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Prepared by: Alison Kelly
Position: Buildings Archaeology Supervisor
Date: April 2007

Checked by: Jon Gill
Position: Buildings Archaeology Project Officer
Date: April 2007

Checked by: Dave Wilkinson
Position: HRP Term Contract Manager
Date: April 2007

Approved by: Julian Munby Signed

Position: Head of Buildings Dept.
Date: April 2007

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Oxford Archaeology

Janus House

Osney Mead

Oxford OX2 0ES

t: (0044) 1865 263800

e: info@oxfordarch.co.uk

f: (0044) 1865 793496

w: www.oxfordarch.co.uk

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Royal Pew, Chapel Royal, Hampton Court Palace Addendum to Report (dated June 2006)

HISTORIC BUILDING RECORDING AND INVESTIGATION

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Chapel Royal Watching Brief, Hampton Court Palace

HISTORIC BUILDING RECORDING AND INVESTIGATION

SUMMARY

Oxford Archaeology were commissioned by Historic Royal Palaces to provide watching brief services during investigative works to the Chapel Royal during consultations regarding the repair of the Royal Pew structure. This watching brief consisted of three parts: watching brief and recording services for the removal of part of the antechapel ceiling and underfloor investigation of the hearth structure in the Winter Pew; the recording of two Tudor windows on the North eastern side of the Antechapel; watching brief and recording services during Dendrochronology sampling of the roof structure above the pew and the main chapel. The works took place over various dates between September and December 2006.

Investigations into hearth structure within Winter Pew

A further watching brief was been undertaken during exploratory works to determine the nature of the structural support for the hearth of a first floor fireplace on the north side of the pew. A large stone which forms part of the hearth appeared to cantilever out from the wall with little support and ceiling laths and floor boards were removed to understand the structure. The works revealed that an iron tie bar, which passes through the north wall of the chapel at a sharp angle and is fixed by two external circular plates, extends through the stone and supports it from beneath.

Recording of Tudor windows in antechapel, Winter Pew and hidden room

The panelling around the windows upon the north elevation of the chapel was removed as part of the investigative works into the pew structure. This enabled the recording of the windows to take place. Two windows were recorded at three different levels: ground floor; winter pew and within the hidden room above the winter pew. Although the majority of the window stonework had been replaced in the 19th century there still remained some primary phase stonework.

Dendrochronology sampling of roof structure above Royal Pew and main chapel

Further to Dendrochronology sampling done on the main pew structure, further samples were taken from the main chapel roof and the roof above the pew.

AWAITING RESULTS....

1 INTRODUCTION

1.1 Background

1.1.1 Oxford Archaeology (OA) has been commissioned by Historic Royal Palaces (HRP) to undertake a programme of watching brief, investigation and recording during further investigation works in the Chapel Royal, Hampton Court Palace, Surrey.

1.1.2 The investigations were carried out by Jon Gill and Alison Kelly, and took place during the period September to December 2006. This report records these investigations and is intended as an addendum to the main OA Royal Pew report dated June 2006. Further consideration is also given to the pew structure in light of Dendrochronology findings not fully discussed within the main report.

1.1.3 This addendum covers four areas:

- the watching brief upon removal of a portion of the north aisle ceiling to inspect the underside of the fireplace and hearth which stands in the Winter Closet;
- the recording of two Tudor windows in the south facing wall of the ante chapel;
- the dendrochronological investigation of the chapel roof structure;
- Further consideration of the pew structure in light of Dendrochronology results.

1.2 Aims and objectives

1.2.1 The purpose of the investigation was to:

- To photograph and record details revealed as part of investigative works into the Royal Pew structure
- To provide watching brief services during removal of material ensuring the protection of the historic fabric
- To re-evaluate the pew structure following dendrochronological sampling
- To create a report and ordered archive of the work, to be deposited with HRP

2 THE INVESTIGATION OF THE WINTER PEW HEARTH CONSTRUCTION

2.1 Methodology

2.1.1 As part of further structural investigations into the construction of the Royal Pew it was proposed to open up part of the ceiling in the north side of the antechapel in order to inspect the underside of the Winter Closet fireplace. A crack had appeared in the ceiling directly beneath the hearth around 10 years ago and it was essential to

understand how the Winter pew hearth is supported in order to remedy the cracking and provide extra structural stability.

2.1.2 Parts of the ceiling in the north side of the antechapel were opened up in the presence of Martin Ashley Architects, Hockley and Dawson structural engineers and Jon Gill from Oxford Archaeology. Further inspection was made to the fireplace structure which had been already studied by OA staff as part of the main Pew investigation (see main OA pew report dated June 2006 § 2.17).

2.1.3 The photographic recording used 35mm film (black and white prints, colour slides) and consisted of general views and specific details. This was complemented with analytical and descriptive recording notes. A plan (at scale 1:10) was made upon archivally stable permatrace showing the hearth construction on the north side of the Winter Pew (fig ?).

2.2 Description

2.2.1 The hearth area is supported by a shallow rough brick arched platform (112 x 42 cms) which abuts up to the floor joists of the pew. Either side of this platform are large stones which cantilever out from the wall. An iron strap is fixed into each stone and this encloses the brickwork, probably to prevent movement. The works revealed that an iron pin, which passes through the north wall of the chapel at a sharp angle and is fixed by two external circular plates, extends through the NW stone and supports it from beneath. The bolt head for the pin connecting the NW cantilevering stone is visible upon the underside of the stone within the antechapel ceiling (fig 5). Brickwork and render beside the pin in the hearth was removed revealing that the tail of the pin twists behind the connection. It was difficult to determine how the pin was connected to the external plates seen within Chapel Court (fig ?), which are approximately 1.5m higher than the base of the hearth. However, later electromagnetic checks within the adjoining cupboard have shown that the pin extends diagonally upwards from the hearth to connect to the plates on the external wall.

2.2.2 The removal of material in the ceiling below the winter pew revealed above the lath and plaster ceiling an area of brickworks which is located directly beneath the brick platform of the hearth. Further material removal revealed an area of timber to the NW of this.

2.2.3 The support stones cantilever a long way out from the wall and they only appear to be held in place by softwood beam running across the top of the window beneath and then 'toe-d' under the window tracery. The adjacent timber post supports a 'cornice plate' beam which itself takes fireplace/hearth and the main structural N-S principal floor joist. This joist is slightly off - set to the east of the post so that it is right on the window jamb. This jamb is later (M Ashley) original jamb was c. 1m further W (look at outside brickwork).

2.2.4 The brickwork beneath and above the hearth structure was also recorded. The bricks used are mostly a dark rose in colour with few inclusions and presence of occasional stacking lines. The mortar is creamy coloured with lime inclusions and hard with a gritty texture. There is penny rolling to both vertical and horizontal mortaring, suggesting the brickwork was to be left exposed after construction. It is suggested that these bricks are 'Type J' as specified in the Hampton Court Brick Typology (see appendix ?? for analysis) which would be consistent with the proposed date of 1699 for the hearth construction.

3 RECORDING OF WINDOWS ADJACENT TO ROYAL PEW

3.1 Methodology

3.1.1 Oxford Archaeology were commissioned by Historic Royal Palaces, to undertake a short programme of recording on two windows in the North Elevation of the Chapel Royal at Hampton Court Palace. The work formed part of a wider programme of recording works at the Chapel and its purpose is principally to utilise the opportunity afforded by a series of conservation works inside the chapel which have exposed parts of the windows which are not normally visible. The work was undertaken at three levels: ground floor, first floor (pew level) and within the hidden room above the winter pew.

3.1.2 Although there is rectified photography and survey data for the lower two floor levels there is none for the window within the hidden room. Therefore a Reflectorless EDM survey of the window was undertaken, as well as a hand drawn survey at a scale of ???.

3.1.3 Instances of graffiti found upon the ground floor window within the antechapel were recorded on acetate at a scale of 1:1.

3.2 Ground Floor Window

3.2.1 The panelling adjacent to the window was removed and the exposed the window reveals. The NE reveal is 57cm deep and of stone construction primary, with saw marks down each side where moulding had been removed prior to the fixing of panelling. Two fixings for the panelling are cut into the stonework and there are other nail holes within the stonework which may relate to an earlier covering.

3.2.2 The NW reveal is of brick construction. The bricks are in varying shades of pinkish grey with small pebble inclusions. The mortar is creamy coloured with lime inclusions although an accumulation of dust has made the mortar appear grey in colour. There are penny rolling lines upon the flat pointed mortar. The bond is irregular, presumably to fit the small area. There is a small patch of roughly applied mortar and fragmentary bricks at the base adjoining the window jamb. The brick measurements and types are very similar to the brickwork within the winter pew and this suggests the brick reveal was probably done at the time of construction of the fireplace in the winter pew above (See appendix ?? for analysis).

3.2.3 The soffit above the window has had part of the adjacent plasterwork removed as part of the investigations into the hearth above.

3.2.4 As with most of the chapel royal any works have also been accompanied by graffiti, presumably added by the contractors. One instance of pencilled graffiti was found upon the stonework on the south eastern reveal. This comprises a list of names and a date of September 1891. The wooden panel covering the sill? has three instances of graffiti dated 1795, 1839 and 1835.

3.3 **Winter Pew**

3.3.1 The lower section of the upper window provides light for the winter pew with panelling at sill level that slopes downwards enclosing cupboard and hearth. The ceiling slopes upwards ending just below the lead transom. The window is partially blocked to one side with only five out of the six lights showing, the sixth light being hidden behind panelling on the north east window reveal. The top half of the window is seen within the hidden room above and is described in § 4.4. The window lights are divided with lead into rectangular panes and two lights have small (4 pane) casements.

3.3.2 There is a brick built chimney breast which slopes upwards towards the window which made access to the window impossible without specialist scaffolding. The chimney is built using dark pink/grey bricks. The bond varies but is mostly English bond and the brickwork appears to be all one phase with no sign of repairs. The mortar used is creamy and hard with gritty texture with some penny roll pointing to vertical as well as horizontal. The presence of this penny roll pointing is suggestive that the brickwork intended to be exposed. According to the 'Statement of Significance' by Kent Rawlinson the 'winter closet' was formed out of part of the former 'King's Holyday Closet' in 1699. The works included the lowering of the ceiling and provision of an additional chimney.

3.3.3 In keeping with the brick typology the size and colour of the bricks used to construct the hearth suggest these are typical Wren stock bricks of late 17th/early 18th century (possibly Type J, see appendix ? for brick analysis) which are contemporary with the date for the works to the winter closet.

3.3.4 Within the adjacent cupboard there are vertical cut lines running down and sloping up - guides for the cupboard construction? The cupboard has timbers sloping upwards, this is brick above the fireplace (topped with a pinkish coloured rough mortar). Timber battens support the panelling. The topmost section of panelling has not been removed, but unlikely to show any more of the window (observation made from viewing the exterior). The base stonework of the window is hidden by large sloping blocks of stone - the corner adjacent to the antechapel roof appears to be one piece of stone (sill and jamb) therefore sloping stones may be sill. The join of the sill and mullions cannot be seen.

3.3.5 3.

3.3.6 The stone reveal adjacent to the ante chapel wall has weathered moulding with some parts fractured off. The window has six lights with plain glass. One light is hidden behind panelling and therefore the NW jamb is not visible. The covered light is visible from the external elevation and from within the hidden room above. Within each light, the lead frame windows are divided into 2 across by 5 down. There are two small openings for ventilation. The cinquefoil design for the head of the lights is visible within the hidden room.

3.4 **Hidden Room**

3.4.1 The window within the winter pew continues upwards into the hidden room above. Running along the width of the window are vertical wooden boards approximately 20cms high. Horizontal timbers, the outermost with a rounded edge, lay across the vertical boards. From this flat surface further boards covered with paper slope upwards towards the window. The stone mullions are cut to accommodate these boards. Wooden rafters provide support from underneath and there is lath and plaster to the underside. The plaster contains hair pointing to construction date of 16th/17th century. This is in keeping with the dates given for the insertion of the hearth and lowering of the ceiling to form a winter closet (c. 1691/1699) under works by William and Mary (Rawlinson, ?).

3.4.2 Most of the upper interior mullion and cinquefoil is replacement, probably 19th century. The tracery for the lower lights is likely to be primary but is in a highly weathered state with much of the cinquefoil decoration to the head of the lights missing (fig ?).

3.4.3 Part of the primary moulding survives in the uppermost north western corner of the window soffit (fig ?). This piece of truncated stonework has an iron fixing probably where later replacement stonework has been added to the soffit. Over the centre of the window the primary moulding has been replaced with flat faced stonework, possibly to reduce the weight on the lintel when the hidden room was created. The stonework in the north eastern corner of the window is primary but the moulding has been lost when the stone was truncated.

3.4.4 The upper western light is visible as the partition wall is angled around the window (fig ?). Beneath this the lower light has a loose fitting wooden board covering the glass light.

4 **CHAPEL ROOF DENDROCHRONOLOGY SAMPLING**

4.1 **Methodology**

4.1.1

4.2 **Description**

4.2.1

5 CONCLUSION

5.1.1

Alison Kelly
Oxford Archaeology
April 2007

APPENDIX I BIBLIOGRAPHY

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APPENDIX II BRICK ANALYSIS

APPENDIX III DENDROCHRONOLOGY REPORT BY OXFORD DENDROCHRONOLOGY

**APPENDIX IV CHAPEL ROYAL, HAMPTON COURT PALACE (ROYAL PEW),
SUMMARY STATEMENT OF SIGNIFICANCE BY K. RAWLINSON
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