

**MILK STREET SITE, NORTH WOOLWICH**  
**AN ARCHAEOLOGICAL DESKTOP STUDY OF**  
**SUB-SURFACE GEOLOGICAL CONTOURS**

**TQ 180050, 543700**

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## 2. INTRODUCTION

2.1 This archaeological desktop study of sub surface geological contours has been produced as part of the archaeological evaluation of the site at Milk Street, North Woolwich that Newham Museum Service have been commissioned to undertake by the Family Housing Association.

2.2 The site is located within an Archaeological Priority Area as defined in the London Borough of Newham UDP. The site lies close to the River Thames in the south eastern area of East Ham marsh. The marsh consists of deeply stratified Thames alluvial deposits. Within the peat layers of the alluvium in the local area of Beckton and Barking, well preserved archaeological remains have been recovered, including Bronze Age trackways, revetments, metal work, and a canoe of Roman date (Spurrell, 1890, p.170).

2.3 The alluvial deposits also preserve important palaeoenvironmental deposits, reflecting changes in climate, and fluctuations in sea level and the effect this had on the local landscape of the past.

2.4 The data necessary to provide a idea of the geological contours of the alluvial deposits in the area of the site came from borehole reports provided by the LDDC and the Family Housing Association's chosen site investigators Soil Mechanics Ltd. The results of the contour and 3D mapping analysis are presented in the appendix.

2.5 The implications of these results, combined with known historical and archaeological information on the site area are discussed, and the archaeological potential of the Milk Street site evaluated in part 4.

2.6 The perimeter of area included in the sub surface survey (Milk Street and south side of George V Dock) is defined in figure 8.

### 3.SITE GEOLOGY

3.1 The borehole investigation showed the site is underlain by Cretaceous Chalk, under Terrace gravel and Alluvium containing peat, with a covering of made ground.

3.2 To produce useful contour and surface plans of the horizons of the underlying geological deposits on the site, analysis of borehole data from a wider area than just the Milk Street site was necessary. There are only two boreholes on the actual site providing information. Further data came from the eleven boreholes put down on the south side of the George V Dock by the LDDC. This is land adjacent to the Milk Street site. Together the data from thirteen boreholes provides a workable set of results concerning sub surface contouring.

3.3 A contour and a 3-D surface map was produced for each of the key deposit interfaces analysed;

- gravel horizon (figure 1.)
- bottom of the peat (figure 2.)
- peat horizon (figure 3.)
- truncation of made ground (figure 4.)

These and a plan showing the location of all the boreholes (figure 5.)were produced using SURFER® software.

3.4 The data is of a limited nature, coming from only 13 boreholes, which were put down over a relatively large surface area. Only two boreholes were put down on the Milk Street site. These were put down E-W along Woodman Road. This means only the northern half of the site appears on the contour and 3-D plans. But the results are productive, giving a useable, general picture of the sub surface contours.

3.5 Figure 1. shows two interesting features in the contouring of the gravel horizon. Firstly, a substantial rise in the gravel in the south east corner of the area, forming a gravel 'island.' In the past such an island would have represented areas of higher and drier ground in the marsh, favourable positions for human activity and settlement Secondly, there are three depressions in the gravel horizon running north -south. These may be ancient water channels.

3.6 Figures 2. and 3. reflect the features described in 3.5 (the gravel horizon), but within the peat deposits. The peat rises over the gravel island, and the possible water channels are again well defined, especially in the peat horizon, figure 3. Peat layers contain well preserved organic remains such as wood and leather which do not survive as well in other geological deposits. The preservation of such organic material relies on the peat remaining waterlogged and anaerobic. An alluvial layer of clay in this area seems to act as a water tight sealing cap preventing desiccation and oxygenation, which is known to cause breakdown of the underlying peat and organic archaeological deposits.

3.7 Figure 5. shows the depth of truncation to which recent building and excavating activity has disturbed the alluvial deposits. A considerable depth of made ground is

present on certain parts of the area involved. However, the sealing clay layer protecting the peat has not been penetrated in any of the boreholes, implying that organic preservation of the peat should be good in the vicinity of the site.

#### 4. ARCHAEOLOGICAL POTENTIAL

4.1 The site was an area of marshland and reclaimed agricultural land until development in the 19th century. The most significant surviving material of archaeological interest is likely to come from the period of marsh exploitation from the Bronze Age to the Roman period.

4.2 The gravel island in the south east corner of the area investigated (figure 1.) is the most likely location for surviving evidence of human activity. As an area of drier land at times in the past, it would have been attractive to those using the marsh as a site of settlement, a routeway or for ritual use. The Milk Street site is positioned directly on this island.

4.3 The old route of Woolwich Manor Road ran north-south across this gravel rise, along what is now Woodman Street on the eastern side of the Milk Street site. This is thought to be a Roman road (figures 10 and 11.), running from a ferry at North Woolwich to the London to Colchester road to the north (Watson, 1988). It is logical that the higher drier ground would have been used as a road or settlement. Roman activity certainly took place alongside this road further north, at East Ham, and near East Ham church, where a Roman cemetery was discovered during the construction of the Great North Sewer (VCH vol.III p.197.). Roman Cemeteries were often located beside roads.

4.4 Archaeological deposits from earlier periods- especially the Bronze Age when there seems to have been intensive activity in the marsh- may also focus on these gravel islands. These are most likely to survive in the alluvial deposits, especially in the peat ( figures 2 and 3.).Peat deposits exist in depth on the site.

4.5 Recent excavations by The Newham Museum Service Archaeology Section (formerly The Passmore Edwards Museum) in these alluvial deposits have also produced an unexpectedly high density and frequency of archaeological activity. Excavations at Bridge Road, on the Rainham marshes uncovered a brushwood trackway and a staked fence line within the peat (Meddens & Beasley. 1990.). Another staked brushwood trackway was found in the peat deposits during excavation in advance of a housing development at Evelyn Dennington Road, Beckton (Beasley. 1993.). Excavations at Hays Storage Services Ltd., Dagenham, unearthed a causeway constructed from gravel and burnt flint (Divers. 1994i.). More brushwood and stake constructions, working platforms and a possible revetment were found in the alluvium of the River Roding flood plains at Highbridge Road, Barking (Chew. 1994.). During excavations at the former Beckton Nursery, Beckton a large staked trackway, two less substantial trackways and a number of brushwood features were found, (Divers. 1994ii.). An excavation of these peat deposits at Fort Street, Silvertown, E16 by the Trust for Wessex Archaeology also revealed a trackway constructed of substantial timbers (TWA. 1994.). All the features excavated on the above sites have been provisionally dated to the Bronze Age. These sites are included in Figure 9, mapping sites excavated in the alluvial deposits along the north shore of the Thames, east of London.

4.6 The possible water channel labelled a), seen in figure 1, runs close to the gravel rise, and the Milk Street site. Surviving structures may survive linking the use of the drier gravel island and the water channel. Ancient inlets and river channels on the marsh, such as Ham Creek to the West of the site have become silted and buried, preserving docks, revetments and watercraft. A dug out canoe of Roman date was excavated from a silted river channel during the construction of the Royal Albert Dock immediately to the north of the site (Whittaker and Spurrell, 1890).

4.7 An OS map of 1870 (figure 11.) shows a building present at the east end of Woodman Street, where the road bends south to join Albert road. Part of this property and the building itself as shown on the map are within the present perimeter of the site, in the north east corner. The building is no longer standing. It does not appear on the Chapman and Andre map of London published in 1777 (figure 10.), so it is likely it was built in the early to mid 19th century.

## 5. SUMMARY AND CONCLUSIONS

5.1 Modern archaeological field assessments by NMS and other units since 1989 in the alluvial deposits of north east London have had a surprisingly high success rate in locating archaeological features. Ten out of twenty sites (50%) have produced remains.

5.2 The area of the Milk Street site and the south side of the George V Dock examined in this desktop study contain definite areas indicated by the sub surface survey which have the potential for containing archaeological material.

5.3 The site lies on a rise in the gravel horizon, an island of higher, drier ground in what was a marsh. This is a likely place for human habitation in the past (figure 1.).

5.4 Intact, deep peat deposits are present on the site, overlying the gravel island. It is in these deposits that well preserved organic and inorganic archaeological material has been frequently found on the Alluvium of NE London ( figures 2 and 3.).

5.5 The old route of Woolwich Manor Road ran north -south across the gravel island, on what is now Woodman Street, within the perimeter of the site. This is thought to be a Roman Road leading to a ferry on the river (Watson, 1988). Evidence of Roman settlement may exist beside the road, as at East Ham Church. The road certainly continued in use after the Roman period, first shown on a map by Chapman and Andre published in 1777 (Figure 10.). It may well have existed as a road through the marsh before the Roman invasion, following areas of high ground as the later road did.

5.6 The number of boreholes from which data was used for the sub surface survey is limited. There are no boreholes in the southern half of the site. However, the results give a general impression of the underlying geological contours across the area. It can definitely be said the Milk Street site lies on a rise in the gravel horizon, and that a possible ancient water channel is located next to it. It is not possible to be more specific than this in plotting areas which may have surviving archaeological material given the limitations of the data.

5.7 The borehole results suggest that the peat deposits that are most likely to contain preserved and intact archaeological material on the site are intact and their waterlogged and anaerobic condition has been protected by a sealing layer of Alluvial clay.

## BIBLIOGRAPHY

### ABBREVIATIONS USED IN THE TEXT AND BIBLIOGRAPHY

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LDDC- London Docklands Development Corporation  
TWA- Trust for Wessex Archaeology  
V.C.H- Victoria County History  
UDP- Unitary Development Plan

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7. APPENDIX: Geological contours of Milk Street and George V Dock(south side)

*The data on which the interpretations were based was extracted from data held by the LDDC and Family Housing Association. Any disclaimer attached by the LDDC and the Family Housing Association themselves regarding the accuracy of the data is also attached to the validity of these interpretations.*

- Figure 1. Gravel Horizon
- Figure 2. Bottom of Peat
- Figure 3. Peat Horizon
- Figure 4. Truncation
- Figure 5. Borehole locations

