

## **A 15th century tile kiln and the 18th century ‘Abbey Gate House’ excavated at Furnitureland, Merton**

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*An archaeological excavation was carried out by the Museum of London Archaeology Service on the site of Furnitureland, Merton High Street, SW19. This archaeological work was undertaken following the positive results of an archaeological evaluation. It was carried out in order to explain the nature, extent and date of a number of foundation walls revealed during the evaluation phase of work and to reveal the full extent of a building known as ‘Abbey Gate House’ known from cartographic evidence. The excavation revealed a previously unknown late 15th century tile kiln. This kiln was placed within an earlier structure that consisted of a sunken building representing an open-ended forming shed for the manufacturing of tiles. Truncating the kiln were the chalk foundation walls for a small 16th or 17th century building which was later incorporated into a much larger 18th century brick house historically known as ‘Abbey Gate House’.*

### **Introduction**

During July 2000 the Museum of London Archaeology Service (MoLAS) undertook an archaeological excavation on the site of the former Furnitureland, Merton High Street, London Borough of Merton (TQ 2360 7010; fig 1). The work followed an earlier archaeological evaluation of six trenches and two further trenches were excavated (fig 2). The first additional excavation trench measured 24 x 13m and was located within the north-eastern part of the site (trench 7) with the second measuring 12.50 x 2.50m and located further south (trench 8), later extended to the east by 12m. The purpose of the archaeological excavation was to reveal the full extent of a late 15th century roof tile kiln and forming shed with an associated ditch (Saxby 2001). The site archive is available for consultation at the London Archaeological Archive Resource Centre (LAARC) under the site code MHH00.

### **Archaeological and historical background**

The main focus of activity in the area is concentrated on the Augustinian Merton Priory. The priory church is located 220m to the south-east of the study site, with the claustral buildings to the south of the church. The site itself is situated within the northern precinct of the priory. Merton Priory was established on its current site in AD1117 after being moved from an earlier site thought to be further to the west. This new site covered an area of 60 acres and was surrounded by a precinct wall (not illustrated). The northern part of the precinct wall follows the line of the current Merton High Street and then turns south, to the east, and follows the river Pickle (where the wall still stands). The southern part follows the line of the present Phipps Bridge Road and then turns northwards and runs along Abbey Road to where it joins Merton High Street (Miller & Saxby 2007).

The Priory continued its monastic functions until the Dissolution in 1538 when much of the stone from the priory was used to construct Henry VIII’s palace at Nonsuch (Miller & Saxby 2007, 159). Some of the building fabric, however, was used in the construction of local buildings. Two of these 16th century buildings were found during the excavations at the corner of Merton High Street and Mill Road (MIS92), to the east of the site (Saxby 1992). One of the buildings was rebuilt in the 18th century as a residence and was occupied from 1769 by a calico printer called William Fenning, who was in partnership with Benjamin Vaughan the Elder, Benjamin Vaughan the Younger, and James Halfhide (Sun Fire Insurance Co; Guildhall Library, MS 11936/193 No 274598; McGow 2000). It later became the apprentice house when Morris & Co occupied the site between 1881 and 1940 (Saxby 1992).

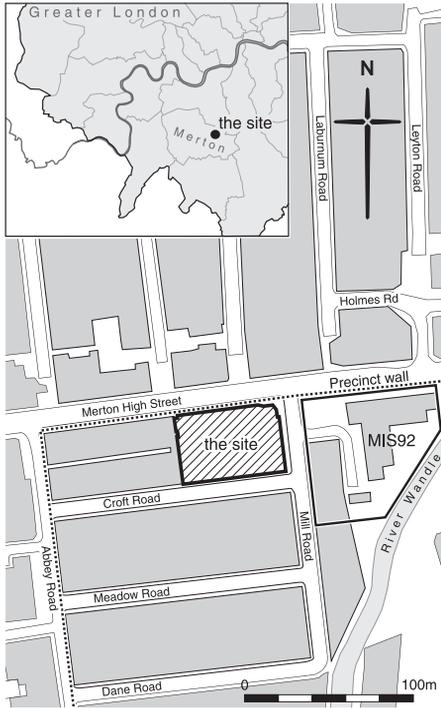


Fig 1 Furnitureland, Merton. Site location map.

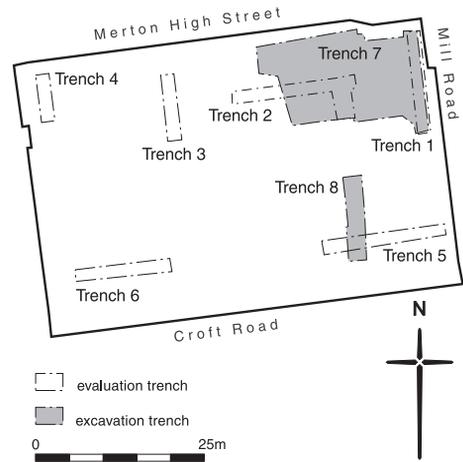


Fig 2 Furnitureland, Merton. Trench location plan.

During the 17th century part of the former precinct of Merton Priory had been developed into a textile manufacturing centre and from the early 18th century calico printing was the main industry. The first calico works, established in 1724, was located to the south of the site at the present Merton Abbey Mills. A second works dates from 1752 and is located to the east of the Abbey Gate House site. These works were probably established by Anthony Brown and Henry Clare and partner James Loton (GL: MA8674/84, p 223). It may have been one of these partners who built the Abbey Gate House as a large residential property.

During the latter part of the 18th century the Abbey Gate House was the residence of James Halfhide, a calico printer who ran the adjacent calico works with his partners. The Halfhides became bankrupt around 1804 and the Abbey Gate House and works were divided into two separate properties. The Abbey Gate House property, including grounds of around 9 acres, were occupied as a private residence by Charles Smith, a watchmaker from Bunhill Row, while the calico works were occupied by William West. Smith made a number of alterations to his buildings and property that are recorded on a survey of the property in 1805 which describes the building in detail: 'a substantial brick-built Dwelling House consisting of a kitchen, pantry, cellars, hall, 3 parlours, drawing room, 4 best bedrooms and 4 servants rooms – in good repair'. A weatherboarded wash-house and brewhouse, detached, lay adjacent, to the east (ML: Survey of Merton Abbey, 1805).

Charles Smith died in 1827, after which his brother, Rear Admiral Isaac Smith, took residence. The property was visited occasionally by his cousin, Elizabeth Cook, widow of Captain Cook. Isaac Smith was most famous as the first European to set foot on Australian soil from the lead boat of the HM Bark *Endeavour* on 28 April 1770 (Jowett 1951).

During the 19th century the Abbey Gate House was occupied by a number of residents and on 21 January 1885 the property was leased to Colonel John Wellesley and Colonel Fredrick Arthur Wellesley, descendants of Arthur Wellesley, the Duke of Wellington. Colonel John Wellesley lived at the Abbey Gate House and married the celebrated actress and dancer Kate Vaughan (née Catherine Alice Candelon, c 1852–1903). In 1895 Edward Walford described the 'Abbey Gate House' as:

The mansion, which fronts the road, is comparatively modern. On the lawn behind it are two large cannons, which are said to have been placed there by Lord Nelson. The house and its adjoining courtyard, barns and outhouses, are very spacious [...] The grounds have in them a fine avenue of elms, and some raised terrace walks on the south and west, but of the buildings themselves as clean a sweep has been made as in the case of the two abbeys mentioned above.

The Abbey Gate House was occupied by two more families until around 1905. It featured in the *Illustrated London News* of 16 July 1904 shortly before it was demolished. It was only by chance that it appeared in the *Illustrated London News*, as the property was mistaken for Lord Nelson's house at Merton, located to the west of the Abbey Gate House property.

## Results of the archaeological fieldwork

### MID-LATE 15TH CENTURY FINDINGS

#### *Structure 1*

During the mid-late 15th century, roof tile manufacturing was undertaken on the site. This included an open-ended forming shed and a tile kiln. The forming shed (fig 3) measured over 5.50m from north to south (truncated at the northern end by the later 18th century Abbey Gate House walls), 4.50m from east to west and was c 0.50m deep. Along the eastern and western sides of the structure were lines of post/stakeholes each measuring around 100mm in width x 100mm deep. The roof would have had to be light, pitched (probably timber framed) and able to span the 4.50m internal space (no central roof supports were located), so may have been lightly thatched.

Within the structure were two gullies, probably intended to aid internal drainage. The gully on the eastern side of the structure drained from north to south before entering into a pit located within the south-eastern corner of the shed. A second smaller gully also emptied into the pit from the west. The pit measured 1.35m north-south x 1.15m east-west x 750mm deep. Within the middle of the pit was a small sump or slot measuring 600mm north-south x 300mm east-west x 150mm deep. This feature was probably originally timber-lined, judging from the profile. The pit may have been a combination of a sump and a puddling pit. It is probable that damp, puddled clay was stored in the pit until required.

Associated with the forming shed was a ditch running south from its south-western corner. The ditch measured 29.50m north-south (visible in trenches 7 and 8) and then turned to the east (evaluation trench 5). The ditch was around 2m wide x 1m deep and cut with the upper sides at around 45° leading to a lower gully with vertical sides and a flat base. This lower ditch slot was probably timber lined at its northern end and was filled with yellow/grey fine sandy silt.

The ditch was lined with clay where it cut the natural sandy gravel. Within the northern end of the ditch, in the forming shed, were a number of square oak timber posts. The posts measured around 80–100mm in width, were placed at 100mm intervals and may have held timber planking. The lower main fill of the ditch was a 200mm thick mid-grey clayey silt (11) with frequent charcoal flecks and roof tile fragments. Pottery recovered from this fill dated to 1280–1500, and ceramic building material had a date range from 1480 to 1800.

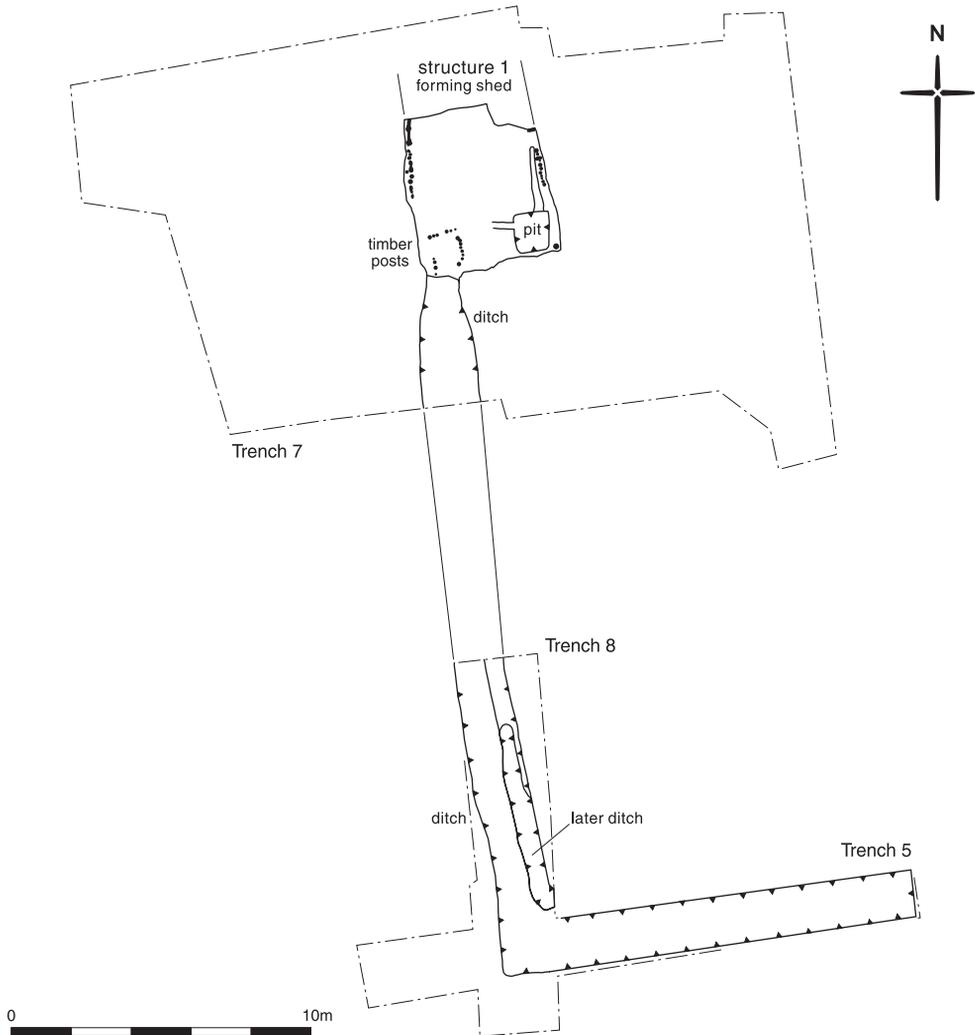


Fig 3 Furnitureland, Merton. Plan of the 'forming shed' and the north-south aligned ditch.

The area around the forming shed has the appearance of having been stripped of the upper layer of natural clay. It is likely that these deposits formed the raw material for the tile works.

#### *Structure 2 – the roof tile kiln*

The 'forming shed' may have produced tiles for a single firing as no further 'forming sheds' were found during the excavation. After the 'forming shed' was no longer needed a tile kiln was constructed within its walls (fig 4). The kiln itself was constructed from either waste tiles from earlier firing, unfired tiles or re-used tiles from Merton Priory. The kiln comprised three furnace chambers and measured 3.60m east-west and survived for 1.00m north-south. The furnace chambers were each 500mm wide, with a base of vertical peg tiles, and horizontal roof tiles forming the walls of each chamber (67, 73). The tiles used in the construction of the tile kiln have a date range between 1480 and 1800 and were bonded with clay and mortar (Smith 2000). The arched roofs for the furnace chambers did not survive, but the reconstruction allows for a semi-circular vault (fig 5). Some of the peg tiles were faced in a

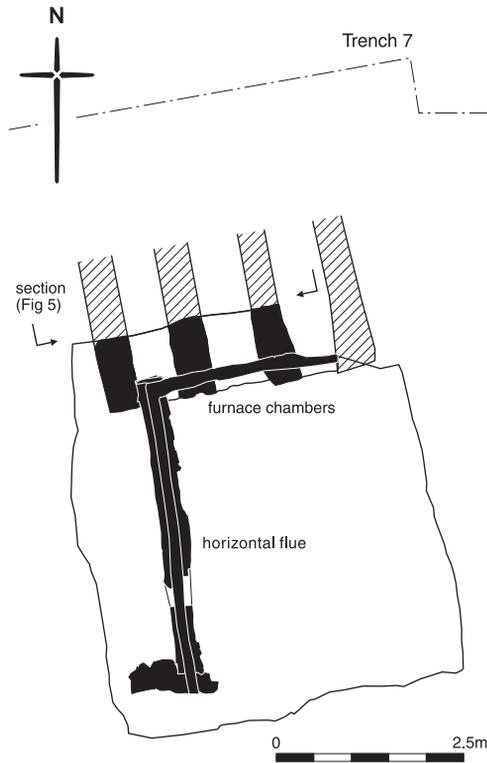


Fig 4 Furnitureland, Merton. Plan of the tile kiln.

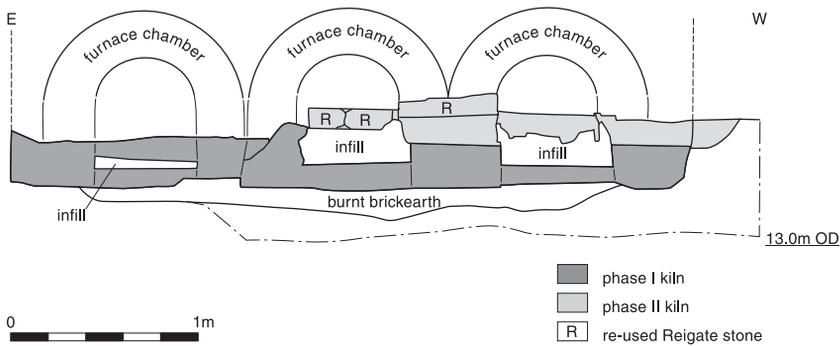


Fig 5 Furnitureland, Merton. Section of the truncated north side of the tile kiln with the conjectured roofs of the furnace chambers.

finer moulding sand which was in use only during the last two decades or so of the 15th century. Several tiles from the kiln are badly burned and warped, sometimes vitrified or fused together, having melted at a very high temperature. One tile preserves a full breadth of 153mm and a thickness of 14mm. One or two have circular holes for the pegs or nails used in their (intended) fixing to a roof (*ibid*).

The preponderance of peg tiles in fabric 2586 is interesting since these were also dominant in the material sampled from Merton Priory (Betts 2007). This may reflect the principal local raw materials used in tile manufacture. Some of the peg tiles are unusually large. The only full-length tile preserved was, interestingly, of exactly 1 foot (300mm), while some of the

breadths are 7 inches (*c* 180mm) or more and in one case almost 8 inches (*c* 200mm). There is, however, no correlation between these larger than normal sizes and the fabric types, large tiles occurring in all three fabrics present. Several of the tiles are also unusually thick, and this is a general feature of the site, with several as thick as *c*  $\frac{3}{4}$  inch (17 or 18mm) (Smith 2000).

During the early firings, a north–south aligned flue (53), constructed from peg tiles, was placed along the back of the kiln to help feed air to the kiln fires. This flue was first connected to the westernmost furnace chamber, but was then extended along the length of the furnace chamber openings, measuring 3.90m north–south x 300–380mm wide x 120mm high. The internal opening of the flue measured 200mm wide x 60mm high. The southern end of the flue was mortared onto a line of five east–west aligned re-used medieval Reigate stone blocks. These blocks were placed upon the partly backfilled northern end of the earlier north–south aligned ditch. The flue was constructed by laying tiles on the base, overlain by bonnet/ridge tiles forming the roof and bonded with a pale grey lime mortar. The peg tiles used in its construction are fairly unusual, and have been knife-trimmed along the edges of the sanded face. It is clear that the tiles were de-moulded onto their struck faces for subsequent treatment – ie pushing through the holes and trimming the edges of the faces. This may represent particular manufacturing procedures at a specific yard. Two ridge tiles in fabric 2586 are of particular interest, and although broken, join to form complete tiles. They were initially made as a 1-foot (300mm-) square tile and bent to form the ridge-tile shape; the latter task was probably done on an appropriately shaped wooden ‘saddle’. All the ridge tiles from the site have the familiar profile with a curved crown and more or less straight sides; there is no creasting, no socket holes for attached finials and the tiles are unglazed (Smith 2000).

During a subsequent phase of construction, the northern end of the flue was blocked with the insertion of a vertical roof tile placed flush against the flue opening. The flue was extended east to west along the back of all three of the furnace chambers with small openings placed at intervals for each furnace chamber (figs 6 and 7). This flue connected to the north to south flue by an opening 65mm wide x 40mm cut into a tile located at the northern end.



Fig 6 Furnitureland, Merton. Cleaning the tile kiln, with the horizontal flue to the rear of the furnace chambers visible.



Fig 7 Furnitureland, Merton. Photograph of the rear of the tile kiln showing the horizontal flue.

After one or more firings the kiln was dismantled and rebuilt. The east–west aligned flue went out of use as the furnace chamber floors were raised by 300mm. Over each of the furnace chambers, new walls and vaults were constructed. The construction followed the same type as the previous phase, with walls of horizontal roof tiles bonded with a lime mortar and clay. The upper part of the wall shows signs of forming an arch for the tile structure. The furnace chambers included re-used 12th century Reigate stone capital fragments, presumably from a building at Merton Priory that had been demolished before the Dissolution.

The location of the tile kiln adjacent to Merton High Street is probably significant, as a large amount of fuel (in the form of wood or charcoal) would have been needed to fire the kiln. This could have been supplied by road by way of a gate through the priory precinct boundary from a woodland nearby.

#### THE 16TH TO MID-18TH CENTURY SEQUENCE

##### *Building 1*

Truncating the northern part of the tile kiln were the chalk foundations for a 16th or 17th century building (fig 8). The excavated foundations occupied an area measuring 7.20m east–west x 2.40m north–south (to the limits of excavation). The building, based on modern cartographic evidence, would have been around 4.50m north–south. The foundations measured 550mm thick and were bonded with a light orange mortar with small chalk flecks. The eastern wall was not found, but a slight cut in the natural clay suggests that the wall turned northwards.

The building was surrounded to the east, west and south by dumped soils comprising a 400mm-thick layer of dark brown clayey silt. One such layer (91) contained a coin of Piefort, France, stamped AVE MARIA with a standard cross in quatrefoil dating to 1450–97 <2> (Museum of London finds accession number). Further to the south of Building 1 was a layer of mid-brown silty clay (74) that contained pottery dating to 1550–1700.

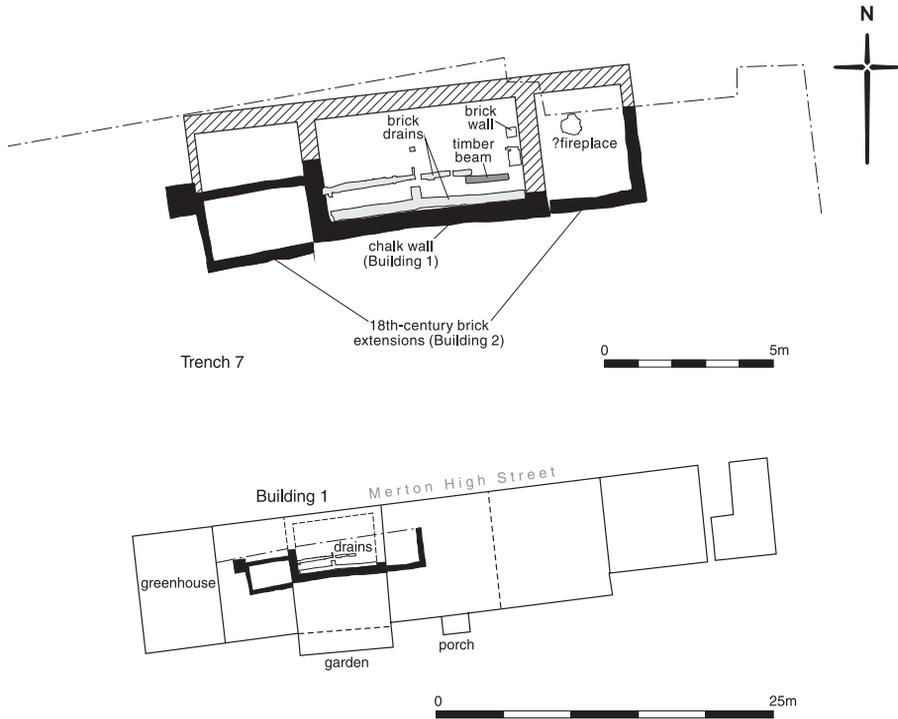


Fig 8 Furnitureland, Merton. Plan showing the 16th century chalk walls of Building 1 and the 18th century brick cellar walls of Building 2 (top), plan of Building 1 and Building 2 in relation to the conjectured location of Abbey Gate House from cartographic evidence (bottom).

#### THE MID-18TH CENTURY TO MODERN SEQUENCE

##### *Building 2 – Abbey Gate House*

During the middle of the 18th century, Building 1 was incorporated into a large three-storey building later known as ‘Abbey Gate House’ measuring some 36m in length (east–west) and between 7 and 9m wide (north–south). The walls were placed on shallow foundations and thus did not survive subsequent rebuilding. However, two small brick cellars abutted the walls of the earlier Building 1 (fig 8).

Adjoining the western end of Building 1, a brick cellar measuring 3.20m east–west x 2.40m north–south was constructed from red unfrosted bricks dating from *c* AD1750. A make-up deposit between the walls comprised a very compacted 100mm-thick layer of grey/red broken brick, mortar, flint and chalk that contained pottery dating to 1665–1750.

The eastern cellar measured 2.80m east–west x 2.80m north–south. Most of the walls had been robbed out, but within the western part of the cut were the remains of a single red brick-width wall bonded with a hard white lime mortar. Between the walls of the building were brick- and tile-lined drains and a possible fireplace/hearth (38) constructed from brick. This hearth measured 600 x 550mm and was constructed of randomly placed red unfrosted bricks forming a circular area covered with ash and charcoal.

#### **Discussion**

The late 15th century forming shed and tile kiln recorded at the site are likely to have produced tiles used to re-roof one or more buildings at Merton Priory during a period of rebuilding or renovation. The main church was strengthened with the addition of buttressing



Fig 9 Furnitureland, Merton. Photograph of the rear of the Abbey Gate House taken prior to its demolition in 1906. (Reproduced by kind permission of Wimbledon Society Museum of Local History)

to the church walls and buttresses were also added to the infirmary hall and reredorter. This strengthening work is likely to have been undertaken in the 15th century and an extra floor may have been added to these buildings (Miller & Saxby 2007). A similar example of a religious establishment with its own tilery is St Mary Clerkenwell (Sloane, in prep). Here, two roof tile kilns were built in the 14th or 15th centuries and seemed to have continued production until shortly before the Dissolution. As at Merton Priory, the kilns were situated just inside the precinct walls.

Building 1 cut the walls of the tile kiln and must therefore date to after *c* 1500, possibly after the dissolution of Merton Priory in 1538. It therefore cannot be the monastic priory gatehouse or 'great gate', for which there are a number of references in the 14th century. The location of the monastic gatehouse remains elusive, but it may lie to the west of the priory church, at the junction of Abbey Road and Station Road, along the western precinct wall. Although speculative, further work will be undertaken by the author to locate the position of the gatehouse.

Building 1 and the two buildings found to the east, of 16th and 17th century date, found during excavations in 1992 and located along the High Street, provide evidence of the development of Merton High Street after the Dissolution. Much stone from Merton Priory was found within the foundations of these two buildings, which would have provided a cheap source of building materials for local residences.

In the middle of the 18th century the chalk walls of Building 1 were incorporated into a much larger building known as the 'Abbey Gate House' (fig 9). The two brick cellars abutting Building 1 were built at this time and by overlaying these excavated walls on the 1898 OS map the cellars appear to be located at the north-western part of the building, fronting Merton High Street.

The gatehouse had become a town house for industrialists and wealthy persons and was notable for its association with its famous residents. Similarly, the two buildings to the east were remodelled in the 18th century, again suggesting wealth from the flourishing industries along the Wandle.

### ACKNOWLEDGEMENTS

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