Thomas Soane’s buildings near Billingsgate, London, 1640–66

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SUMMARY: Excavations at Billingsgate in the City of London in 1982 uncovered extensive remains of the 17th-century buildings of Botolph Wharf. Changes to the structures, and an exceptionally rich array of artefacts datable to 1620–66 (the Great Fire of London), are attributable to the tenancy of Thomas Soane, grocer, and later of his widow. The artefacts and buildings demonstrate differing domestic and warehouse uses just before the Fire, and complement the documentary record. When taken with plan evidence from the Treswell surveys of c. 1612, the excavations prompt discussion of how warehouses fitted into the configuration of buildings in the pre-Fire City.

INTRODUCTION AND RESEARCH SETTING

This paper arises from archaeological excavations undertaken in 1982 on the site of Billingsgate Lorry Park, adjacent to the Billingsgate Fishmarket building in Lower Thames Street in the City of London (TQ 32960 80659; Fig. 1). The excavations found remains of a 3rd-century Roman waterfront and 10th- to 13th-century timber waterfronts. The analysis and publication of the medieval and post-medieval buildings above these structures is in progress.

The paper describes an investigation into one feature of the 17th-century development of the site — rebuilding work undertaken on Botolph Wharf from the 1620s up to the Great Fire of 1666 — and its proposed association with a grocer, Thomas Soane. These are placed in context in the port of London in the 17th century, a time of great change.

In the opening decades of the 17th century the grocers were one of the most important and powerful retail groups in the City of London, and had been for several centuries. As Pepperers they had formed some kind of association in the late 12th century, and as Grocers were one of the earliest guilds in London in the 14th century. Men from the Pepperers or Grocers were elected mayor several times in that century, though not as often as members of some other companies such as the Drapers, Mercers and Fishmongers. In the 1420s, it has been calculated, there were at least 102 men running grocery businesses in the City. Grocers dealt in spices, medicines and dyes, all imports, and both in the medieval period and the 17th century prominent members of the Company also had import and export businesses. In the 15th century at least one owned a ship; in the 1460s wealthy grocers who were also aldermen exported wool on a large scale. Others exported cloth and animal skins. When special companies were formed to develop areas of foreign trade in the later 16th century the Grocers took part, especially in the Muscovy Company, which was founded in 1555. They no doubt played a prominent part in exports, especially re-exports. For instance, the chief grocers exported to the Baltic in English vessels in the period 1565–1615 were sugar, currants, pepper, figs, ginger, rice, dyes, indigo, cloves, dates, saffron and nutmegs. By the 1640s there was a distinct merchant establishment in the City of London which controlled the import business and ran much of the City.
In the 1550s London accounted for about 90% of the total export of cloth from England as measured by customs duties; by 1604 it produced 91% of the country’s export duties on all commodities. This ascendancy, amounting almost to a monopoly on exporting and probably on importing businesses, came at a time of reorganization of the waterfront.

In 1559 Botolph Wharf was named as one of the Legal Quays of the Port of London (i.e. the prescribed zone where custom would be paid on exports and imports); most of the 24 named quays were between London Bridge and the Custom House, but three including the Steelyard were above the bridge. The stretch downstream, including Botolph Wharf, was in effect the Elizabethan Port of London for overseas trade. The Legal Quays were redefined after the Great Fire of 1666 and were then confined to the north bank east of the bridge; they remained so until the end of the 18th century.

The great range of imports to London and the many merchants involved are documented in the London Port Book for 1567/8. The story of the Primrose of Milton in Kent, its master Henry Church, illustrates how aspects of the port worked; according to the accounts the ship was of either 60 or 80 tons. During the year 1567–68 it made four voyages from Antwerp to the city, bringing cargoes of great variety. The London merchants who imported goods in the ship were predominantly grocers, mercers and clothworkers, but also leathersellers, girdlers and occasional representatives of other lesser trades. In the second voyage, which arrived in London on or shortly before 10 February 1568, 40 merchants were involved. The ten grocers among them concentrated on spices, hops and soap, but also imported other items.
Unfortunately we do not yet know where these grocers lived, nor on what wharves the commodities were landed. Some of the importers probably had their houses and warehouses inland, away from the riverfront.

The names of most merchants involved in the four voyages of the *Primrose* in this year differed with each trip, but one or two were involved in more than one voyage. Roger Warfield had another cargo when the *Primrose* docked on 14 August 1568: two barrels of treacle, 3 cwt of white lead, 6 cwt of red lead, 20 cwt of sumach [dried and ground leaves used in tanning], 24 cwt of hops, 150 lbs of gum, 20 cwt of liquorice, 21 cwt of prunes, three barrels of litmus, 75 lbs of turmeric, 3 cwt of fenugreek [a plant whose seeds were used medicinally and to make a yellow dye], and 1½ cwt of candy [crystallized sugar].

By the 1620s imports such as raw silk, currants and East Indian spices, particularly pepper, were monopolized by merchants of the Levant Company (formed by a merger of the Venice and Turkey Companies in 1592) and the East India Company (founded 1600). London's imports were roughly the same by origin of country and value in 1621 as they had been in the 1560s. In 1622 north and north-west Europe contributed 63% of London's imports by value, southern Europe and the Mediterranean 31%, and America and Asia only 6% between them. There was a surge of imports (especially sugar and tobacco) from America and Asia after about 1650, so that in the period 1663–69 the comparable figures were 45% from north Europe, 31% from south Europe, and 24% from America and Asia. At this later period much was re-exported, 87% of the re-exported goods going to continental Europe. The percentages by value of the main commodities being imported also changed; though textiles were the main commodity in 1622 and 1663–69, sugar and tobacco had risen from only 2% in 1622 to 10% in 1663–69.

A new factor was the colonies, and particularly America. The peak period of emigration to America was 1630–60. Virginia also provided a place of refuge for at least one London merchant fleeing his creditors, though few important City merchants moved; they preferred to stay in the capital and work through agents in Virginia. The importing of tobacco was, however, a profitable business. The number of importers in the City grew from 264 in the late 1620s to 573 by 1676. London merchants also controlled the trade with New England, at least in the 1640s; they imported American fish, which they sold on to Spain.

It has been said that ‘by the time that civil war broke out in England [in 1640], the country’s colonial expansion had brought little or no net increase in markets for English produce’. The archaeology of the American colonies is showing, by contrast, that ordinary objects of everyday use found their way from England, and probably largely via London, to the east coast of the United States from about 1610, and in large numbers.

In her study of material culture and consumer behaviour in Britain in the century after 1660, Lorna Weatherill made the point that ‘the expectations and lives of people in the commercial sector led them to be more interested in innovation and in varied domestic goods’. She further suggested that ‘these were the forerunners of the middle classes, noted in later periods for their materialism and their elaborate domestic interiors’. We can attempt to see how far the particular archaeological finds from Billingsgate might illustrate these tendencies in the generation before 1660.

The excavation of 1982 was carried out in the north-west corner of the available part of Billingsgate Fishmarket lorry park, a large open area on the west side of the 19th-century fish market building. It thus lay over the pre-Fire and later 17th-century Botolph Wharf, which historically comprised two blocks of land with a lane between, which had been pushed out into the river in stages of reclamation from the 10th century. The parish church of St Botolph Billingsgate occupied the north, street-side end of the western block. An alley or lane down its east end gave access to the wharf; this ran roughly down the middle of what was known by the 17th century as Botolph Wharf. The congested character of the area, immediately downstream from London Bridge, is also shown in Hollar’s Long View panorama, published in 1647, which was based in part on sketches of the 1630s (Fig. 2).

**BOTOLPH WHARF AND THOMAS SOANE**

The Muscovy Company (also known as the Russia Company, the merchants of the Russia House, or the Company of the merchants of Muscovia for the Discovery of New Trades) had evolved in 1555 from attempts to find a north-east passage to the East. Its merchants evidently needed a wharf. In 1577 the City renewed a lease of Botolph Wharf to them after the expiry of an old lease. The wharf was to be surveyed, perhaps indicating that there was a need for the repairs which are known to have followed. In 1581 the company obtained a new lease for a term of 31 years on the expiry of the existing term, for the old rent and an entry fine of £400 and paying for all repairs. No stranger or alien was to live on any part of the wharf during the term. In 1588 the same lease was extended for
seven further years in respect of the great costs and charges borne by the Company as a result of the ruin and great decay of the premises. The Company had presumably laid out money on repairs, but they may have been to the wharf area south of the excavation site.

In 1615 the Company’s lease was renewed for 31 further years, but in 1622 Thomas Soane, grocer, was granted the residue of the term of the existing lease. In 1645 he acquired a new lease, on surrender of the old one, for 31 years from midsummer for a fine of £2,000 and an annual rent of £50. He was to rebuild the tenement on the east side of the wharf within the next five years. In 1652 Elizabeth Soane, widow of Thomas, was granted a new lease for 61 years for the old rent and an entry fine of £900.

The City did not own all the buildings on the wharf. At the north-east corner stood St Botolph’s parish church, with its north side on Thames Street and its east end on the lane which led to the wharf. In the 15th century it had expanded over a large vaulted undercroft which formed part of an adjacent house on its south side. South of this again, at the south-east corner of the enlarged church, was a further small stone building used as a vestry, which also had a cellar beneath. These two vaults were of some commercial value to the parish. On 6 July
1595 the vestry agreed that the two cellars upon ‘Buttole Wharf’ should be let, apparently for the first time — the ‘little cellar’ at 33s 4d per year, or at 30s at the discretion of the churchwardens, and the ‘great cellar’, under one of the aisles of the church, at £4 per year. The vault under the church was tenanted by Christopher Nicholls between 1603 and 1608, by John Amherst (as agreed by the vestry on 21 July 1608) until 1611/12 and by Nicholls again until 1617, when his place was taken by Benjamin Decrow, also the tenant of the vault beneath the vestry. From that date onwards the vault from water. In that year Mr Wigmore, the tenant of one of Wigmore’s successors as tenant of an adjacent house) did the job in 1656/7 and 1658/9, and George Porter in 1659/62 (at £1 2s 0d). In 1660/1 a Mr Meard was paid £1 17s for ‘fixing on a pump in the cellar at Hammonds key lane’, evidently at the west end of the church.22

It is notable that the flooding and pumping were only mentioned in connection with the vault under the church, never specifically with the one under the vestry. The constant inconvenience caused by what was presumably seepage of ground water had no effect on the continued occupation of the church vault by successive tenants. There was not even a reduction of the annual rent: it remained fixed at the rate of £6 13s 4d set in 1609/10, some 20 years before the problem first came to the attention of the vestry. A truer indication of the decreased value of the vault is however apparent when its rent is compared with that for the parish house in Botolph Lane, where the sum was increased at each new tenancy; whereas in 1609/10 the annual rent for the parish house was a mere £4, considerably less than the charge for the vault, it was to rise to £8 in 1617/18, to £10 in 1657/8 and to £14 in 1661/2, while the rent for the vault remained constant.23

The only other references to the vaults concern the provision in 1617/18 of a door with a lock giving access to the great vault, and the purchase of iron to make bars for the ‘cellar window’ in 1625/6. A little more detail is available for the vestry above the little vault. In 1619/20, 3s was expended on the ironwork of its door and the mending of its lock. The room was ‘made clean’ in 1625/6; and in 1626/7 three panels of wainscot were mended there.24

Thomas Soane is first mentioned in 1622, when he was granted the residue of an existing lease for Botolph Wharf. He is mentioned several times in the records of St Botolph’s parish. In 1632 he was elected one of five assessors for the poor, though he appears to have served only for six months, and again in 1635. He continued being a member of the parish vestry and in 1643 was nominated as one of five assistants who helped regulate the seating of parishioners in the church; in 1643 he was also one of eight who assessed the repairs required for the church. He is occasionally called ‘Mr Soame’ or ‘Mr Soames’, and as the latter is called a Common Councilman (presumably for the ward of Billingsgate) in the vestry minutes in 1642.25 He is not, however, to be confused with the more prominent Thomas Soames, a rich Levant Company trader who was alderman and sheriff in 1638; he was active from the 1620s and still alive in 1649, two years after Soane’s death.26

In the churchwardens’ accounts from 1603 the little cellar or vault was consistently described as lying under the vestry; it was leased from that date until the Great Fire for an annual rent of £1, rather than the figure that had been recommended in 1595. The vault beneath the church was leased for £4 per year until 1609/10, when the rent was increased to £6 13s 4d, the rate which was still charged in 1666. The recorded occupants of the little vault beneath the vestry were Benjamin Decroe or Decrow (1603/4–1621/2), Andrew Walker (1622/3), Thomas Soane (1623/4–1646/7), his widow Elizabeth (1647/8–1657/8), a Mr Peacock (1659/60–1660/1), a Mr Meard was paid £1 17s for ‘fixing on a pump in the cellar at Hammonds key lane’, evidently at the west end of the church.22

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Thomas Soane is mentioned as one of the Court of Assistants of the Grocers' Company in 1635. In 1637 he was elected Second Warden for one year only. In July 1638 there was apparently an altercation with the company cook. The Court heard that ‘this day Mr Morris and Mr Sone two of the late wardens informed the Court of the abusive carriage and demeanor of Mr Hamond this Company’s cook towards them on the late election day’; Hamond was warned not to repeat his behaviour, on pain of dismissal. Soane was one of the wardens again in 1644/5, when he is recorded as tenant of a Company property including a stable in Knight’s Alley, Eastcheap. Unfortunately this cannot be located precisely, as it is not named on the first detailed street map of the City by Ogilby and Morgan in 1676.

Soane attended a meeting of the Court of Assistants on 13 October 1647. His will is dated 27 December 1647. At a meeting on 6 September 1648 his widow, a tenant of the Company in Eastcheap, complained that she had been disturbed by building work in a neighbour’s house, and the wardens were asked to view the problem and take up her case. This reference suggests that Soane’s main dwelling place during his life was his Eastcheap house, at least from 1644/5 until his death three years later. He appears to have had no living children at his death, since his bequests to family members were to other relatives. He gave his property in Enfield and elsewhere to his wife, except a tenement in Norton Folgate called the Black Talbott, which he left, with the rent from an adjoining house, to John Soane.

Soane was not the only grocer with links to the wharf. In 1656 John Wardall, a grocer and member of the Levant Company, bequeathed £4 in rents to the Grocers’ Company to provide for ‘a good and sufficient iron and glass lantern, with a candle, for the direction of passengers to go with more security to and from the water side, all night long; to be fixed at the north-east corner of St Botolph’s church, from Bartholomew Day to Lady Day, and £1 to the sexton to take care of the said lantern’. This was still being paid in the 19th century.

The Great Fire of London swept over the site in September 1666; it started only about 80m to the north in Pudding Lane. Ogilby and Morgan’s map of 1676 shows Botolph Wharf and its surroundings as rebuilt after the Fire (Fig. 3).
THE EXCAVATION

By the opening of the period reported here, about 1600, the lane which bisected the site north–south was bordered by buildings on both sides, including the parish church of St Botolph, Billingsgate. A group of developments, described in the excavation report34 as phases within periods 15 and 16 of the entire development of the site from the Roman period, is discussed here. The paper is concerned with the excavated buildings in two locations (Fig. 4):35

(i) new buildings on the east side of the lane which bisected Botolph Wharf (Buildings 10 and 11);
(ii) repairs and rebuilding of buildings south of the church, on the west side of the lane (Buildings 7 and 8).

Building 7 was the 15th-century vault beneath the south part of the church, described above. It had a stair and entrance to the lane, flanked by windows, in the manner of medieval undercrofts elsewhere. Next and to the south was Building 8. At its north-east corner were the remains of a small chamber on the lane which is likely to be the ‘little vault’ beneath the vestry of the church. It is reported here as part of Building 7.

These phases have been divided further into seven building events, described in detail below:

(1) Buildings 10 and 11, probably built together, east of the lane, which was resurfaced (period 15.4–15.6).
(2) Alteration to Building 10, probably with a stair (15.7–15.8).
(3) Rebuilding of Building 8, west of the lane (15.9).
(4) Repairs along the lane: resurfacing of the lane, repairs to the windows of the vault of Building 7, west of the lane; removal of the alteration to Building 10 (15.10).
(5) Rebuilding of interior of Building 7 (16.1).
(6) Infilling of drain in Building 10 (16.7): the Great Fire?
(7) Resurfacing of the lane and insertion of a water pipe (16.8).

These seven construction phases or events form the backbone of the narrative provided by the archaeological evidence. All fall in the narrow period 1620–66; but as they took place in discrete parts of the site, each must be studied and dated separately on internal evidence before they are laid out in chronological order (Table 1).

In the text below the account of each phase follows a single scheme: first the stratigraphic narrative, then notes on the finds in the order of building materials, pottery, coins, and artefacts of individual note. This reflects the fact that the dating of each phase will depend upon the pottery and coins, with individual artefacts only rarely contributing to the dating. The social or historical significance of all the artefacts is then explored.

All the pottery from these phases has been examined in accordance with current MOLA procedures and quantified by sherd count (SC), minimum vessel count (MNV), estimated vessel equivalents (EVEs) and weight in grams. The London tin-glazed wares were recorded according to the system proposed by Clive Orton for pottery excavated at Mark Brown’s Wharf.36 The clay tobacco pipes were assessed by David Higgins in 1989. The London pipe bowls have been classified and dated using the chronology developed by Atkinson and Oswald,37 with types prefixed by the letters AO.

(1) THE CONSTRUCTION OF BUILDING 10 AND BUILDING 11 AND A RESURFACING OF THE LANE (Fig. 5)

To the east of the lane, a range of buildings consisting of several rooms was constructed. Although they seem to have been erected at the same time, they varied sufficiently to suggest that they could be divided into two separate structures, Buildings 10 (to the south) and 11 (to the north, probably fronting onto Thames Street).

Building 10

To the south, a 1.1m wide north–south chalk wall was constructed along the west side of a wider trench cut along the lane side; it formed the west wall of Building 10 (Period 15.4). The upper parts of its eastern face were mainly faced with red brick, which may well suggest some later rebuilding. The eastern side of the cut was floored with chalk and lined with a separate chalk and brick wall to form a contiguous drain, which sloped southward. Extending from the north end and central section of the cut were two similar east–west brick- and chalk-floored drains with brick sides; the bricks used in the main drain were slightly larger than those used in other parts of the structure. The presence of timber fragments in the drain and decayed beams in the brick facing of the west wall suggest that the drains had been provided with wooden covers. The northern parts of the system were filled with dark organic silts, some of which presumably accumulated during the lifetime of the drains, although they contained a wide range of discarded household items (below). The level of the drain floors suggests that they would have been flushed
FIG. 4
Outline plan of Botolph Wharf, London, in 1600, showing the site of the excavated buildings and surrounding contemporary boundaries including Thames Street (drawn by Carlos Lemos).
by the tide several times a day unless they were protected by a sluice gate. It is possible that rather than being for industrial or commercial use, the drains were public latrines; there is no other specific indication of function.

An east–west wall of Reigate stone and chalk, with a flint string-course on the north side, was constructed next to the southern drain to divide the area into Rooms i and ii. Its differing materials and bonding imply that it may not have been constructed at the same time as the rest of Building 10. The wall appears initially to have stopped at the main drain, but a brick arch subsequently carried it across the drain, where it was bonded to the outer wall. Two short parallel brick walls were built on the arch, with an intervening fill of silt.

### Table 1

The excavated phases at Billingsgate, London (BIG82), and their suggested dates.

<table>
<thead>
<tr>
<th>Period and phase, main activities</th>
<th>Dating, character of finds, relations with other phases</th>
<th>Attributable documentary evidence</th>
<th>Suggested date</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Construction of Buildings 10 and 11 east of the lane, probably together</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>15.4 Building 10, E of the lane; includes fill [1389] of drain</td>
<td>pottery 1630–80, domestic</td>
<td>Thomas Soane, leaseholder from 1622, agrees to rebuild within five years of 1645 as above</td>
<td>1645–60s</td>
</tr>
<tr>
<td>15.5 Building 11, N of Building 10 and probably contemporary</td>
<td>pottery 1480–1700</td>
<td></td>
<td>1645–60</td>
</tr>
<tr>
<td>15.6 resurfacing of lane</td>
<td>seals 15.4 B10 construction; pottery 1350–1500 (residual)</td>
<td></td>
<td>1645–60</td>
</tr>
<tr>
<td>(2) Alteration to Building 10, probably construction of a stair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.7 another resurfacing</td>
<td>pottery c. 1480–1600</td>
<td></td>
<td>1645–60</td>
</tr>
<tr>
<td>15.8 frontage of B10 to lane altered</td>
<td>no pottery</td>
<td></td>
<td></td>
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<tr>
<td>(3) Rebuilding of Building 8, west of lane</td>
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<td></td>
<td></td>
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<tr>
<td>15.9 Building 8 S of church and W of lane rebuilt, cellar lowered and drain put in; lasts until Great Fire</td>
<td>pottery 1630–80; not very domestic</td>
<td>leased by Thomas Soane from 1641</td>
<td>rebuilt 1630+ by Soane or previous tenant</td>
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<tr>
<td>(4) Resurfacing of lane and amendment to entrances of Buildings 7 and 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.10 lane resurfaced; entrances to B7 and B10 altered to take account</td>
<td>pottery c. 1600–1700</td>
<td></td>
<td>? 1650s</td>
</tr>
<tr>
<td>(5) Rebuilding of the interior of Building 7 (great vault)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.1 rebuilding of vault beneath S aisle of church (Bdg 7), blocking of windows, drain</td>
<td>pottery 1580–1630, phase is later than 15.10</td>
<td>Soane leased this also from late 1620s; phase must be later than 1625–26 when one window’s iron repaired</td>
<td>either 1629 or 1650s</td>
</tr>
<tr>
<td>(6) Infilling of drain in Building 10, further works</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.7 further works in basement of B10; rebuilding of part of W side on lane</td>
<td>pottery 1550–1700; wall tiles in drain</td>
<td></td>
<td>1660–66 (possibly including Great Fire debris)</td>
</tr>
<tr>
<td>(7) Resurfacing of the lane and insertion of water pipe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.8 resurfacing of lane and insertion of water pipe</td>
<td>pottery 1660–80</td>
<td></td>
<td>1660–66</td>
</tr>
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</table>
mortar and brick. They seem to have formed the sides of a downpipe or chute running along the main wall, but with no apparent connection to the drain beneath; it may have emptied into the street. Next to the northern drain the north side of Room ii was bounded by a narrower north wall of chalk.

Mixed layers including building materials were used to level the floors of the two rooms. The top of the west wall of Room i was sealed by similar deposits, which continued into the lane, demonstrating that the room was probably open-fronted, no doubt with a large arched entrance protected by shutters. A series of cuts intruded into the dumps where they crossed the wall, one of which contained a square pier of mortared rag, flint and chalk cobbles. Since this was presumably a secondary feature, it may well have been added to help support the north end of the entrance arch. A circular post-pit to the south and an east–west slot which partly overlapped the main wall may...
have been related to the construction of the superstructure, supporting, for example, scaffolding for centring the arch. It is more likely, however, that they were the remains of installations connected with the use of the arced space after construction had been completed, since a second slot was cut to the south in a subsequent surface. Sandy make-up formed the floor of Room i.

The make-up in Room ii was cut by the irregular trench for a 0.6m-square brick pier base. A sand make-up similar to that in the neighbouring room was then laid to support a brick floor, which may have been a later feature. The bricks were laid in north–south lines, with a single course of east–west bricks dividing the floor into two panels opposite north side of the pier base, possibly marking the position of an internal division. The south end of the floor was bounded by three similar rows. A small plinth two bricks deep was laid on the floor against the face of the south wall of the room; its purpose is unknown.

Ceramic building material

Most of the bricks used in the construction of Building 10 were very similar in size, suggesting they were contemporary.\(^{38}\) Those used as the Building 10 were very similar in size, suggesting they were contemporary.\(^{38}\) Those used as the east revetting wall of the north–south drain and the drain base (context [1793]) in the southern room were slightly larger.\(^{39}\) It is possible that these were earlier bricks which had been reused. Both sizes of brick were used to form the plinth marking the southern edge of the floor in the second room.

Complete peg roofing tiles (fabric 2276) were used with the smaller red bricks in the drain wall and were incorporated in the brick walling of the culvert arch.\(^{40}\) A small quantity of roofing slate was found in deposits in the culvert (context [1389]), together with a ridge tile partly covered with white slip decoration. The use of white slip on roofing tile is extremely rare in London, although fragments of slipped ridge tiles have been found on the site of the Rosary, a royal residence constructed by Edward II in 1324–25.\(^{41}\) Similar tiles were also found just north of the city walls in the Finsbury Pavement area.\(^{42}\) The only other roof tile of note is a pantile, which is unlikely to date earlier than 1630.\(^{43}\)

Pottery (Figs 6–10)

Context [1389] is described in the archive report as ‘a loose pebbly spread of coarse sand, some darkish brown-black silt and various inclusions of bone, pottery and wood’ which accumulated on the brick base of the culvert. This silty character indicates that [1389] accumulated over a period of use, and was not backfill deposited in an instant. Period 15.4 yielded by far the largest group of pottery in the study, chiefly of late 16th- to 17th-century date, from the very large single context [1389] which formed the fill of the drain (724 sherds from a minimum of 284 vessels or 19.47 EVEs, weighing 11.184kg). Most of the other finds in this phase were recovered from the same context.\(^{44}\)

Context [1389] can be dated on the pottery alone to 1630–80 by the presence of sherds from several vessels in Metropolitan slipware (METS) and tin-glazed ware (TGW) decorated in styles typical of the mid-17th century. The final deposition date can be further refined to c. 1660–80 by the clay pipe evidence (see p. 303). The presence of sherd links with Period 16.7 shows that rebuilding within Building 10 disturbed material deposited in the drains. Much of the coarseware recovered represents fabrics and forms made and used with little discernible change from the mid-16th until the end of the 17th century (notably London-area redwares and Surrey-Hampshire border wares). There are, however, very few sherds from common 16th-century pottery types, such as early post-medieval London-area redware (PMRE), and it is most likely that the material in the culvert accumulated over the first half of the 17th century, with final deposition occurring in the 1660s. The latest sherd found is of Chinese Batavian porcelain, probably dating to the last quarter of the 17th century. This may be intrusive, but does not alter the overall impression that the bulk of the deposit was made during the middle decades of the 17th century.

The most common kinds of pottery found in [1389] are Surrey-Hampshire border wares and Essex fine redwares made in the Harlow area, each accounting for almost one third of all pottery by each of the statistical measures used. White border wares (BORDG, BORDY, BORDB) outnumber redwares (RBOR) from the same source by approximately 3:1, which is usual for 17th-century assemblages from London. Serving vessels predominate, with sherds from at least sixteen flanged dishes or platters\(^{45}\) and fifteen porringer or small, handled bowls used chiefly for spoon foods and often sooted from heating\(^{46}\) (Fig. 6:1). Other forms of deeper bowls and dishes\(^{47}\) identified could have been used in a variety of ways in the kitchen and at the table. Cooking vessels consist mainly of tripod pipkins (sherds from 17 vessels), as well as one skillet, while other kitchen vessels include part of a colander of flared dish form in RBOR, with square holes (Fig. 6:2). Drinking vessels are well represented, with sherds from at least ten rounded mugs, all but one of them in whiteware with overall brown glaze (Fig. 6:3). Undecorated mugs of this kind were common in the mid-17th-century material from Minley Road, Cove (Hants.).\(^{48}\) Related in form are two redware mugs or caudle cups of the
kind better known in contemporaneous tin-glazed ware. Two whiteware chamber pots (Fig. 6:4) are represented by several sherds each and may have been dropped and broken while being emptied, a common occurrence. More unusual are the remains of seven whiteware moneyboxes, with clear (yellow) or green glaze (Fig. 6:5).

Fine red earthenwares, which came largely from potteries centred on Harlow in Essex, were entering London from c. 1580, and include both
FIG. 9
undecorated and slip-decorated wares. Plain, clear-glazed, utilitarian forms (PMFR) largely mirror those common in the assemblage in Surrey-Hampshire border ware. These include flanged dishes and bowls (Fig. 6:6–7) as well as porringer and tripod pipkins similar to those made in border ware, except that they have a solid, curved handle instead of a tubular one and are glazed overall, inside and out (Fig. 6:8). The same kilns in the Harlow area also specialized in making drinking vessels and other forms with a glossy, overall black glaze (PMBL); sherds from at least thirteen mugs, mostly of rounded form, were found in the assemblage, as well as sherds from four jugs. This highlights the marked emphasis in the group on vessels used for serving — both food and drink, and in various different fabrics — greatly outnumbering forms used in the kitchen and elsewhere in the home. Amongst these is an unusually large amount of Metropolitan slipware (METS), accounting for 9.8% of all pottery by sherd count (8.5% MNV, 7.1% EVE, 12.9% weight). This strikingly decorative pottery was also made at the Harlow kilns and is found in London in contexts dating from c. 1630 to 1700. Serving vessels are again the main forms represented, including part of a small flanged dish and a small flared bowl, decorated inside and out (Fig. 7:9–10), as well as the substantial remains of a rounded jug (Fig. 7:11). Sherds from at least thirteen more flanged dishes were also found, and part of a highly decorated chamber pot (Fig. 7:12).

By comparison with the Surrey-Hampshire borders and Essex potteries, London area redwares (PMR) are noticeably less common (109 sherds, 35 MNV, 2.90 EVEs, 1.789kg). The heavy-duty local coarsewares catered mainly for everyday household requirements, particularly cooking and storage vessels. Sherds from at least nineteen cauldrons and pipkins were identified, as well as skillets, jars and chamber pots, but no industrial vessels.

Tin-glazed earthenwares (TGW) are the third most common kind of pottery in context [1389], accounting for 19.3% of the group by sherd count, 18.7% MNV, 14% EVE and 15.3% by weight. All are probably London-made, ranging in date from the second decade of the 17th century to the 1660s, with some styles continuing into the 1680s. Dishes are by far the most common form, represented by 38 sherds from at least 24 vessels, with blue and white or polychrome decoration. Among these are sherds from two dishes decorated in the Wanli style, derived from late Ming Chinese blue and white export porcelain (Fig. 8:13). Part of a bowl with a pedestal foot is decorated inside in deep blue on white with the Chinese-inspired late Ming bird-on-rock pattern (Fig. 8:14), typical of production at Christian Wilhelm’s Pickleherring Quay pothouse in Southwark in the second quarter of the 17th century. Other dishes and rounded bowls in the same group are decorated largely in geometric patterns popular during the early to mid-17th century (Fig. 8:15–16). There are also sherds from seven porringer of rounded form, mostly decorated in blue and white, with a similar range of geometric designs, including intersecting arcs, ‘flowery tufts’ and stacked lines (Fig. 9:17–19). As with Surrey-Hampshire border wares and Essex redwares, vessels of this form were mainly used to serve semi-solid spoon foods. Sherds from seven mugs in TGW include one with a manganese-powdered glaze externally (Fig. 10:20), typical of mid-17th-century Southwark manufacture. Part of a cylindrical mug with plain white glaze is decorated with rows of thumbed bosses and is of similar date. There are also sherds from two mugs or caudle cups with plain white glaze (Fig. 10:21). Much more unusual is part of a mug decorated in blue on white with the arms of the Worshipful Company of Cordwainers (Fig. 10:22 with detail). The coat of arms dates from 1579, probably confirming arms in use for much longer, and shows a chevron with three goats’ heads. A horizontal band running around the body of the mug was originally inscribed with a motto or name, now illegible through damage. The geometrical decoration above and below the band, as well as the shape of the vessel, suggests a probable date in the 1650s. In addition to these drinking and serving vessels, there are also sherds from four candlesticks with plain white glaze.

A varied array of continental imports was recovered from context [1389]. Among the more decorative of these are four sherds of Portuguese tin-glazed ware (POTG), including part of a bowl with Wanli-style decoration similar to that found on early 17th-century Southwark tin-glazed wares (see above). A small sherd of early 17th-century Ligurian maiolica (LIGU) comes from northern Italy, while part of a starred costrel (STAR) was made in the Seville area. Far more unusual is part of a beaker in Iberian fine whiteware (Fig. 10:23). These high-quality, fragile tablewares were never a regular trade item with London, but are known in small numbers as luxury items in the Low Countries. Fine, unglazed redwares were made in imitation of Roman terra sigillata in Estremoz, Portugal during the second half of the 16th century and into the early 17th century. The potters specialized in making distinctive tablewares in antique and Renaissance styles, which became popular in late 16th-century courtly and aristocratic circles in Spain and Portugal. At the beginning of the 17th century the fashion spread to the Low Countries,
where Estremoz ware has been excavated on several sites. The same forms were also made in a fine white fabric, which John Hurst tentatively ascribed to the Seville area of south-west Spain, but which could well have been made in Estremoz alongside the *terra sigillata*. The Billingsgate find has an off-white to buff fabric, degraded by burial, and consists of seven sherds from a vessel with deeply incised horizontal bands below the rim and at intervals around the body, separated by pronounced vertical fluting. It was probably part of a handled cup or beaker. The presence of such a rare vessel in the large mid-17th-century assemblage from Billingsgate is intriguing, although it was found in a context that included an unusually high proportion of decorative ceramics, suggesting relatively wealthy ownership.

Sherds from three cauldrons or pipkins in Dutch red earthenware (DUTR) represent more common and prosaic imports, along with part of a globular flask in Martincamp-type ware from Normandy (MART), probably associated with the wine trade. Rhenish stonewares are the most common imports into London during the early to mid-17th century, and are represented by a near-complete *Bartmann* jug or Bellarmine in Frechen stoneware (FREC) with a simple rosette medallion (Fig. 10:24), as well as numerous body sherds including one rosette with a double-headed eagle. *Bartmänner* were used principally for wine until the development of the English bottle glass industry in the 17th century made their importation redundant. Trade with the Rhineland continued, however, with grey stonewares decorated with cobalt continuing to enter London from Westerwald and other centres well into the late 17th century and later. Several sherds from two such vessels were found in context [1389]. These include part of a late Raeren stoneware biconical jug (RAER) with cobalt decoration over grey stoneware externally and a brown wash inside (Fig. 10:25). A central band separates upper and lower zones divided into panels with stamped foliate motifs. Similar forms were made in Westerwald stoneware during the first half of the 17th century. The lower part of a baluster jug in Westerwald stoneware (WEST) has an overall blue background with rows of applied rosettes in lenticular panels and floral motifs (Fig. 10:26). The jug probably dates to the first half of the 17th century.

Seven sherds of Chinese export porcelain include part of a blue and white plate decorated in the distinctive late Ming style that inspired delftware potters in Portugal, the Low Countries and in London during the early to mid-17th century. The rim is slightly fluted and divided into decorative panels that would have incorporated various Chinese symbols. The Ming dynasty fell in 1644, and the ensuing period of civil war in China interrupted trade with the West, with the result that the importation of porcelain into England did not resume until about 1680. Late Ming porcelain is not common in excavated contexts from London and would have been something of a luxury in the early 17th century. Part of a Batavian-style tea bowl, with dark brown glaze outside, probably dates after about 1680 and is the latest item identified in the pottery from [1389]. Given the clear mid-17th-century dating for the deposit as a whole and the apparent coherence of the assemblage, this later tea bowl could be intrusive.

**Other artefacts**

Two coins and a jetton were recovered from context [1389]. One of the coins, measuring 15mm in diameter, is in poor condition, but is a copper farthing, probably an issue of 1648–72. The other is a Charles I rose farthing, dated to 1635–44. The jetton or trade token, issued between the late 1580s and the mid-1630s, is described by Egan in Appendix 1 (p. 336, item <1486>). A total of 153 registered finds were recovered from period 15.4, the second largest 17th-century finds assemblage on the site. Glass is by far the most common material represented (57 accessions), with copper alloy, ceramic, natural fibre and wood also numerous (24, 16, 12 and 10 accessions respectively). The main emphasis is on household utensils and personal items, making a marked contrast with finds from the other large 17th-century assemblages from the site. Eating implements or cutlery are represented by five handles: two in wood, one in bone and two in ivory. The one-piece bone handle (Fig. 11:27) has an incised design running diagonally around the handle, with a florid ‘head’ (a Tudor rose?) at one end and a tapered tail at the other, where the handle appears to have been cut straight across. The metal tang has not survived. One of the ivory handles, also made in one piece, is elaborately decorated with carved and incised lozenges and a shell-shaped terminal (Fig. 11:28). The handle was probably made for a knife; part of the iron tang from the blade is visible at the end, running through the length of the handle. It probably dates to the mid-17th century and would have been part of an elegant and superior set of cutlery. Another ivory handle from the same deposit is far plainer, with a simple rounded end, approaching the pistol grip form, and no decoration. Measuring 53mm in length and 12mm at its widest point, it has a rectangular section, and is probably similar in date to the more decorative knife described above.
The two wooden handles include one incomplete example with incised spiral decoration, and a larger, undecorated knife handle, 72mm in length, with part of the iron blade surviving at the shank, its tang running right through the handle, in common with 17th-century manufacture. No metal knife blades were recovered separately from handles. The only other eating implements found were two wooden spoons, one of them incomplete, with an oval bowl and moulded handle (Fig. 12:32), and the possible knob from a third spoon. Wooden spoons rarely survive archaeologically, although they were doubtless common in early modern Britain.

The only recognizable tool is part of a probable awl, of the kind used for leatherworking. A rounded wooden handle has part of the iron shaft surviving, although incomplete, thereby hindering definite identification. A copper-alloy hook, 80mm in length and with a square section, was also recovered.

The large quantity of glass found consists chiefly of drinking vessels, bottles and phials. These include the complete bases of four case bottles, three of them in pale green glass and one in a darker olive green metal. Blown into a square-sided mould, with the pontil mark visible under the base, they were carried and sold in cases generally holding a dozen bottles each. Two are 52mm square, two 60mm. The form was common in the early to mid-17th century; it was made in both England and the Netherlands and would have been used for alcohol. Fragments of seven pharmaceutical phials were also found, four in pale green glass and three in dark olive green glass. They are too fragmentary for their forms to be reconstructed accurately, although they all appear to be typical of the early to mid-17th century, with a more or less cylindrical form and slightly flared, short neck.

Fragments of at least nine stem goblets, all in colourless glass, include two inverted baluster stems. These were a staple product of Mansell’s glasshouse in Broad Street in the City, and were found in the early 17th-century Gracechurch Street hoard. Sir Robert Mansell gained control over the English glass monopoly in 1618, which ended with the death of Charles I in 1649. Fragments from three stem goblet bases, with folded foot, and from at least three rims were also found, as well as fragments of at least three beakers. One of these consists of the base of a pedestal beaker, folded back on itself to form a narrowed constriction and an enclosed base-ring. The vessel is made in a pale green potash glass and was first made in England in the late 16th century, continuing in production up to the mid-17th century. One of the most common types of glass drinking vessel found on excavated English sites, they were most probably used for ale and beer. In addition to drinking glasses, context [1389] also yielded fragments of at least three flasks, two of them pale green and one in colourless glass with optic-blown wrythen ribs. Several very small fragments of colourless vessel glass are badly crissled (crazed and scaly), a fault that initially affected Ravenscroft’s lead or flint glass, developed in 1662, and was soon remedied by the addition of lead oxide, which gave a clear and brilliant metal.

One other drinking vessel is represented in context [1389] by the complete pewter lid and fittings still attached to part of the handle of a Westerwald stoneware jug that would have had a relatively small rim diameter of 45–7mm (Fig. 12:34). The vessel was most likely of rounded (biconical) form with cobalt decoration in zones and panels around the body, typical of the first half of the 17th century.

Personal adornment, needlework and grooming are represented by an interesting array of items. A complete undecorated ivory needle case with a screw thread at one end and part of the lid surviving would have held either needles or pins used in needlework (Fig. 11:29). Small copper pins are very numerous in the same context, measuring up to 45mm in length, most having a small rounded head. The 16th and 17th centuries saw an increased demand for smaller, finer pins, led by changes in fashion that called for considerable numbers to be used with ruffs, folded and pleated headdresses and other items of clothing. Made with thin shafts and small heads, they were designed to be less visible, and were also used in sewing. Ten cloth samples were recovered, all natural fibre (not identified) and part of one leather shoe. Four undecorated copper-alloy lace-tags or ‘aiglets’ would have been used to stop the ends of laces fraying, and to make it easier to thread points for fastening items of clothing such as hose and girdles. They are all of the folded sheet metal type that would have cut into and firmly held the end of a leather lace or fastening.

Other personal items include a single spectacle lens of low magnification, 35mm in diameter, and...
Billingsgate, London, phase 15.4. 32. Wooden spoon; 33. Wooden stopper from a spice grinder or pepper mill;
34. Pewter lid from a Westerwald stoneware mug (drawings by Jacqueline Pearce; photograph, Andy Chopping).
the end of a pipeclay wig curler with no maker’s mark. One of two ivory double-sided combs has survived in good condition and is finely made, with one flat and one very slightly convex face (Fig. 11:30). It measures 52 × 60mm, and most of the teeth are intact. Although the ivory is quite scratched, there is no obvious sign of the teeth having been cleaned with a pin, so it may not have seen much use. The other ivory comb is less complete and less carefully made, with very widely spaced, almost spatulate, teeth on one side (Fig. 11:31). These rectangular, double-edged hair combs remained common throughout the 17th century and beyond and were made in a variety of materials, including tortoiseshell (from the hawksbill turtle). A single tooth from a tortoiseshell comb was also found in context [1389].

Leisure activities are represented by twelve ceramic alleys or ‘marbles’. They measure 13–19mm in diameter, 16–17mm being the commonest size. All but two are in a dark grey-brown stoneware and a few have patches or splashes of glaze. Numerous traditional games in England involved the use of marbles of different materials, usually stone or ceramic, and from Victorian times, glass. Ceramic and pipeclay marbles were often painted, although there are no traces of colour on the Billingsgate examples. The earliest evidence for purpose-made gaming marbles dates to the 16th century. Plain marbles of this kind are impossible to source and could have been made by any number of potters or pipe makers. At this date, however, stoneware examples are most likely to have come from the Continent, with the potteries of the Rhineland already supplying England with considerable quantities of stoneware, especially the ubiquitous Bartmann jugs. The manufacture of stoneware in Britain did not take place until the 1670s, when John Dwight set up his pottery in Fulham, and this is very unlikely to have been the source of the Billingsgate examples.

Part of a spice grinder or pepper mill is a most interesting find in the context of Thomas Soane and the Grocers’ Company. A turned, rebated wooden end piece, incomplete at its lower end, has four neatly made round holes, arranged around a central hole (Fig. 12:33; Appendix 1).

A wide range of clay tobacco pipes was also recovered from context [1389]. Forms identified span a more or less equal range for all periods between c. 1610 and 1680, although the end date for the group is probably in the 1660s. The material appears somewhat disturbed, and includes a high proportion of residual fragments. One of three pipes with a stamped maker’s mark was found in this context: a type 5 dated to c. 1610–40, in Atkinson and Oswald’s 1969 London typology. The mark is in the form of a six-spoked wheel, stamped in relief underneath the heel. This is one of the more common 17th-century makers’ marks, appearing in several different forms throughout the century, although it is impossible to identify pipemakers from symbols alone.

Viewed as a whole, the finds assemblage from Building 10 in period 15.4 shows a strong emphasis on the household, with a high proportion of good-quality, decorative ceramic tablewares and glassware, as well as cutlery and noteworthy items associated with dress, personal adornment and grooming. This makes a contrast with some of the larger assemblages recovered from later phases on the site.

**Building 11**

The precise boundaries of the individual internal spaces within Building 11 (allocated to Period 15.5) could not be identified with accuracy, and the excavated remains are described from south to north (Fig. 5). The outer wall of Building 10 continued northward to a 1.1m-wide brick-lined doorway directly opposite the entrance to the undercroft. The doorway was constructed mainly of a larger and earlier brick type. It could be argued that the room into which it led was part of Building 10, or of Building 11. The north side of this room was formed by a 0.35m deep east–west foundation which carried a shallow roughly coursed brick and chalk terrace wall supporting the higher deposits further north; the earlier surfaces beneath the room were truncated by terracing. Sandy make-up was deposited for a floor of bricks laid in north–south lines, with a single east–west row against the north wall.

On the north side of this room were traces of an east–west passage with a brick wall forming its north side; and then probably two rooms, the northern one with a brick floor and the southern with fragments of joists and floorboards. There may have been two further access points to the lane, presumably doorways.

Red bricks (probably all fabric 3033) of different sizes were used in the brick floor of the northern room. Their length measurements suggest that three size groups are present, the last a single brick. The first two groups seem to represent the same brick sizes as those used in Building 10. The large brick is clearly reused as it matches the medieval bricks of the undercroft (Building 7 in an earlier Period 14.1). All the other bricks from Building 11 used for flooring and in wall construction are very similar in size.

Three medieval floor tiles were found in Period 15.5. Two are decorated; one is a Penn
design of 1350–90, the other a ‘Westminster’ design of 1250–1300. The third, measuring 7 × 114 × 24mm, has a plain yellow glaze and is in a Low Countries fabric (2504). A further plain tile from an unknown source (fabric 1813) with a dark green glaze probably dates to the period 1480–1600. No other non-ceramic artefacts are assigned to this phase.

The pottery comprised 47 sherds from a minimum of 38 vessels (0.3 EVEs, 454g). These were found in 15 small contexts, none of which yielded more than 10 sherds; this limits their potential for close dating. Four contexts are chronologically mixed, with both medieval and later pottery; medieval pottery alone was found in five other contexts.

The post-medieval pottery is dated broadly to c. 1480–1700, with few diagnostic types to allow further refinement. Most of it dates to the 16th century, although it does include some long-lived types current well into the 17th century, such as Frechen stoneware. London-area redwares are the main type represented, especially the 16th-century PMRE, occurring as cauldrons, pipkins and jugs. White-slipped, clear-glazed redwares from the same source (PMSRY) are found in the same forms and continued to be made into the following century. The latest identifiable fabrics are PMR and post-medieval black-glazed ware (PMBL) from the Harlow kilns of Essex. Both were first used in London c. 1580. No distinctive fabrics or forms introduced later than this were identified in this phase. No tin-glazed ware was found and imports include early to mid-16th-century Raeren stoneware (RAER), as well as part of a Cologne or Frechen stoneware jug with applied portrait medallions. Apart from one other sherd of FREC, the only other import is part of a Spanish olive jar (OLIV), made in the Seville area and imported as a container for wine, oil, honey and other substances during the 16th and 17th centuries.

Resurfacing of the lane
The make-up for a new lane surface (in the full site sequence called Road 11 or R11) sealed the initial occupation layers of Building 10 (Period 15.6) (Fig. 5). Outside the entrances into the buildings, brickearth spreads were deposited rather than metalling. Cut into this material was an east–west beam-slot, which represents a feature protruding from and slightly overlapping the sleeper wall of the arcaded Building 10 Room i. This slot lay to the north of a similar example noted in Period 15.4; they may have had a similar function associated with the arched opening.

Thirty-four sherds from a minimum of 17 vessels (0.06 EVEs, 227g) were found, all late medieval in date. The only accessioned object from this phase was a fragment of bell-mould. Although the lane ran past a parish church, the piece may well have no significance here, since scrap bell-mould fragments were used as clinker in road surfaces in medieval London, which had a thriving bell-making industry.

Summary of Buildings 10 and 11
The new range formed by Buildings 10 and 11 therefore consisted of five rooms, and although some differences in construction were detected, they could have formed a single project. The southern section, called Building 10, comprised thick masonry and brick walls, and incorporated a drain with several channels, probably timber-covered. The rather insubstantial nature of some of the internal walls in Building 11, and the use of brick piers, suggest that the upper storeys were either of brick or more likely were timber-framed.

It is impossible to tell how much of the rich artefactual debris in the drain, context [1389], accumulated in the two decades after 1645 up to the Great Fire of 1666 which destroyed the building (described below), and how much was redeposited debris from the Fire itself. A date-range of 1640–66, probably with some slightly later intrusions, is indicated. The resurfacing of the lane seems to have been broadly contemporary, but only produced residual medieval pottery as dating evidence.

Botolph Wharf was leased to Thomas Soane in 1645. As he was to rebuild the east side of the property within five years, one possibility is that Buildings 10 and 11 are his rebuilding and their initial construction dates to the years shortly after 1645. But much of the wharf lay in the area south of the excavation, and the building to be rebuilt could have lain there, outside the excavation.

(2) ALTERATION TO BUILDING 10, PROBABLY WITH A STAIR (15.7–15.8)
The second group of events in the narrative comprises two archaeological phases: a resurfacing of the lane (Period 15.7) and evidence probably of an associated stair on the west side of Building 10 (Period 15.8).

A new surface for the lane
The lane was resurfaced (Road 12 labelled R12, Period 15.7), and cut immediately outside the northern room of Building 10 by a line of three
large post-pits packed with ragstone blocks (Fig. 13). Although the first of these features was recorded as being cut earlier than the others, they were almost certainly contemporary in use, and may have supported a jettied upper storey or external stair.

Three small contexts yielded seven sherds from a minimum of six vessels weighing 46g. Two sherds come from a pipkin in PMRE dating to c. 1480–1600. All remaining pottery is medieval, dating between c. 1270 and 1500. There were no other recorded artefacts for this phase.

A probable stair on the lane
A north–south chalk and ragstone foundation was constructed along the open frontage of the southern room (Period 15.8, Fig. 13), supporting a brick wall on the line of the earlier sleeper wall. It seems likely that this restricted access by blocking the

FIG. 13
Billingsgate, London, Plan of period 15.7–15.9 (drawn by Carlos Lemos).
suggested arcade. Two rectangular buttresses may have been attached to the west face of the wall, or were built integrally with it, since in a subsequent phase (see Period 15.10), robber trenches cut into the edge of the lane marked the removal of two earlier features. These may have had a similar function to the post-pits fronting the adjoining room.

Common red bricks were used in the rebuilding of the outer wall. They were very similar in size to the smaller bricks in Periods 15.4–15.5.77 No pottery was recovered from the contexts of this phase.

(3) REBUILDING OF BUILDING 8, WEST OF THE LANE (15.9)

On the west side of the lane, the 15th- or 16th-century building which had stood immediately south of St Botolph’s church and its vestry (Building 8) was completely reconstructed (Period 15.9; Figs 13–15). The original frontage was rebuilt in the same position, and consisted in the south of a ragstone and Reigate stone foundation supporting a north–south brick wall. Two buttresses 0.5m square directly superseded the ragstone and Reigate stone blocks backing the existing wall: a reused Reigate stone block formed the base of the northern buttress, the southern was of integral brickwork. A Reigate stone and brick wall to the north completed the frontage; a narrow gap between the two sections was infilled with further brickwork.

Near the eastern frontage, a 0.3m deep trench was cut for the insertion of a brick drain (Fig. 15). The drain base consisted of unmortared brick, with an occasional flagstone slab in the extreme south. The sides were formed by brick walls four courses deep. The remains of a mortared brick seating for a downpipe survived at the north end, which implies that the drain was connected with activities on the first floor, although it may also have helped to drain floodwater, which is likely to have been an occasional problem at this level. There was no primary fill, which suggests that the drain was cleared regularly, an activity facilitated by a wooden cover, which survived only in the north.

After the drain had been constructed, the building was subdivided by a wall running westward from the junction of the two sections of the eastern frontage. First, the junction was reinforced internally by a brick pillar, while further west,
the irregular north–south wall was refaced, also in brick. An east–west brick wall was then built in the 6m gap between the two, crossing the drain by means of a flat ragstone lintel. The surviving top of the wall was level, which may suggest a timber-framed superstructure; it was supported by two large integral buttresses. A 2m-long brick wall was also constructed in the southern Room i, running south from the east end of the dividing wall alongside the drain, and defining a narrow strip behind the eastern frontage. This area was not infilled or floored, and it is probable that the wall supported a wooden-floored landing for a stair leading down into the cellar from an entrance or upper storey. The floor of the room was of brick and flagstones, only fragments of which remained.

Ceramic building material
In the new northern Room ii, a floor of brick and rectangular flagstones was laid on a mortar make-up. Two brick pillars were constructed, one in the centre of the floor, the other at its northern edge against the undercroft wall; both were broadly opposite the west end of the new dividing wall. These may have supported joists for the first floor, although their slightly different construction and mortar suggest that they were not primary features. The west end of the vestry, which was somehow incorporated into the new building, was rebuilt with a narrow brick wall. All the bricks used in structural contexts in Period 15.9 were very similar in size.

Pottery
Sixty-five sherds from a minimum of 47 vessels (0.6 EVEs, 1015g) were found in seven contexts. One of these ([1085]) is of medium size, with 36 sherds, mostly dating to c. 1270–1350, but also including four sherds of mid-17th-century date.

The post-medieval pottery from Period 15.9 dates broadly to c. 1550–1700; most of it was made after c. 1630. Long-lived everyday ceramics include Surrey-Hampshire border whiteware and redware, post-medieval fine redware (PMFR) from Harlow in Essex, and London-area post-medieval redware (PMR). A small number of sherds from more distinctive vessels provide useful dating evidence. These include part of a bowl or dish in Metropolitan slipware (METS) from [1011], dated in London to c. 1630–1700, and part of a dish from [1085] in tin-glazed ware (TGW D) with polychrome decoration typical of the period c. 1630–80. A near-complete, small cylindrical jar in biscuit tin-glazed ware (TGW BISC) is a waster, probably left unglazed because it had an S-shaped crack running through the base. Biscuit tin-glazed ware is found on sites on both sides of the Thames, sometimes far away from the pothouses in which they were made. Often sherds were used as hardcore, although no other biscuit ware is recorded at Billingsgate in 17th-century contexts, which makes this an unlikely explanation for the pot’s presence on the site. It is possible that it was sold as a ‘second’ and used for dry substances in the absence of a protective glaze. Much more unusual is part of a plate in Staffordshire embossed or relief-decorated slipware (STEM).79 Probably dating to the third quarter of the 17th century, when decorative slipwares began to reach London from the Midlands, the press-moulded plate is decorated with elaborate moulded patterns, highlighted with red and dark brown slip in a manner similar to cloisonné metalwork (Fig. 16:35). It is not easy to reconstruct the overall design from the surviving fragment.

Further refinement of the pottery dating is given by clay tobacco pipes. Four pipe bowls
dating to c. 1660–80 (types AO13 and AO15) were found in context [1011] and two type AO15 pipes in [1085].

Other artefacts
A diverse collection of registered finds includes structural remains such as mortar samples and a stone moulding, coal, a wooden barrel stave and several unidentified fragments of wood. A lead repair patch from a clinker-built boat has remains of waterproofing with tarred woollen yarn. Part of a bottle of dark green glass was also found, although the most unusual and noteworthy find is a fragment from a vessel in opaque white lattimo glass, with splashed decoration in red, blue and ‘aventurine’, copper-alloy filing gold spots (Fig. 16:36). Made in France, this high-quality and expensive item is decidedly more exotic than the many of the drinking vessels and flasks made in colourless glass found on the site.

Period 15.9 comprised the rebuilding of Building 8. The artefacts are a disparate or varied group, but perhaps indicative of commercial or warehouse premises rather than domestic occupation. The pottery is generally of 1630–80; it is likely that this phase lasted until the Great Fire of 1666. Lying south of St Botolph’s church, the structure would have been part of the general wharf, and therefore part of Soane’s tenancy from 1622. Since Soane’s lease of 1645 only required the rebuilding of the tenement on the east side of the lane, it did not specifically mention Building 8 on the west side. All we can say is that it was rebuilt — probably in the period 1630–66, and therefore probably by Soane or his widow Elizabeth.

(4) RESURFACING OF THE LANE, REPAIRS TO THE WINDOWS OF THE VAULT OF BUILDING 7, WEST OF THE LANE; REMOVAL OF THE ALTERATION TO BUILDING 10 (15.10)

After the alterations to Building 8, a new lane surface (Road 13, labelled R13) was laid (Period 15.10) (Fig. 17). The lane was extensively used and repaired several times, although it was unmetalled south of Building 7, suggesting that the heaviest traffic was in the north. Opposite the northern side of the entrance to the cellar below the vestry, a posthole was cut into the edge of the metalling. It was replaced by a larger post-pit after the original post had decayed, suggesting a semi-permanent feature associated with the building.

A chalk foundation was constructed in a trench cut at the top of the steps leading into the undercroft below the south aisle of the church (Building 7), providing the base for a new limestone threshold. Similar bases were laid in front of the windows on either side to make new raised sills, reflecting the recent rise in the level of the lane and protecting the undercroft from the ingress of surface water. The southern of the two windows before it was altered is shown in Figure 18:1, and with new sills, from the outside, in Figure 18:2. Yellow bricks were used in one of the rebuildings of the window splays (context [1013]), along with fragments of medieval decorated floor tile.

To the east of the lane two cuts, each about $1.0 \times 0.6 \times 0.7$m deep, removed the buttresses added to Building 10 during the Period 15.8 refacing of its west wall. Both were backfilled with silts which became more clayey towards the base, suggesting that the trenches had remained open.
An irregular cut between the two may be related to the robbing of an intermediate element, or to increased wear in the area. A brick-lined entrance was constructed in the outer wall of the building opposite the centre of Room II. There may have been a flight of steps leading down into the room, although this did not survive. The bricks forming the entrance were of very poor quality; many were overfired and distorted.\textsuperscript{44}

Five sherds were recovered from a single context ([1373]). Three are medieval; two date to c. 1612–1700. A few items related to dress were also found. These include three small glass beads, copper pins and wire. There was also part of a pharmaceutical phial in pale green glass, and fragments of colourless vessel glass. The dating evidence from this phase is minimal, and comprises pottery datable only broadly to the 17th century.
In Building 7, the 15th-century undercroft on the south side of St Botolph’s church, the lack of surfaces or features assignable to the later 15th or 16th centuries suggests that Period 16 began with some truncation of preceding deposits. At the beginning of the 17th century an oval feature was cut into the centre of the undercroft floor (Period 16.1; Fig. 19), possibly to hold a container of some sort, although given the later insertion of a brick drain, this and similar subsequent features may have been sumps. The cut was backfilled and sealed by a gravel floor. A circular cut intruded into this material, replacing the oval feature.

Along the south wall a series of cuts allowed the insertion of ragstone-faced mixed rubble footings to support a yellow brick thickening of the wall and its responds (Fig. 19). At the east end of the refacing, coursed ragstone and brick walls were constructed across the south-east and north-east corners of the building, blocking the windows internally, and encasing the lower ribs of the vaulting. Metal ties helped to attach the new masonry to the old. The bricks used were much smaller than normal, although some had been employed in the Period 14.3 conversion. A small number of ‘standard’ red bricks were also used. Lane silts accumulated in the outer reveals of the windows, which were subsequently blocked with mortared ragstone rubble (Fig. 18.2).

The floor level of the modified undercroft was raised using mixed make-up which sealed the lowest three steps in the entrance (Fig. 20). Two successive pits cut into the makeups indicated the presence of a short-lived asymmetrically placed feature of uncertain function; once again, these may have been sumps.

Slightly later a brick drain 0.6m wide and up to 0.24m deep was inserted into the new surfaces along the north wall (Period 16.2; shown in plan.
Fig. 19). It consisted of a shallow trench filled with two lines of bricks laid end to end, either flat or at an angle to form an S-shaped gutter, and covered with a single row of brick and tile. Evidence from an immediately adjacent excavation at New Fresh Wharf to the west in 1974 had found that a continuation of this drain extended westward beneath the adjacent alley (Hammond’s Quay) before finally passing through the cellar wall of a 16th-century building to empty into a timber-lined sump in the cellar’s brick floor. This is almost certainly the arrangement mentioned in 1629, which included a pump in the building on Hammond’s Quay.

Clays and sand deposits within the drain suggested that the velocity of water varied. The need for the drain and for the suggested sumps noted earlier may have been created by the excavation of
the cellars to the south, which could have exposed the undercroft to flooding for the first time, exacerbated perhaps by a rise in river levels. A new surface was laid on the earlier makeup, sealing the fill of the pit or sump and the construction trench for the drain. The surface was cut diagonally north-west–south-east by a second brick drain, which may have emptied directly into the first one, since it did not pass through the wall. The internal section was only 80mm square; it was formed with a base of roof tile, sides consisting of parallel rows of brick, and a tile lid. Although the second drain was constructed slightly later than the first, the two were broadly contemporary and contained the same type of fill. The bricks employed were of the larger red variety, used in the original undercroft, which may suggest that they were reused from elsewhere.

A mixture of silt and decayed wood which sealed part of the area after the insertion of the drain may have been the remains of a timber floor or trodden debris. These later deposits were often described in the site record as organic with bituminous traces, and contained a large number of wooden stoppers from coopered containers and other wood fragments which may relate to the use of the structure. The final gravel surface was scorched.

**Ceramic building material**

Distinctive small, hard, yellow bricks were used to reface the south wall and the north-east corner of the undercroft. Some are slightly tapered and others have indented borders on their upper surface. These bricks, frequently used as paving, were first imported into London in considerable numbers from the Netherlands during the 17th century. At least two sizes seem to be present; many 149–65mm long, and a smaller number measuring 175–87mm. This must be the result of manufacture using moulds of different lengths, as the 38mm difference between the longest and shortest brick is too large to be accounted for by variations in shrinkage during firing.

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Pottery

A large assemblage of pottery was recovered from this phase, consisting of 296 sherds from a minimum of 134 vessels (5.22 EVEs, 6.085kg). It was found in 28 contexts, 19 of which include medieval sherds. Two medium-sized contexts (between 30 and 100 sherds) and one large one (more than 100 sherds) were recorded, all post-medieval in date; the remaining contexts are all small (fewer than 30 sherds). Overall, the proportion of residual medieval pottery is high, indicating a degree of disturbance, which is supported by a number of sherd-links between contexts.

The three largest groups offer more scope for chronological refinement than the smaller contexts, and two of them have been dated to c. 1580–1630, while the third probably falls within this range as well. There is very little pottery that can be definitely dated after c. 1630, with only one sherd of Metropolitan slipware found in a small context [1022]. There is also no English tin-glazed ware, one of the best keys to dating at this period, apart from two sherds from a cylindrical jar decorated in the bleu Persan style, popular during the last quarter of the 17th century (from context [1023]). Given the date of the rest of the pottery from Period 16.1, these could be intrusive.

The 180 registered finds from the Period 16.1 layers in the cellar constitute the largest assemblage in this project. They include two jettons: one dated 1586–1635, the second an early 16th-century issue showing a ‘French galley’ (Fig. 22:45; Appendix 1). The other finds present a very different picture from the large finds assemblage found in Period 15.4, with its strong emphasis on utensils, vessels, dress and other personal items. There are 29 registered items directly related to the structure of the building, including floor tiles, mortar samples, stone mouldings, roof stone and a brick. By contrast, only one piece of cutlery was identified: the bone handle of a knife with part of the iron tang remaining (Fig. 22:46; Appendix 1). The turned handle is made in one piece with faceted surfaces and is badly split. The finial has multiple grooves. As it dates from the 16th century, it was old if discarded with the other finds. No other handles of bone, ivory or wood were recognized, and no blades. Glass vessels for use at the table or for storage are far less numerous than in Period 15.4, accounting for only 5% of the finds assemblage. These include the base of a bottle in dark green glass, two pale green cylindrical phials and the base of a stem goblet, also in pale green glass. There are also relatively few items of dress and other personal possessions, represented by three glass beads, two leather shoes and a number of cloth samples. There are no copper pins, lace shapes or other dress accessories, and no items used for personal grooming, such as combs. There are, however, two possible toys. One of these is the Raeren stoneware figurine described above (Fig. 21:44). The other is

Other artefacts

Surrey-Hampshire border wares are by far the most common type of pottery amongst the late 16th- to early 17th-century material, accounting for almost 50% of all sherds. Everyday household forms predominate in the whiteware fabric, including several fragments of flanged dishes or platters and various forms of bowl (Fig. 21:37–8). At least fourteen tripod pipkins in white- and redware are represented, one of which is especially large (Fig. 21:39). Other forms include chamber pots and a porringer.

London-area redwares are the second most common class of pottery in Period 16.1, although they are only half as frequent as border wares. Unusually, these are dominated by flared bowls in PMR, with sherds from seven closely similar vessels, all glazed internally, displaying minor variations in the rim form only (Fig. 21:40). Essex redwares are far less common, represented by sherds from three cylindrical mugs and part of a porringer in PMFR, clear-glazed inside and out and lightly sooted under the base (Fig. 21:41). Three is also a near-complete tyg in post-medieval black-glazed ware, with two handles (Fig. 21:42) and one sherd from a dish in METS.

Continental imports are relatively numerous. Although the range of sources is not especially wide, they include some unusual pieces. There are sherds from a ring-handled vase in south Netherlands maiolica (SNTG), the most common form exported in this fabric to Britain during the 16th century. Rather more unusual is a waisted base, probably from a wet drug jar in north Netherlands maiolica (NTNG), which can be dated broadly to the second half of the 16th century. The base is decorated in blue over a pale blue with horizontal lines and a band of debased guilloche (Fig. 21:43). The stonewares include part of a Langerwehe (LANG) storage jar and sherds from seven drinking jugs in Raeren stoneware (RAER), a common find in 16th-century contexts across London. The head and bodice of a female figurine in RAER is again uncommon (Fig. 21:44), although a number of examples are known from London. These early 16th-century stoneware figurines may have been made as ‘cheap’ modelled versions of Cologne moulded pipeclay figurines. The headdress and bodice with applied, stabbed collar are closely paralleled by German whiteware figurines from the Cologne and Aachen area.
FIG. 21
a damaged wooden spinning top, probably of 16th-century date (Fig. 22:47). It has a flat, cut upper surface and a bulbous, rounded profile, with an iron point (incomplete) at its base.

The largest group of finds in Period 16.1 consists of 39 wooden stoppers of various shapes and sizes (22% of all registered items). Seventeen of these are in cork (*Quercus suber*), thirteen of them of similar shape and dimensions (taking into account the effects of burial and drying out). Measurements range from 35–50mm in diameter across the top, and from 30–40mm at the base, with a depth of 10–20mm. Three slightly larger but shallower corks measure 55–60mm in diameter top and bottom. Only one cork is of a size suitable for a bottle (in either glass or stoneware), measuring 35mm across the top and 24mm at the base, with a depth of 20mm. All the other cork stoppers are too wide for this purpose. They could perhaps have been used to seal ceramic pharmaceutical jars, for which their size would be appropriate, although none were found in the material recovered from the building. The other wooden bungs are more diverse in size, ranging from relatively small, deep, flared stoppers measuring 30–63mm in diameter at the top to more regular, cylindrical forms measuring 30–87mm in diameter and 10–60mm in depth. The most numerous examples are very shallow, with depths of 3–10mm and diameters of 25–45mm (10 items). The dimensions given here are post-conservation, so allowance has to be made for shrinkage after excavation. There are also two more obviously tooled deep stoppers or spigots, one of which has a shaped triangular centre at its wider end. Some at least of these wooden stoppers are likely to have been used as stoppers or spigots for wooden casks, which were widely used in medieval and later Britain, both commercially and in the household. If casks were to be emptied without broaching the head, they needed a circular bung-hole at the girth of one stave, and this would be plugged by a wooden spigot or peg.96 No barrel or
cask staves were found in the deposit, although the stoppers from the rebuilding of the Building 7 vault are much more likely to have been discarded in situ than the containers with which they were used (casks were often reused, for example for lining wells). Some of the stoppers recovered from the vault were very probably used with casks, although what these originally contained cannot now be determined. The large number of stoppers collected seems consistent with use of the vault for storage.

Clay tobacco pipes found in two contexts date to c. 1660–80, with one slightly earlier bowl made c. 1640–60 and stamped with the maker’s initials in relief underneath the heel.97 The first initial is illegible; the second one is a T. Unfortunately it is very difficult to identify pipe makers from incomplete marks.
Summary of period 16.1

This phase comprised a rebuilding of the south side and east end of the great vault on the south side of St Botolph’s church, an undercroft originally of 15th-century date. During this rebuilding the two windows to the lane were blocked with rubble. Probably at the same time, efforts at controlling water culminated in two arms of a shallow drain being laid in the vault floor; this went into the next property westwards, where a separate excavation in 1974 found it emptied into a well or hole in the cellar floor. This appears to be the result of the agreement between the parish and their neighbour to the west, Mr Wigmore, in 1629 in which the parish noted their tenant Mr Soane had been troubled by water which hindered his storage of goods and merchandize. It therefore seems likely that this phase represents Soane’s tenancy and use of the vault, as well as his problems there. The large amount of pottery dates to 1580–1630, which fits. The period of deposition of objects within the cellar, on its floors, goes up to the Great Fire of 1666.

The site archive report next describes a subsequent series of burials and tile floors in the church of St Botolph called Period 16.3–16.6; they will be dealt with in the future excavation report.

(6) FURTHER ALTERATIONS TO BUILDING 10 (16.7)

Building 10

In Room i of Building 10 a 1.1m-long wooden beam was laid east–west across the primary fill of the main drain, and silts and building materials were then deposited to block off the northern section (Period 16.7). The east–west feeder and southern section of the main drain were initially left unblocked, until the construction of a brick and rag mortared platform at the junction heralded the deposition of further dumps including building rubble. Both drains were completely infilled, and the floor area to the south-east raised to about 2.7m OD with 0.4m of mixed deposits. A wide foundation trench was cut along the west side of the room for a brick foundation, which occupied the west side of the cut. A brick wall was constructed on the foundation, with some levelling planks used at plinth level. The eastern side of the trench was backfilled with rubble.

In Room ii masonry blocking was also inserted into the northern east–west drain, which was infilled with successive dumps of a more organic nature. The northern section of the main drain was then infilled, the deposits continuing to seal the brick floor to the east. Subsequently a north–south cut was inserted into the rubble backfill along the east side of the main drain for a new raised drain with an eastern brick wall. Five wooden beams were set in holes left in the wall, suggesting that the base of the cut was at least 1.0m above the previous base. It is unclear how the new drain emptied, since no southern continuation was apparent. Occupation deposits accumulated to the east, antedating a chalk cobbled post-base which was constructed centrally to the room. A brick and ragstone floor was laid around the base, consisting of north–south brick rows with an edging of three lines of ragstone blocks against the drain wall to the west. Chalk was similarly used along the north edge.

Ceramic building material

Much building material came from dumping deposits infilling the drains: ceramic roofing tile, floor tile and wall tile. Two types of floor tile are present: medieval lead-glazed and post-medieval tin-glazed.98 The eighteen tin-glazed tiles are in four main design types. Nail holes are visible on the upper surface of some of them. Some show clear evidence of wear, confirming their use as flooring. The earliest is a half-complete hexagonal tile with a blackened top surface, possibly heat-damage (Fig. 24:48). It would have been used with square tiles in a decorative tin-glaze mosaic floor.99 Tiles of this type were made in Antwerp in 1520–40 and are the earliest tin-glazed tiles used in London. They would normally have floored a prestigious 16th-century building, such as a royal palace or a house of the aristocracy. Tiled floors of similar type are known to have been installed in Richmond Palace and Whitehall Palace.

The majority of the other tin-glazed tiles present are of so-called ‘medallion’ type and feature various birds and animals set in a multi-circular blue and yellow border. Only one tile survives substantially intact; it is 11mm thick (Fig. 24:49). Medallion tiles with yellow and blue circular borders were made at the tin-glaze pottery and tile factory at Pickleherring in Southwark between 1618 and c. 1650. The medallion tiles in this phase were probably made at Pickleherring.

Two tiles with part of a complex quarter star, grape and fruit design were also probably made in London, although there are Dutch tiles of the same design dated 1570–1600.100 If the excavated tiles are London products of similar date, they would have been made at the tin-glaze pottery and tile factory at Aldgate between 1571 and c. 1615. Alternatively, both could have been made at a slightly later date at Pickleherring. A near-complete tile with the same design is illustrated by Britton.101 A further
tile has part of an interlocking strapwork pattern in blue and orange. Green or yellow would also have been present in two corners. This is a known Pickleherring design already published by Noël Hume, although his tile has pale blue and yellowish-green corner decoration.

Associated with some of the floor tiles are a number of thinner (10–12mm thick) tin-glazed wall tiles (fabrics 3064, 3067, 3078 when further examples from the Great Fire debris are included). These are decorated with mounted soldiers and barred ox-head corners in blue on a white background (Fig. 24:50–1). Such tiles are often referred to as ‘delftware’, despite being manufactured at a number of centres in both Britain and the Netherlands.

Many of the wall tiles are partly blackened or have a pitted glaze surface indicating that they have been subjected to intense heat. The tin-glazed floor tiles seem to have been less affected, although two of them show blackening of their upper surface. The heat damage to the wall tiles may be the result of the effects of the Great Fire of 1666. It is possible that the infilling of the drain was part of the destruction caused by the Fire or by moving fire dumps around in its aftermath. Whether the date of deposition is the 1650s or 1666, it is significant in showing that the tiles must be of Dutch manufacture, as the first British wall tiles were not made until 1676, when a Dutch potter from Delft obtained a patent ‘to exercise his Art of Makeing Tiles and Porcelane ... after the way practised in Holland’. More important still, it makes them among the very few wall tiles which can be stated with any certainty to have been brought into London before 1666. A further 42 pre-Fire wall tiles have been found at the nearby site of Botolph Lane. One of them furnished a complete example of the ‘rider on horseback’ design (Fig. 24:52).

The earliest documentary reference to the import of Dutch tiles is the account of Sir William Brereton, who in 1634/5 brought matching pairs of soldiers and horsemen (perhaps similar to those associated with Building 10) and other tiles from a pottery dealer in Amsterdam to decorate his house in England. The Billingsgate tiles were probably brought to London some time in the mid-17th century. The designs and corner motif on the tiles are similar to those on a tile dated 1635–60 illustrated by Plus. The latter shows a mounted soldier in a very similar position to that found on one of the Billingsgate wall tiles. Other items of interest from Period 16.7 include slate roofing and a fragment of pantile roofing. Both are from infill deposits in the drains.

The wall tiles from Building 10 are strongly suggestive of a domestic building: in Dutch paintings of the 1650s and 1660s, for instance those of Pieter de Hooch (1629–84), tiles very like these examples are shown around fireplaces and in one case form a skirting round a room. Tiles could also be employed in fireplaces in upper storeys. In 1739 a house in Leadenhall Street which had escaped the Great Fire had chimneys ‘set with Blew Landskip Galley tiles’ in its bedroom chambers, which must have been on the second or higher floors.

**Pottery**

A total of 247 sherds from a minimum of 132 vessels (3.66 EVEs, 2.622kg) were recovered from 21 contexts, five of which yielded medieval pottery only. The post-medieval pieces can be dated broadly to c. 1550–1700, although this is largely derived from long-lived types such as Frechen stoneware and Surrey-Hampshire border ware, which were in use throughout the period. The latest pottery found dates to c. 1630–80, and this can be further refined to c. 1660–80 by the evidence of the clay tobacco pipes, which include London types AO13 and AO15 from four contexts. One medium-sized context [1627], which yielded 36 sherds from a minimum of 26 vessels, has several sherd links with context 1389, the large group recovered from Building 10 in Period 15.4. It appears that subsequent work within this building disturbed earlier deposits, although both groups have a coherence in their make-up consistent with deposition in the mid-17th century. This pattern is further borne out by analysis of the registered finds assemblage, which includes a similar range of artefacts to those found in Period 15.4.

Surrey-Hampshire border wares are the most common type of pottery (35.4% by sherd count, 32.6% MNV). As in context [1389], serving vessels predominate, including flanged dishes or platters, porringer and bowls, as well as tripod pipkins for cooking. Part of a small cylindrical jar in red border ware is a relatively unusual form in this fabric (Fig. 25:53). It has a slight constriction below the rim to allow a cover of paper or muslin to be secured and closely resembles pharmaceutical jars made in tin-glazed ware. London-area red-wares are the second most common source of pottery in Period 16.7, consisting mostly of cauldrons, pipkins, and including a few sherds of 16th-century PMRE. Fine redwares, including those made in Essex, are represented by chamber pots and a pipkin in PMFR, sherds from six mugs in post-medieval black-glazed ware and one sherd from a jug in Metropolitan slipware, dating after c. 1630.

Tin-glazed wares occur mostly as small sherds, from which it is not always easy to identify styles of decoration and thereby date. The latest identifiable types are decorated in styles common during the
mid-17th century, between c. 1630 and 1680. Part of a dish decorated in blue and white in the Wanli style dates to the 1620s or 1630s, while other dishes also decorated in blue and white are probably slightly later. Sherds from two small cylindrical jars have plain white glaze, which was again common after c. 1630. One of these is particularly small, with a rim diameter of 35mm, and appears to have been overfired, although it is not burnt (Fig. 25:54).

Imports from the Continent again largely mirror those found in Period 15.4, with sherds from a ring-handled vase in south Netherlands maiolica cross-joining with one from context [1389]. The vessel has a deep blue, cobalt-stained, overall glaze outside and a plain white glaze inside (Fig. 25:55). Vases of this form with polychrome decoration are well known, if relatively rare in London, and date to c. 1500–75, while blue or manganese-mottled Malling jugs, also from the Netherlands, are dated to the late 16th century.110 Other decorative pottery includes a sherd from a bowl in Ligurian maiolica from northern Italy and part of a bowl in Werra slipware from Germany, which was imported into Britain mainly between c. 1580 and 1650. German stonewares are represented by ten sherds from jugs and Bartmänner in Frechen stoneware, and three small sherds from Westerwald jugs, as well as part of a cylindrical mug or Humpe with applied rosettes (Fig. 25:56).

Other artefacts
One hundred and thirty-four registered finds were recovered from Period 16.7, the third largest finds assemblage from the periods considered. Similarities with Period 15.4 can be seen in the make-up of the assemblage; sherd links between contexts in the two periods suggest a degree of disturbance in the basement of Building 10, resulting from rebuilding activities. Two jettons, both from context [1621], probably date to the first half of the 16th century (Appendix I; Fig. 26:57–8).

No utensils or cutlery in the form of either knife blades or handles were identified, although a large, hollow, one-piece wooden handle(?) is incomplete and its original use uncertain. There is, however, a large quantity of fine glassware, constituting 30% of the registered finds assemblage, much of it comparing closely with the table glass from Period 15.4. Most of the identifiable glass fragments come from drinking vessels, including at least nine stem goblets in colourless glass. Surviving bases are folded back on themselves underneath and two rims measuring 90mm in diameter were recorded. One example <1896> comes from an elongated inverted baluster stem goblet, probably dating to the first half of the 17th century and ‘a cliché of the Mansell era’, found in waste from Mansell’s glasshouse in Broad Street and in the Gracechurch Street hoard. Part of the foot of a pedestal beaker (probably used as an ale glass) in colourless glass dates from the late 16th to mid-17th century, and there are two small fragments of decorative trails or ribs in dark blue glass which may also come from beakers. The bases of two pedestal goblets in colourless glass, with optically blown vertical ribs, were also found. These were blown into a ribbed mould before the final forming and reached Britain from Venice in the late 16th century in soda glass, and in the 17th century from
the Netherlands in green potash glass. One fragment of opaque white lattimo glass with splashed decoration in red and dark blue compares closely with part of a vessel of unidentified form from Period 15.9 (Fig. 16:36). Fragments of two possible phials in pale green glass, and from two flasks, as well as the base of a possible case bottle, are the only other forms identified.

Dress and personal possessions include numerous small, fine, copper-alloy drawn pins, of the kind used with items of clothing and for sewing. One larger pin, measuring 55mm in length, has a spherical wound wire head and probably dates to the first half of the 17th century. Other items include a single small glass bead, a twisted wire fastening, one leather shoe and three leather straps, and four cloth samples. A lace chape or tag (‘aiglet’) is of the same cylindrical form as those found in Period 15.4, folded back to grip the lace. An undecorated, double-looped copper-alloy buckle was also found, probably dating from the early to mid-17th century (Fig. 26:59). An almost-complete spectacle lens, 35mm in diameter, is comparable to the lens found in Period 15.4, and of the same size, although it is stronger. No identifiable fragments of frames to match the lenses were found in either period. The only other personal item identified in Period 16.7 is part of a tortoiseshell comb of the usual simple, double-sided form, with fine teeth (all missing) on one side and widely spaced, square-ended coarse teeth on the other.

Part of a circular wooden seal finial with screw-thread probably comes from a composite rod-form seal for stamping wax seals on documents (Fig. 26:60; Appendix 1). The top has shallow carved decoration depicting a bird and foliage. A comparable complete example in boxwood, with stamps at each end, was found on the 1545 wreck of the Mary Rose.

Clay pipes were found in seven contexts associated with Period 16.7, mostly dating to c. 1660–80, but with two earlier examples. One of these is dated to c. 1640–70 and the other, from context [1622], to c. 1620–60. This pipe has a maker’s mark in the form of a ‘star’ pattern with dots stamped in relief underneath the heel, another common symbol used by London pipe makers in the 17th century. It may relate to a tavern of the same name (‘The Star’, ‘The Sun’ or similar), although the maker remains unidentified.

Summary

In this phase (Period 16.7) Building 10 was altered, perhaps rebuilt internally. The drain which had run in its basement rooms was filled in and a new doorway made to the lane. The infilling of the drain included tin-glazed floor and wall tiles of several designs which seem to be of continental origin: the floor tiles from Antwerp and the wall tiles from the Netherlands. There were several joins between sherds from this phase and others in the layers in what was interpreted as silting in the drain in the

FIG. 26

phase beneath, so clearly there was some mixing of deposits. The pottery and datable artefacts, where not residual, are of the broad period 1630–1700; but the phase is assigned to the decades before 1666, since demonstrably post-Fire buildings (not reported here) overlay it. The cumulative dating of successive stratigraphic phases suggests that the alteration and deposits of this phase date from the 1650s or 1660s, before 1666.

(7) RESURFACING OF THE LANE AND INSERTION OF A WATER PIPE (16.8)

To the west of the building, make-up for a new lane surface (Road 14 or R14) was laid, lapping the new outer wall (Period 16.8). The lane was now virtually level from north to south at 3.22m OD, where previously there had been quite a steep slope: this must have been influenced by the advance of the waterfront well to the south over the preceding three centuries. Down the centre of the lane a wooden water pipe was laid in a cut 0.7m wide and 0.65m deep. The pipe consisted of four 4.3–5.3m bored sections, connected by iron rings and supported at intervals by nine large rag blocks. The rings were 0.32m in diameter, 35mm wide and 5mm thick.

Ceramic building material

Red bricks of similar size\(^{116}\) were used in the foundations and new west wall of the southern room. Red bricks of at least two sizes were also employed in the new drain.\(^{117}\) The floor was composed of recycled, medieval yellow bricks.\(^{118}\) A small fragment of peg roofing tile was incorporated into the floor.

Two medieval floor tiles were found in the metalling.\(^{119}\) A fragment of pantile came from the backfill of a construction trench (context [969]). From repairs on the west side of the lane came a single tin-glazed decorated floor tile (Fig. 27). The last is of particular interest as it was used in a mosaic floor with hexagonal tiles. It is similar to a number of designs in a pavement found at Herkenrode Abbey, Belgium, which also combine a circular pattern with lines radiating from a central point.\(^{120}\) The design cannot be matched exactly but the close similarity, including the style of the corner decoration, indicates that the tile was probably made in Antwerp in the 1530s. The only other tin-glazed tile is a small part of a blue on white wall tile ([1044]) probably showing a mounted military figure.

Pottery

Twenty-nine sherds from a minimum of 23 vessels (0.49 EVEs, 341g) were recovered, all from small contexts, none of which included more than twelve sherds. Five contexts are dated between c. 1580 and 1700, which can be narrowed down to c. 1630–80 by the presence of tin-glazed ware decorated in styles typical of the mid-17th century. Further refinement is offered by a clay pipe of London type AO15, dated to c. 1660–80, found in context [997].

The main fabrics found are Surrey-Hampshire border wares (both redware and whiteware) in

\[\text{FIG. 27}\]

the form of bowls, a flanged dish, a porringer and tripod pipkins; and London area post-medieval redware, although the only identifiable form is part of a jar. There are also sherds from two rounded mugs in post-medieval black-glazed ware, as well as part of a porringer with polychrome decoration and a blue and white jar in tin-glazed ware. Imports consist of sherds from jugs and Bartmänner in Frechen stoneware and from a bowl in north Italian bichrome marbled slipware. All sherds are relatively small, in many cases too small to identify the form, and very few join. The assemblage is consistent with construction levels rather than everyday rubbish disposal.

Other artefacts

The 43 registered finds from period 16.8 are mostly in poor condition; they include many objects that are now difficult to identify. Only five of the 21 copper-alloy items are identifiable: a coin, two pins, a wire fastening and a corroded, plain strap end. Other metal finds include four unidentified iron items and a drainpipe collar, two unidentified lead pieces and a window came. Structural remains include two wall tiles, a floor tile and a fragment of window glass. Only one piece of vessel glass was found; its form cannot be identified.

The Great Fire

Period 16 came to an end with the Great Fire of 1666, which provides a terminus ante quem, although some artefacts may have intruded during the subsequent demolition and levelling processes. Clear traces of the Fire (which started in Pudding Lane, about 80m to the north) were visible. The final surfaces within the undercroft, along the east side of the lane, and the entrance to Building 10 were scorched and sealed by burnt debris from the Fire. The lane was also severely scorched, in some cases to a depth of 100mm. The church was badly damaged, with deposits of ash, burnt debris, timbers and roof tiles, and melted lead and window glass sealing the final tiled floor.

The process of rebuilding which produced the post-Fire wharf shown on Ogilby and Morgan’s map of 1676 (Fig. 3) will not be presented here; the detailed archaeology of the Fire and its aftermath over the whole site forms part of the larger report in preparation.\textsuperscript{121}

DISCUSSION

This section suggests that the functions of these buildings can be deduced from their structural form (walls, drains, floor surfaces) and from the artefacts in them. The structures found at Billingsgate, with their mixture of dwellings and warehouses, are compared with similar buildings known from early 17th-century drawn surveys of other London properties, of which one waterfront example is given, to explore how domestic, trade and storage spaces were intimately entwined in the 17th-century (pre-Fire) city. Finally, we also explore the significance of the artefacts as material culture in a London context in the first half of the 17th century.

SUMMARY OF THE SEQUENCE OF EVENTS

The proposed connections between the archaeological sequence and documentary evidence can now be summarized. Thomas Soane, grocer, took up the residue of a lease of all Botolph Wharf in 1622 and held it until his death in 1647. Some buildings at the north-west corner of the wharf complex, excavated in 1982, can be associated specifically with his tenancy. The main building works which were recorded, some of which are probably attributable to Soane, are presented in Table 2. A three-dimensional sketch of the buildings is given in Fig. 28, which shows them at the end of phase 15.9.

The phases can be summarized as:

1. Construction of Buildings 10 and 11 on the east side of the lane, butting onto Thames Street on the north (15.4, 15.5). This was perhaps a consequence of Soane’s agreement to rebuild as a condition of the renewal of his lease in 1645. As he died in 1647, it is possible that the buildings date from 1645–47, although from the archaeological dating it is also possible that they were either finished, or even erected, by his widow Elizabeth, who took out a new lease in her own name in 1652, and may have been the lessee up to the time of the Fire in 1666. The high entry fine of £900 which Elizabeth Soane was prepared to pay for the lease in 1652 must indicate her perception of the value of the wharf.

2. Rebuilding of the great vault, Building 7, below the south part of St Botolph’s church (16.1). The archaeological sequence and dating seem to put this in the 1650s. An attractive alternative possibility is 1629, when the parish made arrangements for a drain to empty into a sump in a cellar on the neighbouring property to the west. If so, it would have been during the Soanes’
tenancy of the cellar, which started in 1623/4. The phase included the floor levels after the rebuilding, which pottery and pipes show went up to the Great Fire of 1666.

3. The refurbishing of Building 8, west of the lane, by lowering the cellar and inserting a drain (15.9). This dates to 1630–80 and is stratigraphically earlier than the Great Fire deposits; a date span of 1630–66 is therefore proposed. Since Soane also took a lease on this property in 1641, it could have been rebuilt by him or by the previous tenant.

4. Several phases of alteration to Buildings 10 and 11, with the drain being backfilled, apparently during one of these alterations and before 1666 (15.7, 15.10, 16.7).

THE FUNCTIONS OF THE BUILDINGS FROM THE ARTEFACTS IN THEM

Although the purpose of the refurbishment of the great vault south of St Botolph’s church — for storage — and the evidence for attempts to combat the groundwater problem, are clear enough, the precise functions of the other buildings (Buildings 10 and 11 to the east of the lane, and Building 8 to the south of the church on the west side of the lane) need careful discussion.

Table 2 shows our interpretation of the finds in each of the four buildings, and seeks to move from description of the artefacts to consideration of the use of the buildings from the artefacts. Comparison has been made between the finds recovered from these four buildings in terms of the breakdown of pottery by source and functional grouping. This follows a model proposed for the pottery from Aldgate.122 Four major ‘local’ (in the regional sense) sources were identified: ‘coarse’, covering London-area redwares (PMR, PMRE, PMSR); ‘fine’, including redwares made around Harlow, Essex (PMFR, PMBL and METS); ‘border’, consisting of Surrey-Hampshire border wares, both white and red; and ‘delft’, covering tin-glazed wares made in London. Other sources consisted of ‘stoneware’, which included both London-made and imported wares, and ‘imports’, which included all continental and oriental wares apart from stonewares, as well as English wares made outside the

### TABLE 2

Summary of the character of the finds in the buildings, and inferences about the use of the buildings from the finds (pottery and other artefacts).

<table>
<thead>
<tr>
<th>Building</th>
<th>Pottery and other objects</th>
<th>Suggested character</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Regional domestic pottery, including a high proportion of decorative tablewares; Chinese porcelain; local tin-glazed wares, including mug with arms of Cordwainers’ Company; Spanish and Portuguese pottery, including rare Iberian terra sigillata beaker; Westerwald jugs; pottery from France, Italy and the Low Countries; German stonewares; money boxes; table glass; five cutlery handles, two of ivory; wooden spoons; dress and personal accessories, including combs, spectacles, needlecase; Dutch wall tiles in fill of drain (period 16.7)</td>
<td>Domestic</td>
</tr>
<tr>
<td>11</td>
<td>Regional domestic pottery, mostly kitchen wares; Spanish olive jar; Low Countries redwares; German stonewares; two ceramic floor tiles</td>
<td>Not enough evidence, perhaps utilitarian — a shop?</td>
</tr>
<tr>
<td>7 rebuild</td>
<td>High proportion of residual medieval pottery in raising of vault floor; regional domestic pottery, mostly kitchen wares; Spanish amphora; German stonewares, including figurine from Raeren; Low Countries earthenwares and tin-glazed wares; numerous wooden stoppers for casks/barrels</td>
<td>Warehouse or storage</td>
</tr>
<tr>
<td>8 rebuild</td>
<td>Regional domestic pottery, with decorative tablewares in Metropolitan slipware, tin-glazed ware, Staffordshire embossed slipware; coal; barrel stave; lead repair patch for a boat; wooden stoppers for casks; fragment from a rare cup in French opaque white glass with ‘aventurine’ decoration</td>
<td>Not diagnostic, but accords with proposal this was a warehouse</td>
</tr>
</tbody>
</table>
London region. Forms were grouped by function according to whether they were used principally for cooking and food preparation (cauldrons, pipkins, skillets, undecorated bowls and dishes); tablewares and decorative vessels (decorated bowls and dishes, porringer, jugs, mugs); storage and transport (jars); ‘sanitary’ wares (chamber pots); and ‘other’ (all other forms, including candlesticks and money boxes). These categories are guides to principal functions, and should not be seen to rule out a flexible approach to interpreting usage. The pottery from both Aldgate and Billingsgate is compared by EVEs; the latter is also compared by minimum vessel count (MNV).

**Building 10**

Large quantities of pottery were recovered from Building 10 (840 sherds from a minimum of 376 vessels), both in the construction phase (15.4) and from the drain infill associated with further work (16.7), which can be given a broad date range of c. 1645–66. For the purposes of analysis these have been considered together (Fig. 29; Tables 3–4). The Surrey-Hampshire border source is the commonest by EVEs and MNV (39.7% and 30.9% respectively), consisting mostly of the whiteware fabric, with far fewer redwares. The usual pattern for this period is for Surrey-Hampshire border wares and London-area redwares to be the main kinds of domestic pottery in use across London. In the Building 10 assemblage, fine redwares from the Harlow area of Essex are more common than the London (‘coarse’) ones (25.8% MNV, 23.4% EVE). This pattern is mirrored at Aldgate in the period 3bi cesspit (dated c. 1650–75) and well pit (c. 1660–80), where Essex redwares are about as frequent as Surrey-Hampshire border wares. At Billingsgate this includes a relatively high proportion of tablewares, with a range of drinking vessels in PMBL, PMFR and METS, as well as decorative flanged dishes and bowls in the slipware (at least 23 different vessels in PMBL and 25 in METS). There are also kitchen wares, including well-glazed tripod pipkins and bowls in the plain, clear-glazed PMFR, which provided a good alternative to London redwares and Surrey-Hampshire border wares. Comparison with the Aldgate sequence suggests

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**FIG. 28**

Isometric sketch of the buildings excavated at Billingsgate, London, showing phase 15.9.
that the mid-17th century saw the peak of popularity for Essex fine redwares in London, and this seems to be confirmed by the Billingsgate findings.

By comparison with the fine redwares, the ‘coarse’ London ware is about half as common (13.8% MNV, 11.3% EVE). London-area redwares were made at several sources, mostly south of the river, including Woolwich and Deptford. There is also evidence for redware production in the Moorgate area of the City, although this dates mostly to the 16th century. They were used principally for utilitarian domestic vessels, including in the Building 10 assemblage — mostly cauldrons and pipkins, bowls and dishes, jars and chamber pots. Interestingly, delftware is more frequent than London-area redwares in Building 10 (17.8% MNV, 15.1% EVE). This is a relatively high proportion for a mid-17th-century assemblage, higher than in the Aldgate period 3bi cesspit and well pit, although quantities at Aldgate are somewhat variable at this date. Tin-glazed ware is primarily decorative and secondly functional, and most of the Building 10 finds consist of chargers and dishes, together with some porringer and mugs and only six small plain jars or ointment pots.

The imported wares (4.8% MNV, 9% EVE) include mostly fine, decorative tablewares from various sources, with three pieces of late Ming blue and white porcelain, Ligurian and Portuguese maiolica bowls and dishes, Werra slipware and a south Netherlands tin-glazed ring-handled vase, all in addition to more mundane kitchen wares from the Netherlands. At Aldgate the stonewares were quantified separately from the other imports, and included some sherds from John Dwight’s Fulham pithouse. At Billingsgate, however, there is no English stoneware in the Building 10 assemblage, which predates its introduction in 1670. If all the Rhenish stonewares are added in with the other imports, the totals rise to 11.7% by MNV and 10.4% EVE. These include some high-quality and unusual ceramics, suggesting a reasonable standard of living for the owners, especially when considered alongside the other finds associated with Building 10.

Tablewares, many of them decorative, are by far the most common functional group identified in the pottery from this part of the site (52.4% MNV, 57% EVE). It includes sherds from at least 51 decorated dishes and 50 mugs in various fabrics, as well as porringers, jugs and bowls. Kitchen wares and cooking vessels are the next most common group found in Building 10 (29.3% MNV, 21.3% EVE). This pattern is again reflected in the Aldgate sequence. Other categories of finds are less common in the Building 10 assemblage. ‘Sanitary’ wares, for example, account for only 4.5% MNV, 5.8% EVE, although this has probably more to do with the fact that none of the pottery came from a cesspit, where chamber pots were frequent casualties. The whole assemblage from Building 10 is thoroughly domestic in character, comparing closely in many respects with the pottery found at the same date in the Aldgate sequence. The presence of a large number of decorative wares and of a number of rather more exotic imports is suggestive of a reasonably comfortable standard of living, such as would be enjoyed by a prosperous member of the rapidly growing middle classes. This impression is further borne out by the other artefacts found in features associated with Building 10, with table glass, some of it of high quality, accounting for 23% of all finds. Other domestic items include nine pieces of cutlery/eating implements and a high proportion of articles associated with dress and personal grooming (e.g. lace tags,


<table>
<thead>
<tr>
<th>Code</th>
<th>Fabric</th>
<th>SC</th>
<th>% SC</th>
<th>MNV</th>
<th>% MNV</th>
<th>EVE</th>
<th>% EVE</th>
<th>Wt</th>
<th>% Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>BORD</td>
<td>Surrey-Hampshire border whiteware, unglazed</td>
<td>4</td>
<td>0.5%</td>
<td>4</td>
<td>1.1%</td>
<td>32</td>
<td>0.3%</td>
<td></td>
<td></td>
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<tr>
<td>BORDB</td>
<td>Surrey-Hampshire border whiteware, brown-glazed</td>
<td>18</td>
<td>2.1%</td>
<td>10</td>
<td>2.7%</td>
<td>1.09</td>
<td>0.4%</td>
<td>318</td>
<td>2.6%</td>
</tr>
<tr>
<td>BORDG</td>
<td>Surrey-Hampshire border whiteware, green-glazed</td>
<td>69</td>
<td>8.2%</td>
<td>33</td>
<td>8.8%</td>
<td>2.38</td>
<td>10.8%</td>
<td>883</td>
<td>7.2%</td>
</tr>
<tr>
<td>BORDO</td>
<td>Surrey-Hampshire border whiteware, olive-glazed</td>
<td>3</td>
<td>0.4%</td>
<td>2</td>
<td>0.5%</td>
<td>28</td>
<td>0.2%</td>
<td></td>
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<td>BORDY</td>
<td>Surrey-Hampshire border whiteware, clear-glazed</td>
<td>94</td>
<td>11.2%</td>
<td>41</td>
<td>10.9%</td>
<td>3.63</td>
<td>16.4%</td>
<td>1016</td>
<td>8.3%</td>
</tr>
<tr>
<td>CHPO BATV</td>
<td>Chinese export porcelain, Batavian ware</td>
<td>3</td>
<td>0.4%</td>
<td>1</td>
<td>0.3%</td>
<td>0.67</td>
<td>3.0%</td>
<td>18</td>
<td>0.1%</td>
</tr>
<tr>
<td>CHPO BW</td>
<td>Chinese blue and white export ware</td>
<td>1</td>
<td>0.1%</td>
<td>1</td>
<td>0.3%</td>
<td>0.05</td>
<td>0.0%</td>
<td>5</td>
<td>0.0%</td>
</tr>
<tr>
<td>CHPO MING</td>
<td>Chinese blue and white export ware, late Ming</td>
<td>3</td>
<td>0.4%</td>
<td>1</td>
<td>0.3%</td>
<td>0.11</td>
<td>0.5%</td>
<td>5</td>
<td>0.0%</td>
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<tr>
<td>DUTR</td>
<td>Dutch red earthenware</td>
<td>7</td>
<td>0.8%</td>
<td>4</td>
<td>1.1%</td>
<td>0.16</td>
<td>0.7%</td>
<td>71</td>
<td>0.6%</td>
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<tr>
<td>FREC</td>
<td>Frechen stoneware</td>
<td>36</td>
<td>4.3%</td>
<td>15</td>
<td>4.0%</td>
<td>0.05</td>
<td>0.2%</td>
<td>1032</td>
<td>8.4%</td>
</tr>
<tr>
<td>IHTS</td>
<td>Iberian terra sigillata</td>
<td>7</td>
<td>0.8%</td>
<td>1</td>
<td>0.3%</td>
<td>0.3</td>
<td>1.4%</td>
<td>21</td>
<td>0.2%</td>
</tr>
<tr>
<td>LIGU</td>
<td>Ligurian maiolica</td>
<td>2</td>
<td>0.2%</td>
<td>2</td>
<td>0.5%</td>
<td>0.06</td>
<td>0.3%</td>
<td>5</td>
<td>0.0%</td>
</tr>
<tr>
<td>MART</td>
<td>Martincamp-type ware</td>
<td>1</td>
<td>0.1%</td>
<td>1</td>
<td>0.3%</td>
<td>0.45</td>
<td>2.0%</td>
<td>5</td>
<td>0.0%</td>
</tr>
<tr>
<td>METS</td>
<td>Metropolitan slipware</td>
<td>72</td>
<td>8.6%</td>
<td>25</td>
<td>6.6%</td>
<td>1.39</td>
<td>6.3%</td>
<td>1446</td>
<td>11.8%</td>
</tr>
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<td>PMBL</td>
<td>Post-medieval black-glazed ware</td>
<td>57</td>
<td>6.8%</td>
<td>23</td>
<td>6.1%</td>
<td>1.15</td>
<td>5.2%</td>
<td>231</td>
<td>1.9%</td>
</tr>
<tr>
<td>PMBR</td>
<td>London-area post-medieval bichrome redware</td>
<td>1</td>
<td>0.1%</td>
<td>1</td>
<td>0.3%</td>
<td>0.1</td>
<td>0.3%</td>
<td>8</td>
<td>0.1%</td>
</tr>
<tr>
<td>PMFR</td>
<td>Post-medieval fine redware</td>
<td>78</td>
<td>9.3%</td>
<td>43</td>
<td>11.4%</td>
<td>2.35</td>
<td>10.6%</td>
<td>1859</td>
<td>15.2%</td>
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<tr>
<td>PMFRB</td>
<td>Post-medieval fine redware, brown-glazed</td>
<td>2</td>
<td>0.2%</td>
<td>2</td>
<td>0.5%</td>
<td>0.08</td>
<td>0.5%</td>
<td>6</td>
<td>0.0%</td>
</tr>
<tr>
<td>PMFRG</td>
<td>Post-medieval fine redware, green-glazed</td>
<td>13</td>
<td>1.5%</td>
<td>4</td>
<td>1.1%</td>
<td>0.29</td>
<td>1.3%</td>
<td>80</td>
<td>0.7%</td>
</tr>
<tr>
<td>PMR</td>
<td>London-area post-medieval redware</td>
<td>116</td>
<td>13.8%</td>
<td>43</td>
<td>11.4%</td>
<td>1.76</td>
<td>8.0%</td>
<td>1813</td>
<td>14.8%</td>
</tr>
<tr>
<td>PMRE</td>
<td>London-area early post-medieval redware</td>
<td>12</td>
<td>1.4%</td>
<td>6</td>
<td>1.6%</td>
<td>0.75</td>
<td>3.4%</td>
<td>243</td>
<td>2.0%</td>
</tr>
<tr>
<td>PMSBY</td>
<td>London-area post-medieval slipped redware, clear-glazed</td>
<td>5</td>
<td>0.6%</td>
<td>2</td>
<td>0.5%</td>
<td>0.69</td>
<td>0.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POTG</td>
<td>Portuguese faience</td>
<td>4</td>
<td>0.5%</td>
<td>4</td>
<td>1.1%</td>
<td>0.2</td>
<td>0.9%</td>
<td>41</td>
<td>0.3%</td>
</tr>
<tr>
<td>RAER</td>
<td>Raeren stoneware</td>
<td>9</td>
<td>1.1%</td>
<td>4</td>
<td>1.1%</td>
<td>1.23</td>
<td>1.0%</td>
<td>123</td>
<td>1.0%</td>
</tr>
<tr>
<td>RBOR</td>
<td>Surrey-Hampshire border redware</td>
<td>31</td>
<td>3.7%</td>
<td>17</td>
<td>4.5%</td>
<td>0.75</td>
<td>3.4%</td>
<td>567</td>
<td>4.6%</td>
</tr>
<tr>
<td>RBORB</td>
<td>Surrey-Hampshire border redware, brown-glazed</td>
<td>10</td>
<td>1.2%</td>
<td>6</td>
<td>1.6%</td>
<td>0.65</td>
<td>2.9%</td>
<td>97</td>
<td>0.8%</td>
</tr>
<tr>
<td>RBORG</td>
<td>Surrey-Hampshire border redware, green-glazed</td>
<td>13</td>
<td>1.5%</td>
<td>3</td>
<td>0.8%</td>
<td>0.28</td>
<td>1.3%</td>
<td>59</td>
<td>0.5%</td>
</tr>
<tr>
<td>SNTG</td>
<td>South Netherlands maiolica</td>
<td>2</td>
<td>0.2%</td>
<td>1</td>
<td>0.3%</td>
<td>0.05</td>
<td>0.2%</td>
<td>40</td>
<td>0.3%</td>
</tr>
<tr>
<td>STAR</td>
<td>Spanish starred costrel</td>
<td>1</td>
<td>0.1%</td>
<td>1</td>
<td>0.3%</td>
<td>0.19</td>
<td>0.2%</td>
<td>19</td>
<td>0.2%</td>
</tr>
<tr>
<td>TGW</td>
<td>English tin-glazed ware</td>
<td>17</td>
<td>2.0%</td>
<td>12</td>
<td>3.2%</td>
<td>0.29</td>
<td>1.3%</td>
<td>123</td>
<td>1.0%</td>
</tr>
<tr>
<td>TGW A</td>
<td>English tin-glazed ware, Orton type A decoration</td>
<td>26</td>
<td>3.1%</td>
<td>20</td>
<td>5.3%</td>
<td>0.57</td>
<td>2.6%</td>
<td>401</td>
<td>3.3%</td>
</tr>
</tbody>
</table>
beads, combs), amounting to 24.1% of all finds, as well as items related to leisure, such as alleys or marbles.

**Building 11**

The pottery from Building 11 is mostly 16th-century in date. Only 31 sherds were recovered, mostly cooking and food preparation vessels in London-area redware. No Surrey-Hampshire border wares were found and the imports consist mostly of 16th-century Rhenish stonewares, as well as sherds from a Dutch redware pipkin and a Spanish olive jar. The assemblage is too small to allow any firm conclusions to be drawn concerning the building’s function, while the registered finds consist mostly of architectural fragments.

**Building 7**

A somewhat different picture can be drawn from the finds recovered from Building 7 (Fig. 30).

---

**TABLE 3** (Continued)

<table>
<thead>
<tr>
<th>Code</th>
<th>Fabric</th>
<th>SC</th>
<th>% SC</th>
<th>MNV</th>
<th>% MNV</th>
<th>EVE</th>
<th>% EVE</th>
<th>Wt</th>
<th>% Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>TGW B</td>
<td>English tin-glazed ware,</td>
<td>6</td>
<td>0.7%</td>
<td>1</td>
<td>0.3%</td>
<td>0.16</td>
<td>0.7%</td>
<td>90</td>
<td>0.7%</td>
</tr>
<tr>
<td></td>
<td>Orton type B decoration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TGW C</td>
<td>English tin-glazed ware,</td>
<td>41</td>
<td>4.9%</td>
<td>13</td>
<td>3.5%</td>
<td>0.35</td>
<td>1.6%</td>
<td>265</td>
<td>2.2%</td>
</tr>
<tr>
<td></td>
<td>Orton type C decoration</td>
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<td></td>
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<td></td>
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<td></td>
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<tr>
<td>TGW D</td>
<td>English tin-glazed ware,</td>
<td>64</td>
<td>7.6%</td>
<td>21</td>
<td>5.6%</td>
<td>1.97</td>
<td>8.9%</td>
<td>942</td>
<td>7.7%</td>
</tr>
<tr>
<td></td>
<td>Orton type D decoration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WERR</td>
<td>Werra slipware</td>
<td>1</td>
<td>0.1%</td>
<td>1</td>
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<td>0.05</td>
<td>0.2%</td>
<td>7</td>
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</tr>
<tr>
<td>WEST</td>
<td>Westerwald stoneware</td>
<td>11</td>
<td>1.3%</td>
<td>7</td>
<td>1.9%</td>
<td>0.27</td>
<td>1.2%</td>
<td>297</td>
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<td><strong>Total</strong></td>
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<td>840</td>
<td>100.0%</td>
<td>376</td>
<td>100.0%</td>
<td>22.13</td>
<td>100.0%</td>
<td>12,263</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**TABLE 4**

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<th>Code</th>
<th>Form</th>
<th>SC</th>
<th>% SC</th>
<th>MNV</th>
<th>% MNV</th>
<th>EVE</th>
<th>% EVE</th>
<th>Wt</th>
<th>% Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALB</td>
<td>Albarello</td>
<td>8</td>
<td>1.0%</td>
<td>7</td>
<td>1.9%</td>
<td>0.35</td>
<td>1.6%</td>
<td>66</td>
<td>0.5%</td>
</tr>
<tr>
<td>BART</td>
<td>Bartmann jug</td>
<td>35</td>
<td>4.2%</td>
<td>14</td>
<td>3.7%</td>
<td>1031</td>
<td>8.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEAK</td>
<td>Beaker</td>
<td>17</td>
<td>2.0%</td>
<td>5</td>
<td>1.3%</td>
<td>0.86</td>
<td>3.9%</td>
<td>226</td>
<td>1.8%</td>
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<tr>
<td>BOWL DEC</td>
<td>Bowl, decorated</td>
<td>16</td>
<td>1.9%</td>
<td>11</td>
<td>2.9%</td>
<td>0.67</td>
<td>3.0%</td>
<td>281</td>
<td>2.3%</td>
</tr>
<tr>
<td>BOWL UNDEC</td>
<td>Bowl, undecorated</td>
<td>25</td>
<td>3.0%</td>
<td>14</td>
<td>3.7%</td>
<td>0.8</td>
<td>3.6%</td>
<td>566</td>
<td>4.6%</td>
</tr>
<tr>
<td>CAULPIP</td>
<td>Cauldon or pipkin</td>
<td>83</td>
<td>9.9%</td>
<td>25</td>
<td>6.6%</td>
<td>0.16</td>
<td>0.7%</td>
<td>1025</td>
<td>8.4%</td>
</tr>
<tr>
<td>CHP</td>
<td>Chamber pot</td>
<td>63</td>
<td>7.5%</td>
<td>17</td>
<td>4.5%</td>
<td>1.29</td>
<td>5.8%</td>
<td>1344</td>
<td>11.0%</td>
</tr>
<tr>
<td>CNDST</td>
<td>Candlestick</td>
<td>6</td>
<td>0.7%</td>
<td>4</td>
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<td>0.35</td>
<td>2.4%</td>
<td>43</td>
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</tr>
<tr>
<td>COST</td>
<td>Costrel</td>
<td>1</td>
<td>0.1%</td>
<td>1</td>
<td>0.3%</td>
<td>0.05</td>
<td>0.2%</td>
<td>19</td>
<td>0.2%</td>
</tr>
<tr>
<td>CUP</td>
<td>Cup</td>
<td>15</td>
<td>1.8%</td>
<td>5</td>
<td>1.3%</td>
<td>1.09</td>
<td>4.9%</td>
<td>168</td>
<td>1.4%</td>
</tr>
<tr>
<td>DISH DEC</td>
<td>Dish, decorated</td>
<td>75</td>
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<td>51</td>
<td>13.6%</td>
<td>2.24</td>
<td>10.1%</td>
<td>773</td>
<td>6.3%</td>
</tr>
<tr>
<td>DISH UNDEC</td>
<td>Dish, undecorated</td>
<td>33</td>
<td>3.9%</td>
<td>28</td>
<td>7.4%</td>
<td>1.4</td>
<td>6.3%</td>
<td>622</td>
<td>5.1%</td>
</tr>
<tr>
<td>JAR</td>
<td>Jar</td>
<td>4</td>
<td>0.5%</td>
<td>3</td>
<td>0.8%</td>
<td>0.53</td>
<td>2.4%</td>
<td>91</td>
<td>0.7%</td>
</tr>
<tr>
<td>JUG</td>
<td>Jug</td>
<td>83</td>
<td>9.9%</td>
<td>29</td>
<td>7.7%</td>
<td>1.05</td>
<td>4.7%</td>
<td>1395</td>
<td>11.4%</td>
</tr>
<tr>
<td>MBOX</td>
<td>Moneybox</td>
<td>19</td>
<td>2.3%</td>
<td>9</td>
<td>2.4%</td>
<td>2</td>
<td>9.0%</td>
<td>156</td>
<td>1.3%</td>
</tr>
<tr>
<td>MISC</td>
<td>Miscellaneous</td>
<td>71</td>
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<td>28</td>
<td>7.4%</td>
<td>0.62</td>
<td>2.8%</td>
<td>477</td>
<td>3.9%</td>
</tr>
<tr>
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<td>Mug</td>
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<td>16.0%</td>
<td>50</td>
<td>13.3%</td>
<td>2.36</td>
<td>10.7%</td>
<td>686</td>
<td>5.6%</td>
</tr>
<tr>
<td>PIP</td>
<td>Pipkin</td>
<td>67</td>
<td>8.0%</td>
<td>40</td>
<td>10.6%</td>
<td>1.82</td>
<td>8.2%</td>
<td>1693</td>
<td>13.8%</td>
</tr>
<tr>
<td>PORR</td>
<td>Porringer</td>
<td>81</td>
<td>9.6%</td>
<td>32</td>
<td>8.5%</td>
<td>4.35</td>
<td>19.7%</td>
<td>1535</td>
<td>12.5%</td>
</tr>
<tr>
<td>SKIL</td>
<td>Skillet</td>
<td>4</td>
<td>0.5%</td>
<td>3</td>
<td>0.8%</td>
<td>0.54</td>
<td>2.4%</td>
<td>66</td>
<td>0.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>840</td>
<td>100.0%</td>
<td>376</td>
<td>100.0%</td>
<td>22.13</td>
<td>100.0%</td>
<td>12,263</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Although Surrey-Hampshire border wares are again the most common source of pottery (55.3% MNV, 45.2% EVE), these are followed by London-area redwares (‘coarse’: 19.1% MNV, 37.4% EVE), with no more than six vessels recorded in fine Essex redwares, one piece of tin-glazed ware and four imported vessels (apart from Rhenish stonewares, most of which are drinking jugs). The other imported wares are of interest as they include sherds from three vessels in maiolica from the Netherlands and part of a Spanish amphora. The pottery is mostly earlier in date than the assemblage from Building 10, and includes a number of 16th-century vessels, although there are also a few mid-17th-century sherds. Vessels used in cooking and food preparation are the most common functional group in Building 7 (58.5% MNV, 77.5% EVE), contrasting with the emphasis on tablewares in Building 10. There are, however, sherds from a number of drinking vessels in different fabrics, both imported and regional, but only four vessels used for storage/transport (one jar in tin-glazed ware, one in PMR, one in Langerwehe stoneware and the Spanish amphora). All these are fabrics and forms that would commonly be found in a domestic setting, and are in large part typical of everyday household pottery from early to mid-17th-century contexts across the City. The small amount of tin-glazed ware (with more continental than English vessels) may be as much a reflection of the earlier dating of much of the pottery as of the relative wealth and status of the owners. The main contrast between the finds recovered from Buildings 10 and 7 lies in the makeup of the registered finds assemblages, which appear to suggest different usage of the two structures.

Wooden stoppers for casks or barrels account for almost a quarter of the individually registered finds from Building 7. A further 17% of the finds consist of small unidentified fragments of wood, most of which are probably related to barrels and other containers. There is also a relatively high proportion of ‘architectural’ finds, including fragments of stone mouldings and tiles (a total of 16.1% of all registered finds). Evidence for everyday household items is sparse by comparison, with fragments of only five table glasses and a low proportion of dress accessories (6.1%). The range and relative proportions of these finds are in marked contrast to the material recovered from Building 10, and appear to suggest a different usage for the Building 7 vault, which would be more consistent with its suggested use by Soane as a warehouse. A similar usage is suggested for Building 8, where a high proportion of the registered finds consists of architectural fragments and fittings (such as hinges), and of fragments of wood that could have come from barrels and casks, but with no dress accessories and only two fragments of table glass. There were only 18 sherds of pottery from a minimum of eight vessels, an unexceptional mix of largely local wares used for cooking and food preparation and at table.

Conclusions from the structural remains and the finds

The finds in the usage and destruction levels of these buildings therefore suggest that Building 10 was domestic, Building 11 perhaps utilitarian, the rebuilding of the vault in Building 7 for storage, and the rebuilding of Building 8 south of it possibly also as a warehouse. Further, it is probably significant that Building 11 lay at the top end of the lane, and almost certainly fronted Thames Street to the north. It can be suggested as well that Building 11,
in the ground floor excavated, was a shop on the major street; and that Building 10 was a house behind — whether connected to Building 11 physically or within the same tenancy we do not know. If we can assume that the rich array of artefacts in the drain beneath Building 10 came from the building above, the occupant of the house can be vividly portrayed as owning expensive cutlery, pottery from several European lands and China, and with Dutch tiles around at least one fireplace. It is not unreasonable to suggest the interior of Building 10 would have looked like a De Hooch painting. It may be that houses of this class had a predominantly Dutch cultural feel.

WAREHOUSES AND STOREHOUSES WITHIN DOMESTIC COMPLEXES, AND AS SEPARATE STRUCTURES

In the medieval period there were many properties on the London waterfront with cellars, no doubt used for storage of commodities, from wine to cloth, which were either imports or intended to be exports. The refurbishment, probably by Soane, of the great vault beneath the south side of St Botolph’s church illustrates the continuing use of such cellars up to the time of the Great Fire; those beneath churches in the City were commonly let for secular storage from the 14th century if not before. In this section, however, we are also concerned with the development in London of a different and specific building form or room function, the above-ground warehouse. At first this was not a separate building.

Two generations before the Fire and one generation before the time of Soane, the surveys of London buildings by Ralph Treswell in 1610–12 show the nature of warehouses at that time. Two sites are described here: one inland though near the waterfront, the second on the waterfront at Haywharf Lane, about 300m upstream to the west (Fig. 31).

Treswell’s surveys were of the ground floor of tenancies only, with written descriptions, including room functions, for the upper storeys. In all but one case a warehouse was a room on the ground floor and denoted two general sorts of storage: a room at the back of a shop, often as large as the shop, and in one case a collection of rooms with single entrances ranged around a courtyard, at the house of a rich clothworker. No warehouse had a fireplace; and, as far as can be told by reconstruction of the upper storeys, no warehouse in the Treswell surveys rose the equivalent of more than one storey within. These two configurations of warehouses are illustrated within one of Treswell’s surveyed blocks, that at Nicholas Lane and Abchurch Lane, two lanes which survive (though now crossed by the 19th-century King William Street) north-west of the bridge and the Soane site (Fig. 32).

When a warehouse was basically a simple, barely furnished but secure room, it could both be made out of another room within a domestic complex and in turn be adapted to some other purpose when required. This was a feature of medieval houses in other towns: at King’s Lynn, the now destroyed 8 Purfleet Street, next to the Purfleet inlet on the Ouse, had buildings ‘changing almost imperceptibly from house to warehouse’ and ‘it was a feature of housing developments in Lynn that the house was extended into the warehouse simply by partitioning, making new door openings, and improving the style of the windows’.127

Treswell made a distinction between a ‘warehouse’, which was evidently a place where goods were stored for immediate sale (whether wholesale or retail), and a ‘storehouse’, which (as in the case of a brewhouse) was perhaps for materials used in an industrial process.128 This is shown by another of his plans showing a long waterfront property about 300m west of the Soane buildings at Haywharf Lane, next to what is now Cannon Street railway station on its elevated platform south of Upper Thames Street (Fig. 33). Here a major tenant of the Clothworkers’ Company, William Campion, occupied a complex of buildings which included a brewery on the next property to the west (left on the plan). The crowded buildings on the plan included a large house for Campion at the south end of the property, four storeys high, with a hall and parlour on the first floor on the west side (presumably over the kitchen shown on the plan). Along Campion’s part of the property on the east side were five ‘storehouses’ (his rooms are numbered 1 on the plan). Between Campion’s domestic complex and Thames Street were six other small tenancies (numbered 2 to 7 on the plan) occupied by other tenants: these small units were three-and-a-half storeys high.

At Haywharf Lane we can see a special case of pressure on space resulting in warehouses off the ground floor. Treswell’s text describing the upper storeys of Campion’s buildings mentioned an impressive ‘long loft or warehouse’ $54 \frac{1}{2} \times 23$ ft ($16.6 \times 7.2$ m) in area on the east side, on the first floor; and a second ‘loft or warehouse’ of similar dimensions on the second floor, probably over the other loft.129

These parallels on Nicholas Lane and Haywharf Lane have been cited to suggest that Treswell’s surveys can be used to complement the archaeological evidence in the study of the configuration of ground-floor rooms and their functions in London buildings of the first half of the 17th century. The finding of this paper that in this
instance functions can be assigned to discrete buildings or parts of them from artefactual evidence is matched by the evidence of the surveys, which show that rooms and spaces were carefully distinguished by function in these house-and-business complexes; and that various solutions for the increasing problem of warehouse storage were being attempted.

Custom-built warehouses, that is, stand-alone buildings of several storeys designed for storage, are found in Amsterdam from about 1550; they could be of four main storeys with an extra three storeys in the high roof, and built of brick. So far such warehouses have not been identified in pre-Fire London. They probably existed, though in small numbers and perhaps only on the two sides of the waterfront. It may be that the clearance of much of the City by the Great Fire in 1666 provided a stimulus for the more common use of this new or newish building form.

FIG. 31
Map of early 17th-century London around the north end of London Bridge, showing the sites of the Soane buildings at Billingsgate (1), the Nicholas Lane–Abchurch Lane buildings (2), and the Haywharf Lane buildings (3) (from Schofield 2003, map 2).
Plan in 1612 by Ralph Treswell of properties belonging to the Clothworkers’ Company in Nicholas Lane and Abchurch Lane, London (from Schofield 2003, fig. 50). Key to room and space functions in 1612: C Cellar; Ch Chamber; H Hall; K Kitchen; P Parlour; Sd Shed; Sh Shop; St Study; W Warehouse; Y Yard.
Plan in 1612 by Ralph Treswell of properties belonging to the Clothworkers’ Company at Haywarf Lane, [Upper] Thames Street, London (from Schofield 2003, 216–17, with corrections). Key to room functions: as for Fig. 32, with addition of L Larder; S storehouse.
CONCLUSIONS

Thomas Soane probably lived elsewhere, near the site but in Eastcheap. He was no doubt the landlord of several (perhaps many) tenants on Botolph Wharf, all unknown to us. The excavated buildings were at the head of the lane which bisected the wharf, and there was probably a gap of about 50m from the south end of the excavation to the river. The excavated area was only a portion of the Wharf in the decades up to the Great Fire of 1666 (perhaps a quarter or slightly less), and there would have been other buildings on the wharf within Soane’s tenancy.

Soane was not an eminent merchant — or at least, not eminent enough to get his name into Robert Brenner’s survey of London’s overseas traders in the period 1550–1653. Although some of the rebuilding actions recorded in this study must have stemmed from Soane or his widow Elizabeth, that is the only clear connection between the archaeological material and them. The debris in these buildings can only be said to be from the buildings in their control as principal tenants. The most varied group of finds, from Building 10, is probably domestic; but we do not know who lived or worked in that building. It would have been a tenant of the Soanes.

This is almost the first time a detailed sequence of strata and finds from the period c. 1600–66 has been published for the City of London. A corpus of plans of properties, including warehouses, domestic units and shops, is given by the Treswell surveys of London and Westminster of 1607–12, which have been published. There is a considerable scholarship concerning the rebuilding of the City after the Fire; and two sites in the east part of the City, at Aldgate and Mitre Street, have been published in this journal. These sites comprised a block of small houses of the 1670s in the first case, and a single cesspit with pottery including a Jewish plate deposited in the 1740s in the second. But very little of the archaeology of the City for the period from 1600 to 1666 has so far been published. Although scattered cesspits and portions of brick buildings, including houses, are regularly found in modern archaeological work on London sites, there are as yet few large site reports concerning remains of the first half of the 17th century. A recent study of finds from waterfront sites on the south side of the river in Southwark has included a number of artefacts from this period, but they were redeposited in landfill or watercourses, and therefore without detailed context.

This study raises the question of the extent to which the excavated artefacts express the taste of a merchant or his tenants in the 1640s to 1660s. For the first half of the 17th century we know much about English country houses and their furnished style, but little about merchant houses and their material culture. As already noted, the work of Lorna Weatherill has illuminated the century after 1660; by studying diaries, household accounts and probate inventories, but not archaeological artefacts, she established that ownership of valued objects (clocks, pictures, china) was more common in towns and especially in London than in rural places. It has recently been argued that City merchants in the second half of the 17th century, at least from about 1670, were significantly cultured people with artistic tastes; they enjoyed ‘lacquer from Japan, tea and porcelain from China, textiles and diamonds from India, coffee and textiles from the Levant, and chocolate, hardwoods and tortoiseshell from the Americas’. Further, not only were the ‘middling ranks’ economically, socially and politically important, but at least after 1660 domestic goods which enhanced status or displayed social rank were, according to inventories, more likely to be possessed by commercial or professional people than by lesser gentry. The tastes of Londoners in the three decades prior to 1670 are less well known, and this paper has been a contribution to elucidating them.

In certain London contexts, excavated material can suggest the functions of buildings, whether domestic, trade or storage. Further, both structural developments and groups of artefact can be associated with documented people, though in this case not with any great certainty. The site was occupied by a mixture of domestic and warehouse buildings; presumably they are the buildings not of the Soanes but of their sub-tenants. The excavated remains can be compared with others which are lost but which were well documented in Treswell’s early 17th-century surveys. These surveys complement the Billingsgate excavation, confirming that in the first half of the 17th century, warehouse and storage functions were fitted into domestic complexes as far as possible, but that in certain cases warehouses were assuming a distinctive role which they would fully enjoy after the Fire released more space on individual properties. The wharf and the lane which led to it was a major traffic route, even at night, which was no doubt made more pleasant after 1656 by the bequest of another grocer, John Wardall, who provided a lantern on the corner of the church by Thames Street during autumn and winter nights. Ten years later all was to change in the Great Fire. Ideas about the ways goods should be stored probably changed at that time; in particular the special warehouse building which could store immense quantities of goods then gained currency. In London the custom-built
warehouse several floors high, and the complex of such warehouses, are phenomena of the decades after 1666.

**APPENDIX 1: CATALOGUE OF ILLUSTRATED REGISTERED FINDS**

*By GEOFF EGAN*

Conventions: accession numbers are in angled brackets and context numbers in square ones. Both series are within the site code BIG82.

**Dress accessories**

<1933> and <1934> [1627] c. 1630–80 (Fig. 26:59)

Thin leather strap with double, sub-hexagonal, copper-alloy buckle frame set on it. The two items do not seem to match (no pin survives on the buckle, and there are no holes certainly catering for one in the strap; a single hole near one end may have served a different purpose).

**Needlecase**

<1347> [1389] c. 1630–80 (Fig. 11:29)

Turned ivory needlecase with incomplete screw-on top; polished from use.

**Seal**

<2095> [1627] c. 1630–80 (Fig. 26:60)

Circular carved wooden seal finial with screw thread: design of a duck(?)-like bird with a curved beak standing among crude fronds of foliage. Presumably from a composite rod-form seal for stamping wax seals on documents, cf. a complete example in boxwood, with stamps at each end, from the 1545 wreck of the *Mary Rose* — an implement of somewhat different construction with a single flange and no holes in the nearest equivalent component.140

**Cutlery handle**

<1365> [1389] c. 1630–80 (Fig. 11:28)

Ivory handle with scallop-shell terminal and field of lozenge forms like conventional late medieval foliate motifs.

**Spoon**

<1720> [1389] c. 1630–80 (Fig. 12:32)

Incomplete wooden spoon: moulded handle, oval bowl. A rare survival of what was probably in its day quite a common material for these implements (on the 1545 wreck of the *Mary Rose* as many spoons of wood were recovered as pewter ones).141

**Spice grinder**

<1755> [1389] c. 1630–80 (Fig. 12:33)

Component of a spice grinder/pepper mill: turned, rebated wooden end piece with pair of opposed, angled flanges to engage in a correspondingly shaped void in the adjoining component and transmit turning when used; five drilled holes for the powdered product to come out. Cf. a mill of ash, complete except for the metal parts, found on the 1545 wreck of the *Mary Rose* — an implement of somewhat different construction with a single flange and no holes in the nearest equivalent component.142

**Glass vessel**

<1942> [1085] c. 1630–80 (Fig. 16:36)

Body fragment of French glass vessel: opaque white with blue, red and ‘aventurine’ copper-alloy filing ‘gold’ spots; possibly from a drinking cup. A prestigious and expensive import.143

**Stoneware vessel with pewter lid**

<1468> [1389] c. 1630–80 (Fig. 12:34)

Domed lid with twin-ball thumbpiece, attached by 2/3 hinge to strap around ceramic handle; from a Westerwald tankard.

**Playthings**

<2190> [919] 16th-century (Fig. 21:44)

Upper part of a 16th-century hand-moulded Raeren stoneware female figure with long hair against ornate headdress and remains of collar at the neck; most of arms and torso broken off.144 In view of the prominent, fashionable headdress, perhaps more likely a secular plaything rather than a devotional religious piece.

<1709> [919] 16th-century (Fig. 22:47)

Damaged turned wooden spinning top with rusted iron pin.

**Copper-alloy jettons from Nuremberg**

*Lombardic lettering*

<2757> [1464] c. 1480–1600, issued early 16th century (Fig. 22:45)

D 25.5mm: Corroded: discrete patches of brassy yellow and reddish copper colourings; ship on a sea, VO[. . . around. Rev: lozenge with four fleurs de lis, illegible lettering around. ‘French galley’ issue.145

<1775> [1621] c. 1580–1700, residual from mid-16th century (Fig. 26.57)

D 25mm; some wear: six-petalled rose, crowns and fleurs de lis around: wedge OSAOBSAO etc. round.
Rev: Orb with cross, wedge VABOVABOVABOV... etc. around. Maker: Hans Schultes I, 1553–84; nonsense legends.146

Lombardic lettering on first side, roman on second side

<1862> [1621] c. 1580–1700, residual from mid-16th century (Fig. 26:58)
D 25mm; some wear: six-petalled rose, crowns and fleurs de lis around, annulets around; wedge HANS8 SCHVLTES8GEMG around.
Rev: Orb with cross, annulets around, wedge VMABOVMABOVABOV...
[... around. Maker: Hans Schultes I, 1553–84; the legend on the first side is nonsense (on the second side the underlined letters are reversed; the Gs in bold are reversed and inverted).147

Roman lettering

<1486> [1389] c. 1630–80, issued late 1580s–mid-1630s (not illustrated)

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NOTES

2 Schofield & Dyson forthcoming.
3 Herbert 1834, 297–388; Nightingale 1995.
5 Nightingale 1995, 421–34, 527; Zins 1972, 89, 204.
7 Zins 1972, 134.
8 Dietz 1972.
9 Dietz 1972, no. 340.
10 Once duty had been paid, they would have been taken off the ship by lighter.
11 Dietz 1972, no. 730.
14 Coleman 1977, 66.
15 Weatherill 1996, 189.
16 CLRO, Repertories 19, f. 232v; 20, f. 269; 21, f. 597.
17 CLRO, City Lands Grant Book 1, ff. 137, 142; Grant Book 2, f. 27v.
18 CLRO, City Lands Grant Book 2, f. 99.
19 CLRO, City Lands Grant Book 3, f. 16v.
20 GL, MS 943/1, ff. 4, 5v, 22, 29, 47, 73.
21 GL, MS 943/1, ff. 37, 229, 4, 86v, 90v, 95v, 174, 177, 211, 219, 224, 229.
22 GL, MS 943/1, ff. 45, 115, 180v, 222.
23 GL, MS 943/1, ff. 37, 126v, 211, 224.
24 GL, MS 943/1, ff. 73v, 104v, 79v, 99v, 107.
25 GL, MS 943/1, ff. 48v, 51r, 62r, 62v, 61r.
26 Brenner 1993, 310, 335, 360, 546.
27 GL, MS 11588/3, 555, 581, 610.
28 GL, MS 11571/13.
29 GL, MS 11588/4, 181.
31 GL, MS 11588/4, 193.
32 He bequeathed to John Sone, son of his late brother Hugh Sone, £100; to Thomas Sone, son of the said John Sone, £50; to Clement Sone, brother of the said John Sone, £100; to Mistress Don(?)y their sister, £50; to Hester Sone her sister, £50; to my brother James Jenkins and my sister his wife, £40 (’to each of them £20’); to his cousin John Clark his sister’s son, £100; to Christ’s Hospital, £50; to William Amhurst, £10; to William Mandie, £10; to Thomas Peacock, £10 when he finished his apprenticeship; to his maidservant Ann Fleetham, £5; to his other maidservant Margarett Pelling, 40s; the residue to his wife Elizabeth Sone, who was to be his sole executors, with his cousin William Harris assisting as overseer of the will.
33 Herbert 1834, 358; for Wardall, see Brenner 1993, 375.
34 Roskams 1984.
35 A few phases within these two periods are not considered here because they relate to layers in the church of St Botolph Billingsgate, the south part of which formed the north-west part of the excavation.
37 Atkinson & Oswald 1969.
All are red (fabric 3033); most measure on average 221 \times 106 \times 55mm.

Also fabric 3033. They average 234 \times 112 \times 54mm.

The peg tiles had two round nail holes, 13–15mm in diameter, and measured around 267 \times 154 \times 16mm.

Accessions BIG82 <660> and <1580>.

Fifteen sherds of residual medieval pottery (256g), ranging in date from c. 1140 to 1400, were also found in six small contexts.

Context [1961]; for pantiles, see Smith 1999, 7–9.

Figure 14:1542.


Accession BIG82 <1924>.

Geoff Egan notes that a similar fragment was found at Cromwell Green, Westminster: Site CGW05, accession <20>.

Fabric 3031; average size 224 \times 107 \times 58mm.

The latter comprised three Penn tiles of two distinct sizes: a smaller tile (108 \times 105 \times 21mm) with Eames (1980), design 2535 (Hohler P88) and two other measuring 122–8mm square by 22–3mm thick with Eames design 2343.

The only complete brick retained is in red fabric 3033 and measures 248 \times 105 \times 65mm. The length suggests that it is a reused medieval example.

Site NFW74.

Smith 2001, 36.

The average brick sizes of each group are 157 \times 74 \times 35mm and 181 \times 83 \times 44mm. One large, hard yellow brick (237 \times 117 \times 62mm) in the same fabric as the smaller yellow bricks was incorporated in the reconstruction of the undercroft (context [1381]).

Average dimensions 217 \times 107 \times 55mm and 229 \times 105 \times 59mm. The larger ones were used to form the drains in the undercroft floor (average 231 \times 100 \times 62mm).

Eames/Hohler design types 2027, 2231/P54, 2353/ P58, 2551, P108 and P155 are present.

Fabrics 1678, 2191, 2497, 2504 and 3093.

Notably [1103] with [1096], and [1153] with [1456]. The medieval pottery ranges widely in date from c. 1050 to 1500, although most dates after c. 1270.

Hurst et al. 1986, 119, figs 55–6, esp. pl. 20.

Gaimster 1997, cat. 78, col. pl. 15.


Hurst et al. 1986, 237, fig. 112:356.

For example, Margeson 1993, fig. 63:597; Appendix 1.

Higgins 1989, 1.

The medieval tiles comprise decorated Penn tiles with Eames/Hohler designs 2070/P94 and 2552/P85 and plain yellow and brown glazed tiles from the Low Countries (fabrics 2323, 2497, 2504).

Dumortier 1999, pl. 1.

Pluis 1997, 216, A.01.05.07.

Schofield & Lea 2005, 246–7; Britton 1987, 175, no. 197.

Noël Hume 1977, 55, fig. 2:6.

Horne 1989, 17.

Betts forthcoming.


Pluis 1997, 356, A.02.07.03.


One of these (context [1298]) is a medium-sized group with 96 sherds dated to c. 1450–1550. An overall date range of c. 1350–1550 can be given, although most of the pottery is of 15th-century date.
110 Hurst et al. 1986, 126, fig. 54:168.
111 Willmott 2002, 60, fig. 58; 69, fig. 77.
113 Richards & Gardiner 2005, 133–4, fig. 3:25.
116 Fabric 3033. Average measurements 228 x 106 x 57mm.
117 Fabric 3033 measuring 249 x 119 x 58mm; fabrics 3033 and 3039 measuring 219 x 100 x 55mm.
118 Fabric 3031 measuring 201 x 98 x 48mm; fabric 3033 averaging x 107 x 55mm.
119 One is a decorated Penn tile in an unusual silty fabric type (fabric 3076). The pattern is uncertain but may be Eames/Hohler design 2819/P139 or E2820/P140. The second tile has a plain yellow and green mottled glaze and is in a more common Penn fabric type (1811).
120 Rackham 1926, 36, pl. 16; Schaap et al. 1984, 42, fig. 13.
121 Schofield & Dyson forthcoming.
122 Orton & Pearce 1984, 58–68.
123 Orton & Pearce 1984, fig. 30.
125 Sudds 2006.
126 Orton & Pearce 1984, 68, fig. 31.
127 Parker 1971, 57.
129 Schofield 1987, 119.
130 Meischke et al. 1995, 30–1, 39.
133 e.g. Reddaway 1951; McKellar 1999.
134 Thompson et al. 1984; Pearce 1998.
135 Egan 2005.
137 Weatherill 1996.
139 Weatherill 1996, 14, 191.
140 Richards & Gardiner 2005, 133–4, fig. 3:25.
141 Weinistein 2005b, 449, fig. 11:30, lower right.
142 Weinistein 2005a, 457–9, fig. 11:37.
143 See CGW05 <20> for another London fragment, from Cromwell Green, Westminster; for avenirure decoration on a 17th-century Venetian chakedony glass tankard, see Tait 1991, 165, pl. 210, right.
144 cf. Gaimster 1997, 228–30 and pl. 15:78 — two figurines of equestrian women from c. 1500–40, possibly the Flight into Egypt. David Gaimster (pers. comm. 2008) says ten such pieces were known when he was writing.
145 cf. Mitchiner 1988, 366, no. 1128; the succeeding examples progressively more distant parallels.
146 cf. Mitchiner 1988, 403–4, esp. no. 1362 (no precise parallel).
147 cf. Mitchiner 1988, 401–2, esp. no. 1344 (no precise parallel).

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ABBREVIATIONS

(CLRO City of London Record Office
EVE Estimated Vessel Equivalent
GL Guildhall Library
HMSO Her Majesty’s Stationery Office
MNV Minimum Number of Vessels
MOL Museum of London
MOLA Museum of London Archaeology
MoLAS Museum of London Archaeology Service
TNA The National Archive

SUMMARY IN FRENCH, GERMAN, ITALIAN AND SPANISH

RÉSUMÉ
Les bâtiments de Thomas Soane près de Billingsgate, Londres, 1640–66

ZUSAMMENFASSUNG
Thomas Soanes Gebäude in Billingsgate, London (1640–66)
RIASSUNTO
Gli edifici di Thomas Soane nei pressi di Billingsgate, Londra, 1640–66
Gli scavi condotti a Billingsgate, nella Città di Londra, nel 1982, hanno portato alla luce le estese costruzioni del Botolph Wharf databili al XVII secolo. I cambiamenti nelle strutture ed un insieme di manufatti straordinariamente ricco databile al 1620–66 (grande incendio di Londra) sono attribuibili al periodo della locazione di Thomas Soane — un droghiere — e più tardi a quella della sua vedova. I manufatti e i resti strutturali mostrano impieghi differenziati per usi domestici e di magazzino nel periodo immediatamente precedente l’incendio di Londra e completano le testimonianze documentarie. Se messi a confronto con le planimetrie eseguite da Treswell nel suo rilievo topografico del 1612 circa, gli scavi stimolano la discussione su come i magazzini rispecchino la configurazione degli edifici della Città prima dell’incendio del 1666.

RESUMEN
Los edificios de Thomas Soane cerca de Billingsgate, Londres, 1640–66
Durante el transcurso de excavaciones arqueológicas en la ciudad de Londres en 1982 se descubrieron varios grandes edificios en el Botolph Wharf del siglo XVII. Las alteraciones en las estructuras y una colección de objetos sumamente rica fechada en 1620-66 (el Gran Fuego de Londres) se han atribuido al arrendamiento de Thomas Soane, tendero, y después a su viuda. Los objetos y evidencia estructural demuestran una variedad de usos doméstico y de almacenaje justo antes del gran incendio, y complementan las fuentes escritas. Los resultados de las excavaciones, tomados en conjunción con la evidencia de los planos de Treswell de c. 1612, nos incitan a hablar de cómo los almacenes encajaban en la configuración de los edificios en la ciudad justo antes del gran incendio.

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