

LOCAL AUTHORITY:	Stirling
PROJECT TITLE/SITE NAME:	Stirling Castle Palace
PROJECT CODE:	SCPP-2008-01, SCPP-2008-05, SCPP-2008-08, SCPP-2008-09 & SCPP-2008-13
PARISH:	Stirling
NAME OF CONTRIBUTOR:	Paul Fox, Sarah Hogg, David Murray & Tom Whalley
NAME OF ORGANISATION:	Kirkdale Archaeology
TYPE(S) OF PROJECT:	Standing Building Survey
NMRS NO(S):	NS79SE 6.01
SITE/MONUMENT TYPE(S):	Residential/ Palace
SIGNIFICANT FINDS:	
NGR (2 letters, 8 or 10 figures)	NS 7899 9403
START DATE (this season)	5 March 2008
END DATE (this season)	22 September 2008
PREVIOUS WORK (incl. DES ref.)	
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>As part of ongoing works prior to the commencement of the restoration works in the Palace various Standing Building Surveys were completed at Stirling Castle Palace during 2008. These surveys built upon and added to previous work undertaken between 2003 and 2007. The surveys were:</p> <p>SCPP-2008-01: Recording of fireplace hearths. Prior to the commencement of restoration works the MCU removed the hearth stones of the fireplaces in the Principal rooms of the Palace. These hearthstones were known to be early and mid- 20th-century replacements. The opportunity was taken to record any surviving original fireplace features that were revealed. It is apparent that the original fabrics of the 1540 hearths have been destroyed or seriously truncated over time with the main damage coming from the insertion of the large Caithness slabs in the 20th century. It seems that the original form of the fireplaces was a mortared platform of sandstone carrying the uprights with a further platform internally onto which the flat sandstone hearth slabs could bed.</p> <p>SCPP-2008-05: Recording of a fallen sash window. In July of 2008 one of the large sash windows in the S wall of the Queen's Inner Hall collapsed into the Palace and suffered some damage. This gave the opportunity to record both the window and the surrounding aperture in detail. The window, previously assumed to be of possible 17th or 18th-century date was shown to be an early 20th-century replacement with cast iron sash weights.</p> <p>SCPP-2008-08: Recording of recently stripped walls in the Princes Tower. The two remaining unstripped walls in the first floor of the Princes Tower were stripped of plaster in 2008. Prior to re-pointing these walls were recorded to the same standard as the walls of the Princes Tower recorded in 2004 and 2005.</p> <p>SCPP-2008-09: Recording of the upper floor. The upper floor was originally surveyed as part of the 2003-2004 works. However, in 2008 the opportunity arose to revisit this work and to complete a full photographic survey of the rooms prior to the restoration works. Various interventions into the wall fabrics since 2004 were also recorded.</p> <p>SCPP-2008-13: Recording of the Governor's Kitchen. Recording of the fabric of the interior walls of the Governor's kitchen was undertaken following stripping of plaster from some of the walls. The walls were drawn by hand, added to existing elevations drawn during the 1997 (SCAK97) excavation in the rooms, and the features described.</p>

	Evidence for changes in wall fabric was noted including original builds and crude 19 th and 20 th -century repairs.
PROPOSED FUTURE WORK:	
CAPTION(S) FOR ILLUSTRS:	
SPONSOR OR FUNDING BODY:	Historic Scotland
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ARCHIVE LOCATION (intended/deposited)	Archive to be deposited in NMRS

Stirling Castle
James V's Palace
Fireplaces

Fireplace Cleaning / Recording

SCPP 2008-1

3rd-7th and 10th-11th March 2008

Kirkdale Archaeology

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1. INTRODUCTION

Kirkdale Archaeology was asked to undertake the cleaning and recording of the c.1542 fireplaces serving the suite of Royal apartments within James V's Palace at Stirling Castle. This was due to the removal of the large Caithness slate hearth slabs by the HS squad ahead of refurbishment/restoration works within the Palace. The fireplaces were cleaned of loose, photographed and drawn in plan, with details such as fire-backs and newly exposed areas at the bottom of reveals or upright bases being added to the already extensive survey carried out previously by Kirkdale Archaeology. This was not an excavation but an exercise to record the extent of the squad's interventions and add newly exposed features to the survey archive.

The original fireplaces within the King's and Queen's Guard and Presence Chambers are large and decorated with fine carving on their capitals with plain jambs and moulded bases. Those within the King's and Queen's Bedchambers, although smaller, are sumptuously carved on both capitals and jambs again with moulded bases (although the bases of the King's Bedchamber fireplace have been replaced). The removal of the Caithness Slate hearth slabs provided an opportunity to try to identify what the original form of the hearths was and to try to glean information about their development through time.

2. CLEANING ACCOUNT

The breaking out of the inserted fireplace slabs had left a mixed fill of concrete, mortar and dusty finings over the various fireplaces. This layer was removed with a mixture of trowel and brush. All finds recovered during this exercise came from this horizon (with the exception of those found within the trample of the levelling layer in the King's Bedchamber). Loose was placed in plastic baskets and taken off-site by the HS Squad.

3. DESCRIPTION, INTERPRETATION AND OBSERVATIONS

P02: The King's Guard Chamber Fireplace

There were several original features noted within this fireplace (See Drg#1001). In the SE corner was **P02.5.007**, the remains of the yellow sandstone hearth slabs, generally rectangular in plan and up to 480 x 380 x 60mm thick. These slabs were carried on **P02.5.011**, a platform up to 100mm high of angular sandstone pieces up to 150mm across bonded in a whitish lime mortar. This layer formed the bedding for the inner hearth and was in turn carried on a layer of lime-mortared sandstone levelling **P02.5.018**, which together with original sandstone setting **P02.5.017** formed the bedding of the outer hearth. Other original elements noted were **P02.5.013** and **P02.5.014**, the yellow sandstone slabs supporting the bases of the E and W fireplace uprights respectively. All of these elements have been truncated by cut **P02.5.010**. There are 2 further phases within this fireplace that this cut could be attributable to- either army insertion of stoves –perhaps represented by brick setting **P02.5.009** or the insertion of the Caithness slate hearths in the later 20th century. In either case the cut seems radical, truncating and replacing more than 50% of the visible surface of the hearth. The clawing back of the sandstone bases of the E and W Reveals aligned with the fact that the clawing corresponds to the top level of the hearthstones suggests that much of the re-jigging work can be attributed to the insertion and bedding of the Caithness slabs. The installation of a brick base or back for a stove setting would be a far less intrusive process. This could perhaps explain why 600mm x 600mm brick setting **P02.5.009** (probably for a stove) sits within its own cut **P02.5.008**. Layers **P02.5.012** and **P02.5.016** could therefore be seen as redeposition of removed material in order to create the base for the later slabs.

P03: The King's Presence Chamber Fireplace

The original components of this fireplace are limited to the moulded bases, jambs, capitals and lintel. Below the moulded bases are W **P03.3.215** and E **P03.3.216** sandstone blocks, which would've formed part of the platform for the original hearthstones. The reveals and back of this fireplace have been completely refaced (the limit of this re-facing work is shown by the cusp between **P03.3.023** and **P03.3.218** on Drg#1000). The brick course **P03.3.218** carrying the inserted flat dressed ashlar **P03.3.023** shows the level at which the Caithness slabs would've sat. In order to insert the Caithness slabs, Cut **P03.3.219** cut back **P03.3.215** and **P03.3.216**. The laying of base **P03.5.006** (See Drg#1009) and the re-sleeving of the Reveals and Fireback appear to be contemporary with the insertion of the Caithness slabs. **P03.3.217** and **P03.3.220** are the cement remains of the Caithness slabs and the recent cut through them respectively. Little observation could therefore be made about the original form of the hearth. This may have had a stepped hearth like P02 but the current base is at a uniform height.

P04: The King's Bedchamber Fireplace

This fireplace shows an interesting development over time. After cleaning it became apparent that this fireplace was cut through a surface to the E. This was **P04.5.016**, a flat surface of dark orange brown sand with a greyish trampled surface strewn with bone. The fireplace itself appeared to be cut into this surface via a relatively amorphous cut **P04.5.012** (See Drg#1013). The sandy trampled surface seems likely to have been some form of original working platform levelled over the crown of the barrel-vaulted undercroft below. A platform of sandstone rubble bonded in whitish yellow lime mortar was emplaced into the cut to provide the base for the hearthstones and the bases of the S and N jambs. Relics of the original hearthstones 120mm high x up to 400mm across can be seen to the SW **P04.5.012** and NW **P04.5.009** corners of the fireplace (See Drg#1013). It appears that the truncation of these

original features by **P04.5.013** was carried out to insert the concrete base for an army period stove (removed)- the outer hearth may have been emplaced at the same time. **P04.5.015** represents the redeposition of the excavated material to provide the platform for this modification. This is a loose greyish brown mixture of brick fragments, sub-rounded and sub angular stones and wood fragments within a dusty matrix. Contemporary with the insertion of the army stove was a shortening of the sides through **P04.4.261** and **P04.4.266** (mortared randomly shaped pieces of sandstone rubble) as well as the filling of the heat damaged fire-back **P04.4.263** with **P04.4.264** (mortared randomly shaped pieces of sandstone rubble) and a central brick stove setting **P04.4.265** 400mm high x 360mm across (See Drg#1012)

P07: The Queen's Bedchamber Fireplace

This fireplace is of similar dimensions to that in the King's Bedchamber but has had many of its original features truncated. There is no evidence of an army period stove within the fireplace, although this could potentially have been removed prior to the insertion of the Caithness slabs. The fireplace is formed over a lime-mortared setting of sandstone blocks **P07.5.029**, forming the base platform for the upright bases **P07.5.031** (W) and **P07.5.032** (E) (See Drg#1014). These are up to 220mm thick and have been truncated internally by cut **P07.5.036**. Also truncated by this cut is the remains of the original hearthstone levelling material **P07.5.029**. This is a further layer of lime-mortared sandstone pieces up to 300mm across. To the S of stone setting is **P07.5.033**, a layer of mid-brown mortar-rich, sandy material containing lots of sandstone fragments. This appears to be the primary levelling after the insertion of the fireplace. Later patches of secondary levelling **P07.5.034** and **P07.5.035** are perhaps associated with the insertion of the Caithness slabs- there is no evidence that there was an outer heart here originally. Cut **P07.5.036** truncated many of the original hearth features to emplace the later Caithness slabs.

P09: The Queen's Presence Chamber Fireplace

Very little remains of the original hearth of this fireplace. The bases of the moulded jambs are carried to the W **P09.5.008** and E **P09.5.009** by large sandstone slabs up to 220mm thick. These would have formed part of the original base course to hold the hearthstones but these have been truncated by Cut **P09.5.010**, which has also removed all of the original central features and obliterated any evidence of an outer hearth. The base is now formed by **P09.5.011**, a redeposited mixture of red and yellow bricks, sandstone pieces and smashed slate within a matrix of ash and mortar.

P11: The Queen's Guard Chamber Fireplace

Original features include the sandstone base slabs underneath the E and W uprights **P11.5.017** and **P11.5.018** respectively and the reduced base platform **P11.5.020** which would've held the original hearthstones. These have been truncated by cut **P11.5.019**. This is a characteristically clawed cut to reduce original masonry to emplace the later Caithness slabs. It also appears that the insertion of the outer hearth represented by stone setting **P11.5.023** and redeposited backfill **P11.5.024** is contemporary with the insertion of the Caithness slabs. Both of these deposits correspond to the inserted layers **P02.5.012** and **P02.5.015** in the King's Guard Chamber. Rather more enigmatic is the rectangular brick setting sitting centrally W of **P11.5.023** (See Drg# 1024). This is either some form of stove setting pre-dating the insertion of the outer hearth or relates directly to the insertion of the Caithness slabs in which case it could be a central support for a 2-part arrangement of later Caithness slabs.

4. CONCLUSIONS AND RECOMMENDATIONS

It can be extremely difficult to argue for some of the hypothesis put forward without the aid of excavation to establish what cuts what etc. What seems clear however is that the original fabrics of the 1540 hearths have been destroyed or seriously truncated over time. The army would certainly have made modifications but it seems likely that the real damage came with the insertion of the large Caithness slabs in the 20th century, which made the fireplace bases commensurate with the whitewashed walls with protruding stag heads. It seems that the original form of the fireplaces was a mortared platform of sandstone carrying the uprights with a further platform internally onto which the flat sandstone hearth slabs could bed. Patterns of wear on the fire back suggest that the fuel was burnt in a raised wrought iron basket. These fireplaces were not designed for cooking on. Any further intrusive work should be monitored archaeologically.

APPENDIX 1: LIST OF DRAWINGS

No.	Description	Scale
1000	P03.3 – N Facing Elevation of Fireplace in King’s Presence Chamber	1:20
1001	P02.5- Plan of Fireplace in King’s Guard Chamber	1:20
1002	P02.3- N Facing Elevation of Fireback in King’s Guard Chamber	1:10
1003	P02.3- E Reveal of Fireplace in King’s Guard Chamber	1:10
1004	P02.3- W Reveal of Fireplace in King’s Guard Chamber	1:10
1005	P02.3- E Base of Fireplace Upright in King’s Guard Chamber	1:10
1006	P02.3- W Base of Fireplace Upright in King’s Guard Chamber	1:10
1007	P03.3- W Reveal of Fireplace in King’s Presence Chamber	1:10
1008	P03.3- E Reveal of Fireplace in King’s Presence Chamber	1:10
1009	P03.5- Plan of Fireplace in King’s Presence Chamber	1:20
1010	P04.3- S Reveal of Fireplace in King’s Bedchamber	1:10
1011	P04.3- N Reveal of Fireplace in King’s Bedchamber	1:10
1012	P04.4- E Facing Elevation of Fireplace in King’s Bedchamber	1:20
1013	P04.5- Plan of Fireplace in King’s Bedchamber	1:20
1014	P07.5- Plan of Fireplace in Queen’s Bedchamber	1:20
1015	P07.1- W Reveal of Fireplace in Queen’s Bedchamber	1:10
1016	P07.1- E Reveal of Fireplace in Queen’s Bedchamber	1:10
1017	P07.1- S Facing Elevation of Fireplace in Queen’s Bedchamber	1:20
1018	P09.1- S Facing Elevation of Fireback in Queen’s Presence Chamber	1:10
1019	P09.5- Plan of Fireplace in Queen’s Presence Chamber	1:20
1020	P09.1- E Reveal of Fireplace in Queen’s Presence Chamber	1:10
1021	P09.1- W Reveal of Fireplace in Queen’s Presence Chamber	1:10
1022	P09.1- W Base of Fireplace Upright in Queen’s Presence Chamber	1:10
1023	P09.1- E Base of Fireplace Upright in Queen’s Presence Chamber	1:10
1024	P11.5- Plan of Fireplace in Queen’s Guard Chamber	1:20
1025	P11.3- N Facing Elevation of Fireback in Queen’s Guard Chamber	1:10
1026	P11.3- E Reveal of Fireplace in Queen’s Guard Chamber	1:10
1027	P11.3- W Reveal of Fireplace in Queen’s Guard Chamber	1:10
1028	P11.3- E Base of Fireplace Upright in Queen’s Guard Chamber	1:10
1029	P11.3- W Base of Fireplace Upright in Queen’s Guard Chamber	1:10

APPENDIX 2: LIST OF DIGITAL PHOTOGRAPHS

No.	Description	From
1	Fireplace in P02 Looking S	N
2	Fireplace in P02 Looking S	N
3	Fireplace in P02 Looking W	E
4	Fireplace in P02 Looking E	W
5	Fireplace in P02 Looking E	W
6	Fireplace in P03 Looking S	N
7	Fireplace in P03 Looking E	W
8	Fireplace in P03 Looking W	E
9	Fireplace in P04 Looking W	E
10	Fireplace in P04 Looking S	N
11	Fireplace in P04 Looking S	N
12	Fireplace in P04 Looking N	S
13	Fireplace in P07 Looking W	E
14	Fireplace in P07 Looking E	W
15	Fireplace in P07 Looking W	E
16	Fireplace in P07 Looking N	S
17	Fireplace in P07 Looking N	S
18	Fireplace in P09 Looking E	W
19	Fireplace in P09 Looking W	E
20	Fireplace in P09 Looking N	S
21	Fireplace in P09 Looking N	S
22	Fireplace in P11 Looking SE	NW
23	Fireplace in P11 Looking NW	NE
24	Fireplace in P11 Looking SE	NW
25	Fireplace in P11 Looking S	N
26	Fireplace in P11 Looking S	N
27	Fireplace in P02 Looking S	N

APPENDIX 3: LIST OF CONTEXTS

P02.3.

- 326 See p02.5.014
- 327 See p02.5.010
- 328 See p02.5.013
- 329 See p02.5.011
- 330 See p02.5.012
- 331 See p02.5.015
- 332 See p02.5.007
- 333 See p02.5.009

P02.5.

- 007 Original Hearth Slabs at the SE Corner of Fireplace
- 008 Cut through 007 for 009
- 009 Brick and Stone Setting for Stove?
- 010 Cut through 007, 013 and 014
- 011 Stone and Mortar Levelling below 007, 013 and 014
- 012 Levelling Material of Outer Hearth
- 013 S/Stone Slab Under E Upright Base
- 014 S/Stone Slab Under W Upright Base
- 015 Inserted S/stone setting of Outer Hearth
- 016 Redeposited Material within 010
- 017 Original patch of Slabs for Outer Hearth
- 018 Original Levelling of Outer Hearth

P03.3.

- 215 See p03.5.003
- 216 See p03.5.004
- 217 See p03.5.005
- 218 Coursed Brick Under P03.3.023
- 219 See p03.5.009
- 220 See p03.5.008

P03.5.

- 003 Original S/stone slab under W Upright Base
- 004 Original S/stone slab under E Upright Base

- 005 Remains of concrete bonding from removed Hearth Slabs
- 006 Later Inserted Base for Removed Hearth Slabs
- 007 Levelling Material to E of 006
- 008 Cut through 005
- 009 Cut through 003 and 004

P04.4

- 255 Original Base Slab under inserted Moulded Upright Base P04.4.018
- 256 Cut through 257 – See P04.5.013
- 257 Remains of S/stone base – See P04.5.014
- 258 Original Hearthstones- See P04.5.012
- 259 Original Hearthstones- See P04.5.009
- 260 Backfill of Cut 256 – See P04.5.015
- 261 Inserted Masonry to S- See P04.5.006
- 262 Inserted C/crete Base for Stove- See P04.5.008
- 263 Fire-damaged Fireback Masonry
- 264 S/stone masonry inserted into recess of 263
- 265 Brick Insert Within 264
- 266 Inserted Masonry to N- See P04.5.007

P04.5

- 012 Remains of Original Hearthstones on S Side
- 013 Cut to Insert Later Hearth
- 014 Remains of S/stone base under 012 and 009
- 015 Backfill of Cut 013
- 016 Compacted Trampled Sand Surface
- 017 Cut through 016 for Fireplace

P07.1

- 070 See P07.5.031
- 071 See P07.5.032
- 072 See P07.5.030
- 073 See P07.5.029
- 074 Void Left By Removal of Hearth Slabs
- 075 See P07.5.036
- 076 See P07.5.033
- 029 Original S/stone make up over Base Course 030

P07.5.

- 030 Mortared S/stone Base Course
- 031 S/stone Slab Under W Upright Base
- 032 S/stone Slab Under E Upright Base
- 033 Levelling Material
- 034 Patch of Levelling Material Over 033
- 035 Patch of Levelling Material Over 033
- 036 Cut through 029

P09.1.

- 218 Fire-Damaged Recess on 004
- 219 Cut through Base of 004
- 220 See P09.5.009
- 221 See P09.5.010
- 222 See P09.5.008

P09.5.

- 008 S/stone Slab Under W Upright Base
- 009 S/stone Slab Under E Upright Base
- 010 Cut through 008 and 009
- 011 Levelling Material Within 010

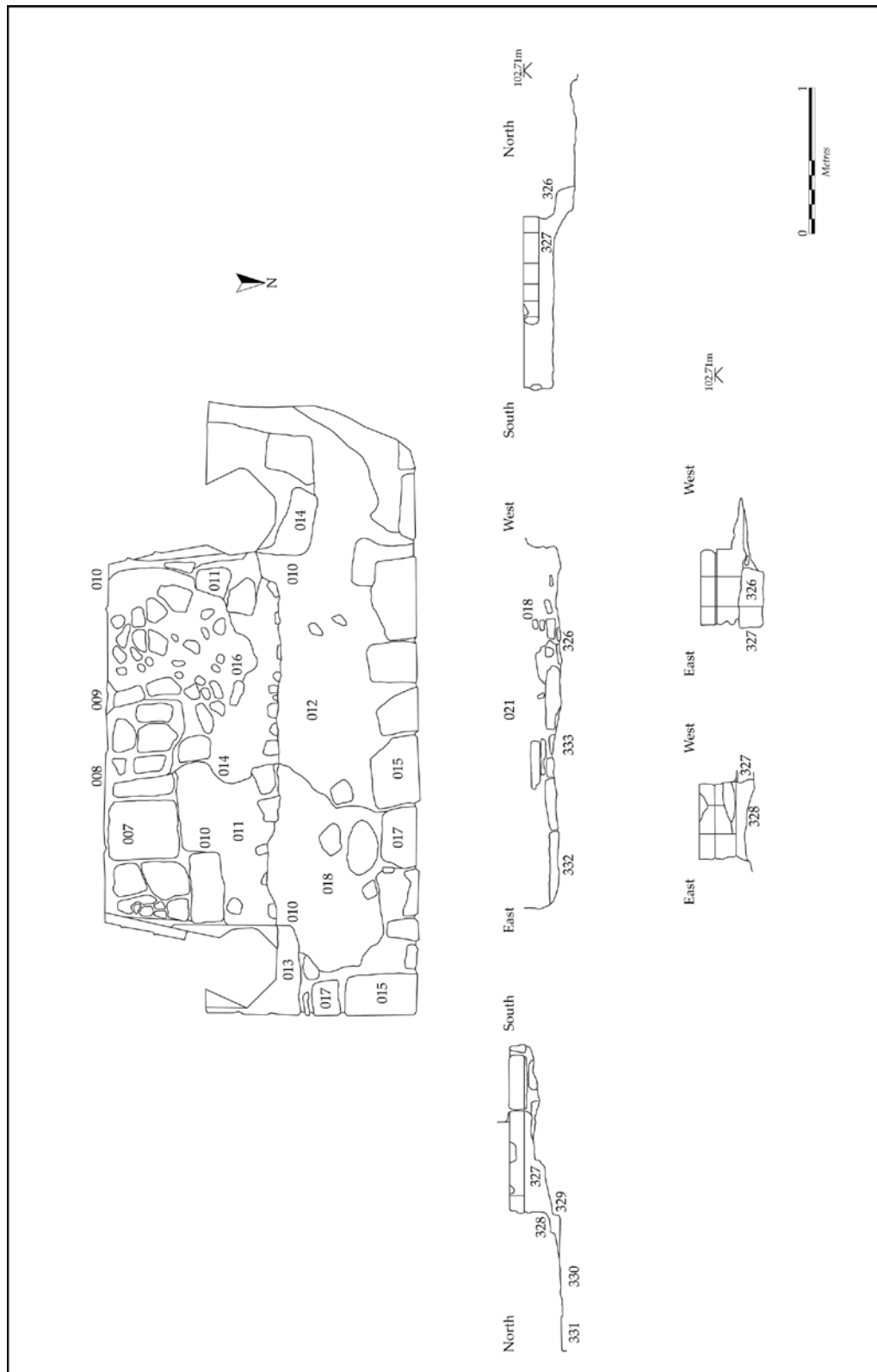
P11.3.

- 296 See P11.5.01
- 297 See P11.5.01
- 298 Scar of Removed Hearthstones on W Reveal
- 299 See P11.5.01
- 300 Scar of Removed Hearthstones on E Reveal

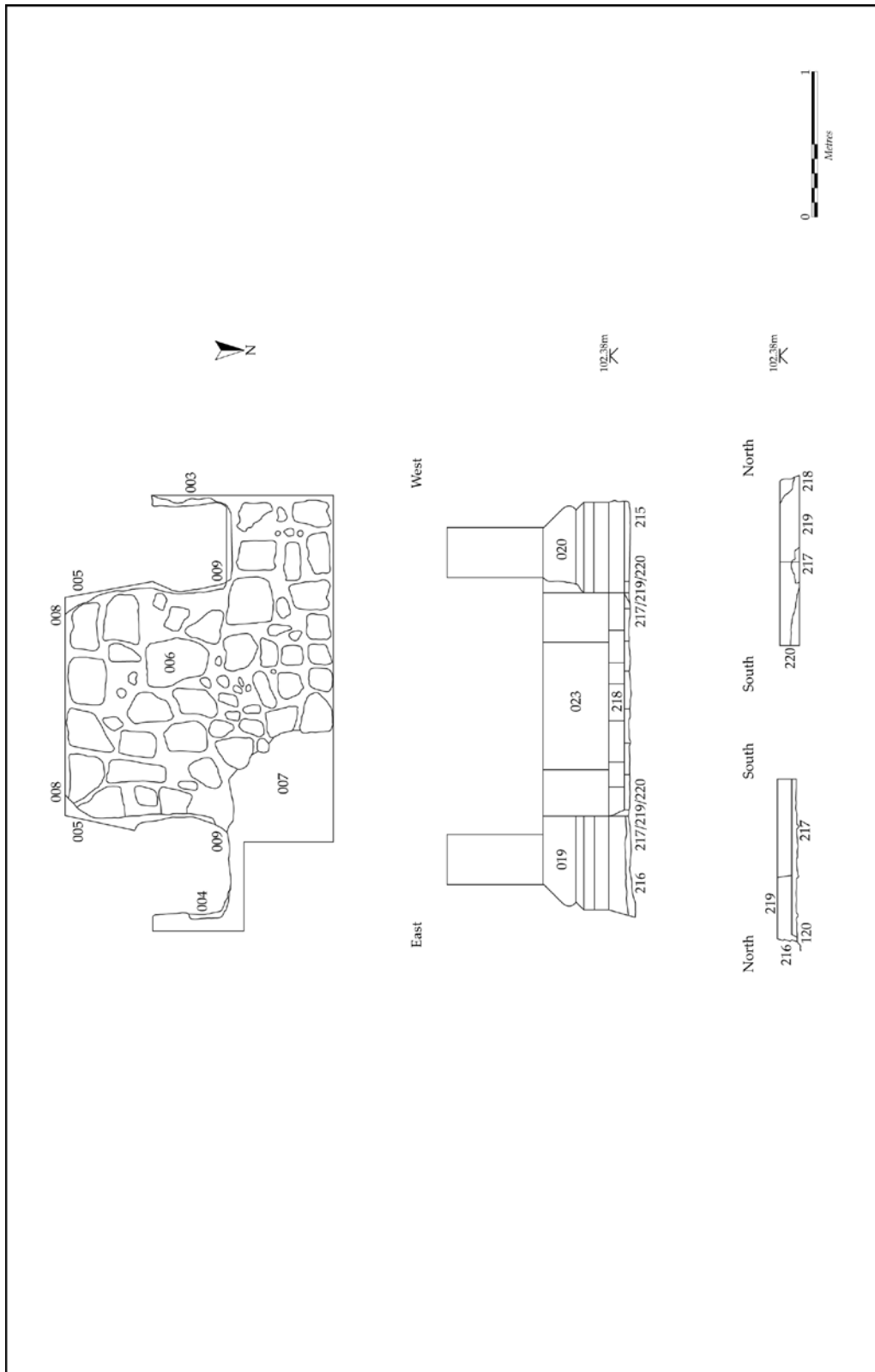
P11.5.

- 017 S/stone Slab Under E Upright Base
- 018 S/stone Slab Under W Upright Base
- 019 Cut through 017 and 018
- 020 Original S/stone and Mortar Levelling
- 021 Cut through 020 and 024 for 022
- 022 Brick and Mortar Hearth Stone Support?
- 023 Stone Setting of Outer Hearth
- 024 Levelling Material Behind 023

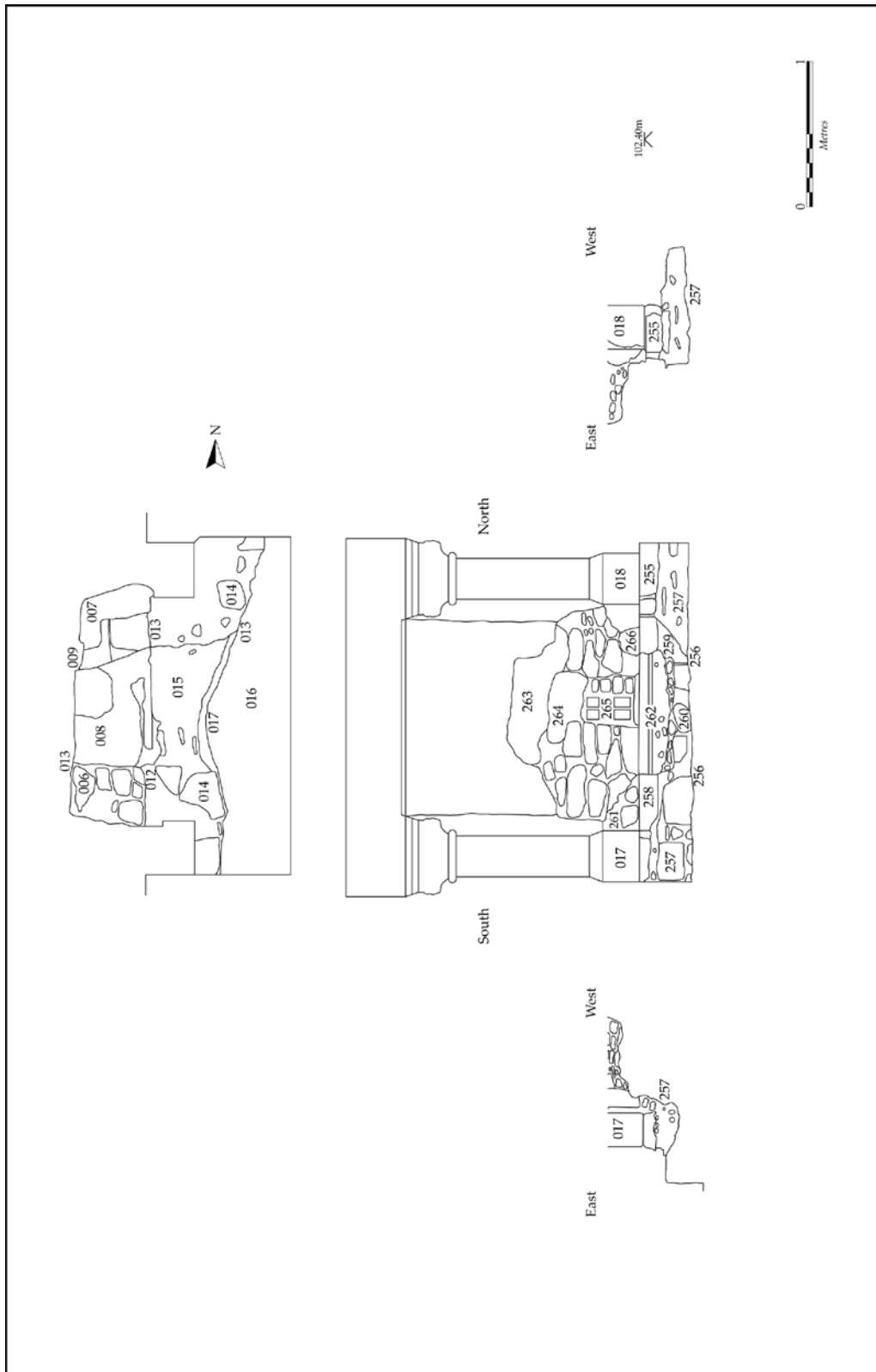
APPENDIX 4: ILLUSTRATIONS



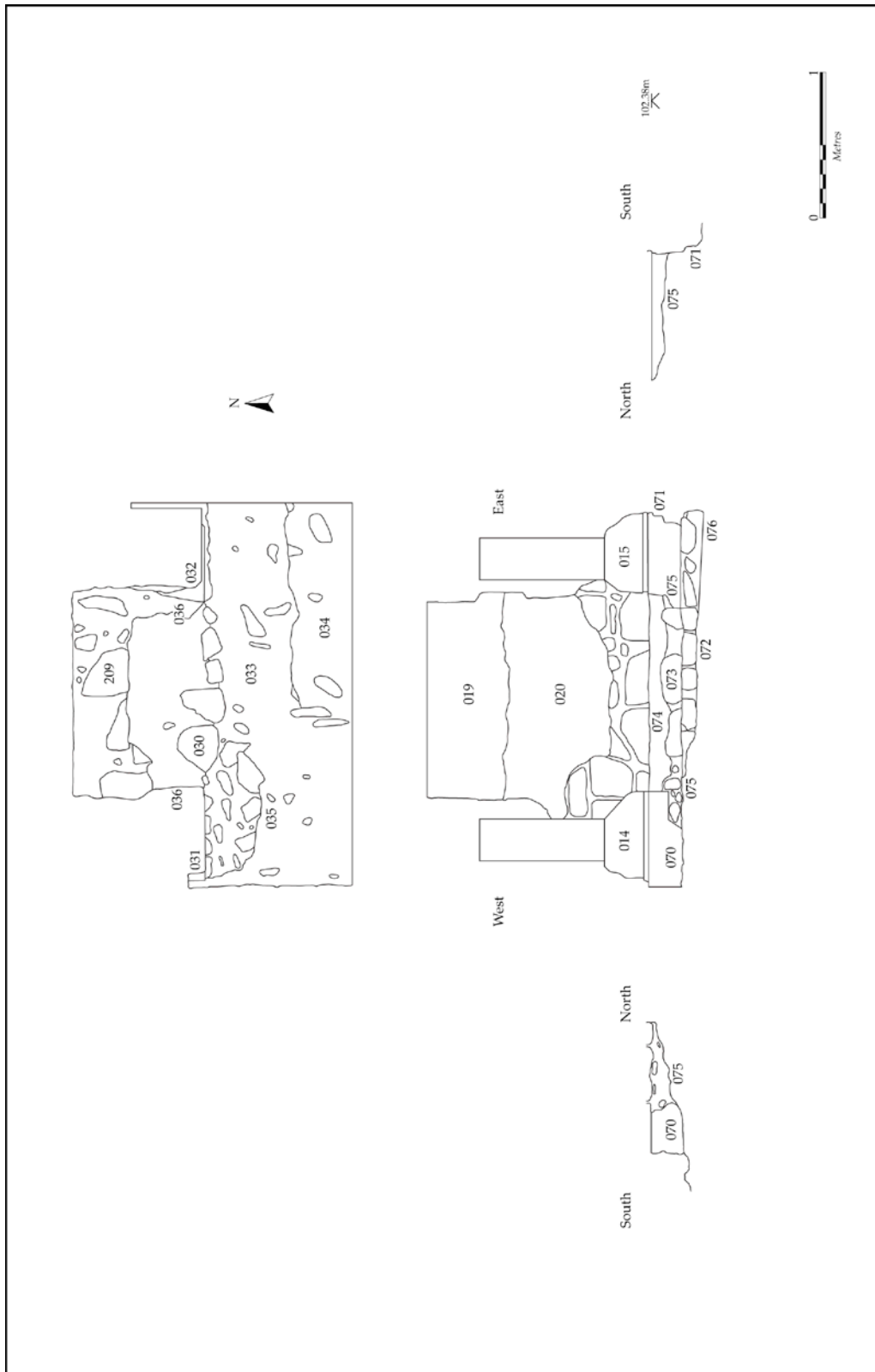
Fireplace in P02 (The King's Guard Hall)



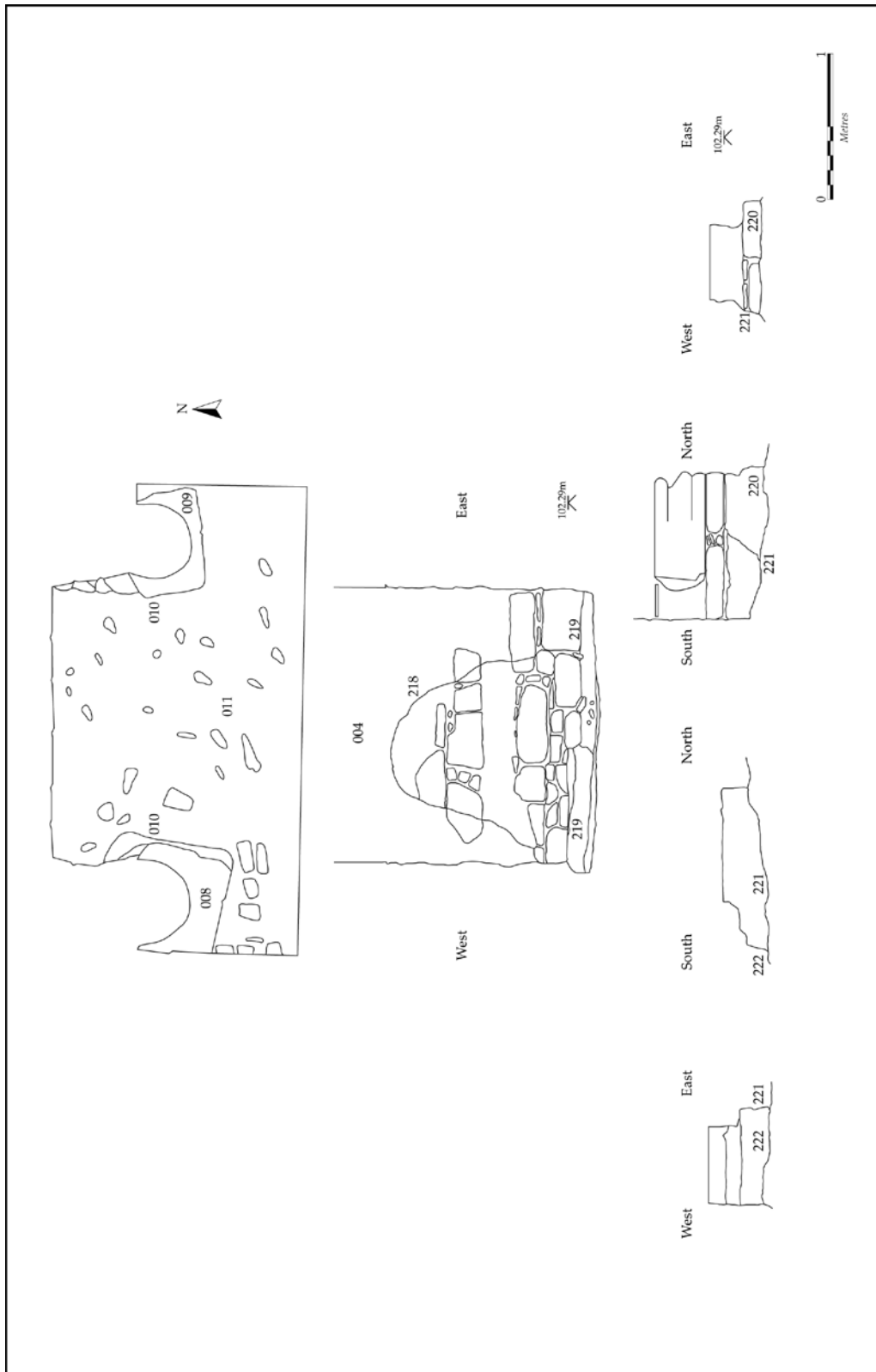
Fireplace in P03 (The King's Presence Chamber)



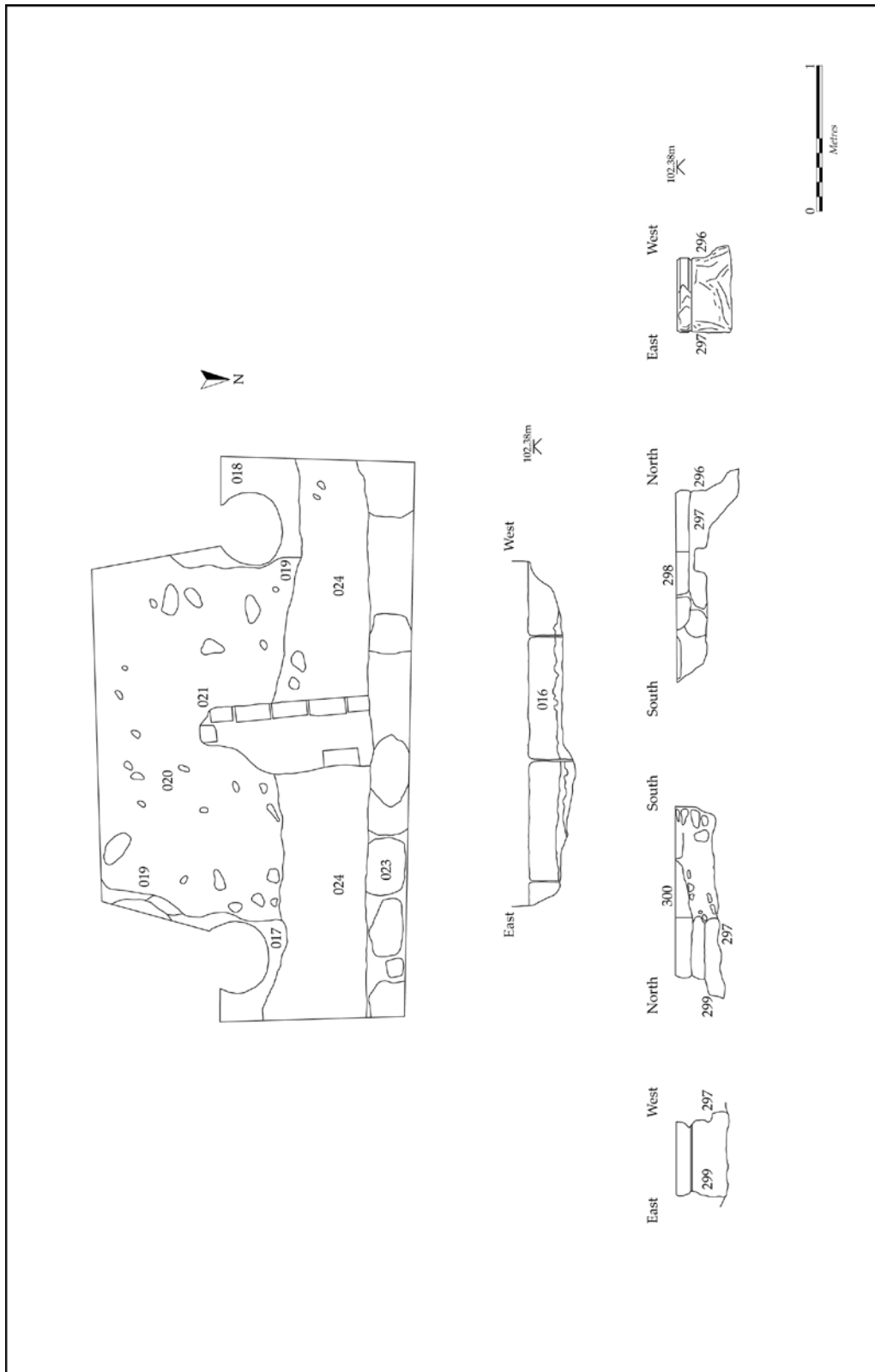
Fireplace in P04 (The King's Bedchamber)



Fireplace in P07 (The Queen's Bedchamber)



Fireplace in P09 (The Queen's Presence Chamber)



Fireplace in P11 (The Queen's Guard Hall)

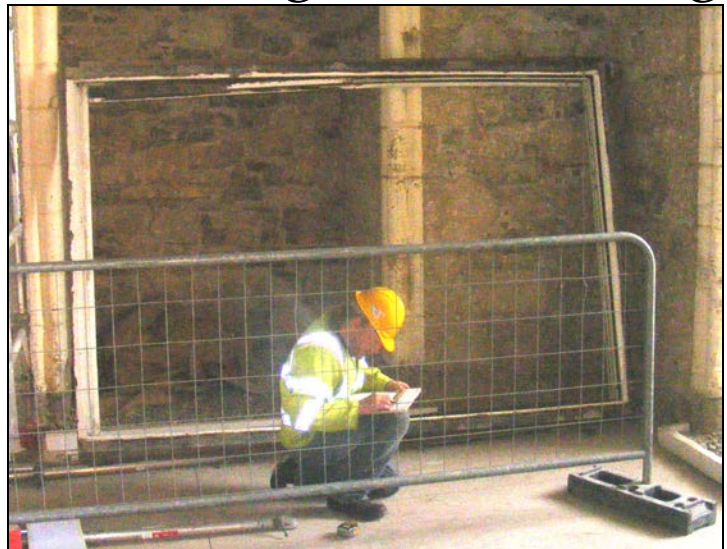
Historic Scotland
SCPP Archaeological Works
2008

Stirling Castle Palace
Collapsed Sash Window in the
Queen's Presence Chamber

PIC Index No. 90291

Project. SCPP-2008-05

Archaeological Recording



02 October 2008
Kirkdale Archaeology

Site Stirling Castle Palace

N.G.R NS 7899 9403

Project Description Archaeological Recording of a collapsed Sash Window in the south wall of the Queen's Presence Chamber in James V's Palace ahead of restoration work.

Project Code SCPP-2008-05

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1 Introduction

Towards the end of July 2008 one of the large sash and case windows in the Queen's Presence Chamber fell out of its aperture and into the Palace. The case was partially damaged and many of the glass panes were smashed. Kirkdale Archaeology was asked to create a robust record of the window in order to aid its restoration – this included identifying the original positions of the various timber elements that had been detached by the impact. As well as aiding in the restoration of the window this was recognised as a potentially unique opportunity to study those window elements normally not visible when the window sits within its aperture. The aperture itself had been boarded up after the collapse however during a later recording exercise, the W reveal was drawn. The recording of the window was carried out between James V's Palace and the HS store at Kerse Road, Stirling. After the collapse, the upper and lower sashes had been removed to the HS store while the case remained at the Palace. It was decided that a thorough recording exercise required every face of the case and the two sashes to be accurately drawn and numbered. The detached sash weights were also drawn. The work was carried at the end of July 2008.

2 Description and Interpretation

2.1 Overview

This type of window is known as a double-hung sash-and-case window. In this arrangement upper (outer) and lower (inner) sashes slide up and down within recesses in the internal faces of the sash case. The sashes themselves are extremely heavy but this movement is made possible by attaching sash weights via lengths of rope to the sides of each sash. The rope loops up over a brass pulley wheel so that when the window is pushed up the weights fall and when it is pushed down, they rise. The weights (in this case made of cast iron although lead weights are also used) are concealed within the 'weight box' which can be accessed via 'pocket apertures' on the inner reveals of the sash case. The windows were heavily painted on most of their surfaces which precluded examination of many of the joints and fixing mediums.

A feature list was created and each individual element of the window was ascribed a number. It would be futile to try to mention each individual element within this report as this was rather a tool to assist the restoration process. Those elements considered to be worthy of note will be discussed here. The feature list begins at The window was drawn at a scale of 1:10 in order to show relevant details.

2.2 Description

There are various different styles of window within the principal level of the Palace. The windows in the N wall of the Queen's Presence Chamber are Georgian with a sash pane arrangement of 12/12 (i.e. each sash is divided into 3 rows of 4 panes). The rippled panes of glass are another indicator of their early date. In the S wall of the Queen's Presence Chamber are 2 sash windows (E and W) – the W window is the one which collapsed. These have a 15/15 sash pane arrangement with slightly broader Ovolo-moulded window bars and clear glass panes. These are identical to the Sash Window in the S Wall of the Queen's bedchamber which is known to have

been fitted c.1900. It seems that given these similarities coupled with the use of machine-turned screws in the construction of the case (and the fact that the 15/15 pane arrangement is only found in these 3 windows) that these windows are contemporary.

The sashes and case are constructed of pine. The joints are not dovetailed together but are instead held together by lap joints (P09.3.229, Fig. 1 [Drawing 10]). These are called *Half Lap* or *Corner Lap* joints where two timbers are jointed together by means of overlapping recessed flat faces which are glued and nailed. This is again an indicator of a relatively late date for the window.

The sheer thickness and weight of these windows meant that in many cases the window backs had to be thickened out with courses of bricks to help support the weight. In order to secure the sash case into the aperture several elements were added to try to ensure that it stayed there. On the underside of the sash case a groove was cut so that the cement base would fill it and hold it (Fig. 1 [Drawing 10]). Chocking blocks (blocks of off-cut wood used to bridge the gap between the sash case and the aperture) were added to the sides of the weight boxes and at the top corners of the sash case (for an example see P09.3.274, Fig.1 [Drawing 9]). Putty (see P09.3.274, Fig. 1 [Drawing 1]) was also used to secure the sash case although this had become dried out and porous. The window was also secured to the aperture reveals by 2 iron brackets screwed to E and W weight box stiles – the scars of which are represented by P09.3.234 and P09.3.235 (Fig. 1 [Drawing 6]). These brackets were at a relatively low level on the window case.

This window faced S onto the Princes Walk. The wind here can be extremely strong and as a S-facing window it will catch the direct sun. It seems that a combination of elements led to the collapse. Although chocking blocks were used they are useless when a window of this size starts moving. One tiny pair of iron brackets at a low level is completely insufficient to hold a window of these massive proportions. Other windows around the palace may have 6 or 8 of these brackets holding them.

Looking at the pattern of the damage suggests the top left hand of the internal elevation of the sash case took the impact. This infers that a combination of strong winds and the degraded dried-out putty put pressure on the E bracket which burst out allowing the E side of the window to swing inwards, pivoting on the one remaining bracket to the W which broke out allowing the window to fall forward onto its top E corner. This smashed 12 of the 15 window panes of the lower sash and 5 of the 15 panes of the upper sash. The panes of the upper and lower sashes had been covered by protective sheets of polycarbonate film so that although much of the glass was cracked, it still stayed in place. The wooden frames and window bars of the sashes escaped relatively unscathed – only a small section of window bar (beneath pane P09.3.206, Fig. 2 [Drawing 15]) became detached and is now lost.

It was interesting to be able to see the cast-iron sash weights (Fig. 2 [Drawing 11]) although there did seem to be some disparity in terms of how they could have been arranged within the weight boxes – the problem is that they don't tally up. Each side of the sashes is attached to a set of weights via a rope which means that there are 4 ropes going to 4 sets of weights. As weights P09.3.222 are linked, as are P09.3.224, then these formed the weights for 2 of the ropes. It is difficult to see how P09.3.224, P09.3.224 and P09.3.224 were used in combination to counter-balance these. It is interesting to note that scars P09.3.253 and P09.3.270 show that there were stop blocks screwed on here (these are now lost). This means that the top sash was immobilised. This perhaps accounts for the apparent disparity in the weights – an equal weight distribution wouldn't have been necessary if the top sash couldn't move. These stop blocks can be seen on the exterior elevations of the Palace windows. These are likely to be precautions against the weight cords snapping and the upper sash dropping and smashing.

2.3 Detached Elements

The impact broke out the upper portions of the E Stile of the inner sash case lining P09.3.230 and the E weight box Stile P09.3.230 and these are now bent up and away from the sash case. The pocket pieces (P09.3.257 and P09.3.272) became detached

from their apertures but are easy to fit back on. The E parting bead P09.3.265 between the N and S pulley Stiles on the inner E elevation is completely detached. Chocking block P09.3.277 has separated from the E portion of the top outer elevation. The internal E baton rod P09.3.237 and the internal W baton rod P09.3.236 are also completely detached. A broken portion P09.3.255 of the W parting bead between the S and N inner pulley Stiles on the W side also needs re-affixed. As mentioned earlier, a small portion of timber moulding beneath pane P09.3.206 needs to be replaced. Of the glass panes of the lower sash, only 3 remained intact while the upper sash escaped with 10 panes unscathed.

3 **Conclusions and Recommendations**

Despite the fall from the aperture, the sash and case window survived considerably well. Because of the relatively late date of the window c.1900, it contained modern glass and not the irreplaceable hand made glass found in the earlier windows. The moulded astragals can be removed and the panes replaced and re-puttied. The damaged timber elements are simple to repair and their positions are indicated on the accompanying drawings. Of more concern is the method by which it is put back and fixed into its aperture and indeed a wider concern about the relative stability of the other principal level windows within the Palace. When this window was installed it was held on by only 2 brackets which is insufficient for a window of these dimensions. The drying out of the putty in combination with severe weather forced the window from its aperture. A far more robust fixing system is required to ensure that this doesn't happen again in future.

A1. Appendix 1: Feature List

All Numbers Prefixed with P09.3.

No #	Description
167	Upper Sash (5 over 3 Panes)
168	Lower Sash (5 over 3 Panes)
169	Glass Panes of Lower Sash 168 (smashed)
170	Glass Panes of Lower Sash 168 (smashed)
171	Glass Panes of Lower Sash 168 (smashed)
172	Glass Panes of Lower Sash 168 (smashed)
173	Glass Panes of Lower Sash 168 (not smashed)
174	Glass Panes of Lower Sash 168 (not smashed)
175	Glass Panes of Lower Sash 168 (smashed)
176	Glass Panes of Lower Sash 168 (smashed)
177	Glass Panes of Lower Sash 168 (smashed)
178	Glass Panes of Lower Sash 168 (smashed)
179	Glass Panes of Lower Sash 168 (smashed)
180	Glass Panes of Lower Sash 168 (smashed)
181	Glass Panes of Lower Sash 168 (smashed)
182	Glass Panes of Lower Sash 168 (not smashed)
183	Glass Panes of Lower Sash 168 (smashed)
184	Sash Fastener on Lower Sash 168
185	Meeting Rail on Lower Sash 168
186	Bottom Rail on Lower Sash 168
187	W Stile on Lower Sash 168
188	E Stile on Lower Sash 168
189	Ovolo-moulded Window Bars on Lower Sash 168
190	Sash Cord Recess on E Stile of Lower Sash 168
191	Sash Cord Recess on W Stile of Lower Sash 168
192	Circular Ring Stop on E Stile 187
193	Circular Ring Stop on W Stile 188
194	Replacement Sash Cord on E Stile 187
195	Glass Panes of Upper Sash 167 (not smashed)
196	Glass Panes of Upper Sash 167 (smashed)
197	Glass Panes of Upper Sash 167 (not smashed)
198	Glass Panes of Upper Sash 167 (not smashed)
199	Glass Panes of Upper Sash 167 (smashed)
200	Glass Panes of Upper Sash 167 (not smashed)
201	Glass Panes of Upper Sash 167 (smashed)
202	Glass Panes of Upper Sash 167 (smashed)
203	Glass Panes of Upper Sash 167 (not smashed)
204	Glass Panes of Upper Sash 167 (not smashed)
205	Glass Panes of Upper Sash 167 (not smashed)
206	Glass Panes of Upper Sash 167 (not smashed)
207	Glass Panes of Upper Sash 167 (not smashed)

No #	Description
208	Glass Panes of Upper Sash 167 (not smashed)
209	Glass Panes of Upper Sash 167 (not smashed)
210	Sash Fastener on Upper Sash 167
211	Meeting Rail on Upper Sash 167
212	Top Rail on Upper Sash 167
213	W Stile on Upper Sash 167
214	E Stile on Upper Sash 167
215	Ovolo-moulded Window Bars on Upper Sash 167
216	Sash Cord Recess on W Stile 213
217	Sash Cord Recess on E Stile 214
218	Circular Ring Stop Hole on W Stile 213
219	Circular Ring Stop Hole on E Stile 214
220	Replacement Sash Cord within 216
221	Replacement Sash Cord within 217
222	Linked Impressed Small Cast Iron Sash Weights
223	Large Single Cast Iron Sash Weight
224	Linked Large Cast Iron Sash Weights
225	Upper Medium Cast Iron Sash Weight and Cord
226	Lower Medium Cast Iron Sash Weight
227	Bead Over Inner Sash Case Lining
228	Top Rail of Inner Sash Case Lining
229	W Stile of Inner Sash Case Lining
230	E Stile of Inner Sash Case Lining
231	Moulded Bottom Rail of Inner Sash Case Lining
232	W Weight Box Stile
233	E Weight Box Stile
234	Scar of Removed Iron Case Fastener on 232
235	Scar of Removed Iron Case Fastener on 233
236	W Baton Rod (Internal)
237	E Baton Rod (Internal)
238	Top Baton Rod (Internal)
239	Bottom Baton Rod (Internal)
240	Moulded Wooden Sill (with Underside Rebate)
241	W Baton Rod (External)
242	E Baton Rod (External)
243	Top Baton Rod (External)
244	Remains of Putty
245	Top Rail of Outer Sash Case Lining
246	W Stile of Outer Sash Case Lining
247	E Stile of Outer Sash Case Lining
248	Chocking Block in W Weight Box
249	Chocking Block in E Weight Box
250	W Weight Box
251	E Weight Box
252	S Inner Pulley Stile (W Side)
253	N Inner Pulley Stile (W Side)
254	W Parting Bead between 252 and 253

No #	Description
255	Broken Portion of 254
256	Pocket Aperture on 252
257	Pocket Piece (Cover for 256)
258	Scar of Lost W Block Stop for Upper Sash on 253
259	Inner W Brass Pulley
260	Outer W Brass Pulley
261	Chocking Blocks behind Top of W Stile of Inner Case Lining
262	Top Inner Pulley Rail
263	Top Outer Pulley Rail
264	Top Parting Bead
265	E Parting Bead between 266 and 267
266	N Inner Pulley Stile (E Side)
267	S Inner Pulley Stile (E Side)
268	Inner E Brass Pulley
269	Outer E Brass Pulley
270	Scar of Lost W Block Stop for Upper Sash on 267
271	Pocket Aperture on 266
272	Pocket Piece (Cover for 271)
273	Chocking Blocks on Exterior Top of 233
274	Chocking Blocks over 250
275	Chocking Block below 274
276	Interior Top Rail (Back of 262 and 263)
277	Chocking Blocks to E of 267
278	Sash Cord on 259
279	Small Timber Repair on 231

A2. Appendix 2: Drawing List

No#	Description	Scale
1	External (S Facing) Elevation of Sash Case	1:10
2	Sash Case Inner W Reveal Elevation	1:10
3	Sash Case Inner E Reveal Elevation	1:10
4	Sash Case Inner Top Reveal Elevation	1:10
5	Sash Case Inner Bottom Reveal Elevation	1:10
6	Internal (N Facing) Elevation of Sash Case	1:10
7	Sash Case Outer W Reveal Elevation	1:10
8	Sash Case Outer E Reveal Elevation	1:10
9	Sash Case Outer Top Reveal Elevation	1:10
10	Sash Case Outer Bottom Reveal Elevation	1:10
11	Sash Weights Elevation	1:10
12	Lower Sash Internal (N Facing) Elevation and Side Elevations	1:10
13	Lower Sash External (S Facing) Elevation	1:10
14	Upper Sash Internal (N Facing) Elevation and Side Elevations	1:10
15	Upper Sash External (S Facing) Elevation	1:10
16	Profile through Window Bars of Upper Sash	1:5

A3. Appendix 3: Photograph list

Shot	Description
1	Counterweights
2	Detail of makers mark on counterweight
3	Working shot
4	Window aperture blocked with temporary boarding
5	Lower sash
6	Astragal details
7	Side of lower sash
8	Side of upper sash
9	Upper sash
10	Detail of smashed glass in lower sash
11	Window case
12	Window case
13	Window case
14	Detail of window case
15	Detail of window case joint
16	Detail of putty on window case

A4. Appendix 4: Illustrations

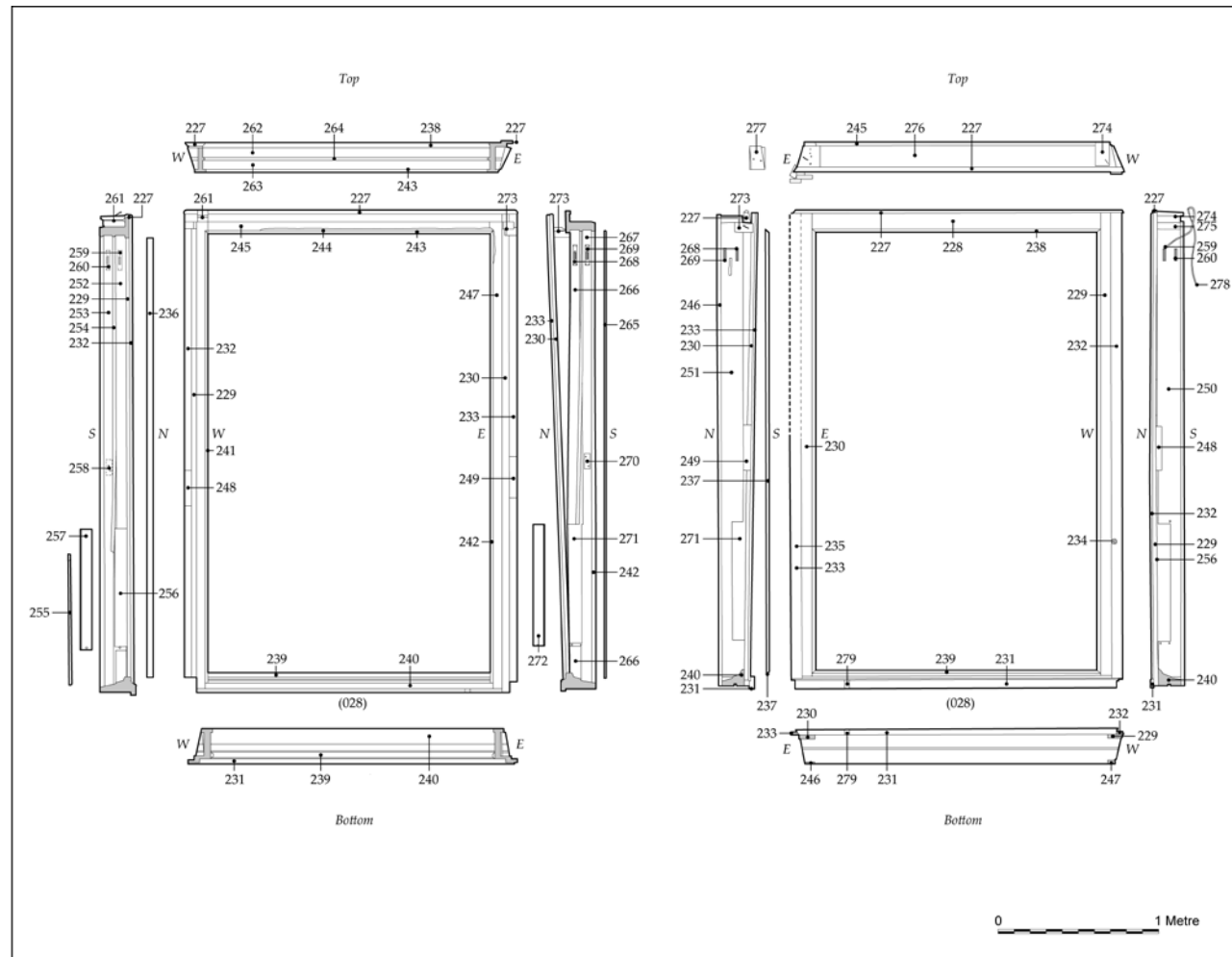


Figure 1: Drawings 1 to 10 (see Appendix 2 for descriptions of individual drawings)

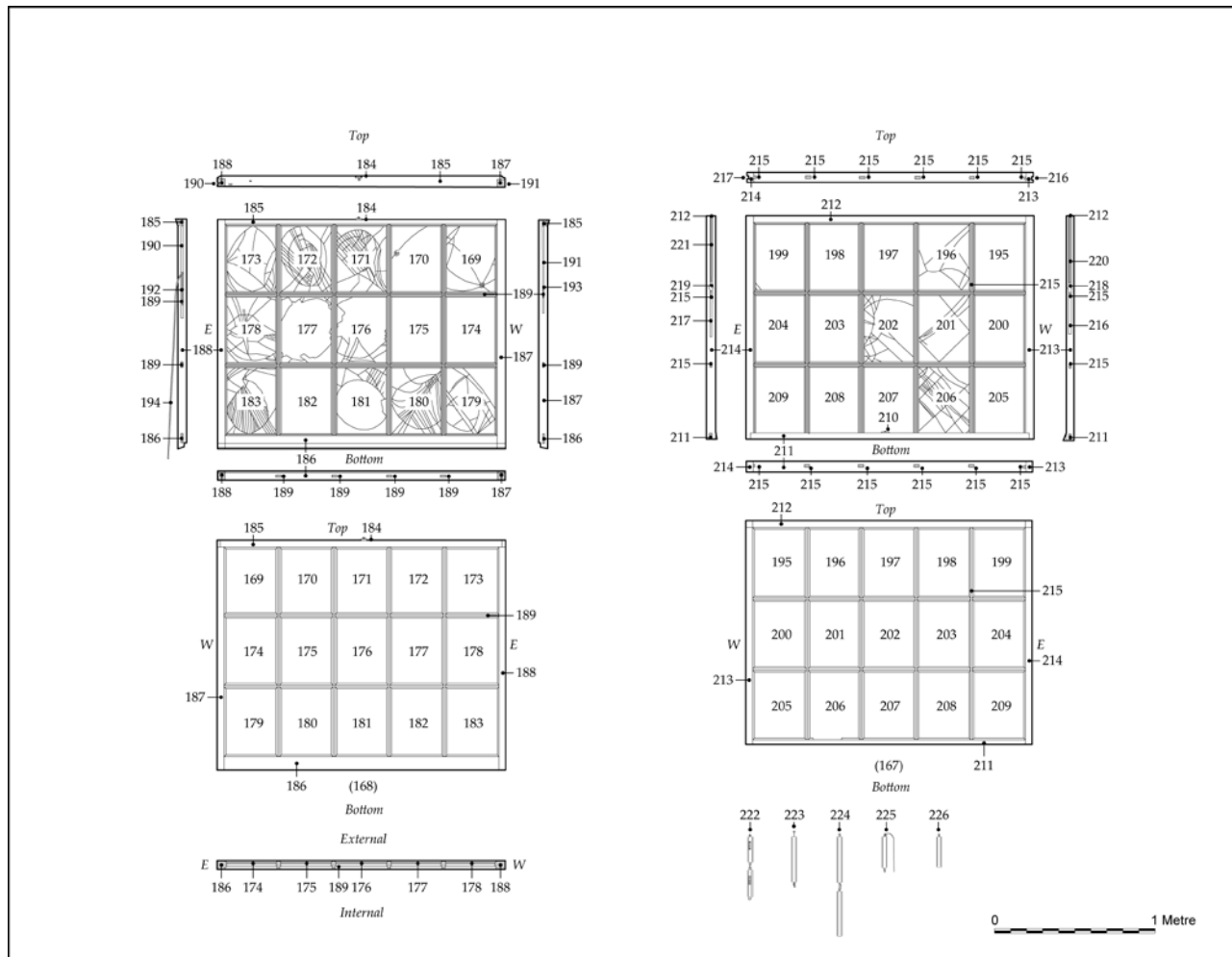


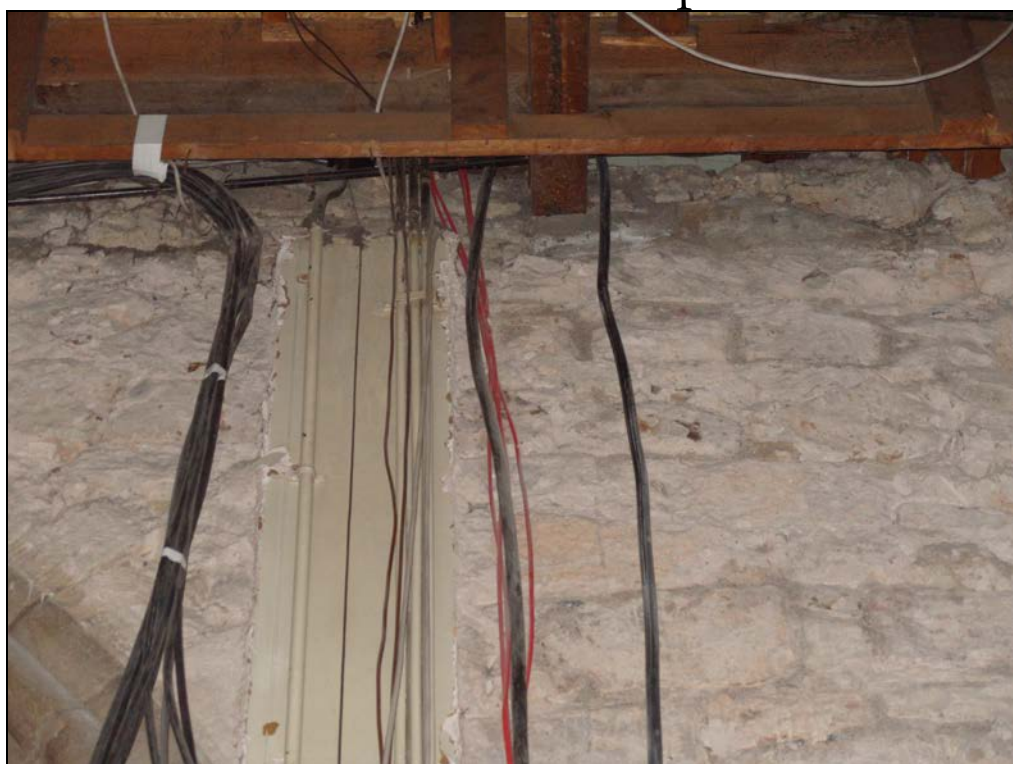
Figure 2: Drawings 11 to 16 (see Appendix 2 for descriptions of individual drawings)

Historic Scotland
Properties in Care
Minor Archaeological Works
2008

Stirling Castle Palace
Plaster Recording in P03, P07 & P09
HS Index No. 90291

Project. SCPP-2008-08

Standing Building Recording
September 2008



17 December 2008
Kirkdale Archaeology

Site Stirling Castle Palace (SCPP08)

N.G.R NS 790 940

Project Description Standing Building Recording

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1.0 INTRODUCTION

Following the completion of the intermittent programme of standing building recording and excavation at Stirling Castle Palace known as SPARC 2003-2008, carried out by Kirkdale Archaeology, the site was handed over to Morris and Spotiswood, the contractors carrying out the renovation of the Palace. Subsequent interventions in the palace requiring archaeological recording are known as SCPP (Stirling Castle Palace Project) and make reference to and add to the main body of work known as SPARC.

Following the completion of three small interventions on the Principal floor of the palace Kirkdale Archaeology was asked to record three areas of newly revealed surfaces in the palace. No samples were taken during recording because the surfaces were not under immediate threat and because sampling will require a scaffold. Morrison and Spotiswood were consulted and they requested a report highlighting and locating the possible early surfaces so that they can be left in place during the work. The individual interventions are described below. The work was carried out on the 29/09/08.

2.0 DESCRIPTION

Kings Presence Chamber – P03

Intervention – Removal of service boxes P03.2.012 and P03.013 from E wall.

The removal of service boxes P03.2.012 and P03.013 revealed a bundle of live electrical services P03.2.117, a cluster of redundant electrical service ducts P03.118 and a trapped surface P03.2.119, P03.2.120 and P03.2.121. The bottom 1.50m (approximately) of the surface is a very hard mid grey concrete P03.2.119, 15-20mm thick. Above this the surface is a soft, light grey/brown horse hair plaster P03.2.120 about 10-15mm thick. There is no evidence of an earlier surface trapped under these. Both the concrete and the horse hair plaster are covered with a skim of fine white plaster P03.2.121. The white plaster skim is covered with a paint sequence. The earliest paint is light brown P03.2.122, then dark brown P03.2.123, then yellow P03.2.124 and the latest paint is mint green P03.2.125. There is a scar P03.2.126

marked by the mint green paint showing the location of a service box that would have worked with the old metal electrical ducts (they end at the scar).

Both the concrete and horse hair plaster surface are probably 19th Century or 20th Century. The concrete does not appear to be a later addition as it has the same paint sequence and plaster skim as the horse hair plaster, it is possible that the bottom of the wall was covered with the durable concrete to prevent damage because it is a heavy wear area beside a doorway, elsewhere in the palace concrete corners have been applied to window bay margins to make them more durable, because the horse hair plaster is very soft and easily dented. The concrete surface will be removed during the renovation. The horse hair plaster will probably be removed during the renovation.

Queens Bed Chamber – P07

Intervention – Removal of the protruding remains of structural scar P07.4.102 from the W wall.

Following the removal of some of the protruding remains of the structural scar left by the 18th Century stair to the upper floor at the S end of the room, removed in 1969, the MCU discovered two patches of plaster surface P07.4.267. The plaster is too high to access, it is between 10 and 30mm thick, fine to medium texture, cream coloured with a smooth surface covered by patchy layers of whitewash P07.4.268 and smaller patches of darker paint P04.269. It is similar to the plaster on the S wall P07.3.002 and P07.3.003 that was trapped behind the stair. The plaster must predate the 18th Century stair and so is probably 17th or early 18th Century.

At the top of the wall behind the scar, there is a door threshold P07.4.270. It is a single block of grey sandstone with a moulded N edge extending up to form the N edge of the door way. There is no moulding on the S edge and the S side may have been formed by a partition. Two type B beams now rest on the threshold. In Period 3-5 the floor level in the E range was different

from the floor level in the S range. The Palace floor level in the S range has always been at the level it is at today but the Palace floor level in the E range was lower and one would have had to step up into S range. The floor level in the E range was raised in Period 6 using the type B beams. Because the type B beams rest on top of the threshold and because it was behind the structural scar from the 18th Century stair the threshold must be a Period 3-5 route at upper floor level and is the step up between the ranges. There is a formal doorway in the upper floor complete with stone margins and pintels between the E range and S range slightly further to the W confirming that this was an original route.

Queens Presence Chamber – P09

Intervention – Removal of service box P09.1.054 from N wall.

The removal of service box P09.1.054 from the N wall revealed the dooks series P09.1.119 used to attached the service box and a strip of patchy plaster P09.1.218 survival. The plaster is 10-20mm thick, medium to coarse, yellowish brown in colour with tiny grit inclusions. In places the plaster has a smooth surface and this has whitewash P09.1.220 over it and a layer of cream paint P09.1.221. The E edge of the plaster has a sharp edge with traces of yellow paint P09.1.222 and light brown paint P09.1.223 over this. It appears that either the plaster was applied while there was a linear feature to the E creating a sharp line or else (and more likely) the service box sat directly along this edge and the rest of the plaster was removed while the box was in place leaving a sharp edge and some of the plaster was painted along with the box. This could be an early plaster surface, but the stratigraphy does not provide good dating evidence because it is only trapped behind a 20th Century feature. Also the visible paint sequence is not very long with only whitewash followed by cream paint so this plaster may be 18th or 19th Century.

A1.0 APPENDIX 1: LIST OF NEW CONTEXTS

P03

Number	Description
P03.2.117	Modern live electric cables.
P03.2.118	Metal electric ducts no longer in use.
P03.2.119	Concrete surface at base of elevation.
P03.2.120	Horse hair plaster above P03.2.119.
P03.2.121	White plaster skim over P03.2.119 and P03.1.120.
P03.2.122	Light brown paint over P03.2.121.
P03.2.123	Dark brown paint over P03.2.122.
P03.2.124	Yellow paint over P03.2.123.
P03.2.125	Mint green paint over P03.2.124.
P03.2.126	Rectangular scar of removed electrical service box associated with P03.2.118 in paint P03.2.125.
P03.2.127	Square scar of removed fixture, marked by red rawl plugs at the corner, over latest paint P03.2.125.

P07

Number	Description
P07.4.267	Patches of fine-medium texture pale lime plaster surface revealed behind structural scar P07.4.102.
P07.4.268	Layers of patchy whitewash over P07.4.267.
P07.4.269	Patches of darker finish over P07.4.268.
P07.4.270	Sandstone door threshold at the top of the elevation under type B beams P07.4.183 and P07.4.184.

P09

Number	Description
P09.1.218	Patches of medium to coarse yellow lime plaster surface revealed behind service box P09.1.054.
P09.1.219	Series of dooks along the edges of the service box P09.1.054.
P09.1.220	Layers of whitewash over P09.1.218.
P09.1.221	Cream paint over P09.1.220.
P09.1.222	Yellow paint over the E edge of P09.1.218.
P09.1.223	Light brown paint over P09.1.222.

A2.0 APPENDIX 2: LIST OF PHOTOGRAPHS

Photo Number	Description	From	Date
1	P03, E wall, general shot of area from which the service boxes were removed.	NW	29/09/08
2	P03, E wall, shot showing the lower concrete surface, white plaster skim and the scar of a service box marked in the paint.	SW	29/09/08
3	P03, E wall, shot showing the depth of the lower concrete surface and white plaster skim.	S	29/09/08
4	P03, E wall, shot showing the join between the lower concrete surface and the upper horsehair plaster surface with white plaster skim over both.	S	29/09/08
5	P03, E wall, shot showing detail of concrete surface.	S	29/09/08
6	P03, E wall, shot showing detail of horse hair plaster surface.	S	29/09/08
7	P03, E wall, detail of service box scar marked by paint.	W	29/09/08
8	P03, E wall, general shot showing the top of the trapped surface near the ceiling of P03	W	29/09/08
9	P03, E wall, general shot showing the base of the trapped surface.	W	29/09/08
10	P03, E wall, general shot showing the base and middle of the trapped surface.	W	29/09/08
11	P03, E wall, general shot showing the middle of the trapped surface.	W	29/09/08
12	P03, E wall, general shot showing the middle to top of the trapped surface.	W	29/09/08
13	P03, E wall, general shot showing the top of the trapped surface.	W	29/09/08
14	P07, W wall, general shot showing the location of	E	29/09/08

	structural stair scar P07.4.102.		
15	P07, W wall, detail showing the remains of scar P07.4.102 and the two patches of plaster survival.	E	29/09/08
16	P07, W wall, general shot showing the remains of scar P07.4.102.	E	29/09/08
17	P07, W wall, detail showing the remains of scar P07.4.102.	SE	29/09/08
18	P07, W wall, detail showing the door threshold at the top of the W wall above scar P07.4.102.	E	29/09/08
19	P07, W wall, detail showing the door threshold at the top of the W wall above scar P07.4.102.	E	29/09/08
20	P07, W wall, detail showing the door threshold at the top of the W wall above scar P07.4.102.	E	29/09/08
21	P09, N wall, general shot showing the location of the removed service box P09.1.054.	S	29/09/08
22	P09, N wall, detail shot showing the plaster surface revealed behind the service box.	S	29/09/08
23	P09, N wall, general shot showing the plaster surface revealed behind the service box.	S	29/09/08
24	P09, N wall, detail shot showing the plaster surface revealed behind the service box.	S	29/09/08
25	P09, N wall, general shot showing the plaster surface revealed behind the service box.	S	29/09/08
26	P09, N wall, general shot showing the base of the plaster surface revealed behind the service box.	S	29/09/08
27	P09, N wall, general shot showing the base to middle of the plaster surface revealed behind the service box.	S	29/09/08
28	P09, N wall, general shot showing the middle to top of the plaster surface revealed behind the service box.	S	29/09/08
29	P09, N wall, general shot showing the top of the plaster surface revealed behind the service box.	S	29/09/08
30	P09, N wall, detail shot showing the plaster surface	S	29/09/08

	revealed behind the service box.		
31	P09, N wall, detail shot showing the plaster surface revealed behind the service box.	S	29/09/08

A3.0 APPENDIX 3: LIST OF ANNOTATED PHOTOGRAPHS

Photo Number	Description	From	Date
P03	Annotated photo of the E wall of P03.	W	29/09/08
P07	Annotated photo of the W wall of P07.	E	29/09/08
P09	Annotated photo of the N wall of P09.	S	29/09/08

A4.0 APPENDIX 4: ANNOTATED PHOTOGRAPHS

Historic Scotland
SCPP Archaeological Works
2008

Stirling Castle Palace
Princes Tower

PIC Index No. 90291

Project. SCPP-2008-09

Archaeological Excavation &
Standing Building Recording
September 2008



12 January 2009
Kirkdale Archaeology

Site Stirling Castle Palace, Princes Tower

N.G.R NS 790 940

Project Description Archaeological excavation & standing building recording in advance of the installation of a new stair.

Summary

Three trenches were dug above the vault of the Princes Tower in advance of the construction of an access staircase to the upper floor of the Palace. The earliest structures uncovered possibly pre-dated the construction of the vault. These structures were usually walls and were all only observed below the level of the current floor. Also recorded was the vault itself and a levelling layer of rubble sealed by a clay deposit, possibly a floor level. An earlier floor level, lower than the current floor, was also evident from the existence of fireplace features that were uncovered. More recent features uncovered were an additional layer of levelling and the current floor joists that rested on it. An early 17th Century French Tournois was discovered but unfortunately in a disturbed context.

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1 Introduction

The Princes Tower at Stirling Castle is a defensive structure that forms part of the W end of the so-called *fair front* of the castle that was constructed around 1500 by James IV. Over time, the tower has seen much change in use from its original purpose. During the late 16th century it was converted into the nursery of Prince Henry (hence being known as the Princes Tower). These excavations took place in the room above vault level (P10) and were undertaken in advance of the installation of an access staircase to the Upper Floor of the Palace.

Three trenches were excavated, Trench 1 in the NE corner of the room, Trench 2 in the NW corner and Trench 3 along the S wall of the room. Trench 1 measured up to 1.60m E-W between the stairway in the NW corner of the room and the central fireplace in the NS wall, it extended 850mm S from the N wall and was excavated to a depth of up to 420mm. Trench 2 measured up to 1.90m E-W between the central fireplace in the NS wall and the entrance to the room in the NE corner, it extended 850mm S from the N wall and was excavated to a depth of up to 550mm. Trench 3 was excavated along the full length of the S wall and measured 6.10m E-W, 750mm N-S and up to 800mm in depth.

After the excavation, the wall fabric exposed below floor level was drawn and recorded in line with the standing building recording that had already taken place in P10, and indeed throughout the rest of the Princes Tower and Palace. The results of this recording are presented after the excavation report.

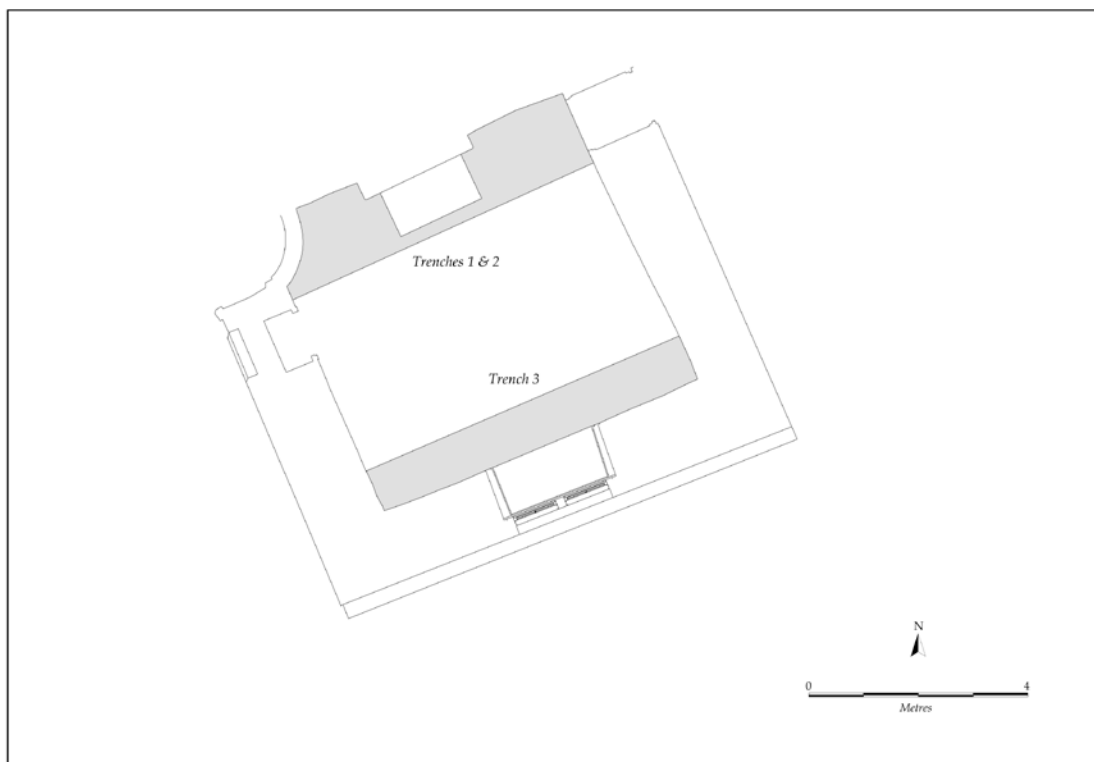


Figure 1: Location of Trenches

2 Excavations in the Princes Tower (Room P10)

2.1 Excavation account of Trench 1

Trench 1 measured up to 1.60m E-W between the stairway in the NW corner of the room and the central fireplace in the NS wall, it extended 850mm S from the N wall and was excavated to a depth of up to 420mm.

The wooden floorboards, **F100**, were removed prior to the archaeological excavation but the floor joists were left *in situ* and had to remain so throughout the excavation, making access to the trench awkward.

The floor joists that were seen within the trench were laid N-S and they were numbered, from W-E, **F104-F107**. It was noted that the joists were not jointed into the N wall, stopping an average of 50mm short of it. The N end of **F104** was cut at an angle and resting on a sloping stone (**F120**) at the N end of **F110**. **F105**, **F106** and **F107** rested on deposit **F102**. It was noted that all of these beams showed signs of woodworm and rotting with the top of **F105** being in a particularly poor state.

At the S end of the trench **F108** was the iron casing for an electricity cable, it extended 400mm into the trench from the S baulk before turning down and going into the roof of the vault below.

The upper deposit removed, **F101**, was very loose fine light grey dust with stones and mortar flecks throughout. **F101** generally measured 100mm in thickness but only 50mm at the W end of the trench, against the stair tower.

Sealed by **F101**, **F102** was a fairly loose deposit of rubble and dark brown silt that was seen over the whole trench measuring roughly 50mm in depth. At the N end of joists **F105** and **F106**, there were deeper (100mm deep) pockets of **F102** cut into **F103** and **F111**.

The hearthstone, **F109**, at the central fireplace measured 1.60m E-W and 850mm N-S and was set into a wooden hearth frame. There were fairly large cracks running N-S across the central part of the slab.

The W edge of the fireplace, **F114**, was formed with squared or rectangular sandstone blocks measuring up to 260mm E-W and 240mm in thickness. The blocks at **F114** form a margin that rises 1.80m above the current floor level.

Sealed by **F102**, **F103** was a compact deposit of red brown clay measuring between 50mm and 80mm in thickness.

F103 sealed a 300mm-400mm thick, fairly loose, deposit of rubble and mortar, **F111**.

The N wall of the room, **F112**, was formed with sub rectangular blocks that were pointed with hard, light brown, gritty mortar. There were many brick and pale grey mortar repairs in the bottom part of the wall. Near the E end of **F112** (adjacent to trench 2) a vertical line can be seen in the structure, this was described more fully as part of the earlier building recording. At the base of **F112**, **F113** was a line of stones stepping out (S) 80mm from the wall face, these stones were pointed with the same material as the wall above. Only the top part of **F113** was seen.

Toward the W end of the trench, at the limit of excavation, there was an uneven surface of heavily mortared stones, **F117**. The stones at **F117** appeared to be rectangular and often, but not

always, laid E-W the mortar made it difficult to ascertain a consistent alignment. The E limit of **F117** was against the W side of **F116**.

To the W of **F117** there was a rough surface of stones and compacted light brown mortar, **F118**. There was a drop in level from **F118** to **F117** and an edge between it and **F110** to the W.

F115 comprised three courses of sandstone structure continuing down directly below **F114**. The block immediately under **F114** sloped down to the W and has a groove cut into the upper part of the W edge. The central block of **F115** has an angled outer face at the S side and turns at right angles on the same alignment as **F114** into the N wall. The bottom stone was heavily mortared, hiding any detail, but it was noted that it appeared to sit on **F116**.

F116 was a line of stones, with a fairly neat outer (W) edge, that were seen below **F115** in the E 200mm of the trench. The pointing at **F115** was thought to be light brown mortar but it was difficult to be certain of detail in this, very dark, part of the trench.

In the NW corner, under the threshold of the spiral stair, **F110** appeared to be the E side of an N-S aligned structure. Only a small part of **F110** was seen as part of the current excavation but it appeared that the N wall was constructed over it. The N stone of **F110**, **F120**, extended out (S) 300mm from under the N wall. The N 70mm of **F120** was flat and the stone then sloped down steeply to the S, it measures 150mm in thickness at the N end and 40mm to the S.

Under the blocking of the doorway of the spiral stairway, at the limit of excavation in the W end of the trench, **F119** was a large flat slab. **F119** extended 600mm S from **F120** and measured 170mm in thickness.

2.2 Excavation account of Trench 2

Trench 2 measured up to 1.90m E-W between the central fireplace in the NS wall and the entrance to the room in the NE corner, it extended 850mm S from the N wall and was excavated to a depth of up to 550mm.

As with trench 1, the floorboards **F200** were removed but the floor joists were left in place.

The floor joists, **F206-F210**, seen in this trench were laid N-S and they were numbered from W-E. The beams stopped between 10mm and 50mm short of the N wall and measured 80mm E-W and 115mm thick on average.

The upper deposit, **F201**, was a 100mm thick deposit of very loose fine light grey dust with stones and mortar flecks and it was seen throughout the trench.

Below **F201** at the W end of the trench and seen in an area of 800mm E-W and 200mm N-S, **F202** was a deposit of loose dark grey/black coal dust.

The E edge of the fireplace, **F212**, was formed with squared or rectangular sandstone blocks measuring up to 260mm E-W and 240mm in thickness, the margin rose to 1.80m above the current floor level. Extending S from **F212** and continuing beyond the S edge of the trench, **F213**, comprised the E edges of two stone slabs with light brown gritty mortar pointing between them.

In the majority of the trench **F201** lay directly over **F203**, a compact deposit of red brown clay measuring up to 80mm thick. In the NW corner of the trench **F202** sealed **F203**.

F203 overlay a quite loose deposit of rubble and light brown mortar flecks and lumps, **F204**. **F204** measured up to 350mm in depth and comprised 70%-80% sub angular stones measuring 100mm by 80mm on average.

Under **F203** in an area measuring up to 400mm N-S and 400mm E-W in the SW corner of the trench, **F215** comprised small sub angular stones and light brown gritty mortar. **F215** was not excavated.

In the central part of the trench, E of **F214** and **F215** and W of **F205**, **F216** was a rough surface of heavily mortared rectangular dolerite blocks, **F216**. The long axis of the stones at **F216** was often aligned N-S, but there were also some sub rounded blocks where this was uncertain. **F216** looked to be constructed against **F205** but the relationship with **F214** and **F215** was unclear.

The N wall in this area, **F211**, was formed with sub rectangular blocks and pointed with hard light brown gritty mortar. It was noted that there were a lot of small stones in the bottom part of the wall and there were also recent brick repairs to the bottom half of it. Near the E end of **F211** a roughly vertical line can be seen in the structure, this was described more fully as part of the earlier building recording.

Under **F212**, **F217** was a stone block that looked as though it may be chamfered along the top of its E face. There was a step cut in the S face of **F217** above which there were tool marks visible. The stone measured 250mm E-W, 300mm N-S (and looked to continue N into the wall face) and 170mm thick. It was noted that the bottom of **F217** was 230mm below the current floor level.

In an area of up to 500mm N-S and 250mm E-W in the NW corner of the trench, continuing down and E from **F217**, **F214** was rotting yellow sandstone. Only the upper surface of **F214** was seen as it was at the bottom limit of excavation.

At the E end of the trench **F205** was the remains of an N-S aligned wall constructed with sub rounded-sub angular blocks, mostly dolerite, measuring 200mm by 100mm on average. The stones were heavily pointed with light brown mortar. Both of the faces that are seen, the upper and W, are very uneven and the W one also slopes inward (E) as it runs down. **F205** was seen in the E 1.00m of the trench and to a height of 450mm, although neither the E limit nor the base was reached.

2.3 Excavation account of Trench 3

Trench 3 was excavated along the full length of the S wall and measured 6.10m E-W, 750mm N-S and up to 800mm in depth.

Prior to the excavation of this area, **F300**, floor planks laid E-W across the trench were removed. It was noted that the planks had a groove cut in the underside of the long edges.

The floor beams seen in this area were numbered **F301-F313** from W-E. These beams are square cut and have both square nails and nail holes in the upper face. None of the beams are keyed into the S wall of the room, although as **F305-F309** continue into the central widow bay their S ends were not seen.

The upper deposit removed, **F315**, was very loose fine silt rich in mortar, stone (mostly sandstone) and wood. **F315** generally measured 50mm in thickness but at the E and W ends of the trench the depth was up to 100mm. Retrieved from this context was an early 17th Century

French Tournois. It is likely that this context was much disturbed and this cannot be taken as secure dating evidence.

The joists were seated on **F314**, a compact deposit of dark brown silty clay that was rich in coal and mortar and also contained some small fragments of sandstone and occasional wood fragments, although the wood was only seen in the top of the deposit. **F314** was seen to a maximum depth of 50mm in the central 3.50m of the trench, its upper surface was level except where it had been cut by joists **F306** and **F307**.

Sealed by **F314**, **F316** was a mix of mid grey fine silt (30%), coarse cream coloured mortar lumps and flecks (30%) and stones that were mostly sandstone but occasional dolerite blocks (40%). **F314** measured 400mm in depth at the E and W ends of the trench but petered out in the central part, above the crown of the vault.

Sealed by **F316** and seen in most of the trench, bounded by walls **F319** to the W, **F321** to the S and **F323** to the E; **F317** was a surface of rough stone blocks seen over an area of 4.20m E-W and 500mm N-S. **F317** comprised roughly dressed/split rectangular sandstone blocks set on their edge and almost always orientated N-S and measuring 300mm N-S and 100mm wide on average. The bonding between the stones was fine white mortar with occasional very small stone inclusions. **F317** dropped by roughly 400mm from the centre to either end.

The upstanding E wall of the room, **F318**, has been described in detail as part of the building recording. Below the skirting board the wall was seen to project up to 100mm W of and be more crudely built than the upper part.

Below **F318** and extending 900mm W from it, **F319** was a wall constructed mostly with rounded dolerite boulders bonded with large amounts of hard, fine, white mortar with occasional very small stone inclusions. **F318** measured 350mm in height and both the W and upper faces of it are very uneven.

The upstanding S wall, **F320**, measures 6.20m in length although the central part was interrupted by the, 1.95m wide, window bay. There was a maximum height of 200mm of new stonework revealed at **F320** and this was pale grey sandstone blocks forming an even N face. To the W of the window bay, between joists **F309** and **F311**, the wall plaster appeared to stop at a consistent level that was 90mm below the current floor. There was a slightly different alignment to the wall either side of the window bay.

Below **F320** and extending 250mm-300mm N from it, **F321** was a wall constructed mostly with large (350mm by 250mm and 180mm) split/undressed dolerite blocks with occasional smaller stones between them. The bonding was fine white mortar with occasional very small stone inclusions. **F321** has a fairly flat and even N face and the upper surface was generally quite even, although there were three hollows recorded within it. Both **F319** and **F323** have been constructed against this wall and although a height of 300mm was seen it continued down below vault **F317**.

There was little new seen the upstanding W wall, **F322**, as the skirting board and joist **F313** were against the face.

At the W end of the trench wall **F323** was below **F322** and extended 850mm E, into the room, from it. The little stone that could be seen was undressed dolerite boulders but fine white mortar with occasional small stone inclusions masked most of the structure. **F323** measured 300mm in height and has a fairly flat upper surface and E face, the S end was built against **F321**.

2.4 Observations and Interpretation

At the W end of the trench, under the threshold of the spiral stair, **F110** was the E side of an N-S wall. **F110** was only uncovered at the limit of excavation meaning only the upper face was seen but it was noted the E edge continued under the N wall of the room. The upper face of the N stone of **F110**, **F120**, was cut at an angle, this was probably done in Phase 3, to fit the joists of the current floor against it, and not as part of the original structure. At the base of the blocked doorway within the spiral stairway, **F119** is a large flat slab that seems to form a level platform. **F119** probably formed a step or a landing within the stairway. **F110/F120** and **F119** are thought to relate either to the stairway a doorway in the position now occupied by the stair tower.

At the E end of Trench 2, **F205** was the remains of an N-S aligned wall that vaulting **F216** was constructed against. Whether **F205** was constructed for the vault or was a remnant of earlier structure that had been re-used is not known. Both the upper and W faces of **F205** were very uneven and looked like they had been clawed back, perhaps the W face was simply never intended to be visible but equally it may be the formation of this space and the vault below necessitated altering **F205**. It was noted during the building recording that in the face of the N wall adjacent to this structure there was what may be the joint of two structures. It looked like at least some of this structure continued into the N wall, but the repointing made it difficult to be absolutely sure, suggesting this was constructed before the part of the N wall to the W of it. Perhaps a wall continued N-S across this area and the doorway in the NE corner of the room is a later insertion.

In Trench 3 wall **F319** extended 900mm W from the face of the W wall of the room (**F318**) above it. This was the continuation of the wall (**F205**) seen at the E end of Trench 2. It was thought unlikely that **F319** was foundations for the wall above as it extended so far W of that structure. This wall also had rough W and upper faces, giving the impression it had been clawed back.

Below the S wall and extending 250mm-300mm N from it, **F321** had fairly neat N and upper faces and the footings of both the E and W walls, **F319** and **F323**, were constructed against **F321**.

At the W end of the trench wall **F323** was below **F322** and extends 850mm E from it. This may well be the same construction as **F110** but in Trench 1 most of it was hidden under the construction of the stair tower.

During excavation it was recorded that the Trench 3 structures were “almost certainly contemporary with the structures above them and simply thicker walls to carry the stone vault”. While this perhaps is the more likely interpretation, and the walls are further back at this level and above to allow larger rooms for instance, there is also a possibility that the remnants of an earlier structure survive. The lower structure extended some way inside the walls continuing up into this level; 900mm at the E wall, up to 300mm at the S and 850mm below the W wall. The vault was not jointed into the S and wall and it could not be seen if it was fixed into those at the E and W ends of the room.

The S wall was the first constructed and the E and W were built against it (there was no relationship seen between these two structures) and finally the N wall, at least in the area W of

F205. This could all be part of the same building phase but if not then the earliest structure is the S wall and the E, as has been described, shows some signs of alteration. The N wall possibly shows two phases with the E continuing through the current line of it. If the S and E walls are parts of earlier structure, and there was not a doorway in the NE corner of the room then perhaps the W wall and the doorway from the spiral stair are also part of this phase. It is possible that this was simply a doorway in the earliest phase and the spiral stair was a later construction. A final thought is that the bottom part of the S wall and perhaps **F205** to the E wall may be remnants of an early curtain wall.

In Trench 1 **F117** appeared to be the stones at the top of the vault or rough levelling immediately over it, with the former favoured. It should be noted that there was a fairly small area of this feature seen and it was not excavated so it was impossible to give a strong interpretation. It was apparent that the stones of **F117** were laid against wall **F116**. In the middle of Trench 2, **F216** was thought to be the top of the vault. It appeared that some stones may have been placed over the angled ones to form a slightly better surface. **F216** was constructed against wall **F205** at the N end of the trench. In Trench 3, bounded by walls **F319** to the W, **F321** to the S and **F323** to the E; **F317** was the upper side of the vaulted ceiling to the room below. Vaulting **F317** was not bonded into **F321** and its relationship with walls **F319** and **F323** was unclear although it can be assumed that they were in place before the vault was constructed. The vault dropped by roughly 400mm from the centre to either end.

To the W of the Trench 1 vaulting (**F117**), **F118** appeared to be a rough surface but again little of it was seen. It is most likely that **F118** was a surviving patch of a levelling surface over the top of the vault (**F117**). In the SW corner of Trench 2, **F215** was also thought to be levelling over the surface of the vault, it also appeared to be over **F214** although without excavation it was impossible to be sure of the latter.

Rubble and mortar deposit, **F111** measured up to 400mm in depth and seemed to be an episode of massive infilling. It is possible that this material may be construction waste from the building of the tower and there were no datable artefacts to either confirm or contradict this. Although this seems a large amount of infill this much would be needed at the sides to form even a minimal covering over the crown of the vault. In Trench 2, over the E side of the vault the infill deposit, **F204**, measured up to 350mm in depth.

Clay deposit **F103** was much discussed. Initially it was thought that it may have been part of the initial construction within the tower, perhaps waterproofing over the vault. The presence of **F111** below **F103** and the fact that it was not clean, sticky, clay but came away in lumps seemed to suggest this was not waterproofing. It seems more likely that if **F103** were sealing the vault then it would be stuck directly to the stonework and more pure clay would be used. Another possibility considered was that it related to the current or, perhaps more likely, an earlier floor although there were no imprints of floor features (planks, slabs etc.) seen on the surface. In Trench 2 the clay, **F203**, measured up to 80mm in thickness. In Trench 3 **F314** was the clay deposit and it was noted to have wood in its upper surface. The wood was thought to indicate the top of this deposit is disturbed; perhaps it is off cuts from the joists or floorboards deposited when the current floor was laid. Joists **F306** and **F307** cut into this deposit.

The upstanding N wall of the room, **F112**, was discussed in the building recording. The foundations of this wall, **F113** were seen stepping out (S) 80mm from the wall face but were not investigated in any detail.

The N wall adjacent to Trench 2, **F211**, showed evidence of some recent repairs, near the E end there appeared to be a construction joint. It is difficult to say for sure what part of the wall was constructed first but it is probable that the E part is the earlier. Unlike at Trench 1 there were no foundations projecting out from the wall. It bears repeating that this wall was recorded in more detail as part of the upstanding structure.

At the upstanding E wall of the room, **F318**, the wall was seen to project up to 100mm W of and be more crudely built than the upper part. It may be that the step W was the foundations although it could equally be simply more roughly built as it was to be covered.

The S wall of the room with the central window bay is, **F320**. There was an indication of an earlier floor as the wall plaster stopped consistent level 90mm below the current floor. It was noted that there was a slightly different alignment to the wall either side of the window bay, this could be indicative of an earlier structure being utilised, perhaps this was once a curtain wall, but more likely it reflected the line of the bedrock below.

At the E edge of Trench 1, **F115** was the edge of an earlier fireplace and the dressed stone could be seen to continue below the level of the current floor. This seems to suggest an earlier floor level at least 200mm below the current one.

F116 was a line of stones seen below and to the W of and also continuing S from **F115**. This is thought likely to be the edge of the construction of the foundations of the earliest fireplace. Similarly at the W end of Trench 2, **F213** may have been the E edge of the same structure.

At the W end of Trench 2, under **F212**, **F217** was a dressed stone block thought to form part of the E side of the early fireplace, here the suggestion was a floor level at least 230mm below the current one.

In the NW corner of trench 2, continuing down and E from **F217**, **F214** was rotting yellow sandstone. It was difficult to interpret **F214** with the little seen but part of the fireplace surface or an early surface, are most likely.

The joists for the current planked floor, **F104-F107** are thought to date to the 19th or 20th century. It is worth noting that they overlay deposit **F102**. **F206-F210** were the joists in Trench 2, as at Trench 1 they were not jointed in to the N wall. Planks **F300** and floor joists **F301-F313** were parts of the same structure for the feathered plank floor in Trench 3.

It is difficult to interpret a date for the uppermost deposit removed, **F101**. This fine dust did contain some stones and it is difficult to see this amount of material (100mm depth) accumulating from between the tightly jointed floorboards. It is possible that the material was deposited before the floor was laid and has been disturbed. It may also be that **F101** was not so dusty when it was deposited but has dried out under the floor. The same deposit was described as **F201** in Trench 2. In Trench 3 the upper deposit, **F315**, was noted to be rich in mortar and stone and it was up to 100mm deep.

Under **F101**, **F102** was a deposit of rubble and silt seen throughout the trench but in deeper pockets at the N end of joists **F105** and **F106**. It would seem that **F102** was brought in as a levelling deposit for the current floor and **F101** overlies this deposit and may have been in-filled over it as part of the same phase.

The hearthstone, **F109**, at the central fireplace appeared to be part of the current floor and fireplace, suggesting this too is a 19th or 20th century feature. Coal deposit **F202**, at the W end of trench 2, is likely to be associated with the latest use of the fire.

It appeared that the upper part of the W edge of the fireplace, **F114**, was constructed against the N wall, although this relationship became less clear further down and cannot therefore be conclusive. **F212** was the E edge of the fireplace.

An obviously 20th century feature was **F108**, the iron casing for a cable supplying power for the lights in the vault below.

2.5 Phasing

Phase 1

The structural remnants seen at the W end of Trench 1, **F110**, **F120** and **F119** are thought to pre-date the N wall and the construction of the vault, although it is not possible to say whether this is an earlier part of the same phase or a separate one.

At the E end of the room the vault is constructed against wall **F205** although once again it is not known if this is a separate phase. A possibility is that this wall continued up where the current doorway is and to the N beyond the current N wall, where the scar is seen, and the doorway now used was created when the room was formed with its current layout. The doorway in this phase may have been at **F110** etc in the NW corner of the room and it either went into the spiral stair or pre dates that feature.

At Trench 3, the S wall is the first constructed although the E and W walls would probably be part of the same structure and the N wall would be further N than it is at present. The vault, as it is seen now, would not exist. As uncovered walls would all narrow the room slightly and the projected N wall would enlarge it, a room roughly the size of the current one is not unlikely. Another possibility mentioned is that the E wall (**F205**) and the bottom part of the S wall may be remnants of an early curtain wall.

The structures, usually walls, assigned this phase are all seen at or below the current ground level. It is not known what height any structure that they may have been part of was built to, the suggestion is that it continued down to where there is now a vault but they may also have continued up and been demolished immediately prior to the construction of the existing (Phase 2) building.

Phase 2

The top of the vault was only seen in small parts of both of the N trenches where it was an uneven surface and would have sloped steeply to the E and W. This surface would need to be levelled if this space above was to be used. In Trench 3 it was seen that the drop from the crown of the vault to the edges was roughly 400mm.

It was thought that **F118** and **F215** were rough levelling over the top of the vault, probably immediately prior to the importation of the rubble and clay floor above. These deposits raised the ground level by up to 400mm at the E and W ends of Vault but petered out in the central part, above the crown.

The visible areas of vaulting are not fixed into any of the upstanding walls. It was noted, from earlier survey drawings and a brief look at the layout, that the vault below this area is considerably smaller than this room. It may be simply that all of the vaults were constructed and formed a solid base for the buildings continuing upward and as there is no direct access from the room above to the lower level there is no reason for it to sit directly over it. However it is notable that the phase 1 structures were in place prior to the top of the vault being constructed.

As discussed it was thought unlikely when excavated in the N trenches that the clay deposit (**F103** and **F203**) was waterproofing, a floor surface was thought more probable. There was no surviving evidence of anything being laid on the clay but it could be either that any evidence is gone or that this was always the surface, a clay floor. In Trench 3 (**F314**) the possibility of it being waterproofing and a floor is discussed. The rubble and mortar deposit (**F111**, **F204** and **F316**) levels the ground surface to just above the crown of the vault probably for the laying of the clay surface.

There was a slight (100mm) step out in the base of the E wall of the W, **F318**. This may be foundations and if so is an indication that **F319** below is something different relating to an earlier structure, although it may simply be that this wall has stepped foundations.

The change in line at the S wall, **F320**, either side of the central window bay may simply be as the line follows an edge in the bedrock but it is notable that **F321**, immediately below it, follows a straighter line and as a consequence is stepped further out from the face at the E end than it is at the W. The slightly different alignments could be another indication that there are different periods of build here.

The upstanding N wall of the room appears to be built over the structure at the E and W ends of the room and the current fireplace looks to be constructed against it. The joint near the E end of the wall may indicate two phases of build and, albeit without strong evidence, it is thought most likely the small area at the E end is the earlier part. Perhaps the main construction is part of this phase and the small area at the E end is part of something earlier.

The earlier fireplace is glimpsed behind and below the current one and includes some structure up to 230mm below the current floor level, at roughly the same level as the clay "floor". This seems likely to be the fireplace in use during this phase. It may be that the floor level in this phase was 200mm-250mm below the current one.

Phase 3

The current floor is dated no more precisely than 19th-20th century. Although there was 100% sieving of the upper (and all of the others excavated) dusty deposit there was no strong indication of dating for it, animal burrows and lifting the boards to put in services etc have disturbed it. The rubble infill below the dust deposit supports the floor joists in places so was possibly put in as part of the same phase.

The late fireplace seen in Trenches 1 and 2 seems to have been in use with the current floor and the construction seems to be intended for use with a surface at this level and the construction of it is probably contemporary with the floor. It also looks like the latest fireplace is constructed against the N wall.

3 Standing Building Recording in the Princes Tower (below floor level in room P10)

This phase of work involved recording the features at the base of the N and S elevations, these structures were drawn after the excavation. The features on the elevations have been numbered using the system adopted for the SPARC project (ie **P10.1.111: Room.Elevation.Feature**) Many of the features were already recorded in plan and these excavation features are referred to with three digit numbers.

3.1 North Elevation

P10.1.015 had been recorded during an earlier phase of work, but it was noted in this work that the wall face in this area was a little uneven and the outer faces of the stones were broken.

The floor joists, **P10.1.065-P10.1.067** had not been fixed into the N wall; there was a small gap between the two.

The two dressed sandstone blocks, **P10.1.063**, forming the moulded base at the E side of the fireplace below **P10.1.019** were recorded in the excavation as **F115**, where more of the structure was seen. **P10.1.064** was the moulded base at the W side and was recorded as **F217** during the excavation.

The floor beams in the area of Trench 1 were numbered, from W-E, **P10.1.065- P10.1.067** and were noted to be typically squared machine cut beams measuring 70mm wide (E-W) and 100mm thick. **P10.1.065** had been cut to fit over an angled stone in the NW corner of the room. In the area of Trench 2 five similar beams were numbered **P10.1.068-P10.1.072**. These joists were recorded as **F104-106** and **F206-210** in trenches 1 and 2.

Toward the W end of the N wall, 300mm E of the NW corner and 100mm above the current floor level, **P10.1.073** was a wooden dook. **P10.1.073** was rectangular and measured 60mm E-W and 40mm high, it projected 20mm into the room from the wall face.

Roughly 350mm E of **P10.1.073** and also 100mm above the current floor level, **P10.1.074** was a 50mm square wooden dook that projected out 20mm from the wall face.

Immediately E of **P10.1.074**, dook **P10.1.075** measured 50mm square and was 100mm above the current floor level. **P10.1.075** was put in at an angle with the E side tilted up.

150mm E of the fireplace **P10.1.076** was a rectangular hole measuring 50mm high and 40mm E-W, it was cut 50mm into the wall face and was located 140mm above the current floor level.

Located 800mm E of the fireplace and 80mm above the current floor level, **P10.1.077** was a rectangular hole measuring 50mm high, 40mm E-W and 50mm deep.

1.10m E of the W end of the N wall **P10.1.079** was a roughly rectangular hole measuring 50mm high, 40mm E-W and 50mm deep.

Immediately E of the fireplace **P10.1.080** was a 160mm thick band of mortar.

Approximately 250mm from the E end of the wall, **P10.1.078** was a 60mm square hole cut 50mm into the wall face.

P10.1.081 was the wall at the base of the W end of the excavation, described as **F205** during the excavation. Similarly at the E end of Trench 1 **P10.1.083** was described as **F110**.

The top of the vaulting **P10.1.082** has been described as **F117** and **F216**.

3.2 South Elevation

The floor beams were recorded, from E to W, as **P10.3.022-P10.3.034**. During the excavation they were numbered **301-313** from W-E. These beams were square cut and were not keyed into the S wall of the room.

Extending S from the elevation joist **P10.3.047** continued into the window recess.

At the base of the W wall within the window recess there was a 160mm high band of mortar that is 30mm thick, **P10.3.048**.

P10.3.035 was a wooden dook measuring 50mm high, 40mm E-W and projecting out 25mm from the wall face.

Wooden dook **P10.3.036** measured 60mm square and was stepped out 15mm from the wall face.

P10.3.037 was a blocked hole measuring 50mm high and 40mm E-W.

Hole **P10.3.038** measured 50mm high, 40mm E-W and 10mm deep.

Dook **P10.3.039** was 50mm high, 40mm E-W and flush with the wall face.

P10.3.040 was a wooden dook, measuring 50mm square, that is stepped out 20mm from the wall face.

Wooden dook **P10.3.041** measures 50mm square and steps out 20mm from the wall face.

P10.3.042 was a wooden dook, measuring 50mm high and 30mm E-W, it is stepped out 20mm from the wall face.

Wooden dook **P10.3.043** measured 50mm square and steps out 20mm from the wall face.

The walls at the W and E end of the elevation were numbered **P10.3.044** and **P10.3.046** respectively but there was no detail added to that recorded on these walls during the building survey or excavation.

The top of the vaulting in this area was **P10.3.045** and it had been recorded in detail during the excavation (317).

Immediately W of the window recess **P10.3.049** was an area of mortar with a straight upper edge 160mm above the current floor level.

3.3 Observations and Interpretation

P10.1.015 was largely recorded in the building survey the observation here was that the stones in this E part of the N wall looked to have been hacked at. This would suggest an earlier structure altered and reused as part of the current room.

Similarly sandstone blocks, **P10.1.063**, had been previously recorded; it was thought during this work that it was the E side of the original fireplace. **P10.1.064** forms the W side of the same fireplace.

The floor joists, **P10.1.065-P10.1.072** and **P10.3.022-P10.3.034** are thought most likely to date to the 20th century. It was noted that the joists were not jointed into the N or S walls.

Toward the W end of the N wall, 300mm E of the NW corner and 100mm above the current floor level, **P10.1.073** is a wooden dook. **P10.1.073** is rectangular and measures 60mm E-W and 40mm high, it projects 20mm into the room from the wall face.

P10.1.073-P10.1.079 in the N wall and **P10.1.035-P10.1.043** in the S wall face are holes for dooks that were put in to fit the, recently removed, 20th century skirting board against.

E of the fireplace mortar **P10.1.080** is the seating for the same skirting.

Near the E end of the wall **P10.1.078** may have been a beam slot, although no others can be seen that relate to it. Perhaps **P10.1.078** relates to the construction of the doorway in the NE corner of the room.

The vaulting **P10.1.082** and **P10.3.045** and walls **P10.1.081**, **P10.1.083**, **P10.3.044** and **P10.3.046** were discussed excavation report above.

A1. Appendix 1: List of excavation photographs

No	Trench	Description	From	Date
1	1	Floorboards removed.	S	05/09/08
2	2	Floorboards removed.	S	05/09/08
3	3	Floorboards removed, E end of the trench.	N	05/09/08
4	3	Floorboards removed, middle of the trench.	N	05/09/08
5	3	Floorboards removed, W end of the trench.	N	05/09/08
6	1	First clean up.	S	05/09/08
7	1	First clean up.	S	05/09/08
8	2	First clean up.	S	05/09/08
9	2	First clean up.	S	05/09/08
10	2	First clean up.	S	05/09/08
11	3	First clean up, from E-W.	N	05/09/08
12	3	First clean up, from E-W.	N	05/09/08
13	3	First clean up, from E-W.	N	05/09/08
14	-	Detail of find.	-	05/09/08
15	-	Detail of find.	-	05/09/08
16	-	Detail of find.	-	05/09/08
17	-	Detail of find.	-	05/09/08
18	3	First clean up W end of the trench.	N	05/09/08
19	3	After removal of 314, E end of the trench.	N	05/09/08
20	3	After removal of 314, W end of the trench.	N	05/09/08
21	2	After removal of 203, E end of the trench.	S	05/09/08
22	2	After removal of 203, W end of the trench.	S	05/09/08
23	1	After removal of 102.	S	05/09/08
24	1	After removal of 102.	S	05/09/08
25	3	After removal of 314, to the E of the steel prop.	N	05/09/08
26	3	After removal of 314, to the E of photo 25.	N	05/09/08
27	3	After removal of 314, W end of the trench.	N	05/09/08
28	3	317 to the E of the steel prop.	N	05/09/08
29	3	317 to the E of the steel prop, E end.	N	05/09/08
30	3	317 to the E of the steel prop, W end.	N	05/09/08
31	3	317 to the E of the steel prop.	E	05/09/08
32	3	317 to the E of the steel prop.	W	05/09/08
33	3	317 to the E of the steel prop.	S	05/09/08
34	3	317 to the W of the steel prop, E end.	N	05/09/08
35	3	317 to the W of the steel prop, middle part.	N	05/09/08
36	3	317 to the W of the steel prop.	W	05/09/08
37	3	317 to the W of the steel prop.	E	05/09/08
38	-	Detail of the W wall of the "coal chute" in the corridor to the E of V:14.	NE	08/09/08

No	Trench	Description	From	Date
39	-	Detail of the W wall of the "coal chute" in the corridor to the E of V:14.	NE	08/09/08
40	-	N side of door to V14.	N	08/09/08
41	-	N side of door to V14.	N	08/09/08
42	-	W margin of N side of door to V14.	NE	08/09/08
43	-	Various shots in V14.	-	08/09/08
44	-	Various shots in V14.	-	08/09/08
45	-	Various shots in V14.	-	08/09/08
46	-	Various shots in V14.	-	08/09/08
47	-	Various shots in V14.	-	08/09/08
48	-	Various shots in V14.	-	08/09/08
49	1	After removal of 103.	S	08/09/08
50	2	W end of the trench post excavation.	S	08/09/08
51	2	Whole trench post excavation.	W	08/09/08
52	2	E end of the trench post excavation.	E	08/09/08
53	2	Stone edge at the W limit of the trench.	E	08/09/08
54	3	Wall 319 from above.	N	08/09/08
55	3	Wall 319 from above.	N	08/09/08
56	3	Wall 319, W face.	W	08/09/08
57	3	Wall 319, W face.	W	08/09/08
58	3	Wall 322 from above.	N	08/09/08
59	3	Wall 322 from above.	N	08/09/08
60	3	Wall 322, E face.	E	08/09/08
61	3	S facing section from W-E.	S	09/09/08
62	3	S facing section from W-E.	S	09/09/08
63	3	S facing section from W-E.	S	09/09/08
64	3	S facing section from W-E.	S	09/09/08
65	3	S facing section from W-E.	S	09/09/08
66	3	S facing section from W-E.	S	09/09/08
67	3	S facing section from W-E.	S	09/09/08
68	3	S facing section from W-E.	S	09/09/08
69	3	S facing section from W-E.	S	09/09/08
70	3	S facing section from W-E.	S	09/09/08
71	3	S facing section from W-E.	S	09/09/08
72	3	S facing section from W-E.	S	09/09/08
73	3	Wall 321 from W-E.	N	09/09/08
74	3	Wall 321 from W-E.	N	09/09/08
75	3	Wall 321 from W-E.	N	09/09/08
76	1	Trench post excavation.	E	10/09/08
77	1	Edge of 116.	S	10/09/08
78	1	Wall 110.	S	10/09/08

No	Trench	Description	From	Date
79	1	Wall 110.	S	10/09/08
80	1	Early fireplace 115.	W	10/09/08
81	1	Early fireplace 115.	W	10/09/08
82	-	Door from V22 to P10.	W	10/09/08
83	-	Door from V22 to P10.	W	10/09/08
84	-	Door from V22 to V14.	W	10/09/08
85	-	Door from V22 to V14.	W	10/09/08
86	-	Door from V22 to V14.	W	10/09/08
87	1	Early fireplace 115.	S	11/09/08
88	1	Early fireplace 115.	S	11/09/08
89	1	Early fireplace 115.	W	11/09/08
90	1	Early fireplace 115.	W	11/09/08
91	2	Early fireplace 212.	S	11/09/08
92	2	Detail of early fireplace 212.	S	11/09/08
93	2	Stones 213.	S	11/09/08
94	2	Stones 213.	S	11/09/08

A2. Appendix 2: List of Drawings

Drawing	Description	Scale
1	Section of Trenches 1 and 2	1:10
2	Plan of Trench 3 (upper)	1:20
3	Plan of Trench 3 (lower)	1:20
4	Section of Trench 3	1:10
5	Plan of Trenches 1 and 2 (upper)	1:20
6	Plan of Trenches 1 and 2 (lower)	1:20

A3. Appendix 3: List of Excavation Samples

No	Trench	Context	Description	No. Of Bags	Date
1	3	314	Clay "floor".	1	05/09/08
2	3	316	Rubble below 314,	2	05/09/08
3	1	103	Clay "floor".	1	08/09/08
4	1	111	Rubble below 103.	1	08/09/08
5	3	317	Mortar sample from vault.	1	10/09/08
6	3	319	Mortar sample from E wall of the room.	1	10/09/08
7	3	321	Mortar sample from S wall of the room.	1	10/09/08
8	3	323	Mortar sample from W wall of the room.	1	10/09/08

A4. Appendix 4: List of Excavation Contexts

Context	Trench	Description	Date
100	1	Planked floor	-
101	1	Very loose fine dust and stones.	04/09/08
102	1	Rubble and bark brown silt.	04/09/08
103	1	Compact red brown clay.	04/09/08
104	1	W floor joist.	04/09/08
105	1	Floor joist E of 104.	04/09/08
106	1	Floor joist E of 105.	04/09/08
107	1	E floor joist.	04/09/08
108	1	Casing for electricity cable.	06/09/08
109	1	Hearth slab.	06/09/08
110	1	N-S wall under the spiral stair doorway.	06/09/08
111	1	Rubble and light brown silt infill under 103.	06/09/08
112	1	N wall of the room adjacent to trench 1.	06/09/08
113	1	Foundations below 112.	06/09/08
114	1	W edge of the current fireplace.	06/09/08
115	1	Structure of the earlier fireplace, below the current floor.	10/09/08
116	1	Structure under and S of 115.	10/09/08
117	1	The top of the vaulting.	10/09/08
118	1	Area of stones and mortar between 110 and 117.	10/09/08
119	1	Large flat slab at the base of the W end of the trench.	10/09/08
120	1	N stone of 110, upper face cut at an angle.	10/09/08
200	2	Planked floor	-
201	2	Very loose fine dust and stones.	04/09/08
202	2	Loose dark grey/black coal dust.	04/09/08
203	2	Compact red brown clay.	04/09/08
204	2	Rubble and light brown silt infill under 203.	04/09/08
205	2	N-S wall seen at the E end of the trench	04/09/08
206	2	W floor joist.	04/09/08
207	2	Floor joist E of 206.	04/09/08
208	2	Floor joist E of 207.	04/09/08
209	2	Floor joist E of 208.	04/09/08
210	2	E floor joist.	04/09/08
211	2	N wall of the room adjacent to trench 2.	06/09/08
212	2	E edge of the current fireplace.	06/09/08
213	2	E edge of stone structure associated with an earlier fireplace.	06/09/08
214	2	Area of rotting yellow sandstone associated with an earlier fireplace.	10/09/08
215	2	Sub angular stones and gritty mortar.	10/09/08
216	2	Upper surface of the vault.	10/09/08
217	2	Dressed stone block, base of the E side of the earlier fireplace.	10/09/08
300	3	Planked floor.	04/09/08

Context	Trench	Description	Date
301	3	East floor joist.	04/09/08
302	3	Floor joist W of 301.	04/09/08
303	3	Floor joist W of 302.	04/09/08
304	3	Floor joist W of 303.	04/09/08
305	3	Floor joist W of 304.	04/09/08
306	3	Floor joist W of 305.	04/09/08
307	3	Floor joist W of 305.	04/09/08
308	3	Floor joist W of 307.	04/09/08
309	3	Floor joist W of 308.	04/09/08
310	3	Floor joist W of 309.	04/09/08
311	3	Floor joist W of 310.	04/09/08
312	3	Floor joist W of 311.	04/09/08
313	3	West floor joist.	04/09/08
314	3	Compact red brown clay.	10/09/08
315	3	Very loose fine dust and stones.	04/09/08
316	3	Rubble infill below 314.	10/09/08
317	3	The top of the vaulting.	10/09/08
318	3	E wall of the room.	10/09/08
319	3	Footings of 318.	10/09/08
320	3	S wall of the room.	10/09/08
321	3	Footings of 320.	10/09/08
322	3	W wall of the room.	10/09/08
323	3	Footings of 322.	10/09/08

A5. Appendix 5: Finds List

Box No.	Bag No.	Site code	Date	Material(s)	Quantity	Context Nos.	Smpl no(s)	Other info?
1250	1250-001	Princes Tower Stair Trench	September 2008	Coin (Early 17 th Century French Tournois).	1	315		
1250	1250-002	Princes Tower Stair Trench	September 2008	Metal alloy fittings, 1 button, 2 studs and a wire coil.	4	201		
1250	1250-003	Princes Tower Stair Trench	September 2008	Copper alloy lace tags	2	316		
1250	1250-004	Princes Tower Stair Trench	September 2008	Copper alloy pins	3	314		
1250	1250-005	Princes Tower Stair Trench	September 2008	Copper alloy pins and a copper blob	7	315		
1250	1250-006	Princes Tower Stair Trench	September 2008	Fe key	1	315		
1250	1250-007	Princes Tower Stair Trench	September 2008	Fe staple	1	315		
1250	1250-008	Princes Tower Stair Trench	September 2008	Fe bracket with traces of whitewash and paint.	1	201		
1250	1250-009	Princes Tower Stair Trench	September 2008	Fe pipe bracket.	1	101		
1250	1250-010	Princes Tower Stair Trench	September 2008	Fe nail	1	204		
1250	1250-011	Princes Tower Stair Trench	September 2008	Fe nails	7	315		

Box No.	Bag No.	Site code	Date	Material(s)	Quantity	Context Nos.	Smpl no(s)	Other info?
1250	1250-012	Princes Tower Stair Trench	September 2008	Fe nail	1	316		
1250	1250-013	Princes Tower Stair Trench	September 2008	Fe nails	4	201		
1250	1250-014	Princes Tower Stair Trench	September 2008	Fe nails	7	101		
1250	1250-015	Princes Tower Stair Trench	September 2008	Wood fragment	1	316		
1250	1250-016	Princes Tower Stair Trench	September 2008	Wood fragments	2	204		
1250	1250-017	Princes Tower Stair Trench	September 2008	Wood fragment with hole	1	315		
1250	1250-018	Princes Tower Stair Trench	September 2008	Vessel glass	4	315		
1250	1250-019	Princes Tower Stair Trench	September 2008	Vessel glass	3	101		
1250	1250-020	Princes Tower Stair Trench	September 2008	Window glass	1	314		
1250	1250-021	Princes Tower Stair Trench	September 2008	Window glass	4	315		

Box No.	Bag No.	Site code	Date	Material(s)	Quantity	Context Nos.	Smpl no(s)	Other info?
1252	1252-001	Princes Tower Stair Trench	September 2008	Bone	1	103		
1252	1252-002	Princes Tower Stair Trench	September 2008	Bone	11	203		
1252	1252-003	Princes Tower Stair Trench	September 2008	Bone	5	101		
1252	1252-004	Princes Tower Stair Trench	September 2008	Bone	4	202		
1252	1252-005	Princes Tower Stair Trench	September 2008	Bone	53	314		
1252	1252-006	Princes Tower Stair Trench	September 2008	Bone	40	316		
1252	1252-007	Princes Tower Stair Trench	September 2008	Bone	39	315		
1252	1252-008	Princes Tower Stair Trench	September 2008	Bone	26	204		
1252	1252-009	Princes Tower Stair Trench	September 2008	Mousy skull	1	315		
1252	1252-010	Princes Tower Stair Trench	September 2008	Bone	9	201		
1252	1252-011	Princes Tower Stair Trench	September 2008	Crustacean shell	1	316		

Box No.	Bag No.	Site code	Date	Material(s)	Quantity	Context Nos.	Smpl no(s)	Other info?
1252	1252-012	Princes Tower Stair Trench	September 2008	Brick with whitewash and black paint.	1	315		
1252	1252-013	Princes Tower Stair Trench	September 2008	Brick with whitewash and black paint.	2	101		
1252	1252-014	Princes Tower Stair Trench	September 2008	Whitewashed concrete	2	202		
1252	1252-015	Princes Tower Stair Trench	September 2008	Horse hair plaster with a dook.	1	101		
1252	1252-016	Princes Tower Stair Trench	September 2008	Horse hair plaster with whitewash	1	201		
1252	1252-017	Princes Tower Stair Trench	September 2008	Painted plaster fragments.	7	315		
1252	1252-018	Princes Tower Stair Trench	September 2008	Wood.	1	315		
1252	1252-019	Princes Tower Stair Trench	September 2008	Clawed stone post pad from under joist 310.	1	310		
1252	1252-020	Princes Tower Stair Trench	September 2008	Roof slate	1	111		
1252	1252-021	Princes Tower Stair Trench	September 2008	Roof slate	1	204		
1252	1252-022	Princes Tower Stair Trench	September 2008	Roof slate	1	204		

Box No.	Bag No.	Site code	Date	Material(s)	Quantity	Context Nos.	Smpl no(s)	Other info?
1252	1252-023	Princes Tower Stair Trench	September 2008	Roof slate	5	315		
1252	1252-024	Princes Tower Stair Trench	September 2008	Coal	1	101		
1252	1252-025	Princes Tower Stair Trench	September 2008	Coal	1	316		
1252	1252-026	Princes Tower Stair Trench	September 2008	Coal	2	102		
1252	1252-027	Princes Tower Stair Trench	September 2008	Green glaze pottery	3	315		
1252	1252-028	Princes Tower Stair Trench	September 2008	Patterned china	5	315		
1252	1252-029	Princes Tower Stair Trench	September 2008	Patterned china	2	101		
1252	1252-030	Princes Tower Stair Trench	September 2008	Stoneware pottery	1	102		
1252	1252-031	Princes Tower Stair Trench	September 2008	Stoneware pottery	2	101		
1252	1252-032	Princes Tower Stair Trench	September 2008	Hazelnut shells	2	203		
1252	1252-033	Princes Tower Stair Trench	September 2008	Hazelnut shells	4	102		

Box No.	Bag No.	Site code	Date	Material(s)	Quantity	Context Nos.	Smpl no(s)	Other info?
1252	1252-034	Princes Tower Stair Trench	September 2008	Hazelnut shells	25	314		
1252	1252-035	Princes Tower Stair Trench	September 2008	Hazelnut shells	7	315		
1252	1252-036	Princes Tower Stair Trench	September 2008	Hazelnut shell	1	316		
1252	1252-037	Princes Tower Stair Trench	September 2008	Clay pipe stem	1	314		
1252	1252-038	Princes Tower Stair Trench	September 2008	Clay pipe stems	10	315		
1252	1252-039	Princes Tower Stair Trench	September 2008	Clay pipe stems and bowl fragment	3	201		
1252	1252-040	Princes Tower Stair Trench	September 2008	Snail shell	1	315		
1252	1252-041	Princes Tower Stair Trench	September 2008	Mussel shell	2	203		
1252	1252-042	Princes Tower Stair Trench	September 2008	Mussel shell	4	314		
1252	1252-043	Princes Tower Stair Trench	September 2008	Mussel shell	4	315		
1252	1252-044	Princes Tower Stair Trench	September 2008	Mussel shell	1	204		

Box No.	Bag No.	Site code	Date	Material(s)	Quantity	Context Nos.	Smpl no(s)	Other info?
1252	1252-045	Princes Tower Stair Trench	September 2008	Mussel shell	1	316		
1252	1252-046	Princes Tower Stair Trench	September 2008	Oyster shell	3	101		
1252	1252-047	Princes Tower Stair Trench	September 2008	Oyster shell	3	316		
1252	1252-048	Princes Tower Stair Trench	September 2008	Oyster shell	2	314		
1252	1252-049	Princes Tower Stair Trench	September 2008	Oyster shell	1	201		
1252	1252-050	Princes Tower Stair Trench	September 2008	Oyster shell	2	103		
1252	1252-051	Princes Tower Stair Trench	September 2008	Green plastic button	1	201		
1252	1252-052	Princes Tower Stair Trench	September 2008	Scrap of cotton	1	101		
1252	1252-053	Princes Tower Stair Trench	September 2008	Blue and gold plastic lid fragment	1	201		
1252	1252-054	Princes Tower Stair Trench	September 2008	Possible coprolite/animal dung	1	111		
1252	1252-055	Princes Tower Stair Trench	September 2008	Matchstick	1	101		

Box No.	Bag No.	Site code	Date	Material(s)	Quantity	Context Nos.	Smpl no(s)	Other info?
1252	1252-056	Princes Tower Stair Trench	September 2008	Paper sweet wrapper	1	101		
1252	1252-057	Princes Tower Stair Trench	September 2008	Newspaper fragment	1	201		
1252	1252-058	Princes Tower Stair Trench	September 2008	Ceramic fragment of unknown object with letters 'RE...'	1	201		
1252	1252-059	Princes Tower Stair Trench	September 2008	Oyster shell	7	315		

A6. Appendix 6: List of Standing Building Recording Features

Room	Elevation	Feature	Description	Date
P10	1	015	# It is notable that the wall face W of this area has been hacked at.	19/09/08
P10	1	063	Two sandstone blocks forming the moulded base below P10.1.019 at the W side of the fireplace. (115).	19/09/08
P10	1	064	Moulded base at the E side of the fireplace, below P10.1.020. (217).	19/09/08
P10	1	065	W floor beam in area of trench 1, this has been cut to sit over a stone at the base of the N wall. P10.1.065-P10.1.067 are typically squared and measure 70mm E-W and 100mm thick. (104).	19/09/08
P10	1	066	Central floor beam in area of Trench 1. (105).	19/09/08
P10	1	067	E floor beam in area of Trench 1. (106).	19/09/08
P10	1	068	W floor beam in area of Trench 2. P10.1.068-P10.1.072 are typically squared and measure 70mm E-W and 100mm thick. (206).	19/09/08
P10	1	069	Floor beam E of P10.1.068. (207).	19/09/08
P10	1	070	Floor beam E of P10.1.069. (208).	19/09/08
P10	1	071	Floor beam E of P10.1.070. (209).	19/09/08
P10	1	072	E floor beam in area of Trench 2. (210).	19/09/08
P10	1	073	Dook hole 300mm E of the W wall.	19/09/08
P10	1	074	Dook located 650mm E of the W wall.	19/09/08
P10	1	075	Dook immediately E of P10.1.074.	19/09/08
P10	1	076	Dook hole 150mm E of the central fireplace.	19/09/08
P10	1	077	Dook hole 800mm E of the central fireplace.	19/09/08
P10	1	078	Hole cut into the wall face 250mm W of the E wall.	19/09/08
P10	1	079	Dook hole 1.10m E of the W wall.	19/09/08
P10	1	080	Mortar band seen E of the fireplace.	19/09/08
P10	1	081	Wall at W end of the elevation. (205)	19/09/08
P10	1	082	Top of the vaulting in the excavated trenches. (117 and 216)	19/09/08
P10	1	083	Wall at E end of the elevation. (110)	19/09/08
P10	3	022	W floor beam. (301)	19/09/08
P10	3	023	Floor beam E of P10.3.029. (302)	19/09/08
P10	3	024	Floor beam E of P10.3.029. (303)	19/09/08
P10	3	025	Floor beam E of P10.3.029. (304)	19/09/08
P10	3	026	Floor beam E of P10.3.029. (305)	19/09/08
P10	3	027	Floor beam E of P10.3.029. (306)	19/09/08
P10	3	028	Floor beam E of P10.3.029. (307)	19/09/08
P10	3	029	Floor beam E of P10.3.029. (308)	19/09/08
P10	3	030	Floor beam E of P10.3.029. (309)	19/09/08
P10	3	031	Floor beam E of P10.3.030. (310)	19/09/08
P10	3	032	Floor beam E of P10.3.031. (311)	19/09/08
P10	3	033	Floor beam E of P10.3.032. (312)	19/09/08
P10	3	034	W floor beam. (313)	19/09/08
P10	3	035	Wooden dook E of central window aperture.	19/09/08

P10	3	036	Wooden dook E of central window aperture.	19/09/08
P10	3	037	Blocked hole, E of central window aperture.	19/09/08
P10	3	038	Hole, E of central window aperture.	19/09/08
P10	3	039	Wooden dook, W of central window aperture.	19/09/08
P10	3	040	Wooden dook, W of central window aperture.	19/09/08
P10	3	041	Wooden dook, W of central window aperture.	19/09/08
P10	3	042	Wooden dook, W of central window aperture.	19/09/08
P10	3	043	Wooden dook, W of central window aperture.	19/09/08
P10	3	044	Wall at the W end of the elevation. (322)	19/09/08
P10	3	045	The top of the vault at Trench 3. (317)	19/09/08
P10	3	046	Wall at the E end of the elevation. (323)	19/09/08
P10	3	047	Beam running S from the Elevation.	19/09/08
P10	3	048	Mortar on the W wall of the window recess.	19/09/08
P10	3	049	Mortar line seen to the W of the window recess.	19/09/08

A7. Appendix 7: Drawings

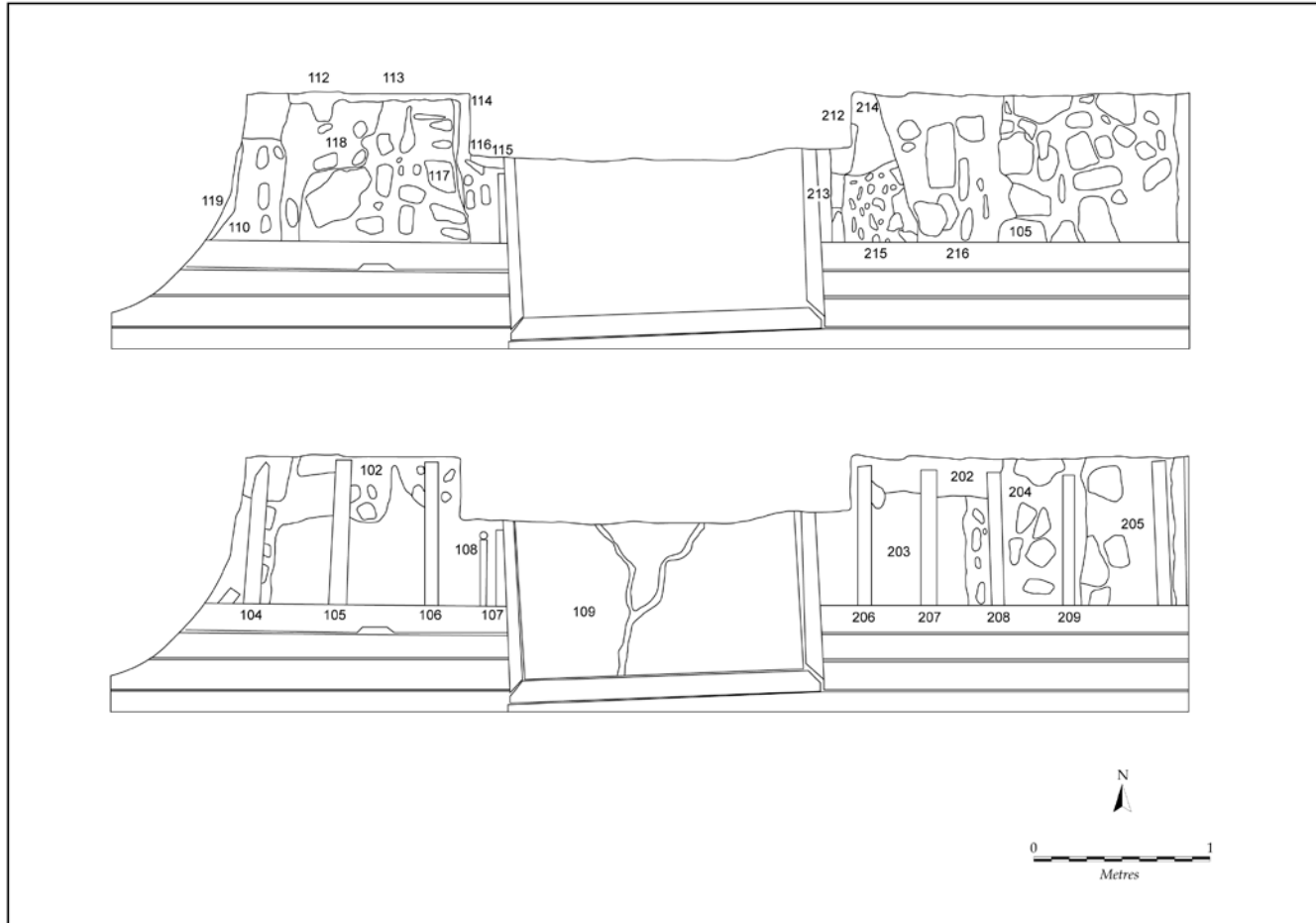


Figure 2: Plans of Trenches 1 and 2

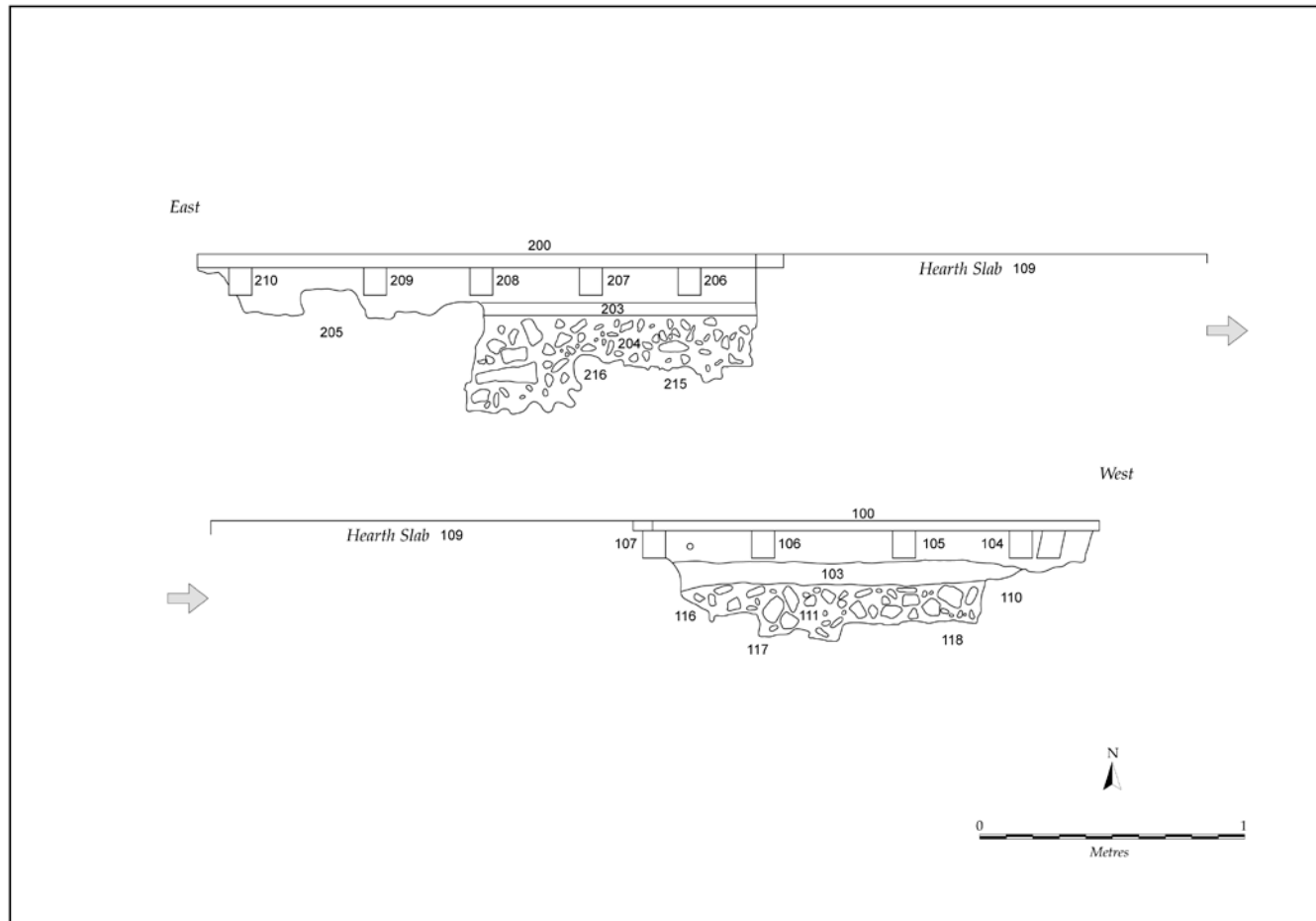


Figure 3: Section of Trenches 1 and 2

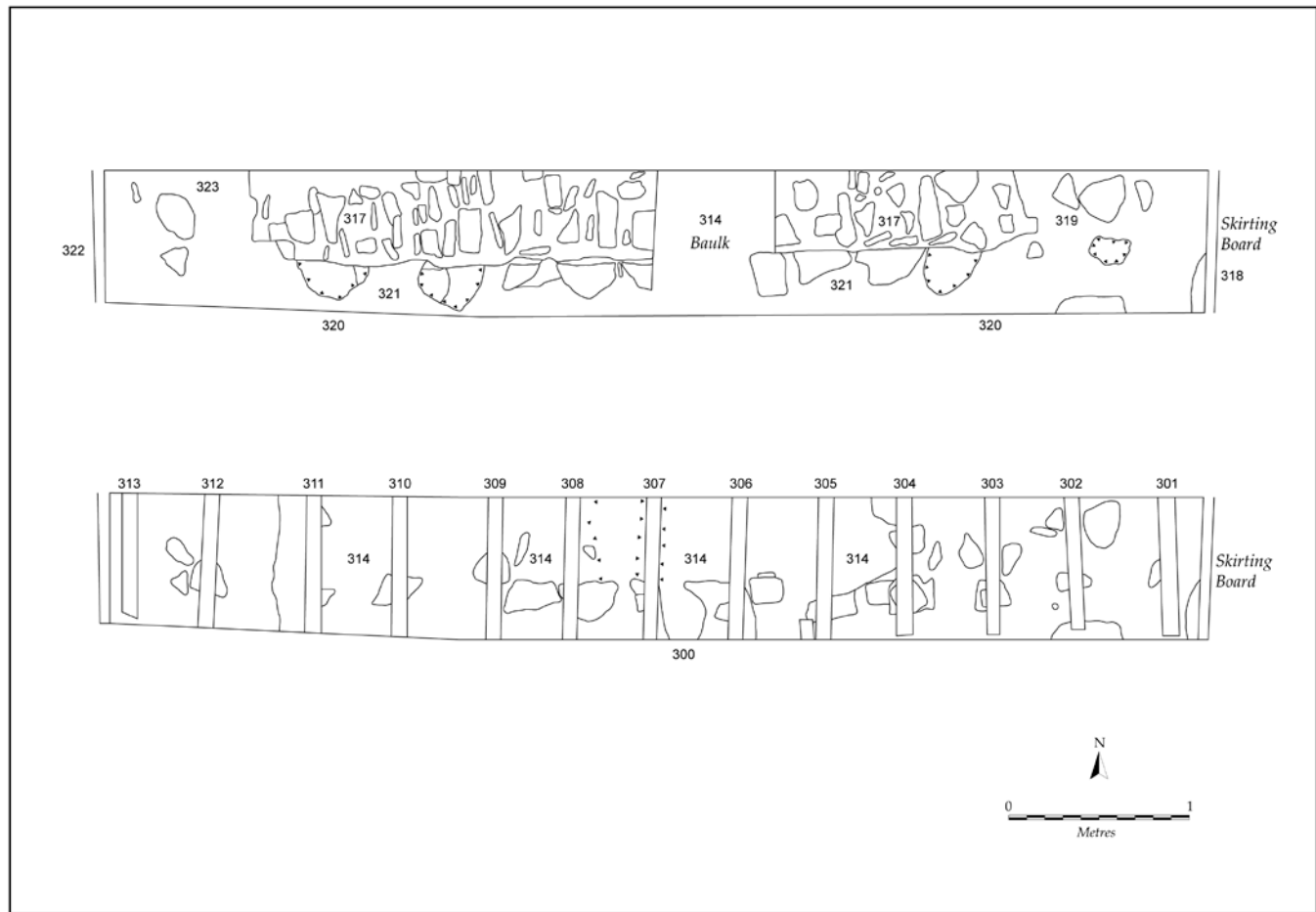


Figure 4: Plans of Trench 3

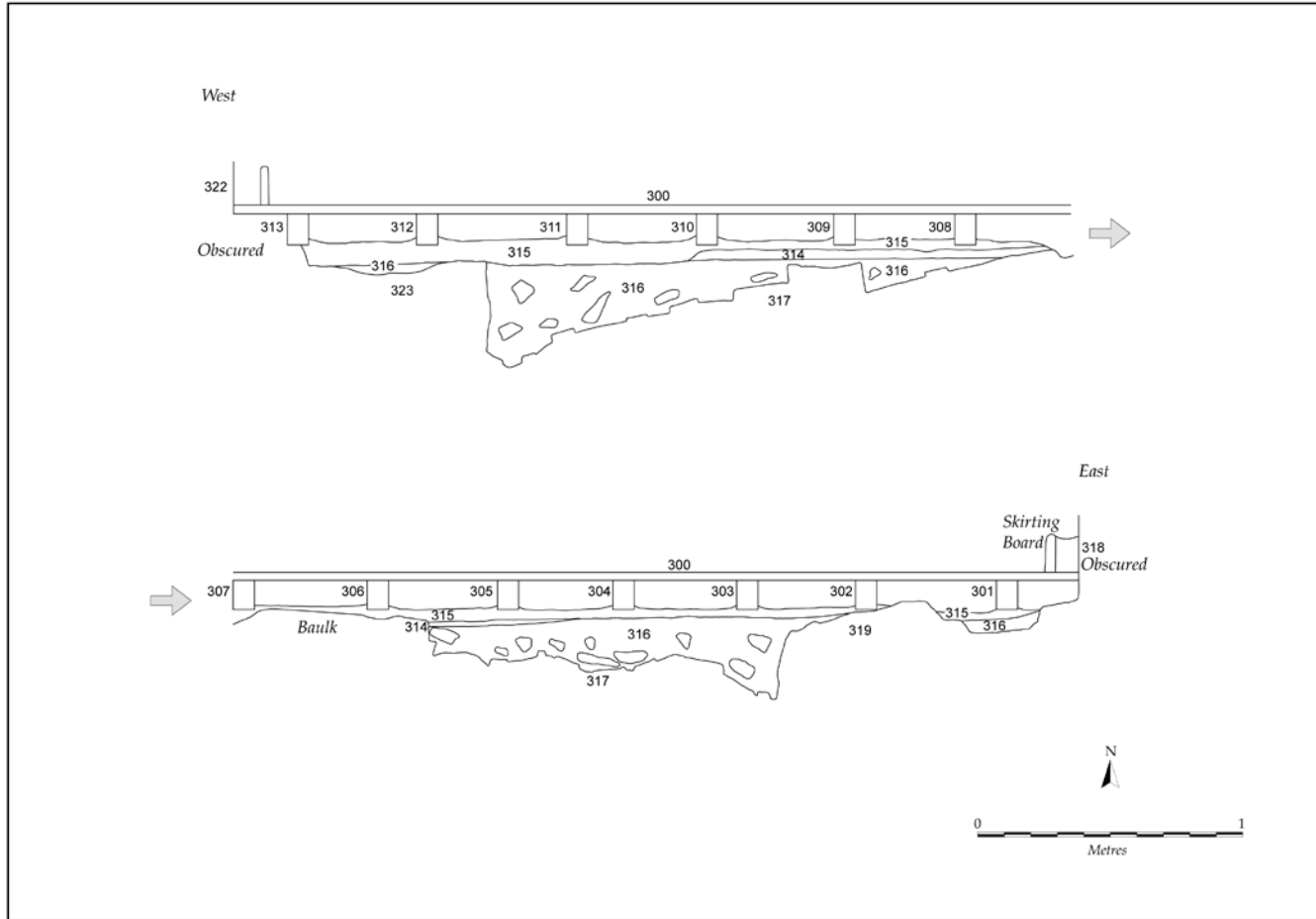


Figure 5: Section of Trench 3

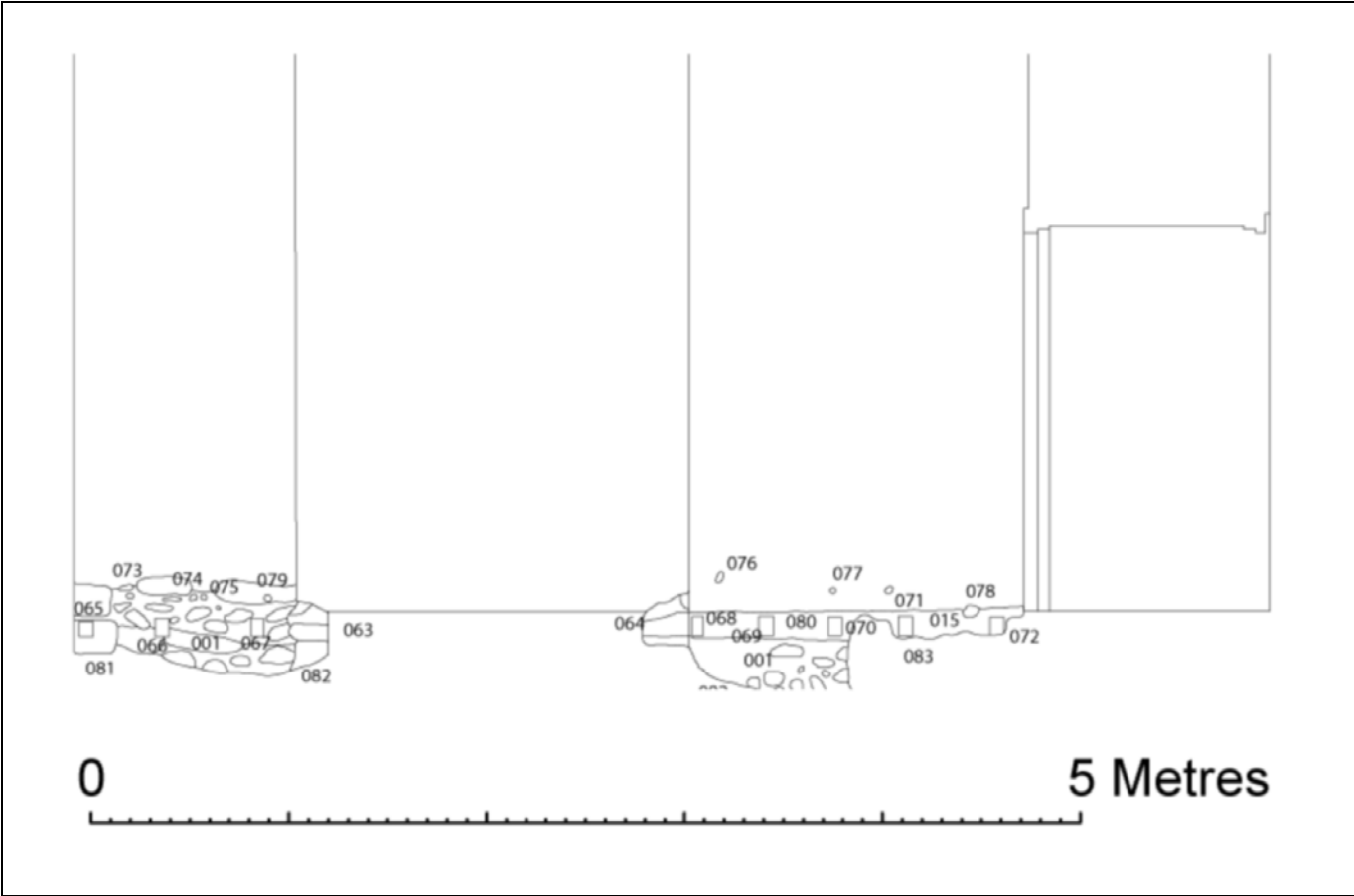


Figure 6: Masonry revealed on Northern elevation of P10

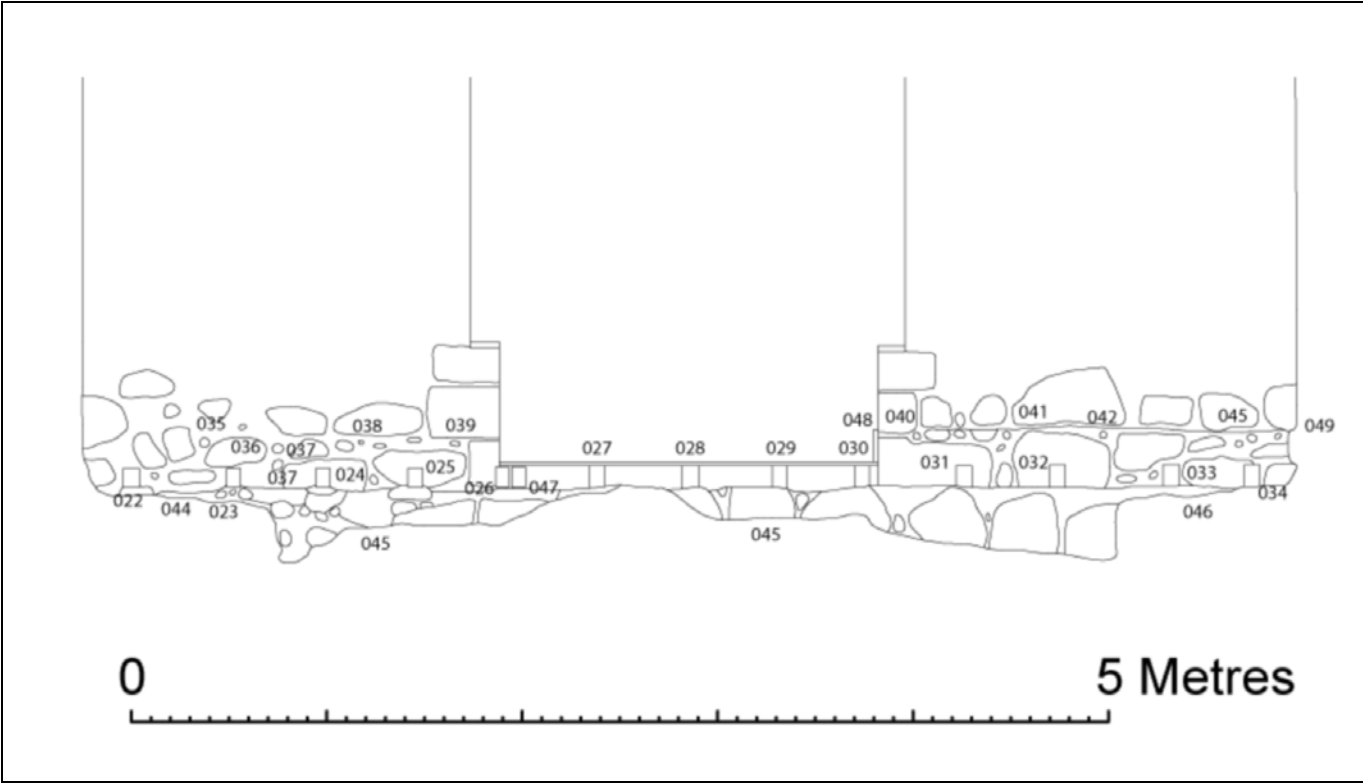


Figure 7: Masonry revealed on Southern elevation of P10

Historic Scotland
SCPP Archaeological Works
2008

Stirling Castle Palace
P10 Standing Building Recording

PIC Index No. 90291

Project. SCPP-2008-13

Standing Building Recording
July 2008



15 January 2008
Kirkdale Archaeology

Site Stirling Castle, Princes Tower

N.G.R NS 790 940

Project Description In July 2008 the opportunity arose to record two newly stripped walls in the first floor room of the Princes Tower (P10). The walls in question were those of the E and S, with the N and W walls having been previously recorded in 2004. A newly stripped out cupboard in the W wall was also recorded.

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1 DESCRIPTION OF FIELDWORK

Kirkdale Archaeology was invited to record the final two walls to be stripped in the first floor of the Princes Tower (P10). The N and W walls had been stripped and recorded in 2004 while the E and S walls had been left unstripped until the summer of 2008. A cupboard in the W wall was also removed at this stage and the revealed masonry was also recorded during this programme of works. The walls were drawn stone-by-stone except where obscured by residual plaster and all features were described on *pro-forma* standing building recording forms.

The work took place between 14/07/08 and 17/07/08.

2 POST- FIELDWORK

The field drawings have been converted into CAD and are included with this report. However, the data-entry of the recording forms has yet to be completed along with any analysis of the observations made during 2008 along with those of 2004. This work will be completed and added to the existing database and relevant online SPARC reports in due course. Presented as Appendix 1 is a list of all amended and new features.

A1. APPENDIX 1: LISTS OF AMENDED AND NEW CONTEXTS

P10.2 (East Wall)

Feature	Description	Status
001	Wall	Amended Sheet
026	Plaster - surface at top of wall, scaps elsewhere	New Sheet
027	Infill of 028	New Sheet
028	Cut to insert S end of 015	New Sheet
029	Brick infill of 030	New Sheet
030	Cut for insertion of door 010	New Sheet
031	Crack at N end of wall	New Sheet
032	Crack at S end of wall	New Sheet
033	Upper of 3 rows of dooks (S-N)	New Sheet
034	Upper of 3 rows of dooks (S-N)	New Sheet
035	Upper of 3 rows of dooks (S-N)	New Sheet
036	Upper of 3 rows of dooks (S-N)	New Sheet
037	Dook cut through 029, possibly N dook of 033-036 sequence	New Sheet
038	Middle row of dooks	New Sheet
039	Middle row of dooks	New Sheet
040	Middle row of dooks	New Sheet
041	Middle row of dooks	New Sheet
042	Middle row of dooks	New Sheet
043	Middle row of dooks	New Sheet
044	Middle row of dooks	New Sheet
045	Lowest row of dooks	New Sheet
046	Lowest row of dooks	New Sheet
047	Lowest row of dooks	New Sheet
048	Dook with iron spike in situ	New Sheet
049	Dook hole with timber still in situ	New Sheet
050	Dook hole with timber still in situ	New Sheet
051	Dook hole with timber still in situ	New Sheet
052	Dook hole with timber still in situ	New Sheet
053	Dook hole with timber still in situ	New Sheet
054	Dook hole with timber still in situ	New Sheet
055	Dook hole with timber still in situ	New Sheet
056	Dook hole with timber still in situ	New Sheet
057	Dook hole with timber still in situ	New Sheet
058	Dook hole with timber still in situ	New Sheet
059	Empty dook hole	New Sheet
060	Empty dook hole	New Sheet
061	Empty dook hole	New Sheet
062	Dook with timber in situ	New Sheet
063	Empty dook hole	New Sheet
064	Empty dook hole	New Sheet
065	Empty dook hole	New Sheet
066	Empty dook hole	New Sheet
067	Empty dook hole	New Sheet
068	Empty dook hole	New Sheet
069	Empty dook hole	New Sheet
070	Small empty dook hole, high up wall	New Sheet

Feature	Description	Status
071	Small empty dook hole, high up wall	New Sheet
072	Empty dook hole	New Sheet
073	Dook with timber in situ	New Sheet

P10.3 (South Wall)

Feature	Description	Status
001	Wall	Amended Sheet
009	Window Aperture	Amended Sheet
021	Relieving arch for 009	New Sheet
022	E margin of 009	New Sheet
023	Quoins at N end of 022	New Sheet
024	Stone 'bench' at base of 023 (below plaster 019)	New Sheet
025	W margins of 009	New Sheet
026	Quoins at N end of 025	New Sheet
027	Stone 'bench' at base of 025 (below plaster 018)	New Sheet
028	Masonry at base of 009	New Sheet
029	Sill at E end of 009	New Sheet
030	Repair to 029 at W end of 009	New Sheet
031	Wood lintel to 009	New Sheet
032	Masonry above 031	New Sheet
033	Infill of 034	New Sheet
034	Cut through 031 & 032	New Sheet
035	Possible different masonry above 021	New Sheet
036	Scraps of plaster over 001	New Sheet
037	Re-used stone with chamfer near W end of 001	New Sheet
038	Masonry between 028 & 029/030	New Sheet
039	Dook to E of window bay 009	New Sheet
040	Dook to E of window bay 009	New Sheet
041	Dook to E of window bay 009	New Sheet
042	Dook to E of window bay 009	New Sheet
043	Dook to E of window bay 009	New Sheet
044	Dook to E of window bay 009	New Sheet
045	Dook to E of window bay 009	New Sheet
046	Dook to E of window bay 009	New Sheet
047	Dook to E of window bay 009	New Sheet
048	Dook to E of window bay 009	New Sheet
049	Dook to E of window bay 009	New Sheet
050	Dook to E of window bay 009	New Sheet
051	Dook to E of window bay 009	New Sheet
052	Dook to E of window bay 009	New Sheet
053	Dook to E of window bay 009	New Sheet
054	Dook to E of window bay 009	New Sheet
055	Dook to E of window bay 009	New Sheet
056	Dook to W of window bay 009	New Sheet
057	Dook to W of window bay 009	New Sheet
058	Dook to W of window bay 009	New Sheet
059	Dook to W of window bay 009	New Sheet
060	Dook to W of window bay 009	New Sheet
061	Dook to W of window bay 009	New Sheet
062	Dook to W of window bay 009	New Sheet

Feature	Description	Status
063	Dook to W of window bay 009	New Sheet
064	Dook to W of window bay 009	New Sheet
065	Dook to W of window bay 009	New Sheet
066	Dook to W of window bay 009	New Sheet
067	Dook to W of window bay 009	New Sheet
068	Dook to W of window bay 009	New Sheet
069	Dook to W of window bay 009	New Sheet
070	Dook to W of window bay 009	New Sheet
071	Dook to W of window bay 009	New Sheet
072	Dook to W of window bay 009	New Sheet
073	Dook in S wall of window bay 009	New Sheet
074	Dook in E margin of window bay 009	New Sheet
075	Dook in E margin of window bay 009	New Sheet
076	Dook in W margin of window bay 009	New Sheet
077	Dook in W margin of window bay 009	New Sheet

P10.4 (West Wall)

Feature	Description	Status
052	N margin of aperture 021	Amended Sheet
062	S margin of aperture 021	New Sheet
063	Lintel of aperture 021	New Sheet
064	Blocking of 021	New Sheet
065	Pale yellow paint over 066, trapped behind 064	New Sheet
066	Plaster trapped behind 064	New Sheet
067	Plaster trapped behind 066	New Sheet
068	Quoins at upper part of W end of N margin	New Sheet
069	Upper central dook in 064	New Sheet
070	Lower central dook in 064	New Sheet
071	Upper dook at S side of 064	New Sheet
072	Lower dook at S side of 064	New Sheet
073	Top dook in S margin of door	New Sheet
074	Dook below 073	New Sheet
075	Dook below 074	New Sheet
076	Dook below 075	New Sheet
077	Dook hole in N margin of door	New Sheet
078	Scar at top of N margin of door	New Sheet

A2. APPENDIX 2: LIST OF PHOTOGRAPHS

Photo	Description	From	Date
1	Shots of newly stripped out cupboard in N wall	E	15/07/08
2	Shots of newly stripped out cupboard in N wall	E	15/07/08
3	Shots of newly stripped out cupboard in N wall	E	15/07/08
4	Shots of newly stripped out cupboard in N wall	E	15/07/08
5	Shots of newly stripped out cupboard in N wall	NE	15/07/08
6	Shots of newly stripped out cupboard in N wall	SE	15/07/08
7	Shots of newly stripped out cupboard in N wall	-	15/07/08
8	Shots of newly stripped out cupboard in N wall	-	15/07/08
9	Shots of newly stripped E wall	NW	15/07/08
10	Shots of newly stripped E wall	SW	15/07/08
11	Shots of newly stripped E wall	W	15/07/08
12	Shots of newly stripped E wall	W	15/07/08
13	Shots of newly stripped E wall	W	15/07/08
14	Shots of newly stripped E wall	W	15/07/08
15	Shots of newly stripped E wall	W	15/07/08
16	Shots of plaster at top of newly stripped E wall	W	15/07/08
17	Shots of plaster at top of newly stripped E wall	W	15/07/08
18	General exterior shots of Princes Tower	SE	16/07/08
19	General exterior shots of Princes Tower	SE	16/07/08
20	General exterior shots of Princes Tower	SE	16/07/08
21	General exterior shots of Princes Tower	S	16/07/08
22	Exterior shot of window	S	16/07/08
23	Exterior shot of window	S	16/07/08
24	Exterior shot of window	S	16/07/08
25	Shots of newly stripped S wall and window bay	NE	16/07/08
26	Shots of newly stripped S wall and window bay	NW	16/07/08
27	Shots of newly stripped S wall and window bay	N	16/07/08
28	Shots of newly stripped S wall and window bay	N	16/07/08
29	Shots of newly stripped S wall and window bay	N	16/07/08
30	Shots of newly stripped S wall and window bay	W	16/07/08
31	Shots of newly stripped S wall and window bay	W	16/07/08
32	Shots of newly stripped S wall and window bay	N	16/07/08
33	Shots of newly stripped S wall and window bay	N	16/07/08
34	Shots of newly stripped S wall and window bay	E	16/07/08
35	Shots of newly stripped S wall and window bay	E	16/07/08
36	Shots of newly stripped S wall and window bay	-	16/07/08
37	Shots of newly stripped S wall and window bay	-	16/07/08
38	Shots of newly stripped S wall and window bay	-	16/07/08

