

Instone Wharf, Limmo Peninsula site, E16 (XRW10)

Building Material Assessment

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5.1 Site archive: finds and environmental, quantification and description

Table 1 Finds and environmental archive general summary

Building material	76 brick samples (bulk of material discarded after assessment), Brick samples not weighed Three boxes of retained bulk building material
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5.1.1 The building material

Table 2 Building material

Material	Count	Count as % of total	Weight (kg)	Weight as % of total
Roman ceramic	1	1.3	0.080	69.57
Post-med ceramic*	76	98.7	0.035	30.43
Total	77		0.115	

* not including weight of brick samples

5.1.1.1 Introduction/methodology

All the building material has been recorded using the standard recording forms used by the Museum of London. This has involved fabric analysis undertaken with a x10 binocular microscope. The information on the recording forms has been added to an Oracle database.

5.1.1.2 Roman ceramic building material

5.1.1.2.1 FABRIC

Early Roman fabric

Fabric group 2815

5.1.1.2.2 FORM

Roofing tile

A small abraded fragment of tegula was recovered from a gravel surface (context 88, sgp 36). This is of 1st–mid 2nd century date, but is clearly from a residual Roman context.

5.1.1.3 Post-medieval ceramic building material

5.1.1.3.1 FABRICS

3032, 3033, 3034, 3035, 3261, 3289, 3303

Brick

Table 3 Post-medieval brick

Context	Fabric	Type	Context date
[12]	3032, 3035	Brick	1860–1890
[12]	3261	Firebrick	
[13]	3035	Brick	1830–1900/1940
[31]	3034	Brick	1860–1890

[31]	3261	Firebrick	
[40]	3035	Brick	1800–1940
[41]	3035	Brick	1830–1940
[42]	3032, 3035	Brick	1830–1940
[43]	3035	Brick	1830–1940
[44]	3261	Firebrick	1860–1890
[48]	3261	Firebrick	1830–1930
[49]	3032	Brick	1700–1900
[51]	3032, 3035	Brick	1800–1940
[52]	3032, 3035	Brick	1800–1940
[53]	3261	Firebrick	1800–1930
[54]	3261	Firebrick	1860–1890
[55]	3032, 3035	Brick	1830–1940
[57]	3261	Firebrick	1820–1910
[59]	3032, 3261	Brick, Firebrick	1830–1930
[95]	3032, 3289	Brick	1830–1950
[101]	3033	Brick	1830–1900
[111]	3261, 3303	Brick	1830–1950

The majority of bricks come from the 19th century industrial activity on the site. Slightly earlier bricks may be present in context [49] but most of these have two different kinds of mortar attached indicating reuse from an earlier brick structure.

There are two major brick types present: brick and firebrick.

a) Brick

A number of bricks have letters in the base of their frogs, although many of these are very indistinct. Bricks lettered MEM were present in a wall (context [42]), including one unusually clearly lettered example which may have been impressed with a separate stamp. Similarly lettered bricks may be present in context [41]. Bricks lettered JBW are present in a brick structure, possibly the Pipe Shop (context [43]), whilst a brick from context [59] has a single letter O (or number 0) in the frog centre. These marks probably represent either the initials of the brickyard owner or name of the brickyard.

These bricks are of two types: dark red brick from brickyards in the London area (fabric 3032) and yellow stocks which probably derive from brickyards along the Thames estuary in north Kent or south Essex (fabric 3035).

The bricks in fabric 3032 from the main wall between the Erecting Shop and the Machine Shop (context [95]) are London-made dark red bricks of Victorian date. These have wide deep frogs with a small cross in the centre of the frog. This is some kind of distinguishing mark. The other from context [95] is a 'bullnose' brick, so-called because it has a slightly curved end. This would have been used in a door or window surround. The bullnose brick, which is yellow in colour, is stamped B.B.C.W in the shallow frog base. This is a rare mark in London having only previously been found on bricks from St Swithen House EC4 (WAO06). As yet there is no indication as to where these bricks were made.

The sharp edged brick with fine moulding sand from context [101] belongs to the post 1945 development of the site. The fabric is similar to bricks made in the London area, although it is not certain if this was the source.

A number of bricks have pressure marks in their stretcher face. These are caused by one brick pressing into the brick below during the drying stage and leaving a small indentation. Such marks are useful in identifying how bricks were sacked prior to firing.

b) Firebrick

Many firebricks are stamped POTTER. Evidently at least two different stamps were employed: one with the letter R level with the other letters, the other with the R sloping upwards. These bricks were almost certainly made by James Potter at his brick and fireclay works in Scotland. They may have been made at a works built on the south side of Lock 5 on the Forth & Clyde Canal. These works were taken over by James Potter of Glenfuir, Falkirk by 1860 and James Potter & Co was established by 1886. The brick and fireclay works was moved to Glen Village to the south of Falkirk in the 1880s and became part of the Callendar Brick & Fireclay Company (1). James Potter died on the 6th May 1890 aged 75 (2). The POTTER stamped firebricks found at XRW10 therefore probably date from somewhere between the 1860s and the 1880s. Most of the bricks stamped POTTER were from various brick structures of what may be the Pipe Shop (contexts [44], [54]).

A large firebrick measuring 301–302mm square from a barrel vaulted structure with a brick floor (context [31]) is stamped COWEN on the top or bottom surface. This shows evidence of burning, which has resulted in the clay body turning a pinkish-grey colour. Firebricks stamped COWEN have been found on other London sites, notably Doulton's factory in Lambeth (AEB01) (Smith 2005, 33–34).

A small fragment of a voussoir shaped firebrick (context [57]) is stamped COW[. . .]. The full stamp would also have read COWEN as voussoir firebricks with this stamp have been found on other London sites, notably Doulton's factory in Lambeth (AEB01) where they date from the 1870s or 1880s to the 1890s (Smith 2005, 33–34). They were made by Joseph Cowen & Co of Blaydon-on-Tyne, Newcastle which was in operation between c 1823–1904.

Present in a brick drain context [111] is a yellow firebrick stamped: M.T & Co in the top/bottom surface. This is the first firebrick with this stamp known from London. The location of the brickworks making bricks with this stamp is currently unknown, but it is interesting to note that bricks stamped M.T & Co, almost certainly from the same firebrick manufacturer, have been reported from the gardens at Alcatraz prison in San Francisco bay (3) and Santa Cruz (4), both in California. The other firebricks from the site are unstamped, so their origin is uncertain.

Attached to a stamped firebrick was a thin rectangular brick (226 x 108 x 25mm) with a white fabric (type 3302) not unlike stoneware. This appears to be some kind of kiln furniture or kiln structure. This is attached to the firebrick by hard light grey mortar whilst the edges of the firebrick have softer cream mortar. The presence of two kinds of mortar suggests either the firebrick or thin rectangular brick may have been reused from some earlier structure.

A number of firebricks have at least two different mortar layers attached suggesting they were used in an earlier brick structure which had been rebuilt. The principal use of firebricks was in structures where they had to endure intense heat, which they could withstand far better than normal bricks.

5.1.1.4 *Assessment work outstanding*

None.

6 Analysis of potential

6.1 Building material

The bricks and firebrick samples collected indicate the diverse source of the building material used in the construction of various buildings and other industrial structures belonging to the Thames Ironworks (1846–1912). The firebricks stamped POTTER date to later in the life of the ironworks as they were probably made between 1860–1890.

7 Significance of the data

Most of the building material is of significance as it can be directly related to a specific building: the Thames Ironworks in use between 1846 and c 1912. The bricks were mostly collected from various brick walls and industrial features. A variety of brick and firebrick types are present. The latter were indented for used in hearth and furnace structures due to their ability to withstand extreme heat. Firebricks were used for similar purposed elsewhere in London, such as Doulton's terracotta work near Vauxhall (site code HHX10).

The Scottish firebricks stamped POTTER are of particular interest as these have not previously been recorded from London. Similarly firebricks stamped M.T & Co are unknown from elsewhere in London. It is hoped that further research may identify the maker.

The ordinary bricks from the Ironworks are also not without interest. Bricks lettered MEM and JBW have not been previously found in the Capital. The so-called bullnose brick stamped B.B.C.W is also rare, having been found on just one other archaeological site, St Swithen House (WAO06). Again further research may help identify the brickmaker.

8 Method statements

8.1 Building material

Task 1: The building material assemblage should be compared with the stratigraphical sequence and all available dating evidence = 0.5 (half) Day

Task 2: Write publication report = 3 Days

Task 3: Attend Finds Review = 0.5 (half) Day

Total time required = **4 DAYS**

8.1.1.1 Work required for illustration/photography

Brick stamped MEM in frog – Context [42] <12>

London stock stamped JBW in frog – Context [43] <13> or <14> (choose 1)

Firebrick stamped POTTER (straight R) – Context [44] <5>

Firebrick stamped POTTER (sloping R) – Context [54] <7> to <10> (choose 1)

Large square firebrick stamped COWEN – Context [31] <4>

Voussoir firebrick stamped COW[en] – Context [57]

Corner brick stamped B.B.CW – Context [95] <16>

Brick stamped M.T & Co – Context [111] <15>

9 Bibliography

Smith, T P, 2005 The materials used to building the kilns, in The Doulton stoneware pothouse in Lambeth (ed K Tyler with J Brown, T P Smith, L Whittingham), MoLAS Study ser 15, 32–36

(1) <http://collections.falkirk.gov.uk/search.do;jsessionid=CEB5D34CA7223DAFEF729899BFEB5?id=24032&db=person&view=detail& mode=1>.

(2) <http://freepages.genealogy.rootsweb.ancestry.com/~dawnellis/p1444.htm>

(3) <http://alcatrazgardens.org/blog/index.php/2011/07/building-blocks-of-history/>

(4) <http://scplweb.santacruzpl.org/history/work/limebric.shtml>