

**An Archaeological Excavation
At Tower Street, Chichester,
West Sussex**

**NGR 485920 104930
(SU 859 049)**



**Project No: 3875
Site Code: TSC08**

**ASE Report No: 2011184
OASIS id: archaeol6**

**By Diccon Hart
With contributions by Gemma Ayton, Luke Barber,
Sarah Porteus and Elke Raemen**

Illustrations by Fiona Griffin

January 2012

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Abstract

Archaeology South-East (ASE), a division of Centre for Applied Archaeology, Institute of Archaeology UCL were commissioned by Vinci Construction Ltd. to undertake an excavation during the construction of a new museum at Tower Street, Chichester, West Sussex (centred NGR 485920 104930). The work consisted of the excavation of an area measuring c. 137 square metres in order to re-expose the masonry elements of a Roman Thermae, previously investigated by Alec Down between 1974 and 1975, for display in the new museum.

The elements of the Thermae revealed within the excavation area include parts of the northern external wall of the bath complex, a flue or stoker and the remains of the internal hypocaust system, as well as areas of collapse and demolition that attest to the demise of the building. Monitoring of groundworks in Tower Street to the west of the site identified further Roman masonry on a similar alignment to the remains of the Thermae and this may represent an additional part of the complex.

Post-Roman activity includes a medieval rubbish pit and a chalk foundation that may form part of a late medieval building, also excavated by Down. Post-medieval occupation is exclusively of 18th - 19th century date and later, and includes a cellared building fronting Tower Street, with associated cess pit and back yard, as well as part of the National School which stood on the site until 1974.

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1.0 INTRODUCTION

1.1 Site Background

1.1.1 Archaeology South-East (ASE), a division of the Centre for Applied Archaeology, Institute of Archaeology UCL were commissioned by Vinci Construction Ltd to undertake an archaeological excavation on the site of the new Chichester District Museum, Tower Street, Chichester (hereafter referred to as 'the site') during the redevelopment. The site is centred on National Grid Reference (NGR) 485920 104930 (Fig. 1).

1.2 Geology and Topography

1.2.1 The underlying geology of the site, according to the current data from the British Geological Survey (BGS 2012) comprises superficial Alluvial Fan Deposits of gravel, sand, silt and clay over London Clay bedrock geology.

1.2.2 The southern half of the site is occupied by the newly constructed Chichester District Museum, with hard standing to the north. It is bounded to the north and west by roads, to the east by a telephone exchange and to the south by a department store.

1.3 Planning Background

1.3.1 The proposed redevelopment includes the construction of a new museum in the south of the site, with residential development in the northern half. Previous excavations on the site have demonstrated the existence of a Roman bath house complex and as such the proposed redevelopment includes the re-excavation of part of the Roman bath house complex in order to form a permanent display within the ground floor of the new museum.

1.3.2 A *Written Scheme of Investigation* outlining the scope and requirements of this work was subsequently prepared by Archaeology South-East (ASE 2010) and duly approved by James Kenny, the Chichester District Archaeologist prior to commencement of the works. All work was carried out in accordance with this document and with the relevant *Standards and Guidance* of the Institute for Archaeologists (IfA 2008).

1.4 Aims and Objectives

1.4.1 The aims of the archaeological investigation were set out in the Written Scheme of Investigation and are herewith reproduced in full.

1.4.2 The general aim was to expose the masonry bath house elements within the museum footprint, an area c.125m² with sufficient care to avoid any further damage to the structure.

1.4.3 Specific aims of the excavation were:

- Are there any pre-Roman features or finds?
- Is there any evidence potentially relating to the invasion of AD 43? Are there any finds of pre-invasion Roman coins and pottery, such as Arretine ware?
- Is there any evidence for Down's Period 1 timber buildings or occupation (AD 43 onwards)?
- Is there any evidence for Down's Period 2 timber buildings or occupation (AD 41-68)? Is there any evidence to support Down's claim that these buildings were military?
- Is there any evidence for Down's Period 3 timber buildings or occupation (AD 69 to early 2nd century)? Were the timber buildings workmen's huts? Is there any evidence for the 1st century public buildings which are believed to have been located on or in the near vicinity of the site?
- The masonry remains to be exposed for the museum are all ascribed to Down's Period A of probable Flavian date and are believed to be hot rooms (rooms 1 and 2) fired from a furnace to the north (Down 1978, 145-147). Is there any new evidence for the dating of these structures? Is there any evidence to support or contradict the hot room function and location of the furnace?
- Alterations and additions were made to the bath house during the mid to late 2nd century in Down's Period B. These alterations were mainly identified to the east of hot rooms 1 and 2. Is there any further evidence for these Period B alterations and additions?
- Is there any evidence for Down's assumption that the source of heat changed from the north side to the west side during his Period C, dating to the mid 2nd century onwards?
- Can Down's phasing be further refined and improved upon? Can the dating of the phases be re-evaluated in the light of recent finds work and absolute dating techniques such as C14 radiocarbon dating?
- The bath house is believed to have been in use until the late 4th century although the dating is not particularly secure due to later truncation. Can any new light be shed on the final use and destruction of the bath house?

- Is there any further evidence for the construction and decoration of the baths?
- What is the nature of the post-Roman activity? Are there any Saxon features or finds? Can Down's Period 8 be re-evaluated in the light of any new evidence?
- Is there any evidence of medieval activity, particularly relating to bell-founding pits or buildings?
- What was the nature of the post-medieval occupation of the site?

1.5 Scope of Report

1.5.1 This report details the results of the re-excavation of those parts of the Roman baths that lie within the footprint of the new museum building. The work was undertaken between the 28th March and 19th July by Diccon Hart (Senior Archaeologist), Nicki Bettley, Cat Douglas, Chris Killeen, Liane Peyre, Ben Sharp and Gary Webster, (Assistant Archaeologists). Surveying was carried out by Lesley Davidson and the illustrations were prepared by Justin Russell and Fiona Griffin. The fieldwork was managed by Andy Leonard (Project Manager) and the post-excavation by Jim Stevenson (Project Manager).

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 The site was almost completely excavated in 1974 and 1975 (Fig. 2) by the Chichester Excavation Committee as part of a wider series of rescue excavations in advance of development (Down 1978), with partial re-excavation of the site in 1990 by Southern Archaeology and again in 2008 by Archaeology South-East (ASE 2008). The summary below is drawn from the results of these excavations as well as a Desk-based Assessment of the site prepared by Gifford (Gifford 2002). The period structure follows that defined by Down (1978) for a series of sites in the northwest quadrant of the city.

2.2 Period 0: AD 43 at the latest

2.2.1 Although no features or structures could be positively assigned to the period, a small residual assemblage of pre-Roman Iron Age pottery and coins suggests some activity of this date in the vicinity of the site.

2.3 Period 1: AD 43 +

2.3.1 The evidence for the earliest Roman occupation of the site is sketchy at best consisting of a layer of yellow clay deposited on the underlying natural brickearth, and a shallow drainage gully. Several heavily truncated beam slots are also tentatively attributed to the period

2.4 Period 2: AD 41 - 68 (Claudian-Neronian)

2.4.1 Period 2 is marked by the disuse and partial infilling of the Period 1 drainage gully and the construction of at least three timber buildings on similar alignments. The regular alignment and the occurrence of military equipment associated with the structures suggests a military function and Down suggested that they might comprise store-buildings (Down 1978, 140).

2.5 Periods 3 - 7: AD 69 - 5th century

2.5.1 These periods cover the construction, alteration and abandonment of the Thermae, or public baths, which dominated the Roman sequence in the southern half of the site. Early Period 3 activity includes a series of insubstantial timber buildings that have been interpreted as possible workmen's huts associated with the construction of the Thermae. Certainly the buildings did not remain in use for long and were soon sealed by an extensive layer of gravel and mortar hard-standing, laid down on completion of the Thermae. In order to avoid confusion with the numbered period structure imposed on other sites in the area, Down classified the various building phases of the Thermae as Periods A-C.

Period A: Flavian (Period 3)

- 2.5.2 This consisted of a range of two hot-rooms extending across the south of the site and beyond and including an apsidal room, constructed within a much larger rectangular excavation. The reasons for such a large excavation are poorly understood though Down surmised that it may have been originally intended to house the stokery for the Thermae but that this was abandoned in favour of the eventual location of the stokery further to the east. Further tepid and cold rooms to the east and north of the stokery may also date to this period, as did the water supply for the baths, which consisted of an apsidal masonry structure of massive proportion that presumably supported a cistern at sufficient elevation to provide an adequate head of pressure. The baths were further serviced by a drain which fed into the main east-west sewer which ran through the northern half of the site.

Period B: mid-late 2nd century

- 2.5.3 A number of alterations and additions to the Thermae complex appear to have been carried out during this period. The tepid rooms to the east were converted to cold rooms and a further hot room, fired from the west, was added, along with a series of cold rooms.

Period C: mid-late 2nd century-?4th century

- 2.5.4 Further additions and alterations were undertaken during this period with, among other changes, the construction of a new channelled hypocaust and the conversion of a previously unheated room into an additional stokery. Dating the decline and disuse of the Thermae is hindered by extensive later robbing of the masonry elements of the complex. The available evidence, such as it is, hints at a relatively drawn out decline, in concert with the evidence from elsewhere in the town (Down 1978, 152), with the baths eventually falling into disuse in the latter years of the 4th century.

2.6 Period 8: Late 9th - early 12th century (Late Saxon to Saxo-Norman)

- 2.6.1 Period 8 activity largely comprises a series of pits scattered across the site. Quantities of wasters recovered from some of these features, in conjunction with two probable clamp kilns, attest to some pottery production on the site during the earlier part of the period (Phase 1). Activity seems to have increased in the latter half of the period (Phase 2) and includes the remains of two possible structures, with further buildings suggested by the linear arrangement of various pits.

2.7 Period 9: Late 12th-15th centuries

- 2.7.1 The abundance of pits and structures dated to this period attest to fairly intensive and continuous occupation on the site throughout the remainder of the medieval period. Down sub-divided the period into three phases, as follows:
- 2.7.2 Activity of 12th-13th century date (Phase 1) appears to be concentrated in the northern half of the site and includes a series of pits and a large but poorly constructed well. Down has suggested that the concentration of activity on the northern half of the site may reflect continued robbing of Roman material

from the Thermae to the south, which may have left the area riddled with deep excavations and unsuitable for settlement (Down 1978, 163). Principal features of later 13th and 14th century date (Phase 2) include the fragmentary remains of at least two houses with associated cess pits and a series of pits and other features associated with bell founding. By the end of the 14th century, however (Phase 3), bell founding appears to have ceased on the site; the various features associated with the industry were backfilled and new houses were constructed on the site with associated pits and cess pits. By the end of the period, a large masonry building had been constructed at the southern end of the site.

2.8 Periods 10 and 11: 16th - 20th centuries

- 2.8.1 The evidence for post-medieval activity on the site is greatly enhanced by the available documentary sources. These show that much of the site was occupied by tenements throughout Period 10 (16th-18th centuries). Two schools - the Lancastrian School to the north and the National School to the south - were founded on the site during the course of the 19th century.
- 2.8.2 Generally speaking archaeological features assigned to these periods comprised a variety of cess pits, rubbish pits and wells situated within the burgage plots of the various tenements known to exist on the site.

3.0 ARCHAEOLOGICAL METHODOLOGY

- 3.1** The archaeological excavation consisted of an area measuring some 137 square metres (Fig. 3). This was undertaken in three main phases, as dictated by the groundworks programme. Phase 1 consisted of initial ground reduction to a level of c. 13.45m OD under archaeological supervision for the formation of a piling mat over the south of the site. The phase 2 works followed completion of the piling programme and construction of the shell of the new building and included removal of the piling mat and further reduction of overburden to a level of c. 12.70m OD, also under constant archaeological supervision. Any archaeological deposits surviving above c. 12.70m OD were identified by the attendant archaeologist and left in place.
- 3.2** Phase 3 comprised the removal of the remainder of the overburden to expose the masonry remains of the *Thermae*. This was undertaken by means of hand excavation with the aid of the mini-digger and conveyor belt system to remove spoil.
- 3.2.1** In addition to the removal of the 20th century backfill from the prior excavation of the site, some limited excavation of archaeological deposits *not* previously investigated by Down was also undertaken. This work was, however, limited to a bare minimum, comprising the partial reduction of Roman deposits in the northwest corner of the area to allow the installation of concrete panels around the perimeter of the area, the partial reduction of an area of Roman demolition within the area of the *Thermae* and the excavation of a post-medieval cellar and cess pit in order to enhance the aesthetic appearance of the exposed remains.
- 3.3** The masonry remains were hand cleaned and fully recorded using standard pro forma context and masonry record sheets. Where required, *in situ* archaeological deposits were excavated by hand using standard single-context planning techniques.
- 3.4** All remains were hand planned at a scale of 1:20 on plastic drafting film. Where applicable, sections were drawn at 1:10. A full photographic record of the masonry remains was also compiled.

Number of Contexts	116
No. of files	1
Plan and sections sheets	54
Bulk Samples	1
Photographs	274 digital images
Bulk finds	1 box
Registered finds	N/A
Environmental flots/residue	N/A

Table 1: Quantification of site archive

4.0 RESULTS

4.1 Introduction

- 4.1.1 As stated above, the archaeological remains exposed during the course of the work were fully recorded to modern standards (Fig. 4). However, as the majority of the work consisted merely of the removal of the 20th century backfill, with only limited new excavation being undertaken, very little dating evidence was recovered and this has had an inevitable effect on the phasing of the recorded sequence. The absence of good dating evidence is most keenly felt with regard to the Roman period, with material of Roman date consisting exclusively of small groups of Ceramic Building Material (CBM) that yields only the broadest of date ranges. The presence of small groups of post-Roman pottery permits somewhat finer resolution in the dating of medieval and post-medieval activity on the site. However, problems with potential residuality mean that even these periods are imperfectly understood.
- 4.1.2 Archaeological features and deposits have been arranged into subgroups, groups and landuse entities (Open Areas and Buildings) as an aid to interpretation and description of the sequence.

4.2 Natural geology

Open Area 1: Natural geology

- 4.2.1 The natural geology recorded during the course of the work consisted of mid yellow silty clay Brickearth. This was recorded at a maximum height of 12.28m OD within the area of the excavation, though considerable variation in the surface of the brickearth was evident as a result of later pitting and it is possible that the original surface of the natural brickearth stood higher than it does today.

4.3 Period 1: Roman (AD 50-400+)

- 4.3.1 The Roman period is dominated by the masonry remains of the Thermae (Building 1), and activity associated with its construction and demolition in the immediate vicinity (Open Area 1). Additional Roman masonry was observed during groundworks to the west of the site in Tower Street (Building 2). The Thermae represents the earliest definite activity identified on the site. Heavily truncated deposits of reworked brickearth observed elsewhere within the excavation area may relate to earlier phases of activity on the site but as these remain unexcavated this cannot be proven.

Phase 1: Construction and use of the Thermae

Building 1: The Thermae (Figs 4, 5 and 6)

- 4.3.2 The elements of the Thermae revealed within the excavation area include parts of the northern external wall of the bath complex, a flue or stoker and the remains of the internal hypocaust system, as well as areas of collapse and demolition that attest to the demise of the building (Fig. 4). Though much disturbed through later robbing, the form of the structure seems reasonably clear and preservation of the monument seems good, with very little evidence of degradation of the structure since its excavation in the 1970s.

- 4.3.3 The northern external wall of the Thermae (Group 1) generally measured between 1.03m and 1.08m in width and survived to a height of 12.54m OD, approximately 1.14m above the internal sub-floor of the building. The wall consisted of a trench built foundation of limestone and greensand [078], supporting a superstructure wall [077] with an external face of squared well-coursed limestone blocks and internal face of *Lydion* brick, measuring up to 400mm by 290mm by 40mm in size. A thin layer of construction trample is present on the surface of foundation [078] (context [100], see Fig. 6, section 2). Traces of a hard cementitious mortar still adhere to this brick face, particularly in the area of the apse, presumably to afford additional protection to the masonry from hot gases during the firing of the hypocaust (see Fig. 6, Section 1 and Fig. 7).
- 4.3.4 Towards the western end, the wall thickens considerably to accommodate an apsidal room (Down's Room 1) which Down describes as being built within the southern end of a much larger construction cut that extended further north and which was never utilised. The northern face of this section of wall was fully faced with squared limestone blocks to the base of the cut at around 11.24m OD, suggesting that this part of the wall might have been, at least originally, intended to remain visible or exposed (see Fig. 6, section 3). In contrast, elsewhere within the area of the excavation, such well-coursed external facing does not appear to extend below c. 12.20m OD, suggesting that finished ground level outside the building may have lain at around this elevation. Of particular interest is a short spur of masonry projecting from the eastern corner of this section of wall which suggests the possibility of an additional room immediately north of the apse that has been almost completely robbed. In fact, careful re-examination of the surviving stratigraphic sequence suggests that what Down interpreted as a large construction cut might actually comprise robbing of an additional room to the north of the surviving Thermae (see Group 13, context [101]; Fig. 10). Certainly this cut seems to truncate deposits that also abut the Group 1 external wall and Down himself notes that the area to the north of the Thermae was covered with a layer of screeded mortar that 'appeared to peter out where it had a boundary with the deep excavation' (Down 1978, 144), suggesting that this might actually constitute a hitherto unrecognised later intrusion.
- 4.3.5 Internally, the hypocaust system was floored throughout with *opus signinum* (Group 2), measuring up to 0.30m thick and with a consistent floor level of around 11.48m OD across the entirety of the exposed hypocaust. During the original excavation of the site, Down identified two rooms in this area of the Thermae; the apsidal Room 1 to the west and a simple rectilinear Room 2 to the east, separated by a since robbed-out wall. It should be noted, however, that no trace of any such dividing wall could be identified during the recent re-exposure of this part of the Thermae. Rather the Group 1 external wall of the complex has a simple 'dogleg' in its course and the evidence suggests that what was originally considered to be two rooms in fact appears to be a single large room. A brief comparison of Down's original excavation plan with the recent re-survey of the site (Fig. 5) is sufficient to show a significant error in Down's original plan, which places the Group 1 external wall of the Thermae some 1.9m north of the southern limits of the excavation. The recent re-survey, on the other hand, clearly shows the Group 1 external wall and southern limit of excavation to intersect, leaving no room for Down's putative

robbed-out dividing wall. It is possible that the assumption of the existence of a cross wall in this part of the structure may have been an attempt to reconcile errors in the survey of the site with the observed evidence.

- 4.3.6 The hypocaust system within the exposed remains of the *Thermae* comprised various arrangements of pilae (see Fig. 7) constructed with three principal types of brick: small, square *Bessales* bricks, generally measuring c. 200mm square and up to 30mm deep, larger *Pedalis* bricks, measuring up to 380mm square and 40mm deep and the larger *Lydion* brick, measuring up to 390mm by 290mm and 40mm deep. The basic form of pila utilised consisted of a basal *Pedalis* brick supporting a stack of square *Bessales* bricks. This type of pila was used throughout the exposed hypocaust system and includes Group 3 to the west (Down's Room 1) and Group 4 to the east (Down's Room 2) (Fig. 4). Additional types of pilae employed within the apse include simple stacks of *Bessales* bricks arranged around the internal face of the apse (Group 5) and large rectangular pilae measuring between 0.45m by 0.55m and 0.30m by 0.77m in size and built of a combination of both *Bessales* and *Lydion* bricks (Group 6). These latter pilae may have been intended to support a different element of the superstructure (Kenny *pers. comm*)

Survival of these pilae proved variable throughout the hypocaust system, from a maximum of 0.82m, where a measure of protection has been afforded by areas of overlying collapsed flooring, to instances where just a single brick survive. Certain areas of the hypocaust are completely devoid of pilae and here later robbing of what must have constituted valuable building material can be assumed.

- 4.3.7 The hypocaust system was fired via a flue situated at the far eastern end of the excavation area (Group 7), through the main Group 1 external wall. Only the floor of this flue remained but enough survived to ascertain that it was built of *Lydion* bricks, albeit much affected from the excessive heat generated during firing of the hypocaust. In fact, evidence of the damage wrought by firing of the hypocaust was visible throughout, from heavy sooting to severe degradation of pila bricks, many of which are very friable.
- 4.3.8 Monitoring of groundworks in Tower Street, to the west of the site (Excavation Area 2) revealed a trench built foundation of flint and limestone supporting a brick superstructure wall (Group 21; Fig. 4 inset). The wall is on a similar ENE/WSW alignment to the *Thermae* and, in light of Down's observations of a hypocaust structure under Tower Street immediately south of Excavation Area 2 (Down 1978, 145), it seems probable that this masonry forms part of the *Thermae* complex (Kenny *pers. comm.*)

Open Area 1: activity associated with the construction and use of Building 1 (Fig. 4)

- 4.3.9 Evidence for activity associated with the construction of the Building 1 was identified in the north-west corner of the excavation area, immediately to the north of Building 1 (Fig. 4). This consisted of a small posthole (Group 8) that may represent evidence for a scaffold or similar installation, sealed by a sequence of layers of construction debris (Group 9, not shown on Fig. 4) that abutted the main external wall of the *Thermae*. Finds recovered from these deposits include a variety of types of Roman brick and tile, including floor tiles

such as *opus spicatum*, roofing tiles including both *tegulae* and *imbrices* and an abundance of stone dressing chips as well as other more specialised items such as *parietalis* tiles. None of this material indicates anything more than a broad Roman date, though it is worth noting that floors of *Opus Spicatum* in Sussex tend to be associated with 1st century buildings (see Section 5.1 below).

- 4.3.10 The construction horizon described above was sealed by an external surface of mortar and clay (Group 10, not shown on Fig. 4). The surface lay between 12.80m and 12.95m OD and may equate to the gravel and clay hardstanding over screeded mortar described by Down (1978, 144).

Phase 2: The decline and disuse of the Thermae (Fig. 4)

- 4.3.11 Evidence for the disuse and decline of the Thermae includes several collapsed *pilae* and an area of collapsed *Opus Signinum* flooring – still partially supported on surviving *pilae* – within the area of the apse (Group 11, see Fig. 7), as well as a series of demolition dumps overlying the Group 10 surface in Open Area 1 (Group 12, not shown). Finds recovered from these demolition deposits include a range of building materials including fragments of roof tiles and flue tiles, as well as an unusual shaped brick that may or may not be designed to support a water pipe or similar (see Section 5.1 below). Again, this material indicates little more than a broad Roman date for the decline of the Thermae and does little to refine Down's original suggestion of a late 4th century date for the decline of the building. An environmental sample recovered from a deposit of burnt material in the Group 12 demolition horizon has yielded a small assemblage of charcoal, building material, land snail shells and mammal bones. No material suitable for radiocarbon dating is present in this material.
- 4.3.12 The building was subsequently heavily robbed, probably during the medieval period, (though there is no direct evidence for this), as attested by several robber trenches identified within the area (see Group 13, Fig .10). There is little to suggest deliberate demolition or decommissioning of the building during the Roman period and certainly nothing to contradict Down's assumption of a slow decline.

4.4 Period 2: Medieval (AD 1066-1540)

- 4.4.1 Evidence for medieval activity on the site is both limited and imperfectly understood (Fig. 8). The available evidence suggests two phases of activity with the earlier relating to a single open area (Open Area 2) denoted by a large rubbish pit and a second phase associated with the construction of a large masonry building on the site (Building 3). As stated above, it is probable that much of the robbing of Building 1 took place during this period, though there is no direct evidence for this.

*Phase 1: 13th century**Open Area 2: Medieval rubbish pit (Fig. 8)*

- 4.4.2 The sole evidence for Open Area 2 consists of a single large rubbish pit (Group 15, context [033]) cut into the top of the Group 11 demolition deposits at the far southern end of the site. Pottery recovered from the feature dates to the 13th century and includes fragments of both cooking pots and jugs. A small assemblage of animal bone was also recovered from the feature that includes cattle, sheep/goat and pig. Butchery marks were noted on one of the cattle ribs.

*Phase 2: 13th-15th century?**Building 3: Chalk foundation (Fig. 8)*

- 4.4.3 All that remained of Building 3 within the excavation area was a substantial foundation constructed of rough-hewn chalk blocks and flint nodules (Group 14, Fig. 8). The foundation measured some 1.30m by 1.20m and, though truncated to the south and west by later activity, enough survived to establish a broadly ENE/WSW orientation. The wall is similar in construction to the northern external wall of the late medieval building M6 identified by Down (1978, 170) and close enough in orientation and position that, allowing for the known survey error in the planning of the original excavation, it could well represent part of this building (see Fig. 8). It is difficult, however, to reconcile the 12th-13th century pottery recovered from the Group 14 foundation with the mid-late 15th century date assigned by Down to building M6. It is, of course quite possible that the four sherds of 12th-13th century pottery from the Group 14 foundation are residual. However, Down's dating of the building appears to be based on pottery recovered from an associated garderobe pit that, by Downs' own admission, was probably 'regularly cleaned out up to the time of the final infilling' (ibid.) and it is quite possible that building M6 is earlier in origin than the 15th century date suggested by Down.

4.5 Period 3: Post-medieval (AD 1540+)

- 4.5.1 Post-medieval activity on the site appears to be exclusively of 18th -19th century date or later (Fig. 9). Two phases of activity were identified; the first comprising the construction of a cellar and cess pit (Building 4) and associated back plot (Open Area 3) while the second relates to construction of the National School which stood on the site until 1975.

*Phase 1: 18th-19th century**Building 4 and Open Area 3: post-medieval cellar and cess pit*

- 4.5.2 A brick cellar (Group 17) and associated cess pit (Group 18) were recorded in the south-west corner of the excavation area. Both the cellar and cess pit were built in standard sized bricks, measuring c 70mm by 220mm by 110mm and utilised the pre-existing *opus signinum* floor of the Roman Thermae in their construction. Occasional re-used Roman bricks and worked stone were incorporated into the fabric of both cellar and cesspit. Dating evidence recovered from the backfill of both structures dates to the 19th century, though this obviously dates only the infilling of the structures rather than their

construction and a broad 18th-19th century date for the structures is suggested.

Open Area 3: land to rear of Building 4

- 4.5.3 A circular brick soakaway (Group 16) was recorded to the east of Building 4 and probably represents activity to the rear of that building. No dating evidence was recovered from the feature, which was partially excavated by Down but the bricks used in its construction indicate an 18-19th century date.

Phase 2: 19th-20th century

- 4.5.4 The infilled cellar and cess pit of Building 4 was truncated by a north-south aligned foundation (Building 5, Group 19) which represents part of the National School that stood on the site until 1975.

4.6 Period 4: Undated features

- 4.6.1 In addition to the remains described above, a number of undated pits were recorded within the excavation area (Fig. 10). These consisted of features previously excavated by Down and which cannot be assigned to any particular phase of activity.

5.0 THE FINDS

5.1 The Ceramic Building Material by Sarah Porteus

Introduction

5.1.1 A total of 90 fragments of ceramic building material (CBM) with a combined weight of 39378g were recovered along with a number of small flakes during the cleaning work. The majority of the assemblage is Roman in date with a small quantity of medieval and post-medieval material.

Methodology

5.1.2 The assemblage was quantified by count, weight and form and a provisional fabric series was drawn up with the aid of a x10 binocular microscope. The majority of the assemblage has been retained along with labelled fabric samples. The data has been quantified by weight, form, fabric and context and recorded on pro-forma record forms and entered into an Excel database for archive.

Roman

Fabrics

5.1.3 The assemblage is predominantly in fabric R1, a sand-tempered fabric which accounts for 95% by weight. Fabrics R2 and T1 are finer with fewer quartz inclusions and greater inclusions of silt streaking, but all fabrics present are likely to be of local origin. However, the production kiln for these fabrics is currently unknown, and may represent a single site manufacturing a range of tiles required for a specific phase of construction. Sand-tempered fabrics are noted in local tiles from both Chichester and Fishbourne (Turner 2004).

Fabric	Description	Form	Date range	%wt of Roman assemblage
R1	Orange fabric with moderate coarse quartz (rose and clear) occasionally with chunky silt inclusions and variable quartz quantities some micaceous speckling.	Imbrex, tegula, brick, flue tile, opus spicatum, tile	Roman	95
R2	Very fine sandy fabric with sparse coarse quartz and sparse silt inclusions.	Tegula, imbrex	Roman	2
T1	Orange sandy tile fabric with sparse to moderate fine quartz and cream silt streaking	Flue tile, imbrex	Roman	3

Table 2: Roman CBM fabrics and forms

Forms

5.1.4 A wide variety of Roman CBM form types was represented within the small quantity of material recovered (Table 3).

Form	Count	Weight (g)	Contexts
box flue	1	242	40
brick	13	20748	6, 22, 35, 37, 38, 40
flue tile	8	1916	4, 6, 9, 12, 40
<i>Imbrex</i>	12	1730	4, 7, 8, 40
<i>Opus signinum (mortar)</i>	3	488	115
<i>Opus spicatum</i>	6	980	6
<i>parietalis</i>	6	5424	12, 35, 40
shaped tile	1	60	8
<i>tegula</i>	10	2312	6, 9, 12, 40
tile	79	1326	6, 7, 8, 9, 12, 37, 38
Total	139	35226	

Table 3: Summary of Roman CBM building form types by weight and context

Roofing tile

- 5.1.5 A small quantity of roof tile, *tegula* and *imbrex* were recovered. *Tegula* was represented by two fabric types, R1 and R2 (Table 2) and ranged between 20 and 28mm in thickness. *Imbrex* was represented by three fabric types (R1, R2 and T1) and ranged between 14 and 22 mm in thickness.

Floor Tile – Opus Spicatum

- 5.1.6 Six fragments of *opus spicatum* brick were recovered from context [6]. *Opus spicatum* bricks are so named due to the laid bricks appearing as grain in an ear of wheat (*spica*), an arrangement commonly known as herring bone (Brodrigg 1987, 50). Each brick had a vertical long and short edge with fine sanding, a long knife cut chamfered edge (pre-firing) and had been broken post-firing on the remaining side. The bricks were near uniform in size with a width of 63 – 65mm and a thickness range of 25 - 31mm. No complete lengths remained and no mortar was found adhering to the surface, therefore it is possible that the fragments represent wasters from the laying of a floor. All the bricks were in fabric R1 with slight variations in colour due to a range of firing temperatures. Comparable bricks with chamfered edge have been recovered during excavations at the Fishbourne Palace site (Black 1996, 56) and an *in situ* herring bone floor has also been identified at a bath house in Wiggonholt with identical form bricks (Winbolt and Goodchild 1937) both are attributed to 1st century phases of construction.

Facing Tile: Parietales

- 5.1.7 *Parietales* are thought to have been used to line interior walls and have the appearance of thick brick with keying on the surface and usually with an accompanying notch or nail hole to facilitate attachment to the wall (Brodrigg 1987, 58-59). Partial square knife cut vents (pre-firing) were observed in the edge of two of the fragments and combed keying with vertical and diagonal straight lines were observed on all fragments. The tiles were most commonly 38mm thick with one complete width of 262mm remaining. The brick may

have been used decoratively to form a dado or plastered over (Brodrigg *ibid.*, 58).

Brick

- 5.1.8 A single complete *lydion* brick was recovered measuring 390mm by 262mm by 30mm; the use of such bricks can still be seen *in situ* at the site in the larger supporting walls. The remainder of the brick recovered was fragmentary. Two bricks had *mammae* (rough clay bosses pressed onto the surface of the brick by a corner) and are generally a feature of bricks from the south-east of England (Brodrigg 1987, 62). The purpose of the *mammae* is debated, one possibility is that they served as spacers in the kiln to improve airflow during firing (Cunliffe 1971, 43); alternatively they may serve to assist bonding with mortar (Brodrigg 1987, 62). A single crossed 'signature' mark was observed on the corner of one brick. A number of bricks showed signs of being heat affected indicating their use within the *hypocaust* system.

Flue tile

- 5.1.9 Flue tiles are used to form hollow spaces within walls for conducting hot air around the hypocaust system. A small quantity of flue tile was recovered in two fabrics T1 and R1, knife cuts observed in the flange of two fragments one from context [9] and one from context [40] may indicate half box flue tiles. A thin (15mm) example with tall surviving flange is likely to be box flue. Combed keying to the surface was visible in two styles one wavy and the remainder vertical and crossed patterning, similar to patterning observed on *parietal* tile. The wavy patterning employed a comb with wide teeth up to 10mm wide whereas the vertical and diagonal combing was undertaken using a comb with 2mm wide teeth. Comparable combing designs are 17 and 27 from Cunliffe (1971, 46).

Shaped Tile

- 5.1.10 A single small incomplete fragment of shaped tile was recovered, with a smooth flat edge and sanded curved inner edge the fragment may form part of a support for carrying water pipes, though insufficient of the fragment remains to confirm this.

Opus Signinum

- 5.1.11 A small sample of *opus signinum* mortar was also recovered, pinkish white in appearance, the sandy lime mortar contained abundant very coarse abraded fragments of Roman CBM.

Medieval

- 5.1.12 Context [115] contained two fragments of peg tile of medieval date. Both fragments were abraded and in sandy fabric T3 (Table 4), one fragment retained a clear even greenish glaze to most of the remaining surface of the tile.

Fabric	Description	Form	Date range	Context
T3	abundant rounded medium quartz with sparse black sand and sparse white chalk inclusions	Glazed peg tile	C12th-C14th	115

Table 4: Medieval CBM fabric and form

Post-medieval

5.1.13 A small assemblage of post-medieval material was recovered from the general backfill of the site [115] and comprised unfrosted brick with fine sanding and sharp arises in fabric B1 and three fragments of peg tile in fabric T2 (Table 5). A small quantity of concrete mortar was also recovered likely to be of 20th century date, also from context [115].

Fabric	Description	form	Date range	Contexts
B1	Orange fine sandy fabric with abundant iron rich inclusions	Brick	Late C18th-20th	115
T2	pale orange fabric with abundant cream silt streaking and sparse black iron rich inclusions	Peg tile	C18th-C19th	115

Table 5: Post-medieval CBM fabric and form

Discussion

5.1.14 The relatively small sample of ceramic building material recovered from the site contains a broad range of forms in a limited range of fabrics which appear local in origin. The range of forms suggest features of the building which no longer survive including a herring bone *opus spicatum* floor, a durable hardwearing floor design. Ornate flooring within the complex has been suggested by finds of *opus sectile* stones in chalk, limestone and Purbeck or Sussex marble from the earlier excavations of the site (Down 1978, 157). The design of the ceramic *Opus Spicatum* is comparable to those recovered from the 1st century bath structures at both Fishbourne and Wiggonholt; the chamfered edge noted in these locations is not commonly known from other sites (S.Pringle *pers comm.*) and may represent a regional style. The presence of brick with *mammata* is also indicative of local production being more common in the south-east of England than elsewhere within Roman Britain.

5.1.15 The recovery of a number of fragments of *parietale* tile allows some speculation on design and structure of the building, suggesting rubble walls faced with tile, perhaps covered over by stucco or wall plaster or used in a decorative fashion to produce a dado effect from leaving the brick exposed. It is also possible they formed part of a floor system being bedded onto mortar, though the presence of notches suggests a more likely use in walling. Such tiles have also been recovered from Fishbourne indicating a common design feature within contemporary buildings and perhaps a 1st century date.

5.2 The Post-Roman Pottery by Luke Barber

Introduction

- 5.2.1 The archaeological work recovered only 22 sherds of post-Roman pottery, weighing 529g, from six individually numbered contexts. The assemblage has been fully listed for archive on an excel database using the West Sussex medieval fabric reference collection codes.

Results

- 5.2.2 The earliest material consists of four fresh sherds (53g) from hand-made oxidised and reduced cooking pots tempered with moderate/abundant angular flint grits to 1mm (West Sussex fabric F/M5). All these sherds were recovered from chalk foundation [13] but only one simple rim is present. A 12th- to early/mid 13th- century date is probable.
- 5.2.3 Pottery of the early to late 13th century was recovered from two deposits. The largest group was recovered from backfill [12]. This group contains cooking pot fragments in moderate flint and sand (F+q/M1: 4/54g) and sparse flint and sand (F+q/M3: 3/56g) tempered wares. These are more finely potted than the earlier F/M5 ware noted above and probably develop from it. A number of production sites were producing flint tempered coarsewares in Chichester at this time and the current sherds are likely to derive from the Orchard Street or Southgate kilns (Down and Rule 1971; Down 1978). The rims present include an out-turned triangular club rim in F+q/M3 and an externally beaded rim in F+q/M1. Accompanying these cooking pots are four sherds from at least three jugs in much finer fabrics. Two fine sand tempered bodysherds are present with rare larger quartz inclusions (Q(f)/M2: 2/19g) with a further two fine sandy ware sherds with very rare flint inclusions to 1mm also being recovered (Q(f)/M8: 2/33g). The latter two sherds include part of the base from a green glazed tripod jug/pitcher, almost certainly from the Southgate kiln for which this form was a common type (Down 1978). However, it should be noted that Binsted was producing very similar fineware fabrics at this time (Barton 1979). Pit [106] produced a further three sherds of 13th- century date. These include a body sherd from an oxidised cooking pot in F+q/M1 and two sherds from a green glazed jug with wide slashed strap handle in Q(f)/M1.
- 5.2.4 A single Transitional sherd was recovered from the site. This consists of part of the body and simple bunghole from a knife-trimmed pitcher in fine/medium buff painted ware (pit [104]: Q(f)/M20a). A date between 1425 and 1525 is considered most likely.
- 5.2.5 The remaining sherds are all of late post-medieval date. Cellar backfill [15] produced the complete lower section (71mm diameter) from a refined white earthenware lidded pot of the mid 19th to early 20th century. Such vessels were usually used to hold grease, toothpaste or meat pastes. Cess-pit/soakaway fill [17] contained a body sherd of well fired glazed red earthenware as well as part of a blue transfer-printed plate with floral design. A date between 1825 and 1875 is probable.

5.3 The Geological Material by Luke Barber

5.3.1 The excavations recovered six pieces of stone, weighing 19.662kg, from four individually numbered contexts. The assemblage has been fully listed on pro forma for the archive. The largest piece (10,500g) was recovered from unstratified deposits and consists of an irregular flattish block of upper greensand. This has a 20mm diameter, 10mm deep, central hole from spindle/pivot wear around which is a 230mm diameter worn dished area. It is possible the piece secured the lower hinge pivot from a door and originally was set into a floor. Roman levelling [6] produced a further irregular piece of upper greensand and a 158g corner fragment from a very finely dressed and smoothed corner from an ashlar block. Further upper greensand was recovered from pit [111]. This produced two slightly weathered pieces from building blocks. The only other stone noted was a large fragment (5.9kg) of Mixen Rock from pit [103]. This stone, from a reef off Selsey (Worssam 2006) was used extensively in the area in medieval times and earlier.

5.4 The Glass by Elke Raemen

5.4.1 Two cylindrical, clear glass bottles (wt 108g) were recovered from cellar backfill [15] and cesspit/soak-away [18] (fill [17]). Both date between the mid 19th and early 20th century and were made in three-piece moulds. Included are a complete and a near complete example (heights 60 and 101mm). The bottles could have contained a wide range of products but most likely they would have held medication or toiletries.

5.5 The Clay Tobacco Pipe by Elke Raemen

5.5.1 A single clay tobacco pipe (CTP) stem fragment was recovered from cesspit/soak-away [18] (fill [17]). The fragment is plain and undecorated, displaying some external burn marks suggesting discard in fire. The piece dates between c. 1750 and 1910.

5.6 Registered Finds by Elke Raemen

5.6.1 A single find, recovered from cesspit/soak-away [18] (fill [17]), was assigned a registered find number (RF <1>, wt 8g). The piece consists of a circular-sectioned pencil manufactured of Welsh slate and is complete (length 140mm). These slate pencils date between c. 1850 and 1910.

5.7 The Animal Bone by Gemma Ayton

5.7.1 The animal bone assemblage includes 28 fragments of bone from three contexts [12], [106] and [7]. The bone from context [7] has been retrieved from an environmental soil sample <1>, no hand-collected bone was recovered from this context.

5.7.2 The assemblage was in a good state of preservation and 23 fragments of bone could be identified to taxa. Cattle (*Bos taurus*), sheep/goat (*Ovis/Capra*), pig (*Sus scrofa*), domestic fowl (*Gallus gallus*), dog (*Canis familiaris*) and mouse (*Mus. Sp*) have been identified. The assemblage contains both meat-bearing and non-meat bearing elements and evidence of

butchery has been noted on a large-mammal rib, a cattle horn-core and a chicken femur.

5.8 Environmental sample by Karine Le Hégarat

- 5.8.1 A single bulk soil sample was taken from demolition layer [007] during the course of the archaeological work at the site. Sampling aimed to establish evidence for environmental material such as wood charcoal, macrobotanical remains, fauna and mollusca as well as to assist find recovery, which could help clarify the origin of the deposit. The sample was processed in a flotation tank and the residue and flot were retained on 500µm and 250µm meshes and air dried. The residue was passed through graded sieves (4 and 2mm) and each fraction sorted for environmental and artefact remains. The flot was scanned under a stereozoom microscope at x7-45 magnifications. An overview of the sample contents is recorded in Table 6.
- 5.8.2 The small flot (2ml) and residue from sample <1> produced a small quantity of environmental remains including wood charcoal fragments, unburnt mammal bones and molluscan fauna. Charcoal fragments in the residue were predominantly small (<4mm in size) with some occasional pieces >4mm and the flot was dominated by wood charcoal flecks. Faunal remains comprised infrequent land snail shells in the flot as well as a small amount of unburnt mammal bones in the residue.
- 5.8.3 Sampling also produced a small quantity of artefactual remains including pieces of CBM and fragments of mortar. These artefacts are included in the finds report.
- 5.8.4 The bulk environmental sample taken during work confirmed the presence of a limited assemblage. The origin of the charcoal is unclear. As it is part of the destruction waste, the assemblage could be associated with structural timbers or with fuel use. Unfortunately, it is too limited to provide meaningful interpretations regarding the selection of wood for construction or the taxa targeted for fuel. Therefore no taxonomic identifications have been undertaken.

Table 6: Sample Quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and weights in grams

Sample Number	Context	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	weight g	Flot							Residue							
						Flot volume ml	Uncharred %	sediment %	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	LSS	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Bone and Teeth	Weight (g)	Other (eg ind, pot, cbm)	
1	7	Demolition layer [007]	10	10	2	2	6	4	*	*	*	*	*	<2	*	**	*	8	Mortar **/66g CBM **/970g	-

6.0 DISCUSSION

6.1 Introduction

6.1.1 In its primary aim - to safely re-expose the masonry elements of the Roman Thermae - this project has been entirely successful. The backfill from three successive archaeological investigations has been removed without incurring any further damage and the exposed remains fully cleaned and re-recorded. Unfortunately, the limitations of the fieldwork means that few of the site specific aims of investigation can be addressed in any meaningful way. Both the exposure of just part of Down's original excavation area, for instance, coupled with the minimal excavation of undisturbed archaeological deposits means that a reappraisal of the chronology and development of the wider area is largely beyond the scope of this report. That does not mean, however, that the work does not further our understanding of the development and layout of the Thermae itself. The original aims of the investigation are reproduced below and are considered in turn in relation to the results of the excavation.

- Are there any pre-Roman features or finds? Is there any evidence potentially relating to the invasion of 43AD? Are there any finds of pre-invasion Roman coins and pottery, such as Arretine ware?

No pre-Roman or pre-invasion features or artefacts were encountered during the course of the fieldwork. The earliest recorded activity on the site pertains to the construction of the Roman Thermae, dated by Down to the Flavian period and later.

- Is there any evidence for Down's Period 1 timber buildings or occupation (AD 43 onwards)? Is there any evidence for Down's Period 2 timber buildings or occupation (AD 41-68)? Is there any evidence to support Down's claim that these buildings were military?

No evidence for any activity earlier than the Flavian period (Down's Period 3) was identified during the course of the fieldwork. No timber buildings comparable to the Period 1 and 2 structures described by Down were encountered, nor was there any evidence for military activity within the excavation area.

- Is there any evidence for Down's Period 3 timber buildings or occupation (AD 69 to early 2nd century)? Were the timber buildings workmen's huts? Is there any evidence for the 1st century public buildings which are believed to have been located on or in the near vicinity of the site?

The only definite evidence of any Period 3 activity outside the Thermae itself comprises a single posthole and a sequence of construction debris considered to be associated with construction of the bath complex itself. The masonry foundation observed during groundworks to the west of the Thermae may represent evidence for an additional public building in the vicinity, although it is equally probable that this represents part of the bath complex itself. In addition, careful re-examination of the external wall of the Thermae apse and its relation to the large excavation immediately to the north suggests either an earlier building on the site or systematic robbing of

an additional room to the complex. Down suspected the presence of an earlier public building in the area. In this regard, the coincidence in alignment between the Thermae apse, the large rectangular ?robber trench and Down's Period 2 Timber building to the north is worth further consideration and hints at a phase of masonry building between Downs Period 2 Timber structure and the surviving elements of the Period 3 Thermae.

- The masonry remains to be exposed for the museum all are ascribed Down's Period A of probable Flavian date and are believed to be hot rooms (rooms 1 and 2) fired from a furnace to the north (Down 1978, 145-147). Is there any new evidence for the dating of these structures? Is there any evidence to support or contradict the hot room function and location of the furnace?

Roman dating evidence recovered during the course of the fieldwork consists exclusively of small assemblages of building material that are not intrinsically closely datable and certainly do not assist in refining the date of the Thermae. Heavy sooting throughout the exposed hypocaust structure and the excessive heat damage to the floor of the flue identified to the north of the Thermae support the interpretation that both Down's Rooms 1 and 2 comprised hot rooms.

- Alterations and additions were made to the bath house during the mid to late 2nd century in Down's Period B. These alterations were mainly identified to the east of hot rooms 1 and 2. Is there any further evidence for these Period B alterations and additions?

It is possible that the large rectangular ?robber trench immediately to the north of the Thermae apse represents alterations to the complex carried out during the 2nd century, though this is not supported by Downs assertion that the backfill of this cut contained Flavian pottery.

- Is there any evidence for Down's assumption that the source of heat changed from the north side to the west side during his Period C dating to the mid 2nd century onwards?

No evidence for any change in the location of the flue was identified during the course of the fieldwork.

- Can Down's phasing be further refined and improved upon? Can the dating of the phases be re-evaluated in the light of recent finds work and absolute dating techniques such as C14 radiocarbon dating?

In respect of the Roman sequence on the site, the recovery of small groups of Roman building material do little to assist in a reappraisal of Down's chronology and phasing. However, the potential correlation of the chalk foundation of Building 2, dated to the 13th century by associated pottery, with building M6, dated by Down to the late 15th century raises the possibility of an earlier construction date for building M6.

- The bath house is believed to have been in use until the late 4th century although the dating is not particularly secure due to later truncation. Can any new light be shed on the final use and destruction of the bath house?

Areas of partially collapsed opus signinum flooring identified within the Thermae complex, while indicating the disuse of the structure, do not suggest any concerted efforts to dismantle the building. On the basis of the available evidence, Down's view of a slow demise seems credible.

- Is there any further evidence for the construction and decoration of the baths?

The Roman CBM assemblage recovered from the site suggests some additional features of the Thermae complex which no longer survive, including an opus spicatum floor. The recovery of several fragments of parietale tile provides some additional evidence for the construction and decoration of the building.

- What is the nature of the post-Roman activity? Are there any Saxon features or finds? Can Down's Period 8 be re-evaluated in the light of any new evidence?

No Saxon features or finds were encountered during the course of the fieldwork.

- Is there any evidence medieval activity, particularly relating to bell-founding pits or buildings?

The only evidence for medieval activity consists of a single rubbish pit and a masonry foundation that may form part of a building previously excavated by Down. No evidence for any bell founding was identified during the course of the work

- What was the nature of the post-medieval occupation of the site?

Post-medieval activity on the site appears to be of 18th-19th century date and later and includes a cellared building fronting Tower Street with associated cess pit and back yard. This was replaced in the 19th century by the National School which stood on the site until 1975.

CONCLUSIONS

- 7.1** This excavation has successfully re-exposed, cleaned and re-recorded elements of the Roman Thermae that exists on the site, including parts of the northern external wall of the bath complex, a flue or stoker and the remains of the internal hypocaust system, as well as areas of collapse and demolition that attest to the demise of the building. Some limited medieval activity was identified, including a chalk foundation that may form part of a building previously excavated by Down and evidence for later post-medieval occupation of the site was also identified. For the most part, the results of this work accord well with those of the original excavation of the site in 1975, though careful field observation has allowed some tentative re-interpretation of parts of the sequence.

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APPENDIX 1: Context and Group Registers

Table 1: Context Register

CONTEXT	CONTEXT TYPE	FEATURE TYPE	PARENT CONTEXT	SUBGROUP	GROUP	LANDUSE	PERIOD	PERIOD NO	COMMENTS	Spot-date (date range)
1	L	MU		9				4		
2	M	W	3	8	19	BLG 5	PM	3	Archaeology South-East FOUNDATION	
3	C	S	3	8	19	BLG 5	PM	3		
4	L	MU	4	7	19	BLG 5	PM	3	LEVELLING UP FOR W 002	17TH-19TH C
5	L	DS	5	6	11	OA1	R	1	REDEP OP SIG	
6	L	ED	6	6	12	OA1	R	1		ROMAN
7	L	DS	7	5	11	OA1	R	1	CHARCOAL LAYER	ROMAN
8	L	ES	8	4	10	OA1	R	1	TRAMPLE OVER ES 009	ROMAN
9	L	ES	9	4	10	OA1	R	1	OP SIG/MORTAR FL	ROMAN
10	M	CE	10	67	17	BLG 4	PM	3		
11	M	CE	11	67	17	BLG 4	PM	3		
12	F	P	33	65	15	OA2	M	2		1225-1300
13	M	W?	13	64	14	OA2	M	2	UNEXC	1100-1250
14	C	CE	14	67	17	BLG 4	PM	3	CELLARING CUT	
15	F	CE	14	70	17	BLG 4	PM	3	BACKFILL OF CELLAR	1850-1900+
16	M	FL	16	67	17	BLG 4	PM	3	ROMAN FLOOR OF THERMAE UTILISED IN PMED CELLAR	
17	F	PC	19	71	18	BLG 4	PM	3	BACKFILL	1825-1875
18	M	PC	19	66	18	BLG 4	PM	3	LINING	
19	C	PC	19	66	18	BLG 4	PM	3		
20	M	W	20	10	1	BLG1	R	1	E-W EXTERNAL WALL W OF APSE	
21	L	ED	21						LEVELLING UP OVER W 22	
22	M	W	22	21		BLG 2	R	1	SUPERSTRUCTURE W	ROMAN
23	M	W	23	21		BLG 2	R	1	FOUNDATION	
24	F	DS	24	72	13	BLG 5	PM	3	BACKFILL OF ROBBING	
25	M	W	25	72	19	BLG 5	PM	3	REMAINS OF ROBBED FOUND	
26	C	S	26	72	19	BLG 5	PM	3		
27	M	FL	27	66	18	BLG 4	PM	3	ROMAN FLOOR OF THERMAE UTILISED IN PMED CESS PIT	
28	F	SU	31	69	16	OA3	PM	3	BACKFILL OF SOAKAWAY	
29	F	SU	31	68	16	OA3	PM	3	PRIMARY IN 31	
30	M	SU	31	68	16	OA3	PM	3	BRICK LINING	
31	C	SU	31	68	16	OA3	PM	3		
32	C	SN	32	73			MOD		MODERN TRUNCATION	
33	C	P	33	65	15	OA2	M	2		
34	L	CD	34	2	9	OA1	R	1	MORTAR SPREAD	
35	L	CD	35	2	9	OA1	R	1		ROMAN
36	L	CD	36	3	9	OA1	R	1		
37	L	CD	37	3	9	OA1	R	1		ROMAN
38	F	SP	39	1	8	OA1	R	1		ROMAN
39	C	SP	39	1	8	OA1	R	1		
40	L	DS	40	59	12	BLG1	R	1	REDEP OP SIG	ROMAN
41	L	DS	41	63	12	BLG1	R	1	COLLAPSED OP SIG FLOORING	
42	M	PS	42	19	5	BLG1	R	1	PILA	
43	M	PS	43	13	3	BLG1	R	1	PILA	
44	M	PS	44	14	3	BLG1	R	1	PILA	
45	M	PS	45	34	3	BLG1	R	1	PILA	
46	L	DS	46	62	12	BLG1	R	1	COLLAPSED PILA	
47	M	PS	47	35	6	BLG1	R	1	LARGE PILA	
48	M	PS	48	44	3	BLG1	R	1	PILA	
49	M	PS	49	36	3	BLG1	R	1	PILA	
50	M	PS	50	15	3	BLG1	R	1	PILA	
51	M	PS	51	37	3	BLG1	R	1	PILA	
52	M	PS	52	16	6	BLG1	R	1	LARGE PILA	
53	M	PS	53	38	6	BLG1	R	1	LARGE PILA	
54	M	PS	54	17	3	BLG1	R	1	PILA	
55	M	PS	55	39	3	BLG1	R	1	PILA	
56	M	PS	56	18	3	BLG1	R	1	PILA	
57	M	PS	57	20	3	BLG1	R	1	PILA	
58	M	PS	58	40	3	BLG1	R	1	PILA	
59	M	PS	59	41	3	BLG1	R	1	PILA	
60	M	PS	60	42	3	BLG1	R	1	PILA	

Table 2: Group register

Group No	Description	Period
1	External walls BLG 1	R
2	op sig floor BLG 1	R
3	pilae in apse (R1)	R
4	pilae e of apse (R2)	R
5	pilae against w077 in apse (R1)	R
6	large pilae in apse (R1)	R
7	flue	R
8	Early activity: posthole	R
9	construction debris ass with BLG 1	R
10	external surface n Blg 1	R
11	demolition/disuse of thermae	R?
12	demo layers postdating BLG 1	R
13	robbing	M
14	med? chalk found	M
15	med/pm pit	PM
16	pm soakaway	PM
17	pm cellar	PM
18	pm cess pit	PM
19	later pm walls - national school	
20	various undated pits	
21	Roman masonry in Tower Street	R

Appendix 2 : SMR Summary Form and Oasis form

Site Code	TSC08					
Identification Name and Address	Tower Street Chichester.					
County, District &/or Borough	West Sussex					
OS Grid Refs.	485920 104930					
Geology	Brickearth over gravel					
Arch. South-East Project Number	3875					
Type of Fieldwork	Eval.	Excav. ✓	Watching Brief	Standing Structure	Survey	Other
Type of Site	Green Field	Shallow Urban	Deep Urban ✓	Other		
Dates of Fieldwork	Eval. 09.05.11- 13 .0 5. 11	Excav. 28.03.10- 19.07.10	WB.	Other		
Sponsor/Client	Vinci Construction Ltd.					
Project Manager	Darryl Palmer					
Project Supervisor	Diccon Hart					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB ✓
	AS	MED ✓	PM ✓	Other		
<p>100 Word Summary.</p> <p>Archaeology South-East (ASE), a division of University College London Institute of Archaeology Centre for Applied Archaeology were commissioned by Vinci Construction Ltd. to undertake an excavation during the construction of a new museum at Tower Street, Chichester, West Sussex. (centred NGR 485920 104930). The work consisted of the excavation of an area measuring c. 137 square metres in order to re-expose the masonry elements of a Roman Thermae previously investigated by Alec Down in 1975, for display in the new museum.</p> <p>The elements of the Thermae revealed within the excavation area include parts of the northern external wall of the bath complex, a flue or stoker and the remains of the internal hypocaust system, as well as areas of collapse and demolition that attest to the demise of the building (Fig. 4). Monitoring of groundworks in Tower Street to the west of the site identified further Roman masonry, though whether this constitutes evidence for an additional building in the vicinity or merely part of the Thermae remains unknown.</p> <p>Post-Roman activity includes a medieval rubbish pit and a chalk foundation that may form part of a late medieval building excavated by Down. Post-medieval occupation is exclusively of 18th 19th century date and later and includes a cellared building fronting Tower Street, with associated cess pit and back yard, as well as part of the National School which stood on the site until 1975.</p>						

OASIS Form

OASIS ID: archaeol6-118184

Project details

Project name An archaeological excavation at Tower Street, Chichester, West Sussex
 Short description of the project Archaeology South-East (ASE), a division of University College London Institute of Archaeology Centre for Applied Archaeology were commissioned by Vinci Construction Ltd. to undertake an excavation during the construction of a new museum at Tower Street, Chichester, West Sussex. (centred NGR 485920 104930). The work consisted of the excavation of an area measuring c. 137 square metres in order to re-expose the masonry elements of a Roman Thermae previously investigated by Alec Down in 1975, for display in the new museum. The elements of the Thermae revealed within the excavation area include parts of the northern external wall of the bath complex, a flue or stoker and the remains of the internal hypocaust system, as well as areas of collapse and demolition that attest to the demise of the building (Fig. 4). Monitoring of groundworks in Tower Street to the west of the site identified further Roman masonry, though whether this constitutes evidence for an additional building in the vicinity or merely part of the Thermae remains unknown. Post-Roman activity includes a medieval rubbish pit and a chalk foundation that may form part of a late medieval building excavated by Down. Post-medieval occupation is exclusively of 18th/19th century date and later and includes a cellared building fronting Tower Street, with associated cess pit and back yard, as well as part of the National School which stood on the site until 1975.

Project dates Start: 28-03-2011 End: 19-07-2011

Previous/future work Yes / Not known

Any associated project reference codes TSC08 - Sitecode

Any associated project reference codes 3875 - Contracting Unit No.

Type of project Recording project

Site status None

Current Land use Community Service 1 - Community Buildings

Monument type BATH HOUSE Roman

Monument type HYPOCAUST Roman

Monument type FOUNDATION Medieval

Monument type RUBBISH PIT Medieval

Monument type CELLAR Post Medieval

Monument type CESS PIT Post Medieval

Monument type SOAKAWAY Post Medieval

Monument type SCHOOL Post Medieval

Significant Finds BRICK Roman

Significant Finds ROOF TILE Roman

Significant Finds FLUE TILE Roman

Significant Finds FLOOR TILE Roman

Significant Finds POTTERY Medieval

Significant Finds POTTERY Post Medieval

Investigation type 'Open-area excavation'

Prompt museum display

Project location

Country England

Site location WEST SUSSEX CHICHESTER CHICHESTER Tower Street, Chichester

Postcode PO19 IQH

Study area 137.00 Square metres

Site coordinates SU 859 049 50.8366844268 -0.779964939332 50 50 12 N 000 46 47 W Point

Height OD / Depth Min: 11.24m Max: 12.28m

Project creators

Name of Organisation Archaeology South-East

Project brief Chichester District Council originator

Project design Archaeology South-East

Project director/manager Darryl Palmer

Project supervisor Diccon Hart

Type of sponsor/funding Developer

body

Name of sponsor/funding body Vinci Construction Ltd

Project archives Physical Archive recipient Chichester Museum

Physical Contents Digital Archive recipient 'Animal Bones','Ceramics','Glass','Worked stone/lithics' Chichester Museum

Digital Contents Paper Archive recipient 'Animal Bones','Ceramics','Stratigraphic','Survey' Chichester Museum

Paper Contents Paper Media available 'Stratigraphic' 'Context sheet','Correspondence','Matrices','Photograph','Plan','Report','Unpublished Text'

Project bibliography 1 Grey literature (unpublished document/manuscript)

Publication type Title An archaeological excavation at Tower Street, Chichester, West Sussex

Author(s)/Editor(s) Hart, D

Other bibliographic details 2011184

Date 2012

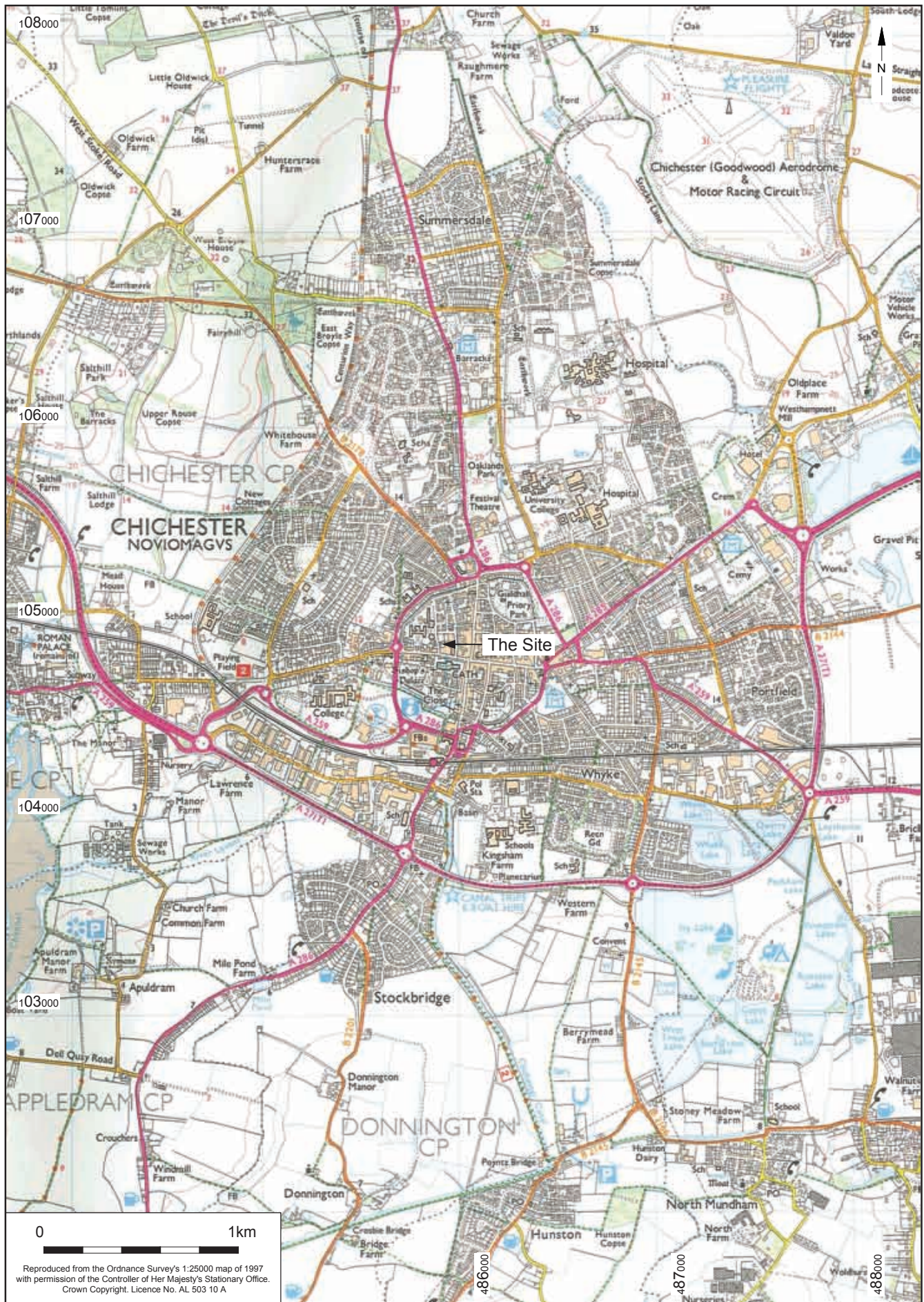
Issuer or publisher Archaeology South-East

Place of issue or publication Archaeology South-East

Description An A4 booklet, measuring approximately 210mm by 297 mm, bound in clear acetate covers.

Entered by Hart (d.hart@ucl.ac.uk)

Entered on 25 January 2012



© Archaeology South-East		Tower Street, Chichester	Fig. 1
Project Ref: 3875	January 2012	Site location	
Report Ref:	Drawn by: JLR		

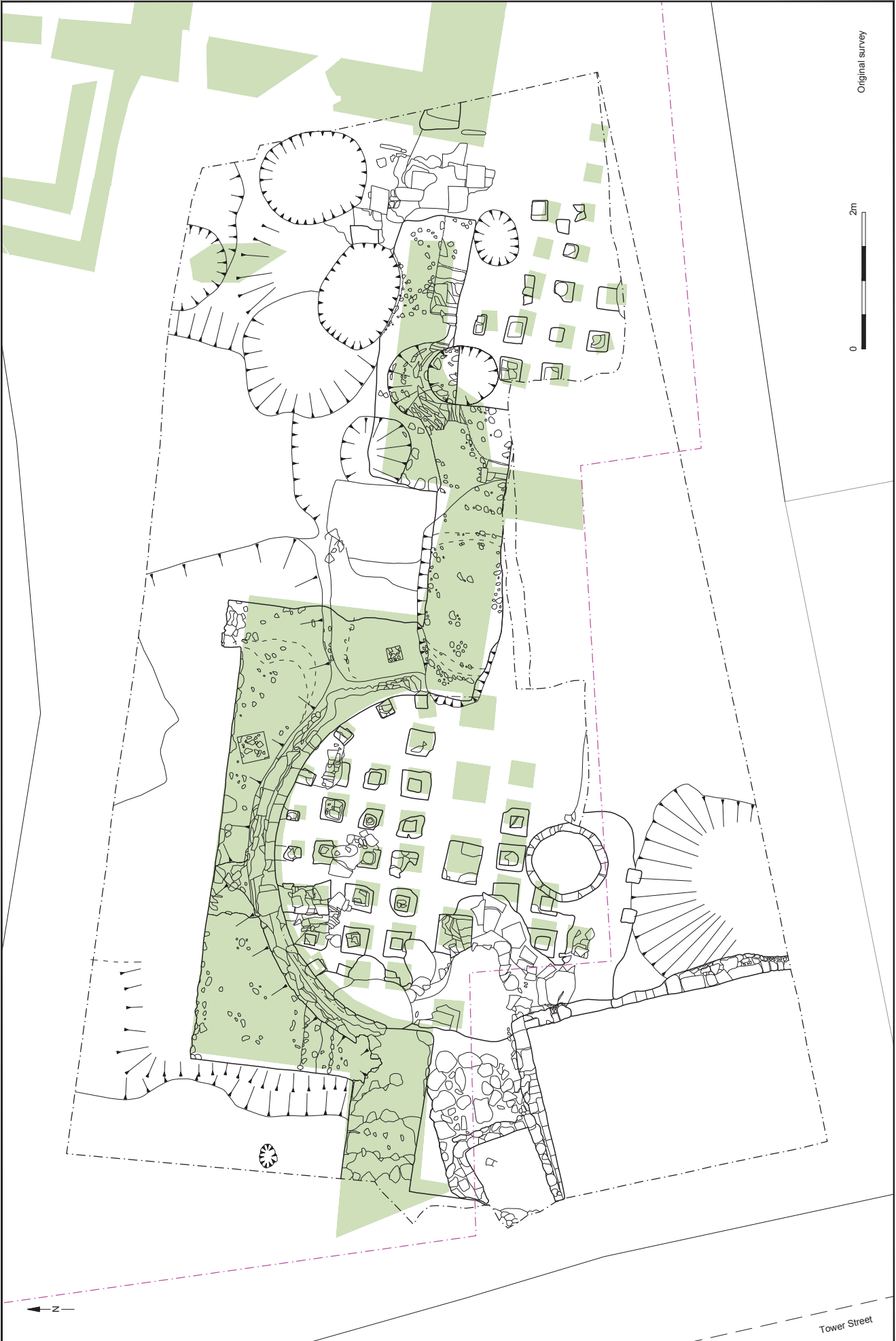


© Archaeology South-East		Tower Street, Chichester	Fig. 2
Project Ref: 3875	January 2012	Plan showing location of previous archaeological investigations	
Report Ref:	Drawn by: FEG		



© Archaeology South-East		Tower Street, Chichester	Fig. 3
Project Ref: 3875	January 2012	Site plan showing area of investigation	
Report Ref:	Drawn by: FEG		

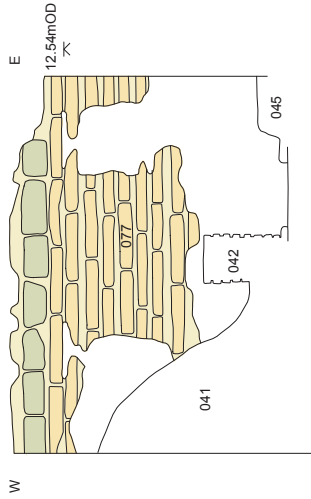




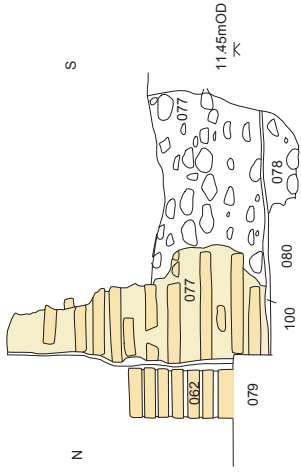
© Archaeology South-East
 Project Ref: 3875
 Report Ref:

Tower Street, Chichester
 Site Plan showing surveyed archaeology in relation to original survey of 1990
 January 2012
 Drawn by: FEG

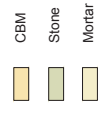
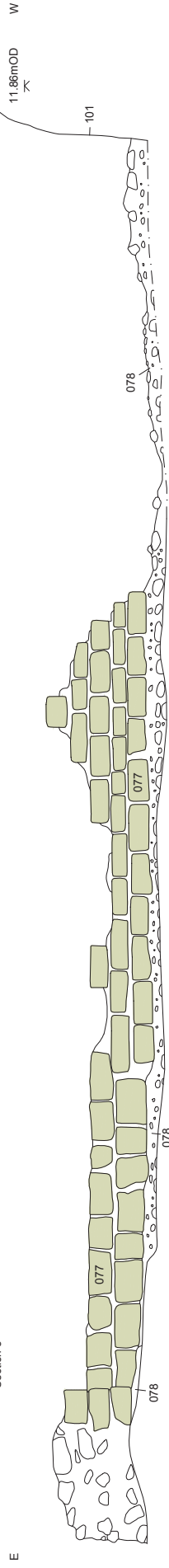
Section 1



Section 2



Section 3





Detail of collapsed pila (group 11)



Shot of group 4 pila



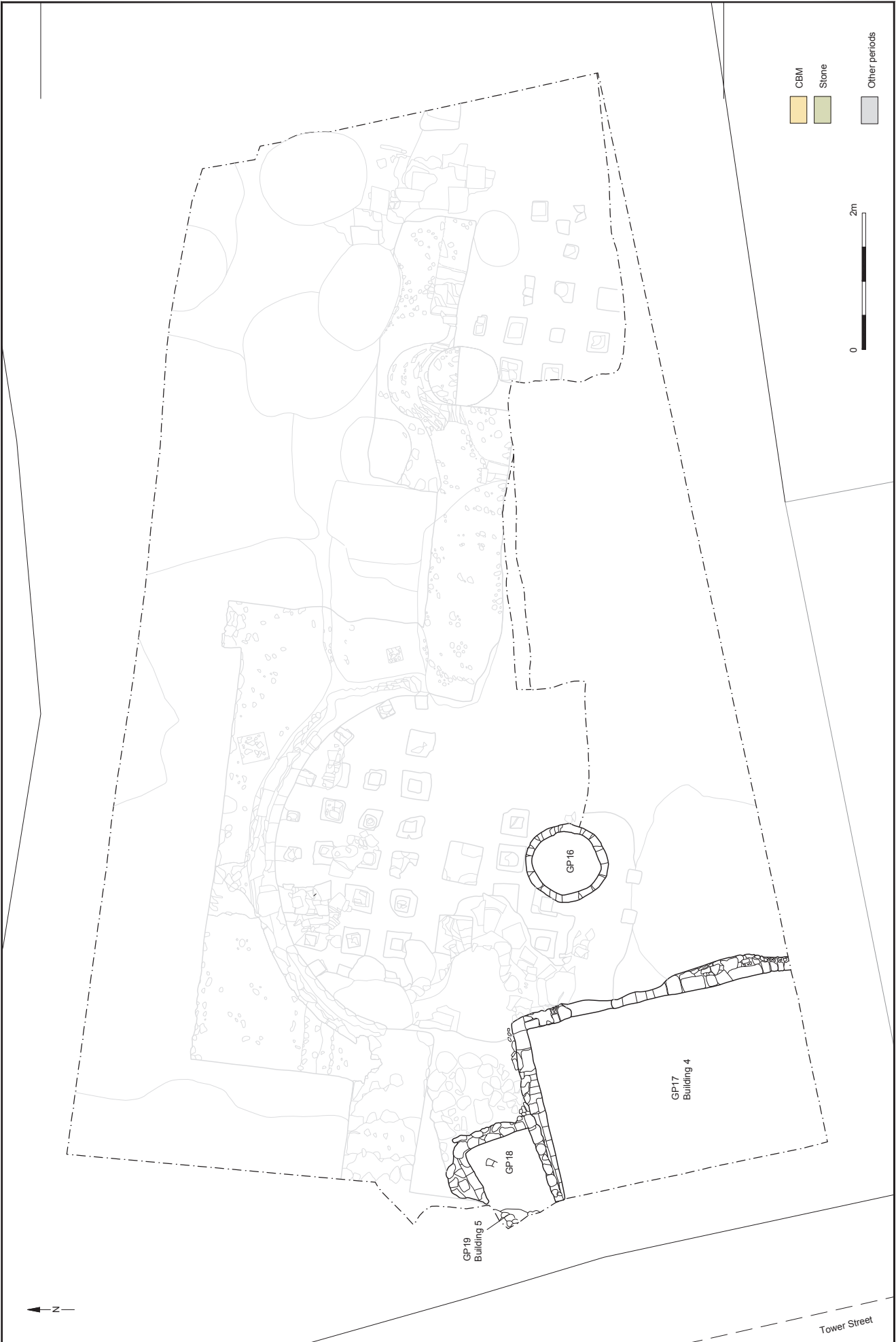
General shot of Thermae apse



Shot of internal elevation of apse (section 1)



Building 3 chalk foundations (foreground) with Building 4 cellar in the background



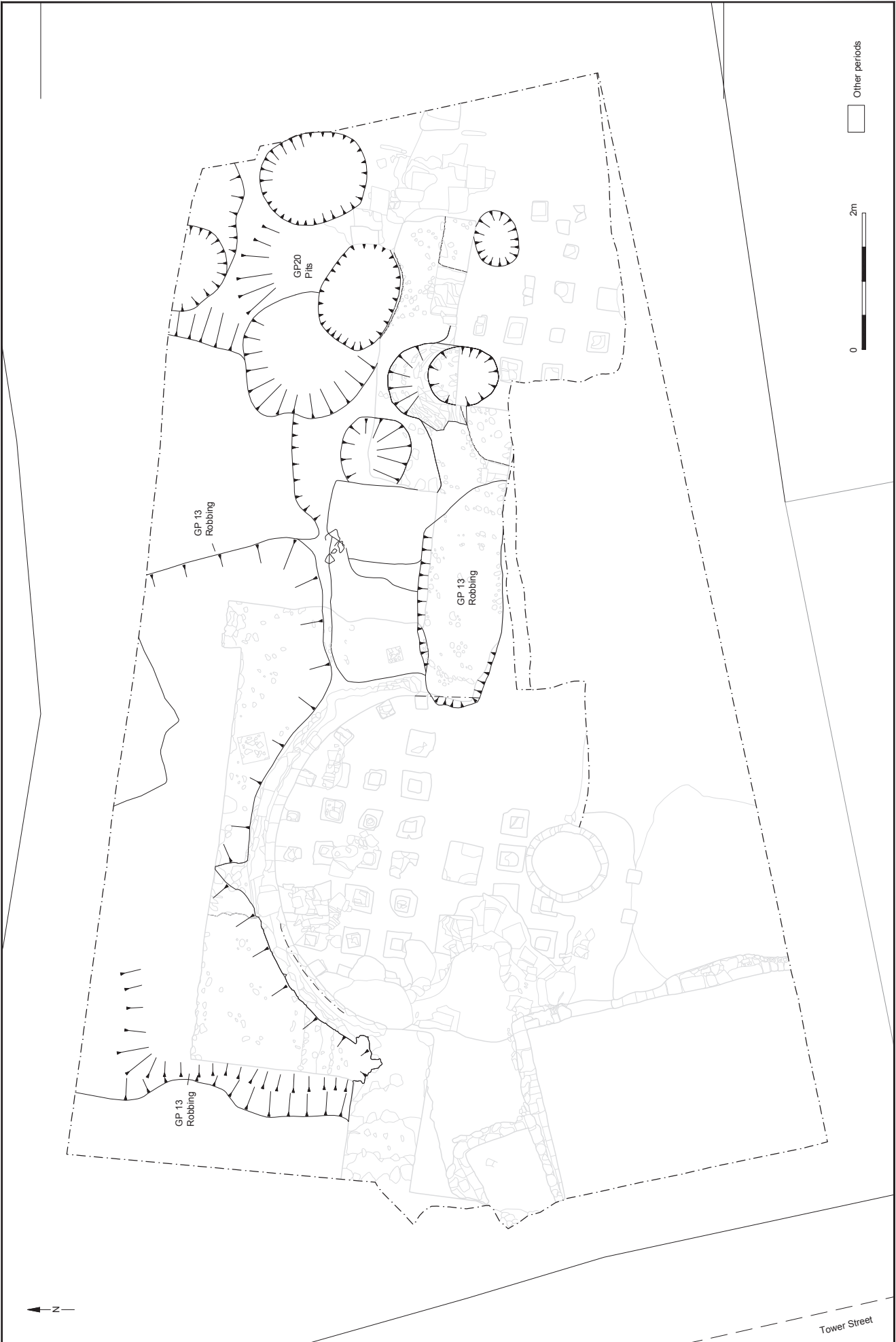
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 Project Ref: 3875
 Report Ref:

Tower Street, Chichester

Site Plan: Period 3 Post-Medieval

January 2012

Drawn by: FEG



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 Project Ref: 3875
 Report Ref:

Tower Street, Chichester

January 2012

Site Plan: Undated features

Drawn by: FEG

Fig. 10

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