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**Fieldwork Report: Evaluation of Service Trench
Excavations within the Kenwood House Estate**

Dave Fellows

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Fieldwork Report: Evaluation of Service Trench Excavations within the Kenwood House Estate

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Summary

Kenwood House is a Grade I listed house set within an estate at the northern edge of Hampstead Heath in the north London borough of Camden.

The original 17th century house was remodelled by Robert and James Adam for the 1st Earl of Mansfield between 1764 and 1779. Alterations to the house and estate were carried out for the 2nd Earl of Mansfield between 1793 and 1797 by the architect George Saunders and the landscape architect Humphry Repton. Numerous further minor alterations were carried out between 1811 and 1840 by William Atkinson for the 3rd Earl of Mansfield.

During February and March 1998 and in May 2001 service-trenching work was undertaken in the vicinity of the house, and archaeological watching briefs of the works were carried out by the Centre for Archaeology of English Heritage. This report details the findings of both of these phases of excavation.

Keywords

Excavation
Gardens, Parks and Urban
Landscape Park
Post Medieval
Watching Brief

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Contents	<u>Page</u>
Contents	1
List of Figures	2
Summary	3
1. Introduction and Statutory Designation	4
1.1 Location	4
1.2 Cause for action	4
2. Brief History of Kenwood	4
3. Aims and Objectives	5
3.1 - 3.7 Objectives identified	5
4. Methodology	6
5. Fieldwork Results	6
5.1 Trench 1	7
5.2 Trench 2	8
5.3 Trench 3	9
5.4 Trench 4	9
5.5 Trench 5	10
6. Conclusions	13
7. Recommendations for Future Work	15
8. Dissemination	15
9. Bibliography	16
Acknowledgements	16
Appendix 1 The Archive	17
Table 1 List of Context Records Completed	18

List of Figures

- Figure 1 Location plan of Kenwood House
- Figure 2 Plan of the Grounds at Kenwood by Pritchard, 1793
- Figure 3 Plan of Estate and House prior to remodelling to Humphry Repton's designs, taken from Repton's Red Book of Kenwood, 1793.
- Figure 4 Plan from 1793 superimposed on the overall Kenwood plan highlighting features located
- Figure 5 Plan showing the location of the excavated features
- Figure 6 Photograph showing context 101, one of the 3 brick structures seen in trench 1
- Figure 7 Photograph of brick structure 101 with insertion cut (102) in base of trench
- Figure 8 Trench 1 - Remains of 18th-century stable block wall
- Figure 9 Trench 3 - View of ancient boundary bank and ditch to the east of the house
- Figure 10 Trench 4 - 18th-century garden wall with edge of flowerbed visible in base of trench
- Figure 11 Trench 4 - Part of flowerbed in the trench to the west of the house, possibly the end of a crescent shaped bed
- Figure 12 Photograph showing one of the 3 brick manholes\inspection shafts capped with Portland Limestone slabs
- Figure 13 Plan of Kenwood House, Offices and adjoining Grounds with drain lines marked on, attributed to Pritchard, 1797
- Figure 14 Trench 5 - Remains of tile drain base and land drain across Half-Moon Lawn
- Figure 15 North front of Kenwood by James Heath after Conrad Metz, 1788
- Figure 16 Trench 5 - South-east facing section of trench showing the brick walls
- Figure 17 Trench 5 - Plan of Half-Moon Lawn trench
- Figure 18 Trench 5 - Estate boundary wall (early 18th century) with earlier truncated wall
- Figure 19 Trench 5 - 18th-century estate boundary wall with brickwork of gatepost
- Figure 20 Stratigraphic site matrix

Summary

Kenwood House, a late 18th-century and early 19th-century neo-classical remodelling of an early 17th-century house, is located in the north London borough of Camden, and was a private residence until 1925. Following moves to split the estate into plots for building land, it was bought by Edward Cecil Guinness, 1st Earl of Iveagh, who bequeathed the house and contents to the nation on his death in 1927. In 1986 English Heritage became the Administrative Trustee of the Iveagh Bequest.

The original house was remodelled by Robert and James Adam for the 1st Earl of Mansfield between 1764 and 1779. Alterations to the house and estate were carried out for the 2nd Earl of Mansfield between 1793 and 1797 by the architect George Saunders and the landscape architect Humphry Repton. Numerous further minor alterations were carried out between 1811 and 1840 by William Atkinson for the 3rd Earl of Mansfield.

During February and March 1998 service trenching work was undertaken in the vicinity of the house, and following a request from Historic Properties London Region, an archaeological watching brief of the works was carried out by the Central Archaeology Service (now the Centre for Archaeology) of English Heritage. Further service trenching was undertaken in May 2001, and the Centre for Archaeology carried out the watching brief on these. The following report details the findings of both of these phases of excavation.

The excavations revealed the survival in very good condition of many features of historical and archaeological importance known from documentary evidence. These were most numerous nearer to the house, and include walls and drainage structures from the 17th to 19th centuries, along with garden features and part of the formal flower bed layout to the west of the house dating from the re-landscaping of the estate in the late 18th century. By referring to the historical evidence, it was possible to establish the identity of the walls located, such as the former kitchen garden retaining wall along the terrace to the west of the house and the courtyard boundary wall to the north of the house, and to compile an accurate plan of the excavated features. The excavations also revealed part of the surviving remains of the 18th-century stable block to the north-west of the house.

It is hoped that any future groundworks on the estate incorporate archaeological monitoring as the excavations have shown the excellent survival levels and the high potential for retrieval of information from the earlier structures and garden features.

1. Introduction and Statutory Designation

1.1 Location

Kenwood House is situated at the northern edge of Hampstead Heath in north London, NGR TQ 271874 (OS sheet 176), at approximately 110m OD (*see figure 1*). The estate of Kenwood encompasses 112 acres of managed parkland and woodland.

The geology of the Heath and the Estate consists of the Bagshot Beds (30 feet of sand) overlying the Claygate Beds (100 feet of sand and loam), which in turn overlie the London Clay.

Kenwood House received a Grade I listing in May 1974. The parkland, lakes and woodland of the Kenwood Estate received a Grade II* listing in October 1987 in the English Heritage Register of Parks and Gardens of Special Historic Interest.

1.2 Cause for action

A watching brief monitoring the excavation of service trenches was undertaken at Kenwood House, Hampstead, following a request from Historic Properties London Region. Work on site was carried out by the Central Archaeology Service (now the Centre for Archaeology, CfA) of English Heritage during February and March 1998, with a further phase of work carried out in May 2001.

2. Brief History of Kenwood House

The original house at Kenwood was built in c. 1616 by John Bill, the King's Printer, and was rebuilt in the late 17th century, probably by William Bridges, Surveyor General of the Ordnance.

In 1754 the house was bought by William Murray, 1st Earl of Mansfield (1705-93), for whom Robert and James Adam added the library wing and the portico and remodelled the south front and Orangery between 1764 and 1779.

On Lord Mansfield's death in 1793, the estate was inherited by his nephew David Murray, 2nd Earl of Mansfield (1727-96). The 2nd Earl, during his short tenure, implemented an extensive phase of construction and remodelling of the house and estate, employing the architect George Saunders and the landscape architect Humphry Repton.

The layout of the estate prior to the 2nd Earl's remodelling works can be seen on *figures 2 and 3*, reproduced plans of the estate dating from 1793. To the north of the house there were three walled courtyards – the central court or Fore Court at the front of the house, a service courtyard with stables to the north west of the house, and a courtyard containing a menagerie to the north east of the house. Each of these opened onto Hampstead Lane. Repton's proposals lead to Hampstead Lane being diverted to the north, allowing the house to open onto a lawned area following the demolition of the walled courtyards (the Half Moon Lawn). New sweeping carriageways were constructed leading from Hampstead Lane to the front of

the house via the East and West Lodges, and the Kitchen Garden to the west was converted into a formal flower garden.

Kenwood House and estate remained in the Mansfield family until 1925. The Trustees of the Iveagh Bequest, following the wishes of Edward Cecil Guinness, 1st Earl of Iveagh (1847-1927) to leave the house to the Nation, opened the house to the public in 1928. In 1986 English Heritage became the Administrative Trustee of the Iveagh Bequest.

3. Aims and Objectives

The following aims and objectives are derived in part from an archaeological brief prepared by Juliet West, the Project Development Manager for Historic Properties London Region, prior to the works commencing on site.

Aim:-

Prior to these works, there had been very little archaeological excavation on the Kenwood Estate, and the monitoring of the service trenches gave an opportunity to assess the nature and survival of the archaeological deposits (West J, 1998).

Objectives:-

The following were the primary objectives identified.

3.1 To establish the level of survival and preservation of archaeological deposits in the vicinity of the House and around the Kenwood Estate.

3.2 To enhance information on the survival and plan of the brick service wing to the north-west of the house that was demolished at the end of the 18th century.

3.3 To establish the levels of survival of the courtyard and courtyard boundary walls to the north of the house.

3.4 To plan and record the historic brick drainage system around the estate.

3.5 To establish whether the terrace to the south of the house is constructed of made ground or whether it is a modification of the natural topography.

3.6 To evaluate the nature of the upper fills of the eastern boundary ditch, part of an extensive arrangement of banks and ditches around the estate believed in places to be of pre-Conquest date.

3.7 To identify whether any features survive from the late 18th-century formal garden laid out to the west of the house.

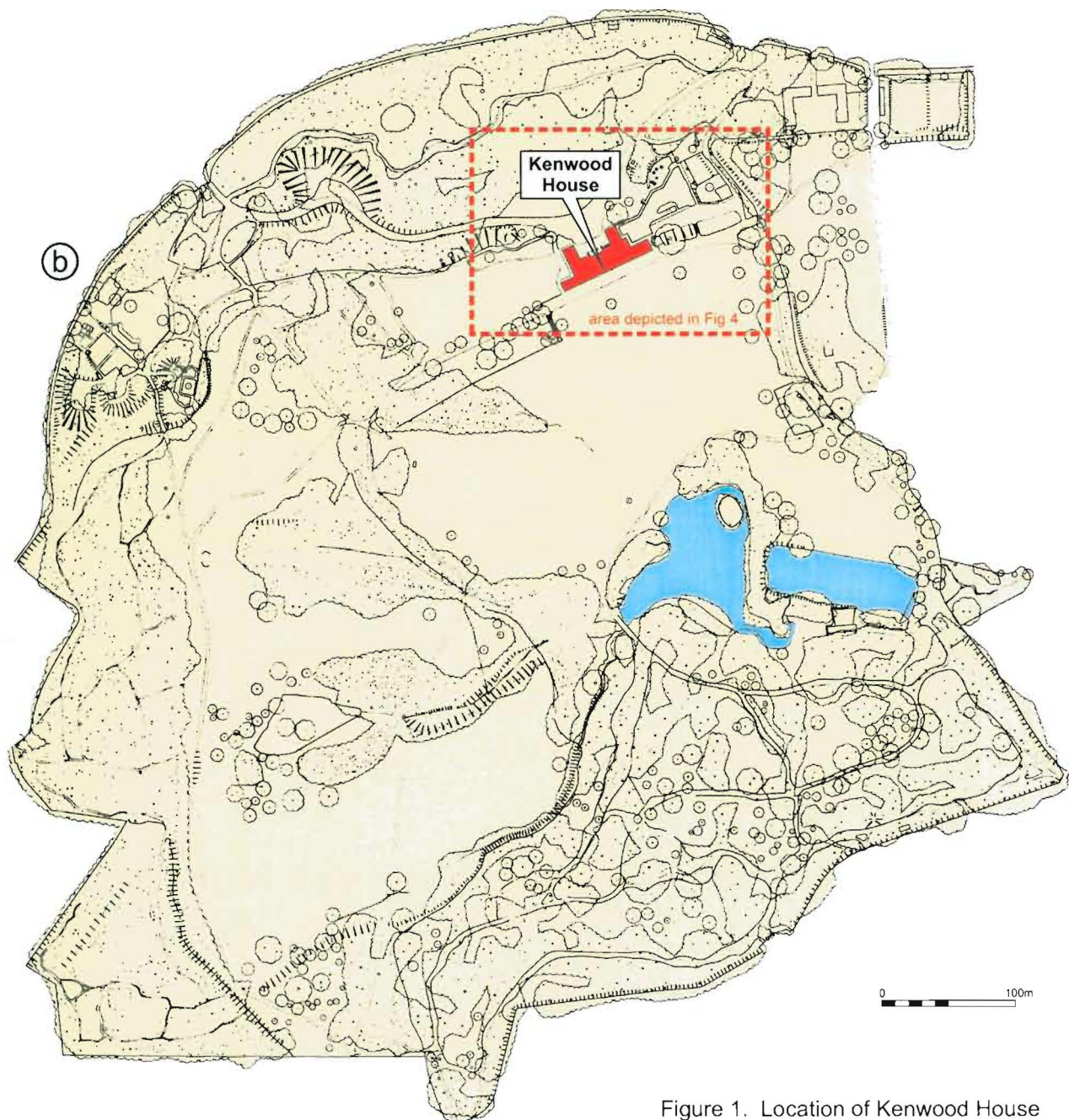
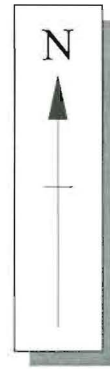


Figure 1. Location of Kenwood House
(a) relative to London
(b) relative to Kenwood Estate

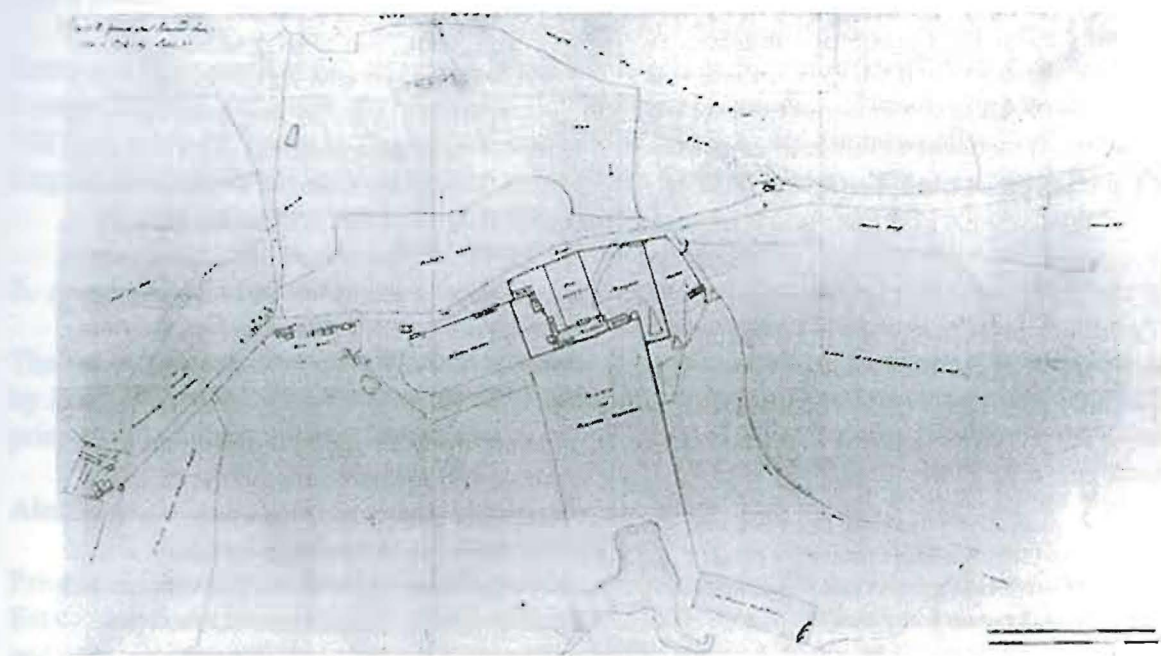


Figure 2. Plan of the Grounds at Kenwood by Pritchard, 1793 (taken from Bryant and Colson, 1990)

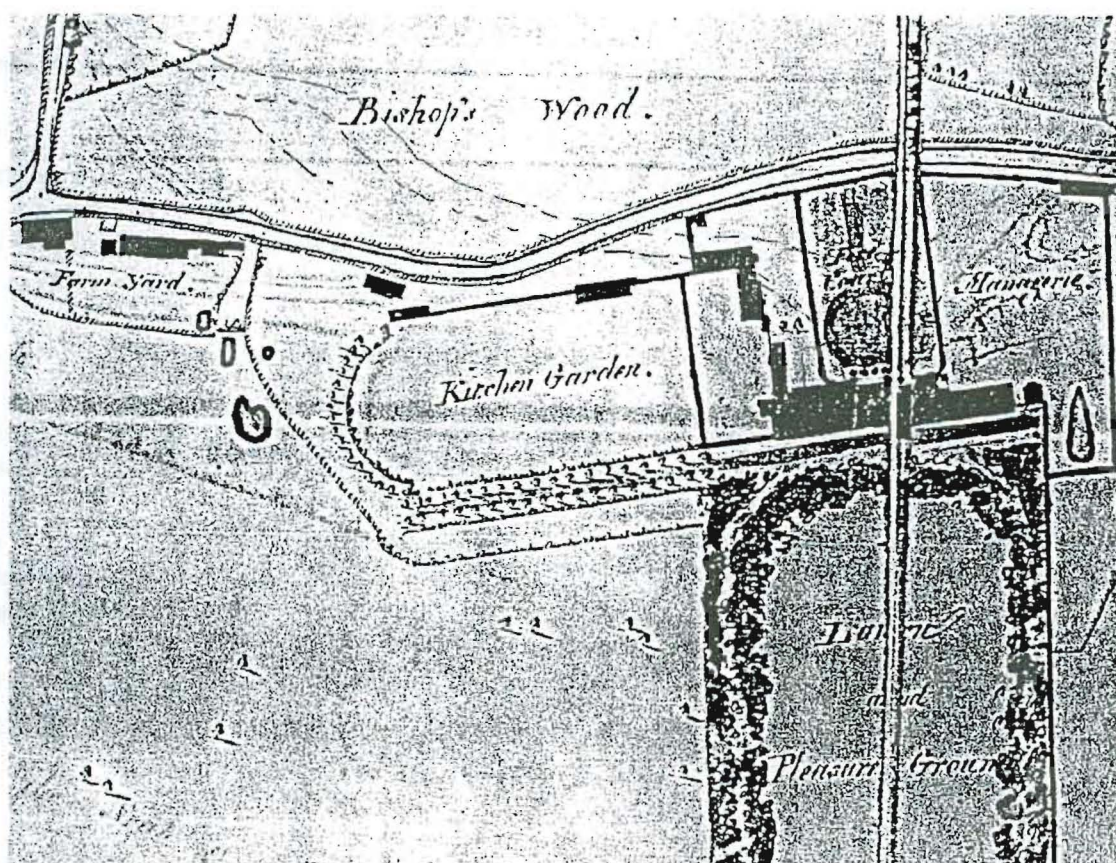


Figure 3. Plan of estate and house prior to remodelling to Humphry Repton's designs (taken from Repton's Red Book of Kenwood, 1793)

4. Methodology

The service trenches were excavated by the contractors using a Kubota mechanical excavator, and the excavations were monitored by the CfA on-site archaeologist. The trenches were approximately 0.60m wide and 0.50m deep, and had rectangular cross sections. Where structures and features of archaeological and historical importance were encountered, machining was halted to enable a suitable record of the exposed features to be completed, and the excavation was continued by hand. Wherever possible, features were retained in-situ, and this was generally achieved by agreeing minor alterations to the planned routes of the trenches. Where this was not possible, it was ensured that damage to the historic structures was kept to a minimum.

Prior to the installation of the services and the backfilling of the trenches, the brick features were covered and protected with a heavy-duty permeable membrane and a marker layer of sand.

A contextual record of the archaeological deposits was compiled following the guidelines and procedures detailed in the CfA Recording Manual (CfA, 1998), and this was augmented with photographic and drawn records. The use of a total station theodolite established accurate plan location of the walls and other features recorded during the excavations, and these have been tied in to the grid used in the existing topographic survey.

Following the completion of the site work, a digital record of the plan information was created using the AutoCAD (release 14) drafting package, and this information will be deposited in the Historic Plans Room in Swindon and will be available to inform any future works on site.

5. Results

For the purpose of this report, the orientation of the house has been simplified to align with the cardinal axes. The true orientation of the long axis is ENE-WSW, but to avoid complication this has been taken to be E-W. All descriptive orientations are relative to these simplified axes.

*Context numbers referred to in the course of the text relate to features revealed by the excavations, and the locations of these are shown on **figures 4 and 5**.*

Following work on site, the 18th-century plans of the estate were digitised and superimposed on the digitally held copy of the current estate plan (*see **figure 4**, which also shows the locations where the early walls were located*). The plans used to create this overall plan include the plan of 'The Grounds about Kenwood House' by Pritchard, 1793 (reproduced as **figure 2**), and the plan showing the estate as existing in 1793, from Humphry Repton's Red Book of Kenwood (reproduced as **figure 3**)

The descriptions of the results from the excavations are most logically dealt with in five sections relating to the locations of the trenches. A plan showing the position of the trenches will be available on application to Historic Properties London Region.

Trench 1: To the north-west of the house.

Trench 2: To the north-east of the house.

Trench 3: To the east of the house.

Trench 4: To the west of the house.

Trench 5: Across the Half-Moon Lawn

5.1 Trench 1: To the north-west of the house.

As this service trench was located along the edge of the road, the stratigraphy revealed in the northern section (in line with the edge of the road surface) was different to that revealed in the southern section (to the south of the road surface).

In the northern section, it could be seen that the gravel road surface overlaid up to 0.30m of brick hardcore, and this in turn was laid upon a layer of compacted grey and mottled brown clay. The stratigraphy of the southern section of the trench showed a c.0.20m deep layer of mixed humus rich topsoil overlying a yellow sandy clay - a layer that was seen in most of the excavated trenches, and thought to be the natural or disturbed natural subsoil of the site (the upper levels of the Bagshot Beds).

Three brick built structures of similar form were seen in the southern section of the trench. Each of the structures were 0.60m wide and were constructed of handmade red bricks measuring 0.22 x 0.11 x 0.06m (8¾ x 4½ x 2½ inches), with the easternmost capped by an iron plate. The faces exposed by the excavation were finished faces and the foundation trench cuts through the sandy clay were recorded (see *figures 6 and 7*).

The function of these structures is unclear. Their location in close proximity to the driveway suggests they were associated with it, and the nature of the brickwork suggests an early (pre-19th century) date. It is possible they formed the bases of gateposts or features alongside the driveway and may date from its original construction in the late 18th century by the 2nd Earl of Mansfield.

Each of the three structures was visible in the section of the service trench. It is possible that further structures of this nature survive along the sides of the driveway, although during this phase of work they remained undisturbed.

As the trench neared the house the deposits became more disturbed. This was partly due to the installation of services (cables and drain pipes) along the side of the driveway, but was also due to the presence of the buried remains of a demolished building. Two parallel brick walls, contexts 116 & 117, were revealed running north-south across the trench. They were 0.33m wide, constructed of soft red hand-made bricks laid in English Bond, and were positioned 1.95m apart (see *figures 5 and 8*).

The walls had been demolished prior to the construction of the driveway in the late 18th century, and they occupy the position of the 18th-century stable block. The location is shown

on the 1793 survey of the house and grounds undertaken by Pritchard prior to the Humphry Repton alterations (Bryant & Colson, 1990).

The 1793 Pritchard survey of the estate (see *figure 2*) shows a range of kitchen offices located to the north-west of the house, between the Orangery and the previously mentioned 18th-century stable block. These were demolished by George Saunders in the late 18th century to enable the addition of the north-west wing to the house. Fortunately the kitchen complex remained undisturbed by the service trench excavations to the north and west, and it seems likely that the wall foundations of the complex will have survived below ground (*figure 4*).

5.2 Trench 2: To the north-east of the house.

The service trench excavation to the north-east of the house revealed several brick structures, and the locations of the excavated wall footings can be seen on *figure 5*.

At the edge of the paved court to the north of the portico, the face of the retaining wall of the existing 18th-century brick-vaulted cellar range was revealed.

As the trench passed outside the late 18th-century north-east wing of the house, the surviving courses of two parallel brick walls were exposed. The position of the easternmost of these, wall 118, located centrally to the extant north-east wing, suggests this was the retaining wall of the courtyard, the Fore Court or Great Court, from the pre-Adam works (pre-1764).

The wall was constructed of red bricks, 0.22 x 0.10 x 0.06m (8¾ x 4 x 2½ inches) in size, laid in English bond with a friable yellowish brown mortar. It measured 0.60m wide and a stepped foundation was revealed along its western face.

The wall parallel and to the west of this courtyard boundary wall, wall 119, was of similar construction using similar materials, but was less substantial (0.49m wide). It was in alignment with the western edge of the north-east wing, designed in the late 18th century by George Saunders, although the function of the wall is currently unclear. It was possibly part of the courtyard arrangement, although there is no documentary evidence to confirm this.

Further to the east, the trench through the garden revealed disturbed soil horizons, with the mixed topsoil extending down to a depth of up to 0.35m, overlying a dark yellowish brown silty layer that contained gravel and fragmentary brick inclusions.

A northwest-southeast aligned ceramic drain, circular in cross section and measuring 0.25m in diameter, was seen in the base of the trench falling to the south-east towards a well.

The poorly preserved remains of another brick wall, wall 110, of similar form to the courtyard retaining wall were revealed to the north-east of the kitchen offices. The location suggests this was either the boundary wall of the 18th-century menagerie to the north-east of the house, (*figure 4*), shown on a view of the north-east side of the house in Humphry Repton's Red Book of Kenwood, or part of the building located in the north-eastern corner of the menagerie.

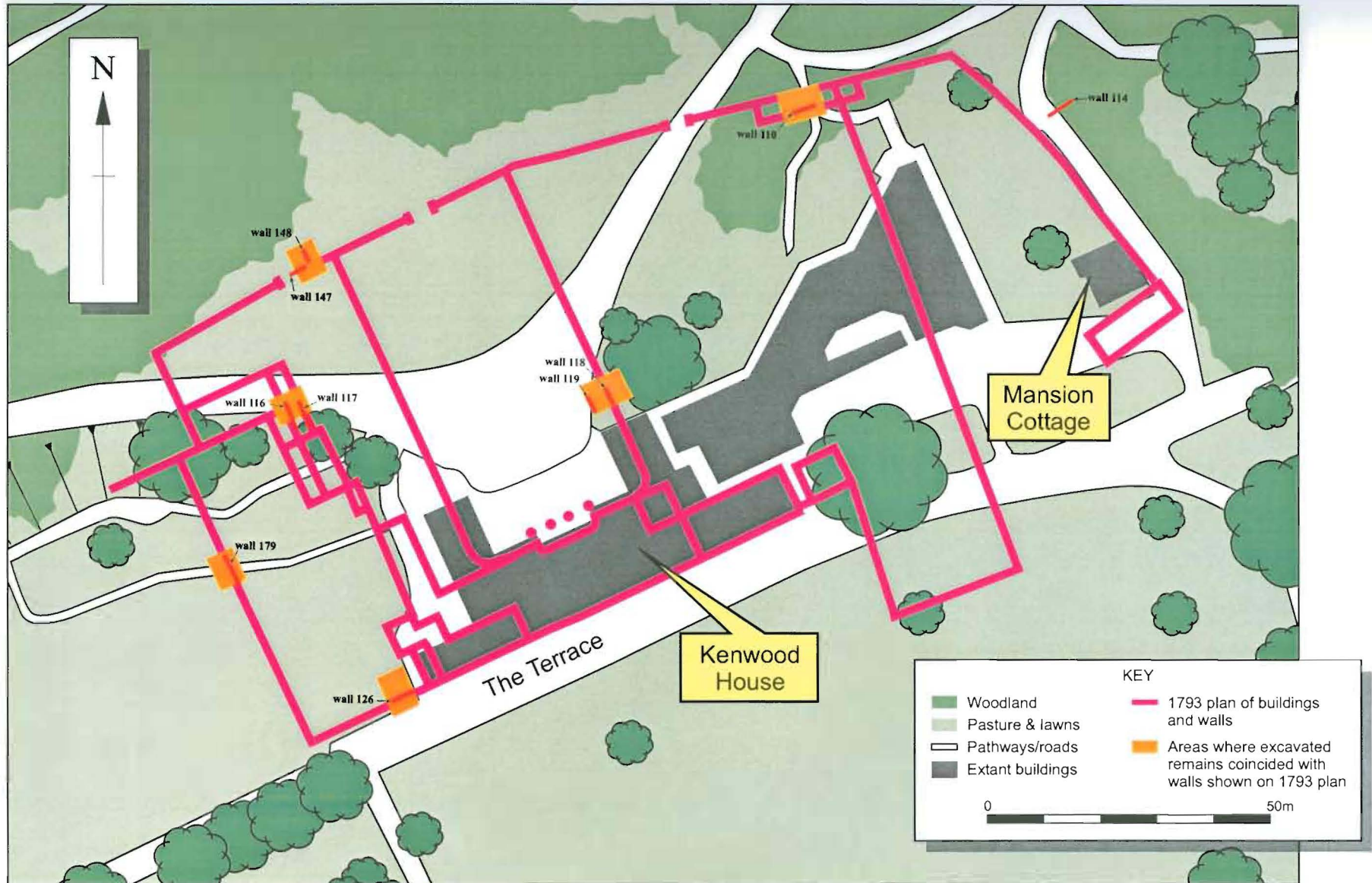


Figure 4. Plan of 1793 superimposed on the modern Kenwood plan, with located features highlighted.



Figure 6. Photograph of context 101 - one of the three brick structures seen in the excavations along the side of the road in trench 1 to the north-west of the house



Figure 7. Photograph showing brick structure (context 101) highlighting insertion cut (context 102) in the base of the trench

scale bar = 0.5m

5.3 Trench 3: To the east of the house.

Features revealed by this trench included two rectangular brick sumps, two arched brick culverts and a brick wall.

The two culverts, contexts 111 & 115, ran parallel to each other and 7.25 m apart, and were aligned northwest-southeast. They were of similar form and construction, with red brick stretchers forming the channel over a tile base, and they measured 0.38m wide and 0.26m high.

The wall in this trench, context 114, was of similar construction to the other garden walls found during the excavations. It was 0.60m wide sitting above more substantial (0.80m wide) mortared foundations. The bricks used were hand-made red bricks bonded with a friable brownish yellow lime mortar, and the wall was aligned east-west. It is thought to be of 18th century date and a structure in approximately this location is shown on the plans from 1793.

Excavations into the fills of the ancient boundary ditch (*figure 9*) revealed up to 0.45m of root-disturbed topsoil overlying at least 0.25m of a mixed dark yellowish brown loose silty sand layer with gravel inclusions that contained fragments of brick and tile. The presence of these ceramic building materials suggests that if any medieval deposits survive, they are below the level of the service trench excavations.

5.4 Trench 4: To the west of the house.

Two trenches were excavated in the area to the west of the house, one aligned north-south, the other aligned east-west.

It was known from historic plans that this area to the west of the house, the flower garden, had consisted of a formal arrangement of crescent shaped beds possibly designed by Humphry Repton between 1793-97 (shown on plans of Kenwood Estate by Pritchard in 1797, and by J.C. Loudon in 1838 in Bryant & Colson, 1990).

The service trench excavations revealed the location of several beds that may have originally formed part of this formal layout. In the north-south aligned service trench these included what appeared to be two of the triangular-shaped ends of the crescents (*figure 11*). The soils from the beds were readily distinguishable from the surrounding soils as they had a higher humus content, and were consequently a darker colour. In the east-west aligned trench several intercutting flowerbeds were recorded. These included an east-west aligned bed that was 7.2m long that could have been one of the elongated flowerbeds located along the northern side of the flower garden, attributed to Humphry Repton and shown on the Plan of Kenwood Estate by J.C. Loudon in 1838 (Bryant and Colson, 1990). The flower garden survived until the mid-1960s, and this long period of continued use incorporating variations in the layout of the formal bed design explains the differences and the intercutting nature of the beds encountered during excavation.

In the north-south aligned service trench, a 0.60m wide brick wall, context 126, was uncovered directly to the north of the gravel terrace and in alignment with the south front of the house. This wall was constructed of red bricks similar to those seen elsewhere on site, and appears to have been a boundary wall for an early garden. The Pritchard plan of 1793 shows

Scale bar = 0.5m



Figure 8. Trench 1, remains of 18th century stable block wall looking northwest



Figure 9. Trench 3, view of ancient boundary bank and ditch to the east of the house looking southeast

the southern Kitchen Garden wall, dating from the building works earlier in the 18th century, to be in approximately this position (see *figures 4 and 10*).

A further brick wall of similar construction was uncovered in the east-west aligned service trench (wall 179). It was constructed of hand-made red bricks laid in English Bond with a badly decomposed bonding mortar. Four courses were exposed for a length of 0.6m, and the wall was 0.50m wide. This wall was aligned north-south and originally formed the eastern wall of the 18th-century kitchen garden. Like the wall described above (wall 126), this wall was dismantled when the grounds were re-ordered and the flower garden created to Humphry Repton's designs in the late 18th century.

Several drainage structures were seen during these excavations. In the east-west aligned trench, there was the tile base of a disused drain (context 180) running parallel to and two metres to the west of the kitchen garden eastern boundary wall (context 179).

Also revealed was an arched brick culvert (context 125) running northwest-southeast across the trench that was of almost identical nature to those seen in the excavations in trench 3 to the east of the house.

Three similar large squared brick structures capped with Portland limestone slabs were excavated to the west of the house (for location, see *figure 5*). One was encountered in the excavation across the flower garden (context 127 – shown on the photograph reproduced on *figure 12*). The second was seen in the section of the trench at the upper end of the terrace slope (context 137), with the final structure located in the same trench at the bottom of the slope (context 134). These appear to follow the alignment of drains shown on the 1797 survey (reproduced as *figure 13*). The limestone slabs capping the brick structures suggest that they were manholes or inspection shafts to the array of brick vaulted drainage channels and structures that lie below the terrace.

The disturbed nature of the soils seen in the excavation down the terrace slope indicate that the levels have been built up rather than incorporate an existing natural terrace or slope, although at the lower end of the terrace, where encountering the pre-terrace levels would have been more likely, there was much disturbance associated with the insertion of the inspection shaft.

5.5 Trench 5: Across the Half-Moon Lawn

This trench ran in a near northerly direction across the Half-Moon Lawn from the carriageway to the woodland to the north-west of the house.

There have obviously been problems with the drainage on the Estate for a long while, and drainage features were the most common type of archaeological feature encountered at Kenwood. The landscaping alterations in the late 18th century incorporated a system of brick drainage culverts with tile bases, with the lines of the major drains and cess pits shown on the 1797 Pritchard survey (see *figure 13*).

During the excavations across the Half-Moon Lawn, two of the different types of drain used were encountered. Towards the southern end of the trench, the remains of the tile base of a north-south aligned drain was excavated and recorded (context 143). Running alongside this

scale bar = 0.5m



Figure 12. Photograph showing one of the three brick manholes/inspection shafts capped with Portland limestone slabs (context 127 - see figure 5)

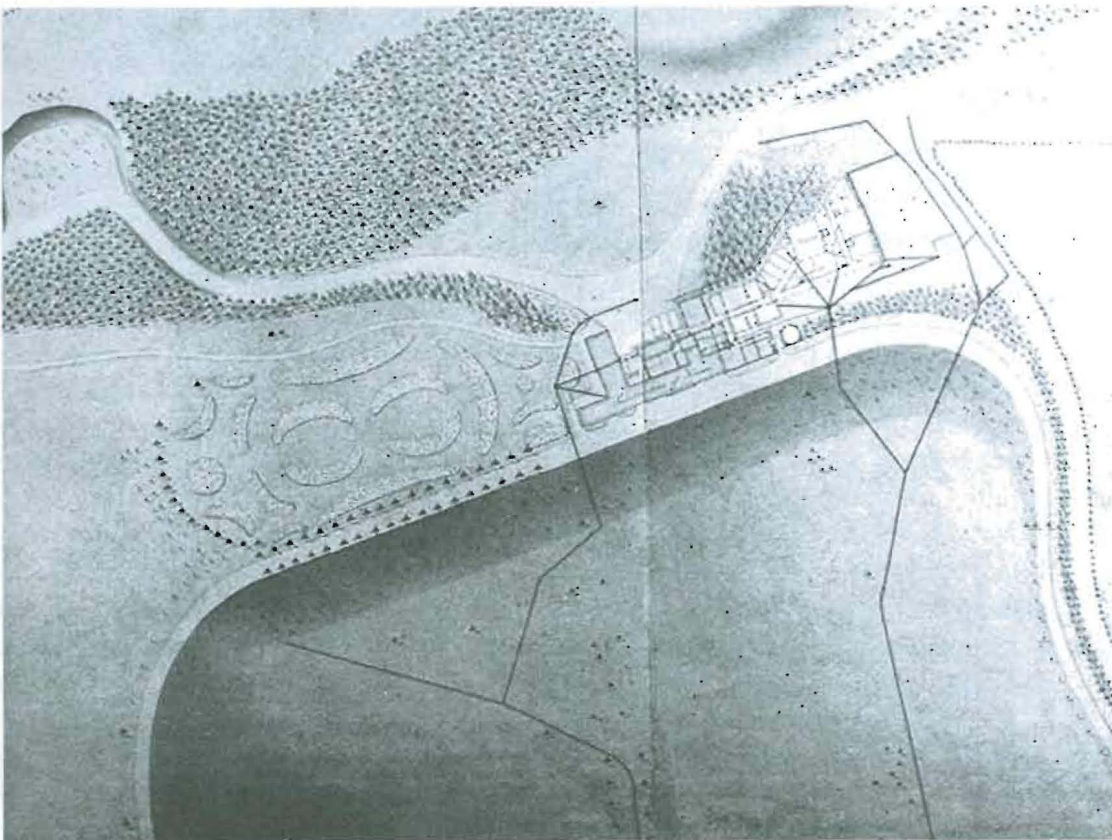


Figure 13. Plan of Kenwood House, Offices and adjoining Grounds with drainage lines marked, attributed to Pritchard, 1797 (taken from Bryant and Colson, 1990)

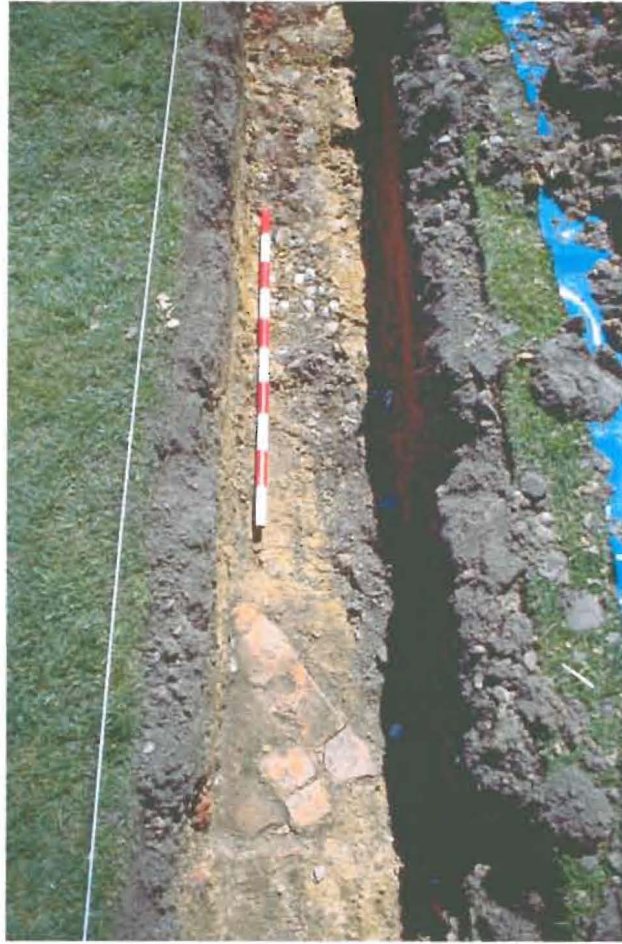


Figure 14. Trench 5, remains of tile drain base and land drain across Half-Moon Lawn looking north (1m scale)



Figure 15. North front of Kenwood by James Heath after Conrad Metz (1788)

southwest

northeast

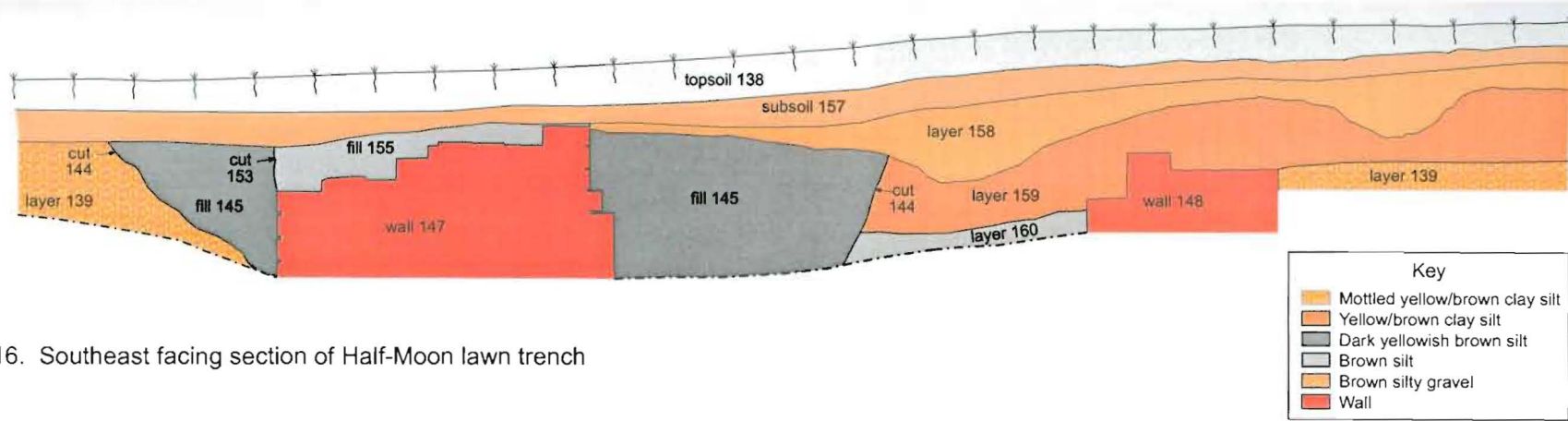


Figure 16. Southeast facing section of Half-Moon lawn trench

southwest

northeast

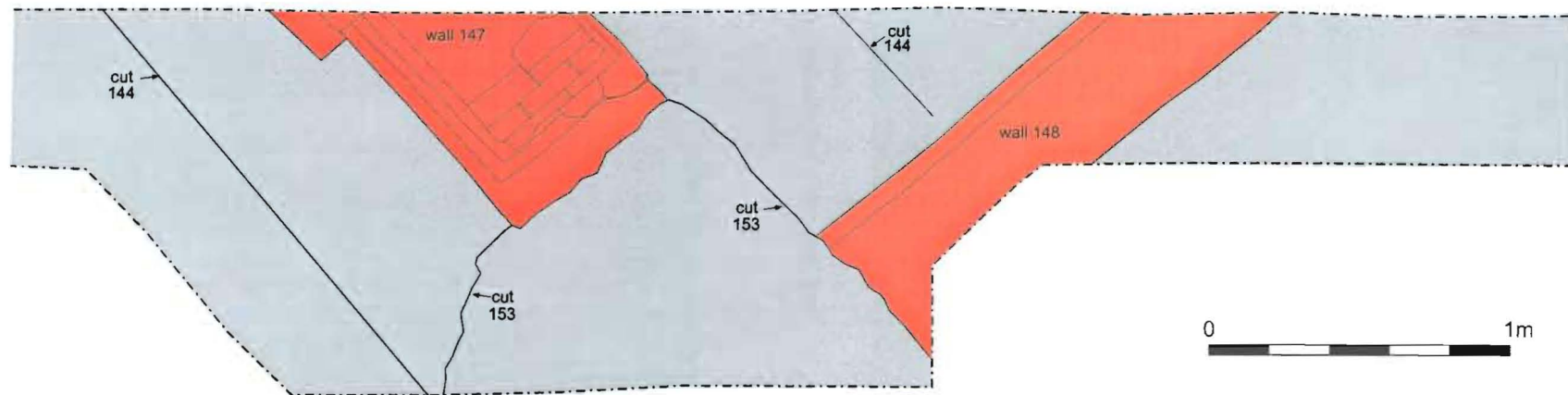


Figure 17. Plan of Half-Moon lawn trench



Figure 18. Trench 5, estate boundary wall (early 18th century) with earlier truncated wall, looking west (1m scale)

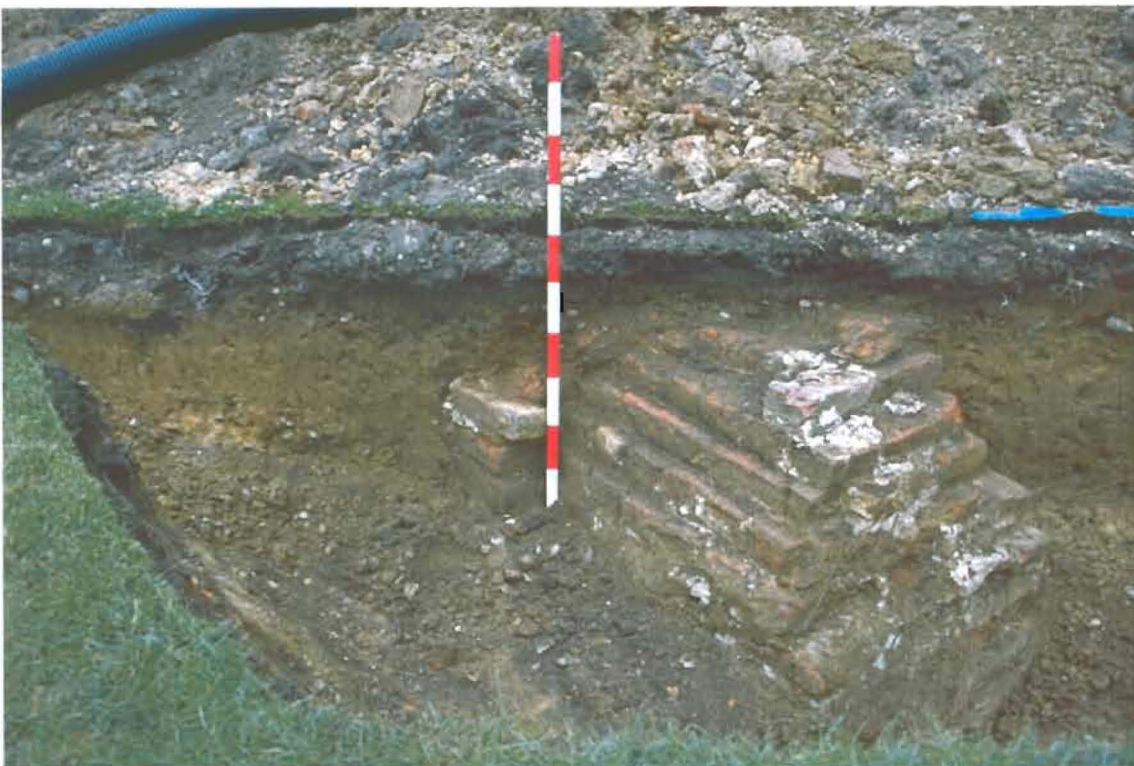


Figure 19. Trench 5, 18th century estate boundary wall with brickwork of gatepost, looking west (1m scale)

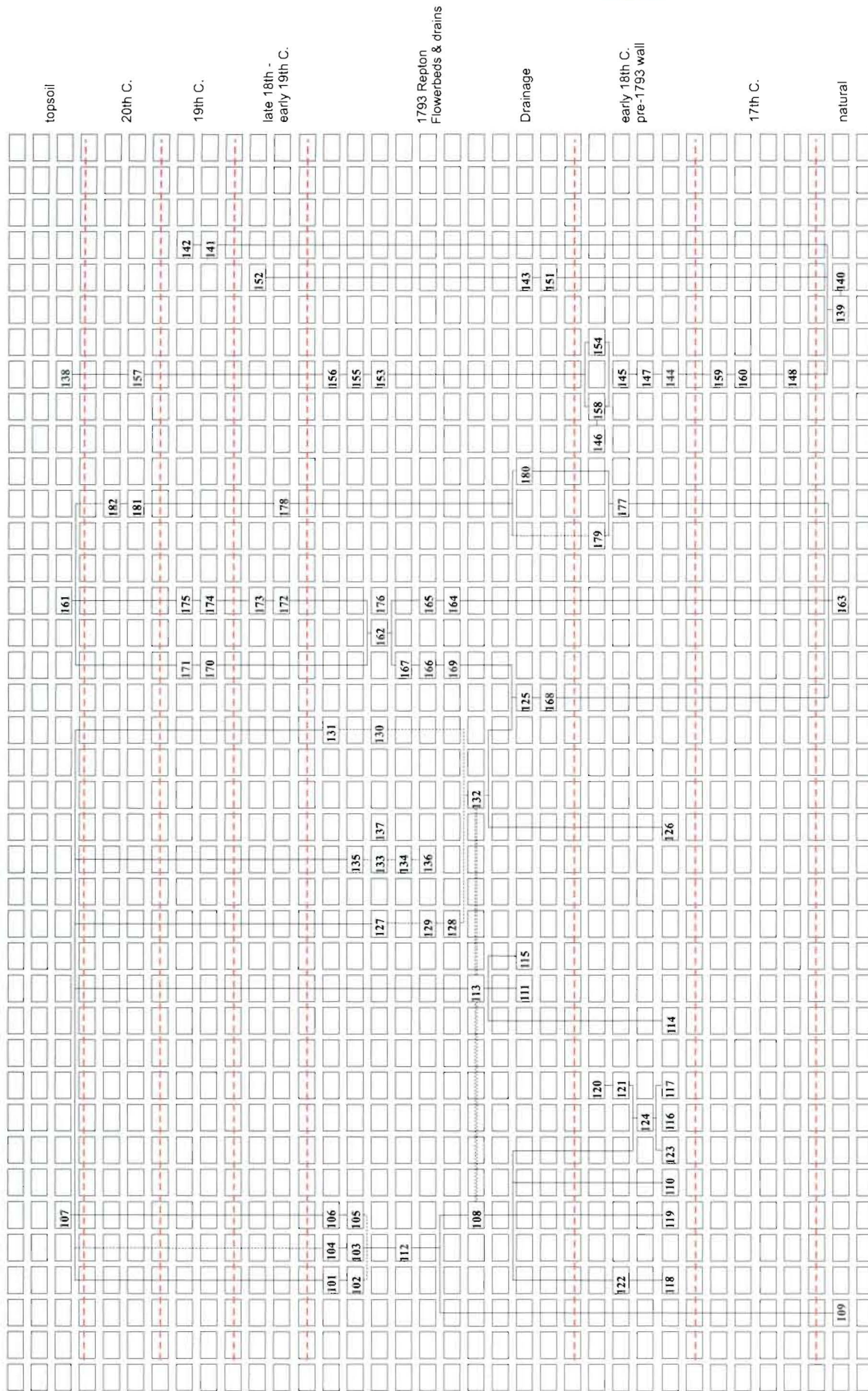


Figure 20. Stratigraphic matrix for the site excavations

the southern Kitchen Garden wall, dating from the building works earlier in the 18th century, to be in approximately this position (see *figures 4 and 10*).

A further brick wall of similar construction was uncovered in the east-west aligned service trench (wall 179). It was constructed of hand-made red bricks laid in English Bond with a badly decomposed bonding mortar. Four courses were exposed for a length of 0.6m, and the wall was 0.50m wide. This wall was aligned north-south and originally formed the eastern wall of the 18th-century kitchen garden. Like the wall described above (wall 126), this wall was dismantled when the grounds were re-ordered and the flower garden created to Humphry Repton's designs in the late 18th century.

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5.5 Trench 5: Across the Half-Moon Lawn

This trench ran in a near northerly direction across the Half-Moon Lawn from the carriageway to the woodland to the north-west of the house.

There have obviously been problems with the drainage on the Estate for a long while, and drainage features were the most common type of archaeological feature encountered at Kenwood. The landscaping alterations in the late 18th century incorporated a system of brick drainage culverts with tile bases, with the lines of the major drains and cess pits shown on the 1797 Pritchard survey (see *figure 13*).

During the excavations across the Half-Moon Lawn, two of the different types of drain used were encountered. Towards the southern end of the trench, the remains of the tile base of a north-south aligned drain was excavated and recorded (context 143). Running alongside this

and extending to the south-west for a length of c.4.5m was a crude land drain. This consisted of a sinuous linear cut 0.30m wide (context 141) that had vertical sides, and had a shallower secondary cut entering from the west. From the length of cut seen in the excavation, the drain appeared to be zig-zagging down the slope towards the driveway. The drain was filled predominantly with rounded gravel fragments up to 0.05m in size, but also contained brick and brick paviour fragments, along with pieces of broken bottle glass and clay flower pots (context 142). The drain was functioning very effectively at the time of excavation, with the drainage material being saturated although the surrounding deposits were relatively dry. This land drain appeared to post-date the brick culvert, possibly replacing it when it fell into disrepair or disuse (see photograph – *figure 14*).

The late 18th-century plan information (see *figures 2 and 3*) showed that the excavation across the Half-Moon Lawn would have expected to have encountered two walls – one at the edge of the driveway belonging to the dismantled 18th-century stable block, the other located further to the north being the 18th-century boundary wall along the original Hampstead Lane.

The stable block wall was not seen during this excavation. It is possible that this was because the wall had been completely dismantled, perhaps when the carriageway to the West Lodge was constructed in the late 18th century, although this would be at odds with the discovery of the other stable block walls to the south-east in the trench along the driveway (walls 116 and 117 described in section 5.1 above, and shown on *figure 8*). Another possible explanation is that this stable block wall was less substantially built and had shallower footings that had subsequently been removed.

The boundary wall alongside the line of Hampstead Lane was encountered (context 147), although it had been badly robbed away (see *figures 16 to 19*). Ten courses of the wall did survive, the uppermost surviving course being 2 bricks wide (0.48m). The wall was constructed of hand-made red bricks, 0.21-0.22 x 0.10 x 0.05-0.06 m (8¹/₄-8³/₄ x 4 x 2–28”) in size, bonded with a hard white lime mortar and laid in what appeared from the little seen to be a variation of English Bond. It had a series of stepped footings to either side, with three steps in the height of wall exposed by the excavation (0.53m). The width of the lowest course of the wall footings was 0.68m. The upper wall courses were constructed asymmetrically on the footings, to the north of the centre, and this was presumably to counteract the effects of constructing the wall on the land sloping down towards the house.

To the southern side of the wall face there was what appeared to be a brick buttress built against the wall. Although stratigraphically later and butting the main body of the wall, there was no secondary construction cut for this brickwork and so presumably it was added at the same time the wall was constructed. Only a small part of this was seen, heading into the western baulk of the excavation, with four courses surviving (see *figure 19*). Following the superimposition of the plans, the location of the brickwork closely matches the position of the gatepost shown on Pritchard’s plan of 1793 (see *figures 2 and 3*). It is possible therefore that rather than being a buttress to the wall, this brickwork forms the footings to the eastern squared gatepost of the opening between Hampstead Lane and the service wing courtyard of the Estate.

This wall is shown on a contemporary engraving (by James Heath after Conrad Metz, 1788 – see *figure 15*) to be constructed of squared stone blocks, and there are several possibilities for this appearance. The wall may have had brick footings beneath the main masonry body of the

wall; it may have been constructed of brick faced with masonry; or the artist and engraver may have had some degree of artistic freedom in depicting the wall face. A singular moulded piece of Portland limestone was recovered from the excavations, in a position very close to the dismantled stable blocks to the south, and this may have come from the decorated tops of the dismantled gate posts.

The Estate boundary wall was of early 18th-century date. The re-alignment of Hampstead Lane, and the creation of sweeping carriageways as access routes from the newly constructed lodges during the landscaping alterations undertaken by Humphry Repton and George Saunders for the 2nd Earl of Mansfield between 1793 and 1796 caused the removal of the boundary wall.

A wall pre-dating the road boundary wall was encountered during this excavation. It was a brick wall aligned north-south perpendicular to the boundary wall, and was recorded as context 148 (see *figures 16 – 18*). Six courses of the wall were exposed, with a step along the western face. The wall was 0.33m wide and a length of 1.6m was excavated. The bricks used were hand-made red bricks 0.22 x 0.105 x 0.055m (8¾ x 4χ x 2¼”) bonded with a pale brown friable lime mortar, laid with a peculiar bonding pattern of alternating paired stretchers and paired headers (possibly a variation of Monk Bond).

When these two walls (147 and 148) were encountered during the excavation, it seemed as though they would be joined and form a corner just outside the line of the trench. The excavation was extended to the south-east at this position in order to step the services around the corner in order to minimise the disturbance to the surviving brickwork of the walls.

Following the additional excavation (see *figures 17 and 18*), it was seen that in the position of the wall junction there was a large squared cut removing parts of both of the walls. This cut, recorded as a robber trench (context 153), had fairly steep sides and a flat bottom (at the level of the base of the wall footings), and may have been part of Humphry Repton’s remodelling following the removal of the wall along Hampstead Lane and the construction of the new carriageway to the house.

The stratigraphy of the archaeology recorded in the north-western section (see *figure 16*) showed that this wall (148) pre-dated the road boundary wall (147) and probably dated from the buildings or boundary estate walls associated with the original house on the site in the 17th century. It could not have been an upstanding wall in the 18th century as it would have been across the road, and evidence of its continuation beyond the projected corner was seen in photographs showing it exposed during tree planting in a position several metres nearer the house.

Further evidence for the approximate dates of the walls comes from the study of the brick sizes used. The sizes of bricks have been governed by various Statutes and Brick Acts - passed in an attempt to establish a fair and standard size of brick supplied by the brickmaker to the bricklayer. The following briefly summarises the main acts and statutes:-

The 1477 Statute sought to impose a minimum thickness of brick of 2½”. The Charter of 1571 by the Tilers’ and Brickmakers’ Company set the size of bricks as 9 x 4½ x 2¼”, and a further Proclamation in 1625 set the size as 9 x 4δ x 2¼”. With brickmakers producing thinner bricks to sell a greater number, the 1729 Statute required all bricks made within a 15

mile radius of London to be $8\frac{3}{4} \times 4\chi \times 2\frac{1}{2}$ ". The 1769 Statute changed this to $8\frac{1}{2} \times 4 \times 2\frac{1}{2}$ " within the 15 mile radius of London, and $8\frac{3}{4} \times 4\chi \times 2\frac{1}{2}$ " in the rest of the country. (Lloyd N, 1925; Smith L, 1985)

Dating bricks by size is difficult and inexact as the nature of the bricks, being hand-made and using clays of different composition and moisture content, means that the bricks produced were of varying sizes, even from a single firing at a kiln. The sizes can only be an approximate dating guide, with other evidence necessary to support precise dating.

The most important measurement for the bricklayer when laying bricks was the thickness – if this was standard it was easier to keep the coursing level. The bricks from both of the walls were quite short ($8\frac{1}{4}$ - $8\frac{3}{4}$ " in wall 147, $8\frac{3}{4}$ " in wall 148), and they were also thin (between 2 and 2δ ") suggesting an early date, presumably prior to the 1729 Statute (although they were smaller than those dictated by the 1625 Proclamation). Compared with the bricks from the mid 18th-century kitchen block, walls 116 and 117 described above, (measuring $9 \times 4 \times 2\delta$ "), it seems likely that the bricks from the boundary wall date from early in the 18th century, with the perpendicular courtyard wall pre-dating this, possibly from the original house on the site constructed in c.1616.

To the north of the 18th-century boundary wall (wall 147) the excavation showed no evidence of the road, although above the dismantled early brick wall (wall 148) levelling layers of clay silt (layer 159) and loose gravel (layer 158) may have been bedding for the road surface. It seems equally likely that these were layers resulting from the contouring and landscaping of this area to the north of the house when the new carriageways were constructed in the late 18th century.

6. Conclusions

The results of the limited excavations show there to be a high level of survival of the archaeological deposits (Objective 3.1) below the disturbed upper soil horizons and at a shallow depth (c.0.30m).

The structural remains exposed in the trenches had survived well, and were generally in the locations expected from the historic plan evidence (Objective 3.2).

Following work on site, the early estate plans were digitised and superimposed onto the plan of the house and the excavation trenches (*figures 4 and 5*). Allowing for scaling errors from the transferral of data from the original plans, the combined plans show the walls located by the service trenching are matched well by those existing prior to the reorganisation of the late 18th century.

The combined plans also show the positions of walls that remained undetected by the excavations, including part of the kitchen court and stable block arrangement to the north-west of the house. It is possible that these walls do survive, but at a greater depth than that excavated.

Further walls not shown on any plans were encountered, and these may have been of a more temporary nature, possibly boundary or garden retaining walls. One of the walls not shown

but located during this phase of work was found in the Half-Moon Lawn excavation and was seen to pre-date the 18th-century walls, and may date from the earlier estate layout from the 17th century. This wall, had it continued far enough, would have lined up with the north-western corner of the late 17th- (or early 18th-) century house, and as such may have been the western boundary wall of the courtyard to the north of the house (Objective 3.3).

The 18th-century wall alongside Hampstead Lane was located during the excavation, as was what appeared to be the corner of the squared brick footings to the gatepost between Hampstead Lane and the service wing courtyard of the house (Objective 3.3). This had subsequently been dismantled and some of the bricks robbed when the area to the north of the house was landscaped by Humphry Repton.

Excavations revealed two possibilities for the eastern boundary wall of the main courtyard (Objective 3.3), with the easternmost being nearest to the position shown on contemporary plans. This raised the question of the function and relative date of the wall exposed directly to the west, as this appeared from the excavated evidence to be of similar construction and date.

The location of the western courtyard boundary wall was not revealed during these excavations.

Three of the arched brick drains known to exist were encountered during the service trenching work, (Objective 3.4), and these may date from the period of reorganisation of the grounds by Humphry Repton in the late 18th century. Two further drains retaining just their tile bases were also located. Other drainage features that were encountered included three large limestone capped brick inspection shafts to the west of the house and in the trench part way down the terrace. A land drain filled with gravel, brick and ceramic fragments and broken glass was excavated in the Half-Moon Lawn trench, and a ceramic drain was located in the garden to the north-east of the house. Evidence for the location of these early drainage structures can be seen on a plan attributed to Pritchard from 1797 (Bryant & Colson, 1990).

The terrace appears to be constructed of imported material (Objective 3.5), although there is much disturbance of the ground forming the terrace from the insertion of drainage features. It is possible however that any future excavations across a less disturbed section of the terrace may reveal more evidence for the pre-terrace ground levels.

The trench through the fills of the boundary ditch to the east of the house showed a build up of post-Medieval infill to be in places greater than 0.70m. There was no evidence of stratified Medieval or earlier deposits in the levels excavated (Objective 3.6), although it is expected these survive at a greater depth.

The trenches through the garden to the west of the house showed the location and survival of part of the formal bed layout of the late 18th-century (or possibly later) flower garden (Objective 3.7), as well as that of the earlier 18th-century kitchen garden - the southern and western retaining walls of which were located. A series of inter-cutting flower beds were recorded, some of which relate to those shown on the contemporary garden design plans, and any future work in this area will encounter various flower and border beds and expand the knowledge of the changing garden plan.

7. Recommendations for Future Work

Future work to be considered at Kenwood would include a geophysical survey of the estate, concentrating on the ground around the house. This would accurately locate the presence and position of further walls associated with the earlier phases of the development of the house, such as the 18th-century kitchen complex to the north-west of the Orangery. The survey could also locate the surviving extent of the historic brick drainage system, something that would be very useful in aiding the management of the drainage on the estate. This would be particularly helpful as repairs to the system will be required more regularly as the system ages.

The excavation trenches revealed the distinctive nature of the bricks and mortar used for the 18th-century and earlier works, and this will be useful for the interpretation of built fabric revealed in any future works around the estate or in the house.

The 1797 survey showing the location of drains and cess pits provides a useful indication of where pre-19th-century drains are likely to be encountered.

A further recommendation relates to the treatment of the archaeology encountered during general maintenance and groundworks on the estate. At present it appears that archaeological monitoring takes place only when the works around the estate are expected to encounter buried structural remains. This is leading to the loss of important archaeological information of both unexpected structural remains and of less obvious garden features. During the excavation across the Half-Moon Lawn in the latest phase of works, the service trench revealed an early wall (probably of 17th-century date), the continuation of which had been seen during an earlier excavation to plant a tree. Although a photograph was taken of the remains of the wall following the excavation of the hole, the wall and surrounding archaeology were not recorded. Had the excavation been monitored, the importance of the wall may have been established and the damage caused by the excavation for the tree may have been averted by slightly altering the location of the tree.

Other than by having a site-based archaeologist it is unfeasible to suggest that all excavation on site is monitored. However it would be beneficial to have a system in place whereby the IAM should be contacted whenever remains are encountered, or before works involving ground disturbance below a pre-determined depth (decided by the IAM) is undertaken, with a decision made as to recording and treatment following a site visit.

8. Dissemination

A copy of the report will be lodged with the Greater London SMR held by GLAAS, and the digital plan data will be copied to the Historic Plans Room. Copies of the report will be available from English Heritage's Centre for Archaeology.

9. Bibliography

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Appendix 1: The Archive

The project archive has been compiled to meet CfA standards that match the criteria laid down by the Management of Archaeological Projects 2 (English Heritage 1991).

The site records

From the first phase of work:-

37 contexts were allocated and used to record the excavation trenches (numbers 101-137, detailed in Table 1). A site matrix has been compiled (*figure 20*).

4 A3 permatrace drawing sheets were completed (numbers 201-204).

8 films were used, 4 colour (Kodak Ektachrome Elite II 200) and 4 monochrome (Ilford FP4 125).

Archive numbers used ranged from 301 – 337.

Photographs were bracketed to ensure success under difficult light conditions.

The colour photographic record is stored on photo CD-ROM.

Finds on site amounted to fragments of brick and tile that were used for comparative purposes to aid on-site interpretation and were discarded prior to leaving site.

No environmental sampling was undertaken.

From the second phase of work:-

45 contexts were allocated to record the excavation trenches (numbers 138 – 182)

5 A3 permatrace drawing sheets were completed (numbers 205-210).

5 films were used, 2 colour (36 exposure) and 3 monochrome (24 exposure).

Archive numbers used ranged from 338 – 362.

Photographs were bracketed to ensure success under difficult light conditions.

The colour photographic record is stored on photo CD ROM.

Finds on site amounted to fragments of brick and tile that were used for comparative purposes to aid on-site interpretation and were discarded prior to leaving site.

No environmental sampling was undertaken.

Table 1: List of Context Records Completed

Context	Description	Provisional Date
101	Brick Structure	1793-7
102	Cut for 101	1793-7
103	Cut for 104	1793-7
104	Brick Structure	1793-7
105	Cut for 106	1793-7
106	Brick Structure	1793-7
107	Layer, topsoil	-
108	Levelling layer	post 1797
109	Layer, sandy clay	natural layer?
110	Brick Wall	pre 1793
111	Brick Drain	1793-7
112	Layer, subsoil	-
113	Layer, redeposited clay	post 1797
114	Brick Wall	pre 1793
115	Brick Drain	1793-7
116	Brick Wall	pre 1793
117	Brick Wall	pre 1793
118	Brick Wall	pre 1793
119	Brick Wall	pre 1793
120	Layer	pre 1793
121	Layer	pre 1793
122	Layer	pre 1793
123	Brick Wall	pre 1793
124	Levelling layer	pre 1793
125	Brick Drain	1793-7
126	Brick Wall	pre 1793
127	Brick Structure	1793-7?
128	Cut for Flower\Garden Bed	1793-7
129	Fill of 128	1793-7
130	Cut for Flower\Garden Bed	18 th ?
131	Fill of 130	18 th ?
132	Levelling Layer	post 1797
133	Limestone Capping of 134	1793-7
134	Brick Structure	1793-7
135	Backfill	1793-7
136	Cut for 133 and 134	1793-7
137	Brick and Stone Structure	1793-7
138	Layer – topsoil	-
139	Layer – clay	natural layer
140	Natural	natural layer
141	Cut for drain	19 th
142	Fill of drain 141	19 th
143	Drain (tile base)	1793-7
144	Construction Trench for wall 147	pre 1793
145	Fill of 144	pre 1793

146	Levelling layer	pre 1793
147	Brick Wall	pre 1793
148	Brick Wall	17 th ?
149	Cut	20 th
150	Fill of 149	20 th
151	Cut	late 18 th
152	Fill of 151	late 18 th
153	Robber Trench	late 18 th
154	Fill of 144	pre 1793
155	Fill of 153	late 18 th
156	Fill of 153	late 18 th
157	Subsoil	-
158	Levelling layer	pre 1793
159	Levelling layer	17-18 th
160	Layer - clay	17 th
161	Topsoil	-
162	Subsoil	-
163	Natural layer	natural
164	Cut for flowerbed	late 18 th
165	Fill of 164	late 18 th
166	Cut for flowerbed	late 18 th
167	Fill of 166	late 18 th
168	Cut for drain 125	1793-7
169	Fill of cut 168	1793-7
170	Cut for flowerbed	19 th ?
171	Fill of 170	19 th ?
172	Cut for flowerbed	late 18 th - early 19 th
173	Fill of 172	late 18 th - early 19 th
174	Cut for flowerbed	19 th ?
175	Fill of 174	19 th ?
176	Levelling layer	late 18 th
177	Construction trench for wall 179	pre 1793
178	Fill of 177	1793-7
179	Brick Wall	pre 1793
180	Tile drain base	1793-7
181	Cut for rubbish dump	20 th
182	Fill of 181	20 th