Geoarchaeological Field Evaluation and Palaeolithic Period investigation of Land at Conningbrook Park, Wetland Mitigation Ashford, Kent

Site Code: CNW-EV-22

NGR Site Centre: 603440 144134

Planning Application Number: 22/00051/AS

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Tables

Abstract

Swale & Thames Survey Company (SWAT Archaeology) was commissioned to undertake an archaeological evaluation on Land at Conningbrook Park, Wetland Mitigation, Ashford in Kent. The archaeological programme was monitored by the Senior Archaeological Officer at Kent County Council.

The archaeological works have investigated the extents of the proposed development area. No deposits that can conclusively be attributed to the Pleistocene were identified during the evaluation.

Quaternary deposits attributed to the last aggradation of the River Great Stour were found to underlie the site, this comprised: fluvial sands and gravel, alluvial sands silts peats and clay. No Pleistocene artefacts or fossils were found within the sands and gravels, nor were there samples suitable for OSL dating, which could be used to equivocally date these deposits. The basal sands and gravels were identified across the site at the lower elevations resting on or cutting through the bedrock of the Gault Clay (Folkstone Beds), stratigraphically relationships with the current river and higher river terrace deposits mapped in the area suggest that these sands and gravels may have been deposited during the warming phase of immediate last post glacial period. Subsequently a warmer and less turbulent phase of the Stours evolution is identified by the thick deposits of finer sands, silts and peaty deposits (loam) sealed below a thick blue alluvial clay, from these deposits numerous artefacts and palaeoenvironmental material was recovered. There is evidence of early Holocene human activity, and the finding of Castor fiber (Beaver) lower mandible (with cut marks), indicates a still and brackish and wooded river environment.

The evidence from the evaluation suggests that the Quaternary deposits across the site are latest Pleistocene or earliest Holocene and as such there is a very low possibility of in-situ Palaeolithic archaeology, it is however still likely that there may be occasional Palaeolithic artefacts reworked into the Quaternary sands and gravels from the reworking of the older and higher terraces which are of a known Pleistocene age.

The Quaternary deposits do preserve significant Palaeoenvironmental evidence and samples were taken for various dating methodologies: C14, Dendrochronology, Amino-acid racemization, calcite OSL dating, MAZ, and lithic technologies, peaty samples may also contain pollen.

As the archaeological bearing loam deposits are in places ~1.4m BGL, further archaeological mitigation may be required for these areas. It is likely that these deposits will contain further evidence of early Holocene activity and a low possibility of rare upper Palaeolithic archaeology. However the excavation associated with this particular wetland development won't be deeper than ~1.0m BGL therefore it won't

be having an impact on buried resources and the archaeological bearing loam deposits can be preserved in-situ precluding the necessity of any further work on this site.

The archaeological evaluation has been successful in fulfilling the primary aims and objectives of the Specification and has assessed the archaeological potential of land intended for development. The results from this work are showing that development proposals won't be having any significant impact on buried archaeological resource. .

The full results, recommendations and methodology are presented in Appendix 3.

This report will be used to aid and inform the Senior Archaeological Officer of any further archaeological mitigation measures that may be necessary in connection with any future development proposals.

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1 Introduction

1.1 Project Background

1.1.1 Swale & Thames Survey Company (SWAT Archaeology) was commissioned to undertake a Geoarchaeological Field Evaluation and Palaeolithic Period investigation on land at Conningbrook Park, Wetland Mitigation Ashford, Kent (Figure 1).

1.1.2 The proposed development comprises the construction of a wetland mitigation area involving the division of the area into a series of beds separated by the creation of berms. Water levels within the wetland area will be controlled by the installation of several water channels supported by a network of water pipes and a pumping station in the southwest corner of the evaluation area. Management of silt and soil erosion will be via the construction of several weir chambers distributed across the evaluation area and through excavating a series of spreader channels.

1.1.3 A planning application (22/00051/AS) has been submitted to Ashford Borough Council and the following conditions were imposed on the permission with regard to archaeology:

Condition: Prior to the commencement of development the applicant, or their agents or successors in title, will secure:

• *geoarchaeological field evaluation works in accordance with a specification and written timetable which has been submitted to and approved by the Local Planning Authority; and*

• *further geoarchaeological and Palaeolithic period investigation, recording and reporting, determined on the results of the evaluation, in accordance with a specification and timetable which has been submitted to and approved by the Local Planning Authority;*

• *Programme of post-excavation assessment and publication*

Reason: To ensure that feature of geoarchaeological and Palaeolithic interest are properly examined, recorded, reported and disseminated.

1.1.4 *Condition: Prior to the commencement of development the applicant, or their agents of successors in title, will secure:*

- *Archaeological field evaluation works in accordance with a specification and written timetable which has been submitted to and approved by the Local Planning Authority; and*
- *Further archaeological investigation, recording, reporting, determined by the results of the evaluation, in accordance with a specification and timetable which has been submitted to and approved by the Local Planning Authority;*
- *Programme of post excavation assessment and publication.*

Reason: To ensure that features of archaeological interest are properly examined, recorded, reported and disseminated.

1.1.5 This document responds to a first condition and presents the results of Geoarchaeological Field Evaluation and Palaeolithic Period investigation which was carried out over the course of 5 days in June 2022 (see Table 1 below). The evaluation was carried out in accordance with an archaeological Written Scheme of Investigation (WSI) prepared by Wessex Archaeology (2022), prior to commencement of works.

1.2 Timetable

1.2.1 A timetable for the archaeological programme of works, to date, is provided below;

Task	***Dates***	***Personnel/Company***
Archaeological Desk-Based Assessment	2020/2021	Wessex Archaeology
Geoarchaeological Deposit Model and Desk-Based Assessment	2020/2021	Wessex Archaeology
Submission of the Written Scheme of Investigation	March 2022	Wessex Archaeology
Archaeological Evaluation: Fieldwork	6th-21st June 2022	SWAT Archaeology
Archaeological Evaluation Report	July 2022	SWAT Archaeology

Geoarchaeological Field Evaluation and Palaeolithic Period investigation	This document	SWAT Archaeology

Table 1 *Timetable for the archaeological programme of works*

1.3 Site Description, Topography and Geology

1.3.1 The proposed development area (PDA) is located 2.8 km northeast of the centre of Ashford and 3.2 km southwest of the village of Wye. It comprises an irregular parcel of land of c.4.7 ha, comprised of two fields.

1.3.2 The PDA forms a part of the Great Stour Valley floodplain and is flooded seasonally by the Great Stour. It has a surface height of between 31 and 32 m above Ordnance Datum (OD), with the surrounding land at a similar topographical level.

1.3.3 The Geological Survey of Great Britain shows that the natural geology at the PDA (Proposed Development Area) consists of a bedrock comprising Folkestone Formation - Sandstone. Sedimentary Bedrock formed approximately 101 to 126 million years ago in the Cretaceous Period and Gault Formation – Mudstone, sedimentary Bedrock formed approximately 101 to 113 million years ago in the Cretaceous Period. Local environment previously dominated by shallow seas. Bedrock geology was capped by River Terrace Deposits comprising Sand and Gravel. Superficial Deposits formed up to 3 million years ago in the Quaternary Period in local environment previously dominated by rivers.

1.4 Scope of Report

1.4.1 This report has been produced to provide initial information regarding the results of the Geoarchaeological Field Evaluation and Palaeolithic Period investigation. The results from this work will be used to aid and inform the Senior Archaeological Officer (KCC) of any further archaeological mitigation measures that may be necessary in connection with any future development proposals.

2 Archaeological and Historical Background

2.1 Introduction

2.1.1 The archaeological and historical background was assessed in prior desk-based assessment (WA 2021a), which considered the recorded historic environment resource within a 1 km study area of the evaluation area. 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.

2.1.2 Further details of previous discoveries and investigations within the immediate and wider area may be found in the Kent County Council Historic Environment Record (HER) and have been summarised in correspondence with the KCCHC Senior Archaeological Officer.

2.2 Archaeological and historical context

Palaeolithic (970,000–10,700 kya)

2.2.1 The Palaeolithic and geoarchaeological context of the Site is considered in detail in Section 3.

Mesolithic (9,300–4,300 BC)

2.2.2 No Mesolithic activity has been identified within the evaluation area or its surrounding areas, but two flint scatters were discovered in colluvial/alluvial deposits in the East Great Stour valley at Smeeth, near Sellinge 7km southeast of the evaluation area (Glass 1999; Welsh 1998).

Neolithic–Iron Age (4,300 BC–AD 43)

2.2.3 During the later prehistoric periods, the broader landscape of Ashford is known to have supported well-settled and widespread prehistoric communities since the Neolithic period through to the Late Iron Age. These communities altered the landscape from that of one covered in dense woodland, as part of the 'Forest of Anderida', to a managed and farmed landscape with forest and wildwood clearings providing open wood pasture (Ashford Borough Council 2017).

2.2.4 Although there is abundant evidence of occupation in Ashford, the only discovery within 1km of the evaluation area relates to the recovery of a Bronze Age copper alloy socketed axe. Yet, the evaluation area's proximity to the River Great Stour would have made it favourable land for use as farmland or settlement. However, any settlement would probably have been located slightly further away from the river to avoid the seasonal flooding, possibly on the higher ground to the west or east of the evaluation area.

2.2.5 The lack of evidence within the landscape could be related to a lack of previous archaeological intrusive investigation. Cropmarks of two possible ring ditches, are located 470m to the northeast of the evaluation area. These have yet to be investigated through intrusive archaeological surveys but are likely to be prehistoric. They would imply a prehistoric community was present in the landscape though at which point in time remains unknown.

Romano-British (AD 43 – 410)

2.2.6 Archaeological evidence of a Roman presence in Ashford is abundant in the southern section of the town with a large Roman roadside settlement discovered at Westhawk Farm, Kingsnorth, 5km to the southwest of the evaluation area. However, evidence in the northern

section of the town is scarce, possibly as a result of activity being focused to the south. Only a single find is recorded in the KHER within the 1km study area comprising a fragment of a Roman vessel 510m to the north of the evaluation area.

2.2.7 A possible Roman road ran from Ashford to Canterbury on a similar alignment to Canterbury Road. Roman roads would often be a hub for past activity with a known Romano-British farmstead in Wye found 600 m to the west of its projected alignment (Brindle et al 2017). It is possible that further settlements may have existed along the route, maybe in the Kennington area. Therefore, it is possible that there was a more defined Romano-British presence within this landscape than the current archaeological evidence is implying.

Early Medieval (AD 410 – 1066)

2.2.8 Little is known of the settlement pattern or use of the landscape within Ashford until the creation of the town sometime during the 9th century (Ashford Borough Council 2017). The evidence that has been uncovered shows a focus of activity in the Willesborough area of the town approximately 3km to the south of the evaluation area. Minor settlements are also thought to have existed at some of the surrounding villages, now districts within the town, by the Late Anglo-Saxon period such as Kennington, 1.3km to the northwest of the evaluation area.

Medieval (AD 1066 – 1540)

2.2.9 The closest settlement to the evaluation area recorded in the Domesday Book of 1086 is the manor of Kennington though many of the villages located in the wider landscape (Sevington, Wye, Brook) had been established by this time too. Most of Ashford fell under the jurisdiction of the Abbey of St Augustus in Canterbury both prior to and following the Norman Conquest.

2.2.10 There is evidence within the archaeological record and in documentary sources that there was a well-settled and prosperous agricultural society in Ashford during the medieval period. This was first recognised as early as 1243 when Henry III granted the town a charter to hold a market for livestock. Later during the 15th and 16th centuries cloth and wool trade flourished with much of the agricultural landscape around Ashford and around many of the dispersed settlements in the wider region of the Borough given over to use as pasture for grazing of sheep. Several medieval moated sites, symbols of medieval aristocrats are present within Ashford that point towards a concretion of wealth and status in the countryside (Ashford Borough Council 2017).

2.2.11 A medieval manor house known as Conningbrook Manor is thought to have existed to the south of the evaluation area, possibly close to the later post-medieval house that is also known

as Conningbrook Manor. There are almost no records of the manor as it was part of the larger manor of Kennington and was not recorded separately in documentary evidence. However, Ashford Archaeological Society have conducted investigations along the north-eastern bank of Conningbrook Lakes and revealed the medieval remains of a Conningbrook Chapel, a former church associated with the Manor, along with a medieval well.

Post-medieval (AD 1540 – 1900)

2.2.12 Conningbrook Manor is a 17th century Grade II Listed house located 650m to the south of the evaluation area (TR 04 SW 267). Possibly the replacement of an earlier medieval manor house, the listed building was later developed into a working farmstead with farm buildings constructed to the east (MKE 87368). It is likely that the land to the north of the farmstead including the evaluation area fell with the landholdings of the manor during the postmedieval period.

2.2.13 In addition to Conningbrook Manor farmstead, several other farms were established during the post-medieval period pointing to a well organised and highly developed farming community in the area. A contributing factor to their establishment may have been the creation of a network of drainage ditches in the farmland around the evaluation area to help control the seasonal flooding of the area by the River Great Stour. This would have meant that the lands use of farming was more stable and could be more profitable.

Modern (AD 1901 – Present)

2.2.14 Historic mapping from the middle of the 19th century up to present day shows the evaluation area has not changed in almost 180 years and that its use has, since this the production of the earliest detailed cartographic map of the area, been for farming. The only distinct variation is the later creation/expansion of the drainage ditches present within the evaluation area. Apart from the later excavation of Conningbrook Quarry and suburban expansion of former villages, such as Kennington, the wider area has remained undeveloped.

2.2.15 The only significant alteration to the landscape during this period was the construction of the of the railway line to the west of the evaluation area that formed part of the Southeastern Railway. Set on its own embankment, the construction of the line severed the agricultural landscape that existed between Willesborough Road and Blackwall Road in two.

2.2.16 Geophysical survey in the fields on the western side of the railway line, 240m to the west of the evaluation area, revealed a number of linear anomalies. These were later investigated as part of an archaeological evaluation and identified to be the remains of post-medieval or possibly medieval, field boundaries (SWAT 2018). The discovery indicates that the more

regular large open field system that we see today was previously subdivided into smaller fields likely under ownerships of several individuals. The later re-organisation of the field system was probably a result of the Enclosure Acts from the 17th-19th centuries that saw land ownerships boundary changes and the removal of former medieval strip field systems.

2.2.17 The KHER records a World War II Supermarine Spitfire crash sites 280m to the southwest of the evaluation area. The aircraft is noted to have crashed on 11th September 1944 following engagement with German fighter craft.

3 PALAEOLITHIC ARCHAEOLOGICAL AND GEOARCHAEOLOGICAL BACKGROUND

3.1 Introduction

3.1.1 The Palaeolithic archaeological and geoarchaeological potential of the evaluation area has been specifically highlighted and was assessed in a prior Palaeolithic archaeological and geoarchaeological desk-based assessment, which included the production of an initial deposit model and the creation of a Geoarchaeological Landscape Characterisation (GLC) (WA 2021b). The results are summarised below.

3.2 Previous Palaeolithic archaeological and geoarchaeological investigations related to the proposed development

Harrison Collection (1980s-1990s)

3.2.1 Aggregate extraction beginning in the early 20th century and increased towards the end of the century at the Conningbrook Quarry, located immediately south and west of the evaluation area and mapped by the BGS as River Terrace Deposits 3 of the River Great Stour. When aggregate extraction began producing artefactual and faunal material, a team led by David Harrison conducted regular site visits, recovering Pleistocene fauna and artefacts both from the conveyor, excavations and amateur collections (ASE 2017b).

3.2.2 Finds included the discovery of a bison horn core and the presence of intact Holocene and Pleistocene deposits of the Great Stour. The collected flint artefacts contained a range of material including handaxes (Lower Palaeolithic), Levallois cores (Middle Palaeolithic) and a blade point (Upper Palaeolithic; Jacobi et al 2006; Jacobi 2007). The blade point is typotechnologically diagnostic of the Lincombian-Ranisian-Jerzmanowician (LRJ) technocomplex. The LRJ is regarded to be the first Upper Palaoelithic techno-complex in Britain (Jacobi and Higham 2011), dated early in late MIS 3 (40–29 kya).

3.2.3 The faunal material recovered from base of the sequence has been attributed by Currant and Jacobi (2011) as belonging to the Pinhole Mammal Assemblage Zone (MAZ), which is

consistent with MIS 3 (57-29kya) (Currant and Jacobi 2011 ASE). The material and records are now curated at the Harrison institute (ASE2017a). 3.2.4 As part of the program of mitigation associated with redevelopment of the former Conningbrook Quarry, a series of radiocarbon dates on faunal material recovered by Harrison has been produced by the Oxford Radiocarbon laboratory (ASE 2017b). These are:

OxA-1069 Bone, mammoth 33200±1300 BP

OxA-1610 Bone, mammoth d13C=-21.0 35200±1600 BP

OxA-1611 Bone, mammoth d13C=-26.0 38600±2400 BP

OxA-1612 HZM58.14184, bone, w.rhino d13C=-21.0 34000±1400 BP

OxA-1613 HZM58.14184, bone, w. rhino d13C=-26.0 35000±1500 BP

OxA-1644 Bone, mammoth d13C=-26.0 37300±1900 BP

OxA-1645 HZM58.14184, bone, w. rhino d13C=-26.0 33600±1200 BP

3.2.4 These radiocarbon dates are consistent with a Middle Devensian date (MIS 3; 57–29 kya).

Geoarchaeological Interpretation of Geotechnical Site Investigations at Conningbrook Manor Pit, Kennington, Kent. (ASE2017a)

3.2.5 In 2017, in advance of development works at Conningbrook Lakes (the former quarry area), ASE reported on the results from a watching brief, integrating their results with previous geotechnical works at the Site, which identified the extent of intact Pleistocene and Holocene sediments.

3.2.6 The study confirmed the survival of Quaternary deposits at the Conningbrook Lakes site and a stratigraphy consistent with the deposits investigated by Harrison. They also identified additional intact Pleistocene Head deposits and Holocene alluvium across the site which was previously believed to have been removed by aggregate extraction.

Geoarchaeological Test Pits 1-8 and 12-15 at Conningbrook Manor Pit, Kennington, Kent. (ASE 2017b)

3.2.7 Following the above report, ASE conducted a geoarchaeological evaluation of the area directly west and south-west of the evaluation area which included an updated model incorporating their previous works. Small amounts of CBM (ceramic building material) were recovered from the made ground but no artefacts or faunal material was recovered from the intact Pleistocene deposits. A series of environmental samples and a single OSL sample have been taken but, as yet the results have not been reported.

3.2.8 The results of the evaluation determined the extent of disturbance from the quarrying activity and highlighted areas of intact Quaternary deposits. They concluded that, aside from minor mitigation works comprising a watching brief for the remaining phases of works, the development would not affect the intact deposits of archaeological significance and recommended that the samples be processed along with further analysis of the Harrison collection.

3.2.9 Conningbrook Park, Ashford, Kent: Pleistocene and Palaeolithic Desk-Based Assessment. QUEST, University of Reading (Allen 2019)

3.2.10 In 2019 QUEST assessed the Pleistocene potential of an area of land at Conningbrook Park located to the north of the present evaluation area and the previously investigated Conningbrook Lakes (ASE 2017b). The works demonstrated intact Pleistocene deposits were present in this area and interpreted as:

- River Terrace Deposits – Terrace 3 of the River Great Stour
- Head-Brickearth, and
- Floodplain Alluvium

3.3 Geoarchaeological Landscape Characterisation (GLC)

Introduction

3.3.1 The initial deposit model and Geoarchaeological Landscape Characterisation (GLC) produced for the evaluation area (WA2021) used the results of the recent and existing GI works (Geo-environmental 2021; RSK 2018), previous geoarchaeological investigations (ASE 2017a; 2017b; Allen 2019), BGS mapping (BGS online viewer) and a LiDAR survey to identify the principal superficial deposits across the evaluation area, defining their extent (where possible) and providing an initial assessment of their geoarchaeological and archaeological potential.

LiDAR

3.3.2 Environment Agency LiDAR data coverage for the Proposed Scheme was examined but no evidence was apparent for any buried landform features, such as palaeochannels or gravel eyots.

Stratigraphy

3.3.3 The stratigraphy encountered across the deposit modelling area is divided into three main units: Topsoil, Alluvium and Sands and Gravels. Deposits of Head and Made Ground were also

recorded from the immediate vicinity of the evaluation area. These units are listed and described below.

Topsoil

3.3.4 Topsoil was recorded across the evaluation area and was present in all window samples along Transect 1. The Topsoil was characterised as a rooted sandy clay ranging in thickness from 0.20m at 0.00m bgl (32.26m OD) in WAWS2 to 0.30m at 0.00m bgl (32.40m OD) in WAWS5. This deposit represents modern soils formed along the current with floodplain of the River Great Stour.

Made Ground

3.3.5 Made Ground has been identified surrounding the evaluation area and is mostly associated with the 20th century quarrying. No made ground has been recorded within the evaluation area.

Alluvium

3.3.6 Alluvium was recorded in all boreholes across the evaluation area (WAWS1-8). Deposits generally consisted of fine-grained firm to soft silty and sandy clays. The units are described as clast free with occasional rooting in the upper levels. The alluvium ranges in thickness from 0.60m at 0.30m bgl (32.27m OD) in WAWS7 to 1.80m at 1.30m bgl (32.06m OD) in WAWS2.

Head

3.3.7 Whilst sediments identified as Head have been identified in the wider area, no Head deposits are recorded within the evaluation area.

Sands and Gravels

3.3.8 Sands and Gravels were recorded in three boreholes in the evaluation area (WAWS4, WAWS6 and WAWS7) sealed by Alluvium. WAWS6 recorded 0.2m+ at 1.80m bgl (30.69m OD) and WAWS7 recorded 1.10m at 0.90m bgl (31.67m OD) highlighting an increase in thickness and height consistent with river terrace deposits.

3.3.9 The lithological descriptions are generally consistent suggesting a clayey fine to coarse sand with the exception of WAWS6 which includes a gravelly component of sub angular to sub rounded flint. These deposits reflect fluvial deposition consistent with the BGS mapping of terrace deposits although the clay component within the lithology could suggest an element of solifluction/colluvial processes being present.

Bedrock

3.3.10 Although no interventions within the evaluation area have reached bedrock, the BGS attributes it to the Folkestone and Gault formations.

3.4 Palaeolithic archaeological and geoarchaeological potential

3.4.1 The Palaeolithic potential of the evaluation area can be considered in relation to zones of Palaeolithic archaeological potential provided by the Great Stour Basin Palaeolithic Project (Kent County Council 2015). The evaluation area falls within Palaeolithic Character Areas designated SP_34 and SP_36 and is located immediately west of the SP_37.

3.4.2 SP_34 has been suggested to contain Holocene alluvial deposits, underlain by later Pleistocene terraces deposits of the Great Stour, with late Pleistocene slope and can be underlain at its edges by Pleistocene slopewash. SP_36 is characterised as areas with poorly dated later Middle Pleistocene or Late Pleistocene (500,000-10,000 BP) terrace deposits and Head-Brickearth, whilst SP_37, located on the north/east side of the Great Stour valley has been identified as containing fluvial terrace deposits (attributed by the BGS as Terrace 4), most likely dating to the later middle Pleistocene (500-300kya).

3.4.3 The archaeological and geoarchaeological potential of the Quaternary deposits identified within the Site by the GLC are considered below.

Fluvial Sands and Gravels

3.4.4 The fluvial sands and gravels within the evaluation area are Pleistocene and belong to the terraces of the Great Stour. The age of these deposits is unclear, and they could include more than one terrace. However, they are likely to include deposits broadly equivalent to those located on the opposing western bank at Conningbrook Quarry (ASE 2017a, 2017b).

3.4.5 The deposits at Conningbrook Quarry have produced the Middle Devensian (59-27 Kya) faunal material, along with broadly contemporary Upper Palaeolithic archaeology (a blade point), as well as other Palaeolithic artefacts, which may be reworked from earlier deposits (handaxes and Levallois core) and a blade point (early Upper Palaeolithic; Jacobi et al 2006; Jacobi 2007). There is potential for similar early Upper Palaeolithic archaeology and paleoenvironmental evidence to occur with these deposits within the Site. Furthermore, if earlier terrace deposits are also present, these have broad potential to contain earlier contemporary, as well as reworked, Palaeolithic archaeology.

Alluvium

3.4.6 The Pleistocene Sands and Gravels in the Site are overlain by Holocene alluvium. The deposit modelling showed that the Holocene alluvium accumulated upon an uneven Pleistocene surface highlighting potential eyots forming islands of sands and gravel deposits and channelling which could be suggestive of braiding or an older route of the Great Stour. Such eyots may have formed a focus for archaeological activity by prehistoric human groups during the late Upper Palaeolithic and/or Mesolithic. The alluvium record in GI from the evaluation area is minerogenic, with low potential to preserve significant paleoenvironmental evidence or material for radiocarbon dating. Whilst palaeoenvironmental remains (such as pollen) are likely to be present, they may be derived from large source areas within the catchment and are thus of limited precision and value. Such minerogenic alluvium does, however, have the potential to contain, or mask, archaeological features and layers, alluvium still has the potential to contain or mask archaeology, although thus far no archaeology has been recorded / known from the alluvium in the area of the evaluation area.

3.4.7 Currently there is insufficient GI coverage across the evaluation area to precisely determine the presence/absence of peat which can often be locally present or existing as more extensive beds. It is possible that there may be highly localised peats preserved, either along the margins of the floodplain or in palaeochannel features. Where present these deposits would have a high geoarchaeological potential. The topography of the underlying Pleistocene deposits suggests highs and lows, the latter potentially forming depressions in which peat or other fine-grained deposits may have accumulated.

3.5 Recent investigations in the area

3.5.1 There are no known recent archaeological investigations within the area.

4 Aims and Objectives

4.1 Archaeological evaluation

General aims

4.1.1 The general aims (or purpose) of the evaluation, in compliance with the CIfA Standard and guidance for archaeological field evaluation (CIfA 2014a), are to:

- provide information about the archaeological potential of the site; and
- inform either the scope and nature of any further archaeological work that may be required; or the formation of a mitigation strategy (to offset the impact of the development on the archaeological resource); or a management strategy.

General objectives

4.1.2 In order to achieve the above aims, the general objectives of the evaluation are to:

- determine the presence or absence of archaeological features, deposits, structures, artefacts or ecofacts within the specified area;
- establish, within the constraints of the evaluation, the extent, character, date, condition and quality of any surviving archaeological remains;
- place any identified archaeological remains within a wider historical and archaeological context in order to assess their significance; and
- make available information about the archaeological resource within the site by reporting on the results of the evaluation.

4.2 Palaeolithic evaluation

General aims

4.2.1 The general aims (or purpose) of the evaluation, in compliance with the CIfA Standard and guidance for archaeological field evaluation (CIfA 2014a), are to:

- provide information about the Palaeolithic archaeological and geoarchaeological potential of the site;
- consider the possible significance of any Palaeolithic archaeological and geoarchaeological evidence present in the context of national and regional research priorities and agendas, and
- inform either the scope and nature of any further Palaeolithic archaeological work that may be required; or the formation of a mitigation strategy (to offset the impact of the development on the archaeological resource); or a management strategy.

General objectives

4.2.2 In order to achieve the above aims, the general objectives of the evaluation are to:

- to establish the potential for Quaternary deposits in the site to preserve significant Palaeolithic archaeological and geoarchaeological remains;
- to establish the potential of the Quaternary deposits to preserve significant paleoenvironmental evidence;

- where appropriate, obtain samples from Quaternary deposits for palaeoenvironmental assessment and scientific dating;

- make available information about the archaeological and geoarchaeological resource within the site by reporting on the results of the evaluation; and

- to make recommendations for further work, where appropriate, including for paleoenvironmental assessment and scientific dating of retained samples from Quaternary deposits.

5 METHODOLOGY

5.1 Introduction

5.1.1 All fieldwork was conducted in accordance with the methodology set out in the Specification (Wessex 2022) and carried out in compliance with the standards outlined in the Chartered Institute for Archaeologists' Standards Guidance for Archaeological Evaluations (CIfA 2014).

5.2 Fieldwork

5.2.1 A total of fifteen geoarchaeological test pits were excavated (Figure 3 in appendix). Excavation was carried out using a mechanical excavator fitted with a toothless ditching bucket, removing the overburden to the top of the first recognisable archaeological horizon, under the constant supervision of an experienced geoarchaeologist.

5.2.2 A detailed methodology and results of Geoarchaeological & Palaeolithic Evaluation at Conningbrook Park Wetlands, Ashford, Kent are presented in the appendix 3.

6 Results

6.1 Introduction

6.1.1 The archaeological works have investigated the extents of the proposed development area using fifteen geological test pits. The results of Geoarchaeological & Palaeolithic Evaluation at Conningbrook Park Wetlands, Ashford, Kent are presented in the appendix 3.

6.1.2 As the archaeological bearing loam deposits are in places ~1.4m BGL, further archaeological mitigation may be required for these areas. It is likely that these deposits will contain further evidence of early Holocene activity and a low possibility of rare upper Palaeolithic archaeology.

6.1.3 However the excavation associated with this particular wetland development won't be deeper than 1.0m BGL therefore it won't be having an impact on buried resources and the

archaeological bearing loam deposits can be preserved in-situ precluding the necessity of any further work on this site.

6.1.4 For full detailed results and recommendations go to Appendix 3

7 Archive

7.1 General

7.1.1 The Site archive, which will include paper records, photographic records, graphics and digital data, will be prepared following nationally recommended guidelines (SMA 1995; CIfA 2009; Brown 2011; ADS 2013).

7.1.2 All archive elements will be marked with the site/accession code, and a full index will be prepared. The physical archive comprises 1 file/document case of paper records and A4 graphics. The Site Archive will be retained at SWAT Archaeology offices until such time it can be transferred to a Kent Museum.

8 ACKNOWLEDGMENTS

8.1.1 SWAT would like to thank the Client for commissioning the project. Thanks are also extended to Wendy Rogers, Senior Archaeological Officer at Kent County Council, for her advice and assistance.

8.1.2 Pete Knowles supervised Geoarchaeological Field Evaluation and Palaeolithic Period investigation and additional fieldwork and sieving on-site was aided by Joe Cantwell, Bobbie-Jo Campbell, Django Rayner and Peter Cichy

8.1.3 Survey was carried out by Bartek Cichy and Django Rayner and this report was written by Pete Knowles with contributions from Peter Cichy. On behalf of the client project was directed by Dr Paul Wilkinson MCIfA, FRSA of SWAT Archaeology.

9 REFERENCES

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10 APPENDIX 1 – Core personnel

Project Management - Fieldwork	**Role**
Dr Paul Wilkinson, MCIfA, FSA	Director
Peter Cichy	Project Manager
Pete Knowles	Site Supervisor
Django Rayner	Surveyor
Finds	**Specialist**
Flint	Pete Knowles
Early Prehistoric Pottery	Paul Hart
Later prehistoric and Roman pottery	Dr Malcolm Lyne
Saxon, Medieval and Post Medieval pottery	Luke Barber
Metal finds, glass and oyster	Ges Moody
Conservation support and x-ray photography	Dana Goodburn-Brown, MSc
Samples and human remains	**Specialist**
Environmental soil processing	QUEST
Faunal, floral micro and macro remains	Dr Mike Allen
Animal Remains (Bones)	Carol White
Palaeomagnetism	Peter Cichy
Human Remains	Dr Chris Dieter
Micro-excavation (cremation burials)	Dana Goodburn-Brown
Post-Excavation and publication	**Role**
Pete Knowles	Author
Peter Cichy	Introduction

11 APPENDIX 2 – HER FORM

Site Name: Land at Conningbrook Park, Wetland Mitigation, Ashford in Kent

SWAT Site Code: CNW-EV-22

Site Address: As above

Summary

Swale & Thames Survey Company (SWAT Archaeology) was commissioned to undertake an archaeological evaluation on Land at Conningbrook Park, Wetland Mitigation, Ashford in Kent. The archaeological programme was monitored by the Senior Archaeological Officer at Kent County Council.

The archaeological works have investigated the extents of the proposed development area. No deposits that can conclusively be attributed to the Pleistocene were identified during the evaluation.

Quaternary deposits attributed to the last aggradation of the River Great Stour were found to underlie the site, this comprised: fluvial sands and gravel, alluvial sands silts peats and clay. No Pleistocene artefacts or fossils were found within the sands and gravels, nor were there samples suitable for OSL dating, which could be used to equivocally date these deposits. The basal sands and gravels were identified across the site at the lower elevations resting on or cutting through the bedrock of the Gault Clay (Folkstone Beds), stratigraphically relationships with the current river and higher river terrace deposits mapped in the area suggest that these sands and gravels may have been deposited during the warming phase of immediate last post glacial period. Subsequently a warmer and less turbulent phase of the Stours evolution is identified by the thick deposits of finer sands, silts and peaty deposits (loam) sealed below a thick blue alluvial clay, from these deposits numerous artefacts and palaeoenvironmental material was recovered. There is evidence of early Holocene human activity, and the finding of Castor fiber (Beaver) lower mandible (with cut marks), indicates a still and brackish and wooded river environment.

The evidence from the evaluation suggests that the Quaternary deposits across the site are latest Pleistocene or earliest Holocene and as such there is a very low possibility of in-situ Palaeolithic archaeology, it is however still likely that there may be occasional Palaeolithic artefacts reworked into the Quaternary sands and gravels from the reworking of the older and higher terraces which are of a known Pleistocene age.

The Quaternary deposits do preserve significant Palaeoenvironmental evidence and samples were taken for various dating methodologies: C14, Dendrochronology, Amino-acid racemization, calcite OSL dating, MAZ, and lithic technologies, peaty samples may also contain pollen.

As the archaeological bearing loam deposits are in places ~1.4m BGL, further archaeological mitigation may be required for these areas. It is likely that these deposits will contain further evidence of early Holocene activity and a low possibility of rare upper Palaeolithic archaeology. However the excavation associated with this particular wetland development won't be deeper than ~1.0m BGL therefore it won't be having an impact on buried resources and the archaeological bearing loam deposits can be preserved in-situ precluding the necessity of any further work on this site.

The archaeological evaluation has been successful in fulfilling the primary aims and objectives of the Specification and has assessed the archaeological potential of land intended for development. The results from this work are showing that development proposals won't be having any significant impact on buried archaeological resource.

This report will be used to aid and inform the Senior Archaeological Officer of any further archaeological mitigation measures that may be necessary in connection with any future development proposals.

No Further work on-site is proposed. Other recommendations as per in Appendix 3

District/Unitary: Ashford Borough Council
Period(s): Early Prehistory, Holocene
NGR (centre of site to eight figures) 603440 144134
Type of Archaeological work: Geoarchaeological Evaluation and Palaeolithic period investigation
Date of recording: June 2022
Unit undertaking recording: Swale and Thames Survey Company (SWAT Archaeology)
Geology: Folkestone Formation - Sandstone. Sedimentary Bedrock formed approximately 101 to 126 million years ago in the Cretaceous Period and Gault Formation – Mudstone, sedimentary Bedrock formed approximately 101 to 113 million years ago in the Cretaceous Period. Local environment previously dominated by shallow seas. Bedrock geology was capped by River Terrace Deposits comprising Sand and Gravel. Superficial Deposits formed up to 3 million years ago in the Quaternary Period in local environment previously dominated by rivers.
Title and author of accompanying report: Peter Cichy (2022) Archaeological Evaluation of Land at Conningbrook Park, Wetland Mitigation, Ashford in Kent. Pete Knowles (2022) Geoarchaeological & Palaeolithic Evaluation at Conningbrook Park Wetlands, Ashford, Kent
Location of archive/finds: SWAT. Archaeology. Graveney Rd, Faversham, Kent ME13 8UP
Contact at Unit: Paul Wilkinson
Date: 22/07/2022

12 Appendix 3 Geoarchaeological & Palaeolithic Evaluation at Conningbrook Park Wetlands, Ashford, Kent (by Pete Knowles)