

THE NEW RIVER
THAMES WATER
VICTORIAN MAINS REPLACEMENT WORKS
IN THE VICINITY OF
BLACKSTOCK ROAD, WILBERFORCE ROAD AND RIVERSDALE ROAD
LONDON BOROUGHS OF HACKNEY AND ISLINGTON N4 & N5
DMA MAIDEN LANE 32

AN ARCHAEOLOGICAL WATCHING BRIEF



September 2011



COMPASS



ARCHAEOLOGY

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SITE CODE: TXD11
NGR: TQ 31878 86570

COMPASS ARCHAEOLOGY LIMITED
5-7 SOUTHWARK STREET
LONDON SE1 1RQ

Telephone: 020 7403 9660

E-mail: mail@compassarchaeology.co.uk

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Executive Summary

This report details the results of an archaeological watching brief carried out during Thames Water Victorian mains replacement works along the course of the New River in and around the Blackstock Road, Finsbury Park Road, Wilberforce Road and Riversdale Road areas of the London Boroughs of Hackney and Islington (DMA Maiden Lane 32) between 20th July 2010 and 11th March 2011. The area was approximately centred at NGR TQ 31878 86570.

A total of over 1km of opencut trenches and pits were monitored over eleven streets within the study area. Archaeological evidence relating to the New River, a 17th century manmade waterway designed to bring fresh water into London, was recorded in six trenches.

Trenching on Wilberforce Road recorded three pits with exposed sections of brick walls and tile and mortar floors. These structures were accurately transposed onto the Ordnance Survey map of 1869 and formed part of the southwest corner of the New River 'Sluice House'. The 'Sluice House' housed the sluice gates, the means by which the rate and flow of water along the New River was controlled, and the structures revealed here are thought to be a late 18th or 19th century rebuild of an original structure shown on Rocque's map of 1746; this was confirmed by analysis of brick samples which dated the walls and floors to the period 1780-1850. Additionally, in Wyatt Road, two pits exposed alluvial deposits thought to be part of the riverbed (or in one case possibly an adjacent pond), and compacted clean gravel deposits recorded immediately to the north are considered to be part of the river embankment.

The majority of trenching exposed modern road layers overlying later 19th century made-ground deposits and truncated natural clay or clayey silt. A layer of crushed red brick generally 300mm to 400mm thick was recorded in many locations across the study area lying below the current road surface. This was laid as a consolidation layer when the general area was cleared and levelled for residential development in the 1870s. These residential redevelopment works truncated natural deposits across the study area and removed the majority of the archaeological remains that related to the New River. Finds from the subsequent road make-up deposits were typical 19th century assemblages including pottery, glass and clay pipe.

The watching brief provided a fascinating opportunity for large sections of the New River course (in the roadways) to be archaeologically monitored and has provided valuable data on the levels of survival of this very historic waterway. The project contributed to the knowledge of the New River and it is significant that Thames Water supported this work, as it is part of their company heritage: the original 'New River Company' was taken over by the Metropolitan Water Board in 1904 and became part of Thames Water in 1973.

This work contributes to the archaeological history of this area of London and also to the history of the Thames Water company.

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1. Introduction

- 1.1** This report details the results of an archaeological watching brief carried out during Thames Water Victorian mains replacement works in the vicinity of the New River in and around the Blackstock Road, Finsbury Park Road, Wilberforce Road and Riversdale Road areas of the London Boroughs of Hackney and Islington, N4 & N5. Archaeological monitoring was carried out between 20th July 2010 and 11th March 2011. The monitoring area (DMA Maiden Lane 32) is approximately centred at NGR TQ 31878 86570.
- 1.2** Archaeological monitoring was carried out after preliminary research by Compass Archaeology and discussions with English Heritage. The Murphy Group as part of Optimise carried out the groundworks for Thames Water. The area was considered to be of archaeological significance because it was crossed by a long stretch of the New River, a major manmade waterway largely attributed to Sir Hugh Myddleton and designed and constructed between 1602 and 1613. The waterway was subsequently culverted in several sections during the 19th century and in Islington stretches mainly survive as ornamental water.
- 1.3** This report was commissioned by Optimise on behalf of Thames Water. Compass Archaeology would like to thank the following individuals: Claire Hallybone of Thames Water; Kim Stabler of English Heritage and Terry White of the Murphy Group. Brick samples were examined by John Brown, and selected pottery by Paul Blinkhorn. The Murphy Group carried out the water mains replacement works for Optimise.

2. Site Location and Geology

- 2.1** The District Metering Area (DMA) Maiden Lane 32 extends into the London Boroughs of Hackney and Islington and covers an irregularly shaped area bounded by Seven Sisters Road and Wilberforce Road to the north and east, and Riversdale Road to the southeast. To the south DMA Maiden Lane 32 follows an irregular route along various roads including Hurlock Street, Blackstock Road and Rock Street (*cf.* Fig 1).
- 2.2** The British Geological Survey (1993, North London Sheet 256) shows DMA Maiden Lane 32 overlying a broad expanse of London Clay; the nearest change in geology is represented by Langley Silt (brickearth) some 300m to the southeast.

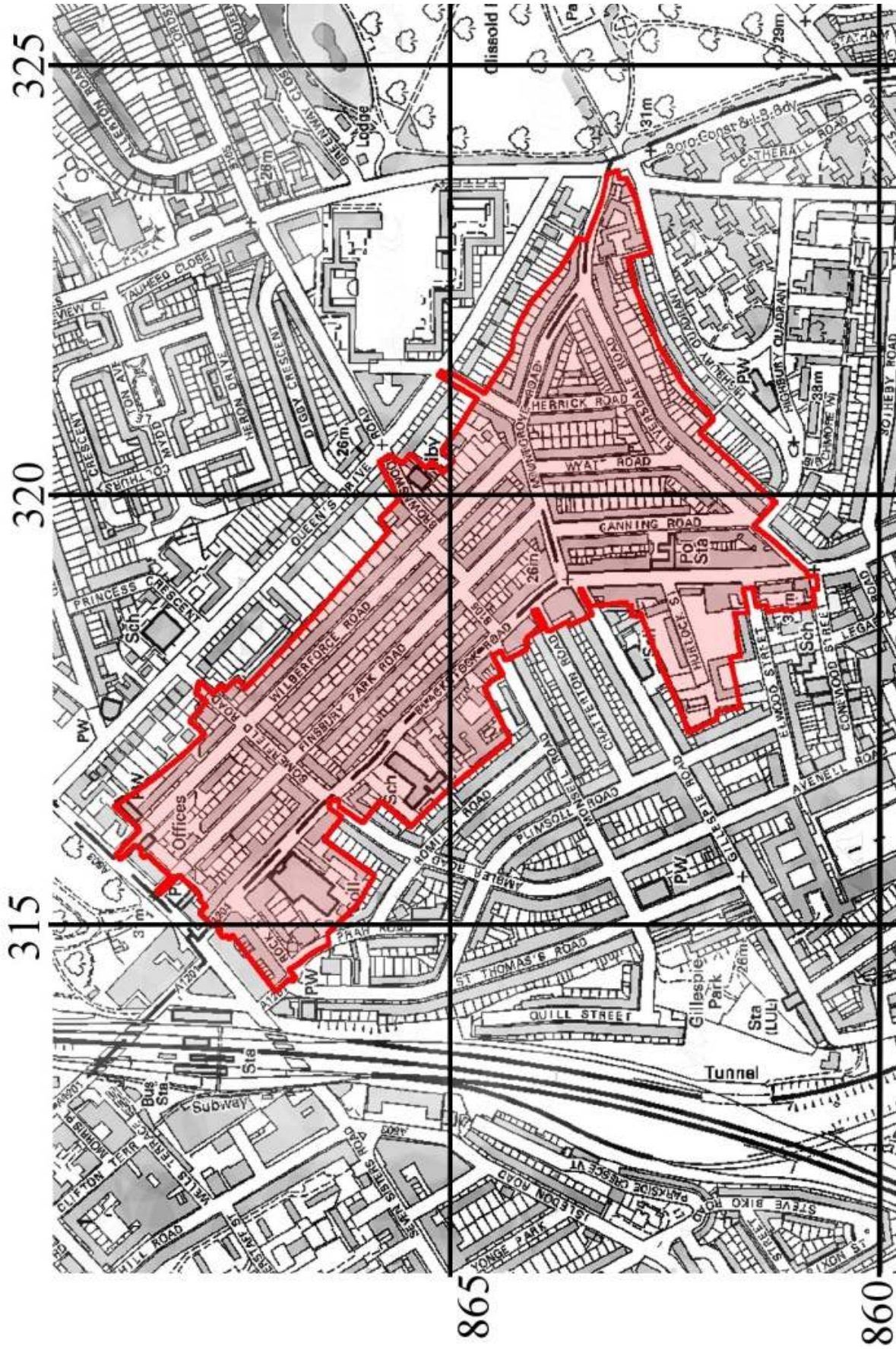


Figure 1: Site location plan showing the extent of DMA Maiden Lane 32 in the London Boroughs of Hackney and Islington. Based on the current Ordnance Survey 1: 5000 map. *Reproduced with the permission of the Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office, © Crown Copyright (Compass Archaeology Ltd, licence no. AL 100031317).*

3. Archaeological and Historical Background

3.1 Early History

There is little evidence for prehistoric or Roman activity in the DMA and this area is mainly significant for the early watercourses which cross the landscape and which would have influenced early settlement and industry. Hackney Brook rises at Holloway near Mercers Road, running south to cross Holloway Road near Tufnell Park Road and then continuing to Lowman Road, where it turns north-east and runs along Gillespie Road to leave the area at Mountgrove Road.

3.2 Later History: The New River¹

The New River is an artificial waterway, opened in 1613 to supply London with fresh drinking water taken from the River Lea and from Amwell Springs (which ceased to flow by the end of the 19th century), and from other springs and wells along its course.

Its original termination point was at New River Head near Clerkenwell, Islington, close to the current location of Sadler's Wells theatre — where water from the river was used to flood a large tank to stage an Aquatic Theatre at the beginning of the 19th century. Today by following the New River Path it is possible to walk almost the whole length of the New River from its source between Hertford and Ware to its destination in Stoke Newington, Hackney.

The design and construction of the New River is often attributed solely to Sir Hugh Myddelton. However, Edmund Colthurst first proposed the idea in 1602, obtaining a charter from King James I in 1604 to carry it out. However, after surveying the route and digging the first two-mile long stretch Colthurst encountered financial difficulties and it fell to Myddelton to complete the work between 1609 and its official opening on 29 September 1613. Myddelton gave some of the shares in the New River Company to Colthurst.

The expense and engineering challenges of the project were not Myddelton's only concerns; the system relied on gravity to allow the water to flow, carefully following the contours of the terrain from Ware into London, and dropping around just five inches per mile (8 cm/km). He also faced considerable opposition from landowners who feared that the New River would reduce the value of their farmland (they argued that floods or overflowing might create quagmires that could trap livestock); others were concerned at the possible disruption to road transport networks between Hertfordshire and the capital. Myddelton, however, was strongly supported by the King, who agreed to pay half the project's expenses in return for a 50% shareholding; such backing quickly silenced the scheme's critics.

¹ Much of this section is based upon on-line information on a search of 'The New River' supplemented with documentary research from several sources including:- Ward, R. 2003 '*London's New River*'; Essex-Lopresti, M. 1988 '*Exploring the New River*' (2nd Edition) and Halliday, S 1999 '*The Great Stink of London. Sir Joseph Bazalgette and the Cleansing of the Victorian Metropolis*'.

3.3 Later History: The Course of the New River²

In 1613 the New River was completed, and was originally dug due west on the 100ft contour, forming a large loop past the filter beds, crossing Seven Sisters Road near where Finsbury Park Station is now, and swinging south near the junction of Holloway Road with Tufnall Park Road³. It then crossed Parkhurst Road and Caledonian Road and turned northwest by Drayton Park Station, along Highbury Quadrant and into Clissold Park. The river meandered in and out of the historic parish area at Blackstock Road and Green Lanes, and re-entered further down Green Lanes to run south and south-east through Canonbury, under Essex Road in a culvert, along Colebrooke Row, and out of the parish near the junction of City Road and Goswell Road to the River Head just south of the Angel at Mount Pleasant. Where the river crossed the low-lying ground north and south of the Hackney Brook and Gipsy Lane (later Mountgrove Road) it was carried 5m above the brook and lane in a trough, constructed in 1618, and came to be known as the Boarded River (discussed in detail below). The river remained open until the Colebrooke Row stretch was culverted in 1861, the stretch south of Green Lanes in 1868-70, and from Douglas Road to the Thatched House Inn in 1892-3; in 1946 the river ended at Stoke Newington. Thereafter much of the surviving course of the river in Islington became ornamental water⁴.

Normally the New River followed the contours of the land up the valleys of the little tributaries that flowed into the Lea, resulting in many loops to the west and back again. When it came to Salmon's Brook at Bush Hill near Edmonton a different strategy was used. The valley here was quite narrow, and a great wooden trough was built to cross it supported on '*arches of wood fixed in the ground, some of which were twenty-four feet high*' (cf. Figure 2). The trough of the Bush Hill Frame was 660 feet long, five feet wide and five feet deep, it was caulked by shipwrights, in the hope of making it watertight, but eventually had to be lined with a lead sheet. It survived in this form until 1788 when Robert MyIne replaced it with a new clay-lined earth embankment that still partially exists. The *Gentleman's Magazine* noted that the lead removed from the old trough and sold for scrap weighed almost fifty tons' (cf. Figure 2)⁵.

The first major change to the New River was at Highbury in 1617 to 1618, as the original course made a detour of well over a mile to the west and back again the same distance in order to cross the Hackney Brook. Therefore, the long loop which ran as far as Holloway Road was abandoned only six years after it had been constructed. The new detour ran as far west as the present Ringcroft Street area and work was still taking place here as late as September 1619. However, it was soon obvious that a stretch of embankment on a more direct course might serve better, and at Highbury Bank a high aqueduct (with an upper part similar to the Bush Hill Frame) was built to

² Much of this section is based upon on-line information on a search of 'The New River' supplemented with research from several sources including: Ward, R. 2003 '*London's New River*'; Essex-Lopresti, M. 1988 '*Exploring the New River*' (2nd Edition) and Halliday, S 1999 '*The Great Stink of London. Sir Joseph Bazalgette and the Cleansing of the Victorian Metropolis*'.

³ Essex-Lopresti, M. 1988 '*Exploring the New River*' (2nd Edition) p 62.

⁴ From: Victoria County History 'Islington: Introduction', *A History of the County of Middlesex: Volume 8: Islington and Stoke Newington parishes* (1985), pp. 1-3.

⁵ This paragraph from Ward, R, 2003 '*London's New River*' p33.

divert the New River over the Hackney Brook. The method used was to construct an earth embankment – for which over three thousand loads of earth were carted – and then build a timber frame or trough along it to contain the water. The frame was built by shipwrights and because of its visible wooden sides became known as the Boarded River. It is often described as being 17ft high and 462 feet long, but when John Lowthorp FRS measured it in June 1704 to calculate the flow of the New River (8½ million gallons a day) he found it to be 420 feet long, 42¾ inches wide internally and containing water 30½ inches deep. Where it crossed Hackney Brook there was a brick arch that used twenty thousand bricks, the arch would have been very similar to the Bush Hill arch (Figure 2). The new bank had a watchman whose wages are recorded, and in November 1618, £11 1s. 0d. was spent on ‘*tymber, boordes, nayles & workmanship toe make a little wachhowse for hym to bee in when itt raynes that lookes to the Newe Bancke*’. The technology that kept water out of ships does not seem to have been right for keeping water inside a long trough, and it and similar structures on the New River leaked continually. The boarded river survived until 1776, when Robert Mylne built a higher and stronger embankment that included a channel for the water. This in turn survived until 1865, when the water in that section was diverted into underground pipes⁶.

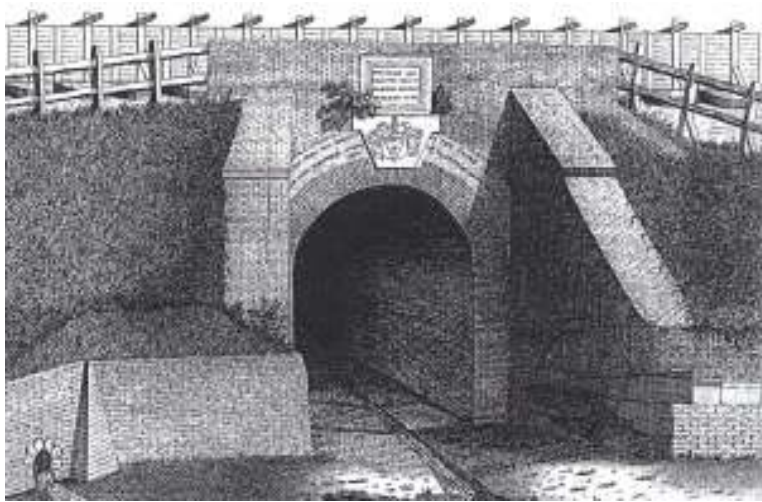


Figure 2: The Bush Hill Frame and the Arch carrying the New River over Salmon’s Brook, a tributary of the River Lea, at Bush Hill, Enfield. What looks like a close-boarded fence on top is the side of a wooden trough containing the New River, with horizontal timbers across the top holding the two sides together. It was originally built in 1613 and for most of its 660 feet length was supported on a wooden frame, which was later lined with lead to cut down leaks. This is very similar to how the New River would have appeared across the Hackney Brook in the Mountgrove Road Area, raised on an embankment and enclosed in a frame. © Ward, R. 2003 ‘*London’s New River*’ p224.

3.4 John Rocque’s map of 1746 (Figure 3) shows the DMA area as open fields crossed by the New River (*Boarded River*) and Hackney Brook, a few houses are also scattered across the area.

⁶ *Ibid* p44

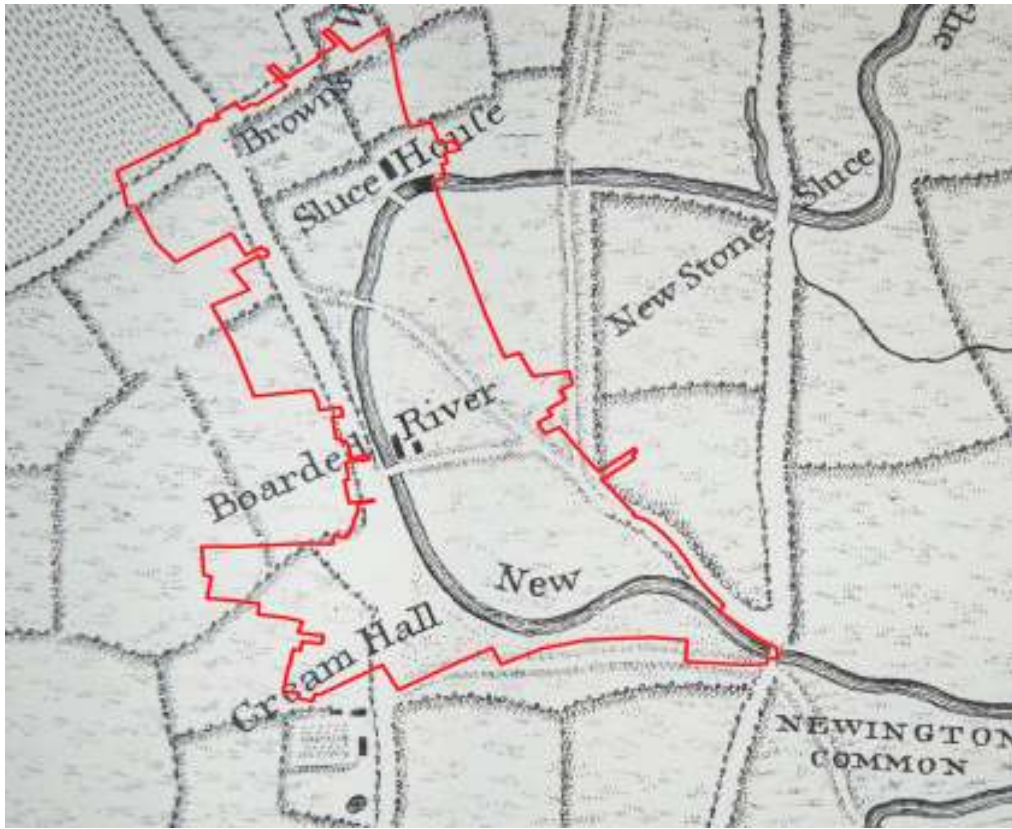


Figure 3: Comparison of the course of the New River as shown on historic maps and transposed onto the modern map base. Top: John Rocque's Map of 1746, showing the course

of the New River with the approximate area of the DMA outlined in green. The map base of Rocque's map is not always accurate and therefore the DMA outline has been slightly distorted (see also Figure 21). Below: The current street layout with the projected course of the New River (transcribed from the 1869 OS map shown in blue); the course of the Hackney Brook is shown in orange below, with the area of the Sluice House and adjacent buildings also shown in orange above (compare with Figure 4).

A major concern of the new River was regulating the flow of water and for this reason sluice gates, consisting of wooden shutters which could be raised or lowered by a rack and wheel, were later replaced by roller sluices. These sluices were placed at Amwell Hill, Broxbourne, Cheshunt, Whitewebbs, Enfield Bush Hill, Hornsey and Highbury. This watching brief has recovered traces of the sluice house for the Highbury sluices on Wilberforce Road (*cf.* Section 8).

Contemporary maps of the area show that the Sluice House Tavern and the 'new Sluice House' must have stood to the south and southeast of the junction of Somerfield Road and Wilberforce Road (*cf.* Figs 3 to 5).

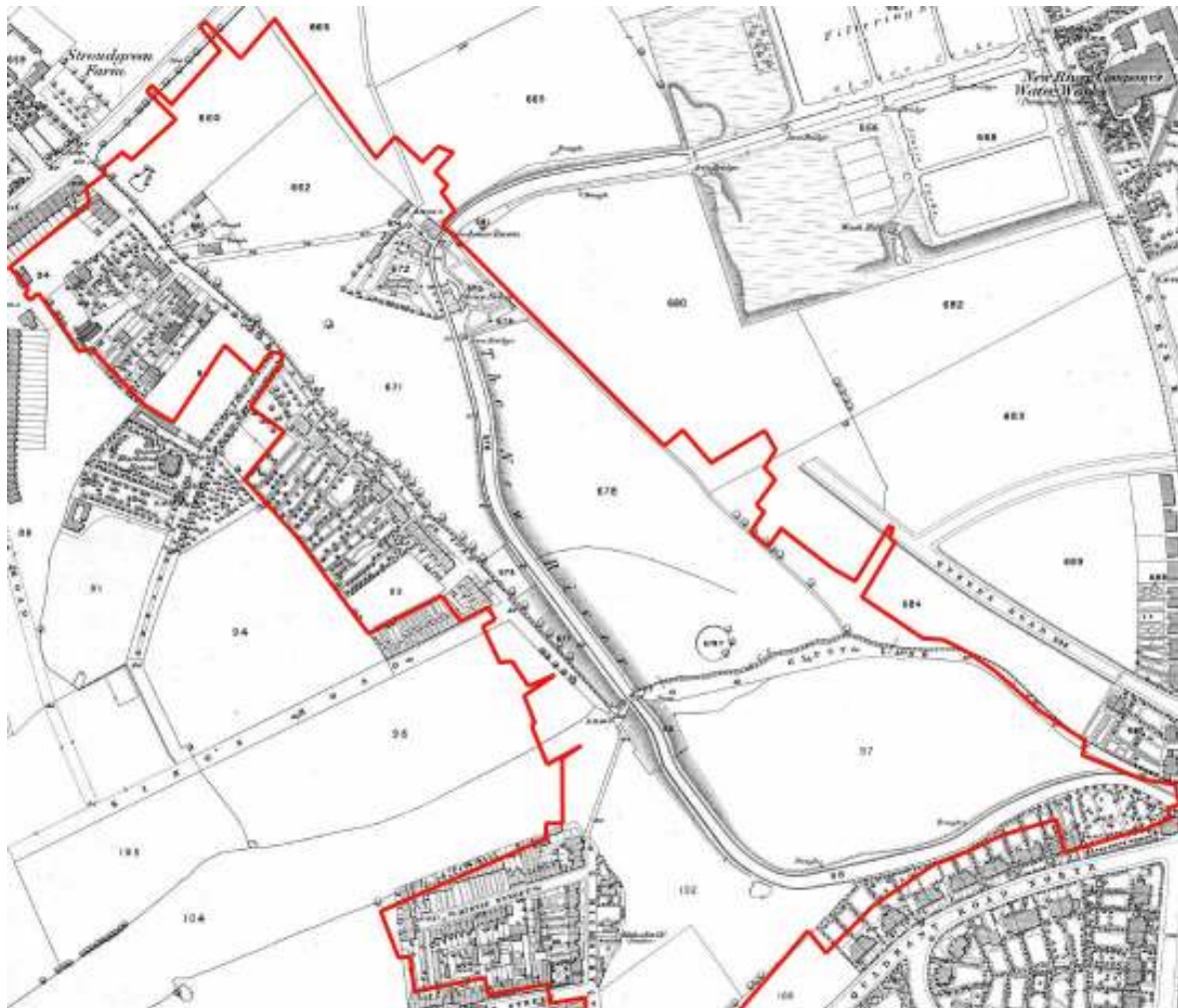


Figure 4: Extract from the Ordnance Survey 25 inch 1st Edition, London Sheet IX, surveyed 1869, published 1872, showing the course of the New River, now on a raised bank, and the

limits of the DMA shown in green. The Sluice House can be seen top centre of the image, with the New River Company's Water Works shown top right. The small pond-like feature, adjacent to the west bank of the river, is seen in the central part of the image (see Section 8.11).

The Sluice House was an integral part of the New River and would have been in place by 1619, when the New River was turned south onto the 420 foot timber aqueduct of the Boarded River. From here the New River ran due south, passing what is now Mountgrove Road (formerly Gipsy Lane). People living in the area also describe the Arsenal Tavern on the corner of Blackstock Road as 'the old sluice house', but although this was a popular view recorded by Essex-Lopresti in 1988 there is no evidence from old maps that there ever was a sluice house at this end of the aqueduct and the archaeological evidence now supports the location of the Sluice House as being in the vicinity of the junction of Wilberforce Road and Somerfield Road extending south to approximately no. 46 Wilberforce Road (*cf.* Figures 7 to 24). The River then turned eastwards and ran along Riversdale Road, where it rejoined the original course. Crossing Green Lanes it entered Clissold Park by an old stone hut, which is still there, and crossed to the lake along an easily recognised route. It is this section of the New River, as far as Green Lanes, which was monitored in this Thames Water watching brief and is discussed in detail in Section 8 below.



Figure 5: Detail from the Ordnance Survey 1869 map showing the locations of the watching brief Test Pits 1-3 (shown in blue) on Wilberforce Road (*cf.* Section 8.1) and the recorded wall line of the southwest corner of the Sluice House (shown in red).



Figure 6: Highbury Sluice House Tavern *circa* 1863, which stood just north of the Sluice House (cf. Figures 4 and 5). Part of the southwest corner of the Sluice House was located in the watching brief. © Ward, R. 2003 ‘*London’s New River*’ p.222

In September 1784 a correspondent’s description of the Bush Hill Frame was published in the Gentleman’s Magazine and made reference to the similar aqueduct at Highbury, which it records was ‘*taken down and replaced by a bed of clay, about six years ago*’. This entry prompted a further correspondent to write to the Magazine about the Highbury Aqueduct; it was published in November 1784.

“The Boarded River, as it used generally to be called, about half-way between Highbury, in the Parish of Islington, and Hornsey Wood House, in the Parish of Hornsey, was about 178 yards long. It was carried over an ancient bridle-way; and as I used to frequently to pass under it in the summer-time, I observed it to be almost continually dropping. This being literally such a constant drain upon the Company, first, I suppose, suggested the idea of destroying it. Accordingly, about midsummer, 1776 preparations were made for that purpose. The earth was raised, by the addition of a great bed of clay, to proper level, and a channel was made for the river nearly along the track”.

The Highbury embankment seemed to cause a number of problems. On Friday 13th April 1787, the same magazine records:

“About 5 o’clock in the afternoon an accident happened at the New River...When the frame, in which the river used formerly to be carried between Hornsey Wood and Highbury, was removed in 1766 and a bed of clay substituted in its place, it was found necessary to carry a brick arch under the River, to preserve the course of a little stream, the parent of the Hackney brook; the crown of this arch gave way and fell in immediately under the River”.

And on Sunday 2nd September 1798:

“This afternoon, about six o’clock, the North east bank of the New River suddenly burst, about half a mile from Hornsey House”.

In 1865 there was further shortening at Highbury, achieved by laying four-foot diameter iron pipes from Stoke Newington along Green Lanes to Clissold Park. This made Highbury Bank redundant, and it was eventually sold to a Mr Barlow in 1868 for £3,750⁷.

Originally the course of the New River was above ground throughout, but latterly some sections were put underground, enabling the course to be straightened. The New River Company was taken over by the Metropolitan Water Board in 1904 and became part of Thames Water in 1973. The northern part of the New River is still an important link in the supply of water to London.

The results of the watching brief and the Sluice House archaeology is discussed in detail below, including analysis of alluvial deposits relating to the New River which were encountered at the southern end of Wyatt Road.

4. Archaeological Research Questions

The objectives of an archaeological watching brief are to contribute knowledge of the archaeology of an area through the recording of any remains exposed as a result of excavations in connection with the permitted groundworks. Particular attention was made to the character, height below ground level, condition, date and significance of the deposits. The fieldwork presented an opportunity to address the following general and specific research questions:

- Is there any evidence for prehistoric to medieval activity, and what is the nature of this?
- Is there any evidence for the New River or Hackney Brook and associated features?
- At what level do archaeological deposits survive in the highways across the area?
- Can the watching brief works inform on the research questions of the Museum of London and English Heritage’s ‘A Research Framework for London Archaeology’ publication 2002 in relation to the post medieval social and industrial history of this part of London?

5. The Archaeological Programme

Ground reduction works below the road make-up were undertaken by machine, and new mains pipes were generally inserted as close as possible to the existing main. Contractor methods included open-cut trenching, pipe-bursting and insertion.

⁷ *Ibid* p181

Archaeological monitoring was required on open-cut trenching, trial pits and in launch-pit areas, access pits and exit points of other methods.

5.1 Standards

The field and post-excavation work was carried out in accordance with current English Heritage guidelines (in particular, *Standards and Practice in Archaeological Fieldwork, Guidance Paper 3*) and to the standards of the Institute of Archaeologists (*IfA Standard and Guidance for Archaeological Watching Briefs*). Overall management of the project was undertaken by a full Member of the Institute.

The recording system followed the procedures set out in the Museum of London recording manual. By agreement the recording and drawing sheets used were directly compatible with those developed by the museum.

5.2 Fieldwork

The archaeological watching brief took place during contractors' groundworks and involved one or more archaeologists on site as required monitoring the works and investigating and recording any archaeological remains. Close liaison was maintained with the groundworks team to ensure a presence on site as and when necessary. Numerous visits were made during the course of the project and samples of these visits are detailed below in Section 8⁸.

Where archaeological remains were exposed adequate time was allowed for investigation and recording, although every effort was made not to disrupt the contractors programme. Where possible, excavation was undertaken using a flat bladed bucket (working in a single direction, although this was in some cases impracticable) to enable archaeological remains to be cleanly recorded prior to disturbance. Where archaeological remains are encountered, machine excavation ceased to allow the remains to be investigated further.

5.3 Methodology

The Client and the representatives of English Heritage were kept advised of the progress of the fieldwork, and in particular any significant finds or remains that required additional archaeological work.

Archaeological deposits and features were investigated and recorded in stratigraphic sequence, and where appropriate finds dating and environmental evidence recovered.

Archaeological deposits and features were recorded as appropriate on *pro-forma* context or trench sheets, and/or drawn in plan or section generally at scales of 1:10 or 1:20. The investigations were recorded on a general site plan and related to the Ordnance Survey grid. The fieldwork record was supplemented as appropriate by photography.

⁸ Regular visits were made to all the streets in the DMA, but only a sample of these visits is presented here, in order to give a general overview of the project rather than a longer catalogue of largely negative site visits.

6. Post-Excavation Work

The fieldwork was followed by off-site assessment and compilation of this report, and by ordering and deposition of the site archive.

6.1 Finds and Samples

Finds and samples were treated in accordance with the appropriate guidelines, including the Museum of London's *'Standards for the Preparation of Finds to be permanently retained by the Museum of London'*. Finds and artefacts from archaeological contexts were retained and bagged with unique numbers related to the context record. Additionally some residual finds (where encountered in unstratified contexts) were recorded and dated on-site but were not retained. Appropriately qualified staff undertook the assessment of finds and samples.

6.2 Report Procedure

Copies of this report will be supplied the Client, English Heritage and the local studies library.

The level of reporting was dependent upon the results of the fieldwork. However, the report includes details of any archaeological remains or finds, an interpretation of the deposits investigated and a site plan located to the Ordnance Survey grid. A short summary of the fieldwork is appended using the OASIS Data Collection Form, and in paragraph form suitable for publication within the 'excavation round-up' of the *London Archaeologist*.

7. The Site Archive

The records from the archaeological project will be ordered in line with MoL *Guidelines for the Preparation of Archaeological Archives* and will be deposited in the Museum of London Archaeological Archive. The integrity of the site archive should be maintained, and the landowner will be urged to donate any archaeological finds to the Museum.

8. The Archaeological Watching Brief

Archaeological monitoring was undertaken during groundworks along eleven streets within DMA Maiden Lane 32. The table below lists the monitored streets, along with an approximate length of monitored trenching and a summary of the results of the watching brief. Numerous visits were made during the course of the project, but only a sample of the most significant of these visits is detailed below. Further discussion of each area is presented in sections 8.1 to 8.11 below. Following the observation and recording of trenching in the areas listed below it was agreed after consultation with English Heritage that no further archaeological monitoring was required within DMA Maiden Lane 32.

Street	Length in metres	Summary
Blackstock Rd	187.7	Modern road layers and made-ground overlying truncated natural London Clay.
Brownswood Rd	92.8	Modern road layers and made-ground overlying truncated natural London Clay.
Canning Rd	57.5	30 pits and trial holes exposed modern road layers over made-ground deposits and truncated natural clay and alluvial deposits.
Finsbury Park Rd	99	43 pits and trial holes exposed modern road layers over made-ground deposits and truncated natural clay and alluvial deposits.
Herrick Rd	25	13 pits exposed modern road layers and truncated natural.
Hurlock St	10.75	Four pits exposed modern road layers and truncated natural.
Mountgrove Rd	91.25	25 pits and 1 trench exposed road layers over 19 th century consolidation layers and truncated natural.
Riversdale Rd	211.75	40 pits exposed modern road layers and truncated natural.
Somerfield Rd	180.85	Five pits exposed modern road layers and truncated natural.
Wilberforce Rd	84.85m	46 open areas exposed the same typical sequence of road layers over truncated natural, but in three areas structural remains of the post-medieval Sluice House were recorded.
Wyatt Rd	29.2m	17 excavated pits exposed the same typical sequence but also deposits representing the New River embankment and river bed.

The description of the archaeological watching brief begins with the discoveries on Wilberforce Road as these are the most significant; thereafter the roads are discussed in alphabetical order.

8.1 Wilberforce Road (Figures 7 to 24)

Monitoring on Wilberforce Road was undertaken between 22/10/10 and 11/12/10 and constituted 49 pits and trenches, totalling 85m of open ground and monitored over numerous visits. A summary of these principal findings is presented in the following table:

Date of Visit	No.	Location	Observations
22/10/10	6	Trenches located running south from Brownswood Road junction to junction with Mountgrove Road.	Tarmac and concrete over brick rubble makeup to 0.6, mixed consolidation layer with later 19 th century pot (Ironstone China), clay pipe, glass and rubble inclusions to 0.9m overlying blue clay to 1.27m.
02/11/10	9	West side of road 2m from kerb line, running from north side of Brownswood Road junction to No. 84 Wilberforce Road.	Modern road surface and concrete to 0.15m overlying mixed made-ground with pot, glass and clinker inclusions to 0.43m. Yellow/blue clay to 1.13m.
10/11/10	8	West side of road between No. 84 and 70 Wilberforce Road.	Modern road surface and concrete to 0.23m overlying mixed made-ground with pot, glass and clinker inclusions to 0.6m. Yellow/blue clay to 1.25m.
17/11/10	3	West side of road between No. 70 to 62 Wilberforce Road.	Tarmac and concrete over brown sooty deposits with degraded iron made-ground to 0.8m over blue/grey natural clay to 1m.
25/11/10	3	Pits outside No's 40 and 42 Wilberforce Rd.	Remains of post-medieval Sluice House, part of the New River – see detailed discussion below.
01/12/10	6	West side of road 1.3m from kerb line, between No. 32 Wilberforce Rd and the junction with Somerfield Road.	Modern road surface and concrete to 0.18m overlying mixed made-ground rubble to 0.48m. Yellow/blue clay to 1.3m.
07/12/10	5	West side of road 1.4m from kerb line, located between the Somerfield Rd junction No.30.	Modern road surface and concrete to 0.15m overlying mixed made-ground and service backfills to 0.6m. Yellow/blue clay to 1.22m.
11/12/10	9	West side of road between Somerfield Rd junction and No. 19 Wilberforce Rd.	Tarmac and base to 0.3m over crushed red brick made-ground to 0.4m. Natural clays to 1m.

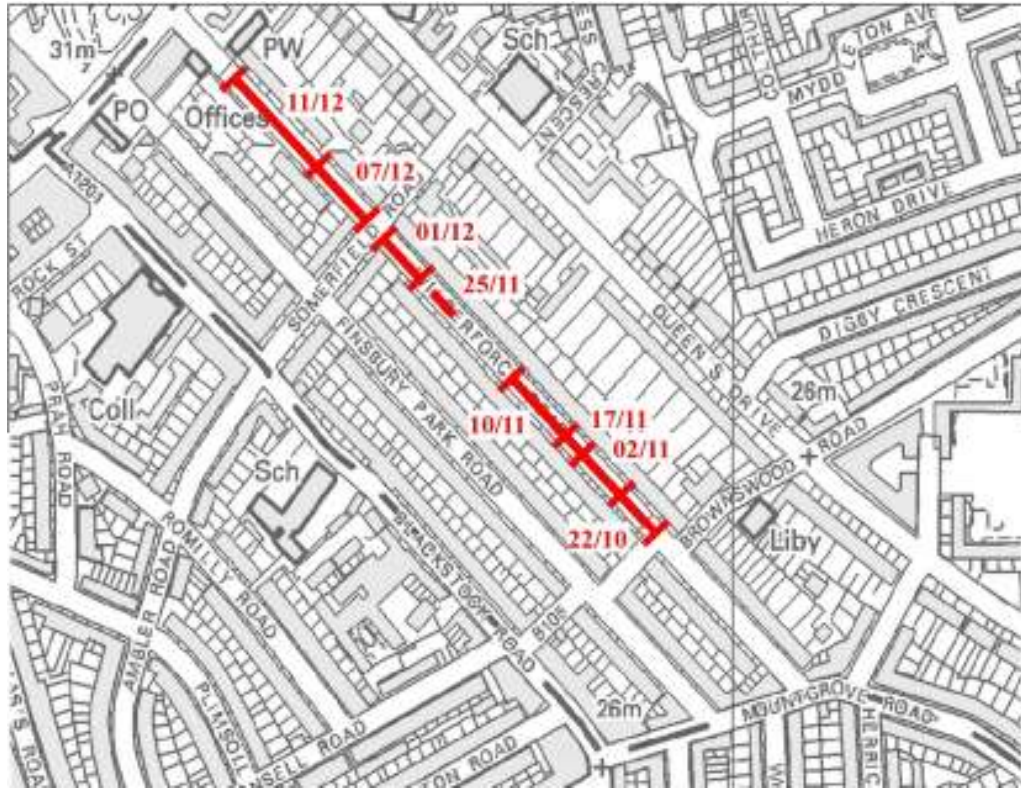


Figure 7: Location of trenching on Wilberforce Road in relation to the current Ordnance Survey 1:2500 map.

The majority of trenching on Wilberforce Road exposed a simple sequence of truncated natural clay overlain by road makeup layers and the modern road surface. Dump layers are likely to represent later 19th century ground-makeup or consolidation prior to the initial road surfacing. Finds noted from these contexts were typical of 19th century domestic waste assemblages – pottery sherds, clay pipes and glass fragments. The table below summarises the finds assemblage noted from the Wilberforce Road groundworks:

Date	Finds	Discussion
22/10/10	1 clay pipe fragment	Type 14, 1820-1840. Retained from Trench 6: Context 4.
25/10/10	3 clay pipe fragments 1 glass bottle fragment pottery sherds	One pipe was marked ‘Swinyard’ – a known London clay pipe producer working in Westminster 1823-46. 19 th century. Typical 19 th century domestic wares.
02/11/10	pottery sherds	Typical 19 th century domestic wares.
07/12/10	pottery sherds	Typical 19 th century domestic wares.

Three pits monitored on 25/11/10 exposed the remains of masonry structures and mortar floors that are thought to be surviving elements of the later 18th century Sluice House that formed part of the New River system. The three pits were recorded as Test-Pits 1 to 3 (Figure 8), pits beyond these contained natural truncated clays (*cf.* Figures 9 to 11).



Figure 8: The location of Test Pits 1-3 on Wilberforce Road (shown in blue and discussed in Sections 8.1.1 to 8.1.3 below) and the line of exposed walls (red) in relation to the modern Ordnance Survey map (based on Thames Water Utilities OS Reference Drawing: ZMAIDL32-XX-100-01).



Figure 9: General view looking south down Wilberforce Road from Test Pit 3, showing the nature of water main replacement works on Wilberforce Road. Test Pits 1 and 2 are located to the north of this point. In the next test pits visible, 4 and 5 by the front wheels of the Murphy's van, a stratified sequence of probably natural alluvial clays was recorded (Figures 10 and 11).



Figure 10: Natural alluvial clays recorded outside no. 46 Wilberforce Road.



Figure 11: Detail of alluvial clays recorded outside of no. 46 Wilberforce Road and south of the Sluice House recorded in Test Pits 1 to 3.

8.1.1 Test Pit 1 (Figures 8 and 12 to 14)

Test Pit 1 was excavated by a team of archaeologists and was located outside No. 40 Wilberforce Road, in the southern carriageway *c.*2.59m from the kerb line. The pit measured 1.8m (north-south) by 1.65m (east-west) and was excavated to a depth of 0.9m below the existing ground surface. The following table summarises the exposed stratigraphy:

Context	Description	Interpretation
+	Tarmac and concrete (0.4m thickness)	Existing road surface and hardcore
+	Building rubble in brown-grey silty clay matrix – frequent brick, concrete and gravel inclusions (0.5m thickness).	Mixed made-ground, rubble backfill and service fills.
+	Services	Modern services cutting underlying masonry and mortar remains.
1	North-south orientated dark-red brick wall with white/grey lime and sand mortar. Exposed in NW corner of pit, surviving at a length of 0.9m and to a height of 0.63m, 8 courses. Flush, pointed inner face with alternating courses of headers over stretches.	External wall of the Sluice House room, discovered at only about 900mm below the present ground surface and part of Sluice House complex. Bricks identified as London Fabric Type [3032] dating to the period <i>c.</i> 1780 – 1850 (<i>cf.</i> Appendix III Brick Analysis).
2	Thick white/grey lime and sand mortar floor exposed across entire pit (except where cut by modern services), <i>c.</i> 0.15m thickness with brick, and tile impressions surviving in the mortar floor.	Brick, tile and mortar Sluice House floor – associated with wall [1]. Part of Sluice House complex (<i>cf.</i> Appendix III Brick Analysis).

Figures 8 (above), and 12 to 14 (below) show a scaled plan and photographs of the structures exposed in Test Pit 1. A detailed discussion of the remains, in relation to those exposed in Test Pits 2 and 3 is presented below (Section 8.1.4).

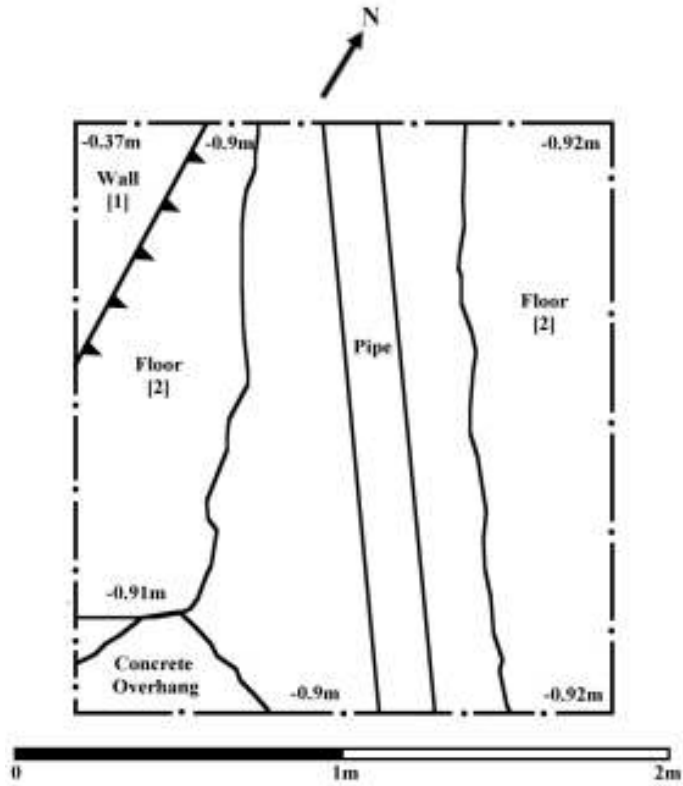


Figure 12: Plan of Test Pit 1 on Wilberforce Road (levels are indicative heights below the current ground surface, which is at approximately +28.80m OD).



Figure 13: General view of Test Pit 1 showing the brick wall [1] (top left) and mortar floor [2] (cut by centrally placed old service pipe). Looking northwest, 1m scale.



Figure 14: View of brick wall [1] in Test Pit 1 (0.5m scale).

8.1.2 Test Pit 2 (Figures 8 and 15 to 17)

Test Pit 2 was excavated by a team of archaeologists and was located outside No.42 Wilberforce Road, in the southern pavement adjacent to the kerb line. The pit measured 1.22m (EW) by 0.6m (NS) and was excavated to a depth of 0.62m below the existing ground surface. The following table summarises the exposed stratigraphy in Test Pit 2:

Context	Description	Interpretation
+	Tarmac, concrete and pavement deposits (0.45m thickness).	Existing road surface and hardcore
3	Brick wall exposed 0.45m below ground surface, dark red bricks with white/grey lime and sand mortar; small section of surviving wall 0.62m in length with depth of 0.35m. Bricks laid in English bond.	Probable continuation of wall [1] in TP1, part of Sluice House – brick fabric [3032] <i>c.</i> 1780-1850 (<i>cf.</i> Appendix III Brick Analysis).
+	Natural light yellow-brown sterile clay exposed from 0.5m below the existing ground surface.	Natural clay.

Figures 15 to 17 (below) show a scaled plan and photographs of the structures exposed in Test Pit 2. A detailed discussion of the remains, in relation to those exposed in Test Pits 1 and 3 is presented below (Section 8.1.4).

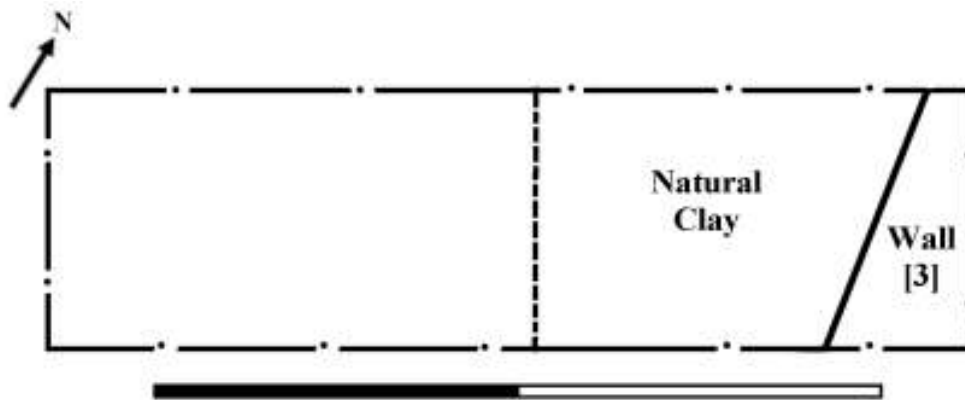


Figure 15: Plan of Test Pit 2 (total scale length 1m).



Figure 16: View of brick wall [3] in Test Pit 2 (view northwest, 0.5m scale).



Figure 17: View of brick wall [3] and clay in Test Pit 2 (view east, 0.2m scale).

8.1.3 Test Pit 3 (Figures 8 and 18 to 20)

Test Pit 3 was excavated by a team of archaeologists and was also located outside No. 42 Wilberforce Road (east of Test Pit 2) in the south carriageway, c.2.59m from the kerb line. The pit measured 1.69m (NS) by 1.12m (EW) and was excavated to a depth of 1.14m below the existing ground surface. The following table summarises the exposed stratigraphy in Test Pit 3:

Context	Description	Interpretation
+	Tarmac, concrete and rubble road makeup with a lens of broken slate (0.52m thickness).	Existing road levels and makeup.
+	Mid-light yellow/brown thick clay with chalk and gravel inclusions (0.2m thickness).	Possible occupational deposit overlying demolition debris.
+	Brick and lime-mortar rubble in silty clay matrix.	Rubble demolition backfill.
+	Pipe and backfill	Pipe and backfill.
4	Red brick wall with lime mortar bonding, surviving to a length of 0.61m and to a height of 0.48m (six courses). Internal face rendered. To the west the wall has a finished end, with an opening/threshold, presumably a door.	Brick wall, part of Sluice House complex. Bricks of fabric [3032] c. 1780-1850 (<i>cf.</i> Appendix III Brick Analysis).
5	Thick, compact cream/grey lime mortar surface with tile impressions, exposed c. 1.14m below existing ground surface.	Internal floor of cellar room – part of Sluice House complex.

Figures 18, 19 and 20 below present a scaled plan-drawing and photographs of the remains exposed in Test Pit 3. A more detailed discussion of the remains in relation to those exposed in Test Pits 1 and 2 follows (Section 8.1.4).

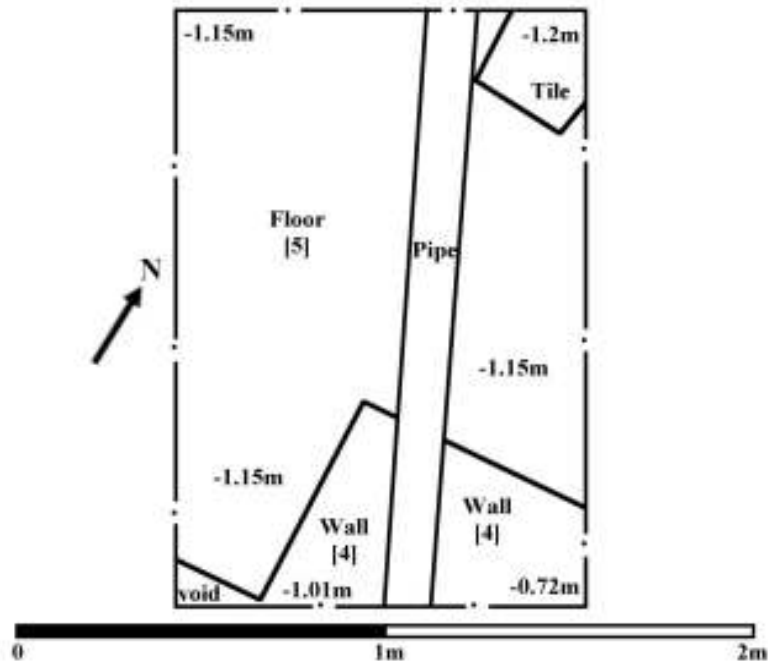


Figure 18: Plan of Test Pit 3. Levels are shown below present road surface, the latter at approximately +28.60mOD.



Figure 19: General view of Test Pit 3 (0.5m scale).



Figure 20: View of wall [4] in Test Pit 3, looking southeast (0.5m scale).

8.1.4 Wilberforce Road Discussion

The New River was constructed between 1604 and 1613 and it is likely that a Sluice House formed part of the construction from its earliest phases, although it may have been constructed in 1619 after the river was rerouted to the south. A Sluice House structure is depicted on Rocque's map of 1746, but analysis of the bricks recovered from the surviving masonry on Wilberforce Road suggests they are part of a later rebuild, *circa* 1780 or later (*cf.* Appendix III Brick Analysis and Figure 21).

The Sluice House held the sluice gates, traditionally wooden or metal plates which slid up and down and were used to control water levels and flow rates – the Sluice House was therefore an integral part of the system, controlling the amount of fresh water that reached London. The 1869 Ordnance Survey map provides detailed picture of the Sluice House complex at this time – complete with Tavern and Dancing Platform (*cf.* Figures 5 and 24). By locating the Wilberforce Road trenches on the modern Ordnance Survey map and relating this in turn to the 1869 Ordnance Survey, it is possible to accurately locate the surviving walls within the 19th century Sluice House complex. Figures 8 and 22 to 24 again show the trenches in relation to the modern and 1869 Ordnance Survey maps:



Figure 21: Illustrated Evidence for the Sluce House. Top: detail from John Rocque's map of 1746 showing the '*Sluce [sic] House*' (cf. also Figure 3). Below: '*View of the Sluce House, Finsbury*', by George Hanley, 1823. This illustration appears to be taken from the southeast, the double-pitched roof in the background being the Sluce House Tavern (cf. Cover illustration); London Metropolitan Archive, Wakefield Collection W.F1/NEW.



Figure 22: The extent of the Sluice House complex (orange) and New River (blue) in the Wilberforce Rd area in relation to the current Ordnance Survey map (based on Thames Water Utilities OS Reference Drawing: ZMAIDL32-XX-100-01).



Figure 23: The location of Test Pits 1-3 (blue) and the line of exposed walls (red) in relation to the modern Ordnance Survey map (based on Thames Water Utilities OS Reference Drawing: ZMAIDL32-XX-100-01).



Figure 24: Extract from the Ordnance Survey 1869 map showing the locations of Test Pits 1-3 and the surviving wall line (red).

The map overlays shown in Figures 22-24 confirm that the walls exposed in Test Pits 1-3 are the remains of the southwest corner of the Sluice House building as detailed on the Ordnance Survey map of 1869. The fabric of the sampled bricks suggest the structure could date to as early as 1780, although it is impossible to precisely date the structure it seems most likely that it is a rebuild of the first Sluice House complex, dating from the late 18th to mid 19th centuries. The areas investigated appear to be parts of a room or rooms adjacent to the river channel, in Pit 3 the mortar floor clearly retained the impressions of large tiles that had been removed.

8.2 Blackstock Road (Figures 25 to 26)

Approximately 188m of trenching was observed on the east side of Blackstock Road, adjacent to the kerb and running north between the Woodbine Public House (south of Hurlock St) and the south side of the Chatterton Road junction. The trenching was observed in three sections (*cf.* Figure 25 below): Trench 1 (monitored 13/01/11) recorded approximately 90m of open cut trench exposing modern road tarmac overlying concrete hardcore to a depth of 0.8m and truncated natural clay deposits to the remaining depth at 1.1m. Trench 2 (monitored 19/01/11) recorded approximately 32m of open cut trench exposing modern road tarmac and concrete overlying road-makeup rubble to a depth of 0.8m and truncated natural clay deposits to the remaining depth at 1.0m. Trench 3 (monitored 08/02/11) recorded approximately 66m of open cut trench exposing tarmac, concrete and rubble road-makeup to a depth of 0.46m, made-ground consisting of lenses of brick and sand rubble in a silty clay matrix was observed to a depth of 1m, truncated natural clay was exposed at the limit of excavation along the majority of the trench and in section to a depth of 1.4m in deeper areas.

No archaeological finds or features were observed during the course of monitoring on Blackstock Road.

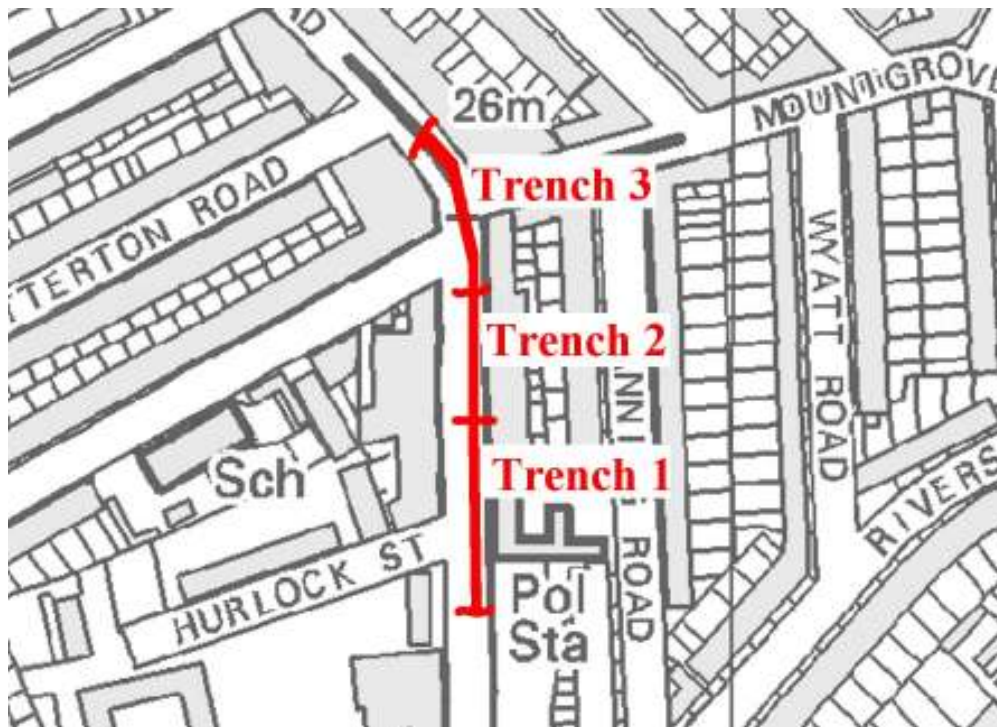


Figure 25: Location of trenching on Blackstock Road in relation to the current Ordnance Survey 1:2500 map.



Figure 26 Monitored open-cut trench on Blackstock Road (Trench 1 – 13/01/11) looking south (1m scale).

8.3 Brownswood Road (Figures 27 to 28)

Two open-cut trenches measuring 28.8m and 64m respectively were observed in the northern carriageway of Brownswood Road, orientated southwest to northeast and excavated between 1m and 1.3m south of the northern kerb. Trench 1 was excavated between the junction with Wilberforce Road and the access road to Kelvin Motor Wagons and Laura Terrace; the trench measured 0.43m in width and was excavated to a maximum depth of 0.9m below the existing road surface. Trench 2 was excavated between the northeast side of the access road running northeast to the junction with Queen's Drive; the trench measured 0.43m in width and was excavated to a maximum depth of 0.8m below the existing road surface. Both trenches recorded the existing tarmac road surface overlying rubble road make-up to a depth of 0.6m, natural mid-grey/brown clay was observed for the remaining depth. The clay deposits are likely to have been truncated during road construction.

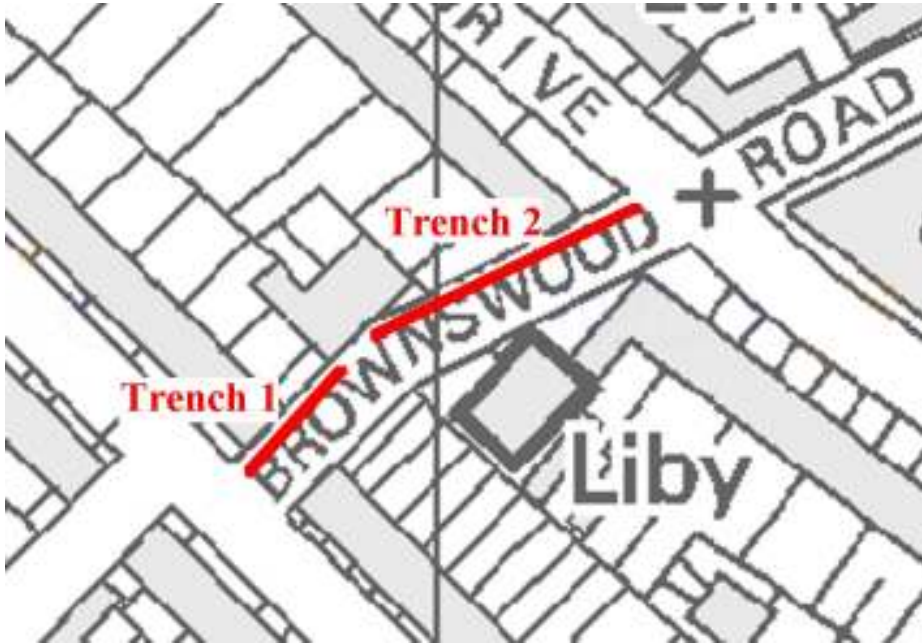


Figure 27: Location of monitored trenching on Brownswood Road in relation to the current Ordnance Survey 1:2500 map.



Figure 28: General view of Trench 2 looking approximately west from the junction with Queen's Drive.

8.4 Canning Road (Figures 29 to 30)

Monitored groundworks on Canning Road (*cf.* Figure 29 below) constituted 30 small test pits and trial holes along the full length of the street, and totalling some 57.5m of exposed trench. Numerous monitoring visits were conducted on Canning Road between 27/07/10 and 18/08/10, beginning at the southern end of Canning Road at the junction with Riversdale Road and working north to the junction with Mountgrove Road. The table below summarises the results of some of these monitoring visits, along with the locations and number of monitored pits:

Date of Visit	No.	Location	Observations
27/07/10	13	West carriageway between 2.3m to 2.6m from kerb line, between No. 1 and No. 27 Canning Road	Tarmac road surface overlying compact rubble base to av. 0.5m depth. Grey-green alluvial type silty clay deposit to remaining depth at max. 1.3m.
03/08/10	3	West carriageway 2.55m from kerb line, between No. 27 Canning Road and Police Station Yard.	Tarmac and base overlying crushed brick made-ground to 1.05m. Mid-brown clay to maximum depth of 1.5m.
05/08/10	5	West carriageway 2.9m from kerb line, between Police Station and No. 55 Canning Road.	Tarmac and base overlying crushed brick and slate made-ground to 0.91m depth. Thick mid-brown/grey clay to maximum depth of 1.4m.
18/08/10	9	West carriageway 2.96m from kerb line, between No. 55 Canning Road and Mountgrove Road junction.	Tarmac and brick and mortar rubble to 0.77m depth, overlying redeposited compact brown clay to 1.21m; natural orange/blue clay to 1.3m.

All monitored excavations on Canning Road exposed modern road layers and ground make-up deposits (presumably later 19th century), overlying truncated natural clay deposits. No archaeological finds or features were observed, and no evidence for structures or excavations associated with the New River survived. The River is clearly recorded as crossing Canning Road, but it was within an embanked section high above the contemporary land surface. The land surface was generally truncated during the later 19th century redevelopment work to the level of the natural clay (*cf.* Figure 30).



Figure 29: Location of trenching on Canning Road in relation to the current Ordnance Survey 1:2500 map.



Figure 30: East facing section of a pit on Canning Road (05/08/10) showing made-ground deposits over truncated natural clay (1m scale).

8.5 Finsbury Park Road (Figures 31 to 32)

Monitoring on Finsbury Park Road recorded 43 pits and trial holes totalling some 99m of open ground. Monitoring was undertaken over numerous visits between 20/07/10 and 20/09/10. The following table summarises the results of nine of these visits:

Date of Visit	No.	Location	Observations
20/07/10	6	Western carriageway 3.4m to 4.7m from kerb line. Located between junction with Seven Sisters Road to No. 18 Finsbury Park Rd.	Tarmac road surface overlying mixed layers of made ground to a depth of 0.6m; truncated natural brown clay to remaining depth, max. 1.4m.
27/07/10	5	Western carriageway 3m from kerb line. Located between Somerfield Road junction north to No. 18 Finsbury Park Rd.	Tarmac road surface overlying mixed layers of made ground to a depth of 0.7m to 0.85m; truncated natural brown clay to remaining depth, max. 1.25m.
03/08/10	4	Centre of road between Somerfield Road junction south to No. 33 Finsbury Park Rd.	Tarmac and gravel road-makeup deposit overlying layers of crushed red-brick and pottery to 0.75m depth; upper deposit of blue/green clay becoming brown to max. depth of 1.35m.
12/08/10	1	Test pit outside No. 51 Finsbury Park Rd.	Tarmac and road layers overlying crushed brick made-ground to 0.9m depth; thick mid-brown clay to 1.2m.
18/08/10	8	Eastern carriageway, 2.7m from kerb line. Located between No's 49 and 71 Finsbury Park Rd.	Tarmac and road layers overlying crushed brick, pot and glass made-ground to 0.6m depth; mid-brown clay becoming blue to max. depth of 1.2m.
25/08/10	1	East carriageway outside No. 71 Finsbury Park Rd.	Tarmac and road layers overlying road-makeup deposit of brick, pot, glass and domestic debris to 0.75m depth; natural clay to max. depth of 1m.
02/09/10	8	Eastern carriageway 2.4m from kerb line, located between No. 75 Finsbury Park Rd and junction with Brownswood Rd.	Tarmac and road layers overlying road-makeup deposit of brick, pot, glass and domestic debris to 0.75m depth; natural clay to max. depth of 1m.
14/09/10	5	Eastern carriageway 2.7m from kerb line, located between Brownswood Rd junction south to No. 97 Finsbury Park Rd.	Tarmac and road layers overlying road-makeup deposit of brick, pot, glass and domestic debris to 0.82m depth; natural clay to max. depth of 1.5m.
20/09/10	5	Eastern carriageway 2.7m from kerb line, located between No. 97 Finsbury Park Rd and junction with Mountgrove Rd.	Tarmac and road layers overlying road-makeup deposit of brick, pot, glass and domestic debris to 0.7m depth; natural clay to max. depth of 1.4m.

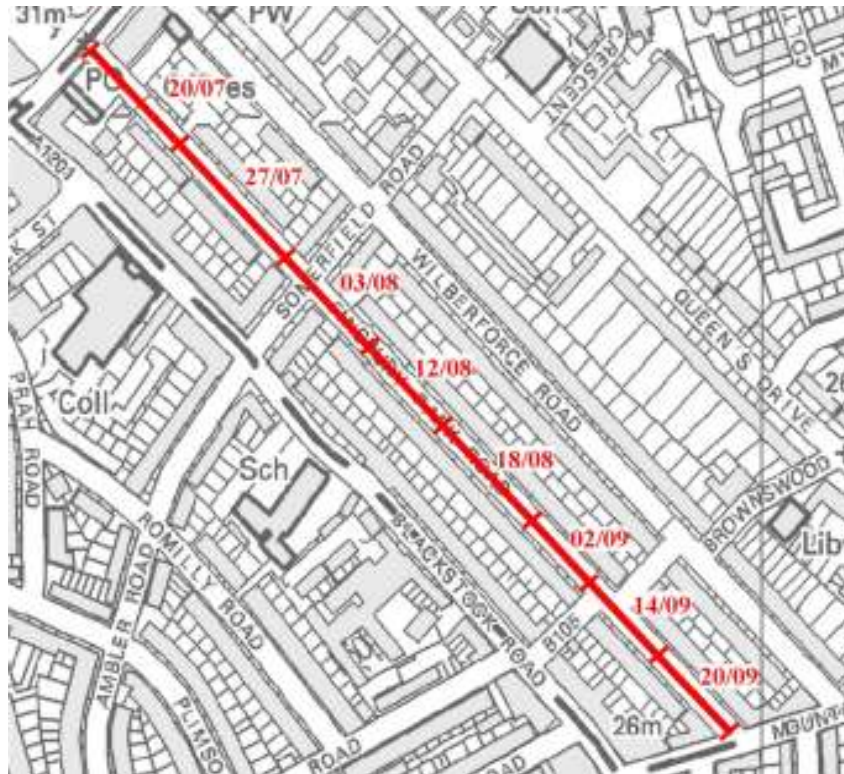


Figure 31: Location of trenching on Finsbury Park Road in relation to the current Ordnance Survey 1:2500 map.

The standard profile exposed during groundworks on Finsbury Park Road consisted of modern road surfacing and base overlying mixed layers of made-ground. The made-ground deposits contained crushed brick, pottery, glass and domestic debris. A sample of this material was recorded and a summary is presented below:

Date	Finds	Discussion
03/08/10	Pottery sherds	All mixed 19 th century wares.
12/08/10	1 ink bottle	19 th century stoneware ink bottle.
25/08/10	1 clay pipe Pottery sherds	No base or spur, c. 1850-1900 (Type 29) Mixed 19 th century wares.
02/09/10	1 pot sherd	China, possibly saucer sherd, 19 th century.

The finds recorded (but not retained) during trenching on Finsbury Park Road are all typical 19th century domestic wares and were recovered from deposits with high quantities of crushed 19th century red and yellow brick. The deposits are likely to represent ground levelling and make-up contemporary with the construction of Finsbury Park Road in the late 19th century. The exposed sequence suggests the ground was levelled to the natural clay horizon resulting in the truncated deposits recorded in section, and subsequently built-up using building rubble and domestic rubbish to create a hard-core base for the road surface.



Figure 32: Section of trenching on Finsbury Park Road (12/08/10) and a 19th century stoneware ink bottle from later made ground deposits (10cm scale).

8.6 Herrick Road (Figures 33 to 34)

Monitoring on Herrick Road constituted of 13 pits and trial holes totalling *c* 25m of open ground. Monitoring was undertaken over several visits. The following table summarises the results of two of these monitoring visits:

Date of Visit	No.	Location	Observations
25/08/10	8	Western carriageway 2.7m from kerb line. Located between Mountgrove Road junction and 21 Herrick Rd.	Tarmac road surface and gravel base overlying made-ground layers and Victorian mains backfill to 1.35m. Natural clay observed to max. depth of 1.4m.
06/09/10	5	Western carriageway 2.18m from kerb line. Located between 21 Herrick Road and junction with Riversdale Rd.	Tarmac road surface and concrete/gravel base overlying made-ground layers 1.03m. Natural yellow clay observed to max. depth of 1.15m.

Trenching on Herrick Road exposed a simple sequence of modern road layers overlying a series of 19th century dump layers, which in turn overlay truncated natural clay deposits. The dump layers contained a large assemblage of 19th Century brick, pottery, glass, clay pipe and other domestic waste, of which a small sample was recorded but mainly not retained (see summary table below). The exposed sequence suggests the ground was reduced and levelled to the natural clay horizons resulting in the truncated deposits recorded in section, and subsequently built up with a mix of building and domestic rubble to provide a hard base for the overlying road surface. The original Victorian main was exposed in the northern end of Herrick Road with associated 19th Century backfill deposits.



Figure 33: Trenching on Herrick Road in relation to the current Ordnance Survey 1:2500 map.

Date	Finds	Discussion
25.08.10	2 bottles 1 bottle fragment Pottery sherds 2 clay pipes	19 th century. Top of large English stoneware bottle stamped 'J BARNARD, Wine And Spirit Merchant, Middlesex Tavern, Westbourne Road, Holloway (cf. Figure 34, Context 2). All 19 th century wares including Ironstone China and one stamped stoneware bottle base 'Joseph Bourne & Son, Denby Pottery, Near Derby.' (cf. Figure 34, Context 2). Motif decoration, c. 1850-1900.
06.09.10	Pottery sherds	All 19 th domestic wares, includes one handle of PMR (Post-medieval red ware, cf. Figure 34) and three sherds from a single vessel Pit 1, Context 3.

The Middlesex Tavern is listed in Post Office Directories between 1899 and 1944 at 79 Westbourne Road, Holloway and is mentioned in the 1871 census. A 'John Clapton Barnard – Wine and Spirit Merchant' is listed as a resident of Great Dunmow (around 40 miles northeast of London) in the 1851 census, although it is unclear whether this is the same individual referenced on the bottle top recovered from Herrick Road. The Denby Pottery was established in 1806 and run by Joseph Bourne from 1809. The pottery was particularly known for its production of stoneware bottles which were used for a variety of purposes until glass bottles became cheaper and

more widely manufactured from the late 19th century. Denby Pottery continues to be a highly successful manufacturer and is one of the UK's leading producers.



Figure 34: Retained finds from trenching on Herrick Road (top left: Post-medieval redware jug or cauldron handle [Context 3], top right: Denby bottle base [Context 2], middle left: Middlesex Tavern bottle top [Context 2]), middle right transfer printed ware and below west facing section of trial pit (25/08/10 – 1m scale).

8.7 Hurlock Street

Monitoring on Hurlock Street, between Elwood House and Blackstock Road, was undertaken on 01/12/10 and constituted four pits totalling 10.75m of open ground. The trenches were located on the southern side of Hurlock Street and exposed modern road layers overlying crushed stone and brick rubble ground makeup to a depth of 0.9m below the existing ground surface. Truncated natural clay deposits were exposed for the remaining depth of excavation to a maximum depth of 1.4m. No archaeological finds or features were observed during the course of the watching brief. The exposed sequence suggests that the area had been levelled to the horizon of natural clay and subsequently built up during the road construction.

8.8 Mountgrove Road (Figures 35 to 36)

Monitoring on Mountgrove Road constituted 25 pits and trial holes totalling 56.25m of open ground, with an additional 35m open cut trench. Monitoring was undertaken over numerous visits between 07/12/10 and 08/02/11; a summary of seven of these visits is presented in the following table:

Date of Visit	No.	Location	Observations
07/12/10	2	Eastern carriageway 1.73m from kerb line. Located between the Riversdale Rd junction and No. 8 Mountgrove Road.	Modern road layers overlying large modern services and associated backfill deposits to 1.2m. Natural clay exposed at limited of excavation.
13/01/11	10	Eastern carriageway 2.4m from kerb line. Located between No. 30 and King's Crescent junction.	Tarmac and concrete hardcore to 0.4m overlying crushed red brick to 0.75m. Buried soil horizon of dark black silty clay c. 250mm thick, sterile. Natural clay at 1m to full depth of excavation at 1.1m.
19/01/11	1	Large open-cut trench between the junctions with King's Crescent and Wilberforce Road.	Tarmac and road makeup to 0.5m, overlying fine dark-grey silty clay buried soil/flood deposit 90mm thick. Thin layer (60mm) of very fine crushed red brick overlying 0.59m thick layer of dark-brown ashy deposit with frequent pot/brick /bone/shell inclusions.
19/01/11	2	Across the junction with Wilberforce Rd.	Sequence as above.
01/02/11	1	Section across the junction with Wilberforce Rd between pits observed 19/01/11.	Tarmac and base to a depth of 0.45m overlying backfill for a large yellow stock-brick vaulted drain, extent of cut not exposed and extends beyond depth of excavation at 2.5m.

01/02/11	4	North carriageway 1.85m from kerb line. Located between Finsbury Park Road junction and No. 80 Mountgrove Road.	Modern tarmac and road makeup to 0.45m overlying modern services and associated backfills.
08/02/11	6	North carriageway 1.9m from kerb line. Located between junctions with Blackstock Road and Canning Road.	Tarmac and base over road-makeup levels to 0.45m overlying made-ground deposits to truncated natural at 1.25m.

The majority of trenching on Mountgrove Road exposed the similar sequence of modern road layers overlying made-ground deposits and truncated natural clay. However, open-cut trenching and trials holes between King's Crescent and Wilberforce Road exposed deep deposits of domestic rubbish overlain by a thin layer of crushed red brick. These deposits may represent ground consolidation in the 19th century, or alternatively they may be part of the wider backfill for the Victorian sewer exposed in the Wilberforce Road junction – unfortunately the extent of the cut for this feature was not exposed. Mountgrove Road follows the historic line of the Hackney Brook, but no evidence for the watercourse was recorded or of the bridge which once stood towards the western end of the road and carried the New River over the Hackney Brook. A summary of the finds recorded from these deposits is presented in the table below; the pottery constitutes typical 19th century domestic wares and the bottle tops and ink bottle are also typical of the period (not retained).

Date	Finds	Discussion
19.01.11	Ink bottle 5 pottery sherds	Small stoneware ink bottle (see Figure 36) Typical 19 th century domestic wares.
19.01.11	7 pottery sherds	19 th century, includes 3 bottle/jug rims.



Figure 35: Location of trenching on Mountgrove Road in relation to the current Ordnance Survey 1:2500 map.



Figure 36: Trenching on Mountgrove Road and a recovered Victorian ink bottle.

8.9 Riversdale Road (Figures 37 to 38)

Monitoring on Riversdale Road was undertaken between 14/09/10 and 14/12/10 and constituted 40 pits and sections of open cut trench, totalling some 211.75m of open ground, monitored over numerous visits. The following table summarises the results of eleven of these visits:

Date of Visit	No.	Location	Observations
14/09/10	1	Connection trench crossing Riversdale Road at Canning Street junction.	Tarmac and concrete to 0.15m overlying modern brick road makeup. Made-ground with large red handmade brick inclusions to 0.7m overlying natural thick brown clay to 1m.
20/09/10	7	Southern carriageway 2.4m from kerb line between junctions with Blackstock Road and Highbury Quadrant.	Tarmac and crushed brick base to 0.5m overlying mottled natural grey clay to 1.2m depth.
12/10/10	1	South carriageway 2.25m from kerb line opposite junction with Wyatt Road	Tarmac and concrete over mixed made-ground layers to 0.5m overlying compact grey clay to 1.1m.
12/10/10	1	South carriageway 2m from kerb line located opposite No. 65 Riversdale Road.	Tarmac and concrete over mixed made-ground layers to 0.75m overlying compact grey clay to 1.15m.
12/10/10	3	South carriageway 1.18m from kerb line located	Tarmac and concrete over mixed made-ground layers to 0.6m

		between the junctions with Wyatt Road and Herrick Road.	overlying modern services and backfills to 1.1m.
15/10/10	2	South carriageway 2.4m from kerb line, located at junction with Herrick Road.	Modern road layers and made-ground to 0.7m overlying thick grey natural clay to 1.2m.
22/10/10	7	South carriageway 2.4m from kerb line, located between Herrick Road junction and 103 Riversdale Road.	Modern road layers and crushed brick ground makeup to 1.2m overlying natural grey clay to 1.4m.
02/11/10	15	South carriageway from 103 Riversdale Road to No. 113.	Modern road layers and ground makeup to 0.88m overlying natural clay to 1.13m.
10/11/10	1	Trench on south side of road running between No.113 Riversdale Road and junction with Mountgrove Road.	Tarmac and modern ground makeup to 0.9m overlying natural grey clay to 1.2m.
01/12/10	1	Long trench on north side of road between Mountgrove Road junction and No. 135.	Tarmac and modern ground makeup to 0.9m overlying natural grey clay to 1.2m.
14/12/10	1	Trench on north side of road between No.135 and junction with Green Lane.	Tarmac and modern ground makeup to 0.6m overlying natural grey clay to 1.2m.

Monitoring on Riversdale Road recorded a relatively uniform sequence of modern road layers and made-ground deposits overlying truncated natural, grey clay. The sequence suggests that the area was levelled into the horizon of the clay natural and subsequently built up before the road was laid out. No archaeological finds or features were observed during the course of the archaeological watching brief.

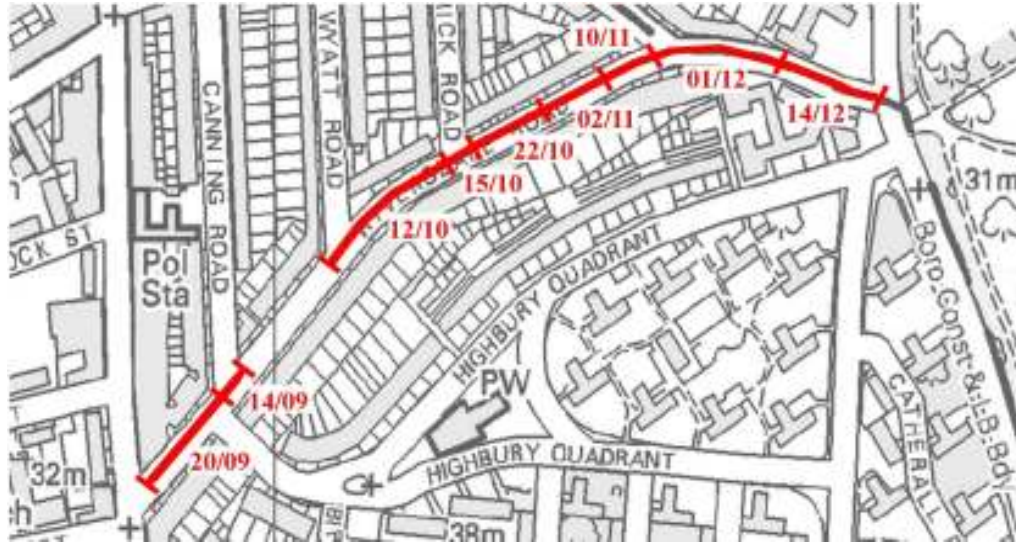


Figure 37 Location of trenching on Riversdale Road in relation to the current Ordnance Survey 1:2500 map.



Figure 38: Trenching on Riversdale Road, southeast facing section (1m scale).

8.10 Somerfield Road (Figures 39 to 40)

Monitoring on Somerfield Road was undertaken between 08/02/11 and 02/03/11 and constituted 5 sections of open-cut trenching and pits, totalling 180.85m and monitored over several visits. The results of the three visits are summarised in the following table:

Date of Visit	No.	Location	Observations
08/02/11	3	One long trench and two pits between the junction with Wilberforce Road and No. 38 Somerfield Road.	Tarmac and concrete over brick rubble to 0.32m overlying made-ground to 1.12m.
18/02/11	1	Long trench on south side of road between Wilberforce Road and across junction with Finsbury Park Road.	Tarmac and road makeup to 0.4m overlying crushed red brick made-ground to 0.95m. Natural clay to 1.45m.
02/03/11	1	Long trench on south side of road between Finsbury Park Road and Blackstock Road.	Tarmac and crushed brick ground makeup to 0.58m overlying natural yellow/brown clay to 1.4m.

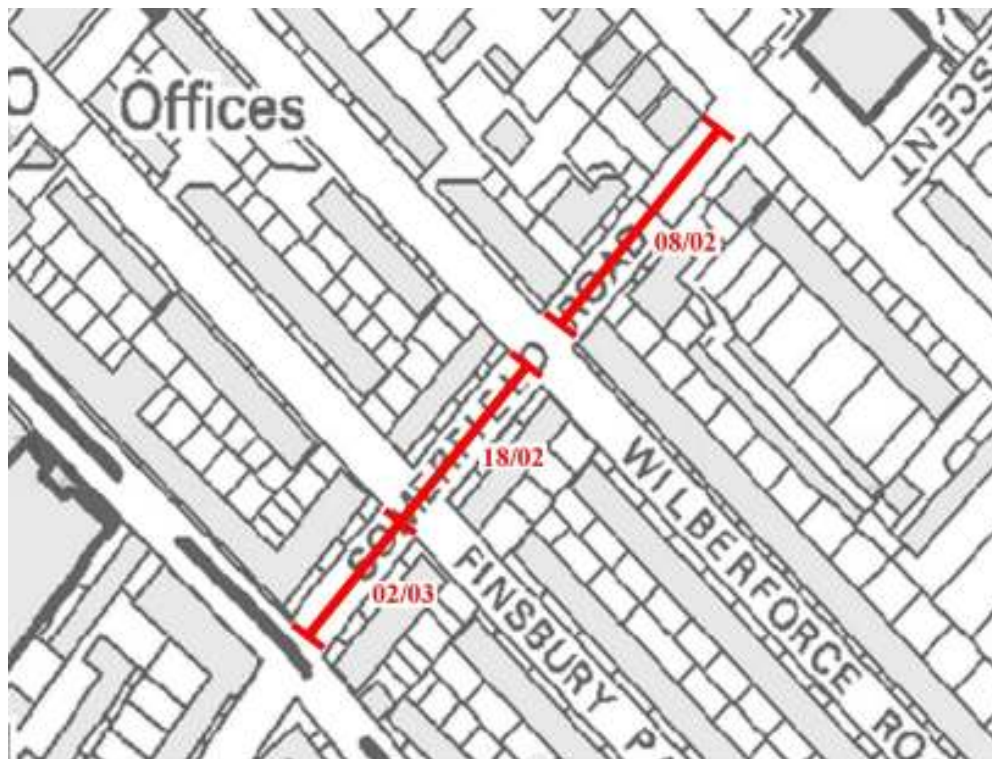


Figure 39: Location of trenching on Somerfield Road in relation to the current Ordnance Survey 1:2500 map.

Monitoring on Somerfield Road recorded a relatively uniform sequence of modern road layers and made-ground deposits overlying truncated natural, grey clay. The sequence suggests that the area was levelled into the horizon of the clay natural and

subsequently built up before the road was laid out. No archaeological finds or features were observed during the course of the archaeological watching brief.



Figure 40: Trenching on Somerfield Road, showing evidence of the red brick made ground layer, which formed a base for the late 19th century road.

8.11 Wyatt Road (Figures 41 to 43)

Trenching on Wyatt Road constituted 17 pits and trial holes, totalling 29.2m of open ground. Figure 41 below shows the extent of Wyatt Road covered by the archaeological watching brief. The majority of trenches exposed tarmac over a gravel base to an average of 0.25m below the existing ground surface. Made-ground deposits or road consolidation layers consisting of rubble and domestic debris in a dark silty matrix were exposed at an average thickness of 0.35m. Dark greenish-grey silty clay, truncated natural was exposed to an average depth of 1.2m in the northern part of Wyatt Road. In the southern part of Wyatt Road, towards the junction with Riversdale Road, one pit exposed compacted clean gravel which is thought to represent part of the New River embankment (*cf.* Figure 42). Further south, two pits exposed alluvial type deposits directly below the present road base; one of these is thought to be part of the surviving river bed, however, the other may be part of a separate small pond-like feature, adjacent to the west bank of the River (*cf.* Figure 4, OS 1869 plan).



Figure 41: Location of trenching on Wyatt Road in relation to the current Ordnance Survey 1:2500 map.



Figure 42: Pit at the south end of Wyatt Road showing clean gravel towards the base of excavations.



Figure 43: Pit at the Wyatt Road and Riversdale Road junction showing modern road layers overlying alluvial deposits.

9. Archaeological Research Questions

The objectives of the archaeological watching brief include contributing to knowledge of the archaeology of the area through the recording of any remains exposed as a result of excavations in connection with the groundworks. Particular attention was made to the character, depth below ground level, condition, date and significance of the deposits. The fieldwork presented an opportunity to address the following general and specific research questions:

- Is there any evidence for prehistoric to medieval activity, and what is the nature of this? *No evidence for prehistoric to medieval activity was observed during the course of the archaeological watching brief.*
- Is there any evidence for the New River or Hackney Brook and associated features? *Evidence for the New River was recorded in two areas: structural remains of the Sluice House shown on the Ordnance Survey map of 1869 were excavated by a team of archaeologists over three days on Wilberforce Road; and trenching near the south end of Wyatt Road exposed clean gravel deposits thought to be part of the New River embankment. No evidence for the Hackney Brook or the New River crossing here was observed.*
- At what level do archaeological deposits survive in the highways across the area? *Archaeological deposits and structures of post-medieval date were recorded between 0.4m and 0.65m below the existing ground surface – generally recorded immediately underlying the existing road surface and ground makeup deposits, some areas were truncated further by modern service cuts.*
- Can the watching brief works inform on the research questions of the Museum of London and English Heritage’s ‘A Research Framework for London

Archaeology' publication 2002 in relation to the post medieval social and industrial history of this part of London? *The New River was an important development in the social history of London, providing fresh water to the ever increasing populace. The remains of the New River, and the Sluice House on Wilberforce Road, could provide important evidence in understanding the engineering, scale and significance of the New River structures.*

10. Summary and Conclusions

- 10.1** The majority of trenching monitored in DMA Maiden Lane 32 exposed modern road layers and underlying consolidation layers overlying truncated natural clay deposits. In some cases the consolidation layers produced finds assemblages typical of 19th century domestic waste and building rubble, indicating that the area was cleared and levelled before road construction. This clearance reduced the surviving ground level into the natural clay deposits and effectively destroyed any earlier deposits or features – the ground was then consolidated and built up with domestic waste and building debris, providing a hardcore base for the subsequent road surface. Over much of the study area the New River would have been supported on an embankment above the contemporary land surface and clearly it was levelled and destroyed prior to development of the area in the late 19th century.
- 10.2** Evidence for the New River was exposed in two areas: trenching on Wyatt Road exposed alluvial deposits taken to be part of the river bed directly under the road layers (and possibly an adjacent pond), and just a few metres further north a clean gravel deposit was exposed, thought to be part of the New River embankment. Trenching on Wilberforce Road (outside Nos. 40 and 42) exposed sections of brick-wall and mortar flooring truncated by the modern road levels and service cuts. The walls can be accurately located on the Ordnance Survey 1869 map, which shows they are the surviving remains of the southwest corner of the Sluice House building. A Sluice House is thought to have existed from near the beginning of the New River scheme (*circa* 1619), but dating of the surviving bricks suggest the exposed remains are part of a later rebuild, at some point between the late 18th and mid-19th century. The Sluice House played an integral role in the New River system, housing the sluice gates which controlled the rate and flow of water reaching London.
- 10.3** Following the successful monitoring of the area described in this report, it was agreed after consultation with English Heritage that no further archaeological work was required in the DMA Maiden Lane 32 area.

11. Bibliography

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APPENDIX I: OASIS Data Collection Form

OASIS ID: [compassa1-100346](#)

Project details

Project name	The New River. Thames Water, Victorian Mains Replacement Works in the vicinity of Blackstock Road, Wilberforce Road and Riversdale Road, N4 & N5 London Boroughs of Hackney and Islington DMA Maiden Lane 32 An Archaeological Watching Brief
Short description of the project	Archaeological monitoring exposed modern road layers over 19th century dump and consolidation layers and truncated natural in the majority of trenches. Evidence for the New River (a 17th century manmade waterway) was recorded on Wyatt Road in the form of alluvial river bed deposits and gravel embankment deposits; trenching on Wilberforce Road exposed structural remains of the rebuilt Sluice House, a late 18th or 19th century structure housing the river's sluice gates.
Project dates	Start: 20-07-2010 End: 11-03-2011
Previous/future work	No / No
Any associated project reference codes	TXD11 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Transport and Utilities 1 - Highways and road transport
Monument type	DEPOSIT Post Medieval
Monument type	WALL Post Medieval
Significant Finds	N/A None
Investigation type	'Watching Brief'
Prompt	Water Act 1989 and subsequent code of practice

Project location

Country	England
Site location	GRFATFR I OONDON HACKNFY HACKNFY Victorian Mains Replacement

Works in the Vicinity of the New River, Blackstock Road, Wilberforce Road and Riversdale Road (DMA Maiden Lane 32), London Boroughs of Hackney and Islington: An Archaeological Watching Brief

Postcode	N4 & N5
Study area	1.06 Kilometres
Site coordinates	TQ 31878 86570 51.5620770932 -0.09724068812570 51 33 43 N 000 05 50 W Point

Project creators

Name of Organisation	Compass Archaeology
Project brief originator	English Heritage/Department of Environment
Project design originator	Compass Archaeology
Project director/manager	Geoff Potter
Project supervisor	Gill King
Type of sponsor/funding body	Water Utility
Name of sponsor/funding body	Thames Water Utilities

Project archives

Physical Archive recipient	Museum of London Archive
Physical Contents	'Ceramics', clay pipe
Digital Archive recipient	Museum of London archive
Digital Contents	

Digital Media available	'Images raster / digital photography','Text'
Paper Archive recipient	Museum of London Archive
Paper Contents	'Stratigraphic'
Paper Media available	'Context sheet','Miscellaneous Material','Photograph','Plan','Report','Unpublished Text'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	The New River. Thames Water, Victorian Mains Replacement Works in the vicinity of Blackstock Road, Wilberforce Road and Riversdale Road, N4 & N5 London Boroughs of Hackney and Islington DMA Maiden Lane 32 An Archaeological Watching Brief
Author(s)/Editor(s)	Cummings, R
Date	2011
Issuer or publisher	Compass Archaeology
Place of issue or publication	5-7 Southwark St, London SE1 1RQ
Description	53-page spiral bound report

Entered by	Rosie Cummings (mail@compassarchaeology.co.uk)
Entered on	4 September 2011

APPENDIX II: London Archaeologist Summary

Site Address:	The New River. Thames Water, Victorian Mains Replacement Works in the vicinity of Blackstock Road, Wilberforce Road and Riversdale Road, N4 & N5 London Boroughs of Hackney and Islington DMA Maiden Lane 32 An Archaeological Watching Brief.
Project type:	Watching brief
Dates of Fieldwork:	20 th July 2010 – 11 th March 2011
Site Code:	TXD11
Supervisor:	Gillian King
NGR:	TQ 31878 86570
Funding Body:	Thames Water Utilities Ltd/Optimise

Victorian mains replacement works in the New River area in the vicinity of Blackstock Road, Wilberforce Road and Riversdale Road, London Boroughs of Hackney and Islington, recorded a general sequence of modern road layers overlying 19th century consolidation layers and truncated natural deposits. Evidence for the New River, a 17th century man-made waterway designed to bring fresh water into London was recorded in six trenches. In Wyatt Road, a pit exposed alluvial deposits thought to be part of the riverbed, and compacted clean gravel deposits recorded immediately north are considered to be part of the river embankment. More significantly, three pits on Wilberforce Road recorded exposed sections of brick walls and mortar floors. Analysis of brick samples dated these to 1780-1850, and their locations can be accurately related to the Ordnance Survey map of 1869, confirming that they are the surviving southwest corner of the Sluice House. This structure housed the sluice gates, the means by which the rate and flow of water along the New River was controlled, and is thought to be an 18th or 19th century rebuild of an original structure shown on Rocque's map of 1746.

APPENDIX III: Brick Analysis

Analysis of the brick samples taken from exposed masonry in Wilberforce Road trenches (contexts [1] [3] [4]) was undertaken by John Brown on 20/12/2010.

Sample	Pit	Context	Fabric	Comment	Date
1	2	[3]	3032	Hard yellow/grey with very coarse lime 'grog' angular, Hydraulic mortar similar to Portland type, very shallow frog (228x98x65mm). Mortar M1	1630-1900 (1780-1850)
2	2	[3]	3032	As above.	1630-1900 (1780-1850)
3	1	[1]	3032	Grey lime/sand mortar with coal inclusions and gravel, crushed lime inclusions, cement-like (220x100x65mm), shallow frog. Mortar M2	1630-1900 (1780-1850)
4	1	[1]	3032	As above	1630-1900 (1780-1850)
5	3	[4]	3032	Two types present M1 and M3 – occasional brick 'grog', moderate lime inclusions, sub-angular quartz, reused, shallow frog (220x95x66mm).	1630-1900 (1780-1850)
6	3	[4]	3032	As above, mortar M1.	1630-1900 (1780-1850)