

SUMMARY

Archaeological monitoring, on behalf of Ballymore Millharbour Limited was undertaken on preparatory works for the construction of foundations for a new development at 1, Millharbour, on the Isle of Dogs, London. The site had formerly held office buildings on close-piled foundations.

The monitoring was conducted on probing for intrusions within the location of piles from the previous building, on 2nd September 2005. The probing reached a depth of 4m below ground surface. Made ground was observed to a depth of 3.80m, and the top of alluvial silt was seen below this. No layers or features of any archaeological significance were recorded.

It is concluded that further archaeological work may be required within the area of this development, in the form of a Watching Brief.

1 INTRODUCTION

Site Location (Figures 1 and 2)

- 1.1 The site is located in the centre of the Isle of Dogs with the Docklands Light Railway bounding the site to the north and Millwall Dock occupying the area to the east of the site. The site is bounded to the south by warehouses and offices, whilst Millharbour runs north to south to the west of the site. 1 Millharbour is centred on National Grid Reference (NGR) TQ 3770 7975. The site is not located within an Area of Archaeological Importance as defined by the London Borough of Tower Hamlets and does not contain any Listed Buildings or Scheduled Ancient Monuments.

Development Proposals

- 1.2 The proposed scheme of development will consist of two tower blocks in the northwest and eastern ends of the site, 36 and 46 storeys high respectively, offering space for private residential housing with commercial uses at ground floor. The tower blocks will be linked by a shared single level basement that will occupy the full site footprint.

Planning Background

- 1.3. The monitoring was carried out to satisfy the requirement for an archaeological programme attached to Conditional Planning Permission for Development (Planning Application PA/021605) for the scheme, under the Town & Country Planning Act (1990), as Condition 8, as indicated within *Planning Policy Guidance: Archaeology and Planning – PPG16*, which states that:

“No development shall take place within the area indicated until the applicant, or their agents or successors in title has secured the implementation of a programme of archaeological work.

- 1.4 The London Borough of Tower Hamlets includes the following archaeological planning policies within its UDP (Adopted 1998):

DEV 41 Planning powers will be used to protect and preserve the archaeological heritage including the industrial archaeological heritage of the Borough. Interpretation and presentations of remains to the public will also be sought.

DEV 42 The permanent preservation of remains in the original location will normally be required. Suitable design, land use and site management to achieve this will be encouraged.

DEV 43 Proposals involving ground works in Areas of Archaeological Importance or potential, shown on the Proposals Map, or on individual on sites

notified to the Council by English Heritage will be subject to the following requirements:

1. “Applicants will need, as part of their submission, to demonstrate that the archaeological implications of the development have been assessed, using the professional advice of an approved archaeological consultant;
 2. Appropriate conditions will be attached to planning permission to ensure that investigation, excavation and recording takes place by an approved archaeological organisation before development commences; and
 3. In appropriate cases, planning agreements will be sought to ensure that adequate opportunities are afforded for the archaeological investigation of sites before and during demolition and development, and that suitable provision is made for preserving remains and finds in the original location or for removing them to a place of safe keeping.”
- 1.5 To satisfy this requirement of the condition, a Desk Based Assessment was prepared by AOC Archaeology Group in August 2002. This concluded that the site does not include any Listed Buildings or Scheduled Ancient Monuments, nor does it not lie within an Area of Archaeological Importance as defined within the London Borough of Tower Hamlets. Given the scale of impact of previous development it is presumed that nothing or little survives in the way of archaeological remains on the site.
- 1.6 In September 2005, ground probing was monitored, to inform whether this assessment of the archaeological survival was justified. This report summarises all observations made, including an analysis of geotechnical reports.
- 1.7 The fieldwork was managed Mark Beasley for AOC Archaeology and supervised by the author. David Divers of English Heritage (GLAAS), as official monitor for the borough, was kept advised of progress.

2 GEOLOGY

2.1 The geology map (British Geological Survey, England and Wales, Sheet 270) shows the site as being situated upon alluvial clays over London Clay. A number of geotechnical investigations have been conducted on the site, including boreholes, trial pits and monitoring of groundwater levels (WSP Environmental 2004).

The findings of the geotechnical report are summarised in the table below.

Strata	Description	OD	Thickness
Paving	Brick Paving	4.60m	0.08m
Made Ground	Sandy clay with brick and concrete demolition debris	4.5m to 1.70m	Up to 4.50m
Alluvium	Silty Clay	1.70m to -0.31m	0.90m to 1.90m
Peat	Clayey silty peat	-0.31m to -1.33m	0.80m
Terrace Gravel	Sandy, dense	-1.33m	Terrace Gravel

2.2 The report of the made ground as including concrete demolition debris indicates the low archaeological potential of the deposit. The underlying alluvium has been recorded at 1.70m OD at the north of the site, where it is 1.90m deep, dropping to 0.85m to the south, where it is only 0.90m deep. This may indicate either truncation or erosion. The peat horizon was identified at between -0.61m OD and -1.33m OD and appears to be 0.80m thick. This overlies terrace gravel, the top of the geological sequence.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Introduction

- 3.1 There has been no prior archaeological investigation on the site. There are no Greater London Sites and Monuments Record (GLSMR) entries for archaeological features or chance finds within the boundaries of the site, but there are several such entries in the close vicinity.

Prehistoric

- 3.2 In the lower Thames flood plain the alluvium is banded with layers of peat, deposited during periods of marine regression, when the sea level fell. The peat results from a sedge -fen landscape, which included tree species such as oak, alder, elm, pine, beech, hazel and yew, often preserved as whole trunks and stumps in situ. The preservation of organic materials, including timber structures and wooden artefacts, is therefore excellent. These peat layers are largely confined to the alternating north and south peninsulas of the lower Thames, such as Wapping, Bermondsey, and the Isle of Dogs.
- 3.3 A number of entries within the GLSMR refer to prehistoric activity near the site including the remains of several prehistoric forests discovered during building work in Millwall. In 1853, a possible Mesolithic handaxe (GLSMR 080889) was found during the construction of the docks. During the construction of the West India Dock a layer 0.4m thick was discovered that contained animal bone and elm/ oak wood from a forest (GLSMR 080728). Several Neolithic tools have also been recovered from the Thames (GLSMR 110037, 112004, 112005 and 112006).
- 3.4 More recently, work in Millwall Park in 1996 (site code DXA 96) found a wooden platform and trackway adjacent to a silted up river course. A similar timber structure was found approximately 600m to the south of the site at Atlas Wharf on the Westferry Road (site code AWF 98), probably a platform for exploiting the local wetland resources, dating to the Bronze age (GLSMR 084645).

Roman

- 3.5 The site itself is located some distance to the east of the Roman city of Londinium. Little evidence has been found of any Roman activity throughout the Isle of Dogs. It has been presumed on this basis that this low-lying area would have been prone to flooding and possibly occupied on a seasonal basis.

Saxon and Medieval

- 3.6 The medieval period witnessed the reclamation of the low-lying marshes from the Thames. Earthen banks or walls were constructed along the riverside, and the land

behind was drained by ditches. This was then enclosed and drained in a series of parcels divided by cross-walls or counter walls, which were built out from the gravel uplands and ran perpendicular to the river, advancing on the river front over a period of time. The level of each parcel related to the date at which it was first 'inoned'; the lower the level, the earlier the inoning.

- 3.7 The earliest embankments may date to the Saxon period: the earliest of a series of royal commissions to review and repair the river banks dates to 1298, referring to the north side of the Thames, so the banks are likely to have functioned satisfactorily for some centuries before this (Dugdale 1662, 69-73). The method of constructing the river walls is not known with any certainty, but they are likely to have consisted of simple earthen banks, perhaps founded on hurdles. By the sixteenth century timber groynes probably formed the foundation, and the earth may have been mixed with reeds taken from the marshes in front of the wall. The reclaimed land behind the walls was utilised for meadow and pasture, and also for sowing corn. The unenclosed marshes in front of the walls were used for fishing and fowling. By the end of the medieval period, the river walls stood at 2.7m OD, as excavated at Limehouse. They were often breached and behind them there was frequent flooding of the fields up to 1.8m OD. Such an embankment was identified at Atlas Wharf (GLSMR No. 084647).
- 3.8 Documentary evidence shows that very little was constructed in the area of the site during the medieval period. It is recorded that William of Pontefract built a chapel dedicated to St Mary on his estate in the latter half of the twelfth century. This estate became known as the Manor of Pomfret and consisted of a hamlet with circa 80 acres of arable land and a windmill (RCHME 1994). The chapel was abandoned in 1449 due to flooding on the site. A bridge known as Pontefract Bridge is referred to in documentary evidence dated to circa 1230AD (GLSMR 080970).

Post Medieval and Industrial

- 3.9 Part of the medieval landscape survived into the 18th and 19th centuries: The site of Pomfret's chapel can still be seen on the later maps dating to the eighteenth and nineteenth centuries, referred to as 'Chapel House'. Much of the Isle of Dogs remained as marshland during the 18th century, but contemporary maps show that development was beginning.
- 3.10 The site is shown to be fields as is visible on Horwood's map of 1792-1799 (Figure 3). Millwall Docks began to be constructed in the mid to late nineteenth century. It was originally conceived as a dock not for trade, but for the construction and repair of ships and was built by John Kelk and John Aird & Son (RCHME 1994). The plan was to link the new dock to the southern end of the West India Dock. Several proposed schemes were suggested and the dock was eventually opened in 1868.

- 3.11 The Millwall Dock Company was formed in 1870 and the Millwall Railway extension was completed in 1871. The site itself was located within 'F Yard', and was unoccupied in 1873 (Figure 4). Large granaries and warehouses were built by the dock companies in the 1880s, and the production of grain was a booming business. A central granary was built between 1900 and 1903 by the Millwall Dock Equipment Company, just to the south of the site. It was used to store grain and to minimize handling associated with its transfer from ship to railway to truck (RCHME 1994). The granary was enormous, built of brick and containing 7.5 acres of floor space. The building contained an attic and basement, with concrete foundations reaching a depth of 25ft (RCHME 1994)
- 3.12 The map of Millwall Docks in 1907 shows the location of the Central Granary to the south of the site. Further warehousing has been constructed south of the Central Granary, but little in the way of development appears in the vicinity of the site, with the exception of the railway tracks leading from the huge Grain Depot to the west. A number of the railway tracks exist upon the site itself. Little change occurs upon the site in the first half of the 20th century as is obvious from the map of 1938 which only depicts the addition of more railway lines linking many of the warehouses in other areas surrounding the dock (Figure 8). The site escaped bombing in World War II, although much of the surrounding area was severely affected, as visible on the bomb damage map for Millwall (not illustrated).
- 3.13 The Central Granary remained to the south of the site until its demolition in 1970. The map of Millwall dated to 1973 reveals that the site was vacant at this time and the railway tracks removed.
- 3.14 In the 1980s a five storey office block occupying 29,243 sq.ft was built along with a second office block occupied by the Midland Bank. The office block to the east has since been demolished (Figure 5).

4 AIMS OF THE INVESTIGATION

- 4.1 In regards to monitoring of the preparatory probing works, the aims of the investigation were as follows:
- ? To establish the presence or absence of any archaeological remains within the development site;
 - ? To establish the ecofactual and environmental potential of any archaeological deposits and features and to establish the depositional sequence;
 - ? To record and sample excavate any such archaeologically important material;
 - ? To enable the LPA archaeology advisor to make an informed decision on the status of the condition imposed on planning consent;
 - ? The final aim is to make public the results of the archaeological work.

5 STRATEGY AND SCOPE OF WORKS

- 5.1 A unique site code for the project was obtained from the London Archaeological Archive Research Centre (LAARC) before commencing work (MIZ 05).
- 5.2 The monitoring was carried out during probing of eight locations for new piles, between the piles of the previous building on site, and starting within the previous basement at a height of 3.60m OD.
- 5.3 Each pile position was probed to a depth of 4.00m from the surface, in pits measuring 2m by 2m. Access into the probed areas was prevented by potential danger from collapse, and difficulty of access. A record was made of each probed area, to record any stratigraphic sequence apparent. Heights for each deposit were established relative to Ordnance Datum (OD).
- 5.4 Ground water was observed in each location at c.1.00m OD. This prevented access to peat deposits, expected at -0.31m OD and lower. The scale and scope of the work was assessed in consultation with the LPA archaeology advisor after eight pile positions were monitored. It was agreed that further monitoring of probing may be necessary beyond the area of the previous piled foundations in the light of this report.
- 5.5 All of the work was carried out in line with Archaeological Guidance Paper (AGP): 3, Standards and Practices in Archaeological Fieldwork (English Heritage June 1998).

6 RESULTS (Figure 6)

6.1 Pile Probing Log

Pile number	Depth of made ground	Level of alluvium/ OD
55	3.40	0.20m
56	3.80	-0.20m
57	3.40	0.20m
58	3.50	0.00m
66	3.80	-0.20m
107	3.20	0.40m
108	3.20	0.40m
109	3.40	0.20m

6.2 The probing of the pile positions for the new development was concentrated towards the southwest of the site, and revealed three distinct deposits. The lowest deposit was dark bluish grey silty clay with no apparent inclusions (003), and was observed for a maximum depth of 0.80m at pile positions 107 and 108. The alluvium continued below the base of the probing action. The surface of the alluvial horizon varied between 0.40m and -0.20m OD, and is thought to have been partially truncated by preparation works for the previous development. This is in the expected range of the depth of the deposit as identified in the boreholes. If the height of the peat is as expected, then the alluvial silt in this part of the site is between 0.10m and 0.70m thick.

6.3 The alluvial silty clay was sealed by made ground (002) up to 3.80m deep: mid grey brown sandy clay with a high proportion of concrete rubble and building material, thought to represent a reworked deposit relating to the previous development. The uppermost layer was a 0.16m thick layer of recently deposited building material (001), relating to the demolition of the previous buildings.

6.4 At no point in the investigation was peat seen, but future access to the potential prehistoric horizon will be difficult due to 1.30m depth of ground water.

7 FINDS

7.1 No archaeological material or artefacts of any significance were observed during the monitoring work.

8 CONCLUSIONS

- 8.1 With regard to the general aim of the monitoring work, to determine character and extent of the archaeological resource; no significant archaeological features were observed.
- 8.2 The piles of the previous development are spaced between 1.65m and 2.85m apart, and are of 0.5m 0.8m in diameter, preventing meaningful evaluation of the potential archaeological strata within the footprint of the building. These piles occupy some 40% of the site.
- 8.3 The Docklands Light Railway runs above the northeastern end of the site on an elevated trackway, preventing development of a further 20% of the site.
- 8.4 The modern intrusions have left a strip of potentially undisturbed ground around the perimeter of the site. The level of ground water, at 1.00m OD, prevents inspection of the peat deposits through archaeological evaluation. Inspection of the peat horizon is further prevented by the depth of the peat, at up to -1.30m OD.
- 8.5 The monitoring of pile probing was suspended since the peat will not be disturbed during this work. Having observed the impact of previous development in the field, AOC would conclude that little in the way of potential archaeological deposits will have survived in the centre of the site. Consequently AOC would recommend that a limited watching brief be undertaken when the new piles are excavated in the north and west of the site to determine the presence or absence of prehistoric archaeological deposits.
- 8.6 The requirement for further work is subject to the final decision of David Divers, the Archaeological Advisor to the London Borough of Tower Hamlets at English Heritage.

9 BIBLIOGRAPHY

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OASIS DATA COLLECTION FORM

Project details

Project name	1, Millharbour
Short description of the project	Archaeological monitoring, on behalf of Ballymore Millharbour Limited was undertaken on preparatory works for the construction of foundations for a new development at 1, Millharbour, on the Isle of Dogs, London. The site had formerly held office buildings on close - piled foundations. The monitoring was conducted on probing for intrusions within the location of piles from the previous building, on 2nd September 2005. The probing reached a depth of 4m below ground surface. Made ground was observed to a depth of 3.80m, and the top of alluvial silt was seen below this. No layers or features of any archaeological significance were recorded.
Project dates	Start: 02-09-2005 End: 02-09-2005
Previous/future work	No / No
Any associated project reference codes	7238 - Contracting Unit No.
Any associated project reference codes	MIZ 05 – Site code
Type of project	Recording project
Current Land use	Vacant Land 1 - Vacant land previously developed
Investigation type	'Watching Brief'
Prompt	Direction from Local Planning Authority - PPG16

Project location

Country	England
Site location	GREATERLONDON TOWER HAMLETS STEPNEY 1 Millharbour
Postcode	E14
Study area	4222.50 Square metres
National grid	TQ 3770 7975 Point

reference

Height OD Min: -0.20m Max: 0.40m

Project creators

Name of Organisation AOC Archaeology

Project brief originator English Heritage

Project design originator AOC Archaeology

Project director/manager Mark Beasley

Project supervisor Les Capon

Sponsor or funding body Developer

Project archives

Physical Archive recipient Museum of London

Physical Archive ID MIZ 05

Physical Archive Exists? No

Digital Archive recipient Museum of London

Digital Archive ID MIZ 05

Digital Contents 'Stratigraphic'

Digital Media available 'Images raster', 'Images vector', 'Survey', 'Text'

Digital Archive notes Held at AOC Archaeology until transfer

Paper Archive recipient Museum of London

1, MILLHARBOUR, ISLE OF DOGS, LONDON BOROUGH OF TOWER HAMLETS

Paper Archive ID MIZ 05

Paper Contents 'Stratigraphic'

Paper Media available 'Context sheet', 'Correspondence', 'Notebook - Excavation', 'Research', 'General Notes', 'Plan', 'Report', 'Unpublished Text'

Paper Archive notes Held at AOC Archaeology until transfer

Entered by Les Capon (lescapon@aocarchaeology.co.uk)
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