

# Privy Kitchen Court Hampton Court Palace



## Archaeological Excavation and Client Watching Brief Report



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## Privy Kitchen Court, Hampton Court Palace

### *EXCAVATION AND WATCHING BRIEF*

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## Privy Kitchen Court, Hampton Court Palace

### *EXCAVATION AND WATCHING BRIEF*

#### SUMMARY

*Oxford Archaeology were commissioned by Historic Royal Palaces to provide excavation and watching brief services during paving replacement works within the Privy Kitchen Court at Hampton Court Palace.*

*The privy kitchen was constructed in 1570 during the reign of Elizabeth I and replaced an earlier privy kitchen which was situated under the Royal Apartments. The area around the kitchen has undergone many changes and the original courtyard adjacent to the privy kitchen is now enclosed and used as a kitchen and servery for the privy kitchen tearoom. The courtyard forming the research area for this project was created in the 19<sup>th</sup> century during extensive works to the Palace.*

*A previous trial excavation was undertaken in 2001 and this had found that most of the 19<sup>th</sup> century pavements had some form of moulding profile on the underside which appeared to be off-cuts of 19<sup>th</sup> century stonework. Therefore, a key part of this recording work was to continue to record the moulding profiles found on the removed pavements. Preparation works for the new paving also meant a small shallow trench was dug along each wall of the courtyard exposing the brick footings of the surrounding structures.*

*The limited excavation revealed several features relating to the drainage and paving of the courtyard. No surfaces relating to the pre 19<sup>th</sup> century use were found. Amongst pre 19<sup>th</sup> century features uncovered there was a partial 18<sup>th</sup> century brick wall which was probably part of the walling dividing the area into storage space. A small section of partial brick walling in the north of the courtyard is thought to predate this. Several squared, hollow, features lined with slate are thought to relate to the areas use as a kitchen.*

*The profiles of 30 removed pavements were recorded and the majority of the pavements appeared to be off-cuts, potentially from the extensive 19<sup>th</sup> century refenestration of the palace, however two pavements showed some evidence of reused stone.*

## 1 INTRODUCTION

1.1.1 Oxford Archaeology was commissioned by Historic Royal Palaces to undertake an archaeological excavation within the Privy Kitchen Courtyard, Hampton Court Palace.

1.1.2 Rafael Martinez-Jausoro and Alison Kelly of Oxford Archaeology carried out the investigations with the work taking place between 25<sup>th</sup> February 2008 and 4<sup>th</sup> March 2008 during works to replace worn pavements. The method of recording was carried out in agreement with William Page, Surveyor of Fabric at Hampton Court Palace and as per DCMS scheduled monument clearance approval letter (dated 9 January 2008) which requested recording of any moulding profiles found during the works.

### 1.1 Project background

1.1.3 The Bath Stone pavement of the Privy Kitchen Courtyard was in a poor state of repair and was failing in several locations, a situation which presented health and safety concerns as the courtyard is used as a public through-route to the Privy Kitchen tea room. In addition, the deficient drainage and the lack of direct sunlight meant there was poor preservation of the surface.

### 1.2 Previous archaeological works

1.1.4 It was thus proposed to undertake a programme of refurbishment within the courtyard with the replacement of the pavement in Portland Stone, which is a more durable material. As an initial step of the resurfacing proposal, a measured survey of the pavement was undertaken in January 2001 (Oxford Archaeology 2001a) and this survey is used as a basis for the plan of excavation shown here as figure 3.

1.1.5 After this survey, a trial excavation was undertaken in April 2001 to ascertain the nature of the deposits beneath the mid-19th century pavement and to investigate the possibility of surviving early court surfaces (Oxford Archaeology 2001b). The trench was located in the south-east corner of the courtyard and had overall dimensions of 1.32m (N/S) x 1.12 (E/W) with a maximum depth of 0.42m. This excavation established that it was unlikely that any former court surfaces survived beneath the Bath Stone pavement and no archaeological features pre-dating the standing masonry of the courtyard walls were found either. Many of the lifted pavements were found to have distinct moulding profiles and so it was seen that the court had been paved with reused or off-cut stonework.

### 1.3 Aims and objectives

1.1.6 The aims and objectives of this project were to:

- Ensure any early surfaces or other features located during the works were recorded;
- record any moulding profiles found on removed pavements;



- add to our knowledge of the fabric and phasing of this part of Hampton Court Palace;
- create an ordered archive of the work for deposition with Historic Royal Palaces.

#### 1.4 Methodology

1.1.7 Oxford Archaeology staff were on site during the removal of the paviments and ground preparation works for the new paving.

1.1.8 The ground preparation for the new paving meant it was necessary to dig a trench around the four walls of the courtyard of about 0.3m wide and 0.4m deep as well as lower the entire surface of the remaining fill by approximately 0.1m.

1.1.9 The recording comprised three principal elements. The *photographic survey* consisted of general shots and specific details and was undertaken using 35mm black and white print film and colour slide film. Digital shots were also taken to ensure a full photographic record.

1.1.10 The *drawn survey* used the measured survey drawing of the courtyard taken in 2001 as a basis for a plan of exposed features drawn on archivally stable permatrace at a scale of 1:20 (fig 3). A total of 30 paviments with a defined moulding were selected and the profiles drawn at a scale of 1:5 (fig 4) to allow for comparison with known typologies.

1.1.11 The *descriptive survey* complemented the other two records and added further analytical and descriptive detail. The written recording of contexts and finds was undertaken on pro-forma sheets in accordance with the standard Oxford Archaeology recording system as specified in the *OAU Fieldwork Manual* (Wilkinson, 1992).

## 2 BACKGROUND AND DESCRIPTION

### 2.1 Historical background

1.1.12 Originally owned by the Knights Hospitaller, Lord Daubney purchased the lease for Hampton Court in 1495 and began building works to create a large estate of some importance. Cardinal Wolsey acquired the lease of Hampton Court in 1514 and amongst the earliest works was the construction of base court in 1514-1522. Henry VIII took possession of Hampton Court in 1529 and embarked upon a further period of rebuilding and expansion of the palace buildings.

1.1.13 The privy kitchen was added under Elizabeth I in 1570 and replaced Wolsey's privy kitchen which was situated underneath the royal apartments. The new kitchen was designed to fit in the last remaining free space on the north of the palace and the appearance is not dissimilar to its surrounding Wolsey and Henrician building phases (Thurley 2003, 84).

- 1.1.14 The privy kitchen court appear to not always have been a courtyard. An historical ground plan of the palace in the 18<sup>th</sup> century (Thurley 2003, 262) shows the present courtyard as being divided into small spaces, possibly for storage. A phased ground floor plan by Colvin (1973, Plan 5) shows how the privy kitchen was built onto an Henrician boundary wall and the area currently used as the modern kitchen and servery for the tea room was originally a courtyard. This appears to have been partitioned off and used as part of the 18<sup>th</sup> century privy kitchen with a large hearth built against the rear of the adjoining Wolsey staircase. The area currently used as the privy kitchen courtyard also has late 17<sup>th</sup> early 18<sup>th</sup> century dividing walls with this area possibly used as storage.
- 1.1.15 Various works in the area during the late 19<sup>th</sup>, early 20<sup>th</sup> century include the enclosing of the original courtyard space with a single storey brick wall incorporating a doorway on the west elevation of the courtyard and on the north elevation a single storey brick wall which now forms part of a storeroom (Ford 1991, AS2/116). The brickwork surrounding the courtyard also shows repairs and refacing in 19<sup>th</sup> century Type T bricks (Ford 1991, Brick Data Sheets), particularly at plinth level. The remains of the earlier plinth stonework can be seen on the south and west elevations, where the stonework has been cut back but remains inserted into the wall. The west facing elevation has a blocked window which is partially cut by the current doorway and the lower walling has been refaced with Type S rough stock bricks (Ford 1991, Brick Data Sheets), also dating to the 19<sup>th</sup> century. Some of the elevations have diaperwork patterns painted onto the brickwork and it is probable that this also dates to the 19<sup>th</sup> century works.
- 1.1.16 In 1992 the privy kitchen tea rooms was opened (Thurley 2003, 391) with the main entrance from the chapel cloisters via the privy kitchen courtyard to a servery beyond. The kitchen is used as a seating area for visitors using the tearoom. For many years a wooden walkway has been used within the courtyard to provide a smoother surface for visitors than the greatly weathered and uneven paving below.
- 2.2 Description of the courtyard and paving
- 1.1.17 The courtyard is one of the smallest found at Hampton Court Palace and is referred to in the Brick Typology Elevations sheet AS2/116 (Ford 1991) as the ‘small court off north cloister’.
- 1.1.18 In plan, the Privy Kitchen Courtyard pavement takes the form of a trapezium, the northern and southern walls of the courtyard being near parallel (6.54m apart) but narrowing from 2.87m at the south to 2.54m at the northern end. The outer edge of the pavement was defined by a border of stones of varying size, up to a maximum of 0.65m x 0.25, laid parallel to the walls of the courtyard. Within this border a series of elongated, rectangular stones were laid in diagonal and transverse alignment, taking the form of the ‘Union flag’, defining a total of eight triangular segments. These segments were in turn filled with randomly laid, squared stone paviers which, through maintaining the orientation of the major axes, display no discernible regular patterning.

1.1.19 Throughout, the pavement was of Bath Stone, with areas of discoloration related principally to the location of a pedestrian walkway linking the doorways in the eastern and western walls. Surface cracking, erosion and wear were evident in a number of areas though no distinct patterning (beyond the obvious concentration of wear around the doorways) was noted. In addition, several areas of patching/repair in an orange-brown mortar were concentrated towards the southern end of the pavement. The paviments removed during the trial excavation of 2001 had not been replaced but instead this corner of the courtyard had been covered with a rough concrete.

1.1.20 The pavement was originally drained via a central duct with iron grill, though the settling of the surrounding stones had resulted in the loss of any height differential between the pavement and the central drain; the drain actually sat proud of a significant portion of the pavement. This had resulted in the markedly poor drainage of the courtyard which had, in part, contributed to the deterioration of the pavement surface.

### 3 FIELDWORK

#### 3.1 Trench location

1.1.21 The archaeological excavation was limited to those areas opened up as part of the ground works for the new paving. A trench of 0.3m wide and 0.4m deep was dug around the four walls of the courtyard. The remaining surface was lowered by approximately 0.1m and the central drain was also removed. Further excavation was undertaken in areas where further examination was deemed necessary, particularly around the ceramic drainage pipe in the north west corner of the courtyard.

1.1.22 The trench was dug by trident and spade, with trowel and brush used for those parts that needed more careful treatment. The central drain was a structure of concrete and its removal required the use of a pneumatic drill.

#### 3.2 Removal and recording of the stones

1.1.23 The whole surface of the courtyard was removed. As lifting had already started prior to the archaeologists arrival on site it was not possible to record where the stones were from on the plan. The paviments were carefully lifted one by one using manual tools and removed from the courtyard.

1.1.24 A sample of 30 stones were selected from the removed stones in order to do a drawn measured and photographic record of them. This sample showed the wide range of different shapes the overall group of removed paviments presented. The 30 slabs selected were numbered from 301 to 330. As it was found during the 2001 trial excavation, most of the stones displayed chamfering to their lower edges. Apart from the samples of the wide range, others were selected for their particularity or special features they presented like mouldings or lineal marks. The slabs were set up in groups of three or four with a 0.5m scale to be photographed showing the profile

drawn, the number they were assigned written with chalk.

### 3.3 Archaeological excavation and context recording

1.1.25 The written recording of contexts was undertaken on pro-forma sheets in accordance with the standard OA recording system as specified in the *OAU Fieldwork Manual* (Wilkinson 1992). The numbers reserved for the contexts run from 401 to 500.

1.1.26 A plan of the courtyard with the excavated areas was drawn at a scale of 1:20. Due to the narrowness of the trench and its closeness to the wall, it was difficult to get a frontal view of the section and, therefore, a good position to draw a good section. The unexpected amount of remains found (the trial excavation in 2001 found few remains) as well as the pressure for the works to be carried on within a short timescale meant the focus on a good drawn plan and an accurate photographic record was of greater importance.

## 4 ARCHAEOLOGICAL DESCRIPTION

1.1.27 The pavement was carefully lifted and underneath the stones there was a very thin layer of spread dark soil (401) with a maximum thickness of 0.06m and a minimum of 0.005m. This context was missing in some parts when the lifting of the slabs also lifted the soil due to its fragile thickness. This soil was also found filling the thin gaps between the slabs.

1.1.28 Underneath this context, an irregular portion of an earlier layer was found in the north end of the courtyard (402). It consisted on a very thin deposit approximately 0.02m thick which appeared to have been more extensive but had not been fully preserved. The very low consistency meant that it mixed easily with the context below (403) making it difficult to determine a precise boundary. The layer was composed of a sandy mortar of light colour mixed with very small fragments of ceramic building material.

1.1.29 The main context (403) found was a dark orangey brown in colour and composed of a mix of clay, silt and sand. This context was found all over the courtyard and, due to the nature of the excavation, it was not completely dug as the trench reached the depth needed to install the new drainage system before finding the bottom of the context. This context contained numerous oyster shells, fragments of animal bones, pottery, ceramic pipes, glazed tiles (probably Tudor), tiles, bricks and clay pipes (including a complete bowl). Next to the western wall there was a concentration of rubble (403), covering different remains, all of them related to former functions of the courtyard and newer ones related to former drainage systems.

1.1.30 The most recent of these structures was a ceramic drainage pipe (408), with the male end 0.13m in diameter and the female end 0.185m in diameter. It was aligned south east - north west and composed of four stretches of 0.54m with a total visible length of 2m. The north western end was partially covered by deposit (407), a compacted heap of gravel and concrete sloping down towards the south east. Under this there was a compact layer of rubble (412) mixed with brown reddish soil (maybe part of

- 403) composed of fragments of bricks and tiles and also some mortar (yellowish) that spread towards the west partially covering the surface (411) next to it.
- 1.1.31 Surface (411) was smooth and extremely hard, at least 1.5m long and 0.25m wide. This structure does not have a physical relationship with the structure (404), located a bit further to the south. Structure (404) has been built with bricks and covered with plaster, which has peeled off in parts. The western wall was made of slate. To the north it had a thin stone exactly between (411) and (404) itself. The gap was approximately 0.7 x 0.4m and its southern wall was 0.08m and the northern, which is 0.34m, thus the total length is approximately 1.12m. This void had a slate cover which in turn was covered with fill (403).
- 1.1.32 These structures abut (405) which is a long brick wall (with brick dimensions of 0.21 x 0.05 x 0.1m) running along, but not parallel to, the northern half of the western wall. It was 3.5m long its width varies from 0.3m to 0.13m at the narrowest point. One of its ends abutted the footing (413) while the other abutted the southern end of (404).
- 1.1.33 The offset wall footings (406) of the east, south and west standing walls and also that one of the north wall (413) were exposed immediately beneath the slabs. The footings were of brick construction and at least six courses deep. The nature of the footings suggests that they are contemporary with the standing walls, though the lower section of the southern wall immediately above pavement level has been repaired during the 19th century. No construction cuts for the brick built footings were evident within the excavated trench, suggesting that the surrounding soil (401) and (403) was redeposited. The footings were offset by 0.095 to 0.12m from the exterior face of the brickwork of the walls in the east, south and west. Significantly, the brickwork of the offset had been cut back at the level of the current pavement to facilitate the installation of the larger edging stones. The footings of the north wall were offset by 0.35m.
- 1.1.34 Abutting the east wall there was another wall (410) made of red bricks (0.19 x 0.05 x 0.1m) with thin joints filled by a hard yellowish white mortar. The full extent of this feature was not revealed during the course of the works. It appeared to be a solid wall about 1.2m long, 0.3m tall and 0.4m wide. It looked like it had been cut and may have been longer towards the west.
- 1.1.35 The oldest structure found was (409) a brick wall built with bricks of approximately 0.17 x 0.04 x 0.08m with thick joints showing a pale creamy mortar. The small amount of remaining material showed the brickwork to have a convex top although this may be due to distortion of the remains. It was 1.3 x 0.17m long and was aligned north-south. It appeared to have been cut at both ends by the 19<sup>th</sup> century footing at the northern end and by the inserted ceramic pipe at the southern end. It was unclear what this is part of as the size does not suggest a substantial wall but it may be part of a small Wolsey or Henrician structure.
- 1.1.36 The most recent structure was the duct (415) for the central drain which appeared of

20<sup>th</sup> century date. It consisted of a cut (414) at the intersection of pipes (408) and (420) and was filled by hard grey concrete with a metal grille on top. There was a pipe (420) joining the duct from the east which transferred the rainwater from the roof. The pipe was made of ceramic, enamelled in light brown colour on the outside. It had two branches of 3.2m and 1m and the shortest section runs from the east wall to the central duct and it was composed of two stretches of 0.62m and 0.4m respectively. The longest pipe came from the south east corner and was 3.2m long, composed of 5 stretches and was connected to the shorter pipe section before the connection to the drain. Both pipes looked very similar to (408) and they also measured 0.13 and 0.185m thick.

## 5 DISCUSSION

- 1.1.37 The 2001 excavation established that it was unlikely that any former yard surfaces survived beneath the Bath Stone pavement. Directly beneath the slabs there was a thin layer whose tacky nature suggests that it was some sort of bedding used to adhere the slabs - there was no evidence for any other sort of mortar. However, beneath this bedding the remains of possible former levelling was found and the evidence suggests this might have covered the whole surface of the yard. This appears to have been too soft for a permanent floor surface so it was probably a temporary floor or a bedding for a temporary pavement.
- 1.1.38 The context (403) appeared to be slightly heterogeneous and it has a concentration of rubble which probably belonged to the structure (404). This context was deposited after the demolition of the structures in order to create a flat level of ground. No cuts have been identified to embed the pipes and therefore it is interpreted that the pipes and fill (403) are part of the same works.
- 1.1.39 The pipes (420) were still in use while the pipe section (409) was probably in use until they introduced the replacement central drain (415), since it is broken by the cut (414). Before that break occurred, the introduction of (408) also broke some existing structures, (409) and possibly (410). Contexts (407) and (408) are part of the works to build the pipe, one as a simple patch to isolate the joint between the pipe and the structures (405) and (413), and the other one to make a sort of bedding to support the pipe. This bedding partially covers (409) and so indicates that (409) is earlier.
- 1.1.40 The structures (411) and (404) do not have any physical relationship although they seem to have a related functionality. The outer line of (411) is clearly aligned with the outer line of the cavity of (404) and they look like they were part of some system of sinks or deposits for water. However, the few remains unveiled by the works do not give enough information to make a more reliable interpretation.
- 1.1.41 The small fragment of walling (409) cannot be conclusively identified although the size of bricks and type of mortar suggest it was part of a Tudor structure. Its function is also unknown.
- 1.1.42 The walling (410) would appear to be part of the Late 17<sup>th</sup> early 18<sup>th</sup> century walling

as seen on the mid 18<sup>th</sup> century plan (Thurley 2003, 263). Works may have uncovered the full extent of that wall section as plans show two short sections of walling with a central opening. This wall was most likely removed during the 19<sup>th</sup> century works when the current privy kitchen court was created.

- 1.1.43 Some pieces of removed stone (nos. 312 and 324) are possibly reused sections of older stonework which show signs of weathering, whilst the majority of paviments represent off-cuts and/or surplus material from a programme of refenestration undertaken in the 1850s (Colvin 1973, 331). The taking of the moulding profiles of these pieces will enable further studies to be made.

Rafael Martinez-Jausoro and Alison Kelly  
Oxford Archaeology  
June 2008

## APPENDIX I BIBLIOGRAPHY

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Oxford Archaeology (2001b) Privy Kitchen Courtyard: Trial Excavation - Project Code: HCP32 (unpublished survey report)

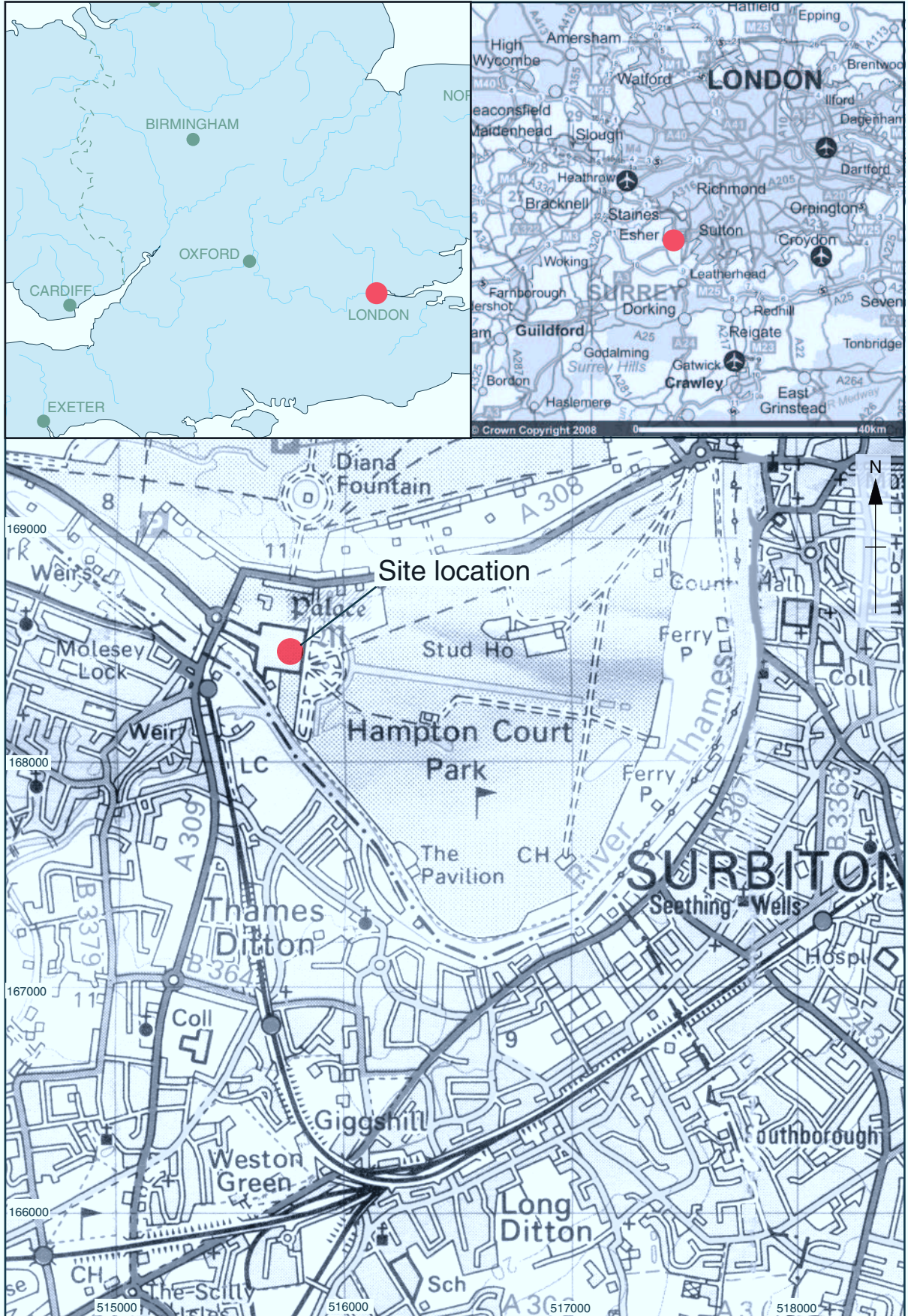
Wilkinson D (1992) Oxford Archaeological Unit Field Manual



**APPENDIX II REGISTER OF CONTEXTS**

<b>Context No.</b>	<b>Type</b>	<b>Comment</b>
401	Layer	Dark Layer
402	Layer	Bedding Mortar
403	Fill	Orangey fill
404	Structure	Use unknown
405	Structure	Use unknown
406	Structure	Footing
407	Fill	Concrete
408	Structure	Pipe
409	Structure	Possible drain
410	Structure	Wall
411	Surface	Possible floor
412	Layer	Concrete/Rubble
413	Structure	Footing
414	Cut	Cut for drain
415	Fill	Drain
416	Cut	Cut of structure
417	Cut	Cut of structure
418	Cut	Cut of structure
419	Cut	Cut of structure
420	Structure	Pipe





Scale 1:25,000

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Figure 1: Site location



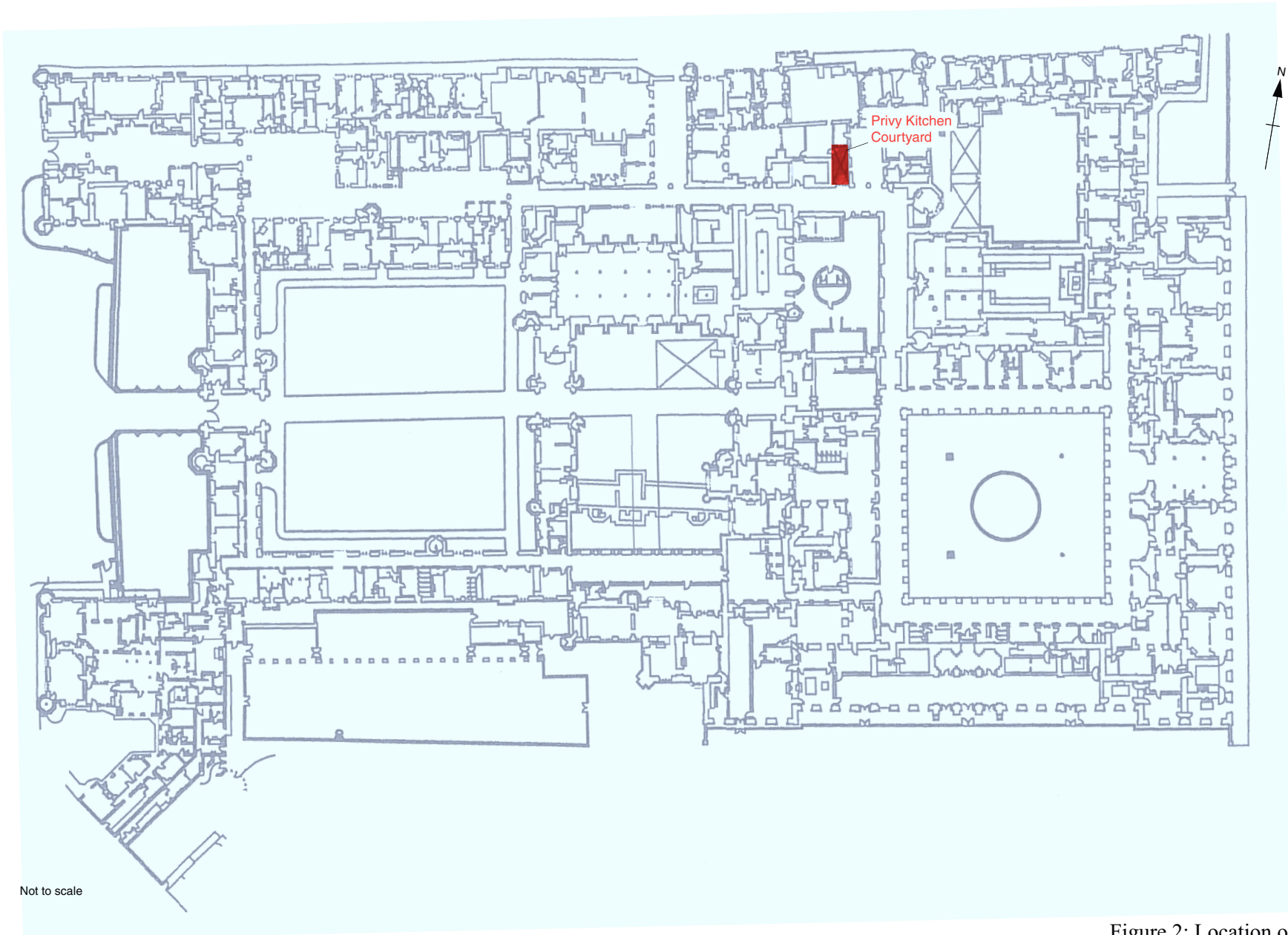


Figure 2: Location of courtyard

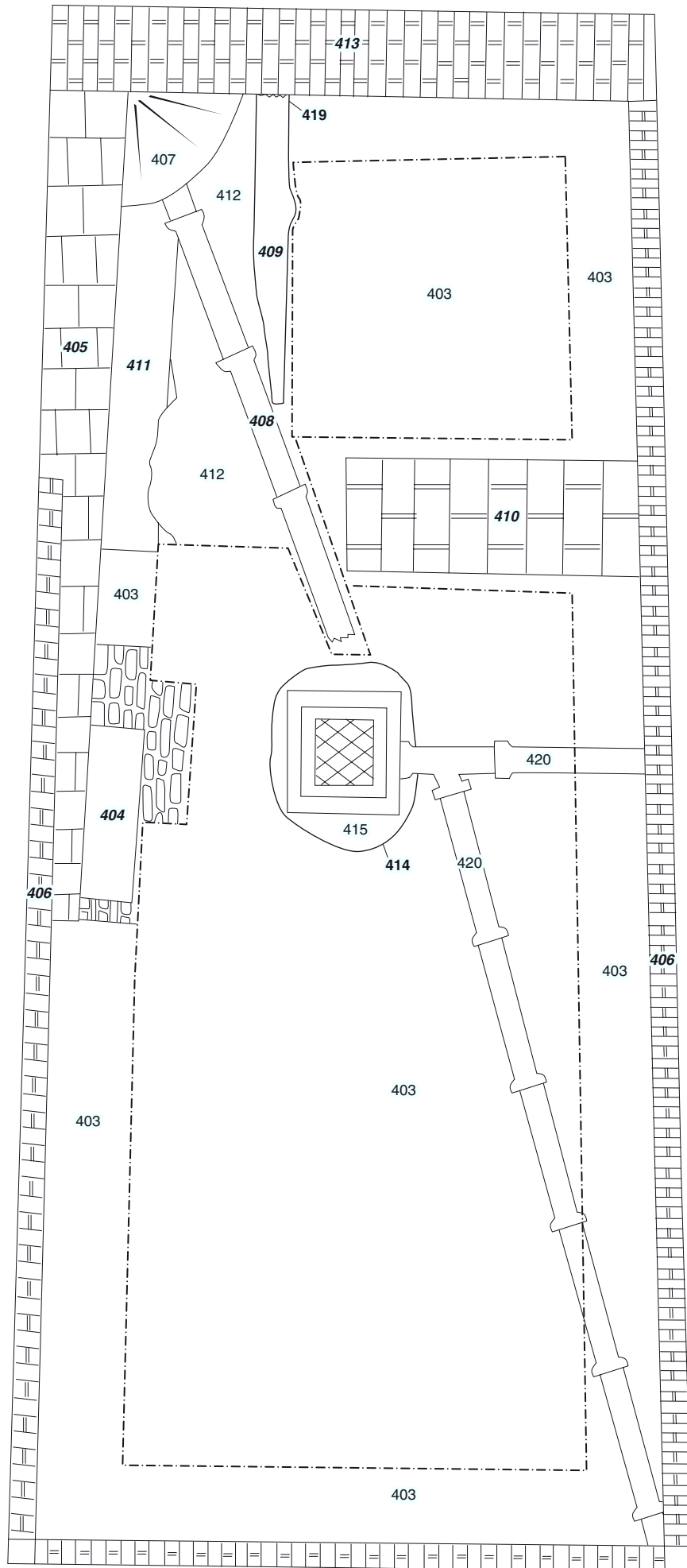


Figure 3 : Plan of excavated courtyard

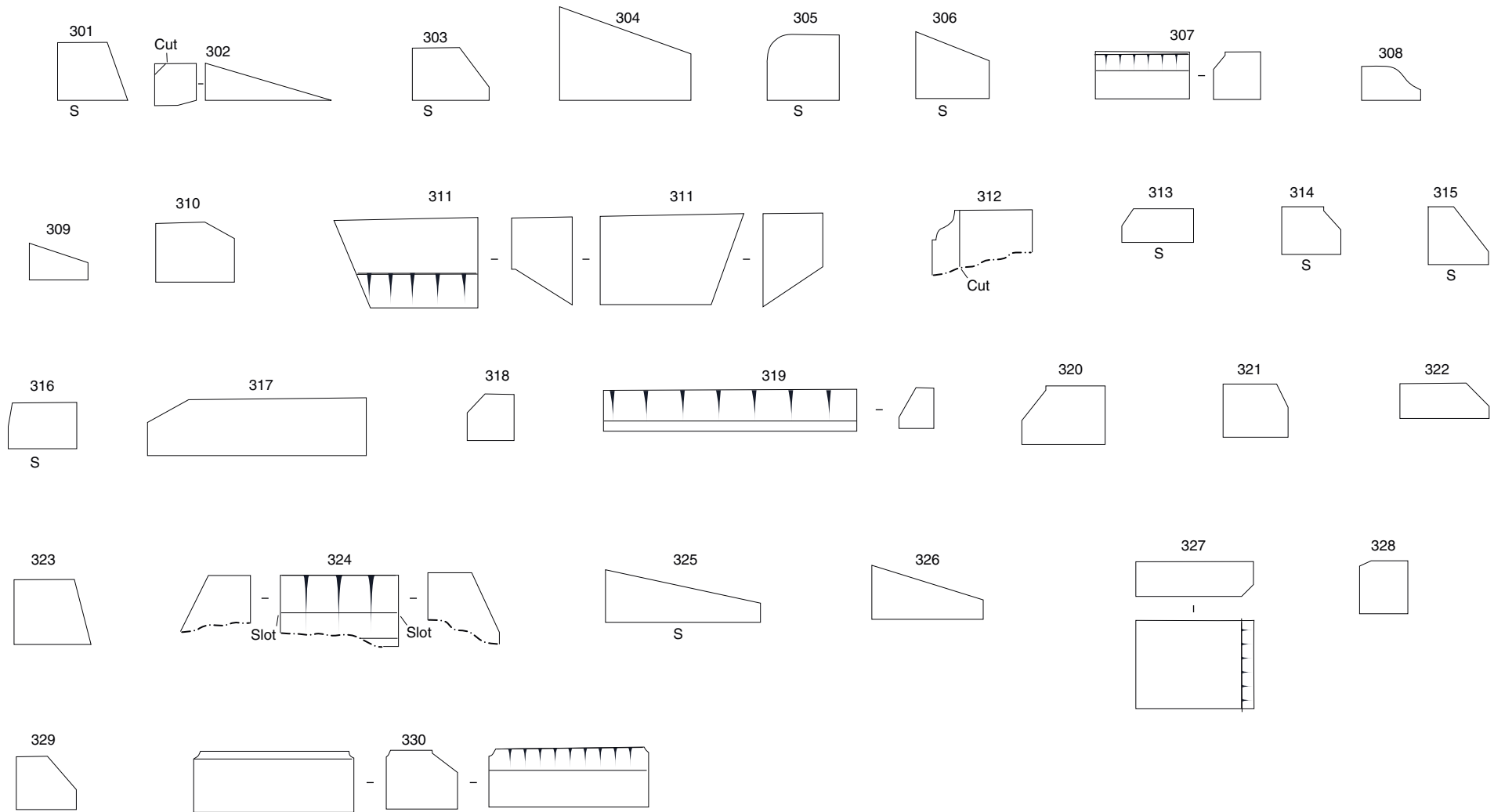


Figure 4 : Profiles of selected paviours





Plate 1: Removal of the pavements



Plate 2: Section of surface during removal of pavements





Plate 3: Context 402 - bedding mortar



Plate 4: East - brick footing and ceramic pipe





Plate 5: West - contexts 404, 403 and 411



Plate 6: East - brick wall (context 410)



Plate 7: South east corner of excavation



Plate 8: View of excavated features from north





Plate 9: Paviments 301 to 304



Plate 10: Paviments 305 to 308



Plate 11: Paviments 309 to 312



Plate 12: Paviments 313 to 316



Plate 13: Paviments 317 to 319



Plate 14: Paviments 321 to 323



Plate 15: Paviments 324 to 326



Plate 16: Paviments 327 to 330





Plate 17: Pavioir 312



Plate 18: Pavioir 324







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