

UPMINSTER WINDMILL HERITAGE SITE
ARCHAEOLOGICAL EXCAVATIONS REPORT

UPMINSTER MILLS COMPLEX

St Mary's Lane, Upminster RM14 2QL

NGR TQ55734 86725 - Site Reference MRL 16

Excavations undertaken from May 2011 to
November 2015 on behalf of the Friends of
Upminster Windmill

Report Ref No MRL 16/UMC

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Upminster Windmill Heritage Site

Excavations

1.0 Introduction

1.1 Brief Description

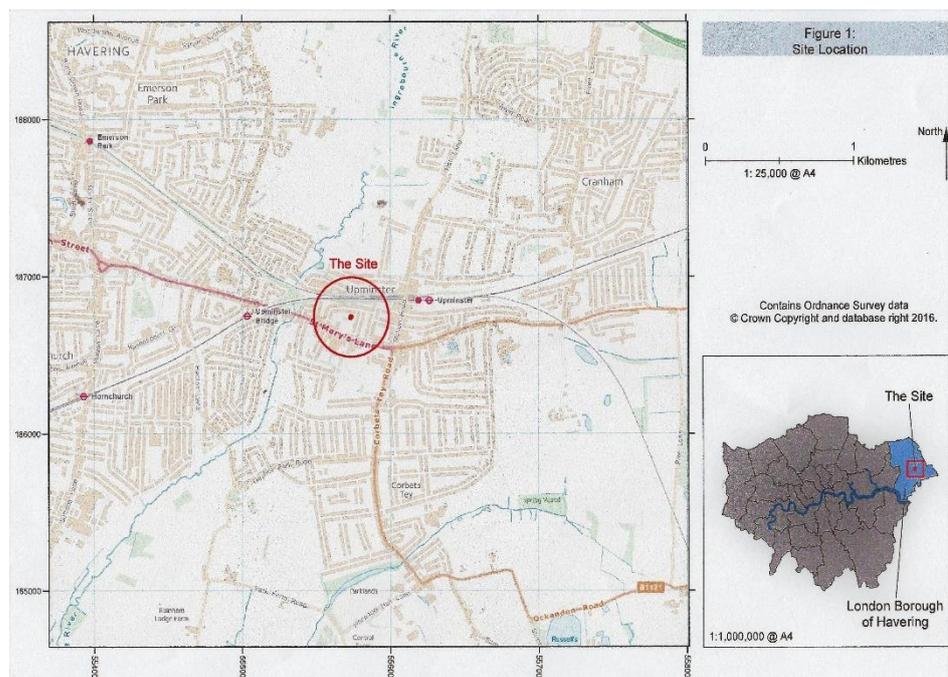
Upminster Windmill is a Grade II* listed smock windmill, built between 1803 and 1805. Steam power was added circa 1811. The Mill House was built circa 1838/39, with other buildings added up to the early 1900's. An insurance document, from 1816, stated 2 timber buildings in occupation of workmen had been built on site. The site comprised of 16 buildings in total (including the windmill). The windmill last worked commercially in 1934. Production of flour decreased circa 1911/12 due to imported grain, although they still produced animal feed and dog biscuits. In 1886 the family ran a coal business to supplement their income. The mill house was vacated by around 1935. The mill house, mill cottage and mill buildings remained empty and became derelict and were demolished in 1960. The site is currently owned by London Borough of Havering and run and maintained by volunteers of The Friends of Upminster Windmill.

1.2 Location

The Mills Complex was located on Mill Field, north of St Mary's Lane in Upminster Essex NGR TQ55734 86725. (Fig 1)

There was a 5-degree variation from magnetic north.

Fig 1



2.0 Background

2.1 Geology and Topography

The Windmill site sits on a bed of Orsett Heath Thames riverbed gravel directly under made ground. The top of the London clay sits approximately 30 feet (10m) below the surface of the windmill. The site is located on a hill approximately 200 feet (60.96 m) above sea level with the land sloping gently westward to the River Ingrebourne and sloping gently southward to St Mary's Lane. The land to the north and east is lower and level due to housing. Several spring fed ponds which were part of the landscape, (east of the mill site) are no longer present. The land was meadowland before the Windmill was built.

2.2 Archaeological Background

The windmill site data showed no evidence of any previous archaeology having been carried out (Sites and Monuments Records), and research to date has not indicated any previous occupation of the site.

3.0 Aims and Objectives

3.1 Aims

The general aim of the archaeological excavations was to establish the location, extent, date, character and condition of any surviving archaeological remains. It was also important to establish how the buildings functioned, and their relationship to the site as a whole. The excavated site has been recorded, photographed, measured and scale site plans have been drawn up. All finds have been cleaned, photographed, recorded and selectively stored.

3.2 Objectives

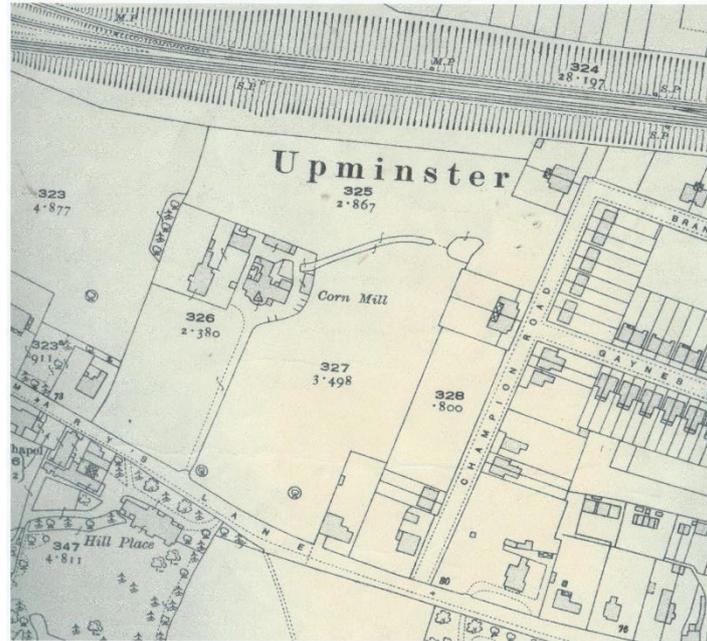
The research objectives for the project was to understand the character and chronological development of the Windmill site. This has the potential for understanding the role this site played in Upminster's historic core.

4.0 Excavation Methodology

Fig 2

No plans have been found for the site buildings, except for an auction plan of the steam mill.

Ordnance Survey maps (Fig2) show the existence and approximate location of the buildings. There were quite a few photographs taken of the mill site during the late 1800's; these were used in conjunction with the maps



to locate the overgrown site. A grid of 5 metre squares was marked out to cover the whole site so that the foundations could be accurately recorded on the context sheets. These squares were further divided into 1 metre squares to record finer foundation locations and also for the recording of the finds. The finds' location number was then cross-referenced with the finds photograph number and recorded on the bulk recording sheet. Unfortunately, the location of the finds did not necessarily give us much further information, as the majority of the finds were out of context due to the demolition rubble.

Excavation was carried out by hand to ensure any archaeology was not damaged. For the method and format of the excavation and recording of data, the MoLAS Module 94 was used as a reference. Whole bricks were recovered, cleaned and stored for possible re-use, finds cleaned, recorded and stored. (Some debris from the mill house basement had to be removed by mechanical digger as it had become unstable and posed a health and safety issue).

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ARCHAEOLOGICAL EXCAVATIONS

THE MILL HOUSE

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Excavations undertaken on behalf of the Friends of Upminster
Windmill.

From May 2011 to February 2013

Report Ref No MRL 16/UMC/MH



The Mill House

5.0 Fieldwork Results

Fig 3

5.1 Explanation

The Miller's House consisted of:

Ground Floor –

Entrance Hall, Sitting Room, Drawing Room, Dining Room,

Breakfast Parlour, Kitchen, Scullery and Rear Lobby. (*We were unable to excavate the scullery and rear lobby as they were outside of our present boundary*), Bathroom added early 1900's.

First Floor – Five Bedrooms.

Basement – Front and Rear Basement Kitchen Kitchens, Coal Cellar, Wood Cellar and Wine Cellar.

5.2 The Foundations

Upon excavation, the foundation walls were found intact which gave us a footprint of the building (Figs 4 & 5), although some internal features were open for discussion. The perimeter walls and central load bearing walls were 14 inches (35.5 cm) wide and internal walls that remain were 9 inches (22.8 cm) wide. The foundation walls of the building were stepped out over 3 courses from 14 inches (35.5 cm) to 21 inches (53.3 cm) and sat on a bed of clay. The brickwork was of Flemish bond and consisted of red bricks (220mm x 95mm x 65mm) and yellow bricks (224mm x 107mm x 65mm) bonded with lime mortar.

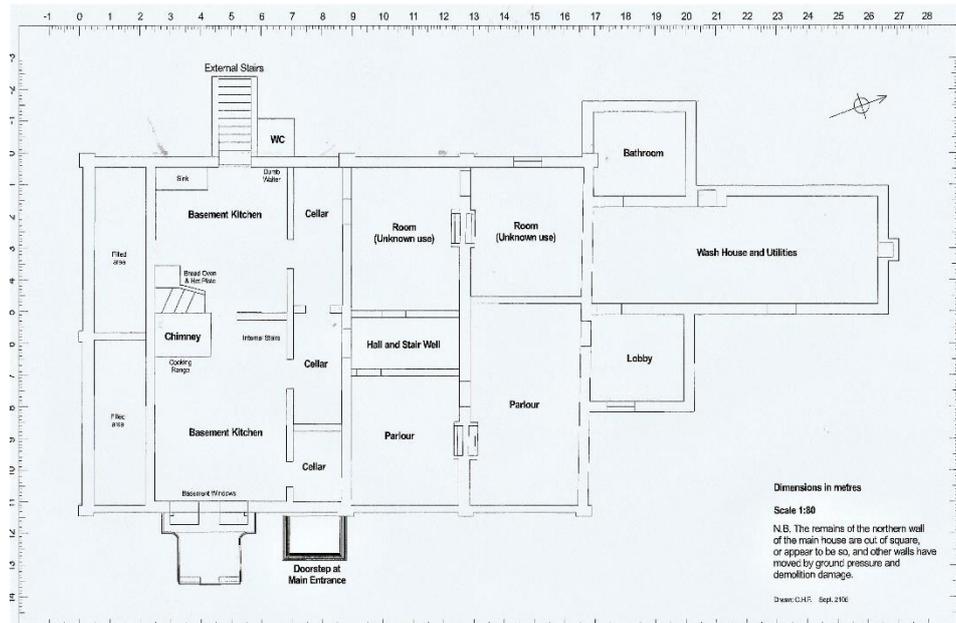




Fig 5

Fig 4 The damp course was made from slate, which was 12 courses from the clay bed. It appears that the timber thresholds for the door frames were set on beds of lime mortar. Door lintels were of 3 inches (7.6 cm) thick by 8 inches (20.3 cm) wide sandstone blocks, which were found in situ over a couple of the basement door openings. The windowsills were of brick/brick rubble construction with a cement render to give a smooth finish and a drip channel.



The roof consisted of Welsh slate tiles and slate cappings (Figs 19 & 19a). The roof was of shallow pitch and hipped on the northern part of the house. The roof on the southern half of the house was shallow pitched and 'u' shaped. The guttering was of cast iron square profile with round downpipes. The overall dimension of the building was 56 feet (17.5m) north to south and 37 feet (11.26m) east to west.

The east side of the mill house is located 53 feet 10 inches (16.11m) from the centre of the east wall of the windmill. The step to the front door consisted of 2 slabs of sandstone, each 2-foot x 6 foot (61 cm x 183 cm) set on a raised brick base, with a wrought iron porch leaded into the sandstone. Very little timber remains, as this was burnt during demolition. Only a small amount of brickwork remained above ground level (except part of the north wall, which had become a boundary wall for the house built north of the mill house). All the ground floor room locations were shown by the brickwork foundations as well as the fireplace foundations. Very little evidence remained of the

doorways, and the location of the staircase to the first floor is purely conjecture. Evidence of the floor joists were apparent on the ground floor, as the post holes were visible in the north wall.

Windows in the northern half of the house were sash, of wood construction and contained 12 panes. On the southern half of the house, the windows were rectangular, contained 20 panes and were possibly of metal construction. Shallow brick arches acted as lintels above the windows.

Ground Floor

The house was effectively in two parts separated by a hallway. The basement kitchen - 29 feet (8.8m) north-south and 37 feet (11.25m) east-west and sitting room were in the southern half of the building creating a basement and ground floor. The dining and drawing rooms, breakfast parlour and bedrooms were in the northern half of the building, creating a ground floor and first floor.

The ground floor foundations indicate there was a hallway running from east to west across the full width of the house. There was a door at the far end of the hall (demolition photo) which led to the rear gardens and water closet. The water closet was situated against the outside of the west wall between the hall door and the external stairs to the basement. The room to the south of the hall was a sitting room. There was also evidence of a wall/doorway running south from the chimney stack to the south wall which was possibly an entrance to a storeroom.

On the northern side of the hall there were the foundations of the drawing room 12 feet (3.65m) north-south and 13 feet 3 inches (4.05m) east-west; dining room 12 feet (3.65m) north-south and 21 feet (6.35m) east-west and breakfast parlour 12 feet (3.65m) north-south and 15 feet 1 inch (4.6m) (mentioned in the 1849 auction catalogue) along with the fireplace/chimney foundations. The room in the NW corner was probably a small kitchen 12 feet (3.65m) north-south and 13 feet 6 inches (4.1m) east-west leading to the scullery.

The scullery ran northwards from the northern wall. It is thought a bathroom (*which was mentioned in the 1911 census*) was situated on the SW side of the

scullery and a lobby was situated on the SE side of the scullery. These were not accessible as they were outside of our present boundary.

The Basement

The fire hearth in the front basement kitchen was made of one piece of sandstone, which was still in situ. There was evidence that the ground floor hearths may have been the same, as another sandstone hearth, although broken into 5 pieces, was recovered. The face of the front basement kitchen fire was lined with sandstone, as there were two pieces in situ; the sandstone hearth had been cut out either side of the fire to accommodate these. This fireplace shows signs of modification from an open fire to having a range with boiler fitted. The fireplace in the rear basement kitchen also shows that this has gone from an open fire to having a range with boiler; this was later removed, and a brick pastry oven installed and largely remains.

Some lime plaster on the walls of the basement had been found intact, and this was light blue in colour (usually made from distemper mixed with dolly blue - *said to keep the flies at bay*). The brick floor in the rear basement kitchen and the 3 cellars, remained largely intact. The same cannot be said for the floor in the front basement kitchen, as it appears most of it had disappeared. This had the advantage of viewing the old drainage system. It appears there were several drainage pipes laid under the flooring, some with perforations. These pipes appear not to connect to each other. It appears channels were dug, in a north-south orientation out of the clay, filled with a soil and possibly a straw type of mixture and covered with a row of bricks, followed by the flooring. The pipe work would then presumably carry excess water away to the soak-a-ways.

The stairs from the basement to the garden at the rear of the house remain; although in a poor state, they were usable. These stairs were of a brick construction, with each step having a brick capping and were 3 feet 6 inches (1.05m) wide.

A shallow sandstone sink (known as an “arms sink” - *for the washing of hands/arms after pastry making*) (Fig 15) was still in situ on its brick piers against the west wall beside the stairs. This was complete although broken due to the weight of the demolition rubble on top of it. The drain for the sink was still in situ in the floor, the wastewater from the sink being allowed to run

down the pier, onto the floor and down to the drain. The land drain ran from the SW corner area westward. The coal cellar 5 feet 5 inches (1.65m) x 8 feet 6 inches (2.58m) was located in the north-eastern corner of the basement. There was evidence that this was where the water tank (lead cistern holding 511 gals) was housed in a timber cupboard. The other two cellars measured 5 feet 5 inches (1.65m) x 11 feet (3.35m) and 5 feet 5 inches (1.65m) x 13 feet (3.96m) respectively.

There were two windows set into the east wall of the front basement kitchen with the tops just above ground level, to allow light into the basement kitchen. Each window had its own drainage system to allow water to run away. Beyond this, externally, was a paved area (made up with what material could be found) with a small gully that sloped towards the windows. This paved area was probably to aid maintenance of the windows.

First Floor

The first-floor layout would have been similar to the layout of the ground floor of the building. The four bedrooms would have had fireplaces, with the fifth bedroom presumably between the two bedrooms against the southern wall of the northern half, with the landing opposite. All references and measurements are taken from the S W corner of the house –N51.5502 E 0.24414 - and the house was on a north-south orientation with the front door facing east.

6.0 Finds

All of the finds excavated have been cleaned, photographed and where possible reassembled. Cataloguing the finds and researching their origins is an ongoing project.

6.1 Porcelain/Pottery: Numerous pieces of pottery have been excavated, many of them blue and white fragments. Photographs of some of the items that have been restored are included in this report. There has been a mixture of pieces of pottery, earthenware, ceramics, stoneware and a couple of pieces of ironware. Although most were unable to be assembled, some of the pieces have been at least part assembled. These include storage jars, plates, mugs, teapots, bowls/basins, toilets (including a blue and white Victorian one [Fig 6]) and a cake stand. The cake stand had the maker's mark of Dunn & Bennett

(now part of the Royal Doulton Group) and was manufactured between 1874 and 1907. There was also part of a blue and white flower-patterned bowl (Fig 7) which was manufactured between 1891 and 1895 with the maker's mark of Cumberlidge and Humphreys.

6.2 Glass: There was a large amount of glass, which is difficult to date, including oxidised glass, plate glass, and milled plate glass and some extremely thin glass. This has been selectively sorted and recorded.

6.3 Glass Bottles / Jars: Numerous glass bottle fragments have been recovered ranging from clear glass through the various hues of green and brown to blue. It appears R Whites and Schweppes seem to be the most popular drink bottles. Several bottles have been excavated intact, although only a few have identification marks. One bottle was embossed 'A J White', (Fig 8), which contained a medicine called 'Mother Siegel's Syrup'. This was shipped in from America by the Shakers; sold by A J White Ltd in the UK from 1877 until 1905 under UK control, and then under US control until 1927. Acquired by Smith Kline & French in 1956.

A screw bottle stopper embossed Keystone Burgundy was found. Research indicated this was from a bottle of Hall's Keystone Burgundy, a ferruginous wine available around the late 1800's priced at 1/6d per bottle and was mentioned in The Nursing Record & Hospital World, July 13, 1901.

6.4 Marble: Numerous pieces of marble had been uncovered, both white and grey, of varying sizes (nearly all of it had been broken during demolition), which leads to the assumption that the fireplaces, downstairs at least, were of marble construction. Three square marble roundels 6 inches x 6 inches x 1 inch (15.3 x 15.3 x 2.5 cm) had been excavated - two white (Fig 9) and one grey. The assumption was that these formed part of a fireplace as heat/smoke marks were present. The complete top of a marble mantelpiece (Fig 10) was also excavated, with evidence of the adhesive that held on the tiles. (There is a photograph in the archive showing this mantelpiece in situ).

6.5 Plaster Work: Quite a few pieces of plaster moulding have been excavated. Although very wet, they still had their profile and had dried well. A plaster figurine, (Fig 11) was also recovered, with some damage, but the subject matter is still visible. Some plain painted plaster has been recovered,

although the pale blue coloured pieces had faded to almost white. A few pieces of the moulding had been found attached to the original wall plaster which had been up to 2 inches (5 cm) thick in places.

6.6 Electrical: Various pieces of electrical hardware have been excavated. These included ceramic light fittings and light switches, (one with a copper cover) a 2 pin 5amp 250v Bakelite electric socket, a length of bare copper wire, and part of a light bulb (base and filament). According to the dimensions of the filament it was established that this was a Mazda gas filled bulb of 40/60watt produced in 1929. Also uncovered was the ceramic input terminals (complete with metal brackets and wire ties) of either electric power or telephone.

6.7 Tiles: A large quantity of glazed tiles have been recovered. There seemed to be three sizes of tile. The oblong brown tiles measured 4¼ inches x 2 inches (10.7 x 5.3 cm); these made up the majority of the oblong tiles. The oblong green tiles measured 6 inches x 2 inches (15.2 X 5.3 cm); these were fewer in number. There were also a few pink tiles, blue tiles and white tiles - all 2 inches (5.3cm) wide, but no whole ones to indicate their length; these were in the minority. There were two types of square tile. The first type were individual tiles of the same flower pattern measuring 6 inches x 6 inches (15.2 x 15.2cm), (Fig 12), with a diamond pattern border. The second type were parts of a set of 6 tiles, (Fig 13), depicting a vase containing chrysanthemums with a square pattern border 6 inches x 6 inches (15.2 x 15.2cm). There were sufficient of these tiles to indicate that there were two sets, presumably one set either side of the fireplace.

6.8 Leather: Several pieces of black leather had been recovered, which looked like they formed part of a lady's or child's ankle boot. The age of this has not been determined.

6.9 Stone: Apart from the sandstone door lintels and hearths, as mentioned earlier, the only other pieces of worked stone found to date were a couple of stone orbs, (Fig 14) 3 inches (8 cm) diameter - they had a hole drilled through the centre of each; these could have been used as counterbalance weights possibly for a dumb waiter in the basement kitchen. There was also a shallow sandstone sink (Fig 15).

6.10 Metal: There had been large quantities of metal finds; these were mainly corroded nails, door hinges and unidentifiable lumps of heavily corroded metal. Some recognisable pieces were excavated, such as cast-iron sash weights and sash pulleys. A few parts of some agricultural tools had been recovered, also some mangled and corroded door locks and door furniture. The larger pieces included grating from the fires, metal hearth surrounds and a pair of fire tongs. Of the better artefacts found were an oven door (Fig 16) and accessories from one of the ranges. A ceramic and metal window catch (Fig 17) from one of the sash windows and a door handle and letterbox (Fig 18) from a front door. A few hooks and fittings were amongst the finds.

6.11 Other: Other artefacts found included a tortoiseshell comb, a toothbrush minus the bristles, pieces of grey wallpaper with red flower pattern, a piece of book cover with printed page, key guards, ceramic and Bakelite door handles.

6.12 Comments on the assemblages

Most of the assemblages were consistent with the 19th and early 20th century. All assemblages were unstratified. The bricks have been re-used, and the roof slates, window glass, plaster and ironwork have been selectively discarded. All tiles, pottery and glassware have been retained.



Fig 6 Victorian toilet



Fig 7 Blue and white bowl

'A J White' glass medicine bottle

Fig 8





Fig 9

Marble roundel from a fireplace

Fig 10 Marble mantelpiece





Fig 11 Plaster figurine



Fig 12 Fireplace tile



Fig 13 Fireplace tiles

Fig 14
Stone weights





Fig 15 Sandstone sink



Fig 16
Pastry oven door



Fig 17 Window catch



Fig 18 Front door handle and letterbox



19 Slate capping



19a Underside of slate capping

UPMINSTER WINDMILL HERITAGE SITE REPORT

ARCHAEOLOGICAL EXCAVATION

MILL COTTAGE

NGR TQ55734 86725 - Site Reference MRL 16

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Excavations undertaken on behalf of the Friends of Upminster
Windmill

July 2013 to September 2014

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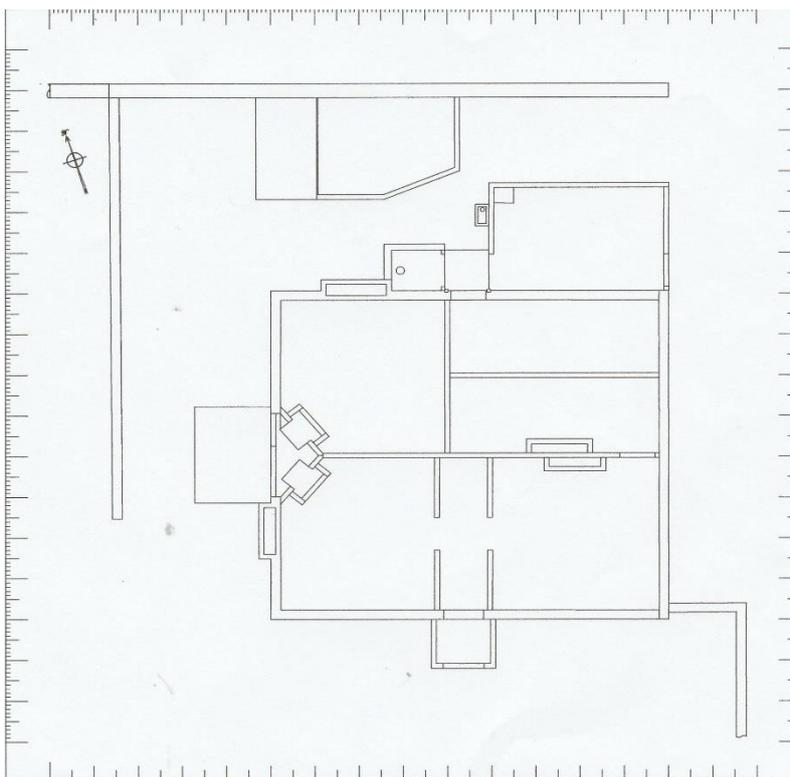
The Mill Cottage

5.0 Fieldwork Results

5.1 Explanation

Fig 20

The Mill Cottage was one building divided into two separate properties, (Fig 20) one on the west side of the building and one on the east side of the building, which consisted of:



Ground Floor –

Communal Entrance Hall, *Property 1*: Living Room and Kitchen on the west side of the building - both rooms having external chimneys; *Property 2*: Living Room and Kitchen on the east side of the building - both rooms shared a central chimney.

First Floor – Two bedrooms on the west side and two bedrooms on the east side.

External –

- (a) a front porch surrounding the front door on the southern side of the building.
- (b) a timber-built lean-to covering the external door on the west side.
- (c) a communal toilet just outside the back door on the northern side.
- (d) two brick-built outhouses, both of different periods, one situated on the northwest corner of the rear garden forming part of the boundary wall, and the other attached to the northeast corner of the cottage - this being a washroom. There was a 9-inch (23cm) brick garden wall, 5 feet (1.53m) high running from the southeast corner of the mill cottage, in a southerly direction for approx. 30 feet (9.13m). This wall met up with the coal office and the back porch of the mill house.

5.2 The Foundations

Upon excavation, most of the foundation walls were found intact which gave us a footprint of the building, although some internal features were unclear and will require further research. The perimeter walls and central load bearing walls are 14 inches (35.5 cm) wide and internal walls that remain are 9 inches (22.8 cm) wide. The foundation walls of the building are stepped out over 3 courses from 14 inches (35.5 cm) to 21 inches (53.3 cm) and sit on a bed of clay. The brickwork was of Flemish bond. The brickwork consists of red bricks 8.75 inches x 3.75 inches x 2.5 inches (22cm x 9.5cm x 6.5cm) and yellow bricks 9-inch x 4.25 inches x 2.5 inches (22.4cm x 10.7cm x 6.5cm) bonded with lime mortar. The damp course was made from slate, which was 12 courses from the clay bed. It appears that the timber thresholds for the door frames were set on beds of lime mortar. Door lintels were not found in the excavations of the mill cottage site. The windowsills were of brick/brick rubble construction with a cement render to give a smooth finish and drip channel. The roof consisted of Welsh slate tiles and slate cappings (Fig 21), and was of shallow pitch and hipped, with cast iron round profile guttering and round down pipes. The overall dimension of the building was 29.6 feet (9m) east to west and 26 feet 3 inches (7.977m) north to south. The building sat 8 feet 7 inches (2.6m) from the western site boundary and 7 feet 2 inches (5.2m) from the northern site boundary. Inside the building, room 1 on the southwestern side measured 12 feet (3.66m) x 12 feet (3.66m). Room 2 on the north-western side measured 14 feet (4.27m) east to west and 12 feet (3.66m) north to south. Room 1 on the south-eastern side measured 14 feet (4.27m) east to west and 12 feet (3.66m) north to south. Room 2 on the north-eastern side measured 15 feet 6.5 inches (4.73m) east to west and 12 feet (3.66m) north to south. Outhouse 1 (original forming the northern boundary wall) measured 8 feet 3 inches (2.5m) north to south and 15 feet 1 inch (4.6m) east to west. Outhouse 2 (against the cottage northern wall) measured 8 feet 9 inches (2.65m) north to south and 12 feet 2 inches (3.73m) east west.

6.0 Finds

A large proportion of the finds excavated have been cleaned, photographed and where possible re-assembled. As the finds were processed, they were being added to a database complete with photographs. This is an ongoing project which also involves researching the finds and enriching the history of the site.

6.1 Pottery: A fair amount of pottery fragments were found, mainly of domestic crockery, including blue and white pottery. There were enough pieces to restore a couple of objects to give an insight of the type of pottery used. One such object that was restored was a bowl with an Iceland Poppy design, which was made by Furnivals Ltd in the period 1895-1913 (Fig 22). Also, a plate base gave us the manufacturer of Chapmans Loughton 1916-1930 (Fig 23).

6.2 Bottles / Glass: Numerous pieces of bottle glass were uncovered, giving a range of different colours and shapes, as well as window glass. Some bottle necks were intact and a few bases also. One excavated bottle intact (Fig 24) was a Califig bottle, which had contained California Fig Syrup from San Francisco and was dated to the period 1918-1929. Also excavated was some patterned window glass which could have been from the fanlight above the front door (Fig 25).

6.3 Tiles: Not many tiles were excavated, but the hearth tiles for the ground floor east and west fireplaces were discovered in situ. The west fireplace tiles were green (Fig 26) and the east fireplace tiles were beige coloured (Fig 27). Also, a couple of majolica style tiles were found (Fig 28).

6.4 Drain: Numerous pieces of modern drainpipe were excavated. The new drains were laid in the 1920's.

6.5 Metal: Quite a lot of metal was uncovered, some pieces were identifiable, but a lot were corroded beyond recognition. Among the pieces that were recognisable was a water hopper from the guttering (Fig 29) and the frame for a Kent knife cleaner (Fig 30) and a metal foot to a cast iron bath (Fig 31).

6.6 Plaster: Very little wall plaster was recovered from this site, and none showed any sign of paint.

6.7 Slate: Very little slate was uncovered, this probably ended up mixed with the remaining buildings that were demolished.

6.8 Other finds: Various other items which were recognisable were found. For example, a piece of clay pipe (Fig 32), a light switch, door handle, finger plate (Fig 33) and interestingly, the legs of a garden gnome (Fig 34).

6.9 Comments on the assemblages

Most of the assemblages were consistent with the 19th and early 20th century. All assemblages were unstratified. The bricks have been re-used, and the roof slates, window glass, plaster and ironwork have been selectively discarded. All tiles, pottery and glassware have been retained.

Fig 21: Slate roof capping



Fig 22: Iceland Poppies design bowl by Furnivals. 1895-1913



Fig 23: Plate base made by
Chapmans Longton 1916-1930

Fig 24: Califig bottle containing Californian fig syrup
dated 1918-1929



Fig 25: Patterned glass, probably from the fanlight above
the front door



Fig 26: Green tiles found in situ in the western fireplace



Fig 27: Beige tiles found in situ in the eastern fireplace



Fig 28: Majolica style tile



Fig 29: Water hopper from the gutter



Fig 30: The metal stand for a 'Kent' Knife Cleaner

Fig 31: The foot from a Cast Iron Bath



Fig 32: Pieces of a clay pipe



Fig 33: Door
finger plate

Fig 34: Foot and leg of a
garden gnome



UPMINSTER WINDMILL HERITAGE SITE REPORT

ARCHAEOLOGICAL EXCAVATIONS

NEW STABLE BLOCK

St Mary's Lane, Upminster RM14 2QL

NGR TQ55734 86621- Site Reference MRL 16

Excavations undertaken on behalf of the Friends of Upminster
Windmill.

From September 2013 to September 2014



Report Ref No MRL 16/UMC/NS

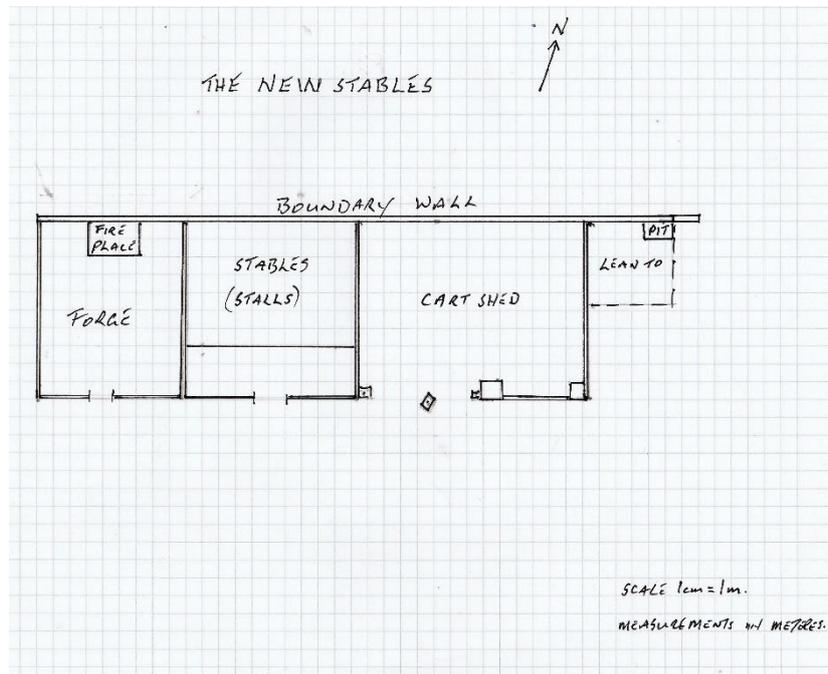
The New Stable Block

5.0 Fieldwork Results

5.1 Explanation - The stable block consisted of four buildings: (Fig 34) the forge, main stable block, a cart shed, and a lean-to.

Fig 34

Possible Forge - This was a brick built single storey lean-to on the west side of the main building. A brick hearth and a chimney were attached to the interior of the north wall. The floor was of timber construction and the floor joists ran from east to west.



Stable - This was the main building and was a brick built two storey building with three stalls and tacking area on the ground floor and a hayloft on the first floor. The stalls had a grey cobbled floor with two drains to allow the floor to be washed down. The tacking up area consisted of a beige coloured tiled floor.

Cart Shed - This was a single storey building situated on the eastern side of the stable block and brick built on three sides with wooden doors on the front. There was evidence of a cobbled floor and stone blocks sat at the east and west of the doorway, presumably for the door frame. There was a stone block in the middle of the doorway with a square hole cut out. This had been turned diagonally, and we think this was to allow the doors to shut if a slightly longer cart had been put in.

Lean-to - This was a simple timber framed canopy attached to the eastern side of the stable. This was open sided with a brick floor. There was a brick lined pit against the north wall of this lean-to. We think this may have been lead lined and filled with water, and used as a quenching pool, for work on larger machinery or shoeing horses.

5.2 The Foundations

The foundation walls were of brick and of similar construction as the other buildings on site. These gave us a rough footprint of the building. The back, or north, wall of the stable block remains in situ and forms the boundary wall between the windmill site and the houses beyond. Fig 36

The fireplace in the **Forge** (fig 36) was of brick construction with a stone slab hearth. The fireplace measured 3 feet (.915m) north to south and 3 feet 6 inches (1.06m) east to west. Evidence of the chimney was in the north wall. There was no floor to the forge on excavation, but the east and west walls had stepped brickwork indicating the possibility of floor joists to support a wooden floor. The forge footprint measured 15 feet 11 inches (4.85m) north to south, and 7 feet 3 inches (2.2m) east to west. Fig 37



The two storey **Stable Building** (fig 37) still had its cobbled floor in situ including the postholes where the stall partitions would have been located. There were three stalls, each one approx. 5 feet 7 inches (1.69m) wide.

There were two floor drains in situ and the pipework ran back to the main drain at the rear of the mill cottages.

The stalls area measured 11 feet 4 inches (3.45m) north to south and 16 feet 9.5 inches (5.1m) east to west. The tacking up area still had its flooring intact, this was south of the stalls, at the front of the stable block. This area measured 4 feet 7 inches (1.4m) north to south 16 feet 9.5 inches east to west. There was no archaeological evidence of the upper hayloft or mangers.



The **Cart Shed** (fig 38) was a single storey four-sided brick building measuring 15 feet 11 inches (4.85m) north to south and 23 feet 5 inches (7.12m) east to west. The front wall ran from the east wall westwards for a distance of 11 feet 3 inches (3.42m). The brick pillar supporting the west end of this wall was 2 feet (.61m) square. The entrance was 12 feet 2 inches (3.69m) and would have required 2 wooden gates of 6 feet (1.83m) wide to span the front of the building. The flooring we think was cobbled, as far as we could excavate. There were two large stone blocks at either end at the front of the building, both with sizeable holes in the centre, which we believe held the large door posts.

Fig 38



The **Lean-to** (fig 39) at the eastern end of the building was a timber framed lean-to, open on two sides. Upon excavation, a brick floor was uncovered, measuring 7 feet 11 inches (2.4m) north to south and 8 feet 7 inches (2.6m) east to west. After further excavations a brick lined pit of 18 inches (46cm) x 15 inches (38cm) x 15 inches (38cm) deep was uncovered, located against the back (north) wall. This may have been lead lined to hold water.

Fig 39



6.0 Finds

6.1 Drain: A few of pieces of 1920's drain were excavated.

6.2 Glass: A couple of whole bottles (Figs 40 & 41) were uncovered along with various pieces of bottle glass, some of which have been re-constructed. Also, some patterned glass which was considered to be part of the fanlight above the Mill Cottage door.

6.3 Metal: Various pieces of indistinguishable metal were uncovered, but also some identifiable pieces like the bearing block (Fig 42), an oiler (Fig 43), and a hinge and buckles. Most of these you would expect to find in a stable block.

6.4 Leather: Surprisingly very little leather was discovered, only some pieces of a belt (Fig 44) (which would go with the buckle that was found).

6.5 Plaster: A few pieces of white distempered wall plaster were uncovered.

6.6 Pottery: Various pieces of tableware including blue and white pottery. Several pieces of a butler type sink were found and a brown storage jar (Fig 45).

6.7 Tiles: Numerous pieces of thick white glazed tile were uncovered, along with diagonally grooved floor tiles (Figs 46 & 47). These were made by J C Edwards in Ruabon, Wales.

6.8 Other: Other items include pieces of smoker's pipe (Fig 48), bottle stoppers and a tube of paint.

6.9 Comments on assemblages

Most of the assemblages were consistent with the 19th and early 20th century. All assemblages were unstratified. The bricks have been re-used. The roof slates, window glass, plaster and ironwork have been selectively discarded. All tiles, pottery and glassware have been retained.



Fig 40
Glass
Bottle



Fig 41 Glass Medicine Bottle



Fig 42
Bearing Mount



Fig 43 Oil Can (Oiler)



Fig 44 Leather Belt



Fig 45 Storage Jar



Fig 46 Floor Tile (Obverse)



Fig 47 Floor Tile (Reverse)
(Printing on reverse of the tile states
"Made by J C Edwards Ruab



Fig 48 Clay Pipe fragments

UPMINSTER WINDMILL HERITAGE SITE REPORT

ARCHAEOLOGICAL EXCAVATIONS

THE STEAM MILL

St Mary's Lane, Upminster RM14 2QL

NGR TQ55736 86742 - Site Reference MRL 16

Excavations undertaken on behalf of the Friends of Upminster
Windmill.

From September 2014 to November 2015

Report Ref No MRL 16/UMC/SM



The Steam Mill

5.0 Field Work Results

5.1 Explanation: The Steam Mill complex consisted of (Fig 49 & 50)

Fig 49



The Grinding Room: This room was brick built with red brick with a shallow frog and laid with Flemish bond. The building was split internally lengthways into two halves, and lies on a north-south orientation, with the southern end adjoining the northern end of the meal room. The building was offset to the meal room and was separated from the meal room by a 2 foot (61cm) thick brick wall.

The dimensions of the grinding room were 12 feet (3.66m) long x 15.5 feet (4.70m) wide. The eastern side of the grinding room had a wooden floor (*there were burnt floorboards and floor joists in situ upon excavation*), where the grain was stored prior to grinding. This area also had the stairs to the mezzanine floor, and two crane pads. The western side of the grinding room housed the grinding pit, where the cogs and shafts ran. Above this pit was the mezzanine floor which housed two sets of stones and grain bins.

The Engine House: This building was brick built with red bricks, in Flemish bond, measuring 210mm x 103mm x 67mm. The engine house lies on a north-

south orientation, with the southern end adjoining the northern side of the fly-wheel pit. The pond was 12 feet (3.66m) east of the engine room and was fed by a wooden leet from a pond east of the site. The engine house was separated from the grinding room by the fly-wheel pit. This housed a 10-foot (3.05m) diameter flywheel. The engine mounting block and crank shaft pits were still in situ. The engine house shared the same building as the boiler room.

The Boiler Room: This part of the engine room housed the boiler. The flue channels and blowdown valve pit were still in situ. The area was on a north-south orientation with the southern end separated from the engine house by a low wall. At the northern end sat the base of the chimney. The boiler sat on the flue walls in an east-west orientation, and was a brick set type of boiler. The dimensions of the engine house and boiler room were 13 feet (3.96m) long x 15.5 feet (4.70m) wide.

The Well: There had been no indication on any documents that a well existed, and no record of a well in the vicinity of Upminster Windmill on the BGS online maps, charts and borehole logs. The well lies 5 feet (1.52m) to the east of the engine room and in a direct line from the engine mounting block and is 2 feet 8 inches (0.8m) from the pond. The well was probably dug after 1869 when the rights to draw water from the pond expired. This would have required a new water supply for the steam plant.

The Coal Place: This building was of brick construction and sat on an east-west orientation, with the western end adjoining the eastern side of the engine house/boiler room. This adjoining wall was a full brick wall, but the centre portion was arched. This allowed the arched part of the wall to be dismantled, to remove the boiler, but allowed the remainder of the wall to support the building. The floor, on excavation, was laid to reclaimed paving slabs, but on further investigations, found the original floor was of brick. The slabs were probably used to raise the floor level after the boiler was replaced. The dimensions of the coal place were 16 feet (4.87m) long x 12.5 feet (3.80m) wide.

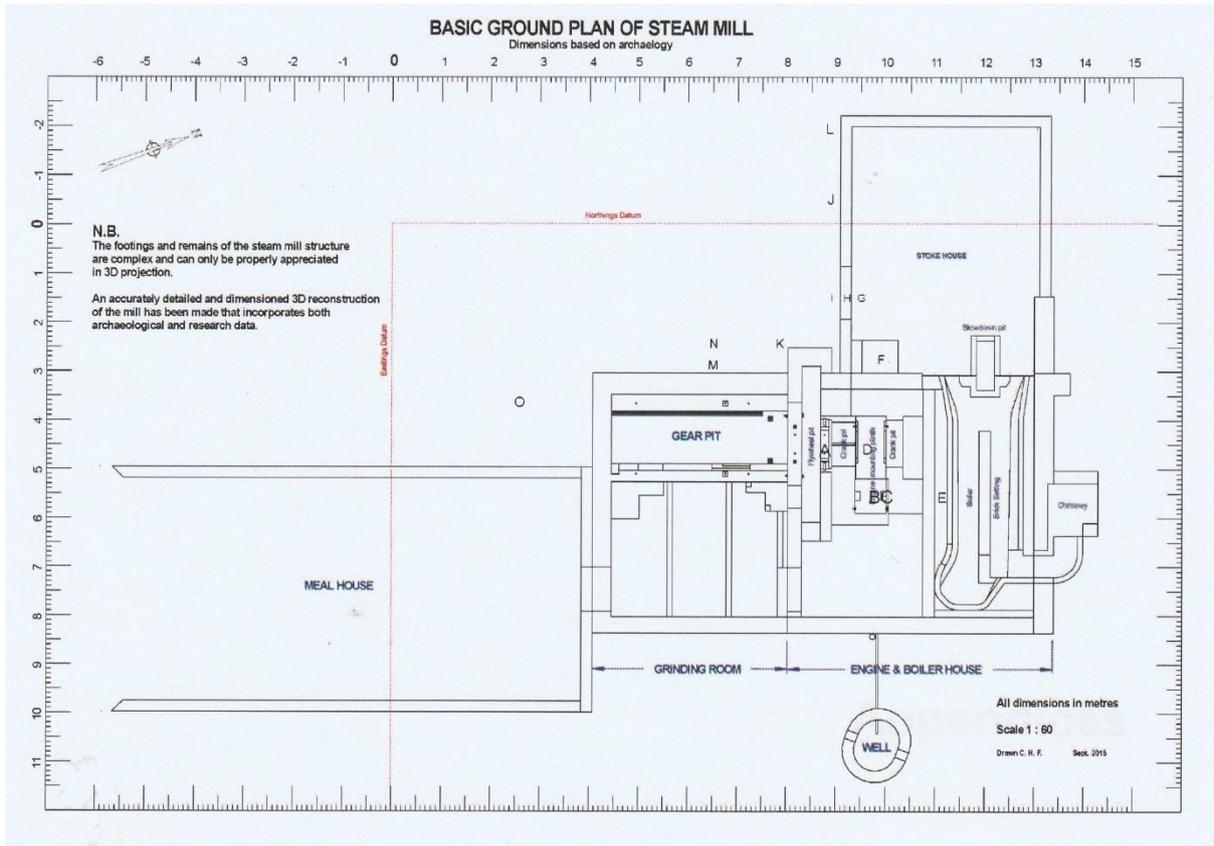


Fig 50

5.2 Foundations

Upon excavation, the foundation walls were found intact which gave us a footprint of the buildings (Fig 51 & 52).



Fig 51 Steam Mill Site.

Fig 52
Steam Mill
annotated



The **Grinding Room's** external north-south foundation walls are 17 inches (43cm) wide, and the north wall adjoining the Engine House is 14.5 inches (36cm) wide. There was a wall running north south, dividing the grinding room into two sections. This wall is 18 inches (50cm) wide, the area to the west of this wall was the pit (Fig 54) which housed the drive shafts and cogs. This pit was 17 inches (43cm) wide and 13 inches (33cm) deep and ran the full length of the Grinding Room. The pit walls were of brick which were stepped inwards to the brick floor, giving a "U" shaped pit. This was to accommodate the gear wheels which drove the mill stones above. Some of the stepped wall bricks had been chipped away, suggesting alignment issues with the drive shaft. There was a metal grill set into the eastern pit wall, overlain by a stone slab. The pit floor bricks were laid on their edge. There were some timbers in place along the walls of the pit, which were probably the remains of the mezzanine floor that held the mill stones. The red bricks are 5 courses higher than the floor and the bricks each measure 225mm x 110mm x 64mm. On the eastern side of the pit, there were two brick pads, one on the northern end and one on the southern end of this wall. These were probably to accommodate cranes to remove the mill stones for maintenance. The eastern half of the grinding room continued from these pads. This area was 8 feet 9 inches (2.66m) wide and ran the full length of the grinding room. The floor was timber and there was a brick

step in the north-eastern corner. This was probably where the stairs started to access the mezzanine floor.

Fig 53 Boiler Flues.



Fig 54 Grinding Pit.



The ***Flywheel Pit*** runs east west and was on the north side of the northern wall of the grinding room. This pit was 11 feet 9 inches (3.57m) long and 1 foot (30cm) wide and was of brick construction and rendered throughout. It was 5 feet (1.52m) deep in the centre curving up to the top at each end. The western end of the flywheel pit was designed so the bricks could be removed to allow the flywheel to be maintained. There was a cast iron bearing block mounted in the centre of the north wall of the flywheel pit and the remains of a timber bearing block on the southern wall. The east wall of the Engine House/Boiler Room ran from south to north from the north wall of the grinding room to the north wall of the Boiler Room. This wall was 17 feet 7 inches (5.35m) long and 13 inches (33cm) wide.

The **Engine House** foundations consisted of a series of raised brick walls and plinths. Three limestone blocks were set into the brickwork. Two of these blocks formed the area where the engine and water tank were bolted to and were carved out to accommodate the steam engine and lie on an east-west orientation. The western block measured 3 feet 5 inches (1.04m) long and 2 feet 2 inches (0.65m) wide, with brick crankshaft pits, one on the north side and one on the south side. The southern crankshaft pit butted against the flywheel pit wall and was 3 feet 5 inches (1.04m) long and 1 foot 9 inches (52cm) wide. The northern crankshaft pit butted against the north side of the engine mount and was 3 feet 11.5 inches (1.2m) long and 1 foot 3 inches (37cm) wide. The eastern engine mount measures 2 feet 10.5 inches (0.87m) by 2 feet 2 inches (0.65m). At the east end of the engine mount, iron water pipes ran 6 feet 8 inches (2.05m) out through the eastern wall to the well.

The **Well** was of brick construction and slightly elliptical in shape. It had a course of bricks around the top of the well. There was a cast iron pipe running from the engine mount, through the engine room eastern wall and going down into the well. The internal diameter of the well was 3 feet 6 inches (1.07m) east-west and 2 feet 10 inches (0.86m) north-south and was approx. 10 feet (3.05m) deep. The well continues to fill with water from the water table to around a depth of 7 feet (2.15m). During the excavation of the well, the water was pumped out, all the debris was cleared, and no finds were uncovered.

The wall on the north side of the Engine House was a low wall which separated the Engine House from the **Boiler Room**. This wall was 17 feet 9 inches (5.4m) long and 2 feet 1 inch (64cm) wide. The actual height of the wall was unknown, but it was not a full wall from photographs. The boiler flues (Fig 53) ran from east-west in a 'u' shape with splayed openings on the west side. The flues had sloping brick sides and were 2 feet 1 inch (64cm) in depth. The floors were made of firebricks in rows orientated north south. The bricks were replacements and measured 226mm x 108mm x 65mm. The total width of the two flues and central wall being 4 feet 5 inches (1.35m) across the top. The central brick wall between the two flues was 11 feet 2 inches (3.4m) long and 10 inches (25cm) wide, (this wall separated the flues and acted as a support for the boiler). The southern flue was 1 foot 6 inches (44cm) wide at the base and 2 feet 11 inches (88cm) wide at the top. The northern flue was 1 foot 4 inches

(40cm) wide at the base and 1 foot 10 inches (55cm) at the top. At the north-eastern end of the northern flue there was a sloping exit flue 1 foot 6 inches (45cm) wide and 2 feet 10 inches (85cm) long, leading to the chimney via a curved flue. The curved exterior wall was made of yellow bricks, measuring 230mm x 100mm x 70mm in English bond. The chimney base was 3 feet 11 inches (1.2m) long and 4 feet 4 inches (1.31m) wide and built with yellow bricks measuring 230mm x 108mm x 65mm. At the entrance to the flues, at the west end, was the blowdown pit 3 feet 6 inches (1.06m) x 1 foot 10.5 inches (0.56m) x 2 feet 1 inch (0.62m) complete with the blow back valve. The northern wall of the boiler room was 19 feet 7 inches (5.95m) long and 13 inches (33cm) wide and joins up with the northern wall of the Coal Place.

The ***Coal Place*** sits on the west side of the Boiler Room and lies on an east west orientation. All the external walls were on stepped out foundation walls, with the south, west and half of the north walls constructed with red bricks laid in English bond. The north wall was 18 feet 1 inch (5.5m) long and 13 inches (33cm) wide and continued on from the Boiler Room wall. The west wall was 14 feet 3 inches (4.33m) long and 13 inches (33cm) wide. The south wall was 18 feet 1 inch (5.5m) long and 13 inches (33cm) wide; that wall butted on to the west wall of the Engine House 1 foot 5 inches (43cm) north of the Flywheel Pit. There was a doorway in the south wall with a limestone slab step 2 feet 11 inches (89cm) x 2 feet 1 inch (63cm) in the southeast corner which allowed access to the Engine House. The floor was covered in a re-used mixture of York stone and limestone slabs, and it sloped downwards from east to west. Under the slabs laid the original much worn brick floor. These were red bricks measuring 219mm x 100mm x 62mm and were slightly larger than the wall bricks. The assumption was the floor was raised to accommodate the stoking of the new boiler when it was replaced.

6.0 Finds

6.1 Glass/Bottles: Glass fragments and bottle fragments were found in various quantities across the whole of the steam plant. Some of the better pieces were three whole glass bottles: a Congreve's balsamic elixir dated about 1830 (Fig 55); a round shaped bottle (Fig 56); and a graduated bottle (Fig 57). A glass ink

well (Fig 58); and an Allenbury's glass baby feeding bottle from about 1892 (Fig 59). All these items were discovered in the Coal Place.

6.2 Pottery: There were scatterings of various quantities of pottery across the Steam Plant site. Two interesting pieces were a stoneware inkwell (Fig 60) and a stoneware storage jar (Fig 61) found in the Coal Place.

6.3 Metal: A substantial amount of metal was scattered around the site (which would be expected from an industrial complex) most of which was corroded and unidentifiable. A couple of recognisable pieces were a belt wheel (Fig 62), a governor weight (Fig 63) and a scales weight (Fig 64) found in the Grinding Room; a fireplace companion stand (Fig 65) found in the Flywheel Pit; and some small metal objects (Fig 66) found in the Boiler Flue.

6.4 Leather: Very little leather was found across the Steam Plant site. One identifiable find though was part of a leather boot (Fig 67) found in the Coal Place.

6.5 Comments on the assemblages

Most of the assemblages were consistent with the 19th and early 20th century. All assemblages were unstratified. The bricks have been re-used, and the roof slates, window glass, plaster and ironwork have been selectively discarded. All tiles, pottery and glassware have been retained.



Fig 55



Fig 56



Graduated medicine bottle

Fig 57



Fig 58 Glass inkwell



Fig 59 Allenbury glass baby feeding bottle

Fig 60 Stoneware inkwell



Fig 61



Stoneware storage jar



Fig 62 Belt wheel



Fig 63 Governor Weight

Fig 64 Scales weight



Fig 65

Fireplace companion stand





Fig 66 Various metal items



Fig 67 Leather boot

UPMINSTER WINDMILL HERITAGE SITE REPORT

ARCHAEOLOGICAL EXCAVATIONS

ANCILLARY BUILDINGS

St Mary's Lane, Upminster RM14 2QL

NGR TQ55736 86621 - Site Reference MRL 16

Excavations on behalf of the Friends of Upminster Windmill

From September 2013 to October 2015



Report Ref No MRL 16/UMC/AB

The Ancillary Buildings

5.0 Fieldwork Results

5.1 Explanation.

Fig 68.

The Ancillary Buildings consisted of:

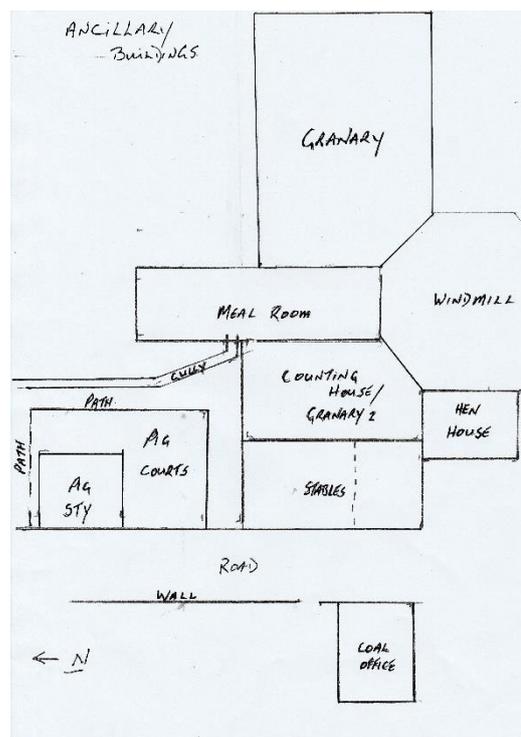
Granary: This building was built by 1818 (but may have been built earlier with the windmill in 1805) and was of brick construction on a brick foundation. It had a wooden floor; this may have been raised on mushroom style pedestals (to prevent rodents from accessing the grain which was stored there) although there was no archaeological evidence for this. The

granary was on an east-west orientation and was attached to the east wall of the meal room and the east side of the windmill. There is documentary evidence the granary was converted, probably in the early 1900's, to a workshop.

Hen House: The hen house was built by 1849 and was attached to the western wall of the windmill. It was of brick construction on three sides, with a slate roof, the fourth side being the brick base of the windmill. The building lies on a north-south orientation. Chickens were present until the early 1930's.

Meal Room: This was a brick-built building on a brick foundation with a timber floor. This building was built by 1818 (but may have been built earlier with the windmill in 1805), and was on a north-south orientation, with its southern end attached to the northern door of the windmill and the northern end attached to the southern end of the grinding room.

Granary 2: This building was also built by 1818. It was a brick-built building with a slate roof, attached to the north-west wall of the windmill base. It was also attached to the west wall of the meal room. The north wall of the hen house was attached to the south wall of the building. The building lies on a north-south orientation, and the actual use of this building was as a granary. It was converted by 1849 into the stables and possibly a Lumber room. These



buildings would have been adapted for use as the needs of the windmill changed.

Old Stables: This was a brick building, built within the western half the Lumber room/granary 2 building. It shared the party wall on the west side of the lumber room/granary 2. The stables were also joined to the western corner of the north wall of the hen house. The stables had two stalls.

Pig Courts: The pig courts were on the 1849 auction catalogue plan of the site but could have been there earlier. (Pigs were commonly used for the disposal of mill waste). There was some evidence of an earlier form of shelter for the pigs - up against the north wall of the old stables. There was evidence of the area to the north of the old stables being fenced off. At some point (by 1865) a new pig sty was built and formed the west boundary of the courts. This was of brick construction with a tiled roof on an east-west orientation and the compound fence repositioned. Around the eastern part of the compound was a drainage gully which ran north-south alongside the eastern wall of the steam mill and disappeared under the meal room.

Coal Office: The coal office was built by 1920 and was probably the last building to be added to the site. This was of brick construction with a slate roof and was on an east-west orientation. This building was positioned opposite the old stables and on the boundary of the mill house front garden.

5.2 Foundations

Fig 69

Upon excavation, the foundation walls were mainly intact which gave the footprint of the buildings. The **Hen House** walls (Fig 69) were of 9-inch (22.8cm) construction, and the floor was of brick and sandstone construction. The dimensions of the hen house were 9 feet (2.74m) east-west and 12 feet 6 inches (3.8m) north-south. This was a very simply built outbuilding and was added to the other buildings by 1849.



The only excavation work carried out on the **Granary** was to establish the footprint; its dimensions were 40 feet (12.2m) long x 25 feet (7.6m) wide. The foundation walls appeared to be of similar construction as the Meal Room.

The **Meal Room** was of brick construction on a brick foundation which was 14 inches (35.5cm) wide. The brick wall was 9 inches (22.8cm) thick on top of the foundation wall. As there was no evidence of a brick floor, it was presumed the floor was timber. The dimensions of this building was 30 feet (9.14m) long x 15 feet (4.57m) wide.

Fig 70.

The foundations of the **Granary 2 /Lumber room** were similar to the meal room and granary, which indicated the three buildings were erected individually at or just after the building of the windmill. Evidence indicated the eastern wall also formed part of the western wall of the meal room. The floor of this building



consisted of a series of raised semi-circular mounds, covered in what appears to be limestone (Fig 70). These ran from east to west for the full length of the building. The building measured 23 feet 11 inches (7.28m) north-south and 12 feet 6 inches (3.78m) east-west.

Fig 71

The foundations of the **Old Stables** (Fig 71) were of 9-inch (22.8cm) brick construction. Upon excavation, it indicated that the walls of the old stables and



lumber room were built within the granary 2 building - an indication that

buildings were converted or re- purposed depending upon need. The floor construction of the stables was of brick in the northern half and of cobble in the southern half. The brick area measured 13 feet (3.96m) north-south and 10 feet 10 inches (3.29m) east-west. The cobbled area measured 10 feet (3.05m) north-south and 10 feet 10 inches (3.29m) east-west. There was a drain and pipework running north-south in the flooring at the front of the stables. The building measured 23 feet 11 inches (7.28m) north-south and 10 feet 10 inches (3.29m) east-west.

Fig 72

Although the foundations of the **Pig Sty (building)** (Fig 72) was of fairly modern brick construction and measured 9 feet 9 inches (2.96m) north-south and 6 feet 7.5 inches (2.07m) east-west, the **Pig Courts (compound)** were older. The pig sty formed the western boundary of the pig courts and was 6 feet 6.5 inches (1.98m) south of the coal place and 16 feet 6 inches



(5.11m) north of the old stables. There were several concrete blocks in situ which were probably for the pig courts' boundary fence. There was an open brick gully of 1 foot 2 inches (0.35m) wide running north-south along the western side of the steam mill and disappearing under the wall of the meal house; this probably took away rainwater from the roof of the steam plant. There was a brick path running alongside the gully in the same orientation, and this was 3 feet 6 inches (1.05m) wide.

The foundations of the **Coal Office** were of brick construction and in keeping with the older buildings. The coal office measured 10 feet (3.05m) north-south and 13 feet 2 inches (4m) east-west. The front door was in the eastern wall. Excavations did uncover a metal foot scraper style mat outside the front door.

The front of the building sat 20 feet (6.10m) west of the hen house and 10 feet 2 inches (3.1m) west of the old stables.

6.0 Finds

6.1 Glass/bottles: There was an abundance of glass fragments and glass bottle fragments across all the sites, but very little that could be identified. Some of the better pieces were a Hamilton Bottle dated 1820-1830 which contained aerated mineral water (Fig 73) and an A T Soules Hops Bitter Bottle dated from around 1872 (Fig 74) found in the Meal Room. Also found, was opaque milk glass (possibly the shade from an old oil lamp) in the Granary 2 area (Fig 75).

6.2 Pottery: Similarly, there was an abundance of pottery fragments across the sites. The only pieces that could be identified to date, was a white plate and some pieces from a ginger jar (Fig 76 & 77) found in the Pig Courts.

6.3 Metal: Very little metal was found in these areas, but the pieces that were found, were identifiable. Several metal items were found in the Pig Courts (Fig 78 & 79), a metal securing ring (Fig 80), and the frame from a pair of spectacles (Fig 81) were found in the Old Stables. A patterned piece of metal (Fig 82) was found in the Meal Room.

6.4 Electrical: Some small parts of old batteries were excavated, and parts of two old Bakelite sockets (Fig 83) were found in the Pig Courts.

6.5 Other: There were some pieces of lino (Fig 84) found in the Old Stables.

6.6 Comments on the assemblages

Most of the assemblages were consistent with the 19th and early 20th century. All assemblages were unstratified. The bricks have been re-used, and the roof slates, window glass, plaster and ironwork have been selectively discarded. All tiles, pottery and glassware have been retained.



Fig 73 Hamilton bottle



Fig 74 Soules hops bottle



Fig 75 milk glass



Fig 76 White plate

Fig 77 Ginger jar



Fig 78



Fig 79 Various metal items



Fig 80 Securing ring



Fig 81
Glasses
frame



Fig 82 Patterned metal



Fig 83

Electrical sockets



Fig 84 Old linoleum

7.0 Conclusion

There were two mills on the same site at Upminster. The Windmill, of a smock design, was built between 1803 and 1805 and is now a Grade II* listed building. The Steam Mill was added in 1811. A few buildings, including a pair of wooden cottages, a granary, meal room and other ancillary buildings were probably built at, or around, the same time as the windmill. A substantial mill house was added in the late 1830s. A full description of the site in the 1849 auction catalogue confirms what was there at that time. Later changes included the replacement of the cottages with a more substantial cottage. There was also provision for improved stabling and an office to run the business. A well to provide an alternative supply of water for the steam engine was dug out. All of the above had been completed by the end of the nineteenth/start of the twentieth century. Confirmation of these changes to the site were verified by subsequent Ordnance Survey maps. By the early 1900's, milling started to decline, as corn fields were being turned into market gardens and grain was being imported and processed by the new steam roller mills. The business closed in 1934, although it is believed that only animal feed had been ground during its latter years. A coal business, founded by the milling family in 1886, was sold at the same time. The windmill was purchased by Essex County Council in 1937 together with a very small area of land that did not include the steam mill or other buildings. The site remained empty and became derelict. In 1960, Essex County Council purchased the site as it remains today. Apart from the windmill, the buildings were demolished. The steam engine had already been scrapped.

The windmill is now the property of the London Borough of Havering and managed by the Friends of Upminster Windmill.

Acknowledgements

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Grace's Guide

More information about Upminster Windmill can be found at

www.upminsterwindmill.org

If you are interested in joining The Friends of Upminster Windmill - Email

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