

SILWOOD ESTATE (PHASE 3)
London
SE16

London Borough of Lewisham

An archaeological evaluation report

May 2005



MUSEUM OF LONDON

Archaeology Service

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Site Code: OFG02
National Grid Reference: 535671 178554

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Summary (non-technical)

This report presents the results of an archaeological evaluation carried out by the Museum of London Archaeology Service (MoLAS) on the site of Silwood Estate (Phase 3), London, SE16, London Borough of Lewisham. The report was commissioned from MoLAS by Higgins Construction PLC.

Following the recommendations of English Heritage's Greater London Archaeology Advisory Service (GLAAS) five evaluation trenches were excavated on the site.

The results of the field evaluation have helped to refine the initial assessment of the archaeological potential of the site. There is potential for survival of archaeological deposits within alluvial clays and peats that are locally well-preserved and likely to date from the Holocene to the Bronze Age period.

The later deposits consist of a plough soil and subsoil, representing the late post-medieval ground level and later garden areas for 19th century residential buildings. These buildings were demolished in the 1960s, and the with resultant rubble material levelled on top of the plough soil, prior to the construction of the Silwood estate.

In the light of revised understanding of the archaeological potential of the site the report concludes the impact of the proposed redevelopment is likely to be limited truncation of potentially significant deposits at pile locations, with the majority of the archaeological resource preserved and unaffected.

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1 Introduction

1.1 Site background

The proposed Phase 3 of the Silwood Estate Development, London SE16 is located in the London Borough of Lewisham and is bounded to the south by the Silwood Estate (Phase 1) Development, to the east by Silwood estate (Phase 2) Development, to the north by properties fronting onto Eugenia Road and St Helena Road (Fig 1). The Ordnance Survey National Grid reference for the centre of the site is 535538 178531. Because of the depth of foundations associated with the preceding buildings on Silwood Estate the evaluation trenches were located in areas where modern disturbance was thought to be limited. Modern ground level on Alpine Road ranged from 0.60m OD to 1.24m OD on the east side of the site¹. The site code is OFG02.

A desktop *archaeological assessment* was previously prepared, which covers the whole area of the Silwood Estate (Tyler, 2001). The *assessment* document should be referred to for information on the natural geology, archaeological and historical background of the site, and the initial interpretation of its archaeological potential.

Archaeological evaluation reports were produced for Phases 1 and 2, and should be referred to for the initial interpretation of the archaeological potential on the eastern and southwest areas of the Silwood Estate (Eastbury, 2002 & 2004).

The Phase 3 archaeological field evaluation was carried out on five trenches between 17th and 28th January 2004.

¹ Values calculated by Higgins survey team from a traverse from the BM 1.2m OD on Oldfield Grove.

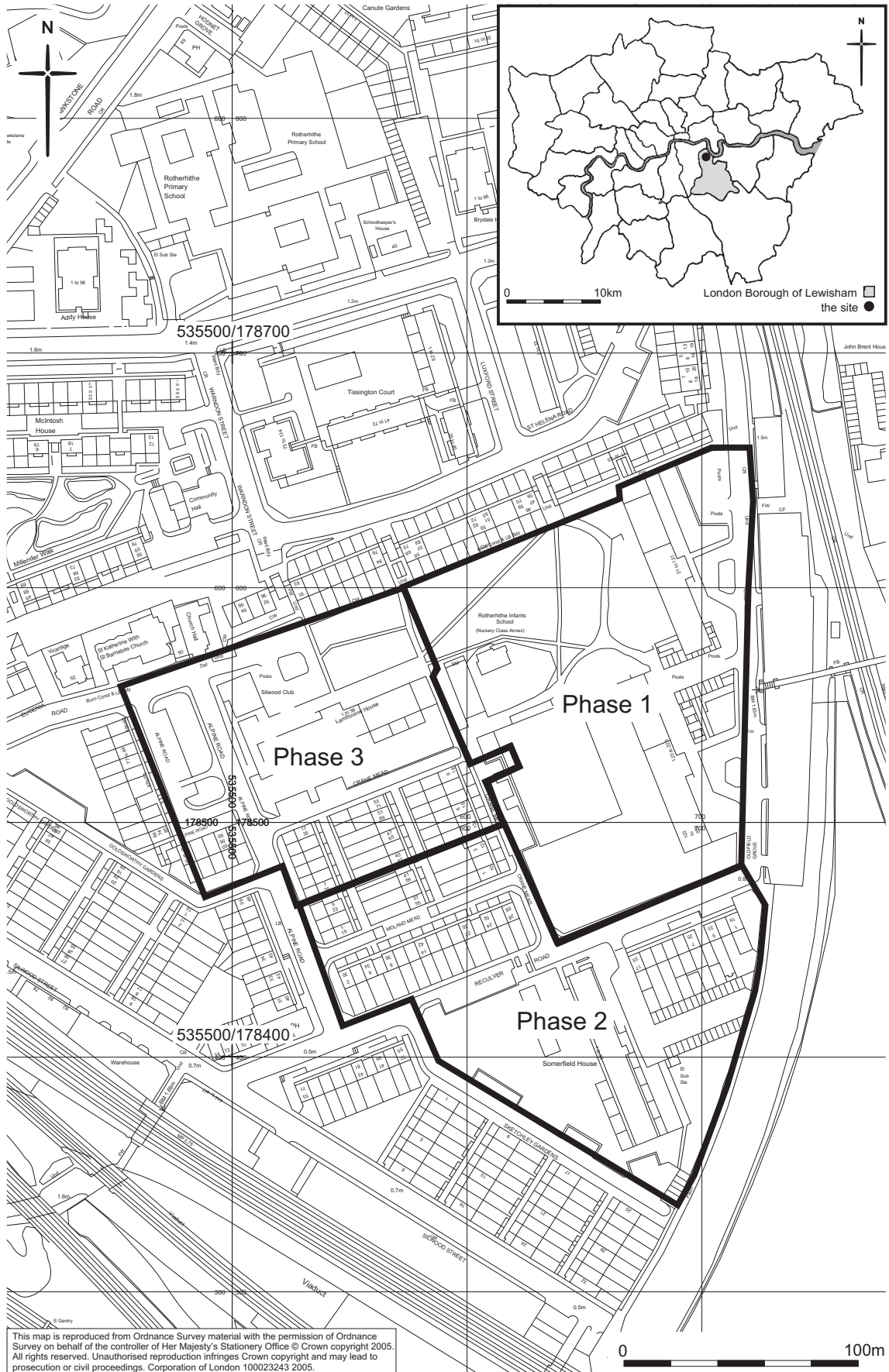


Fig 1 Site location

1.2 Planning and legislative framework

The legislative and planning framework in which the archaeological exercise took place was summarised in the *Archaeological Assessment*, (see Section 1.2, Tyler, 2001). An *Archaeological Method Statement* (Nielsen, 2005) formed the project design for the exercise.

1.3 Planning background

English Heritage's Greater London Archaeology Advisory Service (GLAAS) recommended approval of the *Archaeological Assessment* (Tyler, 2001) to the London Borough of Lewisham in May 2001. GLAAS further recommended that it would be appropriate that an archaeological condition be applied to planning consent requiring archaeological investigation. Under this condition, a written scheme of investigation for such works was required, and approved prior to the commencement of development. This was submitted and approved in 2005 (Nielsen, 2005).

1.4 Origin and scope of the report

This report was commissioned by Higgins Construction Plc and produced by the Museum of London Archaeology Service (MoLAS). The report has been prepared within the terms of the relevant Standard specified by the Institute of Field Archaeologists (IFA, 1999).

Field evaluation, and the *Evaluation report* which comments on the results of that exercise, are defined in the most recent English Heritage guidelines (English Heritage, 1998) as intended to provide information about the archaeological resource in order to contribute to the:

- formulation of a strategy for the preservation or management of those remains; and/or;
- formulation of an appropriate response or mitigation strategy to planning applications or other proposals which may adversely affect such archaeological remains, or enhance them, and/or;
- formulation of a proposal for further archaeological investigations within a programme of research.

1.5 Aims and objectives

As the evaluation process is unlikely to provide sufficient information to fully address specific archaeological research objectives, the archaeological brief was essentially limited to establishing the levels and nature of surviving archaeological deposits.

In addition the following research aims and objectives were established in the *Method Statement* for the evaluation (Section 2.2, Nielsen, 2005):

What is the nature and level of natural topography?

What are the earliest deposits identified?

What are the latest deposits identified?

Is there evidence of human activity associated with the margins of the 'Bermondsey Lake' in the prehistoric or historic periods?

What is the evidence for the environment in the prehistoric and historic periods?

2 Topographical and historical background

The following is a summary derived from the more detailed discussion of the site's background found in the *Archaeological Assessment report* (Section 3, Tyler, 2001).

2.1 Topography

The drift geology of the site area consists of alluvium, resting on Thames terrace gravels, (British Geological Survey 1981). The terrace gravels in the site area are thickly blanketed with fine alluvial sediments, predominantly made up of clays and silts. This alluvium was deposited during periods of inundation by the river as a result of rising sea level (marine transgressions).

Layers of peat and organic silts have been found in the alluvium at a number of sites in the area (BEG92, PWA96, SIL00). These strata formed under conditions of lowered mean sea level (marine regressions) and corresponding river level, allowing the development of fen and marsh. Geologically these deposits are very recent and most were laid down over the past 12,000 years. Some may be related to dated sequences of alluvium and peat elsewhere in the Thames estuary, which have been used to identify fluctuations in sea level during the prehistoric and Roman periods.

Important evidence for prehistoric and Roman activity has been found buried within the alluvium, which is now recognised as having considerable archaeological potential (Merriman 1992).

2.2 Prehistoric

Occasional discoveries of prehistoric remains have been made in the Surrey Docks area, to the north-east of the site. Animal bones dating from the Palaeolithic period were uncovered during the excavation of Canada Dock in 1875. Flint tools were also discovered at this time (possibly from the same excavations), which have been provisionally dated to the Lower Palaeolithic period. No Mesolithic objects have been found in the immediate vicinity of the site. This may indicate that the area was uninhabited at the time (perhaps due to rising river levels). The Bronze Age, however, is represented by several instances of archaeological survival in the site area. As a result of fluctuations in sea level, prehistoric landscapes were buried under waterlain silts and clays, which are marked by bands of peat.

Excavations at Bramcote Grove (BEG92), 500m south-west of the site, have exposed a peat horizon (comparable to that noted above) and have shown that although the general area was extremely wet during the Bronze Age period, evidence of human activity was present. The work at Bramcote Grove identified a late Glacial lake (Thomas & Rackham, 1996). This was infilled naturally and the low-lying site was covered by alluvial sediments possibly from seasonal flooding by the Thames. There were two phases of Early Bronze Age trackway across a shallow channel in an intermittently flooded, waterlogged fen landscape. The earliest was formed of two parallel lines of alder logs held in place by alder stakes and was dated 2190-1750 BC. The latest was a single line of oak logs held in place by alder stakes along one side

and was dated 1740-1530 BC. The trackways were sealed by a thick deposit of peat from *c.* 1500-1000 BC (Late Bronze Age).

The peat horizon known as Tilbury IV, dates from the Bronze Age onwards. Radiocarbon analysis of the peat from the evaluation at 71–97 Plough Way (PWA96) gave a date range of 1275 BC± 890 cal BC at the bottom or the earliest deposits and 380 BC± cal BC for the top or latest deposits.

Another important find was made *c.* 800m to the north-east of the site during the construction of Surrey Dock in 1875 when a surface described as an ‘ancient forest-bed’ was uncovered at about -4.45m OD). It overlay a deposit of silty clay containing animal bones.

Excavations at 305–319 Lower Road (LR88) revealed only patchy traces of peat at -1.20m OD, and a layer at 44–48 Croft Street (CFT92), another 200m to the north-east, at 0.40m OD was described as organic rather than specifically peaty.

Archaeological excavation and environmental sampling at 28-40 Croft Street (CRF94) recorded waterlain deposits and peats lying between -2.10m OD and -0.50m OD, which formed as a result of a complex fluvial regime, mostly in the early first millennium AD. Evidence of local vegetation was recovered, but there were no traces of human activity.

A Bronze Age spearhead was recovered from Southwark Park, *c.* 600m to the north of the site².

Further evidence for prehistoric human activity was found at 305–319 Lower Road (LR88) 500m to the north-east of the site³. A weathered sand, possibly a result of flooding, contained five or six struck flints, and areas of burning. It is unclear whether this represented evidence for a temporary settlement, or water borne redeposited material.

The most recent work dates to 2002 and 2003, when a total of 13 evaluation trenches were investigated on the eastern and southern sides of the Silwood Estate, prior to redevelopment, in order to assess the potential archaeological survival on site (Phases 1 and 2). The records showed that peat survived over much of the area, with the exception of the eastern margins, where the peat thins and gives way to alluvial clays and gravels, which may be indicative of a channel, which has scoured away the peat. The highest level of peat was recorded at -0.05m OD on the south-eastern side to the site and at its lowest at -0.93m OD in the south-western corner (Eastbury, 2002 & 2003).

2.3 Roman

There is no conclusive archaeological evidence for Roman settlement in the vicinity of the site. Nevertheless, two important Roman coin hoards have been found close to

² GLSMR 090906

³ GLSMR 091127

the site, their presence suggests dry land existed in the area for parts of the Roman period.

An earthenware vase, containing 1,300 coins of the Hadrianic period (117-138 AD), was found during excavations in 1867 for warehouses and a dock just to the north of Plough Way, 250m north-east of the site⁴. The hoard was found 5ft below the ground (c. -0.03m OD) on a bed of silty sand, which lay above gravels and was sealed by alluvial deposits (Beck 1907, 15; Codrington 1915, 140).

The second hoard was found 200m northeast of the site, during sewer excavations, in Chilton Grove in May 1946. A pot was recovered which contained 269 coins of the Emperors Honorius and Arcadius (388-402 AD)⁵.

2.4 Medieval

All available evidence suggests that the area in the immediate vicinity of the site was undeveloped, and perhaps inundated or at least prone to flooding in the medieval period. Apart from a few finds with insecure locations, known medieval features and finds are concentrated on higher ground adjacent to the Thames, west of Grove Street. It was here, in the area of the modern Pepys Estate, that a dockyard developed in the 15th century.

An isolated find of medieval pottery has been recorded 500m to the southeast of site.⁶

2.5 Post-medieval

At Bramcote Grove, alluvial deposits caused by seasonal flooding of the Thames continued to be deposited until the 17th/18th century. Similar deposition was observed to the south of the site, at SIL00.

During the early post-medieval period, docks occupied the riverside area to the northeast and east of the site.

Early maps show the site as mainly open farmland until wholesale development between 1862 and 1889. Rocque's map of 1746 shows the site area as open land, demarcated by field boundaries. The northeast corner of the site at this date was traversed by a lane beside which was a standing building. The setting is much the same on the Greenwood map of 1824-6. The Stanford Library map of 1862 and Ordnance Survey map of 1880 (Middlesex sheet) shows the site still as open land, with the building seen on the previous two maps identified as the St. Helena Tavern, evidently a structure dating from before the mid-18th century. By this date, railways have begun extending across the open land in which the site was set, and by 1889 the site was fully built up with tenement houses with gardens.

⁴ GLSMR 090273

⁵ GLSMR 090273

⁶ GLSMR 070060, 071054

3 The evaluation

3.1 Methodology

All archaeological excavation and monitoring during the evaluation were carried out in accordance with the preceding *Method Statement* (Sections 2.3 and 2.4; Nielsen, 2005), and the MoLAS *Archaeological Site Manual* (MoLAS, 1994).

Five evaluation trenches measuring 10m by 7.5m were excavated, their locations decided in agreement with GLAAS, the Borough's archaeological adviser. The trench locations are illustrated in Figure 2. The trenches were excavated by tracked machine, with a ditching bucket under MoLAS supervision down to the top of the peat horizon. Given the unstable rubble overburden and the depth at which the trenches were to be dug to reach the peat horizon, the trenches were stepped to prevent collapse of the sides. A scaled sectional drawing was made to record the sequence of deposits (see Figures 3 to 7). The sequence of deposits below the peat horizon was recorded via a series of auger holes carried out by the MoLAS Geoarchaeological Team.

Trenches were located by the MoLAS Geomatics Section and then plotted onto the OS grid. Heights of observations were recorded relative to Ordnance Datum via a traverse from the sites OS benchmarks established by the survey team from Higgins Construction. Five heights were established for MoLAS, of which three were used: H1=0.569m OD and H2=0.601m OD (north end of Alpine Road), rounded up to 0.60m OD, and H5=0.419m OD (south end of Alpine Road), rounded up to 0.42m. A sixth height, value 1.24m OD, was established by MoLAS on the eastern side of the site, traversing from H1.

A written and drawn record of all deposits encountered was made in accordance with the principles set out in the MoLAS *Archaeological Site Manual* (MoLAS, 1994).

The site has produced: 1 trench location plan; 34 context records; 5 section drawings at 1:20; 1 black and white film and 1 colour slide film.

The site finds and records can be found under the site code OFG02 in the MoLAS archive.

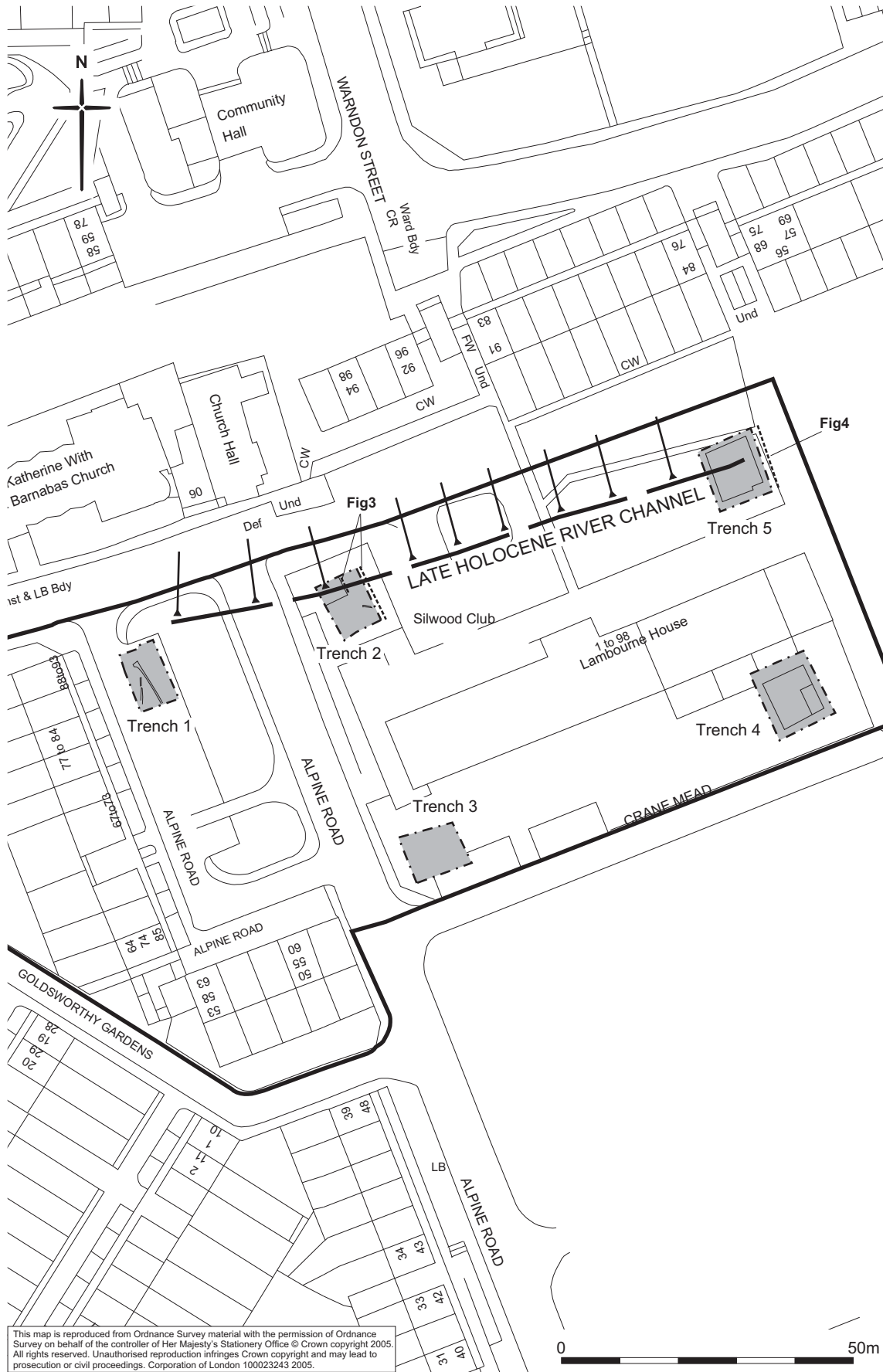


Fig 2 Trench location plan showing later Holocene river channel

3.2 Results of the evaluation

For trench locations see Figure 2. For section drawings of trenches 2 and 5 see Figures 3 and 4.

Evaluation Trench 1	
Location	North-western area of site
Dimensions	7.50m E-W x 10m N-S
Modern ground level	0.87m OD
Depth of made ground	0.80m
Depth of archaeological deposits seen	0.80-0.90m (alluvial clay 60mm (top of peat visible in section))
Level at base trench	-0.77m OD (N); -0.83m OD (S)
Natural observed	Sand/gravel from augerhole 4 = -4.15 m OD

The sequence of deposits below the peat horizon was determined by an augerhole, AH4, on the eastern side of the trench drilled from a depth of -0.80m OD, from the base of the trench, the results of which are presented in tabulated form below:

AH4 - The Lithostratigraphy

Elevation and thickness of unit (m.OD)	AH4 sedimentary description
-0.8mOD to -1.4mOD	Dark brown PEATY CLAY, firm, well-humified, large wood fragments. Clear horizontal contact with unit below.
-1.4mOD to -1.45mOD	Mid grey to reddish brown CLAY, soft, occasional organic flecks, poorly sorted. Clear horizontal contact with unit below.
-1.45mOD to -1.75mOD	Light grey SAND, moderately coarse. Clear horizontal contact with unit below
-1.75mOD to -2.25mOD	Mid grey to reddish brown CLAY, soft, occasional organic flecks, laminated at top, peatier with depth, wood fragments at base. Clear horizontal contact with unit below.
-2.25mOD to -2.5mOD	Light yellowish white calcareous MARL; occasional to moderately frequent mollusc fragments.
-2.5mOD to -4.15mOD	Mid- greenish grey CLAY and fine SAND, laminated at top becoming coarser, less laminated and more sandy with depth; occasional gravel near base. Graded contact with unit below.
-4.15mOD to unknown depth	SAND and GRAVEL

Table 4: The sedimentary sequence of AH4.

Peat [3] was recorded across the entire area of the trench at a height of -0.83m OD to the south and -0.77m OD to the north. On the surface of the peat were the remains of

two collapsed trees, one aligned north-south with its roots visible at the northern end of the trench. Both were identified as *Quercus sp.* (oak). Sealing the peat was a 0.80-0.90m depth of alluvial clay [2], the top of which was recorded at a height of -0.04m to -0.10m OD. This sequence was sealed by a 0.40m depth of modern demolition rubble [1] capped by a concrete slab at a height of 0.87m OD.

Evaluation Trench 2	
Location	Central northern area of site
Dimensions	10m N-S x 7.50m E-W
Modern ground level	0.90m OD
Depth of made ground	0.95m
Depth of archaeological deposits seen	1.00m (S); 2.00m (N) (alluvial clay) 80mm (top of peat visible in section)
Level at base of trench	-0.58m OD (S); -1.45m OD
Natural observed	Sand/gravel from augerholes 1 = -4.22m OD and 2 = -3.98m OD

The sequence of deposits below the peat horizon was determined by two augerholes - AH1, at the northern end of the trench drilled from a depth of -0.72m OD, and AH2, located at the southern end of the trench, drilled from a depth of -0.78m OD (Fig 3). The results are presented in tabulated form below:

AH1 - The Lithostratigraphy

Elevation and thickness of unit (m.OD)	AH1 sedimentary description
-0.72mOD to -1.09 mOD	Light tan brown soft CLAY with mid-reddish brown mottling with sand element toward base, poorly sorted. Clear horizontal contact with unit below.
-1.09mOD to -1.21 mOD	Dark brown PEATY CLAY, firm, well humified. Clear horizontal contact with unit below.
-1.21mOD to -1.3mOD	Mid grey CLAY, soft, occasional organic flecks, poorly sorted. Clear horizontal contact with unit below.
-1.3mOD to -1.84 mOD	Mid-reddish brown PEATY CLAY, firm. Clear horizontal contact with unit below.
-1.84mOD to -2.17 mOD	Mid to light greyish brown SILTY CLAY, soft, occasional organic flecks, occasional mollusc fragments, poorly sorted. Clear horizontal contact with unit below.
-2.17mOD to -2.3mOD	Light yellowish white calcareous MARL; occasional to moderately frequent mollusc fragments
-2.3mOD to -2.33mOD	Mid-reddish brown PEATY CLAY, firm, well humified. Clear horizontal contact with unit below.
-2.33mOD to -4.22mOD	Mid-grey CLAY and fine SAND, laminated at top becoming coarser, less laminated and more sandy with depth; occasional gravel near base. Graded contact with unit below.

-4.22mOD to unknown depth	SAND and GRAVEL
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Table 1: The sedimentary sequence of AH1

AH2 - The Lithostratigraphy

Elevation and thickness of unit (m.OD)	AH2 sedimentary description
-0.78mOD to -1.03 mOD	Dark brown PEATY CLAY, firm, well humified. Clear horizontal contact with unit below.
-1.03mOD to -1.19 mOD	Mid grey to reddish brown CLAY, soft, occasional organic flecks, poorly sorted. Clear horizontal contact with unit below.
-1.19mOD to -1.89mOD	Mid-reddish brown PEATY CLAY, fibrous, woody, firm. Clear horizontal contact with unit below
-1.89mOD to -1.92 mOD	Black PEATY CLAY, firm. Clear horizontal contact with unit below
-1.92mOD to -2.12 mOD	Mid to light greyish brown SILTY CLAY, laminated with sand, soft, occasional organic flecks, occasional mollusc fragments. Clear horizontal contact with unit below.
-2.12 mOD to -2.28mOD	Mid-reddish brown crumbly PEAT, firm, well-humified, frequent mollusc fragments. Clear horizontal contact with unit below.
-2.28mOD to -2.46mOD	Light yellowish white calcareous MARL; occasional to moderately frequent mollusc fragments
-2.46mOD to -3.98mOD	Mid-grey CLAY and fine SAND, laminated at top becoming coarser, less laminated and more sandy with depth; occasional gravel near base. Graded contact with unit below.
-3.98mOD to unknown depth	SAND and GRAVEL

Table 2: The sedimentary sequence of AH2.

(See Fig 3)

Peat was recorded across the entire area of the trench at a height of -0.78m OD on the south side and at -1.81m OD, to the north, where an east-west channel [11] had cut through it. On the surface of the peat was a length of collapsed tree, aligned northwest-southeast, in the southeast corner of the trench, identified as *Alnus glutinosa* (alder). The base of the channel was filled with a 0.37m depth of dark bluish alluvial clay mottled with peat [14], recorded at a height of -1.45m OD and represents the lower fill of [10], a pale bluish grey clay. The sequence of deposits above the channel fill also consisted of waterlogged alluvial clays, [9] (0.20-0.30m thick), a pale buff grey in colour, [8] (0.60m thick) a mottled oxidised mid-dark orange clayey silt and [7] (0.61m thick) and a series of banded orange and yellow sands. The top of this naturally occurring sedimentation was recorded at a height of 0.12m OD.

Above these naturally formed sediments was the remains of a truncated topsoil [13] 0.15m thick, surviving on the northern side of the trench at a height of 0.20m OD, and representing the land surface during the late post-medieval period, probably part of a garden area associated with one of the late 19th century tenement buildings that were constructed on the site. An east-west aligned drain [6] and its backfill [5] was seen on the northern side of the trench cutting through the topsoil, representing the construction phase of the 19th century tenement houses. The uppermost part of the sequence, and the most recent, was a 0.95m depth of made-up ground consisting of brick and rubble [4], the top of which was recorded at a height of 0.90m OD, representing demolition material from the tenements in the 1960s and the present ground level.

Evaluation Trench 3	
Location	South-western area of site
Dimensions	10m E-W x 7.50m N-S
Modern ground level	0.53m OD (S) – 0.26m OD (N)
Depth of made ground	1.00m
Depth of archaeological deposits seen	0.52m (plough soil and subsoil) 0.32m (alluvial silt) 0.28m (top of peat visible in section)
Level at base of trench	-1.04m OD (S); -1.12m OD
Natural observed	Sand/gravel from augerhole 3 = -4.04m OD

The sequence of deposits below the peat horizon was determined by augerhole AH3, on the eastern side of the trench drilled from a depth of –1.04m OD, from the base of the trench.

AH3 - The Lithostratigraphy

Elevation and thickness of unit (m.OD)	AH3 sedimentary description
-1.04mOD to -1.86 mOD	Dark brown PEATY CLAY, fibrous, woody, firm, well humified at base. Clear horizontal contact with unit below.
-1.86mOD to -1.94 mOD	Mid greyish brown SILTY CLAY, soft, occasional organic flecks, poorly sorted. Clear horizontal contact with unit below.
-1.94mOD to -2.04mOD	Light grey SANDY CLAY, moderately coarse. Clear horizontal contact with unit below.
-2.04mOD to -4.04mOD	Mid- greenish grey CLAY and fine SAND, laminated at top becoming coarser, less laminated and more sandy with depth; occasional gravel near base. Graded contact with unit below.
-4.04mOD to unknown depth	SAND and GRAVEL

Table 3: The sedimentary sequence of AH3.

Peat [18] was recorded across the entire area of the trench at a height of -1.04m OD on the south side and at -1.12m OD, to the north. On the surface of the peat, were the roots of a collapsed tree, in the south-western corner of the trench. Although not specifically identifiable, it was probably a softwood (Anne Davis pers comm). Sealing the peat was a 0.32m depth of orange-buff (oxidised) alluvial clay [17], the top of which was recorded at a height of -0.82m OD.

Above these naturally formed sediments was a garden soil [16] 0.19m thick, surviving on the at a height of -0.61m OD, and representing the land surface during the late post-medieval period, probably part of a garden area associated with one of the late 19th century tenement buildings that were constructed on the site. An east-west aligned drain [20] and its backfill [19] was seen cutting through the topsoil, representing the construction phase of the 19th century tenement houses. The uppermost part of the sequence, and the most recent, was a 0.55m depth of made-up ground consisting of brick and rubble [15], the top of which was recorded at a height of -0.06m OD, representing demolition material from the tenements in the 1960s and the present ground level.

Evaluation Trench 4	
Location	South-eastern area of site
Dimensions	8.30 m N-S x 7.50m EW
Modern ground level	0.80m OD (S) – 0.66m OD (N)
Depth of made ground	0.50m – 0.75m OD
Depth of archaeological deposits seen	0.26 – 0.33m (plough soil and subsoil} 0.40m (alluvial silt) 0.60m (top of peat visible in section)
Level at base of trench observed	-1.15m OD (S); -1.22m OD (N)
Natural observed	Sand/gravel from augerhole 5 = -2.52m OD

The sequence of deposits below the peat horizon was determined by augerhole AH5, in the south-eastern corner of the trench drilled from a depth of -1.22m OD, from the base of the trench.

AH5 - The Lithostratigraphy

Elevation and thickness of unit (m.OD)	AH5 sedimentary description
-0.22m OD to -0.67mOD	Tan brown SANDY CLAY becoming more clayey with depth. Clear horizontal contact with unit below.
-0.67mOD to -1.87mOD	Dark brown PEATY CLAY, firm, well-humified, large wood fragments. Clear horizontal contact with unit below.
-1.87 mOD to -2.52mOD	Mid- greenish grey SAND, occasional gravel near base. Graded contact with unit below.

-2.52mOD to unknown depth	SAND and GRAVEL
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Table 5: The sedimentary sequence of AH5.

Peat [27] was recorded across the entire area of the trench at a height of -1.00m OD on the south side and at -0.87m OD, to the north. Sealing the peat was a 0.32-0.50m depth of orange/brown-buff (oxidised) alluvial clay [26], the top of which was recorded between -0.30m OD and -0.77m OD.

Above these waterlain sediments was a buried subsoil [25] 70mm-0.25m thick and it overlying topsoil [24], surviving at a height of 0.10m OD, and representing the land surface during the late post-medieval period, probably part of a garden associated with one of the late 19th century tenement buildings that were constructed on the site. The uppermost part of the sequence, and the most recent, was a 0.50-0.70m depth of made-up ground consisting of brick and rubble [21], the top of which was recorded at a height of 0.48m OD, representing demolition material from the tenements in the 1960s. This, in turn was sealed by a modern garden soil 0.38m thick at a height of 0.93m OD, represent modern ground level. Two modern east-west aligned drains [23] and [29] along with their respective backfills [22] and [28] was seen cutting through the modern ground surface and represent service trenches relating to the 1960s flats, recently demolished on the site.

Evaluation Trench 5	
Location	North-eastern area of site
Dimensions	10.0 m N-S x 7.50m EW
Modern ground level	1.42m OD (S) – 1.22m OD (N)
Depth of made ground	0.90m – 1.00m OD
Depth of archaeological deposits seen	1.90 (alluvial silt) 50mm to 0.60m (lenses of peat) 0.30m (top of sands visible in section)
Level of base of deposits observed	-1.89m OD (S); -1.39m OD (N)
Natural observed	Sand/gavel from augerhole 6 = -2.30m OD

The sequence of deposits below the peat horizon was determined by augerhole AH6, in the north-eastern corner of the trench drilled from a depth of -1.39m OD, from the base of the trench (Fig 4).

AH6 - The Lithostratigraphy

Elevation and thickness of unit (m.OD)	AH6 sedimentary description
-1.39m OD to -1.18mOD	Dark brown PEATY CLAY, firm, well humified at base, large wood fragments. Clear horizontal contact with unit below.

-1.18mOD to -1.45mOD	Mid greenish grey CLAYEY SAND, occasional gravel. Graded contact with unit below.
-1.45 mOD to -1.48mOD	Light to mid brown PEATY CLAY. Clear horizontal contact with unit below.
-1.48mOD to -2.3mOD	Light tan brown SANDY CLAY and occasional gravel, becoming coarser sand down profile. Grades into unit below
-2.3mOD to unknown depth	SAND and GRAVEL

Table 6: The sedimentary sequence of AH6.

Peat [33] was largely absent from this trench, with only patches surviving, above pale yellow and grey coarse sand [34]. Its absence is due to erosion from the east-west river channel [35], of which only the upper part of the southern edge was exposed in section at a height of -1.46m OD. Where the peat does survive, it is highest on the south side at -1.10m OD and lowest in the centre of the trench at -1.60m OD. Sealing the peat was a 2.00m+ depth of alluvial clay, of which the lower horizon [32] (0.40m-1.00m thick) was pale-mid grey (unoxidised), and the upper [31], was mid orange flecked with grey (oxidised). The top of this of which was recorded between 0.10m and 0.30m OD.

Above these waterlain sediments, and the most recent, was a 0.70m-1.00m depth of made-up ground consisting of brick and rubble [30], the top of which was recorded between 1.22m and 1.42m OD, representing demolition material from the tenements in the 1960s and the top of current ground level.

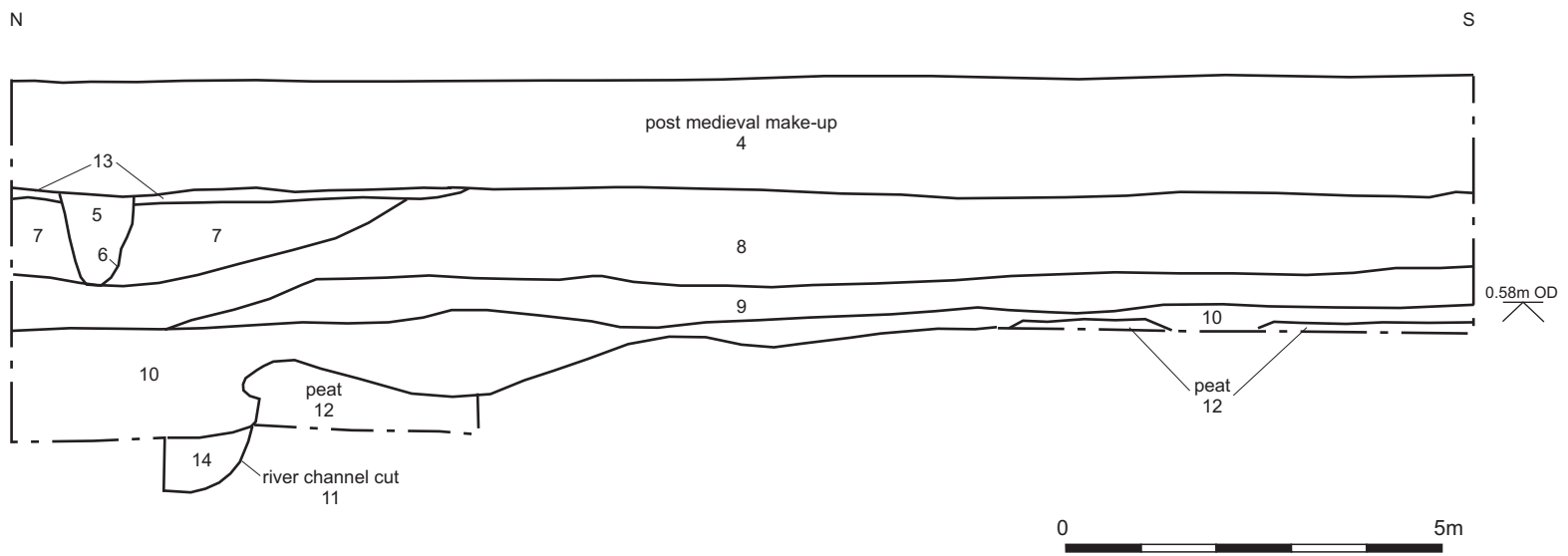


Fig 3 Section through the peat and alluvial clays and later Holocene river channel in Trench 2

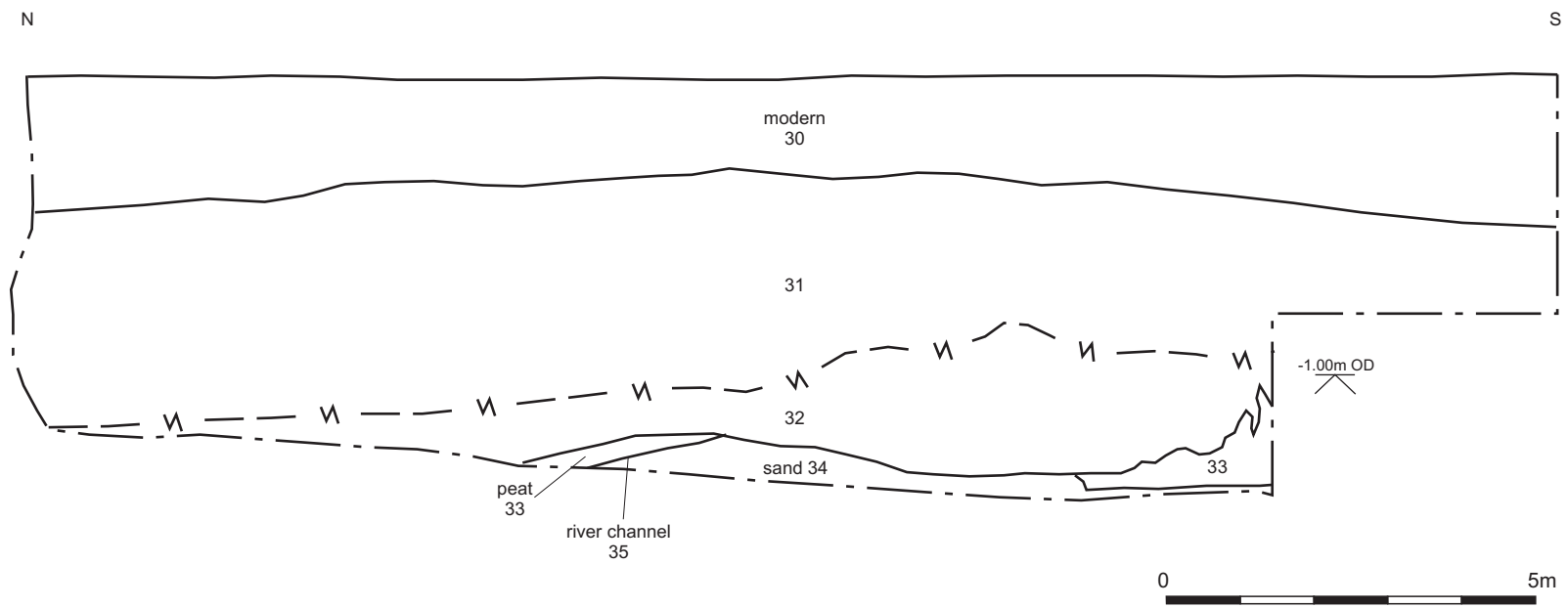


Fig 4 Section through the peat and alluvial clays and upper part of the later Holocene river channel in Trench 5

3.3 Assessment of the evaluation

GLAAS guidelines (English Heritage, 1998) require an assessment of the success of the evaluation ‘in order to illustrate what level of confidence can be placed on the information which will provide the basis of the mitigation strategy’.

In the case of this site the evaluation has shown that the survival of deposits potentially containing archaeological evidence of prehistoric activity, specifically from the Holocene to Bronze Age periods, is good. The trenches were distributed across the site allowing a broad sample of the archaeological resource to be observed and recorded.

4 Archaeological potential

4.1 Realisation of original research aims

What is the nature and level of natural topography?

The natural topography consisted of a sequence of sandy gravels overlain by a series of alluvial clay and peat deposits. The gravel deposits represent the floodplain terraces of the River Thames. The deposits of alluvial clay and peat represent periodic marine/river transgressions and regressions. The peat was at a height of between -0.77 and -1.12m OD across the site. On the northern side of the site, in trenches 2 and 5, the peat was at a lower depth between -1.60m and -1.81m OD, due to erosion by a later Holocene river channel. Overlying the peat was a deposit of alluvial clay, ranging from 0.35-1.00m thick on the southern side, gradually thickening to 2.00m+ over the later Holocene river channel in trenches 2 and 5.

What are the earliest deposits identified?

All the sediments in the augerholes generally appear to represent a lacustrine environment early in the Holocene with laminated silts and sands, giving way to marls in augerholes 1, 2 (Trench 2) and 4 (Trench 1). This was probably a lake that developed on the floodplain of the Thames in and amongst the gravel highs and lows created during the Late Devensian braided river environment (c.30-10,000 BP). The area appears to have become progressively drier with organic clays and peats accumulating over the marls through vegetation colonisation along the lake margins. Silty clays within the peats probably represent reactivation of the lake through changes in climate or changes in the local fluvial regime. Added to this, through trenches 2 and 5 (AH1 and AH6), the peats appear to have been eroded probably through a later Holocene river channel crossing the northern edge of the site.

What are the latest deposits identified?

The latest deposit identified is a layer of 20th century levelling consisting of the demolished remains of 19th century buildings, which previously existed on the site.

Is there evidence of human activity associated with the margins of the 'Bermondsey Lake' in the prehistoric or historic periods?

No evidence of human activity during the likely lifespan of the 'Bermondsey Lake' was observed.

What is the evidence for the environment in the prehistoric and historic periods?

The layers of peat and organic silts resting on the Thames terrace gravels were formed under conditions of lowered mean sea level (marine regressions) and corresponding

river level, allowing the development of fen and marsh. Geologically these deposits are very recent and most were laid down over the past 12,000 years in the prehistoric period.

There is a lack of evidence for the Roman, Saxon and medieval period and deposits of alluvial silt indicating the area was still probably prone to flooding until the post-medieval period when the land was developed for housing.

4.2 General discussion of potential

The evaluation demonstrated that deposits of alluvial clay and peat are well-preserved. It is possible that such deposits could contain evidence of human activity.

4.3 Significance

Whilst the sequence revealed is of local significance there is nothing to suggest that it is of regional or national importance.

5 Assessment by EH criteria

The recommendations of the GLAAS 1998 guidelines on *Evaluation reports* suggest that there should be:

‘Assessment of results against original expectations (using criteria for assessing national importance of period, relative completeness, condition, rarity and group value)...’ (Guidance Paper V, 4 7)

The Department of the Environment published a set of guidelines with criteria by which to measure the importance of individual monuments for possible Scheduling. These criteria are as follows: *Period; Rarity; Documentation; Survival/Condition; Fragility/Vulnerability; Diversity* and *Potential*. The guidelines stress that ‘these criteria should not...be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case’.⁷

In the following passages the potential archaeological survival described in the initial *Assessment* document (Tyler, 2001) and Section 3.2 above will be assessed against these criteria.

Criterion 1: period

The greatest potential of the site may be to provide information on prehistoric human activity, specifically from the Mesolithic to Bronze Age periods, though no evidence to this effect was observed in the evaluation.

Criterion 2: rarity

There is nothing to suggest that any of the likely archaeological deposits are rare either in a local or national context.

Criterion 3: documentation

Whilst there may be contemporary documentation for the later medieval period from c AD1300 on, it is unlikely that any individual features encountered, except those of 19th-century and later origin can be related specifically to such.

Criterion 4: group value

None of the likely archaeological deposits sources can, except in broad terms, be associated with contemporary single Monuments external to the site.

Criterion 5: survival/condition

The evaluation has demonstrated that alluvial deposits potentially containing evidence for prehistoric activity are locally well-preserved.

⁷ Annex 4, DOE, Planning and Policy Guidance 16, (1990). For detailed definition of the criteria see that document. Reference has also been made to Darvill, Saunders & Startin, (1987); and McGill, (1995)

Criterion 6: fragility

In consideration of the method of construction for the new development, proposed damage to potential archaeological deposits is likely to be limited to the localised impact of piling.

Criterion 7: diversity

The deposits encountered are likely to relate to the Mesolithic to Bronze Age periods onwards. Although later deposits have survived, 19th and 20th century building works have truncated them heavily. The resource is therefore of limited diversity and there is no reason to suggest that the diversity *per se* has any particular value which ought to be protected.

Criterion 8: potential

The evaluation has shown that the potential for survival of deposits, which might contain archaeological evidence, is locally good.

6 Proposed development impact and recommendations

The proposed redevelopment at Silwood Estate (Phase3) involves the construction of residential properties with back-to-back gardens.

The method of construction for the residential properties will be by bored piles. Therefore, the impact would be to destroy any archaeologically significant deposits at the pile locations. This however, will be limited in terms of the site as a whole, with the majority of the archaeological resource preserved and unaffected.

The decision on the appropriate archaeological response to the deposits revealed within Silwood Estate (Phase 3) rests with the Local Planning Authority and their designated archaeological advisor.

7 Acknowledgements

The author would like to thank Nick Koster of Higgins Construction plc for his assistance and Paul Thrale who assisted with sitework. MoLAS would also like to thank Mark Stevenson of English Heritage Greater London Archaeology advisory service for his advice.

8 Bibliography

- Beck, E. J, 1907. *A History of Rotherhithe*. London.
- Codrington, T, 1915. 'London South of the Thames', *Surrey Arch Coll* 28, 111-163.
- Eastbury, E, 2002 Silwood Estate (Phase 1): *An archaeological evaluation report*
MoLAS unpublished report
- Eastbury, E, 2004 Silwood Estate (Phase 2): *An archaeological evaluation report*
MoLAS unpublished report
- English Heritage Greater London Archaeology Advisory Service, June 1998.
Archaeological Guidance Papers 1-5
- English Heritage Greater London Archaeology Advisory Service, May 1999.
Archaeological Guidance Papers 6
- Institute of Field Archaeologists, (IFA), 1999. *By-Laws, Standards and Policy Statements of the Institute of Field Archaeologists*, (rev. 1999), *Standard and guidance: field evaluation*
- Institute of Field Archaeologists (IFA), supplement 2001. *By-Laws, Standards and Policy Statements of the Institute of Field Archaeologists: Standards and guidance – the collection, documentation conservation and research of archaeological materials*
- Merriman, N, 1992. 'Predicting the unexpected: prehistoric sites recently discovered under the alluvium in central London', in S Needham and M G Macklin (eds) *Alluvial Archaeology in Britain*, Oxbow Monograph, **27**, 261-67, Oxford.
- Museum of London, 1994. *Archaeological Site Manual 3rd edition*
- Nielsen, R, 2005. Silwood Estate (Phase 3) London SE16. *A Method Statement for archaeological evaluation*.
- Thomas, C, & Rackham, J, 1996. 'Bramcote Green, Bermondsey: a Bronze Age Trackway and Palaeo-Environmental Sequence', *Proceedings of the Prehistoric Society* 61, 221–253
- Tyler, K, 2001. Silwood Estate, London SE16. *An archaeological Assessment Report*.

9 OASIS DATA COLLECTION FORM

Project details

Project name Silwood Estate Phase 3

Short description of the project

An archaeological evaluation carried out by the Museum of London Archaeology Service (MoLAS) on the site of Silwood Estate (Phase 3), London, SE16, London Borough of Lewisham. The report was commissioned from MoLAS by Higgins Construction PLC. Five evaluation trenches were excavated on the site and six augerholes assessed by the MoLAS Georachaeology Team. All the sediments in the augerholes generally appear to represent a lacustrine environment early in the Holocene with laminated silts and sands, giving way to marls in augerholes 1, 2 and 4 . This was probably a lake that developed on the floodplain of the Thames in and amongst the gravel highs and lows created during the Late Devensian braided river environment (c.30-10,000 BP). The area appears to have become progressively drier with organic clays and peats accumulating over the marls through vegetation colonisation along the lake margins. Silty clays within the peats probably represent reactivation of the lake through changes in climate or changes in the local fluvial regime. Added to this, through trenches 2 and 5 (AH1 and AH6), the peats appear to have been eroded probably through a later Holocene river channel crossing the northern edge of the site. The later deposits consist of a plough soil and subsoil, representing the late post-medieval ground level and later garden areas for 19th century residential buildings. These buildings were demolished in the 1960s, and the with resultant rubble material levelled on top of the plough soil, prior to the construction of the Silwood estate.

Project dates Start: 17-01-2005 End: 28-01-2005

Previous/future work Yes / Not known

Any associated project reference codes OFG02 - Sitecode

Type of project Field evaluation

Site status None

Current Land use Residential 1 - General Residential

Monument type HOLOCENE RIVER CHANNEL ADN PEAT DEPOSITS Upper Palaeolithic

Monument type BURIED TOPSOIL Post Medieval

Methods & 'Targeted Trenches'

techniques

Development type Housing estate

Prompt Direction from Local Planning Authority - PPG16

Position in the
planning process After full determination (eg. As a condition)

Project location

Country England
 Site location GREATER LONDON LEWISHAM DEPTFORD AND NEWCROSS
 Silwood estate
 Postcode SE1
 Study area 15000 Square metres
 National grid
 reference TQ 3567 7855 Point
 Height OD Min: -4.22m Max: -2.3m

Project creators

Name of
 Organisation MoLAS
 Project brief
 originator Local Authority Archaeologist and/or Planning Authority/advisory
 body
 Project design
 originator MoLAS
 Project
 director/manager Robin Nielsen
 Project supervisor Portia Askew
 Sponsor or funding
 body Higgins Construction plc

Project archives

Physical Archive
 recipient LAARC
 Physical Archive
 Exists? Yes

Digital recipient	Archive	Archive
Digital Contents		'none'
Digital available	Media	'Survey'
Digital Exists?	Archive	Yes
Paper recipient	Archive	LAARC
Paper Contents		'Environmental'
Paper available	Media	'Context sheet', 'Photograph', 'Plan', 'Report', 'Section', 'Survey', 'Unpublished Text'
Paper Exists?	Archive	Yes

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Silwood Estate (Phase 3): An archaeological evaluation
Author(s)/Editor(s)	Askew, P
Date	2005
Issuer or publisher	MoLAS
Place of issue or publication	MoLAS
Description	A4 ringbound report

Entered by	Portia Askew (portiaa@molass.org.uk)
Entered on	17 March 2005