Billingsgate Lorry Park (BIG82) archive report Periods 8 to 17

Steve Roskams with Trevor Brigham, 1991

edited by John Schofield, 2016−17

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Introduction

John Schofield

Billingsgate Lorry Park, also called Billingsgate for short, lay on the west side of the Billingsgate Fishmarket building of 1875 (which closed in 1981). The intended redevelopment of both the 1875 building and the land to the east, a lorry park made over the sites of several 19th-century warehouses destroyed in World War II, was known in the late 1970s. The Museum of London’s Department of Urban Archaeology (DUA) prepared the case for excavation in 1980, and an 11-month excavation began in March 1982. The fishmarket itself (Listed only in 1981) had removed all previous deposits with its deep cellars along the east half of the whole site. The lorry park, it was known from recent excavations to west and east, was an area of potential from the Roman period onwards, about 45m east–west by 55m north–south and up to 8m deep from the lowest Roman river silts to modern street level. The Museum placed a trench about 22m east–west by 25m north–south in the north-west corner of the lorry park, where it would investigate the Roman and Saxon waterfronts and medieval buildings of Botolph Wharf above, including part of the parish church of St Botolph Billingsgate, destroyed in the Great Fire of 1666 and not rebuilt. This trench, which required the inserting of a cofferdam before excavation to enable removal of up to 6m of deposits, comprised about one quarter of the area of the lorry park (Fig 1). After the excavation, access was allowed to the site during machine-clearance of the larger remainder of the site, and recording took place under extremely constrained conditions (the Billingsgate watching brief, BWB83). Many artefacts, particularly metal objects, were recovered from earth taken to form landfill downstream of London, on the landfill sites, and not in archaeologically approved conditions.

Fig 1  Billingsgate: the area of excavation looking north east, during initial clearance, early 1982 (T Hurst). Thames Street is top left; a public viewing gallery was soon after built along the north side by the street
Access to the site was negotiated by Brian Hobley and John Schofield. John Schofield was the project manager for the excavations which were carried out by staff of the Department of Urban Archaeology of the Museum of London. The excavation had a public viewing gallery at the north end, entered from Lower Thames Street. The sheet piling was designed and inserted by Bryan Packman Marcel, structural engineers.

The supervisor was Steve Roskams and the finds supervisor Margrethe de Neergaarde. The excavation was funded by the Department of the Environment, the Corporation of the City of London, the City of London Archaeological Trust and by an scheme of the Manpower Services Commission, part of the Department of Employment which functioned to promote employment in the years 1973–87. This enabled young people both with archaeological qualifications and without qualifications to be employed on the excavation or in the finds processing shed.


This report is an edited version of the original archive report which was written by Steve Roskams assisted by Trevor Brigham, and finished in 1991. This text is of Periods VIII to XVII (8 to 17) only, that is medieval and later. The fuller archive report including the Roman and Saxon periods is held in the Museum archive under the sitecode BIG82. This version adds notes on the relevant dendrochronological samples, and the dendrochronological report is added at the back, after the index of contexts and phases. This text is illustrated with many of the period plans, originally drawn at a scale of 1:100, starting at period VIII.1. The intact and longer series of these plans, for the Roman period onwards, and the 1:20 plans on which they are based are in the archaeological archive at LAARC, along with all other archive information, under the sitecode BIG82.

When a context is first mentioned in the narrative, it is given in bold, eg [2656].

The excavation is the subject of a BBC TV Chronicle production, broadcast in 1983. The Museum is grateful to the BBC colleagues who made this programme, since (in the absence of legislation which followed in 1990) it was a private screening of the ‘unfinished’ programme in early 1983 to the developers which ensured archaeological access, though in very constrained circumstances, to the site during construction to cover the massive removal of three-quarters of the archaeological strata of the site. This resulted in the new sitecode BW83 (‘Billingsgate watching brief’) supervised by Geoff Egan, using the services of skilled users of metal detectors, including on landfill sites in the lower Thames area. This took place in 1983 and early 1984.
Period VIII.1-VIII.12

(Fig 2)

VIII.1 New waterfront and associated dumps across the whole of the site

6200, 6473, 6472, 6474, 6471, 6199, 5984, 5526, 5527, 5528, 5533, 5945, 5941, 5942, 5943, 5944, 5593, 6332, 6279, 6232, 6053, 6085, 6052, 6051, 6018, 6040, 6019, 6017, 5998, 5857, 5849, 3918, 4945, 3908, 3909, 3383, 6161, 4109, 4191, 4192, 4194, 4821, 5876, 5877, 5878, 5879, 5820, 6001, 6144, 6141, 5652, 5690, 6125, 5639, 5827, 5828, 5829, 5819, 5552, 5293, 5229, 5206, 5170, 5163, 5146, 5140, 5102, 6140, 5452, 5782, 3638, 3710, 3620, 3637, 3669, 3696, 3695, 3694, 3605, 3566, 3569, 3568, 3576, 3636, 4920, 4848, 4719, 5011, 5012, 5013, 5014, 5015, 4658, 4657, 5100, 5099, 5087, 5086, 5089, 5209, 5088, 5208, 6537, 6538, 4917, 4543, 4542, 4587, 4625, 4501, 6174, 4857, 4716, 4548, 5237, 5403, 3164, 4505, 6151, 5240, 3781, 4861, 4859, 3163, 5207, 3143.
An east/west rectangular cut [6200] with steep sides curving to a flat base at -0.25m OD was inserted into 6246 (VII.13) and 6378 (VII.5), the dumping immediately east of the VII.9 north/south revetment. Four pine planks [6473], [6472], [6474] and [6471] were set edge to edge along the south of 6200 with the top of 6471 at c. 0.27m OD, forming an east/west revetment at least 3.46m in length, abutting the VII.9 structure to the west. The planks were not attached to each other, although large pegs indicated reuse.
Cut 6200 was backfilled with dark brownish grey pebbly silt containing flecks of oystershell, wood fragments and chalk [6199]. Brown organic shelly, pebbly clayey silt [5984] was dumped behind the timbers, sealing 6199, sloping down to the south from 0.93m to 0.20m OD. The organic fraction, resembling compressed straw with wood fragments, was layered horizontally, interspersed with clay silt bands.

Several timbers [5526]-[5528], [5533] and [5945] formed a small assemblage at the north end of 5984. The purpose of these roughly worked fragments is unclear, although they appear to have been deliberately placed, possibly as the base for a missing element.

Immediately east, a north/south squared tieback [5941] was laid on 5984 sloping down to the south from 1.20m to 0.72m OD. An east/west crosspiece [5942] was inserted through a mortise cut horizontally in the north end of 5941 retained to the south by squared piles [5943] and [5944]. The tieback was truncated to the south, 0.6m north of the new waterfront, but presumably originally retained that structure, since no other form of bracing was apparent.

Shelly organic dark brown pebbly clay silt with a little medium and coarse sand and containing frequent bone and wood fragments [5593] was deposited over the tieback group 5518 et al, forming a backfill for the waterfront. As with 5984, the matrix contained straw and peat reflecting its origins.

Further west a dark brownish grey sticky sandy silt with a little greenish grey medium sand in irregular patches, dark brownish black silty sand in irregular patches to the east and fine and medium pebbles [6332] overlay 6246 (VII.13) and covered the Period VII stave revetment, finally marking its demise. Grey and brown sticky clay with some grey fine sand and a little brown silt and coarse pebbles and cobbles [6279] overlay 6332, followed by an extensive dump of dark yellowish brown small fragments of decayed wood in a mixed matrix of dark greyish-brown pebbly sandy silt with large lenses of oyster shells set in dark brown silt with riverwashed sand adhering to the underlying waterfront timbers [6232].

Greyish brown organic clay [6053] sealed the east 6232, containing a 0.57m long decayed plank fragment [6085], below a mixed charcoal-flecked patchy yellow brick-earth and dark brown decayed wood with a compact scorched sandy gravel surface [6052]. This was followed by a mixed gravel with some sand and a little buff mortar [6051] forming a smooth, compact surface, perhaps as a replacement to 6052.

Dark brown sandy silt [6018] was deposited over the west of 6053, followed by similar brown sandy silt [6040]. To the south brown sandy silt with a little yellow brown brick-earth in lenses and containing oyster fragments [6019], also sealed 6053, with brown shelly sandy silt [6017] over it, and 6051. These organic dumps may have been less well preserved counterparts to the organic deposits to the east, washed down from the higher stratigraphy to the north. In that north area organic brownish grey silt with a little clay, coarse sand and chalk fragments and containing fragments of flint [5998] lapped over the north edge of 6232 in the area of the former inlet. Organic fibrous brown peat, with a little lensed coarse sand [5857] followed by dark brownish- grey sticky clay with a little silt [5849] also occupied this area, sealing 5998, apparently as a further attempt to level up the still existing hollow.
Finally, to the west, black pebbly organic sand and silt [3918]=4945 covered 4727 (VII.16), the robbing of the Period VI-VII stave revetment. A greenish-blown clay with a little light green clay and dark greyish black organic clay silt in pockets [3908]=3909, covered 3918 with further greyish brown organic silty clay [3383] sealing this, extending east to overlay gravel 6232. It contained random stakes [6101], [4109], [4191], [4192], and [4194]. The last three timbers may have had a structural function, as they formed three corners of a rectangle, although no further evidence was recovered to support this. 3383 was recorded in section also as [4821] overlying foreshore accumulation 4945 and earlier stratum 4822 (VII.16).

A second group of stakes [5876]-[5879], [5820] and [6001] was driven into 5857 to the north-east, associated with stakehole [6144] to the south. It had a sharply defined top, with steep sides meeting the uneven base in a curve and cut 3383. The latter was backfilled with grey sandy silt flecked with tile and bone [6141]. Immediately to the west lay stake [5652] with [5690] and [6125] nearby. These, with the exceptions of 5690 and 6125 may have formed part of a timber drain, forming two rough lines. A pebbly organic dark grey silt clay [5639] was deposited around 6144 and 5652, corresponding with dark greyish brown silt and some clay [5827] around the north group, 6001 et al.

Nearby, a squared post [5828] was set in 6232 packed at its base with dark grey pebbly clayey silt and some fine sand and containing charcoal flecks and slag [5829]. 5828 was set near the north end of a 1.30m north/south wattle panel [5819], 0.12m in height. A stake supported the panel centrally with a large ragstone cobble beneath, immediately south of the stake, apparently supported by two smaller stakes set beneath. The top of the feature sloped south from 1.74m to 1.20m OD. Possibly this feature represents a fenceline, since its height precludes the hurdle from being a drain lining. The levels along its west face were raised by a series of dumps, beginning with dark brown pebbly, chalk flecked, sandy silt with a little chay [5552]. Two deposits, dark brown silt flecked with shell and chalk [5293] and dark brown organic silt [5229] overlay 5552, with vivianite stained yellowish-brown and grey sand and silt containing light reddish brown brickearth lenses [5206] in turn sealing them. Dark brownish black organic silt containing small and medium fragments of wood, straw, fine and medium pebbles and small flint fragments [5170] was also on 5293.

Mixed blackish brown organic silt [5163] followed, sealing 5170, with dark brown silt [5146] and dark brown compact organic vivianite-stained silt [5140] next in sequence, both wet and greasy. Finally, a similar dark brownish grey silt, compact with occasional vivianite [5102] covered them. As a result of this dumping reaching a level of c. 1.39m OD in the west, the hurdling now resembled a low platform.

Fairly compact dark grey sand silt clay [6140] formed an external spread, possibly trampled over organic dumps 6038 and 3383 in the south. Light grey pure fine sand [5452] built up above waterfront backfill 5593, presumably indicating water action filtering through or over the new revetment at 1.12m to 1.40m OD. Similarly, grey sandy silt [5782] built up on the slopes to the north over organic dumps 6019 and 6040.

Further west, towards the limit of excavation, a deposit of variously sized pebbles in a little dark brown silt and coarse sand [3638] overlay the major organic horizon in the area 3383. It may form a rough surface after the latter was dumped. To the south, a small dump of bluish black silty coarse sand and a little structured charcoal flecked peat [3710] also overlay 3383,
with dark brown clay lensed with peat [3620] above this and 3638 in the east and light grey coarse sand [3637] probably water laid over the latter in the north. A more extensive dark brown clay [3669] overlay both 3620 and 3637. As a whole, these localised dumps and accumulations may result from the use of surface 3638.

A small patch of mottled tan brickearth and dark brown clay [3696] overlay 3669. In the south-west, it became sandier and flecked with chalk and charcoal and may have been distorted by later subsidence and slippage past this point.

It may represent patching of the underlying surface with two nearby small areas of organic, woody light brown sand and some sticky brown silt [3694] and light brown sandy clay and dark brown silt with a lens of dark brown clay and light grey fine sand towards its base [3694], both also over 3669, representing subsequent occupation, as did the overlying dark brown organic sticky clay with some silt [3605], which also sealed repair surface 3696. Neither graveling 3639 nor patch 3696 had counterparts in the immediate area. They can only therefore represent localised activities.

North-south slot [3566] intruded into 3605. It was rectangular, at least 1.4m long, south end truncated, and c. 0.15m wide with generally vertical sides and a flat base. It was filled with, in sequence, dark brownish-black silt with a lens of yellow sand [3569], decayed wood [3568]; and light grey fine sand [3569], possibly water laid; It represents the position of a north/south timber member, probably robbed, elsewhere decayed in situ, and subjected to water action after robbing. To the north-east a line of dark brown pebbly silt and some decayed wood in small fragments [3636] overlay 3637 and may represent another structural member. Together, they may suggest the position of a robbed tieback, corresponding to the timber seen to the east and north. Such a feature might also account for the underlying patches and small dumps concentrated in this area.

South of this activity, three long squared east/west beams were laid on the Period VII foreshore (4766, VII.13), c. 4m south of its converted waterfront. These timbers, from east/west [4920], [4848], [4719] formed a 6m line terminating just south and west of the 6471 structure, at 0.31m to -0.03m OD. Squared piles [5011]-[5015] retained the timbers to the south, although none were recorded south of 4920 (probably not uncovered).

They appear to have related to a series of cuts to the north. These included sub rectangular [4658], intruding beside timber 4719, which cut sharply at the top with steep sides meeting the base gradually at -1.03m OD. This was backfilled with greyish-brown pebbly clay silt with lenses of light greyish brown sand and clay [4657]. Further east, cutting dump 3918, was sub-rectangular cut [5100] with steep sides meeting the base sharply. This was deeper at the north edge, possibly where a post was originally set, at 1.07m OD, being filled with [5099], material not distinguished from the overlying 4505 in excavation.

East of 5100 lay a sub-rectangular cut [5087], also intruding into 3918, with a sharp break at top and bottom and steep sides, and absolute depth at -1.15m OD. It was backfilled with grey pebbly medium sand [5086]. Further east was sub-rectangular cut [5089] recorded in section as [5209] and cutting 3918. It had sharply cut north and west sides, shallower and more gradually curving to the south and bottomed at -1.20m OD. Dark greyish brown sandy silt and clay [5088] ([5208] in section) formed the fill.
To the east two spreads of loose pebbly light grey clay with a little sand [6537] and brown clay with a little coarse sand [6538] overlay 4920 and 4755 (VII.13) respectively. They overlay shallow depressions, which may be corresponding cut features, though not recorded as such.

These cuts and fills appear to have formed the basis for a series of upright timbers to the north of 4719 et al, possibly part of an earthfast post and plank revetment which would have continued east to about 6471 et al. 6471, in fact, was also a plank revetment, presumably retained by earthfast posts, although none were recovered (but VIII.2). However, whereas that structure was clearly backbraced, it seems possible that the west extension was front braced, with 4719 et al forming the subsidiary baseplate against which the feet of the braces were set. This marks the earliest usage of frontbracing on the site, although all revetment timbers, including posts, planks and braces were robbed. 4719 et al, however, remained in situ because they were by then covered with foreshore deposits.

The first of these, orange clayey coarse sandy and silty with gravel [4917] overlay 4766 (VII.13) south of the presumed line of the revetment, and was sealed by light grey pebbly fine to medium sand [4543], which also covered baseplate 4719. North of 4719 lay light grey pebbly medium sand [4542] on 4657 with browny grey silty medium sand with a little gravel [4587], a more extensive deposit overlying 4542 and 4543. Two deposits, a mottled mixture of light yellow, orange grey and green fine sand [4625] and dark orange coarse sand and medium pebbles [4501] sealed 4587 in turn. Nearby, a corresponding loose accumulation of light grey pebbly clay with a little coarse sand and containing chalk flecks [6174] sealed in base plate 4920. The deposits form a foreshore accumulation in front of the new waterfront at c. 0.0m OD. In section they were recorded at the limit of excavation as off-white/light grey, medium and coarse sand [4557] and orange and grey fine and medium sand in patches [4716].

At the west edge of 6174, a much truncated east/west linear cut [4548] with steep sides breaking quite sharply with the flat base at -0.84m OD intruded into 6174 and foreshore 3918.

This equated with three cuts seen in section - [5237], which appeared to intrude into 4821 (.....) and [5403], cutting 4784 (.....) and [3164], cutting 3918.

When seen in plan, the cut was filled with highly organic dark brown silt with some clay, streaked with light brown peat and strands of wood fibre [4505]. Further west, dark bluish black pebbly clay with a little medium sand [6151] overlying 4766 (VII.13) may have been either a continuation of the fill 4505, disturbed by later riverine activity, or a layer of the preceding period truncated by the cut. When seen in section the cut was filled with dark grey silt [5240] then dark greyish black structured peat [3781] in one area; dark brownish grey structured peaty clay with a little silt [4861] below dark grey silt and some clay [4859] in another; and black silt [3163] and grey silt with a little clay and sand [5207] below dark brown organic material [3143] in the third. The cut 5458 et al must be for a waterfront structure presumably a modification or replacement of the proposed post and plank feature discussed above.

VIII.2 New revetment extension in the south-east
The 59 contexts in this group provide evidence for the extension of the Period VII waterfront to the south, perpetuating the line of the east inlet lining. The VIII.1 east/west waterfront was probably still in use, with the exception of the small section which now lay behind (east) the new revetment. Evidence was recovered for the apparent collapse of the VIII.1 structure in that area prior to the dumping of refuse and building material behind the VIII.2 waterfront which was much better constructed than its predecessor, with more extensive use of jointing indicating technological advance. A north/south brace may have been inserted at this time to support the east end of the remaining VIII.1 structure at its junction with the new north/south waterfront. One advance on the earlier Period VIII structure, which was frontbraced, was the change to individual baseplates for the feet of the raked shores, and mortised baseplate for the main structure, instead of earthfast uprights and braces.

Several reused structural timber fragments \([5725, 5729, 5731-5736, 5739]\) were laid east/west on the Period VII foreshore, (4766, VIII.13) forming an underpinning for north/south mortised timber \([5721]\), at least 4m in length. Squared piles \([5738, 5684, 5730, 5724, 5722, 5666]\) and further wedges \([5737, 5723]\) were positioned along the west edge of 5721 to prevent its being displaced to the west. 5766, situated c. 2m south of 5721 indicated that the timber, or a south extension, originally continued further than was recorded, sloping at c. 1 in 10 down into the river.

A series of squared, tenoned timbers between 2.03m and 1.13m in length was set vertically in place in mortises cut c. 0.40m apart in 5721, and held in place by pegs. These comprised, from north to south, \([5675, 5676, 5677, 5678, 5679, 5680, 5681]\) and \([5682]\).

2.6m to the west, a horizontal squared plank \([5711]\) was laid east/west on the foreshore, holding a long roughly dressed brace \([5710]\), the east end of which was housed in a mortise cut in the west face of upright 5679. A small circular pile \([5606]\) was set immediately west of 5711 to hold this front brace structure in position. A similar unit, consisting of subsidiary baseplate \([6511]\), brace \([5683]\) and pile \([6512]\) retained upright 5682 to the south. A wedge was driven into the mortise cut in 6511 to hold 5683 giving additional rigidity, with three small wedges in 5711.

A series of horizontal planks \([5742, 5672, 5670, 5673, 5674, 5669, 5667, 5668]\), were then pegged to the uprights to complete the new revetment. Some of the timbers utilised bore signs of apparent reuse, possibly in an earlier revetment on site.

To the north, a squared, pointed 0.95m random timber \([6470]\) was deposited on the Period VII foreshore immediately south of the VIII.1 waterfront, and covered by dark greyish brown coarse sand clay and silt containing large and small tile fragments \([5362]\). This contained
2.21m east/west plank fragment [5780], which had several features in common with the VIII.1 revetment immediately north. It appears most likely that 5780 was a displaced part of the cladding, with 6470 probably a collapsed earthfast upright which originally retained the revetment, but whose collapse hastened its demise. This indicates that VIII.2 was an extension to the waterfront postdating the collapse of the VIII.1 structure.

Dark brownish-grey silt, sand and clay in equal proportions and somewhat less tile in fragments [5311] was deposited over 5362. This material was similar to that underlying, in its building material content, probably representing demolition debris (not necessarily local). It contained the remains of six structural timbers [5529], [5531], [5538], [5539] and [5347]. These may well derive from the same structure as the other building material. Finally, mixed orangey-yellow organic silt and clay, light greyish brown medium sand and silt containing moderate, large and small tile fragments [5018] extended over 5311. These layers, although extending behind 572l had no proven stratigraphic relationship with the north/south revetment. Given the evidence for possible decay of the VII.1 east/west structure, and the dumps being confined to its east side, they would seem to form an infill for its replacement.

In the north two upright posts set at c. 40° to the vertical [6877] and [6416] were driven into the Period VII foreshore south of the west end of the VIII.1 plank revetment, forming a base for a north/south raked timber [6415] 2.4m in length. The broken north end presumably would have been located in a housing cut in a subsequently robbed post, possibly supporting the junction of the new revetment with the VIII.1 structure to the west, following the demise of the east section. Foreshore material including light grey clay, some fine sand and a little silt [6396] was deposited over the brace and covered 6538, 6537, (VIII.1) followed by light grey clay containing small sand lenses [6050], correlating with loose light yellow coarse sand with a little light brown sand silt and containing shell and tile fragments [6153] directly over the Period VII foreshore. These form later foreshore accumulations after VIII.1 modifications but before it was robbed.

Note: the description of this revetment, which was later called Waterfront 15, is left here in period VIII.2, but it was later argued that the construction of Waterfront 15 was broadly contemporary with another revetment, Waterfront 14, which connected with it to the west. This has been accepted, so the plan of Waterfront 15 is found on the same plan as Waterfront 14, Fig 7.

VIII.3 Extension of waterfront in centre of the site

(Fig 3)

6049, 6129, 6124, 6048, 6047, 5740, 6130, 6131, 6152, 6031, 6532, 6414, 6364, 6021, 6012, 6013, 5957.
Summary

The 18 contexts of VIII.3 comprise evidence for the partial robbing of the remaining east/west VIII.1 waterfront and the addition or repositioning of a section of north/south waterfront linking the VIII.2 revetment to the main bank to compensate for the removal of the structure to the west. It thus created a continuous, if poorly constructed frontage to the east bank, extending the line of the earlier inlet well into the river.

Description

Immediately west of VIII.2, a longitudinal east/west cut [6049]=[6129] with steeply sloping south side and near vertical north side 0.74m deep meeting the flat base in a gradual break at -
0.15m OD. intruded into the VIII.2 foreshore 6052 (VIII.2) and 6153 (VIII.2) respectively. It apparently robbed the east portion of the VIII.1 frontbrace revetment, continuing to remove the remaining section further west. Fills were, in the west, loose light yellow medium sand over a light greyish brown clay with a little sand and fine pebbles and tile fragments [6124], below light brown medium sandy silt and sand containing fine pebble and small fragments and flecks of mortar with a lower band of dark brown clay [6094]. In the east, fills were mixed brown silt, sand and light grey pebbles and containing large tile fragments [6048], topped by light brown fine sand over very small wood fragments in a 0.10m lens [6047]. The latter was thought to be waterlain, indicating a partially open cut. Grey sand with some fine to coarse gravels and a little silt [5740] accumulated above 6047 as foreshore material.

A north/south linear cut [6130], truncated to north, south and east but with steep west side meeting base at 0.17m O.D. along a sharply defined edge, intruded into the west fills of 6049/6129, packed with light brownish-blue pebbly clay [6131]. North/south horizontal timber [6152], 2.12m long with scarfed ends and two pegged mortises, was laid on the packing material. Its function is unclear, although it presumably supported a superstructure, completely robbed subsequently, with 6130 cut for its insertion.

To the east, north/south linear cut [6031] with sharp break of slope at top and bottom, near vertical west side and flat base intruded into the initial period VIII.1 foreshore 6538, 6332 (VIII.1) just to the west of the VIII.2 brace. A north/south timber baseplate [6532] lay along the unrecorded east edge of the cut, lapping the former line of the VIII.1 revetments to east and west, and continuing south to the VIII.2 structure. Squared uprights [6414], [6364], were inserted along the east edge of the baseplate within the cut and packed with dark grey silt with some medium sand and containing small to large tile fragments [6021]. This was compacted to secure the timbers. Piles [6012], [6013] and [5957] were then inserted into the south fill to the east of 6532, as a form of consolidation, possibly with a wattle cladding. In excavation, 6031 appeared to cut 6032 (below VIII.12) representing the robbing of the period VIII revetment. However, this is probably due to a confusion between robbing and construction cuts in the area. So this relationship has been ignored in this instance.

This group of timbers presumably represented attempts to infill the gap between the north of the VIII.2 revetment and the main bank, to form a secure north/south frontage following the robbing of the VIII.1 structure to the west. It seems likely that this replaced an earlier section of VIII.2 date otherwise there would have been a 3m gap. It is possible that 6532 et al were the original timbers subsequently repositioned. Presumably the original uprights were cladded with planking or wattle, although none remained in situ.

**VIII.4 New surfaces in use in north-east of site**

6077, 6065, 6016, 5781, 5823, 5814, 5540, 5825, 5817, 5797, 5813, 5703, 5746, 5761, 5621, 5687, 5638, 5629, 5624, 5620, 5592, 5591, 5586, 5585, 5554, 5543, 5637, 5645, 5605, 5646, 5607, 5598, 5597, 5609, 5608, 5578, 5491, 5541, 5472, 5489, 5463, 5443, 5329, 5373, 5467, 5151, 5092.

**Description**
Towards the centre of the site, a compacted sandy gravel spread containing small fragments of chalk and tile [6077] overlay organic dump 3383 (VIII.1). Further east, another patch of compacted medium pebbles, dark grey coarse sand and dark greyish brown sandy silt in roughly equal proportions [6065] overlay 6140 (VIII.1) tread on the main surfaces laid at the start of period VIII. Further east still a looser layer of brown silt containing fine and medium pebbles and flecks of chalk and small fragments of yellow mortar [6016] overlay the corresponding horizon in that area (6040 -VIII.1). This was overlapped to the south by dark grey pebbly sandy silt [5781], which elsewhere overlay tread 5782 (VIII.1), then further dark greyish brown pebbly sandy silt [5823] and finally a spread of light creamy yellow sandy mortar [5814]. This spread also overlay dump 5827 (VIII.1)

To the south of 5781, a small patch of greyish brown clayey silt and a little fine sand and containing fine pebbles and flecks of shell [5540] overlay organic dump 5593 (VII.1), with a dump of brown clayey silt and some light brown sand and containing cobble-sized flints, coarse pebbles and oyster shell [5510] on top. The latter had no definable relationship with 5781 just to the north, but must be part of the same gravel horizon and correlates with the previously mentioned spreads to the west to form a major new metalling, sloping down to the foreshore area to the south. It overlay the occupation tread and organic dumps on top of the initial surfacing of period VIII, elsewhere directly sealing that surfacing. It must therefore represent a replacement of 6232 et al.

To the north, brown silt containing fine pebbles and chalk flecks [5825] overlay 6035, 5959 and 6084 (all VIII.15), the last layer also overlain by a pebbly patch of mixed yellowish grey/brown silt [5817] to the east. Finally, an area of yellowish brown medium sand and a few fine pebbles and medium pebbles 5797 overlay both 5825 and mortar 5814. These gravel patches are either outliers of the main surface or repairs to it. The square cut [5813] which also intruded into mortar 5814, was 0.11m across and had vertical sides 0.15m deep and an irregular base which sloped down towards the south-east. Its fill was not distinguishable from the sealing layer. It must represent an installation into 5814, but there were no associated features to aid interpretation.

An extensive dump of dark greyish brown organic silt and a few angular flints averaging 50mm across and containing patches of coarse sand and whole and broken shells [5703] overlay patch 5797, elsewhere filling in much of the lower inlet area to the west. It was capped by a spread of black silt with a little charcoal and coarse sand and containing fragments of burnt wood [5746] which continued eastward to cover repairs 5817 et al and may represent the initial use of the area. The burnt material could imply an adjacent industrial process.

A dump of dark reddish brown clay with some silt with a distinctively smooth surface [5671] capped 5796 and could represent a floor make-up or the destroyed remains of a hearth area. To the west, a large area of solid, highly compact slag mixed with a little dark greyish black ash or powdered slag [5621] overlay organic dump 5703 in the previous inlet area. It is difficult to decide whether this material was dumped from elsewhere to give a surface or derived from processes operating in the immediate vicinity. But its compaction and regularity could suggest that it was put down immediately after being created. If it is evidence for industrial production, it seems likely to be contemporary with either spread 5746 or burnt clay 5671.
In the north of the site, a spread of mottled light greyish brown charcoal-flecked silt [5687] below grey sticky clay with a little light greenish yellow sandy silt and, in the north especially, light greyish white ash, both in lenses, [5638] overlay clay 5671 and may result from its use. Correspondingly, grey sticky clay containing small and large fragments of partially decayed wood, [5629] below dark grey silt containing flecks of charcoal, coal and decayed wood which gave it a gritty texture [5624] overlay 5746 and represent similar use of the area to the south. Finally, an extensive deposit of brown clay and grey silt [5620] overlay both 5624 and 5638, resulting from the final use of the area. Once again, the various inclusions concentrated in these layers suggest the incorporation of industrial residues.

Two cuts intruded into these accumulations. [5592], cutting 5620, was sub-rectangular, c. 0.80m north/south by 0.40m east/west. It had irregular sides and base, the former up to 0.20m deep, the latter sloping gradually to the south-west, and was filled with dark greyish brown silt and some clay [5591]. To the north-east [5586] intruded into 5687. It was probably originally roughly circular (only south-west quadrant within the excavation) and perhaps c. 0.50m in diameter. It had an irregular base and sides c. 0.10m deep and was filled with pebbly yellow medium sand and a little orangey silt [5585]. Both features could be rough, rather large but shallow post holes. However their irregularity and profile suggest, particularly in the former case, that they may be industrial pits, probably related to the processes already suggested in the area.

In the north-east corner of the site grey clay and silt with a little orangey fine sand [5554] then grey silt and yellow fine sand [5543] overlay the fill of cut 5586 and are mainly localized to its area. Further west, other small patches of grey clayey silt and greenish orange fine sand [5637] and grey silt and olive green fine sand flecked with charcoal [5645] overlay 5638 and 5621 respectively, both covered by greenish grey silt and some clay [5605]. Finally, to the south, another small patch of green silt and some grey silt and containing small fragments of charcoal [5646] overlay clay 5671. These small accumulations represent later use of the area, apparently after cut 5586 was out of use. But they avoid the position of cut 5592, which could therefore have continued throughout their period of deposition.

To the west, an extensive, very compact slab of slag conglomerates with a very hard, orange coloured surface [5667] overlapped the edge of 5605 and continued across the former inlet area. Once again, a nearby source for this material might be suggested.

At its west edge, 5607 was cut by two features. [5598] was roughly circular, c.0.13m across, with steep sides up to 0.14m deep curving to a rounded base. It was filled with dark grey silt and a few small flints and contained coarse white and orange sand and one large flint fragment up to 0.18m across [5597]. This last could be packing and the whole feature seems likely to be a post position, rather than a post hole, given its shallowness. Just to the north lay [5609]. This was probably circular (north half cut away), c. 30m across, with sloping sides up to .15m deep meeting at a curved base. It was filled with dark grey silt and a little coarse sand and containing small flint fragments [5608]. The size of both features suggests post positions. They directly overlay the line of the west side of the now disused inlet. They could be part of a fence line running north from this point, possibly a property boundary whose position was dictated by that of the earlier inlet.
To the south of these cuts, dark greyish brown peat containing medium and fine sand and small and large fragments of wood [5578] was dumped on the slag concretion 5607, continuing east to overlap trodden layer 5620.

5578 was capped in the west by compacted dark brown pebbly sandy silt with a little clay and containing patches of hard burnt red clay [5491]. It had a cindery texture when broken up and once again could be derived from a nearby industrial process. Further south, a deposit of dark grey ash in small particles and compacted lumps and containing large lumps of greyish green, and occasionally bluish, slag [5541] also overlay 5578. It could be a counterpart of 5491 to the north, becoming more broken up in the south area.

A spread of dark greyish brown pebbly sandy silt [5472] overlay both slag layers to form a gravel repair in the area. Immediately to the north another patch of brown pebbly sandy silt [5489] overlapping posthole 5598 could be a counterpart. 5489 seems to avoid the post position itself and may be intentionally laid south of that cut, with its associated fence line running north. A sequence of blackish brown silt and coal or charcoal [5463], then greyish brown sandy silt containing small fragments of coal or charcoal [5443] and finally soft dark brown silt [5329] on gravel 5472 represent later use of this area.

To the south-west, dark brown sandy silt [5373] overlay gravel 5510, and 5452 (VIII.1). Nearby was a sequence of light greenish grey pebbly fine sand containing a lens of organic material [5467], then dark brown sandy structured peat [5151] and finally light greenish grey silt [5092] over gravel 5540. These must represent the use of the new metalling sometime during VIII.4, though exactly how they relate to the sequence of industrial use and repair to the north cannot be decided. The more southerly layers had been subjected to water action, showing that this area was on the foreshore during that time.

**VIII.5 Further new surfaces in the north-east of the site**

5328, 5326, 5330, 5372, 5384, 5368, 4868, 5502, 5358, 5354, 5285, 5337, 5468, 5380, 5346, 5357, 5338, 5307, 5291, 5296, 5268, 5219, 5234, 5215, 5169, 5327, 5319, 5308, 5153, 5091, 5062, 5055.

**Description**

In the north part of the former inlet area, a compact spread of medium and fine pebbles in some yellow coarse sand and a little brown silt and also containing coarse pebbles [5328] overlay 5329 (VIII.4), capped with a mixed pebbly layer of light yellow fine sand and dark brown silt [5326]. Further east was a small area of compacted dark grey and rusty orange gravel and some medium sand [5330] over 5443 (VIII.4), below a layer of compacted lumps of rusty orange sand and cobble sized stones [5372]. The lumps may be slag. Further east, a larger spread of pebbly grey silt [5384] overlay 5646, 5578 (VIII.4). Finally, both 5372 and 5384 were overlain in the south by grey pebbly sandy silt [5368]. These strata form a horizon of gravel make-ups covering the various accumulations on the metallings of VIII.4. They must therefore form a replacement surfacing of this north-east area.

To the east of them, a pebbly layer of grey silt and some pale grey and yellow mortar in lenses and small patches [4868] overlay 5620 (VIII.4). To its south, dark greyish brown pebbly
sandy silt [5502] overlay 5543, 5591 (both VIII.4). South of this, a mixed dump of cobbles, pebbles and large fragments of flint in a matrix of brown sand and some silt [5358] overlay 5373 (VIII.4) capped with a patch of brown pebbly clayey silt [5354]. These make-ups form metallings corresponding to the new surfaces to their north and west. The increased size of stones which they contain to the south is due to occupying a sloping foreshore zone at this point. The physical characteristic of the surfacing are the same as that of material interpreted as patching in VIII.4. But their extensive nature implies a new phase of such surfacing activity.

A spread of greyish brown silt with sand, especially in the south-east [5285] overlay gravels 5368, 5326 and may represent its use. To the east, lumps and fragments of orangey brown round slag [5337] overlay 5502, with, to the north, in this layer of dark grey silt [5468] over 4868 and to the south, dark grey charcoal flecked silt and a little slag in lumps [5380] over gravel 5502. Dark greyish blue sandy silt [5346] capped this, elsewhere covering gravel 5354, primarily associated with dark grey silt and charcoal [5357] over gravel 5502 further east. Finally, an extensive layer of compact dark grey charcoal-flecked silt [5338] overlay 5346, 5357, below mixed layer of grey silt and dark grey silt flecked with charcoal and chalk [5307] then compact light grey pebbly charcoal-flecked silt [5291]. All of these layers must represent use of the resurfacing of this phase. 5285 in the west seems to be tread. But the spreads to the east contain significant quantities of charcoal and slag, suggesting intensive industrial use of the area on successive occasions. They lie exclusively east of the former inlet area, merely overlapping the earlier 5285 at its east edge on the line of the inlets boundary. The industrial processes may therefore be confined to the property on that side.

A small patch of greyish green pebbly sandy silt [5296] overlay 5285 at this boundary point, capped with dark grey pebbly silt containing cobbles and patches of iron slag [5268] which also overlay accumulation 5291. Dark brownish black pebbly silt and some charcoal, the latter especially concentrated in the top 5mm of the layer. [5219] overlay 5268 and also spread along the boundary zone.

These layers could be further evidence for industrial use, or rough repairs to surfaces at the edge of this east property. 5219 was cut on its west edge by [5234], an irregular oval intrusion, c.90m north/south by 0.60m east/west with irregular sides and uneven base. It was filled with grey sandy silt containing lenses of yellowish orange iron staining [5215], with the greenish grey charcoal flecked silt [5169] on top representing a spread of occupation debris across the area after the demise of this cut. 5234 could represent a small pit analogous to the earlier 5592 and related to industry in the area. However, given its position above the property division, it is more likely to relate to the robbing of an associated structural division.

In the south of the area, brown humic silt [5327] overlapped the south edge of accumulation 5346, elsewhere covering surface 5358 or earlier stratigraphy. To the immediate west was light brownish orange silt [5319]. It contained an increasing proportion of straw towards the east [5319], conversely, the small numbers of insects which it contained in the east increased towards the west. This layer overlay 5652 (VIII.1) but, though less securely stratified, is likely to be broadly contemporary with the adjacent 5327, especially since both are overlain by dark brown humic silt containing small fragments of wood (twigs? straw) [5308]. As a whole, this group seem likely to be contemporary with dark brownish grey structured peat and silt [5153] which overlay 5540 (VIII.4) and 5552 (VIII.1) to the south.
Finally, even further south, dark brown peat and fine sandy silt [5091] overlay 5092 (VIII.4) below greyish brown oyster-flecked peat and some medium sandy silt and containing patches of decayed wood/organic material [5062]. This continued north to overlap the edge of 5153 and was itself sealed by light greyish green pure fine sand [5055]. These organic dumps are obviously concentrated in the shelving foreshore area. The purer sands mixed with them, notably 5055, suggest they incorporate waterlain material and must represent another phase of activity after VIII.4 and thus be broadly contemporary with accumulation 5338 et al to the north. They are however different in character from the ‘industrial’ use. Their organic nature could be due to waterlogging, which would not have allowed similar preservation in the north. However, the lack of charcoal and industrial residues suggests a real difference. Organic material was being dumped on the lower foreshore area in the south whilst the dry land to the north was used for the disposal of industrial waste.

VIII.6 Further new surfaces in the north-east and implied division to west

5129, 5093, 5212, 5175, 5174, 5173, 5195, 5192, 5187, 5186, 5189, 5188, 5191, 5190, 5195, 5194, 5218, 4958, 4957, 4951, 4950, 5180, 5178, 4943, 4850, 4827, 4798, 4801, 4802, 4783, 4631, 5033, 5029, 5025, 5002, 4982, 5035, 5040, 5035, 5040, 5031, 5024, 4942, 5164.

Description

Towards the centre of the site, at the north end of it a layer of dark greyish brown pebbly sand and silt [5129] was laid over 5169 (VIII.5). It had a definite east edge laid against the line of the underlying revetment, showing that the previously implied property boundary continued in use.

To the east, dark brownish grey pebbly, charcoal-flecked sand and silt with patches of orangey red fine sand [5093] was also laid over 5169, whilst further east still a patch of mixed gravel and grey silt and containing oyster shells [5212] overlay accumulation 5268 (VIII.5). These form a new surfacing in the area east of the main property boundary. Since both sets of surfaces are extensive, they might be seen as renewal rather than repair and are thus suggested as belonging to a new phase of activity.

A series of six stakes intruded into 5169 (VIII.5) in the area between the two sets of new metalling. [5175] was sub-rectangular 0.11m north-south by 60mm east-west with sides 0.17m deep sloping to a flat base. It had stake [5174] driven into it. This timber had a peg hole in its side, though it is unclear whether the stake is in its primary position, and was packed around with dark brown silt [5173]. It overlay the position of the earlier revetment, and later modification to this line suggested by cut 5609 (VIII.4). To the south lay oval cut [5193] up to 40mm across. It had steep sides 0.10m deep sloping towards the south-east and was filled with brown silt [5192]. Nearby, circular cut [5187], 70mm across with sides 40mm deep sloping in at 45° to a pointed base was filled with dark brown sandy silt [5186]. [5189] was roughly circular, up to 70mm across with sides 40mm deep sloping to a rounded base and filled with brown sandy silt [5188]. [5191] was roughly circular, up to 50mm across, with gradually sloping sides 40mm deep to a pointed base and was filled with dark brown silt [5190]. These three stakes formed a diagonal line running north-west/south-east. Finally to the east, [5195] was circular, 30mm across, with gradually sloping sides 40mm deep meeting at a pointed base and filled with light brown sandy silt [5194].
The interpretation of all of these insubstantial features is impossible. With the exception of 5175 to the north, they cannot be definitely associated with any known or implied structural divisions. 5193 et al cluster in one area and this is south of the contemporary metalling 5093. But they make no definite pattern in themselves.

In the south, towards the sloping foreshore, a mixed layer flecked with oyster shell of light grey fine sand and silt and some light tan to grey brickearth [5218] was dumped above organic material 5327 (VIII.5) and may be contemporary with the gravel surfacings 5093 etc to the north. It was overlain by a dump of brown fibrous decayed wood and some silt [5198], maybe the result of using the surface.

Two cuts intruded into 5198. [4958] was roughly linear, but irregular, at least 0.90m long (south end cut away) and .50m wide. It had irregularly sloping sides with an even base sloping down to the south and was filled with grey sandy silt containing large oyster shale fragments [4957]. It could relate to the insertion of some element of a water front revetment, since it is on the same line of such a feature to its south, or to the modification of such a structure. Further east was [4951], a regular square .32m across with regular sides sloping in to a flat base and was filled with whole oyster shells in a matrix of dark grey silt [4950]. Its structural implications are unclear, unless it relates to a feature bracing the north end of the newly modified revetment to the east suggested by 4958.

To the south ‘cut’ [5180] also appeared to intrude into 5198. This was an irregular rectangle, at least 0.80m east west (east side beyond limit of excavation) and 1.00m north-south (south edge not definable) with gradually sloping sides and a base which sloped markedly down to the south. In spite of the irregularly aligned but definable west side, it is likely that this ‘cut’ represents merely the profile of the foreshore at this point, perhaps with an edge created by tidal/riverine action at its west edge. Otherwise, its interpretation is unknown. It was filled with light brownish grey oyster flecked fine sandy silt [5178], itself covered by a more general layer of sticky brownish grey silt flecked with oyster shell and organic material (straw, wood) [4943], also sealing 5153 (VIII.5). Nearby brown organic fine sandy silt flecked with oyster shell [4850] was dumped above surface 5212, and was itself overlain by an extensive dump of whole oyster shells, especially in the east, compacted into a matrix of sticky grey silt [4827]. This overlapped 4943 and cuts 4951, 4958 to the north and was itself overlain by sticky dark brown silty clay [4798] in the north and sticky dark brownish grey silt flecked with crushed oyster shell [4801] then looser grey silty sand flecked with crushed oyster shell and fine pebbles [4802] in the south on the lower foreshore.

As a whole, this sequence of generally, organic, deposits often flecked with oyster shell, form a later sequence of dumps corresponding to 5153 et al (VIII.5) in the preceding phase. Pebbly brown sand with some dark brown silt overlay 4802, possibly a patching of the area, below brown greasy silt flecked with oyster shell and chalk [4631], implying the continuance of the organic dumping sequence.

To the west of this dumping sequence, dark brownish grey silt [5033] below brown sand and dark brown silt [5029] and dark brown silt with some clay [5025] overlay 5102 and 5206 (VIII.1). The second layer was also overlain by grey silt and some rusty orange sandy silt in patches [5002] below compacted black silt containing carbonised inclusions [4982] in the
north. This sequence of deposition corresponds to that seen to the east with 4631 et al and suggests no intervening structural division, as is seen subsequently. These organic dumps are therefore interpreted as crossing the whole area and belonging to a later aspect of VIII.6.

Finally, in the north, a sequence of light greyish brown oyster flecked medium sand and silt [5035], overlapped by dark brown charcoal flecked silt [5040] then a pebbly mixture of charcoal flecks, some grey silt and a little slag [5031] below greenish grey sandy silt [5024] and finally light greyish green silt containing small fragments of charcoal [4942] overlay surfaces 5129 laid at the start of this phase. As a whole they must be broadly contemporary with greyish brown pebbly silty peat [5164] which overlay post holes 5195 et al. All represent the use of this dry land area corresponding to the dumping of the organic material on the foreshore to the south. In plan, these accumulations run up to the major property division to their west, suggesting its continuing relevance throughout VIII.6.

VIII.7 Stakes, property divisions and occupation accumulations in the north-east

5071, 5070, 4981, 4980, 4983, 4967, 5064, 5063, 4546, 4545, 4544, 5001, 4486, 5148, 4955, 4935, 4846, 5007, 4918, 4912, 4890, 4864, 4829, 4435, 4874, 4954, 4922, 4910, 4906, 5016, 5017, 4966, 5039, 4893, 4847, 4795, 4794, 4804, 4775, 4796, 4048, 5006, 4987, 4928, 4921, 4842, 4806, 4773, 4715, 4679, 4762, 4837, 4728, 4530, 4529, 4457, 4431, 4438.

Description

In the north-east part of the site, four cuts intruded into 5035, which accumulated at the end of VIII.6. [5071] was roughly circular, c. 0.12m across, with sloping sides c. 0.12m deep and was filled with greyish brown lightly sticky silty fine sand [5070]. Just to the north, [4981] was sub-square, c. 0.11m across, with nearly vertical sides 0.15m deep and a pointed base. It was filled with dark brown clayey silt [4980]. Both these features lie on the line of a division in later stratigraphy and may be part of a fence line reinforcing this boundary. Further north, [4983] was rectangular, 0.30m north-south by 0.10m east-west, with steep sides and a pointed base. It was filled with a mixed layer of compact light grey silt and some fine sand [4967].

Finally, to the north-east, [5064] was semi circular c. 0.90m across with roughly vertical sides up to 0.12m deep and a pointed base. It was filled with light greyish brown sandy silt [5063]. The implications of these last two stakes is unclear.

Finally, to the west, [4546] cut 5024 (VIII.6). It was circular 0.11m across with nearly vertical sides and contained upright driven stake [4545] packed with brown medium sand and silt containing patches of decayed wood [4544]. It lay immediately adjacent to the west edge of the now disused inlet and may represent a reinforcing of that line, which continued to influence activities in this area.

To the south and east, three reused oak planks [5001] were laid flat on 5102 (VIII.1), one on top of the other. They formed a base for vertical post [4986] again reused, set towards their south end and they represent a new structural division on this line. This could have been created at any time after VIII.1. However, horizontal stratigraphy to the north, up to and including VIII.6, crossed the north extension of this line. This suggests that 5001, 4986 did not exist at that time. Its only with stratigraphy assigned to VIII.7 on independent grounds.
that such a division is obeyed in the north, so the timbers are suggested as being added at this later time.

Towards that north area, greyish tan clay with a little silt and skim of organic tread on top [5148] was laid above [5164] (VIII.6) and may be a make-up contemporary with the insertion of the timbers.

To their west, brown silt flecked with mortar, shell and vivianite [4955] was dumped against timbers of 5001, also overlying 4982 (VIII.6). Dark brownish grey silt [4935] overlay this, below greasy brown silt containing wood fragments [4846]. To the south, pebbly grey silt and brown medium sand [5007] then brown pebbly silt [4918] overlay 5025 (VIII.6) 5025 was also overlain by 4985, so 4935, 4846, and 5007, 4918 must be broadly contemporary, especially as all are sealed by dark brownish grey fine sand and silt [4912], then pebbly dark greyish brown sand and some silt containing flint fragments [4890] followed by compacted dark brown silt [4864] and finally compacted dark greyish brown silt and some sand [4829]. This whole sequence of small dumps must correlate with compacted dark greyish blue silt [4435] over 4955 to the north and light brownish grey silt [4874] over 5025 (VIII.6) to the south. As a whole, they constitute the initial dumping against the newly created division on the line of timbers 5001.

To their north, dark brown sandy silt containing lenses of orange yellow silt [4954] overlay post holes 5071, 4981, below greyish brown silt [4922], which continued north to seal cut 4983. This was overlain by greyish brown fine sandy silt containing flecks of charcoal, light tan brick-earth and oyster shell [4910] and finally light green stained grey fine sandy silt [4906] which continued north to cover post hole 5064. These accumulations have a common east edge which obeys the line of 5001 projected north, suggesting that they correspond to the dumps 4829 et al to the south. Their lower organic content could be due to lying in a higher area less subject to waterlogging.

To the east, a spread of compact dark grey charcoal flecked silt [5017] overlay 5268 (VIII.5), as did nearby light greeny grey silt flecked with charcoal oyster shell and chalk [5016]. The latter was overlain by further light greenish grey medium sand and silt flecked with charcoal and ironpanning [4966]. These three represent use of the north-east area contemporary with 4906 et al further west, but accumulating to less depth, implying less intensive occupation.

Further south, similar grey medium sandy silt flecked with charcoal, oyster shell and chalk [5039] overlay 5164 (VIII.6), below dark brown silt flecked with chalk and oyster shell [4893] which also just overlapped the edge of 4910 in the west. This was capped with a mixed layer of brown woody fine sandy silt and some grey sandy silt [4847] which also overlay brick-earth 5148 also, then dark brown scorched sandy silt flecked with organic material and charcoal [4795] below yellow charcoal flecked sand and mortar [4794]. To the east, a streaky layer of greasy greyish brown charcoal flecked fine sandy silt [4804] also overlay 4847, but generally avoided the site of brick-earth 5148 and may represent occupation material swept off that surface. Grey charcoal-flecked sandy silt [4775] overlay this and 4794 to represent final occupation of the area. To the north, a small patch of cobble sized stones and pebbles set in some greyish brown sandy silt [4796] which overlay 4804 would be a related post pad or localised stony dump. This evidence suggests that, whilst material was being dumped on the narrow strip to the west, this east area was being used in a piecemeal way in the vicinity of
surface 5128. In that strip, greenish grey sandy silt [4048] accumulated above 4906, also continuing east to overlay the edge of 4966, but was otherwise confined solely to this west area. To the west of that strip, above the area of the former inlet, a spread of mottled grey and green silt containing large patches of crushed yellow mortar and in one area a lens of charcoal and slag [5006] overlay 5024 (VIII.6), with further dark grey silt and reddish orange rusty material (? iron slag) [4987] on top. Dark greyish brown sandy silt [4928] on this also overlapped the edge of accumulation 4910 in the west, which was confined to the previously mentioned strip.

Above 4928 was a sequence of dark brown silt containing small lenses of yellowish orange silt [4921]; brownish grey pebbly sandy silt [4842]; orangey yellow sandy silt sometimes mottled grey and green, and containing large tile fragments [4806]; grey silt and some charcoal flecks in patches and lenses and containing fine to medium pebbles and lumps of slag in places [4773], the slag giving it a brown stained appearance 4773 was overlain by patches of dark grey pebbly charcoal-flecked silt [4715] in the north and greenish grey pebbly charcoal-flecked silt [4679] further south. These layers represent the use of the inlet area, possibly associated with industrial activity. They formed an almost vertical face in places with the stratigraphy 4048 and below to the east, showing again the existence of an important property boundary along that line.

A dump of cobbles set in some grey silt [4762] overlay accumulation 4773. They were stained with iron, and in places were concreted together by the associated slag. Most stones were flint, though there were a few ragstones, and in the south, limestones. This formed a very rough surfacing or repair in the slightly lower area towards the south of the former inlet. Rusty orange slag forming a compact crust and a little charcoal in small fragments [4837] overlay 4762, as did dark grey silt flecked with pebbles and mussel shell [4728] to the south. Both were overlain by grey silt and a little charcoal in flecks and containing small patches of tan brickearth and iron staining [4530]. A spread of greenish grey silt and a little charcoal in flecks and flecked with oyster shell [4529] which overlay 4762 and 4715, 4544 may be roughly contemporary with 4530, with all this group representing the use of rough cobbly make-up 4762.

Another dump of cobbles set in a little orangey brown silt [4457] overlay 4530, 4529, suggesting a repetition of the repair process. The dark brown silt [4431] on this shows its later use.

Finally, to the west, a small area of greenish yellow brown silt with some variously sized pebbles and a little sand [4438] overlay 4448 (VII.12). The pebbles in its surface were rounded by use, and suggest a gravel patching. This layer has much stratigraphic latitude and could belong to anywhere within the initial stages of period VIII. Given overlying correlations, it cannot be later than VIII.7.

VIII.8 Stakes and accumulation in the north-east

(Fig 4)
Towards the north-east part of the site a layer of light tan brick-earth with a little grey silt in patches [4735] overlay accumulation 4775 (VIII.7). To its north, a similar small charcoal-flecked patch of mixed light orangey tan brick-earth and some grey sandy silt [3921] overlay organic dump 4847 (VIII.7). These probably corresponding surfaces suggest a new phase of activity in the area. To their south, a mixed layer of greyish brown medium sandy silt and a little yellowish tan brick-earth and containing flecks of charcoal and patches of iron pan [4755] also overlay 4775 (VIII.7) and may be the result of the purer 4735 being trampled into this lower area.
These post holes intruded into 4735. [4687] was 60mm across, with nearly vertical sides c. 0.11m deep and a base which sloped slightly to the south. [4689] was circular, 50mm across, with steep sides 50mm deep and a pointed base. [4688] was circular, 40mm across, with more gradual sides and a pointed base.

Nearly a further seven post holes intruded into 4775 (VIII.7). [4685] was circular, 80mm across, with concave sides 60mm deep and a rounded base. [4684] was roughly rectangular, 0.13m north-west-south-east and 40mm across. It has steep sides 40mm deep and a pointed base. [4692] was circular, 70mm across, with steep sides 70mm deep and a pointed base. [4691] was circular, 60mm across with steep sides 45mm deep and a pointed base. [4690] was circular, 50mm across, with steep sides 50mm deep and a pointed base. [4683] was circular, 60mm across, with steep sides 50mm deep, sloping to the south-south-west, and a pointed base. [4682] was circular, 40mm across, a steep side in the north, gradual in south, 20mm deep and a flat base. Further stake hole [4705] nearly intruded into 4795 (VIII.7). It was rectangular, 0.13m north-east-southwest, 40mm across, with sides 70mm deep and a pointed base. Finally, an adjacent group of four cuts intruded into 4804 (VIII.7). [4693] was semi circular, 40mm diameter, with vertical north side, gradual in the south, sloping towards the southwest, and a pointed base. [4694] was circular, 80mm across, with vertical sides 0.13m deep and a base sloping to the north. [4695] was circular, 50mm across, with sides 70mm deep and a pointed base. [4686] was rectangular, 0.10m by 80mm, with nearly vertical sides 80mm deep and a base sloping towards the west. None of the fills of these cuts could be distinguished from the overlying stratigraphy.

The configuration of these fifteen post holes shows them to be concentrated around make-up 4735 and presumably representing installations contemporary with its industrial use. The apparent linear arrangement of some stake holes could even imply structural divisions surrounding these floors perhaps as wind breaks.

Just to the east, two upright planks [5325], [5324] were driven into 5307, 5291 (VIII.5). The former was roughly split 0.25m high (top broken), 0.18m wide and 10mm thick. The latter was also roughly split 0.17m high (top broken), 0.15m wide and 10mm thick. The latter was also roughly split 0.17m high (top broken), 0.15m wide and 10mm thick. Though less securely stratified than the adjacent post holes, their position in plan and subsequent stratigraphic relationships suggest their contemporaneity.

Further west, post hole [4808] intruded into 4922 (VIII.7). It was roughly circular, 0.14m across, with vertical sides 0.22m deep and a pointed base angled slightly to the north. It was filled with grey pebbly charcoal-flecked silt with an increasing proportion of wood flecks towards the base [4807].

A layer of white pure fine sand, with orange hue towards the west [4667] overlay all the stake holes around the brick earth patches. It is unclear whether this inclusion free material was water based or associated with activities on the brick earth patches. Grey charcoal flecked silt [4271] above this, which continued east around plank 5324 and 5325, represents trodden occupation.

At the south edge of 4271, and earlier accumulation, lay east-west cut [4666], apparently intruding into 4667 to its north. It was at least 1.05m long (neither end seen) and up to 0.14m
across, with steep sides and deeper in the west than east, though there was no definable base at any point. It contained brownish grey charcoal-flecked silt [4650], itself cut by [4630], an linear east-west cut at least 1.4m long (east edge truncated) and up to 0.20m wide, with irregular sides and a generally flat, locally undulating base. This was filled with dark greyish brown silt containing flecks of charcoal, chalk, and oyster shell [4604]. Oyster shells formed a concentration at its base, whilst the north and parts of the south edges appeared to have severely decayed planks placed against them.

The initial cut 4666 lies on a line which has distinctly different stratigraphic accumulations to either side. It seems likely, therefore, to represent a structural division, with 4650 as packing. Later cut 4630, suggesting the position of a beam slot, especially with its plank ‘lining’, could be evidence for robbing, with the deposition of 4604 marking the demise of the feature. However, a division of the sequence on this line is suggested by the behaviour of later stratigraphy. It is therefore equally possible that this later ‘cut’ and ‘fill’ represent the positioning of the base of the structural division proper within the initial construction cut and that all should be seen as a single phase of activity.

To the south-east, wattle packed with brown silt and secured by vertical stakes [4815] was set into 4864 (VIII.7). It forms a north-south fence division at this point and given underlying correlations, seems likely to be in use at the same time as 4666/4630 was erected. Brown silt and timber fragments [4805] above 4815 may be a further element of the division, probably disturbed by later activity.

Further north, north-south linear cut [4175] intruded into 4679 (VIII.7). It was at least 1.7m long (cut away to south) and c. 0.60m wide (truncated somewhat to east) with initially shallow sides getting steeper in the south and a fairly flat base. It was filled with compact light grey silt flecked with brickearth [4158] and constitutes another fragment of structural division which co-aligns with timbers 4815/4805 further south. This and underlying correlations implies their contemporaneity and that, as a whole, they form the west limit to east-west cut 4666 etc. They form the east limit of the brickearth make-up 4735, 3921 as 4666 did their south one.

To the south of this division, light yellowish brown medium sand and silt containing charcoal, chalk and daub flecks [4608] overlapped the edge of fill 4664, itself overlain by light grey fine sandy silt [4598] in the north and dark grey charcoal-flecked sandy silt [4725] further south. The latter contained an increasing proportion of oyster shells to the south and wood fragments towards its base. These must be trodden occupation layers running up to the 4666 division.

Further south, grey fine sandy silt containing crushed oyster and mussel shells [4726] overlay 4631 (VIII.6), below light grey plastic clay [4659] and then compacted brownish grey silt containing variously sized straws and twigs [4713], which also overlay 5001 (VIII.7). This group of somewhat organic material corresponds generally to the occupation deposits 4608 et al to the north. They could be dumped behind a revetment to the south or be exactly the same type of accumulation as 4608 but have retained their organic content since they lie in a lower, more waterlogged area.

An extensive spread of dark brownish grey medium sand and silt flecked with organic material, charcoal and blue sand [4593] overlay both 4598 in the north and 4713 in the south. It represents a further occupation accumulation in this area.
To its south-east, a small patch of light greyish yellow charcoal-flecked fine sand and silt [4670] then greyish brown silts with a little fine sand and containing an increasing proportion of large tile and chalk fragments towards its base [4590] overlay 4593. 4590 continued west to lie up against timber 4815 and 4805, showing that this north-south division was certainly in use at this point. 4590 and 4670 are very localised and could be specific dumps or accumulations against the timbers forming the structural division at this point.

Towards the south of this area, a brown silty sand containing cobbles up to 0.12m across [4654] overlay 4593, representing a rough make-up or hardstanding in the foreshore area. The dark brown silt containing straw or rushes [4576] above this and 4670 represents later dumping/use on the foreshore, as does the dark greyish brown silt flecked with charcoal, shell, mortar and wood above it and 4590 in the south-west and the light greyish brown silt flecked with oyster shell [4455] above it and 4725 in the south-east. Finally, light yellowish grey medium sand with a few variously sized pebbles [4369] above 4576 in the south is either a gravel patch or, more likely, a pebbly foreshore accumulation.

To the north of cut 4666, a mixed layer of coarse pebbles and grey fine sandy silt [4127] lay up against cut 4175, which bounded in the west, and elsewhere capped 4906, 4966 (VIII.7). It formed a new surfacing of this north area. Further east, medium to coarse pebbles in a matrix of some light grey silt [4328] which overlay 5017 (VIII.7) could be an outlying counterpart. Brownish grey charcoal-flecked sandy silt [4029] overlay 4127, below grey charcoal-flecked sandy silt [4005]. They represent use of the underlying metalling.

VIII.9 Amendment to N-S revetment and associated strat. to east

(Fig 5)

4527, 4526, 4521, 4520, 4463, 4443, 4513, 4367, 4392, 4358, 4268, 4272, 4212, 4410, 4349, 4234, 4231, 4228, 4305, 4276, 3890, 3891, 3898, 3897, 4215, 4261, 4182, 3997, 3970, 3904, 3950, 3903, 4157, 3803, 3880, 2845, 4235, 4209, 4068.
Description

Towards the south-east part of the site, cut [4527] intruded into 4369, 4580, the uppermost elements of VIII.8. It was roughly triangular, at least 1.5m long (south end cut away) and broadening to be 1.1m across in the south. It had nearly vertical sides and a flat base. When excavated, it revealed a second element [4526] in its base at the west edge. This was the same length, running north-south, c. 0.20m wide, with 45° sides and a flat base. This narrow west element was filled with light grey sticky silt [4521]. Above this were a sequence of further fills filling the main part of the larger cut. These comprised grey silt and white fine sand containing cobbles, large fragments of flint and tile and coarse pebbles [4520]; dark greyish brown silt and some fine sand [4463]; dark brown silt flecked with oyster shell [4443]; light greyish
brown silt [4513]; and grey sticky silt [4367]. The sandy nature of some of these strata might suggest water action, whilst the position of some eg. 4513 confined to the position of 4526 underneath could suggest compensation after subsidence into this feature. In both cases it suggests that the cut may have been open for some time.

A series of timbers all [4392], were then placed along the west edge of the cuts, and in a line running east from its north limit. Three planks were placed horizontally in the north-south line, with two driven posts at their north end. Three vertical driven planks ran east of this, with an associated stake on their south side near the corner point.

The initial cut was certainly for the insertion of the north south elements, which then formed a north-south revetment at this point. The planks running east from it would have constituted a more minor division. The stakes and posts were no doubt part of the retaining elements.

Greyish tan silt containing brickearth lenses [4358] lay on fill 4367, below grey silty organic material flecked with oyster shells, mortar and chalk [4268]. The latter lay against timbers 4392 and both deposits form initial dumps after the creation of the revetment.

To the north, dark greyish brown silt [4272] overlay 4580 (VIII.8), with a dump of pebbles, ragstones and tile up to 0.15m across set in a matrix of some light yellow medium sandy mortar [4212]. The latter forms a rough consolidation of this foreshore area. Both layers are confined to the north of the east-west element of 4392, which suggests that it was in use by the time of their deposition, though this could not be proven stratigraphically.

To the west of this north-south division, dark greyish brown pebbly silt [4410] overlay 4590 (VIII.8), elsewhere covering 4874, 4829, 4435 (VIII.7), below dark greyish brown pebbly silt [4349] and then dark brown silt containing variously sized wood fragments [4234]. The last layer continued far enough east to lie against timber 4392. It seems reasonable to see the underlying pebbly gravels as the first surfaces in the area after the creation of the revetment and 4234 as the primary dump on the gravels and against the revetment.

To the north, cut [4231] intruded into 4272. It ran east-west, 1.05m long, and was 0.54m wide in the west tapering to a point in the east, with sloping sides and a flat even base. It was filled with dark greyish brown fine sandy silt containing patches of decayed wood [4228]. To the east, probably circular cut [4305] (truncated in east) intruded into 4598 (VIII.8). It was 0.54m across with concave sides up 0.15m deep and an even base, and was filled with a mixed layer of grey medium sandy silt and some greyish brown greeny silt and containing oyster shell flecks [4276]. Though 4305 is less securely stratified, their physical position suggests that the two cuts are associated, forming an east-west division. It renews the line of a previous boundary (4666: VIII.8), suggesting that this line was modified at the same time as the main north-south property division to the west was also being amended.

To the north, [3980] cut 4005 (VIII.8). It was circular, c. 0.40m across with fairly steep sides up to 90mm across and an irregular base and was filled with dark grey silt mixed with some charcoal [3891]. Nearby, cut [3898] intruded into 4029 (VIII.8). This was an irregular linear cut running roughly north-south at least 0.30m long (truncated at either end) and 0.30m wide with concave irregular sides up to 90mm deep and a rounded base, and was filled with light greyish green fine sandy silt mixed with some brownish green silt and containing flecks of
oyster shell and charcoal [3897]. Both of these features lie roughly on the line of timbers 4392, projected northwards and thus on the main property division.

They imply its corresponding modification in the north of the area during this later phase.

North of 4231, a light greyish white sandy silt containing flecks of chalk and oyster shells, fine and medium pebbles and small fragments of chalk mixed with a little dirty orange brick-earth with similar inclusions plus flecks of tile [4215] just overlapped 4228, the fill of 4231. It represents use of this north area immediately after the insertion of that division.

To the south, a mixed layer of light buff medium sandy mortar and some grey silt, both flecked with oyster shell and chalk [4261] overlay 4272 and 4268 and ran up against division 4305. It forms a make-up consolidating the area south of this boundary, but crossed the line of timber running east from 4392, showing the latter to be short-lived and possibly related to the initial bracing of the north-south revetment proper.

A spread of greyish brown silt [4182] overlapped the north edge of 4261, continuing north to cover 4215 and 4212 and form an accumulation resulting from the occupation of this north area. A sequence of small spreads overlay this, comprising greyish brown silt flecked with charcoal and chalk [3997] then a dark grey silt mixed with some orange brick-earth and containing flecks and small fragments of charcoal [3970], below both brown oyster-flecked fine sandy silt [3904] and light greyish brown silt flecked with charcoal and oyster shell [3950]. This concentrated group of local spreads suggests intensive industrial activity in this particular area.

A patch of compact light yellowish green pebbly chalk-flecked mortar [3903] overlay 3904, which may correlate with an equally small area of light buff pebbly chalk-flecked coarse sandy mortar [4157] over 5016 (VIII.7) to the north, though 4157 is less securely stratified.

An extensive oyster-flecked layer of dark grey silt and some flecks of charcoal [3803] then accumulated over the whole of this north area, covering the mortar patches and post hole 3890, elsewhere covering 4796, 4328 (VIII.8). This marks the end of this phase of occupation in this north-east area.

Just to the west, light greenish brown silt [3880] overlay cut 3898, below greenish grey silty fine sand [2845]. These must be broadly contemporary with the more extensive accumulations to the east culminating in 3803.

Finally, in the south, brownish grey silt containing flecks of oyster shell, charcoal, chalk and mortar and small fragments of tile and cobble sized ragstones [4235] overlay 4261 and nearby dark greyish tan silt [4209] capped 4234. Dark greyish brown silt and some fine sand [4068] overlay both 4209 and 4235. These must represent the final accumulations in this south area, corresponding to 3803 et al to the north.

**VIII.10 Final change to north-south revetment**

(Fig 6)
Towards the south-east part of the site, linear north-south cut [4156] intruded into 4068 (VIII.9). At least 2.5m long (both ends cut away), and up to 0.2m wide, it had nearly vertical sides with a sharp break to a regular base which sloped slightly from north to south. It was packed with dark brownish black silt [4062] around timber [4049], a roughly squared and dressed beam set in the slot. This constitutes a final amendment to the revetment on this line.
To the north of this, probably circular cut [3339] intruded into 3803 (VIII.9), 0.60m across (east side cut away), its hard irregular concave sides up to 0.20m deep and an uneven base. It was filled initially with dark grey clayey silt flecked with daub and charcoal [3328], then a mixed layer of light yellowish white crumbly sandstone and some greyish brown medium sandy silt [3327]. The latter flowed over the north edge of the cut and may constitute a post pad.

Further north still, [3887] also cut 3803 (VIII.9). This was oval, 0.35m east-west by 0.25m north-south, with regular steep sides up to 0.20m deep and an even base. It was filled with a mixture of light orangey yellow brickearth and some grey silt, containing small fragments of charcoal [3886] and may constitute another post pad. Since both of these features cut accumulation 3803, they seem likely to be broadly contemporay with modification 4186 et al to the south.

A mixed spread with elements of dark grey charcoal-flecked silt, greeny grey silt flecked with oyster shell and charcoal, grey charcoal-flecked silt and dark greyish brown brickearth in equal proportions [3258] overlay pad 3327. A patch of greenish grey silt [4324] to the north over 4324 (VIII.8) is probably contemporary since dark brownish grey charcoal-flecked silt [3244] overlay both, continuing north-west to abut pad 3886. These represent accumulations around structural elements derived from the occupation of the area.

Finally, just south of 3327, cut [3243] intruded into 3258. It was irregular, at least 1.6m long (east side cut away), with gradually sloping sides and an uneven base. It was filled with greenish grey pebbly silt flecked with charcoal and oyster shell [3239] and may be a pit associated with the functioning of hearth features during period VIII. Being at the east limit of excavation, it might also relate to adjacent activities in that area.

**VIII.11 drainage channel added in north central part of site**

4382, 4307, 4287, 4277, 4264, 4258, 4239, 4229, 4223, 4533, 4199, 4150, 4167, 4084.

**Description**

Towards the centre of the site, at its north extremity, cut [4382] intruded into 4431 (VIII.7). It was at least 5m long (north side beyond limit of excavation, south side undefinable past a certain point) and 1.2m wide in the north, broadening to 2.8m in the south, and had irregular, sometimes stepped sides, gradual at the top, more vertical lower down. It was up to 0.50m deep, with an uneven base, sloping initially gently down to the south, then dropping more sharply as it broadens out. At its west edge was a distinct east-west element at least 1.25m long (west end truncated) and c. 0.13m wide with nearly vertical sides and an irregular, roughly level base.

This feature is a drainage channel, well defined in the north, spreading out further south where it merged with the dumps in this area behind the revetment. It could have had a proper lining in the north, possibly of timber, with the lower vertical part of its cut here for the insertion of planks etc, and the higher stepped-out side the result of later robbing. The feature lies above the position of the now disused inlet. As well as providing access (to and from the river) the inlet would have channelled surface water, effluent etc along this line into the Thames. Though its access role was now curtailed, the drainage function was obviously retained, and even
formalised at this later stage. Given underlying correlations, its insertion must be broadly contemporary with VIII.8-10 to the east.

The central part of the channel was filled with dark grey clayey silt containing lenses of pale fine sand [4307]. To the south, it contained an increasing proportion of pebbles which also increased in size upto 0.10m and constituted half of the layer in the extreme south. This change and the sand lenses suggest that it was waterlain. This may have occurred during the normal lifetime of the feature or after its proposed lining was removed, since the depression caused by the drain would have continued to channel water southwards. Loose pale yellow pebbly fine sand containing grey clay lenses [4287] overlay 4307, again possibly the result of water action, below dark clay [4277] covering most of the feature and maybe representing its demise as a drain. Dark grey pebbly charcoal-flecked silt [4264] overlay this, maybe slipped from the side of the cut, followed by light tan crumbly brickearth [4258] then dark blackish grey sandy silt and charcoal [4239] below dark greenish grey pebbly charcoal-flecked sandy silt [4229] capped with dark grey silty clay [4223]. These layers were concentrated in the north of the feature and were dumped there after the drain fell out of use.

At the same time charcoal flecks set in some dark grey silt and containing orange ?iron staining [4533] lay in the east-west offshoot of 4382 and represents its demise. Finally, above both this and 4223 were more extensive layers covering the whole cut of dark greyish brown clayey silt containing flecks and small lenses of sand, medium and fine pebbles and charcoal flecks and, to the south, mussel shells. [4199], below a dump of oyster shells, many complete, set in a little light grey silt and tipped from north-west to south-east [4150] which also overlapped 4438 (VIII.7), then dark greyish brown silt containing flecks of oyster shell and flecks and small fragments of wood and ?straw [4167]. This became more compact and dark grey towards the south-east and was itself overlain by a mixture of flecks and small fragments of charcoal, some grey silt and a little iron slag fragments, and containing oyster shell flecks, and flecks and small fragments of decayed wood, this last concentrated in the south [4084]. The extensive dumps 4199 and those following served to level up the former channel showing that its drainage function had certainly ended by this point.

VIII.12 Robbing of period VIII revetments and subsequent foreshore accumulations

6033, 5954, 5948, 6032, 6000, 5956, 3969, 5402, 4717, 3162, 4388, 3775, 4860, 4718, 3161, 3299, 3774, 4858, 4856, 4855, 3779, 3780, 3778, 3777, 4489, 4488, 3160, 3144, 6034, 6046, 3999, 4072.

Description

Towards the south-east of the site, irregular north-south linear cut [6033] intruded into 6130 (VIII.3) and 6537 (VIII.1). It was at least 2m long (north end cut away) and c. 0.70m wide (only east side definable) with steep sides and a flat base sloping down to the south. It was filled with light brown sand and clay containing flecks of gravel, tile, mortar and chalk, and fine and medium pebbles [5954], below dark brownish grey sticky clayey silt containing a grey fine sand lens [5948]. The cut represents the robbing of the superstructure set above base plate 6152 (VIII.3), with the initial fill dumped in and the upper element being a partial product of water action.
To the east, east-west linear cut [6032] is interpreted as cutting 5740 (VIII.3) - see discussion there of problem of this relationship and of distinguishing construction from robbing cuts in excavation. It was 3m long and up to 0.50m wide (only north edge definable), with gradually curving sides. It was filled with loose dark grey sand and silt [6000], below alternate 10mm lenses of mid grey and dark grey pure clay [5956]. Towards the centre, the deposit became a single grey clay matrix. Again, this cut is a robber trench, removing the front of the revetment put up in VIII.3.

To the west, was major linear east-west cut [3969], intruding into 5049, 4505, 4625 (VIII.1). It ran from the west limit of excavation up to the position of 6033, and was thus at least 6m long and c. 2.2m wide. It had fairly steep sides up to 1.6m deep curving to a rounded base. In places its north face had been undercut, probably by river erosion. In return, this cut was recorded in the west as [5402], cutting 4857, 4859 (VIII.1); towards the centre as [4717], cutting 4716, 3781 (VIII.1); and further east as [3162], cutting 3143 (VIII.1). It must represent the robbing of the whole east-west revetment set up at the start of the period.

In plan, the fill was recorded as loose grey clay and coarse sand with a little gravel and containing increased proportion of cobbles towards its base [4388]. In a section running along its line, this corresponds at its surface to the lowest recorded stratum of grey clayey sandy pebbly silt [3775]. In the west section, dark blackish grey pebbly sand [4860] was its fill. In the centre it was loose dark grey clay, coarse sand and a little gravel [4718], and further east grey clayey silt [3161]. The variation in fill along its line was reflected by the excavation in plan, no doubt a product of the different types of dumping and water action which went into filling up the robber trench.

An extensive spread of coarse sand, fine pebbles and coarse pebbles in roughly equal proportion [3299] overlay the backfill 4388, elsewhere overlying 4548, 3383 (VIII.1) and 4000 (VII.12). In the north it contained patches of dark brown silty organic material, in the south a spread of yellowish brown medium sand and pebbles. Further east, the pebbles increased in size and were occasionally burnt and were compacted as if to form a metalled surface. It sloped down generally from north to south. In longitudinal section, above the robber trench, it was recorded as dark grey sandy clayey silt containing fine and coarse pebbles [3774], over 3775. In the transverse sections, the same material was described in the west as blackish orange pebbly coarse sand [4858] over 4860, below dark grey pebbly coarse sand with some organic silt and clay [4856], and a spread of whitish grey medium and coarse sand containing one patch of orange sand [4855], the last element possibly waterlain. In the centre, two areas of mixed gravel, some coarse sand and a little clay [3779] and [3780] overlay 3781 (VIII.1), the latter also sealing fill 4718, both below orangey brown medium to coarse sand with a little clay and silt [3778], itself capped with dark grey silty clay [3777]. Further east, a layer of compacted yellowish buff mortar [4489] overlay 4486 (VIII.7) with light grey pebbly silt [4488] on top. The latter certainly corresponds to 3699 in both surface level and character. But there is no counterpart of the distinctive mortar layer beneath in plan. It ended after 0.60m in section, so would be only very local. It resembles later mortar patches 5830 etc (Period IX), but can be shown to be earlier on stratigraphic and absolute level grounds.

Finally, in the eastmost section, brown clayey silt [3160] overlay fill 3161, below brown clayey silt mixed with a little sandy buff mortar and containing flecks of charcoal, fine pebbles and lenses of yellow sand [3144]. The gravels at this point were becoming more mixed with
material derived from dumps from the east, which probably accounts for the divergence in the character of this single deposit at this point. The gravel horizon rose from a level of c. 0m OD in the south to up to 0.70m and even higher in the north. It must represent a foreshore accumulation resulting from the robbing of the period VIII revetment. Its subsequent compaction might suggest that the shelving beach thus created continued in use for some time after such robbing however. There is no way of knowing from this evidence exactly when within period VIII this took place, except that it obviously postdates elements erected in VIII.1.

To the north, a compacted layer of medium and coarse pebbles set in brown medium sandy silt containing chalk fragments and, at its surface lenses of light greyish yellow fine sand [6034] overlay 6065, 6077 (VIII.4). This gravel compaction rose markedly towards the north, and somewhat towards the south, attaining a level of 1.92m OD here compared to c. 1.0m OD at its south limit. It was overlain by dark grey silt, some sand and a little clay containing a lens of tile and chalk fragments below yellowish brown fine sand below its surface and one of brown silty clay towards its base [6046], perhaps a riverlain deposit or dump affected by water action. Just to the east, on the other side of an arbitrary section line, light greyish brown medium sand containing fine medium and coarse pebbles [3999] overlay 4049 (VIII.10) and had a surface level of 1.91m OD at this point. It seems reasonably interpreted as the tail end equivalent of 6034 to the west.

Finally, in the north of the site, a spread of medium pebbles, and few fine and coarse pebbles set in a little brown silt and with a compacted surface [4072] overlay 4084 (VIII.11), 4158, 4807 (VIII.8) and 4679 (VIII.7). Towards the south, this surface was capped with waterlain sand, and in the east it incorporated an area of cobbles. Towards its base, the matrix changed from silt to orange fine sand. 4072 reaches a height of 2.39m OD at its north extremity, but continues the curve suggested by the surface profile of 6034 and 3299 to the south, with a level of 1.88m OD at its south edge.

It seems reasonable, therefore, to see these gravels as a single horizon, either dumped and subjected to water action, especially in the south, or created by the river and compacted into a surface by use. This surface sealed the robbed waterfront at the south and rose from c. 0m OD here to level off at 2.4m OD in the north edge of the site. These higher, dry land gravel elements sealed stratigraphy of VIII.11 and VIII.10. If the gravel to the south is reasonably seen as accumulating as a result of robbing the period VIII waterfront, it seems likely that this waterfront continued in use throughout period VIII until robbed at the end. Therefore, the robbing action 3969 et al and gravel horizon 3299, together probably with robbing 6033/6032, can be seen to mark the end of period VIII.

Period IX.1-IX.9

IX.1 Construction of new revetment and dumping above robbing of predecessor

(Fig 7)
The 83 contexts of IX.1 comprise evidence for the construction of a new waterfront c. 4m to 5m south of the period VIII robbed structure, which it replaced. The revetment, c. 2.5m in height and 6m in length, was well-constructed with squared, front-braced upright mortised into a substantial baseplate, and purpose cut cladding pegged behind following a numbered sequence incised on each board, probably surviving almost to its full original height.
The revetment appears to have continued further west across the trench, but was subsequently robbed, leaving only underpinning timbers in situ. This robbing also affected the surviving structure, which lost its westmost upright and raking brace, together with some of the cladding.

The new waterfront abutted, and operated with, the period VIII north-south structure to the east, but the primary dumps behind it sealed the robbing of that feature further west.

This is called Waterfront 14 in the publications on the site, and the east–west section was conserved after the excavation, to be placed in the redesigned Medieval Gallery of the Museum of London.

Description

A new revetment (labelled [6487] as a whole) was constructed on the period VII foreshore c. 4m to 5m south of that of period VIII.

Two wedges of reused timber [6249] and 6597 were laid horizontally on the foreshore, forming a base for a 5.89m east-west baseplate [6248], scarfed at the west end, with 10 pegged mortises cut through face-to-face. This lay at -0.24m to -0.40m OD, sloping down towards the west, abutting the north-south period VIII structure to the east. Two circular piles [4317] and [4318] were positioned against the south edge of the baseplate to prevent slippage. Reused upright squared and T-sectioned timbers were then positioned, with tenons pegged to the ten mortises. Nine of these timbers survived, occupying the 9 east mortises, the tenth having been robbed. The uprights were, from west to east, [6201], [6203], [6210], up to 2.46m in height (6203), with chased mortises cut c. 1.40m from the tenon on the south faces of all timbers to house raking braces, with the possible exception of 6210 which acted as a corner post.

The bracing consisted of small north-south subsidiary baseplates, each held in place by a pile driven into the foreshore at the south end, with the braces themselves, often simply debarked trunks or branches, wedged firmly into the baseplate by means of one or more wedges. These units included:

a) baseplate [6266], pile [6417], brace [6211], and wedges [6461]-[6464] bracing upright 6201;
b) baseplate [6260], pile [6262], brace [6213], and wedge [6261], bracing upright 6204;
c) baseplate [6258], pile [6481], brace [6214], and wedge [6259] bracing upright 6205;
d) baseplate [6256], (no pile), brace [6215], and wedge [6257] bracing upright 6206;
e) baseplate [6254], pile [6255], brace [6216], and wedge [6389] bracing upright 6207;
f) baseplate [6252], pile [6253], brace [6217], and wedges [6388], [6441]-[6443] bracing upright 6209.

The length of the braces, which varied widely between 1.90m and 2.65m, dictated the distance between main and subsidiary baseplates probably indicating that any available timber was used. The braces retaining 6202 and 6208 were removed or repositioned later, although mortises were cut to house them indicating their former existence. The east upright 6210 may not have required bracing, although the timber did not survive to sufficient height to ascertain that either way.
To the west of 6266, a further subsidiary baseplate [6391], retained by pile [6418], with four wedges [6444], [6446], [6447] and [6392] still in situ, probably originally supported a brace locating with the robbed upright at the west end of 6248.

With the main frame of the waterfront in place, cladding was attached to the north by means of pegs driven right through the uprights. This comprised [6189]-[6192], [6181]-[6184], [6193]-[6198], [6185]-[6188], [6173], [6172], [6171], [6170], [6169], [6168], [6167], [6166]. All these timbers were primary, with carpenters’ marks cut on their north faces indicating that they were positioned consecutively, and possibly to a plan. The baseplate and some of the uprights were similarly, but less consistently marked, perhaps from a former usage since the sequence was less complete.

On the foreshore to the west of 6391 et al, four horizontal north-south displaced piles [4566]-[4569] may represent the remains of a robbed out continuation to the waterfront, possibly retaining subsidiary baseplates. To the north, pile [4570] and 2 plank fragments [4571] (one dated by dendrochronology to 1169–1214) could have formed a base for a major east-west baseplate analogous to 6248. A large c. 0.28m irregular ragstone block [4779] in the same area may have performed a function also, although perhaps more likely a random feature. On the whole, an extension of the waterfront across this area seems probable, since the earlier period VIII revetment was apparently completely robbed by this time. Also, the west elements of 6487 were removed, which strengthens the case for robbing. The alternative would have been an open foreshore, perhaps with the west position of the VIII waterfront being robbed at a later date than the east. This, however, would presumably have required a north-south return to the west end of 6487, but there was no evidence for one having existed.

The revetment, which had subsided slightly to the south, owing to pressure from the dumping to the north, probably survived almost to its full height. To its north, grey sand and silt [5822] accumulated against the cladding of the waterfront on this side. It continued north to seal 5948, 6032 (VIII.12) associated with the removal of the period VIII water-front and elsewhere overlay 6012, 6013, 5957 (VIII.3), belonging to an earlier phase of the preceding period. This layer formed the fill of the construction trench for the baseplate 6248. It may be partly waterlain, accumulating after the construction of the revetment in front but before its rear was covered with dumping.

At its east edge, the wattle fence [5573], running north-south, was driven into 5822. It ran north from the point at which the new revetment met the retained element of the period VIII feature and must represent a reinforcing of this line.

Although the new revetment 6487 cannot be stratigraphically related to period VIII since it only overlay the period VII foreshore the primary layer in its construction trench overlay the robber trench of the period VIII revetment. It is therefore certain that 6487 can be seen as a direct replacement of its east part and constitutes a new period of construction on the site.

One plank [4571] from period IX.1 was successfully dated by dendrochronology with a felling date range of 1169–1214 (see Dendrochronology report below). A group of timbers from this waterfront were experimentally X-rayed at the Mount Vernon Hospital scanner centre in July 1985, and analysis of one timber suggested a heartwood/sapwood boundary of 1179, indicating an approximate felling date between 1190 and 1235 (Tyers 1985). Although this accepted here, it should be noted that the accompanying photograph in that report of an X-ray
of a timber with rings datable to up to 1177 cannot be the named context [3277], which is from period VII (see index).

Subsequent analysis (Milne 1992, 25, 35 and in the forthcoming publication) argues that Waterfront 15, described here in period VIII.2, was broadly contemporary with or possibly slightly later than Waterfront 14 of period IX.1.

**IX.2 Initial dumps behind period IX.1 revetment**

4012, 3845, 4487, 4486, 5999, 5511, 3141, 5596, 3210, 3481, 3480, 3776, 3773, 3772, 5588, 3434, 5776, 4356, 5587, 3196, 3476, 3953, 3479, 3478, 3477, 3536, 3535, 3534, 3142, 3140, 3139, 5581, 5579, 5574, 5575, 5577, 5555, 5547, 5546, 5471, 5353, 5442, 5946, 5858, 5851, 5830, 5850, 5826, 3981, 4481, 4485, 4484, 4483, 4480, 4509, 5462, 5512, 5476, 3693, 3692, 3891, 5845, 5844, 5777, 5356, 3083, 3474, 3475, 3533, 3532, 3531, 3267, 3377, 5752, 4553, 2435, 2061, 4408, 4425, 4366, 4357, 2678, 4497, 4462, 4395.

**Description**

In the centre of the site, towards the north, a compact layer of dark silt with a few fine pebbles and medium pebbles and a little sand containing flecks and small fragments of chalk [4012] overlay gravel 4072 (VIII.12). The pebbles were worn smooth at the surface of the layer, which was at c.1.90m OD. To the west, a mixed layer of orange and grey coarse sand [3845] over 3952 (VII.12) and 3299 (VIII.12) with surface at 1.88m OD could be an equivalent, or bedding for a later surface. Seen in section between these two, light grey silt containing chalk fragments [4487] overlay 4488 (VIII.12) and continues the line of 4012. Despite its lack of pebbles it could be an equivalent, especially if, as suggested below, 4012 forms part of a gravel surface, whereas its counterparts to the south dipped below later tips which constituted the surface proper in these areas.

Above 4487 in section was dark brown organic layer [4486]. In plan, this correlates with a dark brown smooth organic layer containing medium pebbles and tile fragments [5999] over 6046 (VIII.12). The lack of such inclusions when seen in section is due to the layer thinning out towards the north west, whereas it deepened as it dipped down markedly in the opposite direction. It had a surface level of c. 2m OD in the north, but dropped away to 1.2m in the south and forms a major dump of tiles, lapping up over the south edge of 4012/4487 as that dropped towards the south.

To the south of 5999, a dump of brown silt with a little clay and containing tile fragments and flecks of mortar and tile and fine and medium pebbles [5511] over lay 5822 (IX.1). In section to the west, this was recorded as small and large tile fragments and flecks and lenses of buff mortar in a matrix of grey clayey charcoal flecked silt [3141] over 3144 (VIII.12). A patch of light orangish grey clay and silt containing small tile fragments [5596] overlay 5511 to the west.

To its west, sticky dark grey clay and silt containing concentrations of stones and tile fragments [3210] was dumped above 3299 (VIII.12). In section to the west, this equates with large chalk fragments in some dark grey clay [3481] over 3482 (VIII.12) below, material with
the same description as 3210. In section to the south, the equivalent was dark greyish brown
silty clay, a little beige clay and a little mortar and building material and containing fragments
of tile of all sizes [3776] over [3777] (VIII.12). In an east west section, towards the south of
this layer, 3210 was seen as dark yellow gravel [3773] over 3774 (VIII.12) below dark grey
pebbly clayey silt [3772]. The absence of tile in some sections is due to their localised
concentration when seen in plan. In general, the horizon of dumping which 3210 represents is
consistent across the whole of the west part of the site, with its diagnostic tile inclusions,
and, based on its character and level must correlate with the south part of 5999.

To the east of 5599 was a dump of large ragstones in a matrix of a little dark grey sandy silt
and containing flecks of oyster shell and flecks and small fragments of tile [5588]. It lay
against wattle 5573 (IX.1) to the east and within an underlying depression. The latter may be
an outward bulge of the construction trench for inserting baseplate 6248 at the point where it
met the pre-existing revetment of the previous period. The stones dumped within it could thus
be compensation and part of the sequence of make-up behind the newly created revetment
IX.1.

Across the west and central parts of the site, therefore, a consistent horizon of tile dump,
dipping from c. 2m OD in the north down to 0.25m OD in the south. It was confined to the
area defined by the period IX revetment to its south and for the most part, overlay the
foreshore accumulating at the end of period VIII. In one area, however, tile dump 5511
actually lay against baseplate 6248, showing that it was deposited after the revetment moved
forward and thus suggesting that the whole horizon is primary dumping behind that newly-
created feature.

Driven stake [3434] lay within 3210, but has no obvious structural function, whilst another
apparently random stray timber [5776] lay above dump 5511 further east. A small dump of
brown silty clay [4356] also overlay 3210, and an equivalent patch of the same material
flecked with organic matter [5587] overlay 5596 to the east.

Another massive dump of loose building material in a matrix of dark grey sandy silt and a little
buff fine sand [3196] overlay timber 5776, and patches 4356, 5587. It became more clayey
towards its base and contained an oyster shell lens higher up.

In section in the west, this was recorded under [3476], over 3480, to the north of the modern
girder trench, correlating to it south with a sequence, over 3776, of dark greyish brown silty
clay [3953] below dark grey coarse sand (?crushed building material), clay and organic silt in
roughly equal proportions and containing large tile fragments and fine pebbles [3479], then
dark greyish black organic silty clay [3478], and finally grey clay, some silt and some coarse
sand again containing large tile fragments [3477].

In an east west section to the south this was recorded, above 3772, as yellowish brown
organic clay [3536] below dark grey clayey silt [3535] and finally similar material flecked with
charcoal [3534].

Lastly, in a north south section to the east, a sequence of greenish brown sandy silt [3142]
over 3141, then grey clayey silt [3140] followed by brown clayey silt containing flecks and
small fragments of mortar [3139] must be parts of the same clayey dump of building material.
As a result of its deposition, the area behind the period IX revetment was raised to c. 1.50m OD.

In the area immediately north of 6487, light brown silt with a little coarse sand and containing flecks of gravel, tile and chalk [5581] overlay 3196. It was more clayey in the south where it directly abutted the cladding on the revetment. A loose dump of light grey sand with a little silt and flecked with gravel and slate [5579] overlay this with tile fragments in a matrix of grey sandy silt [5574] above this, showing the continued dumping of building material to raise the level. This was seemingly cut by an irregular feature 5575, 0.46m east-west by 0.12m north-south. It had nearly vertical sides 0.31m deep and a flat base and was filled with loose light grey clay and some silt containing medium pebbles and small tile fragments [5577]. The cut was overlain by successive bands of light brown clay flecked with chalk and black gravelly silt; yellow silt flecked with gravel; and brown pebbly chalk flecked silt with a little clay (all excavated as [5555]). This deposit was again cut apparently by [5547], semicircular, 1.10m long, with steep sides and an undefined base. It sea limit was also indeterminate and it was filled with loose greyish brown clayey silt, containing many voids, and some tile in variously sized fragments [5546]. Whether these were real cut features and if so, that their exact relationship with 5555 is uncertain. They could be cut to the rear of the revetment to repair the cladding during its life time. But the sequence of dumping below them was very similar to that which recommenced afterwards. Also, if they were cut from a surface represented by that of 5555, it would not be at all horizontal, dropping noticeably to the south, and well below the top of the associated revetment to the south. It seems more likely, therefore, that these features are the result of slumping during the dumping of the tiles or caused by the forward movement of the revetment during its lifetime, such movement creating gaps and causing overlying material to slip into the voids and fill them.

Grey silt and crushed greensand with a little clay [5471] overlay 5574, with brownish grey sandy silt and some tile fragments [5353] over this and ‘cut’ 5547, below a final lens of mixed greyish brown clayey silt [5442]. These brought the surface level immediately behind the revetment up to 1.60m OD.

Further north, over the initial tile dump 5999 dark greyish brown clay with some silt and a few fine pebbles and containing patches of yellow mortar and building materials and, throughout, tile fragments and coarse pebbles, [5946] was dumped below loose silty clay and some cream sandy mortar, especially in the west, and containing flecks of chalk and fine pebbles throughout [5858]. Further compacted dark blackish grey pebbly shell flecked silt, tile fragments, charcoal and fine sand in roughly equal proportions [5851] capped 5858, then crushed light yellowish grey mortar, a little in small fragments, and a few small chalk fragments and fine and medium pebbles [5830], with greyish brown pebbly sandy silt flecked with charcoal and shell [5850] on top and finally brownish grey sandy silt, some tile in fragments and a few fine pebbles [5826] on this, bringing the surface in this area up to 2m OD. These must be the equivalent of 5353 et al dumped against the revetment to the south. Immediately to the east, brown pebbly sand with some silt [3981] covered 3999 (VIII.12) and had a surface level of 1.95m OD. It must be an equivalent of this dumped horizon, set against the boundary represented by a further continuation of wattle fence 5573.

Lastly, in section on the west side of 5826 et al the equivalent sequence, overlaying [4486], was recorded as grey charcoal-flecked clayey silt [4481] below grey silt and tile fragments.
then grey silt [4484] below dark brown organic material [4483] followed by large tile fragments in grey silt mixed with orange brick earth [4480] and then dark brown organic material [4509]. This demonstrates a consistent alternation of dumps of building material and more organic materials.

A series of cuts intruded into the dumps. [5462], cutting 5353, was circular, 0.10m diameter and contained a stake 0.40m long. This may have been driven into support the cladding immediately to its south. [5512], seeming to intrude also into 5353, was irregular, at least 1.50m across, but not traced in the south area with a U-shaped profile to give a depression up to 0.70m deep and was filled with a loose mixture of brownish grey silt and a little sand [5476]. It is unclear whether this constitutes a real intrusion or is simply a profile produced by underlying subsidence.

Further west, the more definite [3693] intruded into dump 3196. It was roughly circular, c. 0.30m across, with generally steep sides 70mm deep and was filled with greyish brown silt and some clay [3692] packed around timber stake [3691], 80mm across, pointed and 0.32m long. It could be associated with the presumed revetment to its south, may be the base for a back brace robbed at the same time as the main feature.

To the north-east, [5845] cut into tile dumps 5850. It was probably originally circular (cutaway in west), c. 0.60m across, with sloping sides curving to a roughly concave base and was filled with pebbly orangish grey sandy silt, some tile in large fragments and a few small fragments of chalky mortar [5844]. Its function is uncertain, since it appears to be cut and filled within the sequence of dumping behind the revetment. It may relate to arrangements for construction such as scaffolding.

The dump which sealed the cut, and overlay 5826 to the north, comprised dark grey pebbly sandy silt [5777]. It became more organic and looser toward the north west, where it also contained an increased proportion of small fragments of tile towards its base. To the south, dark brown organic silt and some clay [5356] overlay 5476, 5462, 5442 gave a corresponding horizon. Similarly, further west, dark grey clayey silt [3083] overlay cut 3693, elsewhere covering the initial tile dumps. In section to the west, this was recorded in the north as [3474], overlying 3476, and further south as dark grey humic silty clay [3475], covering 3477. In a transverse section, it corresponds to three successive layers above 3534 - dark grey clayey pebbly silt [3533], light grey clay [3532] and compact dark grey charcoal-flecked clayey silt [3531]. This more clayey, organic horizon forms a consistent dump above the initial tiles, raising the level to 1.65m OD in the south and 2m OD further north.

Finally, a dump of tile fragments and a few variously sized pebbles set in a matrix of a little dark grey sandy silt [3267] overlay 3083 in the west, corresponding to [3377] over 3475 in section and bringing the level in this area up to 1.78m OD Similarly, to the east, brown pebbly coarse sandy silt and some large tile fragments [5752] was dumped over 5777. To the west, the proportion of mortar and tile fragments increased to more closely resemble 3267. It brought the level here up to 1.91m OD.

As a whole, therefore, the dumping behind the newly created revetment 6487 comprises a major tile horizon 3267 et al, followed by an organic one 3083, capped with further tiles 3267. They overlapped the pre-existing ground surface in the north, at a level of c. 2m OD, and
carried this southwards so that the whole of the central and west parts of the site were level right up to the revetment. This created a horizontal hard-standing rather than the shelving foreshores of previous periods.

To the east, a layer of dark greyish brown structured peat with a blue hue [4553] was dumped above the period VIII strata in this area. It contained sand lenses throughout and fragments of pottery, bone and tile. In the west, critically, this organic horizon overlapped the east edge of tile dump 5588. Given correlations to the east, it must therefore be broadly contemporary with organic horizon 3083. However, it was at a lower level, sloping down from 1.76mO.D. in the north to 1.34m OD at its south edge. Towards this edge, a further dump of dark greyish black humic material and some green clay and containing lenses of rusty orange clay, variously-sized pebbles and oystershells [2435] overlay 4553 and continued its slope southwards down to a level of 1.09m OD. It was overlain by a mixed layer of light and dark yellow clay [2061] which forms a later dump.

Further north, a layer of complete oyster shells in a little brown silt [4408] also overlay 4553. A crack along its length suggests underlying subsidence. A layer of dark orange sandy silt and some medium and coarse pebbles [4425] above this filled the crack and formed a sloping gravel surfacing above the oystershells.

In the south, a localised dump of dark brown structured peat [4366] overlay 4425, below dark bluish grey pebbles of various sizes in a little dark grey sandy silt [4357] overlain by plank [2678], which formed a sloping surface at the south edge of this sequence.

To the north, more dark brown structured peat containing pebbles and various types of sand [4497] overlay 4425, capped in the extreme north by a dump of ragstones set in a creamy white mortar [4462] to give a possible post pad and, in the centre, by the partially articulated timbers [4395] of what may be a collapsed gate. Though the interpretation of these last features is unclear, the overall picture is of dumps forming a sloping foreshore area, in contrast to the horizontal dry land area to the west, with gravel surfacing capping the dumps and the actual beach itself possibly reinforced with a timber planked slipway. This east property therefore retained its inlet, in contrast to the adjacent landholding.

**IX.3 Initial use of period IX makeup in the north of the site**

4039, 3934, 5759, 5758, 5785, 5774, 5755, 5754, 3847, 3846, 4079, 4078, 3839, 3838, 3767, 3828, 3749, 3363, 3111, 3757, 3746, 3278, 3223, 5615, 5614, 5322, 5339, 5299, 5287, 5310, 5269, 5228, 5227, 3966, 3916, 3896, 3895, 3853, 4040, 4835, 4093, 3920, 3984, 3988, 3987, 3905, 2824, 3917, 3915, 3910.

**Description**

Towards the east side of the site, [4039] intruded into 3981 (IX.2). It measured 1.30m north-south by c. 0.30m east west, with steep sides and a flat base. It was filled with dark brownish black humic silt [3934] and suggests some modification of the north continuation of fence line 5573 (IX.1). Further west, a line of three cuts intruded into 5777 (IX.2). In the south, [5759] was roughly square, c. 90mm across, with generally steep sides 80mm deep and a concave base. It was filled with brown organic silt and grey sandy silt and a few fine pebbles and small
fragments of decayed wood [5758]. In the centre, [5775] was sub-circular, c. 0.40m across, with sloping sides 0.10m deep and a concave base and was filled with two large ragstones set in dark grey silt with grey coarse sand and pebbles elsewhere [5774]. It forms a post pad. To the north, [5755] was oval, 0.21m north-south by 0.15m east-west, with irregularly sloping sides 80mm deep and an irregular concave base. It was filled with loose dark brown organic silt and a few small fragments of decayed wood and fine pebbles [5754]. The line formed by these features runs north from the west end of the surviving portion of revetment 6487 and later forms a major property boundary. It is possible therefore that these installations represent such a divisions in its primary form.

Further north-west, cut [3847] intruded into 3845 (IX.2). It was roughly circular, c. 0.14m across, with steep sides 80mm deep and a roughly flat base and was filled with dark grey pebbly silty clay [3846]. Finally, at the north extreme of the site, [4079] intruded into 4072 (VIII.12). It was circular, 70mm diameter with steep sides 0.19m deep, an uneven base and was filled with brown silt [4078] at its very base, but a void above this. These two cuts are less securely stratified than those to the south. 3847 could antedate the later dumping of IX.2, whilst 4079 could come at the end of period VIII. However, given overlying correlations, they seem more likely to be contemporary with 5755 et al to the south.

In the north-west area, a layer of yellowish off-white medium sandy mortar containing horizontal tile fragments at its surface [3839] was laid above cut 3847. It was capped with compact dark greenish grey silty sand mixed with medium and coarse pebbles, the latter increasingly predominant at the surface [3838], giving a good quality metalling. Dark greenish grey sandy silt and some patches of bright orange burnt clay c. 50mm across and containing flecks of wood, chalk, charcoal, burnt clay and small fragments of chalk and fine pebbles [3767] overlay 3838. Further north, dark grey silty clay with some light greyish yellow fine sand and containing organic wood lenses, mostly roughly east-west and up to 17mm across [3828] overlay 3952, 3851 (VII.12). The lenses could be part of a decayed hurdle thrown down at this point and the layer must be broadly contemporary with 3767 to the south since both were overlain by a compacted layer of fine and medium pebbles and a few small tile fragments set in a matrix of orangish green coarse sand [3749]. This make-up showed signs of differential compaction, which increased towards its surface, where there was also a higher proportion of pebbles. It formed a major metalled surface at c. 2.30m OD, dropping slightly to the south.

Further west, the sequence 3839 to 3749 was excavated as a single gravel horizon [3363]. This overlay 3299 (VIII.12) in the south, and elsewhere, 3567, 3636 (VII.12) and 4014, 4009, 3951, 3851, 4076 (VII.12). In excavation, it rationalised into a series of different elements, corresponding to the individual layers distinguished to the east: these included chalk flecked pebbly light grey silt and dark green coarse sand; chalk flecked pebbly light brown silt and coarse sand containing cobbles and large fragments of chalk; pebbly crushed chalk; sticky charcoal flecked blackish brown silt, some brown clay and a few medium pebbles; light grey coarse sandy pebbly silt; the same with more pebbles; orange coarse pebbles and some coarse sand; variously sized pebbles in a little light brown sand; pebbles set in some dark brown coarse sand and a little leached grey silt; and various other combinations of pebbles and silty sands, in places with an increased proportion of organic staining. The level of this surface dropped somewhat to the west, reaching c. 2m OD, and more markedly to the south, where it merged with earlier strata, notably foreshore 3299 (VIII.12) and dumped tiles 3210 (IX.2). A dump of dark orangish tan brickearth and some charcoal and containing large fragments and
cobble sized stones of flint [3111] overlay 3749 and forms an upper element of this major surfacing.

In the north, a mottled compacted pebbly layer of blackish, orangish green sandy silt mixed with some charcoal [3757] overlay the 3749 surface. There were more pebbles at the surface and the majority of this base of the layer was charcoal. It must represent use of the underlying surface. To the south, similar mottled orangish dark brownish black clayey silt containing coarse sand, flecks of charcoal and burnt clay and small fragments of leather [3746] overlay 3749. This corresponds to the west with dark grey silt and some clay and containing patches of grey and brown clay [3278] over 3363, itself capped with charcoal and mortar flecked dark greenish black coarse sandy silt and a little clay [3223]. These also represent occupation debris on 3363/3749 swept towards its south, sloping edge with the surface proper to the north generally kept clean.

To the south and east, a compacted dump of dirty yellowish grey medium sand, coarse sand and medium pebbles in roughly equal proportions and containing fine and coarse pebbles [5615] sealed post holes 5755 et al, also covering 5752 (IX.2) elsewhere. It was covered with brown silt and sand containing fine pebbles [5614], which lensed out to the west but rose to the east, implying a boundary on that side. It had a surface level of 2.24m OD in the north dropping to 2.03m OD elsewhere. To the south, a compacted gravel surface of mainly medium pebbles set in an off-white coarse sandy matrix [5322] overlay 5356 (IX.2) sloping down from a surface level of 2m OD to form a continuation of 5614. This gravel surface must be a counterpart of 3363/3749 to the east. Its rising level to the east suggests the boundary on the line of 4039/5573, which no doubt continued to exert an influence throughout period IX.

‘Cut’ 5339 intruded into 5322. It was T-shaped, with most edges and sides blending gradually into the underlying stratigraphy, and an indeterminate base. It was filled with beige brown clay and brickearth [5299], below greyish brown clay and some silt [5287]. The feature could be a brickearth sill, quickly going out of use, but a forerunner of the structural features seen in the following period (4769 et al in period X). However, its irregularity, lack of associated surfaces, and speedy demise, all of which contrast with later features, probably mean that the ‘cut’ is merely local subsidence of the new dumped make-ups beneath and the ‘fills’ are compensation for such movement.

Near the revetment proper in the south, dark greyish brown clay and some silt [5310] overlay 5322 and could be compensation after the south movement of its cladding. Grey silt and brown clay [5269] was dumped over 5310 and ‘fill’ 5287 to the north, corresponding to a patch of tan grey clay and silt [5228] over the former adjacent to the revetment cladding. Finally, dark grey silt and some brown clay [5227] overlay both 5269 and 5228 to form the final accumulation in the area. These must form the south counterpart of occupation layers 3223 et al to the north-west.

To the north of 5227 et al, a patch of light greyish brown silt and yellow sand containing flecks of shell and charcoal and lenses of brickearth [3966] overlay 3981 (IX.2). To the north, it corresponds with dark greyish brown silt with a little medium sand [3916] covering the fills of cut 4039, both being overlain by a dump of pebbly timber-flecked dark brownish humic silt [3896], itself corresponding with dark brownish grey humic silt [3853] to the east, overlying 3966 only. These dumps or accumulations, at the edge of 5614, seem to represent sweepings from that surface into a slightly lower area.
Lastly, to the north of 5614, greyish brown sandy silt with a few fine and medium pebbles [4040] overlay cut 4079 and dump 4012 (IX.2). It seems likely to correspond with nearby grey fine sandy silt containing charcoal flecks and small patches of iron-panning [4835] over 4679 (VIII.7) and 4847 (VIII.1) since both were overlain by greyish brown silt, some charcoal flecks and a few tan sticky brickearth flecks [4093]. To the south, a lump of dark brown organic silt [3920], also on 4040, may be broadly contemporary. Finally, a spread of dark greyish black pebbly, charcoal-flecked silt [3984] overlay 4093 and 4048 (VIII.7). This must represent a series of trodden accumulation.

Circular post hole [3988] cut into 3984. It was c. 0.22m across, with nearly vertical sides 80mm deep and a base sloping down to the west. It was filled with grey silt containing flecks and small fragments of oyster shell [3987] and must be installed during the accumulation of the occupation debris, since it was overlain by a spread of greenish grey pebbly charcoal-flecked silt [3905], possibly contemporary with sticky brown charcoal and oyster flecked silt clay [2824] over 3984 to the north east. Greenish brown pebbly silt with a little orange brickearth and flecked with charcoal [3917] overlay 3905, below dark greenish patchy grey silty clay containing flecks and small fragments of charcoal [3915], also capping 3920, and finally grey pebbly silt flecked with charcoal and buff mortar [3910]. The accumulations have a clayey character and represent trodden use of the underlying surfaces. Although they include some pebbly silts, none is extensive enough, nor consistent and compacted enough to suggest an east continuation of the good quality surface 3363/3749. It suggests, therefore, that this metalling was confined in the north to the area west of the property boundary suggested by the line of cuts 5755 et al. The greater depth of occupation accumulations in the non-metalled area to the east might suggest that the surface was cleaned by sweeping debris into that area, as has been suggested to the south west with 3223, south with 5227 and south east with 3896.

**IX.4 New surfaces and their use across the north part of the site**

(Fig 8)

3855, 3879, 3829, 3811, 3804, 3805, 3090, 3112, 3084, 3018, 3008, 3118, 2986, 2965, 3110, 3105, 3088, 3087, 2935, 2934, 2969, 2930, 2928, 3788, 3766, 3747, 3745, 3878.
Description

In the north central part of the site, a layer of charcoal-flecked dark greyish brown silt and a few broken tile fragments, also flecked with ash in the east, [3855] was dumped above 3910 (IX.3), occupation of the preceding surface. Grey clayey silt and some variously sized pebbles containing small fragments of chalk, and charcoal and flecks of oyster shell [3879] formed a gravel make-up over this, below a further dump of pebbly light grey silt and fine sand flecked with mortar and charcoal and a few tile fragments [3829]. The tiles gave a flat surface to the layer and were themselves overlain by dark grey silt [3811], possibly tread or part of the same make-up sequence. Two patches of yellowish buff sandy mortar [3804] and yellowish buff pebbly sandy mortar [3805] overlay 3811, to give a surface proper at a level of 2.38m OD in the north, dropping marginally to the south.
To the west, an extensive compact layer of coarse and medium pebbles set in a matrix of some light greenish grey silt and containing cobblesized flints [3090] was laid above 3757, 3363 (IX.3). It probably corresponds with a patch of dark grey sandy silt and some variously sized pebbles containing cobblesized chalk fragments [3112] over 3223 (IX.3) to the south east, since both 3090, and 3112 were capped by an extensive dump of tile fragments, coarse pebbles, dark brownish grey clayey silt and light brown sand in various proportions and containing charcoal, chalk and mortar flecks and fine pebbles [3084]. This may correspond with tile dump 3829 to the east since a layer of yellow sandy mortar and some chalk [3018] overlay 3084, as did a similar patchy deposit [3008] to the west and dark grey sandy silt [3118] below creamy buff medium sandy mortar and some medium and coarse pebbles containing tile fragments [2986] to the south-west. These resemble 3804, the mortar capping above 3829. A dump of large tile fragments and some fine pebbles in a little dark grey pebbly coarse sandy silt [2965] capped 2986 to give this series of make-ups a proper surface at 2.25m OD in the south, rising to c. 2.50m OD in the extreme north.

In that north extreme, light green flecked grey sandy silt containing flecks of charcoal, chalk and mortar [3110] overlay initial gravel 3090, as did the corresponding greyish green pebbly silt and some medium sand [3105] to the east. Both represent use of that surface, may be derived from sweeping from keeping the surface to the south clean. Cut [3088] intruded into 3110. It was irregular, with only the extreme south edge falling within the excavation, 2.10m long with irregular, steep sides at least 0.15m deep and an uneven base. It was filled with light greyish green pebbly silt and some coarse sand [3087] and could be part of a wall foundation cut away to the north. If so, such a feature would explain the accumulation of occupation debris against its south side and not in the centre of the surfaces to the south.

In the latter area, cut [2935] intruded into tiles 2965. It was roughly circular, c. 0.32m across, with sloping sides c. 80mm deep and a flat base and was filled with greyish yellow sandy silt and some pebbles [2934]. It may represent a post pad in use with the structural division 3088 to its north.

Further thin patchy dark greenish brown sticky silt flecked with charcoal and chalk [2969] overlay cut 3088, also overlapping mortar patches 3018, 3008 in the south. A mixed layer of light brown clayey silt and sand in lumps and some brownish yellow mortar and chalk and containing cobble-sized and large fragments of chalk, medium pebbles and patches of dark tan clay [2930] overlay this, below dark green stained brown medium sandy clayey silt containing fine pebbles [2928]. The former may be a rough make-up, or associated with the removal of the wall to the north, or simply trodden occupation debris, which the overlying layer most certainly is. Once again, these accumulations are concentrated to the north and east of the tile and mortar surfaces.

Finally, to the east, another mixed charcoal-flecked layer of grey medium sandy silt and light grey fine sandy silt, the latter also flecked with oyster shell [3788] overlay mortar spreads 3804, 3805, below dark grey charcoal-flecked pebbly silt with a little clay and sand [3766]. A further mixed compaction of dark brown organic fine sandy silt and some dark brownish grey pebbly fine sandy silt, flecked with chalk and charcoal [3747] capped 3766, in turn overlain by light grey fine sandy silt containing broken tiles [3745]. These accumulations must be
contemporary with greenish grey pebbly silt containing large tile fragments [3878] on 3879 nearby and, as a whole, they correlate with the occupation debris 2928 et al further west.

IX.5 Further surfaces and their use across the north part of the site

3711, 3713, 3629, 3728, 3634, 3645, 3644, 3643, 3618, 3617, 3582, 2922, 2848, 2864, 2884, 2875, 2903, 2874.

Description

In the north central part of the site, a mixed layer of light yellowish buff mortar and lower proportions of chalk, greyish brown silt and medium pebbles and also containing tile fragments [3711] was dumped above occupation 3745 (IX.4). It was overlain by grey silt with a few medium and fine pebbles [3713], below a compaction of mixed light buff coarse sandy mortar, a few large chalk fragments and a little grey silt and containing medium pebbled which increased in preponderance towards the north-west [3688]. This gave a good quality surface at 2.52m OD. To the south, another compact pebbly yellow mortar, some grey silt and a little chalk in small fragments [3629] which overlay accumulation 3788 (IX.4) may be an outlier of the make-up.

Similarly, nearby greenish grey silt containing medium and fine pebbles and charcoal flecks [3728] over accumulation 3878 (IX.4) could be a corresponding metalling. All three elements were covered with an extensive deposit of brown silt, darkening in colour towards the south, some medium pebbles and a few fine pebbles and broken tile fragments and containing coarse pebbles and flecks of chalk and shell [3634]. This formed an extensive, gravel metalling covering much of the area with a surface level at 2.53m OD in the north, dropping down somewhat to 2.13m OD in the south.

Cut [3645] intruded into 3634. It was irregular, c. 0.25m across, with irregular sloping sides, more gradual in north than elsewhere, and c. 50mm deep with an uneven base. It was filled with cobble sized ragstones set in some dark brown chalk and oyster-flecked silt [3644]. It lay at the east edge of gravel 3634 and may be part of a fence line which bounded that surface dividing it from the rather different patch of metalling 3728 to the east.

Dark brown silt containing lenses of orange iron staining [3643] overlay 3634, below two areas of fine medium and coarse pebbles in equal proportions set in some grey silty fine sand containing yellow patches [3618] and medium with fewer coarse and fine pebbles set in some brownish grey silt [3617]. A more extensive deposit of greenish grey silty sticky clay and a little grey silt and containing flecks of orange iron staining and charcoal [3582] overlay these and cut 3645. Towards the north and west, the layer became more pebbly and silty, with a greenish hue, and contained flecks of oyster shell, tile and charcoal and large tile fragments. Both it and the initial silt 3643 must be derived from the use of the underlying metallings, with the intervening gravels forming localised patching of the surface.

To the west, a dump of light orangish brown coarse sand and a few variously-sized pebbles [2922] overlay accumulation 2928, 2934 (IX.4) and was capped by compact light yellowish brown fine sand and some silt containing finepebbles with small spreads of crushed chalk.
This formed a new surface at c. 2.27m OD and must be a counterpart of the south elements of 3634 et al to the east.

At its north edge, a dump of greyish brown fine sand and silt mottled with a green and yellow in a few areas and containing flecks and small fragments of chalk and large fragments of tile and yellow mortar [2864] overlapped 2922. It forms a rather different sort of surface, at a level of 2.52m OD The distinctive line between 2864 and 2922 suggests a structural division bounding the former in the south. At the west end of such a division, [2884] intruded into 2864. It was roughly circular, c. 0.39m across with nearly vertical sides 0.49m deep and filled with light buff fine sandy mortar bonded to flint and a few ragstone cobbles and chalk fragments, below a larger amount of loose yellowish brown sandy silt with some medium pebbles and a few coarse pebbles containing chalk fragments and finally a little loose greyish brown silty clay (all [2875]). These must be elements of post packing around post pipe [2903], set within the cut. This was rectangular, 0.22m north-south by 0.16m east-west with nearly vertical sides 0.31m deep tapering to a blunt point and was filled with greyish brown clay and some silt [2874] which marks the demise of the feature.

As a whole, it constitutes a major post hole at the south west corner of surface 2864. Its position and the distinct west edge of the surface suggests that a structural division ran north from this point, marking a return of the east-west feature postulated as bounding 2864 in the south. There is no sign that such a division continued into the area occupied by 3634 at this time. It seems likely, therefore, that there was an east limit somewhere in the intervening area destroyed by a later intrusion.

IX.6 Activities in the east of the site broadly contemporary with IX.4, IX.5

3892, 3841, 3670, 3656, 3837, 3825, 3936, 3935, 3641, 3632, 3619, 3603, 3635, 3797, 3796, 3674, 3654, 3608, 3602, 3751, 3068, 3064, 3060, 3049, 3941, 3034, 3015, 3484, 3540, 3483, 3588, 3575.

Description

In the east of the site, pebbly dark grey silt and some brownish orange medium sand [3892] was laid above organic dump 3896 (IX.3) to form a new surfacing of the area. Dark grey clayey silt containing flecks of charcoal and chalk, small fragments of chalk and large fragments of tile [3841] on top also overlapping 3853 (IX.3) represents trodden use of this new surface, continuing eastwards above strata of the period VIII.

To the west, cut [3670] intruded into 3892. This was at least 1.75m long north-south by at least 0.40m wide east-west, with its only real edge in the east 90mm deep and sloping to a regular base. It was filled with compact grey pebbly silt [3656], which may be the base of a structural division or the east edge of a surface, 3670 being cut for its insertion.

To the east, [3837] intruded into 3841. It was irregular, at least 0.63m north-south (cut away in north) and 0.35m east-west with nearly vertical sides up to 80mm deep curving to imperceptibly to an even level base. It was filled with tan brickearth and some grey silt and contained small fragments of burnt daub and charcoal flecks [3825]. To the north, [3936] cut 3984 (IX.3) and 3997 (VIII.9) on the west and east respectively. It was at least 2.10m long
(north-south \{cut away at either end\}) and c. 0.40m wide (truncated to the east) with sloping sides c. 0.14m deep and an irregular base. It was filled with greenish brown medium sandy silt flecked with charcoal, oyster shell and chalk [3935] 3936 co-aligns with 3837 and they represent different parts of the same structural division, inserted above the line of a period VIII forerunner. The character of the fill of 3837 might suggest that it represents a sill for timber superstructure, though the material in 3936 suggests a slot. In either case, a major boundary along this line must have continued in use in period IX.

An extensive spread of greyish brown fine sandy silt flecked with oyster shell, tile and charcoal [3641] accumulated against 3670 and 3837 in the west and east respectively, representing use of the area between these divisions. It was overlain by a patch of compact dark brownish grey organic silt containing patches of decayed wood [3632] in the north-west, which may be associated with the decay of structural division 3670, and elsewhere by a dump of medium pebbles set in light orangish yellowish grey medium sand flecked with oyster shell [3619]. This forms a gravel surfacing between the two divisions at 2.14m OD. The dark brownish grey medium sandy silt flecked with charcoal, oyster shell and chalk [3603] represents its use, probably broadly contemporary with a patch of grey pebbly charcoal-flecked silt [3635] over 3641 which lay up against slot 3837 to the north-east.

To the east of the 3837 division, dark brownish grey silt with a little sand and containing flecks and small fragments of charcoal and tile and brickearth lenses [3797] overlapped 3841, elsewhere lying above strata of the preceding period. This was overlain by a small patch of light greyish yellow medium sandy mortar [3796], below further successive accumulations of light grey silt with a little fine sand and containing flecks, fragments and whole oyster shells [3674] then light brownish grey silt [3654], followed by dark brownish grey silt and some sand and containing flecks and small fragments of charcoal [3608] and finally light greyish green charcoal-flecked silt with a little sand [3602]. These, of increasing intensity as one goes east, represent the use of this area whilst 3603 et al were accumulating to the west of division 3837. Most elements have a distinct south edge which implies an east-west structural division at this point running from 3837.

To the south of this proposed division, brownish grey silt with some fine sand [3751] overlay 3841, below grey silt with a little light brownish grey ash and a few small fragments of charcoal and fine pebbles and flecked with oyster shell [3068] then a small patch of dark grey silty clay and some charcoal flecks [3064]. This last deposit lay in a slight depression directly above the postulated east-west division and was itself overlain by a patch of scorched reddish brown brickearth, a little light tan brickearth and a few small fragments of charcoal [3060] in a very thin skim. This suggests the base of an insubstantial hearth area set against the postulated structural division which bounded it in the north. A local spread of dark grey silt, some large fragments of chalk and a few small fragments of charcoal [3049] overlapped its north edge continuing north to overlie 3608. It may be related to the use, or even the collapse, of the hearth. More extensive spreads of greyish brown ash, a little greyish green silt and a few small fragments of charcoal and containing flecks of chalk, charcoal, tile and mortar, small fragments of tile and mortar and large fragments of tile [3041], then greenish grey pebbles silt and some large tile fragments [3034] below grey sandy silt also containing large tile fragments [3015] overlay 3049. They cross the line of the postulated division and, though they could be simple tread their extent and building material content implies an association with the demise of that alignment.
North-south cut [3484] intruded into accumulations 3603, 3635 in the west and 3608, 3751 in the east. It was at least 2.40m long (truncated at either end) and up to 0.50m wide, with irregular sides up to 0.19m deep and an uneven base. It was filled with a lump of brown decayed wood [3540], possibly a disturbed structural element, below greyish brown pebbly medium sandy silt [3483], representing the demise of the feature. Further north, north-south feature [3588] cut earlier slot 3936. It was at least 3.60m long (truncated at either end), c. 0.45m wide (irregular alignments on either side) with sides irregularly sloping to an uneven base. It was filled with mixed greyish brown fine sandy silt and some dark grey fine sandy silt containing small fragments of charcoal, the whole deposit flecked with shell and charcoal [3575]. 3588 and 3484 co-align, and must represent the robbing of the structural element constructed with 3936/3857. They must be the culminating event, therefore, after the episode of destruction implied by deposit 3049/3015.

IX.7 Hearths and associated surface in the extreme north-east of the site

(Fig 9)

3227, 3193, 3188, 3187, 3190, 3189, 3192, 3191, 3181, 3180, 3167.
Description

A mixed layer of brownish grey charcoal-flecked silt and a little tile in broken fragments and ragstones [3227] was dumped above occupations layers belonging to the end of period VIII (3239, 3244- VIII.10). This formed an external make-up which was overlapped in the north by a spread of brickearth [3193]. To the north, where it had been cut away, this layer was scorched, suggesting extensive in situ burning. It was cut by four features. [3188] was rectangular, 70mm east-west by 50mm north-south, with vertical sides 0.11m deep and a pointed base. It was filled with dark grey silt [3187]. [3190] nearby was circular, 0.12m across, with steep sides 70mm deep and a flat base. It was filled with dark grey silt [3189]. [3192] was circular, 60mm across, with vertical sides 0.10m deep and a pointed base. It was filled with greyish brown silt [3191]. These installations must relate to the hearth area to their immediate east. On the other side of that scorching was [3181]. It was probably rectangular (only south-west corner within excavation), at least 0.50m by 0.50m with sloping sides up to 0.37m deep and a regular flat base. It was filled with light yellow brickearth and some dark grey silt and flecked with charcoal [3180]. This feature could be a working pit associated with the hearth, with its fill marking its demise. The latter’s charcoal content could be derived from
the primary use of the feature. A spread of grey charcoal-flecked silt [3167] overlay pit 3181, continuing west to cover 3192. It certainly was derived from the use of the hearth area.

Since this hearth can not be stratigraphically related to the sequence of dumping and surfaces assigned to the period IX to the south and west, it may belong to the later parts of period VIII. However, the nature of the feature is different to anything seen in that period in this part of the site, so it seems more likely to be a new form of land use, taking place after the construction of the period IX revetment. Exactly how it relates to the later aspects of use in that period (IX.3 - IX.6) is, however, an open matter.

IX.8 Further hearths in the north-east corner of the site and their use

3129, 3106, 3006, 3040, 3039, 3038, 3037, 3035, 3826, 2977, 2970, 2968, 2901.

Description

Yellowish tan brickearth containing small patches of charcoal, mixed with some greyish brown brickearth flecked with brick or tile and charcoal [3129] was laid above occupation debris 3167 (IX.7) and may form the base for a replacement hearth. To the north another layer of light tan charcoal-flecked brickearth mixed with a few broken tiles and a few ragstones or flint cobbles [3106] was also laid above 3167, and covered stake holes 3188 and 3190 (IX.7) as well. It forms a second hearth make-up, possibly set in a slight hollow in the underlying stratigraphy. Both 3106 and 3129 were capped with a layer of tan brickearth [3006] which had been discoloured red by scorching in one distinct area towards its centre. It contained an increased proportion of deliberately laid tiles towards its base and must be a hearth. It is unclear whether 3129 and 3106 were separate earlier features in their own right or merely part of the construction culminating in 3006. What is certain is that 3006 constitutes a major replacement of the hearth 3193 in IX.7.

Towards the north-west, [3040] intruded into 3006. It was roughly circular, up to 0.29m across, with sloping sides 0.10m deep and contained dark grey sandy silt containing charcoal flecks and small fragments of oyster shell [3039], which formed a packing around central post position [3038]. This was circular, 80mm across, with steep sides 80mm deep and a pointed base, and was filled with brown charcoal-flecked clayey silt [3037], marking the demise of the feature. The installation was no doubt associated with the use of the hearth nearby.

To the south, a mottled mixed layer of dark greyish green silt and some charcoal flecks and containing patches of tan brickearth 20mm across [3035] accumulated above 3803 (VIII.9), as did a patch of light buff-orange crushed mortar flecks containing small fragments of chalk [3826] to the south. Both of these were capped with a spread of grey silt containing small fragments of charcoal, flecks and small and large fragments of cream mortar and large fragments of tile [2977]. This continued north to just overlap the south edge of hearth make-up 3129. To the east, a mixed layer of grey silt and some dark grey sandy silt flecked with iron pan [2970] which overlay 3227 (IX.7) has the same north limit and could be a counterpart of 2977, especially since both were overlain by a further spread of greyish green silt flecked with oyster shell [2968], below mixed of greenish grey silt containing large fragments of tile and oyster shell [2901].
These accumulations represent a series of occupation spreads, with inclusions suggesting industrial activity and perhaps disturbance of brickearth (e.g. the patches in 3035). Although some elements, notably 3035 and 3826, could belong to an earlier part of the sequence, 2977 must occur after make-up 3129. If the latter is part of a whole sequence of construction culminating in hearth 3006, then the accumulations as a whole could reasonably be interpreted as derived from the use of that feature. They avoid the site of the hearth proper, presumably because it was kept clean and the accumulations on it swept south into the more marginal areas. For the reasons given under IX.7, there is good reason to suppose this to be taking place sometime during the period IX rather than at the end of period VIII.

IX.9 Final hearths and pits in the north-east corner of the site

2964, 2955, 3027, 3005, 3004, 2982, 2929, 2924, 2912, 2900, 2949, 2886, 2931, 2873, 2911, 2797, 2769, 2861, 2851, 3003, 2446, 2847, 2896, 2895, 2574, 2567, 2860, 2825, 2798.

Description

A pebbly layer of dark grey silt and some orange fine sand [2964] was laid above accumulation 2968 (IX.8). It contained a concentration of flat-laid tiles at its surface and constitutes a new rough surfacing of the area. A patch of clayey silt scorched dark reddish brown [2955] overlapped the north-east corner of 2964, suggesting the creation of a new hearth area at this point, replacing the previously used 3006/3129 to the north.

In that north area, a patch of mixed charcoal-flecked, pebbly red pure brickearth and some light greyish red ashy silt [3027] directly overlay cut 3040 (IX.8), and was overlapped in the east by red brickearth and a little scorched red brickearth [3005]. Together with further red brickearth, and a little dark grey burnt silt containing flecks of oyster shell and patches of coarse sand [3004] which overlay hearth 3006 (IX.8) to the east, these three layers form patches of a direct replacement hearth. As such they seem likely to be contemporary with the replacement 2955 to the south.

A spread of greenish grey charcoal and oyster shell flecked silt in lenses [2982] overlay 3004 and represents its use. A further mixture of grey silt, crushed oyster shells in roughly equal proportions and rather less whole oyster shells, green sandy silt fine pebbles and containing medium pebbles and small patches of iron staining [2929] spread above 2982, continuing south to overlap 2955, again suggesting that 2955 and 3004 et al were contemporary. Dark grey clay and some greenish grey sandy silt and flecked with charcoal [2924] overlay 2929, itself capped with two patches of orange medium sand and some dark grey silt and containing whole oyster shells [2912] in the east and dark grey, charcoal and daub flecked silt, some lumps of tan brickearth and a little light brown scorched brickearth in large fragments [2900] towards its centre. These must all be derived from the use of the hearths to their north and south, with the brickearth content of 2900 possibly the result of trampling on their make-up.

Towards the north of these accumulations, pure light buff yellow brickearth [2949] was laid on 2982 to form a repair or replacement hearth. Nearby, pit [2886] intruded into accumulation 2912. It was probably circular (east half cut away), c. 1.20m diameter, with regular sloping sides 0.14m deep curving to a concave base. It was presumably related to the processes carried on in association with the nearby hearths.
To its north, dark grey charcoal-flecked silt [2931] overlay hearth 2949, and represents its use. A mixed layer of broken and halved oyster shells set in some charcoal and iron pan flecked grey silt [2873] above this continued south to cover pit 2886 also and may be contemporary with crushed oyster shells and rather less whole shells both set in a matrix of some light greenish grey pebbly sandy silt [2911] over 2982 since both 2911 and 2873 were capped with greyish brown charcoal-flecked sandy silt [2797] then a mixed layer of greyish brown silt containing lenses and patches of light tan brickearth and charcoal and oyster flecks [2769]. All of these accumulations are derived from the use of hearth 2949 and its forerunners, as is a spread of light brownish grey silt containing flecks of charcoal, brickearth, oyster shells and fine pebbles [2861] above 2931 to the north.

An area of mixed ragstones set in grey charcoal-flecked sandy silt [2851] overlapped the north edge of 2861 and forms a post position, or possible hearth base, amongst the other patches of open hearths. To the south west, small cut [3003] intruded into 3004. It was rectangular, 70mm east-west by 20mm north-south, with vertical sides 60mm deep and a void. Though less securely stratified this minor installation was probably related to the feature 2851 since the area between them was then covered by horizontally laid tiles [2446] forming a surface. These were compacted into underlying brickearth and had scorched medium pebbles set in a dark grey silt at their outer edges. This working platform or hearth is the final construction at this point. To its north east, pit [2847] intruded into 2861. It was probably rectangular (only south west side within excavation), at least 0.60m across, with sloping sides c. 90mm deep and a flat base. It must be associated with the nearby hearth activities, in the same way as 3181 was in the preceding phase.

Finally, to the south west of 2851 et al, [2896] cut 2901, 3006 (IX.8). It was irregularly shaped, up to 1m across, with gently sloping sides up to 0.12m deep and an uneven base which sloped down to the south. The north west corner contained two circular depressions, perhaps post positions. It was filled with roughly dressed blocks of ragstones in a matrix of dark grey sandy silt [2895], forming a feature like 2851 in the north east, below light greenish grey sandy silt containing oyster shells [2574], then oyster shells (whole, fragments and flecks in roughly equal proportions) set in some yellowish grey sandy silt [2567], which spilled out to cover occupation material 2797.

To the south of these hearths and associated feature, a spread of brown sandy silt [2860] accumulated above 3935 (IX.6). It was overlain by a mixed layer of greenish grey silt flecked with oyster shell [2825], which also overlay 3575 (IX.6). Finally, a dump of light greyish brown sandy silt around some crushed oyster shell flecks and also containing small fragments of oyster shell [2798] overlay earth 2825 and 2824 (IX.3).

These layers represent a series of occupation accumulations. They cannot be stratigraphically related to the similar material to their north. But the distinctive profusion of oyster shells together with their general position in the sequence especially with respect to overlying stratigraphy and absolute level, suggests that 2798 et al form a south continuation of the occupation deposits related to the hearths. If so, the stratigraphy overlying IX.6 can be suggested as contemporary with that over IX.8 and thus a critical link between the north-east corner and the rest of the site can be established.
Period X.1-X.15

[Note: in 2016, period X.4 is thought to precede period X.1–3]

X.1 Robbing of much of the period IX revetment and repair of the retained element

(Fig 10)

6202, 6263, 6265, 6212, 6264, 6445, 6271, 6598, 6599, 6600, 6601, 6390, 6270, 6267, 6269, 4507, 4096, 4586, 4499, 4320, 4319, 4732, 4731, 4729, 4730, 4386, 4385, 4384, 4406, 4044, 4043, 4042, 3960, 3959, 4227, 4051, 3653, 4046.
Summary

This group includes the robbing of the west segment of the period IX revetment, the repair of the east section, and the construction of the first definite building (Building 1) since period VII.

Description

A 2.10m long upright squared timber [6202] was set against the south face of IX timber 6203. To the south, subsidiary baseplate [6263] was laid north-south on the period VII foreshore.
VII.13, retained to the south by a pile [6265]. A 2.23m raking brace [6212] was then set in a mortise cut in the surface of 6263 and held in place by wedges [6264] and [6445]. The upper north end of 6212 terminated in a chase tenon, housed in a chase mortise cut c. 0.65m from the foot of 6202. The foot of 6202, which was set on the foreshore, was retained to the south by a series of timber off-cuts and fragments of reused structural elements including [6271], [6598]-[6601], [6390], [6270], [6267], [6269], [4507], wedged between the waterfront and 6212.

This arrangement formed an addition to the period IX braces supporting the primary frontage to the east-west waterfront, replacing the original timbers associated with 6203. This may not have been due to a collapse of the earlier front brace following forward displacement of the revetment. The new brace was inclined at too low an angle to be effective, leading to further collapse, and breakage of the replacement upright and brace. This amendment to the period IX revetment could have taken place at a later stage of that period. However, subsequent major modifications to its west (see 4227 et al. below) suggest that it is the initial part of an entirely new period.

To the south of replacement base 6212, and around its base plate was an extensive dump of dark greenish grey clay and silt [4096]. Elsewhere this overlay strata belonging to IX.1 (4317, 6444, 4779, 4569, 4566, 4570, 4567, 4568, 6211, 6213) or of the preceding period 4096 contained a series of timbers. [4586] comprised two north-south timbers and could be the base of a subsequently robbed front base, though it lay c. 5m south of the line of the period IX revetment, so may not be in situ. To the north-west, [4499] was more certainly a subsidiary base plate, with the two ragstone blocks on either side helping to hold it in place originally. Two further blocks nearby could suggest the position of another front brace. Further east, squared timbers [4320] and [4319] could be similarly disturbed members. Finally planks [4732], [4731], [4729] in the south, randomly distributed within 4096 suggest material derived from dismantling a nearby structure. Stake [4730] driven into 4766 (VII.13) could be related to them.

In the south area, when seen in section, 4096 was recorded as successive strata of greenish grey organic clayey silt [4386], above the limit of excavation, brown clayey silt [4385] and finally greenish brown clayey silt [4384]. In section further south, greenish grey pebbly silt [4406], above the limit of excavation, correlates with part of 4096 as excavated in plan. Finally, towards the west, 4096 correlates with a sequence seen in section comprising dark greyish black organic silty clay containing variously sized pebbles and flecks of wood associated with black patches of clay [4044], overlying the limit of excavation, then orange pebbly medium and coarse sand [4043], below a layer of light grey medium sand and dark grey clay mixed in patches [4042], capped by dark greyish brown organic clay and some silt [3960] and finally dark brown clay and some coarse sand [3959]. All these layers in the section dropped consistently from a level of +0.60m in the north to -0.60m in the south, a fall also followed by 4096 in plan. Some of the elements of 4096, notably the more pebbly lenses seen in section suggest a foreshore deposit. However, the vaste majority of the material is more organic in nature and resembles the deposits dumped behind revetments to make-up the ground. It lay to the south of the period IX revetment and there is no replacement feature further south for it to have been dumped behind.
At its north edge, 4096 was cut by [4227], recorded in section as [4051] cutting 3959. This east-west feature was 5.30m long, running west from revetment 6487 (IX.1) and at least 0.40m wide (north edge cut away). It had generally steep sides c0.60m deep, except at the west end where it seemed to just survive later intrusive activity (though see discussion below). Here the sides were more gently sloping. Its base was uneven throughout. To the north, east-west cut [3653] intruded into 3267 (IX.2). This was seen in section as [4046] cutting 3377 (IX.2). Only the north edge of the feature survived. It was at least 5m long (west end outside limit of excavation, east end cut away) with steep sides at least 1.75m. deep (base truncated). Although 3653 cut from a ground surface of at least 1.60m OD, and 4227 from only 0.60m OD, there seems little doubt that they are opposite sides of the same cut, especially given the common overlying strata. The curving west end of 4227, and possible counterpart of the east end of 3653, might suggest differences, but these could be local irregularities rather than real terminations. The cut as a whole is reasonably interpreted as robbing out the west continuation of revetment 6487 (IX.1). So any irregularities of its edges are probably due to such operations. Perhaps, for example, the majority was removed from the south by digging into the horizontal ground surface behind the revetment. However, in the east, nearer the element which was to be retained, more care was taken with the robbing. A trench was dug in front of the base plate and the whole was removed carefully from that side. This would have allowed the junction between what was to be removed and that to be retained to not be unduly damaged.

This extensive robbing of most of the period IX revetment throws light on the construction of 6212 bracing. It is positioned at the new west limit to 6487, to reinforce the corner created by the robbing to the west. Removal of most of 6487 also throws light on 4096. It seems reasonably interpreted as the organic dumps once retained by the west continuation of 6487 which, on its removal, slipped southwards into the lower foreshore area, becoming mixed with these gravels and perhaps under water at high table. Finally, the timbers in 4096 can also be related to the robbing, either as the base of in situ bracing or randomly discarded.

Overall, therefore, the start of period X sees the construction of a brace to reinforce the proposed corner of the old period IX revetment, the removal of the unneeded superstructure to the west of this point, creating slippage of the previously retained organic dumps behind, and the final robbing out of the base plates associated with most of the period IX revetment. Though part of the period IX feature was therefore retained, the majority was removed and thus constitutes a new period.

X.2 Initial building of period X in the centre of the site (Building 1)

4226, 4050, 3248, 3194, 3130, 3055, 3054, 3053, 3052, 3051, 3050, 2936, 3376, 3957, 3956, 3955, 5699, 5696, 5695, 5694, 5693, 5697, 5686, 5688, 2630, 4759, 5203, 5202, 4760, 5651, 5604, 4754, 5220, 4742, 5583, 5580, 5602, 5605, 5649, 5692, 5705, 5689, 5685, 5641, 5640, 5648, 5643, 5601, 5595, 4709, 4633, 4609, 4602, 4628, 4615, 4579, 4577, 4539, 5572, 5576, 5537, 5603, 5553, 5444, 5536, 5534, 5517, 5509, 5492, 5466, 5439, 5494, 4518, 4510, 4535, 4517, 4516, 4515, 5162, 5161, 5120, 4989, 4988, 4832, 5079, 5090, 5028, 4940, 5004, 5026, 5514, 5493, 5470, 5396, 5359 5501, 5385, 5384, 5353, 5359, 5353, 5488, 5474, 5490, 5473, 5385, 5455, 4952, 4933, 4934, 4930, 4939, 4913, 4873, 4907, 4875, 4782, 4863, 4836, 4862, 4841, 4831, 3256, 3375, 3220, 3201, 3178, 3197, 3186, 3374, 3128, 3168, 3117, 3169, 3131, 3115, 3114, 3371, 3165, 3113, 3373, 3104, 3370, 3095, 3103, 3092, 3096, 3091, 2801, 2296.
Towards the west of the site, a layer of brown pebbly silt and some clay filled cut 4227 (X.1), corresponding with pebbly silty sandy clay over 4051 (X.1) seen in section. Correspondingly to the north, dark grey pebbly clay and silt with a little coarse sand filled cut, 3653 (X.1), continuing across its south edge to overlap 4096 (X.1). A gravelly layer of silty clay sealed 3248, below dark greyish brown clay, some silt and a little sand and gravel. When recorded in section to the west, the corresponding sequence above 3248, was dark grey clay with some sand, below dark brownish grey pebbly clay some silt and a little sand, then shells, set in a matrix of some orangeish grey sand, followed by dark brownish grey pebbly clay and silt with a little sand, capped with grey gravelly sandy silt and finally a gravel surface of grey pebbly sandy silt. This sequence of gravelly dumps sloped markedly down to the south and effectively sealed cut 3653. Although 3050 et al. in section and 3194 in plan could not be stratigraphically related to the fill of cut 4227 to the south, the two sets of deposits seem likely to be contemporary since both were sealed by a compact deposit of fine to medium pebbles set in dark greyish brown sandy silt and containing a lens of oyster shell at its centre and flecks of shell throughout. 2936 correlates in section with over 4046 (X.1) in the north and with a pebbly deposit of clay and some sand and silt over 4050, below two deposits of clayey water-washed sand containing oyster shells and the same matrix with more shells in the south. All of these deposits suggest that, after the robbing of the period IX revetment, the robber trench remained open and a series of deposits accumulated in it, eventually reaching a height which allowed them to seal its higher north edge, as well as flowing well south of the lower south one.

Further east, to the north of the retained element of the period IX revetment, three cuts intruded into 5615 (IX.3). 5699] was square, 25mm across, with irregular sides 20mm deep and an irregular base. To the north, [5696] was roughly circular, c. 0.14m. across, with steep sides 0.20m deep tapering to a sharp point. It contained wooden post. [5694] lying due south of 5696, was square, 60mm across, with steep sides 80mm deep tapering to a sharp point and was filled with post. [5693]. Just to the north of 5694, 5695, horizontal plank [5697] was laid east-west. Finally, horizontal timber pad [5686] was laid over 5697 and associated cuts and continued north to abut 5696 at its north-west corner. Thus pad 5686 can be seen to be retained by peg 5695 at its north-west corner and wedged by 5697, itself prevented from slipping south by 5693 and the peg which presumably filled 5699 originally.

To the south of this new post pad, a line of dark brownish grey patchy peat and a few fine pebbles in loose horizontal lenses [5688] overlay 5615 (IX.3). It may represent a decayed wedge since it was overlain by north-south timber plank [2630]. This continued north to overlap 5686 and the holes in both pad and plank suggest that they were pegged together with the peg creating the intrusion in 5699 underneath. Further south, north-south timber [4759] was laid above 5227 (IX.3) and forms a south continuation of the line of 2630. Further south still, timber [5203] (dated by dendrochronology to 1208–51) also overlay 5227. Though not on exactly the same line as 2630/4759, it forms a south continuation, perhaps later displaced, since another timber, [5202] overlay both 5203 and 4759, scarf jointed at either end. Lastly, in
the extreme south, timber [4760] was also laid above 5227 (IX.3) to complete the line of timbers right up to the period IX retained revetment.

A layer of pebbly dark greyish brown structured peat and some silt [5651] was dumped against the west edge of 2630, with a patch of greenish grey silty clay [5604] on top. The latter included a narrow (2mm wide) strip of whitish grey sandy mortar at its surface, where it was capped with a line of orangeish brown brick earth [4754]. This continued south to overlie timbers 5202, 4760 et al and forms a north-south sill, c. 0.12m wide and up to 0.30m high running for 6m south from post pad 5686 to the retained element of the period IX revetment. Changes in the nature of the inclusions (eg orange speckles of sand towards the top in its south element) might suggest that the sill was built of bricks, or at least stages, but this could not be proven in excavation. Bluish colouration towards its base in places could be due to contact with underlying timbers. The sill also showed evidence of thin (less than 2mm) laths of dark brown decayed wood placed vertically within it, running between vertical post positions at 0.14m intervals, also evidence of decayed wood. These may articulate with mortises set in the surface of the underlying timbers 2630 et al.

Patchy mortar [5220] formed a facing on the west side of sill 4754, with a more consistent [4742] on its east side. The better survival of the latter may be due to its internal situation. Further north, light greyish white sandy mortar containing a few fine pebbles and large tile fragments [5583] lay beside the sill, against the east edge of timber 2630. It could have collapsed from the sill or have been put down to fill a depression around the decayed post [5580] that lay adjacent to the sill at this point. This presumed upright supported its superstructure. Just to the north, white chalky mortar in small fragments and smears together with little grey silt [5602] over lay both sill 4754 and stake 5580 and could be further sill facing like 5220 or merely a stage in its construction. Lastly, on the west side, cut [5650] cut into 5651 it was sub-circular, up to 0.10m across, with sloping sides 0.30m deep and filled with loose pebbly dark greyish brown amorphous peat and some sandy silt [5649], with a void at the base of the cut. It would have had the same rôle as 5580 on the other side of the sill.

To the east of pad 5686, a line of brown clayey silt [5692] overlay 5614 (IX.3), with further dark greyish brown organic clayey silt containing small fragments of wood [5705] on top. These were bedding for overlying timber [5689], which ran in a line east from 5686. The gap between pad and timber was filled by a second east-west plank [5685] which overlapped both 5686 and 5689 in west and east respectively. This was overlain by a line of brownish grey silty clay [5641], below a patch of off white mortar and grey clayey silt [5640] on the south of the timber line. At their north edge, dark grey clayey silt [5648] lapped against 5685, below yellowish brown sandy silt forming a matrix around some medium and a few fine pebbles [5643] to give a small gravel patching whose surface rose in the north where it abutted the timber line. Finally, a line of tan brick earth [5601] was laid on the line of the timbers, overlapping 5643 to the north and 5640 to the south to give an east west sill, the counterpart of north-south element 4754. Like this, 5601 had traces of decayed laths within its line suggesting the positions of upright timbers which may be traced in the surface features of the timber base plates underneath. Towards its east end, 5601 showed signs of collapse or wear which also affected the underlying timber 5689. A layer of sandy mortar and some chalk flecks [5595] formed a facing on the south side of 5601. Together it can be suggested that 4754 forms the west side of a structure, 4601 its north wall, with post 5686 at its north west corner.
Inside Building 1 defined by sills 4754, 5601, a spread of charcoal and dark grey silt [4709] overlay 5269 (IX.3). It suggests an insubstantial hearth area, possibly contemporary with the construction activities to its west and north since it was overlain by a dump of dark brown organic silt and some clay [4633] which lapped up against the mortar of sill 4754 on its east edge. Wood stains at the surface of this layer might imply that it was the base of a wooden floor. Alternatively, it could simply be an organic make-up which was trodden on directly. Towards the south west, dark brownish grey silt and some clay [4609] overlay 4633, with a spread of light grey silt and some fine sand [4602] on top. There may be occupation tread or dumped compensation due to slipping of the adjacent revetment. To the north, dark greenish brown organic silt with a little clay and a little orange medium sand [4628] also overlay 4633. It was overlapped on its west edge by a spread of dark grey silt and some clay [4615]. 4628 and 4685 are also probably occupation deposits. The district west edge of 4628 suggests a north-south structural division at this point, with 4615 accumulating between it and the parallel sill 4754 to the west. The south edge of both trodden layers might also suggest internal divisions, though this is less secure. Further dumping of dark brown silt, a little clay and a little light orangish green medium sand [4579] took place above 4615, 4602, with a strip of dark greenish brown silt and some clay [4577] on top against sill 4754, thin spread of yellow sand, some crushed chalk and a little grey silt [4539] on this, possibly building debris. These layers show the continued use of this south internal area.

In the north of the structure, a dump of amorphous peat, some decayed wood fragments and a few fine pebbles [5572] was laid against timber 5685 in the north and mortar 5583, part of sill 4754, to the west. It may be a counterpart of initial dump 4633 in the south area. A patch of dark grey pebbly mortar flecked organic silt [5576] on it, at the northwest corner of the structure, suggests a decayed post position at this point. To the south, a spread of small patches of buff white sandy mortar and greyish white sandy silt in equal proportions and fewer small fragments of dark reddish brown wood [5537] also overlay initial dump 5572 and could be the remains of a fragmentary internal surfacing.

To the west, a patch of buff clay, some small fragments and flecks of white plaster, and a little dark grey sandy silt [5603] overlay 5602, directly above sill line 4754. Similarly, on its west side, a small patch of tan brickearth, some greyish brown silt and a few flecks of off-white mortar [5553] lapped against 4754. They closely resemble the material of 4754, but definitely post date its plaster facing. It is therefore more reasonable to see them as modification or collapse rather than part of its primary construction. A spread of greenish grey chalk-flecked silty clay, stained orange brown at its base [5444] overlay 5603, and continuing east to overlap 5537 and north over 5576. A layer of grey sandy silt and a little dark greenish grey coarse sand forming a matrix around a mixture of some fine and medium pebbles [5536] overlay initial dump 5572, to give a rough gravel surface on the east half of the north internal area. It was overlain in the north by a patch of pebbly light greyish white sandy mortar and some grey sandy silt [5534], which may have collapsed from the sill immediately to its north. This sequence culminates in collapse 5534 and that below 5444 mark the end of the initial occupation of this part of the building.

‘Cut’ [5517] intruded into 5534. It was roughly circular, c. 0.60m across, with gradually sloping sides up to 0.10m deep curving to a dish-shaped base. It had no definable fill, the overlying layer sealing its south edge. This, its profile, and its position with respect to the wear patterns exhibited by sill 5601 and underlying timber 5689, suggest that rather than a true cut
feature, it was produced by increased wear at this point. Since it crosses the line of the sill to its north, it seems reasonable to postulate an access point here. The layer which filled the cut and ran south from it was yellowish buff brickearth and a little grey sandy silt, the latter increasing to 50% of the layer in the south east, and flecked with chalk and yellowish white sandy mortar [5509]. Its surface also showed wear in the vicinity of the threshold. To the north, tan brickearth flecked with off white mortar [5492] also overlapped the north edge of 5517. This could be the collapse of the sill 5601 at this point or a continuation of 5509 through the threshold. In this same area, brown silt with some coarse sand flecked with off-white mortar [5466] overlay 5492, with a patch of off white mortar flecks and a little brownish grey silt [5439] on top. The mortar may again be derived from sill collapse, trodden in to the threshold. Similarly, to the south, dark greenish grey charcoal-flecked silty sand with a little woody silt and a little dark brownish black silty charcoal, both in patches along the north edge [5494] overlay surface 5509 and represents use of it. The surface of 5494 rose markedly to the east, suggesting that it may have accumulated against a structural division at that point. Later intrusions would have removed any definite evidence of such a wall line.

To the south, a compact layer of brownish orange brickearth [4518] was laid above the initial internal occupation layers 4539 et al. A patch of light yellow medium sand and some crushed chalk [4510] overlay this, below further orangish brown brickearth [4535]. The latter would be part of the initial floor surface or repairs to it. 4518 had a distinctive north edge, running perpendicular to the sill 4754 to its west. This suggests an internal division forming the north limit to the floor surface. [4517] intruded into 4535. It was roughly rectangular, c. 0.15m east-west by 0.50m north-south, with rounded corners and steep sides up to 0.10m deep tapering to an irregular base. It represents an installation associated with floor 4518. Similarly, cutting the north-west corner of 4518, was rectangular cut [4516]. It measured 0.22m north-south by 0.12m east-west, with vertical sides 0.15m deep and a base sloping evenly to the south. It was filled with grey silt and some clay [4515] and lay at the point where the proposed division bounding 4518 in the north would meet the main wall 4754, thus giving further support for its existence.

To the west of sill 4754, outside the building cut [5162] intruded into 5322 (IX.3). It was rectangular, 0.24m east-west by 0.10m north-south with steep sides 80mm deep and a regular base, and was filled with dark greyish brown silt and a little fine peat [5161]. This installation may relate to the revetment to the south, or the construction of sill 4754 to the east since the extensive dump of dark brown organic silt and a little clay [5120] which sealed it continued eastward, to be the first layer to abut 5220, the plaster face or the west side of that sill. A small loose spread of cream crushed sandy mortar [4989] which overlay this is probably associated with further construction work above the sill, below another dump of dark brown organic silt and a little clay [4988] in the north. Further south, greenish brown clay [4832] overlay 5120, below a spread of dirty light creamy brown mortar [5079], which also covered 4988. To the northeast, a spread of pinkish brown clay/brickearth and some crushed chalk in flecks [5090] also overlay 4988 and may be derived from the construction of the adjacent sill’s superstructure. Further west, a mixture of medium and coarse pebbles set in some coarse sand [5028] overlying 5120 could be a patch of metalling in the external area, or part of the make-up sequence since further dumping of dark brown organic silt and a little clay [4940] overlay 5028, 5090, and earlier dump 5079 to the south, capped with further dark greenish brown silt and medium sand [4904] in the south area near the revetment. Finally, to the north, a spread of compact light brownish yellow sand [5026] also overlay 4940. This sequence
suggests dumping to raise the level outside the building, with intervening spreads of mortar derived from further construction. As a result of this deposition, the level was raised to c. 1.95m OD beside the revetment in the south and to c. 2.00m OD further north.

To the north of this, dark brown structured peat and a little silver grey coarse sand in lenses [5514] was dumped above 5444 and against mortar 5553 beside sill 4754. Further dark brownish grey sandy silt and some ragstone and flint in flecks [5493] overlay this, suggesting dumping to the northwest and north of Building 1 to bring levels up to 2.16m OD at its highest. This corresponds to 5079 et al to the south. A spread of brownish green pebbly sandy silt [5470] was laid above dump 5614, below further pebbly brown silt, some coarse sand and a little light brown mortar [5396], which also overlay 5615 (IX.3). A patch of grey silt and some orangish brown fine sandy clay flecked with mortar and fine pebbles [5359] overlay 5470. This gravel could be deliberately deposited to consolidate the surface of the underlying, more organic dumping. Or it may be derived from the constructional activities to the south given their mortar content.

Further west, a dump of grey sand silt and a little orangish brown coarse sand containing charcoal flecks of increased preponderance in the north, and patches of green sandy silt [5501] overlay dump 5514 to constitute another fragment of external metalling north of the building. To the north, post hole [3585] intruded into 3582 (IX.5). It was circular, 80mm across, with steep sides 0.10m deep and a rounded base and was filled with crushed and some whole oyster shells [3584]. It may be contemporary with 5162 and other features associated with the construction of the building further east since, although it was directly overlain by a spread of flecks, small fragments and a few whole oyster shells [3553], this was overlapped by a further spread of buff chalk flecked mortar containing large pieces of flat laid tile at its surface and some tan sticky brick earth toward its base [3539]. This resembles the construction spreads 4989 et al to the south, related to the building operations further east. The patch of greyish brown sandy silt [3538] over mortar 3539 represents trodden occupations.

Finally, in the area north of the building, dark grey sandy silt, some structured peat and a little dark brownish grey woody silt flecked with chalk [5488] overlapped the east edges of 5501 and 5493, representing a final organic dump in the area. It continued to cross the threshold into the building to the south, partially overlying floor 5509. Light brown fine sandy clay mixed with some brown medium sandy silt [5474] overlay 5488 at the threshold. These layers demonstrate that the occupation material within the structure was trampled through the entrance and into the external gravelled area to its north.

A layer of dark grey and greenish grey sandy silt with a few fine pebbles and small fragments of tile [5490] overlay 5488 in the south with dark grey sandy silt and a few fine pebbles also containing medium pebbles and chalk flecks [5473] on top, also covering 5474. These form a rough gravel surfacing in the north part of this room Dark grey sandy silt, some dark green fine sand and a few small patches of tan-grey clay, the whole flecked with chalk [5385] overlay 5473 and 5494. It represents tread on the new gravel surface 5473, as may do the patch of chalk-flecked light grey silt and some fine sand [5455] which overlaps its west edge, though the position of 5455 might suggest its association with the decay of sill 5603. These layers represent the final element of the initial occupation of this room in period X.
To the west of the building, in the area raised by dumping to c. 2.00m OD, cut [4952] intruded into 4904. This was an irregular circle, cut away in the west, measuring 1.50m north-south by at least 1.20m east-west with irregular, generally steep sides up to 0.70m deep and an irregular base sloping down to the south. A timber foundation was laid in the base of the feature. [4933] formed its south edge of the feature, [4934] its east edge and [4930] the north. Pegs and peg holes within these timbers suggest reuse. Four pieces of thin wood [4939] formed a west counterpart. However, the compact orangish brown brickearth [4913] then deposited sealed 4939 entirely but was laid against the other timbers. Whilst the latter may be structural, therefore, the less substantial elements 4939 could be simply off-cuts thrown back in the base of the cut. A layer of light tan charcoal-flecked brickearth [4873] overlapped the north edge of cut 4952. Reddening of its surface suggests exposure to heat. Further orangish brown compact brickearth [4907] overlay 4873, continuing south and west to overlap primary packing 4913. To the south, a mixed layer of orangish brown brickearth, a little cream mortar and a little grey silt [4875] was laid against the south edge of timber 4933. These brickearth layers formed a packing around the and above the initial timbers lining the feature. Their discolouration by heat suggests it use as a hearth, though the underlying timbers were uncharred, suggesting sufficient packing to protect them.

To the north, light tan brickearth containing flecks of charcoal, fine pebbles and small tile fragments [4782] was laid overlapping hearth packing 4907, 4875 and nearby spread 5026. It had an area of crushed charcoal in a depression in its centre, which could either be a new hearth area or derived from the use of the main feature to its south. Dark brown organic silt and some clay [4863] was dumped above 4782, with a patching of light tan clay containing flecks and small fragments of charcoal [4836] above this. Just to the north, a layer of grey silt, brickearth and a little brown clay [4862], which also overlay 4863, could be a disturbed equivalent patching, or derived from the superstructure of the nearby hearths. A pebbly spread of black silt and crushed charcoal [4841] which overlay 4782 is more certainly related to hearth use, and a final dump of dark brown peat [4831] which sealed this, and patches 4862, 4836 represented either final occupation of the area during the initial use of the hearth or the decayed remnants of a floor surface sealing them in.

To the west was a mixed layer, containing several elements. To the south it was greyish brown clay some silt and a little fine sand, becoming silt and some clay further north and more sandy and flecked with mortar at its surface [3256]. This was recorded in section as [3375] overlying 3376. In plan it overlay 2936 et al, the accumulations within the robber trench of the period IX revetment. A spread of fine and medium pebbles set in a little orangish brown coarse sand [3220] overlay the south part of 3256, with a distinctive north edge. This was capped with a more extensive yellowish brown medium to coarse sand and some fine to medium pebbles [3201], though this had a depression in its surface recorded as [3178], which gave a break in slope towards its south limit directly above the north edge of gravel 3220.

A patchy dump of dark brown structured peat containing wood fragments [3197] overlay this break in slope 3178, below dark greyish brown clay and a little medium sand containing charcoal flecks and patches of structured peat [3186]. In section this was recorded as [3374], overlying 3375. It also had a distinct break in slope towards its south edge, recorded as [3128]. A layer of dark grey sand and silt and a few coarse pebbles [3168] filled this depression, below a further make-up of coarse pebbles in some yellowish green coarse sand [3117].
The overall picture, therefore, is of spreads of gravel forming rough surfaces confined to the south, with more general organic dumps above, and then the process of local gravelling and followed by more extensive dumping, repeated. The distinct north edge of these gravels co-aligns with the north edge of the hearth just to their east. Therefore, rather than see the successive breaks in slope 3178 and 3128 as just part of the general dipping of stratigraphy towards the south, it seems reasonable to suggest that they form a west continuation of the feature, with the gravels forming surfaces within what may be the stoke hole of the hearth to its west.

To the north of this line, orangish yellow fine sand and silt [3169] overlay 3186 and forms a brickearth surface running down to the proposed stoke hole. Its distinctive south and west edges might even suggest structural divisions on these sides. Further brownish yellow medium sand and some medium pebbles [3131] on top also obey the south edge. To the northwest rectangular cut [3115] intruded into 3201. It was at least 0.70m north-south by 0.50m east-west, (only south corner within excavation) with gradually sloping sides 50mm deep and was filled with compact orangish brown brickearth, some fine and medium pebbles and a little orangish grey clay [3114]. This was recorded in section as [3371], over 3372. It could be a structural feature, perhaps an installation associated with the nearby hearth, or, indeed, another such feature although there was no evidence for burning. To the east, brownish grey sand and silt [3165] overlay brickearth 3169. Again, its definite edges suggest structural divisions to the south and west.

Lastly, in the south west, again confined to the proposed stoke hole, a small spread of silt and some sand [3113] overlay gravel 3117 and may represent use of the hearth to the east. This was recorded in section as [3373], over 3375. A mixed layer of brickearth, especially in the east, some dark brownish grey silty clay and a little light greenish yellow clay and fine pebbles containing small fragments of tile and charcoal [3104] spread across 3113, 3131, 3165 and cut 3114. It was recorded in section as [3370] over 3373 and 3371. To the north a spread of tiles [3095] formed a surface capping to 3104, whilst a small patch of dark orangish brown charcoal flecked silt and a few fine pebbles [3103] overlay it in the stoke hole area. Irregular ‘cut’ [3092] intruded into 3103. It was 0.50m long east-west by up to 0.15m wide, with generally sharp sides and contained two large ragstone blocks [3096] as packing, then fine pebbles set in a matrix of light yellow coarse sand [3091]. It is unclear whether this is a real cut feature, associated with the hearth activities to the east or, given its irregularity, merely a cracking of the underlying stratigraphy due to subsidence, with the ragstone filling the gap produced. In plan to the west, the various distinctions between the gravels within the stoke hole and the dump which sealed it were not made. Here, a gravel surface containing oyster shell [2801] sealed 2936, the latest accumulation in the revetment robber trench, capped with dark brown silt and some fine sand, which became more orange and clayey to the east [2296].

However, there can be no doubt as to the general correlation between these layers, which post date the robbing, and the stratigraphy related to the proposed stoke hole to the east. If one accepts the interpretation of this feature and its association with the hearth set in cut 4952, then the latter must be set up immediately after the robbing of the west part of the period IX revetment. The hearth, however, cuts the initial dumps raising the ground surface outside the newly created Building 1 represented by sills 4754 et al. Thus, the most reasonable sequence of activities is to see the reinforcing of part of the period IX revetment and robbing of the remainder described under X.1 as preparation for the construction of a building behind the
retained element, with an associated hearth built outside it, its stoke hole leading west to cover the deposits which had accumulated in the robber trench further west. The lack of a true south wall for the new building suggests that it was not just set behind the modified revetment, but actually structurally integrated with it, with the top plate of the revetment forming the base plate for its south wall and articulating with timber 4769.

Timber [5203] from the west wall of the building had twelve sapwood rings and its heartwood-sapwood transition dates to 1197. Its probable felling date range is 1208–51 (Dendrochronology report below).

X.3 New structural activity in the north-east of the site

2587, 2586, 2568, 2561, 2538, 2902, 2525, 2521, 2419, 2893, 2863, 2858, 2857, 2839, 3433, 3448, 3407, 3403, 3402, 3399, 2078, 2036, 2003, 2859, 2846, 2799, 2605, 2828, 2803, 2777, 2767, 2266, 2450, 2497, 2496, 2445, 2430, 7598, 2604, 2571, 2539, 2265, 2768, 1654, 1590, 1601, 1600, 1583, 1566, 2219, 2128, 2218.

Description

Towards the northeast corner of the site, north-south cut [2587] intruded into 2798, 2895, 3027 (all IX.9). It was at least 4.30m long (cut away at both ends), 0.23m wide in the north broadening to 0.43m in the south. It had gently sloping, shallow sides to the north, sharper deeper one (up to 0.18m) in the south, with a locally irregular base (due to the masonry pressed into it), which sloped gradually down to the south. It was filled, initially, with crushed fragments of oyster shell within some greyish green sandy silt [2586], confined to the south part, and forming a bedding for large fragments of ragstone, flint and tile set in a matrix of pebbly greyish green silty coarse sand [2568]. To the south, corresponding with the changed nature of the cut and the position of bedding 2586, smaller nodules of building material were set above larger blocks of ragstone and sandstone up to 0.40m across which formed a firm base for the general matrix. Despite these differences, there is no reason to believe in more than one phase of construction. It seems that the wall which would have been placed above these footings required strengthening towards its south end. The evidence suggests a boundary wall rather than the west wall of a building.

A layer of light yellowish grey coarse sand and variously sized pebbles flecked with tile and oyster shell [2561] lapped against the east side of wall 2568, elsewhere overlying 2964 (IX.9). Just to the east, variously sized pebbles and a few large fragments of tile set in a matrix of some dark greenish grey sandy silt containing whole oyster shells and charcoal flecks [2538] which overlay 2567, 2900 (both IX.9) could be a counterpart. Similarly, to the south, a light greyish orange (iron-stained) fine sand and variously sized pebbles [2902] overlay 3015 (IX.6) and 2964 (IX.9) and may be a continuation of 2561, since a spread of black silt and a little green fine sand containing cobble-sized tile fragments [2525] overlay both, with further variously sized pebbles compacted into some light yellowish grey silty fine sand flecked with oyster shell and tile and containing large fragments of tile and whole oyster shells towards the south [2521] above it. This not only sealed 3004 (IX.9), but covered 2538, adding weight to 2525, 2902, and 2538 being a single horizon. Finally, some coarse pebbles compacted in greenish grey coarse sand [2419] overlay 2521, also capping 2446 (IX.9), to give a strip of metalling beside the new wall 2568. These successive gravels have a consistent east edge.
running parallel to the wall, off-set c. 1.20m, which suggests that the area beside the wall was subjected to considerable traffic.

A spread of greenish grey silt flecked with crushed oyster shell and charcoal [2893] overlay the east edge of 2902, also covering 2929 (IX.9). This was overlain by greyish brown charcoal-flecked silt and a few large fragments of burnt daub [2863], below greenish grey sticky silt containing large fragments of tile and oyster shell [2858]. These accumulations beside the gravel metalling may be contemporary with a more mixed deposit of greenish grey charcoal-flecked sandy silt, crushed oyster shells and a few large fragments of tile [2857] which overlay 2902 to the south, since both 2857 and 2858 were capped with a dump of large fragments of tile and a few medium pebbles set in a matrix of a little light greenish grey silty fine sand [2839], forming a final surfacing of this south area.

To the west, on the other side of wall line 2568, a mixed layer of brownish grey sandy silt flecked with oyster shell and charcoal [3433] was dumped above 3483 (IX.6). This was overlain by grey oyster flecked medium sandy silt below a mixed element of grey silt and some brown sandy silt flecked with oyster shell, charcoal and fine pebbles - both [3448] - followed by greyish brown medium sandy silt [3407] and finally another mixed deposit of charcoal-flecked brownish grey medium sand and silt [3403]. These accumulations, overlaying IX.9 stratigraphy, probably occur during period X. They are cut by the robber trench of the wall to their east (see 2858 below) so, whilst they have no proven relationship with the construction of that wall, they probably result from the use of the area at the start of period X. The uppermost elements had a surface level of 2.28m OD and this corresponds with 5514 etc (X.2) to the west. Yellow coarse sandy gravel [3402] overlay 3403, suggesting the tail end of a metalling with a surface at 2.32m OD The grey medium sandy silt [3399] which overlay it represents later occupation. Again, these may equate with some of the patchy surfaces and occupation eg 5359 seen at the end of X.2 to the west.

To the north, light brownish grey sandy silt containing small fragments of oyster shell [2078] lay up against wall 2568, with a mixed deposit of greenish grey silt and some brown silt containing small fragments of charcoal and oyster shell [2036], then mottled greenish grey charcoal-flecked silt [2003]. Just to the west, coarse greenish grey sandy silt [2859] overlay 3984 (IX.3) below a spread of light brown silt [2846], which also covered 2860 (IX.9). These probably relate to a strip of charcoal and oyster flecked mixed sticky grey silt and some mottles of brownish grey sandy silt [2799] over 2824 (IX.3), since both were overlain by a series of lenses of brown fine sandy silts [2605]. All of these layers represent a series of accumulations between wall 2568 in the east and the initial surfaces of X.2 to the west. They overlay stratigraphy ascribed to the end of period IX and thus are probably broadly contemporary with the material 3433 et al to the south.

2839 and 3433 appeared to be cut by [2828] at its west and east edges respectively. This north-south intrusion was at least 2.60m long (cut away at both ends) 0.36m wide in the north, tapering to 0.25m further south. In the north, it had steep sides up to 0.22m deep and an uneven base. To the south, the sides were more gradual and shallower. This cut co-aligns with wall 2568 to the north. It could be a south continuation of its construction trench. However, if this were so, the gravels 2902 et al would have to belong to the preceding period, IX. They are not only dissimilar to the strata in the area during period IX, they also closely resemble, in character and position of east edge, the gravels 2561 et al known to post date
wall 2568. It seems more reasonable, therefore, to see 2828 as robbing of the south part of 2568 after the gravels to its west had been deposited and used, and 3433 \textit{et al} had accumulated to the west.

A layer of dark grey charcoal-flecked silt and some whole and a few crushed oyster shells containing large tile fragments [2803] filled robber trench 2828, below greyish brown silt, some olive green silty sand and a few whole oyster shells containing large tile fragments [2777]. The former fill flowed over the east edge of the robber trench, where both were overlapped by an extensive deposit of whole and crushed shells in a matrix of a little greenish grey sandy silt [2767] spreading eastwards from this point. Where the shells abutted the earlier wall line, they lay at a sharp angle against the underlying feature. Though mostly horizontal elsewhere, they also lay at a sharp angle at the east edge, before being cut by a later intrusion. This might suggest a corresponding structural division just to the east, cut away by later activities. A small area of greyish brown sandy silt containing buff mortar flecks, fine pebbles and small fragments of chalk and tile [2266] overlay the oysters of 2767. It may have accumulated on the shell layer or collapsed from the adjacent wall.

To the north, another spread of whole oyster shells set in some sticky grey silt [2450] overlay gravel 2521, with two cobble-sized stones [2497] above this, then a spread of dark grey orange stained silt, a little medium sand and brickearth in patches containing large tile fragments [2496]. The oyster spreads thus continued north, dumped after the robbing of wall 2568. The two cobble stones could have been derived from the disturbance of that foundation. A local spread of pebbles and flint cobbles in some light brown sand [2445] above 2496 suggests final patching beside the wall. To the north, a large tile fragment in black silt flecked with flint [2430] which overlay 2419 could be another displaced structural element related to the adjacent wall.

To the east, the layer [7598], recorded in a composite top plan before trenching around the excavation edges to accommodate piling, equates at its surface with the oyster spread 2767 and 2450. Dark grey sandy silt with green tinges at its surface [2604] above 7598, then a small patch of dark grey silty clay and a few medium and fine pebbles [2571] followed by dark greyish brown medium sandy silt and a laminae of some dark green coarse sandy silt and dark grey charcoal-flecked silt [2539] represent local accumulations above the oyster shell formed by tread, the last layer may be the result of weathering/puddling of trodden occupation in an external area. As a whole, the oyster dumps suggest the tidying up of the area following the robbing of wall 2568 to the west, then its exposure to the elements. A dump of brickearth, dark grey silt and tile fragments and rather less charcoal fragments [2265] which overlay 7598 in the south could be another accumulation in a make-up to level this lower area.

Finally, in the extreme north east corner of the site, a mixed layer of light grey silt and some broken oyster shells [2768] was dumped above 2847 (IX.9). It was overlain by a spread of loose yellowish brown pebbly oyster flecked medium and coarse sand [1654], possibly an outlier of the external dumps to the south west, though they could as easily belong to the preceding period. Another dump of oyster shell and greyish brown clayey silt [1590] overlay this in the north, corresponding with oysters set in charcoal-flecked greenish grey silty medium sand [1601], then greenish grey charcoal-flecked clay and silt [1600] over 1654 just to the south. Further greenish grey silt and some medium sand containing small fragments of oyster shell and flecks of charcoal [1583] overlay 1600, and 1590, corresponding to greyish brown
silt and some medium sand containing flecks and small fragments of oyster shell [1566] over 1590 in the north. These silts, with high proportions of oyster shell, represent use of the gravel 1654.

As a whole, the construction of wall 2568 and its associated surfaces can only be stratigraphically related to elements IX.7 - IX.9. These themselves could be a later aspect of period VIII. However, the change to the use of the area for hearth installations suggests a change in land use which has been associated with the waterfront movements which comprise the central characteristic of period IX. Using similar arguments, the construction of the wall and sealing of the hearth activities might suggest a second new period of land use, and thus be related to the changes which define period X to the south and the west. This suggestion, though admittedly tentative, is given greater strength when one sees the construction of a substantial building (Building 1) on the central part of the site at the start of period X (see X.2). In this context, it might be reasonable to see the construction of boundary wall 2568, above a division which was present but in less substantial form in previous periods, as part of the process of formalising land holding was the area was structurally developed.

To the west, north-south linear cut [2219] intruded into accumulation 2605. It was at least 1.40m long (north end cut away), c. 0.80m wide, with a curved south end and steep sides 0.45m deep. Its base was irregular, with depressions caused by the insertion of its masonry fill. In the north east, the side side curved, suggesting an end to the feature near this point before it was cut away. Its total length may therefore not have been much greater than that which survived. It was filled with a double course of large, roughly worked masonry blocks up to 0.50m across [2128]. These were mainly reused stones, some with yellow sandy mortar still adhering, and included flint nodules and one moulded stone. Sticky greyish brown silt and some medium pebbles [2218] was then packed around the stones. The foundation thus formed was a pier base rather than a linear wall foundation. Any associated bases must have lain off the site to the north. However, since the feature intruded directly into 2605, it may have been constructed as early as period X, and was certainly in use by the following period. Given underlying relationships, it may be broadly contemporary with the insertion of nearby wall 2568, though not part of the same structure, and probably not on the same property (see also the discussion of 2213 et al in X.18).

X.4 Extension or replacement of period XIII revetment

5179, 5664, 5665, 2645, 2648, 5636, 5635, 5634, 5633, 5632/2646, 5631, 5630, 5094, 4306, 4290, 4270, 4263, 4238, 4379, 4364, 4316, 4237, 4230.

The 12 contexts in this group provide evidence for the extension, or possibly replacement, of the VIII.2 north-south waterfront, projecting at least 7m south of the associated east-west structure constructed in IX and for dumps behind this feature.

Description

South of the VIII.2 waterfront, cut [5179] intruded into earlier foreshore 4553 (IX.2). This was at least 3.50m long north-south by at least 1.70m wide, with only a proper east edge. It was steep sided, with rounded base sloping gently to the south and contained a north-south horizontal timber 2m+ in length [5664] which formed the baseplate for an extension into the
River, continuing beyond the south LOE. Plank fragment [5665] may have functioned as a levelling wedge or underpinning for this baseplate. Three squared tenoned uprights [2645], [2648] and [5636], up to c. 2.70m long were pegged into mortises cut into 5664. Chased mortises were cut in the outer (west) faces of 2645 and 5636 for raking braces, although neither was found in situ, presumably being robbed following the building of a new east-west revetment at the south end of 5664 (see XI).

To the east of the uprights, a series of planks was pegged to form cladding, set edge-to-edge. These included [5635], [5634], [5633], [5632] [=2646], [5631] and [5630]. Greyish brown clay, and a little sand, oyster shell and brown structured peat [5094] was dumped into cut 5179 and against the lower elements of the plank cladding (see XI.2 for the relation between this fill and 4926, and XI.6 between 5632/2646 and 2650). The new revetment was over 2m in length (south limit unknown) and c. 2.70m in height. It was similar to its predecessors in construction, with squared posts set in a mortised base plate and probably front-braced. The braces were subsequently robbed, following the rebuilding of the east-west revetment in period XI. Given the underlying correlations, in particular the fact that 5179 cut the foreshore assigned to period IX on independent grounds, and that it ante-dates structures which can be related to period XI on a similarly independent basis, this new revetment may be broadly contemporary with the new feature constructed at the start of period X. Plank [2646] had rings which ended in 1197, though no sapwood, and was therefore felled after 1207; plank [5631] had rings ending in 1153, but also without sapwood, so felled after 1163 (Dendrochronology report below).

To the northeast, a sandy mixture of dark brown structured peat and some amorphous peat [4306] formed a small dump over 2678 (IX.2), below greenish grey medium sand and some coarse sand [4290] then further dark brown structured peat composed in part of rushes [4270], followed by horizontal complete oyster shells in a little dark grey silt [4263] and finally further dark brown amorphous peat [4238]. All of these localised dumps dipped down markedly to the south. To their north, another dump of dark pinkish grey amorphous peat mixed with varying proportions of variously sized sands and pebbles containing large fragments of wood [4379] overlay 4395, 4462, (IX.2), and was capped with a compact mottled mixture of equal proportions of grey clay, grey silt, light brown clay, fine pebbles and medium pebbles containing small fragments of chalk [4364], which also overlay 4366 (IX.2). Finally, dark greyish brown amorphous peat with a little medium and coarse sand [4316] overlay 4364 to give a sequence of dumps corresponding to 4238 et al to the south. ‘Cut’ [4237] was a depression in the surface of 4238 and 4316. It was irregularly shaped, up to 1m across, with ill defined sides up to 0.16m deep except in one area in the south-east where the edge was vertical. It was probably a result of the consolidation of underlying organic material rather than a true cut feature. The brown pebbly silt and some chalk in flecks, small and large fragments [4230] which filled this depression was no doubt compensation for that subsidence.

These new small scale dumps form a new type of activity in the area distinct from that assigned to period IX. They might therefore be tentatively assigned to period X and thus be contemporary with the revetment in cut 5179 to the south and, more generally, with the construction phases X.1 - X.3 elsewhere on the site.

**X.5 Modification of Building 1**
Towards the north of the site, an east west strip of dark brown organic silt containing small fragments of wood \([5318]\) was laid above 5614 (IX.3). At its west end lay a large flat ragstone \([5369]\) on 5615 (IX.3). Both elements were then sealed by a line of brick earth \([5292]\) to form an east west sill at least 3m long. Patches of thin off white sandy mortar, 1-4 mm thick, adhered to either side of the sill, suggesting a plaster facing originally. When recorded in
earlier excavation to the north, this sill was numbered [3537] and shown to overlay 3538 (X.2). It must therefore be inserted after the initial occupation of period X, forming a new north limit for the timber building (Building 1) constructed at the start of the period.

To the south east, north-south cut [3393] intruded into accumulation 3399 (X.3). It was at least 1.75m long (north end cut away) and up to 0.20m wide (west limit unknown) with shallow sides up to 60mm deep and a regular, flat base. It represents a beam slot added after the initial use of Building 1. Its south limit is opposite structural elements inserted later in this period (5242 et al - X.9 below) and the behaviour of contemporary surfaces to the south suggest that they are sweeping up against a collinear structural division. It is therefore reasonable to suggest that 3393 was a secondary addition inserted at the same time as sill 5292, these forming the new east and north limits respectively of the structure. This east side corresponds with the property division suggested by the behaviour of the revetments of period X to the south (see X.1 for details).

To the south and west of these new walls [5458] was cut into 5470, 5488 (both X.2) just north of sill 5601 (X.2). It was roughly rectangular, 1.30m east-west by 1m north-south with rounded corners and had steep sides up to 70mm deep breaking sharply to flat base. Towards the north end of the cut was a depression up to 0.37m across and 0.10m deep. This may have been caused by disturbance of part of its fills. A layer of brickearth [5382] was put in the east part of the cut. It had been discoloured by exposure to heat, showing that the feature was a hearth. A small spread of grey silty clay containing small fragments of coal and flecks and small fragments of wood [5374] which overlapped 5382 in the west resulted from the use of the feature.

To the south, a compact deposit of chalk flecked brickearth mixed with small patches of some grey silty pebbly sand [5381] was laid above 5385 (X.2). The chalk flecks, though present throughout, were markedly more numerous in the west where it approached sill 4754. At the east extreme, the surface sloped up markedly to a lip, suggesting a nearby wall, presumably a south extension of slot 3393. This layer forms a major new surface in the north of the central building. The patchy silt mixed in with the make-up resulted from its use.

East-west cut [5371] intruded into the floor. 0.15m wide and 1.20m long, petering out to east, it had steep sides up to 40mm deep and a rounded, locally irregular base. It was filled with timber [5370], which had slipped to the south but originally formed a base plate for an internal partition running east from 4754, with studs set into it at 0.22m intervals. Their mortise holes measured 40mm north-south by c. 75mm east-west. [5200] was cut into 5381 beside the base plate. This was roughly circular, 0.15m across, with gently curving sides becoming vertical eventually at 0.16m deep and meeting in a wedge-shaped point. Timber [5199] was driven into the cut to support the south edge of the base plate. It continued for 0.13m above the ground surface before being broken off. 5370 represents a new internal division within Building 1. Its east limit and the behaviour of floor 5381 suggest a threshold beyond that point mirroring that crossing wall 5601 to the north.

To the west, a patch of a light grey silt, some fine sand and a little coarse sand containing chalk flecks and medium pebbles [5464] overlay 5488 (X.2) and is external gravel patching, may be inserted at the same time as 5381 was laid. An extensive spread of dark grey silt, some medium sand and a little light brown clay containing flecks of shell and mortar and fragments of wood and peat [5341] overlay 5464, continuing north to lap against baseplate 5370 and
cover hearth accumulation 5374. It also overlay 5396, 5455 (both X.2). This trample accumulated around the hearth, showing its continued use. It did, however, seal the sill 4754 north of base plate 5370. This suggests that a threshold was created in the wall and, in fact, the insertion of the base plate may have been needed for strengthening because of the new doorway. Light grey silt and some fine sand flecked with chalk and mortar [5290] overlay the east part of 5381, representing its use. Similarly, an accumulation of dark brownish grey silty sand [5213] capped external gravel 5464 to the south.

Further north, [5205] cut into accumulation 5341. It was sub-rectangular, up to 40mm across, with steep sides 60mm deep and a flatish base. A metal sheath lined the inside of the cut, with the brown silt, some fine sand and a little clay [5204] which filled it also containing flecks of iron derived from the sheath and flecks of mortar. It represents an installation in that external area, presumably an iron tube or post driven into the ground. Just to the west, compact dark brown silt, and a little light brown clay and coarse sand containing fine, medium and coarse pebbles and chalk and mortar flecks [5303] was laid above 5341, also running north to abut sill 5292. It forms a gravel metalling, seeming to obey the position of cut 5205 to the east. The grey silt and a little medium sand and brown clay containing small fragments of decayed wood and fine pebbles [5302] above this represents use of the metalling, with a small compact spread of brown clayey silt and a little light brown clay and fine sand containing cream mortar flecks, fine medium and coarse pebbles and chalk fragments [5301] above this being a later repair.

Further south, a compact spread of dark grey pebbly silt and some sand [4810] over 4831 (X.2) is another repair of the external area, probably related to cut [4722] which intruded into 4831 also. 4722 was D-shaped, with a straight side in the west and measured 0.90m east-west by 0.68m north-south. It had a vertical side in the west 40mm deep, more gradual sides elsewhere to 0.22m deep and a flat base. It was filled with soft brickearth [4708], which also overlapped gravel 4810. This had been moulded to form a saucer shape and was discoloured bright red to the west, dark brown to the south, by exposure to heat. The feature is a hearth, set up just west. It is unclear whether earlier hearth 4907 to the west continued to function at this time or was replaced by 4708, although its site remained unsealed. Dark grey ash mixed with lenses of black finely comminuted charcoal [4707] which overlay 4708 represents it use. A spread of dark grey sand, silt, crushed charcoal and a few pebbles [4750] overlying 4831 (X.2) to the north could also be related to its use. Another strip of brickearth, containing charcoal fragments [4704] was laid above 4707, representing a re-lining of the feature in the south and west. It had been discoloured by heat, showing the continued function. An extensive spread of black crushed charcoal up to 0.10m deep at its centre [4668] covered the relining, continuing north to overlap 4750, with greyish green clay and a little dark grey silt containing charcoal flecks [4502] on top. Both represent the use of the hearth area.

To the west, an extensive layer of pebbles set in some dark orange fine sand [2267] overlay 2296, 3091, 3095 (all X.2). It was recorded in section as [3326], over 3370 (X.2). Towards the south, its surface dipped to form a depression above the possible stoke hole related to hearth 4907. A patch of orangish brown coarse sand and some coarse pebbles [3154] overlay 2267 in this lower area, capped with black clayey silt containing small fragments of oyster shell and charcoal and fine pebbles [3056], again confined to the depression. As a whole, these represent an extensive resurfacing of the area west of the hearth 4907, though leaving the
feature itself unsealed, with subsequent use of the metalling. Since they overlay accumulations late in X.2, this resurfacing may be contemporary with new hearth 4708 to the east.

Three cuts intruded into gravel 2267. [3058] in the south was rectangular, 0.32m east-west by 0.15m north-south with vertical sides up to 0.11m deep. It was packed with flint fragments surrounded by clayey silt [3057]. [3048] was oval, up to 0.50m across with a stepped side 0.12m down and a total depth of 0.39m Light greyish brown sandy silt and several ragstone fragments [3047] within this formed a packing around post pipe [3046], which was up to 0.16m across, nearly vertically sided and 0.36m deep. The greyish brown medium sandy silt [3036] which this contained marks the demise of the feature. Further north, cut [2998] was circular, 0.15m across, with steep sides 0.59m deep coming to a blunt point. It contained a broken off stake [2997], below loose dark greyish brown sandy silt [2996] then loose light greyish green-brown silty medium sand containing crushed oyster shells, fine and medium pebbles [2995]. There is no obvious pattern in these features, but presumably they are associated with the use of the hearths in the east.

A layer of greenish brick earth [3028] was laid in the area between hearths and cut 3048, overlapping 3056 and running up around post packing 3057. The post pipe [3033] which lay within 3057 was apparent in the surface however. This was c. 0.15m across, with steep sides, up to 01.8m deep and a rounded base and was filled with orange clay and a few medium pebbles [3032], marking its demise. Though post hole 3058 was inserted before 3028 the features were in use together, presumably with 3028 as a floor surface running up to the post. Mixed greyish brown clayey silt containing patches of greenish yellow clay, fine pebbles, flecks and fragments of charcoal and flecks of mortar [3007] covered 3022, representing use of the underlying brick earth floor. Both floor and occupation debris have the same west limit just overlapping 3056 at this point. There may therefore have been a structural division here.

To the north of the central building, a spread of dark grey silty clay and some brick earth in patches containing small fragments of charcoal and large fragments of buff mortar [3520] lay up against sill 3537. It could represent a rough surfacing of that area or, more likely, disturbance of such during its use. Light greyish green sticky compact clay [3468] overlay this, maybe partly derived from All of these layers rep puddling since its surface was pockmarked by the oyster shells in an overlying spread of crushed and some whole shells set in a little grey silt flecked with yellowish green ?iron panning [3464], below an extensive deposit of brownish clayey silt and some green clayey silt containing fine pebbles, charcoal flecks and whole oyster shells [3455]. resent the use of the external area immediately outside the main north wall of the building.

A spread of beige sandy mortar, and some light greyish brown silt containing fine and medium pebbles and small fragments and flecks of chalk [3456] overlay 3435. The mortar was mainly crushed into flecks, but some survived as larger fragments, suggesting that it had not been extensively redeposited. It may have been derived from the sill 3537 just to the south becoming crushed in subsequent treading on the area. To the south of the sill, another spread of buff/off white sandy mortar containing small fragments of chalk [5236] overlay 5301, also capping 5359 (X.2). Its character and extent also suggests destruction debris later subjected to tread. The dump of compact buff/white chalk flecked mortar [3382] which filled slot 3393 to the east is a continuation of this, as is a small patch of compact off-white sandy mortar [5571] adjacent to sill 5601. In the area between that sill and base plate 5370, compact light cream....
sandy mortar, some light grey silt and a few patches of light yellow sandy mortar containing medium pebbles and small fragments of chalk [5265] overlay occupation 5290, and was confined to the area opposite the threshold leading south into the body of the building.

Just outside the structure to the west, another spread of grey silty sand and a little crushed yellowish grey mortar and streaky dark greyish tan clay [5232] overlay 5302 and 5213. It may have been derived from the partial collapse of the sill immediately to its east, and be a continuation of the mortar horizon identified in the north. Further south in this external area, another spread of light pinkish grey pebbly mortar [4662] overlay hearth use 4668 and sealed hearth 4907 completely, though a dump of light greyish cream ash containing charcoal flecks and flint and chalk cobbles, overlying a lens of brickearth, [4649] suggests that material from the use of later hearth 4708 may have been dumped on top just afterwards. Lastly, to the west, light cream sandy mortar containing greyish brown charcoal-flecked silt flecks [2992] overlay 3007. The silt became more dominant in the south, where the redeposited nature of the layer was more apparent. A second spread of similar mortar [2994], also overlying 3007, is a north counterpart of this. These mortar spreads can be recognised as a consistent horizon both outside and inside the central building. Some elements are certainly redeposited, others seem to be derived from adjacent walls, which suggests that the building may have undergone substantial alteration at this point.

A thin spread of dark grey silt [5266] overlay mortar 5236 near the north wall of the structure, correlating with a small patch of light greyish green silt and some fine sand [5360] above 5382 to the south and dark grey silt and some buff mortar flecks [5286] directly abutting sill base 5318, 5369. These suggest that the north area was then trampled on after the mortar had been deposited, before rebuilding and re-occupation proper took place.

**X.6 Replacement of hearth 4607**

(Fig 12)

4652, 4588, 4578, 4585, 4589, 4675, 4674, 4764, 4572, 4519, 4565, 4508, 4465, 4398, 4399, 4458.
Description

A strip of bright orange brick earth [4652] was laid above 4662 (X.5), the mortar spread marking the end of initial hearth 4907. This was overlain by dirty tan brick earth, which was packed around two lines of tiles and stones laid on edge [4588], to form the base for a new hearth. An area of ragstone cobbles set in brick earth [4578] above this formed part of the south superstructure of the hearth. The charcoal and oyster flecked mixture of silt and grey clay and rather less medium pebbles [4585], which abutted 4588 to the north and also overlay 4841 (X.2) and 4660 (VI.1) is a related gravel surface. Just to the east, a patch of brick earth containing flecks and small fragments of charcoal [4589] was laid at the same time over 4668 (X.5). [4675] also cut 4668. This was roughly square, up to 60mm across, with vertical sides 80mm deep and a sharp point. It was filled with a decayed stake 0.30m long [4674]. To the
south, a patch of light tan brickearth [4764] over 4904 (X.2) could be a related post pad. All of these patches and structural elements relate to the use of the new hearth 4588.

Further north, cut [4572] intruded into patches 4585 and 4589, only its southeast part surviving. It was probably circular, at least 0.90m across, with steep sides up to 0.18m deep gradually curving to a flat base and was filled with a charcoal-flecked pebbly light greyish yellow mortar, [4519] below a mixture of dark orangish brown clay, and rather less fine sand and black silt containing small fragments of oyster shell and chalk and flecks of charcoal [4565]. Although there is nothing very diagnostic in these fills, the pit must be related to the use of new hearth 4588 to the south.

To the south, ‘pit’ [4508] cut 4904 (X.2). It was an irregular quarter-circle, up to 1.10m across, with irregular sides 0.15m deep curving gradually to its irregular base. It was filled with yellow medium sand, some orange clay and a little light grey silt [4465]. This could also be a feature associated with the use of hearth 4588. But given its irregular profile and position next to the water front, it seems as likely to be caused by movement of the revetment, creating a profile of subsidence, and not a proper cut. (cf. discussion of repair with new frontbrace 6212 et al - X.1 above).

Finally, another make-up of bright orange brickearth containing tiles on edge and small stones [4398] was laid against 4578, in the centre of the hearth 4588. This forms a relining of the feature, with the spread of charcoal [4399] above it derived from the use of the feature. An extensive spread of charcoal and a little dark grey silt and clay [4458] overlapped relining 4398 in the east, continuing north to seal pit fill 4565, south above compensation 4465, and covering 4764 and 4675 in between, as well as 4515, 4517 (X.2) and 4502 (X.5) further away. This layer is general trample related to the use of the hearth. It crosses the south part of sill 4754, suggesting a threshold at this point, or part of the wall had been removed. This implies that the junction between the remainder and east-west wall postulated at the north end of floor 4518 now formed the south west corner of the structure. Such a change would parallel that seen at the north end of the building (see 5341 discussion - X.5).

X.7 Replacement of hearth 4588 and subsequent collapse

4495, 4353, 4279, 4494, 4493, 4492, 4160, 4173.

Description

A group of large ragstone and sandstone cobbles set in brickearth [4495] was laid above charcoal spread 4458 (X.6), capped by a spread of brickearth into which tiles on edge had been laid [4353], continuing south to cover earlier hearth use 4399 (X.6). These represent the base of a new major hearth, replacing 4588. An area of crushed charcoal and light grey sand [4279] which overlapped 4353 in the east resulted from the use of the new feature. Another spread of clay, some dark grey silt and a few oyster shells containing fine pebbles and charcoal flecks [4494] which overlay 4353 to the west lay in a slight depression, which could be the flue associated with the new hearth.

Light orangish brown brickearth containing ragstone and flint cobbles [4493] overlay both use layers and is probably related to the collapse of the hearth superstructure. Light orangish
brown brickearth, with its central area burnt bright red [4492] capped this and maybe further collapse, though a lens of charcoal within it implies burning at higher levels. A pebbly mixture of brickearth and rather less grey silt and light grey clay [4160] above 4494 in the north is presumably trample during the use or demise of the feature. Finally, a spread of light orangish brown charcoal-flecked brickearth [4173] over 4492 and 4160 shows the final collapse of the hearth and the end of its use.

X.8 Further modifications to the south of Building 1

4451, 4422, 4397, 4387, 4380, 4378.

Description

Cut [4451] intruded into 4458 (X.6) just south of the southmost partition within Building 1. It was sub-rectangular, 0.20m east-west by 0.15m north-south with gradually sloping sides 40mm deep and an uneven base. It must be a post inserted to reinforce the wall to its north, may be as a result of the creation of a new threshold through the main wall to its west (see 4458 discussion, X.6). The post hole was covered by dark brown clay and some silt [4422], which spread south up to the revetment, but obeyed the original wall line in the west. There was a more general dump of yellow mortar and a little grey silt [4397] on this and similar material [4387] on top. These building materials may have been dumped to make-up the ground level beside the river, perhaps after slipping of the revetment (a repeated process - see 4508 in X.6 above). The dumps were confined to the south of the projected wall lines of the central building. So, although they are probably contemporary with the initial use of replacement hearth 4353 to the north, they were probably divided from it. A mixed layer of light yellow mortar and some dark grey and a little clay [4380] overlay 4387, representing trampling on its surface. Dark brown clay with a little silt [4378] above this suggests further tread between Building 1 and the revetment.

X.9 Extensive rebuilding within Building 1

(Fig 13)

5230, 5217, 5197, 5196, 5145, 5144, 5267, 3895, 5361, 4724, 4720, 5231, 4236, 5131, 3759, 3758, 3761, 3760, 3763, 3762, 4778, 4777, 5160, 5159, 3704, 3703, 3706, 3705, 3708, 3707, 5185, 5168, 5165, 4233, 4185, 4293, 4370, 4007, 4071, 4304, 4183, 5570, 5569, 5242, 5241, 5600, 5599, 5154, 5095, 5149, 5130, 5126, 5125, 5158, 5157, 5156, 5155, 5098, 5150, 5096, 5097, 5042, 5038, 5127, 5110, 5076, 5041, 5081, 5080, 4938, 4937, 5008, 5061, 5043, 5027, 5074, 4894, 4932, 4909.
**Description**

[5230] was an irregular feature cutting 5232 (X.5), running west from the west wall of the central building. Only its south edge was well-defined and 0.80m long, steep and up to 0.10m deep, curving to a concave base. The feature ran out indeterminately to north and west and against the wall to the east and was filled with yellowish white sandy mortar containing flecks, small and large fragments of chalk [5217]. Two large tiles and several large cobbles were set within the mortar where it abutted the sill in the east. In the west it contained a plank laid on edge, which may have shuttered the mortar originally, thought the latter eventually flowed out around the plank. [5197] cut the mortar at the south end of the plank. This was irregular, up to 0.20m across, with steep sides 0.10m deep and filled with wood-flecked greyish brown
humic silt [5196]. The feature originally would have helped hold the shuttering plank in place. Just to the east, [5145] also cut 5217. This was sub-circular, up to 0.11m across with steep sides 0.23m deep tapering to a point and filled with mortar-flecked brown silt, some clay and a little fine sand, [5144], stained red in places.

All of these cuts are related and imply that a corner post of Building 1 was strengthened at this time. Since the wall here had previously been altered to allow access, these features may relate to a doorway inserted in the threshold. A strip of brickearth [5267] also placed above 5217 and against the pre-existing sill suggests further re-surfacing of the wall, probably related to the tiles inserted in mortar bedding 5217. To the south, another strip of brickearth [3895] was laid above sill 4754 (X.2). This could be a counterpart of 5267. Finally, a strip of greyish brown silt [5361] was laid above 5341 (X.5), suggesting the removal or at least modification of base plate 5370 on this line. Given underlying correlations, all of these changes are likely to have taken place together and after X.5. They have no proven relationship with stratigraphy assigned to X.6–X.8, in particular the modification to the sill suggested with 4451 in X.8.

However, the room to their north, seems to have been truncated (labelled [4724]) to receive a new floor. This intruded into 4422 (X.8), and was covered with a small strip of grey silt and some clay [4720] at its south edge, corresponding with a spread of greenish yellow fine sand and dark grey sandy silt containing small irregular patches of crushed light yellowish grey mortar in the west [5231] over 5217 and 5361 in the north west corner, both tread in the base of the cut. They were sealed by a make-up of orangish brown brickearth [4236], which continued west to abut sill modifications 5267. If one assumes that the floor was laid just after the sill was modified, and that the cut for the floor in post dating 4422, cannot relate to post hole 4451, then the floor and all structural changes must belong to a new phase. The new floor surface rose up at its east edge, suggesting a wall line there, which would have been cut away by later activity. It had two areas of staining in the central-west and northeast, either due to an overlying wooden feature or exposure to heat. Grey silt streaks within the brickearth may represent drying out and cracking of the floor, with trodden occupation debris filling the cracks. A thin spread of greyish black silt, a little charcoal in flecks and smears and small fragments of white chalky mortar [5131] over 4236 in the north is the result of its use there.

Stakehole [3759] intruded into the new floor. It was roughly circular, 0.15m across, with straight sides 0.28m deep and filled with loose dark brown organic clay and a little silt [3758]. To the north, three more cuts intruded into sill addition 3895. [3761] was probably wedge-shaped up to 0.12m across, with sides undercutting to the south east but unbottedomed. It may have originally contained a radially split timber, point towards the west. It was filled with loose dark brown organic silt and clay [3760]. [3763] was sub-rectangular, c. 70mm across, with regular sides undercutting to the south but unbottedomed and filled with loose dark brown organic silt and clay [3762]. Finally, [4778] was sub-rectangular, up to 0.10m across, with sides undercutting to the north at 45° and filled with a much decayed roughly squared timber 0.35m long as surviving [4777]. This line of stakes must have served to reinforce the modified sill, maybe related to a wattle superstructure set above it. Their undercutting is as likely to be due to later movements of the stakes which they contained as to be original angles.

In the northwest corner of the room, [5160] intruded into trodden layer 5131. It was square, 25mm across, with straight sides 15mm deep tapering to a point and filled with loose dark greyish brown sandy silt containing small fragments of bone [5159]. To the south, a
corresponding group of three stakeholes intruded directly into floor 4236. [3704] was sub-circular, up to 0.15m across with vertical sides and unbottomed and filled with wood at its base below dark brown silt and clay [3703]. [3706] was sub-rectangular, up to 80mm across, with vertical sides 90mm deep breaking sharply to its dish-shaped base. It was filled with loose dark brown silt and clay [3705]. 3706 and 3704 are offset the same distance - 0.30m - from sill 3895 and may be related to its superstructure, or to a fixture set against the wall. [3708] was sub-rectangular, up to 0.10m across with vertical sides 0.12m deep breaking sharply to a dish-shaped base. It was filled with loose dark brown silt and clay [3707] and represents another installation into the new floor.

At the north end of the room containing floor 4236, east-west cut [5185] intruded into occupation tread 5131 to the south and 5265 (X.5) to the north. At least 1.40m long (east end cut away) and c. 0.15m wide, it had generally vertical sides up to 25mm deep and a flatish base. It had remnants of a timber at its west end, but was elsewhere filled with light tan chalk-and charcoal flecked brickearth [5168], maybe displaced sill material, below dark grey silt and some patches of brickearth [5165], possibly sill material disturbed in robbing the feature. It forms a new structural division bounding floor 4236 in the north and presumably inserted just after the main west wall was modified. A strip of dark brown organic silt [4233] was laid above the south edge of the floor. Another strip of compact orangish brickearth [4185] overlay this, the two forming base plate and sill for on east-west wall corresponding to 5185 to the north.

Further west, cut [4293] intruded into 4380 (X.8) at the junction of 4185 and 3895, which formed the southwest corner of the newly floored room. The intrusion was sub-rectangular, 1.00m east-west by up to 0.45m across with vertical north side, more regular elsewhere, up to 0.12m deep breaking gradually to an irregular base. It was filled with cream mortar, some grey silt and a little clay set around three large stones in a line [4370], forming the base foundation for a capping of compacted tan brickearth [4007], which thus form a sill facing. Its position and character suggest that the north face and west end only were meant to be seen. This formed a buttress against the south-west corner of the building, continuing east towards the site of hearth 4353 (X.7) where it formed an alcove partly enclosing that feature.

A mottled layer of dark grey silt, some orange clay and a little medium sand [4071] accumulated against 4007 in the alcove, covered by a spread of crushed charcoal [4304]. These must relate to the use of the hearths to the west. Further east, a mottled patch of greenish brown medium sand, dark grey silt and rather less brown clay [4183] which accumulated against sill 4185 implies corresponding tread in that area. Although the relined hearth of X.7 and the modifications to the sills described here are not stratigraphically related, the underlying relationships, charcoal content of layers accumulating against the sills and the overlying horizon (X.10) suggest that the sills were modified while some phase of the hearth described under X.7 was in use.

To the north of Building 1, small rectangular cut [5570] intruded into 5571 (X.5). It measured 50mm east-west by 30mm north-south, was 25mm deep with steep sides breaking sharply to its irregular base and was filled with dark grey organic silt [5569] suggesting the in situ decay of a post. To the east, [5242] cut 5236 and 5265 (both X.5). It was rectangular, at least 0.20m east-west (truncated in east) by 0.14m north-south, with steep irregular sides up to 10mm deep and an irregular base and was filled with brownish grey silt flecked with off white mortar.
[5241]. [5600], which lay between 5570 and 5242, cut 5601 (X.2) and was roughly square, up to 30mm across, with steep sides 40mm deep and a rounded base and was filled with decayed wood [5599]. Given their position, the three cuts are likely to be contemporary. None is very substantial, in fact each probably only represents the removal of stakes associated with the underlying sill, possibly marking the end of its use as a major structural feature. This could have taken place at any time after X.5.

However, an extensive deposit of dark greyish green silt and some coarse sand containing medium and coarse pebbles, oyster shell and light brown mortar flecks [5154] which overlapped the features continued south to also seal post hole 5197 and overlap sill modification 5165. The latter changes certainly took place after X.8, so it seems likely that the north sill was robbed at the same time. 5154 also sealed 5204, 5360, 5286, 5266, (all X.5) to the north. Most of the inclusions in the layer were concentrated at its west edge. It had a smooth surface towards its centre. The deposit could be a gravel dump in the external area or more likely, partly make-up, partly occupation debris with a surface then formed on top by use. A compact pebbly spread of light greyish brown fine sandy mortar, some chalk and a little brown clay [5095] above 5154 implies further building material dumped to make-up the ground level here.

To the south, within the building, dark grey silt mixed with increasing amounts of tan brickearth near the wall [5149] overlapped 5154, suggesting internal occupation, as does nearby dark greyish brown woody silt [5130] sealing stakehole 5160 further west.

Slot [5126] intruded into 5095 to the north. At least 0.40m long (east end truncated) and only 50mm wide, it had irregular sides and base and was filled with brownish grey silt [5125]. It suggests modification of the wall bounding floor 4236. To the south, two cuts intruded into 5130. [5158] was circular, 55mm across, with vertical sides and contained decayed timber [5157]. [5156] was roughly square, up to 30mm across with steep sides 80mm deep and a fill of decayed wood [5155]. The stakes were inserted in association with modification 5126. They were sealed by dark grey sandy silt, some brickearth in patches and lenses and a few fine pebbles [5098], which also sealed 5149. This must be tread related to the building operations.

To the west, a north-south strip of brickearth and some light grey silt containing light green fine sand and chalk flecks [5150] overlay 5267 and suggests further addition to the sill corner. Staining implies wood shuttering on the east side of this addition. Grey brickearth in patches in some dark grey silt [5096] overlay 5150 and 5098, probably further trample in building operations. To the north, light green clay [5097] was laid in a strip over 5098 to pack the wooden sill structure. A patch of brown silt [5042] over this and 5096 is a post pad on top at the corner. , with a strip of greyish brown silt, a little pebbly brickearth and off white mortar both in patches [5038] against the pad and over cut 5126. This serves to reinforce the sill line on its north sides. Just to the south, [5127] cut 5095 and 5144. This was an irregular east-west depression, 0.70m long and 0.30m wide, with gradual sides 0.13m deep and an uneven base and filled with a pebbly, cream mortar-flecked mixture of grey silt, light brown silt and less coarse sand [5110]. This could have buttressed the west wall at this point, just south of the corner, in the same way as was seen with the south west corner.

A very mixed layer of equal proportions of grey silt, greyish green silt, small patches of brickearth fine pebbles and flecks of oyster shells, also containing whole oyster shells and
charcoal flecks throughout [5076] overlay 5098 within the building, with grey silty sand, a little brickearth in patches, patches and flecks of charcoal, and flecks of oyster shell [5041] on top also covering 5096 to the west. This is further tread during building operations.

The overall picture, therefore, is of a series of rebuilds, refacings, additions and strengthenings at the northwest corner of the building, with building levels of trodden debris intervening with these activities confined to the very corner of the structure. These changes all probably relate to the general changes to the doorway just to the north (see 5217 et al above).

To the northwest, [5081] intruded into external make-up 5095. It was square, 40mm across, with steep sides 90mm deep and an uneven base and was filled with greyish green silt and some coarse sand [5080]. Further east, [4938], intruding into gravel 5154, was circular, 60mm across, with sides 65mm deep and a pointed, irregular base and was filled with loose light grey silt and a few fine pebbles and small fragments of charcoal [4937]. The two installations are presumably contemporary with the changes to the sill to their south, though their position has no obvious significance.

Finally, a thin compact spread of black shell-flecked silt [5008] overlay 5081, with further layers of grey charcoal-flecked silt [5061], then greyish brown shell flecked silt with orange stained patches [5043], and finally grey crumbly shell flecked silt [5027] on top. These represent local areas of trodden occupation, the debris perhaps swept towards a west boundary wall since they avoided the site to the south east. Further east, two small patches of grey silt and some greenish grey organic silt containing shell and charcoal flecks [5074] and chestnut brown silt [4894] both overlying graveling 5154 could be equivalent, though more organic, occupation debris swept towards an east boundary.

Between these two areas, a mixed spread of dark grey silt, and crushed light greyish buff mortar and less fine pebbles, patches of greyish yellow coarse sand, and small fragments of chalk containing small fragments of oyster shells [4932] overlay 5008, with a thin patchy skim of charcoal flecked mottled mixture of dark greyish blue, greyish tan and dark greyish green silty clay [4909] on top, also overlapping 5043 in the west, 5038 and 5110 to the south, and covering post hole 4938 in the east. In places 4909 merged into dark brownish grey silty sand containing decayed wood fragments in the north and into dark reddish brown silt and some small fragments of decayed wood containing flecks of oyster shell to the south. These may represent repair and later use of the central area, the former necessitated by extra wear in an area of greater movement.

**X.10 Collapse and robbing of the X.7 hearth and structural elements of X.9**

4198, 4149, 4145, 4187, 4166, 4176, 4161, 4033, 4108, 4075, 4129, 4120, 5045, 5044, 5032, 5075, 4992

**Description**

West of Building 1, a spread of dark grey charcoal flecked silt and some clay [4198] overlay hearth collapse 4173 (X.7) and above occupation 4304 (X.9). It represents trampled occupation and reinforces the suggestion that the underlying hearth was in use with the modifications described under X.8 and X.9. A spread of orangish brown clay and brickearth
[4149] on this implies the collapse of the newly modified alcove, with a spread of crushed charcoal [4145] on the top showing subsequent use. To the south another pebbly spread of crushed charcoal mixed with a little clay and black silt [4187] which overlay 4173 (X.7), 4378 (X.8) and 4007 (X.9) is contemporary with this.

Further east, a strip of orangish brown clay, some brownish grey silt and a little medium sand [4166] over 4185 (X.9) and 4397 (X.8), together with another of orangish brown brick earth [4176] over 4185 (X.9), suggests the collapse of sill 4185 to the south and north respectively at about the same time as 4149 was formed. A strip of brown clay and dark grey silt [4161] over lay 4166, below further orangish brown brick earth [4033]. the latter contained two large stones at its south edge. 4161 was a decayed plank or base plate and 4033 further collapse of the brick earth sill above this.

Finally, to the west, a spread of light tan charcoal flecked brick earth [4108] overlapped 4161 and covered 4187 and 4145. This shows the total collapse of the alcove addition towards the site of the disused hearth. A lump of dark greenish grey medium sand and clay packed around two stones [4075] above this could be a displaced post pad. Further north, an irregular pit up to 0.90m across [4129] was dug into 4198 and up against the west wall of the building. It had irregularly sloping sides 80mm deep and an irregular base and was filled with brownish grey silt and some clay [4120]. The shape and position of the feature suggests changes to the wall to its east, perhaps robbing of a vertical structural element (north side of alcove) at the same time as the collapse to the south.

On the north side of Building 1, a strip of light tan brick earth [5045] overlay 5041 (X.9) with a decayed wood plank [5044] on top, then further yellow buff clay and dark greyish brown silt [5032] on top, the last also overlying 5038, 4932 (both X.9). This sequence suggests the collapse of the underlying sill, probably at the same time as 4108 to the south. A spread of light grey silt and some crushed creamy white mortar [5075] on 5041 (X.9) which could have been derived from the sill, below a pebbly mixed deposit of grey silt, light greyish green sandy silt, light yellow tan clay in patches and smears, and rather less medium pebbles [4992] over lay this and 5032 to complete the collapse of the north wall of the building.

X.11 New hearth north of Building 1

(Fig 14)

4931, 4753, 4606, 4765, 4751, 4757, 4536, 4899, 4885, 4972, 4953, 4936, 4919, 4911, 4903, 4902, 4901, 4900, 4880, 4879, 4882, 4881, 4916, 4915, 4884, 4883, 4908, 4849, 4811, 4052, 4069, 4095, 4047, 4038, 4002, 4026, 3943, 4006, 3998, 3968, 3907, 4028, 3967, 3633, 3630, 3622, 3734.
A layer of brickearth and a little dark brownish grey silt [4931] was deposited on 4909 (X.9) in the external area north of Building 1. It increased in thickness towards the east, where it was cut by [4753]. This was rectangular, 1.30m east-west by 1.10m north-south, with gradually sloping sides and a flatish base. It contained four north-south lines of flat laid squared and roughly-dressed ragstone blocks up to 0.30m across packed with compact brickearth scorched orangish brown by exposure to heat in the south [4606]. The stones stepped down to the west and had been discoloured and fractured on their corners by exposure to heat. One stone at least had been reused. A strip of brickearth [4765] to its east which overlay 5074 (X.9) was part of its superstructure, together with a lump of brickearth.
with a little greenish grey clayey silt [4751] on 4932 (X.9) to the north. The former was capped with a charcoal-flecked mixture of dark grey silt and some dark greyish brown silt [4757] below an edging of brick earth [4536] which also capped 4751 and the edge of the hearthstones 4606. Together these elements formed the base and part of the sides of a substantial hearth, access to which was probably from the west. It could have been inserted at any time after X.9.

To the west, dark greyish brown silt, and slightly less brown wood fragments and debris and small fragments and flecks of oyster shell [4899], with the wood element concentrated in the north, overlay floor make-up 4931, also capping 5027 (X.9). A further charcoal-flecked spread of greyish brown silty clay and a little brown silt in patches [4885] overlay this and 5032 (X.10). This had an increased organic content towards the north. Though the two could not be stratigraphically related, it accumulated west of hearth 4606 and is probably contemporary with its initial use. It therefore seems likely that the hearth was constructed after the period of collapse described under X.10.

Further north, a compact charcoal-flecked dark grey medium sandy silt and some brown clay containing small fragments of decayed wood [4972] overlay floor 4931, below chalk-and mortar flecked light greyish brown silt, clay and a little fine sand [4953]. They represent use of the new floor in this area. A charcoal-and shell flecked patch of light yellow brick earth [4936] overlay this, a repair to the original surface. A shallow east-west groove 10mm deep in its surface (no cut number assigned) bounded stakeholes 4903 et al (below) to their north. Further local patches of brown clayey silt [4919] then compact chalk flecked light buff clay and some fine sand [4911] above 4936 could be evidence for post positions adjacent to the nearby sill.

Six closely grouped stakeholes intruded into 4919 or earlier strata. [4903] was roughly circular, up to 50mm across with steep sides 40mm deep tapering to a rounded point and was filled with brown silt and some medium sand [4902]. [4901] was roughly circular, 40mm across, with steep sides 50mm deep tapering to a rounded point and was filled with dark brown silt and some fine sand [4900]. [4880] was roughly circular, 50mm across, with steep sides 60mm deep tapering to a concave base to the west and was filled with loose light grey pebbly sandy silt [4879]. [4882] was roughly circular, 50mm across, with steep sides 55mm deep tapering to a concave base and was filled with light grey clayey silt [4881]. [4916] was a rounded rectangle, up to 50mm across, with vertical sides 20mm deep sloping northwest-southeast to an uneven base and was filled with pebbly mortar flecked brown silt and some medium sand [4915]. The stakes were all bounded to the north by the previously described groove in 4936. Together, these intrusions suggest a fixture set against the wall to their north. Whether this was structural or a fitting (eg. bench) is unclear. To the south east, [4884] was circular, 35mm diameter, with sides 45mm deep tapering to a point and was filled with loose light grey sandy silt [4883].

Finally, charcoal-flecked grey silt and some fine sand [4908] overlay 4911 south of the post holes, covered by a more extensive charcoal-flecked spread of dark greyish brown sandy silt, and slightly less dark brown fragments of decayed wood, concentrated in the east, and flecks of oyster shell concentrated in the west [4849]. To the north, it also contained irregular patches of dirty brick earth with a little dark grey silt. It also sealed all of the stakeholes and 4992 (X.9) and must represent the use of the area during the lifetime of surface 4931.
To the north east, greyish green silt, some coarse sand and a little light brown clay and containing large fragments of tile, charcoal and mortar flecks and medium and coarse pebbles [4811] overlapped 4931. Its south limit was the same as the north edge of 4849. Though both represent accumulations, their different character suggests that the process of occupation immediately against the north wall was different from that towards the centre of the floor. The change took place on the same line as the proposed fittings to the west implied by stakeholes 4903 et al. Again, a feature such as a bench could account for such differences. In the east, 4811 was cut by a linear feature in use later on (4797 - X.12). However, the lack of a counterpart to 4811 east of this cut suggests that there may have been such a division at this earlier stage as well.

To the south of the central building, a spread of charcoal and a little grey silt [4052] accumulated above 4075 (X.10) and against the waterfront revetment, with a patch of charcoal flecked light pinkish brown sand [4069] on top. To the east, a patchy, pebbly mixture of charcoal flecked dark grey silt and a little clay [4095] spread over collapse 4108 (X.10), overlapped to the west by another spread of charcoal and a little grey silt and clay [4047], then mixed dark grey silt, somewhat less coarse sand and clay containing medium and fine pebbles, charcoal flecks and small fragments of mortar [4038]. A spread of oyster shells in a little grey silt [4002], corresponding with oyster shells in charcoal-flecked greyish green silt [4026] to the east, both overlay 4038. A deposit of light orangish brown brickearth [3943] capped 4026, maybe derived from the collapse of the sill to its north, with light yellowish brown fine sand and a little clay [4006] on top as a final accumulation. Just to the west, a patch of dark brown organic silt and clay [3998] capped 4002, below brown silt and light orangish brown fine sandy clay [3968] then light greyish green silt and clay containing small fragments of oyster shell [3907].

The last deposits could be patchy make-ups, disturbed by tread, but the remaining layers represent general accumulations in this south area. In character they could be part of the underlying sequence of occupation debris ascribed to X.10. However, their position in plan suggests that they obey the line of a structural division running south from Building 2, accumulating first to the west, then the east of it. This contrasts with the previous stratigraphy and implies that structural activity had recommenced to the north. They can therefore be seen as contemporary with other elements described under X.11.

To the west, a dump of fine medium pebbles in a little orange silt and medium sand [4028] overlay 4047 beside the waterfront revetment and may have been compensation for its movement southwards. The charcoal spread in a little dark grey silt [3967] which overlay this and ran east to overlap 4038 contained several large, apparently random ragstones. The stones could have been a low wall disturbed in the revetment movement and incorporated into the later occupation of the area. A spread of fine and a few medium pebbles containing large and small fragments of creamy white mortar [3633] which overlay 3967 could also be local destruction debris, but is more likely a make-up dumped to level up the area, with a lump of coarse sand, dark greenish grey silt and less fine pebbles [3630] on top. These form a gravelled area to the west of the north-south boundary mentioned above, surfacing the external area west of the central building. A more general spread of charcoal [3622] overlapped 3630, spreading east to cover 4033 (X.10) and 3907 and representing the use of this area. The L-shaped deposit of charcoal-flecked grey silt and light brown clay [3734] on
this suggests the continuing consolidation of the alcove beside the south east corner of the building.

X.12 Resurfacing north of Building 1

(Fig 15)

4797, 4774, 4655, 4834, 4814, 4817, 4816, 4819, 4818, 4776, 4991, 4990, 4993, 4970, 4969, 4971, 4632, 4663, 4613, 4496, 4601, 4415, 4669, 4651, 4624, 4621, 4573, 4614, 4610, 4605, 4595, 4594, 3379, 4681, 4780, 4461, 4454, 4459, 4439.

Fig 15 Period X.12 plan

To the north of Building 1, [4797] intruded into accumulation 4811 and 4849 (X.11). This was an irregular north-south slot, c. 80mm wide and 0.91m long broadening to the south-west into a circular post hole 0.30m across. Its sides were up to 20mm deep in the north, 40mm in the dish shaped post hole and its base irregular. It was packed with pebbly, shell flecked...
greyish green fine sand and silt [4774] and forms a structural element set against the wall to the north, terminated by a vertical member in the south. A mottled mixture of grey silt, some light brown clay and a little coarse sand containing charcoal and mortar flecks and fine, medium and coarse pebbles [4655] overlapped the edge of this packing, forming a disturbed floor make-up running up to that structural division.

Further west, brickearth and a little patchy light grey silt flecked with charcoal [4834] overlay 4849 (X.11) to create a surface make-up, with a pebbly mottled mixture of dark brownish grey sandy silt and rather less brownish brickearth and dark buff brown fine sand [4814] on top forming a pebbly capping. The distinctive east edge of this surface may suggest an insubstantial structural division on that side. Two cuts intruded into 4814. [4817] was circular, 45mm across, with steep sides 40mm deep and a rounded base and was filled with grey clayey silt [4816]. [4819] was an irregular depression c. 60mm across with rounded base and was filled with brown silt and some sandy silt [4818]. A line joining the two cuts would be parallel to the putative division bounding 4814/4834, but off set 0.25m to the west, so the post holes may relate to this.

To the south east, a spread of greyish brown silty clay, and rather less dark grey sandy silt and light grey pebbly crushed sandy mortar containing small fragments of chalk [4776] overlapped the east edge of 4834, running around the north west corner of the central building. Further east, another spread of brickearth in streaks and patches, some light greyish green sandy silt and a little crushed white mortar [4992] overlay 4992 (X.10) towards the northeast corner of the building. Though 4991 has more stratigraphic latitude than 4776 their positions and common character suggest that both belong in X.12 and represent changes along the north wall line.

To the south, brickearth and light greyish green silt containing oyster shell flecks [4990] overlay 4991, to form a patch crossing the wall line at a threshold point. Within the building, light green sandy silt and some brickearth in patches containing oyster shell flecks [4993], which overlay 5041, 5038 (both X.9) suggests trampled disturbance of a corresponding patch. It was cut by [4970], a square feature 45mm across, with sides 35mm deep tapering to a concave base and filled with brownish grey sandy silt [4969].

Although 4993 and the cut could be much earlier in the sequence, they are more likely to be contemporary with 4990 since both deposits were overlain by an oyster shell flecked mixture of dark grey charcoal-flecked silt in large patches, and rather less light grey silt and patches of light greyish tan silt [4971], representing tread on the surfaces. This may have been accumulating at the same time as shell-and wood flecked brown fine sandy silt and some light brown clay [4632] overlying 4776 and 4655, and 4536 (X.11) was trodden into the external surfaces to the north. The latter accumulation avoided the strip of surfaces 4814/4834 to the west, again suggesting an intervening structural division and around hearth 4606 (X.11), suggesting its continued use at this time. A rectangular wooden base [4663], overlying 4632, could be related to the support for such a fence to the west.

An extensive mixed deposit of dark brickearth in patches and small lumps and rather less dark greyish brown silty sand and medium pebbly [4601] was laid above post base 4663 and 4894 (X.9), abutting the north wall and running up against post hole 4797 in the north east to form a major metalling of this external area. Its surface had been discoloured in the east by exposure to heat where overlain by hearth 4651 (see below). A patch of compact dark brown silty clay
and some fine sand containing charcoal flecks, fine pebbles and small fragments of shell [4496] overlay 4601 in the north, maybe corresponding with compact brown coarse sandy silt containing fine and medium pebbles and charcoal flecks [4613] to the east overlying 4655, then compact dark greyish brown silt, and a little fine sand and light brown clay containing mortar and shell flecks and fine and medium pebbles [4607] which also overlapped 4632. These three gravels suggest repair to the area around the post set in 4797. A strip of orange brown clay and brown silt [4415] on 4607 relates to the decay of that feature, though not necessarily its complete demise. To the south, a similar strip of brown silt and some brickearth [4669] over gravel metalling 4601 would relate in a similar fashion to the threshold in the wall just to its south.

Just to the north, a spread of dark reddish brown sandy silt [4651] overlapped 4669, with further mixed orange and reddish brown clayey silt [4624] on top. This forms a new hearth or, more likely, working area south of hearth 4606, which continued in use. A patch of dark greyish black charcoal-flecked silt [4621] overlay 4624, corresponding with charcoal-flecked dark brownish black silt and some fine sand with an ashy lens at its base [4573] over 4601 to the west and a small spread of dark greyish brown charcoal-flecked silt [4614] over 4536 (X.11) to the east. All three layers lay in the area between hearth 4606 and working area 4651, no doubt relating to the use of these features. A small lump of charcoal-and shell flecked brown silt mixed with some orangish brown clayey silt [4160] over 4621 is probably also the result of such use. A patch of brickearth mixed with grey silt at its base [4605] which overlay 4610 and 4614 suggests a local repair, the shell flecked dark reddish brown silt and a little dark grey silt in patches [4595] on top showing renewed burning, as did the reddish brown clayey silt [4594] above this. All of these layers are localised to a small area south and east of 4606, and were excavated as one deposit [3379] (with five elements distinguished) to the east, overlying 3382 (X.5).

Black silty charcoal and some sandy silt [4681] which overlay the centre of the main hearth 4606 (X.11) could have been derived from any period of use of the feature. However, assuming that ash and other residues were removed from the hearth after each firing (and probably deposited in the area to the south, above working area 4651 and in the gap between the features), the charcoal accumulations is likely to result from the final use of 4606, and thus be broadly contemporary with 3379 et al.

Finally, to the west, loose dark grey silt and some oyster shell, crushed and in flecks, [4780] overlay west surface 4834, with further shell-flecked brownish grey silt and some olive green silt [4461] on top. Shell-and charcoal flecked greyish brown ashy silt and some dark grey organic silt [4454] overlay this, continuing north to overlap gravel 4814, whilst brown silt, greyer in the west [4459], overlay 4461 in the south. Greyish brown sandy silt and a little orangish brown silt containing flecks and small fragments of shell [4439] overlay both 4454 and 4459. The series of accumulations obey the postulated division east of 4814, except in the south. This suggests that the occupation debris which they comprise was material swept off the main metalling to the north towards the more marginal area west of the central building.

X.12 therefore sees a new addition to the boundary wall in the north, with the external area to its west also re-surfaced. The north wall was then modified and the area to its north re-metalled and working area to its north re-metalled and patched. A working area for hearth 4606 was added to the metalling and charcoal-flecked silt accumulated in the area between
this and the hearth. Finally, to the south west, occupation debris was swept from the west metallings down towards the marginal areas west of the central building.

**X.13 Final occupation north and west of Building 1**

(Fig 16)

4528, 4512, 4506, 4514, 4460, 4334, 4333, 4332, 4331, 4326, 4303, 4302, 4301, 4300, 4299, 4298, 4297, 4296, 4336, 4335, 4338, 4337, 4327, 4253, 4246, 4627, 4626, 4436, 4412, 4423, 4403, 4394, 4391, 4325, 4224, 4281, 4402, 4396, 4255, 4265, 4222, 4162, 4531, 4464, 3378, 3357, 3356, 3355, 3348, 4656, 4417, 4418, 4596, 4575, 4929, 4441, 4440, 4390, 4393, 4361, 4360, 4363, 4362, 4424, 4413, 4623, 4622, 4574, 4537, 4389, 4359, 4353, 4219, 4207, 4321, 4308, 4256, 4294, 4218, 4206, 4163, 4164, 4083, 3977, 4184, 4216, 4092, 4091, 4090, 4074, 4073, 4082, 4081, 3995, 3994, 4292, 4278, 4165, 4190, 4107, 4061, 3978, 3922, 1498.

*Fig 16 Period X.13–14 plan*

**Description**

A spread of orange brickearth, discoloured brown towards the edges [4528] overlay 4594, 4573, 4681, (all X.12). It is either a repair to the underlying hearth and working area (see X.12) or part of the collapse of the hearth superstructure. Dark brownish black silty fine sand and a little dark tan clay in smears [4512] overlay this, with a patch of brickearth and a little grey silt [4506] on top. These show the demise of the hearth area.
To the south, within Building 1, its north room seems to have been lowered ([4514], cutting 4969 (X.12) and 4512) for the insertion of orange sandy brick earth, a little brown silt flecked with chalk, brick earth and charcoal, and a little greyish brown silt [4460] to give a new floor surface. To the west, [4334] intruded into 4460. It was rectangular, 60mm east-west by 40mm north-south, with regular sides 0.18m deep undercutting to the north and contained wooden rectangular stake [4333], protruding 40mm above the surrounding surface. Just to the west, [4332] intruded into 5110 (X.9). This was oval 90mm north-south by 50mm east-west with sloping sides 30mm deep and was filled with loose crumbly dark grey silt [4331]. Both fills were capped by a line of brick earth [4326], which served to reinforce or repair the previous wall at this point. 4332 was probably inserted to support its west side, but 4334 is the base of a stud set along the line of the sill related to the framed superstructure set upon it.

Seven stake holes intruded into floor 4460 within the body of the building. [4303] was sub-circular, c. 70mm across with sides 85mm deep undercutting to the south west and contained circular stake [4302]. [4301] was sub-circular, c. 70mm across, with sides 90mm deep tapering to a flat base and contained circular stake [4300], packed with a tile on its west side. [4299] was circular, 0.10m across, with shallow sides 30mm deep curving to its concave base and was filled with loose dark grey silt containing small fragments of mortar [4298]. [4297] was roughly square, c. 70mm across, with sides 95mm deep undercutting to the south west and contained squared timber [4296]. These four form a line parallel to the sill modification 4326 to the west and are probably associated with this change.

To the east, [4336] was roughly square, c. 70mm across with steep sides 40mm deep and a base sloping to the west and was filled with light greenish yellow medium sand [4335]. [4338] was sub-square, 80mm across with sloping sides 50mm deep and a pointed base and was filled with light tan crumbly clay and some greyish green medium sand, with a little dark brown stain around the top of the fill [4337]. 4336 and 4338 were capped with compact dark greyish brown sily sand, some yellow mortar flecked brick earth in lumps and a little dark brown woody silt [4327], which could be a decayed post position related to the east-west sill to their north. [4253] was sub-rectangular, 0.11m east-west by 80mm north-south, with shallow sides 20mm deep curving to a concave base and was filled with crushed white mortar and some small fragments of brick earth [4246]. 4336, 4338, 4253 form a line of stakes running east from 4297 in the northwest corner of the building, suggesting that they had a similar function to 4303 et al to the south west. Their fills, however, suggest that the stakes within them were totally removed, rather than broken off, and some of the building material debris which then fell into the voids suggests that they may have been part of the extensive changes to the superstructure.

To the north west, [4627] intruded into 4632 (X.12). It was roughly oval, maximum 0.25m across with steep sides only 40mm deep curving to a rounded base and was filled with loose light greenish grey fine sand and a little grey silt and small fragments of decayed wood [4626]. It represents an installation in the external area. To its north and east, an oyster shell flecked spread of dark greyish brown silty sand and a few fine pebbles, medium pebbles and flecks of dark yellowish tan clay [4436] overlapped surface 4460 in the south, patch 4506 further north and 4454, 4818, 4816 (all X.12) elsewhere. It forms a gravel surfacing for this external area mixed with occupation debris. Its position suggests that it obeyed the post set in 4627.
Greyish orange sandy silt and a little dark greyish brown silt in patches [4412] overlay gravel 4436 in the south, corresponding to a skim of chalk flecked greyish green silt [4423] overlying floor 4460 to the south both representing use of the building’s threshold. To the northwest a spread of dark grey clayey silt and a little orangish brown clay in patches flecked with charcoal, shell and sandy mortar [4403] also overlay gravel 4436, as well as 4496, 4415 (both X.12), itself capped by charcoal flecked greyish brown silt and a little brick-earth [4394] to the north and an exactly similar layer [4391] to the south. These must represent the corresponding use of the external area in the north. Finally, to the south, a mottled mortar and oyster shell flecked mixture of brick-earth and some dark grey ashy silt [4325] then light grey silt and some grey ash in lenses containing flecks of oyster shell and chalk [4224] abutted sill 4326, as the contemporary occupation of this area. The brick-earth context could have been derived from the partial collapse of the repaired sill. An extensive deposit of dark greyish brown sandy silt and a little brown brick-earth in patches and flecks of oyster shell [4281] overlapped 4325, continuing north to cover cut 4627 and overlap 4391 and 4439 (X.12). It represents the final use of the external area, being mainly confined to that part surfaced by the gravel 4436.

In the north threshold of the building, dark reddish brown charcoal flecked clay, incorporating a little light brown clay and light greyish cream ashy silt to the south [4402] overlay accumulations 4412 and 4423. It suggests in situ burning or a nearby hearth, perhaps the working area 4651 (X.12) just to the north. The proximity of 4651 to the north wall implies a very close association. It is even possible that the proposed threshold here, at least, in its later phases, was in fact just a stoke hole giving access to the hearth to its north.

A deposit of irregular patches of dark greyish brown silty clay, some dark brownish black silty charcoal and a little creamy white ashy silt [4396] spread north above 4802, with dark brownish black oyster shell flecked sandy silt [4255] on this in the north and a charcoal-flecked mixture of partially scorched orangish brown clay and rather less creamy white ashy silt and dark greyish black silty charcoal [4265] in the south. Finally, dark greyish black sandy silt, some silty charcoal and a little creamy white ash and light orangish red clay in patchy spreads [4222] overlay 4255, 4265, as well as general accumulation 4281 to the northwest, with charcoal flecked brick-earth and some grey silt [4162] on top. These ash and charcoal accumulations all overlay the site of working area 4651 and hearth 4606, representing its final use and then demise. Their depth does not imply that the features were more intensively used at the end than previously. The earlier residues had no doubt been cleared away or swept to more marginal areas, to allow the features to continue in use. This was unnecessary with the final deposits.

To the east of hearth 4606, dark brownish grey charcoal-flecked silt [4531] overlay 4605 (X.12), below chalk flecked greyish brown silt and a little orangish brown clay and sandy mortar [4464]. Further east still, compact grey sandy silt flecked with oyster shell, charcoal and chalk [3378] overlay 3379 (X.12), with small spreads of grey medium sandy silt flecked with oyster shell [3357] and dark grey fine sandy silt flecked with charcoal, oyster shell and brick-earth [3356] over it to the north and south respectively, followed by dark grey silt flecked with oyster shell and charcoal and some brick-earth in patches [3355] on both and finally dark grey silt and a little sand [3348]. There is no doubt that counterparts of the accumulations 4162 et al to the west, like them mixed with occasional traces of floor patches and residues derived from the use of the hearths.
Further north, beside the boundary wall, a spread of light brown fine sandy clay and a little grey silt containing large fragments of tile [4656] overlay 4811 (X.11) and 4993, 4990 (both X.12). A spread of off-white sandy mortar [4417] covered this, corresponding with a small patch of greenish off-white sandy mortar [4418] to the east covering the same strata as 4656. To the east, a strip of greyish green mottled silty sand and a little brickearth, fine pebbles and charcoal flecks [4596] overlay 4607 (X.11) and 4656, below pebbly brown fine sand and silt and rather less light brown clay [4575], these corresponding to a pebbly lump of light grey silt and yellow fine sandy clay [4929] over 4931 (X.11) to the west. As a result of this deposition, a strip c. 0.50m wide beside the boundary wall was re-surfaced with mortar towards its centre and gravels at either end.

Rectangular cut [4441] intruded into 4811 (X.11) and 4990, 4993 (X.12). It was 0.11m east-west 90mm north-south with vertical sides 70mm deep and a flat base and was filled with brown silty clay and some medium sand and contained fine pebbles, mortar flecks and small fragments of shell [4440]. It must be an installation also related to the boundary wall. Both resurfacing and post hole are presumably broadly contemporary with the laying of gravel 4436 to the south and, by application, floor 4460 in the north.

Towards the west, a patch of brickearth, a little dark grey silt and charcoal flecks [4390] overlay gravel 4929. This corresponds with another pebbly brickearth and some grey silt [4393] to the east, which covered mortar 4417, 4418 and post hole 4441. It also continued south to overlap occupation 4403, once again reinforcing the case for the broad contemporaneity of 4436, the surface on which 4403 accumulated, and 4417 et al. 4390 and 4393 represent a final repair to the strip beside the boundary wall. Five cuts intruded into 4393 or earlier stratigraphy. [4361] cut it directly. It was oval, 0.45m east-west by 0.20m north south, with shallow sides up to 30mm deep curving gently to its irregular concave base and was filled with compact greyish brickearth, some dark grey sandy silt and a little white mortar crushed, and in small fragments and containing horizontal tile fragments [4360]. This formed a post base, maybe with a vertical member set on the tiles or their used as packing. Stakehole [4363] cut into 4393 at the north edge of the pad. It was rectangular, 0.11m north west-south east by 80mm north east-south west with sides 0.12m deep undercutting to the south east and was filled with loose light grey silt, some medium sand and a few medium pebbles [4362]. It must have been related to the member set above 4363.

To the east, [4424] cut 4632 (X.12) and 4656. It was roughly circular, c. 0.11m across, with vertical sides 0.12m deep and a rounded base and was filled with a pebbly mixture of dark grey coarse sand and silt and less brown clay [4413]. [4623] also cut 4632 (X.12) further east. It was roughly square, c. 95mm across, with steep sides 80mm deep and an uneven base and was filled with loose grey fine sand and silt [4622]. Three vertical tile fragments at the edge of the cut may have been displaced packing. Cuts 4424, 4623 both lie at the points where the strip of gravels 4656 et al meet general occupation layers 4403 et al. It therefore seems likely that some feature was set against the boundary wall, covering the north strip. Two explanations of the evidence are therefore possible. Either the gravel and mortar make-ups were originally confined to the strip, and the area to the south surfaced less substantially for functional reasons. Or the building material make-ups originally ran further south, but were worn away in the use of that area and only survived where protected by an overlying feature at their north edge. In either case, a feature on the line of 4623, 4424 is suggested. Lastly, [4574]
cut into gravel 4575 beside the boundary wall itself. It was sub-circular, 90mm across, with steep sides 0.10m deep tapering to a point and was filled with grey mortar-flecked medium sandy silt and some light brown clay [4537]. A line joining 4424 and 4574 would run perpendicular to that between 4424 and 4623.

In the area between 4424 and 4574, a pebbly compaction of coarse sand and mortar [4389] overlay floor 4393 and gravel 4575, with brick earth, some dark greyish brown sandy silt and a little yellowish white sandy mortar in fragments [4359] above this also covering cuts 4363 and 4361. There are further repairs to the strip beside the wall, with a mixed charcoal-flecked spread of dark brown sandy silt and some dark greyish brown silty sand [4355] on this, and spreading west to cover floor 4390 as use of the area. To the south, cut [4219] intruded into 4281. Only its east edge survived, with a maximum dimension of 0.70m, irregular shallow sides 70mm deep and a concave base. It was filled with brick earth, in a few places with a brownish hue [4207], which showed signs of scorching at its surface. The fill thickened to the north, as if constituting a structural feature. It could be a sill but the scorching suggests a hearth.

Adjacent to the north wall, a mixed dump of brick earth, small fragments of light yellowish cream mortar and less small fragments of chalk [4321] overlay 4355, also covering post hole 4574 and deposit 4394. This was overlain by a further compact spread of cream fine sandy mortar stained dark yellow in places and some light brown sift containing fine and medium pebbles and large fragments of chalk [4308]. A mixed mottled layer of brown clay, dark grey silt and less coarse sand containing charcoal and mortar flecks and fine and medium pebbles [4256] overlapped the south edge of 4308, spreading south to cover 4281 and post holes 4424 and 4623. Another layer of silty coarse sand and a little light brown clay containing fine medium and coarse pebbles and flecks of mortar [4294] which also overlay 4308 may be a counterpart, the two gravels representing a further surfacing beside the wall. A mixture of greenish brick earth and some off-white sandy mortar [4218] capped 4256 and a compact mottled patchy layer of dark brick earth, dark grey silty clay and less orange clay containing charcoal flecks [4206] on top, running south to cover hearth 4207. It was probably derived from the use or disturbance of the feature. Its stratigraphic relationships suggest that the hearth and surfaces 4321 et al were inserted at the same time, towards the end of period X. Dark grey silt and some black silty charcoal [4163] spread above 4206 in the west is further use of this area.

To the east, dark brown decayed wood, some dark greyish brown sandy silt and a little clay and small fragments of wood [4164] also overlay 4206, as well as covering stake 4297 and pad 4327. It was flecked with oyster shell in the west and contained tiles and whole oyster shells in the south and represents highly organic decayed rubbish accumulating during the lifetime of the hearth. A spread of light creamy, white crumbly mortar and a few large fragments of tile, the former with yellowish green staining in places [4083] overlay 4164, as did a spread of yellowish white crushed mortar and some buff grey sand [3977] nearby. Correspondingly, further west, loose mottled light grey silt and some light brown mortar in large fragments [4184] overlay 4206, lensing out to the east, whilst a third patch of light yellow coarse sandy mortar and a little grey silt containing fine medium and coarse pebbles and small fragments of chalk [4216] overlay 4256 in the north. They suggest rudimentary repairs to this north area.
A compact deposit of light orange brickearth and a little silt containing flecks of fine sand [4092] overlay use layer 4163. It contained two symmetrically placed tiles towards its base and suggests an addition to, and repair of, hearth 4207, perhaps when mortar spreads 4083 et al were laid. Two stakes intruded into this. [4091] was sub-square, 45mm across, with steep sides 50mm deep and a rough point. It was filled with loose light greenish grey fine sand and some dark grey sandy silt [4090]. [4074] was sub square, 40mm across with steep sides 45mm deep and a roughly pointed base. It was filled with loose dark greenish grey sandy silt and light grey ashy silt [4073]. Both installations must relate to the hearth below. Further east, [4082] intruded into mortar spread 4083. It was rectangular, 0.22m east-west by 0.15m north-south with steep sides except where more gradual in the east, 70mm deep and a flat base and was filled with charcoal-flecked wood fragments and dark brownish grey woody silt [4081]. To the south, [3995] intruded into 4164. It was sub-rectangular, up to 0.35m east-west by 0.30m north south with rounded corners and sides initially sloping gradually but becoming vertical and undercutting to the north and 0.13m deep. It had an irregular, flat base and was filled with sticky brickearth mixed with large fragments of chalk [3994]. Lastly, cut [4292] intruded into gravel 4294. It was sub-circular, c. 0.24m across with irregular steep sides 0.17m deep and an uneven base and was filled with light brown charcoal-flecked, pebbly clay some grey silt and a little coarse sand [4278]. These three features must relate to the stakes intruding into hearth 4207 and are no doubt the result of robbing posts set in the much repaired external area.

Grey silt and some fine sand, with orange metallic staining in its north west corner containing medium and coarse pebbles, fragments of tile and charcoal flecks [4165] overlay cut 4292, also covering mortar spread 4184. It corresponds with light brown sandy clay and some grey silt containing flecks of charcoal and mortar [4190] over 4216, both being overlain by dark brownish grey silty sand, and a little dark brown silty wood in fragments, and a little tile and crumbly light yellowish cream mortar both in small fragments and flecks, the whole containing flecks and smears of charcoal, small patches and smears of dark tan-grey clay [4107], also sealing cut 4082. Finally, an extensive mottled spread of dark brown silt, charcoal and rather less orange silty clay and coarse sand containing fine medium and coarse pebbles and small fragments of shell [4061] formed a thin crust above this with a mottled mixture of greenish tan silty sand flecked with charcoal, dark greyish tan silt and large patches of creamy white silt flecked with orange and dark brownish red clay [3978] on top, then a thin skim of reddish brown burnt clay in the north becoming dark greyish green sandy silt and light creamy yellow crushed mortar to the south containing charcoal flecks and fine pebbles throughout [3922]. Nearby, a patch of brown silt and some sand containing flecks of mortar and brick [1498] which also overlay 4061, could be a counterpart of 3978, though only a small area survived later intrusions. These final seven layers represent material trodden into the area at the end of the life of the building and mark the end of period X in the area.

X.13 therefore sees the final use of hearth 4606 and working area 4651 to its south, with the north part of Building 2 re-floored and its walls repaired. The external area north of this structure and west of the hearth was roughly surfaced and the whole area used, notably the area between hearth 4606 and the access point into the building. The ash and charcoal accumulations here suggest that the former threshold may have been turned into a stoke hole associated with the hearth working. Finally, the strip in the north beside the boundary wall was re-surfaced on successive occasions, with a fitting, eg a bench, set against the main structural division and a hearth was added to the west of 4606, maybe as a replacement.

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X.14 Final changes to the south, broadly contemporary with X.12 and X.13

3996, 3942, 3982, 3971, 3914, 3906, 3893, 3889, 3849, 3850, 3843, 3840, 3769, 3913, 3836, 3823, 3822, 3857, 3913, 3852, 3848, 3844, 3854, 4214, 3672, 3642, 3614, 3616, 3541, 3457, 3354, 3750, 3347, 3349, 3621, 3919, 3606, 3604, 3730, 3729, 3731.

Description

To the south of the central building (Building 1), north south cut [3996] intruded into 4006 (X.11). 1.10m long by 0.32m wide, with rounded corners, it had vertical regular sides up to 0.35m deep and an irregular base with three depressions along it and was filled with large ragstones, sandstones and flint set irregularly, with voids in between in a matrix of grey silt and a little fine sand containing charcoal and oyster shell flecks and large and small fragments of tile [3942]. This formed a masonry foundation set against the revetment to the south. It would have formed the base for part of the lean-to against Building 2 to the north. Compact pebbly grey fine sand and silt [3982] was laid against the east edge of the foundation, giving a gravel metalling on that side.

A spread of oyster shells set in a little pebbly greenish grey silt [3971] and light brownish yellow coarse sand and a little grey silt [3914] accumulated on 3982 to north and east during its use, with further light grey silt and medium sand containing small fragments of oyster shell and charcoal [3906] on both, then pebbly medium sand and some light greenish grey silt [3893], also overlapping 3907 (X.11) as a series of occupation layers east of the foundation. Dark brown charcoal-flecked clay with area of wood staining [3889], which ran west from 3893, represents more organic occupation debris on the other side of the feature. A spread of charcoal-flecked, pebbly dark yellowish green clay and a little dark grey silt with a lens of oyster shells towards its base [3849] ran south above 3893, thereby partially backfilling a depression near the revetment. This is compensation for the partial slipping of the waterfront, but was not entirely successful since oyster shells in some green medium sand [3850], possibly a partially water laid deposit, accumulated above 3849 at the east end of the still existing depression. A further, more general spread of oyster shells in a little loose greenish grey silt [3843] overlay 3850, 3889, below a spread of decayed fibrous material [3840]. This lay against the west side of the masonry feature, and may have been originally a timber floor. But revetment movement continued to be a problem since dark grey silt flecked with oyster shell, chalk and tile [3769] accumulated on 3843 in that depression beside the river.

To the north, a patch of orange clay, and some dark grey silt and a little clay [3836] overlay floor 3840, as did yellowish green clay and some silt [3823] further east. Compacted brickearth [3822] capped both these, probably contemporary with charcoal-flecked brickearth [3857], over 3843 nearby. As a whole, these deposits suggest a repair to the area just south. Further north still, successive strips of compacted orange brickearth [3913]; light yellow brickearth and some brown silt [3852]; mottled, charcoal-flecked brown silt and some light brown clay [3848] then chalk and charcoal flecked brickearth and some grey silt [3844] overlay 3734 (X.11) and sill 3895 (X.9) at the south west corner of the building. They represent an attempt to repair and reinforce this critical junction. A light cream skim of crushed chalk and sandy mortar [3854] faced 3913 and 3852 in the east, forming an internal plastering for that part of the sill.
Immediately to the west, [4214] cut into collapse 4108 (X.10). It was an irregular depression, up to 0.52m across, with irregular sides up to 0.27m deep and an uneven base and was filled with a packing of brickearth [3672] lining the south side of the cut, then a charcoal and chalk flecked, pebbly mixture of light brown clay, dark brown silt and less coarse sand [3642] evidencing the demise of the feature. This feature obviously represents a modification or reinforcement beside the west wall of the building. It could relate to the changes seen in X.11, or those outlined above with 3913 et al. Its physical proximity to the latter additions make its inclusion in X.14 preferable, with the new surfaces and masonry base in the south, and modifications of the southwest corner and west wall all occurring together.

In the room to the north, a spread of dark greyish brown silt and clay [3631] abutted repaired sill 3844 et al, and mortar 3854, also overlying 4777, 3758, 3762, 3760, 3707, 3703 and 3705, (all X.9). It is not clear whether this is a dump or a trodden layer accumulating during later construction. It was overlain by a mottled layer of orange clay, orangish brown silt and rather less medium sand [3615], which also overlapped floor repair 3822 to the south, and was capped with brickearth [3554] to form a new floor surface in the south. It therefore seems most reasonable to see sill repair 3913, external surface 3822 and floor 3615 as part of the same general period of construction.

To the west, a compact spread of light yellow clay and some sand [3727] overlay 4108 and 4120 (X.10), below a compact pebbly, mortar-and charcoal flecked mixture of light yellowish brown clay and some light brown silt [3614] laid around cut 4214. Although the initial brickearth 3727 could have been laid earlier, it is better to see both it and 3614 as part of the same make-up sequence and thus broadly contemporary with the laying of 3631/3615 to the east. [3616] intruded into 3614. It was oval, 0.32m long east-west by 0.17m wide with steep sides 0.10m deep and a concave base. This must be a final installation in this external area.

At the southwest corner of the building, a strip of dark brown organic silt and clay [3541] overlay floor 3554, suggesting sill decay. Further east, dark greenish brown silt and orange clay [3457] overlay the same layer and implies similar demise. A spread of yellow sandy mortar [3354] overlay this, may be corresponding with a larger spread of light grey pebbly sandy mortar [3750] over 3769, 3857, and 3823 to the south. Further brickearth [3347] overlay 3354, either late patching or more likely, related to the continuing demise of the wall immediately to the north with a spread of charcoal, some dark grey silt and a little clay [3349] on top implying further trample.

To the southwest, an L-shaped deposit of greenish brickearth [3621] overlay accumulation 3843 in the east and 3622 (X.11) further west. It may be collapse of a sill running north from the revetment, maybe due to the latter’s movement. This is one of the few good indications of a west boundary wall for the central building. To the east, a pebbly patch, flecked with mortar and charcoal, of brown silt and some brown clay [3919] also overlay 3622 (X.11), so this gravel repair may be contemporary with 3621, especially since dark greyish green silt and some clay [3606] covered both deposits, representing their use. Another small patch of loose fine to medium pebbles in some yellow medium sand [3604] on 3606 suggests a later repair on the line of the main west wall.

Lastly, on the same line but near the revetment, cut [3730] intruded into 3621. It was nearly square, c. 0.13m across with steep sides 0.11m deep and a concave base and was filled with
grey silt and a few oyster shells [3729]. Further north, cut [3731], also on this line, intruded into 3633 (X.11). It was rectangular, 0.20m north south by 0.12m wide with steep sides 80mm deep and a flat base. These two cuts represent the final robbing of the informal division running from the south west corner down to the revetment. These then and 3621 show the demise of its southwest elements, and 3354 et al imply a corresponding end to the main part of the building to the north.

X.14 therefore saw the addition of a lean to on the south side and the area then patched. At the same time the southwest corner of the building was modified. Two brickearth dumps, one within the building, the other flanking it in the west, could be surfaces going with these changes or collapse from the superstructure of the walls. The latter idea is supported by evidence of collapse in the site of the lean to and robbing of posts bounding it in the west, which brings period X to an end in this area. The changes seen in X.14 are thus broadly contemporary with X.12 and X.13 to the north.

**X.15 Accumulation/dumping in front of the period X revetment**

4259, 4159, 4094, 3938, 3384

**Description**

A pebbly spread of black charcoal-flecked gravel in a little dark brown silty clay [4259] overlay 4226 (X.2) just south of the revetment in the centre of the site with dark brownish grey clay and silt, containing a thick lens of oyster shells in the northwest [4159] on top. These were only distinguished from overlying strata in one area. Immediately to the east, bluish grey sand with a little silt [4094] overlay initial accumulation 4096 (X.1), building up in the corner between the two revetments. An extensive mixed deposit of greenish grey silt and greyish clay containing oyster shells, small fragments of tile, chalk, and wood, fine to medium pebbles, patches of sand and a lens of brownish grey coarse sand, some grey silt and a few fine pebbles [3938] overlay 4094 and 4159, as well as stake 4730 (X.1). The patches of sand within 3938, together with swirling patterns and the abrasion of finds at its surface, suggest that the deposit was subject to water action. As a result of these activities, there was a pronounced bank in the corner between the revetments, dipping to the west and markedly to the south. To the west, dark brown organic clayey silt [3384] overlay 4096 (X.1). Although less pebbly, it must be a counterpart of 3938 et al.

It is unclear whether these deposits accumulated during period X or were dumped at the end of the period to prepare for future construction. They certainly ante-date the first activities which can be ascribed to period XI (cut 3940 and timbers 6154 et al - XI.1), but could have been consolidation for future activities. Given the lensing of gravels, evidence for water action, and steep profile of the resulting horizon, they are more likely to occur within period X. In fact, it may have been this depth of accumulation which stimulated to movement of the waterfront to the south.
Period XI.1-XI.10

XI.1 New revetment in the south of the site

(Fig 17)

6250, 6160, 6159, 6154, 6155, 6156, 6157, 3284, 3899, 3770, 3771, 3940, 5997, 5996, 5995, 5994, 6039, 6038, 6036, 6037, 3873, 3874, 5763, 5152, 5009, 5167, 4998, 4999, 3865, 3866, 6158, 5749, 3867, 3868, 3869, 3870, 3871, 3872, 3666, 3665, 4976, 4977, 3888, 4978, 4979, 4975, 4974, 2661, 4973, 2663, 2664, 2658, 2655, 2656, 2675, 2674, 2672, 2671, 2670, 3560, 2669, 3301, 2668, 3431, 4678, 4671, 4583, 5383, 4582, 2442, 4453, 4452, 4267, 3877, 3863, 2688, 3876, 3875, 3861, 5753, 2676, 2684, 2682, 2665, 4897, 4896, 4895, 4878, 4898, 4676, 4892, 4877, 4876, 4845, 4844, 2651, 2662, 4741, 3414, 3292, 3323, 4740, 4736, 4737, 4401, 2699, 3340, 3386, 3338, 3408, 3436, 3369, 2698, 2697, 2683, 2659, 4581, 2680, 2686, 3350, 3381, 3652, 3658, 3657, 3659, 3660, 3661, 2723, 2724, 2705, 2700, 2673, 2685, 2660, 4997, 3671, 3437, 3662, 3002, 3721, 3860, 3768.

Description

At the extreme south of the excavation, a group of five timbers were laid above 3384 (X.15). [6250] and [6160] were laid northwest-southeast, the latter held in place by stake [6159] on its west side driven into 3384. [6154], [6155] and [6156] to the west were laid north-south. The south ends of each timber was below the line of the later base plates of the period XI.
revetment (see 4998 et al below). It is therefore likely that the lower timbers were related to its construction, probably levers to level the plates before adding the uprights. Between 6155 and 6156 were a group of thirteen round or oval stakes and wedges (all [6157]). They were concentrated at the east end of later base plate 3865 near its junction with 4999, so once again are probably related to operations to level that base plate.

A general accumulation of light greenish grey clay containing oyster shell flecks and pebbles [3284] overlay these layers. It contained vertical timbers [3899] in the north west. Nearby lay north-south timbers [3770] and [3771]. The former lay at the surface of 3284 and had many marks at its surface, suggesting use as a chopping block. The latter was recorded in excavation as lying within 3384 (X.19). However, its proximity to 3770 suggests an association, so the stratigraphic relationship as recorded could be a simple scribal error, with the timber found within 3284. Alternatively, it may be in the earlier stratum and be related to robbing operations at the end of period X, to take down the revetment in the north so that it could be reused with period XI (see further discussion below). So 3899 and 3770 certainly, and possibly 3771, as well, are timbers related to the initial construction of the period XI waterfront and discarded during that process.

To the east, cut [3940] intruded into 3938 (X.15). It was roughly rectangular in plan, its east edge formed by an earlier revetment, the south edge beyond at the limit of excavation. It measured 5.90m east-west by at least 3.00m north-south. The north side was vertical, except where the edge had slipped, the west side more gradual. Its base though uneven, sloped gradually down to the south east. At the south edge was a subsidiary east-west trench 0.30m wide and 0.25m deep, dug to receive base plate 4998 (see below).

There is little doubt that 3940 was cut to facilitate the insertion of a new revetment at this point. The fact that it does not run the full width of the site, but terminates opposite the west end of base plate 4998 once again reinforces the impression of different phases, or at least different approaches to the construction of the period IX revetment. The relation between cut 3940 and dump 3284 is uncertain, though the two must be broadly contemporary given underlying correlations and the fact that the first timbers set within cut 3940 overlay dump 3284.

Within cut 3940, lying on top of 3284, were a sequence of north-south timbers, laid horizontally, with the squared and tapered member [5997] forming a base for three reused wedges [5996], [5995], [5994] positioned to form a composite wedge. To the west, east-west timber [6039] also lay within cut 3940, with north-south timber [6038] on top supporting two pieces of broken house stud [6036], [6037]. Further west, east west timber [3873], tenoned at both ends, and with a chase mortise and incised numerals cut into its surface, was also laid on 3284. A further north south horizontal timber [3874] was positioned over 3873, retained to the south by pile [5763]. This feature, cut to locate with the mortised base plates at either end, was the first clear evidence for full framing on site, despite being reused. Further west, east-west horizontal timber [5152] was also laid on 3284, with base plate [5009] set on top and running north retained by stake [5167] in the south driven into 3284. 5152 seems to have been to lever 5009 into a level position. It probably had the same function as 3874 ie underpinning for the base plates set on top. Alternatively, both features may belong to an earlier revetment, a forerunner of 4998 et al.
Four east-west base plates were set above 5994, 6036/6037, 3874 and 5009. These were, from east to west, [4998], [4999], [3865] then [3866], giving a continuous alignment at least 13m long (west end beyond limit of excavation). The last two base plates were attached by a pegged-through, splayed scarf supported by 3873/3874. They had a series of fourteen mortises cut along the upper face, some of which were identified by incised numerals cut alongside, suggesting prefabrication. 4998 in the east, with six smaller mortises, several of which had carpenters’ marks, was slightly different in form and separated from 3865 by the short length of reused house stud 4999, the latter mortised cut as a rudimentary base plate supported by 6036 and 6037.

Four elm or beech piles (all [6158]) were driven in to the base of cut 3940 to support the south edge of 4998 at its west end. Stake [2704] though not securely stratified, probably located its east end. Similarly, to the west, a further nine piles were driven into 3284 on the south side of 3865 and 3866 - from east to west [5749], [3867], [3868], [3869], [3870], [3871], [3872], [3666], [3665]. These were especially concentrated around wedge 3874, at the point where 3866 was scarfed on to 3865, holding the base plates in place and acting as further underpinning. These extra precautions may have been due to the extra slope in foreshore as land was reclaimed further into the river.

Six squared timbers 2m long were tenoned and pegged into base plate 4998 at 1.20m intervals - from east to west [4976], [4977]/[3888], [4978], [4979], [4975], [4974]=[2661]. Some showed evidence of pegged tenons cut at the head for a top plate or rail. Chased mortises were cut in the south faces for raking braces. 4974-4977 were marked with numerals III to VI near their feet, matching these cut in their respective mortises. This indicates prefabrication and, possibly, an order of assembly from east to west.

Immediately to the west a crudely tenoned grooved house stud [4973] was set in a mortise cut through plate 4999. Both elements were therefore reused and may have been derived from the same structure. This feature formed a crude plug in the gap between the more formal arrangements above 4998 to the east and to the west.

Nine rebated and split-rebated uprights were pegged and tenoned into base plate 3865. These were from the east, [2663], [2664], [2658], [2655], [2656], [2675], [2674], [2672], [2671].

Correspondingly, further west, a series of four members were attached to 3866, numbered from east to west [2670], [3560]/[2669], [3301]=[2668] (which had 27 sapwood rings ending in 1211 at what was thought to be bark edge), [3431]. Some of the uprights bore numerals, but not in any order and not related to those cut beside some of the mortises in the base plate. Rebates, giving a T-shaped section, characterised most of these timbers, although some were planed or split lengthways to give a rectangular section. All rebates were redundant in the use of the timbers as found and resembled closely members incorporated into the period IX revetment (IX.1 above). Elsewhere inverted mortises cut on the north faces of several timbers were further indications of reuse. The only features which would have functioned directly with the timbers in their excavated positions were chase mortises cut into the south face of each for raking braces.

At the west end of the revetment, a number of raking brace units were set above 3284, comprising, west to east:-
a) base plate [4678], no pile and brace [4671], bracing 3431;
b) piles [4583], [5383], base plate [4582], brace [2442], bracing 3301/2668;
c) pile [4453], base plate [4452], brace [4267], bracing 3560/2669;
d) pile [3877], base plate [3863], brace [2688], bracing 2670;
e) pile [3876], base plate [3862], brace absent but wedges in situ, bracing 2671;
f) pile [3875], base plate [3861], brace absent but probably bracing 2672;
g) pile [5753], base plate and brace absent but probably associated with 2674.

The head of each raking brace was set into the chase mortises of the corresponding upright, with the foot of the brace supported by being mortised into the small north-south subsidiary base plate retained to the south by piles. Small wedges were used to prevent movement of the braces by driving them into the mortises in the subsidiary base plates.

Further east, the vertical members were supported by using vertical stakes driven against their south face into 3284. These were, from the west, [2676], supporting 2675; [2684] supporting 2656; [2682] supporting 2655; and [2665] supporting 2664. The last member was actually cut into 2664. The lower elements of these features were not recorded and probably lay beyond the limit of excavation, in most cases. It is therefore unclear whether these were raking braces as seen to the west or a different means of support. Any braces further east would have lain outside the excavation.

Substantial timber cladding was pegged to the landward side of the uprights by means of large dowels set in auger holes drilled through the uprights, presumably before the latter were raised into position. To the uprights set in base plate 4998 were pegged [4897], [4896], [4895], [4878], [4898], [4676], [4892], [4877], [4876], [4845], [4844]. Two plank fragments recorded separately, [2651], [2662] may represent higher cladding continuing to the top plate but removed unrecorded by machining.

To the west, above base plate 3865, further planks were pegged to the uprights forming the lower two tiers of cladding. These comprised [4741], [3414], [3292], [3323], [4740]. Both 4740 et al and 4844 et al represent primary cladding, designed and pre-drilled for attachment to their related structures. Both groups had carpenters’ marks.

Above the primary group of timbers 4740 et al in the west, a series of poor quality, reused fragments including a number of boat timbers were attached, either loosely overlapping or nailed, to the uprights. These included [4736], [4737], [4401], [2699], [3340], [3386], [3338], [3408], [3436], [3369], [2698], [2697], [2683], [2659], [4581], [2680], [2686], [3350], [3381] and a number of timbers disturbed during machining [3652], [3658], [3657], [3659], [3660], [3661], [2723], [2724], [2705], [2700], [2673], [2685]. All of these members, given their diversity, represent later repairs using whatever material was to hand.

Fragmentary remains of an east-west mortised top plate pegged to tenons at the tops of some of the uprights survived at the limit of excavation, though distorted by slippage and later machining [2660] was pegged to 4974 and [4997] to 4976, thus forming a full-framed braced structure. They suggest a minimum height of 1.20m OD for the top of the revetment.

There is an obvious difference between the construction of 4998 et al in the east and 3865, 3866 et al in the west. The similarity in construction and materials between the latter and the
period IX revetment to its north suggests that the west part of the earlier waterfront was dismantled and re-erected to the south in the new position. Matching scarf joints and the end of base plate 3865 and that of the period IX revetment lend further support to this idea.

The east element is an entirely new structure with no evidence of reused material, except the boat timbers cladding the ‘plug’ between the two sections, which may be a later repair. The junction between the two elements was due south of the west end of the period IX revetment left unrobbed and corresponded with the west limit of cut 3940. Possibly the east part of that revetment, if structurally integrated with the south wall (see period X above), could not be simply taken down and moved forward when the waterfront was advanced so an entirely new part had to be made. Whether both sections were erected at exactly the same time is unclear, though they have common horizons above and below them and it is difficult to see how the west part could have functioned without the east element. Both were front braced, with the east being stiffened by a top plate pegged to its uprights, whether a corresponding element once existed in the west is unclear. In both structures the primary cladding was substantial but required patching not surprisingly, at the difficult junction between the elements which would obviously have been a weak point.

North of the revetment in the east, cut 3640 was filled with a mixed layer of dark greyish brown medium and coarse sandy silt clay containing whole, small fragments and flecks of oyster shell and medium and coarse pebbles [3671], with a more general deposit of greyish black silty sandy clay [3437] on top, also overlying 5630 (X.4) and spreading out above the cut to north and west. This contained stake [3662] new base plate 4998, possibly further reinforcement to stop its movement. Stake [3002] appeared to intrude into 3437 in the north, just south of the west end of the robbed period IX revetment. In reality, it may have been sticking up from below and relate to that feature. Finally, to the west, a dump of light brown clay and some dark brown silt and containing whole and small fragments of oyster shell [3721] overlay 3437. Both 3437 and 3721 represent the initial dumps behind the new revetment to reclaim the newly enclosed foreshore.

To the south of the revetment, light grey sandy silt and clayey silt containing whole and crushed oyster shells [3860] ([3768] in section) accumulated around the front braces 3862 et al and against base plates 3865, 3866 to form the first foreshore related to the period IX revetment.

Thirteen dendrochronological samples were taken, but they were rejected either because they were knotty (eg [2656]) or because they had less than 50 rings (eg [2660]).

[JS adds: the context index assigns four other contexts to this phase, but they are not mentioned here, or anywhere else in the archive report. [3807] contained three notable small finds, a buckle D<2906>, a fragmentary knife blade D<2910> and a pilgrim souvenir of the shrine of St John the Baptist at Amiens D<2698>. [3882] contained an iron key D<2715>. [3803] produced a lead stylus D<2857>. [3682] produced a second lead stylus D<2950>. ]

XI.2 Repair to east revetment
Description

In the south east corner of the site, a broken section of mortised base plate [4612] was laid horizontally running north-south on top of 3438 (X.15), between the period IX waterfront and its extension in period X. A 1.85m long squared upright [4611]=2643] was tenoned and pegged into a mortise of the north end of 4612, with two further timbers [5456]=2642] and [5469] driven into 3938 (X.15) to north and south to support it. A number of vertically set planks, contrasting with the horizontal cladding of the original structure, were driven into the same deposit east of the uprights including [5457]; [4927]=2644] also overlying 5630 (X.4) and wedged with small timber fragment [5594] set on 5362 (VIII.2); articulated slip timbers [4925], [4924], [4923] over 5457 and 4927; original patch [4926] over 4925 and [5166] above 5456. Plank [4680], which overlay 5667, 5668 (VIII.2), 4553 (IX.2) and 5094 (X.4), appears to have collapsed from the boat timbers 4925 et al to the west (its relationship recorded on site as ante-dating 3938 must be mistaken since this contradicts the stratigraphic sequence recorded on 5094 and 3938 and would preclude the above, logical interpretation, which was given at the time of excavation).

All the timbers in this repair were reused and formed a patch of earthfast posts and planks in contrast to the front-braced structures to north and south. These earlier structures were already partially silted up by the time of the repair, but the water-front must have continued in use to need such repair. Since the repair overlay material accumulating at the end of period X, it may have been inserted when the new period XI feature (XI.1) was built to the west, perhaps to shore up the high ground behind the earlier east structure during the dumping of materials to the west.

XI.3 Repair to the waterfront

(Fig 18)

3947, 4661, 4446, 4445, 4444, 4677, 3720, 3387, 2449, 3133, 2826, 3085, 2640, 3640, 3293, 2838, 2837, 3061, 2988, 2984, 2800, 2121, 3516, 3589, 3519, 1231, 1216

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Fig 18 Period XI.3–7, plan

Description

At the south edge of the site, towards its centre, east-west cut [3947] intruded into 3721, 4845, 4676 (all XI.1). Rectangular in plan, it was 2.60m wide by at least 2.80m long (east end indeterminate) with rounded corner in the north west. Its sides were truncated, leaving only the lower 50mm along its west edge whilst the base sloped markedly down to the south. Five timbers were inserted at the south edge of the cut, comprising [4661], [4446], [4445], [4444] successively and [4677]. The first was a plank fragment unattached to the other timbers, the next three were a segment a clinker-built boat used to repair the revetment. The final element could also be a ship’s timber, though this is less certain. This repair occurred where the two elements of the period XI revetment joined each other (see XI.1 discussion), an obvious weak point in the structure. A mixed deposit of black and greyish green organic silt containing patches of light yellowish brown clay and twigs, ash and amorphous peat [3720] was dumped in the cut in the north. This showed signs of slumping at its west edge, where some of the oyster shells of 3721 (XI.1) had slipped into it. The feature may have been subjected to water action during the process of backfilling. Further sticky compact light brown clay and a little organic material comprising small wood fragments, twigs, grass and straw [3387] was then dumped above 3720 and against the repair 4444 et al to fill the cut.

A more general make-up of dark greyish black pebbly organic silt and some clay [2449] was then deposited on 3387, continuing north to seal 3770, 3292 (both XI.1), 2801 (X.2), 4926, 4923, 5166 (all XI.2), 5668 (VIII.2). This constitutes the main dump behind the period XI waterfront. Although it was recorded as one horizon post dating repair 3947, it is unlikely
that all of the area was left green after the initial construction of the revetment. The lower elements of 2449 may therefore really belong to XI.1 rather than XI.3, though this could not be distinguished in excavation. The relationship between 2449 and 2801 et al gives further support for the modification diverted under XI.2 being contemporary with the major new revetment of XI.1.

Timbers [3133], [2826], [3085] were found within 2449 and [2640], [3640], [3293], [2838], [3837] at its surface. They have no obvious structural implications for the revetment to their south and have been discarded during its construction.

Further north, a spread of pebbles, a few oyster shells concentrated in the west and a little silt [3061] overlay 2267 (X.5), below greyish brown fine sandy silt and some oyster shells [2988], also overlying 3154, 3036, 2994, 2992 (all X.5) then a horizon of pure oyster shells [2984], also covering 2995 (X.5) and finally loose greenish brown silt, a few oyster shells in fragments and pebbles [2800]. This sequence of deposits, though less securely stratified than those to the south, resembles oyster dumps behind other revetments. It is thus likely to come after the end of period X, rather than within it and to therefore correspond with 2449 to the south. This correlation is made stronger by the fact that another spread of oyster shells in a matrix of a little silt and clay [2121] overlay both 2449 and 2800, elsewhere sealing timbers 2640, 3640, 3293 mentioned above and deposits 3731, 3604, 3729, 3616 (all X.14). This material formed a consolidation of the underlying organic debris. The spread of dark greenish grey charcoal-flecked silt and a little fine sand containing small lumps of light brown clay [3516] above 2121 is tread on that surface. In the north east, dark greyish brown clay and some silt [3589] on 2121, also overlying 3750 (X.14), then greyish green charcoal-flecked silt and some fine sand, becoming pebbly towards its base [3519] suggests a continuation of the oyster shell horizon on a small scale. To the north, two small spreads of dark brown silt containing fine and medium pebbles throughout and charcoal-flecks concentrated in the north-east [1231] and blackish brown silt flecked with greenish yellow mortar and medium and coarse pebbles [1216] also overlay 2121. they form a general capping for the oyster dump, though much disturbed by later levelling down. Some of the inclusions, notably the mortar flecks, could even be intrusive, the result of later construction activities.

One timber [2837] from period XI.3 had 98 heartwood rings and dated to 948–1045. It was therefore felled after 1055.

XI.3 therefore sees the repair of the main revetment in the south of the site, followed by extensive dumping of organic material behind the waterfront, capped with a spread of oyster shells to form a working surface.

**XI.4 Dismantling of Building 1**

3495, 4269, 4205, 3517, 3489, 4251, 4244, 4252, 4245, 4254, 4247, 4250, 4243, 4249, 4242, 4248, 4241, 4225, 3964, 3963, 4220, 4151, 3945, 4004, 3941, 4001, 3948, 3980, 3979, 3949, 4008, 3748, 3985, 3986, 3933, 3983, 3984, 3733, 3458, 3518, 3430, 3406, 3404, 3353, 3341, 3488, 3583, 3325, 3473, 3315, 3296, 3400, 3324, 3322, 3900, 3902, 3901, 3253, 3251, 3254, 3247, 3242, 3241, 3246, 3173, 3172, 3291, 3285, 3276, 3298, 3307, 3271, 3209, 3830, 3842, 3827, 3324, 3764, 3719, 3787, 3790, 3789, 3146, 3226, 3218.
Description

Towards the north, central part of the site, a line of yellowish brown brickearth [3495] overlay 3516 XI.3. It directly overlay the position of a main wall, the central building of period X and implies the collapse and spreading of that sill. Further north, another spread of light brown brickearth mottled with flecks of chalk and charcoal [4269] overlay 4281, 4327, 4302, 4296, 4298, 4300 (all X.13) and its corresponding collapse of the same in this area. Finally, compact tan pebbly brickearth [4205] overlay 4224 (X.13) at the corner of the building. Taken together, these deposits suggest the demise of a major element. No subsequent stratigraphy suggests its later refurbishment. The structure must therefore go out of use at this stage. The point at which this happened is therefore after the repair to the period XI revetment at the latest. It is thus possible that Building 2 continued in use after the extension into the river that XI.1 and XI.2 represent (ie these could be contemporary with some elements of X.5 to X.14) but that the building definitely was in demise by the second phase of activity in period XI.

To the south west, a patch of light greyish green pebbly clay and some silt packed around a circular limestone [3517] overlay 3516 (XI.3), suggesting the demise of a post pad related to the building. Further north, another patch of yellowish brown clay and a little silt [3489] also over 3516 suggests the disuse of another structural element.

Further north, six stakeholes intruded into 4269. [4251] was roughly square, c. 0.10m across with side sloping into the west, 50mm deep and filled with compact brickearth [4244]. [4252] was sub-circular, c. 0.11m across with sides 30mm deep sloping into a concave box and filled with loose light brown mortar and some grey silt [4245]; [4254] was oval, 0.10m north-south by 70mm east-west, with steep sides 55mm deep tapering to a concave base and filled with light greyish green coarse sand and some fine sand [4247]. [4250] was circular, 65mm across with sides 60mm deep and was filled with dark brown sandy silt [4243]. [4249] was sub-square, 50mm across with nearly vertical sides 50mm deep and a flat base and was filled with a stake decayed at the edges [4242]. Finally [4248] was sub-circular, c. 70mm across with sides 45mm deep tapering to a concave base and was filled with brown silt mixed with some dark grey silt [4241]. Despite differences in their fills, the stakes must be contemporary, with the line of narrow deep cuts in the west 4248, 4249, 4250, 4254 on the west side of the underlying sill, and the shallow cuts 4252, 4251, on its east side. They are the result of removing the superstructure at this point. A loose spread of light brown fine sand and brickearth in lenses c. 50mm across and 5mm deep [4225] sealed the stakes suggesting trample on the sill line. Sub-square cut [3964] intruded into 4225. It was 60mm across, with sides 35mm deep tapering to an irregular base and filled with a loose mixture of light grey ashy silt, dark greyish brown sandy silt and rather less charcoal and fine pebbles [3963]. This suggests that some robbing of the superstructure took place after 4225 had been trampled in, implying a piecemeal removal.

Light grey ashy silt [4220] accumulated above 4225 also sealing 4224 (X.13) and suggesting trample after the robbing. This was followed by a spread of charcoal-flecked greenish grey silty sand and a few oyster shell flecks and fine pebbles [4151], then dark brown brownish black silty sand, a little light greenish tan clay in flecks and small patches, dark brown silt (decayed wood?) and charcoal-flecks, the whole flecked with oyster shells [3945]. These suggest small scale dumping in the strip west of the now defunct Building 1.
Two spreads of oyster shell flecked yellow clay and dark greyish brown sandy silt [4004] and compact mixed light tan-grey clay and a little grey sandy silt and light grey ashy silt [3941] overlay 3945 and suggest further collapse of this corner of the building. Compact dark brown clayey silt and a little coarse sand containing flecks of wood and small fragments of shell [4001] overlay 4004, related to brown clayey silt, some light brown clay and a little medium sand [3948] over 3945 further north. The latter contained a large fragments of worked timber, possibly derived from the underlying Building 1. The rectangular cut [3980] which cut 3948 could be related to this timber. It measured 60mm north-south by 0.10m east-west, with sides 0.13m deep undercutting to the north and tapering to its base and was filled with loose light grey ash and some crumbly mortar [3979].

To the north, compact yellowish tan clay and a little dark grey sandy silt, large fragments of wood and tile containing flecks of yellowish cream crumbly mortar [3949] overlay 4001, 3948, related to light greyish tan clay and a few large fragments of horizontally bedded tile flecked with chalk/mortar [4008] over 3941 to the south. In between, a spread of light creamy yellow mortar in small fragments or, more often, crushed and a little dark tan-grey clay [3948] overlay 3949 and cut 3980, also sealing 3977 (X.13). Nearby, compact dark greyish tan brickearth mixed with a little bluish grey silt containing flecks of mortar and oyster shell [3985] overlay 4008 and 4001, together with 3994 (X.13), dumped in a slight depression. Greenish tan charcoal-flecked brickearth [3986] over 3945 may be a counterpart of this. Finally, dark greyish brown silty sand, and a few fine and medium pebbles [3933] spread above 3985. The series of deposits from 3949 to 3933 represent building material in the area west or on the line of its west wall. They could either be derived from robbing or disturbance of its collapsed superstructure or dumped on to the site to level it up or simply dispose of such rubbish. In any case, piecemeal activities are suggested.

Dark greyish brown silt [3983] accumulated above 3985, with a spread of dark brown decayed wood containing small patches of black silt and brown clay [3894] on top, also overlying 3933 and 3949. These are material trampled into the building material deposits, corresponding with a spread of dark grey silt and a little dark green fine sand and in the north, silty charcoal and containing flecks of oyster shell, charcoal and coal throughout [3733] over 3748 further west.

To the south, a dump of loose light yellowish brown gravel [3458] overlay 3516 (XI.3). Further east, a small spread of creamy white mortar [3518] overlay 2121 (XI.3). Similarly, a small spread of dark grey silt, some clay and a little fine sand [3430] overlay 3516 (XL3) nearby, covered with a more general layer of dark grey silt and some crushed charcoal and containing flecks of shell and charcoal and at its base, patches of decayed wood [3406]. This also sealed 3458, 3517 and 3489.

Finally, a strip of sticky grey clay [3404] overlay 3406 against the line of the disused period IX and X revetment. It may have been water lain or dumped to level up a hollow. Either way, the depression was caused by the continuing movement of the now sealed revetment below.

A layer of black organic silt containing flecks and small fragments of oyster shell [3353] was dumped above 3404, with a spread of some medium and a few fine pebbles set in yellow coarse sand [3341] on top, correlating with further loose fine to medium pebbles set in some green medium sand and a little silt [3488] on 3519 (XL3) and loose fine to medium pebbles in some yellow sand [3583] over 3622 (X.11) to the north. These gravels therefore form a
capping for the waterfront dump 3353 at its north east corner, at the point where activities on horizontal ground behind the revetment and reclaimed land would have started.

A strip of dark grey shell-flecked silty clay [3325] over 3341 seems, from its position to be further compensation for movement of the underlying waterfront at this point. Just to the north, a small dump of dark greyish brown silt and clay [3473] overlay 3488 and 3518, with a more extensive deposit of dark greyish green silt, some fine sand containing medium pebbles and small fragments of tile [3315] on top, also overlying 3325 and 3583, then a charcoal-flecked mixture of dark grey organic clay, grey sticky clay and less blotches of brickearth [3296]. These deposits imply further organic dumping on the gravels 3341 et al, with a spread of yellow coarse sand and some fine and medium pebbles [3400] on 3473 showing that the secondary organic dumps were themselves capped with a rough gravelling. The strip of light yellowish brown mortar [3324] which overlay 3315 at its east edge may be derived from the postulated east wall.

An extensive layer of orangish grey clay and a little dark greenish grey silt [3322] overlay 3324, also spreading above 3349 (X.14) and 3495. In terms of absolute level, character and the position of west edge, 3322 correlates with a layer of light yellowish tan clay, some sandy silt and a little yellowish white crumbly mortar in flecks and small fragments to the south and east and containing large patches and irregular thin lenses of light reddish brown silt and charcoal flecks throughout [3900]. This overlay 3941, 3963, and darkened and lensed out irregularly to the west but rose sharply at its east edge. The deposit resembles the earlier floor make-up of the central building, and might suggest that the structure had been re-erected. However, there are no new sills accompanying 3322/3900, and it covered in part, some of the sill of the underlying structure. Given this, and the nature of the underlying activities interpreted as relating to the dismantling, 3322/3900 are more likely to be derived from the final collapse of the walls of the structure, suggesting mass built walls rather than infill around timber framing at least for some of its structural components.

Three cuts intruded into 3900/3322, [3902], in the north, was rectangular, 0.11m east-west by 80mm north-south with steep sides in the north and west up to 550mm deep, shallower elsewhere and a concave base. It was filled with loose yellowish white crushed mortar and a little grey silt and brickearth [3901], tiles at the edge of the cut could be the original packing. The feature may be related to the demise of a hearth in the central building just to the west which was in use until the end of its lifetime. To the south, [3253] was roughly sub-circular, c. 0.24m across, with irregular sides up to 60mm deep and an irregular base sloping down to the west and was filled with loose orangish brown clay and some dark brown silt [3251]. [3254] to the north was sub-rectangular, 0.10m north-south by 50mm east-west with irregular sides 50mm deep and an irregular base.

Both cuts lay at the point where in 3322 overlapped the underlying wall. On the west side of that wall a patch of loose crushed chalk and a little crushed mortar and dark grey silt [3247] overlay sill collapse 3495, cut by stake hole [3242]. This was sub-square, c. 0.11m across, with vertical sides 0.15m deep and was filled with loose greyish brown clay and some sill [3241]. Just to the north, opposite 3254, a loose spread of crushed chalk and a little grey silt and medium pebbles [3246] lay against collapse 3495 and was cut by stake hole [3173]. This was sub-circular, c. 90mm across, with vertical sides 0.16m deep and a flat base and was filled with loose brownish grey silt [3172]. All of these features must relate to the final removal of the superstructure above the now collapsed sill.
A small spread of charcoal [3291] overlay 3322 to the east with a loose, burnt spread of cream mortar [3285] on top. It suggests a small, informal hearth, probably related to the dismantling of the building. A spread of material comprising seven very thin lenses of, alternatively, charcoal and bright orange clay [3276] overlay 3285, representing the use of that feature. To the southwest, a small area of greyish green silt and a little clay [3298] overlying 3315 may be contemporary use of the area. An adjacent patch of brickearth flecked with coal and charcoal [3307], also over 3315, had a wood stain at its centre raised 10mm and may be the demise of a post pad. Finally, a spread of orange brickearth [3271] overlay 3307, 3276 and 3298 and is probably derived from the collapse of the last part of the superstructure left standing in the area.

To the north, a spread of cream sandy mortar, and some brown silt medium sand and clay in various proportions [3209] overlay post hole 3902, continuing south to overlap burning layer 3276. Two patches of light yellowish cream pebbly mortar, mostly crushed, and a little yellowish tan clay in patches [3830] and [3842] overlay 3209. The former contained several horizontal tiles, which appeared to have broken in situ. All three mortar layers must be related to the final demise in the north, presumably at the same time as collapse 3271 was created.

A lump of charcoal-flecked dark brown clay in the south of the deposit, some greenish brown fine sand in the north [3827] overlay 3830, with a small mixed spread of light grey ashy silt, dark grey sandy silt, less flecks of charcoal containing flecks of yellowish white mortar [3824] capped this, representing tread, with grey clay and a little light tan clay in patches, fine sand, fine pebbles and charcoal flecks [3764] on this suggesting a gravel spread. Finally, another mixed, localised deposit of dark grey silt, dark tan clay and rather less crushed oyster shell and whole oyster shells containing small fragments of yellowish white mortar, fine pebbles and charcoal flecks [3719] overlay 3764. It correlates with another mixed deposit of dark greyish green sandy silt, dark grey silt and rather less fine pebbles and oyster shell flecks [3787] over 3842 to the south, both representing the final occupation of the area.

A small patch of mixed large fragments and flecks of charcoal and slightly less light grey ash and dark yellowish tan clay [3790] overlay 3787, with a strip of dark tan clay flecked with greyish green silt [3789] on top. Both of these layers swept up vertically towards the east, as if laid against a structural division at that point, though any such feature would have been cutaway by later intrusions. This suggests that a structural element of the central building was influencing the activities on the site at this point even if not standing to its full height.

Similarly, to the south, a spread of dark greyish brown charcoal and some silt [3146], which overlay 3209, represents tread on that surface, as does further charcoal-and clay flecked dark grey silt and some fine sand [3226] over 3271 further south still, then dark orange clay and a little fine sand [3218]. These small spreads have no obvious patterning and presumably represent random use of the area right at the end of the removal.

XI.4 therefore sees the collapse and robbing of various elements with organic and building material dumps around its fringes at various stages during the process of dismantling and destruction. The building debris in the dumps may have been derived from its superstructure, but the organic elements resemble the tail end of the waterfront dumps behind the repaired revetment described under XI.3.
XI.5 Dumping north of dismantled Building 1

3449, 3432, 3587, 3586, 3624, 3623, 3626, 3625, 3628, 3627, 3380, 3412, 3413, 3401, 3663, 2441, 2822, 2791, 2786.

Description

East west cut [3449] intruded into 3450 (X.5), directly above the north boundary wall. At least 1.40m long (both ends cut away), it was 0.30m wide in the west, narrowing to 0.20m further east, with nearly vertical sides up to 0.17m deep meeting a fairly flat, locally irregular base. It was filled with grey clayey silt and some crushed oyster shells, also containing whole oyster shells and small fragments of buff mortar [3432]. 3449 forms a slot up against the north sill. It undoubtedly represents the robbing of the beam forming the base plate of the wall.

Further north were a further four cuts. [3587], intruding into 3582 (IX.5) was sub-circular, c. 0.36m across, with steep sides 0.22m deep and a flat base and was filled with oyster shells and some greyish brown silty clay containing large tile fragments [3586]. The remaining three features cut 3618 (IX.5). [3624] was circular, 85mm across with vertical sides 0.16m deep and a rounded base and was filled with oyster shells, whole and crushed at the top, becoming flecks and small fragments of coal and dark grey silt lower down [3623]. [3626] was circular, 85mm across, with vertical sides 0.17m deep and a rounded base and was filled with oyster shells at the top, and grey pebbly charcoal- and chalk flecked silt lower down [3625]. [3628] was circular, 85mm across with nearly vertical sides 0.19m deep and a rounded base and was filled with oyster shells, whole and crushed at the top and greyish brown mortar flecked sandy silt [3627] lower down.

All four cuts must represent robbing of an installation north. 3587 could be a central post position with the other stakes at a certain distance away from it. The oyster shells in their fills, and overlying stratigraphy, suggest contemporaneity with each other and with 3449 to the south. If so, all must post-date X.5 and were probably removed at the end of the life.

An extensive dump of oyster shell, some crushed but mainly whole, and lying in horizontal beds, set in a little light grey clay and orangish brown sandy silt [3380] overlay all the cuts. Above this, was a local sequence of mixed orange medium sand, slightly less grey silt and large fragments of oyster shell containing small fragments of buff mortar and towards its base, lenses of dark grey sticky mortar flecked clay, sandwiched between orange medium sand [3412]; a lens of crushed oyster shells and grey silt [3413]; and sticky greyish brown clay and dark brickearth [3401]. These small deposits lay exclusively above the robber trench 3449 and represent compensation for its subsidence. This suggests that there was very little time between the removal of the beam and the dumping of oyster shells 3380. The same situation is likely for cuts 3587 et al. The date of 3380 therefore is probably also that of the structural change in the area.

A small patch of orangish brown medium and coarse pebbles set in some light buff brown sandy silt [3663] overlay the west edge of 3380 Further west, an extensive deposit of dark brownish yellow coarse sand and a little light grey silt, becoming more pebbly in the south east
and containing flecks of iron staining, bright yellow material and lenses of charcoal and light grey silt throughout [2441] overlay 2848 (IX.5). To its west, another spread of greyish brown medium sandy silt and some fine to medium pebbles, [2822] also overlay 2848, as well as sealing 2874 (IX.5), and 3105 (IX.4). Both 2441 and 2822 were capped with [2791], material of exactly the same character as 3663 to the east, then brownish green silty clay and less gravel [2786]. As a whole, therefore, these deposits form a major gravel metalling in the north west area, continuing east to just overlap the edge of oyster shell dump 3380.

XI.5, therefore sees the robbing of the north boundary wall and various associated features to its north. Soon afterwards, a sequence of oyster shell dumps, and surfaces are set down to the north and west, with the strip north of the now defunct building having a more substantial metalling than the area to its west.

All of these activities could take place at any time after X.5. However, since 3449 removes a major element, it seems reasonable to relate this to the robbing described under XI.4. Equally, the dumping to north and west, with its diagnostic oyster shell element resembles the material described under XI.3. In the north, however, it post dates the robbing, whereas in the south the dumps ante date the collapse of the walls.

Two explanations are possible. Either the north boundary wall below 3449 was robbed first, when the revetment was modified. Then dumps 3380 et al in the north and 2121 et al in the south were deposited, before the piecemeal robbing proper took place, as described under XI.4. Or the process of redevelopment took place from south to north, with the revetment repaired and dumps inserted directly behind it (XI.3), the building dismantled (XI.4), including its north boundary wall, and then the area around the north and west fringes levelled by dumping further oyster shells and gravels skimmed with mortar. In either case XI.5 can be seen as broadly contemporary with XI.3 and XI.4.

**XI.6 Replacement bracing in east revetment**

3208, 2979, 2978, 2649, 2980, 3081, 3080, 2650, 2647.

**Description**

3.50m north of the junction between the period XI revetment described under XI.1 and XI.2, pile [3208] (of beech, with only 31 rings) was driven into 2449 (XI.3), the material dumped behind the repaired revetment. This supported squared beam [2979]=[2978]=[2649], which also overlay 2651 (XI.1) and continued south to lap the original period XI cladding. The remains of east-west cross piece [2980] to the west would originally have passed through a mortise near the north end of the timber, retained to the south by pile [3081], which also intruded into 3980 (XI.4). A second pile to the east may have retained the missing end of 2980, completing a tie back added to support the original period XI revetment. The south and central sections of this tie back itself had been removed subsequently or lost.

Immediately north of the revetment cladding, and adjacent to the south and of the new tie back, a small vertical timber fragment with remains of a pegged mortise [2650] was set above plate 2649. It appears to represent a displaced section of top plate which would originally have linked the heads of the revetment uprights (two similar fragments, 4997 and 2660 (XI.1) were
found in situ to the west). In excavation, 2650 was recorded as antedating 5632 (X.4). This must be a misidentification. If the interpretation of 2650 is correct, it would seem that tie back 2979 et al passed through the original cladding immediately below the top plate, or perhaps replaced the original plate.

Finally, decayed timber fragment [2647] overlay 2648 (X.4) and lapped the east of 2650 to form another displaced fragment of the revetment.

XI.7 Tiebacks and other modifications to revetment

3082, 3250, 2898, 3249, 4447, 3664, 5453, 3690, 3651, 3859, 4147, 3864, 4146, 3601, 2681, 2802, 2653, 2657, 2827, 2654, 2883, 2701, 2702, 2206, 2703, 2712.

Description

Towards the southwest corner of the site, cut [3082] ([3250] in section) cut into dump 2121 (XI.3) and 2984 (XI.3). At least 5.40m long (both ends unknown), and up to 1.30m wide, it ran parallel to the period XI revetment on its north side. Its steep sides, up to 1.40m deep, curved gently to a flat base and it was filled with loose dark grey organic clayey silt and oyster shells containing small fragments of pottery, bone and tile [2898] also over 2724 (XI.1) ([3249] in section). The feature must have been cut at the back of the revetment to allow its re-cladding. However, the base of the cut was above that of the lowest timbers, so not all planks were replaced. Of those found in situ, there was no obvious division between the original ones and any repair. They have therefore been described as a single group under XI.1. Only other forms of evidence (eg dendrochronology) might rationalise these members into an early, original group and those going with repair 3082.

On the south side of the revetment, a short north-south section of squared base plate [4447] was placed on 3860 (XI.1), the initial period XI foreshore. A second broken, tenoned timber [3664] was inserted into a mortise cut through 4447, angled to the west. This may represent a collapsed structural fragment from the waterfront.

To the east, rectangular block [5453] lay on the same foreshore, apparently with no function. But mortised subsidiary base plate [3690], on the same deposit, replaced the initial arrangements for bracing upright 2672. Two wedges remained in situ.

Dark grey clayey silt containing lenses of organic material [3651] overlay these timbers and 3768 (XI.1), with light yellow fine sand and some crushed oyster shells, also containing lenses of organic silt, tan fine sandy silt and whole oyster shells [3859] on top. These represent a secondary foreshore accumulating in front of the repaired revetment.

Five partly worked curved branches lay within 3859 - [4147], [3864], [4146], [3601] and [2681]. They may represent fragments of a broken front brace, although it is unclear why they should have been stacked on the foreshore against the front of the revetment.

Further east, on the landward side of the waterfront, east-west horizontal timber [2802] was laid on 2449 (XI.3), dumping behind the revetment. North-south timber [2653], c. 4.45m long, with horizontal mortise cut edge-to-edge at its south end where it lapped the upper
cladding of the pre-existing revetment, was laid above 2659 (XI.1), with its north end and extending on to cross-member 2802. Here it was pegged in place to form a half-lapped joint. Two unnumbered piles immediately south of 2802 on either side of 2653 prevented the structure from moving south. Originally, an east-west cross piece would have passed through the mortise in the south end of 2653 to prevent the front face of the revetment being pushed into the river. The new tie back, presumably a modification of the original structure, may have been inserted when the front braces to the west were altered by adding 3690.

Just to the west, pile [2657] was inserted into 3284 (XI.1) with north-south horizontal timber [2654], 3.48m long, laid above it and 2686 (XI.1). Its south end extended c. 1.00m out from the revetment. The timber contained the remains of six pegged half mortises along one face and, on the opposite face, a pegged half-dovetail housing. Several other pegs were noted in various faces. Pile [2827] intruded into 2121 (XI.3) just west of the north end of 2654. Timber 2654 could be a tie back similar to 2653 immediately to its west. However, there is no other evidence to support this such as the cross member 2802 seen with 2653. It seems more likely that 2654 was originally a top plate for the revetment, since the spacing of its mortises matches that of the uprights, and would have been pegged to tenons cut at their tops. The various dimensions of its mortises matches variations in the uprights. The pegged half dovetail lap on one face of 2654 could have held a tie back originally, possibly 2653 itself, since the latter, most unusually, has an identical joint at its junction with 2802 in the north. It is possible, then, that 2654 functioned as a top plate with 2653, but that modifications to the bracing, including changes to the front-braces in the west, meant the removal of the top plate. The original tie back was then reversed and reused in the new arrangements.

To the east, pile [2883] was inserted into 2449 (XI.3). It may be the north element of another tie back, possibly related to the changes to the east revetment described under XI.6.

To the west, five further piles intruded into 2121 (XI.3). These were, from east to west, [2701], [2702], [2206], [2703] with [2712] to the north. They may be associated with further robbed tie backs, especially 2703 and 2206 given their positions and distance apart.

XI.7 therefore see the cladding on the north side of the period XI revetment repaired by cutting a trench along its north edge and the front braces modified to the south. At the same time a new tie back bracing was inserted to strengthen the upper cladding, possibly a replacement of another tie back which it partly reused, with the related original top plate discarded on the dumping behind the revetment. These changes may be broadly contemporary with the additions to the east described under XI.6.

Dendrochronological samples were taken, but could not be dated.

**XI.8 Drain**

4853, 5216, 5211, 5108, 5109, 5141, 5147, 5143, 5142, 5342, 5343, 5211, 5183, 5182, 5181, 5210, 4959, 4960, 5103, 5104, 5105, 5106, 5107, 5345, 5344, 4956, 2981, 4830, 4828, 5034, 4800, 2062.

**Description**
In the south-east of the site, linear cut [4843] intruded into 4553 (IX.2) and 5668 (VIII.2). At least 8.80m long (south end beyond limit of excavation) and up to 1.00m wide, it had nearly vertical sides up to 0.56m deep breaking sharply to a flat base which dropped gradually down to the south and was filled with light brown clay containing a few decayed chalk blocks [5216]. This formed a packing in the base of the cut for eight cross members, from north to south, [5108], [5109], [5141], [5147], [5143], [5142], [5342], [5343]. These were all small squared timbers up to 0.87m in length, with the centre of the upper face halved to form a cradle c. 0.55m wide and were laid perpendicular to the line of the cut at c. 1.00m intervals.

Three successive substantial planks 0.44m to 0.58m in width [5211], [5183], [5182] were laid from south to north end to end above the cradling timbers. Simple through-splayed scarves at either end, raked towards the south, provided a tight join between the planks, which formed a base for the feature of c. 8m.

Along the edges of the base, four planks, [5181] and [5210] in the east, [4959] and [4960] in the west were set horizontally on edge, rebated along the lower inner face to lap the base timbers 5182 et al and forming the sides of the feature. Small slots were cut along the upper edges of all four timbers at 0.80m to 1.00m intervals. The planks were scarved together as those of the base, with simple through-splayed joints, positioned in such a way that the scarves on either side were exactly opposite. This enabled the small slots in their upper edged to form opposing pairs.

Seven cross pieces were set in the slots above the sides, from north to south [5103], [5104], [5105], [5106], [5107], [5345], [5344]. These had half-dovetail, half-lap joints at each end, pierced centrally by pegs attaching them to vertical sides beneath. Two empty slots at the north end of 4959/5181 indicate a missing cross member. The timbers served to hold apart the upper edges of the sides of the feature.

The cross members also formed a supporting structure for three substantial successive boards, from south to north [4956], [2981], [4830]. These were scarved together with through-splayed joints and pegged into the upper edges of the sides 4959 et al to form a lid for the feature.

Wedges were driven into the gaps between the sides, and cradling timbers to hole the structure rigidly, with two wedges used where the gap was especially wide and, in one case (5142), extra timbers packed between the sides of the cut and the feature. Holes were drilled at c. 45° through the lower outer sides into the base timbers and long pegs inserted as an additional stiffening.

A well-made, rigid box section, at least 8m long, was thus produced, sloping slightly to the south. It acted as a drain. Although the cut in which the drain was set terminated just north of the end of the surviving timbers through-splayed scarves at the ends of both side timbers and the base show that the feature continued north originally, though not at the same level. A down pipe may therefore have led into at this point.

Dark grey unstructured peat [4828] was dumped around the feature as construction trench backfill. Greyish yellow clay [5034] overlay its base. This had a pinkish green decayed metal residue forming a thin skim at its surface, which might suggest an industrial function for the
feature, with a spread of dark bluish black clay flecked with chalk, oyster and mussel shell on top, may be the result of tidal wash or a secondary use. At its centre, a spread of orangy brown pebbly clay and some silt overlay lid 2981, also overlapping 4238 (X.4). This seems to mark the demise of the drain, since the lid would presumably have been removable for the feature to be cleaned periodically when it was functioning properly.

The period of use of the feature is problematical. It cut material assigned to period IX on independent grounds. It lay below a truncation assigned to the much later period XIV. However, horizontal deposit 2062 directly overlay period X layers. So, unless there is a second intervening truncation associated with the drain, for which there is no independent evidence, the feature is unlikely to have been constructed in periods XII - XIV. So a date in period X or XI is preferred. However, its position, crossing the line of a foreshore related to a revetment known to have been in use in period X, suggests that any beach could not have been effectively used after the drain’s insertion, so period XI might be preferred over X. The only argument against this is that the drain, with its possible residue leads towards the corner. Indeed, this is the only structure which could relate to a down pipe leading into the north end of the feature. But it is possible, anyway, that the central building continued to function at the start of period XI only going out of use after the changes seen with XI.3 and XI.4 (see discussions there). So the drain may have been used with Building 2 and its hearth at the start of period XI.

Four samples from the base of the XI.8 drain were rejected. The lid had 70 heartwood rings with an average ring width of 4.2mm. The planks from the east and west sides of the drain had similar cross-sectional dimensions to but by contrast they had average ring widths of 0.9-1.2mm and therefore contained over 200 rings. These five ring sequences from the sides of the drain crossmatched each other extremely well (see Dendrochronology report, Table 3), and it is possible that some, if not all, are from the same tree. Their ring widths were combined to give a single sequence of 293 years (report, Table 4) but it could not be dated.

XI.9 Further surfaces north of dismantled Building 1

2774, 4134, 2991, 2766, 2750, 2763, 3337, 3385, 3352, 3317, 3316, 3319, 3318, 4135, 3334, 3302, 2762, 3304, 3303, 3306, 3305, 3336, 3335.

Description

In the north west part of the site, an extensive deposit of oyster shells set in some yellowish brown fine sand and silt was dumped above 2786 (XI.5), correlating with exactly similar material over 3663 (XI.5) to the east. A small patch of yellow mortar and slightly less brickearth and medium and fine pebbles overlay oyster horizon 4134, also sealing shell deposit 2774 to form a skim on that surface. Greyish brown silty clay was trodden into surface 2766 with a further spread of yellow pebbly fine sand on top to give an extensive gravel surfacing of this west area.

To the east, another extensive metalling of grey sandy silt and slightly less orange coarse sand forming a matrix around fine and medium pebbles overlay oyster horizon 4134, also
sealing compensation 3410 (XI.5). It was less pebbly at its west and east extremities but had a regular surface throughout and forms a counterpart to the gravel surface 2763 et al, with which it had a common north limit. In the south 3337 ran up to the north boundary wall, although that structure must have gone out of use previously. A patch of light yellow sandy mortar and a little grey silt [3385] which overlay 3337 could be a repair to its surface. To the east, a small spread of oyster shells in a little grey silt [3352] was also dumped on 3337. It is unclear whether these are another repair or occupation debris, though given the role of 4134 in providing consolidation for 3337, the former is more likely.

Two cuts intruded into 3337. [3317] was circular, 90mm across, with vertical sides, 0.18m deep and a pointed base and was filled with brownish grey sandy clay, and a little medium and fine pebbles containing small fragments of oyster shell [3316]. To the east, [3319] was circular, 0.12m across with shallow sides curving to a rounded base and was filled with grey pebbly sandy silt [3318]. These features are installations associated with surface 3337.

To the west, a nearby small spread of greyish brown silty clay [4135] accumulated on 3337, correlating with further dark grey silt, some green sandy silt and some sticky light brickearth containing large fragments of tile and whole oyster shells [3334] on 3385, to the south also sealing 4107 (X.13). These represent use of the 3337 metalling, with a much more extensive pebbly accumulation of olive green sandy silt and dark grey silt [3302] above, also sealing 3319, 3317, showing the further use of the area. To the west, grey silty clay [2762] overlay gravel 2763, showing that the metalling there was used in a corresponding way.

Finally, several cuts intruded into these occupation layers [3304], cutting 3302, was oval, 0.35m north-south by 0.28m east-west, with steep sides up to 0.10m deep, except in the east, where the sides were more gradual, and a flat, slightly rounded, base. It was filled with small fragments and some large fragments of oyster shell in a little grey silt [3303]. [3306] also cutting 3302, as circular, 80mm across, with generally vertical sides up to 0.12m deep and a pointed base. It was filled with grey silt and a little oyster shell in small fragments and fine pebbles [3305]. To the south, [3336] cut 3334. It was sub-circular, c. 0.16m across, with steep sides 0.39m deep and a slightly rounded base and was filled with grey sticky clay and grey silt containing large fragments of oyster shell. All three features represent a final set of installations into 3337, but after some occupation had taken place. The oyster shell content of their fills suggests only a small gap in the time between the robbing of the features and the deposition of the next dump (3277 - XI.10).

The phasing of the these surfaces and cuts is difficult. They post date the surfaces of XI.5, but since the latter have considerable stratigraphic latitude, this does not help much. Their character - oyster shell dumps with gravel capping, with installations and occupation on top - resembles that of the preceding group. Given the arguments for assigning XI.5 to period XI, the same logic suggests that 3337 et al belong to a later aspect of the same period, though it is certainly possible for them to move later, to the initial stages of period XII.

**XI.10 Final surfaces north of the dismantled Building 1**

3277, 2573, 2603, 2565, 2550, 2551, 2621, 3272, 3297, 3275, 3257, 3314, 3313, 3312, 3311, 3310, 3309, 3230, 2553, 2557, 2558, 2559, 2554, 2529, 2522, 2534, 2530, 2536, 2535, 2533, 2537, 2548, 2549, 2295.
Description

In the central, north part of the site, an extensive spread of oyster shells in a matrix of grey sandy silt [3277] was dumped on top of cuts 3304 and 3306 (XI.9) and the occupation deposits of that group. Further west, another extensive dump of oyster shells set in some greyish brown clayey sand [2573] overlay occupation 2762 (XI.9) and must be part of the same horizon.

Greyish silty sand containing small to medium pebbles and crushed oyster shells [2603] overlapped oyster dump 2573 in the east, with a spread of fine pebbles set in a little medium sand [2565] on top containing some grey silt patches towards its base. To the south, two patches of fine medium and coarse pebbles et in some silty sand [2550] and [2551] also overlay 2573 and, though on isolated islands of stratigraphy due to later intrusions, correspond to gravel surface 2565. Similarly, to the north, grey brown silty sand containing oyster shell fragments and fine to medium pebbles [2621] which overlay 2573 is a counterpart of 2603. These layers therefore form a major resurfacing of the west area.

In the east, a compact surface of variously sized pebbles, in a matrix of some grey silt except in the north west, and containing charcoal flecks throughout [3272] overlay oyster 3277 and gave a new metalling here.

To the south, a spread of crushed greensand and some grey silt [3297], which overlay 3302 (XI.9), then a patch of brickearth [3275] could be a corresponding ffffmake-up, possibly incorporating material from the dismantling which lay immediately to the south. A more general deposit of greyish green pebbly, charcoal-flecked silt [3257] which overlay 3275, spread out to cover 3335 (XI.9) and oyster dump 3277. It generally avoided the position of gravel surface 3272 to the north west and could be occupation debris swept from its surface or a more disturbed counterpart of 3272.

Three features intruded into surface 3272. [3314], to the north, was circular, 0.10m across, with vertical sides 90mm deep and a pointed base and was a void [3313]. [3312] was circular, 80mm across, with vertical sides, 0.11m deep and a pointed base and was void [3311]. [3310] was circular, 90mm across, with vertical sides 0.36m deep and a pointed base and was filled with small fragments of coal and a little greenish grey silt containing fine and medium pebbles [3309]. These installations into the new gravel surface were covered by a spread of small fragments of coal and a little grey silt [3230], which also sealed 3257 in the south east, and must represent the general use of the area.

In the west area, two features intruded into gravel 2565. [2553] was roughly circular, c. 0.20m across, with sides up to 0.12m deep and an uneven base. It contained three stake holes [2557], [2558] and [2559] and was filled with greyish brown pebbly clay, some silt and a little medium sand [2554]. Immediately to the north, [2529] was an irregular, east west slot at least 0.90m long (east end cut away) and up to 0.40m wide. It was only 45mm deep, with an irregular base and was filled with mixed greyish brown clay, some silt and a little coarse sand containing small patches of orangy brown clay, flecks of chalk and charcoal; large and small fragments of yellow mortar and fine pebbles [2522]. The feature could be a slot for a building lying mainly off the site to the north.
To the south, four cuts intruded into shell dump 2573. [2534] was sub-circular, up to 0.12m deep with steep sides and a rounded base and was filled with light brown silt, some buff medium sand and a little fine pebbles containing small fragments and flecks of yellow mortar [2530]. [2536] was sub-circular, c. 80mm with gradually sloping sides and a rounded base and was empty. [2535] was sub-circular, up to 0.20m across with shallow sides and a rounded base and was filled with light brown clayey silt, some buff medium sand and a little fine pebbles flecked with yellow mortar and shell [2533]. [2537] was sub-circular, up to 0.18m across with gradually sloping sides and a rounded base and was empty. These installations were no doubt inserted at the same time as surface 2565 was laid down and in use with it.

Finally, to the west, two deposits of oyster shells set in a little grey silty fine sand [2548] and [2549], overlay gravels 2550, 2603, and 2551 respectively. They could be part of a much larger oyster dump truncated by later activity, or simply a small horizon of repair to the main gravel surfacing. Later intrusions preclude a decision. To the north, a deposit if five successive lenses of mostly silt with clay, sand and pebbles in various small proportions [2295], which overlay cuts 2553 and 2529 represents the final occupation here above the oyster shell horizon.

XI.10 therefore sees the laying of a new horizon of oyster shells and gravel surfaces in the central and west areas, with various installations and occupation occurring on top. The problems of phasing this within periods XI or XII are the same as those discussed with XI.9. A similar solution is adopted.

**Period XII.1-XII.13**

**XII.1 Dumping for new revetment beyond the south limit of excavation**

(Fig 19)

3858, 1668, 2687, 2091, 2962, 2925, 2823, 2785, 3273, 3274, 2804, 3245, 2772.
In the south of the site, a deposit of dark grey organic clayey silt containing small fragments of tile, pottery, bone and oyster shell [3858] was dumped on 3859 (XI.7), the foreshore accumulating during period XI. It was in turn overlain by an extensive deposit of brownish black pebbly clay and some silt containing lenses of brickearth and, in the north west, flecks and small fragments of daub [1668]. This continued across most of the width of the trench and north to overlap 4997, 2660, 2662, 2676 (all XI.1), 2838, 2837 (both XI.3) 2647, 3080, 3081 (all XI.6) and 2710, 2702, 2703, 2206, 2712, 2827, 2653, 2898, 2654 (all XI.7). 1668 contained random timber [2687]. It forms a major new dump, sealing the period XI revetment and was presumably associated with a replacement off the site to the south.
A pebbly deposit of oyster shells in some pale yellow coarse sand and a little dark brown silt [2091] overlay 1668 in the south constituting a rough surfacing for the organic dumps.

To the north, cut [2962], intruded into 1668. D-shaped, and up to 1.40m across, it had initially steep sides which then curved into the central depression which formed its base at a depth of 0.30m. The feature cut down to the top of the timbers of the period IX revetment whose corner directly underlay the intrusion. The feature therefore must relate to the robbing of the superstructure of that revetment. Dark yellowish brown silt and clay flecked with charcoal and fine pebbles [2925] overlay the base of the feature. This material became darker, more mottled and less clayey at the very bottom, suggesting a primary fill. Weathering of the sides of the feature implies a period of time during which it was left open and this may have been when the initial fill accumulated. A mixture of greyish green fine sand, and slightly less silt and coarse pebbles and containing small fragments of tile [2823] completed the filling of the cut.

In the north a spread of crushed coal lensing into greyish green clay and slightly less silt [2785] overlay cut 2962, and 3271, 3296 (both XI.4), with a dump of dark grey clay, some silt and a little coarse sand containing large and small fragments of tile, medium pebbles and bone [3273] on top below dark grey shell-flecked silty clay [3274]. Nearby, a loose spread of yellowish brown fine sand, some medium pebbles and a few coarse pebbles [2804] formed a gravel capping on 2785, with further loose dark grey silt and peat containing medium pebbles and small fragments of tile [3245] on this and 3274, constituting a final organic dump. Finally, a mixture of greyish green silt, slightly less fine pebbles and less still medium pebbles and fine sand [2772] capped 3245 to form a final surfacing.

XII.1 therefore sees the dumping of organic material behind a postulated new revetment to the south, with shells forming a surfacing in the south, at c. 1.90m OD. Further north, the uppermost elements of part of the period IX revetment, reused in period X, but with its associated building (Building 2) only dismantled in period XI, were finally robbed and dumping of organic debris continued to the north finishing with a series of gravels along the north fringe of the dump at a level of c. 2.10m OD.

**XII.2 New hearths constructed north of XII.1 dumping**

3765, 3732, 3689, 3673, 3712, 3709, 3697, 3655, 3308, 3686, 3590, 3680, 3451, 3472, 3486, 3485, 3268, 3236, 3222.

**Description**

In the central part of the site, a small loose spread of dark brownish red fine sand and a few fine pebbles, discoloured red and charcoal flecks [3765] was laid above 3787 (XI.4). Small fragments of burnt tile, both towards the surface of the layer and within it, though bedded horizontally, showed no obvious signs of articulation. The evidence of burning suggests the base for a hearth however. Loose dark reddish brown and black patches of silty charcoal and some dark yellowish grey charcoal-flecked sandy silt [3732] overlay the hearth, representing its use.
To the south, dark greenish grey silty sand and a little patchy of dark buff clay, smears and flecks of silty charcoal and whole oyster shells containing fine pebbles [3689] overlay 3733, 3789 (XI.4). It rose sharply at its east edge like the surfaces of the underlying layers and could, like them, be related to the dismantling (see XI.4). However, its abrupt end in the north, where it runs around the position of hearth 3765, suggests an association with that feature, as trodden occupation debris. This correlation is reinforced by the fact that the dark greenish grey oyster shell-flecked silty sand [3673] which spread over 3689 also overlapped hearth use 3732.

To the north, tan clay and dark grey sandy silt containing charcoal flecks [3712] overlay 3719 (XI.4), with a tile-flecked mixture of dark brown clay, slightly less fine sand and pebbles and still less dark silt and whole oyster shells [3709] on top and then some light yellowish grey crushed mortar below a skim of dark grey sandy silt and flecks and smears of silty charcoal [3697]. All of these layers could be related to the underlying process of dismantling described under XI.4. However, their position suggests a relationship with hearth 3765, and the charcoal content of the uppermost elements could be directly related to the use of that feature.

A series of large and small fragments of tile, bedded horizontally and some broken in situ [3655] were placed on top of 3673, 3697. They were set in light yellowish buff clay, discoloured orange by exposure to heat, which contained flecks and small patches of charcoal towards its surface. This represents a substantial hearth, apparently more sophisticated than 3765, though the latter could have been disturbed and robbed when 3655 was inserted. Just to the west, a compaction of yellowish grey clay, with very thin skims of dark reddish brown clay in irregular large patches [3308] overlay 3787 (XI.4). It formed a north-south ridge with well defined east edge and could be the west part of hearth 3655. To the east of that hearth, a small spread of yellowish white mortar, some in small lumps but mainly crushed, some dark grey sandy silt and a little buff clay in a lens [3686] overlay 3689, 3732 and is probably also part of the new hearth construction.

Greyish brown silty sand and some mottles of dark greyish green silt, especially towards the west and east edges [3590] overlapped the north edge of hearth 3655 and represents its use, as does a mixed spread of silty charcoal, slightly less dark greyish green silty sand, and still less yellowish buff clay and flecks of yellow mottled white mortar [3680] on 3686. Mottled green silt, some dark greenish grey silt and a little fine sand [3451], over both 3680 and 3655, is final occupation debris spreading south from the feature.

A dump of medium, and slightly less coarse and fine pebbles set in a matrix of sandy silt, dark greyish green in the east, more brown to the west [3472] was laid above 3590 to give a gravel surfacing north of hearth 3655. Its north and west edges imply structural divisions bounding it at these points, though whether it was internal or external is unclear.

To the south, [3486] also cut 3590 west of hearth 3655. It was rectangular, 0.20m north-south by c. 0.13m east-west with shallow irregular sides 40mm deep and an uneven base. It was packed with tiles at the edges, with black silt and a few fine pebbles inside [3485] marking its demise. The feature lay just inside the postulated boundary at the west edge of 3472, at the point where the hearth would have abutted any wall.

To the north west of 3472, a spread of brownish grey silt containing flecks of mortar and charcoal, large fragments of tile and medium pebbles [3268] accumulated above 3945 (XI.4)
and, critically, 3275 (XI.10). This was overlain by further light greyish brown silt [3236], which overlapped the edge of 3472. Both of these layers seem to be occupation debris swept to the edge of gravel 3472. Since they post-date an element of XI.10, the series of surfaces described under XI.5, XI.9, and XI.10 and tentatively ascribed to period XI, can be shown to be definitely in use by an early stage of period XII.

XII.2, therefore sees the construction of a major new hearth, with a less substantial predecessor, and surfaces and occupation to north and south suggesting the insertion of boundaries to the north and to the west, though any building related to these could have been open sided in the west, for instance a lean to against a property further east. These episodes of construction are radically different from the processes of dismantling described under XI.4 and are probably later than other activities ascribed to the later parts of period XI. It is therefore reasonable to relate them to the new period of revetment construction described under XII.1.

XII.3 New central building (Building 2) and hearth in the centre of the site

3255, 3224, 3219, 3225, 3179, 3240, 3176, 3175, 3174, 3576, 3542, 3351, 3333, 3148, 3147, 3132, 2819, 2796, 2818, 2795, 2817, 2794, 2816, 2793, 3171, 3170, 3238, 3108, 3119, 3109, 3066, 3065, 3116, 3127, 3126, 3107, 3094, 3069, 3043, 3042, 3030, 3029, 3025, 3063, 3016, 3044, 2989, 3024, 3014, 3001, 2967, 3000, 3195, 3216, 3200, 3183, 3182, 3177, 3166, 3093, 3062, 3607, 3059, 3222.

Description

Towards the south of the central part of the site, a lump of orange clay and a little silt [3255] was laid on 3276 (XI.4). This was cut to its west by [3224], a sub-circular feature up to 0.61m across with vertical sides up to 0.27m deep curving gradually into its irregular base which also intruded into 3226 (XI.4). This was filled with dark brown silt and medium sand [3219]. To its north, a patch of orangish brown clay and a little silt [3225] overlapped the edge of the cut. These elements suggest the position of a major post.

To the west, a compact mixture of greyish brown medium sand, and a few medium and fine pebbles [3179] was laid above 3247, 3406, 3251 (all XI.4), with a strip of orange clay, some dark brown silt and a little medium sand [3240] overlapping its east edge and also overlying 3241 and 3276 (both XI.4). Immediately to the east, another strip of brownish grey clay and a little silt [3176] overlapped 3254 (XI.4), with a common edge between it and 3240. Cut [3175] intruded into the east edge of 3176. This formed a quarter circle 80mm radius, with vertical sides 0.60m deep and was filled with the remnants of a driven stake 0.55m long, then loose greyish brown silt and clay [3174] marking the feature’s demise. The south edge of the make-up 3240 lay due west of post 3224, suggesting an east-west division at this point. The change from gravel 3179 to clays 3240, 3176, suggests a north south division c. 1.60m west of the centre of 3224.

To the north, a strip of compact, mixed, oyster shell-flecked light buff-brown clay, some greenish brown clay and a little yellowish white mortar in small fragments [3576] overlay 3894, 3719 (both XI.4). This was overlapped by a spread of off-whitish yellow mortar in small
lumps up to 50mm across [3542]. Critically, 3542 continued east to overlap 3590 (XII.2), occupation debris related to the use of the hearth 3655. The alignment of 3542/3576 corresponds with the west division suggested to the south between 3179 and 3240. Given that 3542, 3576 are constructional, and post date the initial use of hearth 3655, it seems likely that structural elements 3224 et al are also inserted at this time, in a new phase of activity after 3655 (although a corresponding structure may have surrounded the earlier hearth as well - see discussion below after 3170).

An extensive compact dump of mottled dark tan clay and a little light tan clay and dark greenish grey silt containing oyster shell flecks [3351] overlay 3542 and 3308, 3485 (both XII.2), its surface exposed to heat at several places. This was capped with light greyish yellow well compacted clay and a few fine pebbles [3333]. The east edge of the floor formed by these deposits corresponds with that of 3176 and post hole 3175 to the south.

To the west of 3240, cut [3148] intruded into 3406 (XI.4). This was irregular, up to 0.67m across with vertical, stepped sides, more regular in the north than south, and up to 0.20m deep and had a flat base. It was filled with pebbly clay [3147] at its base, possibly forming a post position, and medium sand, some silt and a few fine pebbles containing large fragments of tile and coarse pebbles [3132] higher up, this marking its demise. It lay at the corner produced by the postulated divisions at the south end of 3240 and west of 3179.

Further north, four more cuts intruded into 3406 (XI.4). [2819] was square, 0.13m across, with nearly vertical sides 0.24m deep and a pointed base and was filled with loose brown organic silt [2796]. [2818] was square, 70mm across, with nearly vertical sides 0.16m deep and a pointed base and was filled with loose greenish brown organic silt [2795]. [2817] was rectangular, 0.18m north-south by 0.12m east-west with steep sides becoming vertical in the west 0.20m deep and a pointed base and was filled with loose brown organic silt [2794]. [2816] was roughly rectangular, c. 0.20m north-south by 0.16m east-west, with steep sides 0.12m deep and a pointed base and was filled with loose brown organic silt [2793]. These cuts represent four driven stakes which probably related to a single upright member. They lie on a north-south alignment from 3148 and can be interpreted as another post position along that wall line.

To the north east, cut [3171] intruded into floor 3351. It was nearly rectangular, 1.30m east-west by 1.10m north-south, with sloping sides up to 0.13m deep except in the south where no side was identifiable. Its base was generally flat but irregular, especially in the southwest. The cut was filled with tiles set on edge and regularly embedded in a matrix of light yellowish buff clay [3170]. Small fragments of worn flint and coarse pebbles were embedded in this matrix to south and north of the tiles and there was an irregular thin skim of clay over the tile towards the centre of the area. The tile were friable and broken and discoloured dark brownish black in a circular area at the centre of the feature, as had been the matrix packed around them. Some tiles were burnt black where the adjacent matrix was not discoloured, and others had mortar adhering to them, both features suggesting reuse. All the tile had a straight, fair edge uppermost and were nearly level. Peg holes were frequently observed and it is possible that originally, tiles with two peg holes each had been split lengthways so that each half could be laid with its fairest edge uppermost.

This good quality, carefully constructed hearth had obviously been exposed to considerable heat. This and its character suggest an industrial function. It replaced 3655 (XII.2), which lay
directly below. However, its high quality of construction may be more apparent than real. The underlying feature was much more disturbed than its replacement, part of that disturbance no doubt due to the act of constructing 3170, requiring the dismantling of 3655.

The close correspondence between the position of the two hearths raises the question of any structure related to them. The floor and features associated with 3170 (3176, 3576, 3179 etc., and 3224, 3148 etc.) are provably part of a building, perhaps open sided in the west. The lack of surfaces related to 3655 does not allow similar proof for its context. However, there are some hints that the early hearth lay within a structure (see the discussion of 3472 - XII.2 for example) and many of the features assigned to XII.3 could have been inserted at an earlier time and continued in use when 3170 was created. It is therefore a distinct possibility that 3655 was accompanied by the construction of a surrounding building (Building 2), but that the more determinate evidence for the building is only available at a later stage of its use.

A spread of dark greyish green charcoal-flecked sandy silt [3238] overlapped hearth 3170 in the south, representing its initial use, with a mixture of brownish black silty charcoal in large irregular patches and some light greyish buff ashy silt in small irregular patches [3108] on this and directly over the centre of the feature representing its further use.

To the south, an extensive orange clay and some dark greyish brown silt [3119] was dumped above stake 3175 and related surface 3176, continuing west to overlap 3240, to the south east, to overlap 3225 and lap against post hole 3224. Elsewhere it sealed 3172, 3146, (both XI.4). It suggests a major re-surfacing of this south area, though no counterpart could be identified to the north. A small patch of dark brown organic silt [3109] overlapping its west edge suggests occupation at this point.

On the east side, a linear spread of crushed greensand [3066] overlapped 3119, with a patch of brownish orange clay and a little silt [3065] at its south end representing a post pad. To the north, a line of light yellowish pink chalk flecked clay in discrete lumps [3116], which overlapped occupation spread 3108, may be another linear sill, terminated by stake hole [3127] also cutting 3108. The cut was roughly rectangular, 0.18m east-west by 90mm north-south with vertical west edge, more gradual elsewhere, 40mm deep and a sharp base. Its fill contained a tile packing, probably disturbed, with light greenish grey fine sand and a little silt, and flecks of light tan clay and charcoal [3126]. This represents the demise of the feature. The cut lay at the centre of the east side of hearth 3170, suggesting that 3116 formed a wall running south from the feature, which would have continued to function.

A spread of light greenish grey fine sand and a little silt, flecks of charcoal or coal and smears of light tan clay [3107] covered stake 3127 and lay up against the east side of 3116, reinforcing the idea of the latter being a structural division. This occupation accumulation may have been derived from the use of hearth 3170 immediately to its north west. Another spread of flecks and smears of charcoal in a little dark greenish grey silt, clay and fine sand containing oyster shell and small fragments of tile [3094] overlay 3107, suggesting further use, with a final spread of dark greyish sandy silt, some black silt (due to degraded charcoal content?) and a little oyster shell containing small fragments of tile [3069] on top completed the occupation sequence. To the south successive spreads of black charcoal [3043] on 3065 then dark brown silt and some fine sand [3042] followed by dark brown silt and some medium sand [3030], show that the occupation sequence continued here, again accumulating against a postulated structural division to the west. A thin strip of loose off-white mortar [3029] overlay 3030,
with another of orangish brown clay with a little silt [3025] on top. These may be the edges of another sill line.

To the north, a spread of small fragments of tiles bedded irregularly in a matrix of little light greenish grey sandy silt and fine pebbles [3063] overlapped the west edge of 3069, and the east edge of 3333. It probably represents a surface used as a working area for hearth 3170 set against the structural division 3116 to the east. A deposit of yellowish off-white crushed chalk in distinct patches in some light grey pebbly sandy silt [3016] spread across the top of 3063, maybe debris from the use of the hearth or an attempt to provide a better surfacing for tiles 3063. A small patch of light yellowish buff clay and a little light yellowish grey mortar in small fragments, chalk in small fragments, and flecks [3044] covered the south east edge of 3063, maybe a reinforcement of sill line 3116, with a more general, very similar layer with medium and coarse pebbles [2989] on top and running north showing repair to the whole line.

To the south, there was no counterpart to the tile surface 3063, which was probably therefore localised to the area of hearth 3170. However, a spread of orangish brown silt and medium sand [3024], which overlapped 3025 to the west, a probably occupation debris swept from that surface. Both 3024 and 2989 were capped by a compact strip of orange clay and a little dark greyish brown silt [3014], implying further sill line additions. A charcoal flecked lump of mixed dark greyish green fine sand, small fragments of chalk and slightly less coarse and fine pebbles [3001] overlay 3014 as extra reinforcement. Lastly, greenish grey silt flecked with charcoal and chalk [2967] spread west above 3001, 3016, correlating with compact brown sandy silt [3000] over 3014 to the south, both evidencing the final occupation of the area.

To the north west of hearth 3170, a spread of light yellowish grey mortar containing small chalk fragments and fine pebbles [3195] overlay 3236 (XII.2), an occupation layer associated with the use of hearth 3655, the forerunner of 3170. Further north still, an extensive dump of tan and some grey silt, the latter especially in the north and north west and containing more charcoal flecks and fine pebbles than elsewhere. [3216] also overlapped 3236, and sealed 3230 (XI.10). A small area towards the centre of this make-up had been exposed to heat. It must form a major new surfacing, a counterpart of 3351/3176, to the south. However, the two make-ups were never continuous, suggesting an intervening division. A small spread of greenish grey silt and a few coarse medium and fine pebbles containing charcoal flecks [3200] which overlay the south edge of 3216, could be a reinforcing of that edge.

To the north, cut [3183] intruded into 3216 just north of the scorching on its surface. The cut was circular, 0.14m across, with shallow sides 40mm deep and a flat base and was filled with dark grey silt and a little clay [3182]. To the north west, a spread of greenish grey silt and as little fine pebbles containing medium pebbles and charcoal flecks [3177] directly overlay 3216 and could be a disturbed gravel surfacing mixed with occupation debris. A further spread of similar material [3166] covered 3177, continuing south east to just overlap cut 3183 but not seal the adjacent scorched area. This suggests that 3177 and 3166 are occupation layers, at least in part, swept from the site of the scorching, which could be an informal hearth, but by no means as substantial as 3170 or even its predecessor 3655.

To the south, a spread of dark greenish grey silt containing fine and medium pebbles, charcoal flecks and large fragments of tile [3093] overlapped 3200 spreading south as occupation debris to cover 3195. It was cut by east west slot [3062]. This was at least 1.14m long (east
end cut away), 0.14m wide with generally vertical sides c. 50mm deep and a flat base and was filled with grey clay and a little silt and fine sand containing small mottled patches of reddish brown staining, probably wood decayed in situ [3607], then greenish grey silt containing fine pebbles and tile fragments [3059] marking the demise of the feature. This must be a beam slot, being the structural division between 3216 and 3351. To its west, cut [3222] intruded into 3268 (XII.2). This was circular, 0.10m across with roughly vertical sides 0.10m deep and a flat base and was empty. It lay just north of the line of beam slot 3062 and on the line of 3148 et al to the south. The gap between 3222 and 3062 suggests a threshold giving access into the structure to the south.

XII.3 therefore sees the construction of a timber building, Building 2, in the centre of the site, possibly leaning to against a structure to its east. It contained a substantial tile-on-edge hearth, with clay floors in side and another flanking it in the north.

**XII.4 Boundary wall towards the south-east**

3270, 2787, 3259, 3221, 3217, 2158.

**Description**

Towards the south east part of the site, cut [3270] intruded into dump 3245 (XII.1). It was rectangular, at least 0.80m long (probably 2.60m overall - south part not recorded as a cut), and up to 0.36m wide (cut away in east) with sloping sides 0.96m deep and a flat base. It was filled with chalk cobbles up to 0.50m across set in a light yellow sandy mortar, forming six courses which formed a wall foundation protruding c. 0.25m above the preceding ground surface.

To the north, a small area of orange clay a little silt and containing flecks of charcoal and crushed tile [3259] overlay 3273 (XII.1) and could be a contemporary feature, such as a post base. A spread of dark greenish brown silt containing lenses of orange clay and flecks of decayed wood [3221] overlapped the south edge of 3259 and abutted wall 2787, with a small spread of crushed off white-brown mortar [3217] on top exactly mirroring the position of proposed post base 3259. The former, organic material resemble the waterfront dumps 1668 et al (XII.1).

Finally, to the south, an extensive spread of oyster shells in a matrix of grey silt and powdered oyster shell [2158] was laid against foundation 2787, also covering much of the earlier waterfront dumping to the west. It formed a consolidation of the underlying debris to give an insubstantial working surface at up to 2.10m OD.

The phasing of this foundation and associated deposits is problematical. Since the wall intrudes into dumps of the period XII waterfront, it might be interpreted as of the following period, especially since the road surface beginning the latter obeys its position (see 2927 - XIII.1 below). This is certainly stratigraphically possible. However, if the horizontal strata are directly related to the wall, they seem to directly overlie XII.1 material, with no implied gap, in the same way as features described under XII.2 and XII.3 did. Also, though not provable stratigraphically, shell deposit 2158 is at a lower level that that of road 2927 (XIII.1) and this even given the drop in levels to the south probably ante dated it. The character of organic
dump 3221 and shells 2158 closely resemble the stratigraphic succession seen in XII.1. Finally, the buildings inserted to the north, described under XII.2 and XII.3, suggest a major structural division to their east on the projected line of 2787. For all these reasons, the foundation was probably inserted towards the start of period XII, possibly as a boundary wall or structural wall for a lean-to to its west. Its termination point in the north, however, shows that any boundary was not a continuous linear feature. It is possible that the wall proper lay slightly to the east, to be cut away in later periods because of the reuse of the property boundary, and that 2787 is a buttress at this point. One explanation of such a feature could be that it formed the east side of a gateway here, a feature suggested for the later periods (see XIII in particular). It is discussed after XII.2 and XII.3 because of the greater uncertainty of its phasing. If the interpretation of a boundary wall is correct, it would obviously logically ante date XII.3 and probably XII.2.

XII.5 Possible modification of the period XII revetment

1823, 1741, 1798, 1939, 2418, 2199, 2082, 2090, 1164

Description

In the south of the site, several timbers overlay 1668 (XII.1) the initial dumping behind the period XII revetment. Reused boat timber [1823] formed a plank base for north-south plate [1741]. This had a tenon at its south end and a mortise cut halfway along its length. To the east was east west timber [1798], with a mortise cut in its upper face. Finally, north-south timber [1939] lay further east, with a mortise in its upper face. The three timbers formed an east west line. Probably all were base plates for vertical members. 1798 may have been displaced and originally paralleled 1741 and 1939. They are reasonably interpreted as plates for back braces related to the postulated revetment to the south. Since they overlay initial dumping 1668, they may be a secondary insertion, possibly to strengthen a feature which was originally front braced (this parallels the situation of this preceding period).

Further north, north-south timber [2418] also overlay 1668 (XII.1). It had a mortise in its uppermost face and may have been a base plate, though not in this case directly associated to the period XII revetment to the south.

Just to the east of 1823 et al ‘cut’ [2199] appeared to intrude into 1668 (XII.1). It was irregular in shape, cut away to the west and south, and up to 0.80m across, with rounded sides 0.30m deep and a concave base. It was filled with loose pebbly mottles of yellowish brown coarse sand and some brown silt [2082], with dark brown compact pebbly silty clay [2090] on top, also covering 2091 (XII.1). A more extensive dump of dark greyish brown silt [1164] overlay 2090, continuing west to cover base plates 1798, 1741, 1939. The surface of this layer contained an increased proportion of a little orangish brown clay and flecks of brick, tile and mortar. All of these elements were probably trodden in from above in later constructional activities. Cut 2199, though recorded as an intrusion, could really be just the surface profile of dump 1668, with later strata being more dumps behind the revetment. However, the latest, 1164, overlay timbers 1741 et al, which are suggested as representing a modification of the period XII revetment. It is therefore more likely that, when the new back braces are added, 2199 was also cut, possibly to replace or repair timber cladding, and then the cut was backfilled with further dumps before more general make-up 1164 was deposited over the
south fringes of the site. This evidence suggests that the period XII revetment lay only just off the site to the south.

**XII.6 Construction of east building (Building 3)**

(Fig 20)

2428, 2300, 2096, 2085, 2097, 2086, 2564, 2531, 2499, 2518, 2224, 2223, 2584, 2448, 2444, 2439, 2437, 2899, 2421, 2527, 2299.

*Fig 20 Period XII.6 plan*

**Description**

Towards the north east corner of the site, east west cut [2428] intruded into 2539 (X.3). Only its north edge survived well, which was 1.10m long (east end cut away), undercut slightly and up to 0.16m deep with an irregular base. It was packed with rough chalk blocks up to 0.30m across at its north edge and smaller chalk fragments elsewhere [2300]. In places, especially the north west, patches of buff sandy mortar were evident, whilst the south edge was formed by an upstanding strip of greyish brown medium sandy silt at the surface, though the mortar bonding the stones was evident at the base. As a whole, this forms the footing of an east-west wall, at least 1.15m long and c. 0.35m wide, the south wall of a new building (Building 4).

Two post holes intruded into 2300. [2096] was roughly square, 0.12m across, with sides 0.19m deep undercutting slightly to the west and a rounded base. It was filled with light brown
silt and some sand containing patches of orange brick earth, chalk and shell flecks [2085]. [2097] was rectangular, 0.14m east-west by 60mm across, with vertical sides 0.15m deep and a slightly concave base. It was filled with loose pebbly orangish yellow sandy mortar [2086]. The stake holes suggest that 2300 was a masonry foundation for a timber superstructure, rather than the base of a masonry wall.

To the west, cut [2564] intruded into 2769 (IX.9) and 2445, 2767 (both X.3). Running north-south and irregular, it was 1.20m long and up to 0.50m wide with irregular sides up to 0.10m deep and an uneven base. Whilst its profile is too irregular to be a beam slot, it could be an eaves drip gully for a wall just to the east. Since it runs south from the west end of foundation 2300, the two are probably related.

A mixed pebbly deposit of dark grey fine sandy silt with a lens of greyish brown clay and fine sandy silt at its north edge [2531] filled the depression, with further greyish brown clayey silt and a little charcoal in flecks and small fragments [2499] on top, flowing over the edge of the depression, capped with a small spread of oyster shells in mottled dark greyish green sandy silt [2518]. These resulted from the use of the proposed eaves drip.

Further north, a strip of light yellowish orange silty coarse sand containing broken tiles and charcoal flecks [2224] overlay 2567 (IX.9), with a patch of charcoal flecked, mixed dirty grey brick earth and some greyish brown medium sandy silt [2223] on top, followed by a spread of charcoal-flecked greyish brown medium to coarse sandy silt [2584] on this. The initial material, 2224, could have been water laid and be an extension of the gully identified to the south as 2564. However, it is equally likely to be the base for a structural division, may be with 2223 as a pad and 2584 as later use. Though less securely stratified, this sequence co-aligns with 2531 et al to the south, so the two are probably related.

In that south strip, a patch of dark orange brick earth and a few medium and coarse pebbles [2448] was laid over 2518, with a strip of medium pebbles, a few coarse and fine pebbles set in a little black silt and dark grey fine sand containing small fragments of tile [2444] overlapping this in the west, the latter probably related to orangish brown fine sand, some brown silt and a few medium pebbles [2439] over 2767 (X.3) to the west to form a gravel surfacing of this west area. The brick earth dump 2448 may be an initial attempt to backfill the eaves drip gully.

[2437] intruded into gravels 2444, 2439. Running southwest/northeast, it was c. 1.40m long (west edge disturbed), up to 0.40m across, with steep sides up to 0.12m deep and a regular base. It was filled with light brown silt [2899], may be water lain, below black silt and dark grey medium sand [2421], then a mixture of dark grey silt and clay and less fine sand containing flecks and small fragments of oyster shell [2527], which flowed out over its east end. An extensive spread of horizontally lying oyster shells in some grey silt and a little brown coarse sand [2299] overlay 2527, spreading north to overlap 2224. Cut 2437 is a second eaves drip gully, or soak away, leading west from the end of foundation 2300. It may have replaced the less formal feature 2564.

XII.6 therefore sees the construction of a building (Building 3) at the east edge of the site, just intruding into the excavation, with an east-west timber wall set on masonry foundations. An
eaves drip gully formed beside the west wall of the structure during its use, to be replaced by a soakaway leading west from it.

**XII.7 External surfacing beside Building 3, and repairs to its walls**

(Fig 21)

2291, 2431, 2414, 2290, 2286, 2270, 2230, 2411, 2200, 2216, 2205, 2258, 2257, 2250, 2202, 2198, 2190, 2238, 2233, 2194, 2173, 2185, 2415, 1896, 1822.

![Fig 21 Period XII.7 plan](image)

**Description**

In the area west of Building 3, a compact spread of medium pebbles set in some greyish brown silty fine sand [2291] was laid above 3005 (IX.9), 2430 (X.3) and 2299 (XII.6). It formed a major surfacing of this external area. To the south, patch of light greenish brown coarse sand, some coarse pebbles and a few fine pebbles [2431] overlay silting 2421 (XII.6). It ran up to, the south edge of eaves drip 2437, so that feature may have continued in use at this time. 2431 could be seen as an equivalent of 2291 on the other side of the feature. A charcoal-flecked spread of greyish green medium sand and some coarse sand [2414] on 2431 resulted from its use, corresponding to a strip of light grey silt with a little greenish silt in streaks and light brown sandy silt in lenses up to 10mm thick [2290] above the east edge of 2291, then light
brown medium sand [2286]. The sand lay in a slight depression and may have resulted from water action.

An extensive spread of red scorched and brown medium pebbles compacted into a matrix of some redeposited patchy red daub [2270] was deposited over water laid accumulation 2286 to form another major surfacing of the external area. A strip of buff mortar containing flint flecks, some large fragments of tile and a little grey silt [2230] was dumped at the east edge of 2270, to compensate for the soft fills of the eaves drip at this point. To the south, another spread of coarse and medium pebbles set in some greyish brown coarse sand containing small fragments of tile [2411] overlay 2527 (XII.6) and accumulation 2414, to give a counterpart of 2270. Once again, eaves drip gully 2437 continued in use.

A sequence of grey sandy silt, with greenish hue in some patches [2200] overlying mortar compensation 2230, then grey medium sandy silt and some dirty brick earth, flecked with charcoal at its surface in the east [2216], and finally charcoal-flecked light grey medium sand, clay and silt [2205] show that the eaves drip area continued to receive accumulations. Just to the south-east were small spreads of brownish grey sandy silt, with greenish hue in patches and flecked with oyster shell [2258] over 2299 (XII.6) with an increasing proportion of brick earth flecks towards its base, and dark grey silty clay and a few charcoal flecks containing large tile fragments [2257] over 2300 (XII.6) and 2797 (IX.9). Though less securely stratified than those to the west, the two deposits must relate to accumulations 2205 et al and 2270 et al.

Finally, opposite the west end of foundation 2300, a lump of brick earth and greyish brown silt containing large cobbles of ragstone, chalk, flint and tile [2250] overlay 2257, 2258 suggesting a repair to the foundation, with the mudbrick [2202] laid on top as a post pad and brick earth [2198] laid against this and over accumulation 2205 to reinforce the post position. A spread of charcoal-and oyster shell flecked dark grey medium sandy silt [2190] spreading north above 2198 shows thread around the repair.

Nearby, a patch of brick earth with a little grey silt and light olive green sandy silt [2238] over 2258 could be another pad contemporary with 2198, with greyish green sandy silt flecked with oyster shell [2233] on top, then whitish buff coarse sand also flecked with oyster shell [2194] showing subsequent use, the last possibly water laid. An extensive strip of fine grey sandy silt containing brick earth lenses, small fragments of daub, fine pebbles and flecks of charcoal and oyster shell [2173] overlay 2194, spreading south to cover 2190 and then the edge of gravel 2411. It represents the final accumulation in this part of the eaves drip gully.

Just to the east, a patch of mottled buff and grey fine sandy silt containing lenses of brick earth [2185] overlay 2190 and 2584 (XII.6), the latter also overlapped by dark brownish grey fine sand, some silt and a little clay flecked with charcoal [2415]. Many of the flints in 2415 had been fractured by exposure to heat. A charcoal-flecked mixture of brown coarse sandy pebbly silt and some dark greyish brown medium sandy silt [1896] overlay 2415. Lastly, another mixed charcoal-flecked layer of greyish brown coarse sandy silt and light grey medium sandy silt in alternating lenses [1822] overlay 7598 (XII.6) nearby. Although these last accumulations are less securely stratified, they must be broadly contemporary with those deposited in the rest of the gully to the west in XII.7.
XII.7 therefore sees the external area flanking Building 4 remetalled twice, with the soak away continuing in use and the eaves drip gully filling up. The masonry foundation 2300 was then repaired, and the gully accumulations re-commenced.

In the publication texts derived from this report, the end of period XII.7 is taken to be about 1350.

**XII.8 Final modifications to Building 3 and robbing of the boundary wall**

(Fig 22)


![Fig 22 Period XII.8 plan](image)

**Description**

A lump of grey clayey silt and brickearth containing lenses of peat [2174] overlay accumulation 2185 (XII.7), with a large ragstone [2139] on top. This formed a post pad at the east end of foundation 2300, another modification after that of 2202 (XII.7). Just to the south, cut [2144] intruded into 2173 (XII.7) and 2174. It was oval shaped, 0.94m north-south by c. 0.36m east-west (ill-defined in the south east) with steep sides in the north and south, more
gradual elsewhere, up to 0.11m deep with a concave base. It was filled with pebbly grey clayey silt and some brickearth [2138], which also lapped against pad 2139 in the north, below a charcoal-and tile flecked mixture of light brown silt and some brickearth [2143]. These fills imply another pad set beside 2139 to reinforce it.

Two cuts intruded into 2143 and 2138 respectively. [2157] was circular 0.10m across, with vertical sides 80mm deep and a rounded base. [2156] was roughly circular c. 80mm across, with vertical sides up to 90mm deep and a rounded base. Both cuts were filled with a mixed, charcoal-flecked deposit of grey silty clay and some orange brickearth [2102], which spread out above pad 2138/2143 also. Finally a mixture of light orange brickearth and greyish brown silt containing flecks of chalk and daub [2101] capped 2102. All of these patchy layers of brickearth mixed with occupation debris suggest the reinforcement of the newly modified junction between 2300 and the west wall of Building 4 to the north west.

To the north east of this point, [2000] cut into 2250 (XII.7). Running southwest-northeast, it was at least 0.80m long (cut away in the north east) 0.56m wide, with a rounded southwest end. It had irregular, concave sides up to 0.17m deep and a base with two irregular depressions along its line. The cut was filled with light grey medium sandy clay and silt containing yellow lenses of coarse sand (water laid) [1834] below orangish brown coarse sand [1831]. Given its alignment and profile, cut 2000 cannot be structural. Its fill is more suggestive of a drainage channel. It co-aligns with cut 2437 (XII.6) to the south west, though the two cannot be cut at the same time and in any case 2000 terminates before this point. However, 2437, though partly backfilled, did have a continuing influence in later phases (see gravels 2411 - XII.7, for example), so 2000 could have been added as a related drain at a later point. How much later is an open matter. It cuts stratigraphy assigned to XII.7, but this itself is not securely stratified.

To the west, a strip of brickearth containing flecks of charcoal, tile and oyster shell and lenses of dark brown silty brickearth [2154] overlay 2173 (XII.7). Further north, another pebbly, charcoal-flecked strip of brickearth, more silty than sandy [2123] which overlay 2216 (XII.7) could be a counterpart, suggesting dumping into the eaves drip beside the building.

A spread of grey pebbly silt and medium sand [2129] overlay 2154 as use, with a more mixed charcoal flecked layer of brickearth medium sandy silt and rather less brickearth and greyish brickearth [2118] on 2154 and 2113 to the north implying trample there. Brickearth containing lenses of white coarse mortar and tile flecks [2100] overlay this, with mixed greyish brown medium sandy silt and some greyish tan fine sandy silt [1874] on this and on 1896 (XII.7). Finally, a mixture of greyish brickearth, and rather less burnt brickearth/daub and dark grey silty medium sand containing flecks of charcoal, fine pebbles and large fragments of tile [2109] also overlay 2123 in the north. All of these deposits suggests that the strip beside the building was levelled up to cover its eaves drip deposits, with trample becoming mixed in with these make-up layers.

To the west, linear cut [2077] intruded into 2078 (X.3) and 2270 (XII.7). It measured at least 0.80m long (south end cut away) and 0.40m across with sloping sides up to 0.12m deep and an uneven base dipping slightly down to the south. It was filled with small fragments of oyster shells and sticky dark greenish grey silt containing whole oyster shells [2071], which flowed out to cover the east side of the cut. The feature suggests the robbing of part of the superstructure of wall 2568.
To the north, a spread of dark brownish grey silt [2092] covered 2568 (X.3) and 2845 (VIII.9). Although this trodden layer has much stratigraphic latitude and would be accumulating at any point from period X onwards, it is the first layer to cross the projected line of wall 2568 in this area, suggesting that feature’s demise. It may therefore be contemporary with robber trench 2077.

[2009] intruded into 2092. It was oval, c. 0.60m north-south by 0.37m east-west, with steep sides, becoming vertical, 0.51m deep and a flat base and was filled with sticky dark grey silt, with organic content at the base containing small fragments of charcoal and oyster shell higher up [2008]. A strip of brick earth mottled with some white mortar in lumps and a little yellow brick earth [2004] ran in a strip north of 2009. Traces of wood were evident at the base of the layer. The cut represents the robbing of a post, presumably originally set upon the underlying wall which had just gone out of use. Whether brick earth strip 2004 is simply more collapse, or an attempt to re-construct the boundary line in less substantial form, is unclear.

To the south, [2033] intruded into 2036 (X.3). It was oval, 0.46m north-south by 0.27m east-west with sloping sides 60mm deep curving into its flattish base and was filled with a thin lens of sticky purplish brown clay [2028] (decayed wooden pad?), below a mottled mixture of brick earth, some off-white crushed mortar and a little brownish grey silt containing small fragments of chalk and fine pebbles [2027]. This fill is either a pad or compensation for the subsidence of the underlying robber cut. A spill of light grey silt [2026] against 2077 is tread beside the feature.

Though 2033 could belong to any point from X.3 onwards, the character of its fill and the overlying stratigraphy suggests contemporaneity with 2009. Once again, it is unclear whether posts to the west of wall 2568 were being robbed out, or new ones inserted with the demise of that boundary.

XII.8 therefore sees another modification of the west and of foundation 2300, and a possible drainage channel cut to its north east, extending or replacing that inserted in XII.6 to the southwest. The eves drip beside the west wall of the building was made-up, with trample then accumulating on this area. Further west, part of the boundary wall was robbed.

XII.9 New boundary wall for west property in north of site

(Fig 23)

2213, 2212, 2165, 2155, 2149, 2125, 2211, 2260, 2146, 2234, 2145, 1820, 5698, 1819, 2148, 2147, 2240, 2239
Fig 23 Period XII.9–10 plan

Description

North south cut [2213] intruded into wall 2218 (X.3) in the central part of the site at its north extreme. It measured at least 3.00m long (north end outside limit of excavation) and 1.40m wide at the top with vertical west side up to 0.25m deep. More rounded and shallower elsewhere. Towards its base in the west was a subsidiary cut measuring 2.00m long by 0.50m wide with a possible post position 0.30m across its south end. At the north extremity was the start of another subsidiary cut at least 0.60m long and 0.80m wide.

At the base of the feature was a spread of chalk-flecked brownish off-white sandy mortar [2212] forming a bedding for a single course of large blocks of masonry, mainly greensand and ragstone. Many blocks were worked, one being moulded, but were obviously reused. They had traces of scorching, though this may have occurred much later than the time of their initial insertion. The stones were concentrated towards the east of the cut and packed on that side with greenish grey oyster flecked fine sandy silt [2155] below mixed green and some brown sandy silt [2149], then greenish grey coarse sandy silt containing small fragments of oyster shell, coal and medium pebbles [2125]. In the west, mixed pinkish brown and some grey silts flecked with tile, charcoal and oyster shell [2211] form the packing on that side, except in the south subsidiary cut, which was filled with a mixture of light brown sandy mortar and slightly less light grey silt and yellow mortar [2260].

Four cuts intruded into masonry 2165 or backfill 2125. To the south [2146] was circular, 0.20m across with steep sides 0.34m deep and a flat base and was packed with grey coarse
sand [2234] below small fragments of coal in a little grey silt [2145]. To the north, [1820] was trapezoidal, 0.28m east-west by 0.15m north south with sides undercutting to the north east and was filled with rectangular timber [5698], worked on all faces except the south west and broken off in antiquity, packed with dark brown structured peat with a mill stone fragment at its edge [1819].

Further north, [2148] was circular, 0.14m across with steep sides 0.14m deep and was filled with greenish grey coarse sandy silt [2147]. Nearby, [2240] was D-shaped, 0.35m across and 0.14m north-south, with sides at least 0.30m deep undercutting to the north and was filled with dark brown peat with a little grey silt [2239].

The feature as a whole must represent the foundation for a wall, replacing, or adding to, 2218 (X.3). Its character, and the associated stratigraphy, suggest a boundary wall, perhaps delineating, the east side of the west property and thus a counterpart to 2568 (X.3) to the east. Indeed, the line of 2213 is that of the east wall of Building 3 to its south.

The detailed examination of the subsidiary cuts within 2213 does not suggest quite such a simple picture, however. The southmost subsidiary cut has a kink in its alignment, curving towards the east at its south end. There is no evidence that this is a different phase from the rest of the feature. Post holes 1820 and 2146, together with the depression at its south end, flank this south alignment. Cuts 2240 and 2148 lie at the junction between the two subsidiary elements. The masonry in the feature lay to the east of the material filling these two. It is possible, therefore, that the latter are positions for a different sort of superstructure, either vaults springing from these points or vertical members for timber or masonry. The post holes could relate to such superstructure or to scaffolding erected during the process of construction. The change in alignment could be caused by waterfront features - the south not running exactly parallel with any road to the north. So a boundary wall running south from the road frontage would have a kink at this extremity. The south end to 2213 (and 2218 - X.3 - before it) leaves a gap between it and Building 3. Hence access from a road to the north would have been gained via the narrow path between 2213 and 2568 and then turning west between 2213 and Building 3. The foundation set in 2213 may have continued in use for an extended period of time.

XII.10 Resurfacing beside Building 3, sealing its west boundary wall


Description

In the north east part of the site, beside Building 3 (XII.6-9), a mixed layer of light yellowish brown silty coarse sand and fine to medium pebbles containing small fragments of tile [2080] was laid above 2129 (XII.8), correlating with compact fine medium and coarse flint pebbles in some grey silt containing large tile fragments [2168] over 2173 (XII.8) to the south east. A dump of light grey silt containing large, horizontally laid tiles [2060] overlapped 2080,
continuing south over 2071 (XII.8) to form a gravel metalling with tiles at its surface flanking the timber building to its north and east. A further spread of pinkish grey coarse sand and some medium pebbles containing whole oyster shells and large fragments of tile [2047] overlay 2060 and 2168, also covering 2118 (XII.8). This relates to grey medium sandy silt flecked with fine pebbles, tile and charcoal [2103] also over 2118 (XII.8) to the north, forming an addition to the main gravel metalling.

Further west, a mixed dump of brickearth in patches up to 0.15m across, some off white mortar in patches up to 50mm across, and a little greenish grey silt containing large fragments of tile, oyster shell and charcoal [1996] was dumped above 2060 and earlier strata 2004 (XII.8) and 2036 (X.3). This sealed the line of the masonry feature in cut 2213 (XII.9).

To the south east, a spread of grey silt and a little brickearth containing large fragments and flecks of tile, flecks and small fragments of charcoal and flecks of white mortar [2201] overlay 7598 (X.3) and 7758 ( ). This overlapped the south wall of Building 3.

A small deposit of brickearth [2048] was placed above 2101 (XII.8) below a pad of dark brown silt and some clay [2069]. These imply modification of the southwest corner of Building 3, with it subsequently continuing in use. Brickearth streaked with some greenish grey silt in lenses and flecked with oyster shell [2038] overlay both 2069 and 2047, correlating with dark brown charcoal and oyster shell-flecked silt [1994] over 1996 in the external area to the north west resulting form its occupation, a small spread of charcoal and tile flecked yellowish brown medium sandy silt [1912] over 2103 and 2100 (XII.8) showing use just beside the sill.

An extensive dump of crushed oyster shells, large fragments and whole shells, set in some sticky dark brownish grey silt [1986] covered 2038, 1996, 2103. Some of the shells were angled up against the west wall of Building 4 suggesting its continued influence. A spread of coal, crushed and in fragments [1968] capped 1994; 2026 (XII.8) and shells 1986. There was no in situ burning beneath this material. Further compacted dark grey pebbly silt with some large fragments of tile and some oyster shell [1963] overlay 1968, then light grey fine sandy silt containing oyster shells [1950] in the south east and light brown silt and some small oyster shell fragments containing small charcoal fragments [1962] below light greyish buff coarse sandy silt and some oyster shells [1956] nearer the centre of the oyster shell dump. Greyish green silty coarse sand containing small fragments of tile, charcoal and oyster shell [1955] overlay 1968 and 2003 (X.3) to the south. These represent use and disturbance of the initial shell deposit.

Immediately beside the west wall, a small spread of oyster shells in some grey silt [1858] over 1874 (XII.8) may be an outlier of 1986, with patches of grey silt [1851] above, also over 1986, and then more oyster shells in some greyish yellow medium sandy silt [1850] being use correlating with 1968 et al. To the west, another spread of coal in a mottled matrix of some yellowish green sandy silt [2124] overlay 2145, and 2147 (both XII.9), below a mixed deposit of dark brown sandy silt and a little brickearth in patches up to 50mm across which became grittier and greener towards the north [2110]. Though there is no direct stratigraphic link, their character suggests a general correlation with spreads 1969 et al, in turn implying the broad contemporaneity of XII.7, XII.8 and XII.9.
Cut [2743] intruded into 2100. Roughly oval in plan, 1.50m north-south by 0.80m east west, it had steeply sloping sides up to 0.30m deep and a flat base and was filled with mixed deposit of light greyish brown silt [2689]. The fill contained a roughly dressed limestone block which, together with the feature’s position implies a robber pit for a feature set above the underlying wall constructed in XII.9.

Finally, to the east, within Building 3, compact greyish brown pebbly medium sandy silt [1816] overlay 1874, 1831 (both XII.8) and 1822 (XII.7). A sequence of brown medium sandy silt [1786] then mixed patches of and lenses of medium sandy silt alternating in colour between light brownish grey, and light yellowish or orangish brown [1785], followed by light orangish brown medium sandy silt and some compact iron pan [1784] and finally more light greyish brown medium sandy silt [1783] covered 1816. The character of these deposits suggest trodden occupation debris swept to the edge of the east room of the building.

In XII.10, therefore, the area beside Building 3 was resurfaced and, though its boundary wall fell out of use, occupation continued both inside and outside the structure, including the deposition of spreads of coal and oyster shells.

**XII.11 New surfaces outside and structural modifications to Building 3**

(Fig 24)

Towards the north east corner of the site, a compact spread of fine and medium pebbles in a matrix of some light brown silty coarse sand flecked with oyster shell [1921] was laid above 1912, 1956 (XII.10) and 2109 (XII.8). It was noticeably more compacted towards its centre and forms a gravel surfacing flanking Building 3. Further south, further medium pebbles set in some light grey sandy silt [1946], lying in a hollow on the same line as the increased compaction in 1921, overlay 1962 and 1950 (XII.10), the latter also below a smaller area of greyish brown medium sandy silt flecked with fine and medium pebbles [1942], in the area immediately adjacent to the building. Lastly, to the west, a spread of fine pebbles, some crushed chalk and a little pale sandy mortar [1941] overlay 1955 (XII.10). Together, these form a major new metalling outside Building 3. A loose layer of randomly lying whole oyster shells, with a few in large fragments, set in a little sticky yellowish grey silt [1900] over 1921 and represents the use of that surface.

To the south east, east west cut [2049] intruded into 2201, (XII.10) and 2300 (XII.7). At least 1.30m long (cut away in the east), it was 0.32m wide in the east, 0.10m in the west, and had a sharp, vertical side in the north, more gradual and irregular in the south, with an uneven base sloping from east to west. It was filled with compact brickearth [2030] also over 2038 (XII.10), forming a new sill running east from the south west corner of Building 3, replacing or augmenting 2428 (see XII.6). Two stakes intruded into the sill. [1886] was oval 80mm east west by 45mm north south with generally vertical sides 0.11m deep and a rounded base. [1887] was oval, 0.11m east-west by 70mm north-south, also with vertical sides and rounded.
base they were filled with brown charcoal-flecked silt and a little sand [1876] which spread along the rest of the sill. They must relate to the superstructure of the wall set above sill 2030.

A small patch of loose light buff coarse sandy mortar [2039] lay up against the north side of sill 2030, also covering 2085, 2086 (XII.6), whilst greyish brown fine sandy silt containing charcoal flecks and small fragments of mortar [2029] spread south from its other side.

Just to the south, irregular ‘cut’ [1995] intruded into 7598 (X.3). Up to 1.20m across, with amorphous sides and undulating base, it may not be a proper intrusion, but merely differential wearing of the underlying stratigraphy. This could have happened at any point after of the start of period X. But its fill of patches of charcoal and tile flecked light brickearth mixed with streaks of some brownish tan silty brickearth containing small fragments of tile and charcoal flecks [1989] overlapped 2029, suggesting that the feature was in use just after this point. This deposit also suggests in situ burning, especially towards the east of the feature. It is probably an open hearth area of unsophisticated nature.

To the south, rectangular cut [1972] intruded into 2265 (X.3). It was a least 1.20m north south (south end cut away) by 0.54m east west, with generally vertical sides up to 0.25m deep and a regular even base and was filled with a mixture of brownish grey silty clay and sand containing flecks of charcoal and small fragments of tile and some oysters the latter containing small fragments of chalk [1971]. There is nothing diagnostic in this fill to give a clue to its function and it was probably deposited after its demise. The fill may have been derived from the oyster shell spreads to the north west, whilst the feature may have been in use with hearth area 1989.

Further north, north-south cut [1991] intruded into fill 1989. 0.76m long by 0.28m wide, it had a mainly irregular sides up to 60mm deep and an uneven base. It was filled with a patch of charcoal flecked brickearth [1990], forming a pad at its north end, then a compact mixture of greyish brickearth lensed with charcoal and some grey charcoal flecked medium sandy silt [1983]. These form an extension to the sill of the west wall of Building 3.

Nearby, on the line of east west sill 2030, a strip of yellowish tan pebbly fine sand and silt [1840] overlay 2029 and 1942 with a patch of light buff chalk flecked mortar [1922] on top maybe correlating with a patch of loose yellow medium sandy mortar [2020] set on 2233 (XII.7) and 2198 (XII.6) at the corner of the building. Further east along the sill line, four ragstones [2002] were also laid above 2029. These elements suggest additions to the superstructure of sill 2030.

Cut [2014] of which only the north side and west end were definable, intruded into both 2002 and 2020. It was 0.40m long by 0.25m wide, with regular vertical sides up to 0.12m deep and an uneven base and was filled with light tan and some more brownish brickearth [2011]. This formed the base for a more mixed strip of charcoal-and mortar flecked grey silt and some tan brickearth [1936], which lapped up against the ragstone pads 2002.

Five cuts intruded into 1936. [1931] was circular, 25mm across, with sides 35mm deep undercutting to the north and a flat base. [1932] was rectangular, 70mm north south by 55mm east west with steep sides up to 20mm deep and a flatish base sloping down towards the north east corner. [1933] was up to 90mm across, with sides 50mm deep undercutting to the north and a pointed base. [1952] was roughly circular, up to 25mm across, with nearly vertical sides
up to 21mm deep and a pointed base. [1951] cut away to the south, was at least 50mm long by 20mm wide with steep sides curving to a rounded base. The cuts form a series of installations along the edge of sill 2030, to provide support for its superstructure. The angle of some cuts is the result of either movement of the sill due to the weight of the main wall or robbing of its superstructure. A strip of brickearth flecked with charcoal and daub/mudbrick [1918] sealed the cuts. Just to the north west, a compact patch of brickearth [1857] lay against 1936, also cutting 1922. Along its south face, was a 1mm wide skim of mortar which may have been plastering the internal face of the south wall of the building. Nearby, another patch of brickearth containing charcoal and shell flecks and lenses of yellow sand in streaks [1904] lapped against 1936. Between these two, a third area of brickearth flecked with charcoal and mortar [1917] lay in a hollow in 1936, with further similar material, flecked with shell rather than mortar [1903] on top. [1888] intruded into 1951. It was 0.12m east west by 70mm north south with nearly vertical sides 25mm deep and a flatish base and was filled with dark brown silt and fine sand flecked with charcoal and shell [1875]. A mottled strip of brickearth and brown sandy silt containing small fragments of charcoal and lenses of grey silt c. 1mm thick [1538] overlapped 1875, also covering 1876, 1904, 1899. Its redeposited burnt debris may have been derived from the use of ‘hearth’ 1989.

Four cuts intruded into 1538. [1577] was circular, 60mm across, with nearly vertical sides 0.14m deep and a blunt point and was filled with sticky light grey silt [1576]. [1573] was semi-circular, 70mm diameter with steep sides 0.12m deep and a rounded base and was filled with fine pebbles, some brickearth and a little off-white mortar containing flecks of chalk and small fragments of oyster shell [1572]. [1575] was circular, 80mm across with nearly vertical sides 0.12m deep tapering to a blunt point and was filled with light brownish grey sandy silt and fine pebbles [1574]. [1571] was circular, 60mm across, with sides 80mm deep tapering to a blunt point and filled with light grey sandy silt flecked with charcoal and daub [1570]. All of these features form a series of post pads and stakes set against the edges of the wall line. It is unclear whether the sequence of cuts and sill additions above 2030 are part of one sequence of construction or successive additions, perhaps after the partial collapse of the sill base. But since there were no intervening floor surfaces or occupation levels, either inside or outside the building; the former alternative might be preferred.

To the north along the west wall line of Building 3, cut [1902] intruded into 1921. It was semicircular in shape, c. 0.42m diameter with sides 60mm deep curving to an even base and was filled with a large, flat ragstone set in a matrix of light greyish green oyster shell flecked silty medium sand [1901]. This formed a post position beside the wall. To the west, an area of compacted brickearth mottled with some light grey silt [1892] overlay 1900 and may be similar post pad, especially given the flints in overlying 1635, described below. Just to the north, [1899] also intruded into 1900. It was circular, 0.28m across with nearly vertical sides 0.11m deep and a flat base and was filled with sticky greenish brown silt containing fragments of oyster shell and large tile fragments [1898], of which the tile may have been packing in the feature. Just to the north, a spread of brownish grey silty medium sand and some brownish sandy brickearth containing small fragments of tile [2108] overlay 2109 (XII.8) and 2847 (IX.9). Though less securely stratified than 1902 et al, it was overlain by cobbles of ragstones set in dark grey charcoal flecked silt [1635] which forms a post pad reinforcing the north west corner of the building. The two parallel lines 1902/1892 and 2108/1899 suggest an east west structural division running west from the north west corner of the building, perhaps part of a lean-to against that wall.
Within Building 3, but also near its west wall, a small spread of light yellow mortar [1844] overlay 1850 (XII.10) corresponding with nearly similar mortar spread [1768] on 1783 (XII.10). A strip of light yellowish orange medium sandy silt and some greyish orange fine sandy silt, the latter flecked with iron pan [1727] covered 1768, itself covered by brown medium sandy silt set around a ragstone [1716]. This overlapped 1844 as well. This sequence of localised deposits suggests changes to the inside of the west wall, corresponding to 2030 et al to the south and 1902 et al to the north.

Light greenish grey fine sandy silt [1767] lapped against 1768, corresponding with dark greyish brown charcoal flecked medium sandy silt [1782] 1783 (XII.10). Another spread of greyish brown medium sandy silt [1766] overlay both of these, followed by greyer, but similar material [1765] then light greyish green fine sandy silt [1761] and finally light grey silt and some medium sand [1756].

Similarly, just to the north, a spread of light grey pebbly fine sandy silt [1691] overlapped 1765 and 1716, followed by grey charcoal flecked fine sandy silt [1670] beside the sill and by mottled grey silt and a little brickearth of various hues [1663], then mottled dark grey charcoal flecked fine sandy silt [1658]. This last layer continued far enough to overlap sill modification 1857, showing that at least some of the internal sequence took place after the changes to the main south wall of the building. Lastly, near its north west corner, light yellow fine sandy silt [1692] overlay 1727 and must be an outlier of the 1765 et al group.

Taken as a whole, these accumulations must be the result of the internal use of Building 3, with the debris swept towards the marginal areas of the edge of its room. At least some, and probably all, of this occupation material accrued after the modifications to its south and west walls.

To the west, a deposit of medium pebbles, some whole oyster shells, compacted in a little greenish grey coarse sand [1671] overlay shell accumulation 1900, gravel 1946 and sill changes 1922 and 1901. Not well consolidated, this was probably a surface formed by use and correlates with another spread of oyster shells in a little brown silty medium sand [1510] over 1566 and 1583 (X.3) and 1635 to the north. A spread of dark brownish grey sandy silt mixed with a little brickearth in patches 30mm across and containing medium pebbles and charcoal fragments [1891] overlay 1900, below dark brown silt and some grey coarse sand flecked with charcoal [1639], which also overlay 1955 (XII.10), 1892, 1898 and, critically, 1671. 1891 and 1639 must be occupation debris proper, swept to the west edge of compaction 1671. A spread of orange coarse sand, some patches of sticky brickearth and a few lenses of dark greenish grey silt containing flecks of chalk [1618] on 1639 correlates roughly with yellowish orange pebbly chalk flecked coarse sand [1633] over 1941 to south forming a rough patching of this west strip which sweeps up at its surface to the west as if approaching a structural division. Dark grey silt flecked with daub, charcoal and oyster shell [1619] above both 1639 and 1633 was the final tread on the area. A patch of brickearth mixed with some grey silt containing small fragments of oyster shell [1422] at the east edge of 1671, also overlapping 1874 (XII.8) then orangish sandy brickearth mottled with light brownish yellow mortar [1652], also over 1850 (XII.8) suggests a last modification of the west wall, or its partial collapse.
Finally, outside the north end of Building 3, a loose charcoal-flecked spread of fine pebbles set in some brownish yellow silty medium sand [1511] overlay 1510, below a compaction of yellow coarse sand, some fine pebbles and a little yellow fine sand [1501] to give a good surface on that side of the building. Spreads of brown charcoal flecked sandy silt [1488], then a mixture of yellow silty clay and dark grey charcoal flecked clayey silt [1468] over 1501 are use of the north fringes of the metalling, correlating with a mixed charcoal-flecked deposit of dark brown sandy silt and slightly less yellowish brown silty coarse sand and beige medium sand [1458] on 1501 beside the north wall.

In a strip running north from the north west corner of the building, compacted light greyish brown pebbly silty sand [1487] was laid over 1501, below brownish grey tile flecked medium sandy silt [1484], also over 1488. These show patching of the point where 1671 et al met 1501. They could be to reinforce an access point into Building 4 to the south, or a base for a structural division for a feature set against the north wall of the building.

**XII.12 New boundary wall and rebuilding of walls of Building 3**

(Fig 25)

1846, 1863, 1845, 1740, 1609, 1597, 1567, 1543, 1519, 1518, 1616, 1615, 6976, 1431, 1430, 1500, 1499, 1531, 1522, 1429, 1481, 1480, 1475, 1474, 1477, 1476, 1483, 1482, 1494, 1493, 1492, 1491, 1490, 1489, 1402, 1401, 1326, 1614, 1595, 1398, 1395, 1358, 1341, 1340, 1333, 1317, 1334, 1325, 1316, 1330, 1393, 1359, 1433, 1432, 1471, 1467, 1461, 1460, 1457, 1452, 1451, 1450, 1466, 1182, 1310, 1302, 1209, 1184, 1169, 1839, 1838, 1256, 1255, 1292, 1403, 1010.
**Description**

In the north, central part of the site north-south cut [1846] intruded into 1891, 1633, 2689 (all XII.11). At least 4.50m long (both ends cut away) it was up to 0.88m wide, narrowing to 0.70m in the south, with nearly vertical sides, 0.40m deep in the west, 0.25m in the east, with an even base sloping down very gradually from north to south. An apparent change of alignment was visible at about 2m from its north limit, at a point where the width of the cut altered. At the extreme north end was a rectangular void in its base protruding for a further 0.10m whilst in the south, at its centre was a circular void at least 0.10m deep.

The base of the feature in the south was a deposit of small chalk fragments up to 30mm across mixed with some light grey sticky silt [1863], forming a base for blocks of roughly dressed chalk, rather less ragstone and a little greensand and flint, some stones up to 0.30m across, with smaller fragments of chalk in a matrix of soft yellow sandy mortar flecked with chalk in between, bonding the stones together [1845]. The larger blocks were roughly coursed, with their dressed faces outermost. To the north, on the other side of the change in alignment, the trench was filled with undressed chalk blocks, roughly coursed, set in a smooth sandy yellow mortar flecked with chalk [1740].

Despite the change in alignment and character, both implying a rebuild, it was not possible to distinguish two distinct features during excavation, still less deduce a stratigraphic relationship between them. Nor did any differences occur in plan on either side of the changes to suggest such a distinction there. The wall which these elements form must therefore be considered as a
single phase feature, forming a boundary beside the access way to its west and the property to the east on which Building 3 had been set. It replaced the feature described in period X (2568 - X.3).

To the east the wall was a butted by a spread of crushed greensand [1609], partially adhering to it and continuing east to cover 1618 (XII.11). This may be a construction deposit from building the wall, overlapped at its east edge by a layer of medium pebbles and a little greenish yellow coarse sand compacted around some whole oyster shells [1597], below a more extensive deposit of complete oyster shells in a little light greenish grey silt [1567], also covering 1652 (XII.10). The latter had a strip of compacted medium pebbles at its surface, indicating increased wear at this point. Finally, a small patch of greenish grey fine sandy silt containing fine pebbles and small fragments of oyster shell [1543] overlay 1567 and may be a post pad related to the boundary wall to its west. Taken as a whole, the sequence suggests that pebbly dumps of oyster shells where laid by the side of wall 1845, with surfaces then forming on them through trodden use.

To the east, beside Building 3, a strip of sticky brickearth [1519] overlapped 1567 and sealed 1658, 1670 (XII.11). The few inclusions within it angled up to the east, suggesting a structural division at that point. Building 4 must therefore have continued in use after the construction of the new boundary wall. Further sticky brickearth mixed with large fragments of oyster shell [1518] overlay 1519, suggesting later modification to the west wall of the building.

To their north, north-south cut [1616] intruded into 1635, 1692, 1671 (XII.11). 1.20m long by up to 0.30m wide, it had irregular steep sides up to 70mm deep and an uneven base and was filled with dark greyish brown fine sandy silt, a little light tan silt and a few cobble sized pieces of ragstone and brick [1615]. This forms a repair at the north east corner of the building. An irregularity at its east edge occurs beside cut [1431]. This was rectangular, 0.29m east west by 0.12m north south, with nearly vertical sides at least 0.50mm deep (unbottomed). It contained a vertical plank [6976], below a fill of dark brown structured peat mixed with some soft dark grey silt at the top [1430] derived from the decay of the upper part of the plank. Although the cut can only be stratigraphically related to the underlying dump 7045 (V.6), so could be in place at any point between periods V and XII, its position at the north west corner of the building suggests the latter phasing.

To the west, another deposit of oyster shells, whole and large fragments, in a little sticky greenish grey silt [1500] lapped against 1518 repair in the east and pad 1543 in the west. It was overlain at the latter point by a group of tiles, ragstones, chalk and sandstones in a matrix of a little greenish grey sandy silt [1499], implying a replacement post position here. The north edge of 1500 might suggest a structural division at this point running from 1499 up to the west wall of the building.

To the south east, compacted brickearth [1531] was dumped above stakehole fill 1576 with a much larger spread of brickearth [1522] on top. This had a greenish tinge towards the north and was mottled with small fragments of charcoal and scorched brown and red daub. It also sealed fills 1572, 1574, 1570 and layers 1756, 1663, 2039 (all XII.11), thus completely covering the line of the south wall of Building 3.

At its west edge, tile [1429], cracked in situ, was laid above 1522. It could be a new post pad on the line of the west wall of Building 4. To the south east, two cuts intruded into 1522 on
the line of the underlying east–west sill [1481] was rectangular, at least 0.36m east west (east end cut away) and 0.16m north-south with nearly vertical sides 0.20m deep and an irregular base. It was filled with sticky dark dark grey clayey silt containing small fragments of tile and charcoal [1480]. [1475] was nearly square, c. 0.18m across, with generally nearly vertical sides 0.36m deep and a flat base. It was filled with sticky dark grey silt containing large fragments of chalk and tile and coarse pebbles [1474]. Just to the west, [1477] intruded into 1531. It was square, 0.15m across, with steep sides 0.22m deep and a flat base and was filled with sticky brick, mixed with dark grey silt in streaks and lenses 1mm thick containing flecks of chalk and charcoal [1476]. Finally, at the south west corner of the building, [1483] intruded into 1500 and 1538 (XII.11). This was square, 0.13m across, with sides 0.20m deep undercutting to the east and a blunt rectangular base and was filled with light brown silty sand mixed with some fine pebbles, becoming greyer and less pebbly at its base [1482]. Though 1477 and 1483 are less securely stratified, the four form a group of features related to sill 2030 (XII.11) beneath. It is unclear whether they represent the final removal of its superstructure after the dumping or collapse of 1531, 1522, or a replacement feature on the same lines.

To the north, four more cuts intruded into 1522. [1494] was circular, 80mm across with nearly vertical sides 0.20m deep and a blunt base and was filled with light brown sandy silt containing flecks of off-white mortar and fine pebbles [1493]. A rounded piece of metal in this fill may have been in use with the feature originally - [1492] was nearly square, c. 0.10m across with nearly vertical sides 0.20m deep and an even base and was filled with light brown pebbly sand and silt [1491]. [1490] was circular, 0.12m across, with vertical sides 0.30m deep and a blunt base and was filled with soft sticky light grey silt and some small fragments of crushed chalk [1489]. [1402] was rectangular, 0.17m north-south by 0.12m east-west with almost vertical sides up to 0.10m deep and a flat base. It was filled with dark greenish grey silt and bright red scorched daub [1401]. As with 1481 et al, these cuts could be robbing installations from within Building 3. But, given the proximity of 1616/1431 to the north, it seems more likely that all of the features are the result of rebuilding a replacement structure on the lines of its predecessor.

A mottled layer of greenish grey silt [1326] then accumulated against stakes 1493, 1491, 1489 and pad 1429, corresponding with grey tile flecked silt and a little medium sand [1614] against 1615 and over 1691 (XII.11) and grey silt mixed with some patchy brick, [1595] against 1615 and over 1652, 1670 (XII.11), then grey silt and brick, mixed in streaks and lenses and containing oyster shell fragments [1398], also covering 1500, to the north. These represent a whole series of trodden accumulations on the line of the west wall of Building 3, following its rebuilding.

In the external area to the west, and extensive layer of whole oyster shells, lying horizontally, mixed with a little light grey silt [1395] was dumped over 1499 and overlapped 1398 in the east. Areas of compaction could be recognised in its excavation forming a north south strip 0.50m wide at three levels, which suggests three tipped elements in the dumping. They were not trodden surfaces in their own right however, breaking up very easily when crushed or stepped on.

A small spread of dark grey silt containing oyster shell fragments [1358] over 1395 and against pad 1429 is an occupation accumulation swept to the south east corner of the shell.
dump. Nearby [1341] intruded into 1395. This was probably circular (south side cut away) 0.40m across, with sides 0.12m deep, curving gradually to its rounded base and was filled with dark brickearth [1340]. It represents a new installation at the south west corner of the building. A north-south strip of dark brown silt mixed with some lenses and fragments of light yellow chalky mortar [1333] overlapped 1340, whilst another strip of charcoal with some dark grey silt in streaks [1317] overlapped 1333, continuing east. Lastly, a line of dark brown charcoal flecked silt [1334] lay up against 1340 in the west. These represent decayed elements of the same new installation at the corner of the building.

Just to the north, strip of greenish brown charcoal flecked brickearth [1325] was laid above 1326, with a spread of mottled dark brown silt, some lumps of red scorched brickearth and a few small fragments of charcoal [1316] on top. This contained a lens of whole oyster shell [1330] within it (not a true stratigraphic unit). 1325 could a floor in the rebuilt structure. But its shape in plan suggests an east west sill, perhaps augmenting the line of the earlier south wall of Building 3 on its north side. The nature of 1316 suggests in situ burning.

To the north, a strip of dark orangish brown brickearth with a little grey silt in lenses [1393] lapped against oyster shells 1395, suggesting sill reconstruction at this point also. A spread of pebbles mixed with brown silt and apparently scorched in situ [1359], running north above 1393, is either the base for a further sill or a fragment of metalling laid against the west side of such a division. Lastly, just to the east, [1433] intruded into 1614. It was circular, 0.24m across, with generally steep sides, 0.25m deep and a blunt point and was filled with dark greenish grey sandy silt [1432]. It relates to the insertion of sill 1393, maybe as an installation set against the new wall or the base of an internal division running east from this point. To the north, [1471] cut into 1468 (XII.11). It was roughly square, c. 0.15m across (cut away to north and west) with vertical sides 70mm deep and a flat base and was filled with a mixture of light yellowish white chalky sand (?mortar) and some light yellowish tan silty clay [1467]. East west linear cut [1461] lay above 1467, also intruding into 1484 (XII.11). This was 1.20m long and c. 0.30m wide with generally steep but irregular sides 58mm deep except in the north, where it was gradual, and an uneven base. It was filled with oyster shells, mostly broken, set in some grey silty medium sand [1460]. This forms a structural division, with 1471 a post position along this line, forming the north wall of Building 3. Given underlying correlations, this is likely to be inserted at the same time as the other modification to the south.

Within the building thus defined, a compact spread of fine pebbles in some yellow medium sand and a little brownish grey silty sand [1457] over 1458 (XII.11) forms a surface within the building. Greyish green clayey silt [1452] accumulated on this, followed by a spread of mostly broken tiles in a matrix of some yellowish orange tile flecked clayey silt [1451], then brownish grey charcoal flecked silt [1450]. These last two layers could represent a later repair and use of the gravel surface 1457 or be associated with the destruction of Building 3.

On the north side of 1461, a small patch of brownish grey charcoal-flecked silty sand [1466] overlay 1468 (XII.11) and comprises occupation debris which accumulated outside the building.

To the west, another loose spread of the whole oyster shells in a little light grey silt [1182] was dumped against 1359, repeating the situation seen with 1395. At its south limit, a spread of medium and coarse pebbles and large and small tile fragments, the whole compacted in a
matrix of some dark grey silt with a few flecks of yellow mortar [1310] was placed above 1182 to give a gravel surface adjacent to the reconstructed corner of the building. This was overlain by a spread of greyish brown silty brickearth and some yellow mortar in lenses [1302], which also covered 1317, 1334, 1325 and 1358 and may correlate generally with 1316 just to the east. A spread of dark greyish brown silt and some fine sand containing small fragments of brick and tile, flecks, small and large fragments of oyster shell and lenses of dark greyish green silt [1209] was trodden into 1302, then a patch of greenish brown silt and some sand containing flecks and small fragments of brick and flecks of oyster shell [1184] and finally a spread of mottled light greyish white mortar containing fine and medium pebbles and flecks of brick and chalk [1169]. These are accumulations swept to the edge of 1182 at the very end of the period.

Just to the south of this, a spread of lenses of buff fine sand, brown silt and white mortar containing charcoal flecks [1839] overlay 2411 (XII.7), correlating with brown silty medium sand containing charcoal and chalk flecks and small fragments of mortar, a little light yellowish buff chalk flecked mortar and a little dark greyish brown sandy silt containing small fragments of tile [1838] over 1971, 1983 (XII.11). The character of these layers suggests a correlation with 1169 et al, whilst the tip lines of the lenses notably in 1839, imply that they result from the gradual degradation of building material associated with the walls of Building 3.

At the south west corner of the building cut [1256] intruded into 1302, 1482, 1316. It was an irregular L-shape, following the wall lines of the building, and measuring at least 1.40m east-west by 1.80m north-south, with a maximum depth of 0.20m and steep, often irregular, sides. At its south west corner was a subsidiary square post position 0.60m across. 1256 was packed with blocks of chalk set in pale, very sandy gravel [1255] in the north overlapped by blocks and fragments of uncoursed chalk, some ragstone and greensand and set in orange sandy gravel [1292] further south. This must represent the final attempt to strengthen the corner of the building, possibly in two phases.

To the west, a spread of dark brown scorched brickearth in patches mixed with dark grey silt [1403] overlay 1395, with a capping of fine and medium pebbles in orangish brown medium and little less fine sand [1010] on top. These comprise the final surfacing of the area beside the boundary wall at the edge of the oyster shell dumps, corresponding with 1310 et al on the other side.

XII.13 Final removal of structural elements of Building 3

1283, 1286, 1282, 1220, 1219, 1218, 1217, 982, 981, 1200, 1140, 1171, 1198, 1254, 1790

Description

Towards the southwest corner of Building 3, [1283] intruded into foundation 1255 (XII.12). It was rectangular, 0.36m north west-south east by 0.24m in the opposite plane with near vertical sides at least 0.30m deep narrowing towards a wedge-shaped base and was filled with loose dark grey silt and large fragments of wood [1286], suggesting in situ decay of the vertical member it once contained. This primary fill was capped with dark grey silt, large
fragment of chalk and rather less sandstone [1282], possibly compensation for the underlying decay.

Just to the west, [1220] intruded into 1182 (XII.12). This was circular, 0.36m across with nearly vertical sides at least 0.45m deep and a flat base and was filled with sticky dark greenish grey silt containing oyster shell and charcoal fragments [1219], capped with brickearth containing large fragments of chalk ragstone and tile in decreasing proportions [1218], then a plug of scorched dark brown brickearth containing fragments and flecks of charcoal [1217], which spread out over the sides of the cut.

Further west [982] intruded into 1010 (XII.12). This was roughly circular, 0.35m across with vertical sides 0.46m deep and a flat base and was filled with bluish grey fine and medium sand and some silt containing small fragments and flecks of oyster shell [981].

The three post holes suggest removal of substantial posts. As intrusive features, they could relate to a building much later than period XII, with all other associated stratigraphy truncated during period XVI. However, the line connecting 1220 and 982 is perpendicular to the west wall of the period XII building and runs west from the north limit of rebuilt corner 1256 (see XII.12) 1283 cuts directly into that foundation. It is therefore more likely that the posts relate to a division in use late in period XII.

Beside cut 1220, a strip of scorched dark brown charcoal-flecked sand and fine pebbles [1200] overlay 1182 (XII.12) and could be a decayed beam slot related to that feature, whilst a patchy spread of mortar of various colours [1140] capped both this and fill 1217, suggesting further demise. Just to the west, dark grey silt containing large pebbles and charcoal fragments [1171] overlay 1282 and 1401 (XII.12), further suggesting the demise of foundation 1256. Similarly, to the south, a patch of grey silt containing flecks and small fragments of charcoal and chalk and flecks of red brick [1198] overlay foundation 1255 (XII.12) directly. Towards its base, the proportion of chalk increased to almost half the layer due to disturbance of the wall below. Just to the west, a mixed layer of brickearth and some brown silt containing lumps and flecks of chalk up to 0.12m across [1254] overlay foundation 1292 and 1476 (XII.12), similarly suggesting the demise of the corner. All of this therefore implies the robbing and removal of Building 3.

Lastly, to the west, a spread of greenish grey silt containing medium pebbles and small fragments of charcoal [1790] overlay foundation 1845 (XII.12). Since it represents the demise of that boundary wall, it may be contemporary with 1254 et al to the east.

**Period XIII.1-XIII.7**

**XIII.1 Initial road laid down centre of site**

(Fig 26)
Towards the north, central area of the site, dark brownish grey pebbly silt and some clay [3125] was laid over 3166 (XII.3), with greyish green fine sand [3185] laid over 3195, 3222 (XII.3) nearby. An extensive mottled spread of dark grey silt and some brown silt containing small fragments of light brown mortar and charcoal, large fragments of tile and medium pebbles [3045] covered both these and 3093 (XII.3), with greenish grey silt [3026] on top, also over 3059, 3069 (XII.3). These dumps correlate with localised patches of grey pebbly charcoal-flecked silt, a little coarse sand and a little yellow clay [4059], over 3945 (XI.4) to
the south west, then greyish green pebbly sandy silt [3184], also over 3351 (XII.3). Patches of pebbly chalk [2999] also overlay 3351 (XII.3) and 3472 (XII.2) relating to a more extensive, mixed compact layer of dark greyish brown sandy silt and some coarse pebbles, with slightly less coarse pebbles and small fragments of tile containing flecks of charcoal and small fragments of oyster shell, especially in the east [2963], which covered 3026, 2963, 3184, and 2999 and the local dumps below them formed the make up for a compacted layer of medium pebbles and a few coarser pebbles set in some grey silty coarse sand [2894] which also overlay 3986 (XI.4). This had an increased proportion of sand towards the east, changing colour here to brown. The pebbles at its surface were worn smooth by use of the gravel compaction, and two depressions, possibly wheel ruts, could be distinguished in its surface. This substantial metalling forms the first major road surface running north-south up the centre of the site overlying the position of the now dismantled period XII central building (Building 3).

To the south, a spread of dark greenish brown silt and some medium sand [3086] overlay 3109 (XII.3), with further greenish brown silt and some medium sand containing chalk, both crushed and in small fragments [2985] overlapping it to the east, where it continued to seal 3000 (XII.3). These trodden spreads correlate with brownish grey sandy silt containing pebbles, large tile fragments and oyster shell [3145], over 3400 (XI.4) and 3217 (XII.4), which became darker and more organic where it directly overlay period XII revetment dumps to the south west. Compact patchy brown clay and a little fine pebbles, medium pebbles and fine sand containing small fragments of oyster shell [3089] capped 3145, then variously sized pebbles set in some dark brown silt [3031] and an adjacent pebbly dump of large and small chalk fragments set in a little brown coarse sand and dark greenish brown silt [3017].

3031, 2985 and, probably, 3017, form the base for an extensive, heavy compaction of fine and medium pebbles set in a little dark orange coarse sand and dark brown silt [2927], which also overlay 3132, 2793, 2795, 2786, 2794 (all XII.3). It constitutes the first major metalling and, though not as obviously surfaced as 2894 to its north, must be a south continuation of the first road. The irregular east edge of the metalling, and the disparate and patchy nature of the underlying make-ups laid above the period XII and earlier organic dumps to the south might suggest that the access proper lay mainly to the north with the limits of the surface less carefully defined as it spread out when approaching the waterfront zone to the south.

Cut [2933] intruded into 2894. It was an irregular oval, 40mm north south, 30mm east-west with gently sloping regular side 70mm deep and a concave pointed base and was filled with brown clayey silt [2932]. The stake is an installation in the first road surface.

Towards its east edge, a mixed fine pebbly charcoal-flecked deposit of dark greenish brown silty sand, light yellowish buff crushed mortar and slightly less crushed chalk in small discrete patches and coarse pebbles [2910] overlay 2894, with a compact spread of dark grey silt and a few charcoal flecks containing small fragments and flecks of burnt daub [2918] on top, trodden into the edge of 2910, and finally light grey silt [2926]. These patches and accumulations were confined to an area at the edge of the road, as if swept there during its use, or worn away by traffic at the centre.

An extensive spread of oyster shells compacted into some grey silt [2850] overlay 2926, continuing south to cover 2927. The shells were especially concentrated in the north towards the centre of the road where they filled one of the possible ruts in 2894. A patchy layer of
crushed and broken oyster shells in little greyish green medium sand [2775] over 2910 and may be an outlier of 2850 at the east edge of the road.

Further south, another spread of oyster shells [2993] covered make-up 3017. Although the road proper did not continue this far, the oyster shell accumulation seems to have done so, over its levelling make-up. A sequence of layers then accrued on 2993 - dark brown charcoal flecked pebbly silt [2983], then a compacted spread of off-white light brown mortar containing small fragments and flecks of chalk and fine and medium pebbles [2966], followed by dark grey silt and some dark brown silty clay flecked with green silty clay, decayed wood and shell [2943], and finally greenish silt containing small fragments of chalk and tile and fine and medium pebbles and, towards its base, decayed wood flecks [2923]. Once again, these accumulations were confined to the east side of the line of the road. Their organic content may be related to the proximity of the waterfront to the south.

XIII.2 Construction of church wall and associated stratigraphy to the south

176, 2626, 2627, 2576, 2575, 2541, 2625, 2624, 2631, 1738, 2424, 2253, 2180, 2179, 2163, 2229, 1592, 2170, 2149, 1506, 1301, 2228, 2106, 1547, 2203, 2221, 2268, 2269, 2255, 2254.

Description

At the north west corner of the site, east-west wall [176] was constructed into 2621 (XI.10) and 7850 ( ). A fragment of light cream plaster, up to 20mm thick in places, [2626] adhered to a small area of its north side, possibly suggesting an internal context. Dark orangish brown sand [2627] was dumped against the base of this plaster, cut by pit [2576]. This was rectangular, at least 0.70m east-west (cutaway in west) by at least 0.38m wide (cutaway to north) with irregular, stepped sides 0.38m deep and an uneven base. It was filled with a loose mixture of dark grey fine sand, medium sand, medium pebbles and rather fewer fine pebbles and contained large fragments of tile and brick [2575]. Its function is unclear, though it could represent a feature set against wall 176 and subsequently robbed. A mixed spread of loose dark orangish brown medium sand, greyish brown clay and slightly less fine and medium pebbles [2541] covered fill 2575 and appears to be a make-up for a floor within the structure bounded by wall 176. Although no surface proper survived, 2541, had a surface level of 3.10m O.D. at its highest, compared to a lowest level of 2.93m O.D. for plaster 2626. If it is assumed that the plaster was meant to be seen, any floor above 2541 would have covered it by some amount. It therefore is likely that 2576 cut away the primary surface north of 176 at this point and 2541 was make-up for a secondary surface at a higher level.

Further west, compacted brown medium sand and some fine pebbles [2625] also lay against the north face of wall 176, capped with compacted chalk and a few fine pebbles [2624]. This had a surface level of up to 3.00m O.D., so is likely to be primary surfacing within the building of which 176 is the south wall (the church of St Botolph).

Towards the east end, another fragment of creamy white plaster rendering up to 15mm thick in places [2631] survived on the south face of wall 176. Its level, at c. 4.40m O.D., was much higher than any associated stratigraphy to the south. It only survived on being sealed by the construction of wall 179 in period XV, so could belong to either period XIII or XIV. In
neither case is the area to the south of the wall 176 provably enclosed and roofed. It is likely, therefore, that 2631 was in an external situation.

To the south of wall 176, an extensive dump of patchy greenish grey iron stained fine sand and silt, [1738] overlay 2548 (XI.10). It became a dark buff pebbly medium sand and some light brown silt, containing small and large tile fragments and small fragments of creamy yellow mortar in the north west and forms a make-up for the even more extensive greyish brown silty clay with a few medium pebbles containing large and small tile fragments, small fragments of chalk and brick, and charcoal flecks [2424], which also covered 2537, 2536, 2533, 2530, 2549 and 2295 (all XI.10) and ran up to wall 176. It forms the first major surface south of the wall, at a level of c. 3.10m O.D. as it approached it. This suggests that the initial surfaces on either side of 176 are at the same level, just above 3.0m O.D.

To the south, an extensive layer of medium, coarse and cobble-sized pebbles containing large fragments of tile [2253] was dumped above 2424. The stones increased in size to the south and the tiles in preponderance to the east. This formed a substantial capping for gravel make-up 2424, probably as a surface proper.

[2180] intruded into the south east part of 2253. It was rectangular, 0.12m northwest-southeast by 50mm across, with nearly vertical sides up to 0.10m deep and a concave base and was filled with loose brown tile-flecked silt and a little medium sand [2179]. It represents an installation at the edge of 2253 where it ran against the road (XIII.1). The spread of dark greyish brown burnt clayey silt, a few patches of burnt orange clay and small fragments of charcoal containing charcoal flecks and coarse pebbles [2163], which overlay 2179, formed a dump of burnt waste material from an industrial process, maybe metal-working since some charcoal had traces of ?bronze slag adhering to them and fragments of ?moulds or crucibles were mixed with the deposit. It correlates with another patch of orangish red burnt clay and dark greenish brown fine sandy silt containing charcoal patches, large fragments of charcoal and large and small fragments of burnt orange clay [2229] over 2253 to the west. Industrial activities may have taken place on 2424/2253 in the north, with the residues of the processes swept to the more marginal areas where the surface dipped away to the south.

Cut [1592] intruded into 2229. It was rectangular, 0.20m north-south by 80mm east-west with vertical sides and a flat base (depth not recorded) and was filled with brown pebbly silt and some coarse sand [2170]. A small pebbly patch of grey silt and some light brown medium sand, stained green throughout [2140] overlapped 2170 and may be a surface patch laid up against that installation. It was cut by [1506], a rectangular stake hole 86mm north south by 60mm east west with nearly vertical sides 0.15m deep tapering to a rounded point. This was filled with light brown medium sand and brown silt [1301]. Just to the west, greyish green medium sand and some silt [2228] overlay 2229, correlating with grey silt and some light brown medium sand containing lenses of green staining throughout, especially towards its base and in the east, coarse pebbles and, at its base oyster shells [2106] over 2163 to the east; with pebbly grey silt and some light brown medium sand, stained green throughout [1547] over 2253 to the south east and a patch of light brown pebbly silt and medium sand [2203] over 2253 to the north east. These pebbly occupation layers once again suggest accumulations to the south and east of 2253. Only three small patches of material overlay the surface to the north, comprising dark greenish brown sandy silt [2221] in the north east and dark greenish
brown clay and some dark grey silt [2268] and then light greyish brown silt and greenish brown clay [2269] to the west.

Finally, at the centre of the layer [2255] intruded into 2253 at its centre. This was rectangular, 60mm east west by 50mm north-south with nearly vertical sides 0.11m deep and a rounded base and was filled with dark brown clayey silt [2254], maybe in situ decay.

XIII.2, therefore, sees the construction of wall 176, with surfaces laid on either side at c. 3.0m O.D. That to the south, external in character, may have been used for industrial activities with the remainder of the processes swept to the south and east. The wall and surfaces could have been inserted in either period XII or XIII. However, the absolute level of the surfaces correlates with that of the first road described under XIII.1 and both show a corresponding drop to the south. It is likely, therefore, that the removal of the period XII central building (Building 2) and formalisation of the access zone above it was accompanied by the insertion of wall 176 et al, both at the start of period XIII.

**XIII.3 Second road**

(Fig 27)

2570, 2885, 2862, 2904, 2792, 2784, 2836, 2835, 2440, 2095, 2865, 2872, 2866, 2821, 2820, 2829, 2790.

**Fig 27 Period XIII.3–4 plan**

**Description**
In the north part of the site, a compact layer of fine and medium pebbles in a little greyish green medium sand and yellow silt [2570] was laid above 2850 (XIII.1). The uppermost pebbles has a smooth worn surface, with a concentration of larger cobbles and a compact patch of yellow silty pebbly mortar at two points. To the south, a spread of coarse pebbles, slightly less medium pebbles and small tile fragments and less still fine pebbles, all set in a little brown silt [2885] also overlay 2850 (XIII.1) and is a continuation of metalling 2570, with a more mixed dark brown silt, a few medium fine and coarse pebbles [2862] on top as further make-up or disturbance of 2885 during use. Lastly, in the south, light grey silt and light brown silty clay containing fine and medium pebbles and flecks of chalk and charcoal [2904] overlay 2923 (XIII.1) to form a less pebbly continuation of 2885. Although the make-ups get less pebbly in the south, it is reasonable, given levels and underlying correlations, to suppose that they form the second new surfacing of the central lane.

[2792] intruded into 2570. It was circular, 0.40m across, with vertical sides 0.57m deep and a flattish base and was filled with orangish brown fine sand and some greyish green clayey silt containing fine and medium pebbles [2784]. It represents an installation in the second road, maybe related to activities to the west.

To the south, black silt mottled with some reddish brown clay [2836] overlay 2862, below yellowish brown pebbly silty clay [2835], with possible evidence of burning at its base, covered by a much more extensive layer of dark blackish brown silty clay and a few red clay patches [2440], which also sealed post hole fill 2784. 2440 had an increased preponderance of pebbles towards the south. The red clay patches suggest burnt debris, though not provably in situ. A spread of dark brown silt [2095] over 2158 (XII.4) can be equated with 2440, to the south, as can a spread of black clay and some silt containing flecks of orange burnt tile [2856] over 2904 and 3086 (XIII.1).

Two stakes intruded into 2865. [2872] was circular, 70mm across with vertical sides 0.12m deep tapering to a blunt point and was filled with brown pebbly chalk-flecked sandy silt [2866]. [2824] was square, 0.10m across with nearly vertical sides 0.20m deep and a rounded base and was filled with loose nodules of light yellow mortar mixed with some light grey silt and a little dark brickearth in flecks [2820]. 2866 was covered with a compact spread of coarse and some medium pebbles set in a little coarse sand [2829]. Its colour varied from light brown in the east to black in the west where overlying the darker 2865. It represents a repair to the underlying second road surface. Dark brownish black clay and some silt containing flecks of orangish red tile, fine pebbles and small fragments and flecks of buff orange clay [2790] overlay 2829, accumulating during its use. It closely resembles the stratigraphically earlier deposit 2865, which in turn correlates with spread 2440. This suggests that the residues from the process producing the burnt material must have been deposited on the road surface on successive occasions. It therefore seems likely that it relates to activities in the immediate vicinity, though not on the road proper, rather than a single deposition of waste from further away. The position of 2865, 2790, 2440 suggest that such activities were occurring to the west of the site, and flowing out onto the edge of the road.

XIII.4 Further activities south of church wall

Description

To the south of wall 176, an extensive area of light tan coarse sandy mortar and a little light grey silt containing large fragments of tile and chalk and cobble-sized chalk stones [2041] was laid above 1301, 2106, 2228, 2203, 2254, 2221, 2269, 2268 (all XIII.2). In places it was very thin and patchy, and here the proportion of grey silt increased. The surface was very lumpy and uneven throughout. Towards the west, a lens of light cream fine sandy mortar containing chalk fragments and fine and medium pebbles [2010] capped 2041, and is part of the same surfacing.

To the south a group of three further cuts intruded into 2041. [1981] was probably circular (south part cut away) c. 0.35m across, with steep sides 0.26m deep curving gradually to an even base and was filled with dark greyish brown pebbly medium sand and a little grey silt [1980]. [1979], which cut into the east edge of 1980, only survived in the north west. At least 0.18m across, it had shallow sides 60mm deep curving gradually to an irregular base and was filled with light grey fine sand, some silt and a few fine pebbles [1978]. It may be a replacement for 1981, or a strengthening of it. [1977], immediately to the north, was probably rectangular, at least 0.18m east-west (east side cut away) and 0.21m north-south with sides 50mm deep curving gradually to form its base and was filled with dark greyish green fine sand, a little silt and a few fine pebbles [1976].

Their proximity strongly suggests that the three cuts are related, though perhaps as successive features, whilst the shallow depths and profiles imply post positions rather than driven stakes. As such, they could be part of a much more substantial feature than the stakes around hearth 2056.

Further east, cut [2013] intruded into 1547 and 2106 (XIII.2). This measured at least 0.65m north-south (south extent cut away) and 0.23m east west, with vertical sides 0.13m deep and a flatish base in the south which dropped slightly at the north end. It was filled with loose dark grey, stained with green and orange, pebbly silt, a little crushed white mortar in flecks and a little brickearth in patches [2007]. It represents a north-south slot, south limit unknown, with the building debris of its fill marking its demise. Nearby, two voids also (intruded into 2106 (XIII.2). [2113] was rectangular, 80mm north-south by 0.10m east-west with nearly vertical sides 0.12m deep tapering to a flat base. [2114] was sub-rectangular, 0.14m north south by 80mm east west with vertical sides 70mm deep and a flat base. Cut [2112] lay above both 2113 and 2114 and intruded into the edge of 2013. This was some what irregular, up to 0.30m across, with shallow sides 60mm deep sloping gently in to slightly concave base. It was filled with loose dark greyish brown charcoal-flecked silt, a little fine sand and brickearth in small patches [2111].

There is little doubt that the cuts are all associated, with stakes 2113, 2114 driven into the base of post position 2112 as a support for the north end of slot 2013. Though less securely stratified than 1981 et al, the two sets of cuts are likely to be related, perhaps as the corners of a structure completely cut away to the south. The north limit which they display is opposite the position of cut 2792 (XIII.3) to the east. A tentative relation between the insertion of these
two groups of features and the second road surface might be suggested, reinforced by the similarity between burnt accumulations 1928 et al (see below) to the north and 2440 et al on the road surface (see XIII.3 discussion).

An extensive spread of dark brown silt at the top, becoming patchy burnt light orangish brown clay at its base and containing flecks, small and large fragments of charcoal and flecks of crushed pebbles and shell [1985] overlay fill 2112, elsewhere covering mortar 2041. This represents burnt occupation debris accumulating on the mortar surface.

Towards the north-east corner of 2041, a spread of brownish black silt, a little fine sand an a few flecks of brickearth containing flecks of chalk and charcoal and large fragments of tile [1928] overlay 2041. Occasional signs of burning were evident in this context and it represents the initial use of 2041. This correlates with 1985 and 1776 to the south. Further west, more brownish black silt, a little dark tan clay in a lens, brownish buff sand and a few patches of charcoal containing large tile fragments and flecks with charcoal [1937] on 2041, below light greyish green fine sand, a little light brown silt and a few small greensand fragments [1911] show a continuation of such accumulations immediately adjacent to wall 176. 1937 correlates with light grey fine silt and some fine sand [2037] on 2041 to the west. Finally, patchy dark brown coarse sandy silt mixed with a little clay and a few pebbles containing flecks of chalk, brown brickearth in lenses and red brick and large fragments of oyster shell, charcoal and tile [1889] overlay 1911 and 1928. All of these accumulations broadly correspond with a sequence of fine pebbles set in a little orange coarse sand [2543]; below dark tan clay, some dark greenish brown silt and a few medium pebbles containing small fragments of tile, flint, creamy yellow mortar and chalk and flecks of charcoal and chalk [2426]; then a mixture of light brownish orange coarse sandy silt, some clay and a few pebbles containing flecks of chalk, pinkish white mortar and orangish red brickearth [1861]; and finally light greyish green medium sand, a little silt and a few pebbles [1854].

A patch of dark buff silty coarse sand [1843] accumulated on 1889, with dark brown medium sandy silt flecked with orange, brown and buff mortar [1837] above then orangish buff medium sand [1802] below a mixture of light orangish brown brickearth, dark yellow fine sand and rather less brown silt [1799]. These accumulations, resembling 1889 in general, are confined to a very small area, with a south limit offset 0.80m from wall 176. Just to the east, compact pebbly light buff yellow sandy mortar 1801 overlay 1889 with brown silt, some patches of orangish brown brickearth and a little fine sand [1800] above it in the west and a sequence of light brown silty sand, with a concentration of pebbles and large tile fragments to the south east [1788]; thin patchy light buff pebbly sand [1787]; and light brownish grey silty sand and some pebbles containing chalk cobbles and, in the west with orange hue [1775] above it in the east. Once again all of these deposits are localised to the strip immediately adjacent to wall 176.

Though all of these mixed deposits containing considerable amounts of smashed building materials and other debris, are severely truncated by later activities, they do seem to be confined to a narrow strip beside wall 176, especially towards the centre, perhaps suggesting a parallel structural division offset 0.80m from the wall.

To the south of that implied division, a small mixed but compact area of patches of buff fine sand and light buff coarse sandy mortar [1905] overlay 1889, with a compact fragment of
rammed chalk and a few coarse pebbles [1897] on top, then a pebbly layer of orange sandy mortar and some brown sandy silt in patches [1890], followed by a medium pebbly mixture of brown silt and fine and and much less chalk in small fragments and coarse pebbles [1872]; then finally light buff brown silt, some off white sandy mortar in small fragments and a little fine sand containing large fragments of chalk and off white mortar [1853]. Since this whole sequence was cut away to the south, it is unclear whether they form extensive repairs and accumulations on 2041, or just localised patches. But they do have a distinct and common north edge, again implying some sort of east-west structural division at this point.

[1867] cut into 1872 at the west end of this line of which only the east edge survived. It was at least 0.55m east-west by at least 0.32m north-south with an irregular east side 0.17m deep and a flat base and was filled with grey charcoal and chalk-flecked silt, a few flecks of off white and orange sandy mortar and orange brickearth and a little fine sand [1862], then light brown pebbly sandy silt, some light orangish brown brickearth and a few chalk flecks (mostly at the surface) [1852], followed by orangish brown chalk flected brickearth and some brown sandy silt [1848]. The fills are all dumped into the feature to mark its demise and seal its position. Although the interpretation of cut 1867 is unclear, it corresponds with the north edge of 1872 et al.

East-west cut [1762] appeared to intrude into 1801 and 1799 to the north and 1853 and 1848 to the south. At least 1.60m long (both ends cut away) and c. 0.80m wide, it had nearly vertical sides up to 0.11m deep with a flat base which had a subsidiary, deeper element in the east half protruding a further 0.10m. It was filled with a mixed dump of sandy silt, slightly less clay, buff mortar and tile fragments and less still green peat containing bone fragments [1724]. It seems likely to be the robbing of a slot. If such a feature continued at the same base level (2.96m O.D.) to the east, it would have been seen in the surface of 1928 (level 3.15m O.D. at its south east surviving extent, which is on the line of 1762). The slot may have terminated, or turned south, before this point. To the west, no stratigraphy survived high enough to decide on the the limits of the cut here.

To the south of slot 1762, a series of cuts intruded into surface 2041. [2044] was roughly square, c. 45mm across with vertical sides 70mm deep and was filled with light brownish yellow medium sand [2043]. [2046] was square, 70mm across with vertical sides 90mm deep and was filled with light brownish yellow medium sand [2045]. Both were overlain by an irregular oval depression [2056], measuring 1.37m east-west by 0.80m north-south with irregular sides 0.18m and an uneven base. It was filled with compact dark tan containing large fragments of orangish yellow mortar [2040], and may have been an insubstantial hearth or working area set into the mortar surface 2041. Stakes 2044 and 2046 would have been an integral part of such a feature at its base.

To the south, four more cuts intruded into 2041. [2022] was roughly square, c. 65mm across with vertical sides 90mm deep tapering to a point and was filled with light brown medium sand and a little grey silt [2021]. [2032] was roughly square, 55mm across with vertical sides 70mm deep and was filled with dark grey medium sand and a little grey silt [2031]. [2067] was irregular at the top, c. 0.15m across, becoming square lower down 90mm across, with vertical sides 0.13m deep and an uneven base. It was filled with brown pebbly mortar flecked silt and some medium sand [2066]. Finally [2073], of which only the north west part survived, was at least 0.22m across with steep irregular sides 0.13m deep and an uneven base. It was filled with
brown silt and orangish brown clay containing fine and medium pebbles and cobble sized fragments of greensand [2070], the latter inclusion possibly displaced packing. The line of features are probably related to ‘hearth’ 2056, may be with the more substantial 2073 as a corner post since its fill implies a post position, rather than a driven stake.

Further north, [2058] cut 2041. It was irregular, up to 70mm across, with steep sides 0.11m deep, becoming regular lower down, and a curved base. It was filled with brown clayey silt and some fine sand [2055]. Nearby void [2054] cut 2041. It was an irregular subcircle, up to 60mm across, with steep sides 60mm deep and a rounded base. 2054 and 2058 could form a pair on the north side of the hearth corresponding to 2022 et al on the south.

An extensive compact layer of dark green clayey silt and some fine sand containing fine medium and coarse pebbles [1998] was dumped on fills 2021, 2054, 2031, 2055, 2040, 2066, 2070, marking the end of the use of the hearth and related installations. Its fairly level, locally undulating surface was discoloured black in places due to exposure to heat and it formed a new surface over the south area. A dump of blackish grey fine sand, some brown and red tile in large fragments and a few fine pebbles [1966] overlay part of 1998. The tiles seem to have been exposed to heat, but not necessarily in situ. A pebbly heavy compaction of light yellow fine sandy mortar and light green silt [1975] also overlay 1998 and may be a proper surfacing for the pebbly make-up, with the heavy compaction of pebbles, a little dark brown silt, brown medium sand and dark yellow mortar [1949] on both 1975 and 1966 finishing off the surface. Spreads of crushed creamy white mortar and a little chalk in small fragments [1970] above 1966 then compacted light yellow sandy mortar and crushed chalk fragments [1913], also over 1949, and finally pebbly buff fine sandy mortar and some light green silt 1916 are building material dumps and accumulations above the main surface and may have once continued north to connect up with 1905 etc.

XIII.5 New building (Building 4) south of the church and north of XIII.4

(Fig 28)

Description

Adjacent to wall 176, an extensive compaction of dark grey mottled clay, some fine, medium and coarse pebbles and a little fine sand containing large fragments of tile and flecks of charcoal and chalk [1630] was laid over 1775, 1800, 1724 (all XIII.4). Some areas of scorching were evident at its surface, whilst the surface was deeply rutted in places as if exposed to considerable wear. It forms a major resurfacing of the external area south of the church. An area of compact medium pebbly off white-chalk, a little grey fine sand and a few fine pebbles [1617] overlay 1630, with a small mixed patch of loose grey coarse sand and greyish green silt and slightly less fine and medium pebbles [1613] on top. These may be a proper surfacing for 1630, or a repair. To the west, two patches of loose brown fine sand, some fine pebbles and a few medium pebbles [1589] and compact light grey medium sand, some crushed chalk and a little chalk in small fragments [1579], both directly over 1630, correlate with 1617, 1613 and are similarly interpreted.
A compact charcoal flecked layer of dark brown clay, somewhat less fine sand and fine pebbles and still less medium pebbles [1612] overlay 1613, with its surface scorched black. It suggests an open hearth area. This was overlapped to the west by compacted chalk, a little grey fine sand and medium pebbles [1548], which also covered 1589 and 1579 and implies a more extensive repair of the west area. At its north west extremity, a pebbly spread of crushed charcoal, some tan clay and a little fine sand [1526] implies another hearth area, with a strip of brown clay and some medium pebbles [1517] on this resurfacing the level strip immediately beside wall 176. A small compact area of variously sized chalk fragments and a few medium pebbles [1540] on this could be the surface proper.

This sequence therefore suggests a renewal of the activities seen in the north strip in XIII.4, with another pebbly make-up laid as a surface, possibly with a chalk capping in places, used with open hearth-areas and repaired or patched several times. As the metallings were kept fairly clean, they could have been in use over an extended period of time in this way.

To the north east, two voids intruded into 1630. [1646] was irregular, c. 80mm across, with sides 0.13m deep undercutting slightly to the north east and a pointed base. [1647] was nearly circular 0.10m across, with sides 0.17m deep undercutting to the north and a pointed base. Both cuts must be installations in 1630, possibly associated with the wall immediately to the north of its junction with the road in the east.

To the south, linear cut [1803] intruded into the edge of 1540 and into 1913, 1985 (XIII.4). It was at least 5.20m long (cut away at both ends with a central portion missing) with only its north edge definable. This was 0.56m deep breaking to a fairly flat base. The cut created a sunken area to the south of surface 1630, giving a flat terrace for building activity, in contrast to the gradual dropping away of stratigraphy to the south in the preceding sequence. Two east-west strips formed the fill of the south end of the terrace. [1681], in the east comprised loose dark yellow mortaring of small fragments of chalk some cobble-sized pebbles and a few greensand stones. There was a line of stones near its south edge, with more mortar spilling out to the south of this. [1680] in the west was a yellow mortaring, up to 80mm thick, of small fragments of chalk, and a few ragstones and medium pebbles, giving a foundation standing to a maximum height of c. 0.15m. In one area, the mortar of 1680 continued up the north face of cut 1803, the mortar towards the top being much paler than that at the base.

1680/1681 is the base of a subsequently robbed wall foundation c. 0.50m wide revetting the north edge of terrace 1803, and forming the north wall of a new building (Building 6), of which the east wall must have fronted the street; the south wall was not observed. The paler mortar seen on the side of the cut probably shows the point where the feature changed from foundation to wall proper, with the mortar there the result of trench building the division into the side of the cut. It suggests that the wall was coursed, at least roughly, with courses perhaps 0.12m deep. How high the wall continued is unclear - it could have been a masonry feature to its full height, or a dwarf wall continuing to just above the level of associated surfaces 1630 et al to the north, and then forming the base for a timber superstructure. It is also unclear how much stratigraphy belonging to an earlier part of period XIII may have been removed on its insertion. It is quite possible that the north surfaces and accumulations beside wall 176 were used over an extended period of time, and that associated stratigraphy to the south was removed, partially by 1803 and completely by period XIV and XVI terracing.

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Towards the east, a small mixed layer of brown clay and slightly less dark brown silt and medium sand [1777] was dumped against foundation 1681, with a spread of yellow sandy mortar [1760] on top, then more loose brown medium sand and some clay [1759] and finally off-white mortar and a little light yellow medium sand [1758]. These were either successive construction spreads related to the insertion of wall 1681 or traces of floors running up to and overlapping the south edge of that foundation. East west slot [1719] was inserted into 1777. It was at least 0.65m long (east end cut away) and 70mm wide with vertical sides 5mm deep and a flat base. Mortar spreads 1760 and 1758 were confined to the north of it and stopped in the west opposite its west end. It therefore seems likely that they are all associated with 1719 part of an installation set against wall 1681. It is even possible that 1719 is part of a shuttering arrangement for the construction of the foundation.

Two cuts intruded into 1758. [1748] was octagonal, c. 55mm across, with sides 88mm deep undercutting to the north east and a rounded base and was filled with loose brown sandy silt [1747]. [1750] was square, 50mm across, with steep sides undercutting slightly to the north east and 95mm deep tapering to a sharp point and was also filled with loose brown sandy silt [1749]. Though separated from it by intervening stratigraphy, both stakes lay on the line of the south edge of foundation 1681, suggesting a constructional association.

Just to the north, [1755] intruded into 1760. It was roughly square, c. 45mm, with generally vertical sides 90mm deep and a rounded base and was filled with loose dark brown sandy silt [1754]. The stake lay at the west edge of mortars 1760 and 1758, again suggesting a common context related to construction. Dark grey silt and charcoal [1742] spread above fills 1749, 1747 and 1754, but respected slot 1719 in the south. This trodden occupation debris, perhaps at the end of the construction activities.

To the south, another spread of charcoal flecked dark brown silt and some fine sand [1776] over 1985 (XIII.4) may be corresponding tread. Just to its north, cut [1718] intruded into 2106 (XIII.2). This was nearly square, c. 85mm across, with steep sides 0.12m deep tapering to a point. Cut [1717] overlay 1718, also just intruding into 1777 and apparently, just into the north edge of 1776. It was roughly circular, c. 0.60m across with gently sloping sides 0.15m deep curving imperceptibly to its rounded base and was filled with light green silt and fine sand. The feature, with 1718 in its base, lies at the west end of slot 1719 and seems to bound 1776. It seems likely, therefore, to be integrally related to them. A mortar mixing pit or similar is unlikely, given its regularity, proximity to the wall and nature of the fill. A post position for scaffolding or similar, connected with the superstructure of wall 1681, is more likely.

To the south [1771] intruded into 1776. Cut away in the south, it may originally have been circular, c. 0.45m diameter, with gently sloping sides 0.10m deep curving imperceptibly to a rounded base and was filled with a mixed layer of dark brown silt and slightly less brown clay and dark green medium sand [1770]. Its resemblance to 1717 might suggest a line of such features running south from wall 1681. [1704] cut the east edge of 1770. Also cut away in the south, it was an irregular subcircle c. 0.42m across with gradually sloping sides 0.11m deep curving to a roughly level base and was filled with a mixture of brown silt, dark green medium sand and rather less dark brown clay containing fragments of tile, mostly set vertically, and charcoal flecks [1698]. The fill suggests structural intent, perhaps a replacement for 1771. All of these features could be related to the construction of terrace wall foundation 1681 and its associated superstructure.
To the west, two cuts intruded into 1916 (XIII.4). [1870] was an irregular circle, c. 0.16m across with steep irregular sides 0.15m deep and a concave base and was filled with light grey pebbly fine sandy silt and some orange clay [1865]. [1906] was roughly square, c. 0.25m across with steep sides 50mm deep and an irregular base and was filled with a mixture of light green silt and slightly less brown clay and fine sand containing flecks of mortar and chalk and fine pebbles [1881]. Though these cuts cannot be stratigraphically related to the insertion of wall 1680, they lie within the line of terrace cut 1803 and seem likely to be related with that construction, though they could conceivably be associated with intervening activities removed completely elsewhere.

A compact dump of greyish green pebbly silt and a little clay and fine sand [1849] overlay fills 1865 and 1881, possibly a rough surfacing. To the north east, a compacted spread of small fragments of tile, some medium pebbles and a few small fragments of chalk, all set in brown sandy silt [1909] lay at the base of cut 1803. It was burnt at its surface, with dark brown silt and a little medium sand and dark orange clay [1908] on top. These could be all make up dumps or an insubstantial hearth working area. If the former, they probably correlate with 1849, so all three can be seen as initial dumps within the terraced area.

[1734] cut into the east edge of 1849. It was roughly circular, 0.75m across with irregular sides 45mm deep curving imperceptibly to its dish-shaped base and was filled with green charcoal-flecked silt and some fine sand [1817]. This fill spread outside the depression, to overlap tiles 1909, having a black stained surface and a lens of pink friable material within the central depression. It may therefore be associated with the possible hearth 1909, either during the use of the south area bounded by 1680 or as part of its construction.

Two stakes intruded into fill 1817. [1773] was roughly square, c. 0.12m across with generally steep sides 0.16m deep tapering to a flat base and was filled with loose dark grey pebbly silt and some fine sand [1772]. [1769] was roughly circular, c. 0.10m across with steep irregular sides 75mm deep and a concave base and was filled with loose dark grey silt and some fine sand containing fine pebbles and mortar flecks [1763]. Their position, just inside cut 1734, suggests an association with that feature. A compact pebbly mixture of medium sand and some dark grey silt [1721] overlay the stakes but was once again confined to the limits of cut 1734. It must be specific compensation for that feature, or the base for a substantial vertical member set just inside sunken area 1803. In this it therefore resembles 1717, 1771 and 1704 to the east.

Cut [1702] intruded into its east edge. It was subcircular, c. 0.19m across with steep, becoming vertical, sides 0.18m deep and a rounded base and was filled with loose light green pebbly silt and fine sand [1703]. It must be related to pad 1721. A compact pebbly mixture of dark green silt, orangish brown clay and rather less fine sand [1792], overlapping fill 1817, ran up to pad 1721 and seems to respect its position. It may be traces of a floor make-up.

A series of post-holes were scattered around the main pad 1721. [1730], just to its west cut 1849 and was subrectangular, 0.11m north-south by 80mm east west with vertical sides 0.26m deep curving to a rounded base and was filled with loose brown silt and some dark brown medium sand [1729]. [1732] cutting 1913 (XIII.4) to the north was roughly subrectangular, 0.13m north-south by 90mm east-west with nearly vertical sides 0.15m curving to a rounded base and was filled with loose dark orange medium sand and some clay [1731]. [1847], cutting
1949 (XIII.4) to the south east was a north-south slot at least 0.55m long (cut away to south) and 0.35m wide with vertical sides 0.49m deep curving to a flattish base and was filled with a mixture of dark brown sandy silt, some orange clay and a little light yellow mortar [1840]. It would be the north end of a beam slot, for instance to take floors for Building 6 set within sunken area 1803. To the west of pad 1721, [1715] intruded into 1916 (XIII.4). It was roughly subsquare, c. 0.11m across with steep sides 0.16m deep tapering to a flat base and was filled with loose fine sandy silt and some mortar containing chalk fragments and flecks [1713]. Lastly, further west still, [1814] into 1913 (XIII.4). It was semicircular, 0.11m across with steep, becoming vertical sides 0.14mm deep breaking to a flat base and was filled with orange charcoal-flecked clay and light orange medium sand [1813]. The stake holes must represent installations in the base of 1803, though no patterns were evident. To the west of 1814, a layer of dark brown silt, and slightly less dark orange clay and charcoal [1815] lay in cut 1803. It could be a local floor make-up like 1849, mixed with occupation tread.

An extensive layer of dark brown silt, dark green silty clay and rather less yellow medium sand [1666] spread over fills 1713, 1813, 1840, 1703, 1729, 1731, dumps/make-ups 1908, 1792 and 1815, and ran up to foundation 1680 in the north. It had a very smooth surface and is probably a trodden occupation layer accumulating within Building 6 as defined by walls 1680/1681 in the north. It is the first layer which may relate to the use of the sunken area rather than its construction.

A series of eight features intruded into 1666. East west slot [1644] was at least 1.38m long (cut away in west) and up to 0.28m wide towards the west, narrowing to c. 0.10m in the east. It had very shallow, often steep sides 60mm deep and an uneven base. The west half of the cut was really three interconnected circular areas, at the east end of which lay cut [1660]. This was semicircular, 0.18m across, with vertical east sides, steep in west, 0.14m deep and a pointed base and was filled with loose brown silt and some sand [1659]. To the south, opposite the east end of the slot, [1674] was subcircular, 0.19m across with irregular becoming vertical sides 0.16m deep curving to a rounded base and was filled with dark grey pebbly silt and orangish brown clay [1672]. Nearby, [1642] was oval, 0.36m north-south by 0.21m east-west with gentle becoming vertical sides up to 0.32m deep forming a double pointed base, the larger in the north, and was filled with loose brown sandy silt and some orange clay [1641]. Just to the south, [1662] was subcircular, c. 0.15m across with steep sides 0.32m deep tapering to a point and was filled with loose brown silt and some medium sand [1661]. These suggest a structural division running south from 1644 on the line of the earlier slot 1847.

To the west, [1665] was roughly circular, c. 0.13m across, with steep sides 0.21m deep tapering to a point and was filled with dark grey pebbly silt and orangish brown clay [1664]. It lay at the edge of pad 1721, as did 1702 below, although both 1721 and 1702 were apparently sealed by intervening layer 1666. To the north west, [1649] was roughly circular, c. 0.11m across, with nearly vertical sides 0.23m deep tapering to a point and was filled with loose brown silt, medium sand and rather less orange clay [1648]. Finally [1651] to the south was circular, c. 0.20m across with fairly steep sides 0.13m deep tapering to an uneven rounded base and was filled with dark grey silt and clay [1650].
Not all of these stakes make coherent patterns. However, slot 1644 and what may be a south turn at its east end via 1674 et al suggests an installation set against 1680 to the north, offset to its south the same distance as slot 1719 to the east.

In the central area between 1644 et al and 1719 et al, north south slot [1866] cut 1976, 1978, 1985 (XIII.4). This was at least 0.79m long (cut away to south) by 0.31m wide with vertical sides 0.48m deep and a flat base except at the north end. Here, a post hole c. 0.30m across continued another 60mm into the base of the cut. It was filled with a mixed deposit of dark brown silt, some dark orange clay and a little dark yellow mortar [1855]. The slot closely resembles adjacent 1847, with which it has a common north limit. Also, occupation spread 1666 runs up towards 1847 but does not continue across the whole area. It is possible that 1847 and 1866 flank an access point, which may also have crossed wall 1680/1681 (the wall was cut away at the appropriate point) and continued north since surface 1630 et al is confined to the area west of this line. The east termination of slot 1644 could also be at the east side of such a doorway.

[1726] cut into 1976, 1985 (XIII.4) just west of 1866. This was roughly square c. 0.11m across with irregular sides 58mm deep curving imperceptibly to an irregular base and was filled with loose brown clay and charcoal [1725]. [1711], on the east side intruded into 1985 (XIII.4). It was subcircular, c. 0.14m across with vertical sides 0.21m deep curving gradually to a flatish base and was filled with loose brown silt and some dark brown medium sand [1710]. They may relate to threshold 1866, 1847.

Just to the east, two other stakes also intruded into 1985 (XIII.4). [2018] was square, 70mm across with nearly vertical sides c. 0.24m deep tapering to a point and was filled with loose light brown sandy silt [2016]. [2017] was semicircular, 80mm across with nearly vertical sides c. 0.28m deep tapering to a point and was filled with loose brown sandy silt [2015]. The area around 2017, 2018 formed a slight depression and brickearth flecked with chalk and off white mortar [1973] was deposited above them in this depression to form a post pad just east of the possible entrance.

Just to the north west, patch of orange clay and some light yellow medium sand [1871] overlay 1985 (XIII.4). [1709] intruded into its north east edge. This was subcircular, 0.10m across with vertical sides 0.19m deep curving to form its base and was filled with loose orangish brown clay and some medium sand [1708]. 1871 could be a small patch of floor or, more likely, a pad like 1973, with 1709 as a supporting stakehole.

Finally, to the north east, [1706] intruded into 1985 (XIII.4). It was circular, 90mm across with vertical sides 0.29m deep tapering to a point and was filled with loose light yellow medium sand and some off white silty clay [1705]. Presumably it relates to pads 1871, 1973 to the south and west and 1717 et al just to the east.

Although the sequence of cuts and pads 1866 to 1706 are not as securely stratified as the features to their east and west, some at least, notably slot 1866, can be reasonably correlated with the other features, whilst others might be similarly related. They are probably, therefore, further installations inserted after 1803 was cut, rather than features ante-dating that terracing for the construction of Building 6.
XIII.6 Final elements; a burial

(Fig 29)

1611, 2059, 2051, 1999

Period XIII.6–7  Fig 160
Burial in the new building and activity further south
BIG 82

Fig 29 Period XIII.6–7 plan

Description
South of the revetment wall 1680/1681 (XIII.5), an extensive layer of brown clay and a little light yellow sand [1611] overlay cuts 1641 et al (XIII.5), inserted in the base of the sunken area 1803, the position of the proposed Building 6. 1611 had horizontally laid, apparently random, tiles in its surface in places, some of which had been laid whole but cracked in situ. Though these were roof tiles, and thus redeposited, they may have been part of a rough tile floor laid on a clay bedding. In the north they obeyed the wall line 1680/1681.

To the south west, east-west cut [2059] intruded into 1611. It was 2.20m long by at least 0.45m wide (truncated at the top) with regular, vertical sides where surviving, at least 0.81m deep, with a sharp break to its uneven, rectangular base. It was filled with skeleton [2051] ................, then greyish brown clay, some sand and a little silt containing small fragments of oyster shell, tile, and chalk, coarse pebbles and patches of bright yellow sandy mortar, [1999], the last possibly intrusive from the construction of trench built wall 1686 (see below) to the south.

The context of this burial is difficult. It certainly antedates period XIV foundations, so seems likely to have occurred right at the end of period XIII. Maybe it is the first sign of the church to the north, represented by wall 176, exercising some influence over the site to the south, in using it as a burial area, albeit marginally.

XIII.7 Stratigraphy south of Building 6 but broadly contemporary

1215, 1178, 1267, 1172, 1158.

Description

A very compact layer of tan mortar and a few ragstones [1215] was laid above 1231 (XI.3) in the central west of the site. It forms a consolidation or surfacing to the underlying organic dumps. Greyish brown clayey silt containing lenses of green silt, flecks of crushed brick and charcoal and all sizes of pebbles [1178], overlay 1216 (XI.3) and this correlating with exactly similar material [1267] over 2121 (XI.3) to the south. The pebbles in 1178 were concentrated towards its base, and both layers are probably accumulations on surface 1215. Cut [1172] intruded into 1178. It was an irregular circle, up to 0.50m across, with nearly vertical sides 0.22m deep curving to a flat base and filled with four large flints, a piece of chalk and a piece of greensand set in a little dark grey silt and a few crushed shells [1158]. This forms a major, packed post hole associated with surface 1215.

This set of stratigraphy has considerable stratigraphic latitude, belonging to any time after the middle of period XI up until and including, period XV. However, its absolute level suggests a phasing in periods XII or XIII. And the timber buildings implied by XIII.4, XIII.5, XIII.6 are the only activities in the area which bear a resemblance to substantial post hole 1172. It therefore seems likely that surface 1215 was inserted towards the end of period XIII.
Period XIV.1-XIV.11

XIV.1 Construction of Building 7 south of church (Building 5) and a third road surface

(Fig 30)

1919, 2301-2410, 2167, 2104, 2116, 1895, 1688, 1686, 1689, 1687, 2623, 1397, 2264, 2087, 2425, 2191, 2093, 1859, 2285, 2214, 2512, 2511, 2510, 2443, 2436, 2542, 2297, 2432, 2773, 2892, 2783, 2259, 2232, 2231, 2204, 2289, 2271, 2226, 2572, 2569, 2562.

Fig 30 Period XIV.1–2 plan
Description

To the south of church wall 176, rectangular cut [1919] intruded into 2041 (XIII.4) and 5582, 3202 ( ). It measured 2.00m east-west by 1.90m north-south with vertical sides in west and east, undercut slightly to north and south, 1.43m deep with a flat base. One hundred and ten piles [2301]-[2410] inclusive, intruded into the base of the cut to stabilise the underlying stratigraphy. There was no obvious pattern in their distribution. The vast majority were circular, between 0.10m and 0.20m across, with flattish crown and the bark still adhering to the sides, though a few had been worked, as shown by their cross section, and may have been reused. An organic spread of light bluish grey medium sand, and some silt and rather less chalk in small fragments [2167] sealed the piles, below a lose fill of crushed greensand, less large fragments of greensand and cobbled-sized ragstones set in a little light brownish green medium sand and whitish green silt containing large fragments of chalk [2104], then loose black silt and a little dark brown fine sand and charcoal flecks containing fine pebbles and small fragments of charcoal [2116]. These all formed a base for foundation [1895], an internal pier on the north side of the new building.

Cut 1688 ran west from foundation 1895, also cutting grave fill 1999 (XIII.6). It was at least 3m long (west end cut away) and c. 0.60m wide, with vertical north side, more gradual in the south and a flat base and was filled with foundation [1686].

[1689] intruded into the east side of 1895, also cutting 1611 (XIII.6). It was at least 2.80m long (cut away to east) and c. 0.50m wide with vertical sides to north and south (undercut in north-east). Its base was flat in the east, then a marked drop at a point 1.30m from its west limit. It was filled with foundation [1687].

Although the mortar of 1886/1687 and 1895 were different, there is no reason to believe that they were not part of a single east-west wall foundation, with 1895 forming its arched foundation to take a point load. This may have been necessitated the instability of the underlying organic dumps into which it cut, with the main load of the superstructure of the associated building being taken on masonry piles and walls like 1686 nearly connecting up a line of such features. Although 1687 was cut away in the east, there was no sign of a continuation in intact stratigraphy of the metalling to the east. It is reasonable, therefore, to suppose that it was bounded by that road. If the pile and walls are all part of the same phase of building, it must have occurred after grave 2059 was dug. As it constitutes a major episode of construction, it has been designated as the start of a new period.

To the south of 1687 et al, east-west cut [2623] intruded into 2440 (XIII.3). At least 9.20m long (east end truncated) and 0.75m wide. It had steep sides up to 0.30m deep and a flat base and was filled with foundation [1397]. The offset on the south side of the wall and change from brickfacing to rubble foundation in the north have the same level of c. 2.50m OD, whilst the doorway halfway along the wall has a level of 2.71m OD. This suggests a contemporary ground surface both inside and outside the building of no less than 2.60m OD 1397 must be the south wall of the structure formed by 1686 et al in the north; again stopping against the line of the road in the east.

Towards the east, rectangular cut [2264] intruded into 2440 (XIII.3). Measuring 1.80m east-west by 1.60m north south it had vertical sides and was filled with foundation [2087]. It forms
a major reinforcing of the point where 1687 would have met the road in the east. It is therefore reasonably interpreted as an east counterpart of cut 1919.

To the south, cut [2425] intruded into 5907 (V.3). This was roughly square, c. 1.70m across, with generally vertical sides undercutting in the west and was filled with masonry [2191]. It reinforces the east end of wall 1397.

Cut [2093] ran between 2191 and 2087, apparently intruding into the east end of 1397. c. 5.60m long by c. 1.50m wide, it had vertical sides to west and east, but sloped more gradually at its north and south ends. The base was noticeably higher in the centre than at the ends where it approached the two piles. The feature was filled with foundation [1859], forming the east wall of the building defined by 1686 and 1397 to north and south respectively. The nature of the base of the cut and the use of stone in 1859 shows that the load born by the foundation was designed to be thrown down into the reinforced, piled corners of the building. Its construction trench was then backfilled in the west with a mixture of grey clay, flecks and small fragments of chalk, and rather less silt containing large chalk fragments [2285]. The south part of this fill contained horizontal lenses blacking the chalk content but containing large tile fragments in its place.

Cut [2512] intruded into 2440 (XIII.3) opposite the east end of wall 1397. It measured at least 0.75m north-south (north end cut away) and 0.40m east-west, with generally vertical sides up to 0.15m deep and an undulating base and was filled with light brown sand and some silt flecked with chalk and buff mortar [2511] below dark grey silt [2510]. Just to the west, greyish brown pebbly silt [2443] overlapped the edge of 2510, below further greyish brown silt containing orange silt patches up to 0.10m across of increasing preponderance, towards its base [2436]. These seem to accumulate against slot 2512.

To the east, greyish brown silt mixed with a little brickearth [2542] overlay 2440 (XIII.3), as did a spread of orangish brown silt and sand and fine pebbles, also containing moderate pebbles [2297] to the south. These all seem to be patches related to the use of slot 2512, whose line they obey. The slot itself has a common south limit with wall 1397, and in fact falls at the south-east corner of the building to which that wall relates. Given this and the underlying relationships, it is reasonable to associate the cutting of the slot with the construction of the building, perhaps an installation set at its corner cutting into the edge of the period XIII road surface.

To the south-east, an extensive dump of coarse pebbles compacted into some dark brownish grey sandy silt [2432] overlay 2297, 2542 and ran up against slot 2512. To the north, an area of compact light greyish yellow coarse pebbles, slightly less crushed chalk, and still less small fragments of worn flint set in a little fine sand and containing small fragments of tile [2773] overlay 2790, 2820 (XIII.3), correlating with less compact patchy light green coarse sand, yellow medium sand and rather less medium pebbles [2892] over 2904 (XIII.3) to the south-east. A compact dump of coarse pebbles, and a few medium pebbles in a little brownish grey silt [2783] overlay both 2773 and 2892. It had a patch of blackish brown charcoal and decayed wood staining in its surface to the west and forms an east counterpart of the 2432 metalling. Together they constitute a third main road surface running up the centre of the site, presumably laid immediately after the insertion of walls 1397 et al. It stopped at the south-east corner of the new structure, however, so the earlier metellings of the second road must have
remained in use to the north. Perhaps the main access into the building was via the door in its south wall, so that it was only necessary to reinforce that south area.

A spread of dark grey silt and some sand containing fine pebbles, and small fragments and flecks of wood [2259] accumulated on 2432 during its use, with more extensive orangish brown pebbly sand and some silt, becoming greyer in the south, [2232] on top, then a local dark brown pebbly silt and a little clay [2231]. This material was allowed to accumulate in the more marginal area to the south, nearer the river, whereas the part nearer the building seems to have been kept clean.

A large pebbly dump of chalk cobbles, and a few flint cobbles in a little yellowish brown sandy silt [2204] covered 2231 and represents a major repair to this south part of the third road. Some light greenish brown sandy silt forming a matrix around fine medium and coarse pebbles in decreasing proportions [2289] over 2204 in the north-west, then greyish brown pebbly sand and some silt [2271] form a patching nearer the corner of the building. To the south, black silt and a little clay [2226] on 2204 is the use of the south west part of the repair, as it is a spread of dark greyish brown silt and some clay containing charcoal flecks and, in the south-west, tile fragments [2572] on 2204 to the east. A patch of grey pebbly silty clay [2569] then greyish brown silty clay 2562 on 2204 nearby are similarly interpreted. This last layer sloped up markedly to the east, where it contained a much higher proportion of greenish yellow mortar. This might suggest the existence of another building on the east side of the lane here, corresponding to 1397 et al. More definite evidence would have been removed with the insertion of the period XV terraced foundations (see XV.4).

XIV.1 therefore sees the insertion of a well constructed rectangular building (Building 7) in the central west part of the site, which would have had internal and external surfaces to the south at a level of c. 2.50-2.70m OD, and the laying of a third major road surface in the area of the south; with various repairs and accumulations on this. There is circumstantial evidence for this existence of a building on the east side of the road corresponding to that newly constructed to the west.

**XIV.2 Robbing of Building 5, and third alley surface alongside church**

1587, 1507, 1470, 1551, 1536, 1554, 1304, 1553, 1297, 1293, 1529, 1284, 1280, 1285, 1530, 1527, 1486, 1462.

**Description**

In the north-west part of the site, a loose layer of light yellow medium sand, some orange clay and a little light grey silt [1587] overlay 1611 (XIII.6), with a compact spread of light orange fine sandy mortar, mixed with a little light green silt and patches of clay [1507] on top. 1507 sealed the line of footings 1680 in the north, proving that the wall revetting the sunken area of Building 5, and so probably that building itself, had (temporarily) gone out of use by this point. Indeed, some of the mortar content of 1507 may have been derived from disturbance of those footings. Another compact spread of green fine sandy silt and some cobble sized chalk lumps containing all sizes of pebbles [1470] overlay 1507 and 1540 (XIII.5), providing further filling for the sunken area.
To the west, a mixed pebbly deposit of light yellow sand, dark green sandy silt and rather less greenish brown silt [1551] overlapped 1587, continuing north to seal 1681, another element of the revetment wall footings, showing that this portion had fallen out of use also. Another mixed pebbly deposit of green silt, some fine sand and a little clay [1536] overlay this in the south, correlating with a mixed pebbly layer of green silt and fine sand [1554] over 1551 further east. A sequence of small deposits were then dumped on this gravel horizon, comprising cobble-sized flints and ragstones in roughly equal proportions [1304] on 1536 and a compact chalk and yellow fine sandy mortar spread [1553] on 1554, then a pebbly mixture of light orangy brown clay and yellow mortar and rather less chalk and green silt [1297] over both 1304 and 1553, then finally green silt, some dark greyish green medium sand and a little yellow coarse sand [1293] on top. To the west, the only corresponding material was mottled orange clay and light yellow sand [1529] on 1536.

Finally, a compact layer of chalk [1284], with a smooth surface at 3.35m OD, sealed 1529, running right up to the edge of the sunken area to the north. This correlated with a compact chalk patch [1280] over 1536 just to the east surface level 3.09m OD and compact light grey chalk and a little coarse sand [1285] over 1293 further east still, sloping down from 3.51m OD in the east to 3.21m OD in the west. These layers formed a consistent horizon of compacted chalk, dish-shaped at its surface, with a marked slope down to the vicinity of 1280. It would be a surface in its own right, though it could not have been subjected to substantial wear and local undulations in its surface suggest that it could not have formed the base for a robbed floor. Perhaps the chalk is simply the uppermost element of a series of dumps containing large amounts of introduced building materials, used to make up the ground level in the sunken area and level it up once the walls of Building 6 had been removed. It may have formed a surface by weathering or simple exposure to tread. Even so, its creation would imply a break in the dumping sequence.

[1530] intruded into 1284. This was irregularly shaped, up to 0.27m across, with mostly steep sides 55mm deep and an uneven base and was filled with dark brown silt and less charcoal and bright yellow silty clay [1527]. An installation into the chalk horizon again suggests a break in the dumping sequence, though the interpretation of a single feature is unclear.

The relation of this dumping sequence culminating in 1284 et al and the construction of Building 7 described under XIV.1 is unclear. However, the latter structure would have involved the removal of any remains of Building 6 lying within the sunken area bounded by revetment wall 1680/1681. It is tempting, therefore, to see the robbing and dumping described under XIV.2 as taking place when Building 7 was constructed.

To the north, an extensive pebbly layer of grey silt and and light brown sand [1486] overly 1540, 1647, 1646 (XIII.5), forming a base against church wall 176 for a compact area of cobble-sized ragstones and slightly less greensand, flint and chalk set in brown silt and including all sizes of pebbles and scattered tile fragments set on edge between the cobbles [1462]. The stones increased in size to the south and the whole layer formed a well worn cobbled surface. Lines of stones were evident within the cobbles so successive additions to the surface are a possibility. However, the underlying make-up showed no such differences, so either the differences are due to using wooden shuttering in constructing portions of the cobbled, or features such as access points were incorporated into the surface. The latter is the most reasonable explanation of the south-east extension of the cobbles, with its distinctive north edge.
The relationship between cobbled surface 1462 and the dumps to the south is problematical. Before excavation, 1462 seemed to overlap dump 1470, which would suggest its being laid after the robbing of revetment footings 1680. However, the overlap was too marginal to be certain. What is definitely the case is that the first stratigraphy to overlap the south edge of 1462 definitely post dates the dumping. This implies that the cobbles were in use after the sunken area had been backfilled, and so probably with the construction of Building 5. But whether they were actually laid at this point or merely retained in use from the later stages of period XIII must remain open.

XIV.3 Construction of undercroft in Building 5

(Fig 31)

In the south wall of Building 5, masonry [1764] was inserted in the entrance in 1397 (XIV.1), blocking it, with cut [1757] running east from this. At least 4.56m long (east end cut away), it was 0.34m wide with vertical sides up to 0.70m deep at the middle and a flattish base. It was filled with masonry [1695], which effectively refaced wall 1397. Masonry [1797] is a later modification of 1695 at its junction with 1397.

In the front of the north end of 1695 and the blocked entrance, irregular void [1707] cut 1397. It was up to 1.90m east west by 1.10m north-south with steep sides and contained foundation [1640] below footing [1607].

The void [1696] between 1607 and rebuilt wall 1695, which cut into 1397 (XIV.1), was irregular, up to 0.60m across, with an irregular base and sides and was cut to allow for the insertion of greensand springer [1578], which also abutted wall 1695 and foundation 1607.
This gap between springer 1578 and wall 1695 was plugged with masonry [1778]. Finally, cut [1700] ran west from 1778. This was at least 3.10m long (west end cut away) and 0.60m wide, with sides up to 0.33m deep and a stepped base and was filled with masonry [1677], forming a wall running west from pier base 1578. At its west end, 1677 was cut by [1984], also intruding into 7699 ( ) 1.60m north-south by at least 1.20m east-west (west edge cut away), with nearly vertical sides (depth and nature of base unrecorded). This was filled by masonry [1877], as a foundation for greensand pillar [1723], with the construction trench backfilled with [1722]. Pier 1723 resembles 1578, though the two are stratigraphically distinct.

After the entrance in wall 1397 was blocked, therefore, it was refaced in the east, a pier base was set up at the west end of the refacing, the west part was refaced and a second pier was inserted at the west end of this. 1695 and 1677 refacings closely resemble each other, as do piers 1578 and 1723. It is therefore reasonable to suppose one phase of construction, with the access point in wall 1397 blocked and the piers inserted when the wall was refaced, with such rebuilding proceeding west along the south wall of Building 5.

To the north, [1915] intruded into walls 1686/1687 (XIV.1). This was rectangular, 2.20m east-west by at least 0.20m north-south with vertical sides up to 0.44m deep and an irregular, flattish base and was filled with masonry 1685. This formed a rebuild of pier base 1895 (XIV.1), with the void [2119] above. This was rectangular, 2.10m east-west by 0.80m north-south with vertical sides and a flat base. A with a loose spread of off-white crushed chalk, light yellow sandy mortar and rather less fine pebbles [1795] spread west from it, also over 1893 ( ). This construction spread was cut at its west end by [1869], an irregular intrusion at least 1.30m long (west end cut away) by 0.80m wide with steep or vertical sides up to 1.00m deep and a base which sloped in to the east. It was filled with loose light yellowish green sandy mortar, some large fragments of chalk blocks and a few large fragments of chalk blocks and a few large fragments of greensand and oyster shells, especially concentrated at the south edge of the cut as if lining it [1796]. Five large stones had been deliberately placed at the base of the feature in the south and mortared together. The whole fill formed a foundation for pier base [1683].

A spread of crushed chalk rubble and a little brown silty clay [1636] abutting 1683 ran east from this point and was the result of these processes of construction. Masonry [1829] laid against the east edge of pier 1683 is also associated with its insertion. To the east, [1774] intruded into spread 1636. It was roughly rectangular, 0.90m east west by 0.65m north south with locally irregular, generally vertical sides up to 1.19m deep and an uneven base. Pier base [1684] was set within the cut and the construction trench to the west then filled with mixed light greyish brown clay and a little silt and sand [1653].

It is clear, therefore, that the pier base 1895 was rebuilt in this phase, with the associated construction spread to the west then cut for the insertion of pier 1683, and the construction spread associated with this subsequently cut by pier 1684 inserted in front of rebuilt pile 1895. The close resemblance between the two piers, which cannot it be exactly contemporary, suggests that the modification of pile 1895 was followed by pier insertion working from west to east. It is possible, therefore, that the threshold in 1397 to the south was blocked and pier 1895 was modified, then greensand piers were inserted, starting with 1578 in the south, working westwards, then north, up the west wall (which fell outside the excavation area), then eastwards along the north wall.
To the east, at the north-east corner of Building 5, cut [1993] intruded into pile 2191 (XIV.1) and 1953 ( ). This was roughly rectangular, 1.70m north-south by 1.30m east west, with vertical north side, more gradual elsewhere and up to 0.23m deep. A series of 45 timber piles [2451]-[2495] inclusive, were driven into the base of the cut. Most were circular or oval, 0.10m-0.15m across, with sharpened end and square smoothly and often with bark present on the upper part. They were overlain by ragstone blocks up to 0.30m in length [1938] packed in and around the timber consolidation, with some of the largest stones at the north extremity of the cut. A spread of crushed greensand [1910] overlay 1938 to complete the foundation. The feature suggests a strengthening, or modification, of the north-east corner of the building. It may be contemporary with the insertion of greensand piers to the west.

To the east, cut [2035] intruded into 1859 (XIV.1). It was irregular, up to 0.50m across, with steep sides undercutting foundation 1859 to the south and east, up to 0.63m deep and an irregular base sloping down to the east. It was packed with large fragments of chalk and some ragstone set in soft crumbly buff coarse sandy mortar [2034] which in places was not easily distinguishable from the variable mortar of wall 1859 which it apparently cut. Wall [91] was set against 2034, with springing arch [97] above this. These formed the vaulted arrangement at the south-east corner of the building. To the south, wall [92] also overlay foundation 1859 (XIV.1), with springer [98] set above it, forming a counterpart of 91, 97 but at the south-east corner of the buildings.

Given the character and stratigraphic positions of springers 97, 98 and piers 1578, 1723 in the south and 1683, 1684, in the north it is reasonable to suggest a single phase of substantial reconstruction, in which the doorway in 1397 in the south was blocked and the pier base opposite it in the north wall modified, and then a vaulted roof was inserted in the building. The piers are well faced down to c. 2m OD within the building. Since they were obviously meant to be seen at this level, it implies a contemporary internal ground surface up to 0.50m lower than that of the preceding building, thus creating half-cellared undercroft. This truncation accounts for the lack of any surviving surfaces in the initial phase of construction.

Between 91 and 92, was a spread of light grey friable sandy mortar and a few variously sized chalk fragments [2214] over 3083 ( ). It was apparently overlain by void [1856], also later than 2285, 2252, 2241, 2251. This was roughly rectangular, c. 1.90m north-south by c. 1.20m east-west with very shallow sides 50mm deep and an uneven base in which lay a spread of loose off-white small fragments of chalk in some light yellowish grey sandy mortar [1810], which became more compact, with large fragments of flint and ragstones largely replacing the chalk at the edges. This formed the foundation for a set of seven ragstone steps [1608], running up to the east and through the gap between walls 91 and 92. The level on the base of the lowest step was 2.14m OD, implying a contemporary ground surface that they led down to of just under 2m OD The steps could have been inserted at the earlier or later stage of period XIV (ie. with 1397 or when piers 97, 98 etc. were inserted). However, the contemporary internal ground surface matches the undercroft in its modified form not that of the primary structure, so they probably accompany the insertion of the greensand piers. Whether a shallower forerunner of the steps existed with the initial building is unclear. But, whilst it was the only known access part in the later building, directly from the road, the threshold in 1397 in XIV.1 at least shows that such steps would not have been needed initially.

An extensive spread of small and some large fragments of dark orangish red tile [1808] were bedded irregularly but generally horizontally the organic horizon truncated for the insertion of
the undercroft. They lay up against pier base 1723 in the south, elsewhere covering 3083 (IX.2) and 3202 ( ). The fragments were roughly broken, with a few showing signs of wear or cracking in situ, so they had not been exposed to substantial occupation.

[1842], of which only the vertical east side survived intruded into 1808. It was filled with roughly worked ragstone and chalk fragments compacted into a little light greyish brown crumbly clay [1811] and may be the base of a post position. An extensive pebbly spread of mixed mottled brownish black silt, brownish grey silty sand rather less small fragments of tile. [1535] ran up against pier 1654 in the north, over 1811 in the west and 1608 (XIV.1) and 1882 ( ) elsewhere and is occupation debris accumulating initially in the undercroft above the tiles 1808. It may have been dumped to consolidate the underlying organic waterfront dump. To the east, a small area of loose dark greyish brown coarse sand, some silt and a few fine pebbles [1643], which overlay 2093 (XIV.1) could be a counterpart of 1535 or, given its increased pebble content, a make-up for a surface, protected here by being covered by a later wall. Otherwise, all proper surfaces within the newly created undercroft were missing, either because they never existed or because they had been worn away.

A local spread of sticky dark grey clayey silt [1556] overlay 1535 1910 1643. At its lowest level, there was a marked increase in the proportion of flecks and small fragments of charcoal in the layer, accompanied by pottery and animal bone. A patchy thin spread of light tan medium sand [1552] overlay this, below light brown sandy silt, some medium pebbles and a few coarse pebbles [1544]. 1556 is occupation debris, perhaps allowed to accumulate in the marginal area at the north east corner of the undercroft. But 1552 is a base for gravel metalling 1544 which was probably more extensive originally but elsewhere worn away.

To the south, sticky brownish grey silt, some medium pebbles and a few coarse pebbles [1561] overlay 2285 (XIV.1) and seemed to lie up against foundation 92. It contained several sizeable fragments of worked greensand blocks, resembling those of the springers 97 and 98, though it is unclear whether they collapsed onto the surface of the layer or were just material incorporated into its make-up. A mixture of medium pebbles and much fewer coarse pebbles set in some grey silt and a little dark orange sand [1557] over 1561 could be another floor make-up like 1544, with 1561 being an occupation accumulation like 1556 but in the south-east corner of the undercroft.

XIV.4 Fourth road

2751, 2555, 2166, 2159, 2236, 2142, 2153, 2235, 2117, 2526, 2422, 2566, 2197, 2523, 2583, 2602, 2601, 2600, 2849, 2556, 2175, 2162, 2528, 2588, 2563, 2540, 2262, 2261, 2423, 2417, 2524, 2413, 2127, 2120.

Description

In the central, south part of the site, a pebbly spread of crushed chalk in brownish grey silt, containing lenses of off-white mortar towards its surface [2751] overlay 2783 (XIV.1). It became more compacted to the south-west, where it contained a redeposited timber and a lens of decayed wood, and its surface rose towards the east as if approaching a structural division. To the south-east was a compacted patch of crushed dark pink mortar and some dark brown silt containing small chalk fragments [2555] over 2572 (XIV.1), which may be an outlier of
To the south west, pebbly light grey sandy silt, some light yellowish brown sandy mortar and a few large fragments of chalk [2166] overlay 2204 (XIV.1) as a continuation of 2751 in that direction. The chalk deposit represents consolidation of the area for a new road surface.

A strip of very compact dark brownish grey silt and some variously sized pebbles [2159] capped 2166, with further light orangish brown sandy silt and variously sized pebbles [2236] on top and continuing north. This corresponds with very compact mixture of variously sized pebbles in some orangish brown silty medium sand and a little grey sandy silt [2142] overlapping 2159 in the south, and perhaps with compact block organic sandy silt, a little greyish brown sandy silt and a few coarse and medium pebbles, also containing fine pebbles [2153] over 2159 further south still. The increasingly silty nature of the pebbly compaction towards the south is related to the character of the underlying strata being consolidated and perhaps to the fact that the road was approaching an open area next to the waterfront.

A small spread of yellowish white chalk and some greenish grey sandy silt [2235] overlapped the north edge of 2236, with an extensive very compact deposit of brown silt and a few medium and fine pebbles, also containing coarse pebbles [2117] on top which sealed 2775 (XIII.1) and 2142, 2153, 2751. At its south extremity, 2117 contained small fragments and flecks of tile and brick, whilst in the north its matrix became sander with an orange hue. The layer forms a major make-up for the road, correlating with a patch of dark greyish brown sandy silt and a few medium pebbles and flecks of coal containing fine pebbles and fragments of coal [2526] over 2555 to the south-east.

A spread of crushed coal with compacted upper surface, in a little light brown and orangish yellow sandy silt containing tile fragments, especially in the south-west, fine and medium pebbles and shell [2422] overlay 2117 and 2526, corresponding to coal in a little dark grey sandy silt [2566] over 2985 (XIII.1) to the north. A spread of small fragments of tile in some brown silt [2197] overlapped 2422 to the west, corresponding to a mixed layer of dark brown silt and a little yellow sand in patches and light brown clay containing fragments of tile and flecks and fragments of charcoal [2523] over 2562 (XIII.1) to the south-east. Further north, a spread of medium pebbles and a few small fragments of tile and chalk in a little light green sandy silt [2583] over 2117 may be a counterpart of 2197. At the north extremity of the site, pebbly orange sandy silt and some cobble sized ragstones [2602] over 2570 (XIII.3), then a mixture of brown silt and crushed chalk and slightly less tile in broken fragments and medium pebbles containing patches of yellow mortar and fine pebbles [2601], also overlapping 2117 and finally some loose cobble sized burnt ragstones and slightly less crushed charcoal and brown silt containing tile fragments [2600] imply a continuation of the tile and rubble dumping seen with 2583 et al.

At the east edge of the road, orangish yellow coarse sand with some medium and a few fine pebbles also containing coarse pebbles [2849] overlay 2894 (XIII.1), corresponding with dark brown pebbly silty sand [2556] over 2566 just to the south. Finally, an extensive, very compact spread of greyish brown silt and some coarse pebbles, also containing fine and medium pebbles [2175] overlay 2600, 2583, 2849, 2197. To the south-east, this metalling became mainly orange briqueearth and some light brown mortar containing flecks of chalk, small tile fragments and fine and medium pebbles.
2175 certainly constitutes a major new surfacing of the road. Whether 2117 is an earlier surface in its own right, or just a make-up for 2175, is an open matter. It had no distinct compaction at its surface as if subjected to wear. The coal spreads 2422, 2566 could be occupation debris, but the tile dumps 2197 et al above this, though loose, could equally well be part of a general make-up sequence culminating in 2175. So, 2175 is the only provable new surface.

Patches such as 2236, 2159, though local as surviving, did show considerable compaction at their surface. They could have been just repairs to the third road surface or make-ups for what followed. But it is also possible that they were formerly more extensive metallings which were virtually completely worn away. In this description, a new road metalling has defining characteristics of being extensive as surviving, having a proven compacted and worn surface, and having provable trodden occupation debris on top. This gives the minimum number of roads, but may exclude metallings laid as distinct surfaces but subjected to less wear, kept clean during their life time, or worn away as a result of intensive use.

A spread of olive green sandy silt [2162] overlay 2175, representing its use. Further north, a thin pebbly compaction of crushed chalk [2528] on 2175 suggest a repair to the surface with a sequence of ragstones and a little crushed chalk in some greyish green silt [2588], then greenish brown silt and a few large fragments of ragstone, medium pebbles and coarse pebbles, also containing fine pebbles [2563] and finally orange brick earth and variously sized pebbles containing small fragments of tile [2540] also over 2175 representing repair to that area.

Cut [2262] intruded into 2563. It was roughly rectangular, 0.10m north-west-south-east and 50mm across with nearly vertical sides 0.34m deep and was filled with brown pebbly chalk flecked silt [2261] over a void. It represents an installation into the repair 2563.

At the west edge of the road, towards its centre rectangular cut [2423] intruded into 2436, 2542 (XIV.1). 0.85m north south by 0.40m east west, it had steep sides, becoming vertical in the east, up to 0.29m deep and a base sloping down to the south. It was filled with greenish brown silt [2417] and seems to represent an amendment at the south-east corner of the period XIV Building 7. This could have taken place at any time, but may, tentatively, be correlated with the insertion of the major pier bases 97, 98 et al (see XIV.3) and thus with the creation of the undercroft. Having been inserted, 2423 had an extensive influence on the laying of road surfaces later in period XIV, which obeyed its position throughout.

A strip of light brown sandy mortar [2524] was laid on 2542 (XIV.1) at the east edge of cut 2423 and may be an associated foundation for a wall, as implied by a single stone surviving at its south end. Grey charcoal flecked silt [2413] accumulated against the west edge of fill 2417, with a spread of crushed chalk and a little grey silt [2127] on top, also abutting foundation 2524 and maybe an addition to it, then further dark yellow and light brown sandy mortar and a little grey silt containing chalk flecks and patches of burnt soil [2120], similarly interpreted.

If the tentative connection between 2423 et al and the changes described under XIV.3 are accepted, and if 2175 is seen as the next major road surface after the one which can be directly related to Building 5 described under XIV.1, then the fourth road and foundation 2423 would be seen as contemporary and probably laid at the same time as the undercroft was created in the building to their west.
XIV.5 Fifth road

(Fig 32)

2498, 2420, 2281, 2089, 2438, 2412, 2298, 2263, 2256, 2292, 2184, 2183, 2182, 2181, 2189, 2188, 2172, 2098, 2169, 2151, 2141, 1957.

Fig 32 Period XIV.5 plan

Description

Running down the centre of the site was an extensive, heavily compacted layer of dark grey sandy silt and medium pebbles containing tile fragments and fine and coarse pebbles [2498].
sealing 2556, 2528 (XIV.4). It forms a major remetalling of the main north-south access - road five.

Towards its south, a spread of light greyish yellow mortar containing small fragments of greensand [2420] on 2498 may be a rough repair, perhaps associated with a building to the east. Further north green silt and a little sand [2281] also accumulated on 2498 during its use, below a much more extensive spread of blackish grey silt containing medium and fine pebbles [2089] which covered 2120, 2162 (XIV.4) and 2420 as well. It is either a repair or, more likely, disturbance of the underlying road surface.

To the north, a strip of brownish green silt [2438] accumulated on road 2498, also covering 2524 (XIV.4). Its south limit corresponds to the south-east corner of the period XIV Building 7 and such accumulation may be associated with access into that building through its east wall. Such access is only provably inserted in XIV.3, after its conversion to an undercroft. This suggests that the fifth road at least was laid out after that conversion.

A deposit of orange brickearth and some greenish brown silt containing small fragments of chalk [2412] overlay 2438, with a pebbly mixture of green silt and slightly less chalk in large fragments and brown silt [2298] on top. These local repairs may correspond with a strip of crushed chalk and some light brownish grey silt [2263] on 2563 (XIV.4) further north. Greenish brown silt and medium pebbles, also containing fine and coarse pebbles [2256] over 2298 and 2263, plus 2261 (XIV.4), is a later gravel repair here, whilst a spread of orangish brown chalk flecked brickearth [2292] over 2298 further south suggests similar additions. The south edges of both 2292 and 2412 lay opposite the entrance step 1608. This gives further support to the idea that the undercroft was constructed before the repair; at least, of the fifth road surface.

Two cuts intruded into 2256. [2184] was irregular, up to 0.12m long with steep sides 0.14m deep and contained brown silt [2183] at the top, void below. [2182] was roughly circular, c. 60mm across with steep sides 0.31m deep and was filled with brown silt [2181] over a void. Just to the west [2189] intruded into 2570 (XIV.3). It was irregular, up to 70mm across with generally steep sides 0.27m deep and was filled with pebbly brown silt [2188] over a void. These three features represent an installation at the west edge of the road, for example a fence line, may be associated with structural activity to the west.

To their south, greyish brown pebbly silt and a little green silt in lenses [2172] overlay 2256, corresponding to exactly similar material [2048] over 2292, 2089 further south. Both represent occupation accumulating south of the stakes during the lifetime.

A small pebbly spread of large chalk fragments, some yellowish brown sandy mortar and a little brown silt [2169] covered 2172, with dark brown silt, some medium and a few fine pebbles [2151] on top, also sealing stakes 2184 and 2182. Then another small deposit of greenish grey pebbly silt [2141] was dumped on 2151, capped with compact white chalk [1957]. These are localised repairs to the fifth road surface, their positioning implying perhaps more intensive use to the west.

XIV.6 Sixth road
At the south extreme of the site towards its centre, a deposit of yellowish cream crushed chalk, some grey silt and a little greenish brown silt containing small fragments of chalk [2115] overlay 2089 (XIV.5), use of the fifth road. It was overlain by greenish brown sandy silt, lensed with light brown silt [2105]. These formed the base for a very compact layer of medium
pebbles and rather less coarse and fine pebbles in a little orangish brown silty sand containing large fragments of tile [2079], which continued north to cover 2540 (XIV.4) and constitutes a major new metalling of the sixth road surface.

At its west edge in the centre, a dump of orangish red brickearth and a few large fragments of tile, also containing small fragments of tile [2068] overlay 2079 and 2098 (XIV.5). A more extensive strip of very compact crushed chalk and a little greyish brown silt [2006] covered 2068 and the area to the north. The east edge of the layer was almost vertical in places suggesting its being laid against a structural division, presumably related to Building 7 to the west. Cut [2025] intruded into 206. It was circular c. 0.10m across with nearly vertical sides and a pointed base and was filled with powdered chalk and a little brown silt [2024], the fill virtually indistinguishable from 2006. It lay near the sharp east edge of 2006. Finally, light grey silt and a little orangish brown silt and crushed chalk [1987] sealed 2024 and overlapped the east edge of 2006, representing occupation debris. The position of cut 2025 and accumulation 1987 further reinforce the idea of some sort of structural division bounding the repairs to the main road on their east.

Finally, in the extreme south, dark grey silt and some fine sand flecked with charcoal and iron stains [2076] accumulated on road surface 2079, again in the more marginal area approaching the waterfront.

In this phase, therefore (period D14.1–6), the masonry building or house south of St Botolph’s church was rebuilt with a strong stone vault, and the entrance to the vault moved from the south side to the east end of the building. It is proposed that this rebuilding took place in the first half of the 15th century, and can be ascribed to the interest of John Reynewell and Thomas Craft between 1409 and the passing of the building to St Botolph’s between 1443 and 1458. See the publication texts (Schofield et al in prep) for the documentary details.

XIV.7 Possible buildings either side of the road in the south and the seventh road surface

(Fig 34)

**Description**

At the west edge of the road, north-south cut [2063] intruded into 2079 (XIV.6), the sixth road surface. It was at least 1.70m long (north end cut away) and 1.00m wide. Its east side was 1.22m deep, west side at least 0.66m, both slightly concave with a sharp break to the base. The south side sloped more gradually to the flat base. It was filled with masonry [1513] and represents either the east wall of a building set against the lane (a precursor of Building 6) or a boundary wall on that side. Further extensions to the south of 1513, though not continuous with it, may have been cut away by later foundation 1804 (XIV.8). Any associated walls to the west were removed in later construction.

On the east side of the road east-west cut [2042] intruded into 2062 (XI.8) and 7737 ( ). At least 3.00m long (east side cut away) and 2.20m across, it had initially irregular, becoming vertical, sides up to 0.97m deep and a locally irregular, generally concave base. It was filled initially with dark grey clay, some sand and a little shell, mainly oyster 2107. In the west, this
lapped up against 2079 (XIV.6), the sixth road surface. Since it is the primary fill in cut 2042, this suggests that this was inserted into the sixth road. A patch of pebbly dark rust coloured clay and some sand [2088] to the north, over 2981 (XI.8), resembles 2107 in level and character, though it does lack the shell content. It probably also lay in the base of cut 2042. Masonry [1945] overlay 2107, 2088 forming an east-west wall revetting the south side of the cut. A spread of crushed charcoal [1969] lay against its north face, with an east-west line of bricks laid on a bed north south, bonded with light yellowish buff mortar [1967] above this, then compact reddish brown clay containing iron panning [1655]. This corresponds with orange, of variable hue, clay and some sand [1833] packed against the south face of 1945. Another spread of crushed coal [1824] lay above 1655 and 1833.

These layers, especially bricks 1967, could represent a later refacing of the foundation. Alternatively, all could be packing in its construction trench. The phasing of the wall, whether of successive phases or not, is problematical. It certainly cuts period XI strata and, given the argument concerning proposed primary fill 2107, appears to be inserted after the sixth road and so falls at the end of period XIV or later. It was cut by foundations of period XV, which would have terraced away any associated horizontal strata. Wall [1513] XIV.7 provably cut the sixth road surface, which is also suggested for 2042, so the two walls may be contemporary. Having said that there is no reason why properties on opposite sides of the road should be developed at the same time. Also, the bricks 1967 on the north face of the wall seem anomalous this early, though they may not be a primary feature. Finally, 1845, though cut by period XV features, is immediately adjacent to an east-west division in a building from that period. So it is perfectly possible that the whole sequence may be much later in date, a precursor of the period XV Building 7.

Just to the north, cut [4838] intruded into 4800, 4828 (XI.8). It was semi-circular, 0.90m across with sides up to 0.17m deep curving gradually to its flat base and was filled with light brown clay and a little silt into which had been placed several random chalk and one greensand blocks [4809], below loose light bluish grey organic clay silt and sand [4723]. The material dumped in the feature marks its demise. It may have been partially derived from the disturbance of the underlying organic dumps, though this could have taken place at any point up to the insertion of the period XV terraced building. The cut lay at the north end of drain 4830 et al (XI.8), so may be related to its disturbance or robbing. But it is entirely unclear when this took place. 4838 has been phased with foundation 1845 on the same basis as discussed above, though even more tentatively than that wall.

At the south extreme of the site in its centre, a very compact dump of some medium pebbles and cobbles of ragstone set in some brown silt and a little fine sand [2075] overlay 2076 (XIV.6). Towards its corners in the south, the matrix was compacted around large fragments of chalk. A spread of reddish brown sandy silt, some burnt, containing flint cobbles, coarse pebbles and charcoal patches [2072] covered 2075. There was no proof of in situ burning and the layer seems more likely to have been redeposited onto the sixth road surface from activities elsewhere (which could, of course, be immediately adjacent). Small areas of loose light yellowish cream mortar [2023] to the north and yellow sandy silt containing chalk flecks and cobbles, flint cobbles and coarse pebbles [2050] to the south overlay 2072 with further compact chalk and some flint cobbles in a little light orangish brown silt containing coarse pebbles [1997] on both. To the west, another dump of reddish brown sandy silt and a little chalk cobble rubble coarse pebbles and cobble-sized tile fragments [2065] overlay 2072 and represents further consolidation of the underlying organic waterfront dumps.
An extensive layer of pebbly orangish brown silt and a few large fragments of chalk [1841] was then laid over 2065 and 1997, and against foundation 1513 to the west, continuing north up the whole of the centre of the site to cover 1987 (XIV.6) and form the seventh major road surface. The sequence of localised dumps 2075 et al at the south extreme can be seen as preparing the area for the insertion of 1841. This was no doubt required due to the unstable nature of the underlying organic dumps, a compensation unnecessary to the north since the corresponding horizons had already been covered here by the sequence of earlier roads. Given the laying of the seventh road against 1513, it is possible to see the road, wall 1513, and maybe wall 1945, as all inserted at the same time.

**XIV.8 Building 6 in the south-west and eighth road**

(Fig 35)

2064, 1804, 1336, 2074, 1303, 1314, 1308, 1299, 1266, 1265, 1130, 1828, 1781, 1638, 1606, 1605, 1751, 1699, 1261, 1657, 1682, 1634, 1580.
Description

In the south of the site, north-south cut [2064] intruded into 2095 (XIII.3) and 1841 (XIV.7), the seventh road. At least 5.60m long and up to 1.00m wide, it had vertical sides, at least 0.66m deep in the west end 1.35m in the east, with a flat base for the most part c. 3.60m from its north end, however, this base rose sharply to reach the surface. Only a slight intrusion at its east edge showed the cut to be continuous across this line. Masonry [1804] filled the cut, to form a wall foundation flanking the west side of the road in the south. It is unclear whether it represents a boundary or the east wall of a roadside building (Building 6). The rise in base level of the foundation suggests that, rather than a continuous feature, the foundations which were dug into the unstable waterfront dumps used a series of deeper areas to take point loads, like the arched foundations seen with the building to the north (XIV.1). Unlike that structure, however, the base of the piers were not piled.
Since 1804 cut the seventh road, and foundation 1513 (XIV.7) probably antedates it, the two co-aligning elements cannot be stratigraphically contemporary. However, it is reasonable to assume that they were in use together. Either they are part of the same phase of construction sandwiching the seventh road or more likely, 1804 is a south extension of 1513. The implications of such a change for any buildings to the west is unknown, since the area was truncated in period XVI.

Faced greensand block [1336] was laid against the west side of wall 1804, corresponding with worked ragstone block [2074] against the same wall to the south. Brown silt flecked with buff and yellow mortar [1303] accumulated, or was dumped against 1336 in the area between two blocks. Correspondingly, greenish grey clayey silt [1314] lay against the north face of 1336, with black burnt clayey silt [1308] on top, then yellowish tan pebbly coarse sand [1299] forming a proper surface at c. 2.34m OD.

Further north, a loose spread of dark brown silt and some charcoal containing flecks of crushed brick [1266] overlay 1267 (XIII.7), with dark greenish grey charcoal-flecked silt and a little clay [1265] on top. Finally, further north still, loose pebbly dark brown silt and some charcoal containing flecks of crushed brick [1130] overlay 1158 (XIII.7), with a surface level of c. 2.33m OD. Dumps 1308, 1266 and 1130 seem to be a single horizon, running up the west edge of walls 1804, 1513 towards 1397 in the north. Their relationship with Building 7, either the primary structure (XIV.1) or the undercroft (XIV.3) could not be proven for certain. But given correlations via the road sequence, they must belong to period XIV or later. The foundation in intrusion 1349 has been ascribed to period XIV (see XIV.11) for reasons given there. If 1130 and 1266 are the same layer, 1349 must have cut it, although this was not provable stratigraphically. Hence the dumping of 1308 et al must belong to period XIV as well, though perhaps very late in that period. Any associated strata to the south and west would have been cut away in period XV.

The most reasonable interpretation, therefore, is of some sort of addition/facing of wall 1804 perhaps a threshold on its west side between blocks 1336 and 2074, with the make-up for a gravel surface at a level of c. 2.35m OD running north of this up to Building 7.

To the east, some light brown silt and slightly less light grey mortary silt and chalk fragments [1828] was dumped above 1841 (XIV.7), forming the base for an extensive compaction of orangish brown silt, fine sand and medium sand in equal proportions forming a matrix around medium and slightly less fine and coarse pebbles [1781]. This new metalling correlates with further compact light brownish orange medium sand and slightly less fine and medium pebbles, also containing coarse pebbles [1638] over 1828 to the north, the two forming the eighth main road surface. [1606] intruded into 1638. Only the vertical north and east sides of a probably rectangular cut survived, up to 80mm deep with a flat base. It was filled with greyish brown silt and some off-white mortar [1605] and represents an installation at the edge of the road associated with structures to the west.

Further south, chalk in some greenish grey medium sand, mainly in the north, and a little light grey silt especially in the south [1751] was dumped on 1781, with an extensive well compacted mixture of silt, medium sand and medium pebbles and rather less fine pebbles, also containing coarse pebbles and flecks and coarse sand [1699] on top. This forms a major
metalling above 1781, either a large repair or a surface in its own right. It was confined, however, to the area opposite foundations 1513 and 1804.

At its south extreme, crushed chalk in some brown silt [1261] overlay 1699, with loose light yellowish brown coarse sand and some fine pebbles mixed with an equal proportion of light grey silt in patches [1657] on top. These repair the south part of the metalling exactly opposite foundation 1804. Correspondingly, to the north, a sequence of brownish orange silt and fine sand, and slightly less fine and medium pebbles [1682], then compact brown chalk flecked silt and a few fine, medium and coarse pebbles [1634] and finally greenish brown brick earth, some silt and a little fine and medium sand containing large and small fragments of ragstone [1580], overlay 1699. These are repairs to 1781/1699 occur exactly opposite foundation 1513, giving further strength to the idea that this and 1804 were in use at the same time although built separately.

XIV.9 Modification of east end of Building 5 and associated road

1593, 1512, 1562, 1558, 1565, 1564, 1356, 1344, 1331, 1318, 1287, 842, 841.

Description

At the west edge of the road in the north, north-south cut [1593] intruded into 1957, 2188 (XIV.5) and 1580, 1605 (XIV.8), the eighth road surface. It was 10.60m long, up to 0.68m wide, with irregular, gently sloping sides up to 0.26m deep and a flat base. It was filled with yellow sandy mortar, some ragstone cobbles and few large fragments of ragstone and yellow bricks as a rubble consolidation [1512]. The feature resembles the edge of a construction trench for a wall to the west. Its south limit corresponds to that of the undercroft of Building 7 (XIV.3), so it involves a modification of its east wall. Its north limit continued further than that of the undercroft, however. In period XV, the area north of the undercroft was enclosed by a wall in the east (1361/179 - see XV.1). So 1512 could be a related intrusion. However, there is an intervening road surface (1558 - below) and the north end of cut 1593 stopped short of that of 1361/179. So a direct association is unlikely. But the cut does end opposite the asymmetry in cobbling 1462 (XIV.2), which seems to have continued in use through most of period XIV. It is therefore more likely that 1512 represents a modification of the east end of the undercroft very late in period XIV, when a boundary wall or similar was added at its north-east corner running up to the north end of a possible lean-to to the north, implied by the patterning in the cobbles of 1462.

To the south, masonry [1562] was set above 1397 (XIV.1). This could have been inserted at any time after the initial construction of Building 5. In particular, it may be related to the modifications involved with creating an undercroft described under XIV.3. However, the first road surface to provably lap against this modification also overlapped 1512 (see 1287 below), so the two features have been phased together.

A extensive mixed strip of brown silt and fine sand around slightly less fine and medium pebbles [1558] lapped against the east edge of 1512, forming a major new metalling over the eighth road surface. [1565] intruded into this. It was circular, 60mm across with vertical sides at least 0.35m deep, (unbottomed) and was filled with light brown sandy silt [1564]. It represents an installation beside the entrance to the undercroft.
Another compact spread of fine to coarse pebbles set in orange medium sand [1356] over 1564 is either a repair of 1558 a replacement metalling, with localised brickearth, a little green medium sand and brown silt containing coarse pebbles and large fragments of chalk [1344] on this a more definite patching.

North-south cut [1331] intruded into 1344 by the south-east corner of the undercroft. 2.20m long by up to 0.70m across, only a proper east edge remained, which sloped variously and was up to 0.15m deep, with a fairly level base. It was filled with greyish brown sandy silt containing small and large fragments of yellow mortar [1318] and is either a modification of the corner, may be related to 1562, or some form of eaves drip or drain associated with the undercroft at this point. A pebbly spread of crushed chalk and some dark greyish brown silt [1287] sealed both 1318 and 1562. It could be a construction spread, again implying a relationship between cut 1331 and corner reconstruction 1562, or a make-up for a following road surface, or both.

Finally, cut [842] intruded into 1356 in the north. It was roughly circular, c. 0.16m across, with steep sides 0.22m deep undercutting to the south and an irregular, rounded base and was filled with brown silt and a little fine and medium sand and clay, with decayed wood in lenses at the side of the cut [841].

XIV.10 Ninth road in the south and modification of Building 6

(Fig 36)

1463, 1440, 1425, 1832, 1439, 1427, 1424, 1278, 1428.
In the south of the site, a layer of dark grey silt and greenish grey fine sand containing medium and coarse pebbles [1463] overlay 1580, 1657 (XIV.8), repairs to the eighth road.

A concentration of cobbles and large fragments of ragstone and flint were evident in the surface of 1463. It represents a major metalling of the south part of the road. Black silt and a few pebbles, charcoal and chalk flecks [1440] overlay 1463, representing its use, as does dark grey silt and a little greyish green fine sand and charcoal flecks containing whole oyster shells [1425] on it to the north. These accumulated against walls 1804, 1513 to the west. Just to the west opposite 1440, brown silt flecked with charcoal, mortar, chalk, tile and brick [1832] was trodden into the top of foundation 1804 (XIV.8) of Building 6. It was probably contemporary with the accumulations to the east, with the building material content derived from the underlying foundation. The latter continued in use further north, so 1832 may indicate an access point eg. a threshold.
Opposite, a spread of off-white chalk and a few fine pebbles and coarse sand [1439] overlay 1440, perhaps a construction spread, with two courses of bricks, laid on bed [1427] laid above, bonding its north edge and overlapping the east edge of 1832. These further might suggest a threshold here crossing the line of wall 1804. A local brick facing, bonded with loose mortar [1424], set against 1804 (XIV.8) just to the west could be part of the same arrangements.

Further east, pebbly dark greenish brown silt, and a little medium and fine sand [1278] was laid against bricks 1427, either repair or accumulation against the access point features. [1428] intruded into 1278. It was roughly circular, up to 0.54m across, with steep sides 0.41m deep and a flat base. This installation probably also associates with the entrance further west.

**XIV.11 Southern extension of Building 7 and tenth road**

(Fig 37)

1349, 1351, 1348, 1479, 1339, 1309, 1436, 200, 1264, 1263, 1253, 1421, 1213, 1094, 1093.
Fig 37 Period XIV.11 plan

Description

L-shaped cut [1349] intruded into 1463 (XIV.10) and 1397 (XIV.1). Its north-south element in the east measured 3.60m long by 0.90m wide, the east-west arm in the south 5.20m long by 1.10m wide. It had vertical sides up to 1.80m deep in places, with a flattish base. The east-west element was filled with masonry [1351], the north-south element with [1348] bonded with compact light greyish brown coarse sandy mortar and a few fragments of shell [1479]. 1351 and 1348 were bonded at their south-east meeting point, forming a single foundation added to the south wall of the undercroft.

The construction trench of 1358 was packed with greyish brown silt and a little orangish brown brickearth, increasing in proportion towards the top, containing fine and medium pebbles and flecks of off-white mortar [1339], below orangish brown brickearth [1309]. Further south, the construction trench at its joint with earlier foundation 1513 was filled with brown pebbly, charcoal-flecked clay and some coarse sand [1436].

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A large, flat ragstone block 1.0m long [200] was laid north-south above 1351, with a large greensand stone set at its south end, the two bonded together with light grey mortar. The surface of the ragstone was worn, especially in the east, whilst the greensand block had moulded ridges on its west face, though these may be from an earlier use. The feature is a threshold block, giving access across the 1351 foundation along the south side of the undercroft. Its surface level was 3.17m OD.

Just to the south, orange mortar flecked with chalk, crushed brick and all sizes of pebbles [1264] sealed 1265 (XIV.8) and lay against 1348/1351. Loose beige sandy mortar around rather less coarse, medium and fine pebbles in equal proportions [1263] overlay 1264, with dark brown pebbly silt [1253] above this. 1264 is a gravel metalling, with 1263 its disturbance or repair and 1253 subsequent occupation. These layers were cut away during period XV to the south and west, but presumably formed the deposits flanking the newly added walls 1348/1351 originally.

To the east, a spread of orange iron-stained fine sand and some greenish grey silt containing fine pebbles and large fragments of ragstone and tile [1421] overlay patch 1425 and post hole 1428 (XIV.10), the latter part of the preceding entrance arrangements in the south west of the site. Another compact, chalk-flecked spread of greenish grey silt and a few coarse pebbles [1213] overlapped the north edge of 1421, continuing to seal construction trench fills 1309 and 1436 and abut foundation 1351/1348, and to cover road 1287 (XIV.9) even further north. 1421 and 1213 constitute an extensive new road metalling, the tenth.

Irregular cut [1094] intruded into 1213. It measured c. 1.60m north-south by up to 0.80m east-west, with generally vertical sides up to 0.60m deep and a locally irregular, generally flat base. It was filled with brickearth containing small fragments and flecks of chalk and a little grey silt [1093] and lay at the south-east corner of the undercroft where wall 1351 had been added. It is probably associated with those modifications.

**Period XV.1-XV.10**

**XV.1 Enclosing of area between the church and Building 5 to create a chapel**

(Fig 38)

1426, 6898, 6899-6930, 1361, 1354, 179, 946, 835, 2083, 2081, 834, 1008, 1071, 1212, 1194, 1248, 1276, 1251

Note: the archive report and its figures call the extension a ‘chapel’, and sometimes, from early post-excitation research, the ‘Chapel of St Mary’. This is now [2016] not considered likely, and will be explained further in the publication texts, in preparation.
In the north-west corner of the site, L-shaped cut [1426] intruded into 2792 (XIII.3), 1462 (XIV.2), 1556 (XIV.3) and .... (XIV.9). Its east element measured 5.20m north-south by c. 1.40m east-west and the south element 3m east-west by 1.30m north-south, the two meeting at a south east corner. Its sides were generally vertical, but the base sloped down markedly towards its north end south east corners, which would have had the effect of throwing the wall onto these deeply founded areas. In the base of the north part of the cut, was a spread of ragstones [6898], packed around a series of randomly distributed driven piles [6899]-[6930] inclusive. The piles were often radially split, with bark still attached, though some were untrimmed branches with a diameter of up to 0.89m, all with a sharpened point in the last c. 0.25m. The consolidation which they provided would have helped buttress the south-east corner of wall 176 which the cut abutted. Foundation [1361], faced with [1354], and associated with wall [179], was then set within the trench. The chequerwork of 1354 on the south face was presumably meant to be visible within the enclosed area. The gap 1.0m wide
just north of the west return of the foundation was presumably an original threshold; giving access to the area to the west. The character of the later surfaces (eg. 1008 below) suggests that the area was roofed, whilst the burials inserted in it (see XV.2) prove an association with the church to the north, most probably as a chapel with its own access from the east. Such a construction could only have been possible with a major reconstruction of the south-east corner of Building 5 (XIV.3) to the south; with the two becoming structurally integrated. This suggests ecclesiastical influence over the latter building, for which there is no evidence before this point.

Square cut [946], set into 179 at the corner of the wall, 0.16m across with vertical sides 0.20m deep, forms the base for the door axle. On the opposite side of the entrance, a rebate 20mm deep was cut into the west side of the wall to provide a housing for the door when shut in the opposite jamb. This shows that the door would have opened inwards.

To the east, opposite the north end of the doorway, but in the road, [835]/[2035] (mistakenly labelled twice) cut 1356 (XIV.9) and 2098, 2141 (XIV.5). It was probably roughly square (east side cut away), 0.50m across, with step, sometimes irregular sides up to 0.19m deep and a concave base and was filled with light brown pebbly silty sand [2081] below compact brown fine sand containing medium pebbles, and flecks and small fragments of chalk [834]. The feature, though insecurely stratified, may relate to the threshold arrangements to its west, or even the construction of wall 179.

A layer of crushed chalk and tan silt both in patches and thoroughly mixed [1008] lay up against wall 179 and facing 1354. Large fragments of tile formed a strip along side the wall 0.25m wide, which may have once been part of a tile surface set on 1008. Thin spills extending from the wall in the east interdigitated with the matrix of 1008 comprising from the base crushed greensand 10mm thick, crushed chalk 10mm thick and tan clay 20-40mm thick. It also included a lens of dark greenish grey clayey silt [1071]. 1008 had a surface level of 3.47m beside the wall, but fell away to c. 3.20m further west where it was severely affected by later disturbance.

To the south, a small area of loose light yellow mortar and a little sand [1212] survived extensive disturbance to overlie 1285 (XIV.2), with loose crushed chalk [1194] on top. The latter had a surface level of 3.59m OD, sloping up sharply to the south where it would have approached the north wall of the undercroft still in use at this time.

Further west, light yellowish brown mortar [1248] overlay 1280, 1527 (XIV.2), seeming to correlate with 1212, whilst pebbly green silt and some dark greensand [1276] overlay 1284 (XIV.2) to the north, itself capped with compacted chalk [1251] which also overlapped 1248. 1251 resembles 1194. 1251 had a surface level of 3.30m OD. Although less securely stratified, the 1251 et al sequence of mortar spread with chalk capping corresponds with 1008 in surface character and level, if one allows fro the proven variations of deposit with 1008 and a raising of level of a floor surface as it approaches boundary walls. It can therefore be suggested that the area with the newly created chapel was sealed with a chalk and mortar bedding, probably for a tile floor.

The creation of the chapel can be proven to post date the eighth road and the masonry elements to either side of it in the south. What is less clear is how insertion relates to the very last elements of period XIV, in particular the modification of wall 1804 (XIV.10) and the
addition of 1348/1351 (XIV.11) to the south side of the undercroft. It is possible that some of these changes could take place at the same time, or even after, the creation of the chapel. Indeed, it seems certain that the structures to the south are at least retained in use during period XV. So there could be considerable chronological overlay between the end of XIV and start of XV, a problem exacerbated by the truncation of nearly all of the horizontal stratigraphy in the south which might have shown how extended the life of the final period XIV buildings was in time.

**XV.2 Initial burials within the chapel**

1191, 1188, 1585, 1569, 1584, 1124, 1118, 958, 1016, 971, 937, 908, 782, 783, 887, 889, 676, 1262, 1258, 1239, 1230.

**Description**

Two metres west of the entrance to the chapel, a fragment of a cut, [1191], intruding into 1470 (XIV.2) just survived two later intrusions. An east-west feature at least 0.40m wide (both ends cut away) and c. 0.80m wide, it had irregular sides at least 0.40m deep (top probably truncated) and an irregular base. It was filled with compact grey silt and some sand [1188] and could be part of a severely truncated grave, as with the features which cut it to west and east, or some sort of structural feature set within the chapel.

[1585] cut away the east end of 1191, also intruding into foundation 1361 to the east, though generally obeying its line. It measured 1.90m east-west by up to 0.70m wide, with nearly vertical sides in the north becoming more gradual further south and a rounded west end. Its flat base was at a level of 1.84 m OD at the deepest, suggesting a depth of c. 1.35m if cut from the surface of 1008. It contained skeleton [1569] below a grave fill of dark green organic clayey sandy silt [1584].

East-west cut [1124] intruded directly into fill 1584, also cutting 1194 (XV.1) and 1188. It was 2.40m long by 0.90m wide with rounded ends and a vertical side in the north, rather more gradual in the east and south and undercut in the west, up to 1.42m deep with flattish base. It contained skeleton [1118], with the remainder of the grave filled with dark grey sandy silt [958].

The two graves 1585, and 1124 were successive burials set directly inside the threshold of the newly created chapel, with the east end of 1124 actually lapping up into the entrance. In fact the proximity of foundation 1361 may have caused the undercutting to the west. This cannot be coincidence. There is, however, no sign of floor surfaces in between the two cuts. Since it seems unlikely that grave 1585 could have been left open for any length of time, either it was set initially in the doorway, sealed by 1194/1008 (XV.1), and 1124 set above it at a later time, or there was only a very short gap between the insertion of the two graves. In either case, a grave set at the entrance to the chapel would have been a primary feature.

To the west, rectangular cut [1016] intruded into 1188 and 1008 (XV.1). It measured 2.50m east-west by 1.50m north-south, with locally uneven, generally vertical sides up to 0.78m deep and a flat base. Brick vault [971] was set within it to form a double grave each 2.05m long internally and 0.55m wide in the west, narrowing to 0.40m in the east. The south vault
contained skeleton [937] surrounded by a period of light brownish grey ash flecked with charcoal, especially towards its base [908]. There was no proof that the burning suggested by the ash took place in situ. The skeleton and ash were overlain by a fill of light greyish brown silty clay and some fine and medium pebbles [782], with skeleton [783] set above this.

In the north vault, darkish brown silt containing flecks and small fragments of mortar [887] overlay its base, either a grave fill or trample associated with the laying of bricks 971. At its east end, part of a void was visible in the surface of 887, at least 0.60m long before becoming unidentifiable, and 0.30m wide in the east broadening to the west. The sides were nearly vertical, up to 0.20m deep, with a base sloping gently down to the east. Iron nails and fittings, including a coffin handle, within the material above the void suggest it represents the position of a subsequently removed coffin. It is unclear whether the later of the two burials in the south vault was originally that placed in the north one, though this is a distinct possibility, perhaps removed to accommodate a new occupant in the north who was never in fact inserted. What is certain is that the light greyish brown silty clay and some fine and medium pebbles [676] over void 889 also sealed secondary skeleton 783.

This good quality vault was symmetrically placed within the new chapel towards its east end. Since it cuts 1008, it must be a very early feature, perhaps the occupants being those for whom the chapel was constructed. The reburial in the south vault suggests, however, that there was continued access to, and knowledge of the position of, the vault during the later lifetime of the chapel, perhaps by means of a grave marker at the surface.

To the west, east-west cut [1262] intruded into 1251 (XV.1), suggested as a primary floor make-up in the chapel. It was 0.70m long and up to 0.25m wide, with vertical sides 0.27m deep and a flat base, and contained skeleton [1258], with dark greenish grey silt and some sand [1239] on this filling the remainder of the grove. Further west, skeleton [1230] partially survived later intrusion at its head end, to overlie 1284 (XIV.2). Both are sealed by a secondary surface within the chapel, so are probably early insertions, though not necessarily exactly contemporary with these in the brick vault or placed in the threshold area. Early burials of children in the chapel are interesting, especially since they are less well represented, proportionately, in this later burials. Perhaps just after the creation of the chapel, although the main adult burials occupied the preferred east end of the area, the other parts were available for less prominent burials, whereas later the whole of the east part was full, so any children within the church were buried beyond the limit of excavation to the west.

Alternatively, further adult burials could have been inserted just due west of vault 971, which were cut away by later burials. The survival of the child graves, however, could still be seen as a function of their being regulated to the more marginal area near the south wall of the chapel.

XV.3 Secondary features and surfaces within the chapel

Note: in the publications in preparation, the phases periods XV.3 to XV.10 and XVI.1 to XVI.7 have been rearranged in order, after consideration of documentary and ceramic evidence. This does not affect their reporting here; only when each occurred in relation to others in specific time.

(Fig 39)
At the south-east corner of the chapel, masonry [1312] was set into the west end of 1361 (XV.1), representing a rebuild of its corner. Irregular intrusion [681] intruded into the west end of 1312. It measured 0.90m south-west-north-east and was up to 0.45m across, sloping sides up to 0.52m deep and a flat base. Door jamb [618] was then set into the cut. It suggests a direct access point from the chapel into the previously separate Building 5 to the south. It is unclear whether 618 is a new feature or replaces an earlier threshold arrangement. But Building 5 and the chapel were structurally related at the start of period XV, and were now integrated and almost certainly in the same (?ecclesiastical) ownership at this stage if not previously. Creamy off-white plaster 2-4mm thick [1324] formed a smooth face on the north side of 1312 east of the doorway.
A small patch of light greenish grey mortar containing small fragments of chalk [953] overlay 958 (XV.2). In the east entrance to the chapel. It suggests a minor modification to those arrangements. To the north, an extensive spread of buff mortar, comprising medium sand and a little silty clay, [933] overlay 1008 (XV.1). It sloped towards the north east corner of the chapel, here incorporating an increased proportion of large fragments and cobbles of chalk. A thin spread of crushed chalk with a little grey ash mostly smeared into its surface [966] overlay 933, confined to the central area immediately adjacent to the chapel’s east wall. It lay between the area defined by ‘cut’ 605, suggesting a feature set against the wall of the chapel at this point. Greyish green silt and some shell [890] was dumped over this and laid against vault 971 (XV.2), maybe occupation debris accumulation 966.

At its south edge, triple post hole cut [888] intruded into 890. The north-west element was circular, c. 0.25m across with sides, 0.15m deep curving gradually to its rounded base. The central element was circular, 0.40m across, with vertical sides up to 0.34m deep and a flat base. The south element was roughly circular, 0.30m across, with nearly vertical sides up to 0.20m deep and a flat base. All three parts were filled with crushed chalk and a little dark grey silt with concentrations of greensand fragments, possibly displaced packing, at its north and south ends. The feature may be the base for scaffolding or similar associated with modification of the wall to the east, since the fill was directly overlain by cut [865], also intruding into 958 (XV.2). This measured 1.80m east west by 0.50m north-south and steep sides up to 0.65m deep with a flat base. A footing of uncoursed rough rubble of chalk and ragstone, average 0.15m across, set in a buff, in places lemon yellow, mortar, of medium sand and silt [821] was set within 865. The change in mortar did not suggest successive phases, though there is a slight change of alignment of the feature as it approached wall 179 in the east, with a fissure at the change point. But this seems to be a cracking of a single feature. It formed a spur wall flanking the north side of the entrance through wall 179, giving a small vestibule just west of that threshold.

A patchy spread of light buff mortar, mostly off-white silty clay with a little medium sand in texture, [697] was laid against the south face of 821, continuing south to overlap 953 and abut door jamb 618. It formed a bedding for the fragmentary remains of a tiled floor comprising flat laid square tile, 0.14m across, mixed with smaller one 0.12m across set against wall 618/1312 to the south. Though the other edges were truncated, its bedding layer suggests that the tiles would originally have continued into the threshold area to the east and across the line of the north wall of the earlier undercroft to the south. The latter just proves conclusively that there would have been direct access from chapel to undercroft at this time. Given the difference in level, this must have meant steps down from the level of the tile - 3.79m OD, to the base of the undercroft at c. 2.0m OD.

To the west of 361, a deposit of coarse pebbles in some dark greyish green coarse sand [1192] overlay grave filled 1230 and 1239 (XV.2), with a compact spread of crushed chalk and a little yellow mortar and greenish grey silt [1157] on top, the small successive patches of compact brown silt and some greenish brown sand [1199], also over 1285 (XIV.2), followed by dark green pebbly, charcoal-flecked silt and some sand [1183] and finally another spread of loose crushed chalk [1195]. These make-ups had a surface level of up to c. 3.70m OD, corresponding to that of the make-up for tile floor 361. A nearby patch of some chalk, rather less brownish grey coarse sand and a dark grey silt and much less orange tile fragments and fine pebbles [1240] over 1248 (XV.1) is probably a slipped element of the same sequence.
To the north, a compact patch of light ochre clay and a little fine sand [1252] overlay 1251 (XV.1) and 1462 (XIV.2). The latter was also covered by isolated lumps of compacted orange mortar and some yellow medium sand containing flecks and small fragments of chalk [1151] and [1150], though the islands of stratigraphy area disassociated from the main sequence, their character and level at up to 3.52m OD imply a broad correspondence with the make-ups 1195 et al and then with the base for tile floor 361 to the east. Whether they were also capped with a tile floor, and whether it was continuous with 361, is unknown. But the east limit of 1192 fell opposite the west end of vault 971, so it may have only surfaced the area to the south and west of the main central grave, which would, of course, have to have been accessible to accommodate later burials.

In the north-east corner of the chapel, a spread of crushed chalk with buff mortar [795], and [729] divided by a later intrusion, lay over 890, and against wall 821 respectively. Those isolated islands of greyish buff silt and fine sand [794] and [821] over 795, [728] over 729, formed a trodden horizon over the chalk, from which the silt element in the deposit was probably derived. A local spread of ight yellow mortar of medium to coarse sand and some fine and medium pebbles [696] covered 794 in the corner of the chapel, forming a bedding for tiles [603]. These were set in regular lines and filed, but rationalised into two groups, the more northerly 0.14m square, the 0.11m square. Their decorated surface was worn. Tiles of either group may have been reused or simply badly set. They formed a floor surface at a level of 3.93m OD.

The floor was bounded by walls to north and east, with west side cut away. In the south, however, it had been laid against feature [605], which postdates 696 and 728. Only a single brick remained as positive evidence of its existence. Here, the south most tile of 603 had been broken to fit its position. The smaller south tile may therefore have been a repair to the original pavement, since there is just enough space for those lines of the north, 0.14m wide, tiles to fit, whereas four lines of the 0.11m wide variety is too large. In the wall above the position of the brick in 605 was a vertical scored mark in the west face of wall 179. 2.11m to the south of this was a second scored line, which had chalk block lying just to the south of it, abutted by a decorated tile on its south side. The latter element lapped up over foundation 821. Finally a skim of off-white mortar, light grey at its surface, or fine sand and a little clayey silt [1353] covered the west face of wall 1354 179 in the north. The change of colour suggests at least one replastering. In the south, the plaster obeyed the line scored above the block of 605. It stopped at a depth of 4.0m OD at its base, but may originally continued down to the level of tile floor 603 only 70mm below. If it is assumed that chequerwork 1354 was meant to be seen, plaster 1358 must be an addition, as is also suggested by its correspondence with secondary feature 605.

The implications of this evidence is that a substantial feature 2.11m long was set against the east wall of the chapel, just north of foundation 821 and the entrance to its south. The width of the feature is unknown, but it must have projected in plan in front of the wall with tile floor 603 was set against its north face. Such a feature can be suggested in more tenuous evidence in the initial phase of the chapel. It is most reasonably interpreted as an altar set against its east wall. The large size of such an altar in a small chapel suggests a limited congregation, backing up the implication of its private east entrance.
To the west of tile 603, east-west cut [776] intruded into 851. It was 2.30m long and c. 0.20m wide, with steep, but often irregular sides c. 0.22m deep and was filled initially with dark brown silt and a little fine sand [757], with timber sill [734] on top at its east end. It must be an installation within the chapel set against the main church wall to the north.

**XV.4 Construction of Building 7 in the south-east**

(Fig 39)


**Description**

Cut [2217] was a north-south intrusion at least 14.50m long (south end beyond limit of excavation) and 1.20m wide, with two perpendicular elements running east from it for at least 2.50m to the limit of excavation. The north part was c. 2.50m wide, the south c. 0.90m wide. All sides were vertical and the bases roughly level, though there was a slight drop from north to south in the main element.

The base of north-south part of 2217 was overlain by a small spread of compact crushed chalk [1992] towards its centre, then filled with masonry wall [1830]. This formed the west wall of a major new building (Building 7) set beside the lane in the south-east. It did not cover the entire width of the north-south element of cut 2217 however, merely reveting its west side. The 1.40m wide gap between the wall and its east side therefore effectively formed a channel running beside 1830.

In the north, a layer of chalk rubble containing chalk fragments [1753] lined the edge of the cut, forming the base for wall [1793], creating a culvert lining in the channel. Bright orange sand and some dark clay in lenses containing large fragments of chalk [2160] then cobble sized ragstones, rather less orange and red brick and still less chalk, all set in some loose grey sandy silt and a little clayey silt [1438] were packed against the east face of 1793 in the south to backfill its construction trench.

The void [1739] running west above 2160 and overlying 1860 ( ) was at least 3.30m long (east end beyond limit of excavation) and 1.20m wide with vertical sides up to 1.49m deep and a flat base. It was filled with brick feature [1610] forming an east-west culvert leading down into the main feature to the west. Greysih green pebbly clayey silt and a little medium sand [1631] was then packed in its south construction trench, sealed by an extensive spread of light orange and yellowish off-white coarse sand, the latter especially in the north, containing flint cobbles, tile fragments and fine pebbles [1602]. This forms a make-up, probably for an external surface flanking the newly erected building to the north. it had a surface level of up to c. 2.30m OD.
A floor of bricks set on edge [1728] was laid in the base of the culvert 1610, running down slightly to the west. Three large squared ragstone cobbles were incorporated into it where the floor met culvert base 1793 in the west. Their function is not entirely clear, but there was a marked step down to the west at this point. Perhaps ragstones were used as a strengthening at this point or because bricks on edge might be subject to greater decay. A loose pebbly spread of coarse sand, some dark brownish black silt and various inclusions of bone, pottery and wood [1389] accumulated on 1728 as a result of the use of the culvert. As ever, this only evidences its final functioning.

To the west, masonry [1835] was set directly on wall 1830 as was another nearby, better quality masonry feature [2126]. It is unclear whether these were modifications 1830 or elements of its primary superstructure. To the east, east-west cut [2177] lay above, and just north of, initial cut 2217. It was 2.70m long, with only the south, nearby vertical edge 0.13m deep properly definable, and had a flat base. It was filled with masonry [1637], forming an east-west foundation set against culvert 1610 to the south. Its south construction trench was filled with yellowish orange sandy clay containing small fragments of tile and chalk [8012].

At the point where 1637 met main wall 1830, the latter seems to have been faced with a line of bricks laid in a bed and bonded with yellow mortar [1827] set beside earlier culvert base 1793. After this amendment, brick arch [8014] was constructed also overlying back fill 8012 and set against foundation 1637. This arch would have allowed the continued use of the main north-south culvert.

Two short parallel east-west lengths brick walling bonded with yellow sandy mortar, [1449], were set on top of arch 8014, also overlapping culvert 1610. They formed a channel c. 0.40m divide filled with loose dark green organic silt and some yellow sand at the base, then dark grey sandy silt with lenses of white mortar and patches of orangish yellow sand mortar higher up, the whole containing whole red bricks and fragments, and tile fragments (all labelled 1449).

This feature must be a channel, set above the arch. Whether it continued to the east on 1637, or came from a down pipe to this point is unclear. But it must have disgorged into the main north-south culvert 1793 down below.

To the north, dressed chalk blocks [1697] were set in void 1753, forming the base of the culvert there as a counterpart to the base of 1793. Masonry [1645] was set at the east edge of the same cut, forming a revetment wall on that side. Any counterpart in the north running along the south side of the east channel would have been destroyed by later intrusions but would certainly have been a structural necessity. Further north, east-west masonry [1836] was set against the north edge of void 1753, forming a revetment for the channel on that side. The insertion of wall 1645 east of 1830 therefore left a 0.65m wide north-south gap [1549] south of wall 1836, above base 1697, which was 5.80m long. It had vertical sides up to 1.0m deep in places, forming an open channel whose flat base led gently down to the south.

Patches of dark brown and grey decayed timber [1465] were evident in the base of the void, possibly a decayed timber lining for the feature. Blackish grey organic sandy silt flecked with chalk and charcoal [1447] overlay this resulting from the primary use of the channel in this north area.
In the rectangle defined by walls 1637, 1645, channel 1549 and the limit of excavation in the south, west, north and east respectively, a deposit of dark pinkish grey silt, some variously grained sand and a little crushed chalk in flecks containing large fragments of chalk [4213] overlay 4230 (X.4). It may be another waterfront dump at the top of the period X sequences. However, the building material content is atypical of such dumping, it could be the result of disturbance of the dumps at a later date. A spread of brickearth and light brown silt, the former more concentrated in the south, containing small and large chalk fragments and pebbles [1537] overlay 4213, and 7739 ( ). Critically, it continued west to abut wall 1645, so must be the base for a surface accompanying the creation of the culverts and drains. Lenses of compact pebbles, chalk fragments, bricks and mortar in brown fine sandy silts [1568] were evident within 1537, again suggesting a builders make-up, perhaps even a working area associated with construction activities nearby.

To the east, irregular cut [1964] intruded into 7741 ( ). It was c. 0.60m across, with nearly vertical sides 0.38m deep and a flat base and was lined with bricks laid on bed [1559], giving a square intrusion. it evidences the position of a vertical member within the culvert building. Yellow medium sand [1520] spread around bricks 1559, also covering make-up 1537 and 7748 ( ). It forms a bedding for red brick floor [1508]. This was formed of bricks laid north-south on bed in lines. There was a string course of a single line of east-west bricks half way along the floor, opposite the north side of brick lined cut 1964. This may have been an internal division therefore. At the floor’s south extreme, it was finished with another string course of three east-west lines of bricks where it lay against wall 1637. Whether this arrangement was repeated at the north end is unknown due to late intrusions.

At the south east corner of the floor two courses of red bricks lying on bed and set in a dark yellow silty fine sand mortar [1496] overlay 1508. These could be a fragment of a second (and even third) floor surface which had been destroyed elsewhere. But the to courses are bonded with the same mortar, suggesting a single feature. A replacement floor two bricks deep is unlikely. 1496 is therefore more likely to be a small plinth set against wall 1637. Its exact function, however, is unclear.

Finally, at the north end of wall 1380, small east-west cut [1495] intruded into 1498, 3348 (both X.13). It was 0.90m long, with only the north edge definable. This was generally vertical and c. 0.25m deep. A spread of light brownish yellow mortar flecked with red brick and tile [1350] ran south from cut, with one course of three broken bricks inserted right against the cut edge at its base, possibly the only remnant of a proper facing on that side.

To the south a line of burnt red bricks, two deep and set into at least three courses bonded with a light yellow fine sandy mortar [1442] was laid against the north end of wall 1830. A patchy mixture of dark brown silt and some light brownish yellow mortar containing fine pebbles and brick flecks [1380] spread north from this, also covering 3348, 4061 (X.13). 1442/1380 are an exact counterpart to the bricks and mortar of 1350. Greyish black charcoal-flecked silt [1374] accumulated on 1380, below pinkish brown silt and some fine sand containing flecks of brick tile and mortar and small chalk fragments [1352], which also overlapped 1350. Finally, dark greenish brown silt flecked with mortar, tile and brick [1345] also accumulated against 1350 to the the north. All of these deposits result from occupation in the vicinity of the feature.
Symmetry argues that this represents a single element, set at the north end of wall 1830. The gap between 1350 and 1442, of c. 1.10m, and contemporary ground surfaces, suggest that it represents a threshold crossing the line of main west wall of the building, giving access into the area north of the culverts and channels.

At the south end of wall 1830, a small spread of dark grey charcoal flecked silt, some chalk in large fragments and cobbles and a little rust-coloured silt [2057] overlapped construction trench 2217, also overlapping 2562 (XIV.1). It was overlain by a similar deposit of rust and bright lime green patches of silt and a few lenses of dark grey silt containing large fragments and cobbles of chalk [2052]. Both deposits suggest the disturbance of foundation 1830 at this particular point along its length.

A more general layer of buff-yellow sandy mortar, a little light grey silt and large fragments and cobbles of chalk [2019] lapped over 2052, also sealing 2523 (XIV.4), and running up against wall 1830. Yellowish buff sandy mortar and a little chalk in large fragments and cobbles containing small fragments of chalk [2001] spread north above 2019, there replaced by an overlying mixture of buff-yellow sandy mortar and some light grey silt containing charcoal-flecks, and cobbles and crushed chalk [1443]. Olive green sandy silt [1930] overlapped 1943, and 2751 (XIV.4), with a final strip of orangish brown sandy mortar [1789] on this lying right up against foundation 1830 to the north.

Equally, just to the south, grey silt, discoloured rust orange or light green towards the east, and a few chalk cobbles [1988], capped 2001, with charcoal-flecked silt, again discoloured in places, and a little light yellowish tan clay [1965] on top, then dark grey silt with rust coloured flecks and streaks containing charcoal flecks, fine pebbles and large chalk fragments [1961].

This series of layers, deposited from north to south immediately beside foundation 1830, but in places lapping up over its west edge and even continuing right across the wall line, have several distinctive common characteristics, notably their mortar and chalk building material content and towards the top of the sequence, rust discolouration or flecking. The course of the latter is obscure, but the former must relate to wall 1830.

It may be that they represent destruction debris from the wall. The building would then have a very short lifetime, with no associated roads and no occupation debris even. This seems unlikely. Especially given its refurbishment and apparent use to the end of period XVI (see XVI.11) and alternative possibility is that the wall was not continuous along its whole length. There may have been access points across it at various points, may be related to the processes within. Their insertion could have been part of the primary process of construction.

A series of cuts intruded into the building material dumps. [1935] cut 1965. It was rectangular, 0.62m north-south by 0.52m east-west with nearly vertical, uneven sides up to 0.24m deep and a flat base. It contained flint and chalk cobbles and a few large pieces of ragstone, irregularly set in light grey crumbly coarse sandy mortar [1926], which formed the foundation for a square structural feature. Immediately to the north, [1934] cut 2001. Irregular up to 0.50m across, it had sides up to 0.50m deep and a flat base and was filled with pebbly tan brickearth, some crushed white mortar and a little grey silt [2207] then orange fine sand [1920]. The relations between cuts 1935 and 1934 could not be ascertained, but they are probably part of the same feature, representing a masonry pillar set just south of the point.
where cross wall 1637 was added above boundary wall 1830. Reinforcing the point may be related to the chute or down pipe set above 1637.

Just to the south west, [1694] intruded into 1961 on the edge of foundation 1830. It was roughly square, up to 0.25m across with generally steep sides up to 0.14m deep and a pointed base and was filled with grey silt [1693]. It must be part of the 1926 foundation arrangements.

Further south, [1948] cut 2019. It was probably once circular (mostly cut away in west) at least 0.35m across, with irregular sides 90mm deep and an uneven base and filled with dark grey silt containing charcoal flecks and small tile fragments. Scaffolding set against the superstructure of 1830 could be an explanation, since a post hole this far into the street surface might seem unlikely.

Finally, at the south limit of excavation east-west cut [1690] intruded into 2019. It was 1.00m long lying up to 0.20m wide, narrowing into 2019. It was 1.00m long by up to 0.20m wide, narrowing to the west, with steep regular sides up to 0.15m deep and an irregular base. It was filled with yellowish orange organic material at its base, becoming blacker, stickier and more clayey towards the surface [1437] suggesting in situ decay of a beam. The slot must therefore relate to the structure set against, and partially over, wall foundation 1830. Once again, opening and features related to internal process are implied.

The question remains as to whether these later features beside and above 1830 are primary or modifications of its superstructure. As suggested with the underlying building material dumps, there is not reason to suggest a lapse in time between the insertion of the culverts and drains bounded by 1830 and these features, nor any main road metalling below them laid after the creation of the building. So all these features could be seen as primary features in the new building.

At this stage, therefore, major changes are evident in the organisation of the south-east part of the site. A major new wall was inserted beside the road and a system of culverts in the south and open channels further north, created a new building with an industrial or commercial function (Building 7). Walls revetted the sides of these features and their bases were lined with stone and brick. The rectangular, internal area defined by the channels was given a brick floor, perhaps with an internal division. The surviving level of the revetting walls by the channel suggests that liquids or other residues could have been swept directly from the brick floor working area into the channel, whilst the wall bounding the floor in the south, carried over the channel by means of an arch to meet the main west wall, also incorporated a chute or down pipe, suggesting that liquids may have been in use in the upper levels also. To the south of the floor and south of the arch, the open channels gave way to covered culverts, all leading south, presumably to disgorge into the river.

The point at which this structure was inserted is not easy to ascertain, since this involved considerable truncation of earlier levels. Hence, although its walls cut stratigraphy convincingly assigned to period XIV, in places its horizontal floors directly overlay material of periods X. This is the reason for the absence of stratigraphy for periods XI-XIV in the south-east part of the site.

However, accepting the relationships with the street sequence, its insertion in period XV or later seems highly likely. It has been assigned to period XV because several roads were (see
XV.6, XV.7, XV.8) laid down after its creation but before the structural changes took place in the north which can be definitely assigned to period XVI. This is a tenuous argument, however, and it is certainly possible that the building described here was inserted after the elements described under XV.1-XV.3. Also, the modifications described in XVI.11, show that, whenever it was inserted, Building 7 continued in use until the end of the following period.

A note on the dating of Building 7: this seems to be constructed in the first half of the 17th century.

**XV.5 Building 8 in the north-east**

(Fig 39)


**Description**

In the north-east part of the excavation, east-west cut [1295] intruded into 1254 (XII.13) and 1169 (XII.12). At least 2.70m long (both ends cut away), it was up to 0.40m wide with nearly vertical sides 0.35m deep and a flat base. It was filled with masonry [1063], forming a shallow wall revetting the higher stratigraphy to the north from the more truncated material further south.

To the south of the wall, a small spread of grey silt and a little fine sand containing chalk and charcoal flecks [1812] overlay 2265 (X.3), with more general light yellow medium sand and some buff silt flecked with chalk [1315] on top, also covering 1838, 1839 (XII.12) and 2168 (XII.10). A deposit of black burnt wood and medium sand [1306] followed this, also over 2266 (X.3), with light yellow coarse sand [1269] on top. This continued far enough north to lay up against wall 1063. Finally, brick floor [1065] was laid above 1269, running south from wall 1063 to the line of wall 1269 (XV.4), the north wall of the features to the south. Unfortunately no relation could be defined between the two. The floor consisted of bricks laid on bed in north-south lines. A single row of east-west bricks was inserted against wall 1063. The surface of the floor, at c. 4.15m OD, had a marked dip in its north quarter. The implications of this are unclear, but probably due to underlying subsidence.

The character of wall 1063 and floor 1065 closely resembles those of Building 7 to the south. It seems certain that they form a south room of Building 8, with access gained by the threshold 1350 etc. crossing the line of wall 1830 (see XV.4). Whether all of the underlying strata are associated with the floor is more difficult. The yellow sand 1269 has its counterpart below 1508 to the south, whilst the similarity between 1269 and the lower 1315 might suggest that this is an earlier make-up element. Alternatively, 1812, 1315 and 1306 could all be late elements of period XII.
The overall implication, however, is clear. The construction of the building involved terracing into the site in the east, resulting in differential truncation of the earlier stratigraphy. Everything down to period X was removed in the south, only to period XII further north.

To the north-west, north-south cut [1127] intruded into 1790 (XII.13). Only the north and west edges survived of a feature at least 1.08m long and 0.37m wide, with vertical sides up to 0.15m deep and a flat base. It was filled with masonry [1108], to form a fragment of wall, possibly a refacing of an earlier wall sill usable at this point. It aligns with wall 1830 to the south, though is by no means as substantial.

A spread of pinkish brown silt and some fine sand containing fine pebbles and flecks and small fragments of brick [954] lay up against wall 1108, elsewhere sealing 981 (XII.13) and 1864 (XII.12). It crossed the line of 1108 if projected south and may be a rough gravel metalling in a threshold giving access into the area north of wall 1063.

To the east, a small patch of burnt charcoal flecked brown fine sand and some silt [1459] overlay 1460, 1466 (XII.12) another spread of scorched brown silt and lenses of some dark brown clay and a little dark orange coarse sand containing flecks and small fragments of charcoal [1145] on top, also overlapping 1450 (XII.12). The latter correlates with exactly similar material [1144] nearby over 1182 (XII.12), here overlain by lumps of sticky brown clay mixed with some light grey silt in lenses flecked with brick chalk and charcoal [1147]. These deposits suggest localised occupation debris and hearth areas covering strata in use towards the end of period XII.

A scorched layer of dark brown coarse sand with some fine pebbles [1129] was dumped above 1147, correlating with a mixture of dark brown silt, dark orange sand fine and medium pebbles [1170] over 1182 (XII.12) nearby. The deposit of dark brownish grey silt flecked with chalk [1156] on top results from tread on the pebbly make-up. Finally, another patch of scorched orangy brown sand and some medium pebbles [1133] over 1145 nearly gives a continuation of the 1129/1170 horizon, suggesting the laying of a rough gravel metalling in the area with a surface of 3cms.

Most of the scorching in these deposits is due to exposure to the intense heat permeating through later layers, no activities taking place on the pebble spreads. The latter could belong to the end of period XII, or any intervening period. However, its position seems to be bounded by features which can be more securely related to period XV (see 1099, 1004 etc. below), so there is an argument for their belonging to period XV, a point given slightly more strength by the brick fragments incorporated into the deposits.

The underlying hearths are more difficult to place, since they were cut by foundations more certainly ascribed to period XV. However, as a group, they do not fit nicely into the activities of period XII either. Placing them in isolation in an intervening period (which one?), would also necessitate suggesting a double truncation, one for their insertion and a second for Building 8. It is therefore simpler to assign them to the start of building operations for that building, perhaps firing related to the removal of pre-existing structures to prepare for the terracing activities.

To the west, cut [1733] intruded into 1740 (XII.12), made up of two elements. The south was 0.70m long, at least 0.55m wide (cut away to east) with steep sides 0.20m deep and a flat
base. The deeper, north part was at least 0.90m long (north end beyond limit of excavation and 0.80m wide with nearly vertical sides 0.55m deep and a base dipping slightly in the centre. It was filled, in the north, with a single course of large vertically dressed greensand and ragstones and a few fragments of chalk and flint cobbles, the largest stones up to 0.30m across [1735], with a packing of medium pebbles in sticky greenish grey sandy silt [1752] around its edges. Above this, chalk blocks up to 0.25m across, but mostly c. 0.10m, set in light brown sandy mortar [1712] covered the whole cut, though the blocks were noticeably larger in the north, deeper part.

This must form a major chalk foundation running north. Despite the deeper area at its base differences in stone content, and kink in its west edge, there is no reason to believe it comprises more than one phase of constructional activity.

The foundation 1712 was apparently cut on its east side by [1069], which also intruded into trench 1147. Running north-south, it again comprised two elements. That in the south was 0.56m long by 0.18m wide with vertical sides in the, less so elsewhere 0.20m deep and a flat base. The deeper, north part was at least 0.75m long (north end cut away) and 0.50m wide with almost vertical sides 0.30m deep and a flat base. Bricks in off-white chalk flecked mortar set in three courses [1068] filled the cut. The upper course was laid header to header, the remainder side by side. Mixed brownish grey silt and sticky brown clay containing chalk fragments [1053] was then packed around the bricks.

1068 obviously forms a brick facing of foundation 1712. In character, it resembles the facing of wall 1830 (XV.4) to the south, with which it co-aligns. It seems reasonable to support that it belongs to the same building. Masonry 1712 could be a foundation from an earlier period, reused at this stage. There is, however, no other such feature to correlate with it between periods XII and XV, and they would have been found if they intruded to the depth of 1712. it is possible that such a foundation terminated at the south end of 1712, but continued north, beyond the limit of excavation, as part of a major structure. However, the facing which 1068 represents not only uses the foundation; but follows its base in cutting more deeply to the north. This could be coincidence, or the result of digging out that side and following the footings as appropriate. But even if the latter, it does imply a common structural requirement for both elements. Rather than see 1712 as an earlier, reused feature with no known counterpart, it is more convincing to see it as the masonry core of a single feature, lined with bricks on the east. In this it would resemble wall 1830 (XV.4) to the south and be a counterpart of it.

Thus, it can be suggested, Building 7 described to the south continued north, but its west boundary changed form, and on balance it was a separate part of the complex (Building 8). Instead of a continuous, substantial wall, small alignments of brick-faced masonry were inserted with gaps in between gaining easy access east into the feature and floors in its north rooms. The deepening of foundation 1712/1068 to the north just to the limit of excavation might suggest that there was a reversion to a deeply founded, continuous boundary wall past this point.

To the east, within the building, cut [1204] intruded into 1010, 1169 (XII.12). It was oval, 0.75m east-west by 0.46m north-south with sloping sides 0.23m deep merging into a rounded base and was filled with bricks set side by side in two courses and bonded with soft yellow
chalk flecked mortar [1203], packed around by dark grey silt and some tan clay in lumps containing oyster shell and small fragments of chalk [1201]. This forms a brick pier base.

To the east, rectangular cut [1099] intruded into 1254, 1198 (XII.13). It was at least 1.80m east-west (east end cut away) and up to 0.60m wide, with irregular edge, steep sides up to 0.25m deep and an irregular base dropping slightly to the west. Its base was filled with a spread of brown mortar [1095] as a bedding for wall [1019]. A line of dirty greyish white mortar [1018] abutting its north face is a construction spread related to the wall.

Pad 1203 lay at the west end of wall 1019 and the two run parallel to the similar wall 1063 to the south, but off-set c. 1.50m. They suggest a contemporary feature set against that wall.

Further north, [1207] intruded into gravels 1156 and 1129. It was roughly circular up to 0.55m across, with steep sides except where more gradual in the north 0.25m deep and a flat base. It was filled with flat-laid bricks set in soft yellow mortar [1019], packed with dark brown pebbly sandy silt [1205], to give a brick pier base closely resembling 1203.

A little further west, a spread of random bricks, laid on bed and set in soft yellow mortar [1036] overlay gravel 1147. It ran up towards foundation 1068 in the west, suggesting contemporaneity of use, and its bonding material resembled that of piers 1206 and 1203. It is likely, therefore, to represent either the initial floor surface, obviously much disturbed, laid inside the north most part of the building, or a make-up, perhaps of discarded bricks, for such a floor.

Further east, scorched compacted dark brown silt containing coal fragments and lenses of charcoal [1126] overlay gravel 1129, with dark reddish brown silt containing chalk flecks and whole oyster shells [1127] on top, also abutting pier 1205. Another spread of scorched brown silt and sand [1132] over 1133 to the east is a rough correlate of them. These accumulations presumably result from the use of the area at the start of the building’s life.

A spread of yellow mortar mixed with some fragments of bricks and chalk [1035] covered possible floor 1036 and abutted the packing of wall 1068. Some of this material may have been derived from disturbance of floor 1036. Scorched dark brown soft sand [1029] overlay 1035 as a base for brick floor [829], which also covered occupation 1117. The bricks were laid in regular stretcher courses running north-south, although individual bricks varied in size. Some bricks were scorched like the sand bedding, which underlay them.

829 is the major surviving floor here and may be the primary feature of Building 11 depending on whether 1036 is seen as a make-up, utilising discarded material in wall building operations, or a surface in its own right, later much disturbed, then replaced by, 829. Even so, the limits of 829 and 1036, and thus the internal structural arrangements, are strikingly similar. So any second phase floor did not require any obvious structural alterations.

To the east, a spread of crushed grey mortar and brown silt, compacted to form a crust [1131] overlay occupation debris 1132, forming a bedding for brick floor [828]. These set on bed in a scorched brown sand, were laid in regular north-south stretcher courses. Most were dark red, though some in the south were orange and here showed a changed alignment as if repaired or replaced perhaps when cut 1003 (see below) was inserted.
828 is an east counterpart of 829, with which it shares a common south limit. The floor here has a surface level of c. 3.0m OD rising slightly as it approaches boundary wall 1068 in the west.

To the south, 828 was bounded by an east-west void [1003] above make-up 1131. It was at least 0.70m long (both ends cutaway), and 0.12m wide with vertical, sometimes slightly undercut sides 50mm deep and a flattish base dipping slightly to the west. Charred horizontal timber [960] lay in the cut, forming a beam slot bounding floor 828. This division may have caused the changes in character in the bricks of 828 described previously.

To the west, void [1004] appeared above 1035 and 1117 and 1403 (XII.12). It had five elements. The main east-west part was at least 1.70m long (cut away to east) and 0.20m wide with vertical north side, more gradual in the south, 0.10m deep and a flat base. Two cuts ran south from either end. The more substantial, in the west, was 1.45m long by 0.50m across, with nearly vertical sides 0.15m deep and a flat base. The other, not actually connected with the east-west part, was 1.15m long, c. 0.15m wide with the east-west part, was 1.15m long, c. 0.15m wide and 0.10m deep with steep sides and a flattish base. It met the line of the east-west element at the point where pier base 1207 had been inserted previously. Between these two was a third north-south element at least 1.00m long (south end truncated), 0.15m wide and 60mm deep with sloping sides and an even rounded base. Finally, on the north side lay feature 0.82m long by 0.15m wide with vertical sides 80mm deep and an uneven base. Most of the cut was empty, but the westmost and eastmost elements contained chalk nodules up to 0.12m across loosely packed in a little yellow mortar [1392] as the base for charred timbers [962], discernable as planking 0.10 to 0.12m wide, running east-west, set above three horizontally laid north-south timbers.

The void co-aligns with 1003/909 to the east and they must all be part of the same structural feature. Though the void appeared above brick floor 829/828, it was not simply cut through it since the floor above obviously obeyed its line, including the north-south element running north in 1004. The deeper part in the west of 1004 is probably a west termination, given its substantial character. A division then ran east from this for at least 3.50m forming the south wall of the brick floor. The other features on its south side (and there may have been more originally whose shallowness meant destruction by later intrusions) then comprised a series of less substantial north-south joists forming the base of a plank floor on that side as a counterpart to the bricks 829/828. Its level would have been at just below 3m OD The gap between boundary wall 1068 and slot 1004 would have allowed an 0.80m wide access north onto 829, and a more generous threshold east onto the plank floor from the same crossing point of the main west wall of Building 8.

The elements described above can be suggested as being broadly contemporary and as having been inserted after period XII. Because they have no proven relationship with the road sequence to the west, when this took place after period XII cannot be securely stated. However, they strongly resemble the features of Building 7 to the south described under XV.4 and must have been in use at the same time. The remarks there on whether the insertion came in period XV or later apply again with the north features. Equally certainly, they continued in use until the end of period XVI.

The structural elements described here suggest a further three ‘rooms’ north of the drains and culverts of XV.4 forming Building 8. The north and south had brick floors, the central room a
planked floor on joists and brick pillars, with a less substantial feature set against its south wall. On its west side, the substantial boundary wall seen in the south was more open-sided, suggesting that greater access was required into the plank-floored room. Any evidence for the actual function of these areas is not immediately apparent from their structural characteristics.

As for Building 7, it seems likely that Building 8 was constructed in the first half of the 17th century.

XV.6 Eleventh road

2084, 1929, 1927, 1880, 1821, 1807, 1701, 1669, 1673, 1620, 1604, 1591, 1598, 1596.

Description

A small pebbly spread of dark greyish brown silt and a little brickearth and crushed chalk [2084] lay up against wall 1830 (Building 7) overlapping its cut 2214, with olive green sandy silt [1929] on top running north, correlating with olive green sandy silt [1927] overlapping 2084 to the south. These are local tread layers accumulating against wall 1830 immediately after its construction.

To the north-west, a much more extensive layer of brickearth, white and buff mortar in alternating bands and a little grey silt containing large fragments of tile [1880] overlapped 1929, running north to seal 2079 (XIV.6) and forming a substantial make-up. To the south, greenish brown pebbly silt, becoming more orange and sandy in the south [1821] overlapped 1880, 1927 and covered 1920, 1930 (XV.4). In the north, a dump of chalk, some in nodules mostly 0.10-15m across, some crushed [1807] overlay 1880. Its knobbly surface shows that it represents further make-up rather than a surface in its own right. Finally, grey silt and some light olive green medium sand containing medium pebbles and fragments of tile c. 0.10m across [1701] covered 1807, 1821. This forms a proper surfacing the eleventh road, and, though not extensive as surviving, must be the reason for the underlying building material dumps.

To the south brown-charcoal flecked brickearth containing large chalk fragments [1669] overlay 1437 (XV.4) capped with a small patch of brownish grey sandy silt containing large and small chalk fragments [1673] and to the north, greyish brown silty clay [1620], also overlapping road make-up 1821 and 1947, 1963 (XV.4). These brickearth spreads therefore take the place of gravel in the south, opposite access points 1926, 1690 crossing wall 1830.

East-west slot [1604] intruded into 1620. It was 1.35m long by c. 0.20m wide with steep sides up to 0.10m deep and a flattish base which dropped slightly to the east. Light yellow organic sandy clay [1591] filled the cut, a probable decayed beam, with brownish dark grey silty clay [1598] and [1596] packed around it.

The beam slot must be related to the building to the east, and possibly to earlier slots such as 1690 (XII.4). This suggests that some structural elements actually protruded into the line of the road here, and accounts for the localised dumping of brickearth (620 et al in place of gravels proper 1701).
XV.7 Twelfth road and associated features

(Fig 40)

1736, 1745, 1743, 1744, 1737, 1679, 1678, 1675, 1656, 1676, 1667.

Description

A dump of crushed chalk and some complete nodules in large and small fragments [1736] overlay 1789, 1833 (XV.4) and 1701 (XV.6), the eleventh road surface. The deposit was mostly white, but stained darker in places due to adjacent strata. In the north, it contained more silt and was lemon-coloured. The layer forms a make-up for a new metalling.

[1745] intruded into 1736. It was roughly circular, 0.42m across, with vertical sides in east, more gradual in west, up to 0.28m deep, and an irregular base. Its base was filled with a thin spread of dark mauvish brown silt forming a square central patch [1743], then orange fine sand and grey silt containing flecks of tile and chalk [1744] at the edges. These suggest a
centrally placed post within the feature. The remainder of the cut was fitted with orange pebbly coarse sand, some brick earth and a little grey silt, [1737] representing its demise. The post must relate to Building 7 just to the east.

An extensive spread of coarse, medium and fine pebbles in equal proportions set in some orange coarse sand [1679] covered 1737. It had very few inclusions, though in places the sand was mixed with patches of a little grey silt whilst in the south the pebbles were mainly absent. This layer forms a major new street metalling in the east of the site - road twelve with a surface of c. 2.18m OD. 1736 was an underlying make-up.

In excavation, it was correlated in level and character with 1638/2682 described above as road 8 (XIV.8). This is possible, but creates problems for the structural sequence. Building 10 et al would have to be built in period XIV and retained fairly unchanged over an extended period of time. Also, the stratigraphic relationship identified between the laying of make-up 1880 (XV.6) and cut 2217 (XV.4) would have to be disregarded, since 1880 overlapped 1929 marginally (less than 0.10m) and 1929 overlapped 2084 (less than 50mm) and 2084 seemed to lap against wall 1830 and over cut 2217. Either overlap could be misidentified (though there is no reason to suggest this), or, more likely, wall 1830 could be inserted through, but undoubtedly 2084. Thus the building would be later than the roads labelled here as eleven and twelve and still belong in periods XV/XVI. In effect this means moving metallings 1701 and 1679 down to period XIV.

However, there would still be problems with such a solution. Even within period XIV there could not be an exact, one-to-one correlation of metallings on either side of the road, just broad correspondence. Also, this would mean that all the buildings in period XV were then accompanied by no re-surfacing of the main access down the centre of the site. Finally, the difficulties of identifying trench built walls notwithstanding, the stratigraphic relationships identified on site were not doubted at the time of recording. Finds dating may suggest that XV.6 and XV.7 should be moved down to the preceding periods, but the argument will probably not be proven, due to residual use of material in later metallings.

As phased here, the implication is that, when the site was being structurally developed in the west in period XIV, the street was relaid on that side. When developments took place in the south-east in period XV it was re-surfaced here. The implication, if securely demonstrated, for the relationship between property owning and relaying of adjacent streets, would be considerable.

A small patch of crushed chalk, mixed with brick earth in the south [1678] overlay 1679, the eleventh road. Its west edge had a sharp slope, as if set against a structural feature. Immediately beside this, [1675] intruded into 1679. It was subcircular, c. 0.55m across, with irregular, becoming steep, sides up to 0.37m deep and a roughly flat base with irregularity in the south corner. It was filled with loose pebbly olive green medium sand and some grey silt with large patches of dark brown organic material towards its base [1656]. In the south, three large ragstone blocks up to 0.28m across could be displaced packing. The feature must be a major packed post hole which, together with the sharp west edge of 1678, implies a structural feature beside wall 1830 at this point.
To the south [1676] also intruded into 1679. It was roughly circular, up to 0.60m across, with sloping sides up to 0.35m deep and a flat base. It was filled with orangish pebbly medium sand and some brickearth [1667], and represents another installation beside wall 1830.

Though not exactly contemporary, 1676, 1745 and 1675 are roughly similar, evenly spaced cuts forming a line of features set immediately beside wall 1830, related to the eleventh road surface. 1678 also relates to such structural activity. They would be a buttressing of that west wall, given their substantial character.

**XV.8 Further modifications to Building 7**

1524, 1504, 1443, 1525, 1503, 1516, 1502, 1472, 1423.

**Description**

In the south-east of the site, beside the road, [1524] intruded into 1596 (XV.6), eleventh road surface. It measured 1.20m north-south by 0.35m east-west with sloping sides in the west, ill defined elsewhere, up to 80mm deep, and was filled with masonry [1504], the construction trench then packed with yellowish grey silty clay [1443]. It forms a fragment of north-south foundation.

To the south, just beside the limit of excavation, cut [1525] intruded into 1673 (XV.6). This measured at least 0.65m (south and beyond limit of excavation) and 0.20m wide, with sloping sides at least 70mm deep (truncated) and a flat base. It was filled with masonry [1503], packed with brown silty clay containing fine pebbles, flecks of chalk, brick and coal and small chalk fragments [1516]. It forms a south counterpart to 1504.

Both 1503 and 1504 were cut into by [1502], which also cut 1835 (XV.4), of which only the west side survived properly. It was at least 3.70m long (south end beyond limit of excavation) and at least 0.45m wide, with vertical west side up to 0.90m deep in places but with great variation, and different base levels depending on the nature of the masonry which it cut. It was filled with cobble sized chalk lumps, some shaped, and a few cobble sized ragstones and flints set in a little compact buff and yellowish orange pebbly, chalky coarse sandy mortar [1472].

Most of the rubble was set in the hard buff mortar, with the softer orange mortar restricted to the edge and base of the cut. 1472 formed a base for brick wall [1423], effectively a brick facing for the underlying masonry. It is unclear whether both 1504/1503 and 1423 are part of the same foundation, but if not, they seem to have been constructed in quick succession. The west side of 1423 is vertical, that on the east, road side seems to have an off-set at c. 2.90m OD.

It forms a major addition to the west wall of Building 7. Since it cuts road eleven, this modification cannot be a primary feature of the building. It is sealed by road thirteen (see XVI.2) below, so may be broadly contemporary with the laying cut and use of road twelve (see XV.7 above).

**XV.9 Excavation of half-cellar and other modifications to Building 6**
(Fig 41)

1394, 1291, 1259, 1196, 1289, 1279, 1250, 796, 1246, 1386, 1337, 1079, 1070, 1075, 1057, 1041, 1032, 1017, 1015, 1097, 1122, 992, 1121, 1478, 1085, 1176, 1101, 1138, 1006, 899, 978, 1128, 1076, 1073, 1064, 1058, 1233, 1049, 1040, 1014, 1113, 930, 929, 1054, 1011, 980, 1021, 996, 991, 987, 985, 1944, 945, 944, 943, 1012, 942, 916, 936, 582, 918, 912, 894, 857, 862, 846, 1025, 1046, 1028, 856, 979.

**Fig 41 Period XV.9 plan**

**Description**
In the south-west area of the site, beside the street, north-south cut [1394] intruded into 1421 (XIV.11), 1424 (XIV.10) and 2074 (XIV.8). It was at least 3.60m long (cut away to south) by up to 1.20m wide, with two arms extending west from its west side for c. 0.50m, each c. 0.50m wide. Its steep sides were up to 0.95m deep in the south, 0.50m in the north, whilst the base had a marked step in its central portion.

Foundation [1291] was inserted into the base of 1394, packed around with a mixture of dark brownish grey organic silt and less clay, coarse sand and crushed building material containing flecks of brick and charcoal and large fragments of brick [1259]. This formed a foundation for [1196], a north-south brick wall with a buttress on its west side. This wall, cutting from a ground surface in the east at c. 3.0m OD, had two off-sets on its west face. The north was at c. 2.60m OD, the south at 2.22m OD. In both cases, but especially the latter, it suggests a half cellared feature internally, whose floor levels lay well below those of any preceding phases of Building 6. These earlier structures would therefore have been terraced away for the insertion of 1196.

At the north end of the cut, [1289] intruded into 1303, 1299 (XIV.8). It was rectangular, 0.62m north-south by 0.34m east-west with nearly vertical sides up to 0.37m deep and a flat base and was filled with a roughly worked greensand block [1279], whose top surface had been exposed to heat. Greenish brown sandy silt flecked with buff mortar [1250] was then packed around the block. 1279 forms a pillar supporting the north end of wall 1196, a more substantial buttress to accompany the integrally built brick feature to the south.

A loose deposit of light brown sandy mortar flecked with red brick or tile and some light yellow mortar containing small fragments of charcoal, the whole containing large fragments or cobble sized bricks [796] lay against 1196 and 1250, maybe the result of construction processes. To the north, dark brown clayey silt flecked with charcoal and buff mortar [1246] lapped against the face of block 1279 on that side.

Further north still, cut [1386] intruded into 1421, 1348, 1351 (XIV.11). It was irregular, with a stepped side in the west, 2.60m long by up to 0.60m wide, with generally vertical sides up to 1.0m deep and a flattish base. It was filled with foundation [1337] and represents a north counterpart of brick feature 1196, though the two are discontinuous.

Each foundation utilises a variety of building materials and overlay masonry belonging to preceding periods truncated for its insertion. It is possible that some of the building material described above belonged, in fact, to those earlier periods and was retained for reuse in period XVI. Whatever the case, it is clear that major refurbishment of the Building 6 frontage on the west side of the road took place at this point in the sequence, with brick walls facing a rubble core, or overlying an earlier rubble foundation, put in place in association with the half-cellared internal area to their west.

Further north still, dark brown silt mixed with all sizes of pebbles [1079] overlay 1109 ( ). This corresponds in character and level with compact yellowish brown silt mixed with a few coarse pebbles, medium pebbles and cobble sized fragments of ragstone and slate [1070] over 1130 (XIV.8) to the south, and rather more generally with a mixed dump of clay chalk and less silt [1075] over 1123 ( ) nearby. They form dumps for a surface at above 2.50m OD.
In the north area, variously sized pebbles in some brown silt containing cobble sized ragstones [1057] overlay 1070 and 1075, with loose sandy mortar and light yellowish green chalk [1041] on top, then greenish brown silt containing brick fragments and pebbles [1032] followed by variously sized brick fragments in a little reddish brown silt [1017] and finally loose brown sandy mortar mixed with some chalk [1015]. This series of loose dumps raised levels in this area by a further 0.10m and correspond broadly to a loose deposit of brown medium sand, white fine sand and less grey fine sand containing shells and small brick fragments [1097] over 1079 nearby.

All of this material could be related to dumps inserted at the end of period XIV, or during XV, which was then truncated when walls 1196 et al were inserted. However, they do not remove the period XIV material beneath and do serve to bring up levels to just about 2.60m OD, the level on the north off-set of wall 1196, so could equally well be building material dumps used as make-up in association with that wall.

To their west, north-south cut [1122] intruded into 1097 and into the west end of wall 1348/1351 (XIV.11). It was 3.40m long, running from 1348 to the period XIV undercroft in the north (XIV.3), and was c. 0.40m wide, with nearly vertical side up to 0.90m deep and a flat base.

At this point, the top of wall 1348/1351 was re-bonded with a light yellowish brown sandy mortar flecked with shell [1478]. This extended to a depth corresponding with that of the base of wall 1122 and suggests that 1348/1351 was rebuilt from the same level in the new arrangements.

In the area to the south and west of this higher retained part, burnt black silt mixed with brown silt and grey ash containing oyster shells [1085] lay against wall 992 elsewhere sealing 2418 (XII.5) and 1187 ( ). It corresponds to grey silt and some clay flecked with red brick, tile, chalk and charcoal [1176] on 1668 (XII.1) nearby and probably represents tread in this lower area related to the building operations seen with walls 1122, 1337, and 1259. As a result of these, the artificially lowered area was revetted in the east, against the road, by new walls and in the north, in a doglegged shape, by refurbishment of the period XIV wailing.

In the east of this newly defined, sunken area of Building 6, north-south cut [1101] intruded into 1085, 1176. At least 7.60m long (south end cut away) and 0.80m wide, it had steep sides, becoming vertical lower down, up to 0.36m deep, and a flat base dropping slightly from north to south. Where later wall 930 (see below) crossed its line, the cut had a depression and its sides were more regular and vertical north of this point.

The base of the feature was filled with yellowish grey clay sandy mortar and large chalk fragments [1138] packed at the sides of the cut. Down the centre lay unmortared brick base [1006], formed of brick laid on bed in a single row. On the east side, any gaps were infilled by complete or half-bat bricks laid north-south, whilst in the south slabs of ragstone formed the base. The sides of the feature were lined with four courses of bricks in a stretcher bond, bonded with light yellow sandy mortar [899], trench built against the east side of the cut with the construction trench on the other side filled with a mixture of dark grey silt and slightly less fine sand and clay containing flecks of flint [978]. Thus a brick lined drain was formed c. 0.30m deep, leading south from rebuilt wall 1348/1351 down towards the river.
Toward its north end, a small spread of light grey mortar and clay containing small fragments of oyster shell [1128] covered part of brick lining 899, cut by [1076]. This was roughly square, c. 0.20m across, with vertical sides and a base formed by three rounded depressions and was packed with loose dark organic silt, some medium sand and a little clay [1073], leaving an oval post-pipe. [1064] at its centre roughly 70mm across with nearly vertical 40mm deep sides. This was filled with light grey mortar and some fine sand [1058]. The whole feature seems to represent the position of a down pipe set at the west edge of the drain and disgorging into it.

To the east of the drain, a pillar of ten courses of whole and half bricks laid on bed, with no identifiable bond, but set in greyish pink mortar [1233] was laid over make-up 1246 and against earlier foundations to the east. This formed a new element of brick facing against those earlier structures.

Further west, at the limit of excavation, north-south [1049] cut into the north end of an earlier wall. It was 0.80m long by 0.26m wide, with vertical sides 0.30m deep and a flat base and was filled with bricks, laid on bed in yellow mortar with no identifiable bond [1040], forming a refacing at the end of the earlier wall. A further north-south line of bricks [1014] covered 1040, comprising bricks laid on bed north-south, except in the north where terminated by east-west bricks, and set in yellow mortar. Lenses of charcoal overlay some bricks, which rode up over the earlier foundation in the south.

Cut [1113] ran east-west between 1233 and 1014, intruding into 1085 and 1246. It was 6m long, though less easy to define in the east. It was generally 0.60m wide, broadening at two points to accommodate buttresses (see below), with generally vertical sides in the west, less so in the east and a generally flat, locally undulating, base. It was filled with bricks [930] with brown clayey silt and some mortar [929] backfilling its construction trench in the south. It forms an east-west wall running between earlier walls which had been refaced and modified (1014, 1233) to accommodate it. The narrowness does not suggest a major load bearing function, whilst the level surface at its top, perhaps deliberately created rather than a function of later truncation, might suggest a superstructure of less substantial form e.g. timber. Changes in the nature of drain 899 were noticeable either side of wall 930. Thus, whilst the wall was certainly built after the drain was inserted, they are probably part of the same building operation. Wall 930 divided the cellared area into a north and south parts.

In the north area, brown pebbly coarse sand and silt [1054] overlay 1085 below a more general spread of dark grey mortar and some silt and clay [1011], which abutted wall 930 in the south and refacing 1014 in the west. These formed a bedding for ragstone floor [980], comprising mainly rectangular flags, dressed with squared corners, and up to 0.85m across, though slightly smaller stones were used nearer the wall. Many were fractured. Bricks and tile fragments were used to pack gaps between flags and the walls, the former with header exposed, the latter set on edge, with the whole bedded on sandy mortar and giving a good quality flooring with a surface level of between 2.10m and 2.40m OD. Where flags were missing, the mortar bedding usually survived, suggesting robbing rather than not being laid. The substantial, hard wearing capacity of the floor fits its context in the cellar of a building.

In the south west, broken slab [1021] overlay 1011, bordered by brick fragments with light pink mortar immediately beside the walls to west and south. It forms a correlate of 980. Similarly, further east, an area of fractured ragstone flags set in grey sandy mortar [996]
overlying 1011 with a surface of 2.08m is another outlier. Just to the north, further ragstone flags and large fragments of brick set on ....... around a piece of wood and bedded on grey sandy mortar [991] overlay 1011, with six courses of brick and one of ragstone, laid on bed with no identifiable bond and set in light brownish grey mortar [987] to form a brick pillar. Finally, further north still, a foundation of two courses of ragstone infilled with red brick and flint noggin, all set in soft light yellow and [1985] was built on 1011 and against the pre-existing period XIV undercroft to the north. It forms another pier base. A line running from 985 to 987 would meet wall 930 at its west end. It therefore seems likely that the piers are the bases for a foundation, possibly an arched foundation, running south from Building 7. The slightly different colour of mortar involved in their construction might suggest a different, later phase of activity from the main flagstone floor 980, or that the wall superstructure required a different sort of bonding agent from the floor.

To the east, a single course of brick laid in bed in yellow course sandy mortar [1944] was set on 1011 and against the undercroft wall, with timber [945] set on 1097 nearby. This was at least 0.62m long and up to 0.36m wide, slightly burnt and badly decayed, and set against the same wall. Two bricks set on bed and bonded with silt [944] were based on 2944 and laid against timber 945, corresponding to two further bricks [943] set against 945 to the east. It seems that 1944 and 945 are structural elements added to the undercroft wall as with 985. The bricks of 944, 943 could be a brickfacing around these plinths or a floor, mainly robbed, which ran up to them.

Further east, brown silt containing flecks and pebbles [1012] was laid on 1017 and against the south wall of the undercroft here, forming a base for a spread of bricks laid on bed, randomly coursed, and set in silt [942]. 942 is probably another, much disturbed fragments of floor in this higher, non-cellared area.

Brickearth and some dark green silt containing chalk ands charcoal flecks and large chalk fragments [916] overlay 942 and spread across to wall 922 in the west and over 1015 in the east. It could be the make-up for replacement floor over 942 or, equally likely, trampled occupation debris on the primary surface.

To the south of wall 930, a loose spread of yellowish brown sandy mortar [936] lay against the wall’s face, either the base for a floor in this area or packing spilling out from the construction tread of the nearby drain.

Further south, brown silt with a little light yellow mortar in patches containing large wood fragments, with more mortar in the east and more pebbly silt towards its base [582] covered 1164 (XII.5) and is probably much later consolidation of that waterfront dump. Blackish grey ash mixed with some brown silt containing small and large fragments of slag [918] overlay this with yellowish brown sandy silt [912] on top, this continuing north to overlap the construction trench fill 929 associated with wall 930. The last layer at least must have been deposited after the cellared area had been created.

Dark greyish brown silt containing flecks and small fragments of charcoal and flecks of off-white mortar [894] capped 912, and also 1165 ( ), below whitish yellow sandy mortar patches [857], which formed a bedding for an area of ragstone slabs [862]. Further north and east, this was replaced by isolated groups of bricks, laid north-south on bed, [846], probably the vestiges of a brick floor. Both ragstone and brick flooring had a surface level just under 2.0m
OD, which would have run up to drain 899 in the west originally. It is therefore the counterpart of the slightly higher flag floor 980 et al on the other side of wall 930 and the much higher 942 et al further north-east.

Within the drain, yellowish brown fine sandy mortar with a brick yellow skim [1025] accumulated at its north end and above down pipe position 1058, giving way further south to an overlying light yellowish grey mixture of mortar, and slightly less clay and medium sand containing chalk and charcoal flecks [1046]. Further south still, the primary fill above the lining 899 was dark grey charcoal-flecked clay, silt and less fine sand [1028], and at the south limit of excavation brown silt, a little mortar and variously sized pebbles and cobble-sized brick and tile fragments [856]. All of these deposits represent the filling up of the drain on its demise rather than primary silting. The feature may have been regularly cleaned during its lifetime.

Finally, north of wall 930 eight rectangular timbers [979] were laid across the top of 1046 and 1028 to cap the drain. They were probably primary elements of the feature, but could have been lifted regularly to facilitate access.

In sum, therefore, it can be seen that, sometime after the end of period XIV, the street front walls of Building 6 on the west side of the road in the south were refaced in brick and a sunken internal area created to their east, terracing away any features which may have existed here in period XIII and XIV. A drain and cross wall were then built in the cellared area and good quality flagstone or brick floors laid in it, accompanied by additions to the south wall of Building 5 which lay on the north side of Building 6.

Whether these activities took place during period XV or later, and in particular whether they occurred at the same time as the creation of Buildings 7 and 8 to the east (XV.4, XV.5) is unknown. Unlike the latter, the half-cellared rebuilt Building 6 had no proven relationship with the eleventh and twelfth roads (XV.6 and XV.7). It can only be shown to ante date road thirteen (XV.9), itself laid immediately before the structural changes in the north-west (XVI.1) which are the main defining characteristics of period XVI. Hence the half-cellared version of Building 6 has been suggested as belonging to period XV, though perhaps later than the buildings to its east. Even if it was built in period XV, it certainly continued in use until the end of the subsequent period.

**XV.10 Road thirteen**

(Fig 42)

Fig 42 Period XV.10 plan

Description

On the east side of the road running down the centre of the site, an extensive deposit of olive green medium sand and a little grey silt forming a matrix around some variously sized pebbles [1632] was dumped above 1656, 1667, 1678 (XV.7), forming the make-up for a new surface, road thirteen. To the north, a small area of dark red coarse sand, brownish orange silty sand, yellow silty sand and much less charcoal in small fragments [989] over 1679 (XV.7) may be an outlier of 1632, exposed to heat by a later conflagration and thus discoloured.

A thin spread of light brownish yellow chalk-flecked sandy mortar, containing large tile fragments towards the east and base of the layer [1545] skimmed 1632, whilst orangish brown brickearth, some grey mottled orange, sandy silt and a little grey sandy silt, mixed in lenses and patches and containing small fragments of chalk [1563] overlay 1598 (XV.6) just to the south. This suggests disturbance of the underlying brickearth mixed with introduced materials. Finally a compacted capping of brownish silty brickearth containing small fragments of chalk.
and silt lenses [1390] covered both 1563 and 1545, to form the surface of the road proper at just over 3m OD. To the north, a patch of orangish brown sandy silt and a little dark brown silt containing medium pebbles and small fragments of ragstone, becoming more organic in the east, [1541] over 1545, and reddish brown brickearth [1385] over 1632 may be outliers of 1390. Thus, although the surfacing proper of brickearth of road thirteen was mainly confined to its south-east area immediately adjacent to the much amended portion of wall 1830 (see XV.4 and XV.8), its gravel make-up extended for the majority of the length of the east part of the road.

To the west, a small spread of pinkish grey mortar and a little greenish brown silt flecked with off-white mortar [1288] lapped against wall 1337 (XV.9) and may have been related to its construction. Further north was a compacted spread of small chalk fragments [1223] over 1213 (XIV.11), again possibly related to building activities nearby. A layer of small fragments of chalk in brown claye silt [1420] on 1421 (XIV.11) nearby closely resembles 1223, with a spread of buff sandy mortar [1400] on top, containing a patch of brickearth with large fragments of buff sandy mortar at its base in the north. Finally, a spread of brickearth and some grey sandy silt containing large tile fragments [1383] capped 1400, forming a major road metalling with a surface level of just over 3m OD. In character and level, therefore, 1383 closely resembles 1390 et al to the east and they seem to be part of the same feature - road thirteen.

If this correlation is correct, the road can be shown to have been inserted after the construction and modification of Building 7 in the south-east (XV.4, XV.5, XV.8 above) and after its associated eleventh and twelfth roads (XV.6, XV.7). It also occurred after the construction of the half-cellar Building 6 (XV.9) in the south-west of the site.

A compact spread of light brown silt containing small fragments of oyster shell and tile, medium pebbles and flakes of mortar, chalk, tile and oyster shell [1155] covered 1383, also sealing road make-ups 128, 1223, and 1093 (XIV.11). This represents the use of road thirteen. A patch of medium pebbles in light yellowish orange coarse sand [1148] on 1383 and 1287 (XIV.9) nearby is probably a repair to its surface. The compact greyish brown silt, some clay and a few large fragments of tile and chalk containing small fragments of ragstone and sandstone, fine pebbles and flecks of charcoal, chalk, mortar, tile and sandstone [1082] on 1148, 1155 and also over 1196 (XV.9) could be further tread or another attempted repair to road thirteen.

Post hole [1062] cut into 1082. It was roughly circular, 0.25m across, with nearly vertical sides, in places undercutting, 0.25m deep curving to a concave base and was packed with dark brown mortar flecked silt and a little fine sand [1061], forming a post pipe around void [1060] 90mm across and steep sided itself filled with dark orangish brown decayed wood [1059] representing the post proper. This feature was set beside the south-east corner of the undercroft and may be related to changes to its superstructure.

The layer of brown brickearth and a little tan silt [765] which sealed 1059 was probably a later repair to 1383 and was itself cut by [718], an oval measuring 0.40m north-south by 0.26m east-west with steep sides 0.28m deep curving to a rounded base. It was packed with compacted, fine and medium pebbles in some grey chalk-flecked silt [731]. The pebbles were absent towards the top, and the colour greener towards the base. At the centre of the cut, black charcoal-flecked silt and some dark brown decayed wood in lenses [717] overlay 731,
marking the demise of the feature. It was presumably a replacement for 1062 and similarly related to the nearby undercroft.

Further south, north-south masonry [249] was built above 765 and over the east wall of Building 6, suggesting a rebuild of its east boundary wall at this point, with compact grey silt and some decayed grey mortar containing flecks of brick, chalk and charcoal [248] on top, with trample across and access point or disturbance of the foundation.

To the north, north-south cut [1090] intruded into 765. It was 1.70m long by c. 0.45m wide with vertical sides 0.42m deep and a flat base and was filled with large fragments of unhewn, roughly courses chalk and less ragstone set in some greyish white coarse sandy mortar [1051] to form a foundation set immediately in front of the top of the steps going down into the undercroft of Building 7.

Cut [1042] intruded into the north edge of 1051. It was rectangular, 0.78m long by 0.78m wide, with a vertical side in the south and west 0.33m deep, but a much more gradual slope in the east leading to its concave base. It was filled with masonry [1013], representing a rebuild of the window splay first seen in period XIV, perhaps necessitated by the rise in adjacent road surfaces.

To the north, [1033] cut the north edge of foundation 1051. It was rectangular, 1.16m long by 0.56m wide with vertical sides in the south, more gentle elsewhere, up to 0.41m deep and with an irregular base. It was filled with masonry [986], suggesting that the north window splay was rebuilt at the same time as its counterpart to the south. Masonry [787] was then added against the rebuild windows across the undercroft threshold, capped with a skim of white mortar [454] as a bedding for limestone threshold [450] with a surface level of just below 4.0m OD.

The new window arrangements and added threshold can only mean that the undercroft to the west continued to function at this stage and that blocking 1319, 1320 (see XVI.1) had not yet been inserted.

To the east, a spread of brownish grey silty clay containing flecks and small fragments of chalk [1373] accumulated on 1390, the thirteenth road surface here during its use, and also abutted 1423 (XV.8) a modification to Building 7 at the end of period XV. Further brownish grey sandy clay [1347] then accumulated on 1373.

Further north, a deposit of orange coarse sand and crushed chalk, becoming light yellowish buff sandy mortar and a little sticky dark brickearth in patches containing small fragments of chalk higher up [1603] overlay 1632, the make-up for the thirteenth road and may be a repair. A mixed layer of dark brickearth and some grey silt containing flecks of charcoal and mortar, medium pebbles and large fragments of ragstone, becoming more silty and with brick inclusions in the north [1599] covered 1603, either further repair or use of 1603, then orange coarse sand and some medium pebbles [1586] as a patch on this. A nearby spread of light orangish yellow sandy mortar [1588] also capped 1599, with both covered by a uneven mixture of brickearth, some grey silt and a little greenish grey fine sand containing large mortar fragments [1509]. The proportion of silt increased towards the base of the layer.
Finally, a little further north, areas of dark brownish grey pebbly silt [1594] and greyish brown sand and clay [1257] also covered 1599. All of these localised patches suggest that the thirteenth road surface was extensively used and repaired, which accounts for the non-existence of its main make-up 1390 this far north.

Cut [1560] intruded into 1509. It was rectangular, in the south, 0.60m wide and 1.20m long, with an irregular termination in the north and had vertical sides, stepped in the north and south, up to 0.40m deep and a flat base. The south, rectangular part was filled with brownish grey chalk-flecked [1555] at its base, then seven courses of bricks packed against its south face set in yellowish buff sandy mortar [1528]. At the north end, the feature was laid with eleven courses of bricks and chalk blocks, also bonded in yellowish buff sandy mortar [1542]. The brickwork was composed of an irregular mixture of stretchers, headers and a few broken bricks, one stretcher in width in the east, one header in the west. The former area utilised light grey chalk-flecked mortar which maybe a rebuild.

1542 and 1528 formed the north and south sides of a feature, probably a flight of steps, giving access across the west wall of Building 7 into the culvert and drain area of its north room.

To the south, dark orangish brown coarse sand, some coarse pebbles and few medium pebbles, also containing fine pebbles [1533] overlay 1563 and may be a counterpart of the thirteenth road metalling here. The dump of brown silt and a little fine sand [1384] on top, also abutting foundation 1525 (XV.8) is probably the same thing.

Similarly, further north, localised deposits of brown clay [1311] over 1390 and 1541, then brownish grey silt and clay [1281] below brownish tan silty clay [1268] and finally dark brown ashy silt containing flecks of chalk, mortar and charcoal and coarse sand [1260] show that this area beside the rebuilding of the west wall of the building continued to function differently from the main gravel metallings of the road to the north. The lack of durability of these clayey deposits to withstand intensive traffic may suggest that the main movement zone lay to the north, or that use layers accumulated in the south beside Building 7, in either case suggesting a marginal area. Or it may imply that activities taking place within the building created residues which then accumulated outside its west wall. Nearby, brown silty clay [1236] on 1281 and 1385 resulted from similar processes as 1281 et al.

Two features intruded into these horizons of use of street thirteen. [1030], cutting 1516 (XV.8) and 1384, 1373, was rectangular, 1.00m east-west by 0.60m north-south with vertical sides 0.70m deep and a flat base, except in the north-west corner, which was ...... by 0.15m. It was filled with grey silt containing small fragments of oyster shell and chalk, fine pebbles, and flecks of mortar, chalk, charcoal and shell becoming more sticky and clayey at its base [871]. This represents the feature’s demise, which originally may have contained a structural feature integral with earlier foundation 1472/1423 (XV.8), which is asymmetrical at this point. Further north, [1031] intruded into accumulation 1260. It was rectangular, 1.06m east-west by 0.56m north-south, with generally vertical sides 0.71m deep, undercutting in the east, and a flat base. It has the same structural interpretation as 1030 and was filled with brown, chalk-flecked silt, medium sand and a little clay, the last element increasing in proportion towards the base [907]. The clayey content in each cut might suggest that they remained open, and paddling occurred for a short time after any structural elements were removed.
An amorphous ‘cut’ [903], which extended above 907 to 871 and covered the area in between, may have been related to the robbing of a feature running between the two elements, or caused by differential wear in an area subjected to increasing use.

The laying of the thirteenth road surface, therefore, against Building 7 in the south-east and the half-cellared Building 6 in the south was followed by its use and repair, with features set beside the road related to the buildings and creating a marginal area where accumulations and clay dumps were allowed to occur. This occurred at the end of period XV.

**Period XVI.1-XVI.8**

**XVI.1 Strengthening of undercroft of Building 5**

(Fig 43)

**Description**

In the central, west part of the site, within the period XIV undercroft of Building 7, oval cut [1307] intruded into 1535 (XIV.3). It measured 0.85m east-west by 0.70m north-south, with steep sides up to 0.30m deep curving to a flat base and was filled with loose sticky dark brownish grey pebbly clay some silt and a little coarse sand and decayed wood [1274]. The function of this feature is unclear. Being set in the middle of the undercroft, it seems unlikely to have functioned when that structure was in use, unless it was the position of a container set into its floor, subsequently robbed.

An extensive compact layer of dark orangish brown medium sand and a little silt forming a matrix around some fine pebbles, also containing medium pebbles [1193] was dumped above fill 1274 and covered the whole of the undercroft floor. In the north this deposit sometimes took on a greenish grey hue and forms a major resurfacing of the undercroft at a level of c. 2.20m OD. Rectangular timber [1193] was set into the surface of 1193, possibly a remnant of a timber floor on the gravel metalling, but more likely a discarded stake no longer *in situ*.

Just to the south-west, circular cut [1273] also intruded into 1193. It was 1.25m across with steep sides up to 0.30m deep curving gradually to its irregular base and was filled with pebbles...
set in some greyish greensand and a little silt containing large fragments of brick and tile [1270]. This material marks the demise of the feature. Originally, it may have functioned as the earlier 1307, though what this was precisely is unclear.

Where the successive pits and intervening gravel surface fit in the sequence is also unclear. They could easily be in use in period XIV. However, successive pits 1107, 1106 (see below) resemble 1307 and 1273 in character and positions, yet are provably of a later period. So the latter two could be seen as starting a new function for this area, not related to the primary function of the undercroft, but after modification of its function.

To the south, east-west cut [1546] cut gravel 1193, also intruding into 1677, 1578, 1797 (XIV.3). It was 8.35m long and up to 1.30m wide in places, though generally c. 0.80m with an irregular north edge. The two long sides were fairly steep, the two ends curving more gradually, to its irregular base. The cut ran directly along the line of the south wall of Building 5 and was filled with masonry [1514], suggesting a complete rebuild of that wall.

At the east end of 1514, cut [1581] intruded into wall (397 XIV.1). It was irregularly shaped in plan and profile, up to 0.90m across and 0.68m deep and filled with masonry plug [1454], which lapped over rebuild 1514. To the west, further ragstones [1455] were added above 1514 to further strengthen the south wall of Building 5.

At its east end, north-south cut [1550] intruded into 1514, also cutting 1557 (XIV.3). It was at least 2.10m long (both ends indefinite and 0.62m wide with steep, irregular sides up to 0.20m deep and an irregular base. It was filled with large fragments of chalk and some ragstone lying randomly within a little compact grey silt [1515] then light yellowish grey coarse sand and a few fine pebbles [1497] to form a masonry foundation added to the undercroft running from its east doorway to the south-east corner of the building. Further large fragments of chalk and less squared ragstones set in compact light pinkish brown shell-flecked mortar [1485] was then constructed against 1455 and pier foundation 1497, with further large chalk fragments and a little yellow brick set in a little light yellowish grey coarse sand [1505] built above cut 1550, overlapping 1485 and against 98 (XIV.3). At about this time, or a little earlier, loose greyish brown sand and some silt [1456] accumulated in the window aperture incorporated into 92 (XIV.3), seeming to mark the feature’s demise. Finally, masonry [1320] was inserted over 1505 and against 1454 in the south-east corner of the undercroft, underpinning and strengthening the vaulting at this point.

This sequence of construction, in which the south wall of Building 5 was rebuilt and the south-east corner of the undercroft strengthened, though involving successive cuts at the corner interleaved with horizontal rebuilds of the wall to the west, seem to be part of the same episode of building, culminating with the extensive underpinning of its ribbed ceiling.

Further large ragstone blocks [1453] were then added to 1455 to give extra strength to the south wall, associated with a rubble packing of roughly laid yellow bricks in pink mortar containing a little coarse sand and chalk flecks [1441] also over 1455, with further ragstone blocks [1435] added above both of these. Another foundation [1434] also overlay 1441 in the west. Masonry [1238] was then added against 1453 and in front of wall underpinning 1320, so that the south wall was not only rebuilt but thickened along its full length. A deposit of light orangish brown sand and some fine pebbles, lensed with greenish grey pebbles in the north
[1464] abutted the north face of 1238 towards its centre, and may be a construction spread or working surface associated with its insertion.

Cut [1245] intruded into 1464, forming an irregular linear trench up to 0.40m wide and up to 0.25m deep following the line of the strengthened walls and pier bases of the undercroft. It was filled with local patch of grey clay and a little sand and silt containing charcoal flecks, pebbles and small fragments of chalk [1290], then more general orange sand and a few small fragments of ragstone and chalk containing charcoal and shell flecks and pebbles, with a much increased preponderance of chalk in the west [1186], where greenish grey clay, and a little sand and silt containing large fragments of chalk and ragstone and fine pebbles [1190] capped 1186. Lastly, in the east, a dump of chalk, mostly large fragments but a few smaller, set in a little grey silt [1162] covered 1186 and abutted wall strengthening 1435. As a result of all these insertions, cut 1245 was completely filled and the footings of the strengthened south wall more fully supported than previously along its whole length.

In the far west, ragstone blocks [1388] were inserted against wall strengthening 1434, 1464, 1435 to bolster the pier base at the extreme west limit of excavation. Just to the south of this, irregular cut [1582] intruded into 1677 (XIV.3) masonry up to 0.70m across, with irregular sides cutting down the north face of the earlier pier. Chalk pebbles set in some pinkish orange sandy mortar [1382] was then packed into the cut and over reinforcing 1388 to underpin the earlier pier at this point, and continue east to provide a similar role along the whole length of south wall. Finally, seven courses of yellow brickwork [1277] were added in front of 1382 to increase the width of the wall by 0.40m, and continued west as masonry [1381] over 1382, with further large fragments of chalk and some greensand set in light brown charcoal-flecked sandy mortar [458] on this adding further height to the original south wall core.

1382 was cut by [1404], an irregular feature up to 1.20m across with sides up to 0.18m deep curving gently to its flat base filled with masonry [1399]. This lay directly behind the central pier of the south wall and suggests a major modification or addition to that member.

The net effect of all this activity was that the piers and vaulting along the south wall of the undercroft of Building 5 were strengthened and underpinned and the south wall itself widened considerably. This was obviously a complex procedure, involving successive additions and modifications to the various elements, perhaps because the majority of the superstructure was to be retained, so that the building could not simply be taken down to foundation level and rebuilt. Despite the successive activities, there is no reason to view them as other than elements of a single phase of rebuilding. As a result, the whole of the internal force of the south of the undercroft was re-faced with yellow brick.

Exactly when this took place is difficult to determine from the evidence so far. It was obviously a major change, so must belong to period XV or later (see discussion of 1357 below for a justification of its belonging to period XVI).

At the north-east corner of the undercroft, cut [1539] intruded into 1544 (XIV.3) and 1884 ( ). It was long, with an east return at its south limit, and a c. 0.55m wide, with nearly vertical sides up to 0.46m deep and an uneven base and ran between the access steps down into the undercroft and its north wall and wall filled with a compact mixture of small fragments of chalk and slightly less large fragments of ragstone set in some light yellowish grey sandy mortar [1139], to form a foundation paralleling that set in cut 1550 to the south. Critically,
this foundation was laid against wall 1361 (XV.1), the south wall of the chapel created south of the church in period XV.

At the north end of foundation 1139, roughly hewn blocks of chalk and greensand rubble, also containing ragstone and flint set in random courses and bonded with orangish brown medium sandy mortar [1355] was also set into wall 1361 (XV.1), suggesting that the south wall of the chapel was not only added to, but rebuilt when 1139 was inserted. Towards its surface, a masonry plug of coursed squared chalk and ragstone blocks in light brown medium sand [1357] overlay 1355, suggesting a later modification or further infilling at the east end of 1361. This could have taken place at any time later than the construction of the chapel at the start of period XV.

Masonry [1319] was then inserted above 1139 and against rebuild 1357. It underpinned vault 97 (XIV.3) in the south and, critically, was built against 1312 (XV.3), one of the secondary features within the chapel to the north.

1319 clearly has the same role in the north-east corner as the insertion of 1320 had in the south-east - to underpin and strengthen the rib vaulting on either side of the entrance to the undercroft entrance. These changes, as has been seen, can be integrally related to the strengthening of the south wall of the undercroft. That in the north, with 1319, must occur after the chapel to the north had not only been created but in use for some time and modified (after XV.3). Hence, it is reasonable to see the strengthening of the undercroft as distinct from the creation and use of the chapel and as belonging to an entirely new period.

Dark brown fine sandy silt and a little orange medium sand [839] accumulated in the re-splayed north window of the undercroft 1013 (XV.10) and against blocking 1319, with brickearth [838] on top, then white fine sandy mortar, some ragstone cobble and a little orange medium sand [824]. Similarly, in the splayed window to the south 986 (XV.10), dark brown silt, some fine sand and a little clay [831] accumulated against 1320, with greenish brown silt and fine sand [830] on top. This material is that accumulating in sweeping from the street, followed by attempts at deliberate blocking suggested by mortar and rubble 824.

The insertion of underpinning 1319 and 1320 would have ended the life of the windows lighting the undercroft. The latter features were repaired after the laying of road thirteen (see XV.10). This indicates that the strengthening of the undercroft took place after the creation of the chapel in the north-west of the site (XV.3), after the construction of Buildings 10 and 11 in the east (XV.4 and XV.5), after the creation of the half cellar in Building 6 in the south-west (XV.9) and after roads eleven, twelve and thirteen had been laid up the centre of the site.

An extensive, but patchy deposit of medium pebbles and slightly less fine pebbles in some orangish brown fine sand, mixed lenses [1153] overlay 1270 and 1173 and against strengthening 1162 in the south and 1319 in the north-east, covering much of the floor of the undercroft. In places the material of this context was discoloured black, changing to light grey when exposed to air and suggesting an organic element in its composition. It forms a gravel make-up inserted after the undercroft strengthening.

Towards the west a patch of sticky black bituminous material around some fine pebbles and a little medium sand [1120] covered 1153, with a more extensive loose deposit of medium and fine pebbles in a little yellowish brown coarse sand and medium sand [952] on top also over
1190. In the west, the latter contained organic lenses. These form a capping for gravel make-up 1153.

Pit [1107] intruded into 952. It was probably circular, c. 1.30m across, with nearly vertical sides up to 0.26m deep and a flat base and was filled with reddish brown coarse sand and some crushed off-white mortar containing fine pebbles and small fragments of brick and tile [1103]. This building material is just compensation for a robbed feature, though what it contained originally is unclear. It is not symmetrically positioned within the undercroft, so is unlikely to be structural.

Circular cut [1106] intruded into the east edge of 1103. It was 0.65m across with vertical sides 0.22m deep and a flat base and filled with grey ash and some large fragments of roof tile containing flecks of off-white mortar [1096]. As with 1103, there is no reason to suppose that this fill relates to the primary use of the feature, though what that function was, and whether 1106 replaced 1107, is unknown.

In the south-east corner of the building, a mixed loose deposit of light yellowish grey crushed mortar and fine pebbles, and slightly less off-white crushed chalk and grey sandy silt [983] over 1153 suggests a further make-up here like 1120, 952. All of these dumps could have been more extensive originally, but worn away through use at the centre of the building and this only surviving at its edge.

To the north, cut [1104] intruded into 1153 running along the north wall of the undercroft and around its re-inforced pier base. It was 9.20m long and up to 0.60m wide, with steep south edge up to 0.24m deep and rounded ends where it met earlier walls at either end and a flattish base. Bricks [1067] were inserted in the cut to form a brick lined drain running along the north wall. There were no signs of inlets such as down pipes leading into the feature nor was it clear where it led to, though the answer may have lain beyond the limit of excavation to the west. Light grey loose fine sand, sandy silt, fine pebbles and large fragments of tile in decreasing proportions also containing medium pebbles [1023] was packed into the south construction trench of the drain, with slightly more pebbly, but essentially similar material [1022] a counterpart in the north. Loose dark greenish grey silt and a little yellow silty clay and fine sand [1083] accumulated within 1067. The different components of this sediment settled differently, with the clay and sand towards the base of the drain, and darker silt at the top. It varied in depth between 20 and 60mm and represents the line of the feature perhaps, with the lower clay and sand showing slow and fast flowing water and the upper silt its silting up and demise.

An extensive deposit of medium and fine pebbles set in a little yellowish brown coarse and medium sand containing large and small irregular fragments of wood, with compacted surface [919] sealed pit fill 1096 and make-up 983 and ran up to drain packing 1023 in the north, though didn’t deal the feature entirely. The deposit was discoloured dark greenish grey towards its base in the centre where it contained a lens of bluish black bituminous smelling medium and less fine pebbles and small fragments of wood in a little coarse sand. These inclusions must be related to the function of the modified undercroft.

Cut [990], running diagonally north-west-south-east, intruded into 919. It was at least 4.20m long (north end beyond limit of excavation) and 0.40m wide, with steep sides, especially in the north-east, up to 0.22m deep and a flat base and was filled with bricks [977], backfilled on either side with pebbles in some reddish brown coarse sand and a little brown silt [973], to
form a drain. Sticky, coarse sand some orange clay and a little silt [993] accumulated in the feature. It was absent in the south-east of the feature and became more clayey and less sandy to the north-west. The character of the fill, and changes in it along the line of the drain plus the abrupt south-east termination of the feature opposite the central pier base in the south wall of the undercroft and its marginal slope down to the north-west all suggest that the inlet was at the south-east end. However, no change in mortar was observed here to indicate the position of any down pipe feeding or any blocking of it. Although drains 1067 and 977 could not have been constructed at the same time, they were probably in use together and possibly part of the same sequence of construction.

By the end of the later drain, a loose deposit of blackish brown organic silt and a little fine sand [910] covered 919, maybe decayed wood. Nearby, east-west timber fragment [904] also lay embedded in 919, possibly a floor plank though not clearly in situ. Further east, a more general spread of loose black decayed wood mixed with a little fine sand, coarse sand and fine and medium pebbles [881] capped 919. Again, it is unclear whether this represents a decayed floor, or pebbly make-up above 919, or simply trodden occupation debris on the lower deposit.

Finally, an extensive deposit of medium and slightly less fine pebbles in some greyish yellow medium sand, compacted at its surface [770] sealed drain packing 1022 in the north, packing 973 in the south-west and covered 881, 904, 910 elsewhere. In places, the surface of this layer was extensively scorched, with the discoloration evident throughout the whole depth of the layer. It incorporated timber [714] into its surface, which may be a fragment of timber floor surface set above 770 which had been robbed elsewhere, although the fire which had scorched 770 had not charred 714 as well and no analogous timbers were found elsewhere in the surface of 770. The final floor within the strengthened undercroft brought its level up to c. 2.08m OD.

**XVI.2 Insertion of piers and raising of floors within the chapel**


**Description**

In the north-west of the site, cut [1249] intruded into 179 (XV.1), the east wall of the period XV chapel, towards its north-east corner. It measured 0.85m north-south by c. 0.25m east-west, with sloping irregular sides up to 1.45m deep and a flattish base. It was filled with masonry [1227], suggesting a rebuild in the north of the chapel.

Just to the north-west, wall [167] was inserted into 1227, further modifying the chapel wall at its north-east corner, with its west face skimmed with brown rough mortar [168]. Foundation [160] was then set against 168, extending down to 2.84m OD, well below the level of the contemporary ground surface, and forming a massive pier foundation set against rebuild 167. On its east face, this pier was surfaced with light brown fine mortar 10mm thick, with a skim of 1mm chalk plaster on its surface.
Seen only in section just to the west, was the line of cut [226] a roughly vertical cut intruding into 217 ( ) packed with light brown pebbly sand [213]. This is the construction cut for pier 160, suggesting that it was built from the west up against the wall of the chapel.

Blocks of roughly dressed ragstone, sandstone, chalk and flint were laid in two courses, set in compacted oatmeal coloured mortar flecked with charcoal, chalk and tile [159] on foundation 160 and against the base of mortar 184. In the west, the lower course of this foundation ran flush with the top of a large ragstone block, with surface level of 4.42m OD, which terminated the end of this buttress. At its east end, a 3mm thick grey fine plaster [166] overlapped 159, covering the face of mortar 184.

The existence of mortar skims 168, 184 and 166 might suggest that there were successive episodes of construction here, with wall 179 modified and the result plastered, then pier base added to the west and plastered in a separate phase of construction then further refaced. However, mortar 168 was noticeably rougher than that of 184, and lacked its fine chalky mortar skim. Also, 168 only existed below the level of the level of the contemporary ground surface implied by features to the west associated with pier 160. Therefore, a more continuing sequence is that wall 179 modified and then the pier base was trench built against that modification immediately, with 184 representing the mortar skimming of the new surface of 179 after the pier was inserted. Hence there was the one extended phase of construction rather than two separate events. 166 would be a finishing plaster or a later addition.

To the west, rectangular cut [172] intruded into wall 176 (XIII.2) and 178 ( ). It only survived in the south-east, measuring at least 2.20m east-west by 1.20m north-south with vertical sides at least 0.50m deep (true depth obscured by later strata) and was filled with masonry [174], with its construction trench then packed with dark brown pebbly clay, and a little dark green silt and sand [171], below a lens of yellow/cream mortar [170], then brown silt and a little clay and sand [169] and a final lens of crushed chalk and small fragments of chalk [165]. Pier 174 forms a counterpart to 160 to the east.

Just west of pier 160, cut [215] intruded into 217 ( ). Only seen in section, it was 0.28m wide with vertical sides 0.23m deep and a flat base and was filled with small fragments of chalk and flint set in yellow fine mortar [209] to give a footing for an installation or north-south foundation. To the east, sticky dark brown silt with charcoal lenses [212] overlay pier construction trench backfill 213, with brown sandy, pebbly silt [211] on top, also abutting the edge of foundation 159 in the east (recorded here as [157]). Where it lay against foundation 159 there was an overlying skim of crushed greensand and chalk with fragments of yellow mortar the whole set in light buff mortar [210]/[156], which abutted plaster 166. This is the setting for a tile floor, with the tile later robbed, which would have had a surface level of c. 4.45m OD, though had clearly slipped to a much lower level in the west. It probably extended between modified wall 179 in the east, around pier base 160 in the north, and up to narrow foundation 209 in the west.

On the west side of foundation 209, a spread of buff fine mortar skimming a 10mm thick deposit of tan silty clay (all [216]) covered 217. A pebbly mixed deposit of dark brown clay and slightly less yellow silt and sand [164] sealed this, with another mixed pebbly layer of green silt and less sand and brown clay [161] on top; a final lens of loose crushed greensand
on top. Then make-up dumps, though not stratigraphically relatable to the insertion of
foundation 209, are clearly different in character from the deposits east of 209 culminating in
floor base 210/156. They must be the base for the surface running between 209 and pier base
174 to the west, although no actual floor level survived at their surface.

Further west, [183] intruded into the limit of excavation. Only the south-east corner survived
of a rectangular feature, at least 1.0m north-south by 0.85m east-west with nearly vertical
sides at least -.38m deep, and probably much deeper. It contained masonry [180], with dark
brown clay [185] compacted against its face as construction trench fill and formed another
pier base west of 174 and the same distance from it as 160 to the east.

These three piers, set directly to the north of the line of wall 179, the south wall of the church,
must involved the latter’s dismantling and replacement. Hence the previously enclosed space
of the body of the church to the north would have been accessible from the previously chapel
to its south. The removal of the main load-bearing, south wall of the church must have
required substantial modifications to the roof of the earlier building to allow such access.
Henceforth, what was previously a separate chapel added on to the church probably becomes
the nave, with direct access into the church, now the north aisle, between the pier bases.

To the east, north-south cut [934] intruded into the west face of 179 (XV.1) and into 1013
(XV.10) part of the thirteenth road surface flanking the period XV chapel. It was 5.40m long,
extending the full width of the chapel, and 0.35m wide in the north, expanding to 0.60m
further south, with gradually sloping east side up to 0.16m deep curving to an imperceptible
base. It was filled with grey mortary silt and a little light brown fine sand and a little chalk in
flecks and small fragments [822], forming a rough footing beside wall 179.

Cut [964] intruded into the north end of footing 822. It also cut into the east edge of
modifications 1227. Only the south and west edges survived of a feature at least 1.20m east-
west by at least 1m north-south with vertical sides in west, more concave in south and up to
0.13m deep. Post hole [965] lay with the base of 964, 822. This was oval 0.45m east-west by
0.18m north-south generally steepsides up to 0.23m deep and a rounded base. Both cuts were
filled with loose grey silt and medium sand and less small fragments of tile, chalk and flint
[832] then dark brown silt and a little charcoal in flecks and small fragments [793], which
continued south above footing 822.

964/965 seems to be subsidence or disturbance above the main east wall 179. The fact that it
overlay both footing 822 and modification 1227 might suggest that these elements were
inserted at roughly the same time, together with the pier bases to the west. This can be shown
to be after the creation of the chapel in period XV.1 in the west, and also after the laying of
road thirteen (XV.10) up the centre of the site.

To the centre of the modified chapel, soft grey silt and a little medium sand and clay [792]
overlay 834 (XV.1) and 793, below yellowish brown sandy mortar, some brickearth and a
little chalk in fragments [780], followed by orangish brown fine sandy brickearth containing
small fragments of chalk [779] then buff mortary silt and a little chalk in various sizes and fine
sand [774]. This sequence of make-ups represent successive repairs to the line immediately
beside the modified chapel.
A small dump of brown brickearth and some medium sand [771] capped 774, with a skim of grey mortary silt [769] on top. On its east side, a line of ragstone cobbles in a little brown mortary silt [777], over 841 (XIV.9) and 774, is probably a more substantial repair to toad thirteen in this localised area. Grey silt and a little clay and fine sand containing small flint fragments and fine pebbles [764] then accumulated on 769 and against cobbles 777, representing sweepings derived from the use of the road deposited against the east wall of the church. All of these activities continued south of the modified chapel, up to the position of the entrance into the undercroft (Building 7) further south. This suggests that undercroft and chapel may have taken on a more integrated relationship at this point, with the hall over the undercroft probably now incorporated as the new south aisle.

Cut [737] intruded into the south end of 764. It was sub square, c. 0.22m across, with generally vertical sides up to 0.30m deep and a rounded base and was filled with loose light greyish brown silt and some sand [736]. It lay immediately north of the steps down into the undercroft (Building 7) and is probably related to those arrangements. Just to the north, [453] also intruded into 764. It was roughly rectangular, with curving south-east corner, measuring 0.80m north-south by up to 0.55m east-west with vertical sides except where more gradual in the south-east 0.15m deep and a flat base except for a deeper area in the south. It was filled with medium pebbles in some yellowish brown coarse sand [452], with large fragments of yellow bricks incorporated into this fill in the south.

The cut was positioned at the north-east corner of Building 7 (new south aisle), where it was incorporated into the period XV chapel (south extension or chapel). The bricks which it utilised were similar to those used in strengthening and underpinning the undercroft (XVI.1).

Just to the north of cut 453, a patch of chalk-flecked dark green sand and light grey silt [756] overlay 769, with dark brown silt and some brown sand containing flecks of chalk and light brown mortar and medium pebbles [738] on top as further localised repair of the road against the church wall. Similarly, to the north, a dump of greenish grey silt mixed with some brickearth containing large fragments of ragstone, flint, tile and chalk and fine pebbles [423] overlay 774 as a repair there.

Between 737 and 423, [773] intruded into 774. Measuring 0.75m north-south by at least 0.18m wide (east edge truncated), it had steep sides up to 0.12m deep and a generally flat but irregular base. It was packed with orangish brown sandy brickearth and a few cobbles of ragstone and greensand [772], with two further cuts defined within its line. [740] in the south was c. 0.16m across with irregular, vertical sides 0.29m deep and a rounded base and filled with pebbly brown silt and some dark green sand [754]. [742] in the north was 0.14m across with vertical sides 0.15m deep and a flat base and was filled with soft pure brown fine sand [741]. Set centrally between the two was iron object [743]. These suggest a feature set against the east wall of the church.

Within the period XV chapel, at the west end of the partition foundation 821, cut [690] intruded into 958 (XV.2). At least 0.70m north-south (both ends truncated) by 0.45m east-west with sides gradually curving to an uneven base, it was filled with grey silt, becoming mixed with a majority of light buff medium sandy mortar [666] at the surface. 690 could be associated with ‘scaffolding’ 88 and/or the construction of foundation 821 (see XV.3). However, it only really represents a shallow disturbance of underlying strata, rather than a true constructional feature. This, plus several decorated floor tiles incorporated into the fill, makes
it more likely to post date floor 361, maybe related to the removal of a beam slot bonding the floor in the west.

The spread of crushed chalk [659] above 666 also sealed floor 361 (XV.3) with further compact crushed chalk and a little brown silty clay [524] on top. These show that the tiles had definitely gone out of use by this time. Further north, a lump of light buff mortar comprised off white silty clay and a little medium sand [712] capped 728 (XV.3). Both 712 and 524 were sealed by an extensive dump of various lenses of material [100] in sequence from the bottom: loose crushed chalk with chalk fragments up to 70mm across, 0.20m deep; loose crushed greensand 0.45m; loose light buff mortar 0.15m deep; then further crushed greensand 0.25m deep - hence 1.10m deep. This continued south to abut plaster 1353, north against plaster 1324 and into the north-east corner of the chapel to seal tile floor 603 and associated division 605. The proposed altar must have been removed before the dumping took place. It formed a strip running alongside the east wall of the chapel, extending for at least 1.0m westwards before being truncated. Its highest surviving point, was 5.10m OD. To the west, was a surviving fragment of greyish buff sandy mortar and some coarse sand [745] overlay 729 (XV.3) with light greyish buff chalk-flecked mortar and a little sand, crushed chalk and pebbles [748] on top, corresponding with another fragment of greyish brown sandy silt mixed with patches of darker grey sandy silt [727] over 728 (XV.3) and 676 (XV.2), then off white crushed chalk containing small fragments of chalk [720] just to the south. Though these were only islands of stratigraphy surviving later extensive intrusions, their character and level suggest that they represent the base of dump 100 to the east.

To the south-east, irregular cut [633] intruded into 697 (XV.3) above the entrance into the chapel, and into its east wall. It measured 3.20m north-south by up to 0.60m wide, with on the north-west and south-west sides definable. These were very irregular, cut in steps into the masonry of wall 179, and up to 0.64m deep in the south and 1m deep in the north. A flight of three ragstone steps [360] were set within the cut overlying dump 100 to the west and 946 (XV.1) the door post setting in the original entrance. This was 0.85m wide, the stones set in off white mortar and a little coarse sand. Below and to the east, this mortar formed the bonding for the flint nodules and greensand blocks which formed the blocking in the original doorway. The uppermost step had a surface level of 4.82m OD It seems reasonable, therefore, to presume that they would have accompanied a floor set on top of dump 100 at about this level. Each step dropped by 0.22m, giving the eastmost a level of 4.37m OD There was no evidence to suggest the existence of a fourth step at a lowest level to the east, though the masonry of wall 179 lay at this point at a level of 4.18m, so may have been used as the next step. From here to the presumably contemporary road surface of 3.58m was 0.60m, a rather large drop so intervening steps may have been added to the east of the wall line which were later removed.

The raising of level within the chapel was obviously a major change in the use of the building, taking place after the modifications of XV.3. It seems reasonable to relate this to the insertion of pier bases 160 et al to the, giving direct access between chancel/nave and chapel to the south, in the process converting the latter into the nave, and the former into the north aisle. Modifications to the east wall of the building, suggested as being contemporary (822, 964 etc.), can be shown to post date the thirteenth road surface (XV.10). Hence, all of these changes took place after XV.3 and XV.10, the two elements which the undercroft strengthening described under XVI.1 can also be shown to post date.
It seems likely, therefore, that XVI.1 and XVI.2 are part of the same process of reconstruction. The explanation probably lies with the insertion of the pier bases. Knocking down the south wall of the nave/chancel to give access between it and the previously chapel to its south meant, in effect, removing the main load bearing wall of the church to the south. This load - in particular that of the main church roof - would then have to be transferred to walls to the south never designed to take such weight. Hence the undercroft wall, constructed in period XIV, had to be considerably reinforced and underpinned. Exactly what this meant to the roofing of the much modified building will require detailed structural analysis of the building material and foundation evidence.

**XVI.3 Initial burials in south extension or chapel**

608, 359, 565, 1244, 1146, 1224, 1091, 1202, 1160, 1159, 1112.

**Description**

Towards the east end of the south extension or chapel of the church, east-west cut [608] intruded into 100, 748 (XVI.2), the clumps raising its internal floor surface. The intrusion was at least 2.05m long (west end cut away) and 0.60m wide, with vertical sides at least 0.68m deep (top truncated) with a level base. It was filled with brownish grey chalk flecked silt [359] around skeleton [565], which is the first burial inserted after the south extension or chapel was created and its floor levels raised at the start of period XVI.

Further west, east-west cut [1244], of which only the north edge survived properly, intruded into 2010, 1970 (XIII.4). At least 1.60m long by at least 0.35m wide (cut away in west and south) it had steep, irregular north side at least 0.26m deep and contained skeleton [1146].

Cut [1224], just to the south, had removed most of skeleton 1146, also intruding into 1240, 1192 (XV.3). This was irregularly shaped at least 2.15m long (truncated in the west, though only slightly) and up to 1.0m wide, with steep, but irregular sides 1.25m deep, becoming vertical at the base, which was flat. It contained skeleton [1091], covered with a mottled, compact mixture of brown, pebbly, chalk-flecked medium sand and slightly less silt and clay [1202].

Finally, cut [1160] intruded into the north edge of fill 1202. It was 1.85m east-west by up to 0.50m with vertical north side, slightly less steep elsewhere and 0.74m deep with a flat base and contained skeleton [1159], below a pebbly fill of dark grey medium sand, oyster shell and less off white crushed mortar [1112].

Grave 608 was clearly inserted after the raising of floor levels in the south extension or chapel and before the final burials described below (XVI.5). 1244, 1224, 1160, which may be closely related given their proximity and inter-cutting, cannot be as closely stratigraphically. They ante-date XVI.5, but could have been inserted during period XV, rather than the start of period XVI. In the case of 1224 and 1160, this would have to be fairly later in the life of the chapel, since they provably cut stratigraphy assigned to the later part of the life of the chapel. They have been placed at the start of period XVI since this is the latest that they can be.
XVI.4 Burials on boundary of original nave

2532, 2447, 2294, 2288, 2283, 2282, 2220, 2227, 2225, 2192.

Description

At the north edge of the excavations, cut [2532] intruded into 2541, 2624 (XIII.2). It was 2.12m east-west by up to 0.40m north-south with fairly steep sides up to 0.54m deep and an irregular base and was set just inside the north edge of the demolished south wall of the former nave of the church. It contained skeleton [2447], covered with a spread of orangish brown pebbly, chalk-flecked silt [2294], which also flowed over the edges of the grave cut.

[2288] cut into the west end of 2294. Only the south edge survived of a feature at least 0.90m long by at least 0.40m wide with vertical edge 0.60m deep and a flat base. It contained incomplete skeleton [2283], below a grave fill of grey silt [2282].

Further west, brown pebbly silt [2220] overlapped 2294 below a mottled spread of small fragments of crushed chalk and a little light grey medium sand and fine and medium pebbles [2227]. These dumped layers were cut by [2225], an irregular east-west feature running alongside the south wall of the former nave of which only the south side survived properly. It was 2.20m long by at least 0.30m wide with steep sides 0.28m deep merging imperceptibly into its uneven base. It was filled with pebbly orange clayey silt and medium sand [2192].

The interpretation of 2225 is difficult. The west half of the cut coincides with a lack of facing on the north side of the nave wall. Perhaps a feature was set against the wall at this point and 2225 in a robber cut for its removal.

The point in the sequence at which cut 2225 was inserted, and when the graves below were dug, is unknown. It could be at any stage during the lifetime of the nave. The fact that 2294 seals the edges of grave 2532 might suggest that this was dug from a ground level of below 3.0m OD, whilst dumps 2220 et al and cut 2225 seem to have been sealed by material below 3.40m OD. This is well below the contemporary ground surface in the nave once the pier bases have been inserted, which is over 1.0m higher. However, the level from which grave 2288 was dug is completely unknown.

All that can be securely stated is that the sequence was in existence before the latest burials of period XVI (see XVI.5), so they have been placed here at their stratigraphically latest position.

XVI.5 Final modifications of piers and further burials in the south extension or chapel

(Fig 44)

147, 146, 145, 155, 208, 203, 144, 207, 206, 202, 143, 205, 204, 201, 132, 227, 138, 554, 125, 760, 759, 675, 139, 556, 580, 555, 818, 137, 126, 655, 481, 471, 343, 135, 134, 129, 101, 1329, 1328, 1305, 525, 342, 632, 573, 543, 303, 542, 302, 658, 657, 674, 673, 653, 656, 596, 162, 142, 133, 141, 131, 140, 128, 136, 127, 94, 96, 93, 75, 130, 229, 188, 1102, 1092,
Description

At the north-east corner of the south extension of the church, cut [147] intruded into 156 (XVI.2) the floor associated with the primary piers giving access between nave and aisle. Only the east edge survived of a feature at least 1.40m long and 0.50m wide. It had a steep side 0.53m deep and a flat base and was filled with masonry [146], representing an extension in height of the primary pier 160 keyed into the east wall of the church with an offset on its south face at c. 4.85m OD. Plaster face [145], 20mm thick and oatmeal coloured, surfaced the south element of this wall.

Further west, dark brown clay and some silt [155] over 163, 210, 209 (XVI.2), then a mixed dump of lumps of yellow and grey mortar crushed into a silty matrix [208] and finally mixed brown and grey silts [203] were all recorded further along in section as soft brown silt with a few lenses of brown sandy silt and patches of sticky brown clay [144].
This horizon was clearly dumped over foundation 209 and its accompanying floors and must represent its demise. 144 lapped up over the offset level at the west end of foundation 146 and was probably a make-up for its floors. To the west, a lens of crushed greensand and grey chalk-flecked mortar [207] covered 203, with a thin deposit of brownish grey silt with lumps of brown clay [206] on top. Loose chalk-flecked oatmeal coloured mortar [202] covered 206, equating with a spread of loose crushed chalk [143] over 144 in the east. Towards its base were a number of horizontally laid tile fragments mixed with larger crushed chalk and greensand fragments. Another area of crushed chalk, some yellow mortar and a little brown silt containing mortar, chalk and flint fragments lay in a hollow at the base of the layer. To the west, 202 formed a vertical edge in section, as if laid against a structural division. The strata which it abutted, lying on 206 were soft grey sticky mortar containing sandstone, greensand, chalk and charcoal fragments [205], below black silt and charcoal [204]. The lower element could be the base of a rough foundation, but the upper fill suggests its robbing. A spread of chalk flecked grey silt [201] covered 204 and continued east to lens out gradually above 202, probably representing tread on that surface. The cut at the west end of 202 looks like at replacement for foundation 209, but set rather further west.

Overall, the implication is that the pier base 160 was rebuilt, with dumps inserted to its west to raise levels by half a metre, and a floor laid on top with a surface level just below 5m OD, with a replacement for foundation 209 set up c. 1.5m west of the new pier, possibly to bond the new floor on that side.

Cut [132] intruded into 143 and 155, elsewhere cutting 2282, 2192 (XVI.4), 565 (XVI.3), 726 (XVI.2) and 734, 757, 1195, 1150, 1151 (XV.3). It measured almost 6.0m north-south by 5.0m east-west, running from beside the east wall of the south extension to opposite the line of pier 174 and covering the full width of the aisle. Its edges were locally irregular, but the sides were nearly all well cut and vertical, with a depth of at least 0.80m. It was seen in section as [227] to the north cutting 201.

At least 32 east-west graves, many intercutting, were continued with the line of cut 132. They are described here in sequence. The depths are minimum measurements since the contemporary ground surface was usually unknown. All heads of associated skeletons were to the west unless otherwise stated.

[138] lay towards its north-east corner. It was 2.20m long by c. 0.60mm wide, with rounded corners and vertical sides at least 0.40m deep with a flattish base dipping slightly to the west. Within the cut a void, [554], left by the coffin was evident. It was trapezoidal, being slightly larger at the head end and suggests a container 1.95m long and up to 0.46m wide. It contained skeleton [125].

Just to the south lay cut [760]. Its exact relationship with the main cut 132 was unclear, but it definitely intruded into 1462 (XIV.2) and 1016 (XV.2). It was 2.25m long and 0.75m wide with rounded corners and vertical sides up to 0.96m deep with a base sloping down from the north-east corner. It contained skeleton [759], then a fill of dark brownish grey pebbly coarse sand and some silt containing large fragments of buff mortar and flecks of charcoal and chalk [675].

Cut [139] intruded into both 125 and 675. It was 2.30m long and up to 0.90m wide, with rounded corners in the east, sharper in the west and steep sides, becoming vertical in the west.
Coffin void [556] was evident within the cut, suggesting a container 1.90m long and up to 0.45m wide, tapering at either end, and 0.27m deep. It contained skeleton [580].

The void [555] lay directly above 580. It was 1.78m long by up to 0.53m wide, tapering at the ends, with vertical sides 0.19m deep and an undulating base. It contained skeleton [818]. The correspondence between 818 and 580 suggests that both had been inserted in the same grave. Either there was little time gap between the two or the position of cut 139 was marked or re-identifiable.

Cut [137] cut into the top of 818. It was 1.85m long and 0.40m wide, with rounded ends and steep sides 0.24m deep and a flattish base and contained skeleton [126].

Just to the west, skeleton [655], mainly cut away, lay in the base of 132, also overlying 675 and is the earliest in a sequence of three burials here.

Above it to the north was void [481], 1.70m long by up to 0.50m wide, tapering at both ends, with vertical sides 0.12m deep and a flat base. It contained skeleton [471].

Skeleton [343] overlay 471 just to the north, completing the sequence of burials at this point.

To the east, cut [135] lay in the base of 132. Only part of the north-east and east sides survived of a feature at least 1.60m long and 0.25m wide with nearly vertical sides 0.40m deep and a flattish base. It only contained disarticulated bone fragments due to the disturbance of the cut to its north.

This was [134] 2.25m long and up to 0.65m wide with rounded corners and nearly vertical sides 1.40m deep, though this depth may have been due to successive re-cuts with the original feature only 0.50m deep, and a flat base. It contained skeleton [129] at its base, with another burial, [101] then placed on top to reuse the same cut.

Just to the west, [1329] was dug in the base of 132. It was 1.55m long (maybe marginally truncated) and 0.38m wide with slightly rounded corners and vertical sides 0.6m deep and a flat base and contained skeleton [1328] below a fill of brown silt, some sand and a little dark brown clay [1305].

Void [525], directly above fill 1305, measured 2.05m long and 0.50m wide, tapering at the ends, with generally steep sides up to 0.20m deep and a flatbase. It implies a coffin void and contained skeleton [342].

Just to the north lay void [632]. 1.40mm long and 0.45m, tapering at either end, and with sharp corners, it had vertical sides up to 0.30m deep and a flat base. It contained skeleton [573].

Void [543] overlay 573 to the south. It was 1.60m long by up to 0.40m wide with sharp corners but rather irregular sides, vertical at the ends, less steep at the centre, up to 0.35m deep with an irregular base sloping to the north. It contained skeleton [303].
Similarly void [542] overlay 573 to the north. It was 1.75m long and 0.45m wide with sharp corners but an irregular south side and vertical sides up to 0.40m deep, with a base which sloped down to the north. It contained skeleton [302]. The irregular profiles of the base of voids 543 and 542 was probably caused by the subsidence of 573 underneath. This suggests that the two were inserted soon after 573, when its coffin was still intact. Subsequent decay then produced their irregular profiles.

To the west, cut [658] lay at the base of 132. Much truncated, it was at least 0.85m long and 0.35m wide and contained skeleton [657].

Just to the west were the fragmentary remains of another cut, [674], in the base of 132. It was at least 0.50m long and at least 0.25m wide, with vertical sides in what survived and contained skeleton [673].

Immediately to the east, and coaligning with 674, was void [653]. At least 0.55m long and at least 0.25m wide and contained skeleton [656]. It is probable that 656 and 673 are parts of the same skeleton, divided by later intrusions. Overall, the void would then be at least 1.50m in length.

To the north, skeleton [596], again mainly destroyed by later intrusions, lay directly in the base of 132. Similarly, skeleton [162], which only survived as a skull, lay in the base of 132 to the north.

To the east, cut [142] had no proven relationship with cut 132, but did intrude into 100 (XVI.2) and probably was part of the same sequence as burials within 132. It was at least 1.50m long and 0.60m wide with vertical sides, the east one 1.0m deep where set against the east wall of the south extension or chapel, then sloping down steeply for another 0.65m to meet its flat base. It contained skeleton [133].

Cut [141] intruded into the south side of 133. It was at least 0.80m long and 0.40m wide, with steep sides 0.45m deep and a locally irregular, generally flat base and cut into the adjacent church walls slightly. It contained skeleton [131].

Cut [140] then cut into the north edge of 131, the sequence of three seeming to be direct replacements. It was 1.95m long and at least 0.55m wide, with curved east end, sharper in the west and steep sides 0.50m deep and a base which sloped gently down from east to west. It contained skeleton [128].

To the south, cut [136] intruded into 100 (XVI.2) and 728 (XV.3), with its east and against the wall of the south extension. It was at least 1.85m long (west end cut away) and 0.55m wide, with rounded east end and steep sides 0.85m deep and a flat base. It contained skeleton [127].

The graves within 132, and those on its fringes and probably part of the same process of burial, exhibit several common characteristics. All are set out east-west, heads to west as might be expected, and most have evidence for a wooden coffin, either simple or with metal attachments and even decoration. Some of the earlier burials are set in deep, well cut graves, but the position of the cut seems to have been known and further burials set into its top or just to one side partially overlapping it. Whatever the shape of the grave cut, often with rounded
corners, coffin voids were constant, with a maximum width about one third of the way from the west and even (i.e. opposite the shoulders), tapering from here to head and even more to the feet. The coffins were obviously made to a common pattern. It was obviously easier to dig through old grave fill than into earlier, hard floors of the former chapel. Also, burial was so intensive in some areas that re-cutting may have been inevitable. What this evidence means for the marking of any graves at the surface, for the interval between burials, and for the relationship, if any, between successive individuals inserted in the same grave, is unclear, though in some cases e.g. 573 and the adjacent 303 and 302 the time gap may have been limited.

In the fill above the graves and within 132 as a whole, concentrations of bone were sometimes evident. A single skull, [94], disarticulated, overlay skeleton 127 and may have been derived from it. Another group of disarticulated bones [96] overlay skeleton 126, though this was virtually complete so they probably came from elsewhere. Finally, more bone [93] was found above 101, but this again was almost complete. Brownish grey silt and some fine sand, more clayey and flecked with chalk towards its base [75] formed a matrix around disarticulated bones 93, 94, 96 and sealed all the skeletons within the cut and even 127 and 128 whose relationship with the cutting action itself could not be securely defined. Skeleton [130] was found apparently within fill 75, which continued in section within cut 227 as grey silt containing lumps of chalk and mortar up to 20mm across. The level of fill 75 at its surface corresponded to that of the raised floor make-up 100 which were dumped when the south extension or chapel was created at the start of period XVI.

To the west of cut 132, [188] intruded into 1112 (XVI.3) 1157, 1151, 1252 (XV.3) and 1854, 2037 (XIII.4). It was roughly rectangular, measuring c. 2.80m north-south by at least 3.90m east-west (west edge beyond the limit of excavation) and had vertical sides up to 0.96m deep with a flat base except where the various grave cuts within its lines intruded to a greater depth. The east edge of 188 and west edge of 132 run parallel to each other, suggesting that the two cuts avoided each other. The division between them lay opposite the pier base 172. it is possible that a structural division ran south from this across the south extension or chapel of the church, perhaps a screen, with 132 cut on its east side and 188 to its west. The sequence of 655, 471 and 343 at the west edge of 132 are the only inhumations which have covered such a division, and then only partially.

Twenty two burials into the base of 188 in several extended sequences. Towards its south-east corner was [1102] at least 2.20m long west end truncated) and 0.75m wide with sharpish corner nearly vertical sides up to 0.86m deep and a flat base. It contained skeleton [1092].

Just to the south lay coffin void [1002], 1.80m long by 0.60m wide, tapering at either end, with sharp corners, vertical sides 0.18m deep and an uneven base. It contained skeleton [1001].

Small void [968] lay above the junction between 1002 and 1102, being 0.80m long and c. 0.25m wide, with vertical sides up to 0.13m deep undercutting to the south and a regular base sloping down to the south-west. This profile may have been created by underlying subsidence. It contained skeleton [967].

To the south, void [906] was apparent above 967. It was 1.65m long and 0.40m wide, with sharp corners but more irregular south side, less steep than elsewhere, and a depth of 0.18m with an irregular base sloping down towards the centre. It contained skeleton [905].

Just to the west, void [749] overlay 905. It was 1.90m long by up to 0.55m wide with nearly vertical sides except in the south where irregularity is caused by underlying subsidence, up to 0.40m deep with an irregular base. It contained skeleton [629], with a further individual, [511] laid out on top, though no void was traceable here.

Finally, void [559] overlay 511. It was 1.10m long by 0.30m wide, with vertical sides up to 80mm deep and a base declining to the west and contained skeleton [301]. As a result, it can be seen that six successive skeletons were interred virtually on top of one another above the south edge of primary inhumation 1092.

To the west, cut [1087] intruded into the west end of 1092. It measured at least 1.90m in length (cut away to the west) and 0.65m in width, with rounded east end and nearly vertical sides up to 0.52m deep and flattish base and contained skeleton [1086].

[994] just overlay the east end of 1086. It was 1.85m long and 0.60m wide, with vertical sides and a base sloping down to the central south. It contained skeleton [974]. A patchy wood stain [963] which overlay the west end of 974 could be another coffin, but was severely truncated by later burials, so no skeleton remained.

Void [955] lay above the south edge of 963. It was 1.75m long by 0.50m wide, tapering to either end, with sharp corners and vertical sides and an uneven base sloping from its south-west corner. It represents the void of the coffin which contained skeleton [938].

Void [909] overlay 938, running at an oblique angle to it. It was 0.70m long by 0.25m wide with rounded corners and steep sides with an uneven base and contained skeleton [886], which appeared to have been laid with head to east.

Void [758] was evident above the west end of 886. It was 1.75m long by 0.55m wide with sharp corners, specially in the east where the feature narrowed and nearly vertical sides up to 0.19m deep with an uneven base and contained skeleton [662].

Finally, void [560] directly overlay 662. It was 1.20m long by 0.35m wide with vertical sides 0.10m deep and a flat base and contained skeleton [186]. Hence, after primary burial 1092 was inserted, and 1086 laid at its west end, a sequence of six burials were dug on top of the north edge of the primary cut and into each other. 886, the fourth in the sequence, marks itself out as the one child inhumation whose alignment is less well controlled than the adult inhumations.

To the west, [1037] cut the south edge of 1086. It was at least 1.50m long (west end cut away) and 0.40m wide with vertical sides where surviving 0.12m deep and an uneven base sloping down to the west. It contained skeleton [1020].

Nearby, void [636] lay above the north edge of 1086. It was at least 0.75m long (cut away in west) and 0.40m deep (tapering in the east with level base and no definable depth of sides and contained skeleton [597]. Thus, as with 1092 and overlying burials, initial interment 1086 also
had later features placed above its north and south edges, though here not successively replaced.

To the north, [1056] intruded into the base of 188. It was at least 1.85m deep (west end cut away) and 0.55m wide with a rounded east end, steep sides up to 0.51m deep, more gently sloping in the east and a flat base. It contained skeleton [935].

Void [853] lay above the east end of 935. It was 1.85m long and 0.62m wide, curving in gently at either end with nearly vertical sides and a base sloping down slightly to the west. It contained skeleton [623].

Lastly void [713] lay above the east end of 623. It was 0.80m long and 0.20m wide, tapering to the east, and contained skeleton [622]. 935, 623 and 622 then formed a line running due north of that joining 1092 and 1086.

To the north of this, [1055] cut into the base of 188. It measured 2.40m long by 0.55m wide, tapering slightly to the east, with vertical slightly less steep at the east end, to 0.86m deep and a generally flat, locally undulating base. It contained skeleton [1043].

Void [877] overlay the east part of 1043. It was 1.25m long and up to 0.38m across with vertical sides up to 0.35m deep and a flat base. It contained skeleton [876]. These two, 1043 and 876, may form a third line north of 935 et al.

Lastly, skeleton [558] to the west lay in no definable cut and could be part of the same alignment.

All of the burials within 188 were then covered by a fill of brownish grey silt and some medium sand [187], which contained much disarticulated bone derived from the intercutting graves below, and brought the level of the cut feature up to that of the period XVI ground surface.

Although there a number of burials within 188, several patterns emerge. They were inserted in long sequences, with the initial burial in a proper grave cut, then later ones placed above its edges, not directly on top of, or within, the original grave. This might suggest that the position of the first burial was marked in the floor of the south extension or chapel, and thus its looser fill could be re-located for further burial, but that the initial feature was partially respected. The burials also suggest three lines, that of cuts 1102, 1087; 1056, 853; and 1055, 877. Similar lines might be distinguished within 132, for example starting with cut 760, then with a sequence ending in 137 in the east and with 343 in the west in a line above it. But the number of burials here makes the case less certain.

As described here, cuts 188 and 132 have been suggested as being dug, used for burial, then backfilled. This is to some extent misleading. There was probably no stage at which the floors of the south extension or chapel were removed and the burials inserted. Really the ‘cuts’ are created cumulatively, by insertion of burials beneath the church floors, probably removing part of the floor each time then replacing it. Such activities were confined to an area in the centre of the nave, perhaps because furniture or other features lay against its walls, thus creating appearance of regular features. No doubt soil was introduced to backfill individual graves,
mixed with materials dug out to accommodate the burials originally and thus including disarticulated bones from earlier graves disturbed in the process.

XVI.6 Final floors of south extension or chapel

(Fig 45)


*Fig 45 Period XVI.6–8 plan*

**Description**

At the east end of the south extension or chapel, faced ragstone blocks set in hard off-white mortar [50] were inserted in doorway 360 (XVI.2), blocking the lower part of that entrance. However, they were capped with a spread of compact tan mortar set over and around fragments of greensand and flint [99], which seemed to form the base for a replacement
threshold at a higher level, just below 5.0m OD. This suggested continued access at this point into the area to the west, despite the fact that it had been converted previously, at the start of period XVI, from a chapel requiring a door, to the nave of the church, whose major access could have presumably been via the main church door to the west.

To the west, cut [106] intruded into 75 (XVI.5). It was square, 0.55m across, with steeps ides, especially towards the north-west corner, 0.62m deep and a circular, flat base and was packed at its edges with brownish orange sandy clay and a little grey silt [67], below further packing of loose crushed yellowish tan mortar and a little chalk in fragments and flecks containing small fragments of tile [105]. At its centre it contained a vertical carbonised timber member [62], around which the other deposits were packed. The north-west part of this was worked to form a pointed stake set into the deepest part of 106, with the main body of the timber set on a shoulder within the cut to give a T-shaped member, with the top of the T running north-east-south-west and measuring 0.28m by 0.12m and the perpendicular base measuring 0.21m by 50mm. A slight extension on the south-east side might suggest that it was originally cruciform, but its later carbonisation precluded certainty.

Nearby, a clean brownish orange medium and some coarse sand [64] was dumped into a depression in grave fills 75 (XVI.5) to level up the area, with further light yellowish brown medium sand, mixed in places with light creamish buff fine sandy mortar [60] on top, also lying up against access heightening 99. The mortar was mainly absent in the west, but increased in the east where it rose as approaching the east wall of the church, though.

Fragmentary tile surface [59] covered 60, which was probably a make-up for it. Its glazed red squared tiles only survived at the very edges of the wall, at a level of c. 5.05m OD.

A spread of yellowish orange chalk-flecked mortar [55] covered 59, bedding for its replacement floor. To the west, another spread of light grey mortar [56] met 55 in an abutment. It resembles neither 55 nor 60 underneath, so is probably the bedding for a third floor, though whether before or after 59 is unclear.

The tiles of floor [49] covered 56 and 55, also being laid around carbonised post 105, whose position it obviously respected, and over 201 (XVI.5), the earlier floor make-up in the north beside the reconstructed pier base 160. The horizontally laid, square red tiles of 49 were laid in lines beside the east wall for a distance of five rows, giving a width of c. 1.20m. Further west, where overlying different mortar [58], they were less regular, with north-south position offset but still in north-south lines. Sometimes glazed tiles were incorporated, suggesting reuse, maybe in part from 59 below, and half tiles were laid at edging to fill gaps beside the east wall. In the centre towards the west, a stone slab replaced the tiles at the surface. This incorporated lead in a crack in its surface, probably falling there when molten. Elsewhere, the tiles were often scorched and cracked through exposure to heat. The tile floor was highest in the north-east corner of the south extension or chapel, at 5.10m OD, dropping gradually to the west.

This main final floor of the church in use just before its destruction by fire, was obviously repaired and relaid on successive occasions, though how many times is difficult to decide. Certainly the differences in mortar bedding 55 and 56 suggest one major relaying, and the tile configurations imply many minor ones. The stone slab at its centre in the west could be a grave marked, though no inscription was evident, or the base for a structural feature within the body of the south extension or chapel.
A skim of light brownish buff fine sandy mortar skimmed the west face of the wall 179 in the north, overlying grave fill 75 (XVI.5) and giving a plaster face to the wall to a height of at least 60mm above its latest contemporary ground surface. It stepped 1.40m south of the north-east corner of the aisle, though whether this was due to a later intrusion or abutting a feature set against the wall is unclear. Further south, a strip of carbonised wood [54] lay against the plaster 58 and over primary floor tiles 59. It formed a skirting board beside the east wall contemporary with the laying of tile floor 49.

A compacted spread of ash, some silt and a little mortar up to 0.10m thick, [48] overlay floor 49, scorched occupation material mixed with destruction debris. Within the line of cut 106, and around timber post 62, small and large charcoal fragments and large tile fragments in some light coloured ash [61] evidence of the demise of that feature, spilling out slightly over floor 49 in the process and the result of the same conflagration which affected the rest of the church here.

After the burials of XVI.5, therefore, the threshold in the east wall of the south extension or chapel was raised and the floors at its east end relaid on at least two, and probably many more, occasions. Though these surfaces sealed grave fills 75 (XVI.5) when defaced as a whole, it is floors at the levels of 59 and 49, which were being continually taken up and relaid for the insertion of the successive burials. XVI.5 and XVI.6 therefore have a more complex inter-relationship than the simple statements of stratigraphic relationships imply. A major fire above floor 49, however, certainly brought this process to an end.

XVI.7 Backfilling of primary channels of Building 7

(Fig 45)

1924, 1629, 1621-1628, 1923, 1473, 1469, 1396, 1779, 1360, 1321, 1368, 1338, 1298, 1275, 1235, 1226, 1174, 1272, 1222, 1197, 1271, 1237, 1136, 1327, 1210, 1444, 1418, 1417, 1416, 1408, 1410, 1409, 1411, 1412, 1413, 1415, 1414, 1214, 1211, 1179, 1407, 1406, 1405, 1369, 1342, 1322, 1154, 1300, 1448, 1446, 1445, 1391.

Description

In Building 7 in the south-east corner of the site, a wooden beam 1.10m long [1924] was set east-west across the line of culvert 1793 on top of 1438 (XV.4) the primary silting in that channel. It was deliberately placed to block off the south part of the feature. A series of silts and dumps then lay up against the beam, also overlapping 1549 (XV.4). They were given [1629] as a global number but subdivided into various finds groups ([1622]-[1628], [1923]) to distinguish different elements of primary silting because of possible functional variation along the line of the feature. The primary element of 1629 was blackish green organic silt and some coarse sand, with a much blacker hue at the east side of the culvert curving to the north-east where the side culvert north of wall 1610 joined the main channel. This might suggest that the east-west element continued in use initially. Above this silting was a dump of large brick fragments and patches of white mortar in light greyish green sticky clay, below further brick and tile fragments in light brown pebbly silt containing small fragments of coal. A separately labelled layer of chalk cobbles and less large chalk fragments in some light brownish grey clay.
over the primary silting elsewhere, then whitish yellow sandy mortar and green organic silt containing brick fragments are equivalents of the uppermost, dumped element of. Lastly, a mixed deposit of white sandy mortar and some orangish brown sand and silt in the north, changing to the sand and silt containing small patches of white mortar in the south, but containing chalk fragments and flecks of charcoal, brick and tile throughout covered 1469 and the uppermost parts of 1629 elsewhere. It forms a final element of dumping in the culvert.

At the north-east end of these dumps, a similar sequence of primary silting, followed by brick and chalk dumps in various proportions, capped by a platform of bricks and ragstones laid in yellow mortar, overlapped by three ragstones in a single course overlay 1389 (XV.4) and resulted in the blocking of the west end of the east-west culvert. The final element of stone blocking on 1779 was bonded with mortar which also sealed the north end of dump 1396, with greyish brown silt, some coarse sand and a little brick earth containing flecks of iron pan on top. A mixed deposit of grey, orange stained, coarse sandy silt, cobble sized brick fragments and much less yellowish orange sand mortar and dark greenish black clayey silt in patches containing cobble sized chalk and ragstone blocks overlay 1779. Greyish brown silt, chalk in large and small fragments and a little coarse sand capped 1368 to complete the dumping sequence in the east-west culvert and bring it up to the same level as 1321 et al to the south-west.

The implications, then, are that beam 1924 was laid across the north-south culvert, dividing off the area to the north. Silts continued to flow south in the main channel from the perpendicular one to the east. Eventually, however, building material was dumped into both of these features and the whole thing was blocked off.

To the south-east of this, brownish black clay and some silt containing fragments of red tile, oyster shell in fragments and flecks, and charcoal flecks was dumped on 1602 (XV.4), with dark green organic silt containing charcoal flecks and cobble-sized brick fragments on top. These extensive dumps were capped by localised patches of dark brownish green sandy silt then a spread of yellow mortar, followed by off-white sandy mortar and a little orange mortar containing small fragments of chalk. To the south a similar patch of yellowish white sandy mortar capped 1275, other local deposits of compacted chalk then dark brown pebbly silt containing light brown and yellow clay in patches and flecked with chalk, coal and charcoal; light greyish green pebbly fine sand, some silt and a little mortar; and dark brown silt lensed with orange silt all covered 1298 in the vicinity. Lastly a much more extensive layer of brown sandy silt containing lenses of yellow clay, orange, iron stained silt, flecks of chalk, charcoal and mortar and small fragments of chalk, shell, coal and tile (the last also in large fragments) covered 1237, 1271, 1197, 1272, and 1174. These dumps raised to the level in the south of Building 7 by 0.40m to c. 2.70m OD.

To the north, in the east-west culvert, a spread of grey ashy silt and a little coarse sand containing large fragments of brick above 1368 continued south to overlap 1226 and thus links the dumping in the channel with that of 1136 et al to the south. A spread of horizontally laid chalk blocks on 1360, 1338, 1327 completed the process of consolidation.
At the north culvert, three chalk blocks were placed on primary silting 1549 (XV.9), either a pier base or blocking of the channel.

In an east-west section running the length of the north channel, a series of dumps were deposited in a sequence. The earliest, forming a dump towards the centre, overlay primary silting 1549 (XV.4) and comprised, successively, pinkish brown medium sand and some mortar [1418]; dark brown chalk-flecked medium sand [1417]; greyish brown coarse and some medium sand [1416] forming the east side of a mound; and light brown coarse and some medium sand containing large and small tile and brick fragments [1408] over 1418 and base/blocking 1444; then dark grey charcoal in some sand [1410], also over 1416; light pinkish brown medium and some fine sand containing small fragments of brick and tile [1408] forming the east side of a mound; and finally grey medium sand and some charcoal in flecks and fragments [1407] in the west. The character of these deposits in section suggests that they must have been deposited in a very short space of time, with no weathering in between.

To the east, further successive dumps of mixed light brown coarse and some medium sand flecked with tile, brick and oyster shell [1411]; light rust coloured coarse and some medium sand containing small fragments of brick and tile and flecked with mortar and chalk [1412]; charcoal in a little greyish black sand and silt [1413]; brown coarse and medium sand containing small brick fragments [1415]; a greyish black mixture of charcoal and slightly less sand and silt flecked with brick, tile and mortar [1414]; patchy black decayed and burnt wood and some mortar [1214] also over 1315 (XV.8); purplish grey chalk and charcoal-flecked sandy mortar [1211] overlay 1409. As with the earlier sequence, their angle of deposition suggests no break in the dumping sequence from 1418 to 1211.

Similarly, to the west, a succession of deposits comprising light yellowish brown coarse and some medium sand containing fragments of brick and tile [1406]; grey charcoal-flecked medium sand [1405]; mixed deposit of mortar flecked sand ranging in colour from light pink to mid brown [1369]; dark brown sandy silt [1342]; large fragments of brick and tile concreted in light grey limestone flecked mortar [1322]; and greyish white mortar and some sand containing flint and chalk cobbles, small fragments of tile and flecks of brick and chalk [1154], also containing decayed plank [1300], apparently not in situ overlay 1407 to complete the dumping sequence in the west. In sum, therefore, the mounded elements 1418-1407 were levelled up by 1411-1211 in the east and 1406-1154 in the west to give a horizontal surface.

In the north-south channel to the south of 1154 et al, sticky clay and a little coarse sand (colour not recorded) containing large fragments and cobbles of chalk [1448] overlay primary silting 1447 (XV.4), below pure dirty brown clay [1446] concentrated at the west edge of the culvert and running up its side, then buff-yellow coarse sand and a little light grey silt containing flecks of chalk and brick, variously sized pebbles and large and cobble-sized fragments of chalk and brick [1445]. These dumps filled the channel up to a height of c. 1.80m OD and bear a close resemblance to the building material dumps 1321 et al seen to the south. Finally an extensive deposit of brownish grey sandy clay and a little chalk and brick rubble [1391] overlay 1445 continuing east to cover 1419, 1496 (XV.4), the initial use of the floor of Building 7. This completed the dumping of the rubble in the area.

The implications of all of this evidence seem quite clear. The main north-south culvert on the west side of Building 7 was blocked. The south part and east-west channel in the south
continued to be used initially but were then backfilled with rubble, as was the area to their south-west. Similarly, a series of deposits, here more organic in character were dumped into the channel bounding the building in the north, and further rubble deposits were also placed in the north elements of the main north-south channel. Its major drainage function must therefore have been curtailed, or at least severely modified. Whether all of these episodes were exactly contemporary and whether they occurred at the end of period XV or XVI, is discussed below in XVI.8 though it can be noted here that they certainly post date XV.5, so must have occurred towards the end of period XV or later.

XVI.8 Final modifications to Building 7 and fourteenth road


Description

At the east edge of the main channel of Building 7, north-south cut [1387] intruded into rubble 1391 (XVI.7). It was at least 5.60m long (north end cut away) and c. 0.25m wide with nearly vertical sides c. 0.30m deep and a flat base and contained bricks bonded with a mixture of clay and coarse orange sandy mortar [1343]. The brick were laid east-west on bed, complete in the west, half bricks in the east. A series of five east-west timber beams up to 0.97m long and up to 0.10m in section [1332], [1323], [1335], [1376], [1377] were set in holes built into wall [1343]. The feature was completed by further bricks [1296] laid above the timber cross members.

This sequence of construction implies the creation of a new east wall for the main channel and cross-beams to provide a base for a timber lining. The level of the beams at up 2.14m OD, suggests that the new culvert had its base level raised by almost 1m. This interpretation would mean that rubble 1391 et al meant a modification, but not the end, of the use of Building 7 (see below for problems with this and an alternative interpretation).

To the east, a mixed spread of sand and slightly less clay and silt containing large fragments and flecks of chalk, brick, tile and charcoal and fragments of yellow mortar [1378] overlay 1391 (XVI.7). It could be a further building material dump, part of the underlying sequence. But the increased soil content might suggest a different source, perhaps tread disturbing the underlying dumps accumulating during activities to prepare for construction above 1391.

Three patches of brownish grey silty clay containing charcoal flecks and large fragments of tile and charcoal [1372], [1370], [1371] overlay 1378 and suggest more intensive occupation.

To their north, irregular cut [1375] also intruded into 1378. It was up to 0.65m across, with steep sides 0.15m deep and a flat base and contained chalk cobbles in yellow sandy mortar [1379] forming a post base. Floor [1313] was set around 1379, also covering 1370, 1371, 1372. It comprised red bricks set north-south on edge in north-south lines, bonded with a sticky clay. In places the line of bricks were sinuous, probably because of later movement rather than laid like that. At the west edge, where they approached wall 1387, ragstone blocks,
laid north-south, three courses wide with individual blocks up to 0.60m long formed the surface of 1313. Similarly, chalk blocks, though not regularly coursed were used at the north edge. These stones must have served to re-in force the surface of this main new flooring for the culvert building, with a surface level at up to 2.10m OD. As with its predecessor, liquids from activities on the floor could have been swept across the top of channel revetment wall 1387 in the west directly into a drain set above timbers 1377 et al. The proposed drain would have then have a projected depth of c. 0.20m.

To the south, rectangular cut [1242] cut obliquely across 1346, (XV.8), 1347 (XV.10) and into 1449 (XV.4) and 1321, 1174 (XVI.7). It was at least 4.20m long (south end cut away and c. 1.75m wide, with vertical north side, nearly vertical west wide but a shallower east side, up to 1.10m deep with a flattish base. Its west side was packed with masonry [1247] forming the footings of a wall, with a mixed chalk flecked spread of yellowish grey silty sand and slightly less yellow silty sand and pinkish grey sandy mortar [1232] on top, then bricks and several flints and chalk blocks set in two north-south line on this.

To the east, half bricks, laid east-west in two east-west courses [1243] were set 1242. A mixed deposit of bricks and various types of other building materials set in a little dark greyish green clayey silt, but with many voids between the stones [1163] was then dumped against the east face of 1243 as a sort of wide construction trench backfill running across to the edge of cut 1242. A series of lines of grey fibrous organic silt and a little fine sand containing small wood splinters [1177] on both 1163 and 1228 suggests the position of planks placed above footing 1247, as does another line of decayed wood and dark brown organic silt [1229] on 1232 to the west. Dark greyish green clayey silt and a little orangish yellow coarse sand in patches [1134] covered both 1229 and 1177, with another foundation of bricks laid on bed in a north-south line on its east edge and bonded with dark pink chalk-flecked mortar [1208] above this. A mixed layer of brown sandy silt and less light grey ashly silt, crushed yellowish orange mortar and large brick fragments containing large fragments of tile and flecks and small fragments of charcoal [1161] was dumped over 1177 at the east edge of 1208, to fill the construction trench here as the level of the wall was raised. Light buff sandy mortar containing large brick fragments [1189] capped 1161. Then grey sandy silt and some pink sandy mortar containing large brick fragments [1116] was deposited on 1208, 1161, also capping 1136 (XVI.7) to further raise the footing level.

At the north end of cut 1242, a foundation of bricks, set on bed and bonded with dark pink chalk-flecked mortar [1221] formed a north extension of the footing. Most of these bricks had yellow sandy mortar adhering to them, indicating reuse. Further bricks [1185] were then packed around 1221, also overlying 1210 (XVI.7) to completely block off the remainder of the backfilled culvert at the north end of the new foundation.

Masonry wall [1044] was constructed above 1185 and 1116, with successive deposits of black greasy burnt silt and a little medium sand [1027] then pinkish brown silt and a little fine sand [1026] and finally mixed pinkish brown sandy silt, orangish brown clayey silt and rather less white only charcoal-flecked mortar in patches containing small fragments of charcoal and small and large fragments of chalk [1009] then packed against its west face as construction trench backfill.
To the east, greyish brown mottled silt and a little medium sand containing flecks of off-white mortar and chalk, the latter especially in the south, [976] lay beside the east side of the wall on 1116. Further east still, a more extensive mixture of orange coarse sand and a little silt and mortar containing flecks, small fragments and large fragments of chalk [1074] covered 1136 (XVI.7), below grey clayey silt and dark brown sandy silt containing large brick fragments, flecks of brick, chalk, charcoal and coal, five pebbles and small fragments of flint [997]. Greyish brown silt and a little medium sand, mottled orangish brown in the north [957] overlay 997 in turn. These spreads are likely to be trodden layers related to the construction of wall 1044 since the layer of grey charcoal-flecked silt and some coarse sand [975] which covered both 997 and 976 was itself by a dump of cobble-sized fragments of ragstone, chalk, flint, brick, usually with buff-orange sandy mortar still adhering and suggesting reuse, set in a little buff brown coarse sandy silt and brownish black clayey silt [969] also abutted the east edge of the wall forming the latest element of construction trench backfill at this point.

In sum, therefore, the indications are that, after the backfilling of the channels in the south of Building 7, a north-south wall was inserted above the southmost one, built in successive stages with foundation, plank levelling and brick superstructure. Its construction trench was also backfilled successively as each of these stages was completed. Construction debris spread into the area to the east of the feature during this work. It is unclear whether wall 1044 once continued to a much greater height than its survival of 3.40m OD, or carried a drain above this leading south and allowing the continued use of the culverts to the north. However, its substantial size and the difference in levels between it and that of the base of any drain set above timber 1377 et al to the north make a continuous north-south drain running along the west side of the building unlikely in this phase.

Just to the west of the building, in the centre of the site, an extensive, very compact, spread of fine and medium pebbles in yellowish orange coarse sand [680] was deposited above 1352 (XV.4), 900 (XV.8) and 903, 1894,989, 1528, 1257 (all XV.10) - the thirteenth road surface). Critically, it continued east to abut 1009, the construction trench backfill of wall 1044. The metalling constitutes another road surface, road fourteen, which must have been laid at the very end of period XV at the earliest.

To the west, another extensive compact layer of fine pebbles in yellowish orange sand [451] was laid above 717 (XV.10), 249, 986 (XVI.1) and 432, 452, 738, 754, 741, 743, 736 (XVI.2). Given its character, level, underlying and overlying stratigraphic relationships, it must be seen as the west counterpart to 680. Hence the make-up for road fourteen must be laid after XVI.12 at the earliest.

Cut [489] intruded into 680 and 451. At least 21.90m long (running the full length of the site), it was c. 0.70m wide on average, with nearly vertical sides up to 0.65m deep and a slightly dish-shaped base which dropped gently down from north to south. A series of nine ragstone blocks, un-worked and up to 0.40m across, were placed at intervals along the base of the cut and packed around with dark greyish brown charcoal-flecked silt some clay and a little medium sand [635] which, in the north had an increased proportion of chalk in it. Traces of a wooden pipe [589] were found at the surface of fill 635, up to 0.15m across and 30mm thick. Five iron rings were found at intervals in association with decayed timber 589, with intervals of 4.30m, 4.30m, 5.30m and 4.50m between them from north to south. The best preserved ring, in the south, had a diameter of 0.32m and was made of a strip of iron 35mm wide and 5mm thick, made from a single strip of iron doubled for about a third of its circumference. The
ragstones in the base of fill 635, while upper side lay at the surface of that fill, occurred at a regular distance either side of the rings, amongst other places.

It seems certain that this represents a centrally placed road drain associated with the fourteenth surface. Successive lengths of timber pipe would have been placed within the cut, bound together with the iron collars and supported along its intervening length by ragstones. The stones had been especially placed symmetrically either side of the collars, a potentially weak point in the construction.

Orangish brown silty clayey sand around some fine and medium pebbles containing flecks and small fragments of chalk [522] was then packed above 635 and around the collars and pipe as a second construction trench backfill.

The brown, chalk-flecked sandy silt, some fine and medium pebbles and a little dark brown clay in lenses [521] which clay at the centre of packing 522 and above collars and staining 589 is the fill of the feature after its collapse.

Towards the north, at the west edge of the fourteenth road, a small spread of brown silt and white mortar in flecks and small fragments [426] overlay make-up, 451, suggesting a small modification to the road. It was cut by [425], an irregular north-south feature c. 0.50m wide and c. 1.50m long with very gradually sloping sides up to 0.12m deep and are irregular, often indeterminate base. It was filled with tan brickearth and some brown silt [424].

This cut seems to be the base for a feature associated with the church wall immediately to the west. Given the relationships of road fourteen to XVI.2 strata, it cannot be a primary feature of period XVI. Significantly, it less immediately below feature 50, (XVI.6) the re-arranged threshold step inserted at the end of period XVI and the east end of the south extension or chapel of the church. It therefore seems likely that 425 was cut at the same time and, as it was directly inserted into road fourteen, that this metalling was itself laid towards the end of period XVI.

A spread of a few fine and medium pebbles set in black silt [51] overlay drain fill 521 and foundation 424. It had been exposed to heat in many areas, with scorching sometimes penetrating to a depth of 0.10m and covering the incorporation of lenses of charcoal and soot in its surface. It is unclear whether 51 is a disturbed replacement for road fourteen ie. a surface in its own right, or a repair or surface capping. In particular, it is difficult to decide whether the drain in cut 489 would have continued to function after its deposition.

Finally, at the east side of the road, a small fragments of brick wall of bricks laid on bed in one course and bonded with hard buff sandy mortar [1225] was set above the edge of metalling 680, abutted by a spread of cobble-sized burnt brick, tiles, ragstone, sandstone and chalk in a little burnt red clayey silt containing chalk flecks, large fragments of charcoal and iron slag [820]. This is obviously destruction debris related to 1225, probably the result of the same event which scorched large areas of road fourteen nearby. Nearby, a series of orange sand and silt lenses in various proportions [1523] overlay 1528, 1542, (XV.10), a brick lined entrance into Building 7. This seems likely to have been derived from material collapsing into the entrance at the same time the other destruction deposits were created.

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The overall picture, therefore, is of the fourteenth road surface, laid towards the end of period XVI and in use when the fire which destroyed the buildings to the west occurred (see XVI.1, XVI.6).

This road was laid directly against wall 1044, itself related to substantial changes in the culverts of Building 7 following dumping in their primary channels. Given this direct relationship between road and changed building, these changes are also likely to have occurred late in period XVI. If the dumping described under XVI.7 is preparation for the structural changes seen in XVI.8, (which is likely unless the site of the building then lay open for some time) then XVI.7 itself, though only probably later than the middle of period XV (XV.5 in fact), could be suggested as belonging to the end of period XVI. Hence, sometime just before the total destruction of the buildings on the site by fire, Building 7 in the east was substantially modified, its primary culverts backfilled and levels raised, with the internal surface replaced in the south, though at least one part of its main culvert, that set above timbers 1377 et al seems to have been reconstituted.

In this explanation, the dumps in the south, 1924 et al, can be stratigraphically proven to antedate a wall then road surface exposed to heat in the fire marking the end of period XVI. But the changes to the north, 1418 et al have no such proven relationship, unless one accepts the tentative correlations of bricks 1179 and surface 1313 discussed above which can be doubted, and then only by correlating the new surface 1313 and wall 1296 with 1044 to their south, though this seems rather more reasonable. It would not be surprising, then, if the dumps 1418-1154/1211, which are in any case more organic than the building materials dumped to their south, are a result of the end of the life of the building rather than an episode, albeit major, within its lifetime.

Period XVII.1-XVII.27

The documentary history of the site is given in detail in the publications in preparation, eg Schofield et al in prep. Here we include a plan of 1680 formerly in the City archives, now Controller’s City Lands deeds, 36.27 at LMA, to be published in a study of London building plans by Dorian Gerhold for the London Topographical Society in 2016. In this study, Gerhold writes:

‘After the Great Fire, [Josiah] Child first spent £1000 on cranes and sheds at Botolph wharf, but then had to rebuild again to comply with the Rebuilding Act, and claimed to have spent a further £6000 by 1672. He then sought a longer term or a reduced rent from the City, observing that the post-Fire requirement to leave open a 40-foot quay had reduced the value of the property… A later plan, of 1720, records 52 warehouses, of which 12 were west of the lane, 25 east of it and 15 over it. The 40-foot wharf remained open in 1720, but with an extra crane.’

The plan goes with the renegotiated lease to Child of 1680, so presumably reflects the buildings standing on the site: but when? And why is the area within the church not included?
What we are to make of this plan is not clear. It seems to represent the plan of buildings immediately after the Fire, before any rebuilding.

Fig 46 Plan of Botolph Wharf in 1680 (LMA, Controller's City Lands deeds 36.27) (D Gerhold)

XVII.1 Preparation of site of destroyed Building 8 for future development (Building 9)

(Fig 47)

Towards the centre of the site in the east, linear east-west cut [1181] intruded into 1296, 1313 (XVI.8), 1179, 1154 (XVI.7) and 1301 (XIII.2). It was at least 4.20m long (east end beyond l.o.e.) and c. 1.0m wide, with vertical sides up to 1.25m deep and a flat base. Its west end was irregularly squared where it cut into the west wall of the earlier period XVI Building 8. 1181 formed a foundation trench for a bedding of randomly laid irregular blocks of ragstone and chalk up to 0.32m across [1532] which were rammed down into the underlying strata in two courses. Seven reused timbers [1521] were laid on this bedding, with tile and bricks packed in between, forming a base for [396]. A series of five timbers [1141], [1142], [1166], [1167], [1168] were incorporated within the foundation, possibly to strengthen it above an area of potential subsidence, whilst a patch of ashy silt [984], overlain by circular void [949], 0.23m across and 0.45m deep was also incorporated into the foundation. This was filled with loose
fragments of burnt wood [951] and crushed white-flecked pink mortar [948]. This may have been a post position. A second, larger void [1078] towards the centre of the foundation formed a slot 0.45m wide running across its full width and was 0.20m deep. It was filled with bricks set in light grey crumbly mortar and some grey silty clay [1078], then grey silty clay forming a bedding for flat-laid tile packing [1072]. This feature could have been part of a tile superstructure set above the foundation, but appeared to be incorporated within further masonry elements which were indistinguishable from the underlying stonework. Unless there were two phases in construction, the cuts must be part of the process of building the wall. The wall formed a major division within the structure, which replaced Building 8 destroyed by fire at the end of period XVI.

A mixed, compact layer of reddish grey sandy mortar and reddish yellow chalk and charcoal-flecked silty mortar [931] was dumped against the north face of wall 396, also overlying 1065 (XV.5), correlating with another, smaller mixed dump of light greyish brown chalk and charcoal-flecked silty mortar and some compact white chalk-flecked mortar [911] against its west end. The debris was probably derived from the destroyed Building 8 and seems to correlate with less well stratified patches of yellow sandy mortar, brown decayed wood, black charred wood and greyish brown silt in equal proportions, and containing small fragments of charcoal [988] over 1352 (XV.4) and light orangey brown mortar and some fine sand containing flecks of brick and fine pebbles [956] over 1790 (XII.13) further north.

Similarly cobbles and crushed fragments of chalk in some orange silty sand [1180] was dumped against the wall on its south side, the debris also overlying 1313, 1296 (XVI.8) and 1132 (XV.5). This correlates with a more localised, adjacent dump of chalk rubble surrounded by sticky clay and a little sand [1175] over 1542 (XV.10), since both are cupped with more chalk blocks, some up to 0.90m across but averaging 0.40m, bonded with a little yellow soft sandy mortar [1152]. This south debris served to revet the central road on the site where it abutted the west wall of the now destroyed Building 8.

Irregular linear north-south cut [826] then intruded into 1152, also cutting 1523, 820 (XVI.8). It was 6.4m long and c. 0.80m wide, with an irregular profile where it cut into the underlying masonry. It served to rob the west boundary wall of the earlier building south of the new wall 396. Successive deposits of grey sandy clay and some silt containing cobbles of chalk and brick, large fragments of charcoal, chalk and brick and flecks of chalk [817]; a lens of buff silt mixed with some coarse sandy mortar [816]; a lens of light grey sand and silt containing a decayed plank [815]; brown pebbly sandy clay and some silt containing small fragments of charcoal, chalk, brick and tile [814]; dark brown sand and silt containing light and mid brown mortar patches, medium pebbles and flecks, small and large fragments of charcoal and chalk [812]; brown silt and slightly less sand and mortar containing small fragments of daub and flecks of chalk and charcoal [811]; patches of dark greyish brown silt and some sand to west [810] and east [808]; brown sand and slightly less silt and mortar containing flecks of daub, chalk and charcoal and medium pebbles [809]; and finally dark grey silt and coarse sand flecked with charcoal, brick and tile and lensed with brick earth [691] filled the robber trench 826. The majority of these inclusions within the fill were no doubt derived from the process of dismantling the underlying wall. Since the robbing cut dumps laid against new wall 396, it would seem that some construction took place within the shell of the destroyed building before other elements were removed.
Finally, to the south, light grey iron-stained silt and some sand flecked with charcoal chalk and tile [1143] overlay 1044 (XVI.8), with a linear spread of chalk pebbles in a little dark greenish grey silt [1105] on top, then charcoal flecks, some dark grey silt and a little sand flecked with tile and white mortar [1098] and finally crushed yellow mortar red brick fragments and rather less dark grey silt containing large and small fragments of chalk [1084]. These lay within the culvert of the earlier Building 8, thus levelling it up to allow for further development. These backfills correspond with iron-stained fragments, some grey silt and a little sand flecked with charcoal and chalk [1135] over 1143 to the west and a dump of light mauve silt and some sand containing flecks of chalk, charcoal, daub and mortar and large tile fragments [8013] over 1637 (XV.4) to the north. Light grey mortar and tile-flecked silt with a little clay and sand [1066] capped 8013 and 1084 to complete the dumping above the culvert. To the south, a small patch of brown silt, some crushed pink mortar and a little medium sand containing large brick fragments [1052] overlay 1044 (XVI.8), below crushed charcoal, some dark brown silt and a little fine sand flecked with brick and tile [1045]. These may be outliers of the redeposited debris which was dumped more intensively to the north and west.

The destruction of Building 8 at the end of period XVI, therefore, was followed by the insertion of a major wall running east-west for a new building (Building 9), then dumping of redeposited destruction debris to north and south, the removal of the main west wall of the old building to the south-west and levelling of its south culvert by dumping further debris. This prepared the south area for rebuilding.

XVII.2 Construction of Building 9 at the north-east extremity of the site


Description

North-south wall [855] was constructed above dump 931 (XVII.1). It ran north from wall 396 (see XVII.1) but cannot be exactly contemporary with it because there are intervening dumps. It forms the line of the east wall of the replacement building of period XVII (Building 12) in the north. Due to the proximity of the east limit of excavation, it is unclear whether this wall belongs solely to the one property or is a party wall also related to the next property to the east. The narrow width that is implied here corresponds with the boundary suggested, more tentatively, in earlier periods (see XIII to XVI above).

To the west, rectangular cut [941] also intruded into 931 (XVII.1). It was set immediately in front of wall 396, and measured 1.30m east-west by 1.10m north-south, with generally vertical sides 0.20m deep and an uneven base. The purpose of the intrusion is unclear, unless it robbed a protruding feature of the previous period. It was filled with light brownish grey mortar-flecked clayey silt [940]. A small spread of light brown grey sandy silt set around large fragments of chalk and ragstones [902] over 911 (XVII.1) just to the west could be a related consolidation of the corner of the new building. Pinkish grey silt and some sand [875] over 940 and 902 also spread north to cover 1350 (XV.4) alongside the old west wall of the earlier building and may be further consolidation of the wall line beside the road.
To the north-east a fragment of burnt wood [932] over 931 (XVII.1), presumably redeposited destruction debris, was overlain by an extensive deposit of brownish grey sandy silt containing flecks of chalk and red mortar [806], which lay against the new foundation 855 and elsewhere covered 1345 (XV.4). Its character suggests that further amounts of destruction debris from the preceding period were being dumped to level the ground inside the replacement Building 9. Another spread of sticky light grey sandy silt mixed with chalk fragments and flecked with tile fragments, some up to 0.10m [788] overlapped 806 to the south, continuing west to cover 875. This was followed by an even more extensive dump of loose grey silt, some mortar and a little sand containing charcoal flecks and brick, tile and chalk fragments [706], also covering 788 (XVII.1) and 1201, 1019 (XV.5).

To the north-west, smaller patches of light brown chalk and charcoal-flecked clay and grey sandy silt [848] over 1019, 1063 (XV.5) and loose crumbly pinkish white very sandy mortar, some tile fragments up to 0.10m and a little white plaster in lumps [928], overlying 962 (XV.5) could be outliers of the same process, though less securely stratified. 928 closely resembles an isolated lump of pinkish grey crushed mortar mixed with tile fragments up to 0.10m across [959] over 960 (XV.5) to the east. Even if not all elements are exactly contemporary, the outliers seem likely to be part of the same general process of redeposition in the north room of the replacement building (see below with 843 for the significance of the correlation between 959 and 928 for the process of reconstruction in the east of the building). A further patch of purplish brown silt flecked with charcoal, chalk and daub [643] then overlapped 928 and 847.

To the north the extensive deposit of mottled patches of brown silt mixed with grey ash containing small fragments and flecks of charcoal [825], which overlay 928 and 829 (XV.5) appears to be the result of trampling the destruction debris and is probably broadly contemporary with the large dump 706 since purplish brown silt and a little off-white mortar, flecks of brick, grey silt, charcoal and light buff-yellow loose fine mortar [647] overlay both of them, with a final spread of compact pink mortar, some chalk fragments and a little chalk in flecks [587] over this and 954 (XV.5) to give an insubstantial surface to the area. It is unclear whether this constitutes a floor which was then used as just a stage in the process of reconstruction. But given the fact that the wall to the east is only completed at a later stage (see XVII.3 below and wall 469), the latter is perhaps more likely.

To the east, rectangular cut [843] intruded into 959 and also into 872 (?) and 873 (?). It measured 2.80m north-south by at least 1.20m east-west (east side cut away by l.o.e.), and had nearly vertical sides. Its base could not be determined due to difficulties of excavation. Its west face was lined with a timber plank [861], packed with bricks [844] and the gap backfilled with greenish grey sandy silt and medium pebbles [860]. Though the fills proper of this feature were virtually truncated, it can be suggested to be the west side of a cess pit set up beside the east side of the wall line 855. Dark grey compact silt containing small fragments and flecks of charcoal [827] were trodden against its north face, below brownish grey silt and pebbles containing broken cobble and tile fragments [660], then purplish brown silt and flat laid tiles [628] followed by a mixed pebbly layer of brown silt and some yellow mortar [621]. A nearby small compact patch of brown mortar and chalk flecks [490] over 775 (?) probably corresponds with these. It is unclear whether these rough surfaces are internal or external, and thus whether the cess pit lies in the next door property or just beside the east wall of Building 12 related to walls 396 and 855. However, surface patch 490 crosses the line of wall 855,
implying access from the west, so it is tempting to see the cess pit as associated with Building 12 to the west, rather than on a separate property.

The preparatory activities described under XVII.1 can thus be seen to have continued at this stage, with a wall extending northwards from 396, further dumping of destruction debris in the area to its west, and a cess pit inserted beside this east wall.

**XVII.3 Walls inserted in the Building 9**

(Fig 48)

671, 678, 469, 733, 752, 732, 723, 679, 917, 920, 789, 588, 746.

![Diagram of Building 9](image)

*Fig 48 Period XVII.3-7, 19, 22*

**Description**
In the north-east corner of the site north-south cut [671] intruded into 621, 587 (XVII.2) and 775 (?). At least 3.40m long (north end cut away) and up to 0.70m wide, it had a vertical edge in the east, sloping in the west, and was up to 0.25m deep with an irregular base where it cut into earlier masonry on the same line. It terminated in the south opposite the south side of cess pit 844 (XVII.2). Its base was filled with fragments of sandstone and rather less ragstone and brick up to 0.20m across set in a little dark greenish grey pebbly silt and sand [678] as a gravel base for [469]. This wall formed the east side of Building 12 at its north extreme. The consistent surface level to which 469 survived may be due to systematic destruction later or because it formed the base for a timber superstructure. Its south termination, opposite the cess pit, suggests that the two were in use together, though whether part of the same process of construction or successive phases is unclear.

Immediately to the south, rectangular cut [733] intruded into dump 706 (XVII.2). It measured 0.75m north-south by at least 0.65m east-west (east edge cut away), with surviving sides up to 0.30m deep, vertical in south and west, gradual in the north, and a flat base with a subsidiary east-west slot in the south. It was filled with soft sticky dark grey silt with traces of light brown wood [752] at its base, probably the decayed remains of a timber plank, with a foundation of brick and some rubble bonded with soft grey chalk and shell-flecked mortar [732] on top. The bricks, set on bed, were less regular where it abutted wall 855 to the south. Cut [723] could be identified to the north of this feature, cutting into it and 643 (XVII.2). At least 0.90m long and 0.60m wide (south and west edges indefinable), it had nearly vertical sides up to 0.13m deep and a slightly sloping base. [679] which filled the cut formed a wall which incorporated masonry 732, also continuing south to overlie foundation 855 which it used as a base. It seems likely that 679 and 732 are part of the same phase of construction. It is less certain that 855 and 679 are part of a single activity since dumps 706 et al intervened between them. However, they were certainly in use together, forming the main east wall of Building 9.

To the west, cut [917] intruded into 988 (XVII.1), 688 (XVI.8), 2211, 2260 (X.18) and 1794 (?). At least 10m long (north end cut away) it was up to 1.0m wide with nearly vertical sides 0.80m deep and a generally flat, locally uneven base. It was filled with compact pinkish grey sandy silt flecked with charcoal, tile and chalk [920] in the north and central portions, maybe tread deposited in the process of construction, then a bedding of unworked ragstones averaging 0.25m across, and a little chalk and brick, bonded with a hard purple mortar [789] as a base for [588]. The construction trench was packed with loose light reddish brown brick-flecked sand and some silt [746] in the north. This forms the main west wall of Building 12. It has a little more stratigraphic latitude than 855 and 679 to the east, so it is unclear whether it was inserted earlier with the former or with the latter. However, 588 and 679 certainly then remain in use together as the main walls of the north part of the building, integrated with early cross wall 396 which would have joined them together at their south extremes.

XVII.4 Construction of Building 13 to the south of Building 9

1137, 1119, 1149, 1100, 1088, 707, 1089, 1080, 1050, 1039, 972, 1047, 1038, 1034, 1000, 999, 475.

Description
In the south-east corner of the site, a north-south line of decayed wood, some charcoal [1137] was set above 1180 (XVII.1). A course of bricks, each laid east-west, and bonded with dark brown sandy clay [1119] was set above the west edge of the decayed timber, also overlapping dump 1152 (XVII.1), equating with another section of bricks laid on bed and bonded with sandy clay [1149] above the south end of 1137. A further area of red bricks set on east-west bed and bonded with a little dark brown sandy clay [1100] was above 1119 at the point where it abutted earlier wall 396 in the north, possibly to reinforce that corner, and pinkish brown silt and some sand containing large fragments of tile in the west and smaller fragments and flecks of brick and tile together with chalk flecks, to the east [1088] dumped on top as further reinforcement. [707] was then set above 1088, 1149 and 691 (XVII.1), running south to form the main west wall of the north part of a new east building (Building 16). Although there were successive activities in the creation of the wall, it seems likely that the cutting of 1137, dumps 1088 and the wall 707 set on top are all part of the same process of construction.

Just to the east, cut [1089] intruded into 1088 immediately beside wall 396. It was roughly semi-circular, 1.80m east-west by 0.65m north-south, with a sharp side in the west becoming more gradual to the east and 0.19m deep with a flat, locally irregular base. It was filled with light buff grey mortar, some coarse sand and a little silt containing small fragments of chalk and tile and chalk flecks [1080]. The cut could represent a feature set against wall 396 but, as it went quickly out of use, is more likely a phase in its construction, perhaps related to the building of wall 707 to the west at the corner of the room thereby formed, an area which had already apparently required some consolidation with the deposition of 1100 and 1088.

To the south-east, cut [1050] intruded into 1066 (XVII.1), the material backfilling the period XVI culvert at this point. It was 0.29m north-south by at least the same east-west (east side truncated), with fairly steep sides up to 0.10m deep and a flattish base. It was filled with light grey silt and some sand containing flecks and small fragments of mortar and flecks of charcoal [1039], confined to the east, with a later packing of dark brown silt and some sand flecked with tile, chalk and white mortar [972] set at its west end. Just to the south, east-west slot [1047] also intruded into 1066 (XVII.1). At least 1.0m long (east end truncated) and 0.25m wide, it had vertical sides up to 0.11m deep and a flat base and was filled with dark brown organic mortar-flecked silt and a little sand [1038] at its east end, probably decayed wood, and a packing of light blueish brown sandy silty clay [1034] towards the west, maybe packing. Both the fills of cut 1050 and slot 1047 were overlain by brown silt [1000], seemingly another decayed plank element, with a spread of light grey silt and some sand [999] above, sealed by [475]. This formed the south wall of the north room of Building 16, with the underlying planks levelling up its east end. Presumably walls 475 and 707 originally joined up to give the south-west corner of the structure.

It is difficult to relate the insertion of walls 475 and 707 to that of the walls further north. Certainly it is impossible to say whether they where built with 855 (XVII.2) or with 679 and 746 (XVII.3). Indeed the successive phases of laying out 707, with dumps intervening, may seem that there were stages of construction here in the south as in the north. By the same token, it is difficult to decided whether the insertion of 396 (XVII.1) was a separate initial activity or simply the precursor to the main outside walls of the building. However, all elements were in use together by the time the first identifiable floors were inserted inside the structure (see XVII.5, XVII.6, XVII.7 below). So the intervening dumping of redeposited
destruction debris from the preceding period are probably only part of an extended process of reconstruction.

XVII.5 Primary surface in south room of Building 13

922, 921, 913, 751, 750, 864, 836, 858, 845, 819, 805, 785, 797, 781, 778, 790, 767, 739, 730, 641, 766, 630.

Description

At the south-east extremity of the site, a compact mixed layer of brown sandy silt, slightly less greyish orange sandy mortar, less grey ashy mortar in patches and less still whitish yellow sandy mortar in lenses containing flecks and small fragments of brick and tile and flecked with charcoal [922] spread above 1135 (XVII.1) and 1189, 969, 957 (XVI.8), continuing north to abut wall 475 (XVII.4). It may form a first attempt at surfacing this south area, though perhaps the majority of the mortar material was derived from adjacent activities of construction.

North-south cut [921] intruded into 922. It was 1.90m long and up to 0.55m wide, with generally steep sides up to 0.37m deep and generally flat base except where there was a subsidiary cut at its south-west corner. This may be the position of a vertical post within the slot. A mottled mixture of greyish brown sandy silt and a little yellow clay in patches especially in the south and dark brown organic silt in the south-east, flecked with brick, off-white mortar and containing small fragments of chalk and brick [913] filled the feature.

Just to the west, parallel slot [751] also cut 922. It was at least 1.90m long (south end cut away) and up to 0.35m wide, with vertical sides petering out to the north but up to 40mm deep elsewhere and a fairly level base. It was filled with brown silt and a little coarse sand and patches of white and orange sandy mortar [750]. These two slots may have contained floor joists or other horizontal members associated with the adjacent west boundary of Building 16. It is unclear, however, what form of wall existed to the south of 707 (XVII.4). Either the west wall of the underlying destroyed period XV Building 7 was reused, an insubstantial division leaving no traces was inserted, or the new structure was open on this side. The behaviour of subsequent surfaces to the east, however, show that slots 921 and 751 remained in existence throughout this initial phase of use of the southmost room.

The area between slot 921 and the west wall line was covered by a spread of dark brown organic silt, and a little fine sand and flecks of crushed off-white mortar containing small fragments of brick [864]. Planks lying in this material could be traces of a timber floor. A patch of dark orangey brown organic silt and a little sand [836] at the south end of slot 921 may be a further structural member.

Dark greyish brown silt, some grey ashy and orange sandy mortar in flecks and a little medium sand [858], which overlay 864, was concentrated above the post position at the south end of 921, implying its modification or disuse. Dark greyish brown silt and a little crushed off-white mortar in flecks and coarse sand flecked with brick and tile [845] covered both 858 and 836 as later fill of 921. A mixed deposit, flecked with white mortar, of light greyish pink tile-flecked mortar, especially in the north, some light yellow mortar, especially at the surface in the south,
and a little pinkish brown ashy mortar in patches [819] overlapped 845 and was concentrated in the area between slot and wall. In this gap there also lay a patch of brownish black silt, a little medium sand and crushed white mortar flecked with charcoal and white mortar [805] over 819 below a patch of burnt organic dark brown sand and silt towards the base and off-white sandy mortar spread [785] in the north. This corresponds with a small spread of dark brown silt and a little charcoal in flecks and fine sand [797] to the south. To the east, dark brown organic silt and a little fine sand, the deposit darkening in colour to the south [781] overlay 845 at the east edge of slot 921.

Another very mixed chalk-flecked layer of light brown sandy silt, especially concentrated in the south, a little pinkish brown ashy silt, large fragments of brick and mortar, and smaller fragments of chalk, and patches of orange coarse sand [778] covered 785, 797, 781. This related to greyish brown silt, some off-white and yellow mortar in flecks and a little fine sand [790] over only 797, since both 778 and 790 were covered by another mixed layer of brown sandy silt, with greenish hue towards the base and especially in the south, some grey ashy silt and a little light pinkish grey sandy mortar containing charcoal flecks, and flecks and small fragments of brick and tile [767], then brown silt and a little coarse sand, darkening to the south [739].

A mixed layer flecked with charcoal and off-white mortar of yellowish orange sandy silt and grey silty sand, with patches of orange staining [730], then brownish black organic silt containing decayed wood, some burnt, and a little greyish black organic silt and patches and tips of orangey brown and grey ashy silt [641] covered the line of cut 751 entirely. To the west, a small patch of dark brown silt and a little coarse sand containing small fragments of tile and brick [766] covered 767, overlain by compact dark brown silt, some brick, tile and white mortar in flecks and a little fine sand [630] which also covered 641. These final layers of trodden occupation debris and building materials totally sealed the line of both cuts.

739 was the first deposit to seal the line of slot 751. If the two slots were inserted at the same time, 921 quickly went out of use, with only 864 respecting the alignment, whereas 751 had an extended life. Alternatively, 921 may have been inserted initially and used with 864, this was backfilled, 751 was dug as a replacement and used whilst occupation debris and building materials accumulated to its west against the main wall of the building, until 739 was laid marking the demise of the second slot. In both cases, the majority of the ‘surface’ 922 to the east remained visible and apparently kept clear of such accumulations throughout the initial use of this south room of Building 16.

Whether 922 is in fact a ‘real’ surface, and the accumulations at its west edge result from occupation of this room, is debatable. An alternative explanation is that it was the result of mortar mixing etc in this south area and that cuts 921 and 751 are part of the process of reconstruction, with the trodden accumulations and flecking with a profusion of building materials resulting from the construction of walls to west and north. Because of the former possibility, this activity has been included under XVII.5 and tentatively labelled as phase 1 in this room.

XVII.6 Primary surface in north room of Building 13
Description

In the north part of Building 13, a loose mass of variously sized brick fragments, some chalk and a little crushed yellow mortar [1081] was dumped against the east face of wall 707 (XVII.4), with a second deposit of light grey sandy clay silt and some brick, ragstone, and flint building material containing large fragments of chalk and yellow mortar [1048] on top. These served to consolidate the south part of the north room of the building. Another extensive deposit of greyish brown coarse sandy silt and clay, becoming less clayey in the south and containing flecks and large fragments of brick and chalk throughout [1005] was then dumped above 1048 and 1089 (XVII.4) to level the north area. A final dump of brownish yellow silty sand containing large fragments and cobble-sized chalk and brick and large mortar fragments [1024] over 1089 lay against wall 396 in the north to complete the make-up.

An extensive layer of buff coarse sand and a little silt containing large fragments of brick and chalk and, in the south, cobble-sized chalk [961], covered 1024 and 1005, followed by light grey sandy clay and silt containing cobble-sized bricks, chalk, tile and ragstone, large fragments of brick, tile, chalk and mortar, and flecked with slag [926]. This dump continued south to lap against wall 475. A local mixed dump of brown clay, cobbles of flint and ragstone and rather less coarse sand containing patches of buff mortar, sometimes with a pink hue, cobble-sized and large fragments of chalk, brick and tile, fragments of charcoal up to 90mm across and fine pebbles [915] was finally deposited against wall 396 in the north. This sequence of make-ups, with a profusion of building material and other debris throughout, but especially concentrated towards its base, served to make up the ground level within the north room of the Building 16.

Towards its east edge, [950] intruded into 926. It was irregular, and cut away in the east, measuring 1.20m north-south by at least 0.40m east-west, with fairly steep sides up to 0.25m deep and a flat base. It was filled with dark grey clay and a little silt and sand containing large fragments of charcoal, light buff mortar and brick and cobble sized brick tile and chalk [939]. The purpose of the feature is unclear. It seems too irregular to be structural and was immediately sealed by further dumps so was of no lasting significance. It may have been for the removal of a feature from the destroyed period XVI Building 7, originally left in situ.

An extensive deposit of large fragments and cobble-sized tiles set in a mixture of a little orange brown sand silt and clay and containing patches of orangey yellow coarse sandy mortar, large fragments of crushed charcoal and flecks of daub and charcoal [394] covered both 939 and 915, with a last deposit of dark brown silt and a little coarse sand and clay containing ragstone, sandstone, brick, tile and flint cobbles and large fragments of tile and brick [896] in the south of this room completing the dumping sequence.

A series of features cut into the dumps [870] which intruded into 394, was oval, 0.85m north-south by 0.40m east-west with vertical sides 0.30m deep and flat, locally undulating base. It was filled with blueish grey pebbly mortar-flecked silt and some sand [883] as a sort of lining, and dark brown silt, some clay and a little sand [854] at its centre, maybe decayed timber, then mid brown silt and some sand [882], possibly further packing. Crushed blueish white charcoal-flecked and iron-stained mortar [867] which spread east from the cut overlapped its edge but
did not seal it. This must represent a local surface in use with the feature. Dark brown sand and silt [868] was then packed in the edge of this cut after 867 had been laid and finally a grey mixture of mortar and some silt [852] was placed in the cut, presumably to consolidate its position. This must represent the position of a major upright within the room.

To the south, north-south cut [895] intruded into 896. It was 2.20m long and up to 0.30m wide, narrowing in the south, with nearly vertical sides up to 0.18m deep and a base sloping slightly down to the south. It was filled with dark brown decayed wood [893] and must be a primary beam slot of the north room. Just to the east, north-south slot [898] cut into 394. It was 1.10m long and c. 0.25m wide with vertical sides 80mm deep and a flat base and was filled with dark brownish grey clay, some silt and a little fine sand [897]. At the north end was a concentration of cowrie shells, perhaps a foundation deposit, whilst the base of the layer became more organic showing that the whole feature was a decayed beam.

To the north-west, irregular void [879] intruded into 394. It was c. 0.30m across, with gradually sloping sides up to 0.18m deep and an uneven base. It may be a post hole related to the nearby slots. A small patch of dark grey iron-flecked silt [892] on 896 nearby is the only sign of occupation debris related to this initial phase. This might mean that the whole of the flooring was carried on joists, of which only two left lasting impressions. The distinctive north edge of final dump 896 lay opposite the north limit of cut 895. It is possible therefore that an east-west division bounded them at this point, forming an internal partition within the room.

XVII.7 Primary surface in Building 9


Description

In Building 9, a mixed layer of light brownish grey silty sand containing mortar and charcoal patches [664] was deposited on 706 (XVII.2) and against the south and east walls of the room [651] cut into 664 at the south-east corner of the room. It measured 0.80m east-west by 0.60m north-south with steep sides and a flattish base and was filled with light brownish grey clayey silt flecked with brick charcoal and mortar [650]. It must represent a feature set against the east wall.

To the north-west, were traces of a second cut, [705], also intruding into 706 (XVII.2). It was cut away to the north but measured at least 0.20m by 0.55m east-west, with sloping sides at least 0.11m deep and base cut away. It was filled with light grey pebbly silt and some sand [704] and must be an installation in the centre of the north room comparable to 651.

Both cuts were sealed by an extensive dump of compact light greyish brown sandy silt flecked with charcoal, chalk, mortar and broken tile [575]. This also continued westwards to overlay 746 (XVII.3), the construction trench backfill of wall 588 forming the west wall of the building.

Cut [539] intruded into 575 in the south-west corner of the room. Semi-circular, it had a diameter of c. 1.40m with gradually sloping sides 0.72m deep, curving in to the base of wall
396. It was filled with light greyish brown pebbly sandy and clayey silt, the clayey element being more evident towards the base of this feature [538]. Though excavated as a single fill, inclusions suggested tip lines within the cut. The loose spread of light brownish grey mortary sand flecked with charcoal and chalk [508] which covered 538 also spread eastwards along the north face of wall 396. A comparable deposit of light pinkish grey charcoal-flecked sandy silt [574] over 575 spread alongside east wall 679 nearby.

Further north, an extensive mixed layer of light brown silt and medium sand and slightly less off-white fine mortar and tile, also containing chalk and brick fragments [531] was dumped against wall 469 (XVII.3) to the east and the packing 746 (XVII.3) of the construction trench of wall 588 in the west. Further loose greenish yellow sandy silt flecked with charcoal, brick and chalk, and a little chalk, brick and tile in large fragments [507] overlay this and 956 (XVII.1) to complete the building material make-ups in the north. Finally, a substantial layer, up to 0.15m thick, of yellowish mortar rubble mixed in places with some grey silt and containing fragments of chalk and brick [482] was deposited above 507, 508, 574 and 679 (XVII.3). It formed the final large make-up within the room. At one point beside the south-west corner of cess pit 844 (see XVII.2), this make-up crossed wall line 469/479 suggesting access between the building and the cess pit and thus an association between the two.

The fact that cuts such as 651 and 539 at the south corners of the room were cut into dumps, then backfilled and sealed by further dumps with no proper surface created while they were open implies that they relate to processes of construction, perhaps scaffolding beside wall 396, rather than a distinct end to this process of construction.

A spread of off-white crushed coarse chalky mortar and a little dark grey silt [468] was deposited on 482 at the north surviving end of the room beside its east wall, perhaps related to construction at that point. Another extensive dump of crushed brick and sand as a skim on top of light grey sandy silt [438] covered 468 and spread over the rest of the room, covered by light greyish brown silty sand [436] concentrated at its centre. These formed the working surface from which the initial occupation of this room then seems to have taken place.

Two cuts intruded into 438. [444] was an irregular channel running north-south, broadening to the south but truncated at either end. It was at least 1.20m long and expanded from a width of 0.35m to 1.00m. Its sides, 0.15m deep sloped gradually to a flat base. It was filled with loose greyish brown sandy silt [443]. just to the east was [446], a north-south slot 0.60m long and 0.20m wide with gradually sloping sides 90mm deep and an irregular base. It was filled with dark grey sandy clay and silt [445]. The function of these cuts is unclear: 446 could be structural, but 444 seems too irregular for this. Adjacent truncation precludes interpretation. To the west, a decayed timber [509] set on 482 and against the internal face of wall 588 is certainly structural and suggest the insertion of a timber floor above 482/438 etc. which was subsequently removed.

Outside the room to the east, cut [763] intruded into 490, 643, 660 (XVII.2) and 7763 (?). Although only its west side survived, this measured 2.60m and had rounded corners. The feature was at least 0.80m wide, with vertical sides but severely truncated and its sides packed with bricks and timber [753]. Sticky greenish grey silt [762] was packed behind the brick lining, the whole arrangement thus forming a modification of cess pit 844 (XVII.2). It is unclear whether there was a primary phase of construction here replaced by 753 or just successive operations. If the former, the initial feature would seem to have operated without
any surfaces inside the adjacent room since the compact surface of cobbles and tile fragments and a few pebbles bonded with some very hard chalk-flecked mortar [461] which was laid against the west wall of the cess pit and over wall line 469 also overlapped 482, part of the primary make-up within the north room. It formed a good quality threshold giving access from the west area to the cess pit.

Further north, compact mixed grey and brown silts flecked with tile, charcoal and chalk [198] overlapped 746 and lay against wall 469 (both XVII.3). A spread of grey ashy mortar flecked with chalk and charcoal [196] capped this, forming a smooth surface and holding vertical tiles in place at its west edge where it abutted the east wall 469. This is likely to be laid at the same time as modification 753 and when 482 et al had been dumped inside the building as make up for its floors. Grey silt mixed with a little greenish yellow sand in lenses containing charcoal fragments [194] accumulated against cess pit 753 and on surface 196 during its use.

To the south, brownish grey clayey silt [725] overlay 843 (XVII.2), representing use of the cess pit. It is therefore unclear whether this represents the initial use of the feature or after 753 was inserted. However, the soft grey sticky silt and chalk flecks containing brick and tile fragments [470] on top also overlapped packing 762 and this must be inserted after relining. A dump of chalk nodules in a loose matrix of crushed chalk [193] on 470 also overlapped 194 to the north and suggests the intentional sealing of the cess fill of the pit. The feature therefore seems to have gone out of use at the end of XVII.7 (see 854 - XVII.12 below for further discussion).

As with Building 16 to the south, therefore, the occupation here was preceded by dumping redeposited debris within the walls, with construction of the surrounding walls taking place during the process of dumping and then a wooden floor perhaps laid within the rooms.

**XVII.8 Secondary occupation in south room of Building 13**

(Fig 49)


273
Description

In the south room of Building 16, a small patchy layer of dark brown and grey silt with some mortar towards its base and containing small fragments of chalk, brick and tile in the north, and a little pink sand with mortar flecks in the south [863] overlay 922 (XVII.5). It could be simply an uppermost element of that primary occupation sequence. However, it was localised to the area of cut [550], which intruded directly into it, also cutting 730 (XVII.5) and so 863 may be related to the insertion of this feature. The intrusion was set in the north-east corner of the room, against its north wall, running for 2.0m south of this and being up to 0.60m wide. Its east side was well defined, vertical and 0.16m, the west side generally less clear and the base sloped gently down to the west, with a marked subsidiary depression at its south-west corner. The base of this feature in the north was packed with cobble-sized bricks, ragstone and sandstone fragments and large fragments of chalk set in tile-flecked brown sandy silt and some greyish red ashy mortar [667] to provide a substantial base for the feature, then greyish brown organic silt and a little fine sand containing flecks of off-white mortar and small fragments of brick and tile [562] concentrated at its east, proper edge. There seems little doubt that this is a
beam set at the east good edge of the slot with the whole feature a structural element set in the south room in association with its nearby west wall and replacing the initial cuts to the south described under XVII.5. It must therefore be seen as a secondary phase of activity here.

Brownish black organic silt and a little fine sand and patches of dark green clay and silt [665] accumulated at the north-west corner of this slot against 562, with greenish brown silt, and a little fine sand flecked with brick and tile [652] on top as related occupation debris, corresponding with nearby greenish brown organic mortar-flecked fine sandy silt [661] also on 665. Further patches of tile-flecked greenish brown fine sandy silt [639] then greenish brown organic silt [627], also overlapping 641 (XVII.5) occurred above this. These deposits, confined to the north-west edge of the slot, correspond with a much more extensive layer of brown mortar-flecked silt and a little yellow coarse sand [616] over both 641 (XVII.5) and 639, spreading south and east after overlapping the edge of cut 550. A small area of loose light brown silt and some fine sand containing large fragments of brick [594] on 616, 627 again lay at the north fringe of the cut, but the more extensive deposit of orangey yellow sand and silt, some light grey ashy mortar and a little brown silt in patches, with mortar concentrated in the north [581] again spread south from the cut and may be a proper surfacing inside the room at this point.

Two small areas of brown silt and a little fine sand [537] then mixed white mortar-flecked yellowish orange ashy mortar and a little light grey silt [532] overlay 581 in the south as use and repair, before a more general accumulation of brown silt and a little fine sand containing flecks of crushed mortar and small fragments of charcoal [527] occurred on top, also over 630 (XVII.5) showing that more general occupation then returned. A corresponding area of decayed wood fragments in some brownish black silt and a little fine sand [506] over 581 is part of the same process of accumulation.

The insertion of this new feature, 550, in the secondary phase, is therefore followed by local tread at its north fringes before a proper surface 581 is laid against the east edge of the beam slot and is then trodden on and repaired on successive occasions.

**XVII.9 Final occupation of south room of Building 13**

(Fig 50)

497, 499, 466, 448, 440, 439, 591, 768, 744, 428, 460, 459, 498, 485, 557, 544, 561, 478, 467
Description

A mixed compact charcoal-flecked layer of light grey ashy mortar, and a little light orangey yellow ashy mortar, fine sand and patches of crushed brick [497] was set above 506, 527 (XVII.8). It forms a new mortar surface for this southmost room, though continued to obey the line of cut 550 inserted in the proceeding phase (see XVII.8). Successive patches of compact brownish black organic silt and a little fine sand and wood fragments, some burnt [499], a compact, charcoal- and tile-flecked mixture of light yellow sandy mortar and a little grey silt [448], black organic silt and decayed, sometimes burnt, wood and much less fine sand and orangey brown silt in patches [440], and finally dark brown charcoal-flecked silt and a little fine sand, its surface smeared with crushed white and yellow mortar [439], overlay the south margins of surface 497, showing that it was subjected to increased wear and tear here and thus required repairing on various occasions, followed by further occupation accumulations. A small patch of brown silt and a little medium sand containing small chalk fragments [591] over 581 (XVII.8) may be an outlier of the new surface or one of its repairs.

On the north-west side of cut 550, a mixed layer of buff coarse sandy mortar, some dark greenish brown organic silt and a little pink coarse sandy mortar containing cobble-sized brick
fragments on its west side where it lay against the limit of the room [768] overlay 922 (XVII.5) and up against the slot 550. Another dump of white ashy mortar, some dark green organic silt and a little pink sandy mortar containing cobble-sized reused bricks and flecks of brick, tile, white ashy mortar and charcoal [744] overlay 768, becoming more patchy in the south and again confined to the north-west corner of the room. The strip of greenish black silt and a little fine sand and light brown sand in patches containing small fragments of brick [428] above this completed the make-up sequence. These rubble make-ups must have been for a secondary phase of flooring within the room though it is unclear whether they relate to the insertion of 497 etc here or in the proceeding phase described under XVII.8.

Cut [460] intruded into the east edge of 448, just surviving later intrusions itself. It measured 0.50m north-south by at least 0.25m east-west with steep sides 80mm deep and a flat base and was filled with charcoal-flecked dark grey organic silt and some grey and brown clay [459]. Nearby to the west, the east edge of linear cut [498] intruding into 499, just survived. It was at least 2.0m long and at least 0.10m wide with gently sloping side at least 0.11m deep and filled with brown silt and a little white mortar crushed into flecks and yellow coarse sand [485]. To the north-west brownish black silt and some orangey brown silt [557] then dark orangey brown silt and a little sand [544] overlay 581 (XVII.8), as did nearby dark orangey brown organic silt and a little yellow fine sand [561]. These patches overlay the line of cut 550 and may be organic decay created by its subsidence. It would seem, then, that 550 fell out of use at this point. North-south cut [478] intruded into 544, 561 and slot fill 485. It was at least 2.0m long, c. 0.15m wide, with vertical sides 80mm deep with a horizontal base and was filled with dark orangey brown organic silt and a little coarse sand containing flecks of white mortar in the west and towards its surface [467]. This is a beam decayed in situ which, it seems, replaced the earlier arrangements seen with 550. Iron objects along its east edge might suggest that it was nailed in place. This is the final episode in the life of the south room.

XVII.10 Secondary occupation within the north room of Building 13

602, 891, 804, 802, 800, 791, 473, 720, 689, 784, 709, 708, 687, 685, 683, 715.

Description

In the north room of Building 16, an extensive mottled deposit of orangey brown sand and silt flecked with chalk and charcoal [602] was dumped above 897, 893, 892, 852 (XVII.6), thus marking the disuse of the primary features and preparing for the next phase of occupation. Small patches of crushed white chalk [891] over 394 (XVII.6) then dark pink sand and some silt containing small shell fragments and flecks of brick [804] may be outliers of the same process or related to modifications of the wall immediately to the west. Other patches of chalk-flecked crushed white mortar, brown silt and rather less sand [802] overlying 602, 804 and 879 (XVII.6), then brown silt and some sand flecked with chalk and burnt mortar [800] and finally dark brown mortar-flecked silt and some sand [791] show the continuation of local occupation in this area. Dark brown silt and some sand flecked with chalk and charcoal, also containing tile flecks, small fragments of charcoal and patches of crushed white mortar [473] overlapped 791, spreading east as trodden occupation towards the centre of this room, before a deposit of greyish white decayed mortar and brick fragments and rather less ragstones, flecked with charcoal and stained green in places [720] shows the recommencement of local
dumping. Dark greenish brown clay, some silt and a little fine sand containing fragments and flecks of brick [689] is tread on this. The sequence therefore shows the continued repair and use of the second set of surfaces within the room.

Further north, brown clayey silt [784] was deposited above 791 and alongside the west wall of the room as a repair there. A small spread of charcoal [709] and light greyish brown sand and silt containing fragments of fine mortar [708], both over 602, were covered by dark grey sandy silt [687] suggesting occupation accumulation against the north wall of the building. The last layer spread south to overlap the edge of 784, implying that this material was swept from that repair into the more marginal area at the north fringes of the room. Nearby, brown clay and a little fine sand flecked with white fine mortar [685] over 682 may be a corresponding part of the process of accumulation. A series of rectangular depressions [683] in its surface, up to 20mm deep, might be the position of robbed elements of a brick floor here, though they only survive in a small area. Certainly, any such feature had been systematically robbed at the end of its life.

At the south extreme of the room, north-south cut [715] was visible in the surface of 689. It was 1.90m long and up to 0.70m wide, narrowing in the north with generally steep sides up to 0.10m deep and an irregular base. Its irregularity does not suggest a true structural element. Either it was the result of robbing a feature set in the secondary surface in the room or it was caused by underlying subsidence, most obvious is that due to slot 595 (XVII.6), which had gone out of use some time previously.

**XVII.11 Final surface in north room of Building 13**


**Description**

At the north end of the north room, a patchy layer of flecks of greyish white mortar and crushed brick [571] was spread over 687, 683 (XVII.10), forming a new surface within the room. Grey silt and some white mortar containing flecks of tile, fine pebbles and large and small brick fragments [688] over 689 (XVII.10) to the south may be an outlying patch, with brown pebbly sand and silt flecked with mortar and tile [682] on top of both as tread accumulating against the west wall of the building. At the same time loose dark brown brick-flecked silt, some brick fragments and a little fine sand containing coarse shell fragments [644] accumulated on 571 in the north-west corner. Further small deposits of light beige brown fine sand [578] then loose black charcoal containing small fragments, large fragments and flecks of tile and brick, mixed with light brown fine sand in the north-east [577] overlay 644 and 682. Light whitish brown tile-flecked fine sand and some silt [613] covered these and extended into the centre of the room to continue the process of accumulation. An area of dark reddish brown silt and a little sand containing small and large fragments of brick and tile [572] over 720 (XVII.10) is an equivalent deposit in the south-west corner, as is light grey silt and some sand flecked with white and yellow mortar, charcoal and tile [395] over 602 (XVII.10) at the south-east corner.
An extensive dump of brown sand and silt containing charcoal, brick, white and burnt blue mortar flecks, fine pebbles and large and small brick fragments [570] covered 395, 613, 572, and 715 (XVII.10), together with the remainder of the room to form a major final make-up layer within it. An isolated patch of white mortar flecked with charcoal and brick [474] over 475 (XVII.4) could be a counterpart of this dump at some of the earlier phases.

Irregular north-south cut [569] intruded into 570. It was 1.40m long and c. 0.15m wide, with steep sides 80mm deep and may represent a beam slot for a floor on 570. However, the spread of blackish grey silt and some clay flecked with brick, mortar and charcoal [534] which sealed 569 and overlay 474 was exactly the same as areas of [476], [529] and [564] overlying 570 to the west and forming a capping for 570. Any floor joist in 569 must therefore have quickly gone out of use.

To the west, a series of decayed timbers set in mortar, with an edging of chalk and some loose white mortar bounding them on the east towards the south [638] were set on wall 707, overlapping the edge of 476. It would seem, therefore, that the laying of these final layers was followed by converting the west wall of the building to a timber superstructure. The nature of the latter in the preceding period is unknown. A patch of light grey silt, dark brick earth and rather less light grey mortar flecked with tile [624] overlapping 638 is probably related to its superstructural arrangements.

A series of beams were laid out at this time within the room, described here from west to east. [487], cutting 476, was 5.65m long, virtually the whole length of the room, and up to 0.23m wide with irregular, vertical sides up to 50mm deep and a flat base. It contained decayed timber [345]. [488] cut 476 and 529 and was 5.35m long by c. 0.10m wide with vertical sides up to 0.12m deep and a flattish base. It was filled with decayed timber [515], set vertically on edge. [512], cutting 564 and 529, 4.25m long and c. 0.20m wide, had vertical sides 0.20m deep and a flat base. It terminated 1.60m from the north wall, but abutted the south wall. It contained decayed timber [516]. [513] cut 529 and 534 and ran 2.65m north from the south wall, being 0.10m wide in the north and up to 0.30m in the south, with vertical sides 70mm deep and a flat base. It was filled with decayed timber [517].

Rectangular cut [479] intruded into the east edge of 517 and the north end of 516, though since the latter did not continue on its other side must be a termination of that slot. It measured 0.75m east-west by 0.60m north-south with vertical sides only 65mm deep and a base sloping slightly down to the west. It was filled with a coarse of flat laid bricks at its base with a skim of mortar above as a base for flat laid tiles below a second skim of greyish off-white mortar (all [380]). It thus constituted a plinth at the north end of beam 517. [514] cut into 534. It was 3.0m long and c. 0.15m wide, with vertical sides 0.15m deep and a flat base and was filled with decayed timber [518]. Its north limit lay opposite plinth 380. To the east, traces of two timber fragments [519] and [520] overlay 534 but not in a definable cut. They co-aligned and were offset 0.50m to the east of 518, the same distance as between all the other north-south timbers, so probably constitutes the south, eastmost surviving floor joist. This may have become more decayed when later intrusions to the east allowed the adjacent area more contact with the air.

All of the timbers 345, 515, 518, 519 and 520, plus plinth 380 and timbers 516, 517, were abutted by a spread of buff white mortar with, towards its base a little dark brown organic silt.
and containing brick fragments [346]. This skim, discontinuous towards the north-east beyond the line of plinth 380, covered the beams slightly in some areas but generally exposed them in such a way that they could have acted as joists for carrying cross-members to form a plank floor on top.

Finally, at the south extreme of the room, a slab of greyish white mortar flecked with brick [397] overlay 346. It appears to have been made by adding successive mortar skims on top of each other, interleaved with green chalky areas, to form the base for a threshold giving access into the room from the south. It lay symmetrically opposite plinth 380. If the two features were placed on the centre line of the room, the position of its east wall would be the line projected south by the east wall of the north room. This suggests a single wall line on that side just beyond the l.o.e.. A spread of dark green charcoal-flecked sand [505] overlay 397 as tread on the threshold, covered by light pink hard mortar containing tile, white mortar and charcoal flecks and small fragments of tile [284]. This is either a later repair of the entrance area or a dump marking its demise.

To the north, brown silt and some fine sand containing small fragments and flecks of tile and mortar and large fragments of tile [340] overlay 346, with a deposit of charcoal in flecks and fragments and some light yellow crushed fine mortar containing large and small fragments of brick and white mortar [339] on top, then dark green charcoal-flecked sand [331]. These deposits were concentrated in the north-east of the room, where the floor joists had not been laid, and suggest the use of that area subsequently. The final deposit, a thin spread often only 5mm thick, is an occupation deposit, above which there seems to be a break in the sequence.

The final changes in the north room therefore imply a series of rubble make-ups inserted as the base for a timber floor, with a timber superstructure for the west wall of this time. A central plinth suggests an internal division running from this point across to the east wall of the building which lay just beyond the l.o.e.. A threshold set in the south wall was repaired on one occasion and occupation continued in the north-east of the room where no timber floor had been set out.

**XVII.12 Secondary occupation of Building 9**


**Description**

At the north-east corner of the site, a short wall of bricks set in soft grey charcoal-flecked mortar [456], surviving to three courses in the south, was set above 438, 461 (XVII.7), thus blocking the access into the cess pit to its east. It seems likely that the feature was out of use at this point.

To the west an extensive layer of dark grey clayey silt containing charcoal flecks, patches of mortar and tile fragments [389] overlay 443, 436, 445 (XVII.7) marking the demise of the primary features in Building 12. To the south-west, whitish pink mortar and fragments of brick [410] overlay 389 and 509 (XVII.7), with a mixed compaction of medium pebbles, dark yellow sand and slightly less light brownish yellow clay and light grey silt [399] on top forming.
a gravel surface on top. A compact layer of light tan clay, slightly less grey silt, off-white fine mortar, small fragments of chalk and still less tile fragments [408] overlay 389 beside the east wall. It suggests a feature set against that side of the room. Together these layers constitute a major reinforcing of the north room, its secondary floor.

An extensive layer of grey silt and a little dark brown silt in lenses containing charcoal, tile and chalk flecks [374] overlay 399 and 408, and abutted wall 456. It represents occupation of the new floor and implies that the cess pit chute was blocked when that floor was laid down.

Cut [254] intruded into 374. Set against the west wall, it measured 2.65m north-south by 2.90m east-west, with rounded corners in the east, sharp in the west and steep sides, vertical in west, 1.76m deep and a flat base. Timber [4603] was set against the west side of the cut as a base plate for timber upright [4591], though the two were not jointed together. They may have been related to a feature leading down into the cut at its north-west corner. A brick lining of sixteen courses laid on bed with random bond, unpointed and mortared with orangey grey medium sandy mortar [391] was set in front of timber 459 and on all four sides of the cut. The north wall had traces of a decayed horizontal timber built into this lining 6 courses up from the bottom and three joist holes set into the uppermost three courses. These corresponded with holes in the south face, suggesting three north-south joists. On the east lining, a course of projecting headers lay 80m out from the wall, forming an offset at the back of the top of the joist holes. On the west side the lining undercut the earlier walls of the building but stopped at the level of the offset to the east, where it was capped by bricks set on edge. The most reasonable interpretation is that an east-west plank floor, supported by three joists, was set on the offset in the east and above the top of the west wall. It formed the top of the cess pit which this feature as a whole represents.

Cut [533] intruded into wall 391 at its north-east corner. Measuring 0.30m north-west to south-east and 0.20m in opposite plane, it had vertical sides 0.45m deep and was filled with brown organic material [462], probably a decayed post, forming a support for the corner of the cess pit. Sticky mixed dark grey silt [393] was then packed into the construction trench of the wall lining. The insertion of the cess pit into the room, presumably related to occupation of this floor and/or upper storeys of the building, can be reasonably related to the demise of primary cess pit 844 to the east.

Several north-south planks [551] were laid in the base of the pit to form a floor. Black sticky silt and cess [530] overlay the floor, confined to the edges of the feature, with green soft sticky cess [312] above this and then light yellow brown silt containing grain husks [310].

These form the primary fills of the cess pit. A spread of timber planks [285] overlay this. Some of these were completely disarticulated, others suggested the position of east-west planks, but all dipped markedly towards the centre of the feature. They are the collapsed remains of the timber flooring of the feature, which presumably was forced into the pit as the underlying cess fill rotted and subsided, perhaps from an original depth of over 1.50m to only c. 0.50m.

To the east, [379] intruded into 374. Roughly circular, it was 0.90m across with steep sides up to 0.28m deep and a flat base, and contained stone packing, formed by four slabs set on edge and a fifth forming the base, the whole bonded with grey mortar [378]. These formed a square central void 0.31m across and 0.32m deep, [334] presumably for a vertical member originally, with the fill of greenish grey crushed greensand and silt and a little greensand in fragments.
marking its demise. It lay opposite the north-east corner of the cess pit. A line joining the two and projected eastwards would from the north limit of floor 408, suggesting an internal division in the room at this point.

Further north, cut [388] intruded into 389. 0.98m north-south by 0.36m across, it had vertical sides 0.13m deep and a flat base. It was filled with black ?pitch [387], below a decayed timber plank [386], then greyish brown sandy silt containing whitish cream mortar flecks and brick fragments [384] marking its demise and spreading to the south alongside wall 588. A strip of decayed wood [381] set on 384 may be disturbed from the cut or a replacement structural member set against the wall at this point. These features were presumably in use with floors 399 et al to the south.

To the east, a mixed spread of crushed pink mortar and orange sand containing broken brick fragments and pebbles [313] overlay 384 and 399 as a rubble make-up, perhaps a counterpart of the secondary floor in the north. Greyish brown sandy silt [370] overlay this, followed by dark grey silt containing pebbles and tile fragments [344], also abutting stone feature 378. These trodden layers represent occupation of the north area, the south limit of 344 again corresponding with the position of 408 to reinforce the idea of a feature set against the east wall of the building at this point.

To the west of these accumulations, [347] intruded into 313. Irregularly shaped, c. 0.45m across, it had vertical sides up to 0.29m deep and a flat base, and was filled with a mixture of whitish pink coarse mortar and slightly less large fragments of brick and fragments of chalky mortar [341]. A line from the north-east corner of the cess pit, where the post in cut 533 lay, through 347, would run up the centre of the east side of the room. Accumulations 370, 344 etc. lay only on the east side of the line. It suggests another internal partition in the room.

This secondary occupation therefore sees the creation of floors in Building 12, together with a feature set against its east wall; the replacement of the ?external cess pit in the east wall with a second within the building; and the insertion of partitions running east and north from the north-east corner of the new cess pit.

XVII.13 Final occupation of Building 9


Description

A loose deposit of tile fragments in some off-white charcoal and chalk-flecked mortar and a little yellow mortar [309] was dumped on 344, 393 (XVII.12) in the south-east corner of Building 12, overlapped by a pebbly mixture of white mortar, grey silt and rather less clay [289] which continued north to cover 333, 341, 381 (XVII.12). Dark yellow medium sand [273] was then spread in this north area as a bedding for a skim of brownish off-white sandy mortar [272]. A compact area of blackish grey silt [311] nearby over 289 may be an equivalent of those make-ups, as might an area of mixed pinkish grey silt flecked with brick, whitish mortar, chalk and charcoal [276] over 309 in the south. Deposits [307], [318] lay in the same area.
311 and 272 formed a base for brick floor [234]. This comprised bricks set on bed in east-west lines, each brick usually 220mm x 100mm x 60mm unless broken to fit a special area. Two north-south string courses, the width of a single brick ran up the west edge of the floor where it abutted wall 588 and down the centre of the room, coaligning with the east edge of cess pit 391. Each string course was one brick wide. In the east, a large proportion of the floor had been scorched by a general fire. The floor did not survive in the silt part of the area or the north-west, though this was probably due to later disturbance. In the east it covered post positions 341 and 387, the latter showing that the partition running east from the cess pit was no longer in use and thus that the floor represented a new phase of use of the room. The absence of bricks beside the east wall of the room could also be an accident of survival, but the edge matched that of underlying floor 408 (XVII.12) despite this being completely sealed. Since 408 has been suggested as the base for an installation against the east wall, any such feature may have been replaced when the new brick floor was laid out.

Within the line of the central cess pit, dark grey sandy silt [280] overlay timber collapse 285 (XVII.12), below more dark grey sandy silt [279], then light grey silty sand [278] followed by brown silt and sand [281] covered with loose off-white crushed mortar containing brick fragments [277]. At the north and east edges of the pit, bricks [235] overlay 278, seemingly derived from floor 234. The initial silts are best interpreted as compensation for the consolidation of the fills of the cess pit. It is unlikely that the bricks on top are an element of floor 234 which once sealed the feature since they are confined to the edges and too few in number. More likely is that the cess pit continued in use throughout this phase and was then backfilled with the silts, with later subsidence dislodging some bricks from its edges. 277 and 235 therefore represent the end of activities in this area.

To the east, a pebbly compaction of brown silt flecked with a little chalk and tile [455] was set against wall 456 (XVII.12), mixed greenish brown and some grey silts containing fragments and flecks of charcoal and brick [261] overlay this, corresponding with dark grey silt mottled with some crushed brick and mortar in flecks [267] against 456 (XVII.12) to the south. A skim of off-white mortar [260] overlay 261 as a bedding for bricks laid on bed in east-west rows [258], of which only the west edge survived. The surface of this brick floor was smashed in places.

East-west cut [464] intruded into 258 and 267. It measured at least 0.60m long (east end cut away) and 0.20m wide, with vertical sides 0.11m deep and a flat base and was filled with soft grey organic silt [463], probably a decayed beam which formed a division between 258 and 267. A mixed layer of brown silt with areas of yellow mortar and brick fragments [192] overlay 463 and 193 (XVII.7). It suggests the use of the surfaces along the east side of this building, perhaps incorporating building material dumped to raise the ground for another surface here later cut away.

It is unclear whether 261 was a surface in its own right, replaced by brick floor 258, or whether all are make-ups for a single surface. Also, whether the surface(s) belong with the initial insertion of wall 456 (XVII.12) or with replacement floor 234 is unknown. In either case, however, they represent the final surviving surfaces of Building 12 in this area.

XVII.14 Late features added in Building 9

283
Description

In the east side of Building 12, north-south cut [190] intruded into 192, 276, 234 (XVII.13), it was at least 8.30m long, (north end beyond l.o.e.) and up to 1.00m across, with steep sides at least 0.30m deep (possibly truncated) and a flat base falling gently to the south. It was filled with two courses of bricks set in pairs of headers and stretchers with randomly laid blocks of reused masonry up to 0.70m across in between and the whole bonded with grey chalk-flecked mortar and packed with building material debris in a reddish grey silt [189].

This formed a foundation set just within the previous east wall of this room and is either a replacement, or an addition to, it. The feature could belong to an entirely new building of a later period. However, where it intruded into floor 234 in the west, brick fragments, mostly half bricks, bonded with a creamy white chalk-flecked mortar [191] had been laid beside the wall to give a level surface. It seems that floor 234 continued to be used as the contemporary surface further west, with the portion destroyed by the insertion of wall 189 being replaced. The division can therefore be seen as a final amendment in period XVII rather than related to a later structure.

To the south-west, [316] intruded into 307, 308 (XVII.13). It was roughly rectangular, with an irregular north-west corner, measuring 1.2m east-west by 1.00m north-south with steep sides at least 0.35m deep (top truncated) and a flat base. It was filled with brownish grey silt containing fragments of charcoal, tile and white mortar and, in its north, a concentration of yellow brick fragments [315]. This feature could be an intrusion from a later period, but lay immediately beside the north-south wall of the room so can be seen as robbing a feature set against that division right at the end of period XVII.

XVII.15 Dumping over Building 13


Description

At the south-east corner of the site, a charcoal-flecked layer of brown silt and a little fine sand [429] was deposited on top of 439, 459, 467, 591 (XVII.9) and 661 (XVII.8); thereby sealing all of the structural elements within the south room of Building 16. A mixed layer of grey silt, small fragments of brick and tile and rather less fine sand containing small patches of crumbled light yellowish grey mortar and yellowish brown staining and charcoal flecks [421] overlay this, capped with light pinkish grey ashy silt and fine sand containing large and small fragments of brick flecked with off-white mortar [419], then brownish black silt and some yellow fine sand flecked with yellow mortar [418] below grey ashy silt, medium sand and rather less crushed yellow mortar in patches containing flecks of brick and tile and small fragments of mortar [413]. The last three dumps were concentrated in the south of the area, and corresponding with a single deposit of brownish black silt and a little buff and yellow mortar in patches containing tile fragments [400] over 421 in the north.
The south tips had a semi circular depression [398] in their east, probably just a profile created by the direction of tipping, and immediately compensated for with the deposition of a mixture of dark brown and light greyish brown fine sandy silt containing small fragments of brick and tile [336], also covering 400 in the north. Two small abutting dumps of dark brown organic fine sandy silt [322] and dark brown sandy silt and some light grey ashy fine sand containing small fragments of white mortar, brick and tile [332] covered 336 in the south, with an extensive layer of light brownish pink mortar and a little sand and silt containing large and small fragments and flecks of brick [271] on top covering the whole area. A thin strip of light buff silt, some crushed mortar and a little medium sand containing small fragments of off-white mortar [326] to the west over 336 is broadly equivalent to 271. To the east reddish brown clay and a little fine sand and silt containing large brick fragments, flecks of crushed mortar and tile fragments [270] overlay 271, then dark brown pebbly clay, some fine sand and a little silt containing large fragments of brick and small fragments of mortar [259].

In toto, these various deposits constitute a series of building material dumps which served to seal in the internal structural elements in the southmost room. There is no evidence either within the dumps or at their surface of proper occupation in this part of the building. Either they carried a floor at a higher level which was later truncated or this part of Building 16 fell out of use at this stage.

To the north, in the north room, an extensive layer of light pinkish buff fine mortar containing fine pebbles, tile flecks and small and large brick fragments [282] was dumped over 331, 284 (XVII.11), also lapping up onto, and partially over, wall [638] (XVII.11) in the south. It completely sealed the floor joints 487 et al described under XVII.11.

Small areas of dark brown silt and some sand containing fine pebbles, flecks and patches of yellow mortar, small fragments and flecks of brick, large fragments of tile and small fragments of charcoal [265], followed by light pink crushed pebbly coarse mortar containing brick flecks and small fragments of white mortar [266] capped 282 in the centre of the room, as did dark pink crushed pebbly coarse mortar flecked with brick [264] nearly. A corresponding dump of brown silt and some sand containing brick flecks and large fragments, and large tile fragments [275] covered 282 in the north and a final dump of light grey mortar, and slightly less fine sand and silt containing patches of burnt charcoal-flecked mortar and tile, mortar and chalk flecks [197] covered 275, 266, 264, covering most of the room. A small area of dark brown silt and some fine sand containing flecks of white mortar and small fragments of orange brick [283], which lapped over the west edge of 282, continued up over the wall line 638. This suggests that the wall, as well as the uppermost timber floor, may have gone out of use at this time. It therefore seems likely that both rooms of Building 16 were abandoned and the area levelled by dumping extensive amounts of building material. This marks the end of period XVII in the east of the site.

XVII.16 Weathering of destruction debris from church and formation of fifteenth road surface

22, 833, 349, 17, 15

Description
In the north of the site, a layer composed of dumps of grey silt and light grey ashy mortar, with a concentration of brick and tile fragments at its surface [22] overlay 51 (XVI.8), the fourteenth road surface. The tile concentration was set in a matrix of greyish brown silt and formed a regular compacted surface which swept up in the west against the east wall of the church (Building 5) and forms a fifteenth road surface. Since the preceding metalling was in use with the period XVI church just before its destruction, it is reasonable to suppose that the building material in 22 was derived from its destruction, with a surface formed on top by subsequent traffic. Though it was only recorded in two sections 6.0m apart, this dump covered the whole of the area to the east of the church before being truncated by machine in the south.

A spread of mixed limestones and rather less greensands and other sandstones and slightly less still ragstones and flint [838] overlay 770 (XVI.1), at the base of the steps leading down into the church undercroft (Building 7), also covering this stairway and marking its demise. The surface of 770 was burnt, suggesting that it was in use at the end of period XVI. The stone rubble either tumbled into this lower area or was pushed in to tidy the area or reduce access into the cellar.

A spread of purplish red silt and some coarse sand [849] then accumulated above and between the stone rubble of 833, following its surface profile by sloping down markedly to the west. Just to the north, dark brownish grey silt, fine sand and much less fine pebbles and chalk in small fragments [17] overlay 22, possibly the fill of a rut in its surface, capped with a spread of light greyish violet silt and some find sand [15]. This layer swept up against the church wall in the west, following the profile of the fifteenth metalling below. Where it had fallen away from the wall line, mortar had percolated into the crack from above. Though only drawn in section, 15 was recorded as running south to overlap the threshold leading down into the church undercroft. There seems little doubt that it correlates with 849 on the rubble covering the steps below, forming a weathering and use of that debris. The purplish violet colour may be due to degradation of underlying building materials.

Such a deposit would have taken a little while to accumulate, but is cut by the first sign of structural development on the site of the destroyed church to the west. It therefore seems likely that there was a gap in time here between destruction and redevelopment, though the length of time involved is unclear. No similar deposit was found above the east building (XVII.1ff) which may imply immediate reconstruction there. However, when new buildings were set up they would have involved the removal of silts from weathering, or at least their disturbance, as was the case in the west, with the silt of an intervening period only left intact above the road. It is therefore possible that the site lay vacant for some time on both sides of the road.

**XVII.17 Construction of new Building 10 over former undercroft of Building 5**

724, 801, 850, 747, 722, 693, 663, 615, 494, 65, 47, 37, 35, 34, 24, 501, 500, 43, 40, 44.

**Description**

On the north end of the east wall of the church undercroft (Building 5), a foundation of large limestones and some greensands, many of which were reused mouldings, with fragments of
chalk, less greensand and a little brick and tile rammed between and bonded with purply brown mortar [724] was set above 849 (XVII.16). It represents a rebuild using material derived from the destroyed superstructure of the church to the north, part of a new structure (Building 10).

To the west, a spread of fine pebbles and slightly less greyish yellow fine and coarse sand [801] spread across 770 (XVI.1) and the scorching of its surface, so must have been deposited after the fire at the end of period XVI. An outlying patch of worn, often broken, bricks, and some small fragments of greensand in a little dark brownish grey fine sand and crushed yellowish grey mortar containing burnt tile [850] also overlay 770 (XVI.1) in the south-east corner of destroyed undercroft. A further spread of crushed light buff yellow mortar, small chalk fragments and rather less crushed chalk containing small tile fragments and medium pebbles [747] covered 801 and 850, and continued east to abut foundation 724. Light pinkish grey crushed brick and some light grey crushed mortar mixed in lenses and patches and containing flecks of chalk and brick [722] was tipped on 747 in the north-east corner of the undercroft, A loose mixture of small chalk fragments slightly less light grey crushed mortar and fine pebbles, and still less small brick fragments set in a little dark grey silt and containing large pebbles [693] capped 722, also covering 714 (XVI.1) and mounding up against the walls in the east and lensing out to north and west. A compaction of light grey mortar and some dark grey silt lenses in the east and containing small and large chalk and tile fragments throughout [663] was dumped on 693 and covered the whole of the base of the undercroft. Finally a spread of light grey crushed mortar some coarse sand and a little silt containing patches and large lenses of light pinkish red crushed brick, mortar and medium sand in the north in tip lines dipping down to the west [615] covered 663 at the east end, below a last area of powdered light grey mortar and some chalk in large and small fragments containing large and small tile and greensand fragments (many of the latter moulded) [494]. A lens of brown silty clay lay along the north edge of 494 just below the level of string course 576 (see XVII.18). Elsewhere, 494 ran across the whole of the undercroft area.

The deposits 801-494 involve the dumping of a large amount of building material, much of it smashed or degraded, into the former undercroft of Building 7. Some dumps are concentrated at its east end, sweeping up against blocking 724. Other elements spread westward more thinly over the body of the burnt period XVI floor. They are all likely to be derived from the dismantling of the pre-fire buildings in this area, including the smashing of its stone work and mortar, perhaps recycling the larger pieces and discarding the remainder. [65] was set on 494 at the south-east corner of the former undercroft, also abutting 98 (XIV.3) to reinforce the pillars at this point. A thin north-south strip of uncoursed random greensand and a little brick and chalk bonded with yellowish grey sandy chalk-flecked mortar [47] was set against the north face of wall 65 and across the width of the former doorway, with good quality facing in the west, rubbly appearance to the east. A series of deposits - whitish grey mortar with yellow tinge, some greyish crushed chalk and a little chalk in small fragments [37]; crushed brick [53]; light greyish brown silt mixed with a little grey crushed mortar, fine and medium pebbles and small brick fragments containing charcoal flecks, and a lens of powdered brick [35]; a mixture of small fragments of brick and rather less coarse sand (pulverised brick), grey ash and greyish pink crumbled mortar (the last two in alternating lenses) [34]; and finally broken brick fragments and some dark orange coarse sand [24] - overlay 15 (XVII.16) and the rear edge of blocking 47. It was no doubt derived from the dismantling and sorting of material from a nearly brick wall and served to backfill the disused stairwell of the undercroft.
To the north, a foundation of greensand blocks, roughly squared and including reused moulded stones, and a little chalk in large fragments, laid to one course and set in brownish green shell-flecked mortar [501] was set above the east edge of tip 615. Its mortar resembled that of foundation 724, whose position it exactly reproduced.

A spread of greenish brown sandy mortar [500] lay loosely against the east face of 501, also overlapping dump 494 in the west, with another foundation of large greensand blocks in courses and bonded with dark greenish brown mortar [43] set above its east edge and against wall blocking 47 to the south. This mortar again resembles that of foundations 501 and 724 in the same position below. It is therefore clear that, although there are successive elements of wall construction interleaved with dumping taking place to the west, all are part of a single sequence of building, involving blocking the undercroft door, reinforcing the corners of the east end of the structure, and dumping building materials into the base of the undercroft and against the east side of the entrance blocking beside the road.

Finally, [40] was set against the south face of 43 and across the lower part of the former entrance, continuing against blocking 47 and across the top of wall 65. It completed the reconstruction of the east entrance into the undercroft. A mixed layer of dark brown silt, and humus and slightly less fine sand and small fragments of brick containing vegetation [44] accumulated in the space between blocking 43 and the earlier undercroft vaulting. This could be quite recent material which had percolated down from a higher level.

As a result of all these activities, the east access point of the destroyed undercroft was completely sealed in and the area within it raised to prepare for future occupation.

XVII.18 Construction of Building 11 above destroyed church, and sixteenth road


Description

In the north-west corner of the site, north-south cut [152] was set into 148, 158 (?). Only observed in section, it had a vertical west side at least 0.45m deep and a flat base. [42] was laid within the cut, and this construction trench in its west side was filled with a decayed plank at its base below yellowish beige mortar and slightly less silt and sand [151]. Foundation 42 reused quantities of moulded greensands and formed the east wall of a new building (Building 11) set within the wall line of the destroyed church and on a different alignment. It continued in the south to meet the earlier wall line at the north-east corner of the earlier undercroft. The new alignment matched that of Building 9 described under XVII.1 ff, and it seems likely that they formed part of a single scheme of rebuilding, presumably in the west after a gap in time represented by XVII.16. The line of 42 was continued in the south by the latest blocking arrangements in the entrance of the former undercroft described under XVII.17. It seems reasonable to suppose, therefore, that the wall was set perpendicular to a newly laid out major topographical influence just off the site to the north, probably a road, which controlled alignments back from that frontage.
To the south, a single string course of small fragments of reused chalk and some bricks, laid on bed and bonded with light grey charcoal-flecked silty mortar [576] was laid on dump 494 (XVII.17) and against the line of the north wall of the former undercroft. Immediately to its north, east-west cut [46] intruded into 68, 83, 57 (?), 1195 (XV.3), 1194 (XV.1), 1829 (XIV.3) and the edge of wall 42 at the latter’s south-west corner. It was at least 7.20m long (west end beyond l.o.e.) and at least 0.80m wide (south side cut away, with nearly vertical north side and steep east end, and a generally flat base. It was filled with a foundation of greensand and a little chalk and ragstone at the faces, becoming greensand and chalk in equal proportions and less ragstone at the core, also containing sandstone and tile fragments throughout, the whole set randomly and bonded with grey pebbly chalk-flecked mortar [39].

The facing stones were best finished, though often reused, the core a more random rubble, with the best and larger stones on the south face and continuing down to a much lower level. 576 forms an underpinning for the new wall, which seems likely to be associated with a much lower contemporary ground surface on this side. Although later stratigraphically than 42 and not on a perpendicular alignment (39 directly followed the wall line of the earlier wall here and thus did not meet re-aligned 42 at 90°), both 42 and 39 reused moulded greensands and were constructed in a single operation, no doubt recycling material from the destroyed church of the earlier period.

Brown clay and some silt containing fine and medium pebbles large fragments of chalk and greensand and flecks of charcoal, tile, crushed chalk and grey crushed mortar [45] was pushed into the north side of the construction trench, where it was sealed by a dump of dark brown pebbly, charcoal-flecked silt and some clay [66]. This was at least 0.78m deep (top truncated), with a surface level of c. 2.85m OD. Floors within Building 11 defined by walls 39 and 42 must therefore have been above this height.

Further north, north-south cut [182] intruded into 185 (XVI.2) and against wall 178 (XIII.1). It was at least 4.60m long (north end cut away) and at least 0.50m wide (west edge cut away) with steep sides up to 0.38m deep and a flat base and was filled with dark grey charcoal and chalk-flecked silt [181], probably tread in its base, below a randomly coursed foundation of greensand and a little chalk, sandstone and ragstone set in light grey mortar flecked with brick, chalk and charcoal [116]. The stones on the east side were squared and more regular than elsewhere but often reused and occasionally burnt. In the north, an element of the foundation projected eastwards, possibly a cross wall running east from this point - too little survived later truncation to be sure. Wall 116 was almost parallel with wall 39, which it ran up to in the south. It probably formed the west wall of the room defined to south and east by 39 and 42. Its lack of alignment with 42, possibly related to the line of an underlying wall of an earlier building which it reused, shows that the realigned frontage suggesting as influencing 42 was confined to this area beside the newly laid out lane, not the whole of Building 14 to its west. As a result, the north room of that structure was trapezoidal in shape.

To the east, east-west cut [320] intruded into 187 (XVI.5). It measured 1.75m long by 0.80m in the east, narrowing to 0.35m in the west, with steep sides except a gradual slope in the north, up to 0.55m deep and a flat base with a slight depression at its west end. Its base was packed with random greensand and chalk blocks and a little stone in small fragments set in some soft light brownish grey mortar [670], forming the base for a setting of six horizontal ragstone slabs, the west ones exposed to heat [319]. All showed signs of wear at their surface. They had a surface level of 3.24m OD.
An east-west wall fragment of large greensand fragments set in dark grey charcoal and chalk-flecked mortar [175] was set against the north edge of 319 and into 75 (?). Two courses only survived, but their character suggests an association with 42 and 39, whilst the stub protruding from 116 coaligned. They therefore probably formed an internal partition of the new Building 11. The stones 319 are either a related floor surface or the base of a feature set against the internal partition. The latter is more likely, given that they lie within a cut. Perhaps stairs led up to the north over foundation 175 from this point.

To the south of wall 39 in Building 10, a spread of light grey mortar flecked with charcoal and lime [472] overlay dump 494 (XVII.17) with a second of light grey mortar containing small fragments as well as flecks of lime [465] on top. These could be part of the underlying building material dumps but their compaction and thinness imply rather a construction spread related to building was 39 et al to the north. They may therefore represent the end of the process of revising ground surfaces within the former undercroft and the start here of rebuilding proper. Another area of light grey crushed mortar containing small chalk fragments, large and small brick fragments and lenses of pink discoloration [435] overlay 465 and abutted wall 39 in the north, therefore certainly post dating its construction. Light greyish brown organic silt and crushed chalk containing chalk fragments [412] covered 435 and 65 (XVII.17) in the east, possibly tread deposited in the process of construction. A mixed pebbly deposit of chalk in small fragments and slightly less light grey silt and light yellow crumbled mortar [409] covered 412, possibly a rough working surface.

To the north-west, light brown sand and pebbles containing lenses of black clayey silt containing flecks and small fragments of charcoal [402] over 435 may be an approximately equivalent gravelling against the south face of wall 39. Lastly, in the south-east corner of the former undercroft, light grey sandy silt, some chalk in small fragments and a little off-white mortar [434] overlay 43 (XVII.17) and is probably related to activities blocking the entrance there or disturbance of such material. A spread of light greyish off-white crumbled mortar and small fragments of brick, slightly less fine pebbles and even less fragments of greensand [323] covered 434, once again probably the result of adjacent construction of greensand walls.

A linear north-south void [406] was apparent in the surface of 409. Cut away in the west and indefinable in the north, it was 1.50m long and at least 0.25m wide, with vertical west side up to 0.13m deep and a flattish base. It was filled with decayed timber [403] and is more likely to be a discarded or disturbed element than an in situ structural feature. An extensive spread of small fragments of chalk, some of brick and tile and a little greyish yellow crumbled mortar, with compacted surface [385] sealed 323, 403 and 402, and covered the whole of the floor of the former undercroft. A loose rubble spread of chalk, some brick and a little greensand fragments in light grey powdered mortar [383] covered 385, with dark grey silt and slightly less medium sand and fine pebbles containing an increasing proportion of charcoal flecks and small patches towards the south-west [351] on top. The latter could be trample on the rubble below corresponding with an isolated patch of dark greyish brown pebbly silt and course sand and less tile, brick, greensand and chalk [377] to the south-east on 385.

A spread of fine pebbles, in slightly less dark yellowish brown medium sand and coarse sand [330], overlying 351, in the former entrance area, was itself sealed by a skim of greyish off-white mortar [263], also sealing 377. This extended over the whole of the former undercroft floor and formed a base for a series of fragments of a brick floor [241], [240], [239], [238],
These displayed consistent features, being formed by bricks laid on bed set in north-south lines in stretcher bond, with string courses at their edges where they abutted the walls and bonded with off-white and yellowish grey mortar. Towards the north-east corner of the room, 241 incorporated several flags of broken greensand, though the implications of this are unclear. Tiles and broken bricks were packed in places between the complete bricks either to fill gaps or, less likely, as repairs to the surface. Some disarticulation of lines of bricks in place could also be repairs, perhaps involving relaying the old bricks afterwards. The mortar for the string course at the north edge of 238 was different from, and earlier than, that relate to the main part of the floor. So the latter could be a repair, though neither here nor elsewhere was such relaying provable for certain. The surface undulated in places, though there were no obvious patterns in these depressions, and had been exposed to heat, again without pattern. The position of the various fragments was solely a function of fortuitous survival rather than related to their original laying.

238 et al form this first identifiable surface within the undercroft in period XVII. Beneath them, some of the mortar skims, eg. 385, could be the base of similar, subsequently robbed, brick floors, but in no case was this provable. It is therefore equally likely that everything below 263 is simply the dumping of building materials to raise levels and prepare for the insertion of 238 et al. Their surface level of c. 3.30m OD, is comparable with that of the contemporary surface features in the room to the north, showing that the dumping had converted the differential level of the preceding period between church and half-cellared undercroft into a single, ground level building.

Cut [376], lay towards the west end of the room, intruding into 351. It was circular, 0.80m across, with steep sides 0.15m deep and a flat, locally irregular, base. Its base was skimmed with mortar and contained four fragments of reused greensand in loose silt and a little sand and powdered mortar containing small fragments of chalk [368]. The relationship between the feature and brick floor 238 et al is unclear but the stones, probably displaced packing, had a surface height at the same level as the bricks, so the feature is unlikely to be earlier than them. Also, the mortar base for the floor, 263, avoided the site of the feature or had been cut by it. It therefore seems likely to be a post position for a member set centrally within the room at the same time as the floor was laid out, or cut into it.

To the north-east, outside the east wall 42 of the new building, chalk fragments in a matrix of light orangey yellow mortar flecked with chalk and charcoal, with a mortar lens on an ash spread at its base, [383] were dumped against wall 42 and over 48, 54, 61 (XVI.6), the destroyed floor at the east end of the small aisle of the church. A feature of reused greensand, some moulded, packed with cobbles and delineated to east and west by an edging of vertically set tiles [41] was set above the east edge of 38, offset 0.95m from wall 42. It forms some sort of base or threshold for a feature associated with rebuilding 42. A thin skim of pebbles set in brown silt [36] overlay 38 and formed a concretion between wall 42 and base 41.

Further east, within the lane flanking the building, a dump of large flint and some chalk fragments and nodules compacted in greenish brown sandy silt [16] overlay 15 (XVII.16) and blocking 47 (XVII.17), running out to nothing past the south-east corner of the former church.

A dump of small chalk fragments [14] covered 16, with a lens of light greyish violet silt and some sand [13] on this possibly the result of a brief period of weathering. Further large chalk
fragments in whitish grey crushed chalk [12] covered this, below loose greyish violet silt and fine sand and slightly less grey ash in thin streaks and small fragments and flecks of brick [11], then yellowish grey medium to coarse sand, some fine to medium pebbles and a little chalk in flecks [10], covered with dark greyish/greenish brown silt and fine to medium sand slightly less fine pebbles and even less small fragments of broken brick [9]. These last three layers, only seen in section, were recorded in another section to the north as very compact greenish grey silt and some fine sand containing fine pebbles [29]. Together they form a new road metalling. The dumps below, which capped 22, the surface formed by use, and abutted the undercroft entrance, were no doubt derived from the dismantling of the remainder of the superstructure of the destroyed church. The main moulded greensand blocks were kept for reuse and the remainder of the debris discarded into the lane beside the church to raise its level and prepare it for proper redevelopment. 29=9, 10, 11 then comprised the sixteenth road surface set above this dumping and beside the new building represented by wall 42 and 39.

Brown silt with traces of iron panning [5] accumulated above the west edge of 29, corresponding broadly with dark greyish brown silt, slightly less fine to medium sand, less fine to medium pebbles and containing small brick fragments [8] over the west edge of 9. To the west of this dark grey silt and slightly less sand and fine to medium pebbles [21] accumulated against wall [42], with tips of grey ash and charcoal evident immediately beside the wall. Then layers are accumulations beside the road surface.

[28] cut into 5. It was roughly oval, c. 0.90m north-south by 0.45m east-west with steep sides up to 0.4m deep and a flat base. It was filled with brown sandy clay and silt and some fragments of various building materials [27] which was itself apparently cut on the south side by [26], a rectangular feature 0.68m east-west by 0.50m north-south, with steep sides 0.39m deep and a slightly undulating base. This containing a greensand block, possibly displaced packing, and loose dark brown sandy silt and a little light greyish pink sandy mortar and charcoal flecks [25]. This second feature may, in fact, be a void with 28 rather than a separate entity.

To the north, rectangular cut [33] intruded into 5. 0.55m north-south by 0.36m east-west, narrowing to north, it had vertical sides 0.14m deep and a flat base sloping up in the north, possibly due to robbing on that side distorting the profile. It was filled with loose grey silt and brown mortar [32]. North of this, [31] also cut 5. It was 0.60m north-south and 0.46m in the north, narrowing to south with vertical sides 0.20m deep and a flat base sloping up to form the south side. It was filled with loose grey silt and brown mortar [30].

These three features suggest installations set beside wall 42 and in use with the seventeenth road surface, which were then robbed out at the end of the initial phase of occupation. The profile of each suggests that posts in 33 and 28 were removed by rocking them northwards, distorting that edge of the primary cut, and 31 southwards.

XVII.19 New elements set in primary floors of Building 13


Description
Beside the north wall of Building 10, cut [256] intruded into floors 241, 240 (XVII.18). It was 1.40m long and up to 1.20m wide, narrowing to 0.70m in the south where it ran out indeterminately and elsewhere had vertical sides formed by the bricks of the floor which it cut and a flattish base. North-south foundation [245] was then set within the cut, comprising bricks one course deep on bed laid east-west in the north and bonded with brown coarse sandy mortar and finished in the south with three fragments of ragstone. It thus formed a stub wall set against the north wall of the room. The trench’s east side was then packed with dark brownish grey silt and a little clay and coarse sand containing small fragments of brick [255].

To the south, a ragstone pad packed with sandstone fragments in the south set in light grey coarse mortar [244] was set above 243 (XVII.18). Further south, ragstone pad in light grey soft sandy mortar [231] was set into 263 (XVII.18), its edges packed with dark brownish grey silt and a little clay and fine sand and powdered off-white mortar containing flecks and small fragments of brick [232]. The mortar of 231 resembles that of 244 and both are in alignment with stud wall 245. Although 231 cannot be securely related to the laying of floor 238 et al., it thus seems likely to be a secondary feature as 244 and 245, all forming a north-south subsidiary division within the room.

To the east, a small area of irregular broken ragstone flags set in loose dark yellowish brown medium sand and some brownish block humic silt [274] overlay 241 (XVII.18) and was set against wall 39. It could be a surviving fragment of a secondary surface or a post pad related to 245 et al further west. To the east, a north-south line of one course of bricks some reused, laid on bed, set east-west and set in brown coarse sandy mortar [195] overlay 241 (XVII.18). They formed a secondary surface in the north-east corner of the room, with dark grey silt and a little fine pebbly coarse sand containing small fragments of grey mortar [233] packed between it and the west wall of the room where the two elements were on a marginally different alignment. The bonding material resembled that of stud wall 245, implying contemporaneous construction.

In the south-east corner of the room, grey silt and a little clay and coarse sand containing flecks and small fragments of soft grey mortar [291] overlay 263, either as primary occupation tread or a base for the laying of bricks laid on bed east-west in north-south lines with string courses where they abutted the walls of the room and set in dark brown mortar containing flecks of discoloured chalk [253]. This fragment of floor was set into 242, 241 (XVII.18) and is definitely a repair of that primary surface. Its bonding agent resembles that of the additions 195 and 245 to the north.

It is possible that surfaces such as these once covered the majority of the room, probably in use with partition 245/244/231. However, only fragments survived where they had been protected from later disturbance in the east corners of the room.

**XVII.20 Feature beside Building 11 and probable seventeenth road surface**

4, 7, 6, 20, 19, 3, 2, 1, 18.

**Description**
A variable layer, only recorded in section, of rubbly deposits comprising, successively, mortar and brown silt; dark grey sticky silt mixed with lumps of tan clay and flecked with charcoal, chalk and mortar, tile and brick fragments mixed with pink sandy chalk and charcoal-flecked mortar; crushed greensand in brownish green silt; and reddish brown silt containing brick fragments [4] was dumped over post hole fills 30, 32, 25 (XVII.18), elsewhere covering accumulations at the edge of the sixteenth road surface.

In section to the south, patches of crumbled whitish grey mortar, and rather less light greyish brown clay in lumps, fine to medium sand, and small fragments of tile and brick [7] overlay 8 (XVII.18), also accumulating at the west edge of the sixteenth road, with a charcoal-flecked mixture of dark greyish brown silt and fine to medium sand and slightly less fine to medium pebbles and small fragments of brick [6] on top. These dumps must be the equivalent of some of the elements in 4, with 6 continuing east to cover the sixteenth road surface proper. Further west dark grey charcoal-flecked silt and some fine to medium sand [20] overlay 21 (XVII.8), with a dump of broken bricks in a little pinkish grey crushed and decayed mortar [19] on top. These suggest that the process of dumping continued right up to wall 42 in the west.

Cut [3] intruded into 4. It was semi circular, 0.30m diameter, and set against the west face of 42, with vertical sides 0.10m deep and a regular base and was filled with a ragstone block [2] as packing. It is presumably related to the adjacent wall.

A compact spread of fine and medium pebbles set in orange coarse sand, the pebbles concentrated at the surface [1] covered 2. Similarly, to the south, yellow grey medium to coarse sand and some fine pebbles flecked with brick [18] capped 19. It seems certain that those form a gravel metalling at c. 5.50m OD, the seventeenth metalling of the road. It is unclear whether this was confined to the area immediately beside wall 42 or ran the full width of the lane because of later truncation. But it is certain that the deposition of dumps 4 et al was a make-up for this feature. It completely covers the line of the east wall of the church, whereas the preceding metalling, though belonging to period XVII, ran up to the edge of the church wall, with material then accumulating between it and the wall line of the new Building 14 to the west. With the seventeenth metalling the portion of the church, in use from period XIII if not before, ceases to have any effect on the positioning of the main thoroughfare on the site.

**XVII.21 Construction of Building 13 in south-west of site**


**Description**

Towards the south-west part of the site, an extensive layer of dark brown charcoal-flecked silt containing patches of light yellow crushed mortar and, towards its more rubbly base, small fragments of chalk, fleck of ash and crushed grey mortar [947] overlay 1677 (XIV.3) and 985, 987, 980 (XV.9). An equally extensive second deposit of brown charcoal-flecked silt, darker in the east [927] covered 947.
Further east, beside the road, light grey charcoal and brick-flecked mortar [998] capped 979, 1337 (XV.9), with further grey clay, some crushed mortar and a little coarse sand flecked with brick, chalk and charcoal [495] on top, also overlapping 980 (XV.9) to form a corresponding dump of material near the road. This sealed in the drain laid out during period XV. Finally, to the south, a patch of light grey silt [995] covered 1021 (XV.9) A large, deep dump of light buff crushed coarse mortar, some sand and a little chalk containing large fragments of ragstone [901] covered 927, 970, 495 and 996 (XV.9), 1253 (XIV.11), broadly contemporary with a small patch of loose yellow mortar and brown silt [1007] over 1011 (XV.9) to the south-west. A thin spread of light brownish grey charcoal-flecked silt [866] overlay 901 and 1007, possibly tread on the rubble, below further loose light greyish buff mortar containing flecks of charcoal and crushed brick [840].

The earlier dumps in this make-up sequence can only be shown to post date period XV strata in the base of the half-cellared Building 6 constructed then. Brick 840 marked the end of wall 1351/1340 to the north, a major structural element of that period. This fact, plus the profusion of building material and other debris within the dump suggests that they were derived from redeposition material from the fire at the end of period XVI, preparing the area for rebuilding. This implies that the half-cellared Building 6 of period XV continued relatively unchanged until its destruction at the end of the following period.

Burnt plank [803] was laid on top of 840, as were decayed planks [798] and [799] to the south. It is unclear whether these are in situ structural members, but the last two were only overlapped by later strata, as if they performed such a function, rather than being random discards. To the north, a layer of bricks [786] laid on bed and one course deep, bonded with light pinkish grey mortar and set on 840 imply a structural feature set against the south wall of the former undercroft (Building 7). It continued in use throughout the remainder of period XVII. A mixed deposit of brownish red silt and clay with rather less cobble-sized brick fragments [761] overlapped 803, 798, 799 and 786 elements, forming the base for a surface covering most of the area south of the former undercroft.

To its north-east, north-south cut [914] intruded into 916 (XV.9). 2.40m long by up to 0.80m wide, it had vertical sides except the irregular west edge, up to 1.30m deep and an irregular base and was packed with brown pebbly silt containing chalks and sandy mortar, and chalk and ragstone cobbles [1241], below greenish black charcoal-flecked silt, burnt in places [869], the compact tan sandy clay [859]. This modification of a period XV wall-line could be a pre-fire feature. However, it influenced strata more certainly belonging to period XVII, so could as easily be inserted at the start of that period. If so, it seems reasonable to suggest its association with dumps 947 et al, perhaps as part of a threshold arrangement levelling into that newly heightened area.

An extensive deposit of grey charcoal-flecked clayey silt [699] covered surface 761 and ran up to foundation 859 in the north-east. It represents either tread on the initial period XVII surface or the base of a subsequently robbed tile floor set above 761.

A variety of features were set above 699. Two bricks laid on bed [684] in the north-west were covered by a spread of grey mortar and silt containing charcoal and chalk flecks and small fragments of tile and brick [669], suggesting a surface immediately west of earlier base 786. Another spread of grey mortar flecked with chalk and charcoal and containing small fragments of brick and tile [677] overlay 699 on the east side of the base.
Further south, two east-west rows of unmortared bricks laid north-south on bed [672] were set on 699. An east-west strip of decayed timber [711] over 699 to the west may be a related structural element. Further decayed organic material [710] on a strip on 699 to the north can be similarly interpreted. 672 lies immediately below one of an east-west line of intrusions representing a structural feature. It suggests that such a division existed from the time of surface 761 onwards.

To the north-east, a surface of tiles, incorporating ragstones at several points, and broken fragments of brick and tile packed to form the surface elsewhere, the whole set in sandy mortar and with a spill of ash and charcoal as use at its surface [701] covered 699 in the area of foundation 859, perhaps a reinforcing of that threshold area. Orangey brown silt containing flecks, small fragments and large fragments of brick [642] overlay 710, 711, 669, 677, 672, though it overlapped rather than sealed in some of these structural elements. A strip of crushed brick containing pebbles and small fragments of brick [634] cover 761 in the south is probably on another of 642, whilst four unmortared bricks, laid on bed and possibly in east-west lines, [668] also over 761 may be traces of such a surface, perhaps laid against an east-west division to their immediate south.

Lastly, to the west, [654] intruded into 642. Cut away to the west, it may have been a post hole c. 0.45m across irregular at its upper surface, with steep sides and a flat base, filled with a decayed post packed with a little chalk [648], below loose light brownish grey silt and sand containing small brick fragments and pebbles [646] marking the features demise. This member was presumably in use with 672 to the east.

To the south of surface 761 and associated features, a spread of dark grey organic silt [813] lay up against wall 930 (XV.9), with a dump of loose light brown sandy mortar [823] on top, making the demise of a period XV wall to the east. An extensive dump of brown silt and some variously sized brick and tile fragments containing flecks of mortar, tile, brick and charcoal [721] covered 823 and also sealed 1424 (XIV.10) and 856, 846, 862, 836 (XV.9). The rubble was less prominent towards the base of the layer, which thickened in these areas where underlying stratigraphy was deepest, hence forming a roughly level make-up at its surface. It corresponds with light grey mortar containing tile and charcoal flecks, whole bricks and small tile fragments [649] decayed against wall 930 (XV.9) to the north-west. 721/649 forms a surface at roughly the same level as 761 to the north though it cannot be related to any Period XVI stratigraphy, it seems reasonable to suggest that it is a make-up layer formed from redeposited debris from the destruction at the end of that period to prepare for occupation in Period XVII.

A thin spread of light grey silt and some sand containing flecks of charcoal, brick, tile and cream mortar [694] covered 721, representing initial occupation of the primary surface. [719] cut into this tread. It was circular, c. 0.70m across, with nearly vertical sides 0.45m deep and a base sloping down slightly to the north. The cut was lined with timber, which had later decayed [700], packed with loose light grey mortar-flecked silt [716]. Light green loose fibrous silt interleaved with a little clean orange sand [698] filled the feature and may be cess. It is unclear however whether the cut, given its size, was previously a cess pit. Loose greenish grey mortar-flecked silt [695] above 716 and 698 marks the demise of the feature.
To the north, grey sandy silt flecked with off-white mortar and containing large fragments of brick and tile [702] overlay 721 to form further tread at its north edge. The more extreme grey layer, with brownish tinge at its surface, of silt flecked with brick, tile, mortar and flint [625] on top also sealed fill 695 and forms another trodden horizon. Small spreads of brownish grey clayey silt flecked with brick, off-white mortar and charcoal [640] and compact black organic sandy silt containing small wood fragments mixed with greyish brown mottled silt, to latter of reduced preponderance to the south [619] both covered 625 in the roadside area, the latest primary accumulation at this point.

Immediately beside the road, L-shaped cut [590] intruded into 625 and 649. Cut away to north and south, it measured at least 1.10m north-south by up to 1.10m wide, with vertical west edge, more irregular elsewhere. In the west, its base formed a north-south slot 0.55m wide and c. 0.15m deep. A loose mixture of greyish brown silt and some off-white mortar containing flecks of brick, tile, and charcoal, and small and large fragments of brick [584] filled the base of the cut, which suggests a modification of the earlier boundary wall beside the road, perhaps to create and access point into a structure to the west.

Finally, to the west, [735] intruded into 721. It was rectangular, 0.75m north-south by c. 0.7m east-west, with steep sides 0.12m deep and a flat base and containing a ragstone slab mortared in place [637] to give a post pad. This feature lay due west of cut 700, to give a line in the same position as that displayed by 579 et al in a later phase (see XVII.22). It therefore seems likely to be a major division in use with surface 721, perhaps incorporating forerunners on the line of 579 et al.

The implications are that, following destruction by fire of the period XV Building 6 at the end of Period XVI, debris was thrown into that half-cellared building and mortar floors laid out on top. The roadside wall bounding this in the east was modified to provide access into the area and a timber building (Building 15), represented by two lines of large post-holes, was set up on the surface. The distance between these two lines is so great a span that an intermediate main wall, symmetrically placed between them, might be postulated. A wall on this line, 366, was certainly in use with these features later and may have removed all traces of a predecessor at this primary stage.

**XVII.22 Second surface in Building 13**


**Description**

In the north part of Building 13, a layer of white mortary silt, with orange tinge in the north, containing flecks and small and large fragments of brick [601] covered 666, 646, 634 (XVII.21), forming a new mortar surface at c. 2.72m OD.

It was cut by a series of six features [610], in the east, was 1.10m east-west by 0.60m north-south with steep sides 0.15m deep curving to a flat base on two levels, 40mm lower in the east, with a slot in between. It contained a packing of pinkish grey silt and crushed mortar.
containing small fragments of brick and chalk [598], below light pinkish grey sandy silt containing large fragments of brick, chalk and mortar [592], both of which formed a base and sides for decayed timber [599] set of the centre of the feature. The whole is the base for a major upright post.

To the west, [612] measured 1.30m north-south by 0.70m east-west with mostly vertical sides, more gradual in the north, up to 0.15m deep and base sloping down to the north and to the south-east corner. It contained black organic silt [611], bay be a decayed timber, below greyish brown silt containing large and small fragments of chalk, brick and mortar [606], maybe disturbed packing around that feature.

Just to the west by [585], an irregular east-west cut 1.15m long and c. 0.65m wide with steep sides up to 0.20m deep and a flat base bottoming onto the bricks of 672 (XVII.21). A fill of decayed timber [600] covered the base, forming a series of four north-south planks, with dark pink crushed coarse mortar and brick, and some clay and silt containing flecks and small fragments of chalk, brick and ragstone, and large fragments of brick [586] as packing against its north edge. There seems little doubt that timber 600 is associated with bricks 672, with ‘cut’ 585 in reality a void around this post, showing that the member was in use with both primary surface 840 and its replacement here 601.

Further west still, [609] measured 1.60m north-south by 0.80m east-west in the south, broadening to 1.20m further north. It had steep sides up to 0.22m deep and a flattish base and contained decayed plank [607], packed with light pinkish grey crushed mortar and silt containing small fragments of crushed chalk, brick and mortar [567].

These four features constitute an east-west line of posts running westwards from the road to the l.o.e.. If the correspondence between 612 and 672 is to be believed, a division on this line existed with both the primary and secondary phase of surfacing here.

To the north, [548] measured 1.20m east-west by at least 0.40m north-south (North end cut away), with nearly vertical sides 0.13m deep, except in the west where more gradual, and a flat base. It was filled with orange sand and a little grey silt [546].

Just to the east, [547] was 1.10m east-west by at least 0.35m north-south (north end cut away), with steep sides 0.14m deep and a base sloping down slightly to the north. It was filled with loose grey mortary silt containing flecks and small fragments of chalk and brick [545].

Decayed east-west timber plank [566] lay on 943 (XV.9) further west and may be an associated feature. Together, these three elements form a series of installations, perhaps buttresses set against the south wall of Building 13 which constituted the north boundary of surface 601 here. They were presumably in use with it.

To the east, a north-south foundation of a course of bricks set on bed below a course of squared ragstone blocks then three further courses of brick on bed, whole bonded with light yellowish grey mortar [645] was set above 701 (XVII.21). The wall, set against an earlier boundary in the east but well faced in the west, forms a new feature beside the road, replacing the arrangement set in cut 914 (XVII.21). Lastly, to the south-west, a fragment of decayed, burnt wood [848] over 840 (XVII.21) could be the base for a subsidiary post related to 599.
nearly or imply a random timber associated with floor surface 601. A thin layer of dark grey mixture of silt, clay and rather less ash containing small fragments of chalk, ragstone, brick and tile and flecked with charcoal, brick and tile [535] which overlapped 586, 567, 599, 606 is tread accumulating on that secondary surface. To the south, cut [631] intruded into 584, 640 (XVII.21). It was circular, c. 0.90m across, with a squared ragstone block 0.40m across [626] set within it. This block had mortar adhering to its east face from an earlier period of use and had rebates on its north and south faces. It had an east-west mortise cut in its uppermost face, perhaps to take a vertical member in its present position, but a graffito on its base was certainly from a previous function. Loose light grey silt flecked with mortar and chalk [620] was packed around the block as construction trench backfill. A patch of yellowish grey clay flecked with brick and grey mortar [593] over 619 (XVII.21) beside the block could be a fragment of associated surface, as could a more general spread of light reddish orange coarse charcoal-flecked mortar [617] over 625 (XVII.21) to the north. Dark brown sandy silt flecked with charcoal and charcoal [549] covered 617 and 593, with a concentration of charcoal above the former, and spread southwards to cover most of the west half of the south surface. To the east, dark greyish brown silt flecked with charcoal, brick, tile and off-white mortar [568] overlapped 593 and abutted base fill 620 as a counterpart of this trodden occupation debris. Further greyish brown silt flecked with charcoal, brick tile and off-white mortar [541] on 549 and 568 completes this secondary process of occupation.

Several features were then inserted, [536], running north-south, cut into the south side of packing 620. It was at least 1.60m long (south end beyond l.o.e.) and c. 0.30m wide, with vertical sides up to 80mm deep and a flat base. It was filled with dark brownish grey fibrous silt [528], suggesting a decayed joist. Several soils incorporated within it may have been associated with a timber superstructure for this division., representing a beam running south from stone post pad 626 parallel to the road.

To the west, oval cut [595] intruded into accumulation 549. It measured 1.60m east-west by 0.95m north-south, with steep sides up to 0.52m deep and a flattish base. It was filled decayed base plate [553], packed with grey sandy silt flecked with cream mortar [540] which had been displaced when the vertical member set above 553 was removed. Further west still, east-west cut [614] intruded into accumulation 549 and also 637 (XVII.21). It was 2.75m long and up to 1.20m wide, narrowing in the east, with gently sloping sides up to 0.28m deep and an uneven base. It contained loose fragments of decayed wood [604] from a former beam set in its base, which was packed with light grey mortar-flecked sandy silt [579], the latter becoming displaced when the superstructure above 604 was removed. The profile of the original cut and after, this robbing suggests that it contained two joists set east-west end on end originally.

The features in 595 and 614 form an east-west line suggesting robbing after secondary accumulations 549 et al were added. The same alignment can be suggested as existing with the first phase of surfacing 721, and was then retained when secondary modification 626 et al were added.

The coherent surface 601 added in the north of Building 13 was not paralleled in the south, where the primary surface seems to have continued to be used. It therefore differs from the initial situation in XVII.21. The asymmetry of resurfacing gives added weight to the notion of
an intervening structural division between the two areas, half way between the 610 et al and 595 et al alignments.

XVII.23 Third surfaces in Building 13


Description

A strip of loose grey mortary silt containing flecks and small fragments of charcoal, chalk and brick [523] lay immediately south of Building 10, overlying 545, 546, 566 (XVII.22), and continuing east to abut foundation 645 (XVII.22). A patch of reddish brown silt containing large fragments of ragstone, brick and chalk [583] over 840 (XVII.21) nearby could be a contemporary rubble dump or related to make-ups for the second surface.

An extensive layer of light pinkish grey crushed mortar and a little coarse sand and clay containing large brick fragments and small tile fragments [496], which had lenses of brown clay, silt and ash at its surface. 496 covered 583,523 and 535 (XVII.22). In the south-east, the surface was loose sand and clay then mortar, and the overlying silty deposit, probably occupation tread, increased in depth. It forms a third surface in the north part of the timber-framed Building 15.

To the south, rusty orange to cream sandy mortar containing large fragments of brick and tile [504] sealed 540, 579 (XVII.22), forming a counterpart of 496. This petered out as it approached the road surface in the east, but here compact light pinkish grey mortar containing small fragments of brick [502] overlay 541 (XVII.22) and pinkish grey and some yellowish brown mortar flecked with brick tile and off-white mortar [563], pinkish grey mortar flecked with brick charcoal and off-white mortar, including some large fragments of brick in the north [526], and brown silt with some pinkish grey mortar containing flecks of brick and, in the south, brick fragments and less silt [510] all overlay 568 (XVII.22), the last also covering 528 (XVII.22). These must be outliers of surface 504, suggesting that it became more broken up as it approached the road, possibly due to increased wear here.

Dark grey pebbly silt flecked with charcoal [492] spread above 510, possibly trodden occupation debris, whilst a loose mixture of brown organic silt, some brick rubble and a little light grey charcoal-flecked mortar [441] covered both this and patches 526, 563, with a loose mixture of crushed chalk and slightly less grey mortar and dark brown silt [449] on top. These may be attempts to repair the surface at its east edge, or roadside accumulations swept onto the edge of the third surface. To the west, cut [486] intruded into 504. It was circular, 0.30m across, with steep sides 90mm deep and a flat base and was filled with dark brown organic silt below flint stones and a broken tile [477]. The lower element may be a decayed post, with the stones as displaced packing, and the whole cut a subsidiary installation set in the third surface.

To the north, light grey crushed mortar and a little coarse sand and clay containing charcoal flecks, small tile fragments, and large fragments of brick and chalk [411] overlapped the last edge of 496 and may be an attempt to repair the roadside area, as seen to the south with 441, 449. Further west, a spread of charcoal and a little light grey mortar containing small patches
of iron staining and, in the north-west, small and large fragments of chalk [493] covered a hollow in 496, with another spread of charcoal and a little brown silt, becoming more silty and containing chalk fragments in the west [427] on top. These are probably occupation accumulations, with the building material content possibly an attempt to repair the lower area subjected to this use.

Cut [480] intruded into 411, also cutting 848 (XVII.22) at the south-east corner of the third surface. It was at least 2.00m long (south limit cut away) and 1.90m wide, with sloping sides up to 0.35m deep and an irregular base, with a subsidiary square cut at its north-west corner, itself with a small deeper area at its south-east corner. Its fall of dark brown silt containing charcoal, chalk and light grey mortar flecks [442] was capped in the south by dark brown organic silt, and a little brownish yellow and off-white mortars containing small brick fragments, charcoal flecks and fine pebbles [417]. This could be due to the robbing of underlying masonry features at this point or just general disturbance given its irregular profiles. However, the feature at its north-west corner does seem more likely to be structural, so perhaps there was some buttressing of the boundary wall beside the road which took place whilst the third surface was in use.

Just to the north, [433] intruded into 496. It was 1.00m east-west by 0.35m north-south, with vertical sides except in the south-east up to 0.14m deep and a flat base. It was filled with grey silt [431]. Further west, [432] also intruded into 496. It was 1.30m north-south by 0.60m east-west with steep sides up to 0.26m deep and a flat base and was filled with loose grey silt flecked with brick and chalk [430]. These two cuts lie along the line of the main timber division crossing this north area, in use from the first surface, showing that the line was still in use but perhaps modified slightly when 496 was laid.

Lastly, [503] intruded into 496 in the south. Cut away to the south, it measured at least 0.35m north-south by 0.55m across, narrowing in the north, and had vertical sides 0.22m deep and a flat base. It was filled with loose dark greyish brown organic silt containing large brick fragments and globules of mercury [416]. It presumably represents a rebuilding installation in the third surface.

XVII.24 New wall and rebuilding of Building 12


Description

At the centre of Building 12, a large east-west cut, [491], intruded into 502, 416, 449, 504, 417 (XVII.23). It was at least 7.80m long (west end beyond l.o.e.) and c. 1.60m wide, with vertical sides except where it encountered earlier masonry at its east end, up to 0.50m deep, and a flat base except when stepped where it encountered earlier walling.

The base of the feature was filled with three north-south strips of decayed timber [484], [483], [422]. A very mixed deposit of orangey yellow mortar and a little white mortar and brown silt containing large fragments of brick [755] lay elsewhere in the base of the east part of the cut,
related to another spread of dirty cream mortar [364] in its base at the west end. Two bricks laid north-south on bed [692] lay over 702 (XVII.21) but on the line of the cut and are either an earlier feature which it truncated (a division on this line might be postulated with the first three surfaces on independent grounds) or part of the foundation in 491. The main foundation [366] lay above 692, 755, 483, 484, 422. It comprised a central core of unmarked ragstone blocks up to 0.40m across, roughly coursed, and set in a friable light grey coarse, chalk-flecked mortar. Voids within this material suggests the existence of further beams like 422 et al. Ragstones also formed some of the facing stones but, increasingly to the east, and higher up, they were replaced by bricks, often header courses, set in a hard light grey chalk-flecked mortar. Loose dark brown silt containing small fragments of slag [390] and loose grey pebbly, mortar-flecked silt [407] were packed on its south and north sides as construction trench backfill. The feature forms a major structural division, running symmetrically between the two lines of timber features 672 et al and [597] et al in use from the start of the period. Its size and character implies a major load-bearing component, perhaps to take the weight of the roof with the timbers to either side to support side aisles.

To the south, black organic silt containing small wood fragments [552] overlay 625 (XVII.21) and could belong with the second or third surface or later. More extensive dark brown organic silt flecked with off-white mortar, brick and charcoal [420] on this also covered 504 (XVII.23), so must be a late occupation, and the very much more extensive spread of greyish green silt flecked with fibrous wood and charcoal, the latter especially towards its base [363] on this overlay 477 (XVII.23) and, critically, overlapped construction trench fill 390 to abut the new foundation 366. A small patch of reddish brown sandy silt flecked with off-white mortar and containing small brick fragments [447], overlay 441 (XVII.23) and may be an outlier of 363, both being tread accumulating immediately after the insertion of the foundation to their north.

A strip of dark grey and some dark brown silt containing small fragments of brick, tile and charcoal and fine pebbles [375] covered 363 towards its centre with off-white mortar and a little light brownish yellow mortar to latter increasing in preponderance in the west, containing small fragments of brick and tile [355] covered 375. A mixture of grey organic silt and sand and rather less off-white mortar containing charcoal fragments [325] covered this, with another patch of dark brown sand a little tan organic silt containing off-white mortar fragments and, in the west, medium pebbles and small and large tile fragments [321]. Loose off-white mortar and some greyish brown sandy silt containing small fragments of charcoal, brick and tile [327] covered 325 just to the south as a counterpart of these two. A strip of creamy white mortar mixed with grey ashy silt [367] covered 363 to the south-west bay be related to further aspects of the construction of wall 366, as may off-white mortar and a little light brownish yellow mortar and organic sandy silt containing small fragments of brick and tile and charcoal flecks [349] over 363 first to the north.

Linear ‘cut’ [365] apparently intruded into 367. It measured 2.40m east-west by 0.60m north-south, with sides up to 0.26m deep sloping in to a base which formed two distinct oval subdivisions. It was filled with loose orange rusty brown organic sandy silt [324] but directly overlay post positions 579 et al (XVII.22), so is probably best interpreted as due to subsidence of that underlying feature.
To the south-east, [373] intruded into 363. It was roughly circular, c. 0.40m across, with concave sides 60mm deep and a flat base and was filled with organic sandy silt and a little off-white mortar containing small fragments of brick and charcoal [369]. It presumably represents an installation inserted just after wall 366 or part of its construction.

An extensive mixed, pebbly deposit of ash and charcoal and rusty brown mortar-flecked silt, browner in the north and containing tile fragments [308] covered 321, 327, 349, 389 and partially sealed fill 324 to complete the rubble make-up process started with 375. Dumps of grey silt flecked with brick and mortar [337] over 363 further east are a counterpart of this.

Pebbles set in some dark brown silt [314] capped 337 beside the road corresponding with an area of all sizes of pebbles set in light cream gritty mortar [268] over 308 further west, with a patch of similar dirty cream gritty mortar and fine pebbles [295] over the latter at its east end. These formed rough gravel metalling, perhaps external, accompanying the insertion of wall 366. This suggests quite a radical alteration of the character of redevelopment here, and, the proposed correspondence between 366 and a division related to the earlier phase of timber-framed Building 15 notwithstanding, possibly the construction of an entirely new building. Because there is no way or relating this to developments to the east, it is better seen as a later aspect of Period XVII rather than an entirely new period of use of the whole site.

To the north, a patch of light orangey brown mortar and a little flint in large nodules containing patches of light grey charcoal-flecked mortar [415] overlapped 407, the construction trench backfill of wall 366, lapped up over the wall’s lowest offset. Dark grey silt and black clay and a little coarse sand containing flecks of brick, tile, chalk and charcoal [414] covered 415, also abutting the wall, covered by a much more extensive layer of dark grey silt, clay and rather less coarse sand containing lenses of rust coloured coarse sand and clay and charcoal and tile flecks throughout and, towards its base, lenses of black ash [401], which sealed in 427, 430, 431 (XVII.23) elsewhere. This occupation debris may be a counterpart to 363 accumulating on the south side of the wall.

‘Cut’ [404] intruded into 401. It was 1.25m east-west by 0.45m north-south, with irregular, in places stepped sides up to 0.16m deep and an irregular base. It was filled with grey crushed mortar and silt containing a lens of pink mortar [405] and directly overlay the north line of timbers for the earlier framed phase. It may be the result of robbing those elements, or not a true cut feature but a profile created by subsidence of that division. An extensive layer of greyish brown organic sandy silt and crushed mortar containing large fragments of brick, tile, limestone and mortar [392] covered 405, elsewhere sealing over the timber parts of the earlier phase.

To the north-east, a compact dump of fine and medium pebbles in dark yellow sand [382] overlay 401, forming a gravel metalling, itself sealed by compact light charcoal-flecked brown silt containing flecks and small fragments of mortar and brick [372]. A patch of dark brown organic sandy silt containing flecks and small fragments of chalk, mortar, charcoal and brick [371] the compact powdery yellow mortar and brown silt [300] in the north and dark yellow mortar and brown silt [348] in the south covered 372, may be some form of surface proper for the gravels.
It is unclear whether 392/382 is internal or external. Hence it cannot be decided whether 366 is a boundary wall or the south limit of a structure. In either case, it seems to mark a different type of development from the situation seen with XVII.21-XVII.23.

**XVII.25 Modifications in Building 12 and roadside area south of wall 366**


**Description**

Irregular cut [306] intruded into 314 (XVII.24) just south of the east end of wall 366. It measured 1.40m north-south by 0.80m east-west with vertical sides to north and west up to 0.11m deep, more irregular slopes elsewhere to its irregular base. It had traces of a decayed timber plank at its west edge, elsewhere being filled with brownish grey silt containing small fragments of brick, chalk, flecks of wood, iron, charcoal, brick, shell and white mortar [305]. Iron nails were spaced regularly along its west, and maybe its north sides, forming a corner here. They may have retained the plank lining in place originally. A dump of flint [304] filled the upper part of the feature, marking its demise. The original function is unclear. It could be related to a threshold arrangement leading into the areas south of wall 366 or a plank-lined roadside drain running south from that division.

A mixed, patchy, hard deposit of white mortar and some grey silt containing small fragments of brick and chalk and, to the north, small fragments and flecks of yellow mortar [287] overlapped the west edge of 304, capped with compact dark brown silt and medium pebbles [286] in the south-west, a gravel metalling then compact light grey ash and some greyish brown silt [262] on top as tread. To the north, this corresponds with compact dark brown sand and silt flecked with ash, chalk and brick [250] over 287. These represent the final occupation of the period surviving below truncation of Period XVIII.

Note: there are mentions here and below of ‘Period XVIII’, but it is not reported on here.

**XVII.26 Final changes in Building 12**


**Description**

On the south face of the party wall of Buildings 10 and 12, east-west cut [350] intruded into 943, 944 (XV.9) and 300, 392 (XVII.24). It was 7.50m long and generally up to 0.70m wide, but with a distinct bulbous protrusion 1.0m wide to the south at its east end where it abutted the road. Its north, vertical side was formed by the earlier wall here, its south side vertical in the west, less steep in the east, with a series of deeper impressions in its base of a depth of c. 0.30m, protruding a further 0.15m on average. These deeper areas directly overlay the positions of a series of buttresses set against the wall to the north (see 547 et al - XVII.22). The cut was filled with light grey silt and a little coarse sandy mortar and clay containing large
fragments of brick, tile and cobbles, especially towards the west, and chalk and ragstone throughout [338].

This feature could be a refurbishment of the wall to the north. However, the nature of its fill is more suggestive of robbing, presumably removing the buttresses in use during XVII.21 - XVII.23. Such a major modification may have been the result of inserting wall 366 to the south.

An extensive mixed deposit of light greyish brown silt and slightly less yellow crushed coarse sandy mortar and large, flat laying peg tiles containing small fragments of chalk and charcoal [294] overlay 348 (XVII.24) and overlapped the south edge of fill 338. It contained a concentration of black powdery ash in the south-west and areas of tile and mortar elsewhere. Two small patches of mixed black and greyish brown silt and slightly less tile and brick fragments and, at the surface, yellow coarse sandy mortar containing small fragments of chalk and mortar [328] and [329], both over 392 (XVII.24) to the north-west, are outliers of 294. This dump of building material sealed over the line of timber post positions 610 et al, in use during XVII.21-XVII.23, and levelled up the surfaces in the area.

A loose deposit, flecked with charcoal, chalk and brick, of brown silt and buff mortar, the latter especially in the west [292], overlay 294 in a strip beside the south wall of the former undercroft. At the east end, brown silt containing flecks and small fragments of brick [252] covered 292, part of the same process of make-up. 292 formed a bedding for a single course of roughly faced greensand, ragstone, chalk and brick blocks set in light grey mortar flecked with charcoal, chalk and crushed brick [293].

West of facing 293, [299] intruded into 292. It was rectangular, 0.98m east-west by 0.50m north-south, with vertical sides to north and south, less steep to east and west, up to 0.56m deep with a flat base and filled with eight brick courses laid on bed set in hard light grey charcoal-flecked mortar [298].

Further west, [297] intruded into 292. It measured 0.63m east-west by 0.44m north-south with generally vertical sides up to 0.50m deep and a flat base and was filled with seven coursed of brick laid on bed set in hard light grey charcoal-flecked mortar [296]. These two features are the bases of plinths forming brick buttresses for the wall to their north. The most reasonable sequence, therefore, is one in which the original period XVII supports for the south wall of Building 13 were removed sometime after the insertion of wall 366 had been in use for some time or as part of the same process of construction is unclear.

Further south, a small area of dark greyish brown silt containing small fragments of charcoal and mortar and, in the west, flint cobbles and, in the east, mortar flecks [317] overlay 294 and lapped wall 366. An extensive layer of light yellow pebbly mortar [269] covered 317 and is either a mortar surface in its own right or the bedding for a floor. In a depression at its east end, it was overlapped by a spread of off-white ash containing charcoal fragments [290], probably an occupation layer, below a mixed deposit of yellow crushed coarse sandy mortar and grey ashy silt containing small fragments and flecks of charcoal [288], which may be a rough repair. An area of greyish brown silt containing small fragments and flecks of charcoal, chalk and brick [247] capped 269 further east still. Then a mixed deposit of yellow medium sand and grey crushed mortar and silt in patches c. 20mm across containing small fragments and flecks of brick and charcoal, with a good surface [246]. Finally off-white mortar and some
ash [237] covered 246, with mixed buff orange medium sand and some charcoal in flecks and small fragments [236] on top of this. The sequence from 290 to 236 form a series of dumps in a depression at the east end of 269 beside the road. Either there was increased wear here, requiring repairs, or underlying subsidence, perhaps into the construction trenches of adjacent walls, which required compensation. The sequence above this was truncated by Period XVIII.

To the west, grey silt in various hues and some crushed fine sandy mortar containing fine pebbles and small tile fragments [257] covered 269, maybe as trample, with off-white or grey mortar and some rust coloured sand in patches containing chalk flecks [199] on top. This may be bedding for a floor proper set above make-up 269. If so, it suggests an internal situation for the area between wall 366 and the wall to the north reinforced by joining 293 et al. This stratigraphy was truncated by Period XVIII features.

XVII.27 ? Cess pit set into road

703, 686.

Description

At the central, south extreme of the site, cut [703], of which only the north edge lay within the excavation, intruded into 451 (XVI.8). This was 1.56m long east-west and continued for 0.24m to the south before reaching the l.o.e., with vertical north side 0.28m deep and a flat base. It was lined with regularly coursed bricks set on bed and bonded with a mixture of green and light brown sandy charcoal-flecked mortar [686].

Enough survived of the cut to show that it was not a linear feature. The most likely explanation of a brick-lined pit is that of a cess pit. It cut the fourteenth road surface, so belongs to Period XVII or later. However, its position is anomalous since it would have blocked the line of later road metallings, for example the fifteenth and sixteenth roads (XVII.16, XVII.18). On this basis, it may belong to Period XVIII+. However, neither of these two metallings provably continue this far south and the feature does resemble cess pits associated with Period XVII buildings to the east. So it could equally well be a broadly contemporary feature, perhaps related to Building 15, whose outer wall would have lain only 1.0m away.

This is the end of the stratigraphic report.
Index of contexts

This is the index of context numbers and phases in the archive report, for periods VIII (8) to XVII (17) only. The full archive report for the whole site, including the Roman and Anglo-Saxon periods, is in the Museum of London Archaeological Archive.

A small number of contexts are not included in this index as they do not appear to have context records, but may have finds in them.

By using this index, the reader can identify the phase of an individual context, and find its place in the narrative above.

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Dendrochronology report

TREE-RING ANALYSIS OF OAK TIMBERS FROM BILLINGSGATE LORRY PARK, CITY OF LONDON: THE PERIOD VIII-XVII TIMBERS

Jennifer Hillam
June 1990

Abstract
The tree-ring analysis and dating of 116 oak timbers from Periods VIII to XVII are described. The results provide a dating framework for the development of the Billingsgate waterfront during the late 12th/13th century.

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Introduction

The analysis and dating of the oak timbers from periods II to VII have already been described (Hillam 1987a,b; 1988a,b; 1990; Hillam & Groves 1985). The results of these analyses provided a dating framework, often precise to the year, for the development of the waterfront structures at Billingsgate throughout the 11th and 12th centuries. This framework had allowed the archaeological interpretation to be revised and refined. The most recent timbers to be examined prior to this study are from phase VII.13, and these were felled in the period 1172-1187. The aim of the present study is to outline the waterfront chronology during periods VIII to XVII.

Period VIII saw the construction of a new waterfront and new dumps across the whole site. The tree-ring samples are mostly from the VIII.2 north-south revetment at the south east of the site which had front bracing to the west. Another revetment was constructed in period IX.1 with primary dumping behind the new revetment in IX.2. Few primary timbers were available for analysis although some may have been robbed for use in phase X.1. Phase X.2 is represented by the construction of a building, whilst in phase X.4 there was the construction of a north-south extension to the VIII.2 revetment. Period XI saw the construction of a new front-braced revetment in the extreme south of the site. A substantial section of this east-west revetment was excavated and conserved for display. The revetment was repaired from time to time as shown by the timbers from phases XI.2 to XI.7. The final timbers from period XI come from a timber drain which was added behind the refaced revetment.

The archaeological phasing of the final periods of the site's history has not yet been completed, but the analysis of the five timbers from periods XIII- XVII have been included for completeness.

The samples

The 32 samples from period VIII were divided into one from VIII.1 and 31 from VIII.2. A further two samples (5293, 6009) supposedly belonging to VIII.1 were also examined but these are now thought to be mislabelled. 4192 from VIII.1 was a random stake found in dumping associated with a possible front-braced post and plank revetment. Many of the VIII.2 samples were structural timbers from the north-south revetment. 5667, 5669, 5670, 5673, and 5742 were horizontal planks which had been pegged onto the revetment. 5675-5680 were from vertically set uprights which had been tenoned into the baseplate 5721. Two piles (5684, 5724) and a wedge (5723) were driven in along the west side of the baseplate to prevent displacement to the west. The baseplate was underpinned by several reused structural timber fragments (5725, 5729, 5731-2, 5735-6). Other samples came from a subsidiary brace baseplate 5711, which was associated with retaining pile 5606, a brace 5683, and an upright post 6877. A group of discarded structural timbers from the dumping behind the revetment were also sampled (5530-1, 6470).

Four timbers were sampled from period IX although 5754 from IX.3 appears to have been mislabelled (see below). Of the others, 4571 from IX.1 was from a timber which possibly underpinned the robbed baseplate of the revetment, and 2678A/B were plank fragments from the dumps behind the revetment.

None of the five timbers which were sampled from X.1 are likely to have been in situ, and some may have been robbed from the dismantled period IX.
revetment. All were found within a dump to the south of the period IX revetment. 4729, 4731-2 were planks, 4319 a squared timber and 4586 a possible brace.

The samples from the phase X.2 central building came from two planks from the west wall (4759, 5203) and a horizontally laid timber pad 5686 at the corner of the west and north walls.

Six timbers were sampled from the phase X.4 extension of the VIII.2 revetment. 2645A/B were squared tenoned uprights set into a baseplate, whilst 2646, 5630-1 and 5633 were planks which were fixed onto the uprights as cladding.

A total of 41 timbers were examined from the XI.1 revetment. The majority were sampled during excavation and sent to Sheffield for analysis but four (cladding timbers - 6190-1, upright - 6204, secondary baseplate - accession no 3269) were examined as part of a separate study on timbers which were being preserved for conservation. Full details of all the conservation samples are given elsewhere (Hillam & Groves 1985), although a summary of the results for the above four timbers will be included here.

The east-west XI.1 revetment is divided into a west and east section. The west section consists of two reused baseplates 3865-6 into which are fitted reused uprights (2656, 2658, 2663-4, 2672, 2675 pegged to 3865; 2668A/B, 3301, 3560 attached to 3866). This section may have been the west part of the period IX revetment which had been dismantled and re-erected. Other timbers sampled from the west section were plank fragments attached to the uprights above the cladding (2659, 2683A/B, 2686A/B, 3338, 3369, 3381, 3408, 3652, 4737). Whilst the cladding was thought to be primary, the planks were either reused or a later repair. 6154 and 6156 were from north-south timbers serving as a lever beneath a baseplate, and 3875 was a pile retaining baseplate for a front brace.

The east section of the XI.1 revetment had one baseplate 4998 (not sampled) with no evidence of reused material. At the junction of the two sections, 4999 was reused as a baseplate. It had originally been part of a house stud timber. In the east section the upright 4978 was sampled as were the planks pegged to the uprights (4676, 4895-7). A plank fragment 2651 and a top plate 2660 pegged to tenons on top of some of the uprights were also sampled. The final timber associated with the XI.1 revetment (3770) may have been a chopping block.

The phase XI.2 timber 4927 was one of a series of vertically set reused planks which were used to repair the gap between the period IX revetment and the period X extension. The phase XI.3 timbers 2837-8 were stray timbers on the surface of the main dump behind the XI.1 revetment. The phase XI.6 timber 3208 was a pile driven in to provide replacement bracing for the east section of the XI.1 revetment. In the west section, 3690 was also reused to replace the original XI.1 bracing (phase XI.7). Other XI.7 timbers (4146-7, 5453), found in front of the revetment, were of uncertain function.

The ten timbers from XI.8 were all from or associated with a timber drain. The drain was planked on the bottom and sides, and covered by a lid. It was supported crossways underneath the base by cradling timbers. Samples were taken from the lid (4956), east side (5181, 5210), west side (4959-60), base (5182, 5211) and cradling timbers (5142A/B).
The final five samples were 2722, possibly from period XIII, 2383 from XIV.1, 2491-2 from XIV.3, and 4603 from period XVII. (Approximately forty other tree-ring samples from Billingsgate were stored at Sheffield but since no information about them is available, they have been discarded.)

Methods

The samples were prepared by freezing them for at least 48 hours and then cleaning their cross-sections with a surform plane. The ring widths of those samples with more than 50 rings were measured on a travelling stage connected to an Apple II microcomputer (Hillam 1985, Fig 4). (Ring patterns with less than 50 rings are unlikely to be unique and might not produce reliable dates – see Hillam et al 1987 for further details.) The ring sequences were plotted as graphs using a graphing program on the Prime mainframe (Okasha 1987). The graphs were then compared with each other on a light box to check for any similarities between the ring patterns which might indicate contemporaneity. For crossmatching purposes, the ring width data were also transferred to an Atari ST microcomputer with hard disk. The tree-ring software for the Atari was written and developed by Ian Tyers of the Museum of London. The crossmatching routines are based on the Belfast CROS program (Baillie & Pilcher 1973; Munro 1984), and all the t values quoted in this report are identical to those produced by the first CROS program (Baillie & Pilcher 1973). Generally t values of 3.5 or above indicate a match provided that the visual match between the tree-ring graphs is acceptable (Baillie 1982, 82-5).

Dating is achieved by crossmatching ring sequences within a site or structure, combining the matching sequences into a site master, and then testing that master for similarity against dated reference chronologies. A site master is used for dating whenever possible because it enhances the general climatic signal at the expense of the background noise from the growth characteristics of the individual samples. Any unmatched sequences are tested individually against the reference chronologies. However since dated master curves made up from period IV-VII timbers, already exist for Billingsgate, the period VIII-XI sequences were first tested against these. Other reference chronologies which were frequently used were City Med (Hillam unpubl), Southwark Med (Tyers pers comm), and Ref 6 (Fletcher 1977).

If a sample has bark or bark edge, the date of the last measured ring is the date in which the tree was felled. A complete outer ring indicates that the tree was felled during its dormant period in winter or early spring. This is referred to as "winter felled". If the ring is incomplete, felling took place during the growing season in late spring or summer (referred to as "summer felled"). In the absence of bark edge, felling dates are calculated using the sapwood estimate of 10–55 rings. This is the range of the 95% confidence limits for the number of sapwood rings in British oak trees over 30 years old (Hillam et al 1987). Where sapwood is absent, felling dates are given as termini post quem by adding 10 years, which represents the minimum number of missing sapwood rings, to the date of the last measured heartwood ring.

At this stage of the study, factors such as reuse, stockpiling, or repairs have also to be taken into account. Thus whilst the tree-ring dates for the measured rings are precise and independent, the interpretation of these dates often requires other archaeological evidence.

Results

The results of the tree-ring analysis are described briefly phase by phase below. Details of the samples and the tree-ring dates are given in Table 1, and rough sketches of the cross-sections in figure 1. The results are also shown as bar diagrams in figures 2-4.
Period VIII

Phase VIII.1. Of the two mislabelled samples, 5293 remains undated and the ring sequence of 6009 dates to 905-1009, suggesting that the timber came from an earlier phase.

The stake 4192, possibly associated with a revetment, dates to 1073-1168 with a heartwood-sapwood transition dating to 1151. Using the 10-55 sapwood estimate, a probable felling date range of 1168-1205 is obtained.

Phase VIII.2. Thirteen samples were rejected, mostly because they had less than 50 rings. The measured samples had 46-211 rings. (5678 with 46 rings was measured because it had bark edge but it did not date.) Two of the samples (5669, 5670) were almost identical and their ring patterns could be crossmatched before measurement. They must have come from the same tree and therefore their ring widths were averaged so as not to bias any master chronology. This sequence plus ten others were dated (Fig 2).

5531B from the dump behind the revetment has a heartwood-sapwood transition dating to 1026. This gives a felling date of 1035-1080. Two uprights (5675, 6877) end in 1160 and 1164, and were felled after 1170 and 1174 respectively. Of the four dated horizontals, 5669/5670 from the same tree ended in 1182, giving a terminus post quem for felling of 1192; 5667 was felled after 1193, and 5742 with a heartwood-sapwood transition of 1185 was felled in the period 1194-1249. Two of the timbers found beside the baseplate were dated and both had sapwood. The pile 5724 ended in 1204 and had a sapwood transition of 1181. This gives a felling date range of 1204-1235. The wedge 5723 ended in 1206 and 9 unmeasured rings were counted between the last measured ring and the bark edge, giving a felling date of 1215/1216. The same felling date was obtained for two of the reused structural timbers, 5725 and 5731. (The ring sequence of the latter ends in 1207 but an extra 8 rings were counted up to the bark edge.) The exact season of felling was difficult to determine for these timbers because the outer rings tended to be very narrow.

Period IX

The mislabelled 5754 was felled in about 1040, suggesting that it was probably a period IV timber. 2678B from IX.2 was rejected because it was very knotty, and the other IX.2 sample 2678A remains undated. 4571 from IX.1 was dated and had a heartwood-sapwood transition of 1160, giving a felling date range of 1169-1214.

Period X

Phase X.1. Two of the samples (4319, 4732) were rejected because of insufficient rings. The other three had 65-173 rings. 4731 remains undated but 4586 and 4729 end in 1175 and 1162, giving termini post quem for felling of 1185 and 1172 respectively.

Phase X.2. All the three X.2 samples had sapwood but 4759 was rejected and 5686 could not be dated. 5203 from the west wall of the central building had 12 sapwood rings and its heartwood-sapwood transition dates to 1197. Its probable felling date range is 1208-1251.

Phase X.4. 5630 was rejected because of insufficient rings. The remaining five samples had 53-12 rings. Two of the cladding planks (2646, 5631) dated although neither had sapwood. They ended in 1197 and 1153, and were therefore felled after 1207 and 1163 respectively.

Period XI
Phase XI.1. Thirteen samples were rejected either because they were knotty (eg 2656) or because they had less than 50 rings (eg 2660).

Four of the conservation samples were dated (Hillam & Groves 1985). 6190 and 6191 were both X-rayed and successfully dated (Tyers 1985). 6190 ended in 1177 whilst 6191 had a sapwood transition of 1179. The latter therefore gives a felling date range of 1188-1233. The core from 6204 ends in 1142 and the small section from the timber with accession number 3269 ends in 1159.

Fourteen other samples were dated. The reused baseplate at the junction of the two sections of revetment had a possible heartwood-sapwood transition dating to 1152. This would give a probable felling date range of 1162-1207. From the west section, the upright 3301 had 27 sapwood rings and ended in 1211 at what was thought to be bark edge. The retaining pile 3875 ended in 1172 and was felled after 1182. Five of the fragments attached to the uprights above the primary cladding were dated. The only one with sapwood had a sapwood transition date of 1215 and ended in 1243. This produces a felling date range of 1243-1269. The other four samples end in 1100, 1154, 1165, and 1197, the termini post quem for felling being 10 years later in each case.

On the east side, the upright 4973 had bark edge and its outer ring dated to 1220. The timber was winter felled indicating that it was felled in 1220/1221. Three of the planks that were pegged to the east uprights were also dated. 4895 and 4897 ended in 1195 and 1201, giving termini post quem for felling of 1205 and 1211 respectively, whilst 4896 had a probable bark edge which dated to 1225. A plank fragment 2651 and a timber possibly used as underpinning (6039) ended in 1154 and 1168, and were therefore felled after 1164 and 1178.

In addition to these dated samples, a group of four ring sequences (2658, 2663, 2672, 2675) crossmatched each other to produce a single sequence of 170 years (Table 2). However they did not crossmatch any of the dated Billingsgate sequences or any reference chronology, and the 170 year sequence remains undated.

Phases XI.2, XI.3 and XI.6. The only measurable sample from this group was 2837. It has 98 heartwood rings and dated to 948-1045. It was therefore felled after 1055.

Sample 4927 from XI.2 was broken and unmeasurable, 2838 from XI.3 was knotty, and 3208 from XI.6 was a sample of beech (Fagus sylvatica L) with only 31 rings.

Phase XI.7. 5433 with 25 rings was rejected. 3690 and 4147 had 55 and 57 rings; 4146 had over 70 rings but they were very narrow. None of the three measured ring patterns could be dated.

Phase XI.8. The four samples from the base of the XI.8 drain were rejected. The lid 4956 had 70 heartwood rings with an average ring width of 4.2mm. The planks from the east and west sides of the drain had similar cross-sectional dimensions to 4956 but by contrast they had average ring widths of 0.9-1.2mm and therefore contained over 200 rings. (4960 contained a band of unmeasurable narrow rings and had to be measured in two sections - see 4960A and 4960B in Table 1). These five ring sequences from the sides of the drain crossmatched each other extremely well (Table 3), and it is possible that some, if not all, are from the same tree. Their ring widths were combined to give a single sequence of 293 years (Table 4). There is no similarity between it and the ring sequence from the lid. In addition, the
Drain master has been tested against all the tree-ring reference data available to the laboratories at Sheffield and London, including chronologies from other parts of Europe, but no reliable dating has been found.

Periods XIII-XVII

All the five samples from these later periods were rejected, either because they were knotty or they did not have enough rings.

The timbers

Since not all the excavated timbers were sampled for dendrochronology and the excavated assemblage itself is only a small part of what must have been used at 13th century Billingsgate, this section is limited to a few general remarks. Many of the timbers from the XI.1 revetment, for example, were not sampled but kept instead for conservation and display.

As would be expected in an assemblage which includes timbers used for different purposes, the size, age and growth rate of the timbers was very variable. Since some of the phases are represented by only as few samples, the three largest groups are selected for discussion.

The 31 timbers from VIII.2 include ten, often with bark edge, which come from trees under about 50-60 years old when felled (Table 1). The trees would have been 200-250mm in diameter or less. Other timbers have been split into planks or hewn into shape from larger and older trees. 5731, for example, is a rectangular cross-section which has about 220 rings and comes from the outside of a tree well over 200 years old when felled.

The 37 timbers from the XI.1 revetment (excluding the four conservation samples for which the full cross-sections are not available) contain only four which come from 50-60 year old trees. The timbers were noted to be generally knotty and wavy-grained, reflecting the use of poor quality timber, especially compared to the timber used in the XI.8 drain or even the VIII.2 extension. Photographs of the many timbers which were not sampled confirm that the XI.1 revetment contains timber of very inferior quality.

Only eight timbers had sapwood (21.6%) as compared to fourteen timbers from the VIII.2 extension (45.2%). This might indicate that there was more reuse amongst the XI.1 timbers.

The ten timbers from the XI.8 drain fell into three groups. The four base timbers came from relatively small trees with less than 50-60 rings. The lid 4956 was of similar dimensions to the timbers used for the side planks but it came from a much faster grown tree. The side planks which were split tangentially, had cross-sectional dimensions of approximately 330x90mm. All contained over 200 rings and none had sapwood or the centre rings. The trees (or tree) used to produce these planks would probably have been over 300 years old when felled with a diameter of 1m or more. The fact that the 293 year ring sequence from these planks does not date may indicate that the timber came from a different woodland source, perhaps some distance from the London area.

The chronology of periods VIII-XI

Phase VIII.1 is represented by only one dated timber which has a felling date range of 1168-1205. However, since this period represents new building activity across the site, this date must be later than that for the phase VII.13 timbers which were felled during 1172-1187. The modified felling date range for VIII.1 therefore becomes 1172-1205 (Table 5).
Three of the timbers from the VIII.2 revetment have bark edge and all were felled in 1215/1216. Five other timbers appear to be contemporary with them (Fig 2), leaving only 5675 and 6877 which could have been felled slightly earlier. Although some of the timbers were thought to be reused (eg 5725, 5731), the VIII.2 timbers seem to be a much more homogeneous group than the timbers from the XI.1 revetment, for example. 5723, 5725 and 5731 in particular match each other with t values greater than 8.0 and sometimes greater than 10.0, which suggests that they may be from the same tree. Tree-ring analysis therefore indicates a 1215/1216 felling date for the VIII.2 revetment with construction following soon afterwards.

The only IX.1 timber to be dated is 4571 which has a felling date range of 1169-1214 (Fig 3). The X.1 timbers from the dismantled IX.1 revetment however were felled after 1172 and 1185, which refines the IX.1 revetment date to 1185-1214. (Some of the timbers from the west section of the XI.1 revetment, for example, 3301 which was probably felled in 1211/1212, may also have been from the period IX revetment, which would place the construction date at the younger end of the felling range.) The tree-ring results therefore suggest that the period IX revetment is either broadly contemporary with the VIII.2 revetment or slightly earlier in date.

The dated plank from the central building was felled during the period 1208-1251. Its heartwood-sapwood transition is 1197 which is the same as the last measured ring of 2641, one of the planks used as cladding in the X.4 extension of the VIII revetment. Although the felling date for this timber can only be quoted as a terminus post quem of 1207, it is possible that it is contemporary with the X.2 timber.

The tree-ring dates for the XI.1 revetment are complex (Fig 4). There are three timbers with bark edge. 3301, a reused upright from the west section, was probably felled in 1225; 4978, an upright from the east section, was felled in the winter of 1220/1221, and 4896, a plank pegged to an east upright was probably felled in 1225. However a reused fragment from the west section (3338) has a later felling date than any of these since it was felled some time during 1243-1269. The only other timbers with sapwood from IX.1 are 6191, a cladding timber, which has a felling date range of 1188-1233, and 4999, the reused baseplate at the junction of the two sections. The latter has a possible heartwood-sapwood transition of 1152, which would give a felling range of 1162-1207.

Since there was no evidence of reuse amongst the timbers from the east section, it is possible that the revetment was constructed during 1220-1225. Even then, there are at least two possible interpretations:

1. The revetment was constructed in or just after 1220/1221 as indicated by the date of the upright 4978, and repaired in 1225 when the planks were pegged to the upright.
2. The revetment was constructed in or just after 1225 incorporating reused or stockpiled timber.

Regardless of which interpretation is correct (if either), the felling date range of 1243-1269 for the "reused" timber 3338 from the west section indicates that the revetment was probably repaired at least once. It is hoped that other archaeological evidence will help to clarify the tree-ring dates for this revetment.

Dendrochronological implications

Of the 116 samples submitted for analysis from periods VIII-XVII, 44 were rejected because they were unsuitable for dating, 39 were dated and 33
remain undated. This resulted in the production of a 247 year dated tree-ring chronology for the period AD997-1243 (Table 6). This master curve matches extremely well with other London chronologies (Table 7). It also gives high t values with reference chronologies from elsewhere in England. It will therefore be useful as a reference curve for dating timbers from other sites in England.

There are two undated master sequences. One is 170 years long and is from the XI.1 revetment; the other is 293 years long and is made up from five of the XI.8 drain sequences. The ring width data for these two curves are given in Tables 2 and 4. (The data from all the individual ring sequences are stored at the Sheffield Dendrochronology Laboratory where they can be consulted on request.) The lack of dating for these two sequences is unusual. The quantity of British Isles tree-ring data for the historic period is such that if a replicated tree-ring sequence can be produced, then there will normally be no problem in dating it. A possible explanation is that the timber came from outside the London area or from an environment where growth conditions were very different to those affecting the majority of the timber trees used at Billingsgate.

Conclusion

Although many of the samples were not dated, either because they were unsuitable for dating or because their ring sequence was undatable, the 39 dated samples have produced a 247 year chronology for the period AD997-1243. The individual tree-ring dates have provided a series of dates for the development of the Billingsgate waterfront during periods VIII-XI. This chronology appears to be more complicated than that for the earlier periods. A date range of 1172-1205 is obtained for the VIII.1 dumps, and a felling date of 1215/1216 for the period VIII.2 revetment. The period IX revetment has a felling date range of 1185-1214. If some of these timbers were reused in the XI.1 revetment, it may be possible to refine this date to 1211/1212. The periods VIII.2 and IX revetments therefore may be broadly contemporary. A precise date is not available for the period X timbers. A date range of 1208-1251 was produced for X.2, and a terminus post quem of 1207 for X.4. The XI.1 revetment was built from inferior quality timbers, many of which were reused. This makes interpretation of the tree-ring results very difficult. The most likely interpretation is that the revetment was constructed around 1220-1225 and repaired at least once in 1243-1269. No date was obtained for the period XI.8 drain, although an undated chronology of 293 years was produced. The samples from periods XIII-XVII proved unsuitable for tree-ring dating.

Acknowledgements

The Sheffield Dendrochronology Laboratory is funded by English Heritage. I am also grateful to Ian Tyers for unpublished data and computer software, to Cathy Groves for commenting on the text, and to Ken Steedman for providing information about the samples.

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Table 2: Ring width data for the undated chronology made up from 2658, 2663, 2672 and 2675 from phase XI.1. (Crossmatching within the group gives t values of 5.0 to 7.1.)

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Table 3: t value matrix for the matching sequences from the XI.8 drain.
(The inner part of 4960 is only 45 years long and is not included.)

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Table 4: The undated chronology from the Billingsgate XI.8 drain.

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Table 5: The chronology of the Billingsgate waterfront during periods VIII-XI as indicated by the tree-ring dates.
VIII.1  dumps  1172-1205
VIII.2  N-S front-braced revetment  1215/1216
IX.1  revetment  1185-1214
        (1211/1212?)
X.1  dismantled revetment  1185+
X.2  central building  1208-1251
X.4  extension to VIII.2 revetment  1207+
XI.1  E-W front-braced revetment - construction  1220-1225
        - repair  1243-1269
XI.3  dump behind XI.1 revetment  1055+
XI.8  drain behind XI.1 revetment  no date

Table 6: The Billingsgate period VIII-XI tree-ring chronology, AD997-1243;
data from 31 samples are included.

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Table 7: Dating the chronology from periods VIII-XI. t values with a selection of dated reference chronologies from London and elsewhere in England.

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