

**TATE GALLERY (NOW TATE BRITAIN)
CENTENARY DEVELOPMENT,
MILLBANK.**

**CITY OF WESTMINSTER,
LONDON**

**EXCAVATION AND WATCHING BRIEF
ARCHIVE REPORT**

1 NON TECHNICAL SUMMARY

This document presents the results of the archaeological excavation conducted by AOC Archaeology Group, at Tate Britain, Millbank, in the City of Westminster, London, on behalf of the board of Trustees of the Tate Gallery. The work was carried out in advance of the Tate Centenary Development and was conducted between 1997-2000 and allocated the site code MBK 97.

The earliest deposits recorded on site were layers of peat and alluvium recorded during the initial watching brief on geotechnical trenches. The peat was dated to the late Neolithic period.

The post-medieval period on site was represented by the remains of Millbank Penitentiary which was opened in 1821. The penitentiary was flower-shaped and comprised of six pentagons surrounding an inner hexagon with a chapel at its centre. The prison was three stories high, with basements in some pentagons and was the first 'super-prison' of its day. Evidence relating to the prison was recorded on site in the form of large exterior walls, internal walls, rooms and a complex of drainage culverts.

The demolition of Millbank Penitentiary in 1892 was to make way for the erection of Henry Tate's National Gallery of Art in 1897, which occupies the site today.

2 INTRODUCTION

2.1 SITE LOCATION (FIG. 1 & 2)

2.1.1 The Centenary Development was situated in the north-west quadrant of Tate Britain. The quadrant comprised of an open courtyard area surrounded by various galleries and workshops. The site occupied just under one hectare and the area affected by the development comprised 0.35 hectares. The site is bordered on the south by Atterbury Street, to the west by John Islip Street, the east by the A3212 Millbank embankment and to the north by various office buildings. The development is centred on Ordnance Survey National Grid co-ordinates TQ 3003 7857.

3 GEOLOGY AND TOPOGRAPHY

3.1 Tate Britain is located on the river front at Millbank, and consequently in a low-lying area of ground with adjacent external Ordnance Datum heights recorded as c3.8-4.8m OD. It stands within an expanse of post-glacial alluvium, approximately half way between the islands of elevated glacial gravel at Thorney Island (Saxon and medieval Westminster) to the north, and that on the river front at Pimlico to the south. Reconstruction of the former course of the Tyburn from historical sources suggests that the site lies some 350m east of the former southern branch of the Tyburn which probably ran along the present line of Tachbrook Street until it was overtaken by urban development. An eastern branch supposedly separated from the main stream of the Tyburn in the vicinity of Buckingham Palace, dividing again around Thorney Island to the east. This points towards the fact that the triangle of alluvium beneath Westminster, Victoria and Pimlico effectively comprises a delta at the mouth of the Tyburn. This geological landscape is the result of 10,000 years of constant fluvial ebb, flow and stagnation dominated by the shifting courses of the Tyburn and the Thames (Merriman, 1987).

3.2 Geotechnical investigations carried out on the site of Tate Britain in 1993 included a series of 10 test-pits and 3 boreholes. The results indicated that the current ground surface was above deposits of made ground that varied in thickness from 6.00m to 1.50m. This overlay deposits of soft silty clays and peat (alluvium), which were recorded at 1.92m OD and -0.10m OD in boreholes A and C respectively. The alluvium overlay deposits of gravel which were recorded in boreholes A, B and C at -1.88, -1.45 and -0.70m OD respectively. This indicates that there is a slight slope from the east of the site running down hill to the west and south-west, towards the Thames.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 GENERAL

The archaeological and historical background of the site has been fully discussed in the Archaeological Desk Based Assessment (AOC, 1997a), and the Written Scheme of Investigation (AOC, 1998b) and is summarised below.

4.2 PRE-ROMAN (BEFORE C. AD 60)

4.2.1 With a few exceptions, most of the prehistoric material recovered from the area surrounding the site has been recovered from the Thames, often as the result of dredging operations. This is almost certainly because any traces of prehistoric activity in the area will be concealed beneath subsequently deposited alluvial material, as was found to be the case at Richmond Terrace to the north of Thorney Island (Merriman, 1987). Thus the two earliest artefacts found within the study area, a flint axe and a Neolithic stone axe, were both recovered from the Thames.

4.2.2 Possibly the commonest single class of prehistoric object recovered from the Thames are Bronze Age weapons, thought by some to have been deliberately deposited in the water as votive offerings. Two such weapons, a leaf-shaped sword and a rapier have been found in the river off Millbank. Of greater significance for the present site is a leaf-shaped sword discovered during the excavation of the foundations for Millbank Prison. It remains unclear whether this sword was deposited in similar circumstances to those which were found in the river, or whether it represents Bronze Age activity or occupation on the site itself.

4.3 ROMAN (C. AD 43 - 450)

4.3.1 Westminster is something of a conundrum in the study of Roman London. It was pointed out some time ago that the line of Watling Street, the main route leading from the Roman bridgeheads in the south-east, seems to take a detour through London and if its alignment was carried straight on would cross the river in the vicinity of Lambeth and Westminster (Margary, 1955). It may be, then, that Westminster was the site of the first Roman crossing of the Thames, although evidence supporting this theory has been hard to come by (Perring, 1991). However, if this were so, the crossing was almost certainly made to Thorney Island, given the presence of low-lying wet ground to the south. This is supported by 19th century observations of Roman masonry and mosaics as well as more recent discoveries of Roman material in the area (Thomas, 1993).

4.3.2 There is only one known discovery of Roman date within the study area, and that is a partially-burnished Antonine greyware vessel found between 1901 and 1910 'in Millbank Prison'. The prison no longer existed at this point, however, and it seems most likely that it was recovered during the construction of the extensions to the Tate that were made at this time. A further, possible indicator of Roman activity on the site is an 'orange-brown roof tile fragment' found in a layer of peat buried beneath 650mm of clay in

Probe 3 (Gallery 18) (AOC, 1997a). Its presence within the alluvial material suggests that it must be of some antiquity, and its description suggests that it could be no earlier than Roman.

4.4 SAXON (C. 450 - 1066)

4.4.1 When the Roman Empire began to collapse in the later 4th century AD, the walled city of *Londinium* declined and was eventually abandoned. Sometime during the next 200 years, Saxons from across the North Sea established a trading settlement in the area. In documents of the 7th to 9th centuries the settlement was referred to as *Lundenwic* and was assumed to have been on the former site of *Londinium*. The identification of the location of *Lundenwic* as actually having been in the Strand/Covent Garden area is one of the most important archaeological discoveries ever made in London. Unfortunately, the discovery was not made until 1985 by which time many potentially significant sites had been redeveloped with mostly limited or no archaeological investigations.

4.4.2 *Lundenwic* was an important North European trading port described in the 730's by the Venerable Bede (a celebrated monk who recorded events of the time) as an *emporium*, a market for many peoples coming by land and sea. It was principally a centre for manufacture and commerce, trading with similar *emporia* in England and on the continent via the River Thames. The name *Lundenwic* has continued to be linked to the area in the form of Aldwych, or *eald wic*, meaning old port or trading settlement.

4.4.3 It was along the shoreline where wharves and storehouses for trading would have been erected and, therefore, presumably, the original settlement would have been located. Investigations by the Museum of London on the higher ground to the north, in the Covent Garden area, have revealed extensive evidence of the Middle Saxon settlement in the form of buildings and alleyways, rubbish pits and human burials (AOC, 1997a). Attacks on *Lundenwic* by Vikings during the 9th century (in AD 842, 851 and 871-2 when they wintered in London), may have been the reason King Alfred ordered the occupation and strengthening of the old walled city of *Londinium* in AD 886, which became known as *Lundenburg*, and the abandonment, at least for the most part, of the *Lundenwic* settlement. By AD 959, in a Charter of King Edgar, the Strand area was described as a wasteland and in AD 1040 Earl Godwin camped with his forces on what presumably was largely barren ground (AOC, 1997a).

4.4.4 The original locus of *Lundenwic* is considered to have centred around the Strand and excavations have revealed a contemporary embankment which indicated that the foreshore was 160m north of the present shoreline (AOC, 1997a). The boundaries of the settlement are uncertain (except to the south, along the river) although the distribution of the known sites covers an area of some 60 hectares. However, the Proposals Map of Westminster UDP (1997) outlines the 'Area of Special Archaeological Priority' known as 'Lundenwic and Thorney Island', and the study area lies just over a quarter of a mile south of its southern limit.

- 4.4.5 A substantial amount of discoveries have been made in the area of Thorney Island, and this might reflect the existence of an ecclesiastical presence before the foundation of the monastery in the late tenth century by King Edgar. A strong hint of such a presence is contained within the name ‘Westminster’, a ‘minster’ being a Saxon ecclesiastical institution; a church which acted as a base for a community of priests who served the pastoral needs of the surrounding area.
- 4.4.6 The terms of Edgar’s initial charter to the Abbey are recorded and include precise descriptions of the boundaries of the abbey’s ‘home grange’. The western boundary seems to have been marked to the north by the former course of the Tyburn and to the south by an inlet called Merflete, which was probably located in the vicinity of Vauxhall Bridge. The area within which the site of the development area fell at this time seems to have been known as Bulinga Fen and was clearly still marshy. Some of it may, nevertheless, have been in fairly regular agricultural use by this date, as might be expected given the recent observations in the variability of soil conditions in the area.
- 4.4.7 Apart from an armlet found at Millbank and a coin found on the Thames foreshore, the only archaeological evidence for the Saxon period in the vicinity of the site comprises two swords, a brass Saxon example and an iron Viking specimen, found in the river off Vauxhall.
- 4.4.8 Edward the Confessor’s biographer refers to ‘the green fields and fertile lands which surround the Abbey’ (Sullivan, 1994). It is possible, therefore, that the site was already being used as water-meadows by the Abbey before the Norman Conquest.

4.5 MEDIEVAL (C. 1066 - 1485)

- 4.5.1 The actual name of Millbank is said to have taken its name from Westminster Abbey Mill, which was demolished around 1736 by Sir Robert Grosvenor to make way for his house (Weinreb and Hibbert 1983, 534). With mills being more common in the medieval period, it is likely that the mill dates to this period, rather than the earlier Saxon period and probably lay within the vicinity of the Millbank Conservation Area. By the end of the Saxon period Westminster had begun to develop with the building of the palace and Minster by Edward the Confessor. Again, the Strand must have quickly become an important and busy thoroughfare. The Domesday Book of 1086 indicates the Abbey contained sufficient meadow to support 11 teams of oxen, an estimated 250 acres out of Westminster’s total of 1000 acres. This is a characteristic that can be seen in the riverside manors that stretch away along the Thames to the west. Another unusual feature of Westminster’s Domesday Book entry are the 41 cottagers with gardens, probably largely situated on the fringes of the higher ground and along the river, which may be seen as the predecessors of the market gardeners of later years (Sullivan, 1994).
- 4.5.2 Nevertheless, much of the area around the site, known as Tothill Fields until it was enclosed in the post-medieval period, remained damp and desolate waste-

ground used for a range of fringe, and often illicit activities. The excavations at 1 and 17 Elverton Street (just over 500m to the north-west of the site) illustrated this by their discovery of scores of animal burials, largely horse but including a few dogs, dating to the 11-12th centuries (Miller 1994; Cowie 1996). The site would have remained with the Abbey's extensive properties until the dissolution of the monasteries under Henry VIII in the 16th century.

4.6 POST-MEDIEVAL (C. 1485 - MODERN)

4.6.1 Henry VIII's reign, in Westminster, was a period of great upheaval. The Abbey's property was all confiscated, gradually finding its way into private hands. At the same time, Henry vacated Westminster Palace and moved north to Whitehall, where he had confiscated Cardinal Wolsey's property, leaving the palace as the seat of government. These two changes quickly led to the transformation of the landscape of Westminster. By the 1640s Westminster had spread well south of Great Peter Street and Market Street, the future Horseferry Road, had been formed. William Stukeley recorded a star-fort on approximately the future site of Millbank Penitentiary (the study area). It should be pointed out that Stukeley is not always reliable in his observations and other maps do not show civil war defences there. No trace of it is visible in Rocque's map of 1746 (Fig 3), his survey shows Millbank at an interesting stage of development, with those fields within 200-300m of the river drained and apparently in use, either as water meadows or market gardens, indeed, it has been described as a lonely river road leading from Westminster to Chelsea through marshy ground and market gardens (Weinreb and Hibbert 1983, 534). The development of the Millbank area had started in the later 17th century with the construction of the mansion, which came to be known as Peterborough House half way between the Tate and Horseferry Road. This and the land to the west and north of it came into possession of Sir Thomas Grosvenor in 1732. The area of Millbank to the south of the Grosvenor estates, within which the site falls, was part of the estates of the Marquess of Salisbury. The only buildings within the Marquess' estate in 1746 were a group in the approximate position of the future Vauxhall Bridge, which seem to have formed the focus of a market garden, as well as a smallholding in the approximate location of the Millbank end of Ponsonby Place (possibly within the study area).

4.6.2 Horwood's map of 1799-1819 (Fig 4) shows for the first time the new Millbank Prison, despite the fact that construction only began in 1812. This massive building, which ultimately became a symbol of misery and despair, was born out of an ideological concern with reform and the prisoners' welfare. The man responsible for the 'Panopticon' model upon which the prison was based was Jeremy Bentham. His concept was of a prison which would comprise 'a circular building, an iron cage, glazed, a glass lantern as large as Ranelagh, with the cells on the outer circumference', with a watching post in the middle, permitting all prisoners to be visible to their warders at all times. He even went so far as to invest £9,000 of his own money in the Millbank site in the 1790's. This initial scheme came to nothing, but in 1811 a parliamentary committee picked up the idea once more, and construction began in 1812. The building was as huge as the idea was ambitious. The materials used were vast

and will have left a substantial impact within the ground. The prison historian remarked that “hidden amongst its hundreds of cells, its length of corridor and passage, beneath its acres of roof, are, without exaggeration, miles of lead piping, hundreds of tons of iron, immense iron girders, gates in dozens, - some of wrought iron, some of cast, - flagstones without end, shiploads of timber, millions of bricks. If ever the old place comes to be pulled down, the anxious enquirer may perhaps understand why it was that it cost half a million of money” (Cieskowski, 1986: 39-40).

4.6.3 The original design for the Millbank prison was by William Williams in 1812. The design was adapted by Thomas Hardwick who began the construction of the prison, but resigned soon after. John Harvey took up the role, but was dismissed in 1815, and Robert Smirke took over to complete the project. Smirke was the first British architect to use load-bearing foundations of lime concrete mixed in measured quantities, and he was certainly among the first to make consistent use of load-bearing cast-iron beams in domestic (as opposed to industrial) architecture (Crook 1965, 8).

4.6.4 Arthur Griffith’s description of Millbank Prison (1875) gives a clear description of the prison’s design:

“The Penitentiary; as it is still commonly called, looks on London maps like a six-pointed star fort. The central point is the chapel (circular building), with open space around it, covering more than half an acre. A narrow building, three storeys high, forming a hexagon, surrounds the chapel, with which it is connected at three points by covered passages. The chapel and the hexagon create the centre circle from which several bastions of the star-fort radiate. Each of these salients is pentagon in shape, of which six lie at opposite sides of the hexagon. The pentagons are the prisoners’ cells, while the inner space in each is about two-thirds of an acre containing airing yards, grouped round a tall central watch-tower. The ends of the pentagon join the hexagons at certain points called junctions. The whole space equals about seven acres and something more than that amount is included between them and the boundary wall, which takes shape of an octagon and beyond which was a moat is now filled up (Cieszkowski, 1986: 40), (Fig 5).

4.6.5 The results of this arrangement were that a moderate degree of land within the prison boundaries remained undeveloped. Upon the development site, part of Pentagon number 6 was constructed, in the north-west corner, including approximately half of the central courtyard area for this pentagon

4.6.6 The reforming aspirations of the prison were soon confounded by reality and in 1842 it became a transit point for prisoners being sent to the Antipodes. After being held at Millbank for a few weeks, the prisoners would be transferred to Gravesend from the adjacent river wharf, where they would await the ships that would carry them round the world. The prison, having become an unhealthy environment and derelict, was abandoned in 1890. Its ultimate demolition was to make way for Henry Tate’s National Gallery of Art in 1892. Tate’s Gallery was opened in 1897, at which time it comprised only 6 galleries. Successive gifts of money and paintings over the following years led

to the entire block, on the front of which the original gallery had been built, gradually being incorporated into the building, the southern half being completed by 1906, all but the north-western quadrant by 1937, with the final quadrant being opened in 1979.

4.7 PREVIOUS ARCHAEOLOGICAL WORK

- 4.7.1 Archaeological deposits were known to survive on the site in varying degrees of preservation, which prompted English Heritage (Archaeological Advisor to Westminster City Council) to advise that an appropriate form of archaeological mitigation was required prior to the redevelopment of the site. Consequently, a series of archaeological works was commissioned by The Tate Gallery Trustees and conducted by AOC Archaeology Group from 1997 to 1998.
- 4.7.2 Work on site began with a watching brief, undertaken during 1997-1998 by AOC Archaeology, during geotechnical investigations (Fig 6). The investigation comprised of 12 test pits and the remains of Millbank Penitentiary were recorded within nine of the test pits (Pits 3, 8, 25, 26, 27, 29, 30, 31 and 32). The remains included the large concrete base which supported the entire structure, large exterior walls and internal corridor walls, brick and flagstone surfaces and brick culverts. The test pits confirmed the approximate location of the prison as suggested on the Campbell Reith Hill engineers plan of 1997 (Fig 6). The plan shows the current ground floor plan of the Tate Gallery, highlighting the location of the penitentiary and the investigative test pits (AOC, 1997b).
- 4.7.3 Environmental samples were taken from the peat deposits recorded in Test Pit 28 in order to date them.
- 4.7.4 The archaeological deposits recorded in these test pits have been included within the main results section where appropriate.
- 4.7.5 Due to the archaeological deposits and structures observed in the first watching brief phase, three further phases of archaeological work were completed on the site; a watching brief on the general ground reduction and other associated intrusive groundworks on site, a watching brief on the ground reduction and excavation work for the new Atterbury Street entrance and an open area excavation within the courtyard area of the Gallery.

5 RESEARCH AIMS

- 5.1 The original research aims are reproduced in the same form as they were in the *Written Scheme of Investigation* (AOC 1998b).
- 5.2 The principal aim was to make a record of all significant archaeological remains which were to be disturbed or destroyed during the course of the proposed development works.
- 5.3 In addition, specific aims were:
 - to record the remains of the Millbank Penitentiary in order to add to the known basic plan of the outline of the building and to understand the construction techniques used;
 - to examine the peat deposits in order to identify any evidence of human occupation which would add to the understanding of Westminster's prehistory;
 - to determine the site formation processes leading to deposition of the peat deposits.
- 5.4 The final aim was to make the results of the recording action available to all interested parties through publication in an appropriate form, subject to any confidentiality restrictions.

6 RESULTS

6.1 PREHISTORIC

6.1.1 No finds or structures were excavated dating to this period; however during excavations along Atterbury Street, a deep test pit was excavated revealing a 4.70m deep section of geological stratigraphy. The section revealed 2.3m of made ground associated with both the development of the Tate Gallery and Millbank Penitentiary. Below this layer was a series of alternatively bedded clay-silts and organic-rich sediments. These deposits are typical of water lain floodplain sediments found elsewhere in the Thames floodplain area. The deposits contained well-preserved plant remains (including wood, stem and leaf material) in certain horizons in addition to well-preserved insect remains. The clay silts and organic rich sediment units probably represent shifts between phases of mud flat (sub-tidal/inter-tidal) environments and times when alder carr or reed swamp dominated the local environment. A full description of the sequence recorded on site is described in Appendix D.

During archaeological investigations on geotechnical test pits in 1998, samples of organic clay peat, were taken from Test Pit 28, and were subjected to c14 dating. The results of this dated the deposit to 2σ cal BC 2580-2280, cal BP 4529-4229, the Late Neolithic period.

6.2 POST MEDIEVAL - MILLBANK PENITENTIARY

6.2.1 General

The majority of archaeological deposits dating to this period are associated with the construction, structure or demolition of Millbank Penitentiary. Throughout the various archaeological phases of work on site various fragments of the prison were recorded varying from highly truncated solitary walls to complex segments featuring detail and form. The majority of evidence recorded on site was related to Pentagon 6 and the central hexagon. The largest and most informative phase of archaeological work was the open area excavation in which both external and internal walls, corridors, cells, and drainage culverts were recorded.

6.2.2 Concrete Foundations

By the time Robert Smirke had been employed on the project in 1816, the foundations constructed by Thomas Hardwick were already sinking. His replacement, John Harvey, was almost as incompetent as he ignored advice from experienced peers which lead to further inferior foundations and by May 1816 little more than one third of the building was constructed and what was complete was already subsiding, (Crook, 1865).

Smirke's foundations took the form of a large concrete raft, which he called a stratum of grouted gravel. The concrete foundation itself was recorded in all of the watching brief phases, the open area excavation and in eight geotechnical

test pits, (TP 3, 10, 26, 27, 29, 30, 31 and 32). The concrete was composed of gravel and sand with inclusions of brick and tile fragments mixed together with lime water to form a lime concrete. It was thought that the concrete was laid in courses measuring approximately 6in (0.15m) (Crook, 1865), however the investigations on site recorded the concrete in courses measuring 0.30m.

The true depth and expanse of the concrete was not fully recorded in any of the excavations on site, this is mainly due to the truncation caused by the Tate Gallery foundations and the extreme depths to which the foundations were established, which according to one historian “At Millbank Smirke’s foundations were crude in application and unnecessarily deep-as much as 18ft (5.50m) in places” (Crook, 1865). In the open area excavation, the largest exposed area of the penitentiary, the concrete was recorded as measuring at least 11.34m wide, whereas during the watching brief phases on site the concrete was recorded to depths of between 1.50m to 2.60m and in all cases the concrete’s complete depth was not fully established. The concrete raft was reputed to have been constructed across almost the entire area of the prison, which would have cut the costs by avoiding narrow trenching (Pasley, 1826). However the recording of two possible construction cuts in two of the geotechnical test pits, TP 8 and TP 26, both of which were cut down to the natural alluvial clay, might suggest more localised excavations for the construction of the foundations in some cases.

Evidence for the use of timber during the construction of the foundations was recorded in Test Pits 26, 27 and 28 and during the open area excavation. The timber remains recorded in the test pits (26/009, 27/009 and 28/013) represent timber shuttering which would have been used during the construction of the foundations either to keep the concrete courses in place, or to keep the surrounding deposits from collapsing. Timber was used in the same fashion for the foundations excavated in the open area excavation (150/034 and 150/052), however in this case the presence of the long-rotted timber was recorded as a void in the concrete indicating the original position of a vertical plank.

No evidence for any of Smirke’s secondary underpinning or repair work to the foundations was recorded as most of this work was carried out on the structures already established prior to his commission, namely Pentagon’s 1 and 2.

6.2.3 Penitentiary Structure

6.2.3.1 Exterior Walls

Evidence relating to the exterior superstructure of the penitentiary was first recorded during the watching brief on the geotechnical test pits across the site. Six test pits (TP 3, 25, 26, 27, 29 and 31) contained the remains of one or two walls constructed from red brick bonded by a white mortar of sand and lime. The walls were between 0.80m to 0.90m wide and survived to a maximum height of 1.46m (seen in TP 29). Due to the size of the structural remains it was clear that they were part of the large exterior superstructure. Figure 6,

shows the location of the test pits and the relationship between the walls recorded in each trench to the penitentiary plan. Test Pits 3, 25 and 31 and the structures recorded within them relate to Pentagon 6 whilst Test Pits 26, 27, 29 and 30 relate to the inner hexagon of the penitentiary.

The remains of one of three internal corridors which lead directly from Pentagon 6 through the inner hexagon into the central chapel were revealed in TP 27 [27/004]. Subsequent ground reduction in this area revealed more of the wall (renumbered [101/008]) and a second parallel wall [101/007]. Both were made of red brick bonded with sand and lime mortar and were 1.0m thick with a gap of 0.70m between them. The Campbell Reith Hill engineers plan (Fig 7) indicates that the corridor would have been approximately 1.20m wide, so the corridor foundations recorded here were actually over twice its width. Both walls were cut into the concrete raft base with the space between the walls filled by construction rubble associated with the construction of the Tate. Unfortunately no other associated features or structures were recorded surrounding the walls due to the heavy truncation. This corridor would have been used on a daily basis as the prisoners travelled to and from their daily sermons.

Approximately 12m south, further external wall remains were excavated relating to both the inner hexagon and Pentagon 6 (Fig 7). Three walls, [102/010], [102/036] and [102/035] were built into foundation 'cut' in the concrete base, forming a sub-rectangular shape, measuring 8.60m long by 4.20m wide and 0.36m deep. The walls were composed of red brick, measuring 220 x 100 x 65mm and bonded with sandy white mortar. These walls are thought to form the gap between the southern exterior wall of the inner hexagon [102/010] and the northern exterior wall of Pentagon 6 [102/036] and [102/035]. No internal floors or divisions were recorded as it is likely the gap between the two walls formed part of the outside yard between the two buildings, whilst also forming the archways into the central chapel area.

A solitary wall [105/004] was recorded 12m to the south-east of the above walls, during the watching brief on the ground reduction. The wall measured 3.0m long, 0.70m wide and only two courses deep and was cut into the large concrete base. It is likely to be part of the external wall forming Pentagon 6, (Fig 7). Again no other associated features or structures were recorded.

A limited watching brief was conducted outside the gallery buildings on ground works fronting Atterbury Street. Approximately 12m south of TP3 a small trench was excavated to remove obstructions ahead of test piling, (Fig 10). The excavation revealed the truncated remains of two walls, which both cut the concrete raft and ran north-south across the trench, although on slightly different angles. The largest of the walls [103/007] measured 6.8m long, 1.60m wide and 0.95m deep, whilst the smaller wall, [103/006], measured 4.70m long, 0.40m wide and 1.15m deep. The largest wall was the most massively built on site and clearly part of a major structural wall – it is unclear why it was built larger than other exterior walls. The smaller wall was too narrow to have been an exterior wall and its purpose remains unclear. The

wall was constructed on a slightly varying angle to the larger wall which suggests that it was a separate build, possibly forming an internal division wall.

Further to the south-east along Atterbury Street a watching brief was conducted on excavations for structural ground beams. This revealed the remains of the circular Taskmasters Tower of Pentagon 6, which consisted of a curved external and internal wall and floor (Fig 8). External wall [5000] was 2.60m wide and internal wall [5011] was 0.60m wide. Both were constructed of red bricks measuring 100 x 200 x 60mm that were bonded with pale grey sandy mortar. Layer [5001], a patchy mortar and plaster surface is likely to be an internal floor.

The open area excavation revealed the most complete remains relating to the superstructure of the prison, part of the inner hexagon surrounding the central chapel (Fig 9). Walls [150/001] and [150/018] ran parallel to each other, approximately 6m apart and measured 0.65-0.70m wide, with the bottom foundations widening to 0.70m and 0.83m wide. The walls were recorded to a length of 15.8m and 16.60m respectively, with wall [150/018] measuring a height of 0.84m to 1.50m depending on the level of truncation. The walls were constructed with red bricks measuring 100 x 215 x 70mm, laid in English bond and bonded by yellow and white sand and lime mortar.

6.2.3.2 Internal Structure

Test Pit 26 was located above the remains of the inner hexagon of the penitentiary and contained part of the exterior wall [26/004] of this structure. Abutting the wall to the north was a brick floor (26/005) which in places was covered by a cement surface (26/006). These layers are the remnants of an internal floor surface of the inner hexagon, probably within the area of offices.

The interior space between the two main exterior walls of the inner hexagon surrounding the central chapel [150/001] and [150/018] (discussed above), was observed in the open area excavation, (Fig 9 and Plate 1). It was subdivided into small rooms and a corridor by brick walls. Thick (0.44m) load bearing walls [150/011], [150/010], [150/013] and [150/015] braced the structure between the exterior walls and individual rooms were formed by thinner (0.22m) partition walls [15/012], [150/035], [150/008], [150/009], [150/014], [150/016].

With the exception of one room, all of the floors, including the corridor were constructed using brick laid down flat, (150/020), (150/019), (150/022) and (150/023). In places, the floor had been removed, probably during the demolition of the prison, exposing a thin layer of sand which would have been used as a bedding layer, (150/032), (150/033) and (150/028). The floor and the sand layer directly overlaid the concrete raft base.

One room, [150/029], within the excavation area contained the remains of three wooden floor joists, measuring 5.0m by 0.20m. The joists were set into shallow trenches approximately 0.03m deep, which ran the length of the 5.0m

by 2.60m room. The joists probably represent either the foundations of timber flooring (which might suggest that this room was for someone of importance) or a framework for a staircase. The prison plan (Fig 5) does indicate the presence of a staircase in the approximate location of excavation but the absence of any further structural remains means that the purpose of the timber frame is uncertain.

Towards the southern edge of the room, a shallow slot had been cut into the concrete base and filled by three bricks, [150/030] and [150/031]. The bricks were cemented into place and may have supported a stone slab onto which a stove or heater may have been installed to provide heat for the room. However further analysis of this room revealed no evidence of any soot or ash which would be expected in a room that contained a stove or heater. It seems more likely that this feature had a structural function, possibly relating to the timber joists.

Unlike the cells within the pentagon buildings which historical sources show were arranged side by side off of a common corridor, the internal layout of the inner hexagon was organized differently. The open area excavation, which revealed a small section of the inner hexagon, showed that the rooms were not laid out like the cells but were in small blocks of rooms with an associated corridor. Historical plans show that these rooms would have been occupied by offices or record rooms used by either the Governor, the Chaplain or the Surgeon.

During the watching brief investigations toward the south-west of the site, fragmentary remains of a badly damaged brick floor were recorded (102/034). Due to the level of truncation suffered in this area, it is unclear whether the floor relates to a corridor or a room; however its location suggests that it was part of the structure that joined Pentagon 6 to Pentagon 5.

Test Pit 31 revealed a possible laid flooring surface composed of flagstones (31/007) placed directly onto the concrete base, (Fig 10). Only two fragments were recorded measuring between 1.60m and 1.50m long by 0.60m and 0.80m wide. The position of the test pit places the remains in the eastern side of Pentagon 6 in an area that which would have contained wards or cells.

6.2.3.3 Culverts and Drainage

Structures relating to the drainage of the penitentiary and the site itself were recorded in all of the investigations. An east-west aligned brick culvert [29/015]/[150/002] was recorded in both Test Pit 29 and the open area excavation and was 16m long, 0.60m wide and 0.70m deep. Another culvert [150/003] ran north-south through the excavation area and crossed beneath [150/002]. These were both constructed of a double layer of bricks and were circular in section (Plate 2 & 3). The bricks were bonded with a crude pale yellow sandy mortar. At the cross-over point between the two culverts, a square shaped conduit probably allowed drainage from [150/002] into [150/003]. These culverts probably formed a ring around the inside of the

inner hexagon and removed waste water and possibly sewage from the penitentiary.

Similar circular brick culverts were located within the watching brief area (Fig 11). Culverts [102/011] and [102/012], measured 2.40m and 4.90m long and 1.00m and 0.80m wide respectively and were joined together to form a T junction where culvert [102/012] drained into culvert [102/011]. A third, later circular brick culvert [102/015] was recorded to the south of the T junction and this would have drained into [102/012]. Culvert [150/038] recorded in the excavation area, measured 0.55m long and 0.45m wide and is a probable extension of culvert [102/012]. These culverts probably formed a second possible ring of the drainage system around the outside of the inner hexagon.

A truncated east-west aligned culvert [105/006] was recorded approximately 20m to the south-east of the above complex. Only a relatively small amount of the structure (measuring 2.80m long and 0.60m wide) remained due to the amount of truncation in the area of the site. It ran on a similar alignment to culvert [102/012] (see above) and may represent a third ring of culverts located approximately 16m from the second, formed by [102/012]. The waste would have drained towards the moat, which surrounded the outside of the penitentiary, and finally into the Thames.

Located 1m to the north of culvert [102/015] and on the same alignment as it, was square drain [102/016]. Only a 2.0m long section, measuring 0.35m wide remained due to the later truncation of this area. The form of this drain was very different to the main system of circular culverts, which suggests that it may have had a different purpose or even belonged to a different phase of activity.

During the watching brief adjacent to Atterbury Street (Fig 8), a small box drain, [5002/5003/5004] was recorded abutting the exterior penitentiary wall [5000]. The box drain measured 4.90m long, 0.90m wide and 0.20m deep and probably represents drainage specifically for the removal of rain water from the guttering above. This would have drained into the larger culvert system and away from the penitentiary site.

6.2.3.4 Alterations

Directly to the south of the exterior penitentiary wall [150/018] in the open area excavation (Fig 9) was a small semi-circular brick structure [150/027]. The structure was brick-built with a base layer constructed from York Stone slabs into which a small iron grate was set. This structure was not tied into the exterior wall which suggests that it was added at a later point. It probably functioned as a drain 'hopper', retaining rain water as it drained from above so that it could then drain through the grate (rather than spilling onto adjacent surfaces) and into a box drain [150/036], which would have in turn drained into culvert [150/038].

A window was also inserted into exterior wall [150/018], directly above the drain ‘hopper’. The window was 1.4m from the base of the wall and the sill was 1.08m long and occupied half the thickness of the wall. The remains of a wooden window frame [150/053] were also recorded across the northern part of the wall, on the inside of the sill. Only two very decayed timbers remained of the frame, one upright, truncated to the same level as the wall and the other lay horizontally across the back edge of the window sill. Towards the northern edge of the window sill was a rectangular void [150/051]. At the base of the void was a channel which ran to the outside of the building, [150/052]. The void measured 1.03m long by 0.23m wide and was 0.38m deep and it is thought that it formed some sort of trough. The channel itself measured 0.27m wide and 0.11m deep and was only partially exposed. The channel ran south, under the window sill and the semi circular structure, and is likely to have run directly into the box drain [150/036]. The purpose of this feature is unclear. It is possible that the void and channel are associated with a drainage system linked with the function of the room, such as a sink. If this was the case the construction of the window and the outer semi-circular drain ‘hopper’ may suggest that the room had changed function, requiring both more light, ventilation and adequate drainage.

The alterations noted above may relate to the programme of works undertaken by Robert Smirke in 1823–24. The main purpose of these works was to improve the ventilation and drainage of the penitentiary following a serious outbreak of scurvy and cholera in 1822–23 in which 30 inmates died. It is possible that alterations were also carried out when the policy of the penitentiary changed from the enforced solitude and isolation of prisoners, to the temporary housing before transportation overseas in 1843 (Cieszkowski, 1986).

6.2.3.5 Undated Soakaway (Fig 7)

Approximately nine meters south of the inner hexagon, sited just beyond the edge of the concrete raft was a circular brick soakaway [150/048]. The structure had an internal diameter of 1.20m and was greater than 1.98m deep (not fully excavated). It was constructed using a single width of red brick and had circular drainage pipes feeding into the chamber. On the outside of the feature was the remains of a copper strap lightning conductor. The conductor was recorded to a depth of approximately 2.10m OD, where it passed through a rough hole in the brickwork and continued down into the inside of the structure.

6.3 Post-Penitentiary

Historical accounts state that the prison fell into disrepair in 1890 and was subsequently demolished in 1892 (Cieszkowski, 1986). The truncated and half demolished remains of the penitentiary itself are evidence of this, as are the layers of demolition rubble which covered the site. This rubble consisted of broken brick, heavily corroded ironwork, shards of thick corrugated glass, splintered timber and other miscellaneous demolition debris. The corrugated glass may have been part of the fenestration of the penitentiary but due to its

presence within a mixed deposit, this cannot be confirmed. This material was probably the unsalvageable material used to landscape the site following the demolition of the prison.

7 DISCUSSION

7.1 PREHISTORIC

7.1.1 Analysis of the geological stratigraphy on site revealed a 2.40m deep section of clays and organic silts above the natural gravel. The gravel, recorded at the base of the section at -1.9mOD probably belonged to the Sheperton Gravel of the Thames and dated to 10-15 thousand years ago. These deposits were laid down under cold climate conditions during the late Devensian period within braided river channels, (see Appendix D).

Radiocarbon dating of the peat deposit recovered from Test Pit 28 dated the sample to 2σ cal BC 2580-2280, cal BP 4529-4229. This places the peat sample within a period of sea level fall. The emergence of areas of ground above the flood level, stimulate the growth of organic sediments and lead to peat growth under alder carr or brackish marshland. It is this phase of growth and deposition of organic material that is represented on site underlying later deposits of clays and silts which indicate a rise in the sea level and the change into a saltmarsh environment (Bates & Whittaker, 2004). Within the lower Thames area, sediments of this type were laid down during the Holocene (last 10,000 years). The radiocarbon dates for the peat estimates that this sequence dates to the Late Neolithic period indicating that a later prehistoric or later date may be assumed for the shallower deposits, (see Appendix D).

7.2 POST-MEDIEVAL

7.2.1 Millbank Penitentiary

In 1779 the Penitentiary Act was passed through parliament which authorised the creation of state prisons and it was under this act that the initial plans for the creation for Millbank Penitentiary were devised. In 1791 Jeremy Bentham devised a working theory on a panopticon prison, two years after his book; 'An Introduction to the Principles of Morals and Legislation' was published. His ideas were given the blessing of the government and he was given charge of the creation of a panopticon prison. By 1799 a further Penitentiary Act decreed that new gaols were to have one prisoner per cell, enforcing solitude, silence and forced labour. In 1821 Millbank, the first prison of its kind, was finally finished (Roberts, 2000). The prison was used for its original purpose of reform until the 1840's when due to the conditions within, it suffered a number of disease epidemic's and episodes of rioting. By 1842, Pentonville Prison was opened and this took on Millbank's reforming role, which led to Millbank being used as a point of transit and evaluation for prisoners awaiting transport to the Antipodes, (Cieszkowski, K Z, 1986).

7.2.2 Structural Remains

In 1892 Millbank penitentiary was demolished and replaced several years later by the Tate Gallery. This period of change had a great effect on the preservation of the structural remains associated with the prison.

The first phase of archaeological work on site, revealed segments of the prison that could be tied in with the Campbell Reith Hill engineers plan of the prison (Fig 6). This indicated that the area affected by the Centenary Development was focused on Pentagon 6 and the inner hexagon.

In all phases of archaeological work on site, the concrete base of the penitentiary was recorded. The composition of the concrete and Smirke's use of concrete as a foundation raft were both the first of their kind in Britain. The concrete reached legendary status in 1903 as a specimen was placed in the Munich Museum of Masterpieces of Natural Science and Technical Arts at the request of the German ambassador (Crook, 1865).

The massive external walls of the prison were recorded in all of the phases of archaeological works on site. Two areas were of particular interest, the first being the area around Test Pit 27, where two parallel walls that formed one of the three entrance corridors into the inner hexagon and the chapel which lay at the centre. Inside the chapel the prisoners would have been kept separate from each other by being seated in individual booths. The entrance corridor was narrow, only 1.20m wide, which would only have allowed movement in single file, restricting movement from the cell all the way to the chapel and reinforcing the prisoner's solitude. The second interesting segment of external wall was recorded in the watching brief that took place on the Atterbury Street excavations. Two curved walls formed the Taskmasters Tower at the heart of Pentagon 6. The tower would have allowed the prison warders an uninterrupted view of the pentagon and all the inmates cells. At the same time it would have dominated the internal yard and been an imposing presence here, emphasising the prisoners feeling of 'being watched'.

The internal area of a small segment of the inner hexagon was revealed in the open area excavation where eight individual rooms divided by small narrow red brick walls and a corridor were recorded. All but one room contained evidence for brick floors. The exception contained the remains of the joists of a wooden floor. These rooms were the offices of various civilian workers such as the messengers, doctors and the governor (Fig 9 and plate 1). It is possible that the room with the wooden floor was intended to be a more comfortable office.

The low-lying nature of the site meant that a substantial arrangement of culverts and drains was required to drain it. Two large culverts recorded in the open area excavation were probably part of a ring of culverts that ran around the inner hexagon draining foul water and probably sewage into second and third culvert rings around the outer part of the hexagon, which would have drained into the perimeter moat and eventually the Thames.

7.2.3 The Interior of the Prison

Unfortunately little evidence of the everyday life of the Millbank Penitentiary inmates was recovered. Historical accounts of the time describe the Governor's room (which might have been one of the rooms recorded during the open area excavation) as "an ordinary, but neat apartment, the furniture of

which consisted principally of a large official writing-table; and the end window of which, facing the principle entrance, was strongly barred, probably with no view to prevent either egress or ingress, but merely for the sake of being in keeping with the other windows of the establishment,” (Mayhew and Binny, 1862).

The philosophy behind the creation of the prison was clearly maintained within the prisoner’s cells. Historical accounts describe the cells as having a “solitary window, which, like all the cell windows, looked towards the “warders tower”, in the centre of the pentagon”, underneath “was a little square table of plain wood, on which stood a small pyramid of books, consisting of a Bible, a Prayer-book, a hymn-book, an arithmetic-book, a work entitled “Home and Common Things”, and other similar publications of the Society for the Promotion of Christian Knowledge”. The cells also contained a washing tub, wooden stool, a hammock and bedding, (Mayhew and Binny, 1862).

It appears that when the penitentiary fell into disrepair in 1890, the majority of the internal fixtures and fittings were removed and were probably sent to another prison for use there.

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APPENDIX A – CONTEXT REGISTER

| Context | Type | Length | Width | Depth |
|--------------|-------------------------------------|--------------|--------------|-------------|
| 3/001 | Deposit | Trench | Trench | 0.24m |
| 3/002 | Demolition Deposit | Trench | 0.7m | 1.06m |
| 3/003 | Deposit | Unknown | Unknown | 2.2m |
| 3/004 | Brick Wall | Trench | 0.88m | Unexcavated |
| 3/005 | Gallery Foundation Trench | 2.6m | 0.2m | 2.2m |
| 3/006 | Deposit | | | |
| 3/007 | Backfill Deposit | 2.1m | 0.7m | 0.38m |
| 3/008 | Deposit | 2.1m | 0.75m | 0.66m |
| 3/009 | Deposit | 2.1m | 0.6m | 0.35m |
| 3/010 | Gallery Foundation Cut | 2.1m | 0.74m | 1.0m |
| | | | | |
| 8/001 | Deposit | 3.0m | 1.35m | 0.13m |
| 8/002 | Made ground- Grey brown silty sand | Trench | Trench | 0.9m |
| 8/003 | Made ground- Yellow sand and gravel | 1.9m | 1.7m | 1.1m |
| 8/004 | Redeposited Clay silt | 3.0m | 0.8m | 2.2m |
| 8/005 | Tate Gallery construction fill | 3.0m | 1.05m | 2.0m |
| 8/006 | Redeposited peat | 2.3m | 0.8m | 0.5m |
| 8/007 | Redeposited blus grey clay | 2.4m | 0.8m | 0.5m |
| 8/008 | Brown clay silt | 0.85m | 0.7m | 1.7m |
| 8/009 | Blue silty clay | 3.0m | 0.8m | 1.55m |
| 8/010 | Prison Foundation cut | 0.85m | 0.7m | 1.7m |
| 8/011 | Natural Gravel Deposit | Trench | Trench | Unexcavated |
| | | | | |
| 10/001 | Modern make up deposits | Trench | Trench | 40mm |
| 10/002 | Modern make up deposits | Trench | Trench | 0.18m |

| Context | Type | Length | Width | Depth |
|----------------|------------------------------------|---------------|--------------|--------------|
| 10/003 | Modern make up deposits | Trench | Trench | 0.14m |
| 10/004 | Backfill deposit | Trench | Trench | 0.14m |
| 10/005 | Modern pipe trench | Trench | Trench | 0.9m |
| 10/006 | Masonry | 1.0m | 0.44m | 3.86m |
| 10/007 | Construction cut | 1.9m | 0.8m | 1.05m |
| 10/008 | Deposit | 1.9m | 0.8m | 1.05m |
| 10/009 | Deposit | 1.6m | 1.0m | Unknown |
| 10/010 | Deposit | Unknown | Unknown | 1.8m |
| 10/011 | Made ground- brown clay and gravel | Trench | Trench | 1.3m |
| 10/012 | Made ground- brown clay and gravel | Trench | Trench | 1.6m |
| 10/013 | Void | - | - | - |
| 10/014 | Void | - | - | - |
| 10/015 | Natural Peat | 2.0m | 0.8m | 0.6m |
| 10/016 | Natural alluvial clay | 2.0m | 0.8m | 0.14m |
| 10/017 | Natural Peat | 2.0m | 0.8m | 0.22m |
| 10/018 | Natural alluvial clay | 2.0m | 0.8m | 1.0m |
| 10/019 | Natural Gravels | Trench | Trench | Unexcavated |
| | | | | |
| 25/001 | Deposit | Trench | Trench | 0.03m |
| 25/002 | Deposit | Trench | Trench | 0.04m |
| 25/003 | Deposit | Trench | Trench | 0.11m |
| 25/004 | Deposit | 1.55m | 1.07m | 0.57m |
| 25/005 | Prison Wall | 1.29m | Unknown | 0.57m |
| 25/006 | Foundation | 1.52m | 1.3m | Unexcavated |
| 25/007 | Prison Wall | 1.3m | 0.62m | 0.13m |
| 25/008 | Deposit | 1.3m | 0.96m | Unexcavated |
| 25/009 | Ash and clinker fill | 1.56m | 1.28m | 0.41m |
| 25/010 | Deposit | 0.45m | 0.35m | Unexcavated |

| Context | Type | Length | Width | Depth |
|---------------|-------------------------------|-------------|----------------|--------------|
| 26/001 | Deposit | Trench | Trench | 0.02m |
| 26/002 | Tate floor make up | Trench | Trench | 0.52m |
| 26/003 | Tate floor make up/demo layer | Trench | Trench | 1.4m |
| 26/004 | Prison wall | 4.0m | 0.9m | Unknown |
| 26/005 | Brick floor | Unknown | Unknown | Unknown |
| 26/006 | Cement surface | Unknown | Unknown | Unknown |
| 26/007 | Foundation slab | Unknown | Unknown | 2.25m |
| 26/008 | Yellow brown gravel | 2.1m | 1.3m | 1.88m |
| 26/009 | Degraded wood | 1.0m | 0.1m | 0.12m |
| 26/010 | Deposit | 2.1m | 0.82 | 1.15m |
| 26/011 | Foundation trench Cut | 0.7m | Unknown | 0.4m |
| 26/012 | Redeposited gravel | 2.1 | 1.6 | Unknown |
| 26/013 | Alluvial clay | 2.53m | 1.3m | Unknown |
| 27/001 | Deposit | Trench | Trench | 0.02m |
| 27/002 | Deposit | Trench | Trench | 0.3m |
| 27/003 | Tate gallery floor make up | 1.3m | 0.44m | 1.23m |
| 27/004 | Prison Wall | 1.9m | 0.9m | 0.46m |
| 27/005 | Concrete Foundation | 1.06 | 0.88m | 1.4m |
| 27/006 | Deposit | 1.12m | 1.16m | 1.56m |
| 27/007 | Deposit | 1.09m | 0.8m | 0.9m |
| 27/008 | Deposit | 2.1m | 0.42m | 1.84m |
| 27/009 | Timber shuttering | 1.6m | 0.2m | 2.26m |
| 27/010 | Natural clay | Trench | 1.7m | 1.07m |
| 27/011 | Natural silty sand | Trench | 1.7m | 0.5m |
| 27/012 | Deposit | Trench | 1.7m | Unknown |
| 27/013 | Prison foundation cut | 2.1m | 0.4m | 2.75m |

| Context | Type | Length | Width | Depth |
|----------------|------------------------------------|---------------|----------------|--------------|
| 27/014 | Tate gallery foundation cut | 2.1m | 0.42m | 3.12m |
| 27/015 | Deposit | Trench | Trench | Unknown |
| | | | | |
| 28/001 | Deposit | Trench | Trench | 0.02m |
| 28/002 | Deposit | Trench | Trench | 0.14m |
| 28/003 | Deposit | Trench | Trench | 0.13m |
| 28/004 | Deposit | Trench | Trench | 0.10m |
| 28/005 | Deposit | Trench | Trench | 0.56m |
| 28/006 | Redeposited natural peat | Trench | Trench | 0.28m |
| 28/007 | Demolition deposit | Trench | Trench | 0.36m |
| 28/008 | Modern Service Trench | 0.74m | 0.7m | None |
| 28/009 | Redeposited natural peat | Trench | Trench | 0.2m |
| 28/010 | Demolition deposit | Trench | Trench | 1.0m |
| 28/011 | Redeposited natural peat | Trench | Trench | 0.42m |
| 28/012 | Gravel dump | 1.3m | 2.0m | 0.3m |
| 28/013 | Concrete platform | 1.3m | 1.3m | 1.18m |
| 28/014 | Natural peat | Trench | Trench | 0.77m |
| 28/015 | Foundation Cut | 1.75m | Unknown | 0.8m |
| 28/016 | Deposit | Trench | Trench | 0.2m |
| 28/017 | Natural peat | Trench | Trench | 0.32m |
| 28/018 | Deposit | Trench | Trench | 0.35m |
| 28/019 | Deposit | Trench | Trench | 0.14m |
| 28/020 | Deposit | Trench | Trench | Unexcavated |
| | | | | |
| 29a/001 | Deposit | Trench | Trench | 0.02m |
| 29a/002 | Deposit | Trench | Trench | 0.1m |
| 29a/003 | Deposit | Trench | Trench | 0.8m |
| 29a/004 | Deposit | 0.94m | 0.65m | 0.34m |

| Context | Type | Length | Width | Depth |
|----------------|---------------------------|--------------|-------------|--------------|
| 29a/005 | Redeposited clay | Trench | 0.65m | 0.42m |
| 29a/006 | Demolition deposit | 1.8m | 0.65m | 0.28m |
| 29a/007 | Redeposited clay | 2.7m | 0.65m | 0.48m |
| 29a/008 | Prison wall | 0.8m | 0.75m | 1.46m |
| 29a/009 | Redeposited brown clay | 1.7m | 0.65m | 0.74m |
| 29a/010 | Concrete base | 1.5m | 0.65m | 0.70m |
| 29a/011 | Deposit | 3.12m | 0.65m | Unknown |
| 29a/012 | Main Gallery Drain | 3.12m | 0.47m | Unknown |
| 29a/013 | Redeposited clay | 0.94m | 0.68m | 0.36m |
| | | | | |
| 29b/001 | Deposit | Trench | Trench | 0.04m |
| 29b/002 | Deposit | 1.26m | 0.38m | 0.58m |
| 29b/003 | Deposit | Trench | Trench | 0.07m |
| 29b/004 | Modern services | Trench | 0.25m | 2.98m |
| 29b/005 | Service trench | 1.7m | 11.25m | 1.5m |
| 29b/006 | Cut | 5.62m | 0.3m | 2.98m |
| 29b/007 | Deposit | Trench | Trench | 0.14m |
| 29b/008 | Deposit | 3.86m | 0.95m | 0.4m |
| 29b/009 | Deposit | 2.76m | 0.95m | 0.33m |
| 29b/010 | Dark grey brown clay dump | 4.55m | 0.95m | 2.0m |
| 29b/011 | Deposit | 1.33m | 1.0m | 0.52m |
| 29b/012 | Deposit | 1.08m | 1.0m | 0.3m |
| 29b/013 | Deposit | 1.92m | 0.97m | 0.33m |
| 29b/014 | Yellow sand dump | 2.91m | 0.97m | 0.78m |
| 29b/015 | Brick culvert | 1.0m | 0.7m | 0.22m |
| 29b/016 | Concrete base | 4.8m | 1.0m | Unknown |
| 29b/017 | Prison Wall | 1.0m | 0.8m | 1.5m |
| 29b/018 | Deposit | 0.7m | 0.63m | 0.93m |

| Context | Type | Length | Width | Depth |
|----------------|--|-------------|-------------|--------------|
| 29b/019 | Gravel deposit | 1.6m | 0.95m | 0.41m |
| 29b/020 | Peat deposit | 0.68m | 0.4m | 0.66m |
| 29b/021 | Cut associated with the prison demolition | 1.0m | 1.3m | 0.65m |
| 29b/022 | Modern pipe trench | 2.08m | 1.0m | 0.4m |
| 29b/023 | Deposit | 1.0m | 0.95m | 0.95m |
| 29b/024 | Foundation trench | Unknown | Unknown | Unexcavated |
| | | | | |
| 30/001 | Deposit | Trench | Trench | 0.42m |
| 30/002 | Deposit | Trench | Trench | 30 |
| 30/003 | Yellow brown gravel deposit | Trench | Trench | 3.74m |
| 30/004 | Concrete base | 1.9m | 1.68m | 0.18m |
| 30/005 | Natural gravels | Trench | Trench | Unexcavated |
| | | | | |
| 31/001 | Tate Floor slab | Trench | Trench | 0.4m |
| 31/002 | Deposit | Trench | Trench | 0.12m |
| 31/003 | Sand and gravel | Trench | Trench | 1.1m |
| 31/004 | Modern cement | - | - | - |
| 31/005 | Tate foundations | 1.34m | 0.14m | Unknown |
| 31/006 | Tate foundations | - | - | - |
| 31/007 | Flagstone floor | 1.3m | 0.3m | 0.04m |
| 31/008 | Void | - | - | - |
| 31/009 | Void | - | - | - |
| 31/010 | Brick Wall | 1.22m | 0.7m | 0.5m |
| 31/011 | Concrete base | Trench | Trench | Unexcavated |
| | | | | |
| 32/001 | Deposit | Trench | Trench | 0.7m |
| 32/002 | Structure | 1.75m | 2.1m | 2.35m |
| 32/003 | Made ground- brown clay | 2.0m | 0.98m | 1.0m |

| Context | Type | Length | Width | Depth |
|----------------|--------------------------------|---------------|--------------|--------------|
| 32/004 | Deposit | 1.4m | 1.8m | 0.6m |
| 32/005 | Deposit | 2.1m | 0.5m | 0.9m |
| 32/006 | Deposit | 2.1m | 1.8m | 1.6m |
| 32/007 | Concrete structure | 2.0m | 0.36m | Unexcavated |
| 32/008 | Gravel backfill | Trench | Trench | 0.4m |
| 32/009 | Deposit | Trench | Trench | Unexcavated |
| 32/010 | Tate gallery Foundation Trench | - | - | - |
| | | | | |

| Context | Type | Length | Width | Depth |
|----------------|---|---------------|--------------|----------|
| | Open Area Excavation | | | |
| 150/001 | Hexagonal inner wall running E-W adjacent to 6th pentagon | 16.50m | 0.65m | 1.00m |
| 150/002 | Brick culvert | 16.00m | 0.70m | 0.70m |
| 150/003 | Brick culvert perpendicular to 003 | 4.80m | 0.59m | - |
| 150/004 | Rebuild of 002 | 1.15m | 0.70m | 0.60m |
| 150/005 | Cut for culvert 003 | 13.30m | 1.20m | - |
| 150/006 | Backfill over culvert 002 - protective deposit | 16.00m | 0.50m | 0.14m |
| 150/007 | Concrete bed for culvert 002 | 16.00m | 1.40m | 0.70m |
| 150/008 | E-W partition wall of which 001 is northern counterpart | 3.73m | 0.22m | 0.12m |
| 150/009 | E-W partition wall keyed into 011 to west | 3.38m | 0.22m | 0.18m |
| 150/010 | N-S wall. Forms E side of 2 rooms formed by 018, 011, 009 & 008 | 4.55m | 0.45m | 0.70m |
| 150/011 | Remnant of N-S running partition wall. Formed part of surgeons quarters | 4.55m | 0.55m | 0.91m |
| 150/012 | Partition wall for brick floor room to N and uncertain room space to S | 2.48m | 0.22m | 0.29m |
| 150/013 | Main N-S internal wall between two main E-W walls. Has doorway at N end | 5.47m | 0.55m | 0.33m |
| 150/014 | E-W partition wall | 24.70m | 0.22m | 0.30m |
| 150/015 | Room division wall with doorway on south end | 2.26m | 0.45m | 0.22m |
| 150/016 | E-W room division wall. Brick floor abutts it on S side. | 2.92m | 0.25m | 0.26m |
| 150/017 | Small partition wall for doorway. Keyed into 016 | 0.60m | 0.22m | 0.06m |
| 150/018 | Main wall run for prison hexagon | 20m | 0.70m | 1.50m |
| 150/019 | Brick floor bounded by 008, 009, 010, 011 | 2.73m | 1.86m | - |
| 150/020 | Brick floor bounded by 001, 012, 011 | 3.30m | 1.60m | - |
| 150/021 | Brick flooring of internal corridor | 0.85m | 0.54m | 0.10m |

| Context | Type | Length | Width | Depth |
|----------------|--|---------------|--------------|--------------|
| 150/022 | Brick floor bounded by 016, 017, 018 | 1.72m | - | 0.10m |
| 150/023 | Brick floor bounded by 016, 017 & 018. Slight truncation by Tate. | 1.72m | 1.18m | 0.10m |
| 150/024 | Demolition debris lying atop 022 | - | - | - |
| 150/025 | Demolition debris lying atop 032 | - | - | - |
| 150/026 | Mixed deposits in window light well 027. Numbered and excavated for finds. | - | - | - |
| 150/027 | Surviving base of lightwell shaft | 0.98m | 1.70m | 0.63m |
| 150/028 | Presumed part of the main foundation slab. Defined by 013, 014, 001 | 4.10m | 2.50m | - |
| 150/029 | Cement bed for robbed out brick floor bounded by 013, 014, 015, 018. | 5.05m | 2.54m | - |
| 150/030 | Cut through cement bed 029 for insertion of 031 | 0.96m | 0.60m | 0.30m |
| 150/031 | Foundation for step up to window? | 0.61m | 0.50m | 0.16m |
| 150/032 | Sand bed for robbed out brick floor bounded by 009, 018, 010, & 011 | 3.70m | 2.15m | 0.07m |
| 150/033 | Sand bed for robbed out brick floor bounded by 001, 008, 010, & 013 | 11.34m | 16.00m | - |
| 150/034 | Massed concrete foundation raft supporting skin walls 001 & 018 | 11.34m | 16.00m | - |
| 150/035 | E-W orientated partition wall. Truncated by Tate wall to west | 1.40m | 0.22m | 0.16m |
| 150/036 | Flue/Drainage feature | 1.28m | 0.37m | 0.60m |
| 150/037 | Cut for 036 | 1.70m | 0.58m | 0.60m |
| 150/038 | Culvert fed by 036. Not completely exposed | 0.55m | 0.45m | - |
| 150/039 | Load-bearing structure to support 002 culvert rebuild. In cut 005. | 0.81m | 0.23m | 0.22m |
| 150/040 | Backfill of 005 | 4.80m | 1.20m | - |
| 150/041 | Window placement in wall 018 | 1.41m | 0.72m | 0.67m |
| 150/042 | Deposit in base of 002 | 16.00m | 0.70m | 0.06m |
| 150/043 | Backfill of 036 | 1.70m | 0.58m | 0.60m |
| 150/044 | Stake hole for 150/002 | - | - | - |
| 150/045 | Timber Voids in concrete | - | - | - |

| Context | Type | Length | Width | Depth |
|----------------|--|---------------|--------------|--------------|
| 150/046 | Remains of Timber sleeper beams | - | - | - |
| 150/047 | Cut for 150/046 | - | - | - |
| 150/048 | Circular brick structure | - | - | - |
| 150/049 | Copper Strap-Lighting Conductor? | - | - | - |
| 150/050 | Prison foundation backfill | - | - | - |
| 150/051 | Cut for Millbank Pen. footings. Not seen. | - | - | - |
| 150/052 | Impressions of Timber Planks in Concrete | - | - | - |
| | | | | |
| | Watching Brief Trench 101 | | | |
| 101/001 | All Tate related structures including walls, floors, foundations | Varied | Varied | Varied |
| 101/002 | Tate Gallery floor make up | | | |
| 101/003 | Cut for Tate gallery | Trench | 1.80m | NFE |
| 101/004 | Tate Gallery Foundation backfill | Trench | 1.80m | NFE |
| 101/005 | Tate vent backfill | 0.90m | 0.60m | NFE |
| 101/006 | Demolition deposit- Prison | Trench | Trench | NFE |
| 101/007 | Prison wall foundation | 2.40m | 1.10m | NFE |
| 101/008 | Prison wall foundation | 2.40m | 1.10m | NFE |
| 101/009 | Prison concrete base | NFE | 2.0m | NFE |
| 101/010 | Foundation Trench for prison | NFE | NFE | NFE |
| 101/011 | Natural alluvium | NFE | NFE | NFE |
| 101/012 | Terrace Gravels | NFE | NFE | NFE |
| | | | | |
| | Watching Brief Trench 102 | | | |
| 102/001 | Concrete floor slabs and structural ducting associated with the Tate | | | |

| Context | Type | Length | Width | Depth |
|----------------|--|--------------|--------------|--------------|
| 102/002 | Dark brown clay peat - Tate foundation backfill | 2.00m | 0.65m | - |
| 102/003 | Ground floor sleeper beam - brickwall | 2.00m | 0.35m | 2.7m |
| 102/004 | Mixed gravel, clay and demolition debris | 2.00m | 0.5m | - |
| 102/005 | Disturbed gravel backfill | - | - | - |
| 102/006 | Cut for all Tate footings | - | - | - |
| 102/007 | Concrete footings | - | - | - |
| 102/008 | Concrete dump | - | - | - |
| 102/009 | Mixed deposit of brick, gravel and sand | 0.75m | 0.5m | 0.63m |
| 102/010 | Brick wall | 1.25m | 1.15m | 0.36m |
| 102/011 | Brick vaulted culvert | 2.40m | 1.00m | 1.10m |
| 102/012 | Brick built culvert | 4.90m | 0.80m | 1.00m |
| 102/013 | Cut of [102/011] | 4.90m | 0.90m | 1.00m |
| 102/014 | Cut of [102/012] | 2.40m | 1.10m | 0.90m |
| 102/015 | Brick wall remnants | 3.00m | 0.50m | 0.08m |
| 102/016 | Heavily truncated drain | 2.30m | 0.35m | - |
| 102/017 | Cut for [102/015] | 2.00m | 1.00m | 0.05m |
| 102/018 | Fill of drain (probably [102/016]) | 2.30m | 0.35m | - |
| 102/019 | Cut for prison | - | - | - |
| 102/020 | Yellowish brown sandy clay - packing soil around culvert | - | - | - |
| 102/021 | Cut for [102/015] | 1.60m | 0.47m | 0.10m |
| 102/022 | Brick structure | 0.70m | 0.20m | 0.10m |
| 102/023 | Backfill of drain [102/024] | 0.46m | 0.20m | 0.14m |
| 102/024 | Brick drain | 0.46m | 0.20m | 0.14m |
| 102/025 | Backfill of drain | - | 0.23m | 0.10m |

| Context | Type | Length | Width | Depth |
|----------------|---|---------------|--------------|--------------|
| 102/026 | Plaster mortar foundation | 1.00m | 0.60m | 0.04m |
| 102/027 | Levelling layer | 1.00m | 0.50m | 0.05m |
| 102/028 | Black ashy clinker deposit - levelling layer | 1.60m | 0.40m | 0.05m |
| 102/029 | Brick packing | 1.10m | 0.10m | 0.06m |
| 102/030 | Brick wall - multi-coursed | - | - | - |
| 102/031 | Concrete overlying culvert [102/012] | - | - | - |
| 102/032 | 2 courses of brick ontop of slate mortered bottom | - | 0.30m | 0.20m |
| 102/033 | Wall seen in NW section | | | |
| | | | | |
| | Watching Brief Trench 103 | | | |
| 103/001 | Current construction hardcore | - | - | - |
| 103/002 | Cut and fills of tower crane base | - | - | - |
| 103/003 | Tate grounds topsoil | - | - | - |
| 103/004 | Prison demolition rubble | - | - | - |
| 103/005 | Cut and fills of Tate related cast iron pipe Trench | - | - | - |
| 103/006 | Thin brick prison wall | 1.3m | 0.6m | 0.60m |
| 103/007 | Main prison wall | 3.55m | 2.2m | 1.05m |
| 103/008 | Prison foundation slab | - | - | - |
| 103/009 | Tree root | 2.6m | 1.95m | 0.7m |
| 103/010 | Natural gravel | Trench | Trench | 0.7m |
| | | | | |
| | Watching Brief Trench 105 | | | |
| 105/001 | All Tate intrusions inc. floor slab, reinforcing beams and conc. piers etc... | ROOM | EXTENT | 0.5m |
| 105/002 | Truncation event of Tate construction | ROOM | EXTENT | - |

| Context | Type | Length | Width | Depth |
|---------|--|--------------------|-------------|-------|
| 105/003 | Prison backfill | Overlies prison | foundations | - |
| 105/004 | Brick footings with 2 spreads of masonry | - | - | - |
| 105/005 | Fill of [105/006] | Drain | extent | - |
| 105/006 | Base of SE-NW drain/culvert | - | - | - |
| 105/007 | Secondary fill of [105/006] | - | - | - |
| 105/008 | Plaster lining of [105/006] | - | - | - |
| 105/009 | Prison foundation slab | - | - | - |
| | | | | |
| | Atterbury Street Watching Brief | | | |
| 5000 | Brick foundations of millbank prison | 3m | ? | ? |
| 5001 | Mortar plaster floor | 2m | 1m | 0.05m |
| 5002 | Capstone for potential drainage or heating culvert | - | - | - |
| 5003 | Top and base of culvert | 0.35m | 0.35m | - |
| 5004 | Brick foundation | 0.70m | 0.70m | 0.60m |
| 5005 | Brick foundation | 1.50m | - | 0.50m |
| 5006 | Brick foundation | 0.70m | - | 0.40m |
| 5007 | 1 course foundation | 1m | - | 0.07m |
| 5008 | Concrete raft foundation | 5m | - | - |
| 5009 | Brick wall | - | 0.50m | 0.7m |
| 5010 | Backfill between [5009] and [5006] | - | 0.70m | 0.30m |
| 5011 | Brick wall | 2.20m | 0.64m | 0.5m |
| 5012 | Flagstone floor | 1.0m | 0.35m | 0.15m |
| 5013 | Brick wall | - | - | - |

| Context | Type | Length | Width | Depth |
|--|--|--------|--------|-------|
| Atterbury Street Ground Beam Trench 1 | | | | |
| 1/001 | Demolition material - backfill of tower structure | Trench | Trench | |
| 1/002 | Concrete raft - recorded in original Trench 1 | - | - | 0.50m |
| 1/003 | Redeposited peat with clinker | 1.0m | 0.70m | 0.80m |
| 1/004 | Alluvial deposit - possibly alternating between fluvial and march conditions | Trench | Trench | 1.50m |
| 1/005 | Mid brown peat deposit | 1.50m | Trench | 0.5m |
| 1/006 | Clean blue grey clay | Trench | Trench | 1.5m |
| 1/007 | Natural gravel | Trench | Trench | nfe |
| 1/008 | Pale brown and york stone rubble | Trench | 1.50m | 0.30m |
| Atterbury Street Ground Beam Trench 2 | | | | |
| 2/001 | General makeup and recent backfill | site | site | site |
| 2/002 | Demolition deposit filling arched structure | - | - | - |
| 2/003 | Most recent episode of peat build-up | Trench | Trench | 0.30m |
| 2/004 | Blue brown silt clay | Trench | Trench | 0.50m |
| 2/005 | Organic peat deposit | Trench | Trench | 0.50m |
| 2/006 | Grey brown silt clay | Trench | Trench | 0.50m |
| 2/007 | Mid brown organic peat | Trench | Trench | 0.50m |
| 2/008 | Natural blue clay | Trench | Trench | 0.60m |
| 2/009 | Natural gravels | Trench | Trench | nfe |
| 2/010 | Demolition layer | 4.20m | Trench | 2.20m |
| Atterbury Street Ground Beam Trench 3 | | | | |
| 3/001 | Modern Tate lawn soil | Trench | Trench | 0.24m |

| Context | Type | Length | Width | Depth |
|----------------|-------------------------------|---------------|--------------|--------------|
| 3/002 | Demolition brick infill | Trench | 0.7m | 1.06m |
| 3/003 | 1927 foundation Trench infill | Trench | Trench | 0.22m |
| 3/004 | Prison wall | Trench | 0.88m | - |
| 3/005 | 1927 foundation Trench cut | 2.1m | 0.88m | - |

APPENDIX B

POTTERY REPORT

By Lucy Whittingham

All the pottery has been identified and catalogued with reference to the fabric codes established by the Museum of London (Orton 1988)

This assemblage of sixty two sherds (1.3 kg) is entirely post-medieval but mixed in date ranging from late 16th/ early 17th to early 19th century. Of note are the large saggars, stoneware waster sherds and biscuit fired earthenwares from Tin Glazed Earthenware production.

The majority of the pottery is mid 18th to early 19th century in date. The transfer printed Pearlware (PEARL) plates with Willow pattern belong to the first half of the 19th century. Staffordshire White Salt Glazed Stoneware (SWSG) vessels are mid 18th century (AD 1720 - 1770). Small sherds of Creamware (CREA) and English Porcelain (ENPO) cups are late 18th to 20th century. Mocha decorated wares are from the first half of the 19th century.

Examples of 17th century wares include post-medieval Course and Fine Redware (PMCR and PMFR) vessels more typical of the mid/late 17th century and early 18th century date, Surrey/Hampshire Border Ware with yellow glaze (BORDY) and red Border Ware (RBOR). A Werra Slipware dish is of note with scraffito pattern in the centre showing a man in contemporary dress. Werra Slipware was imported from the Rhineland from AD 1580 to 1630 but is commonly found in Britain between AD 1625 and 1650.

Late 17th and 18th century English Stoneware vessels include a flagon rim and waster sherds such as a handle with thumb impressions which has overfired glaze over the break at one end.

The decorated Tin Glazed Earthenware sherds are from 18th century hollow and flatwares with an eggshell blue glaze and painted mid blue decoration. A number of biscuit fired wares are the unfinished products of Tin Glazed Ware production, some of which could be tile and some saggars.

The large fragments of kiln saggars with partial stoneware glazing are kiln waste.

| Context | Fabric | Sherds | Weight (g) | Date |
|----------------|---------------|---------------|-------------------|-----------------------------|
| 3/003 | PEARL | 2 | 26 | 1800-1850 |
| 8/004 | CREA | 2 | 10 | 1770-1900 |
| 8/004 | SWSG | 1 | 2 | 1720-1770 |
| 8/004 | PMFR | 2 | 74 | 1640-1750 |
| 8/006 | SWSG | 1 | 2 | 1720-1770 |
| 8/006 | BORDG | 2 | 42 | 1550-1750 |
| 8/006 | PMCR | 2 | 16 | 1640-1750 |
| 10/010 | PEARL | 3 | 26 | 1800-1850 |
| 10/010 | CREA | 2 | 24 | 1770-1900 |
| 10/010 | TGW | 1 | 4 | 18 th C |
| 10/010 | ENPO | 1 | 2 | 1700-1900 |
| 10/012 | TGW | 1 | 22 | |
| 25/004 | SWSG | 2 | 8 | 1720-1770 |
| 26/003 | WERRA | 1 | 34 | 1580-1630 |
| 26/003 | TGW saggars | 1 | 100 | |
| 26/003 | SWSG | 1 | 2 | 1720-1770 |
| 26/003 | PMCR | 1 | 64 | 1640-1750 |
| 28/009 | SWSG | 1 | 6 | 1720-1770 |
| 29/010 | PMFR | 1 | 6 | 1640-1750 |
| 30/003 | PMCR/PMFR | 6 | 344 | 1640-1750 |
| 30/003 | ENGS | 5 | 98 | c.1671-1800 |
| 30/003 | TGW Saggars | 3 | 32 | 18 th C |
| 30/003 | PEARL | 9 | 154 | 1800-1850 |
| 30/003 | ENPO | 2 | 14 | 1700-1900 |
| 30/003 | MOCHA | 2 | 30 | 1800-1850 |
| 30/003 | BORDY | 2 | 36 | 1550-1750 |
| 31/004 | CREA | 1 | 2 | 1770-1900 |
| 31/004 | TGW | 2 | 16 | 17 th C (c.1640) |
| 32/003 | PEARL | 1 | 8 | c.1840 |
| 32/003 | RBOR | 1 | 46 | 1750-1800 |
| TOTAL | | 62 | 1.25 kg | |

APPENDIX C

RADIOCARBON ANALYSIS

APPENDIX D

ENVIRONMENTAL ANALYSIS BY MARTIN BATES

The site was visited on the 14th March 2000. A single Trench was observed by the author at the site. The section was dug by mechanical excavator under the supervision of site archaeological director Mr Karl Hulka of AOC Archaeology Ltd. Excavation proceeded from the reduced ground level to a depth of 4.7m below ground surface. Trench excavation ceased when gravels were encountered. On reaching the gravels water began rapidly to enter the trench and the trench required pumping to keep the trench relatively dry.

Sediment from the ground surface to a depth of 2.3m deep (i.e. above datum's of +0.44mOD) consisted of deposits of made ground and backfill. These deposits were not recorded and descriptions of these deposits have been previously undertaken by AOC staff elsewhere on site.

Deposits between 2.3m and 4.7m (i.e +0.44 to -1.9mOD) consisted of a series of alternatively bedded clay silts and organic-rich sediments. These deposits are typical of water lain floodplain sediments found elsewhere in the Thames floodplain area. The deposits were clearly seen to contain very well preserved plant remains (including wood, stem and leaf material) in certain horizons in addition to well preserved insect remains. Molluscan remains were only noted at the top of the sequence sealed beneath the made ground.

The clay-silts and organic rich sedimentary units probably represent shifts between phases of mud-flat (sub-tidal/inter-tidal?) environments and times when alder carr or reed swamp dominated the local environment. Within the lower Thames area sediments of this type have been laid down during the Holocene (last 10,000 years). Previous radiocarbon age estimates for these sediments suggest a date for organic sequence on-set during the Neolithic/Bronze Age indicating that later prehistoric/Roman or later ages may be assumed for the shallower levels.

The underlying gravel units probably belong to the Sheperton Gravel of the Thames and date to 10-15 thousand years ago. These deposits were laid down under cold climate conditions during the late Devensian period with braided river channels.

| Depth below ground surface (meters) | Depth of top of units in meters O.D | Stratigraphic description |
|-------------------------------------|-------------------------------------|---|
| 0.00-2.30 | 2.74 | Made ground/fill-not described in detail. |
| | | ---undulating contact--- |
| 2.30-2.40 | 0.44 | Brownish-grey slightly organic silt. Shell fragments occur near top of unit (consisted of terrestrial and freshwater shells). Unit is dense and compact with no apparent structure. Occasional small fragments of small red ceramic material. |
| | | ---diffuse contact--- |
| 2.40-2.52 | 0.34 | Mid-grey clay-silt with yellow-brown mottles. Unit is dense and compact but structureless. Some black point staining. Mottling increases with frequency with depth. |
| | | ---graded contact--- |
| 2.52-2.62 | 0.22 | Grey becoming grey-brown clay silt down profile. Some organic material that possibly increases in frequency with depth. Firm, cohesive and structureless. |
| | | ---abrupt contact--- |
| 2.62-2.78 | 0.12 | Dark brown organic rich silt. Occasional rootless and larger fragments of organic matter seen. Firm, cohesive and structureless. |
| | | ---abrupt contact--- |
| 2.78-3.02 | -0.04 | Dark brown fibrous organic silt with wood fragments. Firm and cohesive. Possible organic fragments bedded towards base of unit. |
| | | ---abrupt contact--- |
| 3.02-3.06 | -0.28 | Grey-brown clay-silt with some organics. Firm and cohesive. Some evidence of rooting from above. Organic content increases with depth. |
| | | ---abrupt contact--- |
| 3.06-3.20 | -0.32 | Dark brown fibrous organic silt. Some identifiable wood fragments. Firm and cohesive. |
| | | ---abrupt contact--- |
| 3.20-3.40 | -0.46 | Grey to brownish grey clay-silt with some organic material. Organic content increases with depth. Soft and pliable. |
| | | ---abrupt contact--- |
| 3.40-3.52 | -0.66 | Brown amorphous organic silt. Very few recognisable fragments of organic matter. Firm and compact. |
| | | ---abrupt contact--- |
| 3.52-3.65 | -0.78 | Dark brownish black woody peat to highly organic rich silt. Many small preserved wood fragments, insect remains and leaf/stem material. Firm, cohesive and relatively dry. |
| | | ---abrupt contact--- |
| 3.65-3.96 | -0.91 | Dark greyish brown organic silt. Firm and cohesive. Organic content decreases with depth. |
| | | ---abrupt contact--- |
| 3.96-4.36 | -1.22 | Grey clay-silt with some organics silt. Organic content decreases with depth. Becomes soft and less cohesive with depth. Yellow-brown mottles in places. |
| | | ---graded contact--- |
| 4.36-4.64 | -1.62 | Grey silt becoming sandy-silt with sand increasing with depth. Soft and unconsolidated. White precipitate material noted in places. Structureless and massive. |
| | | ---graded contact--- |
| 4.64- | -1.90 | Grey poorly sorted flint gravel with 2-5cm sub-angular flint clasts. |
| | | ---base of profile 4.7m--- |

APPENDIX E

OASIS ID: AOCARCHA1-13132

Project details

| | |
|--|--|
| Project name | Centenary Development at The Tate Gallery (Now Tate Britain) |
| Short description of the project | Work was carried out in advance of the Tate Centenary Development and was conducted between 1997-2000 and allocated the site code MBK 97. The earliest deposits recorded on site were layers of peat and alluvium recorded during the initial watching brief on geotechnical trenches. The peat was dated to the late Neolithic period. The post-medieval period on site was represented by the remains of Millbank Penitentiary which was opened in 1821. The penitentiary was flower-shaped and comprised of six pentagons surrounding an inner hexagon with a chapel at its centre. The prison was three stories high, with basements in some pentagons and was the first "super-prison" of its day. Evidence relating to the prison was recorded on site in the form of large exterior walls, internal walls, rooms and a complex of drainage culverts. The demolition of Millbank Penitentiary in 1892 was to make way for the erection of Henry Tate's National Gallery of Art in 1897, which occupies the site today. |
| Project dates | Start: 08-12-1997 End: 29-02-2000 |
| Previous/future work | No / No |
| Any associated project reference codes | MBK97 - Sitecode |
| Type of project | Recording project |
| Site status (other) | Areas Of Special Archaeological Priority |
| Current Land use | Other 14 - Recreational usage |
| Monument type | PEAT Late Neolithic |
| Monument type | BRICK FOUNDATIONS Modern |
| Monument type | BRICK FLOORS Modern |
| Monument type | CONCRETE RAFT FOUNDATIONS Modern |
| Investigation type | 'Field observation','Open-area excavation','Recorded Observation','Watching Brief' |
| Prompt | Direction from Local Planning Authority - PPG16 |
| Prompt | Client Funded Investigation |

Project location

| | |
|---------------|--|
| Country | England |
| Site location | GREATER LONDON CITY OF WESTMINSTER CITY OF WESTMINSTER Centenary Development at the Tate Gallery (now Tate Britain) |

| | |
|-------------------------|------------------------|
| Postcode | SW1P 4RG |
| Study area | 0.35 Hectares |
| National grid reference | TQ 3003 7857 Point |
| Height OD | Min: 1.92m Max: -0.10m |

Project creators

| | |
|---------------------------|--|
| Name of Organisation | AOC Archaeology |
| Project brief originator | The board of trustees for Tate Britain |
| Project design originator | AOC Archaeology Group |
| Project director/manager | Ron Humphrey |
| Project supervisor | Karl Hulka |
| Sponsor or funding body | The Board of Trustees for Tate Britain |

Project archives

| | |
|----------------------------|--|
| Physical Archive recipient | Museum of London |
| Physical Archive Exists? | No |
| Digital Archive recipient | Museum of London |
| Digital Contents | 'Survey' |
| Digital Media available | 'Database','Images raster','Spreadsheets','Survey','Text' |
| Paper Archive recipient | Museum of London |
| Paper Contents | 'Survey' |
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| Publication type | Grey literature (unpublished document/manuscript) |
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