



POTIONS, POWDERS AND OINTMENTS: A POST-MEDIEVAL APOTHECARY OR DRUGGIST ASSEMBLAGE, AND THE EVOLUTION OF COLEMAN STREET

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SUMMARY

During the Roman period the site was situated on the edge of an industrial zone, which had developed along the Walbrook, and it seems to have remained an area of waste ground where domestic rubbish was dumped. The site saw renewed activity during the medieval period, between the 11th and 12th centuries, that may indicate industry or crafts taking place. By the 16th century pitting and dumping of domestic waste had ceased and the site was partially developed with two Tudor buildings fronting Coleman Street. These buildings were destroyed in the Great Fire of 1666. Evidence of the post-Great Fire buildings on the site was limited to a series of cesspits and drain runs. Within one of the cesspits a large apothecary or druggist assemblage, dated to the 18th century, was recorded. Documentary research has helped to place the assemblage in its contemporary context and provided an insight into life in this period.

INTRODUCTION

The Museum of London Archaeology Service (MoLAS) undertook an evaluation, watching-brief and excavation at the site of 19–31 Moorgate, London EC2 in the City of London; the site was previously evaluated by AOC Archaeology in March 1999. The area of investigation was limited to 19–23 Moorgate

and 58 Coleman Street as a double basement in the northern part of the property had removed all deposits (see Fig 1). The MoLAS evaluation took place in August and September 2000, the watching-brief between 2 and 27 February 2001, with the main excavation continuing until 10 April 2001. These works were conducted in response to redevelopment of the site by Moorgate Investment Partnership. The archaeological investigations were conducted under the site code MGA00.

The majority of the site had been truncated horizontally to the top of the natural deposits at c.9.70–9.80m OD. The north-west corner of site, c.100m², had been horizontally truncated to a height of c.11.00m OD allowing the preservation of stratified archaeological remains, although modern wall footings and drain runs cut into these deposits (see Fig 2).

NATURAL SEDIMENTS (OPEN AREA 1)

The site was situated to the west of the Walbrook on the upper edge of the valley, the natural subsoil rising gently from 9.07m OD in the east of the site to 9.77m OD in the west. Excavations at Northgate House (MRG95), which lay just to the east of the site (see Fig 1), showed this gradual incline

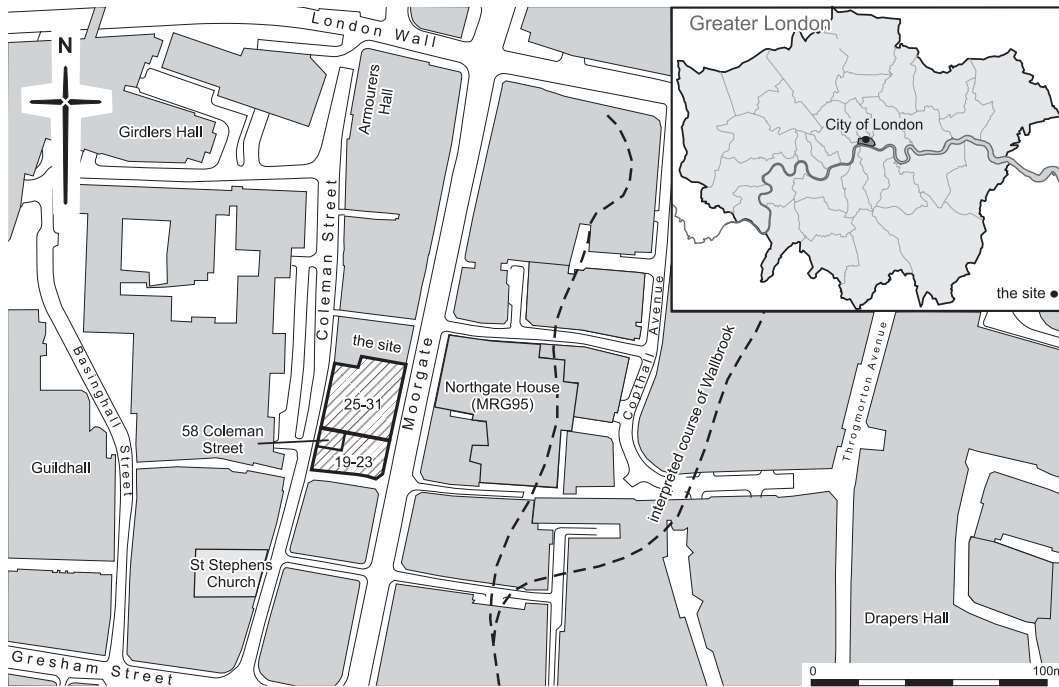


Fig 1. Site location (MGA00), showing the area of archaeological survival (19–23 Moorgate and 58 Coleman Street), the Northgate House (MRG95) site and the current interpreted course of the Walbrook

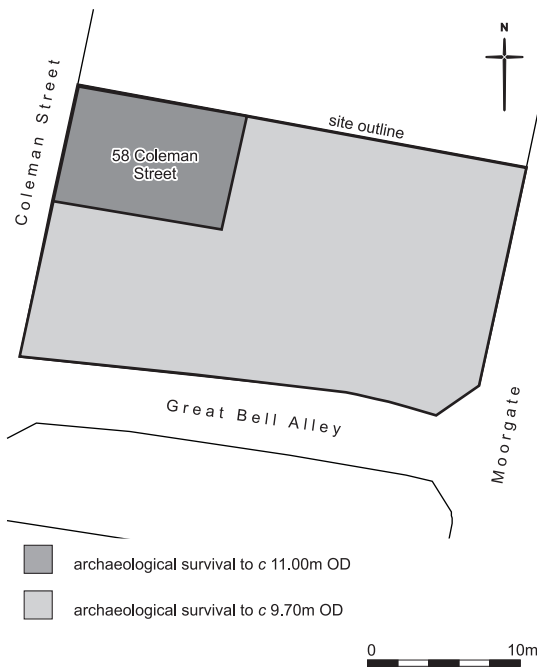


Fig 2. Trench location, showing the levels of archaeological deposit survival

breaking to become a sharp slope as it formed the Walbrook channel. Natural sediments were recorded at 8.80m OD on the western limit of Northgate House but fell away dramatically 20m to the east to 5.20m OD (Seeley & Drummond-Murray 2005, 9).

In the west of the site a gleyed, or degraded, brickearth was recorded that appeared to have been waterlogged in antiquity. During the Roman and medieval periods the ground level was raised by large make-up deposits. While the site would never have been as marshy as the Moorfields area of the Upper Walbrook, the nature of this brickearth and the presence of large make-up deposits suggest the site was periodically boggy ground.

Evidence from the previous evaluation and watching-brief suggested that deep-cut features existed on the site. These features were interpreted as Roman quarry pits or a prehistoric Walbrook channel, but no evidence was found to confirm either theory during the excavation.

What was recorded was the varying nature of the underlying geology. Different natural sediment types were recorded at the same height within close proximity; brickearth and gravel were both recorded at c.9.70m OD on the site. No conclusions were reached about the processes that had taken place during the formation of the natural sediments but their nature was not typical of nearby sites, such as the natural sands and gravels that were recorded on the west of Northgate House (Seeley & Drummond-Murray 2005, 9).

ROMAN PITTING (OPEN AREA 2)

The main phase of Roman activity on the site occurred between the 1st and late 2nd centuries. Due to modern truncation, the only archaeological survival from this early activity consisted of refuse pits, possible quarry pits and areas of dump deposits. The only evidence of any structures was limited to a small group of postholes within a dump in the north-west corner of the site. Later Roman activity was confined to two pits and a dump deposit dating to the mid to late 3rd century.

The sequence of Roman activity on the site reveals more through its omissions than its content. The site lies on the edge of a known industrial zone of the Roman city, but appears to have been an open area used for the disposal of household waste. The only definite evidence of industrial activity comprised a heavily fired crucible fragment, with traces of copper-alloy residue on the inside, which came from a pit fill (Group 73, [202]), and a fragment of glass furnace, which was redeposited in a medieval dump (Group 68, [21]). The dearth of industrial waste on the site suggests that there was a specific area for its disposal. The most likely place to attract the dumping of such waste would have been the Walbrook itself. The rest of the Roman finds assemblage suggests the domestic waste of an affluent area with numerous glass vessel fragments, a larger than average proportion of high status tablewares, and fragments of box-flue tile associated with hypocaust heating systems. That very few finds were recovered from the later Roman periods suggests a change in either population density or waste disposal practices by the 3rd century. In conclusion, it seems likely that the site was an area of

waste ground during the Roman period, and may have separated areas of industry from those of affluent habitation.

MEDIEVAL DUMPS, PITS AND INDUSTRIAL ACTIVITY (OPEN AREA 3)

Early medieval

After the Roman period the site appears to have been left vacant until the late 10th century. During the 10th–12th centuries the area around Coleman Street was redeveloped with a resurgence of industry occurring around the Walbrook. An indication of this development was the construction of St Stephen's Coleman Street before 1180 approximately 50m south of the site (Lobel 1989, 92; Schofield 1994, 130). On the site itself this period is characterised by temporary structures, pits and dumps.

From the 11th century evidence of activities other than the disposal of domestic waste begins to emerge. In the better preserved north-west corner of the site floors, surfaces, and hearths appear in between phases of dumps and pitting (see Fig 3). This state of flux between temporary structural features and phases of disposal occurs between the mid-11th and mid-12th centuries. At times the dumps and pitting activity also seem to have occurred as contemporary events, with several pits and dumps containing the same material. The small assemblage of Saxo-Norman pottery contained generally domestic cooking and storage wares with a small number of drinking vessels. Cooking pots and storage jars were found in coarse London-type ware (LCOAR), early medieval shell-tempered ware (EMSH), local greyware (LOGR), and early medieval sand- and shell-tempered ware (EMSS). Some of the local greyware and early medieval shell-tempered ware vessels have simple thumbled decoration on the rim. A small number of vessels used for pouring liquid refreshments or as drinking vessels are found in the form of spouted pitchers or beakers. These are less common in local English wares, of which two spouted pitchers occur in early Surrey ware (ESUR) and early medieval shell-tempered ware (EMSH), but are more common in European imports, such as a beaker in red-painted ware (REDP) from the Meuse-Rhine

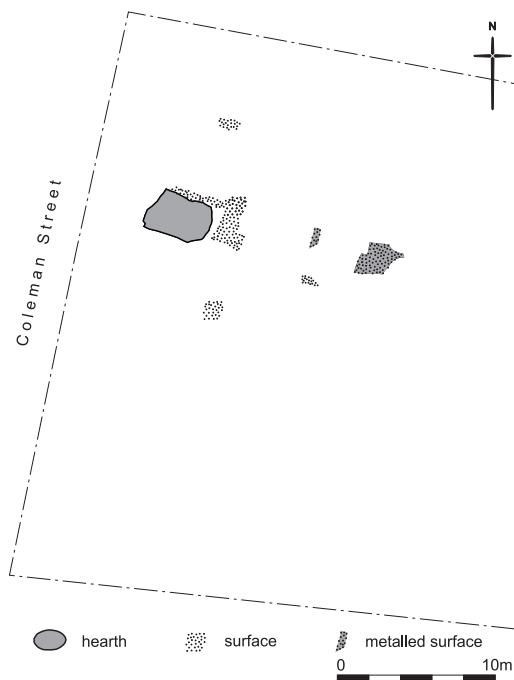


Fig 3. Medieval hearth, floors and metallised surfaces

area and a spouted pitcher in Andenne ware (ANDE) from France or the Meuse region.

The first phase of structural activity recorded comprised three patches of metallised surface that date to between 1050 and 1150. Two of these surfaces were shown to contain quantities of iron-working slag. The slag could have been reused from a nearby furnace or created deliberately to form a strong compact surface. Unfortunately, although iron slag was recorded in a number of pit fills, there is no conclusive evidence that smithing was taking place on the site. These patches of metallising were well away from the street front, which was probably not metallised itself at this date, and may represent a working surface for an industrial or craft process. An environmental sample was taken from one of the metallised surfaces, [351], which produced a charred assemblage dominated by horse bean (*Vicia faba* L.) and pea (*Pisum sativum* L.) seeds with poorly preserved grains of oats (*Avena* spp), wheat (*Triticum* spp) and barley (*Hordeum* spp). The sample was interpreted as the result of fodder or food waste. The metallised surfaces were

sealed by further hearths of a contemporary date (not illus) from which environmental samples were also taken. The small charred assemblage consisted of one barley or wheat (cf *Hordeum/Triticum* spp) grain, three oat (*Avena* sp) grains, one barley (*Hordeum* sp) grain, one St John's Wort (*Hypericum* sp) seed and fourteen goosefoot (*Chenopodium* sp) seeds. The waterlogged assemblage was dominated by seeds of dry, open, manured waste ground: knotgrass (*Polygonum aviculare* L.) and catchfly/campion (*Silene* spp) (Stace 1991, 216–18; Grime *et al* 1990, 264). Other plants of cultivated and waste ground habitats were recovered and these included seeds of fumitory (*Fumaria officinalis* L.) and goosefoot (*Chenopodium album* L.). The assemblages have a limited ability to tell us about the possible diet of individuals on the site but they do suggest the majority of the site was still open waste ground.

Although lack of evidence limits in-depth analysis of the function of this rapid succession of features, their existence within such a limited time frame marks a dramatic change in activity on the site. The nature of the features does not suggest any form of permanent building but rather temporary structures, possibly associated with a localised cottage industry. They could even have been associated with the construction of St Stephen's church nearby.

Later medieval

The final phase of medieval activity on the site is a series of domestic rubbish dumps and pits dated to the mid-13th to early 16th centuries. Although due to modern truncation no structural evidence was recorded from this period, evidence from documentary sources and recovered building materials suggest affluent buildings lay in the vicinity and that the site was within this area of development. By the early 13th century the Guildhall had been established less than 100m to the west of the site (Lobel 1989, 76; Bowsher *et al* 2007, 65). Notable among the finds from the site was a worn fragment of a decorated floor tile of high quality, which was found in the fill of pit [53] (see Fig 4). Its design has not previously been published, but its fabric (3081) and other details suggest that it belongs to the Chertsey-Westminster group



Fig 4. 13th-century floor tile (Scale 1:2)

(Eames 1980, 172–8). Such tiles date from the second half of the 13th century and were high quality products. Their use seems to have been restricted to high status buildings, such as Westminster Abbey, and to the more prosperous parish churches in the City.

The later medieval pits and dumps provided information regarding the diet of local residents. The contents of the pits were dominated by domestic species, with cattle best represented, followed by sheep/goat and a lesser quantity of pig. Butchery was common on the bones and emphasis on lower leg and head was evident for cattle and sheep/goat, with a number of shoulder and pelvis bones also present from cattle. While the butchery on some of the bones may represent slaughter activities, many of the others seem to be the result of the consumer. Limited evidence of horn core preparation was also recorded on the site but not to a level that might suggest local industry. The animal bones show no organised programme of slaughter for food production or industry on the site and seem to relate more to domestic waste. Other food species were not common from the pits, with only a small quantity of chicken, duck, goose, brown hare, roe and red deer recovered. The small quantities indicate their presence in the diet, but it is unlikely that they represented a large or significant part of the general food consumed. Fish was represented by only small quantities of cod.

The majority of the pitting and dumping occurred prior to the 15th century and had finished by the early 16th century, with no pits or dumps dated later than 1500. The end of the pitting in the early 16th century heralds the beginning of significant development on the site.

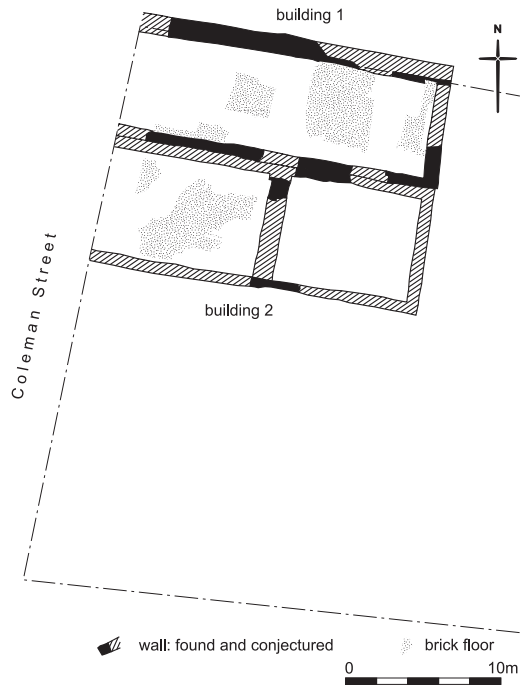


Fig 5. Plan of the Tudor cellars and their later brick floors

TUDOR BUILDINGS 1 AND 2

The Tudor period marks a new phase of development on the site, and two properties fronting Coleman Street were recorded in the north-west corner (see Fig 5). The building remains consisted of the cellars of two properties with up to 1m of the cellar walls standing. Cellars were mainly used for additional storage space but it was not unknown for them to be let out as separate properties, be used as shops or hold the house kitchen (Schofield 1995, 80). Evidence from the site showed that the southern cellar (Building 2) was constructed after the northern one (Building 1) but that this occurred with little delay as the materials and nature of their construction were so similar. Evidence from cartographic sources such as the Agas map of the 1560s also shows the presence of buildings on the site in this period (see Fig 6). It is tempting to link the two properties shown on the Agas map with the two properties recorded on site.

Due to truncation and the lack of stratigraphically related features containing good

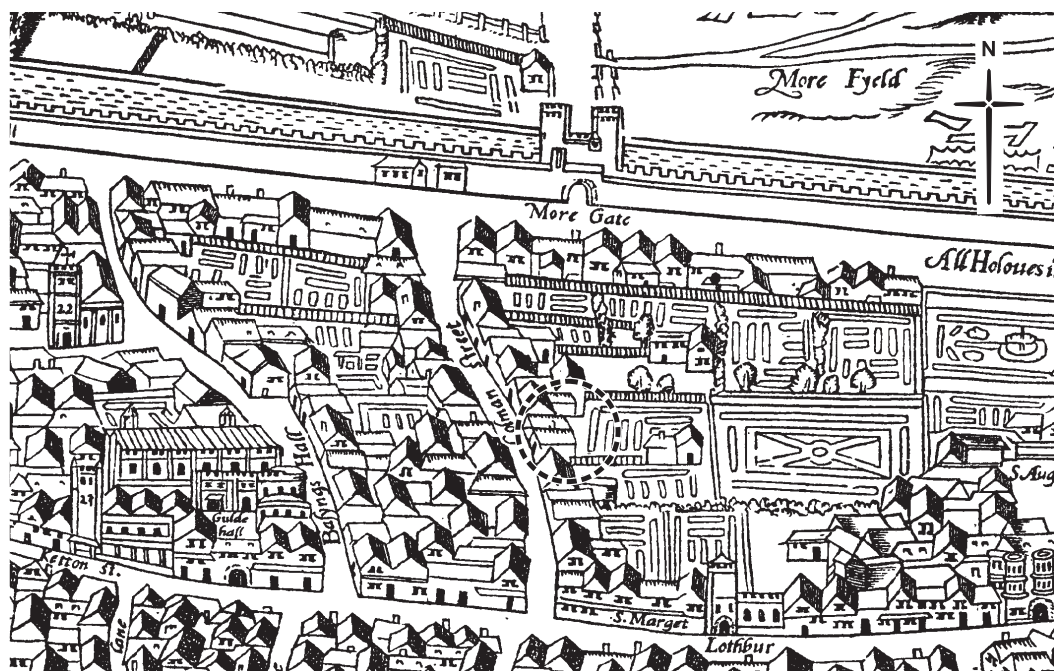


Fig 6. The Agas map of the 1560s

finds assemblages, it is difficult to place a firm date on the buildings. Brick samples were taken from several of the cellar walls, which dated from c.1400 to 1700. The bricks often showed sunken margins, usually on the upper bedface, which indicates that they were hand-made (Betts 1996, 6–10). In length they range from 208 to 231mm (median 225mm), in breadth from 97 to 112mm (median 105.5mm), and in thickness from 50 to 64mm (median 55mm). Although it can be hazardous to use brick dimensions as a chronological guide, it is true that in general they become thicker over time. It is therefore of interest that those from the cellar walls are predominantly thin, with an interquartile range of 52–7mm. This may well indicate that they are of Tudor rather than of Stuart date. The cellar of the southern building also truncated a dump deposit, Group 23 ([208]), which contained pottery dated from 1480 to 1600. The combination of the documentary, material and stratigraphic evidence, as outlined above, suggests a late 16th- to early 17th-century date for the buildings.

The people who built the properties also utilised materials that were scavenged from the area, such as a piece of Reigate stone,

built into the eastern wall of Building 1. The stone was in the form of a rough pyramidal frustum and was probably a roughed-out Norman capital, which for some reason was never completed. Another piece of Reigate stone was also recorded in the southern wall of Building 1. It would have formed the inner angle of a splayed window and appears to be of a medieval date.

After the cellars had been established for some time they were fitted with brick floors (see Fig 5). The floors were probably added as an improvement, but may also denote a change in function of the cellars. The northern cellar seems to have had at least two areas of activity. The area of the floor closest to Coleman Street was surfaced with flint cobbles whereas to the east it was constructed purely of brick. The brick floor of the southern cellar was well worn, and a repair patch had been inserted. The southern cellar floor also had a series of stake holes inserted through the brick to support an internal structure or partition (not illus). Both cellars seem to have been dynamic places and perhaps were used for trades. That the brick floors had time to become worn and altered, when they were later additions



Fig 7. Faithorne and Newcourt's map of 1658

to the cellars, supports the notion that the cellars date from the late 16th to early 17th centuries as they would have needed time to become weathered prior to their destruction in the Great Fire.

By the time of Faithorne and Newcourt's map in 1658 (see Fig 7) the site and the surrounding area had become densely populated, with Drapers Gardens to the north-east being the only unbuilt area within this part of the City. Between 1550 and 1630 the population of London had risen from 50,000 to 200,000 creating great pressure on housing (Schofield 1993, 157). The building boom that accompanied this rise in population has been suggested to occur during the period 1570–80 following the Dissolution, with a slump in the 1590s due to bad harvests, followed by another boom in the period 1620–40 (Schofield 1995, 26). The buildings recorded on the site appear to be part of the earlier phase of this housing boom.

FIRE DEBRIS AND DESTRUCTION (OPEN AREA 4)

In 1666 the Great Fire razed most of the City. The devastation stretched almost to

the junction of Coleman Street and London Wall, as is shown by Leake's map of 1667 (see Fig 8). The destruction of the buildings on site was recorded as fire debris, which sealed the brick floors and consisted of ash, burnt timbers, burnt building material and rubble.

Within the fire debris were several finds and internal fittings, which helped us refine the date and nature of the buildings. It appears that the debris had been sifted through to find any whole tiles or objects that could be reused as no complete artefacts were found. This is in keeping with accounts from the time, as people tried to salvage as much as possible from their ruined homes (Weinreb & Hibbert 2008, 341). Several fragments of window glass were recovered from the fire debris with burnt material adhering to them. These were quarry panes, which would have been used in composite windows. A large iron staple was also found in the debris, presumably some form of structural fitting. One complete tin-glazed floor tile and fragments of possibly four others were recovered from the fire debris in fabrics 3067 and 3086. The complete tile measures 137 by 138mm and is 18mm thick. All the tiles have



Fig 8. Leake's map of 1667

similar decoration, a checkerboard pattern set within a multi-circular border. They are in blue, purple, green, and brownish-yellow on a white background. Of particular significance is the purple band in the circular border of each tile. This seems to be a characteristic feature of tiles made at the Aldgate tinglazed pottery and tile works, which was in operation from 1571 to c.1615 (Betts 1999, 173). Some of the tiles are slightly blackened, possibly the result of heat damage in the Fire. The floor tiles support the Tudor date of the cellars and suggest that the occupants were reasonably affluent.

Other high status finds were also recovered. The corner of a tin-glazed wall tile in fabric 3064 was found with the tin-glazed floor tiles in the fire debris. It is 10mm thick and shows a fleur-de-lis corner motif in blue on white. This is characteristic of tiles of Dutch manufacture (Pluis 1997, 543, no. C.02.00.07). Wall tiles first arrived in London in the 1630s and this example may be of mid-17th-century date. The addition of such wall tiles to the properties indicates that the occupants had a disposable income that could be spent on the new technologies and fashions of the

time. The occupants were likely to have been members of the burgeoning middle classes whose wealth helped drive the development of such areas as Coleman Street.

POST-MEDIEVAL BUILDING 3

The Great Fire had destroyed the original Tudor buildings on the site but their foundations were utilised in the construction of a new property on the site: Building 3. The northern foundation of Building 1 (see Fig 5) appears to have acted as a foundation to all the subsequent buildings on the plot until the current redevelopment, the walls containing remnant bricks from the post-medieval to the present day.

The other evidence to survive from the immediate post-Great Fire buildings was a series of three cesspits and two sections of brick drain run, which had cut through or sat atop the earlier Tudor cellar floors (see Fig 9). The three brick-lined cesspits that were recorded seem to be internal features of Building 3 as they all lie within 5m of Coleman Street, inside the footprints of the earlier Tudor buildings. Dating evidence

from the primary fills of the cesspits shows that they were in use by the late 17th century and probably represent the buildings that immediately replaced the Tudor properties destroyed in the Great Fire. At least two of the cesspits were in use until they were permanently backfilled in the late 18th century and contained joining sherds from the same vessels, meaning that the features were filled with the same material at the same time. The pottery assemblage recovered from the cesspits dates from 1745 to 1780 and contains a variety of domestic earthenwares and porcelain. Of note is the absence of any industrial finewares, such as Creamware or Pearlware, which were in production by c.1740 but became dominant by 1800. Their absence is significant for the date of this group placing it nearer the mid-18th century. That two cesspits were open at the same time and within such a close proximity to each other suggests that either several properties were built on the site or one property was divided into several residences.

THE APOTHECARY OR DRUGGIST ASSEMBLAGE (CESSPIT GROUP 3)

Jackie Keily and Lucy Whittingham

Although the cesspits appear to have been backfilled at the same time, the contents of cesspit Group 3 were of particular interest (see Figs 9 and 10). The cesspit contained ceramic and glass assemblages and, in addition, a complete iron knife with an ivory 'pistol-grip' handle, part of a thin, circular lead sheet, a copper-alloy mount, a fragmentary pin with a wound wire head, and a fragment of corroded iron. The ceramic assemblage contained numerous single vessel types and is composed primarily of pharmaceutical vessels (34%). However food and drink consumption vessels (16%), kitchen/serving vessels (20%) and hygiene vessels (18%) are also all well represented. The plain white tin-glaze earthenware ointment pots, as in dump [49], are acknowledged and common products of the late 17th- and 18th-century pharmacy. These 15 tin-glazed ware C (TGW C) examples range in size from 40mm to 90mm rim diameter and were used for the sale of various ointments, such as eye ointment sold in the late 18th century as 'Singletons eye ointment' using tin glaze ointment pots produced at Vauxhall potteries (Britton 1987, 168). Kitchen or serving vessels are bowls, wide bowls, flanged dishes, small dishes containing pigment, pipkins and tripod pipkins in Surrey/Hampshire border whiteware (BORDY) and redware (RBOR) and London-area post-medieval redware (PMR). Food consumption vessels are plates in Chinese blue and white porcelain (CHPO BW) and tin-glazed ware with plain white glaze (TGW C) or 'chinamen in grasses' decoration (TGW F). Drinking vessels include teacups, tea bowls and tankards in Staffordshire white salt-glazed stoneware (SWSG) and Chinese blue and white porcelain (CHPO BW). Hygiene vessels include chamber pots and stool pans in tin-glazed ware with plain white glaze (TGW C), tin-glazed ware with plain pale-blue glaze (TGW BLUE), Surrey-Hampshire border redware (RBOR), and London-area post-medieval redware (PMR). The ceramic assemblage does not represent one clear function, as it is comprised of a wide range of

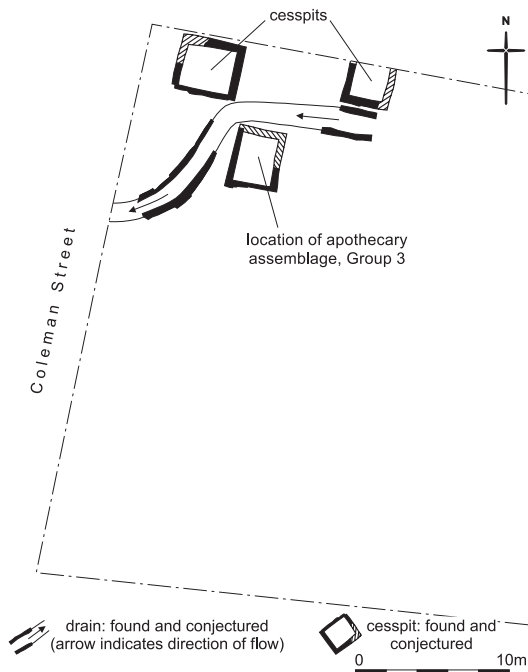


Fig 9. The post-Great Fire, 17th-century brick-lined cesspits and 18th-century brick drain



Fig 10. A selection of vessels from the apothecary or druggist assemblage

vessel types which relate mainly to domestic activities. The 16 or 17 ointment pots and a single albarello that make up the 34% of ceramic pharmaceutical vessels could be seen as deriving from domestic use if it were not for the associated glass assemblage.

The glass assemblage consisted of mainly bottles, flasks and phials, which, if considered with the pharmaceutical element of the ceramic assemblage, appear to be the disposed contents of a shop which dealt in pharmaceutical items (see Fig 10). The remains of up to six wine bottles, all in dark green glass, were found. These include one complete and three near complete. Five of the bottles have slightly tapering, straight-sided bodies and probably date to the first half of the 18th century. The sixth bottle has an octagonal body, a form also known in the first half of the 18th century. Both these forms of bottle find parallels in the large assemblage from Broad Arrow Tower (BAT), Tower of London (Shepherd unpub), where they were found in contexts dating to the second quarter of the 18th century. These green glass bottles were most commonly used for wine or beer (Charleston

1984, 262), but could also have been used, in a pharmaceutical context, for medicines or other liquids (Matthews 1971, 58). In particular they were used for holding larger amounts, such as quarts, halves and pints. In the 1730s there are records of Silvanus and Timothy Bevan supplying large numbers of green and black (*ie* very dark green) bottles to Guy's hospital (Crellin & Scott 1970, 150, note 107). Another type of container, common in the late 17th to 18th century, is the small globular-bodied flask, similar to a miniature wine bottle. Two fragments in colourless glass, probably from the same flask, were found, as well as a near complete example in green glass. Both have quite high, pointed basal kicks and the one surviving rim has an applied flat, straight string rim. These vessels have been found in Britain and in the American colonies (Noël Hume 1968, 75); it is thought they may have been used to hold oils and vinegar (*ibid*; Fryer & Shelley 1991, 193, nos 14–15). Examples found at Broad Arrow Tower came from phase IV and were dated c.1725–50 (Shepherd unpub, nos 239–44), whilst examples from the slightly earlier pit assemblage found at 16 Tunsgate, Guildford,

Table 1. Heights of phials and their frequency from MGA00, Group 3

Height	41–45mm	56mm	65–75mm	85–88mm	93–98mm	133mm
Phials	2	2	7	4	3	1

Surrey were dated c.1680–1710 (Fryer & Shelley 1997, 193, nos 14–15 and fig 31).

The remains of up to 59 pharmaceutical phials were recovered from cesspit Group 3, including 16 complete and a further 5 near complete examples (see Fig 10). The phials are of a uniform form, having straight-sided, cylindrical bodies with a basal kick, angular shoulders, a short neck and a flattened, horizontal rim. The only variation is in the size and the colour of the glass: 41 are in colourless glass and 18 in green. Glass phials were originally made in green glass, but from the mid-18th century phials in colourless glass became increasingly common (Matthews 1962, 309; Noël Hume 1968, 74). 16 of the phials have a complete height and in all of these cases the base diameter is slightly wider than that at the shoulder. Using the height and their overall body size, six broad size groups could be discerned (see Table 1 and Fig 10)

The base diameters of the complete phials measured between 28 and 41mm, with four exceptions, which measured between 21mm and 24mm (these included the two smallest of the complete phials (height 41–45mm)). In addition, 37 base fragments were found with complete diameters, 16 of which were larger than those found on the complete examples, indicating that only broken larger phials were discarded. Overall the phials were of a similar form, as outlined above, with the exception of the example measuring 133mm in height. This phial is very tall and slender, with a base diameter of 28mm. Another phial with a height of 74mm has a wider base diameter (30mm). This means that although the remaining base and rim fragments were measured, it is not possible to draw any conclusions about their height or overall size.

There is evidence that different sizes of phials were used for different forms of medicines; larger phials and bottles being used for juleps, diluted mixtures and flavoured waters, whilst smaller ones were used for draughts and drops (Crellin & Scott 1970,

150). Phials were also used for powders and probably for pills too. Most of the phials in this group are of a size suitable for draughts and drops, *ie* the small to medium size range. The largest phial found is incomplete but has a rim diameter of 40mm. The fact that few larger phials are found may be due to the fact that they broke more easily and that these larger fragments of glass were returned to the glasshouse to be recycled as cullet (*ibid*). As mentioned above, although most of the phials recovered are of a small to medium size, there is quite a variation in the sizes of the surviving examples. It is of interest therefore to note that in the 18th and early 19th centuries obtaining phials that were consistently accurate was a major problem; as late as 1826 a pharmaceutical company was complaining about problems with the quality and uniformity of size (*ibid*, 149).

Three of the phials contained traces of a tar-like substance; since none were sealed, it was unclear if this material had originated in the phials or was something they had come into contact within the cesspit. The tarry substance was sampled and analysed by Alasia Vicarelli. Fourier Transform Infra-red Spectroscopy of the samples suggested that the substance was an asphalt/bituminous resin (Vicarelli 2002). Dark, brownish-black asphalt resins are found naturally occurring and as by-products of oil refineries. Asphalts are soluble in oils and waxes and can act as a plasticizer or a strengthener depending on the hardness of the variety (*ibid*). However, given the lack of any stoppers or sealants on these phials, it is likely that this material was present in the cesspit and came into contact with the phials there.

The remaining glass from the cesspit consisted of a stopper, the remains of two jars, and a small amount of window glass. The stopper was probably used with one of the larger phials.

The pottery recovered from this cesspit dates to c.1745–80 and this date is reflected in the forms of the phials and bottles present.

The glass assemblage can be best paralleled by that found in Phase IV at Broad Arrow Tower, Tower of London, which dates to c.1725–1750 (Shepherd unpub). Few pharmaceutical assemblages have been excavated or published from London. A particularly fine assemblage came from a site on Cannon Street (EAG87; Schofield & Maloney 1998, 247). A well, backfilled in the early 18th century, produced a large amount of phials and wine bottles, as well as finer vessels. It is interesting for comparative purposes with MGA00, as the changes in the forms of phials and bottles from the late 17th to the mid to late 18th century can be clearly seen. The phials from EAG87 are all in blue-green or greenish glass and have slightly more rounded bodies with sloping shoulders.

When the assemblage of ceramic and glass vessels was disposed of it is likely they were thrown into the first available rubbish area. This theory is supported by the delicate nature of the glass phials that make up the bulk of the assemblage, since the phials would have been less likely to survive the further they travelled. The assemblage therefore came from a nearby shop, possibly the building it was recorded within.

Documentary evidence

The discovery of the pharmaceutical assemblage prompted documentary research into the site and its surroundings by the author and Dee Cook, the archivist of the Society of Apothecaries. The research has revealed two possible sources in Coleman Street for the assemblage, an apothecary dating to the late 1730s and a druggist shop dating to the late 18th century.

On 2 January 1727/8 a Robert Millecent was bound apprentice to John Warren, a high-ranking member of the Society of Apothecaries (Cook 2003b; pers comm). Millecent completed his indentures in 1736, and was approved and admitted to the freedom of the Society that year (Cook 2003b; pers comm). In 1739 Millecent's residence/business is recorded as Coleman Street within the membership lists of the Society. Shortly afterwards Millecent disappears from the records, 1740 being his last entry, and he is presumed to have died in 1740/41 (Cook 2003b; pers comm). Although the assemblage

dates to c.1745–1780, the date when Millecent was practising is so close as to make it possible that the assemblage came from his shop.

Kent's London Directory of 1754 contains a list of businesses and their general street addresses. At the time Coleman Street seems to have been a centre of commerce and affluence as the majority of its inhabitants were merchants or shop owners. The directory lists a druggist shop in Coleman Street run by William and Robert Charlton. William and Robert first appear in the area in 1748 in the St Stephen's Coleman Street Inhabitants Lists of 1710–91; their relationship to each other was not recorded and it is unknown whether they were father and son, brothers or cousins. There is no mention of them or a Charlton family prior to this date, suggesting that they had moved into the district to set up business. The St Stephen's Coleman Street Inhabitants List places the Charltons in St Stephen's ward within the Coleman Street district. Unfortunately no maps or definitions of St Stephen's ward were found but it seems likely that the site fell within this ward. The Charltons, and their shop, were mentioned again for the last time in the Trade Directory in 1760. By 1787 they appear to have moved or died, as there is no mention of them in the records of the Coleman Street Orphan's Tax of that time. The only other records of any Charlton family members were the deaths of Elizabeth and James Charlton in 1771 and 1776, though whether either of them were related to William and Robert is unclear.

The glass assemblage and the pharmaceutical element of the ceramic assemblage from cesspit Group 3 suggest a shop nearby concerned with selling medicines and ointments. The documentary research presents two such businesses in the correct place at the correct date. Such a large number of phials, in addition to a smaller quantity of larger containers such as jars and bottles, indicates that the rubbish originated from commercial premises. Although phials were almost certainly used for many other purposes, their primary use at this time was for medicines and remedies.

The use of the phials, and the broader assemblage with which they were associated, would also have varied if they had originated from an apothecary, chemists or druggist

shop. Although all of these establishments would have dealt in similar commodities, there are key differences in their practice. The final judgement in 1703/4 in a key lawsuit, known as the Rose Case, gave apothecaries the legal right not only to compound and to dispense medicines but also to prescribe them, formerly the sole right of the physicians (Cook 2003a, pers comm). As a result of this change in the law, apothecaries developed into general practitioners of medicine and the majority began a gradual move away from general pharmacy into medical practice (Cook 2003a; pers comm). Many druggists (who dealt in drugs of an animal and vegetable origin) and chemists (dealers in chemicals) belonged to the Worshipful Company of Grocers, from which the Apothecaries had seceded on being granted their own charter of incorporation as a City Livery Company in 1617, and had no legal authority to compound, dispense or prescribe drugs (Cook 2003a; pers comm). Druggists and chemists were tradesmen who generally supplied drugs both wholesale and retail, though in practice they did often compound and prescribe simple remedies over the counter (Cook 2003a; pers comm). Although druggists and chemists may have had a passing trade in remedies, apothecaries' shops would be the establishments where most medicines were made up and would have had the more specialised skills and equipment with which to perform the task.

If the assemblage did represent the disposed contents of an apothecary's shop, other ceramic vessel types might have been expected. These would have included wet and dry drug jars and evidence of manufacture, such as pill slabs. The absence of such vessels may indicate that the rubbish deposited represents only a partial clearance of a shop or business; that the larger, more complete pieces were either retained or sold, and that only the smaller phials and the broken stock was discarded. The ceramic assemblage may be lacking some apothecary vessel types due to it coming from a druggist's shop and not an apothecary. Druggists would have had limited means of production and an assemblage from a druggist's shop would reflect this. However, both an apothecary's shop and a druggist's shop were in business in Coleman Street at the correct date and

the evidence is too scant to say which the assemblage came from.

Contrary to popular assumption, apothecaries and druggists did not concentrate solely on the making and selling of medicines and remedies, many also sold a wide variety of other goods. Although by the mid-18th century, in the City of London, a druggist's shop would have been much more likely to stock such items as it was nearly 50 years after the Rose Case ruling and apothecaries were recognised, legally ratified members of the medical profession (Cook 2003b, pers comm). A shop in Shrewsbury in 1706/7 is recorded as selling various draughts, mixtures and ointments, but also (amongst other things) oils, gums and resins, cochineal, isinglass, musk, spices, soap, oil of lavender, sago, invalid food, gold and silver leaf, chemicals (arsenic, borax, saltpetre), pigments (vermilion, carmine, umber, Dutch pink), brushes, varnish and pencils (Burnby 1983, 20). The two small Surrey/Hampshire border redware (RBOR) bowls were found to contain samples of pigment. Pigments were commonly sold at 18th-century pharmacies as shown by research into the fittings from an 18th-century pharmacy at Winchester (Lewis & Boorman 1990). These pigments were sold as artists' materials for watercolour or oil paints, for house painting and decorating, as well as being used by the druggists to tint their liquid preparations (*ibid*). In records of 1711–34 Thomas Bott of Coventry was recorded as selling groceries such as raisins, starch, coffee, jam, biscuits and spices, as well as medicines (*ibid*, 20–1). It is therefore also possible that the vessels in this cesspit came from such a shop and therefore perhaps display a more mixed content than those from a shop selling only medicines. Vessels such as wine bottles were used both for holding wines and also for storing medical mixtures. In addition, it is of interest to note the types of vessel glass that are not present in this assemblage: there are no table wares, such as jugs, drinking glasses or bowls, which would be expected to be present if this material derived from a household or tavern.

During the excavation of the cesspit an environmental sample containing charred, mineralised and waterlogged plant remains was taken that gave an indication

of plants that were possibly used in a pharmaceutical context. The plant remains could represent food waste but they also have possible medicinal uses and could have been ingredients in medicines. The medicinal uses of the plants are described below. Low numbers of mineralised mallow (*Malva* sp) seeds were recovered. The whole plant, particularly the roots, had medicinal properties. They were used to treat urinary infections (Culpeper 1653, 223), for chest infections and as an anti-inflammatory (Grieve 1973, 507). Grape (*Vitis vinifera* L.) seeds were also recovered in small quantities. Grapes, fresh and dried as raisins or currants, were used medicinally as diuretics, laxatives and as general restoratives (Grieve 1973, 833). Culpeper wrote enthusiastically about the tonic qualities of grapes: 'It is a most gallant tree of the Sun, very sympathetic with the body; that is the reason why spirit of wine is the greatest cordial among vegetables' (Culpeper 1653, 379). Dried plum/bullaces (*Prunus domestica* L.) consumed as prunes would have been used as a laxative and to improve poor appetites (Culpeper 1653, 276). Moderate quantities of mineralised cherry (*Prunus avium/cerasus*) stones were recovered. These had many medicinal uses and were often eaten dried. Like prunes they were used to aid digestion and to improve the appetite in addition to being considered a diuretic (Culpeper 1653, 276). They were also used to soothe chest infections and to ease catarrh (Grieve 1973, 191). Moderate quantities of waterlogged raspberry (*Rubus idaeus* L.) seeds were recovered. These fruits are very nutritious and contain high quantities of iron and vitamin C. The fruits had cosmetic uses as well as medicinal. They were recommended as a method of removing 'tartarus concretions' from the teeth and, when boiled and mixed with syrup, they were used to sooth digestive problems (Culpeper 1653, 290). Moderate quantities of waterlogged fig (*Ficus carica* L.) seeds were recovered. Fig juice was used to ease toothache and earache (Culpeper 1653, 142). The laxative qualities of figs would also have been employed and they have been recorded as used, roasted and pulped, to soothe gumboils, dental abscesses and tumours (Grieve 1973, 312). The botanical remains recovered from the sample could

be from an apothecary's or druggist's shop. A druggist could have been selling large quantities of such items or an apothecary could have been using them to compound medicines and drugs (Cook 2003b, pers com).

The sample and finds collection from cesspit Group 3 also included animal bones. The bones recovered were particularly diverse and included a mix of cattle, sheep/goat, chicken, eel, herring, smelt, cod family and plaice/flounder. The cattle bones were mainly from infants; most were butchered indicating veal was consumed. No bones were repeated, suggesting that the mix of body parts may have come from one individual. The presence of food refuse in the cesspit coupled with the domestic vessels in the ceramic assemblage indicates that the building was at least partially used for habitation.

OTHER CESSPITS WITHIN BUILDING 3

The other cesspits contained much smaller ceramic assemblages of a similar nature to those from cesspit Group 3. Together with ordinary domestic vessels, such as Surrey-Hampshire border whiteware (BORDY), bowls and tripod pipkins and London-area post-medieval redware (PMR) handled bowls, there are several pharmaceutical items. These include a plain white tin glaze (TGW C) ointment pot, a tin-glazed ware albarello with geometric blue decoration (TGW D), and a possible barber's bowl with wide flanged rim in plain white tin glaze (TGW C). The cesspits also contained a very corroded copper-alloy coin bearing a date of 1622(?), a plain copper-alloy ring, fragments of globular green wine bottle glass, a colourless phial fragment, and a fragment of window glass. In addition there were small fragments of an imported glass vessel made of *avventurina* glass, opaque white glass (*lattimo*) decorated with coloured blobs and streaks and patches of sparkling copper powder. Unfortunately this fragment is in very poor condition and it is impossible to identify the colours that the *lattimo* glass was decorated with apart from the patches of copper powder, which are still visible. The fragments probably come from a small globular-bodied flask or bottle. This type of glass is thought



to have been invented by the Miotti family of Murano before the middle of the 17th century (Tait 1991, 165). It was also made in other European glasshouses, particularly in France (John Shepherd pers comm) and is possibly pre-1700 in date (Tait 1991, 165). Such imported glass would have been expensive and is suggestive of a household with some degree of wealth. A fragment of an *avventurina* glass vessel was found during recent excavations at Bishopsgate in the City of London (BGB98).

THE BRICK DRAINS

The cesspits of Groups 3 and 4 appear to have been backfilled by the end of the 18th century and in their place a brick drain run installed (see Fig 9). The drain run seems to have been one system and would have serviced the area of both the Tudor properties. That the drain run crossed the property boundary suggests that either it was part of a drainage scheme arranged communally between the two buildings or after the Great Fire the two plots were merged. The presence of the drain run prompted documentary research into sanitation works that had been carried out in Coleman Street around the late 18th century. The City Sewers Record Book of July 1840 lists the continuation of the Dowgate Dock Sewer down Coleman Street in 1774, which was '3' high and 2'6" wide and flowed southward', probably flowing into the culverted Walbrook channel somewhere around Bank. The date of the sewer fits the date of the backfilled cesspits and it seems evident that it was the cause of their redundancy. The brick drains may have been constructed at the same time as 58 Coleman Street, a three-bay fronted house built in the late 18th century and still retained as 23 Moorgate (Bradley & Pevsner 1997, 464). The brick drain seems to have continued in use until at least the late 19th century since an iron grill was inserted and narrowing of the drain's width occurred sometime from 1850 to 1950.

CONCLUSIONS

During the Roman period the site appears to have been on the fringe of an industrial area and used for dumping domestic waste.

As the City grew through the medieval period the site continued to be on the fringe of development, with limited structural activity and some rubbish disposal. Although important buildings such as the Guildhall were erected less than 100m away, it took the population and housing boom of the Tudor period to bring buildings to the site. The two cellared buildings on site probably date from the expansion of London during the 1570s and seem to have been maintained, altered and redecorated during their lifetime suggesting reasonably affluent owners. After the destruction of the properties during the Great Fire of 1666 the process of improvement carried on through the evolution of services, such as the internal cesspits evolving into drain runs and 'modern' sewers in the 18th century. Of special importance was the discovery of the apothecary or druggist assemblage, which could have come from Millecent's Apothecary shop or the Charltons' Druggist shop. The archaeological evidence and documentary research tell an interesting story of the development of this City of London street.

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BIBLIOGRAPHY

- BETTS (1996), I M Betts 'New thoughts on bricks with sunken margins' *British Brick Soc Information* 68, 6–10
- BETTS (1999), I M Betts 'Early tin-glazed floor tile production in London' in D Gaimster (ed) *Maiolica in the North: The Archaeology of Tin-Glaze Earthenware in North West Europe c1500–1600* BM Occasional Paper 122, 173–4
- BOWSHER *et al* (2007), D Bowsher, T Dyson, N Holder & I Howell *The London Guildhall: An Archaeological History of a Neighbourhood from Early Medieval to Modern Times* MoLAS Monograph 36
- BRADLEY & PEVSNER (1997), S Bradley & N Pevsner *The Buildings of England, London Volume 1: The City of London*
- BRITTON (1987), F Britton *London Delftware*
- BURNBY (1983), J G L Burnby *A Study of the English Apothecary from 1660 to 1760* Medical History Supplement 3
- CHARLESTON (1984), R J Charleston 'The glass' in J P Allan *Medieval and Post-Medieval Finds from Exeter, 1971–1980* Exeter Archaeological Reports 3, 258–78
- COOK (2003a), D Cook *Apothecaries and Druggists* personal correspondence from the archivist of the Society of Apothecaries of London, unpub, archived with MGA00
- COOK (2003b), D Cook *Potions, Powders and Ointments* personal correspondence from the archivist of the Society of Apothecaries of London, unpub, archived with MGA00
- CRELLIN & SCOTT (1970), J K Crellin & J R Scott 'Pharmaceutical history and its sources in Wellcome Collections III. Fluid medicines, prescription reform and posology 1700–1900' *Medical History* 14 no. 2, April 1970, 132–53
- CULPEPER (1653), N Culpeper *The Complete Herbal*
- de DOMINGO (1994), C de Domingo 'The provenance of some building stones in St Mary Spital by geological methods' *London Archaeologist* 7 no. 9, 240–3
- EAMES (1980), E S Eames *Catalogue of Medieval Lead-Glazed Earthenware Tiles in the Department of Medieval and Later Antiquities British Museum*
- FRYER & SHELLEY (1997), K Fryer & A Shelley 'Excavation of a pit at 16 Tunsgate, Guildford, Surrey, 1991' *Post-Medieval Archaeology* 31, 139–230
- GRIEVE (1973), M Grieve *A Modern Herbal*
- GRIME *et al* (1990), J P Grime, J G Hodgson & R Hunt *The Abridged Comparative Plant Ecology*
- LEWIS & BOORMAN (1990), E Lewis & W Boorman 'Fittings from an eighteenth century pharmacy in Winchester' *Post-Medieval Archaeology* 24, 125–54
- LOBEL (1989), M D Lobel *The British Atlas of Historic Towns: iii The City of London from Prehistoric Times to c 1520*
- LOCKWOOD (1993/4), S Lockwood 'Reigate Stone: geology, use and repair' *Structural Survey* 12.5, 18–22
- MATTHEWS (1962), L G Matthews *History of Pharmacy in Britain*
- MATTHEWS (1971), L G Matthews *Antiques of the Pharmacy*
- NOEL HUME (1968), I Noël Hume *A Guide to Artefacts of Colonial America*
- PLUIS (1997), J Pluis *De Nederlandse tegel: decors en benaming 1570–1930! The Dutch Tile: Designs and Names 1570–1930*
- SCHOFIELD (1993), J Schofield *The Building of London, from the Conquest to the Great Fire*
- SCHOFIELD (1994), J Schofield 'Saxon and medieval parish churches in the City of London: a review' *Trans London Middlesex Arch Soc* 45, 23–145
- SCHOFIELD (1995), J Schofield *Medieval London Houses*
- SCHOFIELD & MALONEY (1998), J Schofield & C Maloney (eds) *Archaeology in the City of London 1907–91: a Guide to Records of Excavations by the Museum of London* The Archaeological Gazetteer Series, vol 1
- SEELEY & DRUMMOND-MURRAY (2005), F Seeley & J Drummond-Murray *Roman Pottery Production in the Walbrook Valley, Excavations at 20–28 Moorgate, City of London, 1998–2000* MoLAS Monograph 25
- SHEPHERD unpub, J D Shepherd *Broad Arrow Tower, Tower of London: the Glass*
- STACE (1991), C Stace *New Flora of the British Isles*



TAIT (1991), H Tait 'Europe from the Middle Ages to the Industrial Revolution' in H Tait (ed) *Five Thousand Years of Glass*, 145–87

VICARELLI (2002), A Vicarelli unpub technical report on tar-like substance from three phials from MGA00

WEINREB & HIBBERT (2008), B Weinreb & C Hibbert (eds) *The London Encyclopaedia* (3rd edn)

THE WORSHIPFUL SOCIETY OF APOTHECARIES, the website of *The Worshipful Society of Apothecaries, Origins and History*, <http://www.apothecaries.org/site-map/index.html>



