Land south of Laundry Road Minster, Kent

Archaeological Strip, Map and Sample Excavation

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Summary

Wessex Archaeology was commissioned by Taylor Associates (UK) Limited on behalf of Decimus Property (Minster) Limited (the client), to undertake archaeological mitigation works comprising an archaeological strip, map & sample excavation covering 1,200m² centred on NGR 631231 165570, at Laundry Road, Minster, Kent CT12 4AG.

The archaeological strip map and sample excavation was undertaken in advance of a proposed development comprises the erection of a coffee shop with drive-through (use class A1/A3) with associated parking, servicing and landscaping.

The excavation identified a moderate quantity of archaeological features and deposits, with a concentration within the southern half of the site. The features comprised of 18 pits, 11 postholes, a curvilinear probable settlement enclosure ditch, a post medieval ditch, 7 tree throws and a quarry pit.

The majority of the features have been dated to the Late Bronze Age which was represented by pits and postholes located within a large curvilinear enclosure ditch, with the exception of three pits located outside the enclosure. The archaeological evidence suggests features related to a settlement, as the pits, postholes and enclosure ditch contained a moderate amount of domestic waste such as pottery sherds, animal bone, worked flint and fired clay fragments.

The artefacts also included flint tools, worked stone and perforated clay weights. In addition, disarticulated human remains representing a single individual were located within the enclosure ditch along with five copper alloy objects dating to the Bronze Age, all of which were located close to one another and are believed to represent grave goods from a possibly disturbed burial.

A large sub-rectangular quarry pit occupied the majority of the excavation area which was also dated to the Bronze Age. Two features were dated to the post-medieval period, comprising a linear ditch and a single tree throw.

The excavation was the final stage in a programme of archaeological works, including a previous Desk Based Assessment (ASE 2018) and Archaeological Evaluation (ASE 2020). The excavation was undertaken between the 26th October and 11th December 2020.

Acknowledgements

Wessex Archaeology would like to thank Taylor Associates (UK) Limited, for commissioning the archaeological mitigation works, in particular Stephen Taylor. Wessex Archaeology is also grateful for the advice of Simon Mason, County Archaeologist for Kent County Council, who monitored the project for Thanet District Council, and to Rhino Plant Hire for their cooperation and help on site.

Land to the south of Laundry Road Minster, Kent

Archaeological Strip, Map and Sample Excavation

1 INTRODUCTION

1.1 Project and planning background

1.1.1 Wessex Archaeology was commissioned by Taylor Associates (UK) Limited on behalf of Decimus Property (Minster) Limited (the client), to undertake archaeological mitigation works comprising an archaeological strip, map & sample excavation covering 1,200m² centred on NGR 631231 165570, at Laundry Road, Minster, Kent CT12 4AG (**Figure 1**).

1.1.2 The proposed development comprises the erection of a coffee shop with drive-through (use class A1/A3) with associated parking, servicing and landscaping.

1.1.3 A planning application (F/TH/19/0215) submitted to Thanet District Council, was granted, subject to conditions. The following conditions relate to archaeology:

"No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of:

i) Archaeological field evaluation works in accordance with a specification and written timetable which had first been submitted to and approved in writing by the Local Planning Authority;
ii) Following on from the evaluation, any safeguarding measures to ensure preservation in situ of important archaeological remains and/or further archaeological investigation and recording in accordance with the specification and timetable which has been submitted to and approved in writing by the Local Planning authority

To ensure that features of archaeological interest are properly examined and recorded in accordance with the advice contained within the National Planning Policy Framework.".

1.1.4 The excavation was the final stage in a programme of archaeological works, which had included an archaeological evaluation of the site (ASE 2020) which identified a number of ditches dating to the Late Bronze Age and Modern periods and a large quarry pit.

1.1.5 The excavation was undertaken in accordance with a written scheme of investigation (WSI), which detailed the aims, methodologies and standards to be employed, for both the fieldwork and the post-excavation work (Wessex Archaeology 2020). The County Archaeologist for Kent County Council (KCC) approved the WSI, on behalf of the Local Planning Authority (LPA), prior to fieldwork commencing.

1.1.6 The excavation was undertaken 26/10/2020 to 11/12/2020.

1.2 Scope of the report

1.2.1 The purpose of this report is to provide the provisional results of the excavation, and to assess the potential of the results to address the research aims outlined in the WSI. Where appropriate, it includes recommendations for a programme of further analysis, outlining the resources needed to achieve the aims (including the revised research aims arising from this

assessment), leading to dissemination of the archaeological results via publication and the curation of the archive.

1.3 Location, topography and geology

1.3.1 The site lies to the immediate north of Minster centre. Laundry Road bounds it to the north, a Premier Inn to the west, residential development to the south and undeveloped land to its east. The site is located on a slight slope that runs to the southwest. Ordnance datum (OD) is recorded as 46.70m OD in the northeast and 44.90m OD in the southwest.

1.3.2 The underlying geology is mapped as the Margate Chalk Member with no superficial geology (British Geological Survey online viewer).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The archaeological and historical background was assessed in a prior desk-based assessment (DBA: ASE 2018), which considered the recorded historic environment resource within a 500m study area of the proposed development. A summary of the results is presented below, with relevant entry numbers from the Kent Historic Environment Record (HER) and the National Heritage List for England (NHLE) included. Additional sources of information are referenced, as appropriate.

2.2 Previous investigations related to the development

Archaeological Evaluation (2020)

2.2.1 In June 2020, an archaeological evaluation comprised of six (no. 6) 20m trial trenches was conducted on the site (ASE 2020). The evaluation identified surviving archaeological remains in four of the trenches investigated in those located in the southwest section of the site.

2.2.2 The remains of a ring ditch previously identified during an excavation of the Premier Inn site to the immediate west was identified in Trenches 4 and 6. Dating evidence recovered from the ring ditch dated the feature to the Late Bronze Age to Early Iron Age with pottery and bone fragments recovered. This date largely agrees with the exposed section of the ring ditch in the Premier Inn site, with a radiocarbon sample providing a *terminus post quem* of 1369-1056 cal BC. The ring ditch is thought to be part of a ploughed-out barrow, with the barrow part of a much wider late prehistoric ritual landscape.

2.2.3 The evaluation found that a large quarry pit truncated part of the eastern extent of the ring ditch in Trench 5. The exact date of the quarry pit is uncertain. While late prehistoric pottery and flints were recovered, whether these finds were residual could not be confirmed. They may relate to material moved during ploughing activity from the barrow.

2.2.4 Two additional linear features were found both considered to be post-medieval in date with 19th century glass and brick fragment recovered from their fills.

2.3 Archaeological and historical context

Prehistoric (970,000 BC – AD43)

2.3.1 The site is located within an active prehistoric landscape since the Neolithic period with the current evidence indicating small-scale interventions within in a locally wooded setting (MOLA 2019). However, there are no indications that the landscape was settled in any meaningful way.

2.3.2 The transition into the Bronze Age saw the creation of a funerary landscape in the Minster region with Bronze Age barrows found during investigations along the East Kent Access Road (TR36 NW1169, TR36 NW1170 and TR36 NW1171) to the north and a further three barrows to the east (TR36 NW1163, TR36 NW1164 and TR36 NW1162). Collectively, they indicate the presence of a linear barrow cemetery aligned northeast to southwest along the existing ridgeline. While an enclosure has not been found, many similar barrow groups found in Thanet are delineated by regular enclosures (Moody 2008).

2.3.3 Burials not associated with barrows are also found in the broader landscape, with a group of seven Bronze Age inhumations burials and one cremation burial to the northeast of the site (TR36 NW1165), a single grave to the west (TR36 NW454) and further burials within the Premier Inn site to the immediate west (MOLA 2019).

2.3.4 The remains of a Late Bronze Age to Iron Age settlement were found during an investigation of the Premier Inn site (MOLA 2019). The evidence includes two enclosures of multi-phases indicating long term occupation, several pits and a series of layers of domestic waste (midden earth). The enclosures represent a marked change of use for the landscape from one of ritual importance to a predominantly agricultural landscape. This transition is well noted within Thanet with many similar sites are recorded in the region (MOLA 2019). The increased levels of land exploitation are believed to represent a population increase spurred by the region's valuable links to the Continent. Yet, further veneration and use of barrows were noted to the north of the site suggesting that their role in local beliefs continued into the late prehistoric period.

Romano-British (AD43 – AD410)

2.3.5 The settlement previously identified to the west of the site was abandoned sometime during the transitionary period between the late prehistoric and Early Romano-British period only to be resettled by the early to mid-3rd century AD. The settlement, found during the Premier Inn excavations, is characterised by a series of ditched 'compounds' bound by a substantial north-south aligned ditch. These enclosed areas contained up to ten sunken-feature buildings, possible post-built structures and a series of deep straight-sided pits (MOLA 2019:61). A small inhumation cemetery of seven formal burials was also located with further human remains recovered from the fills of several buildings. What was encountered was likely only part of a more extensive settlement that stretched westwards under the Tothill Street.

2.3.6 Further Romano-British evidence was also found along the East Kent Access Road close to the site, including three pits and a possible sunken featured building adjacent to a barrow (TR36 NW1169).

Anglo-Saxon and Medieval (AD410 – AD1500)

2.3.7 The first recorded settlement at Minster dated to AD449 and was established by Hengist and Horsa, two semi-legendary Jutish chieftains (ASE 2020). Minster also derives from the Anglo-Saxon for church or monastery and is thought to relate to the foundation of a nunnery in the 7th century.

2.3.8 Minster was held by St. Augustine's Abbey in Canterbury at the time of the Domesday Book in 1086. The early focus for the medieval settlement likely comprised the church at Minster, the Benedictine grange and the landing stages and frontage to the Wantsum Channel.

2.3.9 Medieval remains outside of the historic centre of Minster are rare with activity along East Kent Access Road limited to the Ebbsfleet peninsula (ASE 2020:4). The evidence that has

been found in the wider area suggest low levels of agricultural activity (TR36 NW246 and TR36 NW1166).

Post-medieval and modern (AD1500 to present)

2.3.10 During the post-medieval period, the site was located within a well-developed agricultural landscape with several farms recorded in the wider area. Minster itself remained a relatively small linear development concentrated on Tothill Street.

2.3.11 In 1836, the Isle of Thanet Union Workhouse and associated smallpox infirmary was established to the south of the site (TR36 NW1106). The site did, however, fall within its ground with a series of footpaths running within.

2.3.12 Industrial chalk pits were also established in the area including the Mount Pleasant chalk pit located to the north of the site (TR36 NW337). The quarry pit identified within the site may be part of these works on account of its proximity.

3 AIMS AND OBJECTIVES

3.1 Aims

3.1.1 The general aims of the excavation, as stated in the WSI (Wessex Archaeology 2020) and in compliance with the Chartered Institute for Archaeologists' *Standard and guidance for archaeological excavation* (CIfA 2014a), were to:

- examine the archaeological resource within a given area or site within a framework of defined research objectives;
- seek a better understanding of the resource;
- compile a lasting record of the resource; and
- analyse and interpret the results of the excavation and disseminate them.

3.2 Research objectives

3.2.1 Following consideration of the archaeological potential of the site and the regional research framework (KCC 2020), the research objectives of the excavation defined in the WSI (Wessex Archaeology 2020) were to:

- Determine the date, nature and extent of the barrow ring ditch, and its role within the broader prehistoric ritual landscape, placing into a local and regional narrative; and
- Determine the date, nature and extent of the possible quarry pit.

4 METHODS

4.1 Introduction

4.1.1 All works were undertaken in accordance with the detailed methods set out within the WSI (Wessex Archaeology 2020) and in general compliance with the standards outlined in CIfA guidance (CIfA 2014a). The post-excavation assessment and reporting followed advice issued by the Association of Local Government Archaeological Officers (ALGAO 2015). The methods employed are summarised below.

4.2 Fieldwork methods

General

4.2.1 The excavation area was set out using a Global Navigation Satellite System (GNSS), in the same position as that proposed in the WSI (**Fig.1**). The topsoil/overburden was removed in level spits using a 360º excavator equipped with a toothless bucket, under the constant supervision and instruction of the monitoring archaeologist. Machine excavation proceeded in level spits until the archaeological horizon, or the natural geology was exposed.

4.2.2 Where necessary, the surfaces of archaeological deposits were cleaned by hand. A sample of archaeological features and deposits was hand-excavated, sufficient to address the aims of the excavation. A sample of natural features, such as tree-throw holes, was also investigated.

4.2.3 Spoil derived from machine stripping and hand-excavated archaeological features was visually scanned for the purposes of finds retrieval. A metal detector was also used. Artefacts were collected and bagged by context. All artefacts from excavated contexts were retained.

Recording

4.2.4 All archaeological features and deposits were recorded using Wessex Archaeology's pro forma recording system. A complete record of excavated features and deposits was made, including plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections) and tied to the Ordnance Survey (OS) National Grid.

4.2.5 A Leica GNSS connected to Leica's SmartNet service surveyed the location of archaeological features. All survey data is recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSTN15 and OSGM15, with a three-dimensional accuracy of at least 50 mm.

4.2.6 A full photographic record was made using digital cameras equipped with an image sensor of not less than 16 megapixels. Digital images have been subject to managed quality control and curation processes, which has embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

4.3 Finds and environmental strategies

General

4.3.1 Strategies for the recovery, processing and assessment of finds and environmental samples were in line with those detailed in the WSI (Wessex Archaeology 2020). The treatment of artefacts and environmental remains was in general accordance with: *Guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014b) and *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011).

Human remains

4.3.2 The human remains were removed under the terms of the Ministry of Justice licence held by Wessex Archaeology (Licence: 20-0244 dated 13/11/2020). The excavation and post-excavation processing and assessment of human remains was in accordance with Wessex Archaeology protocols and undertaken in line with current guidance documents (e.g., McKinley 2013) and the standards set out in CIfA Technical Paper 13 (McKinley and Roberts 1993).

4.4 Monitoring

4.4.1 The County Archaeologist monitored the works on behalf of the LPA. Any variations to the WSI, if required to better address the project aims, were agreed in advance with the client and the County Archaeologist.

5 STRATIGRAPHIC EVIDENCE

5.1 Introduction

Summary of archaeological features and deposits

5.1.1 The archaeological strip, map and sample excavation identified a moderate quantity of archaeological features and deposits, with a concentration within the southern half of the site. The features comprised of 18 rubbish pits, 11 postholes, a curvilinear settlement enclosure ditch, a post medieval ditch, 7 tree throws and a quarry pit (**Figure 1**).

5.1.2 The majority of the features were dated to the Late Bronze Age which was represented by refuse pits and postholes located within a large curvilinear enclosure ditch, with the exception of three pits located outside the enclosure. The archaeological evidence suggests features related to a settlement, as the pits, postholes and enclosure ditch contained a moderate amount of domestic debris such as pottery sherds, animal bone, worked flint, fired clay fragments. The artefacts also included flint tools, carved chalk, perforated clay weights. In addition, disarticulated human remains were located within the enclosure ditch along with five copper alloy objects dating to the Bronze Age, all of which were located close to one another. A large sub-rectangular quarry pit occupied the majority of the excavation area which was dated to the Bronze Age. Two features were dated to the post-medieval period which included a linear ditch and a single tree throw.

5.1.3 The archaeological excavation took place immediately adjacent to the east of a site that was investigated in 2010 (MOLA 2019). The excavation identified archaeological evidence dating from the Early and Middle Neolithic to the post-medieval period, with a particular focus on Late Bronze Age/Early Iron Age and Late Romano-British settlement activity.

Methods of stratigraphic assessment and quantity of data

5.1.4 All handwritten and drawn records from the excavation have been collated, checked for consistency and stratigraphic relationships. Key data has been transcribed into a database, which can be updated during any further analysis. Preliminary phasing of archaeological features and deposits was principally undertaken using stratigraphic relationships and the spot dating from artefacts, particularly pottery.

5.2 Soil sequence and natural deposits

5.2.1 The soil sequence of the site comprised of a dark greyish brown silty clay with a rare amount of flint fragments, chalk nodules and pea grit, and modern debris, measuring between 0.3m and 0.5m in thickness. The topsoil overlaid the natural geology with comprised a chalk bedrock.

5.3 Late Bronze Age

Pits outside the enclosure ditch

5.3.1 A total of three pits were located outside of settlement enclosure ditch **222**.

5.3.2 Pit **138** was located close the northern edge of the excavation (**Plate 4**), close to pit **121**. The pit the sub-circular in shape with moderate concave sides and an undulating base, measuring 1.34m+ in length, 1.48m in width and 0.17m in depth. The feature contained a

single deliberate backfill of mid greyish brown silty clay with a moderate amount of worked flint, sparse pottery sherds and animal bone, and rare fired clay fragments. The majority of the artefacts were located within the middle of the feature.

5.3.3 Pit **121** was sub-oval in shape with irregular moderate sides and an undulating base, measuring 1.36m in length, 0.9m in width and 0.22m in depth. The feature contained a single deliberate backfill of mid greyish brown silty clay, with a rare amount of pottery sherds, animal bone and fired clay fragments.

5.3.4 Pit **204** was incomplete as it was cut by an evaluation trench, but likely to have been sub-circular in shape, with shallow concave sides and a concave base, measuring 1.12m in length, 1.3m in width, and 0.2m in depth. The feature contained a single secondary fill of mid brown silty clay with a sparse amount of pottery and animal bone mixed throughout.

Pits and postholes within the enclosure ditch

5.3.5 A total of 14 pits and 10 postholes were located within settlement enclosure ditch **222**, two of which were undated (**Figure 1**).

5.3.6 Pit **103** was subcircular in shape with irregular moderate sides and a concave base, measuring 1.53m in length, 1.38m in width and 0.36m in depth (**Plate 1**). The feature contained a single deliberate deposit of dark greyish brown silty clay, with a sparse amount of pottery sherds, fired clay fragments and worked flint mixed throughout.

5.3.7 Pit **105** was sub-circular in shape with moderate irregular sides and an undulating base, measuring 1.48m in length, 0.68m+ in width and 0.38m in depth. The feature continued beyond the limit of excavation to the south. The pit contained a single deliberate deposit of mid greyish brown silt loam with a large amount of Late Bronze Age/Early Iron Age pottery and fired clay and a small quantity of flint and animal bone.

5.3.8 Postholes **107** and **109** were located adjacent to each other forming a pair (**Plate 2**). Posthole **107** was sub-circular in shape with steep concave sides and a flat base, measuring 0.62m in diameter and 0.28m in depth. The feature contained a single deliberate deposit of dark greyish brown silty clay with a rare amount of animal bone, worked flint, charcoal flecks and a large, perforated clay weight (OBJ1). The evidence suggests that a large stone and a perforated clay weight were placed within the pit first and used as post packing, and then the silt and artefact mixture was then placed around.

5.3.9 Posthole **109** was sub-square in shape with irregular steep sides and a concave base, measuring 0.5m in diameter and 0.29m in depth. The feature contained a single deliberate backfill of dark greyish brown silty clay with a rare amount of pottery sherds and fired clay fragments.

5.3.10 Posthole **113** was sub-circular in shape with steep concave sides and a flat base, measuring 0.4m in diameter and 0.25m in depth. The feature contained a single deliberate backfill of dark greyish brown silty clay, with a sparse amount of pottery sherds, and a rare amount of animal bone throughout. The pottery sherds may have been used as packing around a post. The posthole was later cut by post-medieval tree throw **111**.

5.3.11 Postholes **117** and **142** were located close to one another forming a pair. Posthole **117** was sub-circular in shape with straight vertical sides and a flat base, measuring 0.5m in diameter and 0.24m in depth. The feature contained a single deliberate backfill of dark greyish brown silty clay with a rare amount of animal bone on the surface.

5.3.12 Posthole **142** was circular in shape with steep concave sides and a concave base, measuring 0.36m in diameter and 0.19m in depth. The feature contained a single deliberate backfill of mid greyish brown silty with a rare amount of pottery sherds and charcoal flecks throughout.

5.3.13 Pit **119** was sub-circular in shape with moderate concave sides and an undulating base, measuring 0.62m in length, 0.4m in width and 0.12m in depth. The feature contained a single deliberate deposit of mid greyish brown silt loam with a rare amount of pottery sherds mixed throughout.

5.3.14 Pits **123**, **125**, **127** and **129** were positioned close together forming a line of features (**Plate 3**). Pit **123** was irregular in shape with moderate convex sides and a concave base, measuring 0.48m in length, 0.44m in width and 0.21m in depth. The feature contained a single deliberate backfill of mid greyish brown silty clay, with a rare amount of pottery mixed throughout.

5.3.15 Pit **125** was circular in shape with moderate concave sides and a flat base, measuring 1.2m in length, 0.89m in width and 0.23m in depth (**Plates 3** & **5**). The feature contained a single deliberate deposit of dark greyish brown silty clay, with a common amount of pottery sherds, fired clay fragments, worked flint, animal bone and charcoal flecks. The artefacts within the fill were observed being spread throughout the fill, suggesting that the fill had been mixed prior to deposition. The pit cuts the upper fill of pit **150**.

5.3.16 Pit **129** was sub-circular in shape with irregular moderate sides and an undulating base, measuring 0.6m in length, 0.39 m in width and 0.18m in depth. The feature contained a single deliberate backfill of mid greyish brown silty clay with a moderate amount of pottery sherds located within the centre of the pit.

5.3.17 Pit **136** was sub-circular in shape with steep convex sides and a U-shaped base, measuring 0.64m in length, 0.54m in width and 0.23m in depth. The feature contained a single deliberate backfill of mid greyish brown silty clay, with a rare amount of pottery sherds, animal bone, worked flint fired clay fragments and charcoal flecks.

5.3.18 Postholes **144** and **146** were located close to one another forming a pair. Posthole 144 was oval in shape with irregular steep sides and a flat base, measuring 0.56m in length, 0.38m in width 0.3m in depth. The feature contained a single deliberate backfill with a rare amount of pottery sherds, worked flint and charcoal flecks.

5.3.19 Pit **150** was linear or sub-oval in shape, with moderate concave sides and a concave base, measuring 2.13m in length, 0.45m in width and 0.23m in depth (**Plate 5**). The feature contained a single deliberate backfill of mid greyish brown silty clay with a sparse amount of fired clay fragments, and a rare amount of pottery sherds, animal bone and worked flint mix throughout the fill. Pit **125** cut the upper fill of the pit to the east.

5.3.20 Pit **162** was sub-oval in shape with steep irregular sides and a narrow V-shaped base, measuring 1.05m in length, 0.74m in width and 0.48 m in depth (**Plate 6**). The pit contained two fills, the first being a deliberate deposit of dark greyish brown silty clay with a common amount of charcoal fragments, and a rare amount of pottery sherds and fired clay fragments, measuring 0.31m in thickness. The second fill was a deliberate backfill of dark greyish brown silty clay with a rare amount of pottery sherds, animal bones, fired clay fragments and charcoal flecks mixed throughout, measuring 0.31m in thickness.

5.3.21 Pit **165** was sub-circular in shape with steep concave sides and an undulating base, measuring 0.8m in length, 0.6m in width and 0.22m in depth. The feature contained a single deliberate deposit of mid greyish brown silty clay with a rare amount of pottery sherds, worked flint, fired clay fragments and charcoal flecks mixed throughout.

Quarry Pit 177

5.3.22 Quarry pit **177** was located within the centre of the excavated area, forming a large sub-rectangular shape with steep undulating sides and an undulating base, measuring 17.63m in length, 15.83m in width and 1.8m in depth (**Plates 10 and 11**). The north, west and south sides of the quarry pit were steep, almost vertical in places and likely formed the quarry face. The eastern side of the feature was moderately sloped and likely to have been the access 'ramp' down into the quarry itself. The southern edge of the quarry narrowly misses cutting Late Bronze Age enclosure ditch **222** and post medieval ditch **160** cuts across the northern part of the upper fill.

5.3.23 The quarry pit contained five fills. The first being a deliberate backfill of very light brown silt with an abundant amount of chalk nodules and a rare amount of flint nodules, pottery sherds and animal bone; measuring 1m in thickness and 2.78m in width. The first fill was located along the southern edge of the pit. The second fill was a deliberate backfill of light brown silt with a very common amount of chalk nodules and a sparse amount of flint nodules, measuring 0.6m in thickness. The second fill covers the whole base of the quarry pit. The third fill was a secondary fill of mid brown silty clay with a rare amount of pottery sherds and animal bone throughout, measuring 0.75m in thickness. The third fill also covered the whole of the quarry pit. The fourth fill was a deliberate backfill of light brown silt with a common amount of flint and chalk nodules, measuring 2.85m in width and 0.85m in thickness. This fill was located along the western edge of the quarry pit. The fifth fill was a secondary fill of dark brown silty clay with a rare amount of chalk pea grit and flint, measuring 0.53m in thickness.

Settlement Enclosure Ditch 222

5.3.24 Settlement enclosure ditch **222** was located within the southern half of the site forming a curvilinear shape (**Plates 8** & **9**) and contained within the enclosure ditch were a number of rubbish pits and postholes of the same date.

5.3.25 The enclosure ditch had steep convex sides which ended in a narrow U-shaped base, measuring 31.84m+ in length, 4.2m in width and 1.44m in depth. The ditch had eight slots excavated into it, all of which identified a varying number of fills, with the most containing 10 fills which are detailed below (**Figure 4**). The initial fill was a primary fill of loosely compacted light greyish brown silt with a very common amount of chalk nodules and a rare amount of chalk flecks, measuring 0.14m in thickness. The second fill was a primary fill of greyish white silt with an abundant amount of chalk nodules, measuring 0.15min in thickness. The third fill was a secondary fill of mid brown silt with an abundant amount of chalk nodules throughout, measuring 0.18m in thickness. The fourth fill was a secondary fill of mid greyish brown sandy silt with a rare amount of pottery sherds, animal bone and chalk nodules, measuring 0.27m in thickness. The fifth fill was a primary fill of light greyish white silt with an abundant amount of chalk nodules throughout located on the north side of the ditch, measuring 0.07m in thickness. The sixth fill was secondary fill of mid whit-brown silt with a common amount of chalk nodules throughout, measuring 0.24m in thickness. The seventh fill was a secondary fill of mid brown silt with a rare amount of pottery sherds, worked flint and animal bone, measuring 0.22m in thickness. The eighth fill was a secondary fill of mid greyish brown silty clay with a moderate amount of chalk nodules and a rare amount of flint nodules and charcoal fleck, measuring 0.21m in thickness. The ninth fill was a secondary fill of mid greyish brown silty clay with a common amount of chalk nodules

throughout, measuring 0.22m in thickness. The tenth fill was a secondary fill of dark greyish brown silty clay with a sparse amount of pottery sherds, animal bone and worked flint, and a rare amount of charcoal flecks throughout, measuring 0.47m in thickness. A small number of objects were also recovered from the ditch, which comprised of a chalk loom weight (OBJ2), a flint piercer (OBJ3), a flint scraper (OBJ4) and a clay weight (OBJ10).

5.3.26 Located within the northeast corner of the enclosure ditch was a deposit of disarticulated human remains (SK182), located close the northern edge of the ditch (**Figure 2**, **Plates 9** & **12**). The disarticulated remains were spread over a small area, located at a depth of approximately 0.5m below ground level at the base of the secondary fill close to the horizon with the next fill below.

5.3.27 Located 0.3m to the east-south-east were five bronze objects (OBJ6, 7, 8, 9 and 11) at approximately the same level as the human remains nearby (**Figure 2**).

5.3.28 The ditch was seen to line up exactly with a section of ditch recorded in the 2011 MOLA excavations at the adjacent site which exhibited a similar profile and fill sequence (**Figure 3**).

5.4 19th to 20th Century

5.4.1 The 19th/20th century was represented by one linear ditch **160**. The ditch was orientated east to west with shallow concave sides and a flat base, measuring 24.94m+ in length, 1.2m in width and 0.07m in depth. The feature contained a single secondary fill of mid brown silty clay, with a rare amount of CBM. The ditch cuts across the upper fill of quarry pit **177**.

5.5 Uncertain date

5.5.1 Pit **115** was sub-circular in shape with steep irregular sides and an undulating base, measuring 0.76m in length, 0.55m+ in width and 0.11m in depth. The feature continued beyond the limit of excavation to the south. The pit contained a single deliberate deposit of dark greyish brown silt loam, with a sparse amount of pottery sherds and a rare amount of burnt stone and worked flint mixed throughout.

5.5.2 Pit **127** was sub-oval in shape with moderate concave sides and a concave base, measuring 0.94m in length, 0.43m in width and 0.19m in depth. The feature contained a single deliberate backfill of mid greyish brown silty clay with a rare amount of animal bone throughout.

5.5.3 Pit **140** was circular in shape with moderate concave sides and a concave base, measuring 0.66m in length, 0.53m in width and 0.17m in depth. The feature contained a single deliberate backfill of dark greyish brown silty clay with a rare amount of flint and animal bone throughout.

5.5.4 Posthole **146** was sub-circular in shape with steep concave sides and a flat base, measuring 0.58m in length, 0.45m in width and 0.27m in depth. The feature contained a single deliberate backfill of mid greyish brown silty clay with a rare amount of charcoal flecks throughout.

5.6 Tree Throws

5.6.1 A total of seven tree throws were identified during the excavation, five of which were investigated.

5.6.2 Tree throw **111** was sub-circular in shape with moderate concave sides and an undulating base, measuring 1.64m in length, 0.84m in width and 0.12m in depth. The feature contained a single secondary fill of mid greyish brown silty clay with an iron horseshoe and a rare amount of animal bone. The tree throw cuts the upper fill of posthole **113**.

5.6.3 Tree throw **148** was sub-oval in shape with steep irregular sides and an undulating base, measuring 0.8m in length, 0.58m in width and 0.15m in depth. The feature contained a single secondary fill of mid greyish brown silty clay, with a rare amount of animal bone and worked flint throughout.

5.6.4 Tree throw **152** was irregular in shape with moderate concave sides and an undulating base, measuring 3.46m in length, 2.4m in width and 0.41m in depth (**Plate 5**). The feature contained a single secondary fill of mid brown silty clay, with a rare amount of pottery sherds, animal bone and worked flint through. The tree throw was later cut by enclosure ditch **222.**

5.6.5 Tree throw **158** was irregular in shape with undulating irregular sides and an undulating base, measuring 1m in length, 1.7m in width and 0.16m in depth. The feature contained a single secondary fill of mid brown silty clay with a rare amount of pottery sherds and animal boned located near to the surface. The tree throw was later cut by enclosure ditch **222**.

5.6.6 Tree throw **175** was sub-oval in shape with irregular concave sides and an undulating base, measuring 3m in length, 2m in width and 0.36m in depth. The feature contained a single secondary fill of mid greyish brown silty clay.

6 FINDS EVIDENCE

6.1 Introduction

6.1.1 Approximately 44 kg of finds were recovered during excavation. The assemblage ranges in date from Late Bronze Age to post-medieval. All finds have been cleaned (with the exception of the metal objects) and quantified by material type in each context; this information is summarised in Table 1 and presented by context in Appendix 1.

Table 1 Quantification of finds by material type

Material	Number	Weight (g)
Pottery		
Late Bronze Age/Early Iron Age	*476*	*4919*
Prehistoric	*5*	*11*
Romano-British	*2*	*35*
Medieval	*1*	*9*
Post-medieval	*2*	*20*
Sub-total	486	4994
Ceramic building material	4	176
Fired clay	291	17916
Flint	296	4534
Burnt flint	80	1523
Stone	4	8097
Copper alloy	5	572

Iron	2	189
Human bone	1 inhumation burial	
Animal bone	463	5442

6.2 Pottery

6.2.1 The assemblage has been quantified (sherd count and weight) by broad ware type (eg flint-tempered wares) within each context. The regional type series established by the Canterbury Archaeological Trust has been referred to for the single medieval sherd. The presence of identifiable vessel forms and other diagnostic features have been noted. The level of recording accords with the 'basic record', aimed at rapidly characterising an assemblage, and providing a comparative dataset (Barclay et al 2016, section 2.4.5). Table 2 gives the breakdown of the assemblage by ware type.

Table 2 Pottery totals by ware type

Period/ware	Number	Weight (g)
Bronze Age	**476**	**4919**
Flint-tempered ware	327	3062
Sand- and flint-tempered	146	1835
Sandy ware	3	22
Later prehistoric	**5**	**11**
Sandy ware	5	11
Romano-British	**2**	**35**
Grog-tempered ware	1	25
Oxidised ware	1	10
Medieval	**1**	**9**
Medieval Tyler Hill ware (M1)	1	9
Post-medieval	**2**	**20**
Redware	2	20
Total	**486**	**4994**

Late Bronze Age/Early Iron Age

6.2.2 A total of 476 sherds (4919 g) of Late Bronze Age/Early Iron Age pottery was recovered from two quarry pits, 11 other pits, six postholes, two tree throw hollows and one ditch. The largest groups came from ditch 222 (156 sherds, 1331 g), pit 105 (61 sherds, 617 g), pit 103 (57 sherds, 708 g), posthole 109 (35 sherds, 763 g) and quarry pit 177 (38 sherds, 344 g). The assemblage is in moderate to poor condition, with abraded surfaces and a mean sherd weight of 10.3 g.

6.2.3 The fabrics are dominated by flint-tempered wares (68.7% of the number of Late Bronze Age/Early Iron Age sherds), with sand- and flint-tempered wares also well represented (30.7%). Sandy wares are present but only as a very minor component (<1%). The flint-tempered wares include some very fine fabrics, tempered with abundant fine flint and often used for thin-walled vessels, as well as coarser types. The sand- and flint-tempered wares

are typically silty/fine sandy fabrics with sparse quantities of flint. Flint-tempered fabrics are synonymous with Late Bronze Age ceramics in this area; examples include Cliffs End Farm (Leivers 2015a), Highstead (Couldrey 2007), Monkton Court Farm (Macpherson Grant 1994), the Weatherless-Margate-Broadstairs Wastewater Pipeline (Jones 2009) and the East Kent Access Road (Leivers 2015b). The presence of a significant quantity of material with sandy matrices and sparse flint temper may relate to chronological factors, perhaps indicating this assemblage spans the Late Bronze Age/earliest Iron Age transition. A date range of *c*950-850/800 BC has been suggested for the ceramic assemblage from the adjacent Tothill Street site (MOLA 2019), and a similar range seems likely here too.

6.2.4 Identifiable forms in the flint-tempered wares include an out-turned squared rim, internally bevelled, probably from shouldered jar, recovered from posthole 144; a large (c. 260 mm) probable jar with finger-impressed/cabled rim from pit 103 and a second cabled rim fragment, also recovered from pit 103. Parallels for the cabled/finger-impressed rims include Cliffs End Farm (Leivers 2015a, fig. 5.2, 1-3), there dated to the 10th century BC. Decorated sherds comprise a body sherd with geometric decoration from quarry pit 177, a finger-impressed cordoned sherd from pit 103 and an applied cordon with deep incised diagonal lines from pit 105. A handle from posthole 144, in quite a coarse flint-tempered fabric, is 32 mm wide and 12 mm thick. It is similar to an example from Cliffs End Farm (Leivers 2015a, fig. 5.2, 8). At least two base sherds have flint-gritted bottoms.

6.2.5 The sand- and flint-tempered wares include a carinated vessel with slightly pinched out rim (posthole 109) and a slightly flared, long-necked, squared rim, probably from a shouldered jar or bowl (pit 138). Decorated vessels include a bowl from posthole 109, in a fine sandy fabric with sparse to moderate very fine flint and iron inclusions. The vessel profile is convex, the rim is squared and notched on exterior edge; the upper body is decorated with incised lines - two horizontal lines above and below a band of zig zag. A close parallel for this vessel has been noted from Fort-Harrouard, northern France (Mohen and Bailloud 1987, pl. 14, 5). Similar decorative motifs have also been recorded from Cliffs End Farm on a vessel of 9th century BC date (Leivers 2015a, fig. 5.3, 14) and at Highstead (Couldrey 2007, fig. 59, 33).

6.2.6 Several sherds in the flint-tempered and sand-and-flint-tempered wares have wiped or finger-smeared external surfaces. The few examples of evidence of use comprise external sooting. A small number of sherds also appear to be burnt.

6.2.7 The three sandy sherds include the base of a small crucible from posthole 109. The underside of the base displays evidence of being heated.

Other pottery

6.2.8 Ditch 222 contained 156 sherds (1331 g) of Late Bronze Age/Early Iron Age pottery, but also a small quantity of later sherds. A trimmed base with the abandoned start of a central perforation, in a grog-tempered fabric of Late Iron Age/early Romano-British date, was found in the same fill (203) as the disturbed remains of an inhumation burial and five Late Bronze Age copper alloy objects. A single sherd in a Romano-British oxidised ware came from fill 221; five sherds in a sandy fabric from fill 218 are only broadly dateable as later prehistoric. The latest sherd from this feature is one of post-medieval redware (fill 157).

6.2.9 A single sherd of Tyler Hill ware (*c* 1225–1350) was recovered from tree throw hollow 152.

6.3 Fired clay

6.3.1 The fired clay assemblage (291 fragments, 17,916 g) includes a portable object and probable structural material. The object, from pit 107 (ON 1), is a perforated weight, broadly

of pyramidal form, in a fine sandy fabric with common, poorly sorted, inclusions of chalk, up to 15 mm in size. It is incomplete, measuring greater than 150 mm x 110 mm x 90 mm; it weighs 2150 g. It has broken at the point of perforation, but this was approximately 10-15 mm in diameter. It may have been used in textile manufacture, to provide tension on a warp-weighted loom, or perhaps as a weight for other purposes. Perforated pyramidal weights were also found at the adjacent Tothill Street site (MoLA 2019, 16, fig. 24, S11).

6.3.2 The largest group of fired clay was found in pit 103. It comprises 33 fragments (6613 g) in a pale orange sandy clay with sparse chalk inclusions, organics, iron and rare flint. It includes a large, curved fragment with wattle impressions of 15 mm diameter, and a very thick (>80 mm) piece with two adjacent wattle impressions, also of 15 mm diameter. Similar groups came from pit 105 (44 fragments, 2079 g) and pit 162 (77 fragments, 3722 g). The remainder of the assemblage occurs in yellowish brown or orange silty/very fine sandy fabrics with sparse inclusions of chalk and occasional organics or pieces of flint. The group is generally amorphous with occasional wattle impressions. The fired clay assemblage is likely to derive from upstanding structures or ovens.

6.3.3 A small quantity (15 fragments, 506 g) of material that may derive from chalk or clay cob walls came from ditch 222. It is highly vesicular, resulting from expose to high temperatures.

6.4 Ceramic building material

6.4.1 The four pieces of ceramic building material (CBM) comprise a possible peg tile fragment in a reddish orange sandy fabric, of medieval or post-medieval date, and one flake, from tree throw hollow 152; a second probable peg tile fragment in a pale orange sandy fabric, came from ditch 160, and a possible brick fragment in a dark orange sandy fabric, but with no surfaces remaining, from quarry pit 177.

6.5 Flint

6.5.1 The worked flint has been quantified and the results tabulated by broad archaeological feature type. These results show that flint density across the site is generally low with only material from pit 138 containing increased quantities of artefacts. The initial assessment shows that artefacts are predominantly unpatinated and in mint condition. These attributes, together with characteristics of technology and retouched tools, indicates that the assemblage is largely of one period, Middle or more probably Late Bronze Age. The quantification shows that blades are virtually absent, reducing the likelihood of Mesolithic or Early Neolithic material; however, those blades that are present were largely exceptional by being among those pieces that were patinated, albeit lightly which stands in stark contrast to the remaining parts of the assemblage. The presence of early prehistoric material is highly probable, given the results of work by MOLA (2019), so it would be surprising if some residual material was not present. If the presence of patinated surfaces can be used to help identify residual material the observations show that this material forms only a small quantity within the assemblage.

6.5.2 The bulk of the collection is characterized by black flint, with occasional pieces of Bullhead flint, that is typical of the raw material from this part of Kent from the North Downs. However, reference to the ‘debitage’ component shows that nodules were often flawed by thermal inclusion which inhibited flaking quality.

6.5.3 Cores are also poorly represented, but follow the pattern often seen in collections of Late Bronze Age date; characterized by hard hammer percussion, poor core control and a lack of careful platform preparation. Retouched material is similarly infrequent but includes a piercer and flake with ‘miscellaneous’ retouch, attributes that are also common in later

industries. There is also a single Janus flake, a removal produced as a by-product of thinning bulbs of percussion, which are themselves produced as characteristics of hard hammer percussion.

6.5.4 Burnt flint was found in limited quantities: 569 g from pit 103; 737 g from pit 107; 36 g from posthole 109; 44 g from ditch 222 and 137 g from pit 125. This material type is intrinsically undatable but frequently associated with prehistoric activity.

6.6 Stone

6.6.1 The stone assemblage comprises four incomplete portable objects. Three of these are greensand saddle quern fragments, used in the processing of grain. The most complete, from pit 107, has lost approximately two thirds of its working surface, but was 320 mm long, 230 mm wide and 80 mm thick. The other examples came from pits 150 and 162. Saddle querns made of greensand from the Folkestone Beds were also recovered from the East Kent Access Road, found in Iron Age and Roman contexts (Shaffrey 2015).

6.6.2 Just under 50% of a perforated chalk disc was found in ditch 222 (fill 172). It measures 90 mm in diameter and 15 mm thick. Smaller chalk discs, probably used as spindle whorls, were found in Iron Age contexts at the East Kent Access Road (Shaffrey 2015, 139-141). This class of object has also been identified at Danebury (Brown 1984, 422-423).

6.7 Metalwork

6.7.1 The metalwork assemblage comprises five copper alloy objects and two of iron.

Copper alloy

6.7.2 The five copper alloy objects were found separately within context 203, spread over an area (c. 0.9 m long, 0.45 m wide, with a height discrepancy of c. 30 – 50 mm between them), close to the northern edge of ditch 222 (**Plate 13**). The disturbed remains of an adult inhumation burial (context 182) were found at approximately the same level, some 0.3 m away from the metal objects. Other finds from context 203 comprise 23 flint flakes (218 g; all in mint condition), 26 sherds of Late Bronze Age/Early Iron Age pottery (227 g) but also a trimmed base of Late Iron Age/Early Romano-British date, one piece of fired clay (ON 10; 96 g) probably of structural origin and 29 pieces (311 g) of animal bone. A summary of the copper alloy objects is provided in Table 3.

6.7.3 The ditch and surrounding features were intensively metal-detected by Wessex Archaeology staff, but no further metal objects were recovered from them, although it may be of relevance that a small, tightly packed cache of Ewart Park/Carp's Tongue metal objects was previously found in a pit on an adjacent site (MoLA 2019, 21, figs. 22 and 23, S1-5).

Table 3 Summary of copper alloy objects

Object number	Weight (g)	Description
6	9	Rounded tip of blade, possibly a knife.
7	17	Fragment from the mouth of a socketed axe.
8	6	Complete crescent-shaped decorative fitting. Rectangular cross-section, tapering towards blunt terminals. One flat face (3-5 mm wide) decorated with incised, multiple-line chevrons; the other is plain while the narrower faces (3 mm wide), forming the inside (c. 23% of 70 mm) and outside

		(80 mm) of the curve have 10 irregularly-spaced perforations c. 2 mm in diameter.
9	5	Three-cornered, perforated sheet metal fitting. Two straight sides (30 mm long) at right-angles, the third forms 20% of a circle of c. 55 m in diameter.
11	522	Roughly circular, plano-convex ingot, c. 90 mm diameter, 15 mm thick.

6.7.4 The Ebbsfleet Peninsula is an area with a known concentration of Late Bronze Age metalwork hoards, summarised by Perkins (1991) and Andrews *et al* (2009). Other examples include a hoard from Zone 4 along the East Kent Access Road (Fitzpatrick 2015) and the above-mentioned group from Tothill Street (MoLA 2019).

Iron

6.7.5 The two iron objects comprise part of a horseshoe, found in tree throw hollow 111, and a rod/shank fragment, possibly from a nail, from pit 125. The horseshoe is of broad web (30 mm at the widest point) with rectangular nail holes. Such types are broadly of later medieval date (Clark 1995, 88, Type 4).

6.8 Human bone

6.8.1 The disarticulated remains of an adult male skeleton (182) were redeposited within a partly filled Bronze Age enclosure ditch 222 (slot 189). The human bone had been placed in two heaps: skull, mandible, ribs and vertebrae in one, and femora, pelves and sacrum in the other. The cranium lay on its right side facing east with the mandible disarticulated to one side. Bone and teeth recovered from underlying and overlying ditch fills 202 and 203 are undoubtedly part of the same individual. Fragments of a copper alloy socketed axe, a blade and an ingot lay slightly to the east of the remains. It is unclear if these were deliberately placed grave goods to accompany the deceased or were more incidental inclusions. Animal bone was mixed with the human bone, whilst more cattle, sheep and pig bones and pottery were scattered throughout the ditch fills and were not clearly associated with skeleton. Nevertheless, it is very probable that, like the human remains, their inclusion within the ditch was intentional and was probably imbued with symbolic significance.

Results

6.8.2 Overall bone preservation was fair to good, with cortical bone surfaces having suffered slight chalky demineralisation and root etching, but with greater destruction of trabecular or spongy bone. Approximately 40% of the skeleton of a single young adult probable male (aged 25-35 years) (AlQahtani et al. 2010, Miles 1963, Lovejoy et al.1985; Schaefer et al. 2009) was present. Sieve-like lesions of cribra orbitalia in the orbits indicated that this individual had suffered mild childhood anaemia (Stuart-Macadam 1995, 102).

6.9 Animal bone

6.9.1 A total of 463 fragments (5.442 kg) of animal bone came from several pits, postholes and a ditched enclosure of Late Bronze Age/Early Iron Age date. Additional material was also recovered from several tree-throw holes. The assemblage was collected by hand during the normal course of excavation and once refits are considered the total count falls to 304 fragments (Table 4).

Table 4 Animal bone: number of identified specimens present (or NISP)

Species	Late Bronze Age/ Early Iron Age	Tree-throw hole	Total
Cattle	57	3	60
Sheep/goat	34	2	36
Pig	7	1	8
Horse	13	-	13
Dog	3	-	3
Red deer	1	-	1
Roe deer	-	1	1
Total identified	**115**	**7**	**122**
Total unidentifiable	**177**	**5**	**182**
Overall total	**292**	**12**	**304**

Methods

6.9.2 The assemblage was rapidly scanned and assessed following current guidelines (Baker and Worley 2019). Basic information was quantified into a relational database and cross-referenced with relevant contextual information including associated dating evidence.

Results

Preservation

6.9.3 The animal bones are in good condition and have intact cortical surfaces that show little sign of weathering or erosion. Details including butchery and gnaw marks are clear and easily observed. The low number of gnawed bones indicates that the assemblage has not been adversely affected by the bone chewing habit of scavenging carnivores.

Late Bronze Age/Early Iron Age

6.9.4 Animal bones came from eleven pits, including quarry pit 177, six postholes and enclosure ditch 222. Most of the identified bones are from cattle and sheep/goat, both of which are represented by a range of skeletal elements. The other bones are from horse, pig, dog and red deer.

6.9.5 Three of the pits contained relatively large numbers of animal bones. The bones from pit 109 comprise ten sheep/goat bones from juvenile animals, several of which are charred, together with a cattle thoracic vertebra. Pit 204 contained seven cattle bones including two mandibles and an articulated group of ankle and foot bones. A second articulated group from the ankle and foot of a horse were also recovered from this feature, together with the mandible from a juvenile sow. Several cattle and sheep/goat bones came from quarry pit 177, they include mandibles from two young adult cattle and the radius from a lamb, plus a number of other post-cranial elements. The other pits contained one or two identified bones each, with further horse bones (astragalus and first phalanx) from pits 125 and 138, a proximal piece of shed red deer antler from pit 107 and a dog pelvis from pit 103.

6.9.6 A few bones from livestock were recovered from postholes within the interior of ditched enclosure 222. Of note is a horse metatarsal from posthole 117 which shows earlier signs of a degenerative joint disease known as spavin.

6.9.7 The fills of enclosure ditch 222 were relatively bone-rich and included several large groups. Cattle and to a lesser degree sheep/goat, dominate the assemblage, with some horse bones also present and a few pig and dog bones. The broad range of cattle bone elements is consistent with the presence of whole carcasses, although with a slight emphasis on post-cranial elements, and several of the bones had been processed for marrow. By contrast the sheep/goat bone assemblage shows a strong bias towards heads and feet, with few meat-bearing skeletal elements present. A fragmented horn core, possibly from a goat, came from ditch slot 183. Horse bones comprising cranial fragments and bones from the forequarter were recovered from ditch slots. Pig is presented by a skull fragment and mandible from a single animal, and a humerus. The two dog bones include an ulna and the mandible from a puppy.

6.9.8 The animal bones recovered from the deposits above and below burial 182, on the north-east side of ditched enclosure 222, include the puppy mandible mentioned above, as well as several sheep/goat bones (loose teeth, pelvis, tibia and metapodials), a few cattle bones (two humeri, a metapodial and mandible), and two horse hones (scapula and metacarpal).

Tree-throw holes

6.9.9 A few cattle and sheep/goat bones, and single bones from a pig and roe deer, came from four tree-throw holes. A cattle metatarsal from tree-throw hole 152 shows similar butchery to several post-cranial bones recovered from Late Bronze Age/Early Iron Age ditched enclosure 222. The other bones from this feature include the mandible from a juvenile pig and the distal end of a roe deer humerus.

6.10 Conservation

6.10.1 The metal objects have been X-radiographed as part of the assessment phase. The copper alloy objects would benefit from some further conservation treatment (cleaning and stabilisation). As potentially unstable material types, the iron and copper alloy objects are all stored with supportive packaging and a desiccant (silica gel) to ensure a dry environment below 35% relative humidity.

6.11 Treasure

6.11.1 As a group of two or more base metal prehistoric objects from “the same find” (found in close proximity), the copper alloy objects from ditch 222 qualify as Treasure under the Treasure Act 1996 (Designation Order 2002). Consequently, the objects have been reported to the Coroner (case number 2020 T1000); the landowner has also been informed in writing and provided with details of the next steps in the process.

7 ENVIRONMENTAL EVIDENCE

7.1 Introduction

7.1.1 Two bulk sediment samples were taken from Late Bronze Age pits and were processed for the recovery and assessment of the environmental evidence.

7.2 Aims and Methods

7.2.1 The purpose of this assessment is to determine the potential of the environmental remains preserved at the site to address project aims and to provide data valuable for wider research

frameworks. The nature of this assessment follows recommendations set up by Historic England (Campbell et al. 2011).

7.2.2 The bulk sediment samples were each 32 litres in volume and were processed by standard flotation methods on a Siraf-type flotation tank; the flot retained on a 0.25 mm mesh, residues fractionated into 4 mm and 1 mm fractions. The coarse fractions (>4 mm) were sorted by eye and discarded. The environmental material extracted from the residues was added to the flots. The fine residue fractions and the flots were scanned using a stereo incident light microscopy (Leica MS5 microscope) at magnifications of up to x40 for the identification of environmental remains.

7.2.3 Different bioturbation indicators were considered, including the percentage of roots, the abundance of modern seeds and the presence of mycorrhizal fungi sclerotia (e.g. *Cenococcum geophilum*) and animal remains, such as burrowing snails (*Cecilioides acicula*), or earthworm eggs and insects, which would not be preserved unless anoxic conditions prevailed on site. The preservation and nature of the charred plant and wood charcoal remains, as well as the presence of other environmental remains such as terrestrial and aquatic molluscs and animal bone and, was recorded. Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000), for cereals. Abundance of remains is qualitatively quantified (A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5) as an estimation of the minimum number of individuals and not the number of remains per taxa. Mollusc nomenclature follows Anderson (2005).

7.3 Results

7.3.1 The flots from the bulk sediment samples were both 60ml (Table 7). There were high numbers of roots, low numbers of modern seeds and high numbers of the burrowing snail *Cecilioides acicula* that may be indicative of some stratigraphic movement and the possibility of contamination by later intrusive elements. Environmental evidence comprised plant remains poorly preserved by carbonisation, small amounts of mature wood charcoal and the remains of terrestrial, freshwater and marine molluscs. Small animal/fish bones and bone fragments were also noted.

7.3.2 Both samples produced fairly good numbers of charred cereal grains that included *Triticum* sp. (wheat), *Hordeum vulgare* (barley) and Triticeae (unidentified cereal grain fragments). Pit 103 (deposit 104) also contained an unidentified endocarp.

7.4 Discussion

7.4.1 Although poorly preserved, the presence of charred cereal grains does suggest that crop processing activities were occurring on the site, and along with the artefacts (burnt flint, CBM and bone) could be indicative of pit waste deposition practices. Mussel shell fragments and fish bones could indicate exploitation of wild foods, but their small numbers and high bioturbation indicators could also suggest the remains are residual/redeposited and would therefore have little significance. The volumes of wood charcoal present are too low for analysis. The presence of freshwater molluscs, including mussel fragments, and fish bones could indicate occasional flooding and the exploitation of freshwater resources nearby.

7.4.2 The endocarp may suggest the exploitation of wild food resources.

8 STATEMENT OF POTENTIAL

8.1 Stratigraphic potential

8.1.1 The primary significance of the investigation is represented by the evidence of the former Bronze Age settlement, represented by multiple pits/postholes and the sizable enclosure ditch, and the associated disarticulated human remains. The pottery evidence suggests a Late Bronze Age/Early Iron Age date, and the adjacent Tothill Street site was dated to the Late Bronze Age (MOLA 2019), suggesting the settlement was occupied towards the end of the Bronze Age, falling out of use by the Early Iron Age.

8.1.2 The stratigraphic relationships between the features, where present, were clearly defined during the excavation, meaning there is limited potential for additional assessment of the stratigraphic sequence within the site beyond further analysis of the artefactual evidence (discussed below).

8.2 Finds potential

8.2.1 The chronological evidence provided by the finds indicates activity during the Late Bronze Age/Early Iron Age. It is possible that the chronology could be further refined through detailed fabric and form analysis of the pottery, particularly as this assemblage contains both flint-tempered wares and more sandy wares with a much reduced focus on the inclusion of flint temper, a change that is likely to have chronological implications. The influence of Continental ceramics is evident, allowing consideration of the trade/exchange of objects and/or ideas. Evidence for other everyday domestic activities and economy is provided by the quernstones and animal bone. The rest of the finds assemblage has the potential to add to the narrative surrounding a number of aspects of Late Bronze Age/Early Iron Age life including raw material exploitation (flint, stone, pottery), craft processes such as textile-working and metalworking (fired clay, stone, flint, copper alloy) and structures (fired clay).

Metalwork

8.2.2 The copper alloy group can be added to the significant concentration of Late Bronze Age metalwork hoards already recorded around the Isle of Thanet. This rather small group may represent a collection of material collected for recycling (Andrew Fitzpatrick pers comm). Furthermore, many of the Thanet hoards contain ingots and provide evidence for an efficient industry producing quantities of weapons and tools, but also recycling scrap metal, probably from both sides of the Channel. The presence of a small crucible amongst the pottery provides further evidence of metalworking.

Human bone

8.2.3 Interment of unburnt disarticulated human remains within existing features, particularly ditches and pits, is known from the Early Bronze Age, but became the norm in southern England in the later Bronze and Iron Ages (Bruch 1995, 2001 and 2006), as cremation burial that characterised the Middle Bronze Age ceases to be the dominant rite (Cawell and Roberts 2008). That said, finds of redeposited human remains in this period are still rare. Histotaphonomic studies suggest that in the British Bronze Age disarticulation was achieved through exhumation of skeletonised remains and through excarnation, whilst radiocarbon modelling indicates that on average, disarticulated human remains were curated for two decades after death (Booth and Bruck 2020). Dispersal of the skeleton between contexts and deposition of isolated bones in ditches and pits is common in the later Bronze Age, but was not the case with burial 182, where a significant proportion of the skeleton is represented, albeit disarticulated. The human remains are also associated with several

artefacts, such as pottery, flint, animal bone and copper alloy objects, suggesting a ritual significance to their deposition within the ditch.

Animal bone

8.2.4 Most of the 122 identified bones came from features of Late Bronze Age/Early Iron Age date. The bones are in good condition and the assemblage offers some, albeit limited potential for further analysis to record age, biometric and butchery data (Table 5). This information will enhance the site archive and form the basis for a short report that summarises the animal bone evidence and its local significance.

Table 5 Animal bone: type and quantity of detailed information available

Type of information	Late Bronze Age/Early Iron Age
Age - epiphyseal fusion	35
Age - mandible 2+ teeth	10
Biometric	17
Butchery	21

8.3 Environmental potential

8.3.1 The assemblages retrieved have some potential for further work to provide information on the nature of the settlement and local agricultural practices. The analysis of the wood charcoal has no potential due to the low volumes of charcoal present.

8.4 Summary of potential

8.4.1 There is limited potential for further analysis of the stratigraphic and environmental evidence within the site. The primary future potential of the archive is based on the artefactual material, specifically the pottery, bone and metalwork.

9 UPDATED PROJECT DESIGN

9.1 Updated project aims

9.1.1 The site specific objectives as set out above have been fulfilled in respect of the 'in site' assessment. The 'barrow' ring ditch has been determined to be a large settlement enclosure ditch dating to the Late Bronze Age, along with the large quarry pit. As such the updated project aims are as follows

- Further refine the chronological sequence within the site and relate it to neighbouring settlement site;
- Analyse the type of deposition, components, date range and setting of the collection of copper alloy objects, in relation to the known hoards discovered on the Ebbsfleet peninsula;
- Attempt to determine the nature and date of the mortuary activity. Apply radiocarbon analysis of a sample of the human bone, and one of the associated animal bone, to clarify the date of the original funerary activity and allow the potential relationship – temporal and depositional – between the human remains and the other archaeological components within the deposits within ditch to be ascertained, and

- Place the site within its local and regional context through discussion of the results in relation to comparable sites, in terms of date and typology.

9.2 Stratigraphic evidence – recommendations for analysis

9.2.1 No further analysis of the stratigraphic sequence is required as there is no potential for further refinement of the sequence. The sequence should be set in their regional context, in concert with the adjacent Tothill Street site.

9.3 Finds evidence – recommendations for analysis

Pottery

9.3.1 Full fabric and form analysis is recommended for the prehistoric pottery, in accordance with the national guidelines (Barclay et al 2016, section 2.4.6) and the South East Research Framework (Champion 2011, 47). The Romano-British and post-Roman pottery has already been recorded to a sufficient level, so no further analysis is required. Up to eight vessels are suitable for illustration.

Fired clay, ceramic building material, flint and stone

9.3.2 The fired clay, ceramic building material, flint and stone have been recorded in sufficient detail at this stage but it is recommended that the perforated weights (in fired clay and stone) and one quern are drawn and photographed. The information provided here can be adapted for use in publication.

Metalwork

9.3.3 Comparands will be sought for the copper alloy objects. A report will be prepared for publication, discussing the objects within the context of other known hoards/area finds and metalworking evidence from the area. This will consider the research aims set out by Champion (2011, 48). The five pieces should be illustrated.

Human bone

9.3.4 Full analysis of the human remains has already been undertaken, but results will need to be written up for publication. Due to the relative rarity of Bronze Age ditch burial, and the probable association of this burial with at least three copper alloy objects and other artefacts, radiocarbon dating is strongly recommended to refine the date of the human remains. A second radiocarbon date on other organic remains (e.g. animal bone) within the ditch may be useful to explore the question of curation of human remains before their final deposition. More generally, scientific dating of the human remains will facilitate wider comparative analysis and will assist in further understanding the placing of the dead within the contemporaneous landscape.

Animal bone

9.3.5 Limited further analysis of the Late Bronze Age/Early Iron Age animal bone assemblage to record the data quantified in Table 5. Basic data analysis to provide a full description and interpretation of the animal bone evidence in the form of a short contribution towards publication of the fieldwork results.

9.4 Environmental evidence – recommendations for analysis

9.4.1 Both samples are proposed for analysis of the charred plant remains. All identifiable charred plant macrofossils will be extracted from the <5.6/4 residues and the flot, which may be subsampled with the aid of a riffle box in the case of very rich assemblages. The analysis will involve the full quantification (Antolín and Buxó 2011; Antolín et al. 2016) of the charred plant assemblages.

will ensure performance targets, be they academic or budgetary, are met within the agreed timetable.

9.9.2 The Project Manager may delegate specific aspects of the project to other key staff, who will supervise others and have a direct input into the compilation of the report. They may also liaise with external consultants and specialists who are contributing to the publication, and the recipient museum of the project archive.

9.9.3 The Project Manager will be assisted by the Senior Research Manager and the Research Director, who will help to ensure that the report meets internal quality standards as defined in Wessex Archaeology's guidelines.

10 STORAGE AND CURATION

10.1 Museum

10.1.1 The archive resulting from the excavation is currently held at the offices of Wessex Archaeology in Meopham. The region does not have a collecting museum. Every effort will be made to identify a suitable repository for the archive resulting from the fieldwork, and if this is not possible, Wessex Archaeology will initiate discussions with the local planning authority in an attempt to resolve the issue. If no suitable repository is identified, Wessex Archaeology will continue to store the archive, but may institute a charge to the client for ongoing storage beyond a set period.

10.2 Preparation of the archive

10.2.1 The archive, which includes paper records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material, and in general following nationally recommended guidelines (SMA 1995; CIfA 2014c; Brown 2011; ADS 2013).

10.2.2 All archive elements are marked with the **site code**, and a full index will be prepared. The physical archive comprises the following:

- 11 cardboard boxes or airtight plastic boxes of artefacts and ecofacts, ordered by material type
- 2 file/document cases of paper records and A3/A4 graphics

10.3 Selection policy

10.3.1 Wessex Archaeology follows national guidelines on selection and retention (SMA 1993; Brown 2011, section 4). In accordance with these, and any specific guidance prepared by the museum, a process of selection and retention will be followed so that only those artefacts or ecofacts that are considered to have potential for future study will be retained. The selection policy will be agreed with the museum and fully documented in the project archive.

10.3.2 In this instance, the following selection strategy is proposed.

- Pottery (486 sherds). Predominantly Late Bronze Age/Early Iron Age assemblage with local significance and potential for further analysis. Retain all.
- Fired clay (296 fragments). Assemblage of Late Bronze Age/Early Iron Age date. Includes one perforated weight – retain. Remainder of assemblage comprises

undiagnostic fragments, assumed to be structural; some wattle impressions. Limited further research potential; retain pieces with wattle impressions only.

- Ceramic building material (4 pieces). Small assemblage of post-Roman date, where identifiable. No further potential. Retain none.
- Worked flint (296 pieces). Assemblage of Late Bronze Age date. Some further research potential. Retain all.
- Burnt flint (80 pieces). Little or no archaeological significance; no further potential. Retain none.
- Stone (4 pieces). All portable objects of Late Bronze Age/Early Iron Age date. Retain all.
- Copper alloy (5 objects). Five objects of regional significance and reported to the Coroner. Retain all.
- Iron (2 objects). Two objects of later medieval date (horseshoe) or undated (rod/shank). Do not retain.
- Animal bone (463 fragments). Small Late Bronze Age/Early Iron Age assemblage (446 fragments) with limited further potential but locally significant. Retain all. Small quantity (17 fragments) from tree-throw holes of little intrinsic value. Retain none.
- Environmental material. Some of the material retrieved from environmental samples merit retention with the site archive for future access. This is a summary of proposals for a site-specific Selection Strategy made in (Appendix 2): All analysed materials (charred and waterlogged plant remains, mollusca, etc) will be retained.

10.4 Security copy

10.4.1 In line with current best practice (e.g., Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

10.5 OASIS

10.5.1 An OASIS (online access to the index of archaeological investigations) record (http://oasis.ac.uk/pages/wiki/Main) has been initiated, with key fields completed (Appendix 5). A .pdf version of the final report will be submitted following approval by the County Archaeologist on behalf of the LPA. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service (ADS) ArchSearch catalogue.

11 COPYRIGHT

11.1 Archive and report copyright

11.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was

produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*. In some instances, certain regional museums may require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.

11.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research or development control within the planning process.

11.2 Third party data copyright

11.2.1 This document and the project archive may contain material that is non-Wessex Archaeology copyright (e.g., Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of *the Copyright, Designs and Patents Act 1988* with regard to multiple copying and electronic dissemination of such material

REFERENCES

ADS 2013 *Caring for Digital Data in Archaeology: a guide to good practice*. Archaeology Data Service and Digital Antiquity Guides to Good Practice

ALGAO 2015 *Advice Note for Post-Excavation Assessment.* Association of Local Government Archaeological Officers

AlQahtani, S J, Hector, M P and Liversedge, H M 2010 Brief communication: the London atlas of human tooth development and eruption; *American Journal of Physical Anthropology* 142, 481-490

Anderson, R 2005 An annotated list of the non-marine Mollusca of Britain and Ireland

Andrews, P. Booth, P, Flitzpatrick, A. P., and Welsh, K, 2015 *Digging at the Gateway. Archaeological Landscapes of South Thanet. The Archaeology of the East Kent Access (Phase II), Volume I: The Sites*

Andrews, P, Egging Dinwiddy, K, Ellis, C, Hutcheson, A, Philpotts, C, Powell, A B and Schuster, J, *Kentish Sites and Sites of Kent. A miscellany of four archaeological excavations*. Salisbury, Wessex Archaeology Rep 24

ASE 2018 *Archaeological Desk-Based Assessment: Land adjacent to Premier Inn, Laundry Road, Minster, Ramsgate, Isle of Thanet.*

ASE 2020 *Archaeological Evaluation Report: Land adjacent to Premier Inn, Laundry Road, Minster-in-Thanet, Kent.*

Baker P, and Worley F, 2019 *Animal Bones and Archaeology: recovery to archive*. Historic England Handbooks for Archaeology

Barclay, A, Knight, D, Booth, P and Evans, J 2016 *A Standard for Pottery Studies in Archaeology,* Prehistoric Ceramics Research Group, Study Group for Roman Pottery and Medieval Pottery Research Group

British Geological Survey online viewer http://mapapps.bgs.ac.uk/geologyofbritain/home.html (accessed 03/12/2020)

Booth, T and Bruck, J 2020 Death is not the end: radiocarbon and histo-taphonomic evidence for curation and excarnation of human remains in Bronze Age Britain, *Antiquity*, 94, 1186-1203

Brown, L 1984 Objects of stone, in B Cunliffe, *Danebury. An Iron Age Hillfort in Hampshire. Volume 2 the excavations 1969-1978: the finds.* London, CBA Res Rep 52, 407-426

Brown, D H 2011 *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (revised edition). Archaeological Archives Forum

Bruck, J 1995 A place for the dead: the role of human remains in late Bronze Age Britain, *Proc Prehistoric Soc*, 61, 245-277

Bruck, J 2001 Body metaphors and technologies of transformation in the English middle and late Bronze Age, in Bruck, J (ed), *Bronze Age landscapes: tradition and transformation*, 149-161. Oxford, Oxbow Books

Bruck, J 2006 Fragmentation, personhood and the social construction of technology in middle and late Bronze Age Britain, *Cambridge Archaeol J* 16, 297-315

Campbell, G, Moffett, L and Straker, V 2011 *Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (second edition). Portsmouth: English Heritage

Cawell, E, and Roberts, B W 2018 Reassessing community cemeteries: cremation burials in Britain during the middle Bronze Age (c. 1600-1150 cal. BC), *Proc Prehistoric Soc* 84, 329-357

Champion, T 2011 Middle Bronze Age to Iron Age. South East Research Framework Resource Assessment and Research Agenda for the Middle Bronze Age to Iron Age periods (2011 with additions in 2018 and 2019). Available at Defence Archaeology (kent.gov.uk)

CIfA 2014a *Standard and Guidance for Archaeological Excavation*. Reading, Chartered Institute for Archaeologists

CIfA 2014b *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*. Reading, Chartered Institute for Archaeologists

CIfA 2014c *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives* (revised edition June 2020). Reading, Chartered Institute for Archaeologists

Clark, J (ed) 1995 *The Medieval Horse and its Equipment*, *c1150-1450*. London: HMSO

Couldrey, P 2007 The Late Bronze Age/Early Iron Age pottery, in P Bennett, P Couldrey and N Macpherson-Grant, N *Highstead near Chislet, Kent, 101-175.* Canterbury, Canterbury Archaeological Trust

English Heritage 2011 *Environmental Archaeology: a guide to theory and practice of methods, from sampling and recovery to post-excavation*. Swindon, Centre for Archaeology Guidelines

Fitzpatrick, A P 2015 Bronze Age metalwork, in P Andrews, P Booth, A P Fitzpatrick and K Welsh, *Digging at the Gateway. Archaeological landscapes of south Thanet,* 37-42. Oxford/Salisbury: Oxford Wessex Archaeology Monogr 8

Jones, G P 2009 Later Bronze Age pottery, in P Andrews, K Egging Dinwiddy, C Ellis, A Hutcheson, C Philpotts, A B Powell and J Schuster, *Kentish Sites and Sites of Kent. A miscellany of four archaeological excavations,* 85-89. Salisbury, Wessex Archaeology Rep 24

Kent County Council forthcoming. Southeast Research Framework. Available at: https://www.kent.gov.uk/leisure-and-community/history-and-heritage/south-east-research-framework

Leivers, M 2015a Prehistoric pottery, in J I McKinley, M Leivers, J Schuster, P Marshall, A J Barclay and N Stoodley, *Cliffs End Farm Isle of Thanet, Kent. A mortuary and ritual site of the Bronze Age, Iron Age and Anglo-Saxon period,* 145-162. Salisbury, Wessex Archaeology report 31

Leivers, M 2015b Prehistoric pottery, in P Andrews, P Booth, A P Fitzpatrick and K Welsh, *Digging at the Gateway. Archaeological landscapes of south Thanet,* 167-191. Oxford/Salisbury: Oxford Wessex Archaeology Monogr 8

Lovejoy, C O, Meindl, R S, Pryzbeck, T R and Mensforth, R P 1985 Chronological metamorphosis of the auricular surface of the ilium: A new method for the determination of adult skeletal age at death, *American Journal of Physical Anthropology* 68, 15-28

Macpherson-Grant, N 1994 The pottery, 248-287 in D R J Perkins, N Macpherson-Grant and E Healy, Monkton Court Farm evaluation, 1992. *Archaeologia Cantiana* 114, 237-316

McKinley, J I and Roberts C 1993 *Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains*. Reading. CIfA Technical Paper 13

Miles, A E W, 1963 Dentition in the assessment of individual age, in D Brothwell (ed), *Dental anthropology*, 191-209. New York, MacMillan

Mohen, J-P et Bailloud, G 1987 *La Vie Quotidienne, Les Fouilles du Fort-Harrouard.* Paris, Picard

MOLA 2019 *Prehistoric and Roman settlement at Tothill Street, Minster in Thanet, Kent*. Available at: https://www.kentarchaeology.org.uk/10/042.pdf

Moody, G. 2008 *The Isle of Thanet from prehistory to the Norman Conquest*. Stroud.

Perkins, D R J 1991 A Late Bronze Age hoard found at Monkton Court Farm, Thanet. *Archaeologica Cantiana* 109, 247-264

Schaefer, M, Black, S and Scheuer, L, 2009 *Juvenile osteology- a laboratory and field manual.* Elsevier (Burlington, San Diego, USA, and London)

Shaffrey, R 2015 Worked stone, in P Andrews, P Booth, A P Fitzpatrick and K Walsh *Digging at the Gateway. Archaeological landscapes of south Thanet,* 135-149. Oxford/Salisbury: Oxford Wessex Archaeology Monogr 8

SMA 1993 *Selection, Retention and Dispersal of Archaeological Collections*. Society of Museum Archaeologists

SMA 1995 *Towards an Accessible Archaeological Archive*. Society of Museum Archaeologists

Stace, C 1997 *New flora of the British Isles* (2nd edition). Cambridge, Cambridge University Press

Stuart-Macadam, P 1991 Anaemia in Roman Britain: Poundbury Camp, in H Bush and M Zvelebil (eds) *Heath in past societies- biocultural interpretations of human skeletal remains in archaeological contexts,* 101-114. Oxford: Brit Archaeol Rep Int Ser 567

Wessex Archaeology 2020 *Land south of Laundry Road, Minster, Kent. Written Scheme of Investigation for Archaeological Strip, Map and Sample Excavation*. Unpublished report ref. 238360.1

Zohary, D and Hopf, M 2000 *Domestication of plants in the Old World: the origin and spread of cultivated plants in West Asia, Europe, and the Nile Valley* (3rd edition). Oxford, Clarendon Press

APPENDICES

Appendix 1 Quantification of finds by context and material type (number/weight in g)

	LBA/EIA Pottery		Prehistoric pottery		Roman pottery		Medieval pottery		Post-medieval pottery		Fired clay		CBM		Flint		Burnt flint		Stone		Copper alloy		Iron		Human bone	Animal	
Context	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**Wg (g)**	**No.**	**No.**	**Wg (g)**
101															6	93											
104	57	708									33	6613			44	232	53	569								5	45
106	61	617									44	2079			3	8										4	30
108	5	151									30	2240			1	19	17	737	1	6200						11	105
110	35	763									3	318			1	11	4	36								37	123
112																							1	187		2	4
114	14	145													1	33										3	74
118															2	35										3	64
120	3	27													1	1											
122	1	8													1	1										1	1
124	2	15																									
126	19	205									35	1083			24	466	5	137					1	2		6	62
128																										1	10
130	15	156							1	14																1	1
132	1	15													4	72											
135	2	8													3	36										9	193
137	1	6									1	6			1	76										1	2
139	17	110									1	5			102	1860										12	140
141															1	60										7	14
143	7	24																									
145	11	64													1	8										1	6
149															1	8										1	1

151	11	103									29	494			8	189			1	313							
153	1	6					1	9					2	16	5	76										6	50
157	3	39							1	6	1	13			1	12										3	3
159	1	2									1	19														8	156
161													1	29													
163	2	36									10	110														9	60
164	5	26									67	3612			1	5			1	1522						13	101
166	8	31									1	2			2	11											
168	1	13													4	34										2	290
172	10	96									2	16			9	220			1	62						3	18
174	14	189									7	580			6	72										19	370
178	9	65									2	45			1	22										12	75
180	29	279									1	16	1	131	11	277										22	523
182															1	2											
186	2	19													2	1											
188	9	53													2	19										11	282
193	3	18																								3	24
195																										1	9
196	4	9									3	20			3	52										6	13
199	2	12									5	390			4	44										40	608
201															1	13										39	108
202																									Partial	23	55
203	26	227			1	25					1	96			23	218					5	572			Partial	29	311
205	3	18																								38	586
210	2	43									1	6			3	45										4	37
213															1	39										6	109
216	47	357									3	55			9	156	1	44								35	600
218	8	135	5	11							7	24														7	57

219	2	16																							2	26
220	10	30									3	74													2	5
221	13	75			1	10									2	8									15	91
Total	**476**	**4919**	**5**	**11**	**2**	**35**	**1**	**9**	**2**	**20**	**291**	**17916**	**4**	**176**	**296**	**4534**	**80**	**1523**	**4**	**8097**	**5**	**572**	**2**	**189**	**1 burial**	**463**	**5442**

Appendix 2 Selection Strategy

3 MATERIALS			
Material Type:	Environmental material	**Page**	3.2
Stakeholders	Wessex Archaeology Environmental Manager Wessex Archaeology Archive Manager, Project Manager County Archaeologist for Kent County Council		

SELECTION STRATEGY
Processing strategy: All environmental sampling has been undertaken following a site-specific sampling strategy or Wessex Archaeology's in-house guidance, which adheres to the principles outlined in Historic England's guidance (English Heritage 2011 and Historic England 2015a) and as stated in the relevant WSIs. All environmental samples collected and suitable to address project aims and research objectives, as deemed by Wessex Archaeology's Environmental team, have been processed and assessed.

Environmental material type	**Selection strategy**
Assessed or analysed flots with extracted materials	All analysed samples will be retained.
Analysed materials (charred and waterlogged plant remains, mollusca, etc)	All analysed materials will be retained.

DE-SELECTED MATERIAL
De-selected material and finds from samples will be responsibly disposed of after processing and post-ex recording.

AMENDMENTS
Amendments to the selection strategy for environmental material will be agreed with Stakeholders prior to implementation and recorded in the project archive.

Appendix 3 Environmental Data

Table 7 Assessment of the environmental evidence

Feature	Context	Sample	Vol (l)	Flot (ml)	Bioturbation proxies	Grain	Chaff	Cereal Notes	Charred Other	Charred Other Notes	Charcoal > 2mm (ml)	Charcoal	Other (type and abundance)	Comments (Preservation: fragmentation and erosion)
125	126	1	32	60	70%, *Cecilioides acicula* (A***), I	A	-	*Triticum* sp., *Hordeum vulgare,* Triticeae	-	-	1.25	Mature	Moll-t (A), Sab/f	Poor
103	104	2	32	60	70%, *Cecilioides acicula* (A***), C, I	A	-	*Triticum* sp., *Hordeum vulgare,* Triticeae	C	Indet. endocarp	1	Mature	Moll-t (A*), Moll-f (C), Sab/f	Poor

Key: Scale of abundance: A*** = exceptional, A** = 100+, A* = 30-99, A = 30-10, B = 9-5, C = <5; Bioturbation proxies: Roots (%), Uncharred seeds (scale of abundance), F = mycorrhizal fungi sclerotia, E = earthworm eggs, I = insects; Sab/f/c = small animal/fish bones/charred faecal pellets, Moll-t = terrestrial molluscs, Moll-f = aquatic molluscs.

Appendix 4 Kent HER Form

Site Name: Land south of Laundry Road, Minster, Kent	
Site Address: Laundry Road, Minster, Kent CT12 4AG	
Summary of discoveries: Settlement activity, inhumation burial and quarrying	
District/Unitary: Thanet	**Parish:** Minster
Period(s): Late Bronze Age, Post-medieval, Undated	
NGR (centre of site to nearest 1m): 631231 165570 **(NB if large or linear site give multiple NGRs)**	
Type of archaeological work (delete) Excavation	
Date of fieldwork (dd/mm/yy) From: 26/10/2020 **To:** 11/11/2020	
Unit/contractor undertaking recording: Wessex Archaeology	
Geology: Margate Chalk Member with no superficial geology (BGS online viewer)	
Title and author of accompanying report: Title: Land south of Laundry Road, Minster, Kent. Archaeological Strip, Map and Sample Excavation. Authors: Jon Sanigar	
Summary of fieldwork results (begin with earliest period first, add NGRs where appropriate) The excavation identified a large number of archaeological features and deposits, with a concentration within the southern half of the site. The features comprised of 18 rubbish pits, 11 postholes, a curvilinear settlement enclosure ditch, a post medieval ditch, 7 tree throws and a quarry pit. The majority of the features dated to the Late Bronze Age which was represented by refuse pits and postholes located within a large curvilinear enclosure ditch, with the exception of three pits located outside the enclosure. The archaeological evidence suggests features related to a settlement, as the pits, postholes and enclosure ditch contained a moderate amount of domestic debris such as pottery sherds, animal bone, worked flint, fired clay fragments. The artefacts also included flint tools, worked stone, perforated clay weights. In addition, disarticulated human remains were located within the enclosure ditch along with five copper alloy objects dating to the Bronze Age, all of which were located close to one another and are believed to represent grave goods. A large sub-rectangular quarry pit occupied the majority of the excavation area which was dated to the Bronze Age. Two features were dated to the post-medieval period, comprising a linear ditch and a single tree throw.	
Location of archive/finds: Wessex Archaeology Meopham Office	
Contact at Unit: Rob De'Athe	**Date:** 15/07/2021

Appendix 5 OASIS record

OASIS ID: wessexar1-426104

Laundry Road, Minster, Kent

An archaeological excavation was undertaken on land south of Laundry Road, Minster. The excavation identified a large number of archaeological features and deposits, with a concentration in the southern half of the site. The features comprised of 18 rubbish pits, 11 postholes, a curvilinear settlement enclosure ditch, a post medieval ditch, 7 tree throws and a large quarry pit. The majority of features dated to the Late Bronze Age.

Start: 26-10-2020 End: 11-11-2020

Yes / No

238360 - Contracting Unit No.

F/TH/19/0215 - Planning Application No.

Recording project

None

Vacant Land 2 - Vacant land not previously developed

DITCH Post Medieval

DITCH Bronze Age

BURIAL Bronze Age

PIT Bronze Age

PIT Uncertain

POSTHOLE Bronze Age

POSTHOLE Uncertain

QUARRY PIT Bronze Age

HUMAN BONE Bronze Age

ANIMAL BONE Bronze Age

QUERN Uncertain

COPPER ALLOY OBJECTS Bronze Age

POTTERY Bronze Age

FIRED CLAY Bronze Age

WEIGHT Bronze Age

FLINT Late Prehistoric

CBM Uncertain

CHALK DISK Late Prehistoric

COPPER ALLOY SOCKETED AXE Bronze Age

COPPER ALLOY INGOT Bronze Age

HORSESHOE Medieval

IRON OBJECT Uncertain

"Part Excavation"

Planning condition

England

KENT THANET MINSTER Laundry Road, Minster, Kent

CT12 4AG

1200 Square metres

TR 31231 65570 51.341456309588 1.320480880241 51 20 29 N 001 19 13 E Point

Wessex Archaeology

Taylor Associates

Wessex Archaeology

Rob De'Athe

Jon Sanigar

Consultancy

Taylor Associates

238360

"Animal Bones","Ceramics","Environmental","Human Bones","Metal","Worked stone/lithics"

238360

"Database","Images raster / digital photography","Spreadsheets","Survey","Text"

238360

"Context sheet","Diary","Drawing","Report"

Grey literature (unpublished document/manuscript)

Land to the south of Laundry Road, Minster, Kent: Archaeological Strip, Map and Sample Excavation

Sanigar, J

Souter, A

238360.3

2020

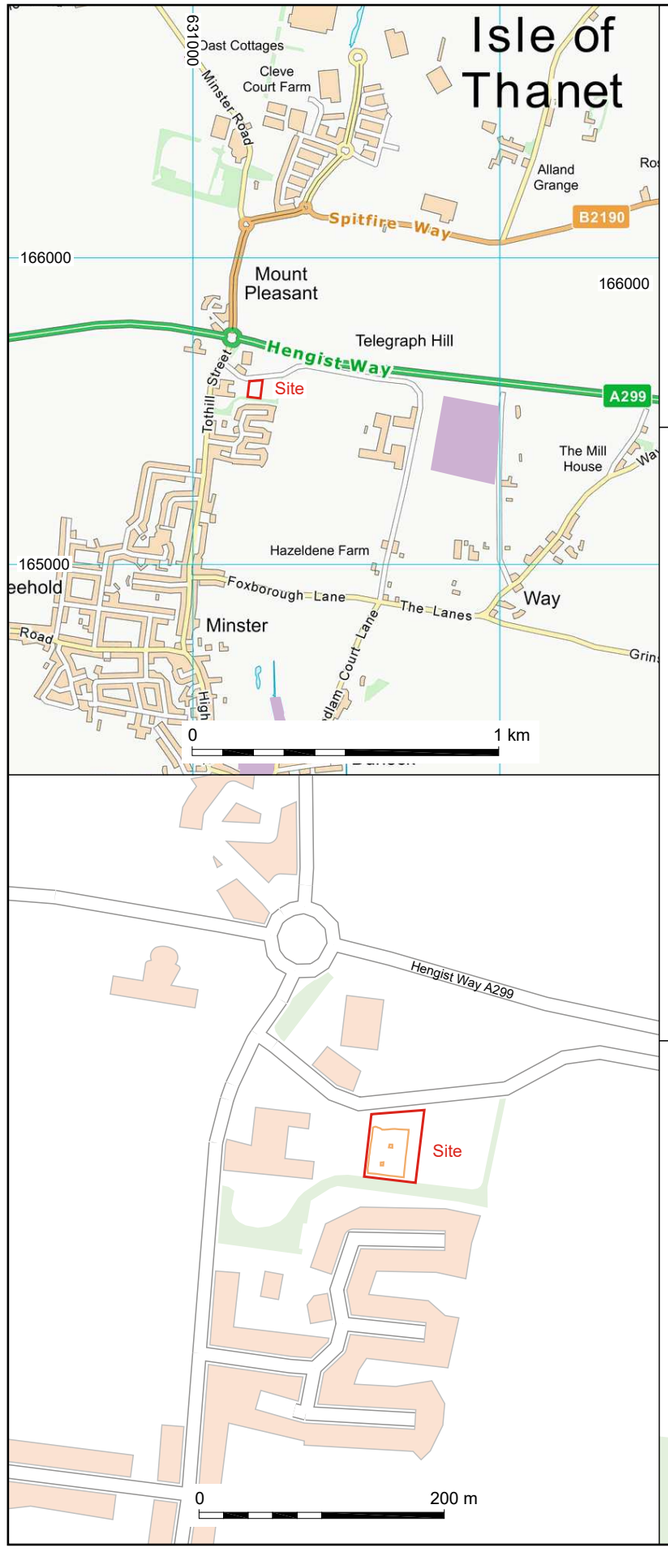
Wessex Archaeology

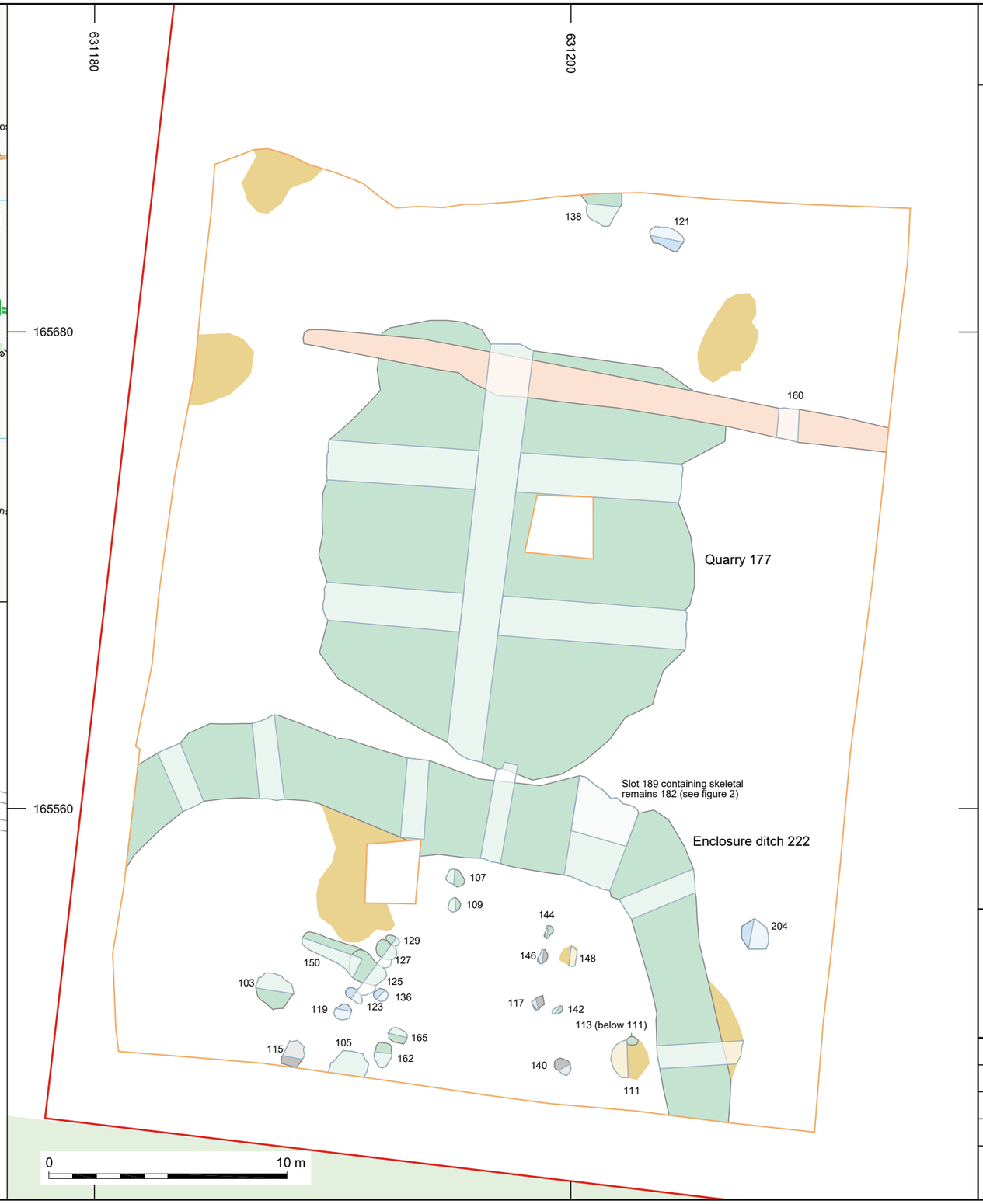
Meopham

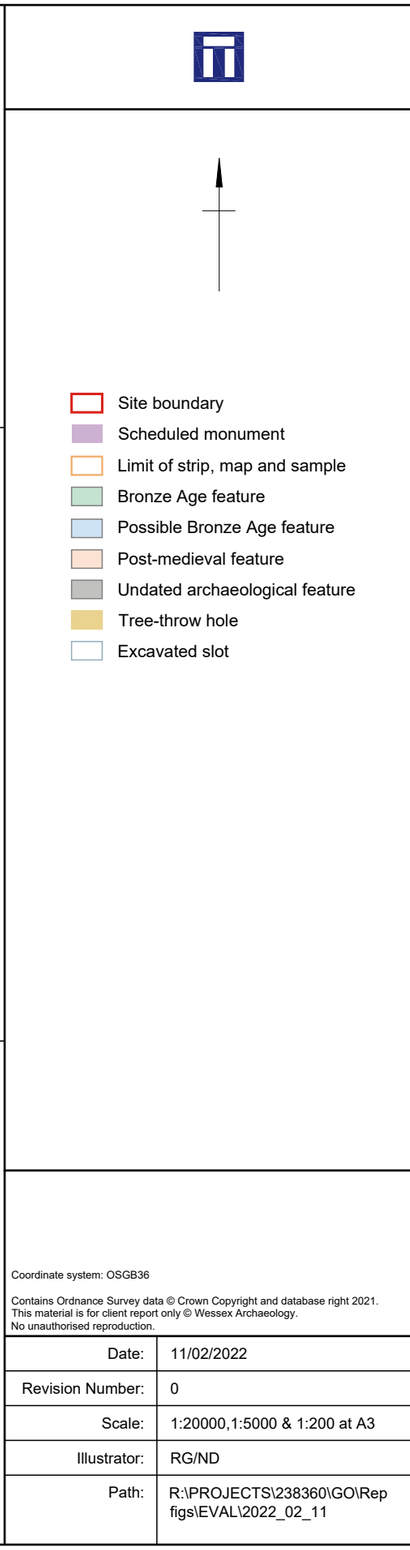
A4/3, comb bound, clear plastic covers, in colour

Andrew Souter (a.souter@wessexarch.co.uk)

15 July 2021







Coordinate system: OSGB36

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Revision Number:	0
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Site location and results

Figure 1

Date:	11/02/2022	Revision Number:	0
Scale:	1:12.5 at A4	Illustrator:	RG
Path:	R:\PROJECTS\238360\Graphics_Office\Rep figs\EVAL\2022_02_11		

Coordinate system: OSGB36

Orthographic view of skeletal remains (182) in enclosure ditch 222 (slot 189)

Figure 2

631150

631200

165600

165550

Quarry 177

Enclosure ditch 222

0 20 m

Site boundary
Limit of strip, map and sample
Bronze Age feature
Possible Bronze Age feature
Post-medieval feature
Undated archaeological feature
Tree-throw hole
Approximate location of Mola excavations

Coordinate system: OSGB36

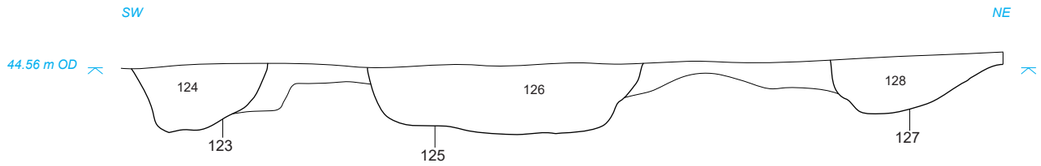
MOLA data published @www.kentarchaeology.org.uk
Prehistoric and Roman settlement at Tothill Street, Minster in Thanet, Kent
by J Cotton *et al*.

Date:	05/07/2021
Revision Number:	0
Scale:	1:500 at A3
Illustrator:	RG
Path:	R:\PROJECTS\238360\Graphics_ Office\Rep figs\EVAL\2021_07_05

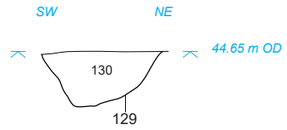
Archaeological results with results of MOLA excavation (2011)

Figure 3

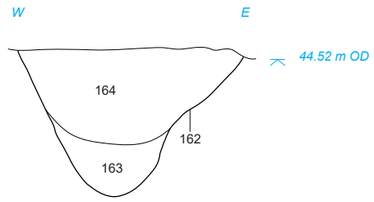
A. South-east facing section of pits 123, 125 and 127



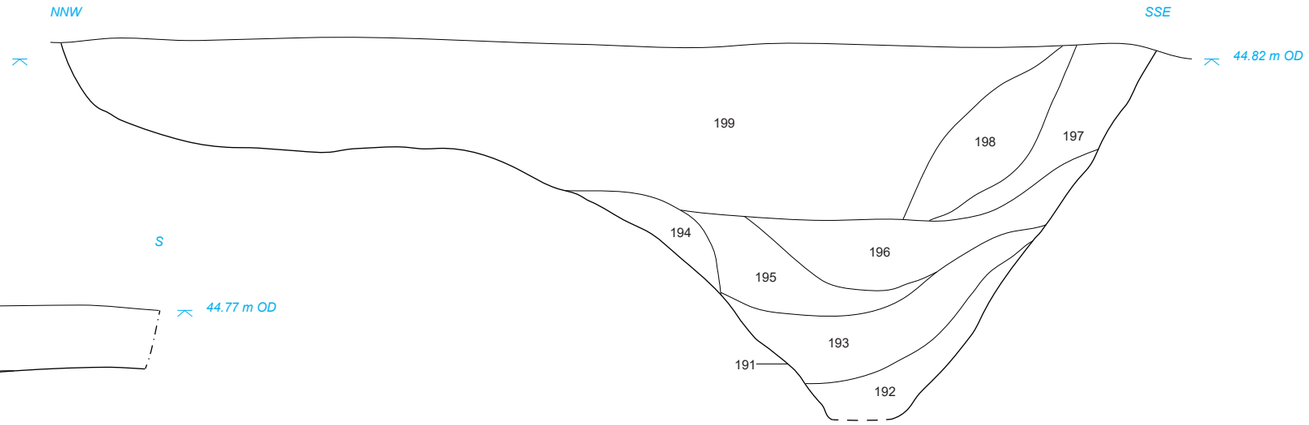
B. South-east facing section of pit 129



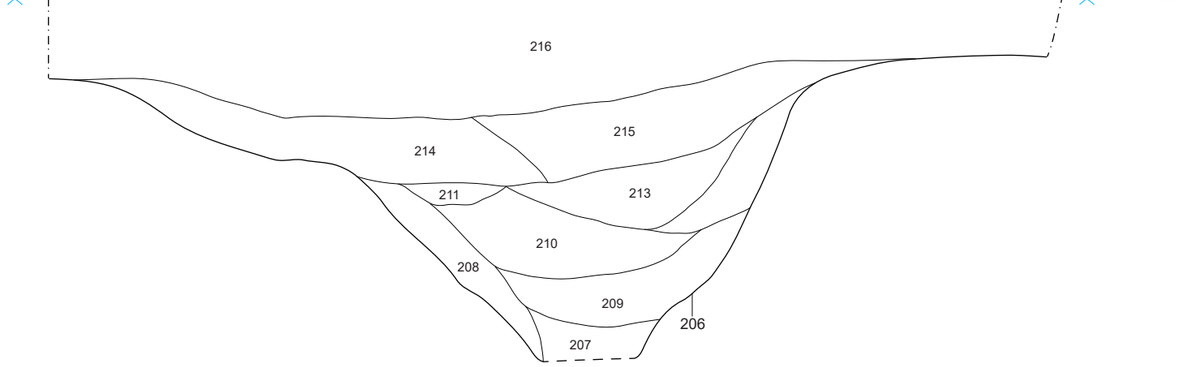
C. South-facing section of pit 162



D. West-south-west facing section of ditch 191



E. West facing section of ditch 206



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Path:	R:\PROJECTS\238360\Graphics_Office\Rep figs\EVAL\2022_02_11		

Sections

Figure 4

Plate 1: North facing section of pit 103

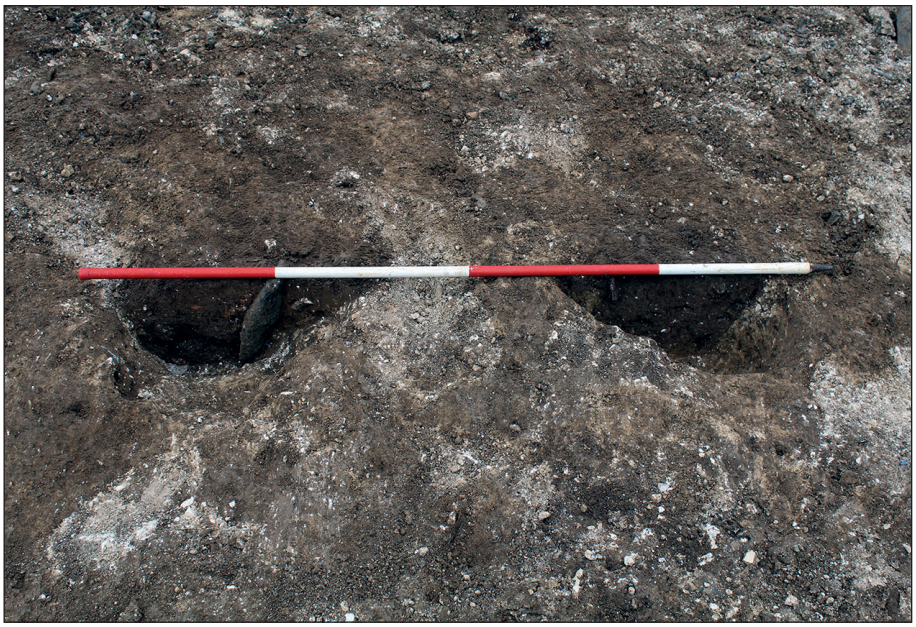

Plate 2: West facing sections of postholes 107 and 109

Date:	05/07/2021	Revision Number:	0
Scale:	Not to scale	Illustrator:	RG
Path:	R:\PROJECTS\238360\Graphics_Office\Rep figs\EVAL\2021_07_05		

Plate 3: Southeast facing section of pits 123, 125, 127 and 129

Plate 4: South facing section of pit 138

Date:	05/07/2021	Revision Number:	0
Scale:	Not to scale	Illustrator:	RG
Path:	R:\PROJECTS\238360\Graphics_Office\Rep figs\EVAL\2021_07_05		

Plate 5: Pits 125 and 150, and tree throw 152 viewed from the south

Plate 6: South facing section of pit 162

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Scale:	Not to scale	Illustrator:	RG
Path:	R:\PROJECTS\238360\Graphics_Office\Rep figs\EVAL\2021_07_05		

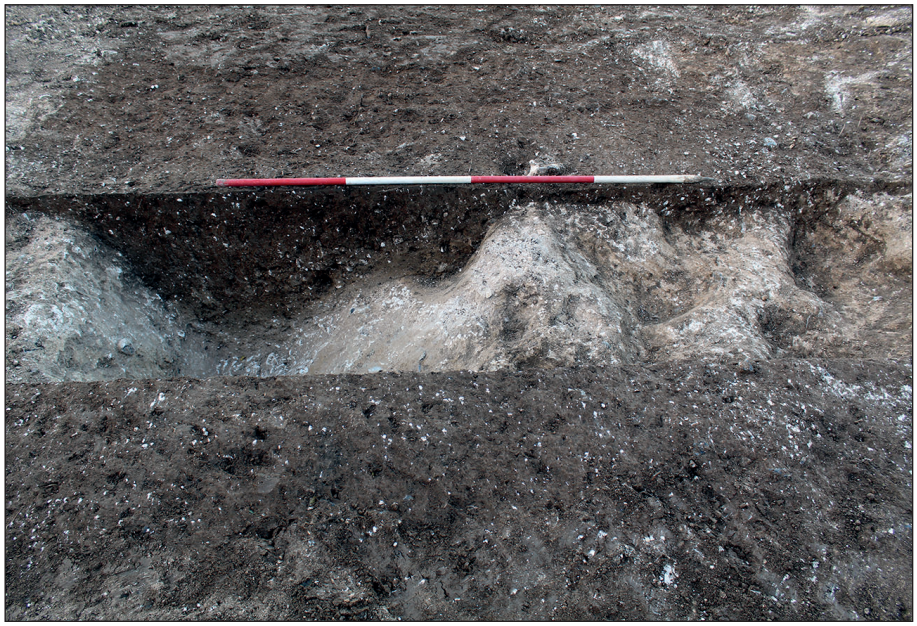

Plate 7: South facing section of ditch 222, within the eastern part of the ditch

Plate 8: Southwest facing section of ditch 222, within the western part of the ditch

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Scale:	Not to scale	Illustrator:	RG
Path:	R:\PROJECTS\238360\Graphics_Office\Rep figs\EVAL\2021_07_05		

Plate 9: Disarticulated human remains 182 within ditch 222, viewed from the north-north-east

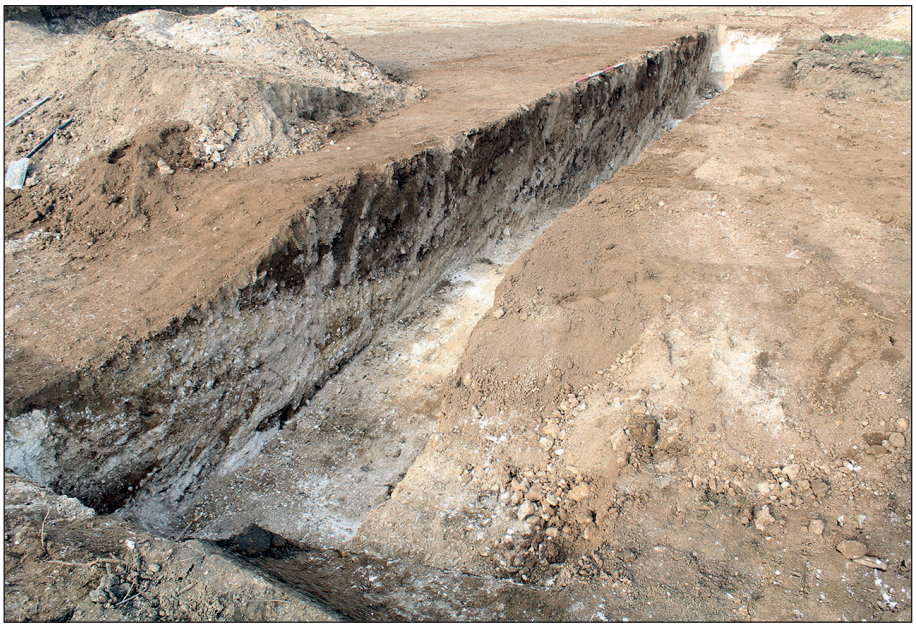

Plate 10: Longitudinal slot through quarry pit 177, viewed from the southeast

Date:	05/07/2021	Revision Number:	0
Scale:	Not to scale	Illustrator:	RG
Path:	R:\PROJECTS\238360\Graphics_Office\Rep figs\EVAL\2021_07_05		

Plate 11: Southern width slot through quarry pit 177 viewed from the northeast

Plate 12: Working photograph of human remains 182 in ditch 222

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Scale:	Not to scale	Illustrator:	RG
Path:	R:\PROJECTS\238360\Graphics_Office\Rep figs\EVAL\2021_07_05		

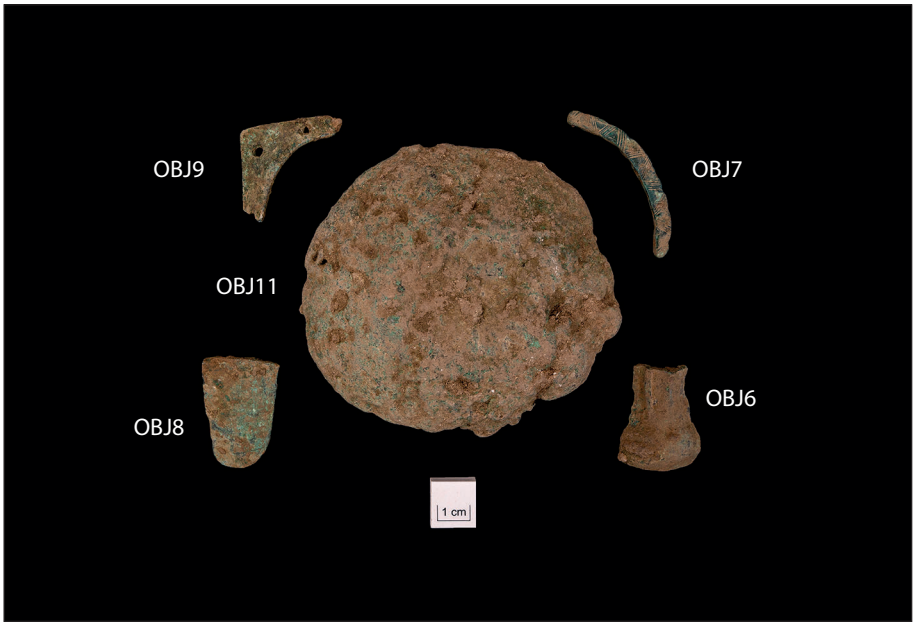

Plate 13: Copper alloy objects recovered from enclosure ditch 222, adjacent to skeletal remains 182

Date:	11/02/2021	Revision Number:	0
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Path:	R:\PROJECTS\238360\Graphics_Office\Rep figs\EVAL\2022_02_11		

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