

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
Estates and Buildings
Durham University

Mountjoy Carpark
Durham University
Durham City

archaeological post-excavation
assessment

report 2467
August 2010

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1. Summary

The project

- 1.1 This report presents the results of an archaeological excavation and post-excavation assessment works conducted in advance of a development at Mountjoy, Durham City.
- 1.2 The works were commissioned by Estates and Buildings, Durham University, and conducted by Archaeological Services Durham University.

Results

- 1.3 Three phases of activity were identified. The majority of features date to the first phase, the Roman period. These comprise ditches and a gully reflecting part of an enclosure system. Within this were a series of pits of different sizes, part of a stone surface, and two features that include evidence for fired structures. Geophysical survey has demonstrated that the remains continue beyond the area of excavation. Pottery recovered from the features provides a date for activity in the late 3rd and early 4th century. Small quantities of burnt bone were also uncovered from many of the features. The deliberate deposition of a complete pot and the partial stone lining of two large pits may be associated with burial ritual.
- 1.4 The second phase of activity dates to the post-medieval period, when a large natural depression in the southeast part of the site was filled with an accumulation of soil.
- 1.5 The third phase of activity dates to the 19th and 20th centuries. This comprises some pits and a gully, as well as the modern construction of a haul road and compound for work on the nearby Mountjoy reservoir.
- 1.6 A significant assemblage of artefacts and palaeoenvironmental remains were recovered during the excavations. This included an assemblage of Roman, medieval and post-medieval pottery, including a complete Roman cooking vessel and part of a vessel of later prehistoric tradition. Other artefacts included two incised stones which may be Iron Age, a quern fragment, an iron sickle, medieval buckles, fragments of glass and clay pipes, animal bone and numerous fragments of fired clay.
- 1.7 There are numerous features which are currently unphased.

Recommendations

- 1.8 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 2, which lists the tasks to be undertaken to achieve this.

2. Project background

Location (Figure 1)

- 2.1 The site is located at Mountjoy, Durham University, Durham City (NGR centre: NZ 4278 5411). It covers an area of approximately 0.45ha. The site overlooks the Durham University science site and is bordered to the north by a car park, to the east by a reservoir, to the south by woodland and to the west by fields.

The development

- 2.2 The excavation took place in advance of the construction of a car park by Durham University.

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.

Specification

- 2.4 The works have been undertaken in accordance with a Written Scheme of Investigation provided by Archaeological Services Durham University (reference DS09.321) and approved by the planning authority.

Dates

- 2.5 Fieldwork was undertaken between 16th November 2009 and 16th April 2010. This report was prepared for 20th August 2010.

Personnel

- 2.6 Fieldwork was conducted by Janice Adams, Clare Dunscombe, David Graham, Andy Platell, Alan Rae, Richie Villis and Dave Webster, and was supervised by Jamie Armstrong, Matt Claydon and Natalie Swann. This report was prepared by Jamie Armstrong, with illustrations by David Graham. Sample processing was undertaken by Janet Beveridge. Specialist reporting was conducted by Blaise Vyner (pre-Roman ceramics and marked stone), Ray McBride (Roman ceramics), Louisa Gidney (animal bone), Victoria Cunningham (quern stone), Jennifer Jones (post-Roman ceramics, conservation and other finds), and Dr Charlotte O'Brien and Angela Vitolo (palaeoenvironmental remains). The Project Manager was Peter Carne.

Archive/OASIS

- 2.7 The site code is **DMJ09**, for **Durham MountJoy 2009** when the initial evaluation was undertaken. The archive is currently held by Archaeological Services Durham University and will be transferred to the Fulling Mill 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 **archaeol3-82083**.

3. Landuse, topography and geology

- 3.1 At the time of the evaluation the development area comprised rough scrub and occasional mature trees.
- 3.2 The area is situated on a north-facing incline which slopes down from south to north and also undulates from west to east. It has a mean elevation of 102.70m OD.

- 3.3 The underlying solid geology of the area comprises Pennine Middle Coal Measures Formation which is overlain by Devensian glaciofluvial deposits of sands and gravels.

4. Historical and archaeological background

The prehistoric period (up to AD70)

- 4.1 Prehistoric finds have been found at Houghall, south-east of the development area, including a flint tool (H6834) and a Bronze Age sword (H4945). Bronze Age activity is also indicated by the discovery in 1899 of three cremation urns, complete with cremations, near Stonebridge (H555 & 1161) to the north of the development area. There have also been several more recent archaeological interventions at Mount Oswald golf course, at Mountjoy and at Howland's Farm which have identified archaeological evidence for occupation that dates from the Bronze Age and probably the Iron Age, with some indications of earlier activity. These are discussed more fully below (see paragraph 4.9). There is also a later prehistoric enclosure at Maiden Castle (H1181), less than 1km to the north-east, and evidence of probable rectangular enclosures and possible ring-ditches were found during a geophysical survey of Low Burnhall Wood to the south (Archaeological Services 2010). Collectively, this evidence indicates that the high ground around this side of Durham was extensively utilised in the later prehistoric period.

The Roman Period (AD70 to 5th century)

- 4.2 Some Roman coins have been found in Durham City and Roman material has been found in the Cathedral Precinct. A Roman villa was partially uncovered at Old Durham around 2km north of the site. A major Roman route, now called Cade's Road, formerly joined Newcastle and Brough on Humber, and passed close to Durham. It has been suggested that a second Roman road left Dere Street at Willington and continued towards Durham through the Neville's Cross area. Excavations in the 1960s identified evidence of a Roman road 0.75m north-west of the development area at Stonebridge (H5780-1). Subsequent small-scale archaeological investigations (H8938) have not confirmed this suggestion. It is possible that the road followed the route of Neville's Cross Bank and Crossgate Peth, although this is speculative. No evidence has yet been found of any form of roadside settlement in the area. Archaeological excavation in the surrounding area shows activity dating to this period does have the potential to exist (see paragraph 4.9).

The medieval period (5th century to 1540)

- 4.3 The earliest recorded settlement may have been at Elvet, now New Elvet, described in the Anglo-Saxon Chronicles in AD 763 (Archaeological Services 1993a, 5). No evidence relating to the early medieval period has been found close to the development site and it is unlikely any settlement extended this far south of the town.
- 4.4 Mountjoy is traditionally viewed as the site from which the bearers of St. Cuthbert's coffin first saw Durham in AD 995. Symeon of Durham describes these events in some detail in the 12th century and refers to the spot as *Wrdelau* (Symeon 1885, 79). Mountjoy is described as a "green conical hill" by Surtees, and Boyle refers to it as being "crowned by a few trees" in 1892 (Surtees 1816, 90; Boyle 1892, 136). The name of Mountjoy may derive from the French *Mont-joye*, "a heap of stones laid by pilgrims on which crosses are erected when they come within view of the end of their journey" (Hutchinson 1787, 4).

- 4.5 Houghall, to the south-east of the site, was granted to the Herrington family in the 12th century and after 1260 to the Priory and Convent of Durham. There is no record of any contemporary activity extending from here into the development area (Archaeological Services 1993b, 5).

The post-medieval period (1541 to 1899)

- 4.6 The development area has probably been under cultivation or woodland without interruption for many centuries. From the 17th century or earlier, the site was at the north east end of an area known as Elvet Moor. This moor was enclosed by an act of Parliament in 1772. The moor was the site of a temporary village in the 16th century after a series of plagues in Durham; some villagers are said to have been buried there (Archaeological Services 1993b, 6).

The modern period (1900 to present)

- 4.7 The area remained as fields into the 20th century. Recent developments include the University science site and a water reservoir.

Previous archaeological works

- 4.8 Field walking and magnetometry survey was conducted by Archaeological Services in 1993 in the west part of Area 2. The results revealed medieval and later field boundaries. A single flint was also recovered.
- 4.9 The site of Howland's Farm to the south-west of the site was subject to archaeological assessment, geophysical survey and archaeological evaluation (H3700-1& H3772, H9102, H8210: Potter & Taylor Wilson 2005) prior to the development of the City Park and Ride sites. The results from the works demonstrated that activity on site dated from the prehistoric to the post-medieval period, which included a probable Iron Age round house.
- 4.10 Geophysical surveys were undertaken within the development area and to the east in 2003 and 2004 (Brogan 2005, 6); the survey revealed a number of potential archaeological anomalies. A scheme of archaeological evaluation subsequently took place. The evaluation confirmed the presence of archaeological features of Bronze Age and possibly Iron Age date (Brogan 2005, 5). Post-medieval ploughing was also recorded during the evaluation (*Ibid.*). Archaeological monitoring also took place within Area 1 in relation to a temporary access road and site compound: no archaeological features were identified in this process.
- 4.11 To the southwest of the development at Mount Oswald Golf Course an archaeological assessment and a geophysical survey were conducted in 2007-8 (H15782, H15905: Parker 2007 & Hurst 2008). The survey revealed potential archaeological features that may date to the prehistoric period. Evidence of agricultural practices relating to the post-medieval period in the form of ridge and furrow ploughing were identified together with field boundaries; modern activity of probable 20th-century date was also recorded. No evidence of 16th-century settlement or burials relating to the Elvet Moor Plague was found (Hurst 2008, 15).
- 4.12 Archaeological Services conducted two archaeological evaluations on or near the development area in 2009. The first was located on the Durham Gateway project and established the presence of a probable prehistoric ditch (Archaeological Services 2009a). The second was located on the development area (Archaeological Services

2009b). A total of 7 trenches were excavated, 6 in the area of the car park and 1 located to the north where it is proposed to construct a turning circle. The evaluation established the presence of several boundary features, as well as pits and postholes. Artefacts recovered included pottery, animal bone, metalwork and ceramic building material dating to the Roman, medieval and post-medieval periods. Significant palaeoenvironmental remains were also recovered. Based on the results of this evaluation it was recommended that a programme of archaeological excavation was conducted on the area of the car park.

5. The excavation

Introduction

- 5.1 The trench location was defined by the development area. The features have been phased on the basis of their stratigraphic relationships (which is limited mainly to those that are physically related to the two ditches), with finds also used as dating evidence. It is anticipated that following the post-excavation analysis it will be possible to provide a complete updated phasing of the features on site. Features excavated in the evaluation have been incorporated into this data structure.

Natural sub-soil

- 5.2 The underlying natural subsoil [6=15=30=37=44=47=54=101=203] consisted of a mixture of light yellow and brown sands and gravels with patches of manganese.

Phase 1: Roman

Small pits

- 5.3 Several pits have been identified from this period. Possibly the earliest feature was a small ovoid pit oriented east-west [F230: 0.73m long, 0.5m wide and 0.1m deep] towards the centre of the trench. This was filled with a brown friable sandy-silt [229]. Within this deposit was the base and lower wall of a pottery jar [SF14]: another sherd also found within the pit is likely to be the upper part of the vessel. The initial assessment of the vessel [see paragraphs 6.1-3] indicates that it may date to the pre-Roman Iron Age although such vessels did continue to be manufactured into the Roman period: as such, and given that the context of the rest of the site is currently thought to be later 3rd to early 4th century it seems likely that the vessel is contemporary with the rest of the Roman activity identified.
- 5.4 A pit was identified as being the earliest stratified feature, cut by a curvilinear ditch [F22]. This was a medium-sized sub-square pit [F264: 1.22m long, over 0.88m wide and 0.1m deep], located at the centre of the site. It was filled by a greyish reddy-brown soft and friable sandy-silt [263]. The palaeoenvironmental analysis of this deposit found cereal remains, including spelt wheat which was cultivated during the later prehistoric and Roman periods: burnt bone was also found. The function of this feature was not determined and it is assumed that it had been heavily truncated by later activity.
- 5.5 Several pits [F221; F224; F288; and F306] contained significant cereal and other plant remains, including spelt wheat: burnt bone was also recovered from pits [F224] and [F288]. They measured 0.70-2.6m long, 0.50-2.00m wide and 0.25-1.10m deep. Pit [F221] was filled with a reddy-brown sandy-silt [220]. Pit [F224] was filled with a primary deposit of very dark grey soft and friable sandy-silt [225: 0.02m thick] overlain by a greyish-brown soft and friable sandy-silt with occasional small sub-

rounded stones [223: 0.34m thick]. Pit [F288] was filled with a dark brown loose silty-sand [287]. Pit [F306] was filled with a primary deposit of yellowy-brown silty-sand with inclusions of occasional subangular stones throughout and more frequent gravel towards the base of the feature [308: 0.24m thick]. This was overlain by a dark yellowy-brown silty-sand [307: 0.86m thick].

- 5.6 Several pits [F163; F183; F191; F239; F244; F255; F260; F286; F293; and F305] contained Roman pottery, mainly dating to the late 3rd-early 4th centuries. These lacked any indicative palaeoenvironmental evidence, but burnt bone was recovered from several [F163; F183; F191; F239; F244; and F293]. They measured 0.78-1.8m long, 0.52-0.2m wide and 0.24-0.52m deep, and were located in the central part of the site. Pit [F163] cut the fill [164] of an earlier pit [F165: 0.91m long, 0.74m wide and 0.42m deep]. Both of these pits and also pit [F260] were filled by reddy-brown friable sandy-silts [162; 164; and 259]. Pits [F183; F191; F244; F286; F293; and F305] were filled with brown silty-sands [182; 190; 235; 285; 294; and 304]. Pit [F239] was filled with a primary fill of brown gravelly sand [234: 0.15m thick], overlain by a reddy-brown silty-sand [233: 0.16m thick]. Pit F255 was filled with a greyish-brown silty-sand [254: 0.1m thick] overlain by a yellowish-brown stoney silty-sand [253: 0.27m thick], above which was a yellowish-brown silty-sand [252: 0.35m thick].

Large pits

- 5.7 A large oval pit [F169: 2.6m long, 1.8m wide and 0.8m deep; Figure 4] orientated north-south was located 12m to the west. The primary fill of this feature was a reddy blackish-brown loose gritty burnt sandy-silt with inclusions of charcoal [170: 0.6m long, 0.5m wide and 0.03m thick]: this reflects dumping of burnt material within the pit rather than burning *in situ* as there was no evidence of the sand having been heated. Above this was a deposit of reddy grey-brown loose gritty sandy-silt [171: 1.6m long, 0.9m wide and 0.1m thick] overlain by a deposit of grey-brown loose gritty sandy-silt with occasional inclusions of sub-rounded stones [172: 2.1m long, 0.9m wide and 0.1m thick]. These two deposits were the result of gradual silting of the feature. Overlying this was a deposit of reddy-brown loose and gritty sandy-silt with inclusions of occasional sub-angular stones [168: 2.6m long, 1.8m wide and 0.7m thick]. Along the eastern edge of this deposit was a line of stones originally interpreted as possible packing for a large wooden post, but was later reinterpreted in the light of pit [F154] as a rudimentary wall. Remains of spelt wheat were recovered from the palaeoenvironmental samples of deposits [170] and [172], and fragments of burnt bone were present in deposit [170].
- 5.8 Pit [F154=F216; Figure 5] is presumed to be contemporary with pit [F169], due partly to some similarities between the two features. There were similar burnt deposits at the bottom of both features, and they also both contained crude walls along one edge. The large roughly sub-square pit was located 2m south of pit F169 [F154=F216: 2.66m long, 0.78m wide and 0.72m deep]. It had two distinct areas: a narrow and deep end [F216: 1.3m long, 1m wide and 0.45m deep] and a wide and shallow end [F154: 2.66m long, 1.56m wide and 0.27m deep]. Constructed along the northern edge of pit [F216] was a fairly crude stone wall [F215: 2.2m long, 0.4m wide and 0.6m high], sloping up and out from the base of the pit: this had the appearance of a revetment wall supporting the natural subsoil [F154=F216]. Around the opposite edge of the pit a ledge had been cut into the side, with the remains of a paved surface on this. Cut into the eastern end of pit [F154] a small circular pit had been excavated [F211: 0.5m wide and 0.5m deep]. This had contained a complete calcite

grittied ware cooking pot which has been provisionally dated to AD 275-325 [below, 6.7]. The combination of this structured deposition and the unusual pit walling may be indicative of ritual activity associated with burial. Packed around the jar was a lower fill of black friable sandy-silt [210: 0.1m deep] overlain by an orange-brown soft friable silty-sand [209: 0.4m thick]: two sherds of Crambeck reduced ware, provisionally dated to AD 270 or later, were also found. The primary fill of pit [F154] was a thin layer of black crumbly charcoal [217: 0.35m long, 0.25m wide and 0.05m thick] which abutted wall F215: this is likely to be a dump of burnt material rather than evidence of burning *in situ* as there was no evidence of the sand beneath having been heated (see deposit [170] in pit [F169], paragraph 5.2). Overlying this, and butting against wall [F215], was a mixed light-brown to black friable and firm silty-sand with inclusions of clay [214: 1.3m long, 1.0m wide and 0.45m thick]. A distinct sub-rectangular deposit of greenish-brown clay was identified within the centre of this deposit [205: 0.74m long, 0.42m wide and 0.2m thick]: this was tentatively interpreted as relating to part of a wooden vessel or coffin, but no further evidence was found to confirm this. Over the top of this was a dark brown organic loose silty-sand deposit [196: 0.7m long, 0.6m wide and 0.2m thick]. Overlying this and extending across the uppermost fill of the small pit [F211] was a dark brown firm sandy-silt deposit [153: 2.66m, 0.78m wide and 0.27m thick]. Remains of spelt wheat were recovered from the palaeoenvironmental samples of deposits [153], [196], [205], [209] and [214], and fragments of burnt bone were recovered from deposits [153], [194] and [196].

- 5.9 Over 3m to the north of ditch [F22] was the southern and eastern sides of a large sub-oval pit [F213=F227: 2.56m long, 1.88m wide and 0.43m deep]. This was filled with a brown soft and gritty sandy-silt with infrequent inclusions of small angular and sub-angular stones and charcoal flecks [201: 2.12m over long, 0.5m wide and 0.09m thick]. Palaeoenvironmental analysis of this deposit indicates that there was barley and spelt wheat present, as well as fragments of burnt bone. Overlying this was a reddy-brown soft and loose sand [207: 2.4m long, 1.88m wide and 0.3m thick]. This was overlain by a brown firm and sticky sandy-clay [202: over 0.8m long, 0.85m wide and 0.23m thick], the uppermost fill of the pit. At the southern end of this fill were three large angular stones [226] set as if to support a posthole. However, there was no sign of any cut through deposit 202, and no indication that any posthole had been excavated into the natural.

Stone-lined pit

- 5.10 Pit [F213] was cut by a large sub-oval stone-lined pit [F56=F185: 2.20m long, 1.25m wide and 0.43m deep; Figure 6], which may also be associated with burial. This was orientated north-south with irregular sides and a flattened base, and truncated the north and west sides of pit [F213]. Set around the edge of the northern end of the feature were a series of large edge-set stones slabs [F208] placed vertically against the edge of the pit; another stone was placed at the base of the feature and had been burnt *in situ*. These stones mainly comprised sub-angular and angular stone slabs, although there was a single large rounded stone at the southwest corner – this latter stone (SF7) turned out to have incised lines on the unexposed base (below, paragraph 6.40). This is a rare artefact and its incorporation into the structure of the pit may indicate a structured deposit, or could simply be re-use of an available stone. The primary fill of this feature was a brown firm and sticky sandy-clay [300: 0.35m long, 0.63m wide and 0.03m thick], located at the central and southern part of the cut. Palaeoenvironmental analysis indicates that there was barley and spelt wheat

present in this deposit. Overlying this and extending from the central to the northern part of the cut was a very dark grey soft and gritty burnt cereal and sandy-silt deposit with inclusions of small sub-angular and angular stones [212: 0.74m long, 0.8m wide and 0.06m thick]. Overlying both deposits was a firm sticky and plastic grey clay with occasional inclusions of randomly sorted medium-sized flat angular and subangular stones [189: 1.65m long, 0.88m wide and 0.21m thick]. Above this was a firm, sticky and plastic yellow clay with quite frequent inclusions of randomly sorted medium-sized flat angular and subangular stones [188: 1.92m long, 1.4m wide and 0.16m thick]. Overlying this and forming the uppermost fill of pit [F185] was a friable reddy-brown slightly clayey sandy-silt [55=184: 2.0m long, 1.22m wide and 0.2m thick]. Some scraps of a Mancetter-Hartshill mortarium dating to the 2nd century or later were recovered from this deposit along with remains of spelt wheat recovered from the palaeoenvironmental sample, along with fragments of burnt bone from deposits [184], [212] and [300].

Burnt gullies

- 5.11 Two linear gullies [F51=F249 and F240], which had contained timber and clay structures that had been burnt *in situ*, were located towards the south side of the central part of the site. Gully [F51=F249: 1.4m long, 0.95m wide and 0.35m deep; Figure 7] was found 2m south of the eastern terminus of ditch F22. The oval pit [F249] was filled with a primary deposit of dark grey-brown silty-sand with concentrations of charcoal [267: 0.05m thick] overlain by a dark grey-brown sandy-silt with inclusions of small burnt angular sandstones fragments [266: 0.25m thick]. The feature was then re-established by an elongated re-cut [F265: 1.0m long, 0.35m wide and 0.1m deep]. This was filled with a deposit of charcoal which had been burnt *in situ* [256: 1.0m long, 0.3m wide and 0.05m thick]. Overlying this and forming the uppermost fill of the feature was a layer of red burnt clay [50=248: 1.0m long, 0.35m wide and 0.05m thick]. Gully [F240: 1.9m long, 0.6m wide and 0.38m deep] was filled with a black charcoal layer [243: 1.8m long, 0.4m wide and 0.1m thick], overlain by a deposit of burnt clay [242: 0.5m wide and 0.1m thick] which was covered with a brown sandy silt [241: 0.28m thick]. Several large stones were located at the western end of the pit and showed signs of scorching, indicating that they had formed part of the overall structure: these may have been packing to support a post. Burnt bone was recovered from deposits [242], [243], [248], [256], and [267].

Small stone surface

- 5.12 At the southeast corner of the trench was a small oval pit [F298: 2.45m long, 1.4m wide and 0.15m deep]. This was filled by a grey-brown gritty sandy-silt with occasional inclusions of coal fragments and pebbles [299: 0.15m thick]: burnt bone was recovered from this deposit. Set into this was a layer of tightly-packed large unworked stone blocks [297: 1.8m long, 1.2m wide and 0.2m thick]: one of the stones was SF13, which was a sandstone block with a series of grooves carved into it (see also paragraph 6.40). As with SF7 its incorporation into a surface may indicate a structured deposit as part of a ritual, or could simply be re-use of an available stone. These were placed to form a small surface, but were apparently unrelated to anything around them: however, their location 1m from the edge of the trench presents the possibility that it is associated with further features just beyond the limits of excavation.

Ditch

- 5.13 Cutting the fill [263] of pit [F264] and the uppermost fill [168 of pit [F169] was the north-west corner of an enclosure ditch [F22=F53=F60=F148=F167=F186=F193=F245=F262=F274: 33m long east-west and over 14m long north-south, up to 1.8m wide and 0.6m deep; Figure 8]. This had a U-shaped profile and was progressively shallower as it headed east, presumably the result of later truncation. The geophysical survey shows that this ditch continues to head south for a further 16m where it meets the northwest corner of another ditch forming part of a succession of enclosures, presumably forming a field system: only the northwest corners of these enclosures appear to survive, which would suggest the truncation in the eastern part of the site was quite extensive. In the north-south part of the ditch there was a grey-brown loose gritty sandy-silt with inclusions of occasional sub-rounded stones [159: over 8m long, 0.6m wide and 0.1m thick]. In the east-west part of the ditch there was a light yellow friable and slightly gritty sandy-silt [31= 187: over 2.2m long, 0.37m wide and 0.1m thick]. Both of these deposits are likely to derive from gradual silting of parts of the ditch rather than any deliberate backfilling action. Overlying this was the main ditch fill [21=52=59=147=166=192=228=261=273], a reddy-brown soft and friable sandy-silt with inclusions of flecks of charcoal: remains of spelt wheat were recovered from the palaeoenvironmental samples of this deposit, as well as fragments of burnt bone. Several sherds of mid-3rd-century Roman pottery were also recovered from the deposit.

Gully

- 5.14 The upper fill [23] of ditch [F22] was cut by a north-south gully [F17=F133=F144: 35m long, 0.72m wide and 0.27m deep; Figure 9]. The northern end of the gully turns sharply to the east and extends for a further 3m before terminating just before the northern edge of the trench. The southern end of the gully also terminated. A single post-hole was identified within the feature close to the northern corner of the gully: this feature was only identified after excavation of the gully, suggesting that it is earlier than or contemporary with the boundary feature. The function of this feature is unclear: it was initially assumed to be an extension of the field system identified by the geophysical survey, but excavation demonstrated that it cut through ditch [F22]. Also, both terminals of the gully were identified, demonstrating that the full extent of the feature had been established: no associated gullies were present that could have formed part of a larger enclosure. It is possible that the northern terminal formed part of an entrance, and that another section of gully exists (or existed) further to the north beyond the limits of excavation. Gully [F17] was filled initially with a light reddy-brown firm silty-sand [20: over 0.5m long, 0.5m wide and 0.04m thick] representing initial silting of the feature. Overlying this and extending along the whole length of the gully was a reddy-brown firm sandy-silt with inclusions of small sub-angular and sub-rounded stones [16=134=143=173]. A single sherd of medieval pottery was recovered from this deposit but this is presumed to be intrusive. Cutting the east side of gully [F17], and also the outer corner of gully [F22] was posthole [F181], which was filled with a grey-brown loose sandy-silt [180]: remains of spelt wheat were recovered from the palaeoenvironmental samples of this deposit

Phase 2: post-medieval

- 5.15 Towards the centre of the trench was a large sub-rectangular pit [F40=F258: 2.3m long, 1.00m wide and 0.34m deep] which was originally interpreted as a ditch in the evaluation. This was filled with a brown friable silty-sand [39=257] which contained a

sickle which probably post-dates the Roman period. Burnt bone was recovered from this deposit.

- 5.16 Overlying the phase 1 fills [229], [235] and [241] of pits [F230] and [F244], and gully [F240] was a post-medieval accumulation of soil [49=103: 24m long, over 18m wide and up to 1.00m deep], which was a uniform layer of reddish-brown soft and friable silty-sand.

Unphased pre-19th/20th-century features

- 5.17 A large number of features on site are currently unphased except for being below the subsoil layer [26]. These have the potential to relate to Roman occupation of the site, and it is likely that many of these features will be phased once full analysis has been undertaken. Similarities in the content of the fills of many of the unphased pits (including burnt bone and cereals) with those in the Roman period may lead to these being assigned to that period.
- 5.18 A stone spread [F100: 4.5m long, 2.72m wide and 0.1m thick] was found in the eastern part of the trench. This had been excavated during the 2005 evaluation, when it was interpreted as the fill of a broad ditch. However, no ditch was identified in this area and the previous interpretation is attributed to variations in the natural subsoil. The stone spread comprised randomly sorted sub-angular, sub-rounded and rounded stones measuring up to 150mmx100mmx100mm in size. No cut was identified for the stones, and the stones themselves were not tightly-packed together. A 4th-century calcite gritted rim was recovered from the top of the stones but is not believed to be a reliable indicator of date as it was found at the interface between the stones and the subsoil.

Pits

- 5.19 Five pits [F221; F232; F278; F282; and F296] contained significant cereals and other plant remains. These were 0.62-1.72m long, 0.35-1.48m wide and 0.07-0.48m deep. One pit [F221] contained a primary fill of very dark grey-brown silty-sand with concentrations of charcoal [222: 0.08m thick]. This pit, and the remaining five, were then filled with either a reddy-brown sandy-silt [164; 220; 231; and 295], or dark grey-brown sandy-silts [277; and 281]. Burnt bone was recovered from pits [F165], [F232], [F278], [F282] and [F296].
- 5.20 The remaining pits [F107; F114; F120; F122; F128; F129; F136; F138; F142; F155; F195 (recut as [F204]); F219; F247; F251; F276; F290; F302] were spread across the site and measured 0.4-1.98m long, 0.4-1.3m wide and 0.1-0.7m deep. Pit [F195] was filled with a reddy-brown friable silty sand [198], and was recut as [F205]. This recut was filled with a mottled yellow sandy-clay [194]. Pits [F128] and [F302] were filled with a yellowy-brown silty sand [127; 303]. Pits [F129; F136; F142; F155; F219; and F247] were filled with reddy-brown sandy-silts [130; 135; 141; 156; 218; 246]. Pits [F107; 114; F120; F122; F138; F251; F276; and F290] were filled with dark brown or greyish-brown silty-sands [106; 113; 119; 121; 137; 250; 275; 289]: the fill of pit [F138] ([137]) contained inclusions of angular stones. No indicative cereal remains were recovered, but fragments of burnt bone were present in pits [F107], [F114], [F128], [F138], [F142], [F155], [F195] and [F276].

Postholes

- 5.21 A total of 15 unphased postholes were recorded during the course of the excavations. These were all oval or sub-circular in shape, although this is probably partly due to the nature of the underlying natural subsoil rather than to any deliberate shaping of the features, and were 0.19-0.75m long, 0.19-0.6m wide and 0.1-0.3m deep.
- 5.22 Five of these [F24; F140; 146; F150; F152] were concentrated towards the northwest corner of the site around the corner of gully [F17]. They were mostly filled with a reddy-brown sandy-silt deposit [23; 139; 145; 149], with exception of posthole [F152], which was filled with a brownish-black sandy-silt deposit [151]. None of this group of postholes had any palaeoenvironmental remains in the fills, although burnt bone was present in postholes [F140], [F146], [F150], and [F152]
- 5.23 A looser grouping [F32; F160; F175; F177;] was located around the northwestern corner of enclosure ditch [F22]. Postholes [F175] and [F177] were filled with a reddy-brown sandy-silt deposit [174; 176]. Posthole [F32] was filled with the same mottled black and orange silty-sand [18] which filled gully [F19] that it was associated with. Posthole [F160] was filled with a dark brown loose sandy-silt [161]. Burnt bone was present in postholes [F160] and [F175].
- 5.24 The remaining postholes were located in disparate areas of the site. Posthole [F36] was found within evaluation trench 4, and was filled with a reddish-brown silty-sand [35: 0.08m thick] overlain by a reddy-brown sand [34: 0.14m thick]. Towards the southwest corner of the trench was [F132] which cut the fill [127] of pit [F128] and was filled with an orange loose sand [131]. Posthole [F157] was cut by the phase 2 pit [F155] and was located towards the central area of the site, 4m west of gully [F17]. It was filled with a very dark grey friable and loose sandy-silt [158]. 8m from the northern edge of the site was posthole [F292], filled by a greyish-brown firm clayey-sand with infrequent small sub-angular stones [291]. Burnt bone was found in [F292].

Gullies

- 5.25 A shallow linear gully with a V-shaped profile [F5: 0.76m wide by 0.24m deep: Figures 5 & 6] orientated north-west south-east was identified in evaluation trench 1. It was filled with a reddy-brown soft sand [4] which contained medium sized sub-angular stones lining the base of the feature. No finds were recovered from the fill. This feature continued beyond the limits of excavation.
- 5.26 1m west of ditch [F22] was a linear gully terminal [F19: 0.44m wide by 0.26m deep: Figure 13]. Cutting the base of the linear gully [F19] was a small stakehole [F32: 0.12m wide by 0.19m deep]. This stakehole and the gully were filled with mottled black and orange friable silty-sand [18] with charcoal inclusions.
- 5.27 At the northern part of the trench a further possible gully terminal [F58] was identified. This was filled with reddish-brown silty-sand [57].

Phase 3: 19th and 20th century

- 5.28 Immediately above the fill of gully [F5] ([4]) in trench 1 was a black humic firm clay-silt buried soil deposit [3: 0.20m thick]. Cutting this to the south was a service trench [F7]. The service trench was aligned north-west south-east but was its full extent

was not exposed during the evaluation. This service trench was filled by a loose grey pea-gravel [9]. Overlying this was mottled yellow and orange-brown firm clay made ground layer [2: 1.20m thick]. This contained occasional sub-angular and sub-rounded stones from 0.05m to 0.22m plus lenses of topsoil and yellow-sand; this layer probably derives from landscaping of the immediate area. On the north side of the trench the vertical cut of another possible service trench [F8] was identified, filled by mottled orange-brown clay [10].

- 5.29 In the rest of the area deposit [49=103] and the fills of the earlier features was a layer of subsoil [26=116: up to 0.3m thick] of reddy-brown firm gravelly sandy-silt, which extended across the trench. This was cut by several features. Towards the western end of the trench was a rectangular pit with vertical sides [F118: 1.5m long, 1.16m wide and 0.5m deep]. It was filled with a greyish-brown friable sandy-silt [117] which contained 19th/20th century pottery. In the southwest corner of the trench was a small pit or possible gully terminal [F126: -over 0.2m long, 0.45m wide and 0.14m deep]. This was filled with an orangey-brown gritty sandy-clay [125]. 4m east of the north-south element of ditch F22 was an oval pit [F29: 0.97m wide by 0.77m deep: Figure 15], filled with dark grey soft sand [28: 0.10m deep] containing frequent charcoal inclusions. Above this was a deposit of brown soft and friable sand [38: 0.43m long, 0.4m wide and 0.07m thick]. Overlying this was a reddish-brown uniform friable silty-sand [27: 0.77m deep]; animal bone, a post-medieval pottery fragment and an iron nail were recovered from this fill. It is probable that this pit did not remain open for a long period of time due to the sharpness of the sides and edges of the feature. Towards the northeast corner of the trench was a short east-west gully [F284: 1.5m long, 0.3m wide and 0.08m deep], filled with a grey-brown sand with rare inclusions of small sub-rounded stones [283] which contained 19th/20th-century pottery. Overlying these and the subsoil was a grey-brown sandy silt topsoil [25=33=43=46=48=115].
- 5.30 Cutting the topsoil along the northern edge of the trench and extending across part of the eastern area was a modern cut for a temporary road surface [F45]. This was filled with a layer of disturbed natural sand [14: up to 0.20m deep]. Directly over this was a plastic membrane layer [13] overlain by a modern deposit comprising dark grey silt [12=42: up to 0.25m deep] with frequent inclusion of angular crushed stone, brick rubble and occasional nails and wire. These layers reflect a modern temporary access route and compound for the construction of the reservoir to the east. A possible borehole [F200] was found to truncate pit [F195], and was filled with a mixed deposit of redeposited material [199]. Overlying these modern features and also present in trench 1 were layers of redeposited grey-brown silt topsoil [1=11=41].

6. The finds

Pre-Roman Iron Age pottery assessment (Blaise Vyner)

Results

Context [229] SF14

- 6.1 Part of the base and lower wall of a small jar, exterior surface buff-orange, interior surface and fabric dark grey, numerous small angular white and other quartz grits which are particularly obvious on the interior surface, typical wall thickness 10 mm. A separate sherd, probably from higher up on the vessel wall, has traces of carbonised accretion on the interior.

- 6.2 This vessel is almost certainly prehistoric, its size and character suggest a pre-Roman Iron Age date – though ‘native’ styles continued into the Roman period. A late Bronze Age date is not definitely precluded, especially in view of the fact that mid-late Bronze Age activity is evidenced from recent excavations at Mountjoy (note that earlier suggestions that the excavated site was Neolithic have proved erroneous).

Recommendation

- 6.3 It is recommended that the pot is illustrated. It is also recommended that the carbonised grain embedded in the interior surface of the base is identified. Due to consolidation of the pot there is insufficient uncontaminated grain left for radiocarbon dating.

Roman pottery assessment (Ray McBride)

Summary

- 6.4 The site produced a damaged but complete vessel and 90 other sherds of Roman pottery, weighing 2.894 kg, from a number of ditch and pit features. The assemblage consists entirely of coarse ware jars, bowls and mortaria. There is a notable absence of amphorae, samian or other fine wares.
- 6.5 The majority of the Roman pottery dates from the mid-3rd century to the 3rd quarter of the 4th century. There is no pottery that can be confidently dated to after AD 360, e.g. Huntcliff-type or Crambeck parchment ware. A list of spot-dates, with terminus post quem dates, is given in Table 1.2 below.

Results

Coarse wares

- 6.6 The coarse ware forms are limited to jars and bowls. The majority of the pottery is reduced, with only a small number of oxidised fabrics. Many of the jar sherds have accretions of soot and possible carbonised food residue.
- 6.7 The most notable vessel is a complete cooking pot in calcite-gritted ware from context [209] (SF no. 5). The form of the vessel is not typical of the calcite-gritted ware vessels usually found in this region, and requires further research. Other calcite-gritted ware jar sherds are present in contexts [100], [101], [103] and [235]. A small amount of Crambeck reduced ware is present. Sherds of cooking pots in BB1, dating to the mid-third 3rd, and BB2, dating to the 3rd century, are present in small quantities.

Mortaria

- 6.8 Six mortarium sherds from two vessels were found, consisting of a painted hammer-head type, probably from Cantley or Catterick and two scraps from a Mancetter-Hartshill vessel.

Discussion

- 6.9 The assemblage is small, but very important in terms of the types present and the location and circumstances of their context. Durham has a very limited corpus of Roman pottery reports and this pottery, although quantitatively small, will be an important addition. It demonstrates the presence of activity during the late third to fourth centuries at the Mountjoy site, the sources of wares coming into the area and provides evidence for the domestic activity occurring there.

- 6.10 Complete vessels are not particularly common site finds, but they are usually found inside buildings, and interpretations of their purpose include storage and ritual activity.

Recommendations

- 6.11 The pottery requires a fully-quantified ceramic archive catalogue (as defined by the Study Group for Roman Pottery guidelines: Darling 1994). 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. The quantitative study should be integrated with the Ceramic Database research programme which includes much of the Roman pottery found on and around the environs of Hadrian's Wall.
- 6.12 A publication report is recommended in order to expand the limited repertoire of reports for the Roman period in Durham and its environs. The report should consist of a table of fabrics present, a catalogue of particular vessels of interest, with illustrations of selected vessels and a discussion detailing the character of the pottery with emphasis on the context and location of the assemblage.

Post-Roman pottery assessment

- 6.13 Twelve pieces of post-Roman pottery were hand-recovered from 8 contexts. Single pieces of white glazed wares of 19th-century date or later came from five contexts [116, 117, 199, 236 and 283]. The example from [236] is sponge printed and dates to later than 1840. Other 19th-century wares include examples of yellow glazed coarseware [103], brown [166] and black [115] glazed earthenwares and late redware [115]. A sherd from the handle of an 18th-century slipware vessel was also found in context [103].
- 6.14 The only evidence for medieval activity came from a single wall sherd of sandy, green glazed reduced ware, found in context [103], which can be dated to the 13th/14th century.
- 6.15 Very small pottery fragments, some of which were post-medieval or later glazed wares, were recovered in palaeoenvironmental samples from 11 contexts: [156] <37>; [170] <45>; [194] <59>; [196] <60>; [215] <73>; [220] <70>; [223] <72>; [277] <102>.

Recommendations

- 6.16 No further work is recommended.

Animal bone assessment

- 6.17 The only identifiable animal bone came from context [168], which produced fragments of cattle tooth enamel. Other unidentifiable burnt bone was hand-recovered in context [229]. Very small pieces of unidentifiable bone, much of it burnt, were also found in palaeoenvironmental samples from a further 58 contexts. Small abraded pieces of unidentifiable shell were recovered in samples from context [141] <33> and [218] <68>.

Recommendations

- 6.18 No further work is recommended.

Clay pipe assessment/analysis

- 6.19 A total of 14 clay tobacco pipe stem and two pipe bowl fragments were found in six contexts at the site (Table 1.3). The majority of fragments (12) had no decoration or stamps. One unstratified stem had a complete spur, whose shape suggests an early to mid-18th-century date. A further stem fragment from context [103] had part of a ?lozenge-shaped stamp on the stem, just above the join between stem and bowl, which appears to contain one or more ?fleur de lys emblems. This fragmentary stamp could not be associated with any known manufacturer in the area.

Recommendations

- 6.20 No further work is recommended.

Glass assessment

- 6.21 Three small pieces of post-medieval or modern glass were recovered unstratified and from context [103]. Context [228] produced one fragment of thick blue/green glass from a fairly large vessel, which is Roman and probably of 1st-3rd-century date. Its matrix is completely crazed, probably through exposure to heat.
- 6.22 A further 11 contexts produced very small non-dateable fragments of glass in the palaeoenvironmental samples: ([159] <40>; [174] <49>; [178] <51>; [194] <59>; [223] <72>; [252] <84>; [253] <89>; [256] <86>; [299] <109>; [307] <113>.

Recommendations

- 6.23 No further work is recommended.

Ceramic building and kiln materials assessment

- 6.24 Pieces of fired clay or daub with a total weight of 5766g came from 12 contexts at the site, mostly recovered from the palaeoenvironmental samples (Table 1.4). Much of the material (4067g) came from the fill of pit F240. Some of this is highly fired and bright red in colour, and includes highly lamellar or marbled red and white fragments. Examination found little evidence for original surfaces among any of the fragments, and no evidence for visible substrates to the material. Some pieces had some slight evidence of rounded shaping, and the occasional presumed finger impression was seen. A few small surviving surface areas had random impressions of vegetative material, which resembled short lengths of grass, which may have formed part of the tempering material, alongside observed quartz grains and small pieces of rounded, sandy very light coloured stone. The fired clay from contexts [242] and [243] overlay a black charcoal layer [243], but there was very little charcoal adhering to or mixed in with the material examined. Several other contexts had smaller quantities of similar semi or fully fired clay fragments. Harder, grey-buff fired clay fragments came from context [212] and from the sample from context [259].
- 6.25 Four fragments of post-medieval and modern roof and building tile came from contexts [115] and [116].
- 6.26 Very small fragments of fired clay were also found in palaeoenvironmental samples from numerous other contexts: [153] <48>; [162] <42>; [174] <49>; [178] <51>; [182] <53>; [187] <55>; [194] <59>; [196] <60>; [205] <62>; [209] <65>; [212] <63>; [214] <67>; [215] <73>; [218] <68>; [220] <70>; [223] <72>; [231] <76>; [234] <75>; [252] <84>; [256] <86>; [257] <88>; [261] <92>; [280] <111>; [285] <103>; [291] <105>;

[294] <106>; [295] <107>; [299] <109>; [300] <108>; [303] <112>; [3-4] <110>; [307] <113>

Discussion

- 6.27 The large quantity of fired clay from pit F240 is certainly evidence of deliberate use and also probably of deliberate firing. The purpose of the firing of the feature remains obscure, however, and may possibly be illuminated by evidence gained from the palaeoenvironmental samples taken. As so little of the form and construction details of the fired clay element of the pit's structure have survived, further study of the fired clay fragments alone would not help to elucidate this.

Recommendations

- 6.28 No further work is recommended.

Iron objects assessment

- 6.29 A number of iron objects were hand-recovered. A highly corroded nail came from context [27], and a small iron sickle, probably post-Roman in date, from context [39=257]. This is also highly corroded, though possibly almost complete, and has a mineralised wood handle. One small (36 x 27mm) highly corroded fragment of iron sheet was recovered. X-radiography showed it to have been pierced. Two iron nail fragments were found in palaeoenvironmental sample <106> from context [294] and sample <110> from context [304].
- 6.30 Ten iron objects were found during a metal detector survey, and all were X-radiographed. Several pieces proved to be fragments of nails or spikes, and other pieces are fragmentary and not identifiable. MDF D and MDF I are buckles, probably medieval or later in date, and MDF J appears to be a small wedge-shaped piece.

Recommendations

- 6.31 X-radiography and selective corrosion removal is recommended for the sickle, to assist with dating and identification of the object, and for the metal detected iron buckle MDF I. The shape and size of buckles (visible on the X-radiographs) can be used to date this type of find, sometimes quite closely. Such dating could provide evidence of later, post-Roman activity at the site. Depending on the results of the conservation the sickle will be considered for illustration.

Industrial residues assessment

- 6.32 Two small pieces of cinder came from context [236], and further very small quantities of fuel residue came from palaeoenvironmental samples <37> and <105> from contexts [156] and [291]. These are likely the remains of domestic fires. A single fragment of ironworking slag (11.3g weight) was found in palaeoenvironmental sample <50> from context [176], and small quantities of hammerscale came from palaeoenvironmental sample <49> in context [174] and sample <53> in context [182]. Clearly this demonstrates that ironworking was taking place somewhere in the vicinity, but such small samples of residue do not provide sufficient evidence for industrial processes taking place on site.

Recommendations

- 6.33 No further work is recommended.

Quern assessment (Victoria Cunningham)

Summary

- 6.34 The quern is typical of an early roman, non military settlement in Northern Britain.

Results

DMJ09 SF6 - Disc Upper

- 6.35 Approximately 20-25% of a well tooled medium sized upper quern from the fill of a small, presumed Roman ditch. Diam 360mm; ht 90mm. The hopper is approximately 30-40mm in diameter and 30mm in depth, though its exact proportions are unclear due to the presence of sockets for rind fixes, and the quern itself being radially broken. The feed-pipe is 25mm in diameter. The outer surface of the quern is well dressed by a tool with a hammer point of 30-50mm. The grinding face is also dressed, but by a tool with a hammer point of approximately 20-40mm. The grinding face also displays evidence of sooting. The quern was made from reddish brown fine grained sandstone with some lighter brown mottling, with micaceous inclusions of approximately 1-2mm in size throughout.

Discussion

- 6.36 The quern is typical of a domestic site both from this area and period. The pottery found at the site is predominantly pre-Roman Iron Age to Roman, and the quern of Roman date would seem to reaffirm this. The quern is locally sourced and was most likely originally a boulder cleared from a field during ploughing. The quern shows no evidence of a handle socket, and was most likely operated using a rind fixing, typical of the Roman period.

Recommendations

- 6.37 No further work is recommended.

Marked stones assessment (Blaise Vyner)

Summary

- 6.38 Two stones with apparently deliberate markings were recovered during the excavations, one of them (SF7) from a pit, the upper levels of which are seemingly Roman in date. The stones are probably of Iron Age date.

Results

- 6.39 Pit F185 context F208 contained several blocks of stone and small boulders, one of which, SF7, is a rounded six-sided boulder which bears a series of grooves on four sides. The position of the stone in the pit indicates that it must have been marked before deposition. The upper levels of the pit contained sherds of Roman pottery and it seems highly unlikely that a Roman or pre-Roman Iron Age plough could have caused the marks which are present, which are up to 6 mm wide and 4 mm deep and have probably been made with a hardened blade. Some of the grooves end on the boulder, as if made by a router. There is no clear pattern evident, although some of the grooves intersect.
- 6.40 SF13 from context [297] is a sandstone block which also bears a series of grooves on two side, these also are unlikely to be plough scars.

Discussion

- 6.41 A boulder marked with an incised lattice-work design was retrieved from a pit on the Iron Age site at Kilton Thorpe, Cleveland, while an Iron Age date has been argued for two marked stones on Anglesey.

Recommendations

- 6.42 In view of the apparently unequivocal evidence that these markings are deliberate rather than incidental, it is recommended that further research and a more detailed examination and discussion of the stones is undertaken. Confirmation of the stones as belonging to the pre-Roman Iron Age would help to extend our knowledge of the scope and duration of activity at the site. These two artefacts are recommended for illustration.

7. The palaeoenvironmental evidence

Methods

- 7.1 A palaeoenvironmental assessment was carried out on 84 bulk samples taken from pit, ditch, gully, posthole and stakehole fills. The entire volume of each sample was manually floated and sieved through a 500 μ m 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 Palaeoenvironmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (1997).

Results

- 7.2 The samples comprised large amounts of coal/coal shale, reflecting the natural geology of the area. All of the plant remains were preserved through charring as waterlogged conditions were not present on the site; the few uncharred woody and resistant seeds noted are considered to be modern contaminants. Roots were abundant in most of the flots, which, in addition to the insect/beetle remains, terrestrial mollusc shells, earthworm cocoons and uncharred vegetative material, are also likely to be intrusive material. Pre-Quaternary trilete megasporangia, present in some of the flots, derive from the coal/coal shale. Material suitable for radiocarbon dating is present in 45 contexts. The results are listed in Appendix 1 tables 1.5-1.8.

Pit fills

- 7.3 Charred plant remains were predominantly found in pit fills, with varying quantities recorded in 26 of the 41 pits sampled. Large numbers were present in the fills associated with the large pits [F154], [F169] and [F185], and the smaller pits [F165], [F221], [F232], [F249], [F255], [F278], [F282] and [F296]. The remains were dominated by barley and wheat grains, with lower numbers of chaff fragments and weed seeds present. The chaff fragments largely comprised spelt wheat glume bases and spikelet forks, but a few wild oat (*Avena fatua*) floret bases and barley rachis fragments were recorded. Charred heather twigs, hazel nutshell fragments and false oat-grass tubers were also noted in some of the fills. A few barley and wheat grains, spelt wheat chaff fragments and weed seeds were present in the fill of Pot SMF 5,

(Appendix 1 table 1.5), but these may derive from in-filled surrounding soil, rather than the original content of the pot.

- 7.4 Charcoal was common or abundant in many of the pit fills, and small amounts of unburnt and calcined bone, cinder/fuel waste, a nail and small fragments of glass, fired clay, flint, marine shell and pot were also recorded. Daub was abundant in the fills of pit [F240].

Posthole/stakehole fills

- 7.5 Charcoal was present in most of the posthole/stakehole fills, but charred plant remains were absent or present in very low numbers. The few remains comprised wheat and barley grains, heather twigs, chaff fragments and weed seeds. Small amounts of unburnt and calcined bone, animal tooth enamel, cinder/fuel waste, fired clay and pot were also recorded in some.

Gully/ditch fills

- 7.6 Charred plant remains were absent from the fills of gully [F133/144]. Charred plant remains were also absent or few in number in the fills of ditch [F148/167/186/245/262], with the remains including barley grains, a spelt wheat chaff fragment and a grass seed. Charcoal was present in all of the gully/ditch fills and small fragments of calcined bone, cinder, fired clay, flint and glass were also noted.

Discussion

- 7.7 The charred plant macrofossil assemblages indicate that barley and spelt wheat were the main crops used at the site, which are typical field crops of the late prehistoric and Roman periods in Britain (Greig 1991). The weed flora included the arable weeds brome, black bindweed, wild radish and scentless mayweed, which were probably growing amongst the cereal crops, and the ruderal species redshank and ribwort plantain, which may have grown on nearby rough ground or pasture. Sheep's sorrel and sedges may reflect the proximity of areas of heathland and wet ground respectively, and weeds with broad habitat ranges included buttercups, docks and goosefoots. The presence of charred hazel nutshells suggests that wild foods were gathered to supplement the diet.
- 7.8 A few false oat-grass tubers were present in some of the pit fills. It has been suggested that this grass may have been used as kindling in the past, particularly in association with prehistoric cremations (Robinson 1988), or that the tubers were a source of food (Godwin 1975). The presence of the charred tubers could also reflect the burning of turves used for fuel, roofing or as coverings of 'clamp' cooking pits. The charred heather twigs may derive from burnt bedding, roofing, fodder or fuel.

Recommendations

- 7.9 Full plant macrofossil analysis is recommended for the pit fills with high numbers of charred plant remains [153, 164, 170, 172, 196, 201, 205, 212, 214, 215, 222, 231, 252, 253, 254, 267, 277, 281, 295, 300], in order to provide further information about diet and crop husbandry practices. Charcoal analysis of contexts [170], [172], [222], [231], [253], [254], [256], [267] and [295] would provide information about fuelwood uses and local woodland resources. The assemblages of charred plant remains are similar to those from the pit, posthole, gully and ditch fills assessed during the evaluation (Archaeological Services 2009), and therefore in light of the

above assessment and recommendations, it would not be necessary to analyse the nine contexts recommended from that stage of work.

8. The archaeological resource

- 8.1 Three phases of activity were identified. The majority of features date to the first phase, the Roman period. These comprise ditches and a gully reflecting part of an enclosure system. Within this were a series of pits of different sizes, part of a stone surface, and two features that include evidence for fired structures. Geophysical survey has demonstrated that the remains continue beyond the area of excavation. Pottery recovered from the features provides a date for activity in the late 3rd and early 4th century. Small quantities of burnt bone were also uncovered from many of the features. The deliberate deposition of a complete pot and the partial stone lining of two large pits may be associated with burial ritual.
- 8.2 The second phase of activity dates to the post-medieval period, when a large natural depression in the southeast part of the site was filled with an accumulation of soil.
- 8.3 The third phase of activity dates to the 19th and 20th centuries. This comprises some pits and a gully, as well as the modern construction of a haul road and compound for work on the nearby Mountjoy reservoir.
- 8.4 A significant assemblage of artefacts and palaeoenvironmental remains were recovered during the excavations. This included an assemblage of Roman, medieval and post-medieval pottery, including a complete Roman cooking vessel and part of a vessel of later prehistoric tradition. Other artefacts included two incised stones which may be Iron Age, a quern fragment, an iron sickle, medieval buckles, fragments of glass and clay pipes, animal bone and numerous fragments of fired clay.
- 8.5 There are numerous features which are currently unphased.

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 2 which lists the tasks to be undertaken to achieve this.

10. Sources

- Archaeological Services 1993a *Proposed Biological Sciences Site, University of Durham: preliminary archaeological assessment*. Unpublished report **101**, Archaeological Services Durham University
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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, D daub/fired clay, C clay pipes, O other materials.

No	Trench No	Description	P	B	M	F	D	C	O
1	1	Topsoil							
2	1	Madeground/Landscaping deposit							
3	1	Buried soil							
4	1	Fill of gully [F5]							
F5	1	Cut of gully							
6	1	Natural sandy clay							
F7	1	Cut of service trench							
F8	1	Cut of service trench							
9	1	Fill of service trench [F7]							
10	1	Fill of service trench [F8]							
11	6	Topsoil							
12	6	Layer							
13	6	Membrane							
14	6	Layer							
15	6	Natural sand							
16	6	Fill of gully [F17]	•						
F17	6	Cut of gully							
18	5	Fill of gully [F19]							
F19	5	Cut of gully							
20	5	Fill of gully [F17]							
21	5	Fill of ditch [F22]							
F22	5	Cut of ditch							
23	6	Fill of posthole [F24]							
F24	6	Cut of posthole							
25	5	Topsoil							
26	5	Subsoil							
27	5	Fill of pit [F29]	•	•	•				
28	5	Primary fill of pit [F29]							
F29	5	Cut of pit							
30	5	Natural sand							
31	5	Primary fill of ditch [F22]							
F32	5	Stakehole							
33	4	Topsoil							•
34	4	Secondary fill of posthole [F36]							
35	4	Primary fill of posthole [F36]							
F36	4	Cut of posthole							
37	4	Natural sand							
38	5	Fill of pit [F29]							
39	3	Fill of pit [F40]			•				
F40	3	Cut of pit							
41	7	Reinstated topsoil	•						
42	7	Crushed stone layer							
43	7	Topsoil							
44	7	Natural sand							
F45	7	Cut for haul road							
46	3	Topsoil							
47	3	Natural sand							
48	2	Topsoil				•			•
49	2	Post-medieval soil accumulation						•	
50	2	Fill of gully [F51]	•						
F51	2	Cut of gully							
52	2	Fill of ditch F53: same as 21							
F53	2	Cut of ditch: same as F22							

No	Trench No	Description	P	B	M	F	D	C	O
54	2	Natural sand							
55	3	Fill of pit [F56]							
F56	3	Cut of pit							
57	4	Fill of posthole [F58]							
F58	4	Cut Posthole							
59	3	Fill of ditch F60: same as 21							
F60	3	Cut of ditch: same as F22							
61	2	Void							
F62	2	Void							
63	2	Fill of posthole [F64]							
F64	2	Cut of posthole							
100		Stone spread	•						
101		Deposit	•						
102		Void							
103		Post-medieval soil accumulation: same as 49	•					•	
104		Void							
105		Void							
106		Fill of pit F107		•					
F107		Cut of pit							
108		Void							
109		Void							
110		Void							
111		Void							
112		Void							
113		Fill of pit F114		•					
F114		Cut of pit							
115		Topsoil	•						
116		Subsoil	•						
117		Fill of pit F118	•						
F118		Cut of pit							
119		Fill of pit F119							
F120		Cut of pit							
121		Fill of gully F122							
F122		Cut of posthole/gully							
123		Void							
F124		Void							
125		Fill of pit F126							
F126		Cut of pit							
127		Fill of pit F128		•					
F128		Cut of pit							
F129		Cut of pit							
130		Fill of pit F129		•					
131		Fill of posthole F132							
F132		Cut of posthole							
F133		Cut of gully: same as F17							
134		Fill of gully F133: same as 16		•					
135		Fill of pit F136							
F136		Cut of pit							
137		Stone fill of pit F138		•					
F138		Cut of pit							
139		Fill of posthole F140		•					
F140		Cut of posthole							
141		Fill of pit F142		•					
F142		Cut of pit							
143		Fill of gully F144: same as 16	•	•					•
F144		Cut of gully: same as F17							
145		Fill of posthole F146		•					
F146		Cut of posthole-							
147		Fill of ditch F148: same as 21		•					

No	Trench No	Description	P	B	M	F	D	C	O
F148		Cut of ditch: same as F22							
149		Fill of posthole F150		•					
F150		Cut of posthole							
151		Fill of posthole F152		•					
F152		Cut of posthole							
153		Fill of large pit F154	•	•			•		
F154		Cut of pit F154							
F155		Cut of pit							
156		Fill of pit F155	•	•					•
F157		Cut of posthole							
158		Fill of posthole F157							
159		Primary fill of ditch F148		•					•
F160		Cut of posthole							
161		Fill of posthole F160		•					
162		Fill of pit F163	•	•			•		
F163		Cut of pit							
164		Fill of pit F165		•					
F165		Cut of pit							
166		Fill of ditch: same as 21	•						
F167		Cut of ditch: same as F22							
168		Fill of pit F169		•					
F169		Cut of pit							
170		Primary fill of pit F169	•	•					
171		Fill of pit F169							
172		Fill of pit F169							
173		Fill of ditch F144: same as 16		•					
174		Fill of posthole F175		•			•		•
F175		Cut of posthole							
176		Fill of posthole F177							•
F177		Cut of posthole							
178		Void		•			•		•
179		Void							
180		Fill of posthole F181		•					
F181		Cut of posthole							
182		Fill of pit F183	•	•			•	•	•
F183		Cut of pit							
184		Fill of possible corndrier F185	•	•					
F185		Cut of possible corndrier							
F186		Cut of ditch: same as F22							
187		Fill of ditch F186: same as 21		•			•		
188		Fill of possible corndrier F185							
189		Fill of possible corndrier F185							
190		Fill of pit F191	•	•					
F191		Cut of pit							
192		Fill of pit F193	•						
F193		Cut of pit							
194		Fill of pit F195	•	•			•		•
F195		Cut of pit							
196		Fill of pit F154	•	•			•		
197		Void							
198		Fill of pit F195		•					
199		Fill of posthole F200	•					•	
F200		Cut of posthole							
201		Fill of pit F213	•	•					
202		Fill of pit F213							
203		Natural: same as 6							
F204		Recut of pit F195							
205		Clay deposit filling pit F154					•		
F206		Void							

No	Trench No	Description	P	B	M	F	D	C	O
207		Fill of pit F213							
F208		Stone slabs lining pit F185							•
209		Fill of pit F211	•	•			•		
210		Fill of pit F211	•	•					
F211		Cut of pit							
212		Fill of possible corndrier F185		•			•		
F213		Cut of pit							
214		Fill of pit		•			•		
F215		Wall within pit F154	•	•			•		
F216		Cut of pit: same as F154							
217		Fill of pit F154							
218		Fill of pit F219		•			•		
F219		Cut of pit							
220		Fill of pit F221	•				•		
F221		Cut of pit							
222		Primary fill of pit F222							
223		Fill of pit F224	•				•		•
F224		Cut of pit							
225		Primary fill of pit F224							
226		Fill of possible posthole F227							
F227		Cut of possible posthole							
228		Fill of ditch F245: same as 21	•						•
229		Fill of pit F230	•	•					
F230		Cut of pit							
231		Fill of pit F232		•			•		
F232		Cut of pit							
233		Fill of pit F239	•						
234		Primary fill of pit F239		•			•		
235		Fill of pit F244	•	•					
236		Post-medieval soil accumulation: same as 49	•						•
237		Void	•	•			•		•
238		Void							
F239		Cut of pit							
F240		Cut of pit							
241		Fill of pit F240							
242		Fill of pit F240		•			•		
243		Fill of pit F240		•			•		
F244		Cut of pit							
F245		Cut of ditch: same as F22							
246		Fill of pit F247							
F247		Cut of pit							
248		Fill of pit F249		•			•		
F249		Cut of pit							
250		Fill of pit F251							
F251		Cut of pit							
252		Fill of pit F255		•				•	•
253		Fill of pit F255	•						•
254		Fill of pit F255							
F255		Cut of pit							
256		Fill of pit F249		•					•
257		Fill of pit F258: same as 39	•	•	•				
F258		Cut of pit: same as F40							
259		Fill of pit F260	•				•		
F260		Cut of pit							
261		Fill of ditch F262: same as 21							
F262		Cut of ditch: same as F22							
263		Fill of pit F264		•			•		
F264		Cut of pit							
F265		Cut of hearth							

No	Trench No	Description	P	B	M	F	D	C	O
266		Fill of pit F249					•		
267		Fill of pit F249		•					
268		Void							
269		Void	•						•
270		Void							
271		Void	•						
272		Void					•		
273		Fill of ditch terminal F274: same as 21							
F274		Cut of ditch terminal: same as F22							
275		Fill of pit F276		•			•		
F276		Cut of pit							
277		Fill of pit F278	•	•					
F278		Cut of pit							
279		Void							
F280		Void					•		
281		Fill of pit F282		•					
F282		Cut of pit							
283		Fill of pit F284	•						
F284		Cut of pit							
285		Fill of pit F286	•				•		
F286		Cut of pit							
287		Fill of pit F288		•			•		
F288		Cut of pit							
289		Fill of pit F290							
F290		Cut of pit							
291		Fill of posthole F292		•			•		•
F292		Cut of posthole							
F293		Cut of pit							
294		Fill of pit F293	•	•	•		•		
295		Fill of pit F296		•			•		
F296		Cut of pit							
297		Stone fill of pit F298							•
F298		Cut of pit							
299		Primary fill of pit F298		•			•		•
300		Fill of possible corndrier F185		•			•		
301		Void							
302		Cut of pit							
303		Primary fill of pit F302		•			•		
304		Fill of pit F305	•		•		•		
F305		Cut of pit							
F306		Cut of pit							
307		Fill of pit F306					•		•
308		Primary fill of pit F306							
u/s			•		•				•

Table 1.2: Pottery

Context	no.	Spot-date (TPQ)	Pottery
100	1	4th century	Calcite-gritted rim
101	1	AD 275 onwards	Calcite-gritted
49=103=236	7	AD 275 onwards	Calcite-gritted
116	2	Modern	Modern (+ 1 Roman, 270+)
143	3	Indeterminate	Coarse wares
153	4	C3 /C4	Cantley/Catterick mortarium
162	scrap	Indeterminate	
182	scraps	Indeterminate	
184	scraps	C2+	Mancetter-Hartshill mortarium
190	1	3rd century	BB2
192	1	Indeterminate	Coarse ware
201			Daub fragments
209	2 + pot	AD 270s onwards AD 275-325	Crambeck reduced Calcite-gritted
228	8	Mid-3rd century	BB1 (with obtuse lattice and groove)
233	1	3rd century	BB2
235	40	AD 275 onwards	Calcite-gritted
253	1	Indeterminate	Coarse wares
257	1	3rd century	BB2
259	1	3rd century	BB2
285	2	Indeterminate	Coarse wares
294	1	3rd century	Derbyshire ware
304	1	AD 270s onwards	Crambeck reduced

Table 1.3: Clay pipes

Context	Stem	Bowl	Date
u/s	5		1 e-mid 18th
49=103=236	6	2	1 partial stamp
182	1		
199	1		
252	1		
Totals	14	2	

Table 1.4: Fired clay/daub by context and weight

Context	Quantity (g)
[212]	12
[242] <81>	335
[242] <87>	3732
[243] <80>	70
[248] <85>	824
[259] <88>	104
[263] <93>	43
[266] <96>	112
[275] <100>	4
[287] <104>	83
[299] <109>	27
[304] <110>	238
Total	5584

Table 1.5: Data from palaeoenvironmental assessment – posthole, stakehole, gully and ditch fills

Sample	32	34	35	36	38	41	49	50	52	94	105	112	28	31	47	39	40	55	82	92	
Context	139	145	149	151	158	161	174	176	180	250	291	303	134	143	173	147	159	187	228	261	
	PH	PH	PH	PH	PH	PH	PH	PH	PH	PH	SH	PH	G	G	G	D	D	D	D	D	
Feature	140	146	150	152	157	160	175	177	181	251	292	302	133/ 144	133/ 144	133/ 144	148/ 167/ 167/ 186/ 245/ 262	148/ 167/ 167/ 186/ 245/ 262	148/ 167/ 167/ 186/ 245/ 262	148/ 167/ 167/ 186/ 245/ 262	148/ 167/ 167/ 186/ 245/ 262	
Material available for C14 dating	-	-	-	✓	-	-	✓	-	✓	-	-	-	-	-	-	-	-	-	-	-	✓
Volume processed (l)	7	6	12	10	4	5	8	5	19	2	8	18	12	21	2	19	9	20	9	9	
Volume of flot (ml)	15	25	30	50	20	40	30	40	200	20	20	20	35	40	15	80	110	80	50	60	
Volume of flot assessed (ml)	15	25	30	50	20	40	30	40	200	20	20	20	35	40	15	80	110	80	50	60	
Recommended for full analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Residue contents</i>																					
Bone (calcined) indet. frags.	+	+	+	+	-	+	+	-	+	-	+	+	(+)	+	(+)	+	(+)	+	-	-	
Bone (unburnt) indet. frags.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Charcoal	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	
Cinder	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	
Coal / coal shale	++	+	++	++	++	++	+	+	++	+	++	+++	+	++	++	+++	++++	+++	+	++	
Fired clay	-	-	-	-	-	-	+	-	-	+	-	-	-	-	-	-	-	-	+	+	
Flint (no. of fragments)	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	-	-	-	-	
Fuel waste	-	-	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-	
Glass (no. of shards)	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	1	-	-	-	
Industrial residue	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	
Plastic (red - no. of fragments)	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pot (no. of fragments)	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	
Tooth enamel (animal - burnt)	-	-	-	-	-	-	-	-	-	(+)	-	-	-	-	-	-	-	-	-	-	
<i>Flot matrix</i>																					
Charcoal	+++	++	++	+++	+++	+++	+++	+	+++	++	+	-	+++	+++	+++	+++	++	+++	+++	+++	
Coal / coal shale	++	++	+++	+++	+++	+++	-	++	+++	++++	+	-	+++	++	++	-	++++	+++	++	++	
Earthworm cocoon	++	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	++	-	
Heather twigs (charred)	++	-	-	-	-	-	-	-	+++	-	-	-	-	-	-	-	-	-	-	-	
Roots (modern)	+++	++++	+++	++	+++	++	+++	++++	+++	+++	++	+	++	+	+++	+++	++	+++	+++	+++	
Trilete megasporangium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	
Uncharred seeds	-	+	-	+	+	+	-	+	+	-	+	+	-	+	+	+	+	+	-	++	
Vegetative material (uncharred)	-	-	-	-	-	-	+++	+++	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Charred remains (abundance)</i>																					
(a) <i>Bromus</i> spp (Brome species) caryopsis	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	
(c) Cerealia indeterminate grain	-	-	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	-	2	
(c) <i>Hordeum</i> spp (Barley species) grain	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	1	-	1	
(c) <i>Hordeum</i> spp (Hulled Barley) hulled grain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
(c) <i>Hordeum</i> spp (Barley species) rachis frag.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
(c) <i>Triticum spelta</i> (Spelt Wheat) spikelet fork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	
(c) <i>Triticum</i> spp (Wheat species) grain	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-	
(c) <i>Triticum</i> spp (Wheat species) glume base	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
(r) <i>Persicaria maculosa</i> (Redshank) nutlet	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
(w) <i>Carex</i> spp (Sedges) trig. nutlet	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
(x) Poaceae undiff. (Grass family) >2mm caryopsis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Indeterminate seed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	

[PH-posthole; SH-stakehole; G-gully; D-ditch. a-arable; c-cultivated; r-ruderal; w-wet ground; x-wide niche. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant. Charred remains are scored from 1-5 where 1: 1-2; 2: 3-10; 3: 11-40; 4: 41-200; 5: >200]

Table 1.7: Data from palaeoenvironmental assessment – pits without charred plant remains

Sample	21	22	23	27	26	29	33	53	61	68	74	77	109	110
Context	106	113	119	127	130	135	141	182	198	218	229	235	299	304
Feature	107	114	120	128	129	136	142	183	195	219	230	244	298	305
Material available for C14 dating	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volume processed (l)	21	19	19	8	18	5	9	17	20	10	6	1	20	19
Volume of flot (ml)	80	30	80	30	80	40	20	50	170	100	80	5	130	10
Volume of flot assessed (ml)	80	30	80	30	80	40	20	50	170	100	80	5	130	10
Recommended for full analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Residue contents</i>														
Bone (calcined) indet. frags.	(+)	(+)	-	+	-	-	+	+	+	-	-	+	+	-
Charcoal	-	-	-	-	(+)	-	-	-	-	-	-	-	-	-
Cinder	-	-	-	-	-	-	-	-	-	-	-	-	+	-
Coal / coal shale	+	++	+	+	(+)	+	+++	++	+++	+	++	+	+++	+++
Daub	-	-	-	-	-	-	-	-	-	-	-	-	++	+++
Fired clay	-	-	-	-	-	-	-	+	-	+	-	-	+	+
Flint (no. of fragments)	-	-	-	1	-	-	-	-	-	3	-	-	-	-
Fuel waste	-	-	-	-	-	-	-	+	-	-	-	-	-	-
Glass (no. of shards)	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Pot (no. of fragments)	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Shell (marine)	-	-	-	-	-	-	+	-	-	+	-	-	-	-
<i>Flot matrix</i>														
Charcoal	++	++	++	++	-	+++	++	++	+++	+++	++	-	-	-
Coal / coal shale	+++	+++	++++	+++	-	+++	+++	+++	+++	++	+++	+++	+	+
Earthworm cocoon	-	-	+	-	-	++	-	+++	-	-	-	-	+	-
Insect / beetle fragments	-	+	-	-	-	-	-	-	-	-	++	-	-	+
Roots (modern)	++++	++	+++	+++	+++	+++	+++	++	+++	+++	+++	+++	+	-
Trilete megasporangium	-	-	-	-	-	-	-	-	-	-	-	-	++++	-
Uncharred seeds	++	+	+	++	+	+	-	+	+	+	+	+	+	+
Vegetative material (uncharred)	-	-	-	-	-	-	++	-	-	-	-	-	-	-

[(+): trace; +: rare; ++: occasional; +++: common; ++++: abundant]

Table 1.8: Data from palaeoenvironmental assessment – additional soil samples from within and around the pots

Context	209	209	209	209	235	235	210	210	210	229
Feature	Fill of Pot 5	Soil outside Pot 5	Loose top fill Pot 5	External rim Pot 5	Sealed deposit in base of Pot 11	Fill of Pot 11	Fill of bucket around Pot 8	Spit 1 Pot 8	Spit 2 Pot 8	Fill of Pot
Material available for C14 dating	y	-	y	-	-	-	-	-	y	-
Volume processed (l)	4	2.5	1	0.3	0.05	2	4	0.1	1	-
Volume of flot (ml)	80	10	20	1	2	20	50	1	3	2
Recommended for full analysis	-	-	-	-	-	-	-	-	-	-
<i>Residue contents</i>										
Bone (calcined) indet. frags.	+	-	-	-	(+)	-	+	-	-	(+)
Bone (unburnt)	-	-	-	-	-	+	-	-	-	-
Cinder	+	-	-	-	-	++	-	-	-	-
Coal / coal shale	-	-	-	+	(+)	++	-	-	+	(+)
Fired clay	+	-	-	-	-	+	-	-	+	-
Glass (no. of shards)	-	-	-	-	1	-	2	-	-	-
Pot (no. of fragments)	1	-	18	-	-	14	3	1	-	-
<i>Flot matrix</i>										
Charcoal	++	+	+	+	(+)	-	-	-	-	-
Coal / coal shale	-	+	+	+	-	++	+++	(+)	-	(+)
Earthworm cocoon	-	-	-	-	-	+	-	-	-	-
Heather twigs (charred)	-	-	+	-	-	-	-	-	-	-
Roots (modern)	-	-	-	-	-	+	-	-	-	-
Trilete megasporangium	+	-	-	-	-	-	-	-	+	-
Uncharred seeds	-	-	-	-	-	-	+	-	+	+
<i>Charred remains (abundance)</i>										
(a) <i>Bromus</i> spp (Brome species) caryopsis	2	-	-	-	-	-	-	-	-	-
(a) <i>Fallopia convolvulus</i> (Black Bindweed) nutlet	1	-	-	-	-	-	-	-	-	-
(c) Cerealia indeterminate grain	1	-	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> spp (Barley species) grain	3	-	2	-	-	-	1	-	1	-
(c) <i>Triticum spelta</i> (Spelt Wheat) glume base	2	-	-	-	-	-	-	-	-	-
(c) <i>Triticum</i> spp (Wheat species) grain	2	-	1	-	-	-	-	-	-	-
(r) <i>Persicaria maculosa</i> (Redshank) nutlet	-	-	1	-	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family) >2mm caryopsis	-	-	1	-	-	-	1	-	-	-

[a-arable; c-cultivated; r-ruderal; x-wide niche. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant. Charred remains are scored from 1-5 where 1: 1-2; 2: 3-10; 3: 11-40; 4: 41-200; 5: >200]

Appendix 2: Updated Project Design

Project management

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

Conservation

- A2.2 Consolidation and partial reconstruction of pots from contexts [209] and [229]. Investigative conservation and x-radiography of sickle and buckle.

Ceramic assemblage

- A2.3 Full analysis of prehistoric and Roman pottery assemblages.

Iron objects assemblage

- A2.4 Full analysis of the sickle and buckle MDF I.

Marked stones assemblage

- A2.5 Full analysis of the marked stones assemblage.

Palaeoenvironmental evidence

- A2.6 Charred plant remains and charcoal from a total of 29 contexts will be reported on to provide information about diet, crop husbandry practices, fuelwood uses and local woodland resources. The grain from the later prehistoric tradition pot will be identified.

Phosphate analysis

- A2.7 Analysis of phosphate samples from pits F185 and F154 to identify if levels are present which may reflect the presence of bone.

Radiocarbon (AMS) dating

- A2.8 Carbonised grain from the following 9 deposits have been selected for radiocarbon dating in order to assist phasing of the site: sample <36> from fill [151] of posthole [F152]; sample <45> from fill [170] of large pit [F169]; sample <64> from fill [201] of large pit [F213]; sample <69> from fill [217] of large pit [F154]; sample <80> from fill [F243] of burnt gully F240]; sample <90> from fill [254] of pit [F255]; sample <95> from fill [267] of deposit burnt gully [F249]; sample <107> from fill [295] of pit [F296]; and sample <108> from fill [300] of pit [F185].

Artefact illustration

- A2.9 Artefact illustration will include: the pots from contexts [209] and [229]; selected sherds from the Roman pottery assemblage; the 2 incised stones; the iron sickle; the buckle.

Artefact photography

- A2.10 Selected artefacts will be photographed and included in the final report.

Digitising

- A2.11 Selected plans and sections from the site archive will be digitised.

Excavation illustrations

- A2.12 Phased plans and section drawings will be prepared for the full analysis report.

Report preparation

- A2.13 Phased data structure written and integrated with the illustrations, geophysical survey, and evaluation.
- A2.14 Preparation of report, including collation of specialist reports and illustrations.
- A2.15 Integration of specialist reports into data structure.
- A2.16 Research into relevant parallels for the data and analysis of the data will be conducted in accordance with the research objectives.
- A2.17 A synthesis of the site will be prepared, bringing together all the results of the excavation.
- A2.18 Full analysis report production.

Publication

- A2.19 Editing of text for publication.
- A2.20 Reformatting of illustrations for publication.
- A2.21 Submission of publication report to the editor of the Durham Archaeological Journal.

Archive

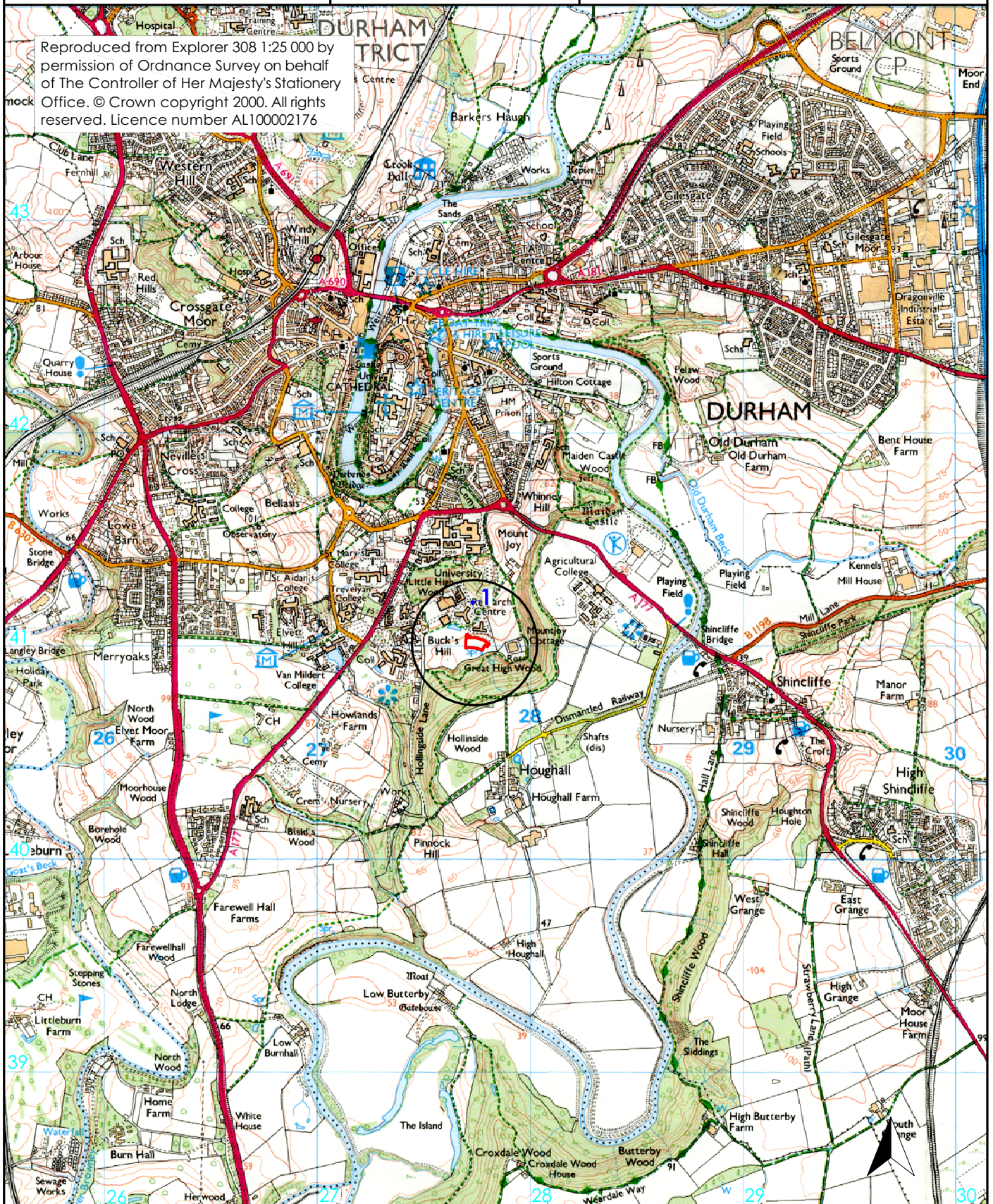
- A2.22 Transfer of the site archive to The Fulling Mill Museum.
- A2.23 Transportation of finds between specialists.

Programme

- A2.24 The works can be completed within 6 months of commission.

Figure 1: Site location

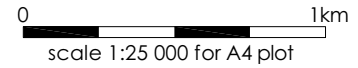
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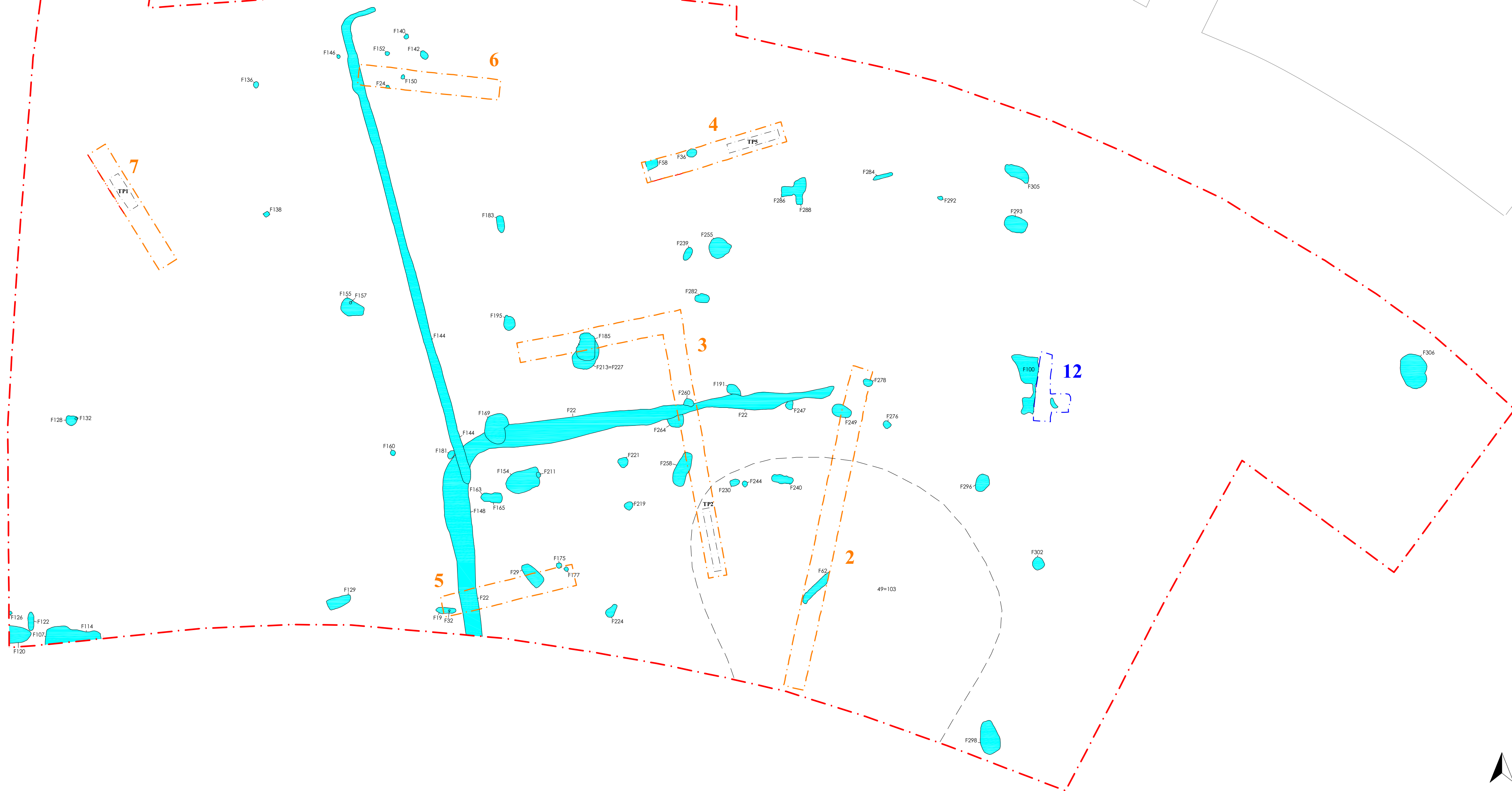
site location



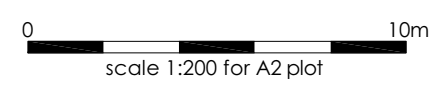
evaluation trench 1



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- extent of excavation
- feature
- evaluation trench 2009
- geological test pit
- evaluation trench 2005



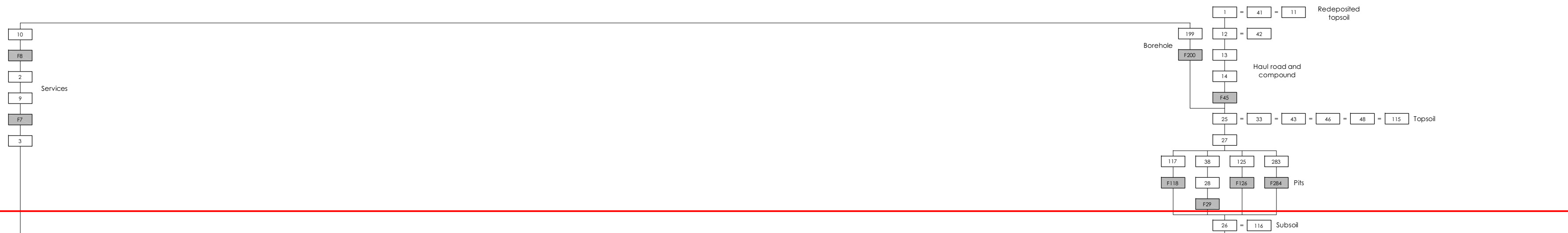
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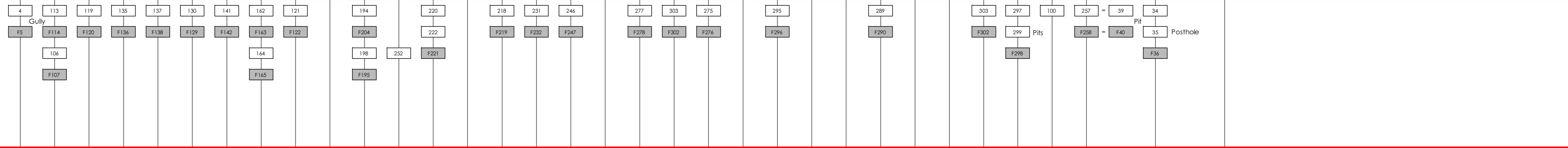
Mounjjoy car park
Durham University
Durham City
archaeological post-excavation assessment
report 2467
Figure 2: Plan showing main features



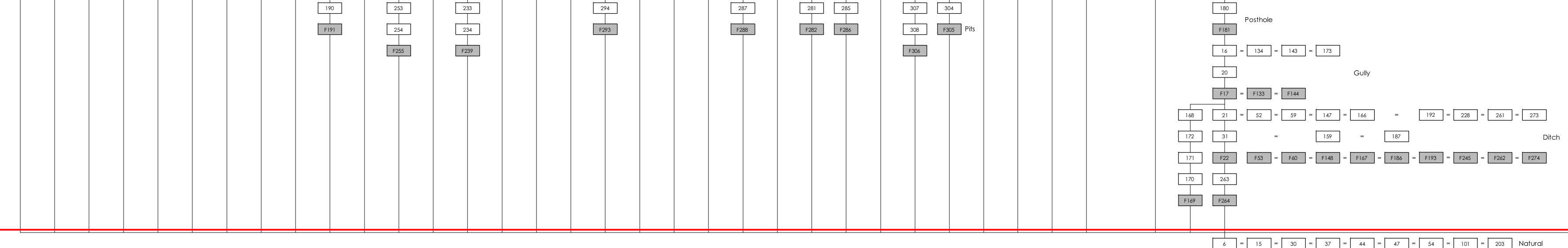
Phase 3 -
19th and 20th
century



Phase 2 -
Post-medieval
& unphased



Phase 1 -
Roman

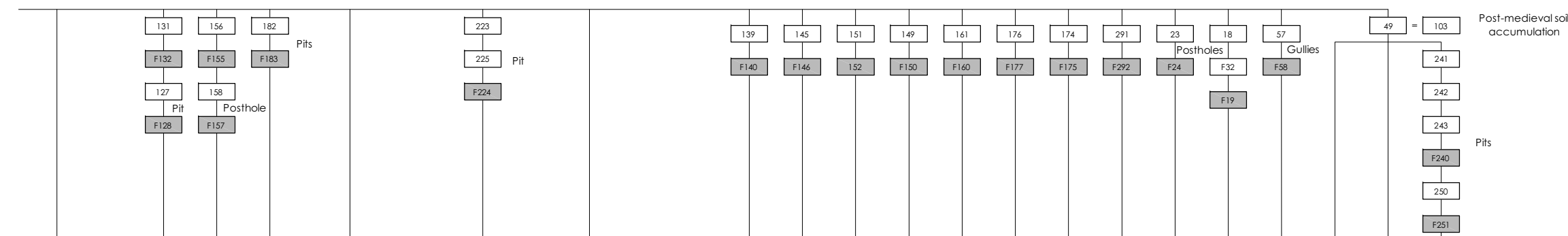


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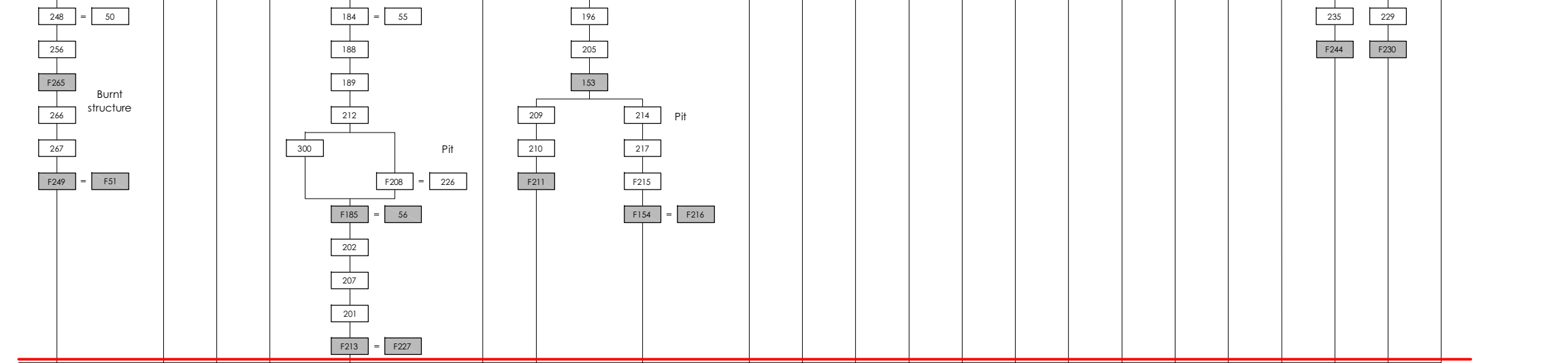
Phase 3 -
19th and 20th
century

continued
from above

Phase 2 -
Post-medieval
& unphased



Phase 1 -
Roman



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Durham City

archaeological post-excavation assessment
report 2467

Figure 3: Matrix



Figure 4: Pit [F169], looking east



Figure 5: Pit [F154=F216], looking east, with wall [F215] on the left side of the picture and pot SF5 at the top



Figure 6: Stone-lined pit [F56=F185], looking north



Figure 7: Burnt gully [F51=F249], looking north



Figure 8: Northwest corner of ditch [F22], looking north, with gully F16 extending northwards



Figure 9: Gully F17, looking south