# Recent Work on Medieval and Later Building Materials in London

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## SUMMARY

This paper describes the range of work carried out on building materials by the Museum of London Archaeology Service, and presents a few of the more unusual finds recently studied. These comprise a late Anglo-Saxon tile with polychrome decoration, the only one known from London, and some rare decorated floor tiles which were probably imported from the Low Countries in the late 15th or 16th century.

# INTRODUCTION

At the end of 1991 the two archaeological departments of the Museum of London, the Department of Urban Archaeology (DUA) and the Department of Greater London Archaeology (DGLA), were combined to form the Museum of London Archaeology Service (MOLAS). The Finds Section of MOLAS (which forms part of the new Specialist Services Unit) currently has three full-time members of staff responsible for recording building materials, who are the authors of this report. Additional assistance is provided by Richenda Goffin, who specialises in Roman painted wall plaster and Saxon daub and Mark Samuel, who is responsible for the recording of worked stone.

During the past ten years all types of ceramic building materials have been recovered from archaeological projects within the Greater London area, including over 250 sites in the City of London alone. Due to the cost of storage and the pressures of space, the bulk of this material has been, and will continue to be, discarded; however, all building material is fully recorded prior to disposal. This information is computerised (currently on a Dell 386 running Xenix) to facilitate statistical manipulation of the data for archive or publication purposes. In future more emphasis will be placed on assessing the potential of the material for publication, but basic initial recording and dating of all building material will still be carried out on a project-funded basis.

An extensive fabric collection has been (and continues to be) assembled. This is housed in the Museum and is available for study by appointment with MOLAS. In addition, type series have been established for medieval roof tile 'batch' marks and flange profiles. A catalogue of all the decorated floor tile designs which occur in London is also being compiled, and work is progressing on the difficult task of classifying the large quantity of plain Flemish floor tiles imported into the capital. All of this work is continually being updated as new sites are processed. Much of our work has concentrated on the analysis of medieval fabric types, the identification of the types of building material used in London, and the development of a dating framework for the introduction, use, and disuse of these materials. It is hoped that the information collected can be related not just to London, but to medieval building material from other parts of Britain, looking at the sources and trading routes of the material, and building up a network of areas which share the same industries. In the future we hope to draw up guidelines for the recording of all types of building materials, and to publish the various type series that have been compiled.

A number of building material reports in the form of contributions to larger publications should be published in the near future. The following presents some of the more unusual finds which have recently been studied.

#### A LATE ANGLO-SAXON TILE FROM WESTMINSTER ABBEY

Only one Anglo-Saxon polychrome relief tile is currently known from London. This was found in 1986 during excavations at Westminster Abbey within the late 11th-century undercroft, on the east side of the main cloisters<sup>1</sup>. The tile was discovered in the backfill of a shallow ditch which cut through the centre of a probable mid 11th-century timber building (Youngs *et al* 1987, 133–4). A number of layers in the ditch and the backfill material contain pottery broadly dated to the period AD 1050–1150, and probably dating to AD 1050–1100. Only one corner of the tile survives. The upper surface shows part of a lentoid shape and the remains of two parallel lines (Fig. 1). The pattern on the top surface has been highlighted by the use of yellow and brown glaze in different areas of the design. Evidently the tile was rarely, if ever, walked on as the glaze on the top of the raised ribs still survives intact. It is possible that the tile was never actually used, as there are traces of mortar attached to the top surface. The sides of the tile, which taper inwards towards the base, are scraped smooth lengthways, parallel to the upper and lower edges, while the base has also been scraped smooth.

The design on the Westminster tile has not been found elsewhere, although the lentoid element is paralleled on late Anglo-Saxon polychrome relief tiles from other areas, such as York, Bury St Edmund's and Winchester.

## Fabric type.

The clay matrix, which has a white and pale pink colouration, is characterised by the presence of frequent sub-rounded to sub-angular quartz grains (mostly 0.1-0.5 mm). There is scatter of bright red and orange iron oxide (mostly up to 0.7 mm with occasional larger inclusions up to 2.5 mm), together with a single fragment of quartzite.

The fabric of the Westminster tile is very different from the bricks and roofing tiles of Roman and medieval date found in London, the great majority of which were manufactured using locally available clay deposits. The tile fabric does, however, closely match many of the late Anglo-Saxon tiles found at Winchester (Betts 1986, 40). As there is evidence that the latter were produced in or near Winchester (*ibid*), this gives a probable source area for the Westminster tile.

## Discussion.

Polychrome relief tiles are believed to have been manufactured some time between the mid-10th and 11th centuries (Gem and Keen 1981, 26). No examples have been found in their original position, but it is believed that such tiles were used in sanctuaries or in paved areas around altars and that some may have been mounted on the wall. The presence of a polychrome relief tile at Westminster Abbey, although it may be a broken example which was never used, is consistent with this interpretation, and suggests that there was a building containing some sort of tiled sanctuary or altar.

The Westminster tile cannot be closely dated, but must pre-date the undercroft. It could therefore date to the building work which followed the refoundation of Westminster as a Benedictine Abbey in the mid 10th century. If so, such tiles would presumably have been discarded when these abbey buildings were demolished upon completion of Edward the Confessor's 11thcentury church. Alternatively, the tiles may have been

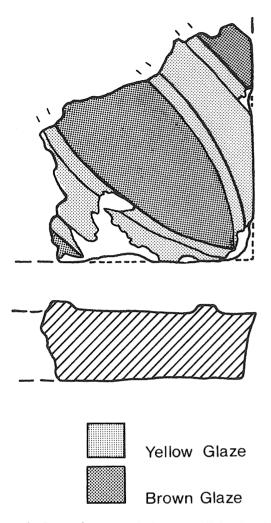


Fig. 1. A Late Saxon polychrome relief tile from Westminster Abbey, London. Scale 1:1.

used as decoration in Edward's church, construction of which probably started *c*.AD 1040. In this case the example found may well have been a broken tile which was discarded during the building work. The church was dedicated in December AD 1065, although building work continued until the AD 1070s (Wilson 1986, 11; 14). The undercroft formed part of the new domestic buildings associated with Edward's church, construction of which started around AD 1065 and continued for some twenty or thirty years (*ibid*, 15).

# Ian Betts

## BUILDING MATERIALS FROM THE FLEET VALLEY PROJECT AND CHEAPSIDE

Medieval building material from two archaeological projects in the City is currently in the process of being recorded. The first of these is the Fleet Valley Project, which comprises a series of sites around Ludgate Hill<sup>2</sup>. Together these have produced one of the largest assemblages of medieval and early post-medieval ceramic building material found in London, which includes large numbers of Flemish and English medieval floor tiles, complete peg tiles, and early medieval roof tiles. When fully recorded this material should help to re-define the dating and distribution of brick, roof tiles and floor tiles in London, and already a number of new 'batch' marks and fabric types have been recognized.

The second project is a site situated on the southern side of Cheapside<sup>3</sup>, which has also produced mainly medieval building material. This includes approximately 140 complete or fragmentary floor tiles, most recovered from two contexts. Unfortunately the surfaces of many of the floor tiles are too worn to be able to identify the designs, or in some cases even the colour of the glaze. The few patterns that can be identified are mainly of 14th-century Penn type, although further research is required to provenance the fabric, which differs from that of the Penn tiles so far identified in London.

## Jackie Keily

# A PROBABLE FLEMISH FLOOR TILE FROM TALLOW CHAUDLER HALL

Excavations carried out in 1990 at Tallow Chaudler Hall, just behind 3-7 Dowgate Hill, London<sup>4</sup> uncovered a large decorated lead-glazed floor tile with an extremely unusual geometrical design. The tile came from a demolition layer sealing a beaten clay floor which was in the area of the pantry in the pre-AD 1666 Hall. The demolition layer probably relates to the Great Fire itself.

The tile has a relatively simple two-colour design in brown and yellow comprising areas of chequer-board pattern and diamond shapes within square linear borders (Fig. 2). The top third of the design would have repeated the design elements of the lower third. Part of the upper chequer-board pattern survives in the top left, while in the top centre the very bottom of a linear border is just visible. Part of what would have been the central chequer-board pattern has been distorted by an enlarged dark square. This is the result of part of the stamp, which was presumably wooden, breaking off.

The tile, which would originally have been square, measures 192 mm in length and 27-28 mm in thickness. The edges are knife trimmed and show a slight inward taper towards the base. Most of the underside has been scraped smooth, although one patch of moulding sand is still visible. Mortar is present on the base and the sides, including part of the broken edge. This may indicate re-use; alternatively the tile may have been used in a floor even in its incomplete state. If the tile was used for flooring then it must have been placed under furniture or in a part of a

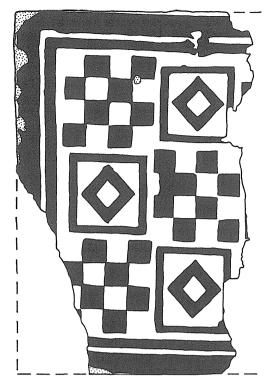


Fig. 2. A probable Flemish floor tile from Tallow Chaudler Hall, London. Scale 1:2.

room not normally walked over. The upper lead-glazed surface shows no sign of wear.

# Fabric type.

The fabric is characterised by frequent thin creamcoloured silty bands in an orange clay matrix with abundant rounded darker orange and red iron oxide and clay inclusions (up to 2 mm). Quartz grains (up to 0.6 mm), mostly fairly rounded, are common and are fairly evenly scattered throughout the clay matrix. The fabric was compared to the MOLAS reference collection (currently housed in the Museum of London), using a low-powered binocular microscope, and found to provide a good match to MOLAS floor tile fabric no. 1977.

## Discussion.

The design of the tile is extremely unusual, and there are no tiles with comparable designs known from London. The key to its probable origin lies in its distinctive fabric type. MOLAS fabric no. 1977 is one of a number of silty fabrics which are normally plain glazed or unglazed. The majority of these silty fabrics (including 1977) have nail holes in their upper surface suggesting a Flemish origin. Although there is no trace of a nail hole in the one surviving corner of the Tallow Chaudler Hall tile, the distinctive silty fabric type strongly suggests that this is a rare example of a decorated lead-glazed Flemish import.

The size of Flemish floor tiles found during excavations at Billingsgate Fish Market Car Park in Lower Thames Street, London<sup>5</sup> gives a rough indication of date. At Billingsgate both plain glazed and unglazed Flemish floor tiles of similar size (193-205 mm) were found in contexts which immediately pre-date the Great Fire of AD 1666 (Betts 1991). However, the glazed examples are almost certainly reused and of earlier date than those without glaze. Flemish floor tiles of typical medieval size (113 - 125 mm)first appear Billingsgate at c.AD 1380-1400 whilst larger tiles (131-136 mm and 155 mm), although not as large as the Tallow Chaudler Hall example, first appear in the period AD 1450-1500. This would suggest that the Tallow Chaudler Hall floor tile is either of late 15th-, or more probably, of 16th-century date. This is in agreement with the dating of another, smaller, decorated Flemish floor tile in the Museum of London collection (Ward-Perkins 1940, 249, Fig. 81.65; MOL no. 6913). The tile, catalogued as having come from London, shows the head and shoulders of a woman covered by a wimple and has been given a late 15th- or early 16thcentury date.

### Ian Betts

## SOME PROBABLE FLEMISH FLOOR TILES FROM THE CHARTERHOUSE

Excavations carried out at St. Bartholomews Medical School in 1990 revealed part of the London Charterhouse, a Carthusian monastic house (Barratt and Thomas 1991)<sup>6</sup>. Although the tiled floors of the monks' cells had been partially robbed out, fragments of four floor tiles remained in one of them (Fig. 3). The monks' cells were constructed in the late 14th century, but the tiled floors can be related to the latest pre-Dissolution phase of the site.

### Fabric and decoration.

The fabric of these tiles (MOLAS fabric no. 1678) is orange-red in colour, with frequent inclusions of fine quartz sand and calcium carbonate (up to 0.2 mm), with occasional red iron oxide (up to 0.8 mm).

The decoration comprises an arrangement of simple floral motifs stamped into the surface of the tile and filled with a white clay slip; under the yellowish lead glaze this gives a brown and yellow design. Close examination of the flowers on each tile reveals that they have been made individually with the same stamp. Each flower is identical, but their position in relation to one another varies on each tile. Little care has been taken in their manufacture; the impressions are uneven, being shallow in some places and deeper in others, while the white slip has smudged over the edges of the impressions.

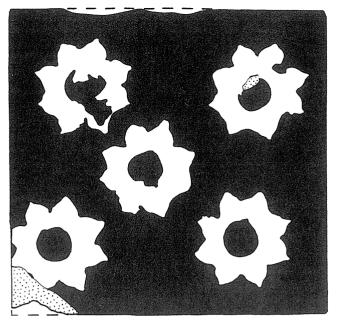


Fig. 3. A probable Flemish floor tile from the Charterhouse, London. Scale 1:2.

#### Discussion.

These two-colour tiles measure 165 x 164 x 24 mm, a larger size than the 13th- and 14th-century decorated tiles normally encountered on monastic sites. Both the fabric and the presence of nail holes in each corner of the surface of the tiles suggest that these tiles were manufactured in the Low Countries, where decorated lead-glazed tiles were also produced during the late 15th and early 16th centuries (E. Eames, pers. comm.). Plain glazed tiles in the same fabric found on other sites in London are thought to have been imported from the Low Countries, and it seems likely that, like the Tallow Chaudler Hall find, the Charterhouse tiles represent a rare survival of decorated Flemish floor tiles imported tiles was dying out in England.

#### Naomi Crowley

#### Footnotes

- 1. Excavation by the DGLA, Museum of London, supervised by P. S. Mills (site code WST86).
- 2. The Fleet Valley Project, which comprises a number of sites excavated by the DUA, was co-ordinated by Bill McCann (the site codes for the tiles are PWB88 and VAL88)
- 3. Excavation by the DUA at 64-66 Cheapside, supervised by T. Thomas (site code CED89).
- 4. Excavation by the DUA, Museum of London, supervised by J. Drummond-Murray (site code TAH90).
- 5. Excavation by the DUA, Museum of London, supervised by S. Roskams (site code BIG82).
- 6. Excavation by the DGLA, supervised by M. Barratt and C. Thomas (site code MED90).

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### RECENT WORK ON MEDIEVAL AND LATER BUILDING MATERIALS

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#### Résumé

Ce rapport décrit la variété de travaux effectués par MOLAS (Museum of London Archaeological Service) sur les matériaux de construction et présente quelques-unes des trouvailles les plus hors du commun récement étudiées. Celles-ci comprennent une tuile Anglo-saxonne à décoration polychrome, la seule connue provenant de Londres; et quelques tuiles rares de carrelage décorées qui furent probablement importées des Pays Bas durant la fin du quinzième siècle ou au seizième siècle.

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#### Zusammenfassung

In diesem Artikel werden die Untersuchungen beschrieben, die vom Museum of London Archaeology Service an Baumaterialien ausgeführt wurden. Einige der ungewöhnlicheren kürzlich erforschten Funde werden vorgestellt. Dazu gehören eine spätangelsächsische Kachel mit polychromer Verzierung, die einzige, die aus London bekannt ist, und einige seltene, verzierte Fu $\beta$ bodenkacheln, die wahrscheinlich aus den Niederlanden im späten 15. oder 16. Jahrhundert importiert wurden.