188	192
Feature	P	D	G	G	D	G	G	P	P/D	D	D	D	D	D	D	G	D	P
Full analysis recommended	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Material available for radiocarbon dating	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓
Volume processed (l)	9.5	10	8	8.5	6	7.5	9	10	8	8	7.5	9	6	9	8	8	10	8
Unprocessed material remaining	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Volume of flot (ml)	50	60	20	60	10	30	50	70	80	40	20	30	30	20	30	40	35	100
Residue contents																		
Bone (burnt) indet. frag	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bone (calcined) indet. frag	-	-	-	-	-	-	(+)	-	+	-	-	-	-	-	-	-	-	-
Bone (unburnt) indet. frag	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Charcoal	-	-	-	+	(+)	-	++	-	+	+	+	(+)	(+)	++	-	+	(+)	-
Charcoal (vitrified)	-	-	-	-	-	-	-	(+)	-	-	-	-	-	-	-	-	-	+
Coal	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
Coal shale	++	+	++	-	+	++	+	-	-	-	-	+	-	-	+	-	-	-
Daub	-	-	-	-	-	-	+++	-	-	-	-	-	-	-	-	-	+	-
Fired clay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(+)	-	-	-
Flint flake (total no.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glass (number of shards)	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Heather twigs (charred)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(+)	+
Pot (number of fragments)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teeth (total no.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tubers/rhizomes (charred)	-	-	-	-	-	-	-	-	-	-	-	-	(+)	-	-	-	-	-
Flot matrix																		
Charcoal	++	+++	++	-	++	++	+++	++	++	++	++	++	++	++	++	-	+	+++
Coal/coal shale	++++	++++	++	-	++	++	++	-	++	++	++	++	++	++++	+++	++	+	+++
Heather twigs (charred)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+++
Heather twigs (uncharred)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+++
Roots (modern)	++++	++++	++++	'++++	++++	++++	++++	'++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Uncharred seeds	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
Charred remains (abundance)																		
(a) <i>Bromus</i> spp (Brome) caryopsis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> spp (Hulled Barley) grain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> spp (Barley species) grain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
(c) <i>Triticum</i> spp (Wheat species) grain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(c) <i>Cerealia</i> indeterminate grain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
(t) <i>Crataegus monogyna</i> (Hawthorn) fruitstone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(w) <i>Carex</i> spp (Sedges) trig nutlet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(x) Poaceae undiff. >2mm (Grass family) caryopsis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2

[a-arable; c-cultivated; r-ruderal; t-tree/shrub; w-wetland; x-wide niche. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant. D-ditch; G-gully; L-linear; P-pit; PH-posthole; S-slot; ST-structure. Charred plant remains are scored from 1-5, where 1:1-2; 2:3-10; 3:11-40; 4:41-200; 5:>200.]

Sample	41	45	47	49	50	53	54	56	58	65	66	74	77	78	81	82	87	90	92
Context	194	202	207	213	216	221	233	242	244	254	256	277	287	291	298	300	308	318	322
Feature	D	G	D	L	G	D	D	D	D	PH	G	G	ST	D	G	G	L	L	P
Full analysis recommended	✓	-	-	-	-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-
Material available for C14 dating	✓	-	✓	✓	-	✓	-	-	-	✓	✓	-	-	✓	✓	-	-	-	-
Volume processed (l)	7	9	10	9	8	9	9	8.5	9.5	7	8	10	10	10	4.5	8	9	-	8
Unprocessed material remaining	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	-	✓	✓	✓	-
Volume of flot (ml)	150	80	40	150	40	20	100	10	100	150	100	140	100	40	20	180	10	50	150
Residue contents																			
Bone (burnt) indet. frag.	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bone (calcined) indet. frag.	-	-	-	(+)	-	+	-	-	-	-	-	-	(+)	(+)	-	-	-	-	-
Bone (unburnt) indet. frag.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Charcoal	++	(+)	+	+	+	(+)	(+)	-	+	+	++	+	+	+	+	++	(+)	(+)	-
Charcoal (vitrified)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coal	-	-	(+)	-	(+)	-	-	-	-	+	-	-	(+)	-	-	+	(+)	-	-
Coal shale	+	-	-	+	-	-	-	+	-	-	++	-	-	+	-	-	-	+	-
Daub	++	-	-	++	++	(+)	-	-	-	-	+++	-	-	-	++	-	-	-	-
Fired clay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
Flint flake (total no.)	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glass (number of shards)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heather twigs (charred)	-	-	-	+	-	-	-	-	-	-	-	-	(+)	(+)	+++	-	(+)	+	-
Pot (number of fragments)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teeth (total no.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tubers/rhizomes (charred)	-	-	-	-	(+)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flot matrix																			
Charcoal	++	+	+	+++	+	+	++	+	++	+	+++	+	+	+	++	+++	+	+	++
Coal/coal shale	-	++	++	+	++	-	++	+	-	+	-	-	+	-	-	+	++	+	+
Heather twigs (charred)	++++	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heather twigs (uncharred)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roots (modern)	++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Uncharred seeds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Charred remains (abundance)																			
(a) <i>Bromus</i> spp (Brome) caryopsis	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> spp (Hulled Barley) grain	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> spp (Barley species) grain	3	-	-	2	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
(c) <i>Triticum</i> spp (Wheat species) grain	3	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
(c) Cerealia indeterminate grain	3	-	-	3	-	1	-	-	-	-	3	-	-	-	-	-	-	-	-
(t) <i>Crataegus monogyna</i> (Hawthorn) fruitstone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(w) <i>Carex</i> spp (Sedges) trig. nutlet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(x) Poaceae undiff. >2mm (Grass family) caryopsis	2	-	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-

[a-arable; c-cultivated; r-ruderal; t-tree/shrub; w-wetland; x-wide niche. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant. D-ditch; G-gully; L-linear; P-pit; PH-posthole; S-slot; ST-structure. Charred plant remains are scored from 1-5, where 1:1-2; 2:3-10; 3:11-40; 4:41-200; 5:>200.]

Sample	102	103	104	105	106	107	108	109	110	111	112	114	116	120	121	123	124	125	129	134	137
Context	338	340	345	348	349	346	343	352	355	357	361	376	380	399	395	406	408	410	420	429	435
Feature	D	D	D	PH	D	D	ST	D	PH	PH	PH	S	G	D	D	D	D	D	D	D	PH
Full analysis recommended	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Material available for radiocarbon dating	-	-	-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-
Volume processed (l)	9	10	9	5	10	6	7	9	9.5	7.5	7	8	8	6	8	8	8	8	6.5	7	4
Unprocessed material remaining	✓	✓	-	-	✓	✓	✓	✓	-	-	-	✓	-	-	-	✓	✓	✓	-	✓	-
Volume of flot (ml)	40	40	50	10	70	10	100	120	100	30	50	50	10	10	10	100	60	100	20	50	70
Residue contents																					
Bone (burnt) indet. frag	-	-	-	-	-	-	-	-	-	-	-	-	-	-	++	-	-	-	-	-	-
Bone (calcined) indet. frag	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bone (unburnt) indet. frag	+++	-	-	-	-	-	-	-	-	-	-	-	-	-	++	-	-	-	++	-	-
Charcoal	(+)	(+)	+	(+)	(+)	-	(+)	(+)	+	(+)	(+)	(+)	(+)	+	+	(+)	(+)	+	(+)	+	(+)
Charcoal (vitrified)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coal	-	-	-	(+)	-	-	-	(+)	-	(+)	-	-	+	+	-	(+)	-	(+)	(+)	-	-
Coal shale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Daub	+	-	++	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fired clay	(+)	-	(+)	-	(+)	-	-	-	-	-	-	-	-	+	(+)	-	-	-	-	-	-
Flint flake (total no.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glass (number of shards)	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Heather twigs (charred)	-	-	-	-	-	(+)	-	-	+	+	(+)	-	+	-	-	-	(+)	-	(+)	-	(+)
Pot (number of fragments)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	3	-	-
Teeth (total no.)	3	-	4	-	-	-	-	-	-	-	-	-	4	1	14	-	-	-	-	-	-
Tubers/rhizomes (charred)	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-
Flot matrix																					
Charcoal	+	+	+	+	+	(+)	+	+	++	++	+	-	+	+	+	+	++	+	++	+	++
Coal/coal shale	-	-	-	+	++	-	+	+	+	-	-	+	+	+	-	+	-	+	-	-	-
Heather twigs (charred)	-	-	-	-	-	-	-	-	-	+	-	-	+	+	-	-	-	-	-	-	-
Heather twigs (uncharred)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roots (modern)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Uncharred seeds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Charred remains (abundance)																					
(a) <i>Bromus</i> spp (brome) caryopsis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> spp (Hulled Barley) grain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> spp (Barley species) grain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(c) <i>Triticum</i> spp (Wheat species) grain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(c) Cerealia indeterminate grain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(t) <i>Crataegus monogyna</i> (Hawthorn) fruitstone	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
(w) <i>Carex</i> spp (Sedges) trig. nutlet	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
(x) Poaceae undiff. >2mm (Grass family) caryopsis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Appendix 2: Updated Project Design

Project management

- A2.1 Management; project timetable; quality control; liaison with specialists and personnel.

Ceramic assemblage

- A2.2 The pottery assemblage from both the evaluation and excavation will be reported upon fully to produce a ceramic archive catalogue and analysis.

Jet object

- A2.3 Further study of the jet object from context [273] in order to seek parallels, assign function and provide dating.

Metal analysis

- A2.4 Further study of the lead object [SF8] to assign function and provide possible dating evidence for the context.

Palaeoenvironmental analysis

- A2.5 Further work is on context [194] for plant macrofossils, and context [256] for plant macrofossils and charcoal in order to provide further information about diet, crop husbandry practices and fuelwood use.

Radiocarbon (AMS) dating

- A2.6 Material for radiocarbon dating has been selected in order to date different feature types and assist phasing of the site: posthole associated with possible building [126]; fill of gully and associated posthole [156] & [154]; ditch fills [194], [221] and [291]; ditch recut [207].

Artefact illustration

- A2.7 Querns SF1 & SF6, the jet object, and ceramic vessels are to be illustrated.

Digitising

- A2.8 Selected plans and sections from the site archive will be digitised.

Excavation illustrations

- A2.9 Phased plans and section drawings will be prepared for the full analysis report.

Report preparation

- A2.10 Phased data structure will be written and integrated with the illustrations and geophysical survey.
- A2.11 Preparation of report, including collation of specialist reports and illustrations.
- A2.12 Integration of specialist reports into data structure.
- A2.13 Research into relevant parallels for the data and analysis of the data will be conducted.
- A2.14 A synthesis of the site will be prepared, bringing together all the results of the excavation, geophysics and evaluation.

A2.15 Full analysis report production.

Publication

A2.16 Editing of text for publication.

A2.17 Reformatting of illustrations for publication.

A2.18 Submission of publication report to the editor of the Durham Archaeological Journal.

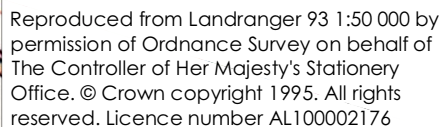
Archive

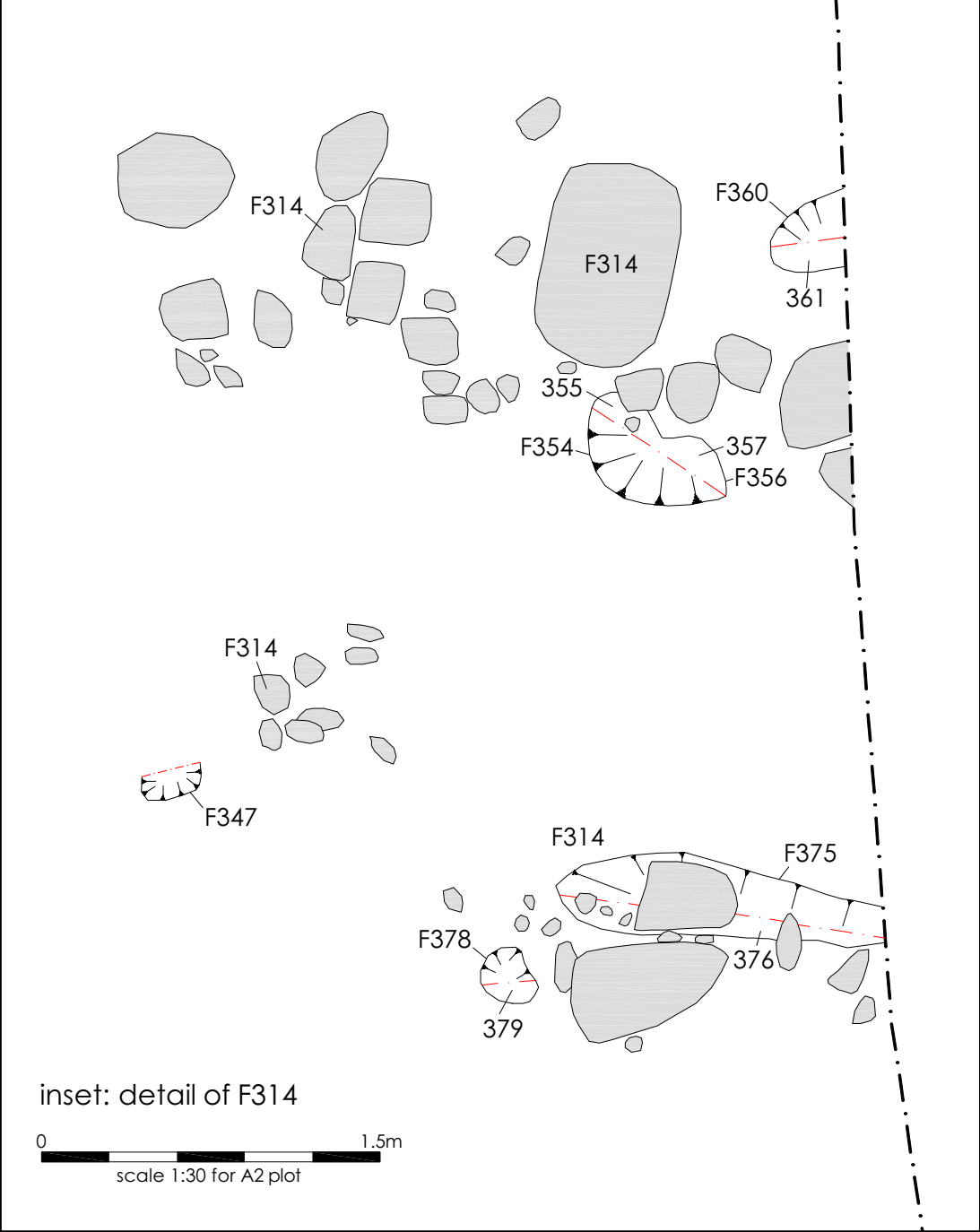
A2.19 Transfer of the site archive to Bowes Museum.

A2.20 Transportation of finds between specialists.

Programme

A2.21 The works can be completed within 9 months of commission.





- extent of excavation
- feature
- stone
- section

0 10m
scale 1:200 for A2 plot

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
E.ON

Butterwick Moor Wind Farm
Sedgefield
County Durham

archaeological post-excavation
assessment

report 2442

Figure 2: Plan showing main features



Figure 4: Structure F314, looking east



Figure 5: Ditch F337, looking north-east

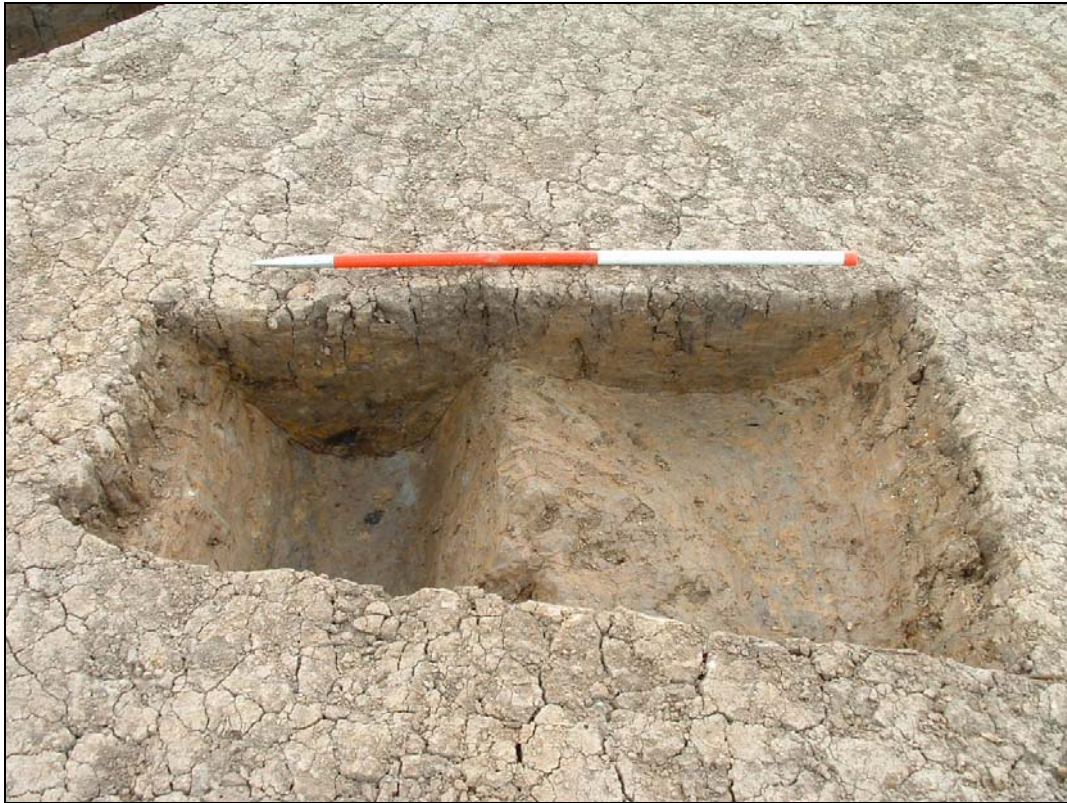


Figure 6: Ditches F240 and F245, looking south

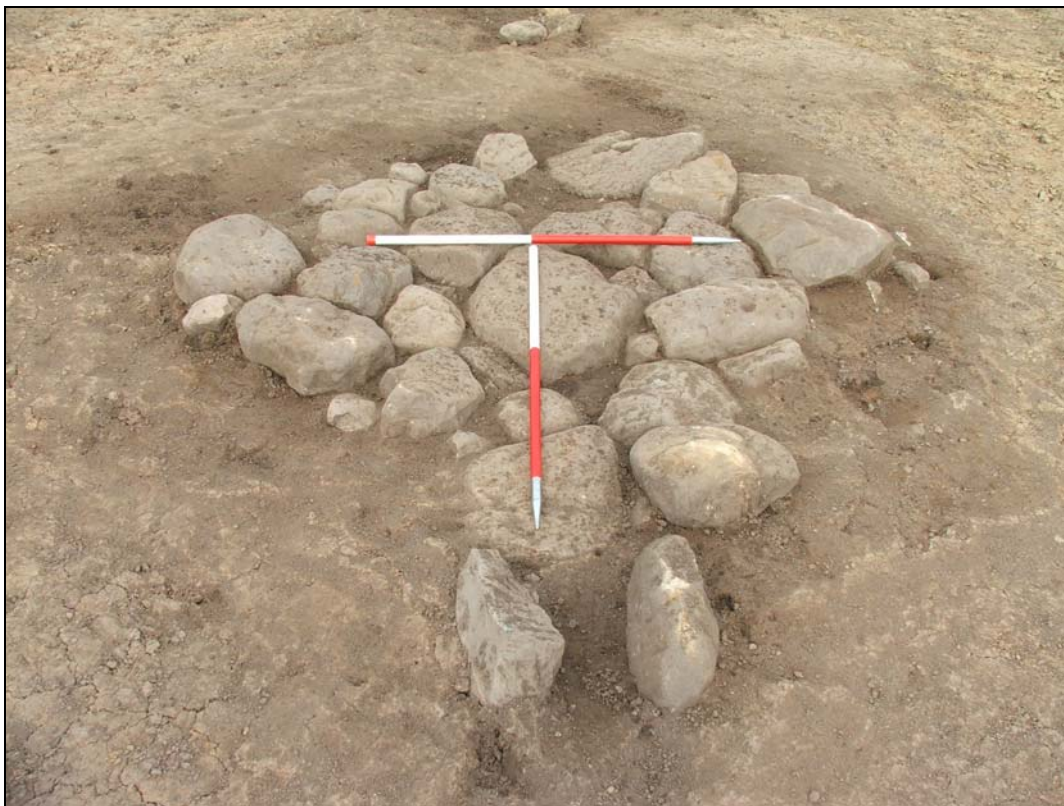


Figure 7: Stone structure F195, looking west



Figure 8: Ditch terminus F178, looking north-east



Figure 9: Ditches F154 and F149, looking north-west



Figure 10: Ditch F125, looking north-east



Figure 11: Ditch F181, looking north-west



Figure 12: Ditches F170 and F174, looking south-east



Figure 13: Ditch F106, looking north-west



Figure 14: Area of excavation, looking south