



# The Tiltyard Tower Hampton Court Palace

## Historic Building Recording



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# The Tiltyard Tower Hampton Court Palace

## *HISTORIC BUILDING INVESTIGATION AND RECORDING*

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# **The Tiltyard Tower Hampton Court Palace**

## **Historic Building Recording and Investigation**

### **SUMMARY**

*In December 2005 Oxford Archaeology carried out intrusive investigations on the Tiltyard Tower at Hampton Court Palace. These investigations consisted of the removal of plaster on internal walls on the second floor, the raising of floorboards in a room on the first floor and the raising of a stone slab in the basement. The investigations revealed that there are features within the wall (windows or alcoves and putlogs) which are not visible on the external elevations. It also suggested that much of the internal fabric of the tower related to the post 1898 re-ordering of the floor levels. The small size of the interventions means that many questions remain unanswered, particularly those relating the phasing of the blocked features visible on the exterior of the building.*

## **1 INTRODUCTION**

### **1.1 Background**

1.1.1 Oxford Archaeology (OA) has been commissioned by Historic Royal Palaces to undertake a programme of historic building investigation and recording at the Tiltyard Tower, Hampton Court Palace, Surrey. The work was undertaken to inform plans to restore and consolidate the tower.

1.1.2 The Tiltyard Tower at Hampton Court is a brick-built structure dating from the 16th century, which is now showing clear signs of structural failure. Historic Royal Palaces (HRP) have therefore initiated a project which seeks to undertake external and internal conservation repair work to ensure the future structural stability of the Tiltyard Tower and to prevent further deterioration / loss of important building fabric as well as to facilitate interpretation.

1.1.3 Investigations were confined to small-scale interventions, all of which were targeted to allow glimpses of key areas of fabric. These investigations consisted of:

- The raising of a paving slab in the cellar to examine a Tudor culvert
- the raising of floor boards in a first floor lavatory (Room TYFF004)
- the removal of a plastered ceiling in a store room on the second floor (Room TYSF003)
- the removal of areas of plaster and brickwork on the east wall of the store room (Room TYSF003)
- the removal of parts of a plaster ceiling on the west wall of a locker room on the second floor (Room TYSF001)
- the removal of areas of plaster and brickwork on the south wall of the locker room. (Room TYSF001)

1.1.4 The investigations were carried out by Edmund Simons (OA) and Andrew Harris (Martin Ashley Architects) with assistance from Hampton Court Palace maintenance staff.

## 1.2 Aims and objectives

1.2.1 The purpose of the investigations were to assess the condition and make up of the Tiltyard Tower in advance of proposed consolidation and strengthening works at a future date. Interventions on the inner wall were designed to explore key areas which appeared to be of interest on the external elevations. The recording was largely restricted to those parts of the building on which the main restoration works were being undertaken (roof and external walls) so the work was not intended as a comprehensive investigation of the building.

## 1.3 Methodology

1.3.1 The work comprised three principal elements: an intrusive excavation into selected areas of wall, a photographic survey and a drawn survey.

1.3.2 The *photographic survey* consisted of general shots and specific details (external and internal) and was undertaken using 35 mm black and white print film and colour slide film. The *drawn survey* was largely based on an existing architect's survey which was annotated with descriptive detail but further detail drawings were made of features of interest. The *descriptive survey* complemented the other two surveys and added further analytical and descriptive detail.

1.3.3 The work was undertaken in December 2005.

## 2 HISTORICAL BACKGROUND

2.1.1 The history of the Tiltyard Tower was investigated as part of the 2006 Statement of Significance (OA 2006) and the following account is largely drawn from that work. The Tiltyard Tower is the sole remaining element of Henry VIII's elaborate setting for jousts and tournaments. It was part of a complex made up of five towers and a large perimeter wall which was probably built in 1537. The towers would have been poorly suited as viewing platforms and they were probably designed as a theatrical backdrop for the tournaments or possibly adapted from earlier garden towers. They may have had ancillary functions as storage and entertainment areas.

2.1.2 The Tiltyard area was only used on perhaps three occasions as a venue for a large royal tournament and the towers were used mainly for lodging of minor officials and servants. By 1700 all but the surviving tower had either fallen or were demolished and the former tiltyard was subdivided into a garden.

2.1.3 Until the end of the 19th century the tower was two storeys tall. After 1898 the internal layout was reconfigured to accommodate three floors within the existing shell. This major phase of activity is probably associated with the conversion of the

tower into a tea-room after 1923. In 1932 and 1964 the tea-rooms were extensively enlarged and rebuilt and the 1964 building was modified in 1994/1995.

- 2.1.4 The tower is mostly 16th-century in date, although even a cursory look at the exterior brickwork reveals that it has undergone numerous stages of addition and repair, including several phases of re-fenestration. Old pictures show that the tower once had an external stair turret and large projecting bay windows.

## 2.2 Summary of phasing

- 2.2.1 The development of the tower may be divided into the following main phases.

### **Phase 1 Before the Tiltyard (c1500-1537)**

Although the tower lies partly within the tiltyard it may be an earlier building which predated the 1537 tiltyard and which bordered and embellished Cardinal Wolsey's Great Orchard.

### **Phase 2 The Tiltyard Tower (c1537)**

The original tower built (along with four vanished companion towers) as a scenic embellishment to Henry VIII's tiltyard

### **Phase 3 Lodgings (1600-1670)**

The tower is used for lodgings and undergoes some repair and modifications; the early stair turret is demolished. The neighbouring towers fall or are demolished.

### **Phase 4 Unknown use (1700-1750)**

18<sup>th</sup> century work included the addition of arches on the east and south sides and a repair to a vertical crack on the north side (probably caused by the removal of the stair turret).

### **Phase 5 Residential use (1800-1900)**

The crenelated parapet was replaced.

### **Phase 6 Early Tea-rooms (1888-1923)**

The whole of the interior was re-arranged with three floors instead of two. Large windows on the east and south sides were blocked and numerous sash windows were added. A central chimney stack was inserted and the roof substantially remade.

### **Phase 6 Later Tea-rooms (1932-1995)**

The tea-rooms were extended in 1932 and again in 1964. In 1994-5 the tea-rooms were modified and given something of the appearance of the earlier (1932) tea-rooms.

## 3 INTERVENTIONS

### 3.1.1 *Basement*

- 3.1.2 The basement is currently used as a boiler room and as additional storage space for the tea-rooms. It is divided into five main spaces by internal walls. Many of these walls are clearly late 19<sup>th</sup> or early 20<sup>th</sup> century in origin (and there is one modern

breeze block wall). The exterior walls however appear to be largely made of early 20th century brick but with numerous areas of patching and addition. The earlier areas of wall are frequently covered with a thick sandy decayed plaster and whitewash. The floors of the rooms on the western side are covered by high quality Purbeck marble flags or areas of brick of unknown date. The floors of the eastern part are concreted (possibly over an earlier surface) and in part of room TYB003 they have been dug into to accommodate the boiler machinery. Ceilings are of concrete or cement.

- 3.1.3 As part of the investigations a single paving slab was removed and the void beneath it inspected before the slab was replaced. The slab was sited at the base of the modern stairs on the junction of the stone flooring and the brick flooring (see Figure 2). This flag was lifted to assess the nature of the void which was known to lie beneath it.
- 3.1.4 Raising of the slab revealed a narrow drain lined with brick and filled with silt. The underside of the slab was levelled with roof tile and slate. It was noted that the drain narrowed considerably on both sides and appeared to be more of a soak-away rather than a main drain. The bricks used in the culvert were of a 16th or 17th century type and were similar to the earliest fabric of the tower's main walls. The drain was almost entirely filled with silt and only a small part of the upper surface was visible. It was outside of the scope to excavate the fill of the drain and therefore recording was limited to photography.
- 3.1.5 *First Floor*
- 3.1.6 The first floor is divided into the stair and two main rooms as well as two small lavatories and a hall. All visible internal fabric (and the windows) are late 19<sup>th</sup> or early 20<sup>th</sup> century in origin. The only investigation on this floor was the raising of several floorboards in a small lavatory.
- 3.1.7 A hardboard floor covering was removed revealing softwood floorboards over softwood joists. The limited fabric revealed was late 19th or early 20th century in date and seemed consistent with the re-flooring of the tower after 1898 (see OA 2006).
- 3.1.8 *Second Floor*
- 3.1.9 The second floor is subdivided into three main rooms and once again the fittings and detailing of these is purely late 19<sup>th</sup> or early 20<sup>th</sup>-century in date. Features include an iron grate in room TYSF001 and an integral bench in TYSF002.
- 3.1.10 *The Store Room Roof TYSF003*
- 3.1.11 The lath and plaster ceiling was removed giving some access to the low-pitched roof (this is being planned by MAA). This appeared to be largely softwood and many details were obscured by pine boarding.

3.1.12 ***Second Floor***

3.1.13 *The Store Room East wall (Figure 4)*

3.1.14 Two areas of plaster were removed from this wall. Both were made up of a thick base coat of rough plaster with a fine top coat painted with brown then green emulsion. There was no sign of successive layers of early plasterwork or paint.

3.1.15 On the southern side of the wall several features were revealed within the investigated area. These were: a small joist pocket or put-log (blocked with the same mortar as the surrounding wall), the reveal of a Tudor feature and the reveal of a later feature.

3.1.16 The Tudor reveal had been crudely cut away at its junction with the wall (this may have occurred to facilitate blocking). Parts of the plastered interior of the splay were visible but were not sampled during the investigation. The splay may relate to a window or possibly an integral cupboard within the thickness of the wall.

3.1.17 The blocked later feature was unsuspected and no sign of it may be discerned on the exterior elevation. The jamb was made up from stock bricks (18th or 19th century?) and retained its plaster coating within the splay. Without further investigation it is difficult to understand how this feature related to the Tudor splay next to it. It appears as if they once formed the sides of a very narrow slit like window which was in turn the result of the partial blocking of a larger Tudor window and that this small window was later blocked. Only further and wider investigation would reveal the actual sequence of events and explain the lack of visible features on the exterior elevation.

3.1.18 *Locker Room Roof TYSF001*

3.1.19 Small holes allowed a very limited view of the roof structure. One large hardwood truss was noted as well as softwood elements. Much was obscured by boarding. The low trussed roof is largely cased-in and only two small areas were open to inspection (in rooms TYSF001 and TYSF003). These interventions revealed part of a trussed roof with large trusses (reinforced with iron straps) supporting softwood joists and rafters. At the time of writing much was hidden behind timber match-boarding above the joists which appeared to be 20th-century in origin (possibly relating to the 1920s alterations).

3.1.20 *Locker Room South Wall*

3.1.21 As part of the investigations a strip of plaster was removed from the south wall of the locker room (TYSF001). This investigation was designed to pick-up on areas of differing brickwork visually identified by HCP (Foyle 2001). This brickwork had been identified as including primary 1530s work, 17th century blocking and 18th century alterations.

- 3.1.22 Across the whole of the investigated area there were three layers of plaster (all from one phase). This consisted of a scratch coat, base coat and top coat. Paint-work consisted of brown and then white emulsion, overlain by white paper.
- 3.1.23 Although the investigated area was targeted on the three phases of brickwork which are visible on the exterior, there were only two (rather uniform) phases on the interior. The reasons for this are obscure at the time of writing. It is possible that later (now blocked) sash windows on the outside of the wall may have had large external frames and yet small internal ones.
- 3.1.24 The splay of the Tudor window was located and it was noted that it retains its plaster on the jamb. As with the window reveal in the store room the edge had been cut away (perhaps to allow blocking).

#### 4 CONCLUSION

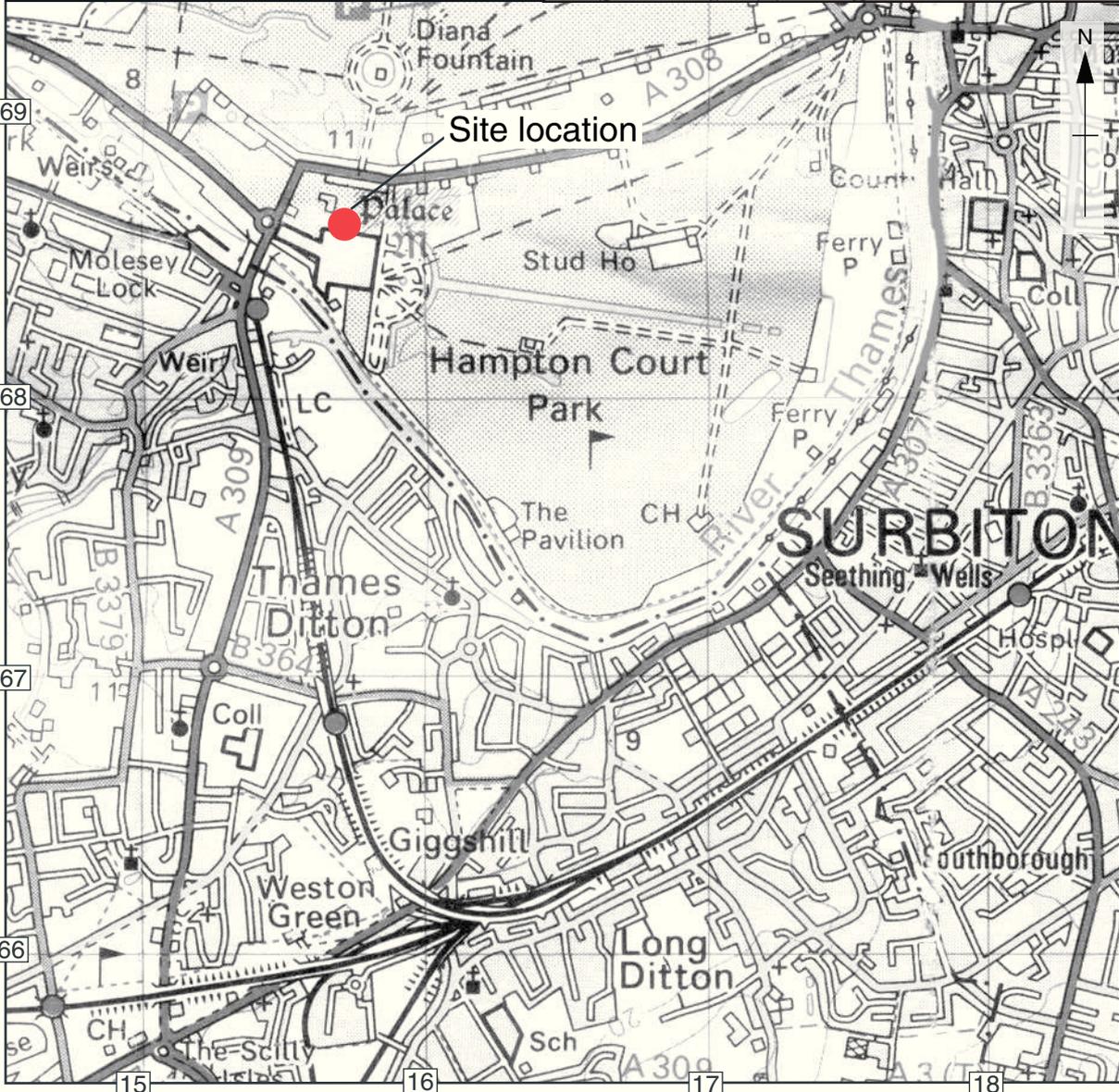
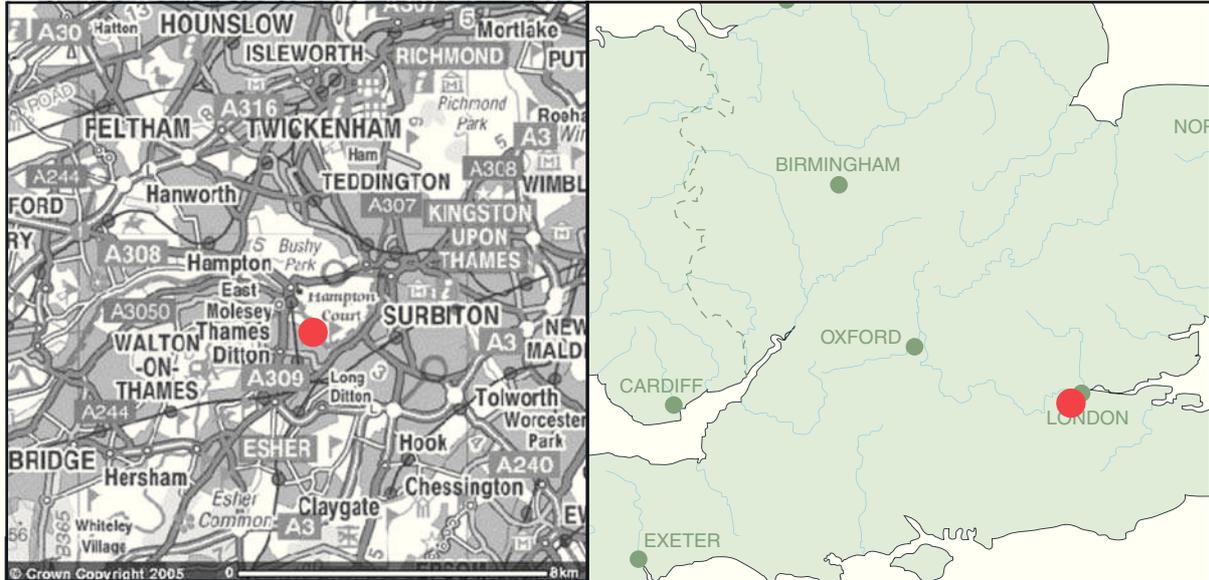
- 4.1.1 Investigations in two rooms (TYSF00, TYSF003) revealed that there was no complex stratigraphy of plaster on the external wall, but it did reveal that the archaeology of the brickwork beneath is more complex than expected and even in the small area investigated, window reveals, putlogs and phases or repair were encountered.
- 4.1.2 The interior features of this floor and the fenestration are almost all late 19<sup>th</sup> or early 20<sup>th</sup> century in date and any features or elements relating to earlier phases are obscured by later work. The removal of bricks on both investigated walls established that each wall was made up of brick skins concealing a rubble core. The blocked features located were not bonded to their neighbours and consequently it was noted that they were quite unstable in places. The relationship of the uniform interior wall of the store room to the multi-phase exterior wall is puzzling but may be clarified by further investigation.

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**APPENDIX I      BIBLIOGRAPHY**

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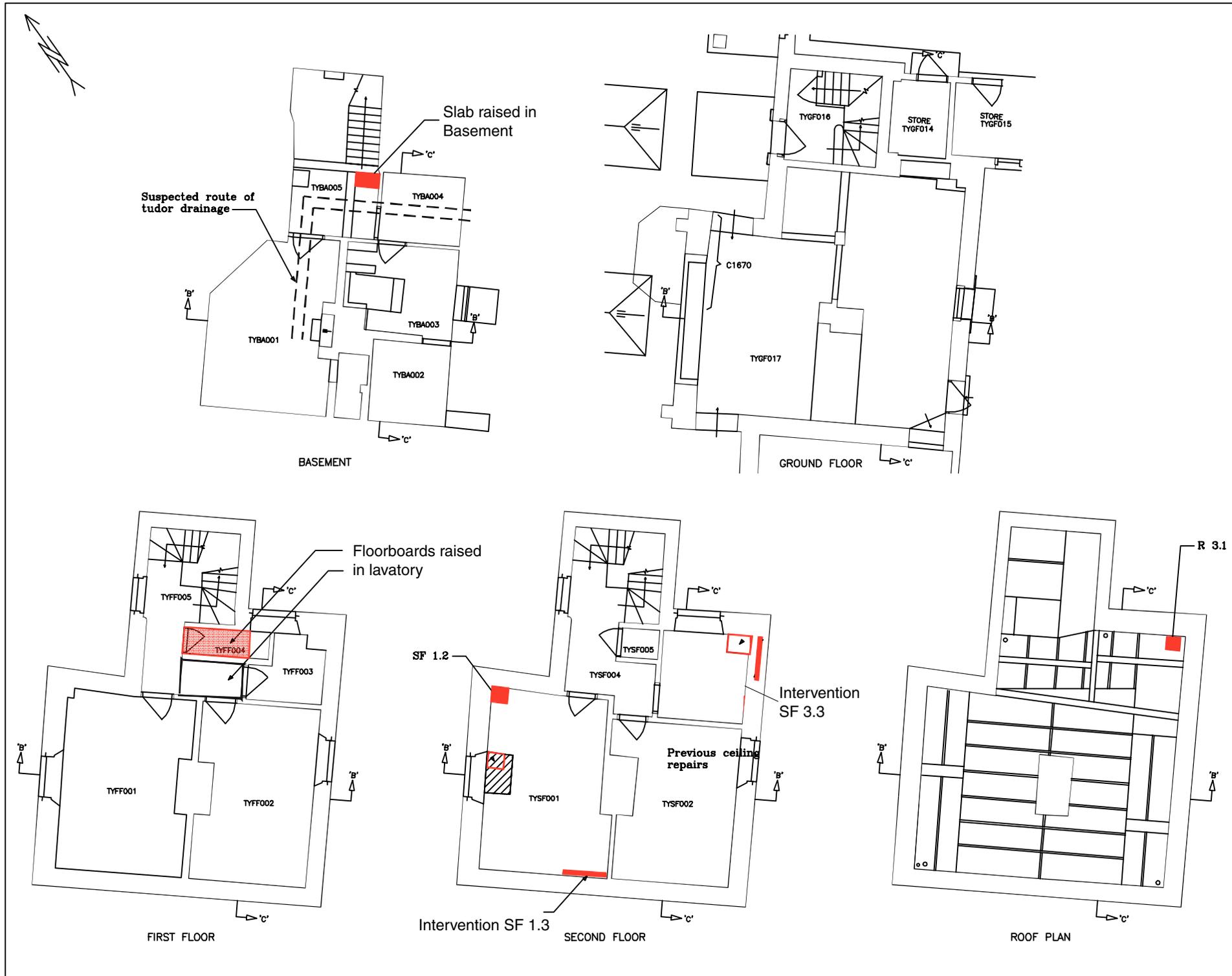
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Scale 1:25,000

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Figure 1: Site location



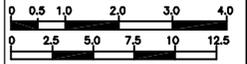
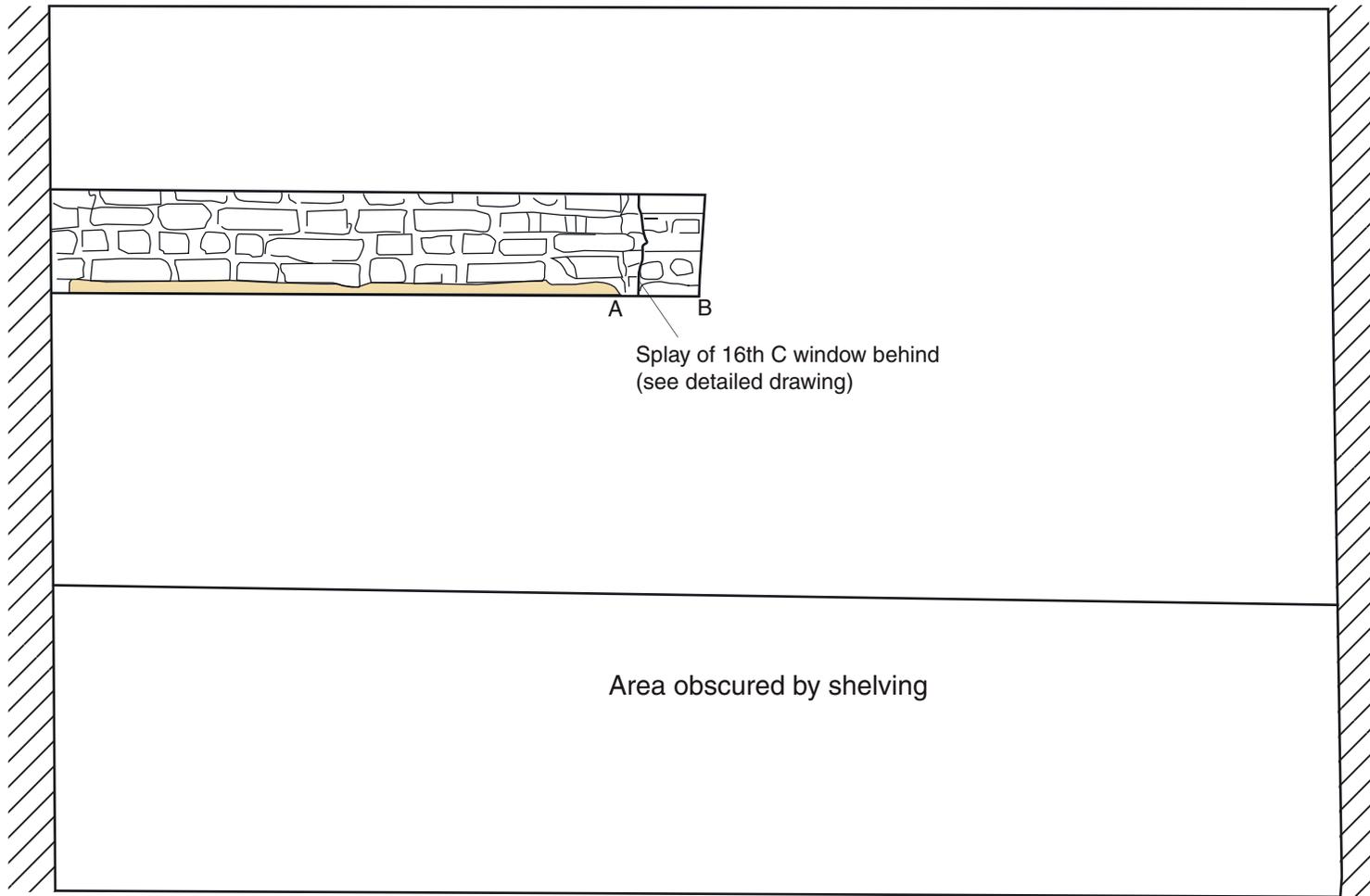
KEY:	
REVISIONS/NOTES:	
BRW	BRICK WALL
BSL	BEAM SOFFIT LEVEL
COL	COLUMN
CSL	CeILING SOFFIT LEVEL
DHL	DOOR HEAD LEVEL
FCSL	FALSE CEILING SOFFIT LEVEL
FL	FLOOR LEVEL
LL	LANDING LEVEL
RSJ	ROLLED STEEL JOIST
WHL	WINDOW ARCH HEAD LEVEL
WHL	WINDOW ARCH SPRING LEVEL
WL	WINDOW LEVEL
DATUM USED:- NEWLYM BENCH MARKS :- O.S.B.M.s 1) BOLT IN PLUMB ON THE LION GATE VALVE 10.00m.	
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004	
HAMPTON COURT PALACE TILTYARD TOWER	
INVESTIGATION WORKS	
BASEMENT, GROUND, FIRST & SECOND & ROOF PLANS	
By Martin Ashley Architects	
 HISTORIC ROYAL PALACES	
	
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Figure 2: The Tiltyard Tower floor plans

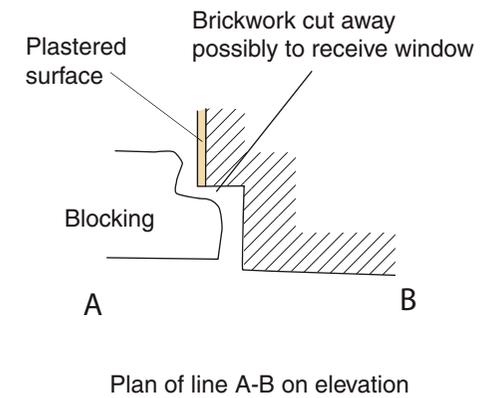
Partition wall

Exterior wall



Splay of 16th C window behind  
(see detailed drawing)

Area obscured by shelving



Plan of line A-B on elevation



Figure 3: Hampton Court Palace, Tiltyard Tower, Room SF001, Interventions December 2005

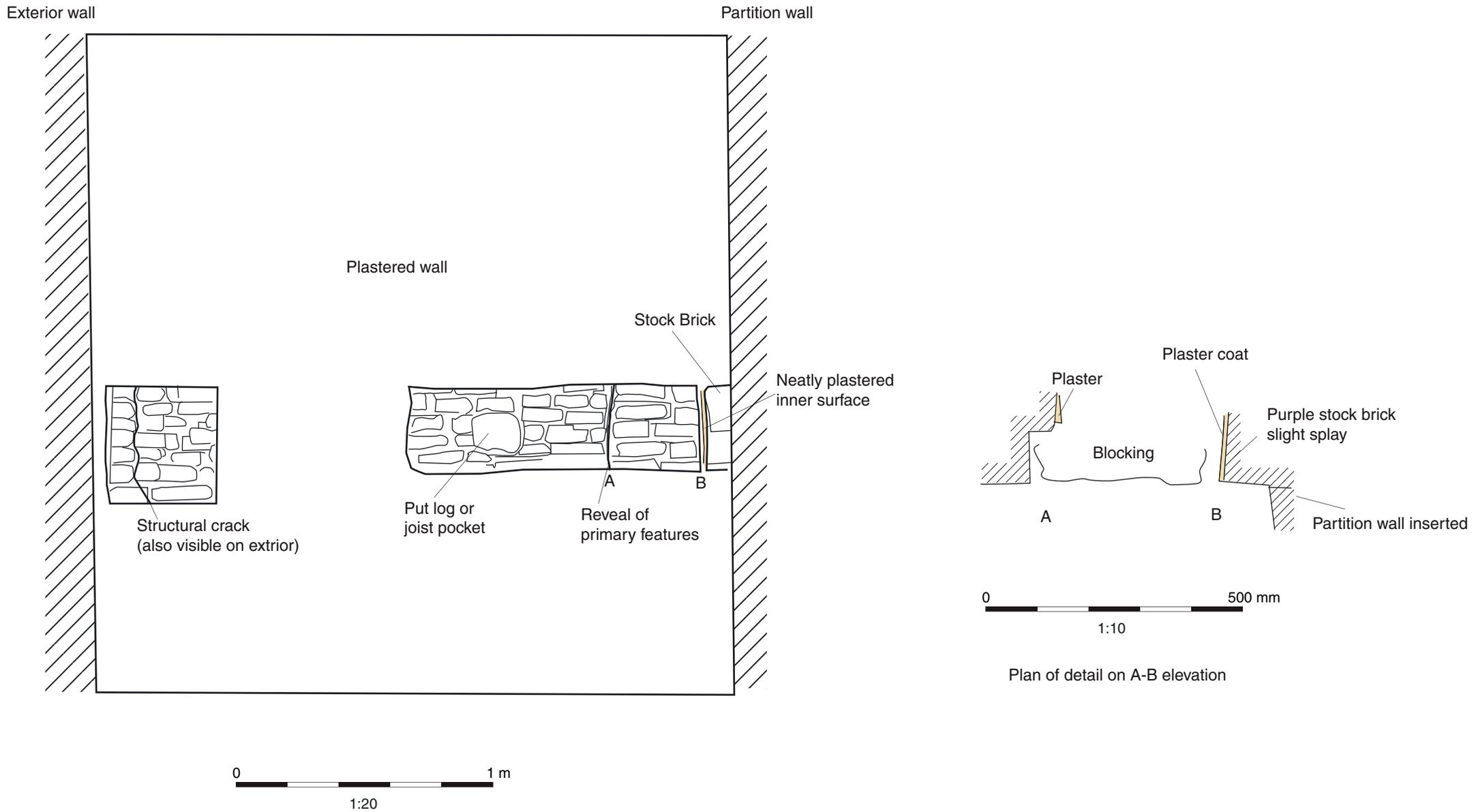


Figure 4: Hampton Court Palace, Tiltyard Tower, Room SF003. Interventions December 2005



Plate 1: The South and east elevations, December 2005



Plate 2: Blocked features on the south wall investigation focused on the area above the large blocked window.



Plate 3 External intervention showing core of south wall.



Plate 4: Raised slab in basement showing drain beneath.

**Hampton Court Palace, The Tiltyard Tower, Plates**