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Figure 11 Horwood's Map, 1813 1:1,250 at A4



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Figure 12 Ordnance Survey Map, 1890 1:1,250 at A4



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Figure 13 Ordnance Survey Map, 1914 1:1,250 at A4



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6 ARCHAEOLOGICAL METHODOLOGY

- 6.1 In accordance with the Written Scheme of Investigation (Moore 2010) the areas of excavation were arranged in order to fully investigate the underlying stratigraphy in all archaeologically sensitive areas within the development area (Figure 2). The watching brief monitored the removal of the modern hard standing and some modern footings in these locations before the excavation began.
- 6.2 The excavation was divided into six areas, the terminology and dimensions of which are detailed below:

Area 1/8/10:	34.40m N-S by 14.65m E-W
Area 3:	5.60m N-S by 9.20m E-W
Area 4/5/6:	12.45m N-S by 52.00m E-W
Area 9/12:	26.50m N-S by 25.70m E-W
Area 11:	36.25m N-S by 10.85m E-W
Area 14:	8.30m N-S by 0.85m E-W

6.3 A seventh area, termed 2/7, was situated below 1-2 Montague Place, which was still extant at the time of the excavation. It was sub-divided into eleven trenches due to the presence of numerous deeply intrusive concrete ground beams that could not be removed without damaging the stability of the overlying building. The trenches are listed below, along with their dimensions:

Trench A:	5.75m N-S by 3.70m E-W
Trench B:	3.25m N-S by 3.35m E-W
Trench C:	2.55m N-S by 4.05m E-W
Trench D:	1.30m N-S by 3.65m E-W
Trench E:	4.75m N-S by 3.85m E-W
Trench F:	4.30m N-S by 4.60m E-W
Trench G:	9.40m N-S by 9.55m E-W at the northern end and 4.50m at the southern end
Trench H:	3.95m N-S by 2.25m E-W
Trench I:	3.10m N-S by 3.55m E-W

 Trench J:
 3.30m N-S by 3.60m E-W

 Trench K:
 4.20m N-S by 3.60m E-W

- 6.4 The site was excavated using a 360 type mechanical excavator under archaeological supervision. A mechanical breaker and toothed bucket were used to remove the modern hard-standing under watching brief conditions; the soft deposits were then stripped with a toothless ditching bucket until19th century or earlier deposits or structures were encountered, at which point the dig predominately continued by hand. With the exception of garden soils, which were manually dug in their entirety, homogenous horizontal leveling layers of 19th century or early date were removed with a mechanical excavator until former stable horizons were reached. Hand-dug sondages were excavated through made ground of this nature prior to mechanical removal in order to acquire dating evidence.
- 6.5 All recording systems adopted during the investigations were fully compatible with those developed from the Department of Urban Archaeology Site Manual, currently published by the Museum of London Archaeology Service (MoLAS 1994), which is the most widely used system for recording the archaeological resource in London. Individual descriptions of all archaeological strata and features excavated and exposed were entered onto *pro-forma* recording sheets. All plans and sections of archaeological deposits were recorded on polyester-based drawing film, the plans being drawn at a scale of 1:10 or 1:20 and the sections at 1:10 or 1:20 as appropriate. The OD heights of all principal strata were calculated and indicated on the appropriate plans and sections. A full photographic record of the investigations was also prepared, including black and white prints, colour transparencies on 35mm film and digital images.
- 6.6 All archaeological structures and deposits were hand cleaned prior to recording. They were then hand excavated, either in full or in part, and the finds were retained for analysis. Brick structures were sampled where appropriate in order to provide typological and dating evidence.
- 6.7 Levels were taken from seven Temporary Bench Marks (TBMs) that were distributed across the site. They were established using a Total Station and their values and locations are detailed below:

TBM 1: 23.68m OD	Located on a modern concrete plinth in the south central section of Area 9/12
TBM 2: 24.09m OD	Located on a modern concrete plinth in the north central section of Area 1/8/10
TBM 3: 23.75m OD	Located on a modern concrete plinth in the north central section of Area 1/8/10
TBM 4: 23.76m OD	Located on a modern concrete plinth in the central section of Area 1/8/10

TBM 5: 24.37m OD	Located on a modern concrete plinth in the central section of Area 4/5/6
TBM 6: 23.75m OD	Located on a modern concrete plinth in the east central section of Area 1/8/10
TBM 7: 23.75m OD	Located on a concrete curb to the immediate north of the northeast corner of Area 11

- 6.8 The site grid and the baselines that were used during the project were located using a Total Station and were tied into the Ordnance Survey Grid.
- 6.9 The completed archive, comprising written, drawn and photographic records and artefacts, will be stored by Pre-Construct Archaeology Limited until its eventual deposition in the British Museum.
- 6.10 Some archaeological features unearthed during the excavation, such as buildings, boundary walls, ditches, pits and layers, straddle two or more excavation areas. This report assesses the data holistically by describing the archaeological sequence across the entire site rather than fragmenting the results into an arbitrary series of trenches and excavation areas.

7 SITE SUMMARY

7.1 PHASE 1: NATURAL

7.1.1 A deposit of brickearth sealing Lynch Hill gravel underlay the entire site.

7.2 PHASE 2: POST MEDIEVAL

- 7.2.1 The site was situated in farmland to the north of London at this time. Three ditches of Postmedieval date were unearthed, which probably represent field boundaries or drainage ditches that sub-divided the farmland.
- 7.2.2 It is possible that a small quantity of redeposited Roman, Saxon and early Post-medieval building material was introduced to the site during this and earlier periods, perhaps in made ground or manure spreads (Hayward, this report).
- 7.2.3 A brick lined drain running into a brick cistern was found in Area 4/5/6. The exact function of these features remains uncertain, although it is likely that they formed a well and soakaway. They are probably not related to Montagu House as they were found to be stratigraphically earlier than the earliest phase of the garden boundary wall of the mansion, which is probably contemporary with the earliest incarnation of the main building. Perhaps the cistern was used as a water source for livestock or crops or was associated with an undocumented activity situated beyond the site boundary. The latter interpretation is given greater credibility by the fact that some Post-medieval building material, probably from a high-status dwelling, was found in some Phase 3 and Phase 4 contexts (Hayward, this report). Whilst the building material that was found in deposits dating to Phase 4 could derive from Montagu House, constructed in 1675 to 1679 (Phase 4.1), it remains possible that the Phase 3 assemblage could have come from an earlier structure.

7.3 PHASE 3: THE CIVIL WAR TO THE LATE 17th CENTURY

7.3.1 Part of the Civil War ditch was unearthed, along with the probable remains of a rampart to the immediate south. If this interpretation is correct, these features were constructed in 1642 to 1643 and formed part of the Parliamentarian defences of London.

- 7.3.2 Temporary surfaces, composed of brick rubble and carbon rich material including Kimmeridge Oil Shale and Coal (Hayward, this report) were preserved below the rampart. They were probably deposited by the creators of the defences in order to improve the clay rich, boggy ground upon which they were working. These layers had been pressed into the underlying natural, preserving a series of probable relict footprints and wheel ruts made during the construction of the fortification. The majority of these contained pottery and clay pipe fragments that suggested a 17th century formation date (Jarrett, this report). Only one, [2160], contained building material that was dated to a slightly later period (1664 to 1750); this could represent contamination from the modern backfill of an evaluation trench that truncated the western side of the rut.
- 7.3.3 The majority of the lower fills of the Civil War ditch were probably deposited soon after the defences fell out of use and it is likely that some of the rampart was pushed back into the feature at this time. Artefacts found in the basal fills and within the surviving section of the rampart supported this interpretation; mid 17th century pottery and clay pipes were recovered (Jarrett, this report), along with at least three 17th century royal farthings, a copper jeton, a copper-alloy seal matrix of 17th century date, a small 16th to 17th century copper-alloy belt mount and a lead shot (Gaimster, this report). Some high status building material was also found, including some rare black and brown glazed pan tile, which was imported from the Low Countries from 1630 until the middle part of the 17th century (Hayward, this report). It is possible that this material could derive from an early Postmedieval high status building in the vicinity of the site that pre-dates the construction of Montagu House between 1675 and 1679. Alternatively, the fills that contained the tile could be later in date than the artefacts recovered from them suggest and, if this is the case, they could have roofed Montagu House itself. The former interpretation is more probable as this form of tile was imported during the early to mid 17th century and is therefore a little early for the 1675 to 1679 construction date of the mansion.
- 7.3.4 It is important to note that the Civil War ditch was not fully infilled during this phase, remaining visible as an earthwork for some time afterwards. Further analysis of the artefact assemblage recovered from the feature will be undertaken prior to publication in order to refine the phasing of its fills. This may shed further light on the potential origin of the building material within the lower backfill sequence.

7.4 PHASE 3 TO 4: MID 17th CENTURY TO EARLY 18th CENTURY

7.4.1 A series of possible cart ruts were found to the north of the Civil War defences. The bulk of the dating evidence retrieved from them, which takes the form of pottery sherds, suggests that they formed between 1670 and 1690, although creamware found in rut [1828] suggested a later 18th century formation date (Jarrett, this report). Another potentially relevant artefact that was recovered from one of these wheel ruts could represent a fragment of armor plate lost during the Civil War (Gaimster, this report). The ruts may indicate the former presence of a track that ran through the farmland in the 17th and 18th centuries. If this was the case, it may have been an informal way rather than an official road as it does not feature on maps of the area.

7.4.2 It is likely that the Civil War ditch was visible as an earthwork throughout the late 17th and 18th centuries and it is therefore probable that the track headed to a crossing point that enabled this feature to be traversed. If the trajectory of the ruts is projected across the site, they meet the ditch close to its narrowest point, supporting this hypothesis.

7.5 PHASE 4: LATE 17th TO LATE 18th CENTURY (Including Sub-Phases 4.1 & 4.2)

- 7.5.1 Montagu House was constructed to the southeast of the site between 1675 and 1679, as demonstrated by documentary evidence. Several large pits that may represent brickearth quarries were found, which may be contemporary with this event. It is possible that the clay that was extracted from these features was used to manufacture bricks that were used in the construction of Montagu House or other buildings within the growing city.
- 7.5.2 Some ground preparation and leveling activity appears to have taken place prior to the construction of the gardens of Montagu House. This probably included the backfilling of some field boundaries, quarries and pits, as demonstrated by the pottery and clay pipe fragments that were recovered from their fills (Jarrett, this report). This may be when horse burial [1847] occurred, as the clay pipe and pottery assemblage suggests. It was probably interred in a natural depression that was filled in after it was deposited.
- 7.5.3 Evidence of small scale production on or near the site was revealed in some of these leveling deposits, in addition to domestic material. This included lead, bone and ivory working waste that was found within the backfill of boundary ditch [2256], the upper backfill of the Civil War ditch and in several ground raising layers, including one that had subsided into rob cut [2235] (Gaimster, this report). A crucible was also recovered from the fill of horse burial [1847] (Jarrett, this report) and glass working waste was found in [1799], the backfill of a quarry pit (Shepherd, this report). Two copper alloy thimbles were also found in the backfill of the Civil War ditch, along with a Raeren stoneware spindle whorl from a dump layer that had subsided into robber cut [2235]. These objects suggest that textile working could have taken place nearby (Gaimster, this report). It is probable that this industrial waste was opportunistically dumped on the site during these leveling episodes.
- 7.5.4 The Phase 2 brick lined cistern [2236] was partially robbed at this time, hence the presence of robber cut [2235]. Bricks from the feature may have been reused in Montagu House, its garden wall or other contemporary structures built between 1675 and 1679. A large assemblage of clay tobacco pipes dated 1660 to 1680 as found in the backfill of the robber cut (Jarrett, this report), supporting this interpretation.

- 7.5.5 The Civil War ditch was probably further infilled during this phase, as demonstrated by the presence of 18th century Chinese porcelain and stonewares in some of the mid and upper fills (Jarrett, this report). Some high status building material was recovered from it and other Phase 4 deposits, which could have originated from Montagu House or an earlier prestigious building. The assemblage included broken up peg and pan tile, floor tile, paving bricks, moulded stone and intricately carved terracotta (Hayward, this report). Other domestic items that could be associated with the building included four ivory cutlery handles, an iron rotary key, copper alloy suspension rings for curtains and textile hangings, two copper alloy mounts from chests or furniture, a lead bird feeder, a copper-alloy book clasp and a ceramic figurine featuring a possible angel's wing. A number of household fittings and furnishings, including an iron pintle for hanging doors or shutters and several fragments of lead window, were recovered from a series of layers that had subsided into robber cut [2235] (Gaimster, this report). Although the construction of the Civil War defences (around 1642 to 1643) pre-dates the creation of Montagu House in 1675 to 1679, it is likely that the Civil War ditch remained partially open for some time after it fell out of use. This is supported by the dating evidence recovered from the fills of the feature, which suggest that it was infilled in stages throughout Phases 3 to 5.1 and could therefore contain material from the earliest incarnation of the mansion, which is known to have been destroyed by fire in 1686. Additional analysis of the stratigraphic sequence and dating evidence is required in order to refine this sequence and explore this possibility further.
- 7.5.6 The northwest corner of the boundary wall of the ornamental gardens of Montagu House was found, which was probably built at the same time as the main building. The nature of the bricks that were used in this structure suggested that it was built between 1664 and the mid 18th century, supporting the historical evidence (Hayward, this report).
- 7.5.7 Numerous garden features, including probable planting holes and bedding trenches, were unearthed within and immediately outside the ornamental gardens.
- 7.5.8 The land to the north and east of the garden boundary walls probably remained farmland during this phase. Several boundary ditches and probable fence lines of 17th to late 18th century date were revealed, which probably functioned as field boundaries. Further work is required in order to refine the sub-phasing of these boundaries.
- 7.5.9 A later extension to the ornamental gardens, which cartographic sources suggest was created around 1725, was unearthed. The bricks used to construct this feature supported this formation date (Hayward, this report).

- 7.5.10 Ten pits containing articulated cattle skeletons were unearthed in the farmland to the immediate north of the garden boundary wall extension of Montagu House. The pottery from the fills generally suggested that these animals were deposited in the 17th century; only fills [1233] and [1340] contained pottery indicative of an 18th century date (Jarrett, this report). As the graves ran parallel with the garden boundary wall extension, created around 1725, it is likely that they post-date the creation of this and that the bulk of the pottery in their fills is residual. The cattle were not killed for their meat as they were fully articulated. It is therefore likely that they died of an infectious disease and were buried close to where they fell. Three stone hones were found in the backfill of cow burials [1178] and [1221] (Gaimster, this report). These objects were used to sharpen knives, tentatively suggesting that some or all of the cattle were deliberately slaughtered. If this was the case, it is possible that they were culled, perhaps as part of a Government organised attempt to control the rinderpest virus.
- 7.5.11 Montagu House was purchased by the government in 1754 and converted into Britain's first national museum. The grounds were used as a public park from this point onwards.

7.6 PHASE 4.1 TO 5.1: LATE 17th TO EARLY 19th CENTURY

7.6.1 A probable water cistern that may have been capped by a pump was found. The masonry used in its construction suggested that it was built between 1750 and 1800 (Hayward, this report). It was either located in farmland to the immediate north of the ornamental gardens of Montagu House or formed part of an early phase of the garden of 7 Bedford Square.

7.7 PHASE 5: LATE 18th TO 19th CENTURY (Including Bedford Square & Montague Place Sub-Phases 5.1 to 5.4)

- 7.7.1 The area surrounding Montagu House underwent urbanization in the late 18th and early 19th centuries. Bedford Square was constructed in 1780, followed shortly by Montague Place in the early 19th century. Evidence of late 18th century ground raising and leveling was found during the excavation, which probably constituted an episode of ground preparation, carried out in order to prime the area for this undertaking. Pre-existing field boundaries were infilled during this preparatory work, including the western end of the Civil War ditch, which was almost certainly still visible as a relatively shallow earthwork prior to this. This leveling episode most probably occurred between 1760 and 1780 as indicated by the diagnostic pottery assemblage (Jarrett, this report). The most likely date is therefore around 1780, immediately before Bedford Square was built.
- 7.7.2 An episode of opportunistic dumping also appears to have taken place at this time. This included dumped industrial debris that consisted of slag, a fragment of crucible and a strip of copper-alloy sheet waste as well as some bone button working waste and high status domestic material (Gaimster, this report; Jarrett, this report). The latter consisted of a large, high status assemblage of pottery (Jarrett, this report), a figurine of the Virgin and Child, two bone brushes, an ivory tooth brush, a pumice rubbing stone, a fragment of bird feeder, a fragment of lead window frame and a ceramic hair curler (Gaimster, this report). Most of these finds were dumped in pit [1560], the backfill of which largely consisted of artefacts mixed with a relatively small amount of sediment. The pottery assemblage suggested that this material was deposited between 1760 and 1770/80, presumably immediately before or during the construction of Bedford Square.
- 7.7.3 High status terrace houses were erected along the frontages of Bedford Square and Montague Place, the gardens of which backed onto the site. As a result, numerous garden features, including garden boundary walls, wells, outbuildings, paths, bedding trenches and planting holes were identified. The masonry garden features contained large proportions of post-great fire bricks, which were manufacture after 1750 (Hayward, this report). 18th and 19th century clay pipe, pottery and glass fragments, including flower pots and garden cloches, as well as domestic material, including some high status pottery, were found in many of the cut features (Jarrett, this report; Shepherd, this report).

7.7.4 The archaeology uncovered suggested that the gardens were redesigned and modified on numerous occasions throughout the late 18th and 19th centuries. The most significant of these redesigns was the enlargement of the garden of 6 Bedford Square, which incorporated a tract of land that became known as "Lord Eldon's Walk". Bricks used to construct its boundary walls suggested a post 1750 construction date (Hayward, this report). The gardens of the properties that fronted Montague Place were foreshortened in order to accommodate the extension.

7.8 PHASE 6: MID 19th TO EARLY 20th CENTURY

- 7.8.1 The British Museum buildings that still stand today were constructed in stages from 1820 onwards and numerous additions were made throughout the 19th and 20th centuries. Montagu House was demolished in 1842 and museum buildings were constructed in the northwest corner of its former garden throughout the mid to late 19th century. With the exception of numbers 1 and 2, the properties that fronted Montague Place were demolished at this time in order to make way for the growing museum.
- 7.8.2 The most important Phase 6 remains that were identified during the excavation were the foundations of the Bindery. This building was constructed in 1898 on the tract of land formerly occupied by the extension of the garden of 6 Bedford Square ("Lord Eldon's Walk"). Its below ground foundations incorporated the earlier 19th century northern and southern boundary walls of Lord Eldon's Walk, the most southerly of which consisted of a rebuild that sat on top of the late 17th century boundary wall of Montagu House.
- 7.8.3 Several masonry drains and metal pipes were found, which serviced the British Museum and the properties fronting Bedford Square. Machine pressed, yellow London stock bricks or Fletton bricks from Peterborough and Portland or brick cement were used to construct these features (Hayward, this report).

7.9 PHASE 7: MID 20th CENTURY

7.9.1 The Bindery was repaired, modified and extended in the mid 20th century. Forty-six fossilised post cranial elements of what were initially thought to be marine reptile bones of probable Triassic to Cretaceous age were found in the backfill of the footings of the extension. These are now thought to include the bones of one or more very large fossilised mammals. It is likely that they were deliberately discarded in this context. They may represent ecofacts that were left behind after the Natural History Collections moved to Kensington in 1880 to 1881 or could form part of an unwanted donation.

8 ARCHAEOLOGICAL SEQUENCE

8.1 PHASE 1: NATURAL

8.1.1 Introduction:

8.1.1.1 A deposit of brickearth sealing Lynch Hill gravel is thought to underlie the Bloomsbury area, as outlined in the Geology & Topography section of this document.

8.1.2 The Natural Deposits:

8.1.2.1 A layer of mid yellowish orange clayey silty gravel, overlain by mid brownish yellow clayey silt to silty clay, was found across the entire site. The silty clay was between 0.45m and over 0.75m thick, the top being at a maximum height of 23.59m OD in Area 3 and a minimum height of 22.40m OD in Trench F in Area 2/7. The thickness of the gravel remains unknown as the base was not reached during the excavation. The deposits presumably represent Pleistocene Lynch Hill terrace gravel overlain by brickearth.

8.2 PHASE 2: POST-MEDIEVAL (Figure 15)

8.2.1 Introduction:

8.2.1.1 As outlined in the historic background section of this document, it is thought that the site was situated in undeveloped countryside to the north of London, which was probably used as farmland. This interpretation was largely supported by the archaeology that was encountered.

8.2.2 Post-Medieval Features:

- 8.2.2.1 The heavily truncated remains of an early brick lined drain, [2267] / [2234], were unearthed in Area 4/5/6. It was orientated north northwest- south southeast and most probably ran into brick lined cistern [2236].
- 8.2.2.2 The vast majority of the bricks used to build cistern [2236] had been robbed at a later date, the surviving section being four to six courses deep. The surviving masonry, the top of which was found to be at a level of 21.39m OD, formed a semi-circular structure that had been truncated to the east and west. It was presumably originally circular, its conjectured diameter being 2.60m. The dimensions of a later rob cut suggested that it was originally about 3.00m deep.



- 8.2.2.3 The exact function of the brick drain and the cistern is uncertain, although a likely function could be a soakaway and water store. The former may have drained the area, which later historical accounts describe as boggy, whilst the latter could have stored the water for later use. Historic maps suggest that the site was situated in farmland in the Post-medieval period with no dwellings nearby. Perhaps the collected run-off could have been used to water livestock or to irrigate crops. Alternatively, the drain and cistern may be associated with an undiscovered abode that was located beyond the site boundary.
- 8.2.2.4 A curvilinear feature, [1082] / [1236], was found at the base of the sequence in Area 9/12. It was orientated roughly north-south and was 0.66m wide and 0.54m deep, the top being at a level of 23.15m OD. Finds recovered from the backfill indicated that it had fallen out of use and been in-filled in Post-medieval times. It was interpreted as a possible early field boundary.
- 8.2.2.5 A linear feature, [2266] / [2287] / [2284], on an approximate north northwest- south southeast alignment, was unearthed close to the base of the sequence in Area 4/5/6 and Area 3. It may also represent a boundary ditch that was filled in during the Post-medieval period. The ditch partially truncated the brick lined drain described above, demonstrating that it post-dates this feature.
- 8.2.2.6 Another possible boundary ditch, [1138], was found in the southeast corner of Area 9/12. The feature was 1.98m wide and 0.65m deep and was aligned northeast-southwest. Artefacts recovered from it suggest that it fell out of use and was backfilled at some point during the mid to late 17th century. It may form part of a Post-medieval field boundary that was filled in immediately before the garden boundary wall of Montagu House was constructed in order to prepare and level the ground before building work commenced.

8.3 PHASE 3: THE CIVIL WAR TO THE LATE 17th CENTURY (Figures 16 to 19)

8.3.1 Introduction:

8.3.1.1 The Virtue Map of 1739 (Figure 3) suggests that the outer ring of the Civil War defences, constructed between 1642 and 1643, crossed the site of the British Museum. The archaeological sequence unearthed during the excavation strongly supported this source.

8.3.2 The Civil War Features:

- 8.3.2.1 A substantial linear feature, group numbered [1527], was observed in the northern quarter of the site, crossing Areas 11 and 1/8/10 from the northeast to the southwest (Figure 16, Plate 1). It continued into Area 2/7, but could not be fully excavated in this location due to health and safety concerns caused by the depth of the feature and a lack of space to step the trenches safely. The ditch was 9.70m wide at the southwest end and 1.8m deep, where the top was observed at a level of 23.62m OD, narrowing to 3.90m at the eastern end, where the top was found at a height of 22.89m OD. It continued beyond the site boundary to the west and east, where it is probably truncated by the foundations of 5 Bedford Square to the west and the King Edward VII Gallery to the east. The southwest end had a gently sloped southern side that became much steeper towards the base (Figure 17, Section 113). This steep section closely resembled the northeast end of the ditch in size and profile being 3.70m to 4m wide. The narrower northeast portion lacked the gently sloped upper flanks that were present at the southwest end but did slope steeply to form a "V" shape at the base, which was observed along the entire length of the feature (Figure 17, Section 132; Figure 18, Sections 134, 136, 137 and 146). The material that was extracted from the ditch may have been used to construct a rampart, the remains of which were found to the immediate south (described in paragraph 8.3.2.9).
- 8.3.2.2 The southern side of the west central segment deviated from the rest of the ditch due to its irregular nature. Three indentations were observed in this location (Plate 2), which could have supported an above ground structure. Further research is required in order to determine if this is likely to have been the case.
- 8.3.2.3 A dark brown to mid yellowish brown clayey silt layer was observed in section below the probable rampart in Area 11 and Area 4/5/6 (Figure 17, Sections 116 and 120; Figure 19, Sections 147 and 153). It was between 0.32m and 0.14m thick and between 6m and 12m wide and ran the entire length of the site through Areas 11, 1/8/10 and 4/5/6, parallel with ditch [1527]. It was interpreted as a possible palaeoground surface. The top of the deposit was found to be at a level of 23.50m OD to 23.67m OD in Area 11 and 23.43m OD to 23.78m OD in Area 4/5/6. These levels suggest that the 17th century ground surface was peppered with numerous, shallow undulations that were at their most dramatic in the western end of Area 4/5/6. Whilst these depressions may be natural in origin, it seems more likely that they are the result of ploughing, wheel rutting or some other human activity that turbated the surface. The layer only survived below the remains of the rampart (described in paragraph 8.3.2.9) where it was presumably rapidly sealed and therefore preserved.
- 8.3.2.4 A layer of very dark greyish black carbon rich material (Plate 3) was found immediately above the palaeoground surface and below the rampart (Figure 19, Sections 153 and 159). It was discontinuous, surviving in isolated patches, and its thickness varied between 0.12m and 0.01m. It was composed of contexts [2358] in Area 11 and [2223] / [2241] in Area 4/5/6. A similar deposit in-filled a series of probable wheel ruts and a pothole in Areas 11 and 1/8/10 (group numbered [1213], [1645], [1965] and [2118], see Figure 16), so it is likely that an identical layer once existed below the rampart in this location. In the western end of Area 4/5/6, a thin layer of crushed brick rubble rather than burnt wood was found in the same stratigraphic position. This in-filled a series of substantial linear features that may also represent wheel ruts (group numbered [2160], see Figure 16; individual ruts that make up this group are shown in section in Figure 19, Section 147). These layers were found at a level of 23.61m OD to 23.34m OD in Area 4/5/6 and between 23.55m OD to 23.44m OD in Area 11.









Figure 19 Phase 3 Sections 1:40 at A3

- 8.3.2.5 The rubble and carbon rich layers were interpreted as temporary surfaces deposited by the builders of the Civil War defences in order to improve the clay rich ground upon which they were working. This idea is supported by the modern ground conditions that were present during the excavation. The site became waterlogged after bouts of rain and the wheels of full barrows had a tendency to sink into the natural ground, immobilising them. If the 17th century ground conditions were similar to those found today, the presence of a free draining, temporary surface would have made things easier for the builders of the Civil War defences.
- 8.3.2.6 The theory outlined above is supported by the presence of a series of thin, linear and curvilinear striations and small ovoid or semi-circular indentations that were in-filled with brick rubble or material that seemed to be identical to the carbon rich temporary surface. These features were pressed into the palaeoground surface and the underlying natural brickearth in Area 11, Area 1/8/10 and Area 4/5/6 (Plates 2 and 3). Each excavated indentation was given a unique context number in order to separate the finds; they were then group numbered for ease of reference. One context from each cluster of ruts was used as the group number in each area. These were [2160], [1645], [1965], [2118] and [2310] as shown in Figure 16. The linear striations were just a few centimeters wide, whilst the ovoid and semi-circular indentations were between 0.15m and 0.30m in length and up to 0.20m wide. Numerous larger ruts were found at the western end of Area 4/5/6, group numbered [2160], which were between 0.20m and 0.50m wide (Plate 3). These were infilled with brick rubble and clay rather than carbon rich material. The features ran up to the southern side of the ditch, which truncated some of them, but did not continue on the northern side. Artefacts indicative of an early to mid 17th century date were retrieved from the vast majority of these features; only [2159], the fill of rut [2160] (Figure 19, Section 147), contained a small amount of clay building material in the form of brick rubble that dated the feature to 1664 to 1750. It is possible that this material is intrusive, perhaps originating from the modern backfill of an evaluation trench that truncated the western side of the rut.
- 8.3.2.7 It is hypothesised that the marks described above were made when the Civil War ditch and rampart were constructed. They may represent wheel ruts, hoof marks and footprints that were made by barrows, carts, people and animals as the defences were dug. It is likely that the pressure exerted by these various agents pressed the temporary surfaces of brick and burnt wood into the underlying natural, creating the linear striations and ovoid indentations that were observed below the rampart. It is probable that the thin linear and curvilinear features that were filled with burnt wood were made by the wheels of barrows, whilst the larger, rubble-filled linear features were formed, at least in part, by larger pieces of equipment like carts. The larger ruts were exclusively filled with brick rubble, whilst the narrower features generally contained carbon rich material, although a small number did contain some finely crushed brick rubble. The most likely explanation for this discrepancy is that the larger, heavier carts required a relatively "heavy duty" temporary surface, such as brick rubble, to stop them sinking into the boggy ground, whilst lighter barrows could get by with a layer of sand-sized particles. The largest ruts found in Area 4/5/6, group numbered [2160], may have been created by repeatedly tracking vehicles backwards and forwards along the same approximate course, which would have gradually widened them.

- 8.3.2.8 The vast majority of the ruts and footprints were located on the southern side of the ditch (Figure 16). The most probable explanation for this is that the rampart and any other above ground defensive structures would have been positioned on the southern side. This makes sense from a strategic perspective; placing the ditch at the front of the Lines of Communication would make it harder for the enemy to penetrate them as the defenders would have the high ground, provided by the rampart and any other above ground structures on their rather than their attackers side of the defences. Building work would therefore be concentrated on the southern side of the ditch, which is probably why no temporary surfaces and so few ruts were found on the northern side.
- 8.3.2.9 Numerous overlapping layers of mid brownish yellow clayey gravel and mid brownish yellow to yellowish brown silty clay were unearthed to the immediate south of the Civil War ditch, which were interpreted as dumps of redeposited natural. In places, a 0.12m to 0.20m thick band of humic rich, dark brownish grey to greyish brown clayey silt, [1928] / [2185], survived, which was interpreted as a possible turf line that was stratified within the redeposited natural layers (Plate 3; Figure 18, Section 138 and Figure 19, Section 147). With the exception of layer [1946] (Figure 19, Section 153), which contained slightly later dating evidence as discussed in paragraph 8.3.2.12, artefacts indicative of a 17th or mid 17th century formation date were retrieved from the redeposited natural layers.
- 8.3.2.10 Together, these deposits are thought to represent the very base of the Civil War rampart. Five sections that ran across the width of the feature were recorded (Figure 17, Sections 116 and 120, Figure 18, Section 138, Figure 19, Sections 153 and 159) along with another sample section that ran along part of its length (Figure 19, Section 147). The latter clearly showed a turf line, [2185], stratified within the layers of redeposited natural.
- 8.3.2.11 The rampart was probably constructed from a combination of redeposited natural and turf as the latter would have added stability making the feature less susceptible to erosion whilst the former, which was less stable but readily available, could have been used to increase its size and height. The natural deposits that were extracted from the Civil War ditch as it was dug were probably used to build the rampart, whilst the turf could have been stripped from the farmland in which the feature was situated.
- 8.3.2.12 The vast majority of the rampart was most probably levelled at some point after the end of the Civil War, which is presumably why only a very thin section was found. This was between 0.10m and 0.42m thick and up to 14.12m wide, surviving to a maximum height of 23.95m OD. It ran the entire length of the site, parallel with ditch [1527], through Areas 3, 11, 1/8/10 and 4/5/6. The original width of the feature remains uncertain as it is hard to say whether it had been affected by erosion and creep. It is also possible that some of the supposed rampart has been misidentified, one possibility being that its supposed outer limits actually represent a trample layer created during its construction and / or demolition. For example, redeposited clay layer [1968] in Area 4/5/6 may represent a layer of trample as it was a mere 0.10m thick and contained very frequent inclusions of burnt material, which may derive from the underlying temporary surface [2223]. Similarly, layer [1946] contained clay pipe fragments that dated to 1664 to 1750, which suggests that it could have been disturbed or deposited at a later date. This could have occurred during a late 17th century landscaping episode that included the slighting of the defences, resulting in the deposition of later dump layers [2152] and [2211] in Areas 4/5/6 and 2/7.

Figure 17 Civil war - sections 113, 116, 120 and 130.

- 8.3.2.13 As the rampart was deposited, it would have rapidly sealed the wheel ruts, footprints and hoof marks that had just been made, hours, minutes or even seconds before. This may explain why so many of these ephemeral features survived.
- 8.3.2.14 With the exception of the very base, the material used to construct the rampart was probably dumped back into the Civil War ditch after these features fell out of use as the lower fills of this predominantly consisted of redeposited natural. Occasional pottery fragments were found in the backfill, which suggested that this section of the Civil War defenses was levelled in the mid 17th century. This may have formed part of a general landscaping episode dated to a slightly later period, the late 17th century, that resulted in the deposition of levelling layers [2152], [2211] and perhaps [1946]. These deposits were no more than 0.24m thick and were probably dumped in order to flatten the ground in Areas 4/5/6 and 2/7 rather than to significantly raise it.
- 8.3.2.15 The mid to late 17th century fills in the western end of the Civil War ditch subsided after they were deposited to a maximum depth of 1.14m below the 17th century ground surface. The finds that were recovered from the upper-most fills demonstrated that the final phase of backfilling did not occur until the late 18th century, which suggests that the feature was visible as an earthwork for some time after it fell out of use. This may explain why the Virtue map, which was supposedly created during an early to mid 18th century survey of the Lines of Communication, could be used to successfully predict their location in this instance.
- 8.3.2.16 This interpretation is supported by the nature of [1539], [1926], [2006] and [2154], the uppermost 17th century fills in the Civil War ditch. These deposits were dark grey in colour and appeared to have a relatively high organic content in their upper levels. They may represent a mid 17th to 18th century buried soil, indicative of a stable horizon that could only have formed if the ditch remained partially open for some time.

Plate 1: The Civil War Ditch [1527]

Above: Civil war ditch [1527]. Photograph Faces Southwest. Below: Civil War ditch [1527]. Photograph Faces Northeast





Plate 2: Potentially structural elements in the side of the Civil War ditch

Above: Photograph faces southwest. Also note the dark black striations that may represent barrow ruts filled with burnt wood to the south of the ditch. Below: The same collection of features, facing south





Plate 3: The 17th century temporary surfaces and the wheel ruts sealed by the possible rampart, composed of redeposited natural and turf.



Above left: The remains of the Civil War rampart in section in Area 1/8/10. The dark band may be a possible turf line. Photograph faces west. Above centre: The temporary burnt wood surface sealed by redeposited natural gravel and brickearth in the western end of Area 4/5/6. Photograph faces east. Above right: Burnt wood filled wheel ruts in Area 1/8/10, stratified below the possible rampart (shown in section in the background). Photograph faces southwest. Below left: Wheel ruts in Area 1/8/10 filled with carbon rich material. Photograph faces southwest. Below centre left: Barrow ruts in the eastern end of Area 4/5/6 filled with carbon rich material. Photograph faces south. Below centre right: Brick filled cart ruts in the western end of Area 4/5/6. Photograph faces southeast. Below left: Poaching in the central section of Area 4/5/6



8.4 PHASE 3-4: MID 17th TO EARLY 18th CENTURY (Figure 16)

8.4.1 Introduction:

8.4.1.1 Phase 3-4 contains a series of features that cannot be placed within Phase 3 or Phase 4 with absolute certainty. The dating evidence, the stratigraphy encountered and the wider contexts of these features will be reassessed at the analysis and publication stage in an attempt to refine the phasing.

8.4.2 Mid 17th to Early 18th Century Features:

- 8.4.2.1 A series of probable cart ruts, group numbered [1893], were found in the northern section of Area 1/8/10 and Trench E in Area 2/7 (Figure 16), which cut into the natural brickearth. They were orientated east-west and were between 0.13m and 0.80m wide. It is thought that the ruts may indicate the presence of a trackway which ran through an area of farmland. The distribution of the ruts, which were closely packed, suggests that this track was at least 4.5m wide. No road is shown in this location on the earliest known detailed map of the area dated 1664-5 (Figure 4) or on any later maps. Consequently, the track may represent an informal or temporary way, perhaps created and used by those that farmed the land.
- 8.4.2.2 An alternative hypothesis is that the ruts were formed when the Civil War defences were dug. This seems less likely as some of the pottery fragments recovered from them suggested a late 17th century to early 18th century formation date, which is a little late for the Civil War period. Another alternative is that a crossing point was located along the line of the ditch, either when it was in use as a defensive feature or after it had been partially backfilled (as previously stated the feature remained visible as an earthwork until the 18th century). If the line of the ruts is projected across the site, they would meet the ditch at its narrowest point, supporting this hypothesis.

8.5 PHASE 4: LATE 17th CENTURY TO LATE 18th CENTURY (Figures 17 and 20 to 24)

8.5.1 Introduction:

- 8.5.1.1 Historical evidence suggests that a stately home, known as Montagu House, was constructed to the south of the site in the current location of the colonnaded forecourt of the British Museum between 1675 and 1679. Cartographic evidence indicates that the northwest corner of the ornamental gardens of this property extended into the excavation area (Figure 5). The archaeology uncovered supported these historical sources.
- 8.5.1.2 Montagu House was sold to the government and turned into the country's first national museum in 1754 and its grounds were used as a public park.