## BLSI19

# **Archaeological Evaluation Report**

## 1, 3 & 5 Bull Lane, St Ives, Cambridgeshire

## **Client: Target Construction**

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Grid Reference: NGR TL 3135 7119

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## Schedule

Fieldwork dates: January 2019 Report dates: February 2019

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# 1, 3 & 5 BULL LANE, ST IVES, CAMBRIDGESHIRE

## ARCHAELOGICAL EVALUATION

## Summary

Headland Archaeology (UK) Ltd undertook an archaeological evaluation of 1, 3 & 5 Bull Lane, St.Ives, Cambridgeshire on the 15<sup>th</sup>, 17<sup>th</sup> and 21<sup>st</sup> January 2019. The work was commissioned by Target Construction who have submitted a planning application for the demolition of an existing two-storey retail/office building to be replaced by a 2.5 storey residential block. A number of medieval and post-medieval features were identified including; 2 medieval ditches, a post-hole/pit and late nineteenth century structural remains. These were sealed by deposits of 20<sup>th</sup> century made ground layers below the existing surface.

## 1. INTRODUCTION

## 1.1 Planning Background

Headland Archaeology Ltd was commissioned by Target Construction to undertake a programme of archaeological works in support of the planning application for the demolition of an existing two-storey retail/office building to be replaced by a 2.5 storey residential block comprising of eight individual units within the Development Area (DA) (18/00588/FUL).

The Cambridgeshire Historic Environment Team (CHET) recommended that a condition be placed on planning consent, stating that a scheme of archaeological works was required. The CHET produced a brief outlining the required archaeological works – the first stage of this comprising an archaeological trial trenching evaluation (CHET 2018, 2).

Headland Archaeology prepared a Written Scheme of Investigation (WSI) setting out the proposed strategy for archaeological works (Headland 2018). This report details the results of the work.

## 1.2 Site Description

The DA is located at 1, 3 & 5 Bull Lane, St Ives, Cambridgeshire, centred on NGR TL 3135 7119, within the medieval core of the town between the market area to the north and the River Great Ouse to the south (Illus 1). The DA is bounded by Market Hill Walk to the north, by Chapel Lane to the south, by the Free Church Passage to the east, and by modern commercial buildings to the west.

The DA currently comprises two-storey retail/office building dating to the 1970s. It lies on south-east gently sloping terrain at an elevation of approximately 13.7m AOD.

The solid geology of the DA comprises Oxford Clay Formation and Mudstone, and superficial deposits overlying this are river terrace sand and gravel (British Geological Survey).

## 1.3 Archaeological Background

Information on the archaeological background is drawn from the CHET brief, which also incorporates the results of a Cambridgeshire Historic Environment Record (CHET) data (CHET 2018, 1, 4 – 194).

St Ives Bridge is located 50m to the west of the DA (NHLE 1006865 / CHER03593, incorporating the Grade I listed 15th century Chapel of St Ledger (NHLE 1161567 / CHER 03593a). This is one of only a handful of such medieval bridge chapels remaining in the country. The bridge crossing would have been an important focus of activity in medieval St Ives. Within 100m to the south-east of the DA is the site of a medieval Benedictine priory, another Scheduled Ancient Monument (NHLE 1128670 / CHER MCB17272). Archaeological excavations have revealed human burials and features associated with

the priory (HER MCB3260, MCB15820).

Only limited archaeological investigations have occurred in the immediate vicinity of the DA due to the built-up character of the area and the high density of buildings afforded statutory protection by virtue of their listed status located in this area of Bridge Street immediately north of the St Ives Bridge. However, archaeological investigations conducted 100-150m to the south-east of the DA have consistently revealed evidence of deeply stratified remains dating from the Roman, Saxon, Medieval and Post-medieval occupation of St Ives, including medieval masonry relating to the Priory, with good rates of survival of medieval (and earlier) deposits sealed below post-medieval and modern overburden (for example CHER refs ECB265, ECB1532, ECB3843, ECB4145, ECB2646). The latter are the kinds of deposits found within the DA with features dating to the later part of the occupation sequence.

## 2. OBJECTIVES

#### 2.1 General

The methodology followed was outlined in the WSI (Headland Archaeology 2018) and designed to meet the requirements of the project brief (CHET 2018).

Generally, the archaeological investigations were undertaken in order to:

- establish the depth and character of archaeologically sterile overburden;
- identify, characterise and date any potential archaeological remains within the site;

## 2.2 Specific

More specifically, the Research Framework contexts are provided by Research and Archaeology Revisited: a revised framework for the East of England (Medlycott 2011). Research questions pertinent to the evaluation include the following research questions and topics that were incorporated into the WSI:

- Roman: Towns: "research themes include: The Roman town as an urban centre/central place, 'Romanisation', pre- and post-Roman occupation in and around the town..." (Medlycott 2011, 48).
- Saxon: Town: "The development and role of the towns as defensive centres, changes in their internal layouts and housing densities, their role as centres of supply and demand all need further study" (Medlycott 2011, 58).
- Medieval: Towns: "Many towns retain their high medieval planned layout of market-place and burgage plots, but much remains to be understood about these places before this layout occurs. It is too easy to think of medieval town layouts as static, however archaeology on individual plots can reveal when the plots were first occupied and help address the issue of changes over time" (Medlycott 2011, 70).

The resulting archive will be organised and deposited in the County Archive Facility (Event Number ECB5786) to facilitate access for future research and interpretation for public benefit (ClfA 2014a). An online OASIS form has been completed and will be ultimately submitted with the approved version of the report (headland4-337287).

## 3. METHODOLOGY

Trial trenching was carried out on the 15<sup>th</sup>, 17<sup>th</sup> and 21<sup>st</sup> January 2019. In total, two trenches were excavated within the DA (Illus 2). Trench 1 was 4m in length, 2.3m wide to the north and 1.80m wide to the south. Trench 2 was 6m in length and 2.5m wide. Trench 1 was widened to the north due to immovable concrete foundation preventing machine bucket access to the trench (Illus 3).

The trenches were set out in accordance with the agreed trench layout plan in the WSI using a Trimble GNSS device. A mechanical excavator equipped with a toothless ditching bucket was used to remove the overburden under direct archaeological supervision. Potential archaeological features were investigated by hand.

Two test pits were excavated after the initial machining of the trenches to establish archaeological stratigraphy. Test pit 1, measuring  $0.50m \times 0.40m$  was manually excavated in Trench 1 and test pit 2, measuring  $2.60 \times 2.00m$  was dug with an excavator in Trench 2.

Investigation of archaeological remains was undertaken through hand excavation. A representative sample, sufficient to meet the objectives of the evaluation, of identified archaeological or potentially archaeological remains were investigated and recorded. The stratigraphy of each trench was recorded in full. Deposits identified as archaeologically significant were sampled for environmental material and other finds (e.g. bone, pottery etc.).

## 3.1 Recording

All recording followed the guidance laid down by the Chartered Institute for Archaeologists (CIfA 2014b) and was in line with the approved WSI (Headland Archaeology 2018). All trenches and contexts were given a unique number. All recording was undertaken on pro forma recording sheets which conform to archaeological standards. All stratigraphic relationships were recorded.

A full photographic record was taken using digital photography and incorporating black and white print photographs where appropriate. A metric scale was clearly visible in record photographs.

#### 4. RESULTS

### 4.1 Introduction

Full context descriptions and trench descriptions, including dimensions, depths and orientations, are presented in Appendix I. Contexts are identified numerically by trench (i.e. Trench 1: (101), Trench 2: (201)) with cuts indicated by square brackets and deposits by rounded brackets. Selected technical detail is utilised below in order to describe the remains found and to inform the interpretation and dating we have completed and presented in this report. This structure reflects our adherence to the CIfA guidance on report production, which states that "descriptive material should be clearly separated from interpretative statements" (CIfA 2014b, 14, Section 5).

## 4.2 Trench Results

## 4.2.1 Medieval (1066 - 1485)

**Ditch [107]** was located to the south-west of Trench 1 (Illus 2-4) orientated north north-east to south south-west through the trench and recorded at a depth of 1.36 – 1.49m below ground level (BGL). It cut through layer (106) and truncates post hole/pit [110] (Illus 6-7). The pottery recovered from (106) was earlier in date that the later medieval pottery in the ditch. The feature had moderately sloping sides with a concave base (Illus 6) and included a single mid grey-brown silty-clay fill (108) with occasional small sub-rounded stone inclusions. Pottery dated to the 15<sup>th</sup> and 16<sup>th</sup> century. Other artefacts including tile, ceramic building material (CBM) and an iron nail were also retrieved. A moderate amount of burnt, and occasional unburnt animal bone fragments were present along with sparse amounts of mollusc shells. Botanical remains included occasional cereal grains and bread/club wheat and rare amounts of hulled barley, oats and weed seeds. A moderate amount of charcoal was also retrieved with occasional non-oak and rare oak fragments.

**Posthole/pit [110]** was located to the south-west of Trench 1 and seen in plan under ditch [107] (Illus 7). It could be interpreted as a small pit or large posthole. The feature was circular in plan with steep sides and a concave base and recorded at a depth of 1.36m – 1.69m BGL. It measured 0.41m in diameter with a depth of 0.33m and cut into layer (106), a buried soil. It contained a single, dark grey silty-clay fill (111) which included occasional small sub-angular stones, moderate coal flecks and a single animal bone fragment. Environmental remains included sparse amounts cereal grains and

pulses, occasional charcoal and sparse marine shells. These features were overlain by layer (105), a buried soil.

**Ditch [207]** was located towards the north-west of Trench 2 orientated north-east to south-west through the trench at a depth of 0.84 – 1.46m BGL. It had moderately sloping sides a rounded base. Its measured 2.20m wide, 0.62m in depth (Illus 10) and beneath buried soil layer (203) that contained post-medieval and modern pottery. This feature included two fills: (208) and (206). The primary fill (208), was a mid brown-grey, clay-silt with moderate angular gravels and interpreted as a slump fill of redeposited clay substrate. The secondary fill (206) measuring 0.51m in thickness was a dark grey-brown clay-silt with moderate brick fragments and oyster shells. It yielded a moderate amount of 15th - 16th century pottery, occasional CBM, three iron nails and a copper object. A moderate amount of charcoal and sparse terrestrial molluscs was also retrieved. Botanical remains included occasional cereal grains, bread/club wheat and sparse indeterminate cereals.

**Buried Soils (105, 106)** were dark grey-brown soft silty clay layers distinguished by differing inclusions. Layer (105) was recorded at a depth of 0.70-1.28m BGL. It contained occasional CBM, mortar, a 17<sup>th</sup> Century clay pipe bowl, oyster shell, sand, coal and coal dust inclusions. Layer (106) was recorded at a depth of 1.10-1.36m BGL. It contained 13<sup>th</sup>-17<sup>th</sup> Century pottery (Brill/Boarstall and Ely Ware), oyster shell and small sub-angular stone inclusions. Post hole/Pit [110] and Ditch [207] were cut into buried soil (106) and overlain by Buried soil (105).

**Test pit 1** measuring 0.40m x 0.55m was manually excavated to the south of Trench 1 to establish geological stratigraphy. Layer (112), a mid-grey-brown, silty-clay with occasional mid yellow-brown sand lenses continued to a depth of 1.36m+ beneath layer (106) (Illus 5). It included occasional subangular stones and occasional charcoal inclusions. Layer (112) was interpreted as a buried soil.

**Test pit 2** measuring 2.60 x 2.00m was excavated using a mechanical excavator to a depth of 2.30m BGL at the south-eastern end of Trench 2 to establish the archaeological stratigraphy (Illus 2). River terrace gravels (210) was recorded at a depth of 1.90 – 2.30m+ BGL. This was overlain by two possible alluvial layers, (218) a dark brown-grey soft clay with occasional small sub-angular stone and (219) a mid yellow-brown soft clay with occasional small sub-angular stone.

**Buried Soils (204, 217)** were recorded in Test Pit 2 (Illus 8). Buried soil (217), a mid grey-brown silty-clay with moderate sub-angular stones, 15<sup>th</sup> to 16<sup>th</sup> Century Ely ware and CBM was recorded at a depth of 0.90 – 1.71m BGL overlying (218). Buried Soil (204), a mid grey-brown soft silty clay with occasional CBM, bone and lime mortar had an inconsistent presence in Trench 2 but was recorded at a depth of 0.80-1.13m BGL in Test Pit 2.

**Deposit (220)** was a red heated clay visible in the north-east facing of Test Pit 2 (Illus 11). It was recorded at a depth of 1.24 - 1.65m BGL. It was visible in the section face and not during excavation, so the feature was just clipped by the trial pit, and little more can be said about its significance including whether it was human or natural in origin.

## 4.2.2 Modern (1750 - present)

**Concrete foundation [109]** was located along the eastern edge of Trench 1 aligned north north-east to south south-west (Illus 3) 0.33-0.72m BGL. It consisted of strongly cemented light yellow-grey concrete with occasional small – medium sub-angular stones. Measuring 3.37m in length, 0.66m wide and 0.39m thick. It overlay a make-up layer of mid yellow-brown coarse sand (104) and was interpreted to be foundation repair associated with adjacent building to the east.

**Square cut [209]**, measured 0.55m x 0.55m and 0.19m deep at a depth of 0.80 – 0.99m BGL. It cut alluvial layer (205) and truncated ditch [207] to the north-west (Illus 9). Included a single soft, dark grey-brown clay-silt fill with occasional CBM, pot and bone fragments. This feature is likely to be associated with modern structural activity due to its form with the finds interpreted as being residual.

**Foundation structure [211]** was at a depth of 0.75 – 0.99m BGL. It was 0.69m x 0.58m with a thickness of 0.24m and consisted of a single course of red brick and bonded by lime mortar (Illus 11). Situated directly to the south of [211], was irregular shaped cut [213] (Illus 12). It had moderately sloping sides,

and an uneven base. It measured 1.64m x 0.8m with a depth of 0.24m and cut into (205). It included a mid grey-brown clay-silt backfill (214) with blue-grey clay mottling. Inclusions comprised of occasional small to medium sub-angular stones with occasional coal, CBM, animal bone and marine shells. Cut [213] is the construction cut for structure [211], interpreted as a possible early 20<sup>th</sup> century foundation. The cut was not visible in the northern section of Trench 1 and appears diffuse beneath the structure. This is a probable result of compression between soil layer (204) and alluvial clay layer (205).

**Circular cut [215]** was located at the south-east end of Trench 2, 0.71m BGL. It measured 0.55m in diameter and cuts into layer (204) (Illus 13). It comprised a light brown-grey silty-sand fill (216) with frequent CBM, occasional clay tobacco pipe fragments, frequent mortar and occasional cement. Small animal bones fragments were also retrieved This feature was unexcavated as it was identified as a modern intrusion with the finds likely to be residual.

#### 4.3 Finds

### Amy Koonce & Paul Blinkhorn

The finds assemblage numbered 93 sherds (1.689kg) of pottery, 36 sherds (2.902kg) of brick and tile, 14 iron finds, four sherds of clay pipe, two copper alloy finds, one sherd (356g) of fired clay, 102g of building material and 41g of industrial waste. These were found in 12 separate features across two trenches. All the finds are medieval and post-medieval. The finds are summarised by feature in the table below and a complete catalogue is given at the end.

Tr	Feature		Pottery		_		Iron	Clay	Glass					Mortar		Spot
			(Medi)	(PM)	(PM)	Alloy		Pipe		Tile	Tile	Clay	Clay		Waste	Date
-	-	Count	Wgt (g)	Count	Wgt (g)	Count	Count	Count	Count	Count		Count	_	Wgt	Wgt	-
											(g)		(g)	(g)	(g)	
01	layer (105)	-	-	- 	-	-	-	1	<u>-</u>	-		-	-	-	1	M- L17th
01	layer (106)	4	64	-	-	-	-	-	-	-	-	-	-	-	-	13 <sup>th</sup> – 14 <sup>th</sup>
01	ditch [107]	4	26	-	-	-	4	-	-	7	419	-	-	-	28	15 <sup>th</sup> – 16 <sup>th</sup>
	post-hole [110]	-	-	-	-	-	-	-	-	-	-	-	-	1	<0.5	?
02	layer (203)	2	16	3	76	-	-	-	-	6	1,165	-	-	-	-	17 <sup>th</sup>
	ditch [207]	61	934	3	150	2	8	-	2	14	1,020	-	-	102	13	L15 <sup>th</sup> -16 <sup>th</sup>
	square cut [209]	2	33	1	25	-	2	-	-	2	29	-	-	-	-	17 <sup>th</sup>
	structure [211]	1	5	-	-	-	-	-	-	-	-	-	-	-	-	m15 <sup>th</sup> - m16 <sup>th</sup>
	construction cut [213]	10	146	-	-	-	-	-	-	7	269	-	-	-	ı	L14 <sup>th</sup> - 16 <sup>th</sup>
	circular cut [215]	-	-	-	-	-	-	3	-	-	-	-	-	-	-	17 <sup>th</sup>
02	layer (217)	2	214	-	-	-	-	-	-	-	-	-	-	ı	-	16 <sup>th</sup>
02	deposit (220)	-	-	<u>-</u>	-	_	-	-	-	-	-	1	356	-	-	?
- 1	Total	86	1,438	7	251	2	14	4	2	36	2,902	1	356	102	41	-

Summary of finds assemblage by feature with spot dating (dating is for finds in the backfill of these features and does not necessarily date the features; small assemblages should be used with particular caution for dating purposes).

## 4.3.1 Methodology

The report includes both hand-collected finds and those from sample retents. The finds were collected, processed and packaged for long term storage in accordance with professional guidelines (ClfA 2014; Watkinson & Neal 1998). The finds were each assessed and recorded by appropriate specialists. The resultant data was then drawn together into one MS Access database. A copy of this data is given at the end of the report.

The pottery was examined visually, using x20 magnification where necessary. It was recorded according to standards set out by specialist bodies (Barclay et al 2016; Slowikovski 2001). The medieval pottery was recorded using the system of codes and chronologies suggested by Spoerry (2016). The post-medieval pottery was recorded using the conventions of the Museum of London type-series (MOLA 2014).

## 4.3.2 Medieval to post-medieval pottery

A total of 93 sherds (1.689kg) of medieval to post-medieval pottery was retrieved from eight features across Trenches 1 and 2, the majority being located in Trench 2. The range of fabric types is typical of sites in the region and shows that activity at the site was limited almost entirely to the 15<sup>th</sup> to 17<sup>th</sup> centuries (see table below). The sherds are mostly fairly large and fresh and appear reliably stratified.

Fabric	Fabric	Dating	Sherds	Wgt (g)
Code				
BABEL	Ely 'Babylon' ware	16 <sup>th</sup>	1	106
BRIL	Brill/Boarstall ware	1200-	2	9
		1600		
DUTR	Dutch Red Earthenware	1350-	1	4
		1650		
FREC	Frechen Stoneware	1550-	1	41
		1700		
GRIM	Grimston ware	13 <sup>th</sup> - 15 <sup>th</sup>	3	106
LMEL	Late medieval Ely ware	15 <sup>th</sup>	4	173
LMR	Late medieval Reduced Ware	L14 <sup>th</sup> -	44	625
		16 <sup>th</sup>		
LYST	Lyveden/Stanion 'B' ware	1200-	1	11
		1400		
MEL	Medieval Ely ware	1150-	26	324
		1350		
METS	Metropolitan-type Slipware	1600-	2	44
		1900		
OSW	Late medieval Oxidised	1450-	5	84
	Sandy wares	1550		
PMR	Post-medieval Redware	16 <sup>th</sup> – 19 <sup>th</sup>	1	16
RAER	Raeren Stoneware	1480-	2	146
		1610		
Total	-	-	93	1,689

Medieval to post-medieval pottery type series

The bulk of the assemblage comprises jars, bowls and jugs, along with a few fragments of drinking vessels in BABEL, FREC and RAER, and a sherd from the rim of a late medieval cooking pot or 'grape' (eg Hurst et al 1986, 130) in DUTR. Specialist late medieval vessel forms associated with the storage, transportation, preparation and consumption of food and drink are otherwise absent. The imported wares are not unknown in the region, mainly occurring at ports such as Wisbech (Spoerry 2016, 74), although FREC occurs in many places due to being imported in much larger quantities than the earlier German stonewares. Earlier medieval (12<sup>th</sup> – 13th century) material is sparse but includes a fragment of strut-handle from a highly decorated 13<sup>th</sup>-century Grimston Ware jug (eg McCarthy & Brooks 1988, Fig 156).

### 4.3.3 Metalwork

The metalwork assemblage comprises seven items of iron and two of copper alloy, retrieved from Trenches 1 and 2. The copper alloy finds were a buckle plate and a decorative mount, both from ditch [207] (206). The buckle plate is long and thin, rectangular and undecorated and cannot be finely dated, though it is possible that conservation might reveal decoration. The decorative mount is very thin and fragmentary, with pressed decoration. It's function and design are not clear. Both copper alloy finds are potentially contemporary with their associated pottery.

The iron assemblage comprises nails and a tack, retrieved from ditches [107] (108) and [207] (208) and square cut [209] (212). Fragments of a possible knife blade were also retrieved from ditch [207] (206). None of the iron finds can be closely dated, however, again, they are all potentially contemporary with the late medieval and early post-medieval finds with which they are associated.

#### 4.3.4 Glass

Two very small sherds of glass were retrieved from ditch [207] (206) in Trench 2. One sherd is very thin and potentially from a fine drinking vessel.

### 4.3.5 Clay pipe

Four fragments of clay pipe were retrieved. These include a near complete bowl from layer (105) in Trench 1, which can be typologically dated to c 1660-1680 (cf. Broseley pipe type 2a/2b, Oswald 1975, 50-1). Other sherds are stems, all found in circular cut [215] (216) in Trench 2. Their wide bore indicates a 17<sup>th</sup> or early 18<sup>th</sup>-century date.

### 4.3.6 Brick and Tile

Ceramic building material comprising 33 sherds (1.772kg) of roof tile and three fragments (1.13kg) of brick were retrieved from five features across Trenches 1 and 2.

The roof tiles are all flat and unglazed, and likely to be late medieval or early post medieval. They occur in either a red sandy fabric (27 sherds) or a softer, pale buff-coloured fabric (six sherds). They range from 14-16mm in thickness. They are all fairly fragmented with no other complete dimensions surviving. One of the red tiles has a suspension hole roughly 20mm in diameter.

The bricks are all hand-made, in a fairly dense, slightly sandy fabric. They are rather damaged, but fragments from layer (203) and ditch [207] (206) survive to a thickness of 50mm.

## 4.3.7 Fired Clay

A large fragment of fired clay was retrieved from deposit (220) and is 55mm thick, with both surfaces surviving. There are no signs of withy impressions, so it seems most likely to be a fragment of an oven dome or similar. It is undatable.

## 4.3.8 Building Material

Fragments totalling 102g of lime mortar was retrieved from ditch [207] (206).

## 4.3.9 Industrial waste

A total of 41g of vitrified slag fragments and magnetic residues were retrieved from ditch [107] (108) and post-hole [110] (111) in Trench 1 and ditch [207] (206) in Trench 2. The vitrified slag fragments are undiagnostic and very small and fragmentary in nature. The magnetic residues comprise mainly magnetised gravels, with a small amount of possible hammerscale present. Hammerscale is created during iron smithing or smelting, though, here, are found here in such low concentrations that they are not indictive of such activity in the immediate vicinity. The magnetised gravels are indicative of no more than burning and can occur naturally.

#### 4.3.10 Discussion

The main period of activity is identified as the late medieval to early post-medieval and probably all fits into the period 15<sup>th</sup> to 17<sup>th</sup> century, though possibly with one or two residual earlier finds. The nature of the assemblage, that is pottery, roof tile, mortar, metalwork, clay pipe and glass is typical of urban midden deposits of the period, including domestic midden and building material remains. Finds were spread through several layers, ditches and other features and it may be possible to place some of these features in the earlier part of the range and some later (see Table 1). However, only ditch [207] and, to a lesser extent, construction cut [213] contained sizeable assemblages which allow for reasonably secure dating.

#### 4.3.11 Recommendations for further work

If analysis work is to be carried out, it is recommended that the buckle plate be sent for conservation to reveal if there is any further decoration. The assemblage is interesting in terms of the late medieval and early post-medieval occupation of the town, its development and trade links. However, it is small and further analysis would reveal little more. Were the site to be published, a short note should be included on the finds, with some illustrations of more distinctive pieces. Should further fieldwork be undertaken, then the assemblage should be re-evaluated in the light of any further finds.

## 4.3.12 Recommendations for archive

The pottery, metalwork, clay pipe, glass, ceramic building material should be retained. Should no further fieldwork be done, the mortar and industrial waste might be discarded, in consultation with CHET. The archive has been prepared in accordance with professional standards (AAF 2011) and the specific requirements of Cambridgeshire Council's Historic Environment Team (CHET) (CCC 2017).

#### 4.3.13 References

Archaeological Archives Forum (AAF) 2011 *Archaeological Archives A guide to best practice in creation, compilation, transfer and curation* (2nd edn) (ClfA: Reading) <a href="http://www.archaeologyuk.org/archives/aaf\_archaeological\_archives\_2011.pdf">http://www.archaeological\_archives\_2011.pdf</a> accessed 14 February 2019

Barclay A, Knight D, Booth P, Evans H, Brown D & Wood I 2016 A Standard for Pottery Studies in Archaeology: Prehistoric Ceramics Research Group, the Study Group for Roman Pottery and the Medieval Pottery Research Group <a href="http://romanpotterystudy.org/new/wp-content/uploads/2016/06/Standard\_for\_Pottery\_Studies\_in\_Archaeology.pdf">http://romanpotterystudy.org/new/wp-content/uploads/2016/06/Standard\_for\_Pottery\_Studies\_in\_Archaeology.pdf</a> accessed 14 February 2019

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## 4.4 Environmental Report

Laura Bailey

## 4.4.1 Introduction

Three samples taken during an archaeological evaluation at 1, 3 & 5 Bull Lane, St Ives, Cambridgeshire, were received for palaeoenvironmental assessment. The site comprised a medieval ditch, posthole and occupation layers, a post-medieval ditch and late nineteenth century structural activity. The samples were from ditches and a posthole dating to the medieval and post-medieval periods. In addition to the bulk samples, animal bone was hand-collected from a further eight contexts. Marine shell was hand-collected from three contexts. The aims of the assessment were to assess the presence, preservation and abundance of any environmental remains and to determine the potential of the material for indicating the character and significance of the deposit.

### 4.4.2 Method

Bulk samples were subjected to flotation and wet sieving in a Siraf-style flotation machine. The floating debris (the flot) was collected in a 250 µm sieve and once dry, scanned using a binocular microscope. Any material remaining in the flotation tank (retent) was wet-sieved through a 1mm mesh and air-dried. Identifications, where provided, were confirmed using modern reference material and seed atlases including Cappers *et al.* (2006) and Zohary *et al.* (2012); nomenclature for wild taxa follows Stace (1997).

Faunal remains were examined by eye or under low magnification and, as far as possible, identified to species and skeletal element, with reference to Schmid (1972) and Hillson (1992), and any marks of butchery were noted.

## 4.4.3 Results

Results of the assessment are presented in the tables below (Environmental sample results) and (Animal remains) (Appendix 4 and Appendix 5).

## 4.4.4 Cereal grain

A moderate number of cereal grains were recovered from three sampled features. The grains exhibited mixed levels of preservation ranging from moderate to poor. Many of the cereals were heavily abraded and broken and therefore indeterminate. Cereals present included bread/club wheat (*Triticum aestivo-compactum*), hulled barley (*Hordeum vulgare*) and occasional oats (*Avena* sp.).

## 4.4.5 Wild taxa

Charred 'weed seeds', (here used to include seeds, fruits, achene, caryopses etc.) were recovered from two features. The small charred weed assemblage comprised occasional elder (*Sambucus nigra*) and fathen (*Chenopodium* sp.) seeds.

## 4.4.6 Other charred plant remains

A small amount of charred pulses were present in deposit (206). The pulses were not examined any further due to possible asbestos contamination of the sample. The possible asbestos material was tested and proved not to be made of asbestos fibre.

#### 4.4.7 Wood charcoal

Wood charcoal was present in varying quantities in three samples. The charcoal exhibited mixed levels of preservation and contained fragments of a size sufficient for AMS radiocarbon dating. The charcoal is predominantly non-oak species but occasional oak fragments were present in a small number of samples.

#### 4.4.8 Animal bone

#### Unburnt bone

A small assemblage (180 NISP) of fragmented animal bone was recovered from eleven features (Appendix 5). The NISP is inflated by the large number of rodent bones recovered. The bone was fragmented and demonstrated mixed levels of preservation ranging from good to poor. The Minimum Number of Individuals (MNI) determined for each group was low. Elements of cow, sheep, bird, rodents and fish were also recovered.

Identifiable elements included horse radius. Cow metacarpal shaft and distal radius fragments. Sheep/goat mandible, teeth, distal radius, distal humerus, vertebrae, scapula, phalanges and rib fragments were recovered. Metatarsals, of domestic fowl, probably of chicken, were present in fill (108) of ditch [107] and deposit (216). Femur and pelvis fragments were also present in deposit (212).

Fish bone was abundant in deposit (108). Elements present included vertebrae and rib fragments. Rodent bone, including mandible, scapula, vertebrae and rib fragments were also recovered from this deposit.

All other animal bone recovered from across the site was heavily fragmented and lacked diagnostic features.

## Burnt bone

A small (<0.1g) assemblage of burnt bone was recovered from context (108). The bone was heavily fragmented and lacked diagnostic features required for identification.

#### 4.4.8 Molluscs

Molluscs were present in all three samples. Heavily fragmented oyster (Ostrea edulis) and mussel shells (Mytilus edulis) were present in deposits (108) and (111).

Marine shells were also hand collected from three deposits and are catalogued in the table below. Marine shells included oyster and a possible whelk.

Context	Sample	Weight (g)	Spot date	Description
105	-	22	-	Oyster shell (1)
108	-	117	15thC	Oyster shell (6), possible whelk fragment
214	-	98	L14th C	Oyster shell (2)

Many of the shells were from modern, mixed refuse deposits and therefore offer little information on site economy.

## 4.4.10 Scientific dating potential of the remains

The dating potential of the remains will be dependent on the nature of the research questions posed. Of the environmental evidence recovered the remains that offer the best potential for AMS radiocarbon dating are the better-preserved cereal grains, the better-preserved animal bone and non-oak wood charcoal.

## 4.4.11 Discussion and recommendations

The environmental assemblage offers some information relating to site economy. It suggests that the inhabitants had a varied diet and access to marine resources, which is unsurprising given the proximity of St Ives to the coast. Bread/club wheat was the most commonly encountered grain on the site. As bread wheat is the commonest wheat found in the medieval period (Moffett 2006, 47) it is unsurprising that it was abundant on site. Given the abraded nature of the cereal, it is likely that the grains became incidentally incorporated into negative features and have no direct relationship to the features themselves.

Both middle and low utility elements of the main domesticates, horse, cow and sheep/goat were all recovered. No pig bone was recovered. There was a reduction in pork consumption throughout the Middle Ages so the lack of pig bone is not unusual. Chicken bone was recovered from deposits (108), (212) and (214). Chickens were eaten by all classes of society throughout the medieval period. Fish also formed an important part of the diet during the medieval period as the church forbade the eating of meat on Wednesdays, Fridays and Saturdays, as well as during Lent on various saint's days, in all about half the days of the year; fish was popular to fill the gap on these days (Bailey et al 2015). Oyster shells, mussels and possible whelk were recovered from deposits dating to the medieval period.

Due to the size and fragmented nature of the assemblage, it is unlikely that analysis would provide significant further information other than broad dietary preferences. The paucity of remains precludes further analysis.

## 5. DISCUSSION

## 5.1 Quality of preservation

The depth of Post-medieval and modern layers was measured at a depth of 1.28m and 0.80m BGL for Trench 1 and Trench 2 respectively. Despite extensive re-development in the 20<sup>th</sup> century, the site contains moderately well-preserved remains from the medieval and Post-medieval period.

### 5.2 Description of heritage assets

Description of Heritage Asset	Trench	Feature	Significance of heritage asset (Low, Medium, High) and of local, regional, national, international interest
Medieval features	1, 2	[107] [207], [110], (217)	Medium significance of local and regional interest
Late 19th to 20th century features	1, 2	(109), [211], [215]	Low significance of local interest

Table 1 Description of heritage assets

There were two ditches dated to the later medieval period. They are parallel to each other and 10 m apart but are different in terms of size and composition of fills. They may be on the line of older property boundaries. One of the ditches cut an earlier pit or posthole. There are of medium significance of local and regional interest.

The bulk of the evidence comprised post-medieval deposits and overburden into which late 19<sup>th</sup> century/ early 20<sup>th</sup> century foundations were dug. This is considered to have low significance of interest.

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# 7. APPENDICES

## **APPENDIX I – Trench and context summary**

TR01									
L (m)		W (m)	Min. D GD/	L (m)	Max. D GD	)/L (m)			
	4	2.3	1.2						
Context	Decerio	4i	Dimensions (as appropriate)						
No	Descrip	tion	Ø (m)	L (m)	W (m)	D (m)			
101	Layer: Mid grey comp moderate small sub-a inclusions. Uneven th	ngular stone				0 - 0.18			
102	Layer: Mid yellow-brog sub-base. In north L.C					0.15 - 0.18			
103	Layer: Dark grey-brown made ground. Occasion tobacco pipe, bone, costone, oyster shell and inclusions.	onal CBM, clay eramic, cobble				0.18 - 0.45			
104	Layer: Mid yellow-bromade ground. Occasionand small to medium stones. Slopes downwest to south-east. But	onal CBM, mortar sub-rounded vards from north-				0.45 - 0.75			
105	Layer: Dark grey-brow with occasional CBM, coal fleck inclusions. I	mortar, sand,				0.70 - 1.28			
106	Layer: Dark grey-brow with occasional bone, shell and small sub-ar inclusions. Buried soil	pottery, oyster ngular stone				1.10 - 1.36			
107	Cut of ditch: Moderate and a concave base. hole [110].			1.00+	0.33	1.36 - 1.49			
108	Fill of ditch [107]: Mid silty-clay with occasio pottery, bone, tile, she nail inclusions.	nal stones,		1.00+	0.33	1.36 - 1.49			
109	Deposit: Light yellow- cement with occasion medium sub-angular s	al small to		3.37	0.66	0.33 - 0.72			
110	Cut of posthole: Circu sides and a concave by ditch [107].		0.42			1.36 - 1.69			
111	Deposit: Dark grey so occasional small sub- and moderate coal inc post-hole [110].	angular stone			0.42	1.36 - 1.69			

112	Layer: Mid grey-brown soft silty-clay with occasional mid yellow-brown sandy clay lenses. Small sub-angular stones and occasional small charcoal inclusions. Buried soil.					1.36+
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L (m)		W (m)	Min. D GD	/L (m)	Max. D GD	)/L (m)		
	5.5	2.2		0.71		2.3		
Context	Descrip	tion		Dimensions (as appropriate)				
No.	Descrip	MIOII	Ø (m)	L (m)	W(m)	D (m)		
201	Layer: Mid grey comp moderate small sub a inclusions. Uneven th	ngular stone				0 - 0.10		
202	Layer: Mid yellow-bro sub-base.	wn loose sand				0.10 - 0.20		
203	Layer: Dark grey-brow made ground. Occasi mortar, bone, ceramic inclusions.	onal CBM, lime				0.20 - 0.80		
204	Layer: Mid grey-brown with occasional CBM, mortar. Inconsistent p trench. Buried soil.	bone and lime				0.80 - 1.13		
205	Deposit: Mottled mid I clay with moderate mi sand inclusions and g Occasional sub-round inclusions. Probable a	id yellow-brown reen lenses. led stone				0.70 - 0.90		
206	Secondary fill of ditch brown soft clayey-silt shell, animal bone, po occasional CBM inclu and 1x Cu small finds	with moderate ottery and sions. 3x Fe nails				0.84 - 1.35		
207	Cut of ditch: NNE-SSI shaped linear with mosides and rounded ba	derately sloping		1.00+	2.2	0.84 - 1.46		
208	Primary fill of ditch [20 soft clay with occasion angular stone inclusion	nal small sub-		1.00+	2.01	0.84 - 1.46		
209	Cut: Square shaped of sides and an uneven			0.55	0.55	0.80 - 1.00		
210	Geological Substrate: brown soft clayey san small to medium sub River terrace gravels.	d with frequent angular stone.				1.90 - 2.30+		
211	Structure: Red brick fo	oundation.		0.69	0.58	0.75 - 0.99		
			J	1	<u> </u>			

			1		
212	Deposit: Dark grey-brown silty-clay with occasional CBM, pottery and bone. Fill of [209].		0.55	0.55	0.80 - 1.00
213	Construction cut: Irregular shaped with moderately sloping sides and uneven base. Cut for structure [211].		1.64	0.8	0.75 - 0.99
214	Deposit: Dark grey-brown soft clayey- silt with light grey clay lenses. Occasional CBM, marine shell and lime mortar inclusions. Backfill of cut [213].		1.64	0.8	0.75 - 0.99
215	Cut: Circular modern cut - unexcavated.	0.55			0.71+
216	Fill of [215]: Light brown-grey loose silty-sand with frequent CBM, cement and mortar and occasional clay tobacco pipe inclusions.	0.55			0.71+
217	Layer: Mid grey-brown soft silty clay with occasional small to medium subangular stones and CBM. Buried soil.		2.00+	2.00+	0.90 - 1.71
218	Layer: Dark brown-grey soft clay with occasional small sub-angular stone.		2.00+	2.00+	1.08 - 1.90
219	Layer: Mid yellow-brown soft clay with occasional small sub-angular stones.				1.64 - 2.08
220	Deposit: Deposit of heated clay.		0.20+	0.84	1.24 - 1.65

## APPENDIX II – Photographic register

Photo No	Direction Facing	Description	File name
001	S	Pre-ex shot of TR01	BLSI19-001
002	S	Pre-ex shot of TR01	BLSI19-002
003	SW	Pre-ex shot of site	BLSI19-003
004	N	Pre-ex shot of TR01	BLSI19-004
005	W	Pre-ex shot of site	BLSI19-005
006	SE	Working shot of TR02	BLSI19-006
007	PLAN	Pre-ex shot of TR02 at western extent (no scale)	BLSI19-007
800	PLAN	Pre-ex shot of TR02 at western extent (with scale)	BLSI19-008
009	SE	Working shot of TR02	BLSI19-009
010	NE	Pre-ex shot of TR02 at eastern extent	BLSI19-010
011	PLAN	Pre-ex shot of [209] TR02	BLSI19-011
012	PLAN	Pre-ex shot of [215] TR02	BLSI19-012
013	N	Pre-ex shot of [215] TR02	BLSI19-013
014	NE	Pre-ex shot of [207, 209] TR02	BLSI19-014
015	PLAN	Pre-ex shot of [207, 209] TR02	BLSI19-015
016	N	Working shot of TR01	BLSI19-016
017	SW	East and north facing baulk sections of TR01	BLSI19-017
018	SW	East and north facing baulk sections of TR01	BLSI19-018
019	NW	South-east facing baulk section TR01	BLSI19-019
020	NE	South-east facing baulk section TR01	BLSI19-020
021	NE	Pre-ex shot of ditch [107] in TR01	BLSI19-021
022	SE	Engineering test pit and building foundations	BLSI19-022
023	PLAN	Plan view of engineering test pit and building foundations	BLSI19-023
024	E	East facing view of (109) and structural repairs to adjacent building	BLSI19-024
025	SE	North-east facing view of (109) and structural repairs to adjacent building	BLSI19-025
026	NE	North-east facing view of (109) and structural repairs to adjacent building	BLSI19-026
027	PLAN	Plan view of ditch [107] and post-hole [110]	BLSI19-027
028	PLAN	Plan view of ditch [107] and post-hole [110]	BLSI19-028
029	SW	North-east facing section of ditch [107] and post-hole [110]	BLSI19-029
030	SW	North-east facing section of ditch [107] and post- hole [110]	BLSI19-030
031	PLAN	Plan view of ditch [107] and post-hole [110]	BLSI19-031
032	NE	North-east facing view of ditch [107] and post-hole [110]	BLSI19-032
033	NE	South-west facing section of ditch [107]	BLSI19-033
034	NE	South-west facing section of ditch [207] section and TR02 baulk section	BLSI19-034

035	NE	South-west facing section of partially excavated ditch [207], TR02 baulk section and foundation structure [211]	BLSI19-035
036	NE	South-west facing section of partially excavated ditch [207] section, TR02 baulk section and foundation structure [211]	BLSI19-036
037	NW	North-west facing view of foundation structure [211]	BLSI19-037
038	NW	North-west facing view of foundation structure [211]	BLSI19-038
039	PLAN	Plan view of square pit [209]	BLSI19-039
040	PLAN	Plan view of square pit [209]	BLSI19-040
041	NW	South-east facing view of structural cut [213]	BLSI19-041
042	NNE	South south-west facing view of structure [211]	BLSI19-042
043	PLAN	Plan view of structure [211]	BLSI19-043
044	NW	South-east facing profile of structure [211] and cut [213]	BLSI19-044
045	NW	South-east facing profile of structure [211] and cut [213]	BLSI19-045
046	NW	South-east facing section of cut [213]	BLSI19-046
047	PLAN	Plan view of test pit 1	BLSI19-047
048	SE	North-west facing section of test pit 1	BLSI19-048
049	NE	South-west facing section of test pit 1	BLSI19-049
050	NE	South-west facing section of test pit 1	BLSI19-050
051	NW	South-east facing baulk section of TR01 with vertical scale	BLSI19-051
052	NW	South-east facing baulk section of TR01 with vertical scale	BLSI19-052
053	NW	South-east facing baulk section of TR01 without vertical scale	BLSI19-053
054	NE	South-west facing section of test pit 2/TR02 baulk face	BLSI19-054
055	NE	South-west facing section of test pit 2/TR02 baulk face	BLSI19-055
056	NE	South-west facing section of test pit 2/TR02 baulk face	BLSI19-056
057	SE	North-west facing section of test pit 2/TR02 baulk face	BLSI19-057
058	SW	North-east facing section of test pit 2/TR02 baulk face	BLSI19-058
059	SW	North-east facing section of test Pit 2/TR02 baulk face	BLSI19-059

## Appendix III - Finds Catalogue

Tr	Context	SF	Sample	Qty	Wgt (g)	Material	Object	Description	Spot Date
01	105	-	-	1	15	Clay Pipe	bowl	Nearly complete, rilled edge, unstamped heel, similar to Broseley Pipe type 2a/2b	1660-80
01	106	-	-	3	57	Pottery (Medi)	MEL	Medieval Ely Ware	13th-m14th
01	106	-	-	1	7	Pottery (Medi)	BRIL	Brill/Boarstall Ware	1200-1600
01	108	-	-	1	2	Pottery (Medi)	BRIL	Brill/Boarstall Ware	1200-1600
01	108	_	-	1	14	Pottery (Medi)	LMEL	Late Medieval Ely Ware	15th
01	108	-	-	2	10	Pottery (Medi)	LMR	Late Medieval Reduced Ware	15th-16th
01	108	-	-	7	419	СВМ	roof tile	Red fabric	15th
01	108	-	1	-	1	Industrial Waste	slag	Vitrified	-
01	108	-	1	-	27	Industrial Waste	mag res	Magnetised gravels	-
01	108	1	-	1	15	Iron	nail	Complete?	-
01	108	-	1	3	10	Iron	nail?	Lightweight fragments	-
01	111	-	3	-	0	Industrial Waste	mag res	Possible hammerscale	-
02	203	-	-	2	868	СВМ	brick	Handmade, very dense and slightly sandy fabric, 50mm thick	PM
02	203	-	-	1	41	Pottery (PM)	FREC	Frechen Stoneware	17th-18th
02	203	-	-	1	19	Pottery (PM)	METS	Metropolitan-type Slipware	1600-1900
02	203	-	-	2	16	Pottery (Medi)	OSW	Late Medieval Oxidized Sandy Wares	m16th
02	203	-	-	1		Pottery (PM)	PMR	Post-medieval Redware	17th-19th
02	203	-	-	1		СВМ	roof tile	Red fabric	17th
02	203	-	-	3	140	СВМ	roof tile	White fabric	17th
02	206	-	-	1	262	СВМ	brick	Handmade, very dense and slightly sandy fabric, 50mm thick	L15th
02	206	-	-	1	4	Pottery (PM)	DUTR	Dutch Red Earthenware	15th-m17th
02	206	-	-	2	97	Pottery (Medi)	GRIM	Grimston Ware	L15th
02	206	-	-	2	51	Pottery (Medi)	LMEL	Late Medieval Ely Ware	L15th
02	206	-	-	30	436	Pottery (Medi)	LMR	Late Medieval Reduced Ware	L15th-16th
02	206	-	-	1	11	Pottery (Medi)	LYST	Lyveden/Stanion 'B' Ware	L15th

Tr	Context	SF	Sample	Qty	Wgt (g)	Material	Object	Description	Spot Date	
02	206	-	-	22		Pottery (Medi)	MEL	Medieval Ely Ware	m14th-15th	
02	206	-	-	2	63	Pottery (Medi)	OSW	Late medieval oxidized sandy wares	L15th-m16th	
02	206	-	-	2	146	Pottery (PM)	ry RAER Raeren stoneware		L15th-E17th	
02	206	-	-	10	567	СВМ	roof tile	Red fabric	L15th	
02	206	-	-	1	108	СВМ	roof tile	White fabric	L15th	
02	206	2a	-	1	12	Iron	knife blade?	Incomplete, broken in two fragments	-	
02	206	2b	-	2	29	Iron	nail	-	-	
02	206	-	-	1	9	Pottery (Medi)	GRIM	Grimston ware	13th-15th	
02	206	-	-	1	11	Pottery (Medi)	MEL	Medieval Ely Ware	1150-1350	
02	206	-	-	1	55	СВМ	roof tile	Red fabric	LMedi	
02	206	-	-	1	28	СВМ	roof tile	Rhite fabric	LMedi	
02	206	-	2	2	0	Glass	fragments	Very small, one very thin - possible vessel glass?	-	
02	206	-	2	25	102	Building Material	lime Fragments mortar		-	
02	206	-	2	-	3	Industrial Waste			-	
02	206	-	2	-	10	Industrial Waste	rial mag res Magnetised gravels		-	
02	206	-	2	4	25	Iron	nail	-	-	
02	206	-	2	1	0	Iron	tack very small		-	
02	206	-	2	1	1	Copper Alloy	decorative Thin sheet of copper alloy, stamped decorative design, squared edge survives, four fragments, W 32mm		Medi?	
02	206	4	-	1	4	Copper Alloy			Medi?	
02	211	-	-	1	5	Pottery (Medi)	OSW	OSW Late medieval oxidized sandy wares		
02	212	-	-	2	33	Pottery (Medi)	LMR Late medieval reduced ware		L16th-17th	
02	212	-	-	1	25	Pottery (PM)	METS Metropolitan-type slipware		1600-1900	
02	212	-	-	1	13	СВМ	roof tile	Red fabric	17th	
02	212	-	_	1	16	СВМ	roof tile White fabric		17th	
02	212	3	-	2	13	Iron	nail	-	-	
02	214	-	-	10	146	Pottery (Medi)	LMR	Late medieval reduced ware	L14th-16th	
02	214	-	-	7	269	СВМ	roof tile	Red fabric	L14th	
02	216	-	-	3	36	Clay Pipe	stem	Wide bore	17th	

Tr	Context	SF	Sample	Qty	Wgt (g)	Material	Object	Description	Spot Date
02	217	-	-	1		Pottery (Medi)	BABEL	Ely 'Babylon' ware	16th
02	217	-	-	1	I	Pottery (Medi)	LMEL	Late medieval Ely ware	L15th-16th
02	220	-	-	1	356	СВМ	daub	Burnt, 55mm thick, both surfaces survive	-

## **APPENDIX IV – Environmental sample results**

**Key**: + = Rare (0-5), ++ = Occasional (6-15), +++ = Common (15-50) ++++ = Abundant (>50) ch = Charred, w/l = Waterlogged, u = Uncharred

**NB** Charcoal over 10mm is sufficient for identification and AMS dating.

Context			00108	00206	00111
Sample			1	2	3
Context type			Fill of ditch [107]	Fill of ditch [207]	Fill of posthole [110]
Spot date			15thC		
Sample Vol (I)		-	34	31	2
Retent Vol (I)		-	4	4	0.1
Flot Vol (ml)		-	20	50	0.5
Sufficient for AMS?		-	Υ	Υ	N
Plant remains					
Cereal grains		ch	++	++	+
Hordeum vulgare	Hulled barley	ch	+	-	-
	Bread/ club				
Triticum aestivo-compactum	wheat	ch	++	++	-
Avena sp.	Oats	ch	+	-	-
Cereal indeterminate		ch	-	+	-
Indet pulses		ch	-	-	+
Weed seeds		ch	-	-	
Sambucus nigra		ch	+	-	-
Chenopodium sp. Charcoal					
Charcoal	Qty	ch			
Charcoai	Max size (mm)	ch	+++ 10	+++	++ 5
	Oak			-	
	Non-oak	ch ch	+		-
Cinders	INUIT-Uak	ch	++	-	-
Animal Remains		CIT	т		
Animal bone		u	+++	+++	++
Molluscs	Terrestrial	u	+	+	-
	Marine	u	+	++++	+

## APPENDIX V – Animal remains catalogue

							Unburnt	bone						Burnt b	one		
Context	Sample	Hand collected	Feature	Preservation	NISP	MNI	Weight (g)	Large Mammal (e.g. cow/horse)	Medium sized mammal (e.g. pig/sheep/goat)	Rodent	Bird	Fish	Preservation	Minimum Number of Individuals (MNI)	Weight (g)	No. of fragments	Comments
105	-	у	Buried soil	Good	1	1	366	1	-	-	-	-	-	-	-	-	Horse radius
106	-	У	Deposit	Poor	2	2	4	1	1	-	-	-	-	-	-	-	Large mammal vertebra fragment. Sheep/goat ulna
108	-	Y	Fill of ditch [107]	Poor	3	2	98	2	-	-	1	-	-	-	-	-	Cow metacarpal shaft fragment. Large mammal rib. Domestic fowl metatarsal
108	001	-	Fill of ditch [107]	Poor	143	5	139	-	4	121	-	19	Poor	1	7	26	Fish vertebrae and rib fragments. Sheep/goat distal humerus, tooth and scapula fragments. Rodent jaw, ribs, vertebrae fragments. Heavily fragmented indeterminate burnt bone.
111	003	-	Fill of posthole	Poor	-	1	-	-	-	1	-	-	-	-	-	-	Heavily fragmented indet. Rodent bone
203	-	-	Deposit	Poor	3	2	3	1	1	-	-	-	-	-	-	-	Sheep/goat mandible. Large mammal rib.
206	-	Υ	Fill of ditch [207]	Poor	17	2	702	8	7	-	-	-	-	-	-	-	Cow, distal metacarpal, distal radius. Large mammal ribs (5), longbone shaft fragment Sheep/goat phalanges (2), distal radius, distal humerus (gnawed), mandible, vertebra, scapula and 2x ribs.
206	2	-	Fill of ditch [207]	Poor	-	-	159	-	-	-	,	-	-	-	-	-	Not assessed- asbestos contamination
207	-	Υ	Cut of ditch	Poor	1	-	21	-	-	-	-	-	-	-	-	-	Indet.
212	-	Y	Fill of feature [209]	Good	3	2	16	-	-	2	1	-	-	-	-	-	Domestic fowl femur. Small mammal pelvis fragment
214	-	У	Fill of [213]	Poor	5	2	12	-	4	-	1	-	-	-	-	-	Pelvis fragments and rib. Domestic fowl metatarsal.
216	-	Y	Fill of modern cut [215]	Poor	1	1	1	-	1	-	-	-	-	-	-	-	Rib fragment
217	-	V	Buried soil	Poor	1	1	98	1	-	-	-	-	-	-	-	-	Cow distal radius

# LIST OF ILLUSTRATIONS

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**ILLUS 4** SOUTH-EAST FACING SECTION OF TRENCH 1

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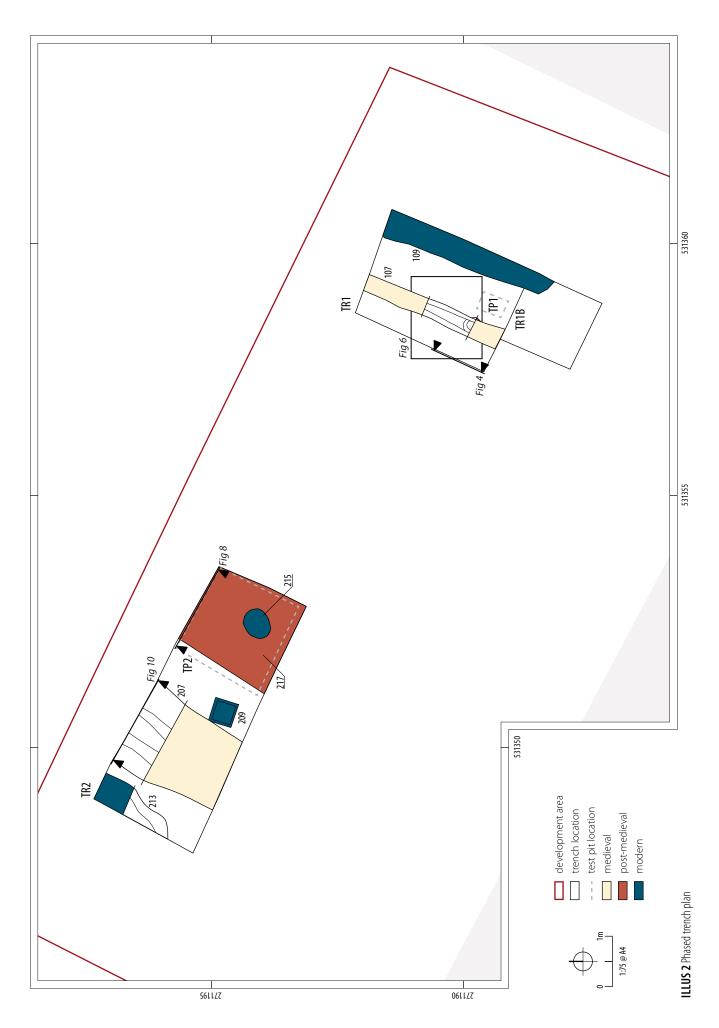
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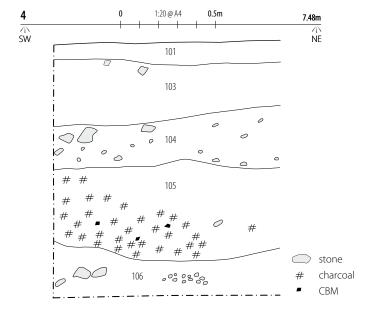
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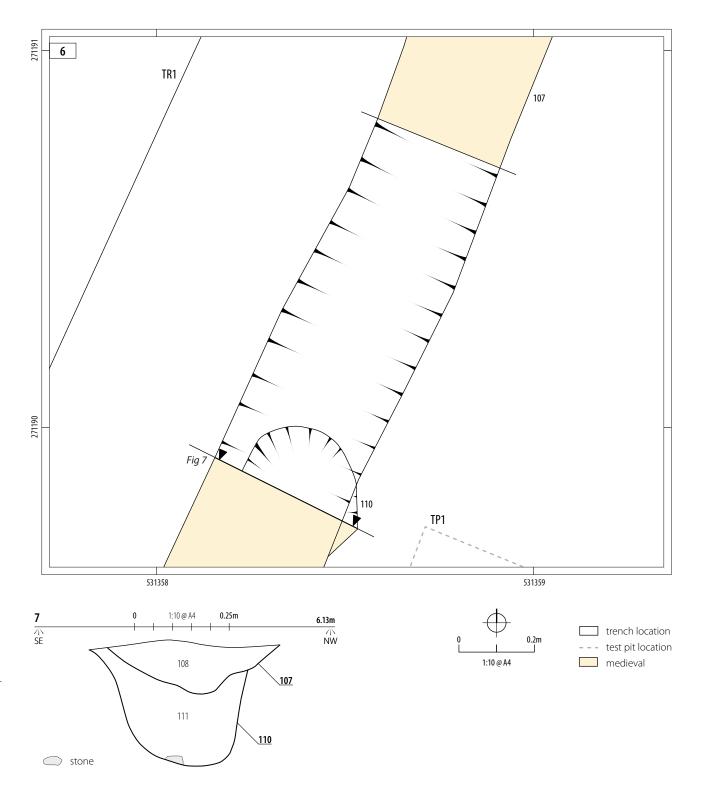
**ILLUS 3** North-east facing pre-excavation view of Trench 1



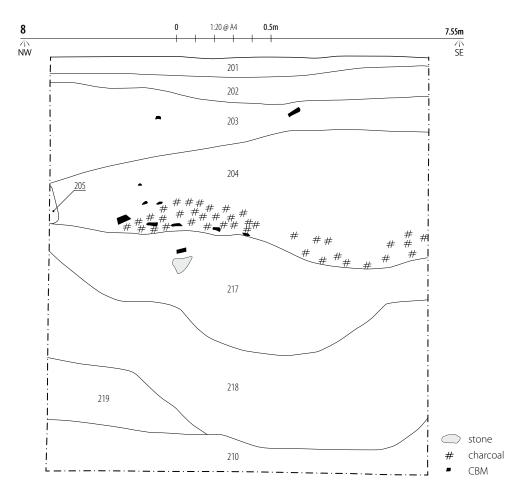
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**ILLUS 5** Plan view of Test Pit 1



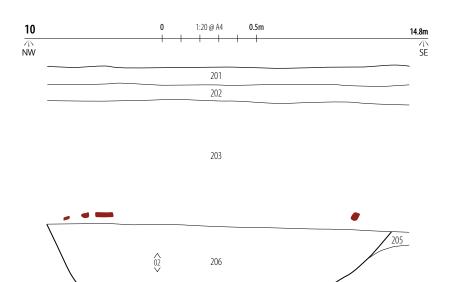
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brick

shell small find

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