An Archaeological Watching Brief at Crane Road, Kimberworth, Rotherham.

ARS Ltd Report 2008/44
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EXECUTIVE SUMMARY

In April 2008 Archaeological Research Services Ltd were commissioned by Barratt Homes Ltd to undertake an archaeological watching brief at Crane Road, Kimberworth, Rotherham. The monitoring was carried out during groundworks for the construction of a new housing development.

The watching brief was undertaken in accordance with a written scheme of investigation as part of a negative condition attached to planning permission for residential developments. South Yorkshire Archaeology Service (SYAS) required an archaeologist to be on site to observe all groundworks and to ensure preservation by record of any archaeological deposits discovered.

The watching brief was implemented following enabling works to clear the site and make a safe working surface No archaeological features or artefacts of particular significance were identified during the site monitoring. Observation of foundation trenches for the 18 plots in the north part of the site demonstrated that the site was characterised by extensive made ground deposits. Sterile natural deposits were not exposed during any of the site works and thus it was not established whether the made ground deposits were the result of widespread ground rising or fill deposits associated with extensive pasts ground reductions.

1. INTRODUCTION

1.1 Location and scope of work

1.1.1 In April 2008 Archaeological Research Services Ltd were commissioned by Barratt Homes Ltd to undertake an archaeological watching brief at Crane Road, Kimberworth (Fig. 1). The work was carried out during groundworks for the construction of a new housing development (Planning Reference RB 2007/1383).

Fig. 1: Site location

1.1.2 The site is centred at NGR SK 40599569 and is located on the north side of Kimberworth. Nearby are the Iron Age hillforts at Wincobank and Caesar's Camp at Scholes Coppice. Kimberworth is also on the projected route of the 'Roman Ridge' defensive dyke running to Mexborough.

1.2 Geology

1.2.1 The solid geology of the site consists of Carboniferous Westphalian Coal Measures Group (Aitkenhead *et al.* 1978).

1.3 Background

1.3.1 An archaeological Desk-Based Assessment was prepared in May 2005 by ARCUS which demonstrated that the area had archaeological potential. The site was under woodland until the early 20th century and, although this does not correspond to known ancient woodland, it was possible that features associated with past woodland management of the medieval Kimberworth Deer Park had survived.

1.3.2 Furthermore, although the early 20th century Hudson's Rough Drift mine did not extend into the application area, part of the features associated with it (the fan drift) laid in the northern part of the site.

1.3.3 The survey undertaken by ARS Ltd on January/February 2008 sought to map and to record any surviving remains of the mining activity in the area. Unfortunately the advanced state of ground working on site at the time of the survey caused an irreversible change in the ground topography, which included the blockage and consequent destruction of the mentioned fan drift.

2. METHODOLOGY

2.1 The specification required that a watching brief be carried out to observe any groundworks taking place for the proposed development in order to identify any potential archaeological remains. This involved an archaeologist from Archaeological Research Services Ltd monitoring and supervising the reduction in ground level and excavation of foundation trenches and service trenches on the site.

2.2 All ground reduction work and the excavation of foundation trenches was undertaken by a 360° excavator machine under continuous archaeological supervision.

3. RESULTS

3.1 General Results

3.1.1 The site showed stratigraphic homogeneity through all plots excavated. The basic sequence represents two different levels of made ground, one related to the actual works carried out on site and the second one related to the previous state of the development area. Undisturbed natural levels were not reached during any of the groundwork excavations.

3.1.2 A detailed description of each plot is given in the following paragraphs, together with their location and levels.

3.2 Plots

3.2.1 Plots 1-4

3.2.1.1 The stratigraphy in this area had not been as modified by the levelling works as it has been in other areas of the site. The made ground level previous to the works associated with the current development was still visible in the foundations, although it had been considerably reduced by the levelling works. The black loam which forms the topsoil was lost in the south west area, where the surface level rests on top of a thick layer of redeposit bluish-yellow clay, common to the whole site (Fig 2).

Fig. 2: Redeposited clay layer, part of the second level of madeground.

3.2.1.2 The remains of a pit filled with modern demolition material was recorded in the West wall of Plot 1. It seems likely that this feature was already in place when the current works began, although it does not seem to be much older (Fig. 3).

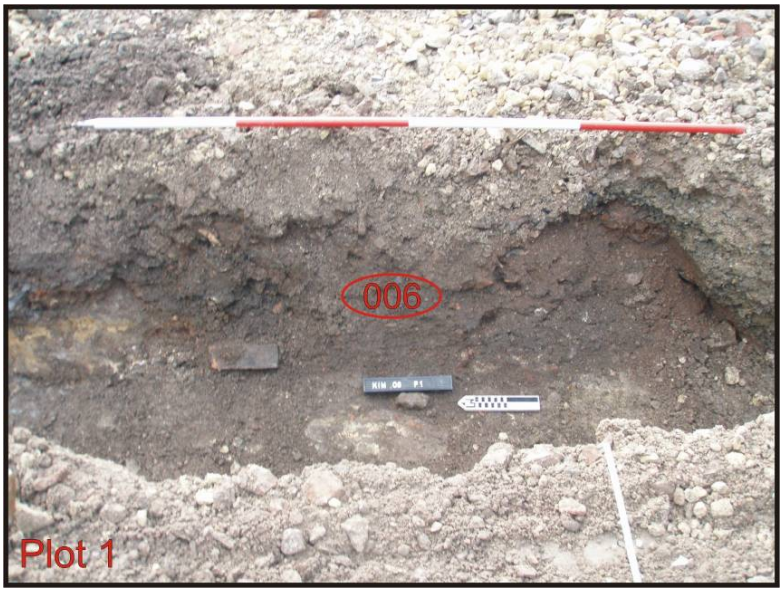

Fig. 3: Pit filled with building materials, excavated in the redeposited clay layer.

Fig. 4: Northern wall of Plot 4. The east end of the foundation trench shows the remains of the black made ground/organic level on top of the redeposited clay layer visible in the west and central areas of the trench.

Fig. 5: General view of the foundations of plot 2.

3.2.2 Plots 5-8

3.2.2.1 Situated to the north of the previous plots, this area shows the whole of the stratigraphic sequence prior to the beginning of the actual works. Black loamy topsoil reached a depth of 1.20 m in the northern corner of Plot 8 (Fig 9). Under this layer, the redeposited bluish-yellow clay was visible.

3.2.2.2 While remains of building materials such as brick, tiles, *etc*. were common in the whole of the site and only the made ground included other types of finds, such as modern pottery and glass. All the materials found are of fairly recent date and their scattered and fragmentary state indicated that they are not in their primary location, being just one of the abundant and varied inclusions of the previous made ground.

Fig. 6: General view of the foundations of the wall shared by Plots 6 and 7 (looking east).

Fig. 7: General view of the foundations of Plot 7 (looking west).

Fig. 8: General view of the foundations of the west wall (looking north).

Fig. 9: East-facing section of inner wall of Plot 7 showing the original made ground level on site under a new gravel layer to level the surface. The upper part of the original ground was removed and used to elevate the central area of the site.

3.2.3 Plots 9-12

3.2.3.1 The construction of these plots was suspended before works for their foundations began.

3.2.3.2 No further building work took place in this area.

3.2.4 Plots 13-16

3.2.4.1 Situated to the east of Plots 1-4, plots 13 to 16 were the areas most affected by the current works carried out on site. The new layer of made ground reached a maximum depth of 1.20 m and comprised a series of levelling dumps of re-deposited topsoil, stone and demolition debris.

3.2.4.2 In the southern area of Plots 13-16 this layer covers the remains of a demolition level. This demolition level was mainly formed by building materials like red brick and wood, and seems to correspond with the remains of the structures demolished at the beginning of the current works. In some areas of the site, this demolition level is under a 0.40 m thick layer of aggregate, for example Plot 14 (Fig 10).

Fig. 10: North-facing section of the foundations. A demolition layer packed with building materials can be seen in the bottom of the section under a 0.40 m thick layer of aggregate. The yellow spots on both sides are remnants of the piling process.

3.2.4.3 In the northern part of the foundations the thickness of the recent madeground level is thinner and parts of the redeposited clay belonging to the earlier made ground deposit were exposed. It was also in this area of the foundations that the presence of redeposited metal slag was recorded.

3.2.4.4 A possible feature (pit?) was located in the foundations of the western wall of Plot 15, characterised by the concentration of glassy slag (Fig 11); unfortunately one of the piles placed during the piling process cut through the feature, severely truncating it and making it impossible to ascertain if it was effectively a pit or just a concentration of materials within the made ground deposit.

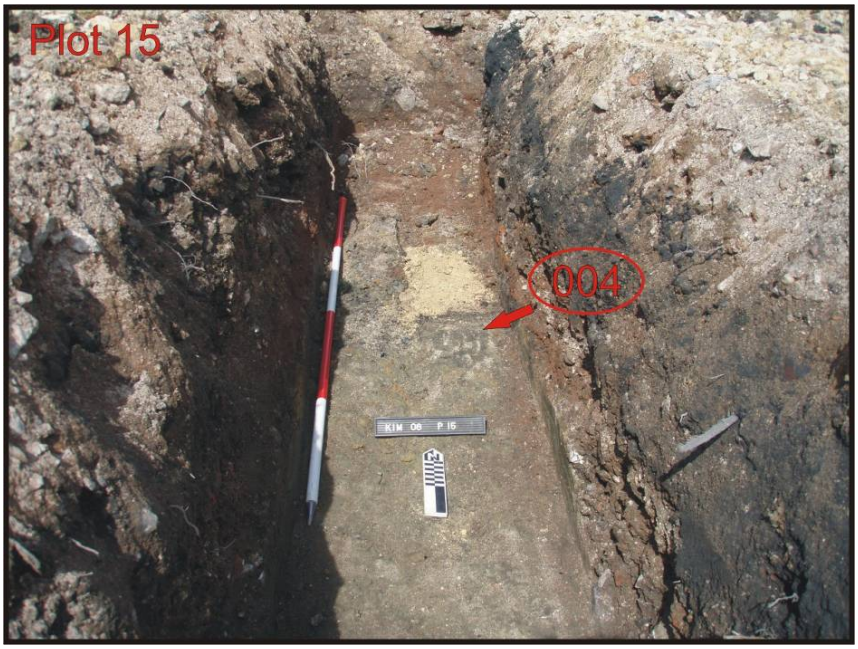

Fig. 11: Possible pit truncated by pile. Abundant slag was found in this area of the foundations.

Fig. 12: North end of foundation trench for the eastern wall of Plot 14. The black made ground was redeposited in this area after being excavated in the west part of the development area.

Fig. 13: Black loamy topsoil was excavated in the west area of the site and then used as levelling material in the central area, as it can be seen in the bottom of this section.

Fig. 14: South facing section of Plot 15 showing demolition levels (bottom) and redeposited black topsoil from other areas of the site.

Fig. 15: General view of Plots 15-16 looking north.

3.2.5 Plots 17-18

3.2.5.1 Plots 17 and 18 are situated to the north of Plots 13-16 and they generally shared the stratigraphic sequence previously discussed. The main variation was the presence of red sand in the recent madeground layer, more than likely related to the recent construction of the road linking the different plots (Fig 16).

3.2.5.2 Again, a demolition level was found at the bottom of the foundations in the south-west corner of Plot 17. However these remains seem to belong to a different type of building from that recorded in Plots 13-16. While in these plots the bricks were orange/red in colour with bright orange fabric and abundant medium size inclusions of heterogeneous composition, the bricks found in Plot 17 are yellow in colour with abundant regular quartz-like inclusions of medium size.

Fig. 16: Foundation trench for the west wall of Plots 17 and 18.

Fig. 17: Foundation for the wall dividing Plots 17-18. A thick layer of red sand can be seen in the eastern part of both Plots.

Fig. 18: Foundation for the southern wall of Plot 17.

Fig. 19: Section showing a layer of red sand on top of the redeposited clay layer.

3.3 Sewage Services

3.3.1 Plots 13-18

3.3.1.1 On the 16th of June a new phase of ground works was carried out at Crane Road, Kimberworth. It began with the installation of the sewage services for plots 13-16. The trenches excavated were about 1 m wide and reached a maximum depth of 1.80 m. The main trenches were located parallel to the northern wall of plots 13-16 and parallel to the east wall of plots 17-18 (Plan 10).

3.3.1.2 The general stratigraphy already recorded during the foundation works was also present in the service trenches. The foundations of a previous wall, together with its collapsed remains, were located in the area of Plot 18. The wall appeared to have been demolished and buried during the recent enabling works prior to commencement of the main construction. The foundations consisted of concrete stanchion blocks with large metallic bolt fixing and a separate lightly built wall one brick thick (Fig. 20-21).

Fig. 20: Concrete block used as foundations.

Fig. 21: Remains of the collapsed wall, located to the south of the foundations.

3.3.2 Plots 1-8

3.3.2.1 The installation of the sewage services for plots 1-8 was delayed until the first week of August. The trenches excavated were about 1 m wide and reached a maximum depth of 1.90 m. The main trenches were located parallel to the western and eastern walls of both plots, with secondary ones leading to each plot (Plan 10).

Fig. 22: Sewage trench running north-south on the eastern side of Plots 1-4.

3.3.2.2.

The stratigraphy recorded is identical to the one recorded both in the plot foundations and the general services trenches close by; and although those were the deepest trenches excavated, no undisturbed natural ground was found during these works.

Fig. 23: Sewage trench running east-west between Plots 4 and 5.

3.4 Compound

3.4.1 At the same time that the sewage services for Plots 13-18 was installed, levelling works for the construction of the site compound were undertaken. The area situated to the north of Plots 17-18 was levelled by digging out about 0.6 m of the topsoil in the western area. This topsoil was later used to elevate the eastern half (Plan 10) to compensate for the slope. The stratigraphy found was consistent with the previous works, the exception being the area in which the air shaft was located, and now filled with concrete to ensure the stability of the ground (Plan 10).

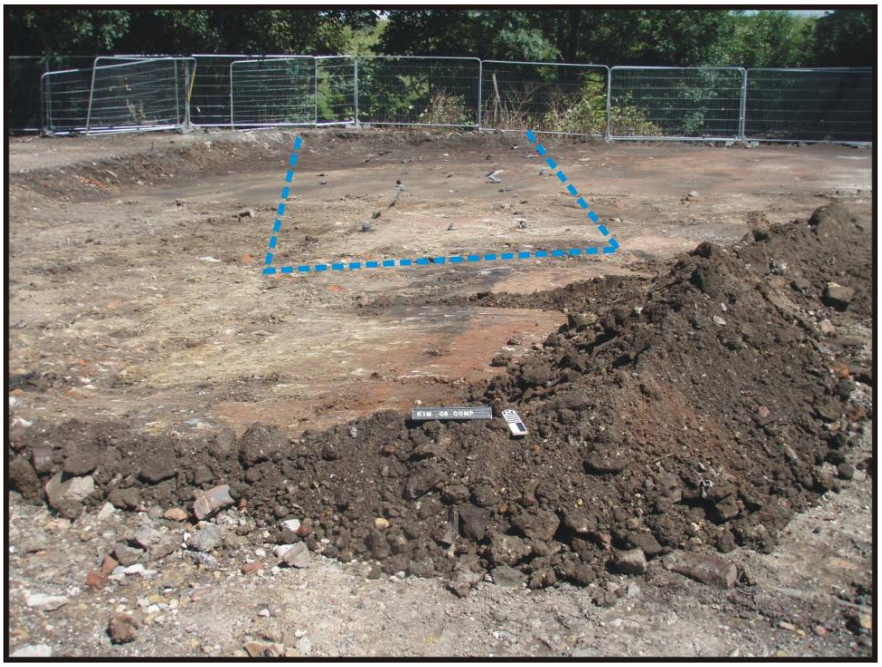

Fig. 24: Levelling works for the compound. The blue line marks the area of the Hudson's Rough Drift fan, now only recognisable by the plastic pipes used to fill it with concrete.

3.5 General Services

3.5.1 In July 2008 works for the general services on the site (gas, water and electricity) began. Two different areas were excavated in the northern area of the site (See plan 11). In both cases the stratigraphy recorded in the trenches was consistent with the previous works.

3.5.2 Two features were documented (See plan 11-12); in both cases they were related to modern services, in the case of [011] the ceramic pipe was still present. Again abundant modern slag and glass refuse were found in the area.

3.5.3 No undisturbed natural ground was found during these works.

Fig. 25: General services trench, east side.

Fig. 26: Section of general services trench. The upper two levels correspond with the new road laid to service the dwellings.

Fig. 27: West-facing section of a modern service [009].
West part of the general services.

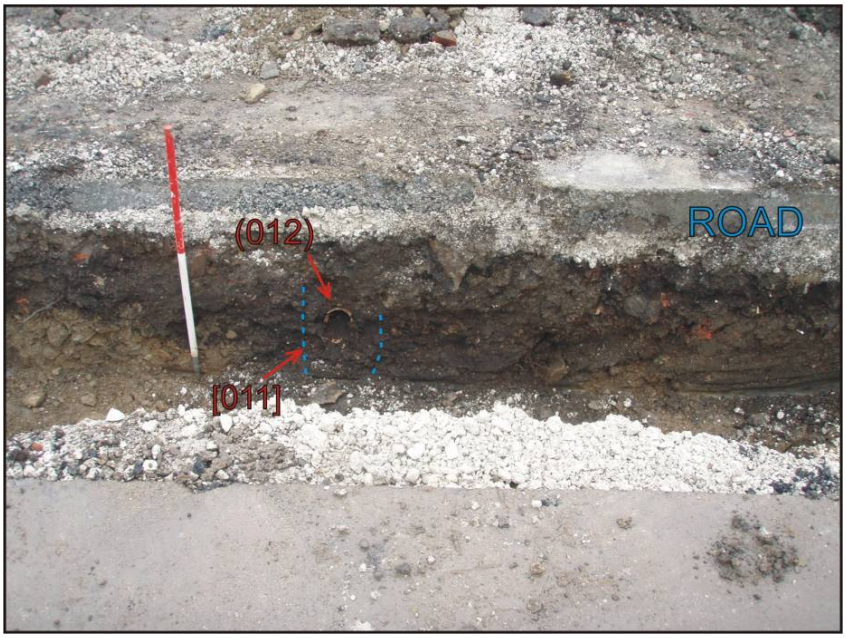

Fig. 28: South-facing section of a modern service [011]. The blue lines mark the sides of the trench, which are hard to differentiate from the background due to their similarity.
View of the west part of the general services.

Fig. 29: General services trench cut through the new road. View of the west side, looking south.

Fig. 30: General services trench, cut through the new road. View of the west side, looking west.

4. CONCLUSION

4.1 No trace of the Hudson's Rough Drift fan or any other associated structure was found during the watching brief. The fan was destroyed by the construction of the new road layout and the enabling works carried out on site prior the start of the archaeological monitoring. Only the presence of quantities of redeposited slag and industrial waste across the area reflects its previous existence.

4.2 A small amount of discarded materials related to the glassworking industry were found as part of the made ground level (003). Unfortunately the lack of context of the materials made it nearly impossible to achieve any archaeological conclusions. The relevance of the glassworking industry in Rotherham is documented in the Catcliffe Glass Furnace Cone, the oldest surviving structure of its type in Western Europe.

4.3 There were no significant archaeological features, deposits, buried land surfaces or small finds surviving within the remaining area of groundworks.

5. PUBLICITY, CONFIDENTIALITY AND COPYRIGHT

5.1. Any publicity will be handled by the client.

5.2. Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

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7. ACKNOWLEDGEMENTS

7.1. Archaeological Research Services Ltd would like to thank all those involved in this project, in particular the ground workers of Barratt Homes Ltd.

8. REFERENCES

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APPENDIX I

CONTEXT REGISTER

Context	Type	Plot	Description
001	Dep.	1-18	Gravel level.
002	Dep.	9-18	Levelling ground related to the new works on site.
003	Dep.	1-18	Made ground composed by black loam top soil and abundant modern materials.
004	Cut	15	Possible cut for oval pit. Truncated by pile.
005	Dep.	15	Fill of [004] mainly composed by slag.
006	Dep.	1	Fill of [007] composed of brown sandy silt and abundant demolition material, mainly brick.
007	Cut	1	Pit cut for building waste.
008	Dep.	General	Redeposited clay.
009	Cut.	G.S.	Cut for small trench corresponding to a modern service.
010	Dep.	G.S.	Fill of [009].
011	Cut.	G.S.	Cut for small trench corresponding to a modern service.
012	Dep.	G.S.	Fill of [011]. The clay pipe is still visible.

APPENDIX II

LEVELS REGISTER

Number	AOD Level*	Plot
001	79.325	1-4
002	79.475	5-8
003	79.250	5-8
004	77.775	9-12
005	78.225	9-12
006	78.675	9-12
007	78.225	13-14G**
008	78.025	13-14
009	77.875	15-16
010	77.650	15-16
011	77.650	16G
012	77.075	17-18
013	78.930	Section [009]
014	79.050	Section [011]

*Bottom of foundation trenches.
**Garage.

APPENDIX III

MATERIALS

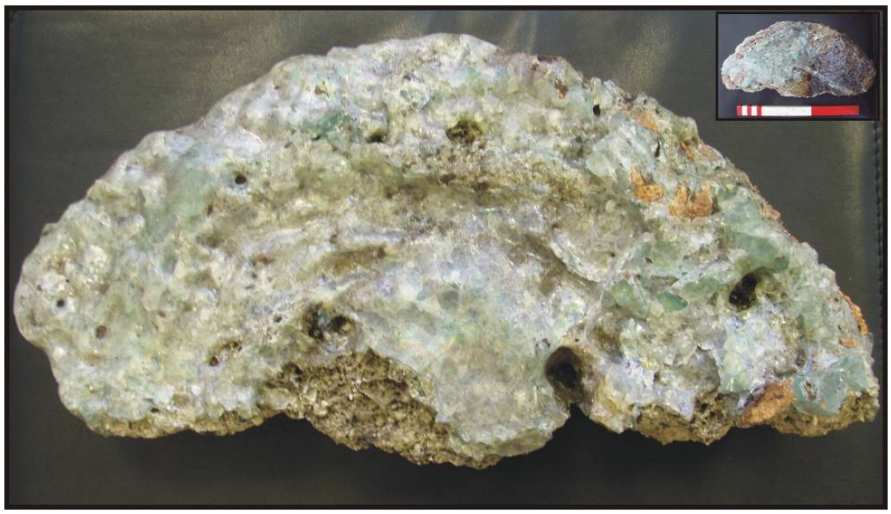
Find No.	Context	Material	Date	Description
001	(003)	Pottery	Modern	Set of 6 fragments, including blue-white ware and glazed stone wares.
002	(003)	Glass	Modern	Set of 5 glass fragments, at least two of them belong to small sized bottles.
003	(003)	Glass	Modern	Two complete modern milk bottles (see pictures for inscriptions).
004	(003)	Slag	Modern	Dark glassy slag with abundant inclusions.
005	(003)	CBM	Modern	Round shaped with a thick layer of glass coating.
006	(003)	Glass	Modern	Clear blue glass droplets.
007	(010)	Glass	Modern	Crucible bottom.
008	(003)	CBM	Modern	8 different types of brick found during the works.

Modern pottery sherds found in the top soil levels of the site.

Modern glass fragments found in the top soil levels of the site.

Modern milk glass bottles found in the top soil levels of the General Services trench opposite to Plot 3.
The bottle on the left reads:
"Express" (front).
"The bottle cost - 4 d -please rinse & return – contents 1 pt" (back).
The bottle on the right reads:
"B&C" inside and oval box containing a tower (front).
"Contents 1 pt" (back).

Modern glassy slag found in the top soil levels of the site.



Rounded fragment of CBM covered by a thick layer of melted glass. The fragment was likely part of some structure related with the glassworking industry. The CBM is formed by a very porous body with abundant medium/large inclusions; those characteristics are usually found in materials designed to be exposed to high temperatures.

Modern glass droplets found in the top soil levels of the site. This type of waste is characteristic of the glassworking industry.

Crucible bottom. A thick layer of green opaque glass sets on top of a thin grey layer, follow by a light blue one. The bottom shows and irregular blackish surface similar to glassy slag.

Top: The most common brick found on site, especially in Central and North areas.
Bottom: Unusual brick on site, only found in the foundations of Plot 17.

Top and Bottom: Common types of brick found on site, without markings.

Top: The inscription in the frog of the brick reads KILNHURST, on bricks found during the compound works.

Bottom: The inscription in the frog of the brick reads STAIR(?)TO, on bricks found during the compound works.

Top: The inscription in the frog of the brick reads HALIFAX,
on bricks found during the sewage works on plots 1-4.

