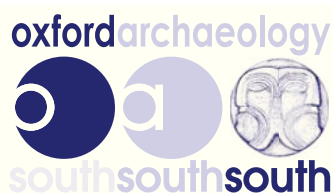


# Real Tennis Court

## Hampton Court Palace



### Historic Buildings Recording and Archaeological Watching Brief



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## Real Tennis Court, Hampton Court Palace

### *Historic Building Recording and Archaeological Watching Brief Report*

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## **Real Tennis Court, Hampton Court Palace**

### *Historic Building Recording and Archaeological Watching Brief Report*

#### **Summary**

*Oxford Archaeology South (OAS) was commissioned by Historic Royal Palaces (HRP) to record the east elevation of the Real Tennis Court at Grade 1 listed Hampton Court Palace. The recording took place prior to works on the exterior elevations of the tennis court carried out as part of ongoing repairs to the external brick elevations of the palace. Located on the Broad Walk of the palace gardens, the east elevation of the tennis court is a very visible part of the palace buildings.*

*The study of the east elevation has confirmed the history of the elevation which includes many changes over the years. The east elevation is formed from the Tudor brick wall of the former open tennis play and much of this primary phase brickwork can be still be seen including some partial diaperwork. The conversion of the open play to a closed tennis play in the Stuart period included the addition of a roof and gallery as well as the construction of changing rooms and accommodation for the master of the tennis play. Later changes include the addition of an adjacent garden wall and the enclosing of the formerly open upper lights with glass windows.*

*Between the 18<sup>th</sup> and 22<sup>nd</sup> October 2010 OAS carried out an archaeological watching brief on ground immediately to the east of the Real Tennis Courts. Two trenches one 5.7m in length and 0.4m wide and one 6.8m in length and 0.4m wide were hand excavated through flower beds in order to replace the existing drainage. The watching brief revealed the buried courses of the 16<sup>th</sup> century Real Tennis Court wall and the foundations of the adjacent late 17<sup>th</sup> / early 18<sup>th</sup> century enclosure wall.*



## 1 INTRODUCTION

### 1.1 Scope of work

- 1.1.1 Oxford Archaeology South (OAS) was commissioned by Historic Royal Palaces (HRP) to undertake historic building recording of the east elevation of the Real Tennis court brickwork prior to commencement of building works. The project manager for HRP was William Page.
- 1.1.2 Alison de Turberville and Deirdre Forde (Oxford Archaeology Buildings Supervisors) carried out the investigations with the watching brief and survey work taking place in June 2010 with some further observation during the summer of 2010.
- 1.1.3 Between the 18<sup>th</sup> and the 22<sup>nd</sup> October 2010 OAS carried out an archaeological watching brief on the ground adjacent to the Real Tennis Courts. The watching brief covered the excavation of two trenches adjacent to the eastern wall of the building. The first measured 5.7 m in length and was 0.4 m wide. The second was 6.8 m long and 0.4 m wide. Both trenches were hand excavated through modern flower beds in order to replace the existing drainage. The watching brief was carried out by Laura King, fieldwork Supervisor.

### 1.2 Location, geology and topography

- 1.2.1 The Real Tennis Court is located on the east front of the palace and it is the east elevation facing onto the Broad Walk that forms the focus of this investigation.
- 1.2.2 The excavated trenches lie between the eastern wall of the tennis court and the gardens passing underneath the late 18<sup>th</sup>/19<sup>th</sup> century enclosure wall, through whose foundations holes had been cut when the earlier drainage had been installed. The underlying geology was not encountered during the course of the work as the investigation area was located on ground with deep garden soil deposits overlying construction debris.

## 2 HISTORICAL BACKGROUND

### 2.1 The Emergence of the Royal Palace

- 2.1.1 The Knights Hospitallers acquired the manor of Hampton in 1236 and used the land as a grange. The only known buildings at this time were a great barn or hall and a stone camera. The first known occupant other than the knights was John Wode who obtained a lease for the court, the exact date of which is unknown. Alterations to the building during his time may have included the extension of the residential part of the dwelling by means of a tower. Wode died in 1484 with no heir, and it was not until 1494 that the manor was re-leased.
- 2.1.2 The next occupant of Hampton Court was Sir Giles Daubeney, who in 1494 acquired an eighty-year lease. The freehold of Hampton Court was unobtainable by Daubeney but he did however obtain a new 99-year lease in 1505. This new lease was much improved allowing him to enlarge the property. Daubeney died in 1508 and when his son came of age in 1514 he immediately gave up the lease to Thomas Wolsey, then the Bishop of Lincoln, but soon to become Archbishop of York and a Cardinal.

- 2.1.3 As with Daubeney's lease Wolsey's gave permission for alterations to be made to the fabric of the buildings. During his time at the palace Wolsey carried out many alterations and new builds and amongst his earlier works was the construction of the ranges that form Base Court in 1514-1522. Henry VIII, who acquired Hampton Court in 1527/9, continued this building of the palace as he embarked upon a building programme that shaped much of the Tudor palace we see today. During this time existing buildings were removed or adapted and decorated for royal use.
- 2.1.4 Among the later alterations that are recorded, the major programme of alterations was carried out by William III, who commissioned Sir Christopher Wren to rebuild Hampton Court in 1689. Wren's original plan was to rebuild the whole of the Tudor palace, keeping only the Great Hall. Lack of time and money meant that Wren concentrated his efforts on rebuilding the King and Queen's apartments on the south and east sides of the palace.
- 2.1.5 After William's death in 1702 the Palace was little used by subsequent monarchs although improvements and alterations to the palace fabric continued. The last reigning monarch to use Hampton Court was George II in 1737. After his succession in 1760, George III decided not to live at Hampton Court leaving the palace many rooms unoccupied. It was decided that the lodgings and other rooms in the palace should be divided up into apartments for grace and favour residents who were granted free residency by the monarch.
- 2.1.6 In 1837 Queen Victoria declared that Hampton Court Palace should be open to all her subjects and the Palace became a tourist destination and visiting antiquarians and artists began to write about and draw the palace on a grander scale than previously done. Parts of the Tudor Palace were gradually restored with the removal of 18<sup>th</sup> century casement windows amongst some of the building works at this time. Changes to the palace in the 20<sup>th</sup> and 21<sup>st</sup> centuries have primarily involved the conservation and restoration of the building fabric as well as the presentation of the palace to visitors.

## **2.2 Development of the Real Tennis Court**

- 2.2.1 The east wall of the Real tennis court is thought to be originally part of the Tudor open tennis play which was situated to the north of the palace. The open tennis play would have consisted of walls surrounding an unroofed court. It is conceivable this open play was constructed prior to Henry VIII taking possession of the palace, possibly during the Daubeney phase of occupation. In 1531/3 Henry VIII constructed a Close Tennis Play close to the Chapel Royal but it is likely that the open tennis play continued to be used particularly in fine weather.
- 2.2.2 In 1625/6, during the reign of Charles I, the former Tudor open tennis play was converted to a covered court with the addition of masonry and a pitched roof. The new closed tennis play used an existing Tudor brick wall from the former Tudor play for its east elevation. Further improvements during this phase included the addition of a covered walkway between the palace and the court in 1636/37 which can be seen in early views of the east front of Hampton Court (Plates 1 & 2).
- 2.2.3 In 1660/1661 the tennis play was completely replaced with a new close tennis play. Again this utilised the existing Tudor east elevation wall which had buttresses added to take the additional structural weight of the roof. Large

clerestory windows were situated on the east and west elevations with exterior balconies for maintenance access. The court measured 130ft long and 30ft wide with an interior court of 32ft x 98ft. To the north of the court was the lodging for the Master of the Tennis Court and above this a gallery for the courtiers and king to sit and watch the play. The southern end of the court building had a dressing room and storage for equipment.

- 2.2.4 In 1699 the floor was relaid in stone and the lodgings and access gallery were refitted. The east front of the palace was under construction using orange/red coloured stock bricks with stone dressing and a new garden wall was built in this style in front of the existing east elevation of the access gallery and tennis court.
- 2.2.5 In 1718, during the reign of George I the court was remodelled for parties with cloth placed over the clerestory windows and a whitewashed interior. A gallery was constructed within the building at the north end for the use of musicians.
- 2.2.6 By 1818, the tennis court required a major overhaul. The roof was retiled and cornices repaired. The interior was repainted and a new floor was laid. Previously unglazed (as seen in Plate 8), the east upper lights were glazed in 1883/4 and the west lights were glazed in 1843. HRH Prince Albert was a frequent player of tennis during the mid 1850s and a locker in the changing room still bears his name plaque. In 1927 the internal stonework was rendered.
- 2.2.7 The close tennis court continues to be used for Real Tennis to this day.

### 3 HISTORIC BUILDING RECORDING

#### 3.1 Aims and objectives

3.1.1 The purpose of the investigation was to:

- identify and date where possible (with reference to the HCP Brick Typology) all the brick types evident in this elevation;
- provide a summary written phasing of the historical development of the tennis court;
- create an ordered archive of the work for deposition with Historic Royal Palaces.

#### 3.2 The Brick Typology

- 3.2.1 The Brick Typology was completed by Daphne Ford for English Heritage and this document, formed using a mix of visual inspection and archive evidence, established a typology for the bricks used at Hampton Court Palace. The typology includes elevation drawings of the majority of the Palace which have been phased according to the typology.
- 3.2.2 The Real Tennis Court and garden walls are not included within the phased elevations. The details and description of the brick types within the typology were compared to the brickwork on the observed during the watching brief and building recording and a suggested identification is made where possible.

#### 3.3 Methodology

- 3.3.1 Overall the work comprised three principal elements: a photographic, drawn and written survey. The *photographic survey* consisted of general photographs and

specific details and was undertaken using 35 mm black and white print film. Digital photographs were also taken using a Caplio 400G 3.2 megapixel camera.

- 3.3.2 The *drawn survey* consisted of marking up an elevation drawing with the key features and phases of brickwork indicated. The survey used photographs of the walls provided by HRP onto which permatrace was overlain on the photographs and any details in the wall structure noted.
- 3.3.3 The *descriptive survey* complemented the photographic and drawn surveys and added further analytical and descriptive detail.

### 3.4 Description

- 3.4.1 The east elevation of the Real Tennis Court is mainly constructed of brick with a limestone string course and an upper section built in timber with glazed lights. As with much of Hampton Court the elevation contains many features showing the continual reuse of the building over a considerable period.
- 3.4.2 The lower elevation is partly obscured from view within the Broad Walk by the addition of a garden wall constructed of red brick with stone dressing. The open space between the east elevation and the garden wall diminishes from the southern to the northern end of the tennis court. At the southern end of the elevation a section of brick garden wall joins the tennis court brickwork, it is not bonded in and is of late 17th century date.
- 3.4.3 Across the elevation the brickwork and mortar is marked with small holes which are evidence of former foliage cover on the elevation. Some 19th and early 20th century images show the foliage in situ, later removed and replaced with small trees within the corridor between garden wall and the tennis court elevation (Plate 8).
- 3.4.4 Two different levels of putlogs were observed on the elevation. The lower level putlogs being evenly spaced six stretchers apart and infilled with reused Tudor bricks and have a distinct red coloured mortar pointing (Plate 20). The upper putlogs are infilled with yellow 18th century stock bricks and are evenly spaced every twelve to fourteen headers apart, the mortar is a grey coloured black ash mortar with stone inclusions. These putlogs are clearly the result of two different phases of works during the 19th century. The upper putlogs with yellow brick infill probably to the early 19th century and are possibly connected to the tile replacement works of 1818. The lower putlogs were probably infilled in the late 19th century, possibly relating to the insertion of the glazed upper lights in 1883. The red colour mortar was probably achieved to match the elevation which may have been painted red at that time as many elevations were painted to make the Palace more Tudor in appearance for the increasing amount of visitors. The red coloured mortar has been seen in occasional brick replacement by the author elsewhere in the palace (Chapel Court and Base Court) and so must have been a standard repair solution for this phase.
- 3.4.5 Centrally placed on the elevation is a doorway leading into the viewing corridor for the tennis court. This doorway is likely to have been inserted in the late 17<sup>th</sup> /early 18<sup>th</sup> century as part of the works to the tennis court with some later rebuilding of the arch lintel in the late 18<sup>th</sup> / early 19<sup>th</sup> century. The entrance can be seen on the plan of the tennis court drawn by Thomas Fort c. 1718 and the corresponding opening in the Broad Walk wall is depicted in a drawing by Spyers

in c. 1780 (Plate 5). Two blocked windows flank the doorway each with a central section of stacked headers. The reveal for these windows, which have wooden plank infill's, can be seen within the corridor which runs alongside the tennis court. The dating for the infilling of the windows is uncertain but since no windows are clearly depicted in this elevation at the lower level, it is assumed the windows were added during or after the construction of the Broad Walk garden wall in the late 17th/early 18<sup>th</sup> century. The blocking in uses a mix of bricks and these are discussed below in § 3.4.4.

- 3.4.6 Among many areas of repair to the elevation, the most prominent is a large area of 19th century red stock brick to the lower part of the northern section of the elevation. This is probably part of the later 19th century works to the tennis court which included the glazing of the upper windows. A considerable amount of refacing was undertaken within the palace with this type of brick and the bricks are further discussed in §3.4.3.
- 3.4.7 There are no buttresses on this elevation despite their depiction in historical drawings (Plates 1 - 3). The historical depictions of the east elevation show between 5 and 7 buttresses on the east elevation and there are 6 buttresses extant on the west elevation. There are areas of remortaring and disfigurement in the brickwork across the east elevation which could suggest the location of the buttresses however these are too unclear to be definitely placed. The buttresses were certainly removed before 1760 as shown in John Spyers depiction of the east elevation (Plate 5), however it was more likely they were removed during the late 17th century, prior to the construction works for the adjoining garden wall.
- 3.4.8 The yellow limestone string course lies below the windows and runs across the elevation of the tennis court and the southern changing and facilities building, however, it does not appear on the north lodgings and it punctuated by a window adjacent to the south building, suggesting it forms part of the Henrician construction phase. The string course is of limestone and in fairly good condition needing only minimal replacement during the works. The moulding profile is the same as seen elsewhere in the palace and it is probable this was replaced or partially replaced during the works of the late 19<sup>th</sup> century where much of the palaces dressed stonework was replaced with Bath stone.
- 3.4.9 The string course is cut at intervals to allow for the iron balcony supports which in turn sit on a projecting stone which is grey/white in colour. Above the stone string course is a brickwork level with five courses of 18/19<sup>th</sup> century brickwork laid in a Flemish bond followed by a wooden balcony and large clerestory windows with timber boarding to the south end.
- 3.4.10 As with other parts of the palace the accessible lower brickwork has a number of graffiti inscriptions, most of which date to the late 19th /early 20th century and are usually in the form of initials and year.

### **3.5 Brickwork Types**

- 3.5.1 The majority of the lower brickwork appears to be from the Tudor construction of the open tennis play. These bricks are orangey red to dark red in colour measuring approximately 228 x 55-58 x 101-106mm and an arris to arris measurement of 256-260mm. The bricks are laid in an English bond with a fairly thick cream coloured lime mortar with small gritty and medium sized lime inclusions. The brick type is similar to other Tudor bricks used at the palace,

most likely type C, a stock brick dating to the later Henrician phase of works at the Palace. The use of later Henrician brick suggests the open tennis play was a possible rebuild of an earlier tennis play. The pointing is likely to have been double struck as seen on many Tudor elevations within the palace, however the pointing is mostly worn away. Random vitrified bricks are also evident within the Tudor brickwork, which as the Typology indicates is typical of Henrician Stock Bricks.

- 3.5.2 The vitrified bricks within the elevation mostly have no discernible pattern, however, on the upper level of the brickwork two areas of diaperwork in the Tudor brickwork are clearly seen. The southern diaperwork is a section of solid lozenge shapes and the northernmost diaperwork is a section of open lozenge diaperwork. The open lozenge design is a typical design for later diaperwork (Smith 1992, 24) and this style can be seen throughout Hampton Court, particularly within Base Court. Both sections of diaperwork are truncated at the top by the windows and balcony added in 1699. The presence of a small section of diaper decoration does not suggest that the pattern initially covered all of the elevation at the time of construction and areas of partial diaper pattern can be seen throughout the palace. White (2005) has argued that the diaperwork was laid out using available vitrified bricks and the patterns ended when available bricks ran out. The finished elevation would probably have had diaperwork painted on covering the brickwork underneath the painted surface. Several examples of painted decoration have been found at Hampton Court, the most preserved being the east elevation of the chapel which was enclosed by the Wren rebuilding works in the late 17th century (Thurley 2003). No evidence for painted decoration was found during the survey, however it is likely that this elevation was initially painted as it would have been visible from the palace grounds.
- 3.5.3 At the north end of the elevation the lower brickwork has been extensively refaced with 19<sup>th</sup> century orange/red coloured bricks. These measure 223 x 113 x 55mm with an arris to arris measurement of 261mm. The pointing is flat pointed in a greyish cream hard mortar with small stone inclusions. These bricks can be identified as Type T, a brick type often used for 19<sup>th</sup> century works. In other part of the palace this mortar has been painted black to match the black ash pointing, however this elevation has not been repointed with black ash, presumably as the lower section is mostly hidden by the Broad Walk Wall.
- 3.5.4 On the lower section of the elevation are two areas of window infill. As well as some reuse of early brick and some later mortar repairs the bricks primarily measure 210 x 65 x 100mm and their pinky yellow colour is consistent with Type O London stock brick of the mid 18<sup>th</sup> century. The central stacked header infill appears to be later in date and possibly uses Type Q bricks (late 18th/19th century) suggesting there were two phases of infill.
- 3.5.5 Above the stone string course the bricks are a mix of yellow, orange and pink coloured brick with some visible charcoal flecks and sharp but uneven edges. These bricks measure 212 x 93 x 62mm with an arris to arris measurement of 303mm. The mortar is a cream coloured lime mortar with lime inclusions and other small sand/stone inclusions. The pointing is penny rolled however there are large areas of flat repointing in a sandy coloured mortar. Unusually for later bricks, the bricks are laid in an English bond which may have been used to reflect the English bond walling below the string course and to provide a stronger

support for the roof and windows above. The visual aspect and size of the bricks suggest they are Type Q which date to the late 18th or early 19th century.

- 3.5.6 The bricks used in the Broad Walk wall built in the late 17th century as part of the east front works are red in colour and laid in a Flemish bond. The pointing is gauged with a pale lime mortar. Bricks measure 222 x 64 x 101mm with an arris to arris measurement of 275mm. These bricks have been identified as Type H as used extensively in this phase of works, particularly as face brick on the ground floor of the Wren state apartments constructed in the late 17<sup>th</sup> century.

### **3.6 Summary of Phasing following investigation**

- 3.6.1 The Real Tennis Court is a building with a long history but has ultimately been used for the same purpose since initial construction in 16th century. Examination of the brickwork suggests the lower part of the east elevation was constructed in the later Henrician phase of works to the palace, possibly replacing an earlier Open Tennis play.
- 3.6.2 Tennis remained a popular pastime for monarchs and their court and the open tennis court was converted to a close tennis play in 1625/6 with the addition of a roof with unglazed lights beneath. Historical depictions of the elevation suggest the elevation had a series of buttresses, possibly added to support the roof, which have since been removed.
- 3.6.3 It is likely that a doorway and lower windows were added to the elevation during the 17th century or early 18th century. In the late 17th/early 18th century the elevation was partially screened by the addition of a garden wall. Further changes in the 18th and 19th century included the blocking in of the lower windows and in the later 19th century the glazing of the upper lights which necessitated the use of putlogs, the infill of which is clearly visible in the elevation.

## **4 THE ARCHAEOLOGICAL WATCHING BRIEF**

### **4.1 Aims**

- 4.1.1 The aim of the project was to gain a further understanding of the archaeological remains in this area whilst minimising the impact of the works on any surviving archaeological deposits, specifically the buttresses which are thought to have formed part of the original tennis court construction.

### **4.2 Methodology**

- 4.2.1 Both trenches were hand excavated under direct archaeological supervision.
- 4.2.2 The exposed archaeological features, all of which were brick structures, were digitally photographed, and their elevations drawn at a scale of 1:10 for greater accuracy. Those features which were visible in plan were drawn at a scale of 1:20 and an overall site plan was produced at a scale of 1:50. All recording followed the procedures outlined in OAU Fieldwork Manual (Wilkinson 1992).

### **4.3 Description of deposits**

- 4.3.1 The archaeological remains identified were identical in both trenches and therefore will be treated a single set of remains.

- 4.3.2 The earliest structure identified was the lower courses of the east wall of the Real Tennis Court (109). A total of twelve courses were identified below the current ground level, comprising brownish orange unfrosted bricks which, on average were 230 mm long, 110 mm wide and 50 mm deep laid in an English bond using a chalk and lime mortar. These bricks have been tentatively assigned to Type C of the Hampton Court Brick Typology (Ford, 1991).
- 4.3.3 The foundations of the enclosure wall (102) to the east of the tennis courts were also exposed. These comprised a minimum of eight courses of pinkish red unfrosted brick, which were seen to be between 210 and 220 mm in length, 110 mm wide and between 60 and 70 mm deep. These bricks have been tentatively assigned to Type H of the Hampton Court Brick Typology (Ford, 1991).
- 4.3.4 On the interior aspect of the wall (west Facing) the foundations (107) were seen to be flush with the walls superstructure and the bricks were laid in a variation of a Flemish bond using a sandy brown chalk and lime mortar. On the exterior aspect (east facing) the foundations formed a small buttress (105) which extended 0.26 m from the base of the wall.
- 4.3.5 On the exterior aspect of the wall the brick foundation was overlain by a single course of tiles (104). These were orange in colour and varied from 90 mm to 120 mm in length and were 10 mm thick. Many of the tiles appeared to have been broken prior to having been utilised within the wall.
- 4.3.6 The tile course was overlain by a single course of either Caen or Purbeck limestone (103). Each stone measured 740 mm in length and was 300 mm wide and 30 mm deep. This course was directly overlain by the walls superstructure (102).
- 4.3.7 During the excavation of the southern trench a Victorian drain (108) was identified running between the tennis court and enclosure walls. One course of tile and up to two courses of brick remained. The bricks were orange in colour and unfrosted, measuring 230 mm long, 110 mm wide and 85 mm deep and formed the sides of the structure. The tiles were also orange and measured 300 mm in length. These formed the base of the drain. The drain survived to a length of 1.95 m and was a minimum of 0.38 m wide and 0.20 m deep.
- 4.3.8 In addition to the structural remains four soil and rubble deposits were identified. The earliest was a layer of light brown and white sandy mortar with frequent brick and stone rubble inclusions (110). This deposit was only seen in the base of the pipe trench to the east of Wall 102 and was a minimum of 0.30 m thick.
- 4.3.9 Deposit 110 was overlain by a thin layer of sandy silt (106). This deposit was 90 mm thick and was seen in the base of both trenches on the eastern side of Wall 102. Deposit 106 was overlain by two layers of modern garden soil (101 and 100 respectively).

#### 4.4 Finds

- 4.4.1 A variety of pot sherds and CBM fragments were noted in the upper garden soil (100). A small sample of diagnostic sherds was retained for dating purposes. The sherds identified were of a late 19<sup>th</sup> to early 20<sup>th</sup> century date.



#### **4.5 Environmental remains**

- 4.5.1 No deposits suitable for environmental sampling were identified during the course of the watching brief.

#### **4.6 Discussion and conclusions**

- 4.6.1 Although no significant archaeological deposits were identified, further knowledge regarding the construction of the tennis court and enclosure walls has been gained.
- 4.6.2 The two layers of garden soil and the structure of the foundations of enclosure wall (102), suggest that the stone course (103) on the exterior aspect of the wall was originally intended to be visible, but the more recent cultivation of the flower beds and the addition of further garden soil deposits has caused it to become buried.
- 4.6.3 The relationship between the enclosure wall and deposits 106 and 110 is unclear. It is possible that deposit 110 is associated with the construction of the enclosure wall and that 106 is a make up layer for the existing drainage, but because the trenches excavated during the watching brief were too narrow for either the wall or the pipe trench construction cuts to be seen this cannot be confirmed.

### **5 CONCLUSION**

- 5.1.1 Located on the Broad Walk of the palace gardens, the east elevation of the tennis court is a very visible part of the palace buildings. The study of the east elevation has confirmed the history of the elevation which includes many changes over the years.
- 5.1.2 The east elevation is formed from the Tudor brick wall of the former open tennis play and much of this primary phase brickwork can be still be seen including some partial diaperwork. The conversion of the open play to a close tennis play in the Stuart period included the addition of a roof and gallery as well as the construction of changing rooms and accommodation for the master of the tennis play. Later changes include the addition of an adjacent garden wall and the enclosing of the formerly open upper lights with glass windows.

## APPENDIX A. ARCHAEOLOGICAL CONTEXT INVENTORY

Context	Type	Depth	Width	Length	Comments	Finds	Date
100	Deposit	0.2 m	>0.4 m		Garden Soil	Pot and CBM	
101	Deposit	0.4-0.5 m	>0.4 m		Garden Soil		
102	Structure	2.35 m high	-	-	Enclosure Wall	-	Late 18 <sup>th</sup> /19 <sup>th</sup> Century
103	Structure	300mm	30 mm		Stone Course	-	-
104	Structure	10 mm	-	-	Tile Course	-	-
105	Structure	>0.58 m	0.32 m	-	Wall Foundation	-	-
106	Deposit	90 mm	>0.4 m	-	Make up deposit	-	-
107	Structure	>0.28 m	-	-	Wall foundation	-	-
108	Structure	0.2 m	>0.38 m	1.95 m	Drain	-	-
109	Structure	-	-	-	Tennis Court Wall	-	16 <sup>th</sup> Century
110	Deposit	>0.3 m	>0.35	>0.42	Rubble layer		

## APPENDIX B. BIBLIOGRAPHY AND REFERENCES

### Published Sources

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### Unpublished Sources

Ford, D and *Hampton Court Palace Brick Typology - Elevations sheet*  
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**APPENDIX C. SUMMARY OF SITE DETAILS**

Site name:	Real Tennis Court, Hampton Court Palace
Site code:	HCP 80
Grid reference:	Centred at NGR TQ 158 686
Type of watching brief:	
Date and duration of project:	18 <sup>th</sup> to 22 <sup>nd</sup> October 2010
Area of site:	Real Tennis Courts
Summary of results:	No significant archaeological deposits were identified.
Location of archive:	Historic Royal Palaces Archive

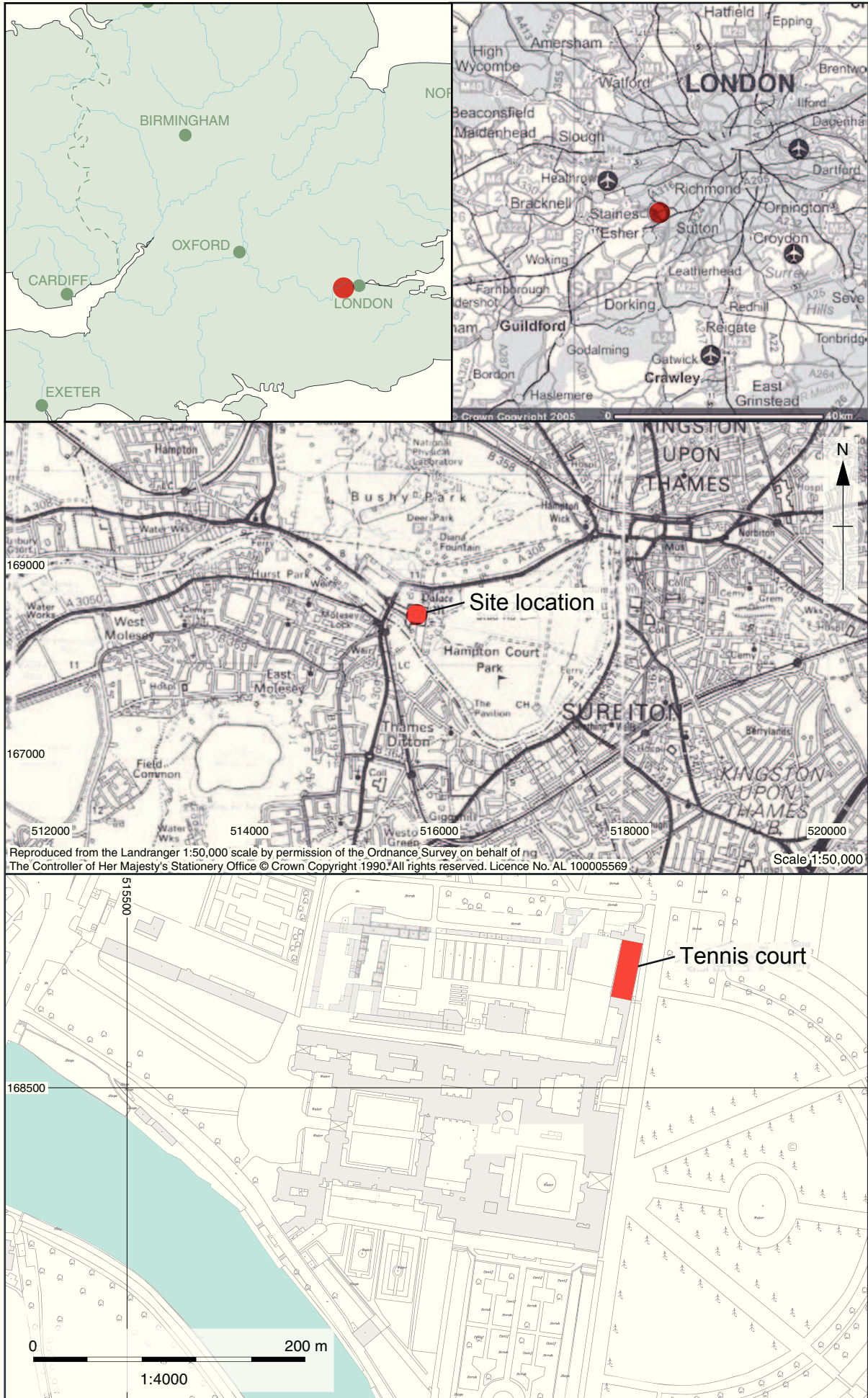
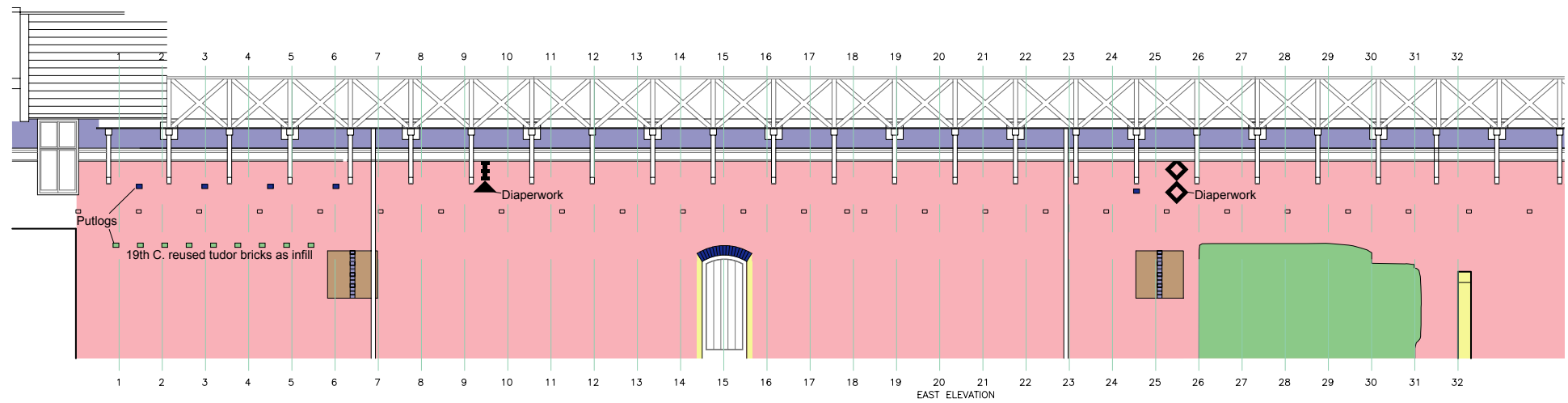


Figure 1: Site location



- Key
- C19th - Type Q bricks
  - C19th - Type T bricks
  - C18th - Type O bricks
  - C18th - Misc.
  - Late C17th - Misc.
  - C16th - Type C bricks

Figure 3: Eastern elevation of tennis court (adapted from a drawing provided by Historic Royal Palaces)

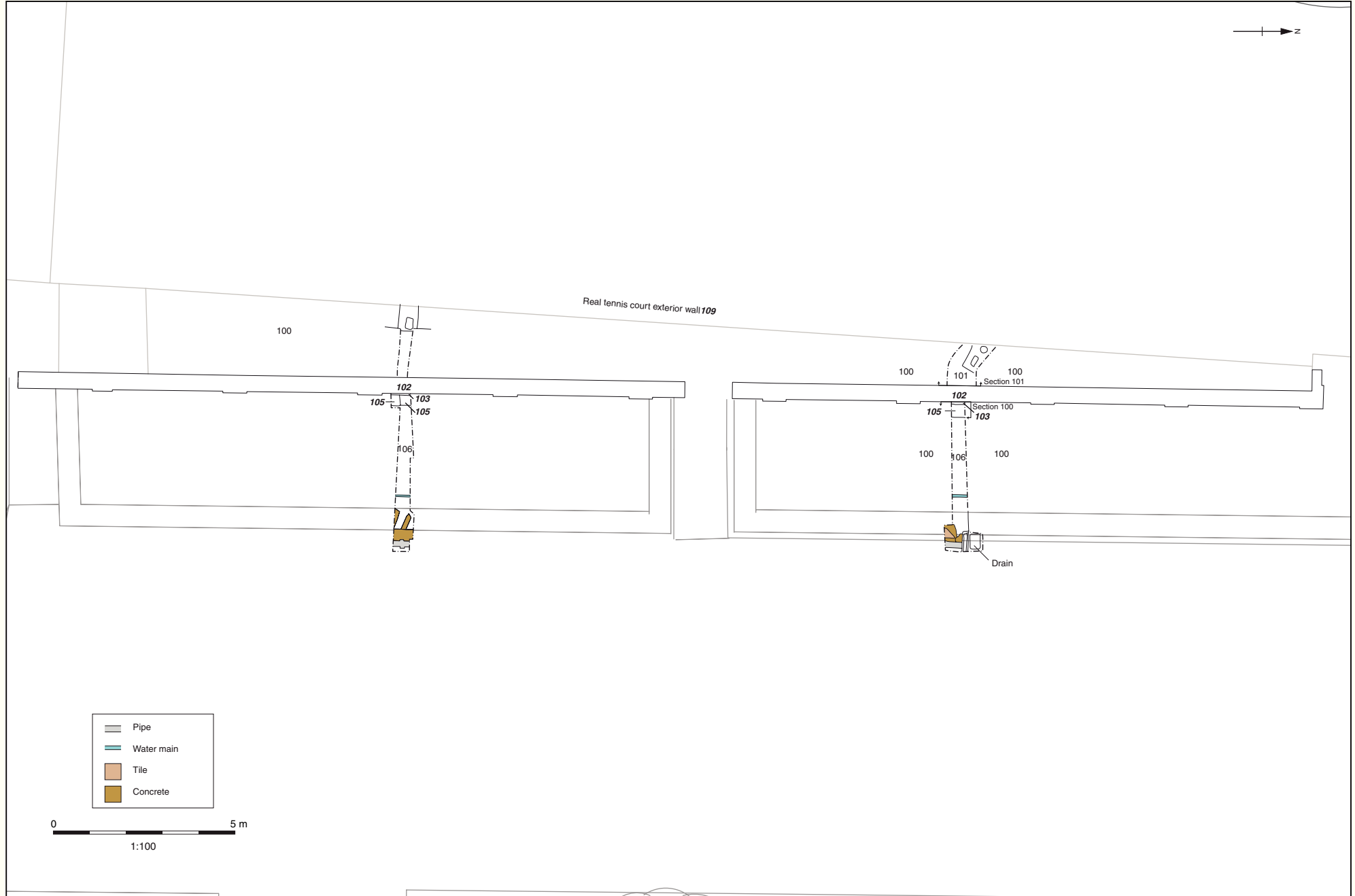
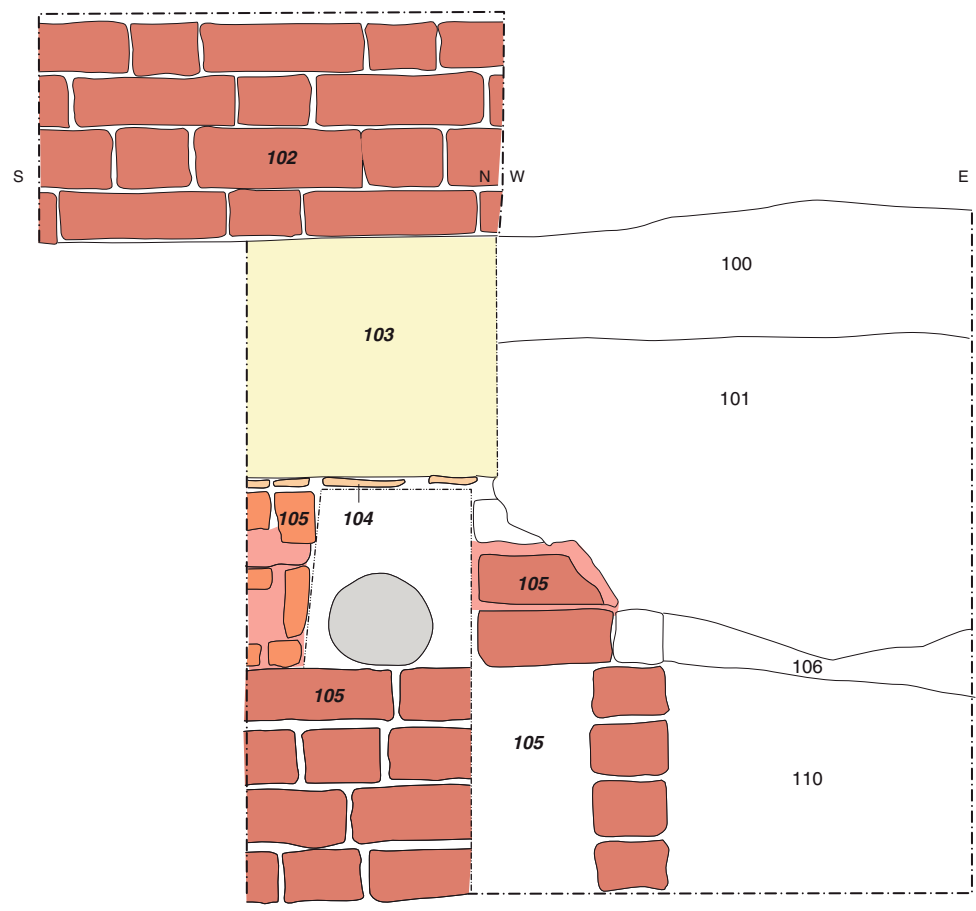


Figure 3: Watching brief trench location plan

Exterior aspect of wall  
Section 100



Interior aspect of wall  
Section 101

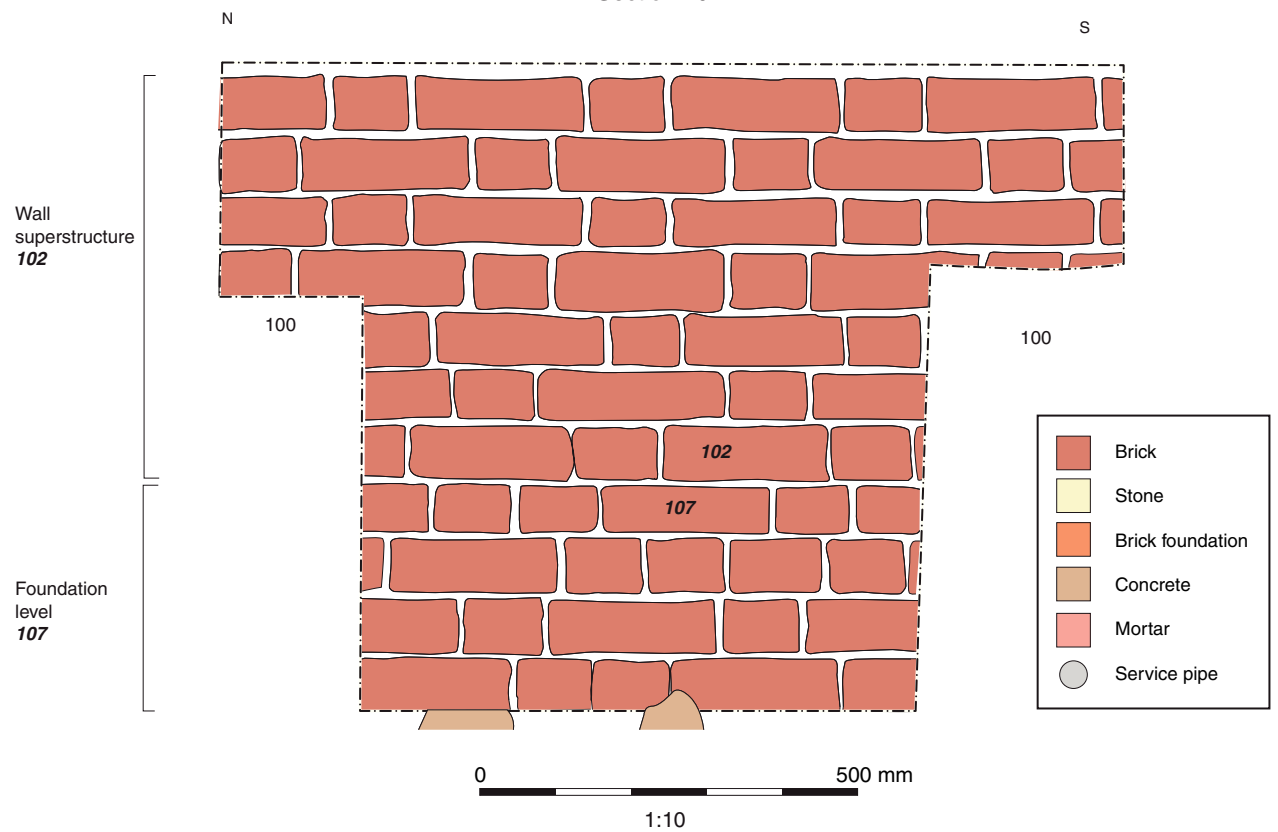


Figure 4: Watching brief elevations



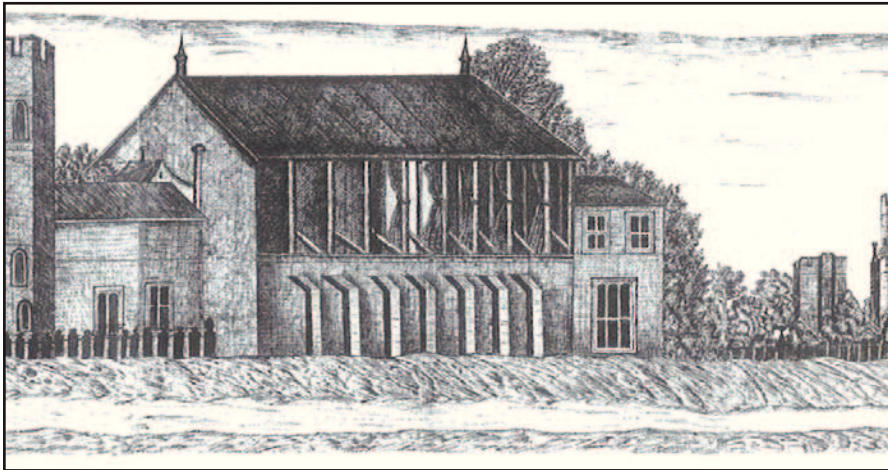


Plate 1: Detail from an anonymous view of the east front of Hampton Court Palace c. 1680 (after Thurley, 2003)

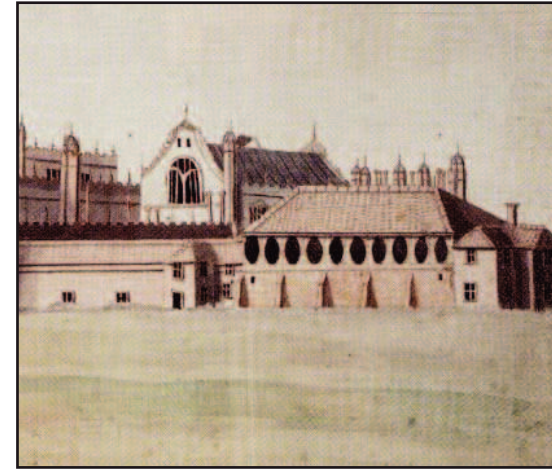


Plate 2: Detail from a watercolour of Hampton Court by Hendrick Dankerts (1669) (after Thurley, 2003)

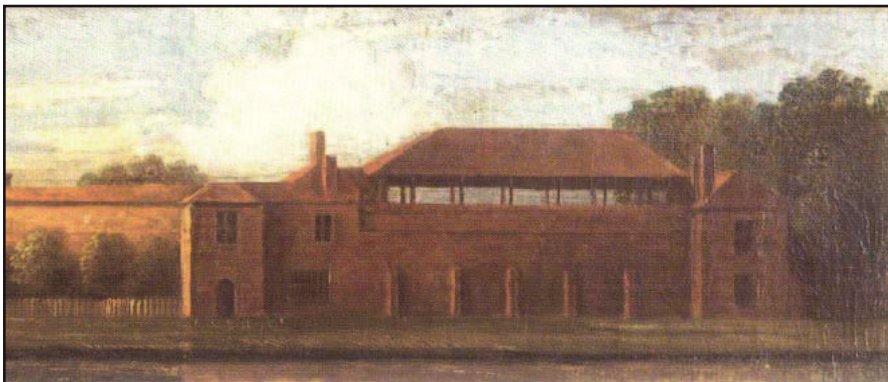


Plate 3: Detail from an anonymous painting of the front of Hampton Court Palace c. 1680 (after Thurley, 2003)

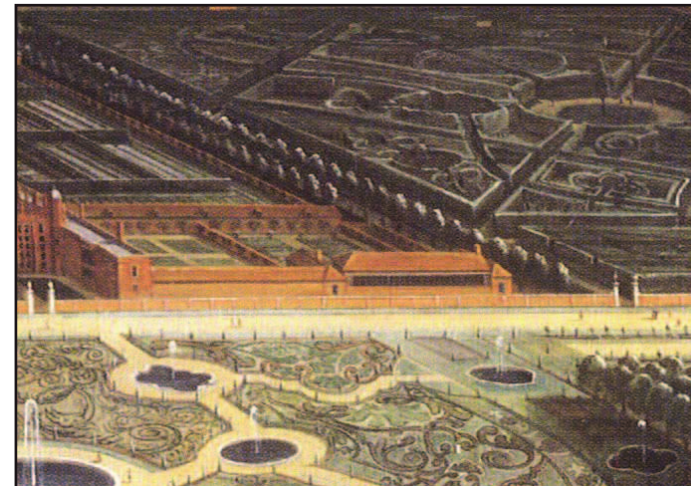


Plate 4: Detail from Hampton Court by Leonard Knyff c. 1712-13 showing 1699 brick wall on the east elevation (after Thurley, 2003)





Plate 5: Drawing by John Spyers showing the east-front gardens looking towards the Tennis Court, c. 1780 (after Thurley, 2003)



Plate 7: Pre 1880's sketch of the east elevation taken from 'Tennis; Lawn tennis; Rackets; Fives' (published London 1900)

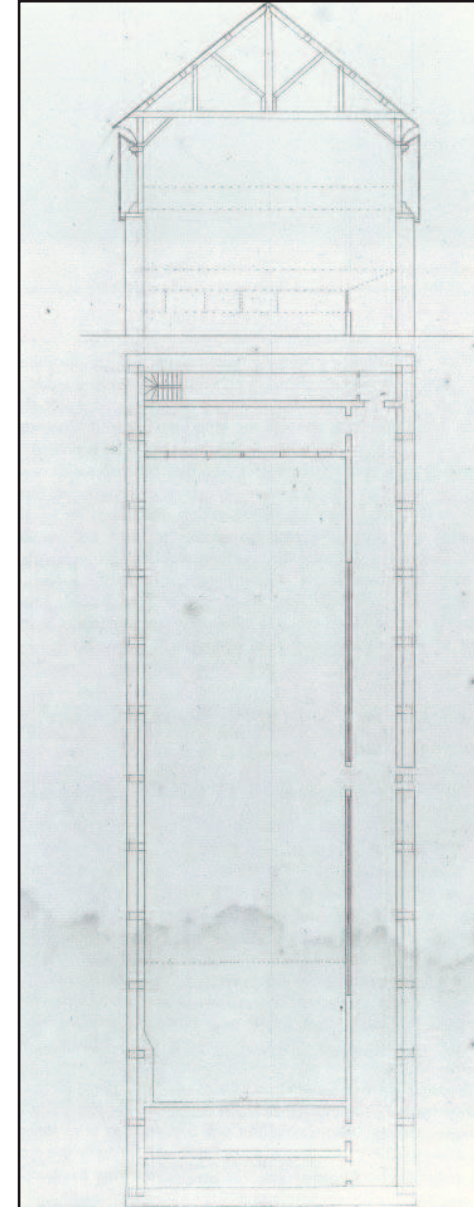


Plate 6: Plan and cross section of tennis court c. 1718 by Thomas Fort (after Thurley, 2003)





Plate 8: Late 19th/early 20th century photograph of Broad Walk showing the tennis court



Plate 9: Lower section of east elevation prior to works



Plate 10: Tudor brickwork at south end of elevation



Plate 11: View of lower section of east elevation prior to works



Plate 12: Graffito inscription on Tudor brickwork



Plate 13: View of lower section of east elevation prior to works



Plate 14: Doorway



Plate 15: Detail of rebuilt arch lintel





Plate 16: Infilled window opening to south end of elevation



Plate 17: Detail of infilled window opening to south end of elevation



Plate 18: 18th/19th century putlog set within primary Tudor brickwork



Plate 19: Infilled window opening to north end of elevation



Plate 20: Mortar repairs



Plate 21: Internal view of north blocked window



Plate 22: View of 19th century windows and adjoining brickwork



Plate 23: Open diamond diaperwork detail





Plate 24: Closed diaperwork detail



Plate 25: Iron balcony support inserted into stone string course



Plate 26: Straight joint showing extension to tennis court range



Plate 27: Inserted windows and truncated stone string course to south of tennis court range



Plate 28: Entrance to tennis court



Plate 29: Entrance to south of tennis court, changing rooms and storage



Plate 30: View of elevation following works



Plate 31: Archaeological watching brief - drain 108