

SYBOURN NURSERY SCHOOL, 170 LEA BRIDGE ROAD, LONDON E10

LONDON BOROUGH OF WALTHAM FOREST

AN ARCHAEOLOGICAL EVALUATION

March 2005

COMPASS



ARCHAEOLOGY

SYBOURN NURSERY SCHOOL, 170 LEA BRIDGE ROAD, LONDON E10

LONDON BOROUGH OF WALTHAM FOREST

AN ARCHAEOLOGICAL EVALUATION

SITE CODE: LAI 05

SITE CENTRE NGR: TQ 36466 87148

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Project 310

Abstract

Archaeological evaluation of land to the rear of Sybourn Nursery School, on the south side of Lea Bridge Road, London Borough of Waltham Forest, took place in March 2005. The evaluation was carried out as part of the planning process prior to a construction of a new Children's Centre.

This area lies within the Lea Valley and has potential for a range of prehistoric remains. 18th and early 19th century maps show the site to be located within Leyton Marsh, although subsequently the area was cultivated and by the 1890s formed part of a nursery. Thereafter the land appears to have been attached to the School and to have remained undeveloped.

One evaluation trench measuring 15m by 2m in plan was opened within the proposed development footprint. No archaeological remains were found: there was a straightforward sequence of deposits some 0.70m deep, with a recent soil layer overlying sterile alluvium and thence natural River Terrace gravel. Two features were noted, one of probable natural origin cutting the gravel and the other of mid to later 19th century date.

Consideration of these findings in conjunction with local topography indicates that the whole site has been truncated by stripping of its original soil horizons, to a depth of over 1 metre. The present soil layer, some 0.2m thick, was imported onto the site and spread over the surviving alluvium. It is likely that these events took place around 1900.

Given the lack of any significant findings it is suggested that no further archaeological measures should be undertaken in relation to the proposed development.

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1. Introduction

- 1.1** This report presents a summary of archaeological evaluation of land to the rear of Sybourn Nursery School, 170 Lea Bridge Road, prior to development of a new Children's Centre (Fig 1: site approximately centred at National Grid Reference TQ 36466 87148).

The evaluation fieldwork was undertaken by Compass Archaeology between the 21st to 23rd March 2005.

- 1.2** Archaeological assessment was required as part of the planning process, prior to development of a new Children's Centre on the site.
- 1.3** It was considered that the site had potential for archaeological remains, particularly those of prehistoric date for which there are a number of local references along the Lea Valley. In later periods the area appears to have lain with open marshland, and certainly appears as such on maps of the 18th and early 19th centuries.

The plot lies within an Archaeological Priority Zone as defined by the LB of Waltham Forest UDP.

- 1.4** English Heritage advised that an archaeological evaluation should be undertaken as a condition of planning consent, prior to development. It was recommended that this should consist of one trial trench, measuring 15m by 2m in plan at base and located within the proposed development footprint.

2. Acknowledgements

The archaeological evaluation was commissioned by Mr Dennis Harrington, Principal Architect (Education), on behalf of the London Borough of Waltham Forest.

David Divers and Robert Whytehead (English Heritage Greater London Archaeology Advisory Service) monitored the project on behalf of the Borough.

Assistance and facilities during the fieldwork were provided by Sybourn School.

3. Background

3.1 Location and topography

- 3.1.1** The site is located on fairly level ground within the historic floodplain of the River Lea, at its closest some 650m to the north of the main course of the river.

The proposed development lies within a roughly rectangular plot of land with overall dimensions of about 38m by 50m, to the rear (south) of the established School buildings. The site is currently grassed, with some shrubbery and mature trees and one temporary building to the northwest. Access is obtained from Perth Road.

The land surface of the development area is about 5.3m OD, or nearly 1 metre lower than that of the adjacent School or road: initially this was thought to reflect development but is reconsidered below (7.4).

3.1.2 The British Geological Survey (*North London Sheet 256. Solid & Drift Geology, 1993*) indicates that the site overlies fairly recent alluvium. This forms a broad deposit across the Lea Valley, and extends at least 400m to the east of the site.

Recent geotechnical investigation (*Ground Engineering 2004: Report Ref. No. C9811*) revealed an alluvial horizon in four out of five boreholes, from 0.10m to 0.85m thick. The alluvium was overlaid by a dark brown slightly gravelly clay/silt described as made ground, and sealed a sandy gravel that is taken to be part of the Kempton Park River Terrace. The natural gravel was exposed at depths of 0.70m to 1.70m.

3.2 Archaeology and history

Although relatively small the site did not appear to have been developed, and in view of its location in a Priority Zone was considered to have potential for archaeological remains.

3.2.1 Prehistoric activity, mainly of Mesolithic and later date, is documented along the line of the Lea Valley and on the adjacent higher ground. This evidence includes some *in situ* remains as well as discrete artefacts recovered during works on the river and reservoirs, although there do not appear to be any references in close proximity to the site.

3.2.2 Historically the site lay within open land on the eastern side of Leyton Marsh, as shown by Rocque's map of 1746. The area may have been grazed but presumably was marginal and periodically flooded, with cultivated fields only appearing further to the east. The Ordnance Survey First Edition (2": mile; 1822) shows the line of Lea Bridge Road, but with the land to the south still marsh.

3.2.3 Significant development had taken place by the time of the *Stanford Library Map* of 1862, although the site apparently remained as agricultural or nursery land at least until the mid 1890s. Subsequent maps (OS 25-inch 1915, *etc.*) show the present site boundaries enclosing an open area, with the School (built in 1891) to the north.

4. Aims and objectives of the evaluation

4.1 Archaeology and planning

It is proposed to develop a new Children's Centre in the southwestern part of the site, which will replace and enlarge upon the existing temporary unit (Fig 1).

An archaeological evaluation was recommended by English Heritage as part of the Local Authority planning process, to take place before the commencement of development. In conjunction with this a *Brief for an Archaeological Evaluation* was produced (GLAAS, February 2004).

Drawings have been supplied by the Client to show the current site layout and topography and the proposed development.

4.2 The archaeological brief

The accepted brief for archaeological evaluation is to determine, as far as is reasonably possible, the location, extent, date, character, condition, significance, and quality of any surviving archaeological remains liable to be threatened by the proposed redevelopment

(English Heritage, *Model Brief for an Archaeological Evaluation*). This will provide a basis on which decisions can be taken as to the need for any further archaeological action (eg, preservation *in situ* or further archaeological investigation), or for no further action.

The general methodology is set out in DOE Planning Policy Guidance 'Archaeology and Planning' No.16, November 1990 (PPG16).

In addition, a site-specific *Brief for Archaeological Evaluation* was produced (English Heritage Greater London Archaeology Advisory Service, Sept. 2004).

4.3 Archaeological research questions

The evaluation presented an opportunity to address the following research questions, as defined in the preliminary Written Scheme of Investigation (*Compass Archaeology, March 2005*):

- Is there any evidence for prehistoric activity, overlying or within the alluvial deposits? How does this relate to other finds made in the area, which cover a range of dates from early to later prehistoric?
- What topographical and/or environmental evidence is there, particularly in relation to the alluvial deposits?
- Is there any evidence for Roman to earlier post-medieval activity, and can the nature of this be defined?
- What evidence is there for later post-medieval land use, and does this bear out the recorded horticultural usage from the early 19th century?

5. Evaluation methodology

5.1 The *Written Scheme of Investigation* was agreed prior to the fieldwork. The evaluation was carried out in accordance with English Heritage guidelines (including *Standards and Practices in Archaeological Fieldwork*, 1998) and those of the Institute of Field Archaeologists (*Standard and Guidance for Field Evaluations*).

5.2 The evaluation comprised one trial trench measuring *c* 2m by 15m in plan. The trench was laid out on an approximate north-south alignment within the area of proposed development, as shown in Figure 1.

The trench was opened by a 3 ton mini-digger, using a toothless bucket and working under archaeological supervision. Recent deposits and clean alluvial horizons were removed to an average depth of about 0.70m. Thereafter the exposed surfaces and sections were investigated by hand, recorded and photographed by the on-site archaeologists.

At the conclusion of the field evaluation the trench was backfilled by machine with removed spoil.

5.3 The deposits and features exposed in the evaluation were recorded on *pro-forma* context sheets and by scaled plan and section, supplemented by 35mm photography. Levels were derived from an OSBM located at the front of the School and facing onto Lea Bridge Road, value 6.65m OD (Fig 1). A TBM was established on a manhole to the north of the evaluation trench, value 5.89m (Fig 2).

The evaluation trench position was located onto the existing site survey by taped measurement. This was in turn related as a 'best fit' to the Ordnance Survey grid as derived from the 1:1250 plan. The OS coordinates to nearest metre for the local evaluation trench grid (Fig 2) are as follows:

North point: TQ 36462 87155

South point: TQ 36471 87141

The records from the evaluation have been allocated the site code: LAI05 by the Museum of London Archaeological Archive. An ordered and indexed site archive will be compiled in line with the MoL *Guidelines* and will be deposited in the Museum of London Archive.

6. The archaeological evaluation

6.1 Excavation

The evaluation trench was dug from a more or less level surface, at c 5.20m OD. In the absence of any significant remains machine excavation was to the top of the clean natural River Terrace deposit, removing the overlying soil and alluvial horizons and also a shallow (<0.1m) horizon which represented the weathered and/or disturbed surface of the natural gravel.

6.2 Recorded deposits and features (*Figures 3-6*)

The natural River Terrace deposit comprised a fairly compact silty to sandy gravel [5], taken to represent the top of the Kempton Park Terrace. This was exposed at about 4.40m to 4.55m OD, the surface rising slightly to the south but generally about 0.7m below present ground level. Although superficially weathered the gravel was quite sterile, and examination of the surface did not produce any evidence for prehistoric activity.

The gravel was cut from northeast to southwest by a small gully-type feature [4]. This was some 0.5m to 0.8m wide and bowl-shaped in profile, becoming broader and flatter to the southwest. The feature was filled and overlain by alluvium [3] and is assumed to be of natural origin.

The alluvium [3] formed a continuous layer throughout the trench, thickening slightly to the north from about 0.15m to 0.3m. The deposit comprised a clean, fairly light-coloured and quite homogeneous clay-silt, with occasional gravel and darker mottles but no other inclusions. The surface was fairly level at about 4.75m OD, but it may well have been truncated in recent times.

At the northern end of the trench the alluvium was cut by a pit [2] containing a mixed sandy clay fill with occasional 19th century red and yellow stock brick and a couple of abraded sherds of creamware (c 1750-1860). The pit was roughly circular in plan (1.2m to 1.3m diameter) and steep to vertical-sided, though apparently truncated at the same level as the alluvium. The lower section of the feature was not fully excavated but was cut about 0.4m into the underlying Terrace gravel (and below the water table), onto an apparently flat base.

Overlying the pit fill [2] and alluvium [3], and forming the present land surface, was a dark greyish sandy silt with gravel [1]. Although internally well-mixed this layer was quite sharply demarcated from the underlying alluvium and is considered to be a made ground deposit which has been imported on to the site, rather than a soil horizon (see below, 7.4).

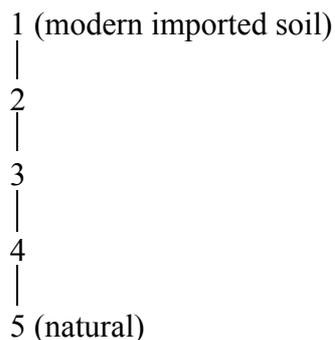
Context [1] was generally about 0.4m thick and included occasional small fragments of clinker, coal brick, tile, pottery, *etc.*, throughout. The potsherds included London stoneware (c 1670-1900), blue and white transfer-printed ware (1807-60) and refined white earthenware (1800-1900). There were also a few pieces of plain white-glazed sanitary ware, of probable later 19th century date.

A number of features (including the nature of context [1]) indicate that the site has undergone significant truncation, apparently as the result of stripping of the original soil profile. Additionally, the entire site area is nearly 1 metre below the level of the surrounding land, outside the boundaries and adjacent to the main School. These points are discussed in further detail below (7.4).

6.3 Summary of deposits and features by context

Context	Description	Interpretation
1	Dark brownish grey sandy silt with frequent mixed gravel. Occasional clinker, coal, CBM, slate, glass & pot (not retained)	Imported soil, deposited following stripping of the site (assumed late 19 th century)
2	Roughly circular cut (approx. 1.25m diam.) containing mixed slightly sandy clay with some gravel. Includes a few brick & pot frags.	Pit plus fill, possibly related to the 19 th century horticultural use of site
3	Firm mottled yellow-brown clay-silt with occasional fine gravel, otherwise sterile	Natural alluvial deposit, undated and probably truncated by stripping
4	Apparently linear feature, up to 0.8m wide & aligned NE to SW, filled and sealed by alluvium [3]	Assumed to be a natural erosion gully, ancient but otherwise undated
5	Mottled yellow-brown silty medium/fine gravel, becoming more cleaner & more sandy with depth	Top of natural River Terrace deposit (Kempton Park)

6.4 Matrix to show stratigraphic relationship of contexts



7. Assessment of the results of the evaluation

The archaeological evaluation has provided an opportunity to address the site-specific objectives which were defined within the preliminary *Written Scheme* (4.3 above). The responses to these are outlined below:

7.1 *Is there any evidence for prehistoric activity, overlying or within the alluvial deposits? How does this relate to other finds made in the area, which cover a range of dates from early to later prehistoric?*

There was no evidence for any prehistoric activity on the site, nor were any residual artefacts recovered. The alluvium itself was undated, but directly overlay the natural gravel and so could well be of prehistoric date.

The alluvium also filled and sealed a small gully-type feature [4], which is assumed to represent a natural cutting into the gravel.

7.2 *What topographical and/or environmental evidence is there, particularly in relation to the alluvial deposits?*

The surface of the natural gravel rose slightly from north to south, by about 0.15m. The overlying alluvium [3] was correspondingly slightly thicker to the north, although it is likely that the upper surface has been truncated (see 7.4 below) so the absolute thickness of the deposit cannot be accurately given.

The alluvium itself was quite clean and homogeneous, so certainly indicates a period in which the area was underwater or at least marshy and periodically flooded.

7.3 *Is there any evidence for Roman to earlier post-medieval activity, and can the nature of this be defined?*

There was no evidence of any Roman, Saxon or medieval activity or land use. 18th century map evidence suggests that the site may have lain in open marshland throughout these periods (3.2.2 above).

7.4 *What evidence is there for later post-medieval land use, and does this bear out the recorded horticultural usage from the early 19th century?*

The only evidence apparently relating to 19th century horticultural usage was the circular pit/fill [2] at the northern end of the trench. There was no evidence for the function of this feature, although planting is one possibility. The size, shape and base below the watertable might also suggest a shallow well, although there was no evidence for a lining.

The uppermost layer [1] is considered to have been imported onto the site and to have replaced original and much deeper soil horizons that had been removed. There are several points to support this:

- The layer itself is well mixed and appears to be a simple made ground, with recent inclusions throughout and a sharp interface onto the (?truncated) surface of the alluvium. There is no evidence of gradation into topsoil, subsoil, etc.
- The land on which the site is located is fairly level but rises up to 1 metre at its western, southern and eastern boundaries, and similarly to the north to the existing School.

- Along the western side of the site there is a substantial wall, of brick but with a lower section of up to 1m of rough concrete. This latter is likely to be an original trench-laid foundation, subsequently exposed by reduction of the ground in this area. To the north and closer to the main School the land surface rises to the level of the concrete/brick interface.

The date for this general ground reduction and deposition of layer [1] is unknown, although it was probably after the area went out of use as nursery land (*ie*, 1896 or later). However, the finds within [1] appear to be of 19th century date, with no very recent material. The most likely period would be the late 1890s to *c* 1910, when the surrounding area was developed for housing and the present site presumably acquired by the School Board.

8. Conclusions and recommendations

- 8.1** The archaeological evaluation did not reveal any significant features or finds. The trench exposed a straightforward sequence of deposits some 0.70m deep, with a recent soil layer overlying sterile alluvium and thence natural River Terrace gravel. There were two features, one of probable natural origin cutting the gravel and the other of mid to later 19th century date cutting the alluvium.

Further consideration of these deposits in conjunction with local topography would indicate that the whole site has been severely truncated and has lost all its original soil horizons, the present upper layer representing an imported made ground deposited over the surviving alluvium. This event probably took place around 1900.

- 8.2** In view of these findings it is suggested that no further archaeological measures should be undertaken in relation to the proposed development.

9. References

British Geological Survey, 1993 *England & Wales. Sheet 256. North London. Solid and Drift Geology 1:50 000*

Ordnance Survey, 1865- *Twenty-five inch series maps*

Stanford E, 1862 *Library Map of London*

Rocque J, 1746 *An exact Survey of the City's of London and Westminster.... with the country near 10 miles round.* Repr. Margary H (ed.), 1971

Weinreb B, & Hibbert C, 1983 *The London Encyclopaedia*



Fig 1 Site location, also showing the position of the evaluation trench in relation to the proposed new build

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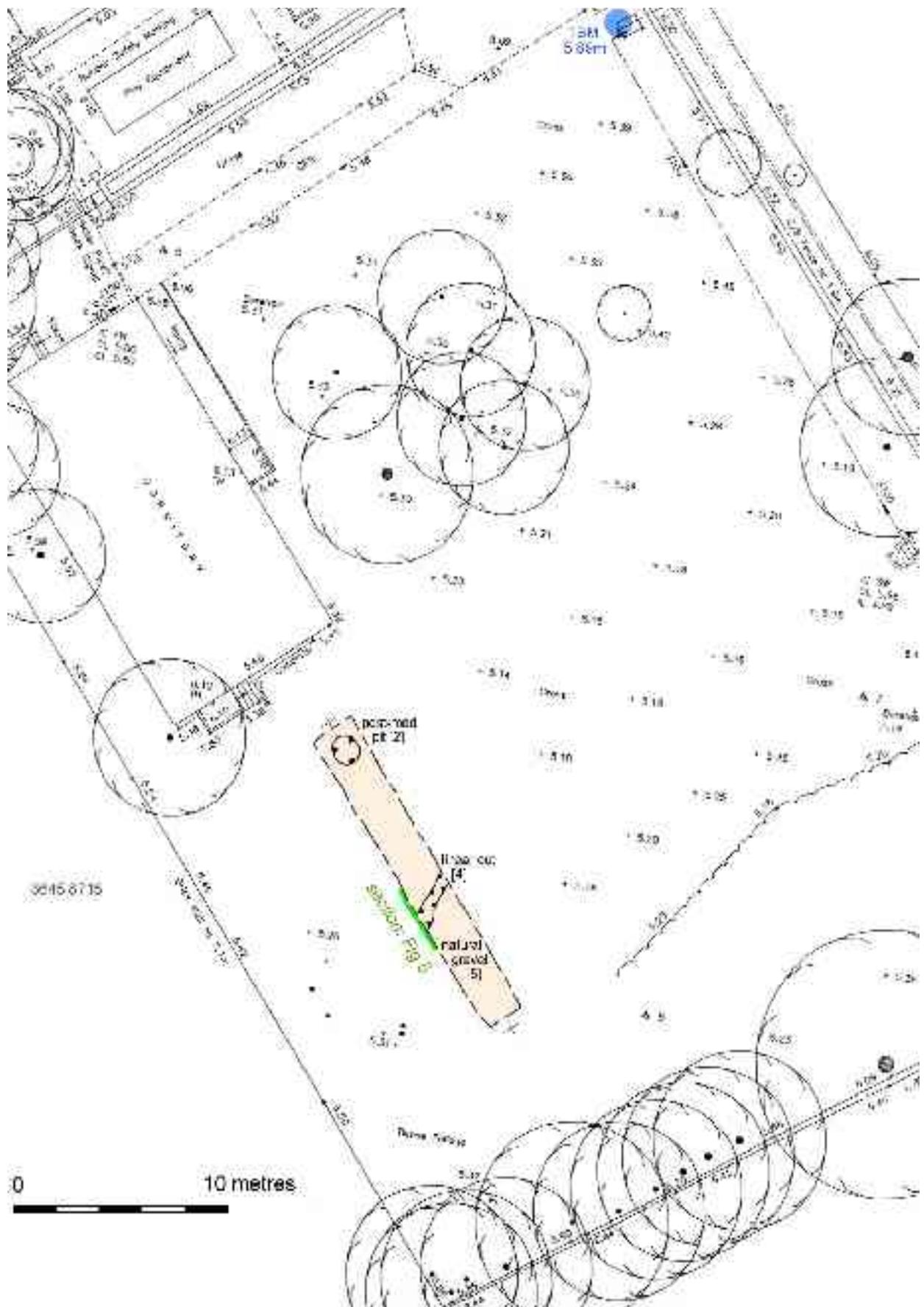


Fig 2 Location of the evaluation trench and principal features in relation to the topographical survey (scale 1:250), also showing local grid points and location of drawn section

Reproduced from a drawing by Laser Surveys, no. L L2928



Fig 3 General view of the evaluation trench looking east, showing the infilled feature [4] cutting the surface of the natural River Terrace gravel [5] (*0.5m scale*)



Fig 4 Oblique view of the trench looking northeast, with alluvium [3] and overlying made ground [1] seen in section (*0.5m scale*)

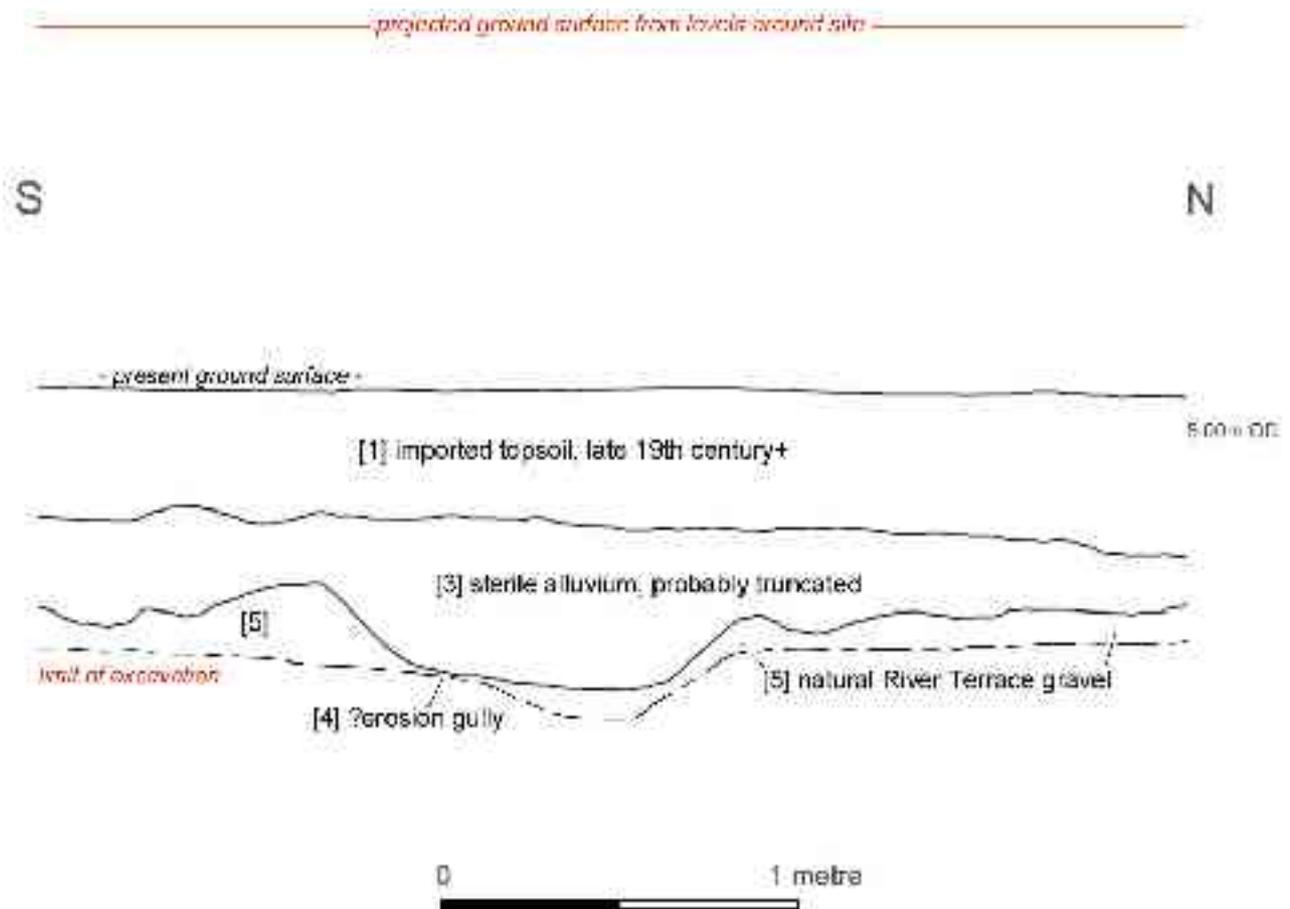


Fig 5 Part of the western section of the trench, located on Figure 2 and showing recorded deposits plus probable extent of previous truncation (*c* 1900)



Fig 6 View of deposits shown in Figure 5 (*0.5m* scale)

Appendix I. London Archaeologist publication summary

Land to the rear of Sybourn Nursery School, 170 Lea Bridge Road, E10. TQ 36466 87148. CA (Geoff Potter). Evaluation. March 2005. London Borough of Waltham Forest. LAI05

Summary

One trench was opened within the development footprint. No archaeological remains were found: the sequence of deposits comprised recent made ground overlying sterile alluvium and thence natural River Terrace gravel. Two features were noted, one of probable natural origin and the other of 19th century date.

It appears that the whole site has been truncated by stripping of original soil horizons, to a depth of over 1 metre. This probably took place around 1900.