



**ARCHAEOLOGICAL INVESTIGATIONS AT CHARLES  
STREET, SHEFFIELD**

*ARCHAEOLOGICAL REPORT*

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## CONTENTS

<b>NON-TECHNICAL SUMMARY</b> .....	<b>3</b>
<b>KEY PROJECT INFORMATION</b> .....	<b>3</b>
<b>1 INTRODUCTION</b> .....	<b>4</b>
<b>2 LOCATION, GEOLOGY AND TOPOGRAPHY</b> .....	<b>4</b>
<b>3 METHODOLOGY</b> .....	<b>4</b>
3.1 Aims.....	4
3.2 Methodology.....	5
<b>4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND</b> .....	<b>6</b>
<b>5 EXCAVATION RESULTS</b> .....	<b>6</b>
5.1 Features in the northern part of the site .....	7
5.2 Features in the southern part of the site .....	12
<b>6 DISCUSSION</b> .....	<b>14</b>
Phase 1: 1809- 1819 .....	14
Phase 2: 1829-1851 .....	16
Phase 3: 1851-1896 .....	18
Phase 4: 1896 - 1953 .....	20
Phase 5: Post 1950's construction .....	20
<b>7 CONCLUSIONS</b> .....	<b>21</b>
<b>8 BIBLIOGRAPHY</b> .....	<b>23</b>
<b>9 FIGURES</b> .....	<b>25</b>
<b>10 PLATES</b> .....	<b>26</b>
<b>APPENDIX 1 – INDEX TO ARCHIVE</b> .....	<b>38</b>
<b>APPENDIX 2 – CONTEXT LIST</b> .....	<b>39</b>
<b>APPENDIX 3 – POTTERY ASSESSMENT</b> .....	<b>48</b>
<b>APPENDIX 4 – FINDS ASSESSMENT</b> .....	<b>66</b>
<b>APPENDIX 5 – WRITTEN SCHEME OF INVESTIGATION</b> .....	<b>72</b>

### FIGURES

Figure 1. Site location
Figure 2. Excavation plan
Figure 3. Detailed archaeological plan – north-west
Figure 4. Detailed archaeological plan – south-east
Figure 5. Section drawings north-west area
Figure 6. Section drawing through machine base 1130
Figure 7. Proposed phasing for the site
Figure 8. Excavated features belonging to Phase 1 in relation to an 1819 map of the site
Figure 9. Excavated features belonging to Phase 1 in relation to a 1829 map of the site
Figure 10. Excavated features belonging to Phases 1 and 2 in relation to a 1851 map of the site
Figure 11. Excavated features belonging to Phases 1, 2 and 3 in relation to a 1896 map of the site
Figure 12. Excavated features belonging to Phases 1, 2 and 3 in relation to a 1905 map of the site
Figure 13. Excavated features belonging to Phases 1, 2, 3 and 4 in relation to a 1953 map of the site
Figure 14. Excavated features belonging to Phases 1, 2, 3, 4 and 5 in relation to a 1970 map of the site
Figure 15. Excavated features belonging to Phases 1, 2, 3, 4 and 5 in relation to a 1997 map of the site
Figure 16. Illustrations of decorated clay pipe bowls from the site

## Plates

Cover: View of brick built machine base in southern part of site	
Plate 1: 20 <sup>th</sup> -century structure on corner of Arundel Gate and Brown Lane.....	26
Plate 2: South-west facing elevation of investigative slot dug through well 1006.....	26
Plate 3: Yard containing well 1021, amongst other features, viewed from the north-east .....	27
Plate 4: Well 1021, pre-excavation, viewed from the north-west.....	27
Plate 5: Well 1021 and associated deposits, post-excavation, viewed from the south-west.....	28
Plate 6: Investigative slot dug through wall 1018 viewed from the south-west .....	29
Plate 7: Investigative slot dug adjacent to wall 1085, viewed from the south-west .....	29
Plate 8: Investigative slot dug through surface 1034 viewed from the south-east .....	30
Plate 9: Investigative slot dug between to walls 1085 and 1087, viewed from the south-west .....	30
Plate 10: Cellar C viewed from the south-east .....	31
Plate 11: Cellar B viewed from the south-west .....	31
Plate 12: Yard surface 1165 viewed from the south-west.....	32
Plate 13: Cellar D, prior to removal of wall 1092, viewed from the south-west .....	32
Plate 14: Cellar D, after removal of wall 1092, viewed from the south-west.....	33
Plate 15: Concrete surface 1067 prior to removal during machine strip .....	33
Plate 16: Works wall 1119 viewed from the south-west.....	34
Plate 17: Brick and stone machine base 1130 viewed from the west .....	35
Plate 18: Yard space between walls 1121 and 1138 viewed from the south-west .....	35
Plate 19: Eyre Lane cellars rear wall 1139 and modern wall 1138 viewed from the north-east.....	36
Plate 20: Blocked up vaulting within slot dug in north-eastern Eyre Lane cellar .....	36
Plate 21: Slot dug in to south-western Eyre Lane cellar viewed from the south-west.....	37
Plate 22: Brick and stone structure, possibly an outhouse, viewed from the south-west .....	37

## Tables

Table 1. List of archive contents .....	38
Table 2: List of contexts from the excavation .....	46
Table 3. Lists of context from the 2011 evaluation .....	47
Table 4. Pottery quantification table with weights.....	53
Table 5. Pottery dates by context .....	64
Table 6: Metal objects .....	67
Table 7: Clay Pipe.....	68
Table 8: Ceramic building material .....	68
Table 9: Glass .....	70
Table 10: Metalworking debris .....	70
Table 11: Catalogue of other finds.....	71

## NON-TECHNICAL SUMMARY

This report presents the results of an archaeological excavation on land at Charles Street and Arundel Gate, Sheffield, South Yorkshire. The excavation was required as a condition of planning consent for redevelopment of the site. Fieldwork comprised the machine stripping and recording of the north-eastern half of the development site where evaluation had demonstrated survival of archaeological deposits, and was undertaken by ArcHeritage on behalf of Balfour Beatty and Sheffield Hallam University. The mitigation works revealed good survival of archaeological features and deposits associated with 19<sup>th</sup>- to 20<sup>th</sup>-century activity. Cellars, yard deposits, walls and a large machine base were exposed, associated with industrial works and some domestic housing. No evidence for furnaces or industrial processes was found. The remains are considered to be of local archaeological significance. The report details the results of the excavation, analysis of the finds and the development and phasing of the site.

## KEY PROJECT INFORMATION

Project Name	Charles Street Mitigation
ArcHeritage Project No.	4093141
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## 1 INTRODUCTION

This report presents the results of archaeological mitigation through a process of machine stripping and recording at land off Charles Street and Arundel Gate, Sheffield, South Yorkshire. The archaeological mitigation works were required as a condition of the planning consent for the development of the site (planning application 10/01236/FUL) which was produced in line with the *National Planning Policy Framework* (2012). Fieldwork was undertaken in line with a Written Scheme of Investigation produced by ArcHeritage (2013) in response to a brief provided by South Yorkshire Archaeology Service (SYAS), and according to the guidance of the Chartered Institute for Archaeologists (CIfA 2008). ArcHeritage were commissioned by Balfour Beatty to undertake the archaeological works on behalf of Sheffield Hallam University. Fieldwork took place between the 2nd and 20th of December 2013, and was monitored by SYAS.

The mitigation works undertaken were based on the recommendations of the archaeological evaluation that was undertaken in May 2011 (May 2011). The evaluation examined the whole of the development site and identified that the preservation of archaeological remains varied across the site. The north-eastern part of the site contained well-preserved archaeological remains while demolition and ground remediation had removed any potential archaeological remains in the south-western half. The mitigation works were therefore targeted at and limited to the north-eastern half of the site. The archaeological mitigation works covered an area of approximately 820m<sup>2</sup>. Following the excavations an assessment report was produced which considered the research potential of the site archive and finds. The South Yorkshire Archaeology Service recommended further analysis was undertaken on site phasing and pottery, and this final report incorporates the additional analysis in an updated report.

## 2 LOCATION, GEOLOGY AND TOPOGRAPHY

The mitigation site is located within Sheffield city centre (NGR SK 3544 8691). It is bounded on the north-west by Arundel Gate and on the north-east by Charles Street (Figure 1). The south-east and south-west sides are bounded by Eyre Lane and Brown Lane respectively. Prior to redevelopment the mitigation site was in use as a car park with a tarmac surface. The underlying geology comprises mudstone, sandstone and siltstone of the Pennine Lower Coal Measures formation. The site slopes down to the south east from Arundel Gate to Eyre Lane.

The site is within the Cultural Industries Quarter Conservation Area, and there are several listed buildings within the vicinity, the closest being the Grade II\* listed Butcher Works on the south side of Eyre Lane and the Grade II listed 92-92A and 94 Arundel Street.

## 3 METHODOLOGY

### 3.1 Aims

The aims of the project were to preserve by record the archaeological remains on the site, to provide an academically useful primary record of the archaeological remains, and to understand and interpret the archaeological remains identified. Specific objectives were:

- Identify different activity areas domestic/industrial within the site;



- Identify the types of industrial activities being carried out at the site;
- Identify the longevity and phasing of the site as far as possible;
- Identify the construction methods used, particularly in relation to domestic structures;
- Recover material culture associated with domestic activity to provide information about the status and identity of the residents and how this compares with the construction methods for the buildings;
- Identify any evidence regarding earlier land use and activity prior to the 19<sup>th</sup>-century development of the site.

### 3.2 Methodology

The proposed programme of mitigation works entailed the stripping of overburden over the entire area subject to mitigation, followed by targeted excavation of sondages into archaeologically significant features below this level. Minor modifications were made to this programme due to on-site conditions, services and contamination.

A mechanical excavator was used to machine strip the entire car park and overburden to the top of archaeological deposits in the area between Charles Street and Brown Lane. This was undertaken in a controlled and judicious manner under the supervision of archaeologists.

The original plan of excavating the entire car park area was modified due to the presence of a live electricity cable running across the centre of the site on a north-east to south-west alignment. Asbestos fragments were also encountered in its vicinity, so after consultation with both the developer and Dinah Saich (SYAS) no further work was undertaken in that area.

Following this initial stage of machine excavation the northern part of the site was manually cleaned to enable the identification of features. A site visit and meeting with Dinah Saich (SYAS) informed the strategy for further excavation. Several areas in the northern part of the site were identified for further investigation by means of manually excavated trenches through the archaeological deposits. Two cellars were also identified for investigation by removing the demolition infill, primarily using a mechanical excavator with a secondary stage of manual cleaning.

A large modern concrete slab encountered in the south-eastern part of the site was surveyed, photographed and removed to reveal the earlier archaeological deposits. The depth excavated by machine in the southern area was significantly greater than in the northern area, requiring battering and, in places, a stepped edge.

The southern part of the site was also manually cleaned following the removal of overburden to facilitate the identification of features. After a second site meeting with SYAS, further areas for manual investigation were identified in the southern area as well as targets for mechanical excavation. Two additional cellars were excavated, photographed and recorded before being backfilled due to their depth and unstable edges. A machine slot in the southern area was dug adjacent to a large brick machine base to examine its foundation and to establish the depth to natural at that end of the site. This slot was recorded by photography and relevant context cards were produced before being backfilled due to its depth and unstable edges. Other archaeological deposits were cleaned and sample-excavated by hand. Details of the excavation methodology and recording system are provided in the WSI (Appendix 6).

## 4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

This summary of the archaeological and historical background is taken from a desk-based assessment prepared for the site (May 2010) and the results of the archaeological evaluation (May 2011). The area comprised fields prior to the early 19<sup>th</sup> century, when it was sold off in plots for development. The site was purchased by Thomas Holy in 1804 and buildings were shown along the Eyre Lane and Brown Lane frontages by 1818. These structures appear to have been houses, shops and possibly workshops. By 1850, cartographic evidence shows the site as a mixture of terraced and back-to-back housing, and larger metal trades works. Industries represented within the block fronting onto Charles Street in the 19<sup>th</sup> to 20<sup>th</sup> centuries included a whitesmith, a nickel silver manufacturer, a cabinet case manufacturer, a brass foundry, a saw maker, a wood turner and an electrical goods manufactory. There is the possibility that crucible furnaces may have been located within some of the works in the 19<sup>th</sup> century, potentially for the casting of non-ferrous metals. The evaluation trial trenching (May 2011) identified that this block between Charles Street and Brown Lane contained preserved archaeological deposits and structures related to the development of this area during the 19<sup>th</sup> and 20<sup>th</sup> centuries.

## 5 EXCAVATION RESULTS

The excavation revealed well-preserved evidence for 19<sup>th</sup>- and 20<sup>th</sup>-century buildings. The majority of features identified were structural remains including brick and stone building foundations and walls relating to cellars, or deposits related to courtyards or the backfilling of cellars. The few stone-built walls were constructed from local sandstone but these also tended to contain occasional bricks.

The structural remains related to buildings which formerly fronted onto the surrounding streets or to the former Canada Works that had covered most of the south eastern end of the site. The walls were principally aligned to the streets; either north-east to south-west (Arundel Gate and Eyre Lane) or north-west to south-east (Charles Street and Brown Lane). Associated with these structures were yards containing services and other features. The deposits encountered related to the infilling of cellars, yard make-up deposits and occasional pre-construction levelling. No deposits relating to industrial processes, industrial waste or primary occupation were identified.

The northern and southern halves of the site were physically divided by an area that was not machine stripped due to the presence of a live service and asbestos. Despite this, it was possible to see that the character of the archaeology in the northern portion of the site was quite distinct from that in the southern portion (Figure 2). Cellars and associated yards were identified in the northern part of the site, whereas in the southern part it appears that the construction of a large structure, probably an industrial works, had removed most of the earlier features in this area. The foundations of this large structure were surrounded by earlier surviving cellars on Brown Lane and Eyre Lane, the latter related to early housing. The depth reached before hitting natural was much greater in the south-eastern half of the site than in the northern half of the site, where in places relatively shallow yard deposits immediately overlay the natural clay. The excavations also indicate that the natural topography sloped

steeply down from Arundel Gate towards Eyre Lane and that the late 18<sup>th</sup>- to early 19<sup>th</sup>-century development involved terracing of this slope.

The character of the former buildings on the site, particularly the small courtyards with surrounding buildings, can make it difficult to determine which structural features related to different buildings or rooms. However, analysis of the structural remains in relation to historic maps (section 6) enabled detailed phasing of the structural remains to be undertaken and the development of buildings on the site through the 19<sup>th</sup> and 20<sup>th</sup> centuries to be analysed.

The finds assemblage recovered from the excavation comprised pottery indicating low status occupation and other finds hinting at localised industrial activity. As all of these finds were recovered from demolition backfills, none can be used to date the use of any given structure directly. The finds do, however, give us an indication of what types of activity were occurring even if we cannot directly identify where they were happening. A full discussion of the finds assemblage is outlined in Appendices 3 to 5.

### 5.1 Features in the northern part of the site

The northern half of the site contained surviving remnants of cellars which would have fronted on to Arundel Gate, Charles Street and Brown Lane. Along with these cellars were several spaces interpreted as yards, some surviving surfaces, features and services (Figure 3).

In the western corner of the excavation area there was a large 20<sup>th</sup>-century structure (Cellar A) with associated services (Plate 1). This structure sat on the junction between Brown Lane and Arundel Gate. It was not completely exposed due to its proximity to both the north-western and south-western limits of excavation, so a large amount of its brick rubble demolition infill 1060 was left in place. The visible remains consisted of external walls 1009, 1050, 1057 and 1058 and internal walls 1059 and 1061. The cellar had a concrete floor, 1058, with evidence for a possible stairwell comprising a buttress and a wooden structure (1063 and 1064). The associated services adjacent to wall 1050 included a brick-built drain shaft 1055, a probable inspection chamber 1052 and a cast-iron pipe fragment 1054. The probable inspection chamber had a surviving concrete surface, 1051. These structures were built from machine-made frogged brick lain in regular alternating courses that were bonded with dark grey cement. This group of walls and structures showed no evidence for modification and respected the earlier structures that surround them (walls 1007, 1040 and 1161), suggesting that those structures were still standing and in use when Cellar A and its associated features were built.

Immediately adjacent to this structure were a group of walls (1003, 1004, 1005 and 1007) along the north-western limit of excavation. These were the remnants of foundations and a cellar for the building or buildings that fronted on to Arundel Gate before it was widened, thus truncating the former street frontage relating to these remains. Wall 1003 ran on a north-east to south-west alignment for 7.35m, extending beyond the north-eastern limit of excavation. Walls 1004, 1005 and 1007 ran north-west from 1003 and also continued beyond the excavated area. These walls measured between 1.4m to 1.9m in length and separated the area in to three unequal rooms. In the area demarcated by walls 1005 and 1007 were the truncated remains of a circular brick structure (1006). This was a single brick thick and constructed from reused, handmade red bricks bonded with a light grey lime mortar. Its internal face was thinly

rendered with grey cement. The structure and depth of 1006 suggests that it was probably a well that had been backfilled in the late 19<sup>th</sup> or early 20<sup>th</sup> century. The post-demolition fill of the well was a loose dark grey sandy deposit containing frequent clinker, black ash and occasional brick and mortar fragments (1013). This deposit was excavated to a depth of approximately 1m, but the base of the fill and the well were beyond a safe and practical excavation depth. The well fill contained transfer printed 19<sup>th</sup>-century pottery, late 19<sup>th</sup>- to early 20<sup>th</sup>-century glass, three late 18<sup>th</sup>-century pipe bowls, some unworked animal bone and a lump of iron clinker slag.

Surrounding the well was deposit 1012, friable greyish-brown clayey sand containing brick and sandstone fragments. There was no evidence for a cut around the well and it appeared that 1012 had been built up against it. As no floor or ground surface was identified in association with the well, it is impossible to say when deposit 1012 was built up but it is most likely this was during construction. Deposit 1012 overlay a made ground deposit, 1103, a friable brown clayey sand containing charcoal flecks with small brick and sandstone fragments and 19<sup>th</sup> century pottery. Wall 1005 was constructed on deposits 1103 which was built up against the well (Figure 5 and Plate 2). It was not possible to excavate down to natural in this area due to the proximity of the edge of excavation and adjacent road.

Also on the former Arundel Gate frontage, the excavation of cellar fill 1011 revealed a stairwell, with staircase 1117 descending down from a landing, 1008. This stairwell descended beyond the limit of excavation to the north-west. Excavation did not take place north-east of the stairwell in the corner of the site. Walls 1004 and 1003 delineated a probable cellar, accessed by the stairwell, in the corner. This contained a brick rubble fill (1010). Due to the proximity and instability of the trench edge no further excavation was attempted in this cellar. From the investigative sondages that were dug against them it was apparent that walls 1003 and 1004 were much deeper than 1005. The shallower wall, 1005, was only 0.45m deep indicating that the space between it and wall 1007 was not a cellar. The well 1006 was within this space. All of these walls were two bricks wide and built from the same type of handmade red brick bonded with a light grey lime mortar. These structures formed the north-western edge of a yard space which contained a second probable well, 1021, amongst other features.

The yard (Plate 3) was bounded on all sides by walls (1003, 1009, 1018 and 1029). The discontinuous wall 1029 on the north-eastern side was not excavated due to its proximity to the trench edge. The surviving sections of wall 1029 were all constructed from handmade red bricks and were a single brick wide. A number of ceramic service pipes had been cut through the wall. These services replaced culverts 1027 and 1028 that were also located in the yard. The culverts were built from reused handmade red bricks which measured up to 230mm long, 110mm wide and 80mm thick. These culverts may relate to well 1021, although no direct relationship could be established. It is possible that this relationship was removed by the construction of walls 1024 and 1101 that were built over the well after it had been infilled with deposit 1022. These walls may relate to a ceramic drain, 1026, located adjacent to wall 1101. They were built from partial, reused handmade bricks of poor quality. The well itself (Plates 4 and 5) was built from similar bricks bonded with a light grey lime mortar. Its internal face was rendered with grey cement, similar to well 1006. Its fill, 1022, was a loose, dark grey brown, sandy silt containing frequent fragments of clinker, brick, mortar and occasional pieces of slag. The fill was excavated to a depth of 1m, which did not reveal the base. Other finds within this

well infill included a worked shell fragment, a knife handle, three grindstone fragments and pottery dating from the 19<sup>th</sup> century onwards. It seems likely that this well was backfilled at approximately the same time as well 1006.

Outside the well, to the south-west, a sondage was excavated to establish the sequence of deposits and possible surfaces in the yard and their relationships to the well. Contemporary to the well was wall repair 1017. This was built up against wall 1018 on the same north-east to south-west alignment, and constructed from reused handmade bricks laid as headers on base or on edge. It was built on a foundation of rough sandstone pieces and reused grindstone fragments. Overall it measured 2.89m long, 0.22m wide, and 0.35m deep, so was probably not a load-bearing structure. Both wall 1017 and well 1021 were constructed in cuts that were excavated through the uppermost surviving yard deposit 1014. This was a firm mid brown silty clay with frequent mortar flecks and occasional small brick and mortar fragments. Beneath this were two dump deposits. The upper deposit, 1102, was a compact, yellow-brown sandy clay, overlying 1111, a friable, dark grey-brown sandy silt, that was deposited on top of the natural clay 1112 and built up against wall 1018. All of these yard deposits contained pottery dating from the late 18<sup>th</sup> and 19<sup>th</sup> centuries as well as some unworked shell and early 20<sup>th</sup>-century glass. This appears to indicate that the yard had been in continual use from the late 18<sup>th</sup> century through to the 20<sup>th</sup> century. The boundary wall 1018, forming part of a boundary line extending north-east to south-west across the entire site, had a second sondage excavated through it further north-east (Plate 6). This revealed a similar sequence of dump deposits (1154-1156), again containing late 18<sup>th</sup> to 19<sup>th</sup> century pottery, beneath the uppermost yard deposit 1014 and overlying the natural clay.

Wall 1018 also formed part of the north-western side of a cellar (Cellar F) fronting on to Charles Street. This consisted of walls 1033, 1084, 1085 and 1086. A small structure (1031) built from sandstone slabs against the north western wall was investigated (Plate 6), revealing that it was built on a made ground deposit of friable, dark brown silty sand containing frequent brick fragments and mortar flecks (1158). This deposit was on top of the uppermost infill deposits of the cellar (1088 and 1159), indicating that it formed a temporary structure after the cellar had been backfilled. A sondage was dug through the demolition deposits revealing a sequence of dumps (1107-1110, 1113-1114) built up against walls 1084 and 1085. These dumps appeared to be contemporary and the finds recovered from them were very similar, including late 18<sup>th</sup>- to 19<sup>th</sup>-century pottery, late 19<sup>th</sup>- to 20<sup>th</sup>-century glass and 19<sup>th</sup>-century tobacco pipe bowls and stems, indicating a late 19<sup>th</sup>- to early 20<sup>th</sup>-century date of demolition. The -western rear wall of the cellar, 1084, was built from hewn sandstone blocks and reused handmade bricks. The south-eastern wall, 1085, was of similar construction and both were bonded with a dark grey hard ashy mortar. Both of these walls appeared to be later than the north-western wall 1018, which was built of handmade red brick bonded with a light grey lime mortar with patches of dark grey ash mortar repair. Two buttresses (1030 and 1032) against the south-eastern side of the wall also appeared to be later additions, both were built of similar bricks and both contained remains of a light lime mortar and the darker ash mortar. These buttresses were related to the small sandstone slab structure 1031.

Immediately to the south-west of this cellar were a series of features relating to a possible ginnel and yard. Walls 1033 and 1035, the later made from machine-made frogged bricks stamped 'Gregor[y]', formed the walls of the ginnel. The surface of the probable ginnel, 1034,

was made from stone slabs, machine-made bricks and concrete and post-dated remnants of a sandstone slab yard surface, 1037, which was also exposed in evaluation trench 2 (context number 204). A sondage was dug through the stone slabs of the ginnel surface (Plate 8), revealing that it was built on top of a levelling deposit 1080, a friable, dark brown sandy silt containing frequent brick and sandstone fragments. This overlay a fragmented brick surface, 1081, which in turn overlay the foundation cut and fill for the construction of cellar wall 1084 (1218 and 1217). The construction cut had been excavated through an earlier compacted grey clay and mortar deposit 1082 probably a former surface overlying natural clay 1153. Deposit 1082 contained a number of sherds of 18<sup>th</sup> and 19<sup>th</sup> century pottery including a sherd from a blue feathered edge, scallop rim, white earthenware plate and a sherd from an earthenware pancheon. This sequence of deposits and features appear to relate to the surfaces of a cart passage between walls 1085 and 1087, enabling access from the northern yard to Charles Street.

The deposits in the cart passage were extensively truncated by services. A large service cut, 1152, ran on a north-east to south-west alignment extending from the limit of excavation on Charles Street to a point where it truncated walls 1171, 1152 and 1091. Most of the area was disturbed by this truncation and a sondage dug (plate 9) between walls 1085 and 1087 revealed that the service trench contained a concrete capped drain 1151 which was cut through a series of levelling dumps (1089, 1144-1148). Finds recovered from these dumps included late 19<sup>th</sup>- to early 20<sup>th</sup>-century transfer printed pottery. The dump deposits were built up against cellar walls 1085 and 1087, which appeared to be cut in to the natural clay 1153. Due to the proximity of the live cable and dumped asbestos, wall 1087 and the area to the immediate south-east were not investigated further.

On the south western side of the northern area, several cellars were excavated which related to structures fronting on to Brown Lane. Two cellars (Cellars B and C) were identified immediately south-east of the 20<sup>th</sup>-century Cellar A. The north-western walls of these cellars lined up with wall 1018, forming a continuous boundary across the site. This boundary appears to have been retained and re-established throughout the use of the site and marks one of the major plot boundaries. The two distinct cellars (B and C) were built along the south-eastern side of this boundary line. The smaller of the cellars (cellar C) had two original sandstone walls (1106 and 1167), aligned north-east to south-west, which were bonded with a light grey lime mortar. The north-eastern wall of the cellar, 1047, was an L-shaped handmade red brick wall, one brick thick, bonded with a grey lime mortar. This wall formed the division between Cellars C and B, with a stairwell structure, 1048, built against its south-western side enabling access to Cellar C. In addition, the smaller cellar had remnants of a brick vaulted ceiling (1049) and a brick wall, 1161, built on top of the stone wall and forming part of the wall of the room above. A patch of brickwork filling a gap in the south-eastern stone wall was also recorded (1047). All of these brick-built elements used handmade red bricks bonded with a grey lime mortar. The majority of the smaller cellar could not be exposed due to the need to leave a battered edge around the trench edge (Plate 10).

The demolition infill of the larger Cellar B was completely excavated (Plate 11). The majority of this material (1042) was brick rubble and mortar, presumably from the demolition of the overlying structure. Finds included an early 20<sup>th</sup>-century ceramic ornament, two glass bottles dating 1888-1897 and numerous metal objects. Beneath the rubble was a worn sandstone slab

floor, 1164. The walls of the cellar (1040, 1041, 1105 and 1046) were built from handmade red brick bonded with a grey lime mortar. The north-eastern cellar wall contained a blocked-up hole, 1100, possibly from a former access chute (1168). There were also the scars of demolished buttresses on the north-western wall 1040 and voids that probably related to shelving on the south-eastern wall 1041. A later buttress (1163) cut through the cellar floor and was built to support the dividing wall (1046) between the two cellars. This was built from machine-made frogged brick bonded with grey cement, indicating that the cellar was still in use well in to the 20<sup>th</sup> century. Steps in the southern corner of the cellar (1162) would have provided access from a yard to the south-east before it was blocked up with reused machine-made frogged bricks bonded with dark grey cement (1096). This was one of the last modifications to the cellar before its demolition and backfill. A fragmented slab surface, 1099, and short wall 1098 at the top of the stairs in the yard to the south-east appear to be the remnants of a threshold or doorway enabling access to the cellar.

The yard space to south-east of Cellar B was bounded by cellar wall 1041 to the north-west, cellar walls 1097 and 1043 to the south-west and a yard wall, 1171, to the north-east. Its south-eastern boundary was partially formed by the north-eastern corner of a cellar fronting on to Brown Lane (walls 1044, 1095 and 1091), but much of that edge was damaged by service trench truncation (1152). The walls forming the south-western edge of the yard also formed the north-eastern wall of a cellar which would have fronted on to Brown Lane. This cellar was not excavated, but the walls were constructed from handmade red bricks bonded with a grey lime mortar. A sondage in the northern corner of the yard exposed the deposit sequence. This comprised a dump of clinker rich material, 1045, containing pottery dating from the late 18<sup>th</sup> century, overlying the top of a compacted mortared clay surface, 1165 (Plate 12). One surviving sandstone slab survived on top of the clay perhaps indicating that there was once a flagged surface across the area. The north-eastern yard wall, 1171, was built from handmade red bricks bonded with a grey lime mortar set on top of the compacted clay which continued beyond it to the north-east (1184). Most of the area to the north east of wall 1171 was excavated and recorded as part of evaluation trench 2, which revealed a yard paved with sandstone slabs.

Two further cellars were excavated along the Brown Lane frontage. Cellar D was located in the northern half of the site and Cellar E in the southern half. The dividing wall between the two, 1021, appeared to form part of another boundary line which extended across the entire site on a north-east to south-west alignment and separated the northern and southern parts of the site. Most of this boundary could not be revealed as it ran along the line of the live cable and area of asbestos. Cellar D contained a large quantity of late 20<sup>th</sup>-century material in its demolition backfill. The north-western wall and north-eastern wall of the cellar were extensively modified with later brick skins added to the internal face (1092 and 1094). These utilised machine-made unfrogged red bricks bonded with a grey lime mortar laid in regular courses (Plate 13). Removal of brick facing 1092 revealed a complex sequence of modifications to the original cellar wall 1202 (Plate 14). Two blocked-up thresholds (1203 and 1205) were identified, which comprised handmade red bricks bonded with a light grey lime mortar blocking openings in brick walls (1093 and 1204) that sat directly on top of a hewn sandstone wall 1202. Remnants of a demolished brick wall, possibly an internal dividing wall, were also recorded, on a north-east to south-west alignment butting against earlier wall 1202. All of

these brick walls were built from handmade red bricks bonded with a light grey lime mortar. Sandstone wall 1202 was bonded to the sandstone wall 1201 that formed the south-eastern wall of Cellar D. Both walls 1201 and 1202 contained a small number of handmade red bricks in their construction and were bonded with a small amount of light grey lime mortar. A fractured grey concrete floor exposed at the base of the cellar was associated with the later brick skins that relined the cellar. No sign of an earlier floor surface was uncovered.

## 5.2 Features in the southern part of the site

The southern part of the site was dominated by the construction of a large structure related to a former works. There were also remnants of cellars fronting on to Brown Lane, Charles Street and Eyre Lane.

During the machine strip a large concrete surface (1067), a concrete ramp (1076) and associated 20<sup>th</sup>-century walls (1071-1073, 1077, 1137 and 1138) were encountered. These were recorded (Plate 15) and removed by machine, where possible, to reveal the earlier archaeological deposits. The walls were built from reused, handmade red bricks bonded with a dark ash-rich mortar.

Following removal of the 20<sup>th</sup>-century concrete surface a large structure and associated features were exposed. The structure comprised three large walls (1119-1121) built from reused handmade bricks with some hewn sandstone blocks incorporated, bonded with dark ashy mortar (Plate 16). These walls marked out a rectangular area in the centre of the southern half of the site, and appeared to form a courtyard area within the works rather than the outer walls of the works.

The south-west wall of the probable works, 1119, was bonded to 1120 and 1121, both aligned north-east to south-west, which formed the north-western and south-eastern sides of the works respectively. These walls were much wider than any of the other walls on site, measuring up to 0.6m thick and surviving to a maximum height of 0.8m. The south-western wall, 1119, also formed the north-east wall of Cellar E and butted up against sandstone wall 1201 of Cellar D, demonstrating that Cellar D predated Cellar E. The south-eastern wall of Cellar E, 1213, which butted up against wall 1119, was built from stone and bricks bonded with a small amount of light grey lime mortar. The structural relationships of the walls that made up Cellar E indicate that the cellars fronting on to Brown Lane were retained during the construction of the works and continued in use.

Within the works and butting against the south-eastern wall 1121 was a large brick structure, 1130, possibly a machine or furnace base. There was a patch of heat damaged bricks on top of this structure but this was localised and overall its size and strength suggest it supported a substantial structure. The surviving remains stood 19 courses high on top of a foundation of sandstone and bricks (Plate 17). Its total dimensions were 3m long, 2.2m wide and 2m high. It was built from similar bricks to the rest of the works walls and was bonded with the same type of dark ashy mortar. On top of this made ground were fragmented bits of possible brick surface (1131 and 1132) and services (1124 and 1186). Other than these isolated features nothing other than levelling deposits filled the space within the outer walls of the works. A machine-excavated slot established that the machine base foundation overlay a foundation of churned up soil and redeposited natural, 1223, on top of natural clay 1224. This foundation



deposit contained pottery dating from the late 18<sup>th</sup> century onwards, clay tobacco pipes and glass belonging to the late 19<sup>th</sup> to early 20<sup>th</sup> centuries. The clay pipe fragments included two clay pipe bowl fragments and four stems. The bowls and most of the stems probably date to the late 18<sup>th</sup>/early 19<sup>th</sup> century, although one of the four stems dates to the late 17<sup>th</sup> or 18<sup>th</sup> century.

Sections of wall at the north and east corners of the works structure, 1126 and 1127 respectively, may represent a later alteration to the works on the Charles Street side. Both of these walls were built from the same type of reused handmade bricks and bonded with dark ashy mortar, but appeared to be later modifications as they were not bonded with the original three walls. A buttress (1123) on the south-eastern side of wall 1120 was a late 20<sup>th</sup>-century modification, with breeze blocks forming part of its construction.

On the north-eastern side of this half of the site there were some surviving cellar walls (1069 and 1070). These belonged to structures fronting on to Charles Street but, as they were exposed on the edge of the excavated area, they could not be fully investigated. The walls were built from handmade red brick and bonded with a light grey lime mortar. The type of mortar used suggests they were not related to the works.

Immediately to the south-east of wall 1121 were a surface and services possibly associated with the works or a later structure (Plate 18). The tarmac surface, 1135, lay between wall 1121 and a later brick and concrete wall, 1138. Its north-eastern boundary comprised a short length of wall built from reused handmade bricks and bonded with lime mortar (1143). It appeared to be associated with two other small sections of wall (1122 and 1199) to its north-east, built from similar reused material. Together, they may have formed a small structure, possibly part of the works. South-east of the works was range of cellared buildings on Eyre Lane (1139, 1197 and 1195), but these were truncated by 20<sup>th</sup>-century wall 1138, obscuring the relationship between them and the works. The cellared buildings on the Eyre Lane frontage had originally been identified during the evaluation but they were reinvestigated to further understand the remains of former houses.

A long north-east to south-west aligned brick wall formed the rear of the houses (1139, Plate 19), extending from the Charles Street to Brown Lane. Three dividing walls (1195, 1116 and 1197), aligned north-west to south-east divided the area in to four separate cellars. The walls were all built from handmade red brick bonded with a light grey lime mortar. Due to the proximity of the south-eastern limit of excavation, investigation was limited to sondages excavated in the south-western and north-eastern cellars. The central two cellars were not investigated.

The north-eastern cellar infill (1212, Plate 20) contained 19<sup>th</sup>-century pottery and unworked animal bone. The sondage through this deposit revealed another wall (1208) running parallel to the main rear wall 1139. This wall was built on top of vaulting supported by a column (1210) and the cavity beneath it had subsequently been blocked up (1209). Another short section of wall (1211) was also identified in the north-eastern limit of the sondage. All of these walls were built from rough, handmade bricks bonded with lime mortar. Due to the limited size of the slot the function of the walls was not clear, but they may have supported a stairway. It was not possible to reach the base of the cellar as to the maximum safe depth of excavation had been reached.

The sondage in the south-western cellar (Plate 21) identified a damaged stone stairway (1220) and a short section of north-east to south-west aligned wall (1196) at the edge of excavation. The purpose of this wall was unclear but it may have formed part of an internal division within the cellar, in addition to supporting the stairs. Again, it was not possible to reach the base of the cellar due to safety concerns.

Within the space behind the Eyre Lane structures, towards the south western corner of the site, was a brick built structure (Plate 22), possibly an outhouse or toilet block. No relationship between it and a ceramic pipe (1176) in the vicinity could be established. The structure was truncated by 20<sup>th</sup>-century wall 1178 on its south-western side, so its full extent is unknown. It was backfilled with demolition rubble 1200, comprising black ash mortar with occasional brick fragments. Finds from this rubble deposit included pottery dating to the very late 19<sup>th</sup> century, glass dating to the late 19<sup>th</sup> to early 20<sup>th</sup> centuries, 19<sup>th</sup>-century clay tobacco pipes, worked animal bone and a eroded coin of unknown date. The structure was subdivided by walls (1190 and 1191) which were built on top of a brick floor, 1214. The north-eastern wall of the block, 1189, was also built on top of the floor. The north-western (1188) and south-eastern (1215) walls of the structure were built from reused handmade bricks bonded with a dark grey ash mortar. The floor did not have a bonding material, but dark mortar had accumulated in the gaps. Many of the reused bricks had traces of light grey lime mortar on them. The north-western wall 1188 was built up against works wall 1121 and was partially built over by 20<sup>th</sup>-century wall 1178. Unlike the other walls, wall 1188 was constructed of irregular sandstone blocks grouted with clay. The south-eastern wall (1215) was built from reused handmade bricks bonded with pale sandy clay. These two walls are quite distinct and perhaps represent an earlier phase of a structure which was heavily modified by the addition of the brick floor and walls. Below the floor the levelling deposit for the structure was a firm, brown clay (1221) overlying a friable, brown silty clay dump (1222). These deposits contained pottery dating late 18<sup>th</sup> to early 19<sup>th</sup> centuries. During the previous archaeological evaluation, a yard surface (111) was recorded, which seems to be associated with the outhouse structure and structures fronting onto Eyre Lane.

## 6 DISCUSSION

The archaeological remains identified on this site relate to 19<sup>th</sup>- and 20<sup>th</sup>-century development of the area for residential and industrial use, the later evidenced through the large machine base and residual finds. The phasing for the site as a whole is considered below, considering the archaeological records from both this excavation and the 2011 evaluation, together with finds analysis and historic map analysis.

### Phase 1: 1809- 1819

The initial development of the site in the early 19<sup>th</sup> century was represented in the archaeological record by the building foundations and cellars fronting on to Eyre Street (subsequently Arundel Gate), Brown Lane, Eyre Lane and Charles Street. In the north-western and south-eastern parts of the site in particular, structural remains from this phase survived relatively well. Several walls orientated north-west to south-east and north-east to south-west align to an 1819 map of the site (Figure 8). An earlier map of 1808 depicts the site devoid of

buildings, so it seems reasonable to suggest that the walls that align with the 1819 map were constructed at some point between 1808 and 1819.

It seems highly likely that much of the later development at the site has removed many of the structures that were built during Phase 1. From the surviving remains recorded during the archaeological investigations, it is apparent that during this earliest phase of development structures were formed from handmade bricks, sometimes on sandstone foundations, bonded with a lime mortar. Map evidence suggests that buildings along Eyre Street survived right up to the clearance of the site in the late 20<sup>th</sup> century, and documentary evidence (May 2010) suggests that whilst modifications were made to the internal structures of these buildings, the external structures appear to have remained relatively unchanged. The buildings in the northeast corner of the 1819 map on the frontage of Eyre Street between Charles Street and Brown Lane, (nos.53 and 55 Eyre Street), are recorded in 1839 trade directories as possibly a shop and a house, although this is not clear from the reference (May 2010). The yard in the northern area of the site, which appears to have been shared between the Eyre Street and Charles Street structures and contained well (1021) (Figure 3), is visible on the 1819 map. The well appeared to cut through yard levelling deposits but was built from similar materials to the earliest structures on site, hence it is difficult to ascertain whether the well is associated with the initial construction of the buildings on Eyre Street and Charles Street, or if it was a slightly later addition, however as its structure was very similar to the other structures from this phase, it is likely to be broadly contemporary. The well (1021) appears to have backfilled and built over later in Phase 3. A second well (1006) was present in close proximity to well (1021), constructed from the same materials and almost identical to well (1021) hence it seems likely that these wells are contemporary, although to have two working wells so close together seems somewhat unusual. Culverts (1027) and (1028) (Figure 3) may be related to well (1021), and were later replaced by drain pipes that were cut through wall (1029). Wall (1018) appears to be part of the original construction on the site, forming a plot boundary which is visible on a succession of historic maps until clearance in the late 20<sup>th</sup> century.

At the extreme south-western end of the site, the back wall (1139) of a row of terraced houses fronting onto Eyre Lane was recorded (Figure 4). These were present on the 1819 map (Figure 8) and likely to be contemporaneous with the Phase 1 structures observed in the north-western end of the site. The cellars fronting onto Eyre Lane displayed some signs of later modification. A possible yard deposit (111) related to these cellars produced 24 clay pipe fragments, eight of which dated between 1800 and 1900 and sixteen of which dated between 1830 to 1860. The fill (125) of foundation cut [124] for the main back wall (1139) of this row of cellars contained two clay pipe stem fragments, dating between 1780 and 1900. These dates fit with the belief that these structures were amongst the earliest phase of development on the site and were in constant use for over 100 years until their demolition in the mid-twentieth century.

An outhouse structure related to the houses fronting onto Eyre Lane is clearly visible on the 1819 map (Figure 8). Several walls were observed in this location (Figure 4), but most of them seem to be later (Phase 3), likely replacing part of the earlier structure that is represented on the 1819 map. However, two of the walls (1188) and (1215) appeared of an earlier construction than the internal walls and floor surface, and may be all that remain from the original structure. A nearby drain (1176) and associated wall (1177) have also been tentatively

assigned to this earliest phase of construction, as the wall appeared of a similar construction to (1188) and (1215), and the drain appears to line up with drain (118) further towards the north-east (Figure 4), which during excavation was determined to be related to the earliest phase of construction of houses fronting onto Eyre Lane.

Structural remains in the form of cellars were recorded relating to buildings on the Brown Lane frontage. The 1819 map identifies this plot as leased to Thomas Watts, although his occupation and use of the building is unclear. Cellar B was the only cellar excavated on site that retained its original floor surface of sandstone flags (1164) (Figure 3). This was heavily worn in places, especially at the base of the stairs, indicating prolonged use. A chute in the north-eastern wall and buttresses on the north-western wall of Cellar B appears to have been part of its original construction. The blocking of the chute and partial demolition of the buttresses appear to be associated with the 20<sup>th</sup>-century demolition and backfill (Phase 5). Cellar E also belongs to structures along Brown Lane and appears to have been developed during Phase 1, listed on the 1819 map as occupied by John Elliott, but again modified in later phases. The dividing wall (1201) (Figure 3) between Cellars D and E seems to form part of another north-east to south-west aligned plot boundary which survived up until the 20<sup>th</sup> century clearance. This wall and the earliest elements of Cellar D appear to represent the initial construction of the cellar, although this wall was notably wider than many of the other boundary walls on the site, and may have been altered over the years. The main part of Cellar D comprised sandstone construction overlain by brick walls at ground floor level, and was extensively modified during its use. Evidence for early modifications, probably within Phase 2, comprised two openings (1203 and 1205) that were blocked with handmade bricks bonded with a light grey lime mortar, and a later brick lining (1092) (Figure 3) constructed in Phase 5. It appears that this later construction included the demolition of an internal wall or structure (1206) that may have belonged to the initial Phase 1 construction of the cellar. All of the cellars identified in Phase 1 demonstrated varying degrees of modification.

An 1829 map (Figure 9) of the site shows no change from the 1819 map (Figure 8), hence it seems reasonable to suggest that little development took place on the site during these ten years.

### **Phase 2: 1829-1851**

In contrast to the 1829 map the 1851 map (Figure 10) shows distinct changes to the site since 1829, and demonstrates that alterations had been made to some of the existing structures. Structures in this phase were characterised by black ash mortar bonding with considerable evidence for reused bricks.

Excavation along the Charles Street frontage was limited due to the proximity of the trench edge to Charles Street. However, it is clear that walls (1033, 1084, 1085, 1086, 1087) excavated in this northern area (Figure 3) comprise a cart passage, yard surface and probable cellar (Cellar F) fronting on to Charles Street, which correspond with new additions to the 1951 map. This cellar and associated building may have replaced or modified an earlier structure in the same location but no evidence for this was recovered. Two clay pipe bowls and one stem fragment were recovered from an infill deposit within Cellar F and are thought to relate to the late 18<sup>th</sup>/early 19<sup>th</sup> century, although this cannot be used to determine the date of construction and use of the cellar.

The earlier plot boundary wall (1018) was used as the north-western edge of Cellar F, with buttresses (1030 and 1032) (Figure 3) apparently added to strengthen the wall during this phase. It is unclear whether this space ever functioned as a cellar as no evidence for a floor was encountered beneath its infill. It is possible that the depth of the walls were designed to facilitate a large structure being built on top. The 1839 directory lists George and William Elliott, manufacturers of all kinds of brass taps, at no.26 Charles Street. Numbers 24-26 Charles Street was occupied by brass founders, first John Lambert, followed by John Hick. In 1839 and 1841, Adam Bramall, whitesmith and locksmith, was listed at 22 Charles Street (May 2010), likely to relating to Cellar F. The 1851 map depicted nos.18-22 (subsequently 100-102) as the Charles Street Works ('steel and iron'), and the trade directory entries of 1856-1865 record William Radford, whitesmith, at the site. 'Whitesmith' may refer to someone working with light-coloured metals (e.g. pewter and tin), including melting and re-melting of alloys; it can also refer to the finishing of metal items (e.g. polishing) (May 2010). A photograph from the 1960s shows differences in the architectural details between 100 and 102, suggesting they may have been constructed at different times (May 2010), although the structures recorded during the archaeological excavations were made from almost identical materials, suggesting that they are indeed contemporary, which corresponds with map evidence. The buildings were still shown on the 1997 map, but were demolished by 2004.

The 1851 OS map (Figure 10) depicts the buildings fronting onto Eyre Street (Arundel Gate) shown on the 1819 and 1829 maps in the northeast corner of the plot (nos. 53-55, discussed above, Phase 1), with the addition of nos. 57-59 adjacent. Numbers 57-59 are not depicted on the earlier maps, but must have been in existence by 1841, as the trade directory of that date recorded nos.57 and 59 Eyre Street possibly as houses, but perhaps with associated workshops for the piercer, razor and scissors manufacturer listed in directories of 1841, 1856 and 1862 respectively. The addition of 57-59 Eyre Street is shown on the 1851 map with an L-shaped range returning along Brown Lane and a covered entrance into a narrow yard. Cellar A, likely associated with 57-59 Eyre Street, was heavily modified by concrete structures in the twentieth century, but these modifications respected the remains of earlier structures that, judging from 1851 map evidence, must have been present in this location, although were not observed within the archaeological record.

Three houses (nos. 15 to 19) along the Brown Lane frontage (probably the buildings shown on the 1819 map and discussed in Phase 1) were listed in the 1841 trade directory, but have no further listings. Private houses were often not listed, and the buildings were still shown as 'domestic' two-storey structures in 1896, with stores to the rear. Some evidence of repairs, likely belonging to Phase 2, were noted within cellar D and E with repairs to foundations or buttress walls added to the internal face of the cellars. The original ground level within the yard to the rear of cellar D appeared to have been raised during this phase and overlain by a mortar and clay surface and yard walls (1091 and 1171) (Figure 3) were placed to subdivide it (Figure 10). A much later service trench (1152) destroyed the relationship between these walls so it is unclear if they initially formed a continuous barrier or had access through into the adjacent yard. By 1888, documentary evidence demonstrates that the main occupant of the works fronting onto Brown Lane was George Thomas Spurr, cabinet case manufacturer (May 2010). Spurr's firm was still listed at the works in 1963, and was depicted on photographs from 1967. The firm was primarily dedicated to the manufacture of wooden cases to hold and

display items such as table cutlery and flatware. A description of the firm in 1893 stated that 'operations are carried on in a large and commodious block of buildings, having a frontage of some 50 feet', with offices on the first floor, spacious stock rooms and various warehouses, and a row of three-storey workshops to the rear (Century's Progress 1893, 138). Between 1905 and 1931, the works was shared with George Ellis, manufacturer of fish eaters, carvers etc.

A saw maker, Josiah Ellis, was listed at 36 Eyre Lane in 1833, although this was possibly his house rather than a works. In 1839 and 1856, no.30 Charles Street, on the corner with Eyre Lane, was a house occupied by Edwin Priest, a local manufacturing optician. From 1876 to 1931, this property was listed as a shop. No.38 Eyre Lane, at the corner of Brown Lane, was the only other building on the lane regularly listed, as a shoemaker's in 1839-41 and a shop in 1876-81 (May 2010).

### **Phase 3: 1851-1896**

By the 1896 map, a yard had been built over much of the southern area of the site, comprising the earliest construction of the Canada Works (Figure 11). The surviving remains of the works in the southern half of the site comprised thick brick and stone walls in a square layout, with the area within the square comprising the central yard of the works, and the walls forming the edge of the surrounding buildings. These walls comprising the yard of the Canada Works were built in a similar fashion to those structures in Phase 2, comprising reused handmade bricks with some hewn sandstone blocks incorporated, bonded with dark ashy mortar. These walls were much wider than any of the other walls recorded on the site, measuring up to 0.6m thick and surviving to a maximum height of 0.8m. The south-western wall, 1119, (Figure 4) also formed the north-east wall of Cellar E and butted up against sandstone wall 1201 of Cellar D. It seems likely that wall 1119 replaced an earlier wall, as a wall in this position appears on maps from 1819, although no evidence of an earlier wall was observed during the archaeological works. The south-eastern wall of Cellar E, 1213, (Figure 4) which butted up against wall 1119, was built from stone and bricks bonded with a small amount of light grey lime mortar, indicating a much earlier construction than wall 1119. The structural relationships of the walls that made up Cellar E indicate that the cellars fronting on to Brown Lane were retained during the construction of the works and continued in use.

The 1896 map depicts three storey ranges along the northwest and southwest (Brown Lane) sides of the Canada Works, and a two-storey range along Charles Street. The northeast three-storey range had its gable end on Charles Street and may be the building shown on the 1851 map, whilst the two-storey range was constructed between 1851 and 1896.

A group of small, single-storey structures were shown at the south side of the central yard, including two described as 'furnaces'. These may have been forging hearths rather than melting furnaces.

During the archaeological investigations, a large base (1130) (Figure 4) was identified within the yard of the Canada Works, approximately where the furnaces are located on the 1896 map (Figure 11). The base is had 2m deep foundations and butted up against the south-eastern wall (1119). The bedding layer (1223) beneath the base contained two clay pipe bowl fragments and four stems. The bowls probably date to the late 18<sup>th</sup>/early 19<sup>th</sup> century. One of the four

stems recovered from (1223) dates to the late 17<sup>th</sup> or 18<sup>th</sup> century, although the remaining three bowls are indicative of a nineteenth century date. It is possible that this bedding layer (1223) was constructed out of demolition material from structures cleared during the construction of the Canada Works and hence cannot be used to determine when the base was constructed. The construction and modification of the Canada Works appears to have involved the excavation of a large hole across the footprint of the works, with the ground level around it re-established after the buildings had been constructed. This construction method seems to have completely destroyed any evidence for earlier activity down to the level of the natural clay within the footprint of the works, including structures marked in this area on early 19<sup>th</sup> century maps. The size and scale of the base suggests it was designed to support a large structure and appears excessive for the small single storey furnaces shown on the 1896 map although this may have been its function. Its exact date is uncertain. It was built to a similar construction as the walls of the Canada Works it butted up against but how much later it was that the walls of the works is unknown. It could therefore relate to the original of construction of the works and have supported the furnaces or been for a later feature within the works.

No.53-55 Eyre Street appears to have been amalgamated into a single building by the mid-1870s, and was used as a shop for at least the next 100 years. By 1896 (Figure 11) this structure was shown as a three-storey shop (53) and adjacent house (55), but was likely to have been the same or modified versions of the structures shown in 1819 (Figure 8).

By 1896, nos. 57 and 59 Eyre Street had been incorporated into a single larger structure, with a three-storey range along the Eyre Street frontage and a parallel two-storey range behind and was marked 'Die Stamper'. Prior to this an electro-plate and Britannia metal manufacturer was listed at 57-59 Eyre Street between 1876 and 1881, and was replaced by William Godley, a mark maker by 1888. Godley remained at the site until the 1930s, with the building occupied by cutlery manufacturers by 1948. The plot was still listed as a cutlery works in 1972 (May 2010). None of these changes of use were identified in the archaeological record, although severe truncation of 57/59 Eyre Street occurred in the later twentieth century.

The street numbers on Charles Street were changed between 1888 and 1896, from 24-30 to 108-116. The works at 24-26 (subsequently re-numbered 108) Charles Street was occupied by brass founders from 1841 to 1881, first John Lambert, followed by John Hicks. By 1888, Russell, Horsfield and White, saw manufacturers, had moved to 108 Charles Street. The well (1021) in the yard that appears to be have been shared between Charles Street and Eyre Street seems to have been built over during this phase, as walls (1024) and (1101) were observed directly over the well structure (Figure 3), and relate directly to a wall in this location that first appears on the 1896 map (Figure 11).

Several walls thought to relate to an outhouse associated with the terraced houses fronting onto Eyre Lane are also thought to belong to this phase (Figure 11), and are thought to have replaced an earlier outhouse structure seen in this location on the 1819 map. As discussed above (Phase 1), two of these walls appear to be from the original structure, however the majority of internal walls (1189), (1190), (1193) and floor surface (1214), (1221), (1222) (Figure 4) were a later alteration.

#### **Phase 4: 1896 - 1953**

The 1905 map is poor with little detail, but it appears to show the same arrangement of buildings as the 1896 map, so it seems reasonable to suggest that little alteration occurred at the site during 1896 and 1905 (Figure 12). The 1953 map (Figure 13) shows an expansion to the yard of the Canada Works, seemingly created by demolishing the buildings labelled as 'furnaces' on the 1896 map.

The 1953 map shows that by this time all of the terraced housing fronting onto Eyre Lane was replaced by an extension to the Canada Works. Documentary evidence suggests that this occurred sometime in the 1930s or 1940s; it is possible that the houses were damaged or destroyed by World War II bomb damage (May 2010, 14), and the Canada Works subsequently took over the vacant plot. Map evidence suggests that the buildings shown in 1953 were still extant in 1997, but had been demolished by 2004.

#### **Phase 5: Post 1950's construction**

It was during the late 1960s that Eyre Street was widened and renamed Arundel Gate, however the historic OS maps of 1953 (Figure 13) and 1970 (Figure 14) do not show any changes to the footprint of the buildings fronting on Arundel Gate during these alterations, suggesting that they were not impacted at this stage. The evidence for 20<sup>th</sup> century development is represented by concrete structures in the western corner of the site, modifications to 19<sup>th</sup> century cellars, new services and the relaying of yard surfaces, again mostly in the western corner of the site. The later part of this phase involves the construction and pouring of a large concrete surface after the demolition of the Canada Works but before the general clearance event across the entire site (Figures 14-15).

The structure in the western corner of the site formed a building with a cellar (Cellar A), which belonged to a building fronting onto Eyre Street, on the corner of Brown Lane. The walls and character of the surviving structure were distinctly 20<sup>th</sup> century in date, built respecting the earlier 19<sup>th</sup> century buildings around it, suggesting that these buildings were still extant. The stairwell accessing Cellar A was blocked up (1096), likely at some point during this phase, indicating that the cellar was no longer in use, although the building above may have been.

The buildings fronting onto Brown Lane were also subject to modification during this phase. Evidence that Cellar B was still in use comes from a buttress constructed from machine made bricks (1163) built on the south-eastern side of the cellar. More extensive modification was visible in Cellar D. This involved a new internal wall façade (1202) (Figure 3) built from machine-made bricks and a new concrete floor. These hid the earlier 19<sup>th</sup>-century cellar walls and floor and may have been a purely aesthetic addition, but as the walls of Cellar D were quite unstable compared to those on the rest of the site it is equally possible that there were structural reasons for this modification. It is difficult to ascertain exactly when the concrete floor and internal façade was added, but the material used appears to fit in with the building materials used throughout Phase 5.

The new surfaces in the northern part of the site included a poured concrete yard surface (1038) and reused flagstone and brick surface (1034) (Figure 3). These both appeared to have been built in areas where 19<sup>th</sup>-century surfaces have been partially or completely removed. In the southern part of the site the later 20<sup>th</sup>-century activity comprised machine-made brick



walls and poured concrete surfaces over the top of the area formerly occupied by the Canada Works and Eyre Lane cellars. A concrete ramp over the Brown Lane cellars appears to have allowed access from Brown Lane to the lower concrete base. As the Canada Works is still visible as a standing structure on the 1970 and 1997 OS maps (Figures 14 and 15) this concrete structure must have been a late 20<sup>th</sup>-century feature.

The final stages of activity were characterised by the complete demolition of standing structures, the infilling of remaining cellars and ground levelling for the construction of a car park, present on a 2008 map. The 1997 OS map depicts buildings still standing on the site. The concrete capped service access (1151) (Figure 3) in the northern part of the site which cut through 19<sup>th</sup>-century yard deposits and walls is likely to have been part of this latest phase of activity. Further alterations were made to Arundel Gate road layout and pavements in the 1990s, around the time the site was cleared of buildings and converted to a car park. It appears likely that it is at this stage that the pavement for Arundel Gate impinged on the former buildings fronting on Street/Arundel Gate. This is seen in well (1006) and walls (1007), (1005) and (1066) (Figure 3), which had all been truncated next to Arundel Gate. How far back the Eyre Street frontage has been cut back by the creation of Arundel Gate is uncertain as no remains of the original frontage were identified within the excavations.

## 7 CONCLUSIONS

The archaeology exposed during the investigation of this site indicated excellent preservation of 19<sup>th</sup>-century structures with very little evidence for earlier activity. The only evidence for earlier activity comes in the form of a few possible medieval fragments located within 19<sup>th</sup>- to 20<sup>th</sup>-century demolition deposits.

With regard to the specific objectives outlined in the project aims there has been mixed success. This is primarily due to the absence of any *in situ* dump deposits that related to the activities and processes that were undertaken in specific areas. This appears to indicate that most of the material produced by industrial activities was completely cleared away. This is reasonably unusual but the lack of evidence in the material culture for historically attested activities is difficult to explain any other way. Interestingly, there appears to be a disparity between the pottery and other finds recovered. The pottery seems indicative of predominantly domestic activity of low status. The other finds, such as the metalwork, contain less evidence for low status domestic activity and probably relate to industrial activity. The potential of the site to answer the specific aims of the archaeological excavation are identified below.

- The rarity of artefacts related made to industrial activity made it difficult to identify specific industrial activities but some of the structural remains do indicate the location of industrial activities. This includes the substantial walls and furnace/machine base in the Canada Works while features in other cellars, such as the access chute in Cellar B and the well in the building on Arundel Gate are indicators of buildings that were probably used for industrial purposes. The few industrial artefacts recovered included cutlery, grindstone fragments, metal off cuts, worked shell, worked bone and industrial residues in the form of slag and a crucible fragment. While scarce, they do

provide evidence of cutlery making, bone handle working, button making and metal working in the area.

- Without *in situ* materials it has not been possible to identify details of the industrial processes carried out on the site.
- By exposing the whole of the area, the excavations have enabled the origins of development on the site to be determined. This site demonstrated excellent survival of structural remains combined with relatively poor survival of evidence for activities within those structures. Documentary research, excavations and finds analysis, together with the aid of historic maps, has enabled the phasing for the site to be undertaken. It appears that there was initial development and occupation of the site originating at the beginning of the 19<sup>th</sup> century, comprising dwelling, workshops and associated yards, with continuous occupation and various additions and modifications until the complete clearance of the last buildings in 2004. Five main phases of development have been identified during a period of approximately 200 years. However, the relatively intense rate of development on the site in the 19<sup>th</sup> and 20<sup>th</sup> centuries makes it difficult to establish secure phasing for all of the structures identified during the archaeological investigations and it is likely that many of the earlier structures on the site were completely removed by later development.
- The examination of the structural remains has enabled the range of materials used in construction to be identified, and provided evidence as to how the buildings were repaired and modified over time. In addition, it has highlighted the extensive reuse of materials such as brick in rebuilds and alterations. During the earliest phase of development, construction involved handmade bricks, sometimes on sandstone foundations, bonded with a lime mortar. In the second phase structures were bonded with a black ash mortar with considerable evidence for reused bricks. The latest buildings were built from machine-made bricks, cement and concrete. In all of these cases the surviving structures can be described as functional with no evidence as to whether the upstanding buildings were designed to be imposing.

The ceramics recovered from the site appear mainly to be domestic and are relatively poor in quality suggesting they derive from households without wealth. Most of the artefactual assemblage was recovered from cellar demolition fills. The lack of *in-situ* deposits makes the analysis of the finds problematic as they can not be related to specific tasks. Domestic material was found in association with the houses fronting Eyre Lane. Despite the assemblages limitations the pottery retrieved in association with the Eyre Lane dwellings is able to shed some light on the activities that may have occurred here. It also gives some pointers towards the level of wealth and social standing of the people who may have used these wares. The pottery assemblage from the site consists almost entirely of domestic vessels of a relatively mundane and functional nature. There are no imported fine wares and the table wares consist of a handful of banded wares, hand-painted wares, small numbers of transfer printed wares and a slightly larger amount of cream and white earthenware. Some of the transfer printed wares could have been made anywhere in the country but are probably of relatively local origin. The painted foliate tea cup sherds were almost

certainly made locally and parallels can be found in publications of pottery from South Yorkshire (see Griffin 2000). The majority of the wares are functional kitchen wares used for preparing and storing, rather than heating. The relatively low status of the people implied by this material is mirrored in the small size of the terraced houses on Eyre Lane. Additionally, the walls of this terrace are somewhat irregular, possibly indicating poor standards of construction.

- Where excavations proceeded below the 19<sup>th</sup>- and 20<sup>th</sup>-century remains it was identified that any old land surfaces had been removed, with construction taking place on natural clays exposed after stripping of the former soils. No evidence survived for land use prior to the development of the site in the late 18<sup>th</sup> or early 19<sup>th</sup> century.

Overall, the archaeological remains recorded at Charles Street are considered to be of local archaeological significance.

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### Historic maps

1808 OS 25 inch: 1 mile map sheets Sheffield 294.8 and 294.12

1819 Fairbank plan of ground at Charles St. (FC SheS 261 S)

1829 Fairbank plan of land measured for Thomas Holy. (FC SheS 52 L)

1851 OS 60 inch: 1 mile map sheet Sheffield 25

1896 Goad fire insurance plan sheet Sheffield 22

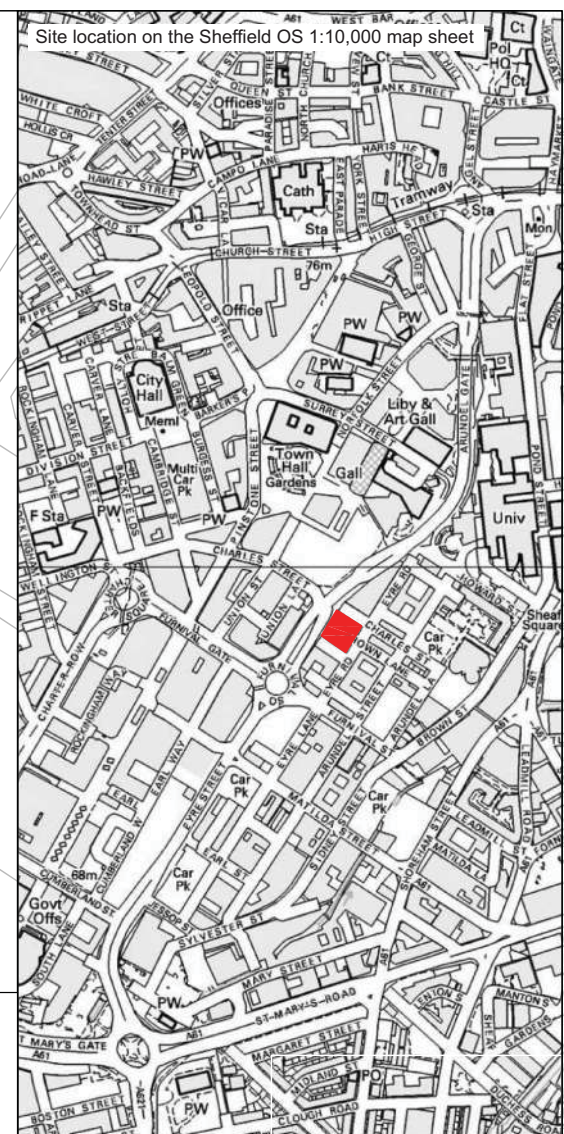
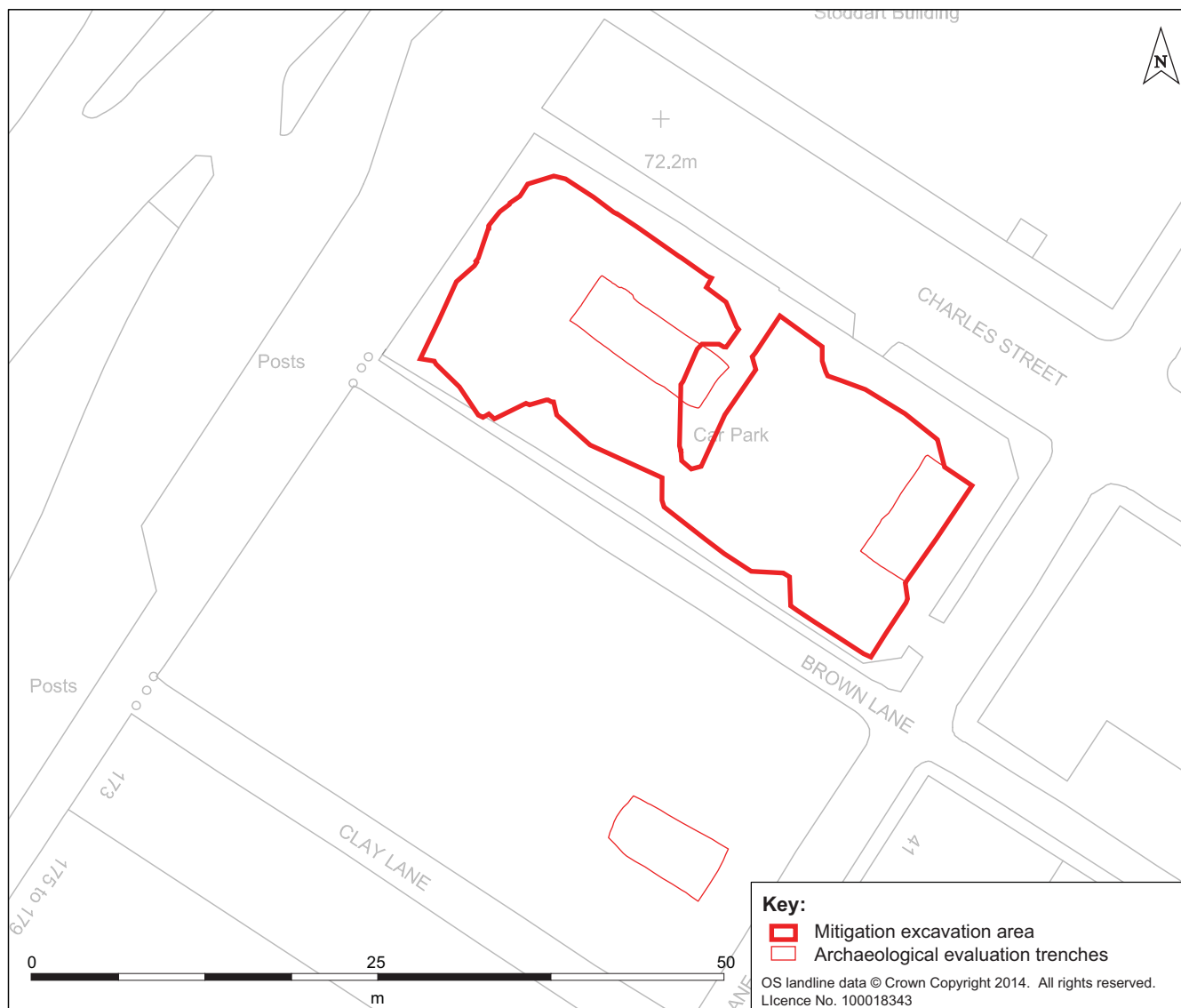
1905 OS 25 inch: 1 mile map sheets Sheffield 294.8 and 294.12

1953 OS 1:1250 map sheet SK 3586 NW 1963 OS 1:1250 map sheet SK 3586 NW

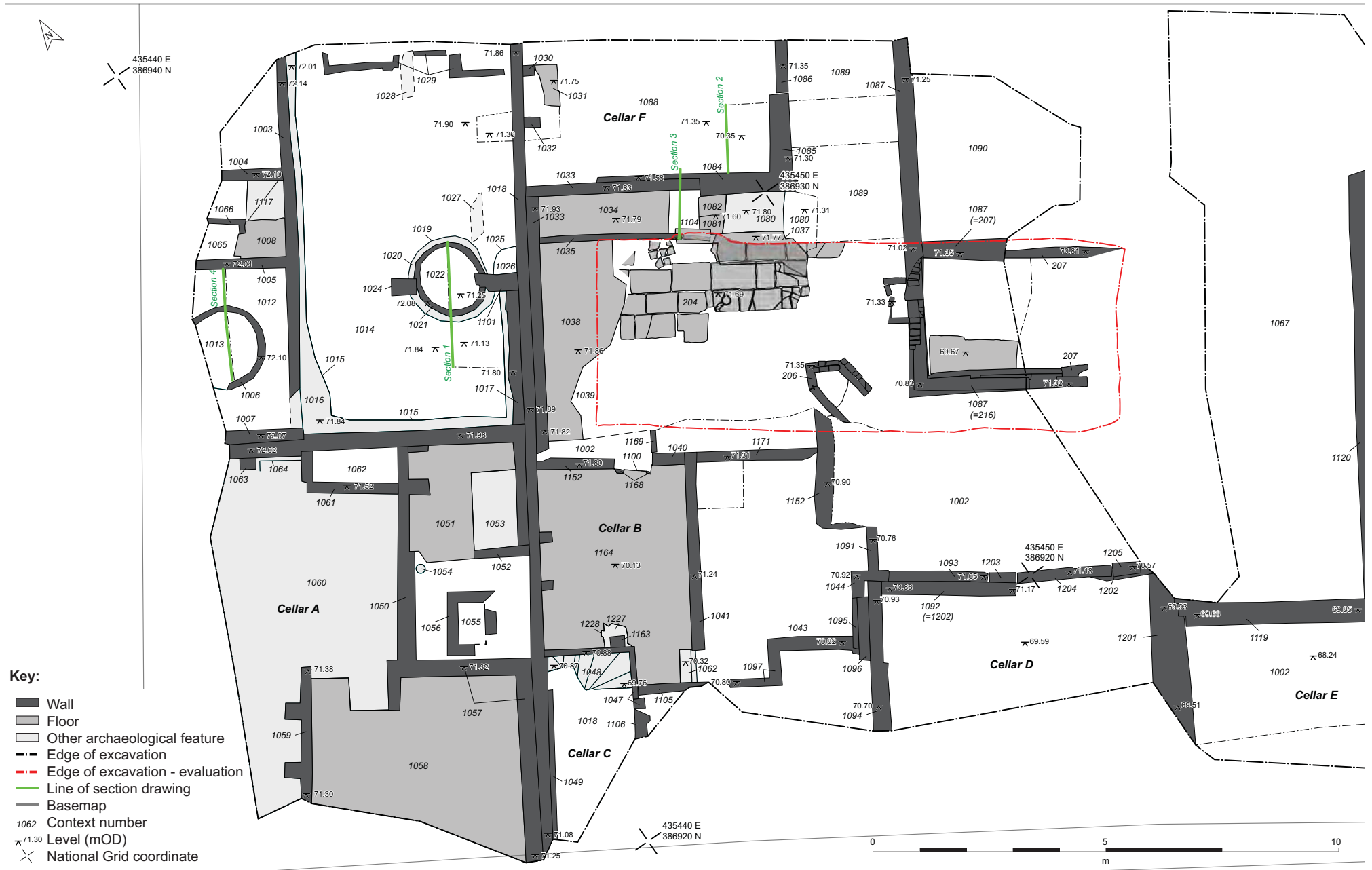
1970 OS 1:1250 map sheet SK 3586 NW 1987 OS 1:1250 map sheet SK 3586 NW

1997 OS 1:1250 map sheet SK 3586 NW 2004 OS 1:1250 map sheet SK 3586 NW

2008 OS 1:1250 map sheet SK 3586 NW 2008 OS 1:1250 map sheet SK 3586 NW



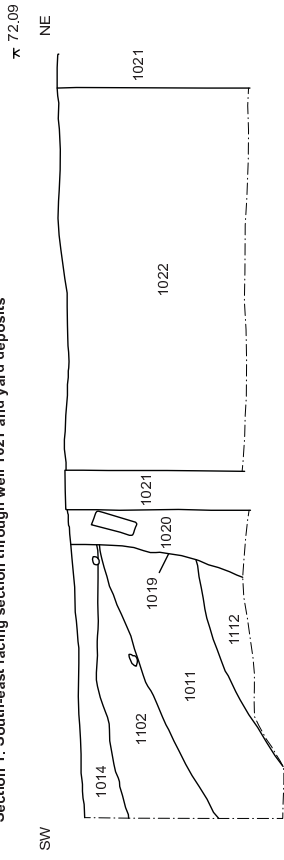




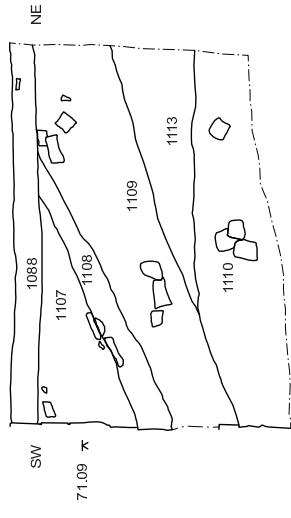




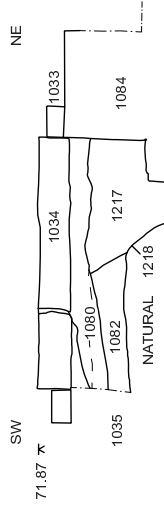
Section 1: South-east facing section through well 1021 and yard deposits



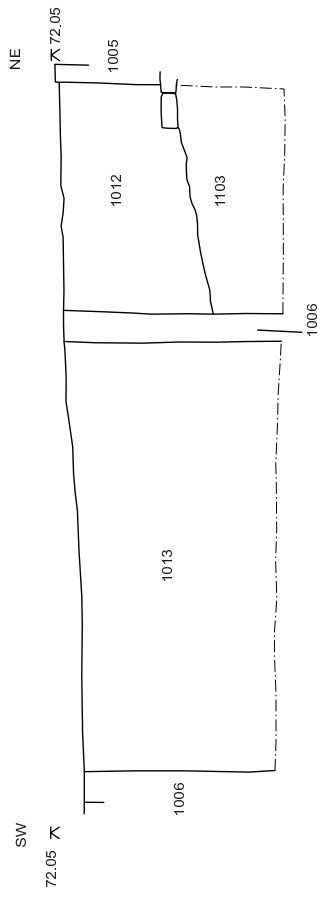
Section 2: South-east facing section through the backfill of Cellar F



Section 3: South-east facing section through surface layers



Section 4: South-west facing section of well 1006



Section 5: North-west facing section of machine base 1130

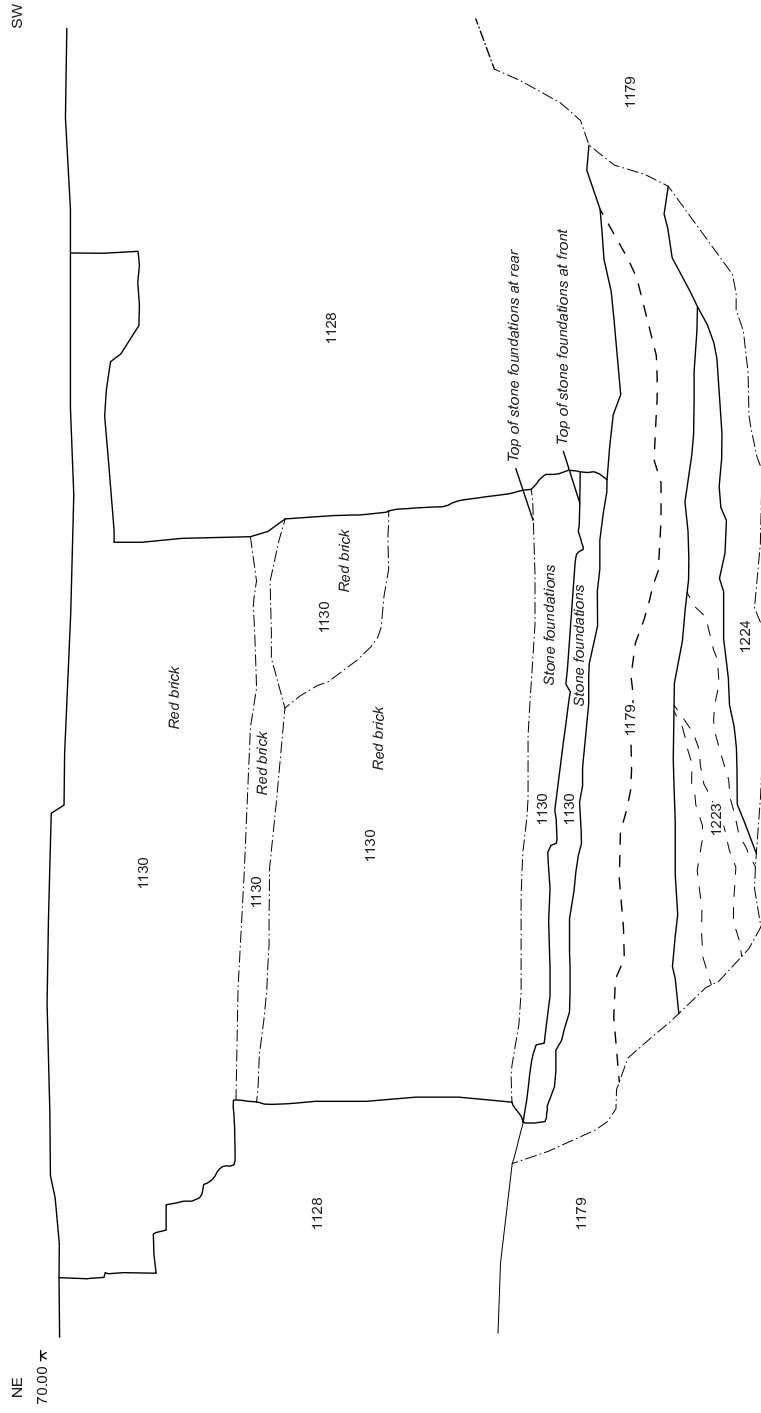


Figure 6: Section drawing, south-east area

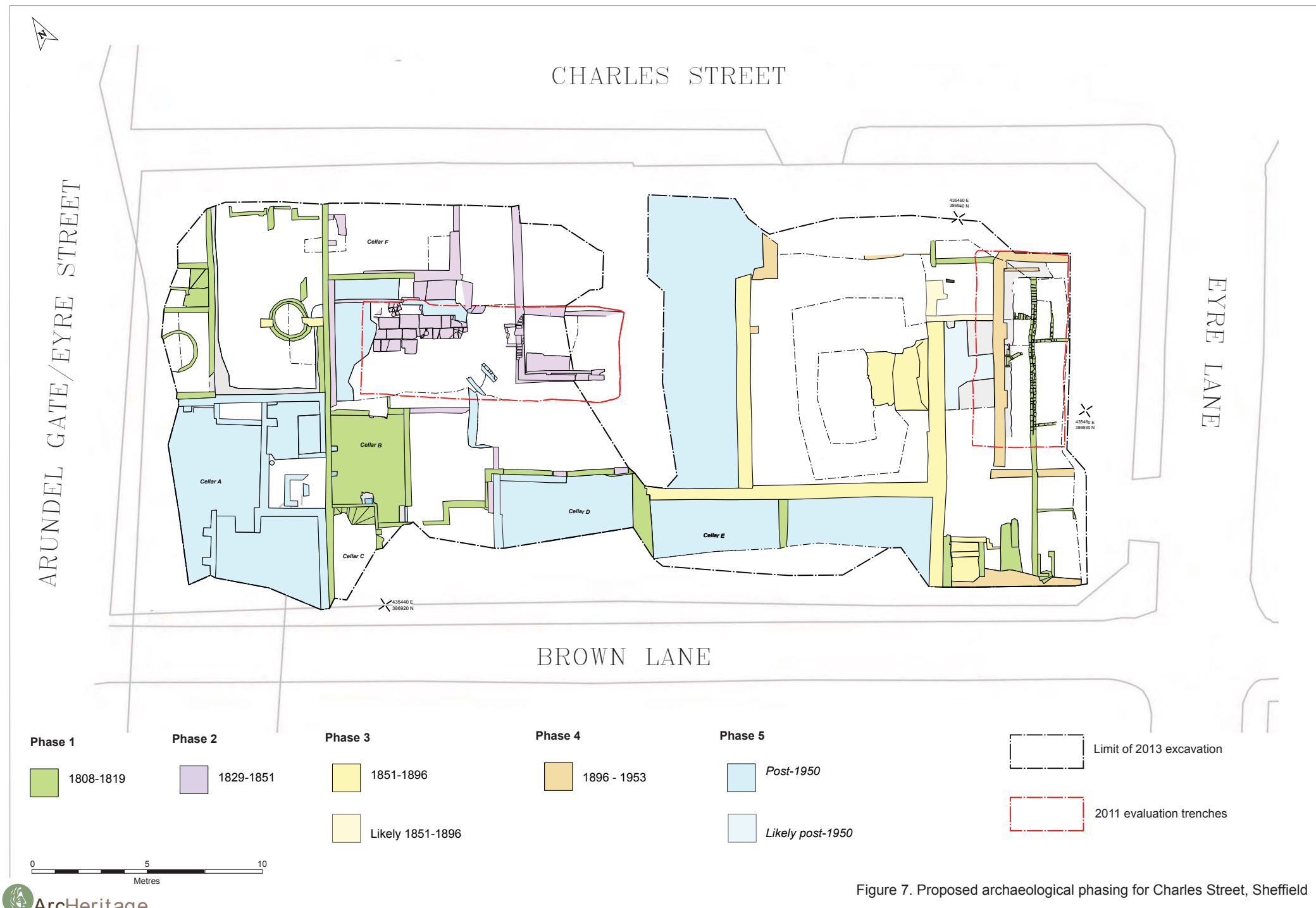
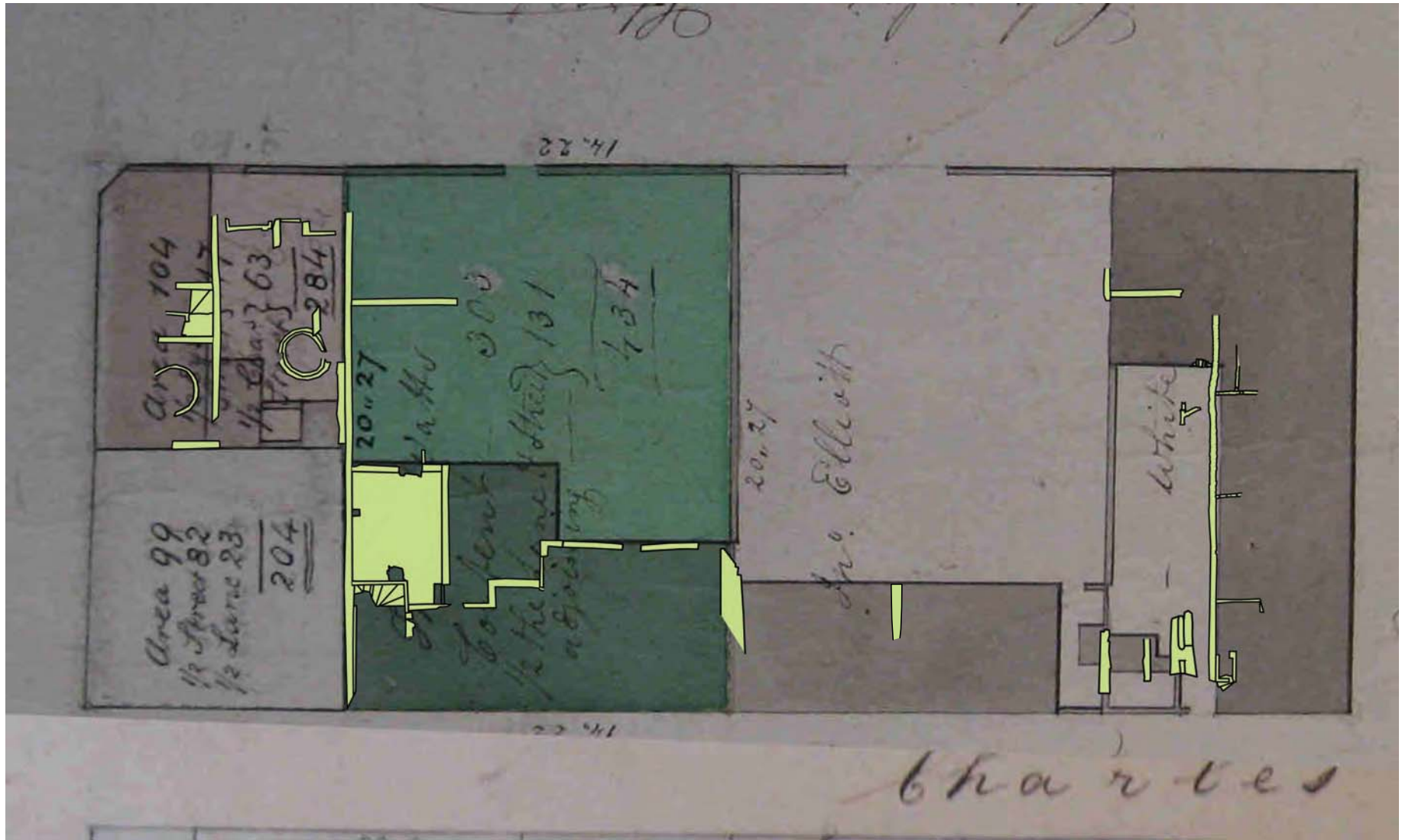


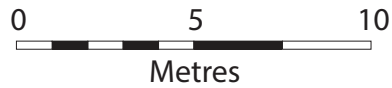
Figure 7. Proposed archaeological phasing for Charles Street, Sheffield



Phase 1



1808-1819

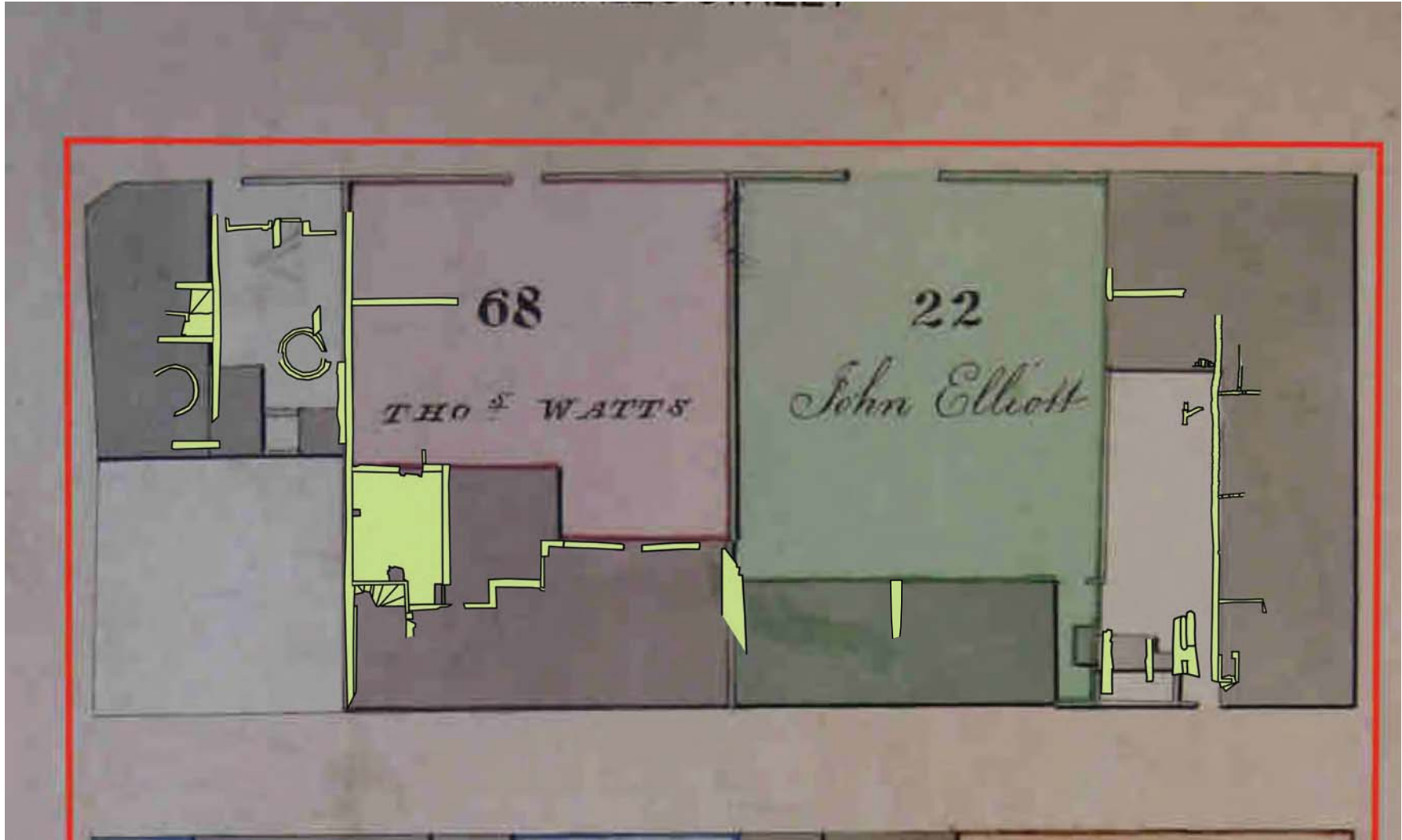


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Figure 8. Phase 1 structures over a 1819 map



Phase 1



1808-1819

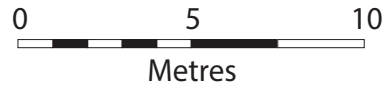
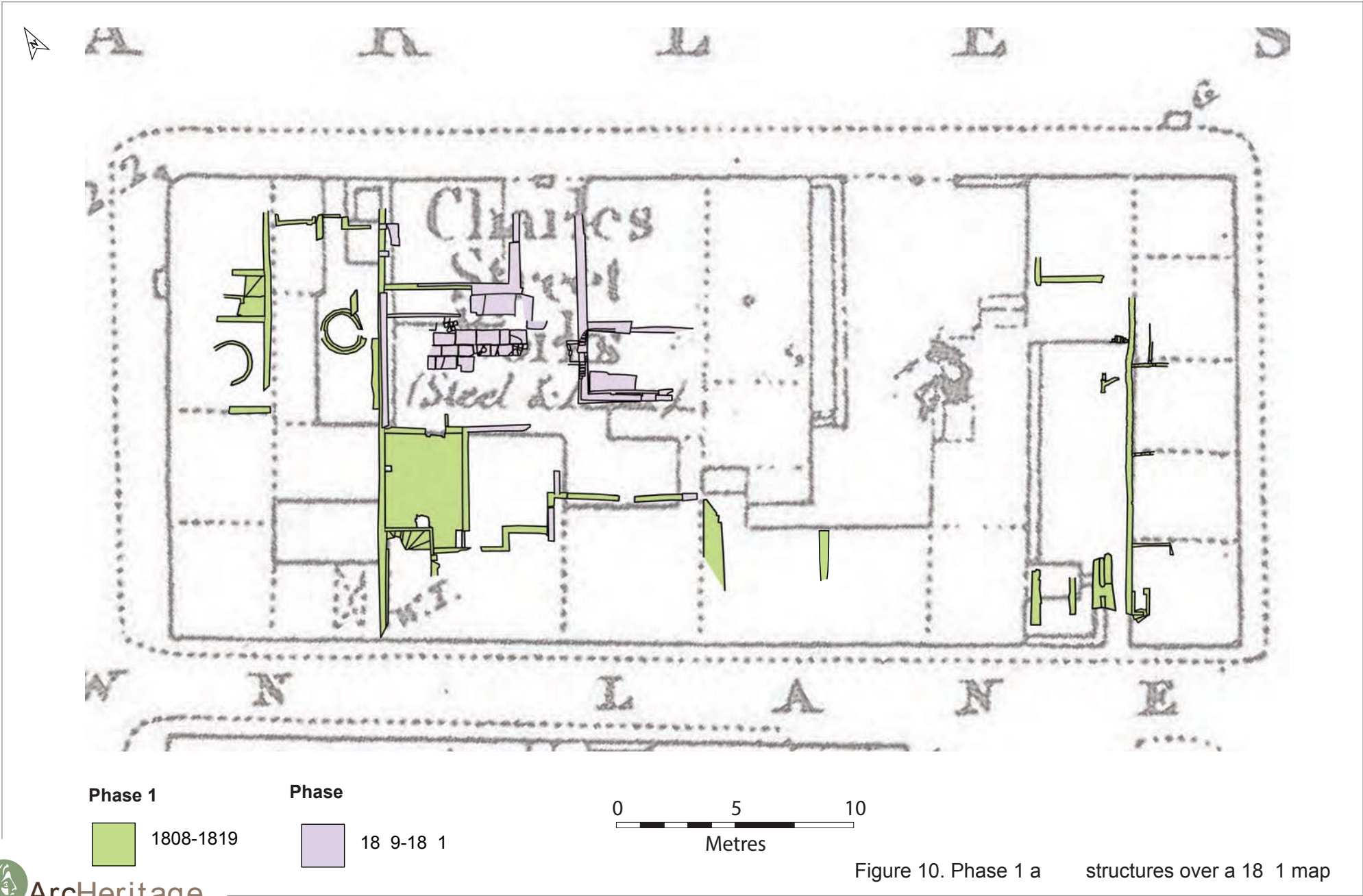
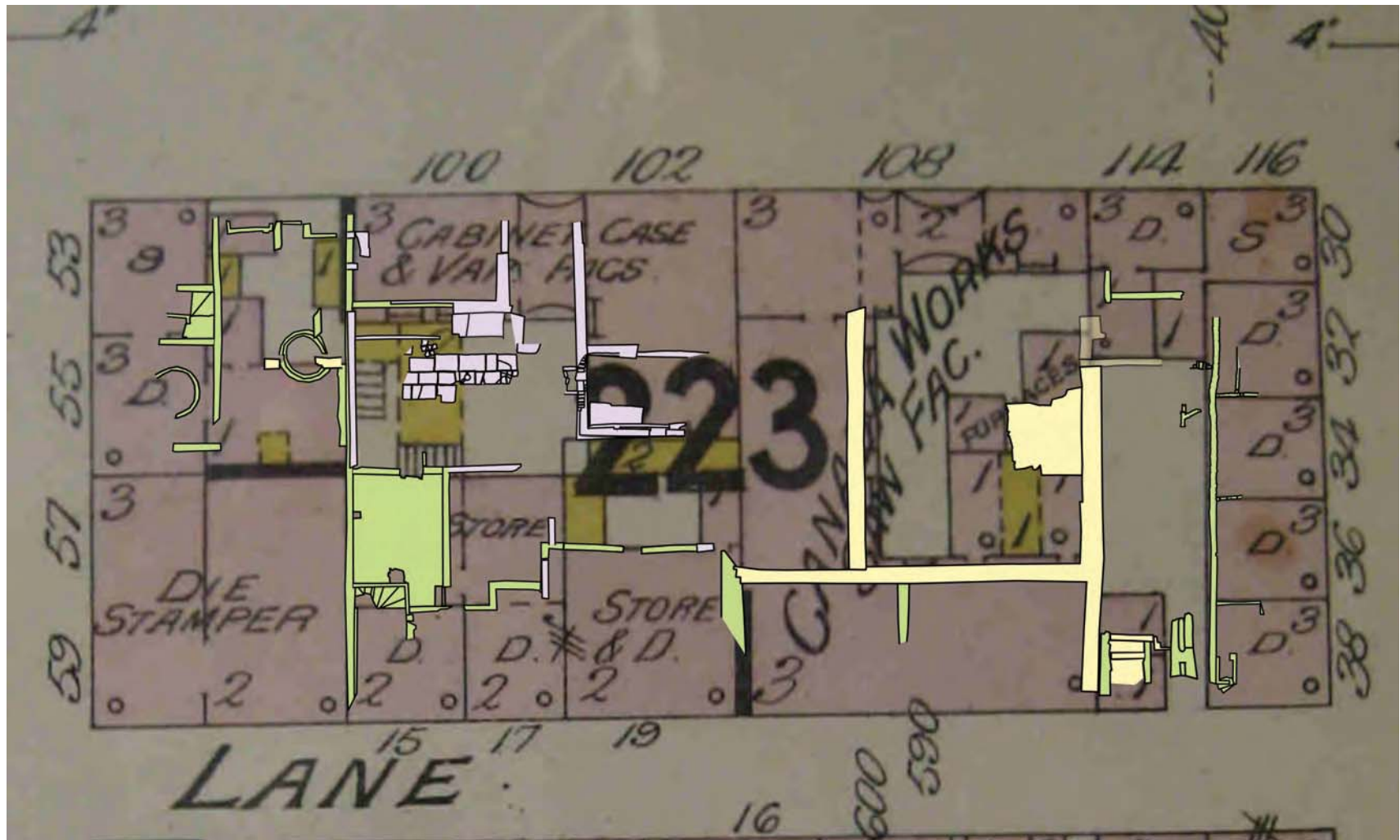


Figure 9. Phase 1 structures over a 18 9 map





Phase 1



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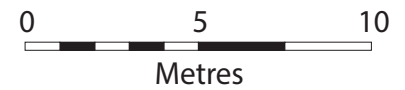
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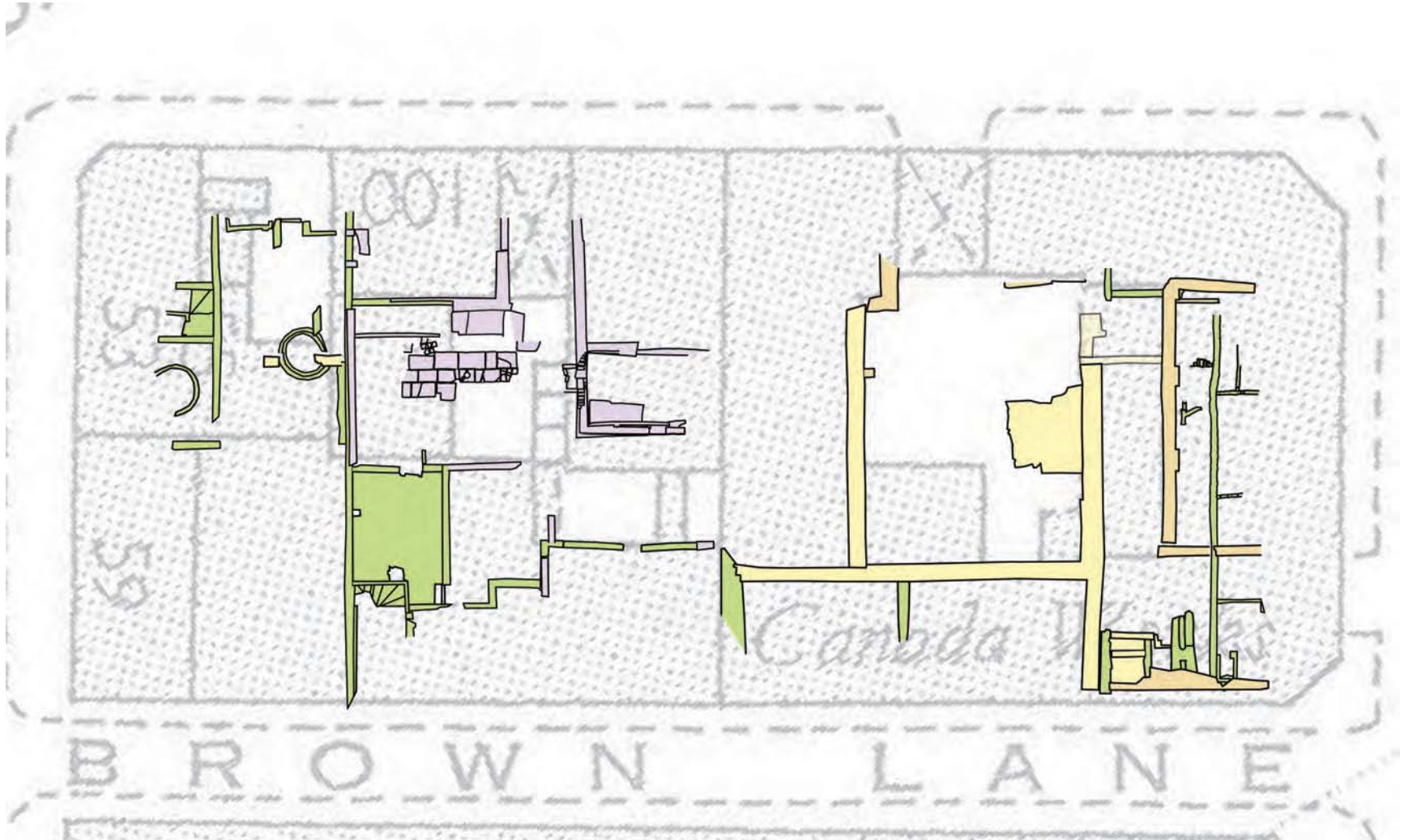


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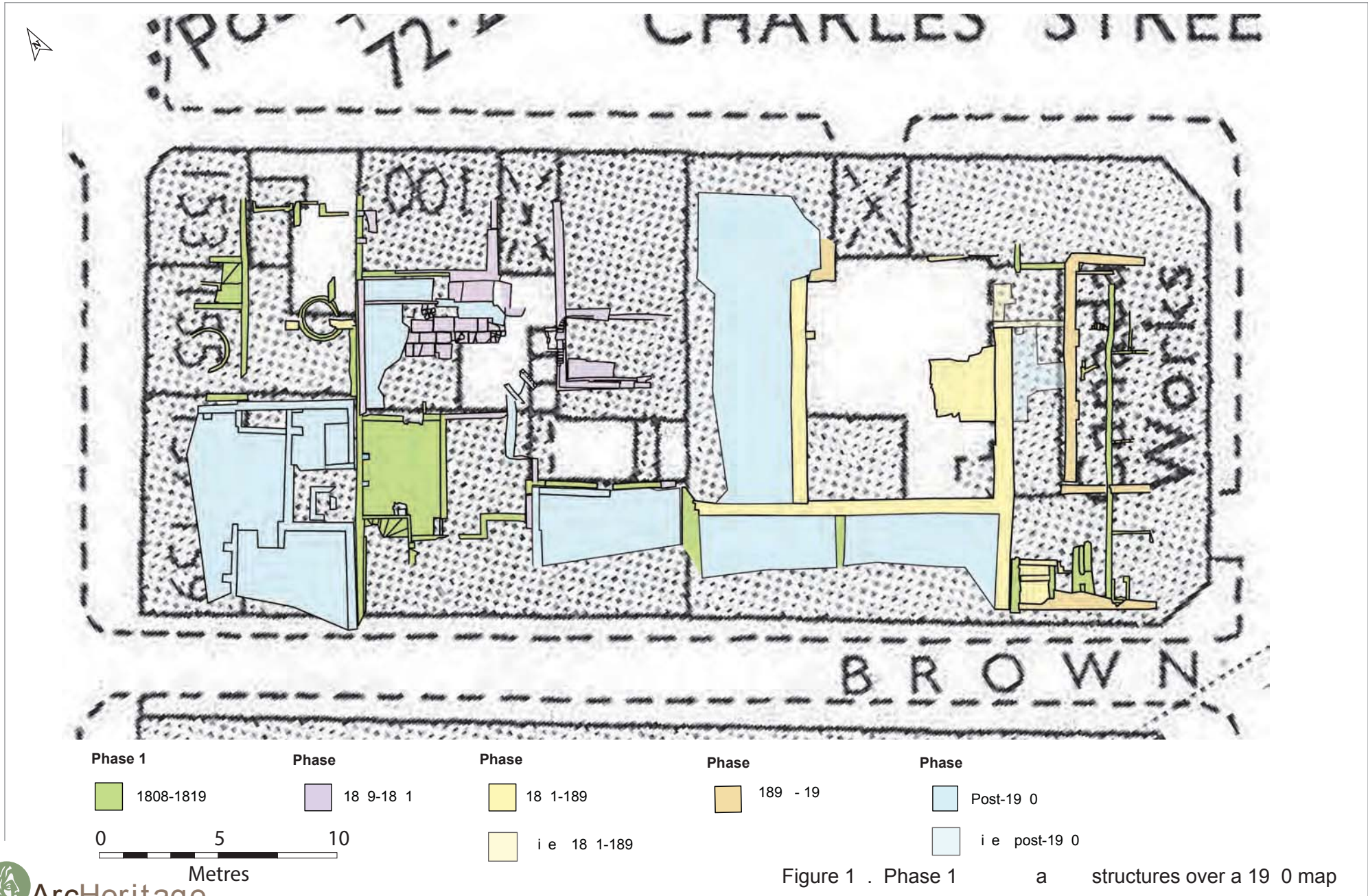
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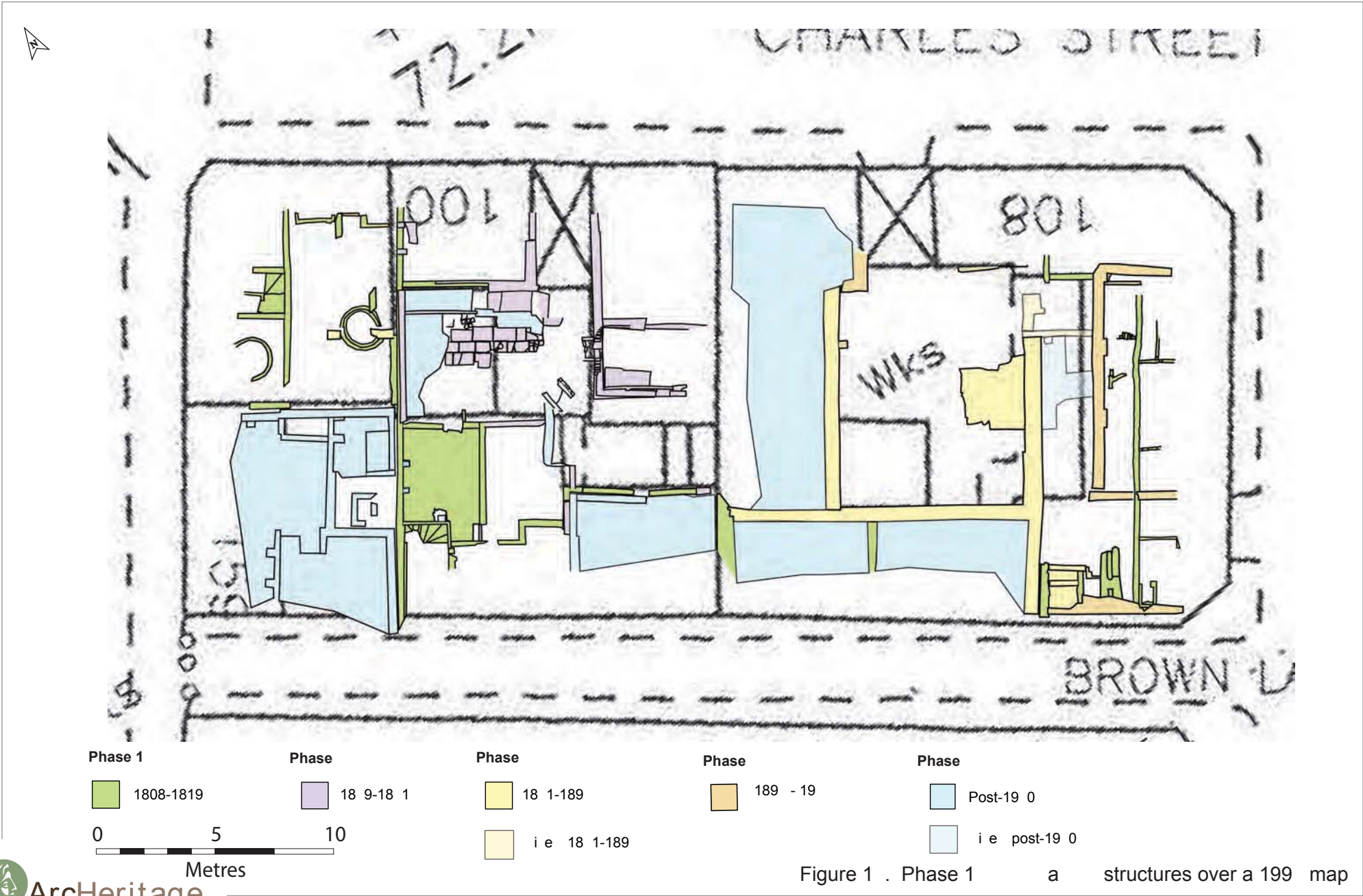
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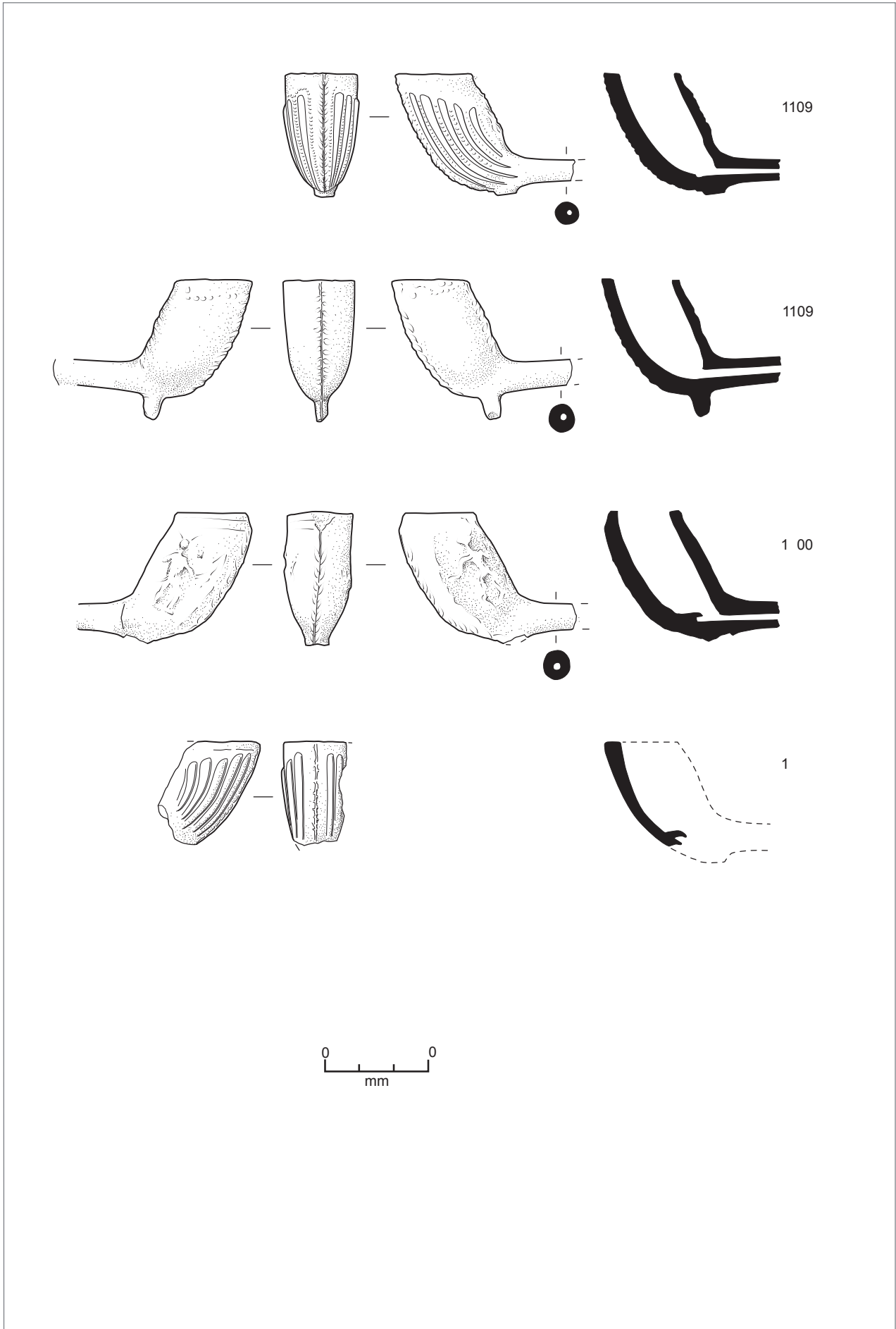
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10 PLATES



Plate 1: 20<sup>th</sup>-century structure on corner of Arundel Gate and Brown Lane viewed from the south-west



Plate 2: South-west facing elevation of investigative slot dug through well 1006



**Plate 3: Yard containing well 1021, amongst other features, viewed from the north-east**



**Plate 4: Well 1021, pre-excitation, viewed from the north-west**



**Plate 5: Well 1021 and associated deposits, post-excitation, viewed from the south-west**



**Plate 6: Investigative slot dug through wall 1018 viewed from the south-west**



**Plate 7: Investigative slot dug adjacent to wall 1085, viewed from the south-west**





**Plate 8: Investigative slot dug through surface 1034 viewed from the south-east**



**Plate 9: Investigative slot dug between to walls 1085 and 1087, viewed from the south-west**



**Plate 10: Cellar C viewed from the south-east**



**Plate 11: Cellar B viewed from the south-west**



**Plate 12: Yard surface 1165 viewed from the south-west**



**Plate 13: Cellar D, prior to removal of wall 1092, viewed from the south-west**



**Plate 14: Cellar D, after removal of wall 1092, viewed from the south-west**



**Plate 15: Concrete surface 1067 viewed from the north-west prior to removal during machine strip**



**Plate 16: Works wall 1119 viewed from the south-west**



**Plate 17: Brick and stone machine base 1130 viewed from the west**



**Plate 18: Yard space between walls 1121 and 1138 viewed from the south-west**



Plate 19: Eyre Lane cellars rear wall 1139 and modern wall 1138 viewed from the north-east



Plate 20: Blocked up vaulting within slot dug in north-eastern Eyre Lane cellar, viewed from the north-west



**Plate 21: Slot dug in to south-western Eyre Lane cellar viewed from the south-west**



**Plate 22: Brick and stone structure, possibly an outhouse, viewed from the south-west**



## APPENDIX 1 – INDEX TO ARCHIVE

Item	Number of items
Context register	9
Context sheets	221
Levels register	1
Photographic register	17
Drawing register	1
Original drawings	10
B/W photographs (films/contact sheets)	4 films
Colour photographs (films)	4 films
Digital photographs	411
Written Scheme of Investigation	1
Report	1

**Table 1. List of archive contents**

## APPENDIX 2 – CONTEXT LIST

Context no	Description
1000	Number assigned to unstratified finds material.
1001	Modern tarmac car park surface.
1002	Modern hardcore and make up for car park surface.
1003	North east to south west aligned brick wall. Forms rear wall of the cellars of structures that would have fronted on to Arundel Gate.
1004	North west to south east aligned brick wall. Forms a dividing wall between the cellar and stair structures that would have fronted on to Arundel Gate.
1005	North west to south east aligned brick wall. Forms a foundation wall and footing for the stairs into the cellar that would have fronted on to Arundel Gate.
1006	Circular brick structure, probably a well. Located within the building that would have fronted on to Arundel Gate.
1007	North west to south east aligned brick wall. Forms a wall foundation between the structures that would have fronted on to Arundel Gate.
1008	Stone slab forming uppermost step of a stairwell within one of the cellars of a structure which would have fronted on to Arundel Gate.
1009	North west to south east aligned brick wall. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1010	Demolition infill within a cellar for a structure which would have fronted on to Arundel Gate.
1011	Demolition infill within a cellar for a structure which would have fronted on to Arundel Gate. Removal revealed staircase 1117.
1012	Demolition infill within a structure which would have fronted on to Arundel Gate. Built up against well structure 1006.
1013	Demolition infill within well structure 1006. High quantities of domestic refuse recovered from this deposit.
1014	Compacted surface for yard at northern end of site.
1015	Construction cut for modern building wall 1009.
1016	Construction backfill within cut for modern building wall 1009.
1017	North east to south west aligned roughly built brick wall. Located within yard at northern end of site and built on top of a foundation made of grindstone fragments.
1018	North east to south west aligned brick wall which forms part of a boundary line which expands across the entire site from Charles Street to Brown Lane.
1019	Construction cut for circular brick structure, probable well, 1021.
1020	Construction backfill within cut for circular brick structure, probable well, 1021.
1021	Circular brick structure, probably a well, located within the yard at the northern end of the site.
1022	Demolition infill of circular brick structure, probable well, 1021.
1023	VOID CONTEXT NUMBER
1024	North west to south east aligned short section of brick wall partially overlying the probable well structure 1021.
1025	Service cut containing ceramic feature 1026. Located in yard at northern end of site.
1026	Backfill and ceramic service within cut 1025. Located in yard at northern end of site.
1027	Brick built culvert located in yard at northern end of site.
1028	Brick built culvert located in yard at northern end of site.
1029	North west to south east aligned wall forming rear of structures which would have fronted on to Charles Street.
1030	Buttress supporting wall 1018 where it forms the north western wall of a cellar for a structure which would have fronted on to Charles Street.

Context no	Description
1031	Stone slabs forming part of a temporary structure built on top of the demolition infill 1158 within a cellar for a structure fronting on to Charles Street.
1032	Buttress supporting wall 1018 where it forms the north western wall of a cellar for a structure which would have fronted on to Charles Street.
1033	North west to south east aligned brick wall forming part of the rearmost wall of a structure fronting on to Charles Street.
1034	Brick and sandstone slab surface forming a possible ginnel from the northern yard to another yard accessed from Charles Street.
1035	North west to south east aligned wall demarcating to south western edge of possible ginnel 1034.
1036	Concrete step or repair at north western end of ginnel 1034.
1037	Sandstone slab surface, possibly forming a yard surface, behind structure which fronted on to Charles Street. More of the surface was exposed during the evaluation stage of the works.
1038	Concrete surface within a probable yard area between cellars for structures fronting on to Charles Street and Brown Lane.
1039	Modern backfill of evaluation trench 2.
1040	L shaped north western and north eastern brick wall of cellar B.
1041	North east to south west aligned brick wall forming south east side of cellar B.
1042	Demolition backfill within cellar B.
1043	North west to south east aligned brick wall forming rear of a cellar which would have fronted on to Brown Lane.
1044	North east to south west aligned brick wall repair for northern corner of cellar D.
1045	Make up deposit covering yard surface located to the south east of cellar B.
1046	North west to south east aligned brick wall forming divide between cellars B and C. Also forms part support for stairs in cellar C.
1047	North east to south west aligned brick wall forming part of support structure for stairs in cellar C.
1048	Damaged stone and brick stairwell in cellar C.
1049	North east to south west aligned Springer course of bricks which form the start of a now demolished vaulted roof for cellar C.
1050	North east to south west aligned brick wall. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1051	Concrete surface lain over the top of modern brick drainage feature. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1052	North west to south east aligned brick wall forming part of a modern brick drainage feature. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1053	Demolition in fill within modern brick drainage feature. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1054	Metal drainage cap, part of modern drainage feature. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1055	Construction backfill for modern brick manhole 1056. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1056	Modern brick manhole part of drainage system belonging to a modern structure built on the corner between Brown Lane and Arundel Gate.
1057	L shaped section of brick wall predominantly aligned north west to south east. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1058	North east to south west aligned section of brick wall. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.

Context no	Description
1059	Concrete floor within modern structure occupying corner of site between Arundel Gate and Brown Lane.
1060	Demolition infill within cellar A.
1061	L shaped section of brick wall predominantly aligned north west to south east running from wall 1060 before turning to terminate against wall 1009. Possibly supported a stairwell on the inside of wall 1009. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1062	Demolition infill within L shaped section of brick wall 1061.
1063	Brick built buttress or wall stub built on the south western side of wall 1009. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1064	Wooden feature built in to internal face of wall 1009. May have formed support structure for a staircase or floorboards. Belongs to a modern structure built on the corner between Brown Lane and Arundel Gate.
1065	Mortar rich make up deposit for surface 1008. Forming part of cellar construction for structure which would have fronted on to Arundel Gate.
1066	North west to south east aligned wall forming part of support structure for staircase 1117. Forming part of cellar construction for structure which would have fronted on to Arundel Gate.
1067	Concrete surface covering large amount of southern area. Recorded then removed during machine strip.
1068	Backfill of evaluation trench 1.
1069	North west to south east aligned brick wall. Forms part of a cellar of a structure which would have fronted on to Charles Street.
1070	Demolition backfill of cellar formed by walls 1069 and 1079.
1071	North east to south west aligned brick wall. Concrete surface 1067 poured up against it. Recorded then removed during machine strip.
1072	L shaped section of brick wall forming northern corner of concrete surface 1067. Recorded then removed during machine strip.
1073	Short section of brick wall forming part of edging for concrete surface 1067. Recorded then removed during machine strip.
1074	Demolition deposit associated with wall 1072. Recorded then removed during machine strip.
1075	Small patch of cracked sandstone surface butting wall 1075. Recorded then removed during machine strip.
1076	Concrete ramp which appears to enable access from the Eyre Lane and Brown Lane junction down to the level of concrete surface 1067. Recorded then removed during machine strip.
1077	North west to south east aligned brick wall forming part of the support for concrete ramp 1076. Same as 1137.
1078	Rectangular cut through concrete surface 1067. Recorded then removed during machine strip.
1079	North east to south west aligned brick wall. Forms part of a cellar of a structure which would have fronted on to Charles Street.
1080	Make up deposit beneath possible yard surface 1037.
1081	Fragmented brick surface or repair. Part of sequence in possible ginnel behind structure fronting on to Charles Street.
1082	compact grey clay with mortar, possible remains of a surface.
1083	Fragmented brick surface or repair. Part of sequence in possible ginnel behind structure fronting on to Charles Street.
1084	North west to south east aligned hewn stone and brick wall. Forms part of the rear wall of a cellared structure fronting on to Charles Street.

Context no	Description
1085	North east to south west aligned hewn stone and brick wall. Forms part of the south eastern wall of a cellar belonging to a structure which would have fronted on to Charles Street.
1086	North east to south west aligned brick wall. Forms part of the south eastern wall of a cellar belonging to a structure which would have fronted on to Charles Street.
1087	L-shaped brick wall predominantly aligned north east to south west. Forms the north western side of cellar that would have belonged to a structure that fronted on to Charles Street.
1088	Uppermost demolition backfill within cellar of structure that would have fronted on to Charles Street. Same as 1158.
1089	Uppermost make up deposit within yard space between structures that would have fronted on to Charles Street.
1090	Levelling deposit within cellar of structure that would have fronted on to Charles Street.
1091	North east to south west aligned brick wall forming part of yard demarcation adjacent to cellar D. Truncated by later services.
1092	North west to south east aligned brick wall. Appears to form part of a new build within cellar D consisting of an entirely new internal face.
1093	North west to south east aligned brick and hewn stone wall. Part of the heavily modified original south eastern wall of cellar D.
1094	Cellar D wall?
1095	North east to south west aligned brick wall. Part of the original north western wall of cellar D.
1096	Brick blocking of staircase access to cellar A.
1097	L shaped brick wall that possibly formed part of an entrance structure at the top of the stairs for accessing cellar A.
1098	Stub of north west to south east aligned brick wall. Possibly formed part of an entrance structure at the top of the stairs for accessing cellar A.
1099	Sandstone slab, remnant of a surface at the top of stairwell access to cellar A.
1100	Brick alteration to wall 1040 in cellar A.
1101	Brick wall structure?
1102	Yard make up deposit beneath 1014 in northern yard.
1103	Make ground deposit under wall 1005 and up against well 1006.
1104	Make up deposit beneath possible ginnel surface 1034.
1105	North west to south east aligned brick wall.
1106	North east to south west aligned hewn stone wall.
1107	Cellar infill beneath 1088 within slot dug in cellar F.
1108	Cellar infill beneath 1107 within slot dug in cellar F.
1109	Cellar infill beneath 1108 within slot dug in cellar F.
1110	Cellar infill beneath 1109 within slot dug in cellar F.
1111	Dump/ yard make up beneath 1102 in the northern yard.
1112	Natural exposed in slot through well 1021 in the northern yard.
1113	Cellar infill beneath 1110 within slot dug in cellar F.
1114	Construction backfill within cut for wall 1085. Exposed in slot dug in cellar F.
1115	Construction cut for wall 1085. Exposed in slot dug in cellar F.
1116	VOID CONTEXT NUMBER
1117	Sandstone slab stairwell within cellar for structure which would have fronted on to Arundel Gate.
1118	Remnants of a door jamb associated with stairwell 1117.

Context no	Description
1119	North west to south east aligned brick and hewn stone wall. Possibly forms the south western wall of the Canada Works.
1120	North east to south west aligned brick and hewn stone wall. Possibly forms the north western wall of the Canada Works.
1121	North east to south west aligned brick and hewn stone wall. Possibly forms the south eastern wall of the Canada Works.
1122	North east to south west aligned hewn stone wall. Bonded to wall 1121.
1123	Modern drainage feature.
1124	Brick built drain head structure.
1125	Short north west to south east aligned brick wall. Possibly part of a structure within the Canada Works.
1126	North east to south west aligned brick structure. Possibly forms part of the Canada Works.
1127	North west to south east aligned brick wall. Possibly forms part of the north eastern wall of the Canada Works.
1128	Demolition backfill possibly within Canada Works.
1129	Make up deposit for a surface possibly within the Canada Works.
1130	Brick built machine base possibly associated with the Canada Works.
1131	Remnants of a brick surface possibly within the Canada Works.
1132	Remnants of a brick surface possibly within the Canada Works.
1133	Construction backfill within cut for wall 1137. Part of modern structure which fronted on to Eyre Lane.
1134	Demolition backfill within area of drainage features between Canada Works south western wall and modern structure fronting on to Eyre lane.
1135	Concrete surface between Canada Works south western wall and modern structure fronting on to Eyre Lane.
1136	Backfill within rectangular holes in concrete surface 1135.
1137	North west to south east aligned brick and concrete wall. Same as 1077. Part of modern structure that fronted on to Eyre Lane.
1138	North east to south west aligned brick and concrete wall. Part of modern structure that fronted on to Eyre Lane.
1139	North east to south west aligned brick wall. Previously exposed in evaluation trench 1. Forms rear wall of cellars belonging to structures which fronted on to Eyre Lane.
1140	North west to south east aligned brick wall. Possibly forms rear wall of a cellar for a structure located on the corner of Charles Street and Eyre Lane.
1141	Demolition backfill in the area to the north east of the Canada works.
1142	Ceramic drain located between the Canada Works south western wall and a modern structure fronting on to Eyre Lane.
1143	North west to south east aligned brick wall associated with drainage features located between the Canada Works south western wall and a modern structure fronting on to Eyre Lane.
1144	Levelling deposit beneath 1089 exposed in slot dug between walls 1085 and 1087.
1145	Levelling deposit beneath 1089 exposed in slot dug between walls 1085 and 1087.
1146	Levelling deposit beneath 1144 exposed in slot dug between walls 1085 and 1087.
1147	Levelling deposit beneath 1145 exposed in slot dug between walls 1085 and 1087.
1148	Levelling deposit beneath 1146 exposed in slot dug between walls 1085 and 1087.
1149	Levelling deposit beneath 1147 exposed in slot dug between walls 1085 and 1087.
1150	Service trench backfill exposed in slot dug between walls 1085 and 1087.
1151	Concrete capped drain exposed in slot dug between walls 1085 and 1087.
1152	Service trench cut for drain 1151 exposed in slot dug between walls 1085 and 1087.

Context no	Description
1153	Natural exposed in base of slot dug between walls 1085 and 1087.
1154	Yard make up deposit beneath 1014 exposed in slot dug through wall 1018.
1155	Yard make up deposit beneath 1154 exposed in slot dug through wall 1018.
1156	Yard make up deposit beneath 1155 exposed in slot dug through wall 1018.
1157	Natural exposed beneath 1156 in slot dug through wall 1018.
1158	Make up deposit beneath surface 1031 exposed in slot dug through wall 1018.
1159	Make up deposit beneath 1158 exposed in slot dug through wall 1018. Same as 1088.
1160	Brick buttress supporting wall 1049.
1161	Rebuilt section of brick wall over 1049.
1162	Brick sand stone steps forming access to cellar B.
1163	Brick built buttress supporting wall 1046 in cellar B.
1164	Sand stone slab floor of cellar B.
1165	Mortared surface in yard south west of cellar B.
1166	North east to south west aligned brick wall.
1167	Hewn stone wall aligned north east to south west below 1049 in cellar B.
1168	Bricked up chute in north eastern wall of cellar B.
1169	North east to south west aligned brick wall, part of chute structure for cellar B.
1170	Construction cut for wall 1017.
1171	North west to south east aligned brick wall extending from south eastern corner of cellar A in to yard.
1172	VOID CONTEXT NUMBER.
1173	VOID CONTEXT NUMBER.
1174	Concrete surface in southern corner of site.
1175	Make up deposit for concrete surface 1135.
1176	North east to south west aligned ceramic drain pipe located in south western corner of site.
1177	North east to south west aligned brick wall associated with 1176.
1178	North west to south east aligned modern brick wall running adjacent to Brown Lane in the south western corner of site.
1179	Make up deposit within the possible Canada Works.
1180	Construction cut for a modern brick walled structure that would have fronted on to Eyre Lane.
1181	Construction cut for wall 1101?
1182	Make up deposit for mortared surface 1165.
1183	VOID CONTEXT NUMBER.
1184	Mortared clay surface that is the same as 1165.
1185	Construction cut for drain 1186 located beneath possible brick surface 1132.
1186	Ceramic drain located beneath possible brick surface 1132.
1187	Backfill of drain 1186.
1188	North east to south west aligned hewn sandstone wall. Forms north western side of a possible outhouse structure located behind buildings which would have fronted on to Eyre Lane.
1189	North west to south east aligned brick wall. Forms north eastern side of a possible outhouse structure located behind buildings which would have fronted on to Eyre Lane.

Context no	Description
1190	North west to south east aligned brick wall. Forms an internal division within a possible outhouse structure located behind buildings which would have fronted on to Eyre Lane.
1191	North east to south west aligned brick wall. Forms south eastern side of a possible outhouse structure located behind buildings which would have fronted on to Eyre Lane.
1192	North east to south west aligned stub of brick wall. Forms part of the south eastern side of a possible outhouse structure located behind buildings which would have fronted on to Eyre Lane.
1193	Short L-shaped red brick wall predominantly aligned north west to south east. Possibly associated with outhouse structure located behind buildings which would have fronted on to Eyre Lane.
1194	North east to south west aligned red brick wall.
1195	North west to south east aligned brick wall. Forms an internal division between cellars for structures which would have fronted on to Eyre Lane.
1196	North east to south west aligned brick wall forming an internal feature within cellars for structures which would have fronted on to Eyre Lane.
1197	North west to south east aligned brick wall. Forms an internal division between cellars for structures which would have fronted on to Eyre Lane.
1198	North east to south west aligned brick wall forming an internal feature within cellars for structures which would have fronted on to Eyre Lane.
1199	North west to south east aligned brick wall. Within area of drainage features between Canada Works south western wall and modern structure fronting on to Eyre lane.
1200	Demolition backfill within possible outhouse structure located behind buildings which would have fronted on to Eyre Lane.
1201	North east to south west aligned hewn stone and brick wall forming division between cellars D and E.
1202	North west to south east aligned hewn stone wall. Part of the heavily modified original south eastern wall of cellar D.
1203	Bricked up threshold. Part of the heavily modified original south eastern wall of cellar D.
1204	North west to south east aligned brick wall built on top of stone wall 1202. Part of the heavily modified original south eastern wall of cellar D.
1205	North west to south east aligned brick wall built on top of stone wall 1202. Part of the heavily modified original south eastern wall of cellar D.
1206	Brick wall possibly cellar D related.
1207	VOID CONTEXT NUMBER.
1208	North east to south west aligned brick wall vaulting within cellar for structure which would have fronted on to Eyre Lane.
1209	North east to south west aligned brick wall blocking the vaulting within cellar for structure which would have fronted on to Eyre Lane.
1210	Brick Column?
1211	Brick built inner skin within cellar for a structure which would have fronted on to Eyre Lane.
1212	Backfill to 1208 and 1209.
1213	North east to south west aligned hewn stone and brick wall. Forms the south eastern side of cellar E.
1214	Red brick surface forming floor of possible outhouse structure located behind buildings which would have fronted on to Eyre Lane.
1215	Red brick structure, part of the possible outhouse structure located behind buildings which would have fronted on to Eyre Lane.
1216	Demolition in fill of cellar in south western corner of site.



Context no	Description
1217	Construction backfill within cut for wall 1084.
1218	Construction cut for wall 1084.
1219	Construction cut for wall 1018.
1220	Remains of a stairwell in a cellar in the south west corner of site. Belongs to a building which would have fronted on to Eyre Lane
1221	Make up deposit below the red brick floor 1214 of the possible outhouse structure located behind buildings which would have fronted on to Eyre Lane.
1222	Clay rich make up deposit below 1221.
1223	Make up deposit beneath machine base 1130.
1224	Natural exposed in the base of the slot dug adjacent to machine base 1130.
1225	Construction cut for modern wall 1178 in the south western corner of site.
1226	Construction backfill for drain 1186.
1227	Construction backfill for buttress 1163.
1228	Construction cut for buttress 1163.
1229	Construction backfill for wall 1178.

**Table 2: List of contexts from the excavation**

Trench no	Context no	Description
1	101	Tarmac surface
1	102	Concrete layer below tarmac
1	103	Red brick rubble levelling layer
1	104	Brick wall at east end of trench
1	105	Modern brick and concrete wall on north side of trench
1	106	Backfill/dump layer beneath 103
1	107	Modern pipe
1	108	Pipe trench cut for 107
1	109	Fill of pipe trench 108
1	110	East-west brick wall forming rear of buildings
1	111	Deposit below yard level
1	112	Upper fill of central cellar
1	113	Lower fill of central cellar
1	114	Fill of east cellar
1	115	Cellar wall
1	116	Cellar wall
1	117	Girder under 104
1	118	Water drainage pipes
1	119	Red brick wall
1	120	Fill west of wall 116
1	121	Foundation trench cut for modern wall 105
1	122	Fill of foundation cut 121
1	123	Drystone wall with brick top
1	124	Foundation trench cut for wall 110
1	125	Fill of foundation cut 124

1	126	Redeposited natural layer against wall 123
1	127	Grey-brown gritty silt deposit north of 110
1	128	Black gritty layer below 126
1	129	Fill of pipe trench 130
1	130	Cut of trench/gully for drain pipe
2	201	Tarmac surface
2	202	Patch of concrete below tarmac
2	203	Upper rubble backfill
2	204	Flagstone floor
2	205	Backfill layers
2	206	Brick structure
2	207	Roof arch at top of cellar
2	208	Sandstone cellar walls
2	209	Coal chute in cellar
2	210	Fill of cellar
2	211	Clay in base of cellar
2	212	Mortar/concrete floor patches in cellar
2	213	Gritty layer below clay 219
2	214	Alteration to coal chute
2	215	Lower flagstones below 204
2	216	Brick wall on west side of cellar
2	217	Coal dust deposit in coal chute
2	218	Fragment of brick wall in section over flags 215
2	219	Clay deposit between 205 and 213
3	301	Upper dump/backfill layers
3	302	Fragmentary stone surface
3	303	Lower dump/backfill layers

**Table 3. Lists of context from the 2011 evaluation**

## APPENDIX 3 – POTTERY ASSESSMENT

*By Anne Jenner*

### Introduction

The pottery from the evaluation and excavation were assessed for the assessment report and recommendations were made. The recommended additional work was for more detailed quantification by weight of the assemblage as a whole and for additional analysis of the ceramics recovered in association with the domestic properties on Eyre Lane. This report combines the results of the initial assessment with the additional analysis undertaken.

### Summary

A total of six hundred and six sherds (thirty-four Contexts) of mainly 18<sup>th</sup>, 19<sup>th</sup> and some early 20<sup>th</sup> century wares (see Table 5 for spot dates by Context) were recovered from the above excavation (see Table 4 for pottery types). This assemblage is almost entirely domestic in nature, perhaps for families without obvious wealth.

The assemblage includes coarse wares such as oxidised earthen ware pancheons and bowls for food preparation, white earthenware and stoneware jars for storage of foodstuffs such as marmalade, as well as some banded slipware bowls, (1013-15; 1022; 1029; 1175) a tankard and a possible jar (1200 and 1226) for daily eating and drinking and perhaps storage. White earthenware plates and bowls for serving and eating food on a daily basis are found in numerous Contexts (see Table 5).

Finer table wares consist of transfer printed, cream and occasional hand painted items such as cups, bowls, plates serving dishes. A chamber pot is also transfer printed. A very small number of plant pot sherds and a plant pot saucer attest to some outdoor activities.

Stoneware bowls may have been used for serving or storing food and are often simply decorated with incised rows of small repeated motifs rather than elaborate patterns. Other stoneware vessels included a bottle with blacking the contents of which may have been used to blacken the hearth and a stoneware base of a possible inkwell which may have belonged to a child or older member of the family. A few German stoneware sherds are probably from the Westerwald region.

Some more decorative wares were perhaps used rather for display than for their functionality. These include the late 19<sup>th</sup> century transfer printed vases, jugs and children's plate, as well as the early 20<sup>th</sup> century moulded two handled horse cup (1042), perhaps made in the Wade factory, though no mark is present.

Three contexts produced sherds of earthenware which could have been used for industrial purposes, but in the case of the black glazed earthenware bowl sherds (1045, 1142), they could also have had a domestic function. However, another black glazed coarse ware with thick walls and concreted residue on its surfaces (1187), could have been used as a crucible.

The few sherds of German stoneware were the only foreign imports. The few Cistercian and one possibly medieval ware are most probably residual and attest to the majority of the wares dating to the late post medieval/early modern period. The black glazed and cream wares were made from the late 18<sup>th</sup> century but they are always in context with 19<sup>th</sup> century or later material, suggesting continuous production and use of these types.

### **Discussion of specific wares of interest**

A few hand painted sherds with green and red floral/foliate motifs and a plain band along the rim (1175) resemble some enamelled sherds from the Don Poteries (see Griffin 2001, 212, fig 299). Similar 'rice bowls' were also made at Kilnhurst, in the Yorkshire potteries (Griffin 2012, 82, fig 111).

The majority of transfer printed patterns may be local, but similar patterns were produced at a number of factories from Staffordshire and Yorkshire, however the 'fern' pattern (found in 1013, 1015 and 1022, is known as 'fibre' and was produced by JG Upton in the Yorkshire potteries (see Griffin 2012, 135, fig 300). A rural scene and an ecclesiastical building (1022) are distinctive but the source is not known.

One transfer printed plate (1013) with a ?dog or a ?monkey and a man (head and shoulders remaining) and a moulded floral border may have been a present for a child, perhaps for good behaviour (Jenner 2013). An exact parallel for this print has not been found, though a potential source may be found within Ridley's category of enigmatic stories (Ridley, 1991, 110). Children's china was made in the Staffordshire potteries on a large scale, but was probably also produced in the regions, though probably in smaller quantities. They were copied from popular story books as well as illustrations accompanying religious tracts which were specifically designed for children and often had moral or educational significance (Ridley, 1991, 110). The elaborate nature of 'children's china' might at first glance be thought to indicate that they were owned by the children of a more prosperous family but 'most represented the cheapest end of the domestic market' (Ridley 1991, 13).

A transfer printed saucer (1150) is also a late 19<sup>th</sup> or even 20<sup>th</sup> century type, possibly from the Stoke area, although the exact product and firm that produced it was not established.. The legend reads 'OXFORD' K & CO RN 186329 ENGLAND. This mark was used by Keeling & Co in Burslem from 1886-1936 and W Kirby & Co at Fenton from 1879-85 and also Kirkland at Etruria from 1892 (<http://www.thepotteries.org/mark/k>).

Although the provenance and significance of these decorative wares is of some interest, they do not necessarily denote wealth, but rather the multiple sources and mass production of pottery available to the ordinary person in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries.

### **Analysis of the pottery from the Eyre Lane Dwellings**

Further analysis of the pottery from the four Cellars has provided some insight into the lives of the occupants/users and the activities that may have taken place. It also gives some pointers towards the level of wealth and social standing of the people who may have used these wares. It has also helped to hone down the date in certain instances (see below).

#### **North East Cellar**

One cellar fill (114) was investigated in evaluation trench 1 on Eyre Lane. It came from the south west corner of the north east cellar. This cellar fill was further investigated during the mitigation excavations when more of the cellar fill was excavated. The fill excavated during the excavation was given context number (1212) although there was no obvious difference between the contexts.

Both contexts produced a large number of coarse oxidised earthenware with black to dark brown glaze and one slipped pancheon (114) or milk pan (see Brears 1971, 69). The sherds were generally large and appear to have been smashed in situ, suggesting that this was their primary context. These coarse ware sherds form the predominant fabric type from the cellar (by number and weight). The vessels with black and brown glazes; probably amounting to no more than two in total, are large thick walled pancheon type bowls, though the sides are steeper, and one has a bung hole through its lower wall. It is hard to say whether they were used for industrial or domestic purposes, as there is no evidence of any residues, though it is clear, by the presence of a bung hole, that a liquid of some description must have been stored in it. It is possible that this was used for brewing but equally perhaps it served some function in relation to dairy products.

Plant pots comprised the next largest type by weight. Clearly these suggest some domestic level of planting and gardening. We cannot tell whether small food items were grown or whether they were for flowers.

There were few fine wares; transfer printed, cream and white earthen wares and although one flanged dish had a light blue floral decoration; this does not denote any great wealth, as these vessels were mass produced.

Only one English stoneware bowl sherd (114) was recovered from this cellar and there were no stoneware bottles. There are therefore no signs of the use of bottles which might have been used for alcoholic beverages. Interestingly, this is true across the whole site. The distinct lack of stoneware bottles across the site can perhaps be attributed to the effects of the temperance movement which encouraged tea drinking as opposed to alcoholic beverages, or to selective disposal strategies, clearance or re-use. English brown stoneware jars, bowls and a stew pot (1022) are more common elsewhere on the site (1022).

One banded slipware sherd could have been from a tankard, but equally could have been part of a straight sided jar. Either way, this could have been used for drinking tea. This fabric type is also generally rare on the site, though they occur in greater numbers in other contexts.

### **Central and south western cellars**

The two central cellars were not excavated, the exposed walls and surfaces of their fill were cleaned. They therefore could not provide material for comparison to the north eastern cellar. The south western cellar, on the other hand, was excavated but did not produce any pottery.

In neither the north eastern or south western cellars were the floors of the cellars reached, due to the limited area available, but similar volumes of fill were excavated in both cellars. The marked difference in the quantities of pottery recovered from the two cellars is therefore notable.

### **Outhouse**

To the rear of the south western cellar was the small outhouse and this produced an assemblage of ceramics. The pottery from the outhouse provides further potential evidence

into the lives of the occupants of the Eyre Lane dwellings as well as some comparison with the material from the north east cellar.

The demolition infill (1200) from the outhouse produced smaller sherds generally but also more fine wares and a wider variety of fine ware types than the north east cellar, however, pancheon/milk pan sherds are similar. This deposit shows a range of domestic activities such as food storage (stoneware food jars). Storage and preparation (English stoneware bowls) as well as tea drinking.

As with the deposits discussed above, there are no stone ware bottles, again perhaps suggesting the influence of the temperance movement. A brown glazed Nottingham type bowl and food jars are the only stoneware forms here. There are also few if any banded slip wares.

Unlike the north eastern cellar deposits, there are marked fine wares from Staffordshire which are datable to the late 19<sup>th</sup> /early 20<sup>th</sup> century. This may suggest a modicum more wealth and status, though these wares were mass produced and inexpensive too. There is also a distinct lack of cream wares which may indicate a level of sophistication in terms of eating at table.

All the forms associated with eating and drinking at the table are presented here. These include cups, saucers and plates.

In neither the north eastern cellar, nor the outhouse is there any evidence of any pottery coming from further afield than Staffordshire and in fact the cellar has quite probably produced only material from the immediate vicinity in Yorkshire, though a lack of marked material means that this is supposition.

The outhouse floor make-up (1221) contains similar wares to the north eastern cellar fill, only in smaller quantities. Here again coarse wares in particular black glazed pancheons, but also mugs or jar bases, predominate. Fine wares are plain and also denote a low level of wealth potentially.

The clay rich make-up beneath the floor (1222) contains similar material but has a much higher proportion of cream wares than any of the material mentioned hitherto. This may suggest a slightly higher level of status and would clearly have been used for eating at table. The outhouse material does not otherwise stand out from the cellar material as anything other than pottery used in every day life for domestic activities.

### **Pottery from the yard deposit [111] to the west of Cellar 1**

Black and brown glazed oxidised earthenware pancheon, bowl and jar forms predominate by weight, but cream ware plates, bowls and dishes as well as an oval dish, perhaps for serving, suggest a certain level of sophistication. Cream wares are the most numerous fabric type.

There are a number of transfer printed wares including a possible teapot lid, jug and dish for use at table, for drinking tea. Only two sherds are maroon, perhaps indicating a date post 1860. The rest are decorated in blue.

### **Discussion**

The majority of the pottery is of a domestic nature, although two crucible sherds (1102; 1187) have been noted. The range of domestic wares includes coarse and fine wares; the former for

food preparation and storage. The latter for eating and drinking at table. Only one context produced a quantity of chamber pots (1022), quite probably acquired from Yorkshire potteries. These were in large pieces and probably smashed in situ or nearby, as they show no signs of wear.

Similar types of pottery can be found in all the deposits associated with the Eyre Lane dwellings. These include coarse earthenware pancheons, milk pans, bowls and jars which were probably used for food preparation and storage.

Fine transfer printed, white earthenware and cream wares vary in quantity from one deposit to another, as do stonewares. This situation might be explained by curation of certain types, cultural morays or choices of what and where to deposit at different items. However, serving vessels appeared rarely (1022) and only one lid, presumed to be from a tea pot (1022). Other forms included a stew pot (1022) and a pie dish (1212) attesting to cooking and eating, though the pie dish may have been for serving or even bought in.

The lack of stonewares associated with drinking alcohol could be linked to the temperance movement and its encouragement of tea drinking as opposed to alcoholic beverages.

The quantity of cream ware in the yard (111) to the west of the north eastern cellar on Eyre Lane, and the clay rich make up beneath the floor make-up (1221) in the outhouse suggest a different use of the western side of the site. This material from the yard and outhouse suggests that the disposal of material here was incorporating slightly different pottery, more valuable although still basic domestic wares. This may reflect differences in the people disposing of material in each area or the sources of the material.

One other possibility, is that the cream wares found in the yard and below the floor make-up of the outhouse, was slightly earlier in date and therefore represent earlier activities there. Certainly, the demolition infill (1200), above the clay rich make-up (1222), in the outhouse, contains two stamped pieces of Staffordshire pottery datable to the late 19<sup>th</sup> to early 20<sup>th</sup> century. One transfer printed piece has a machine rilled base stamp 'CLEMENTSON B'[ROS] ENGLAND GEM'. This stamp was used from 1891 onwards by the company factory in Hanley and continued to be used until 1916. Another sherd has a crown stamp 'JOHN MADDOCK + SON DE[RBY] 'ROYAL VIT[REOUS]. This stamp was used from 1880 to 1896 after which, 'Ltd' was used. Part of the stamp was missing but if the missing part of the stamp had Ltd on it, this would date it later (<http://www.thepotteries.org/mark/m/maddock.html>). These might provide a *terminus antequem* for these deposits of 1891 and a *terminus post quem* of 1916, although as both of these pottery fragments came from demolition deposits, it cannot help to determine when the outhouse was in use. The cream wares were, unfortunately, undiagnostic in terms of date, and could have been produced from the late 18<sup>th</sup> century, though more commonly through the 19<sup>th</sup> century, with a *terminus post quem* of around 1900.

## Conclusions

Consideration of the pottery from the Eyre Lane dwellings can provide some insight into the lives of the occupants. The assemblage shows a range of domestic activities such as food storage, preparation, eating and tea drinking. In addition a large number of coarse oxidised earthenware with black to dark brown glaze and one slipped pancheon or milk pan suggest food preparation. Plant pots were also common, which clearly suggest some domestic level of

planting and gardening. Very little pottery was imported the vast majority was material associated with the dwellings was from the immediate vicinity in Yorkshire.

### Retention of pottery sherds

It is recommended that the sherds with potters marks on them could be retained as should the pottery from contexts associated with the dwellings on Eyre Lane, subject to the agreement of Sheffield Museum. The material from the Eyre Lane dwellings represents the poorer echelons of society, and therefore represents a coherent assemblage for comparison to other assemblages. Also, in future, further understanding of the zoning of refuse from specific activities, as well as the chronology of cream ware forms may be better understood and enable reassessment of this material.

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**Table 4. Pottery quantification table with weights**

context	fabric	form	no:	weight (g)	comment	part
1002	English white stoneware	jar	1	64	...NNA 1873 ...N'S [M]ARMALADE'	rim body
1002	white earthenware	plate	1	20		base
1002	white earthenware	bowl	1	13		base
1002	fine post medieval earthenware with amber glaze	bowl	1	3		
1002	cream ware	dish	1	2		base
1002	transfer printed	?tankard bowl	2	12		handle body
1002	white earthenware		1	14		base
1002	post medieval oxidised earthenware with black glaze	?jar	1	23		base
1002	fine transfer printed	jar	4	19	proto flow blue	body base
1002	tin glazed earthenware	small pot	1	7	ointment	base
1002	post medieval oxidised earthenware with brown glaze		1	4	body	
1002	post medieval oxidised earthenware with black glaze		1	23	rim	
1011	English stoneware Nottingham type	bowl	1	87	white concretions	base
1012	fine post medieval		3	21		



context	fabric	form	no:	weight (g)	comment	part
	oxidised earthenware with black glaze					
1013	banded slipware	bowl	28	502	mocha blue brown white on yellow	
1013	English stoneware	flagon	3	360		body
1013	English stoneware	blacking bottle	11	610		
1013	post medieval earthenware	plant saucer	1	94		
1013	terracotta	plant pot	1	91		base
1013	English stoneware Nottingham type	bowl	18	543		
1013	English stoneware Nottingham type	mug/cup	2	164		
1013	transfer printed	cup/bowl dish	37	548	willow fern etc	
1013	flow blue	jug	1	27		
1013	white earthenware	plate	2	46	blue feathered scalloped edge x2	
1013	white earthenware	plate	2	37	blue feathered edge	
1013	fine post medieval oxidised earthenware with black glaze	bowl	2	45		
1013	porcelain	vase	1	20		
1013	white earthenware	?divided dish	1	26	fine red bands infilled with hand painted motifs	
1013	white moulded stoneware	jug	1	12	raised foliate motif	
1013	transfer printed	plate cup dish bowl	1	42	creamware with black man and ?dog and moulded floral flange ref	
1013	white earthenware	bowl	3	39	blue banded decoration	
1013	white earthenware	bowl	26	365		
1013	post medieval oxidised earthenware black glaze	pancheon	3	325		
1013	white earthenware black and white glaze	mug	1	24	zoned glaze patches	base
1014	English stoneware Nottingham type		2	16		
1014	white earthenware		1	2	blue feathered edge	
1014	transfer printed		4	48		
1014	?unglazed stoneware		1	9	concretion on surfaces light grey core dark surfaces ?waster	rim
1014	post medieval oxidised earthenware with black glaze		3			
1014	white earthenware		1	8	blue stripe	rim
1014	white earthenware		2	2	blue stripe	
1014	banded slipware		1	10		
1014	cream		1	1	hand painted orange and brown	
1014	white earthenware		5	20		
1014	Cistercian/early black ware	cup	1	8		
1014	post medieval oxidised earthenware with black glaze	bowl	1	154	shiny bifid rim	rim
1014	post medieval	bowl/jar	3	104	shiny	

context	fabric	form	no:	weight (g)	comment	part
	oxidised earthenware with black glaze					
1014	post medieval oxidised earthenware with black glaze	cistern	1	73		
1014	transfer printed		1	3		
1015	banded slipware	bowl	5	82	yellow and white fabrics	
1015	transfer printed		4	23	fibre and willow	
1015	transfer printed		1	2	fern	
1015	English stoneware Nottingham type		2	21		
1015	white earthenware	?jar	4	17		
1020	English brown stoneware		1	5		
1020	grey ware		1	3	11/12th century!	body
1022	English stoneware Nottingham type	bowl stew pot	8	754	incised decoration	
1022	terracotta	plant pot	1	88		
1022	white earthenware	saucer	3	134	maroon band decoration	
1022	white earthenware	saucer	2	177	broad pink band	
1022	transfer printed	chamber pot bowl oval dish	8	1043	Romantic rural scene ?Yorkshire	
1022	fine white earthenware		11	22		
1022	transfer printed	bowl	2	133	fern pattern Yorkshire? Light brown concretion	
1022	banded slipware		1	2	mocha	
1022	white stoneware	jar	4	313	crackled glaze complete base	base
1022	pearl	cup	1	20		
1022	transfer printed	dish	1	35	scallop rim	
1022	English brown stoneware	jar	1	18		
1022	English stoneware bowl almost complete		1	20	two rows of rilling	
1022	white earthenware		3	193	blue bands profile smashed	
1022	English stoneware Nottingham type		2	18	rows of incised dots	
1022	English brown stoneware	inkwell?	1	18		
1022	transfer printed	saucer	1	8		
1022	buff English stoneware	plate/lid	1			
1022	banded slipware		1	12	plain	
1022	buff English stoneware	jar	2	90		
1022	white earthenware	dish	1	3	wide pink band	
1022	white earthenware	jar	1	87	shoulder angle	body
1022	white earthenware	jug	3	175	ribbed pinkish concretions over some breaks	
1022	transfer printed	closed	1	20	Ecclesiastical building in blue	
1022	transfer printed	chamber pot	5	17	pattern not identified	
1022	transfer printed	oval dish	1	15	light blue	
1022	transfer printed	cup	4	100	profile willow	
1022	white salt glaze?	cup	1	10		

context	fabric	form	no:	weight (g)	comment	part
1022	white earthenware	jar	2	99		
1022	white earthenware		1	5	green and maroon stripe	
1022	transfer printed	bowl	1	10	floral motif	willow
1022	transfer printed	bowl	5	25	fern	
1022	white earthenware	jar	1	258	crackled glaze complete base profile	
1022	white earthenware	jar	2	313	complete base and profile reddish pink residue	
1022	white earthenware	jar	2	227	almost complete base	
1022	white earthenware	bowl	2	493	rolled rim	rim base
1029	banded slipware		3	26		
1029	Westerwald stoneware		1	3		
1029	transfer printed		1	4		
1029	English stoneware Nottingham type	bowls	3	1093	almost complete	
1042	china		23	356	moulded two handled ?Wade cup/ornament	
1042	buff stoneware food jar		1	357	complete black concretion in	
1045	porcelain	bowl	3	14		
1045	cream	bowl	3	39		
1045	white earthenware	jug	4	55		
1045	English stoneware Nottingham type	bowl	2	41		
1045	post medieval oxidised earthenware with black glaze	bowl	1	424	?industrial	base
1045	banded slipware white	cup	1	14	blue band at rim point	
1082	cream		1			
1082	white earthenware	plate	4		blue feathered edge scallop rim	
1082	post medieval oxidised earthenware with brown glaze		1			
1082	post medieval oxidised earthenware with black glaze		1			
1082	English brown stoneware		1			
1082	post medieval oxidised earthenware with black/brown glaze	pancheon	3			
1082	post medieval oxidised earthenware cream glaze in only		1			
1088	post medieval oxidised earthenware with black glaze	pancheon	9	807		
1088	white earthenware	plate	12	139		
1088	pearl		1	4		
1088	English brown stoneware		4	242		
1088	fine post medieval earthenware with	mug/jug	4	55		

context	fabric	form	no:	weight (g)	comment	part
	black glaze					
1088	purple glazed		1	59	coarse possibly South Yorkshire origin	
1089	transfer printed	saucer	7	111	black tpw stamp 'OXFORD' K & Co RN 186329 ENGLAND. Mark used at Stoke by Keeling&Co Burslem 1886-1936, W Kirby &Co Fenton 1879-85, Kirkland Etruria 1892+ CHK Yorks potteries!	
1089	white earthenware		2	10		
1089	post medieval earthenware with amber/brown glaze		1	9		
1089	post medieval earthenware with black glaze		1	11		
1102	post medieval earthenware industrial crucible	?tile waste	1	114	shallow wide large waster	
1102	post medieval earthenware	?jar	1	9	brown glaze	
1102	pearl		2	6	scraps	
1102	white earthenware		1	4	scraps	
1103	cream	open	1	20		
1103	white earthenware	plate	2	14	blue feathered scalloped edge	
1103	transfer printed		1	2	green	
1108	cream	lid	1		hand painted	
1108	post medieval oxidised earthenware with black glaze		2	162	2 vessels open and closed forms	
1108	cream	dish	4	99		
1108	white earthenware	bowl	4	48		
1108	transfer printed	bowl lid	3	4		
1109	English stoneware Nottingham type	bowl	1	38		
1109	cream		2	43		
1109	post medieval oxidised earthenware with black glaze	pancheon	3	249		
1109	post medieval oxidised earthenware with brown glaze	jar/mug	1	26	base	
1109	fine post medieval oxidised earthenware with black glaze		3	118		
1111	English stoneware Nottingham type	bowl	4	95		
1111	cream	dish	4	46	inc one with wavy rim	
1111	cream	cup	1	3	hand painted red brown	
1111	transfer printed		1	2		
1111	transfer printed		1	4	brown	
1111	white earthenware		1			
1111	fine sandy oxidised medieval	jar	1		unglazed reduced surfaces	
1111	purple glazed		1	9	fine ware	rim

context	fabric	form	no:	weight (g)	comment	part
1111	post medieval oxidised earthenware with black glaze	bowl	5	354		
1111	terracotta	plant pot	1	19		rim
1111	fine post medieval oxidised earthenware with black glaze		4	67	Jackfield type	
1114	white earthenware		1		blue feathered edge	
1114	post medieval oxidised earthenware with black glazed			153		
1128	fine cream earthenware hand-painted		1	4	stylised leaf	rim
1128	transfer printed		3	11		
1128	white earthenware		2			
1128	English Nottingham type stoneware	bowl	1	24	chestnut glaze	
1128	fine white earthenware brown glaze	tankard	1	14	white glaze in	
1128	post medieval oxidised earthenware with amber glaze		4	6		
1128	fine post medieval oxidised earthenware with brown glaze		3	58		
1128	post medieval oxidised earthenware ?glaze	bowl	2	104		
1150	fine post medieval earthenware with black/brown glaze	jug	4	96	fine walled shiny	
1150	creamware	dish	6	126	rim body base	
1150	transfer printed	dish	2	44	oval fluted scallop rim	
1150	transfer printed	?	1	7		
1154	English stoneware fine amber/brown glaze	jug	1	6	series incised horizontal lines. See C1155	
1154	English stoneware fine brown glaze	bowl		8		
1155	English stoneware fine	jar/ink	1	25		base
1155	English stoneware fine brown glaze	jug	1	7	series incised horizontal lines. See C1154	body
1155	English stoneware fine amber/brown glaze	?	1	2		body
1156	cream ware	plate	2	16	scalloped rim	
1175	transfer printed	bowl	7	64		
1175	cream	bowl	3	28		
1175	white earthenware		1	20	feint impressed rows of wavy lines cream	
1175	banded slipware		1	4	crude hand painted rose and leaves	
1175	white earthenware	jar	1	18	crazed glaze	
1182	post medieval oxidised	pancheon	5	590		

context	fabric	form	no:	weight (g)	comment	part
	earthenware with black glaze					
1182	Cistercian	mug	1	10		
1182	English Nottingham type stoneware	bowl	2	27		rim body
1182	fine oxidised earthenware with black glaze	mug/jug	1	14		
1182	white earthenware	?jug	3	27	cream ware	
1187	industrial crucible	?crucible or tile waste	1	158	coarse fabric black glaze copper alloy	
1187	cream ware	dish	2	15		
1187	transfer printed	open	3	11		
1200	Buff stoneware food jar		7	452	ribbed	
1200	English Nottingham type stoneware	bowl	5	377	incised decoration 3 vessels	
1200	post medieval oxidised earthenware with brown glaze	jar	1	10		
1200	teracotta	plant pot	1	8		
1200	fine post medieval earthenware with brown glaze	teapot	2	40		
1200	white earthenware with shiny brown glaze and white interior		1	10	fine row of beading	
1200	white earthenware with blue and white banding		1	7		
1200	cream banded slip ware with brown glaze	?tankard	1	7	band of rilling in cream and ?light green	
1200	slipware	pancheon	2	121	brown band at rim	
1200	transfer printed		1	8	crown stamp England JOHN MADDOCK + SON DE[RBY] 'ROYAL VIT[REOUS]1880-96 when Ltd not present. The area where this would have been is missing so can't be sure! Ltd 1896+. <a href="http://www.thepotteries.org/mark/m/maddock.html">http://www.thepotteries.org/mark/m/maddock.html</a>	
1200	transfer printed	plate	3	43	light blue foliate	
1200	fine earthenware	rice bowl	1	2	hand painted tripartite leaf Yorkshire potteries	
1200	white earthenware		1	30	silver line decoration	
1200	fine white china		2			
1200	white earthenware	saucer	1	5	scallop rim	
1200	transfer printed		4	41	maroon foliate machine rilled base stamp ?CLEMENTSON B'[ROS] ENGLAND GEM' 1891+ to 1916 Hanley	
1200	transfer printed		1	4	blue willow	
1200	transfer printed		1	9	green overpainted	
1200	china	cup	2	9	gold foliate motif	
1200	transfer printed/flow blue		1	3		
1200	banded slipware		2	4		
1200	white earthenware	cup	6	58		

context	fabric	form	no:	weight (g)	comment	part
1200	white earthenware		1	6	blue underglaze and red over ?Worcester	
1200	white earthenware	jar	1	28	pink glaze out white in	
1200	fine post medieval oxidised earthenware with black glaze		3	60		
1200	English stoneware Nottingham type		3	60	beaded incised decoration	
1200	white earthenware	plate	1	11	blue feathered scalloped rim	
1212	transfer printed		1	5		
1212	transfer printed/flow blue		1	6		
1212	fine white earthenware		1	8	scalloped	
1212	fine white earthenware	pie dish	6	194	oval	
1212	fine white china		4	8	silver line decoration	
1212	plain banded slip ware	?tankard	1	15		handle
1212	teracotta	plant pot	5	442		
1212	post medieval oxidised earthenware with black/brown glaze	pancheon	6	899		
1221	transfer printed		2	11		
1221	English stoneware brown	bowl	4	23		
1221	post medieval oxidised earthenware with black glaze	pancheon mug	3	90		
1221	cream	dish	4	25		
1221	white earthenware		5	22		
1221	white stoneware		2	42	matt surfaces	
1221	post medieval oxidised earthenware with black glaze	mug	2	17		
1223	post medieval oxidised earthenware unglazed		2	15	1223 below 1130	
1223	post medieval oxidised earthenware with brown glaze	bowl/pancheon	6	261	flaked glaze	base body
1223	post medieval oxidised earthenware with black glaze	jar	8	189		
1223	post medieval oxidised earthenware with black/brown glaze	pancheon jar	10	1115	2 pancheons 3 jars	base body rims
1223	terracotta	plant pot	1	5		
1223	English stoneware Nottingham type	bowl	5	74		
1223	Buff earthenware yellow glaze		1	24	brown glaze inside	
1223	slipware	bowl	2	64	2 vessels buff and oxidised	
1223	banded slipware	?jar	3	21	creamware	

context	fabric	form	no:	weight (g)	comment	part
1223	white salt glazed type		1	3	fine closed form	
1223	fine white earthenware	bowl	1	3	blue wavy line decoration	rim
1223	fine white earthenware	plate	1	2	blue scalloped rim	
1223	white stoneware	jar	1	8		
1223	cream	closed	1	2	rilled	
1223	transfer printed	open	2	4		
1223	tin glazed earthenware	open	1	3		
1223	cream	dish	14	211		
1223	pearl	bowl cup	2	10		base
1226	banded slipware cream	tankard	3	44	chequer board decoration, rilling blue and brown	
1128	white earthenware	bowl	5	72		base body
1128	Frechen type stoneware	bottle	1	31		
1128	Cistercian	cup	1	23		
1128	English stoneware	jug	2	110		
1128	Westerwald stoneware	jug	1	20		
outside 1029	post medieval oxidised earthenware with black glaze		3			
outside 1029	transfer printed		4			
outside 1029	fine white earthenware		3		silver band decoration	
outside 1029	white earthenware		3			
outside 1029	cream		10			
114	earthenware brown glaze	pancheon/jar	43	7884	post medieval ?use ?industrial	rim body base
114	terracotta	plant pot	14	695	min vessel 4	rim body base
114	transfer	dish	1	8		rim
114	English stoneware	bowl	1	13	Nottingham type	rim
114	oxidised earthenware white slip cream glaze		1	2		
114	cream	oval bowl	1	35		
114	white earthenware	unknown	1	13	crazed glaze shouldered	
114	white porcelain	unknown	1	11	shouldered	
114	plain slip	pancheon	27	450	smashed one vessel	
1222	white earthenware	plate	4	69	blue feathered rim scallop	
1222	English stone ware Nottingham type	bowl	1	25	handled small	
1222	fine oxidised ware	waster	1	2	amber pittede glaze	
1222	oxidised earthenware black glaze	pancheon	4	209		
1222	oxidised earthenware brown glaze	bowl	2	80		
1222	china	cup	1	5	blue dots	



context	fabric	form	no:	weight (g)	comment	part
1222	banded slip		1	12	plain glaze in only	
1222	cream	dish jar	24	281		
1222	pearl		1	4		
122	slip	bowl	1			
122	slip	bowl	1			
122	unglazed earthenware	`1				
122	terracotta	plant pot	1			
122	white earthenware	plate	2		blue feathered edge	
122	banded slip		2			
122	English stoneware		1			
122	English stoneware		1			
122	transfer		3			
122	English stoneware		7			
122	transfer	cup dish bowl	14			
122	china		1		handpainted	
122	waster	cup dish bowl				
122	pearl		3		chequer design	
122	black glazed	pancheon bowl	9			
122	black glazed	jar chamber pot	20			
122	cream	dish bowl	32			
125	transfer printed porcelain	cup	2	2		
125	white salt glazed	cup	1	3		base
125	banded slip	bowl	1	5		
125	china	bowl	1	5	handpainted	
125	English stoneware Nottingham type		6	58		
125	black glazed					rim spout
125	terracotta		2	4		
125	white earthenware	plate	1	5	blue feathered	rim
125	white and cream	dish small jar	30	218		
125	pearl		1	4		
125	black glazed	mug	6	81		
125	black glazed	pancheon	10	423		
126	English stoneware	blacking bottle	1	57		
126	English stoneware		1	51		
126	white earthenware		1	1	brown stripe	
126	English stoneware		4	51		
126	black glazed	jar pancheon bowl	26	1060		
126	banded slip		1	2	green ribs and brown	
126	cream		1			
126	cream	dish bowl	11	70	iron concretion	
126	white earthenware		1	10	grey rough concretion	
128	English stoneware Nottingham type		5	148		

context	fabric	form	no:	weight (g)	comment	part
128	unglazed earthenware	?plant pot	2	49		
128	English stoneware		1			
128	brown glazed		1			
128	cream	?cup	1	4	fine silver band	
128	black glazed	pancheon	15	1379		
128	black glazed	jar	4	99		base body
128	black glazed	bottle bowl	2	39	fine walled shiny	rim
128	brown glazed		2	10		
128	manganese		1	10		
128	white earthenware		1	29	feathered	rim
128	cream		1	3	brown out	
128	white earthenware		1	1	overfired	
128	fine stoneware	shallow dish	1	10	unglazed grey core dark surfaces	
128	cream	dish	10	83		
205	white earthenware	sanitary	1	139		
205	English stoneware Nottingham type		3	11		
205	English stoneware		1	5	whitish fabric	
205	banded slip		2	7		
205	black glazed	pancheon bowl mug	7	205		
205	flow blue	cup	1	1		
205	transfer	bowl dish	6	18		
205	white earthenware	dish	1	4	blue feathered edge	
205	white earthenware	dish	1	10	blue feathered edge	
205	white earthenware	tankard	1	8	incised lines and blue band	
205	white earthenware	sanitary	2	19	3 holes matt	
205	white salt glazed		1	7		
205	cream		2			
205	white earthenware		1	17	Raised letters under base 'EN'[GLAND]	
205	cream	bowl dish	23	118		
205	white earthenware	tile	1	24		
205	English stoneware		1	33	light buff grey	
205	pearl	?large bowl	2	88	rib design	pedestal base
213	English stoneware Nottingham type	bowl	11	72		
213	white earthenware		1	7	blue feathered scallop	
213	white earthenware		1		blue stripe	
213	black glazed	pancheon	13	246		
213	dark brown glazed	bowl	1	14		
213	dark brown glazed		1	1		handle
213	white earthenware	?vase	2	5	curved sgraffito lines	
213	white earthenware	closed	1	9	light blue glaze in and out	
213	cream	dish bowl	18	97		
213	unglazed earthenware		1	26	?lug handle	
111	white earthenware	plate	2	5	blue feathered edge scallop	

context	fabric	form	no:	weight (g)	comment	part
111	white earthenware	closed	2	8	shoulder angle	
111	pearl		5	8	one with indented circle one with cream glaze	
111	bone china		1	2		
111	English brown stoneware	food jar	3	76		
111	English brown stoneware	mug	4	66		
111	English brown stoneware		6	212		bases of two or three vessels
111	English brown stoneware	jar	1	20	straight sided	base
111	English brown stoneware	bowl	12	197	7 vessels include one with incised decoration	rim
111	reduced earthenware	bowl	1	2	brown gold lustre very small	rim
111	English stoneware		6	46	buff glaze	
111	white earthenware	sanitary	1	24	cream and white glaze	rim body
111	English stoneware	jug/jar	2	44	London? Frechen style	body
111	?industrial stoneware	jar	1	30	hole in base post firing	base
111	cream	plate bowl dish	38	203	table and serving oval dish	rim body
111	cream		1	3	applied rustic surface	body
111	cream		1	2	hand painted underglaze	body
111	transfer	dish jug	2	10	willow maroon	
111	transfer	lid dish	16	102	tea pot and serving dish oval	rim body
111	porcelain	bowl	2	3		
111	slip	dish	1	14	oxidised small thumb indentations at rim	rim
111	banded slip		5	44	at least 3 vessels including chequer design	rim body
111	refined redware	jar	1	4	whit in brown out	base
111	brown glazed	pancheon	1	13	flaked glaze	
111	black glazed	pancheon	7	433	some with flaked glaze	base body rim
111	black glazed	jar bowl	10	204	dripped glaze out	base body rim

**Table 5. Pottery dates by context**

Context	Date/Comment
1002	Late 18/19 <sup>th</sup> century
1011	18 <sup>th</sup> century+
1012	18 <sup>th</sup> century+
1013	19 <sup>th</sup> century - transfer printed man and dog plate
1014	L18/19 <sup>th</sup> century
1015	19 <sup>th</sup> century - fern = 'fibre' pattern
1020	18/19 <sup>th</sup> century
1022	19 <sup>th</sup> century+
1029	18/19 <sup>th</sup> century

1042	Early 20 <sup>th</sup> century horse cup/ornament
1045	18 <sup>th</sup> century+
1082	18/19 <sup>th</sup> century
1088	Late 18 <sup>th</sup> century+
1089	Late 19 <sup>th</sup> ?early 20 <sup>th</sup> century transfer printed stamp
1102	18 <sup>th</sup> /19 <sup>th</sup> century+
1103	19 <sup>th</sup> century
1108	Late 18 <sup>th</sup> /19 <sup>th</sup> century
1109	Late 18 <sup>th</sup> century
1111	18 <sup>th</sup> /19 <sup>th</sup> century
1114	18 <sup>th</sup> /19 <sup>th</sup> century
1128	18 <sup>th</sup> /19 <sup>th</sup> century
1150	18 <sup>th</sup> /19 <sup>th</sup> century
1154	18 <sup>th</sup> /19 <sup>th</sup> century
1155	18 <sup>th</sup> /19 <sup>th</sup> century
1156	Late 18 <sup>th</sup> /19 <sup>th</sup> century
1175	Late 18 <sup>th</sup> /19 <sup>th</sup> century
1182	Late 18 <sup>th</sup> century+
1187	Late 18 <sup>th</sup> /19 <sup>th</sup> century + ?crucible
1200	Very late 19 <sup>th</sup> century+ transfer printed stamp
1212	19 <sup>th</sup> century
1221	Late 18 <sup>th</sup> /19 <sup>th</sup> century
1223	Late 18 <sup>th</sup> century+
1226	Late 18 <sup>th</sup> century+ banded slip tankard

## APPENDIX 4 – FINDS ASSESSMENT

By Nicky Rogers, Karen Weston (Glass), Rachel Cubitt (Slag) and Jane McComish (CBM).

### Introduction

The finds recovered from these excavations were originally examined in an unclean state and then washed before more detailed examination. Coins, or possible coins, from stratified contexts were X-rayed.

### Metal Objects

Cutlery and flatware comprising knives, forks, dessert and salt spoons was recovered from several deposits (Contexts 1002, 1045, 1055, 'no context number Cellar E'). Whilst the salt spoons had integral handles, the other cutlery and flatware generally had no handles, which would have been socketed on. A penknife in which some of the blades appeared to be *in situ* within a scale plate handle was also recovered (Context 1121/1119). The only indication that cutlery was possibly being made in the area was a metal off cut found in 'no context number Cellar E'.

Objects made of copper alloy included a possible bottle label and domed ribbed disc both from context 1002, an unstratified drawer handle and a button from context 1111. Fragments of a copper alloy vessel, possibly of an industrial nature, were recovered from context 1187.

Three small circular discs, possible coins, were x-rayed. Two of these from context 1109 proved to be coins, these were pennies, probably of 19<sup>th</sup> or 20<sup>th</sup> century date, but their condition is too poor to identify more fully. The third object, from context 1200, was corroded but the x-ray confirmed this was not a coin but a copper alloy disc with a piercing close to one edge, this could possibly be a tag or label.

Apart from two unidentified iron objects found in Context 1022, all the ironwork was retrieved from Context 1042, and comprised a gas tap, a possible gas pipe, a possible gas pipe fitting, two undiagnostic strips, a possible hinge, and four file like tools.

The material assessed above appears to comprise mainly objects involved in industrial processes. It seems likely that the cutlery that was recovered was being made rather than utilised on the site, and there are thus no indications of domestic life provided by this assemblage. All the material is of later 18<sup>th</sup> to 20<sup>th</sup> century date.

No further work is considered necessary and all this material could be discarded subject to the agreement of Museums Sheffield.

Context	Quantity	Description	Date
1002	15	knives x 7, forks x 2, dessert spoon x 1, ?salt spoons x 2, metal disc x 1, shield shaped ?label/badge x 1, cu domed ribbed disc x 1	
1022	2	iron objects x 2	
1042	9	gas tap, pipe x 1, pipe fitting x 1, iron strips x 2, file like tools x 4, possible hinge fragment x 1	
1045	1	fork x 1	
1055	1	fork x 1	

Context	Quantity	Description	Date
1109	2	coins pennies	C19th/20th
1111	2	copper alloy button x 1, copper wire x 1	
1121/1119	1	penknife or cutlery handle, organic plates, metal in situ	
1187	2	Copper alloy vessel possibly industrial fragments x 2	
1200	1	perforated copper disc	
unstratified	1	coins x 2, drawer handle x 1, spoons x 3, knife blade x 1, metal off cut x 1	

**Table 6: Metal objects**

### Fired Clay Tobacco Pipes

Three pipe bowls of possible 18<sup>th</sup> century date were identified, these came from contexts 1013 and 1111 (2 bowls), and all of the bowls were undecorated. Six nineteenth century bowls were recovered, four of these from contexts 1109 (2 bowls), 1200 and 1223 had moulded decoration with foliage motifs. The two undecorated bowls that were possibly of 19<sup>th</sup> century date were recovered from contexts 1154 and 1223. None of the bowls had makers marks, or showed evidence for burnishing or glaze.

None of the bowls were recovered from *in situ* deposits related to site activities but came from demolition or backfill deposits, contexts 1013, 1109 and 1200 or made ground or levelling layers, context 1111, 1154 and 1223.

40 undated stems were also recovered from across the site (see Table 4), of which five appeared discoloured (Contexts 1013, 1089, 1156, 1212), and only two appeared to bear traces of glaze (Contexts 1128, 1223).

Context	No.	Description	Date
1013	1	incomplete bowl with stem	C18 <sup>th</sup> ?
1013	7	stems	
1014	1	stem	
1029	1	stem	
1088	2	stems	
1089	1	stem	
1103	1	stem	
1108	3	stems	
1109	2	moulded bowls with decorative foliage motifs	C19th
1109	1	stem	
1111	2	bowls	C18th
1111	3	stems	
1128	3	stems	
1150	1	stem	
1154	1	bowl	early C19th ?
1154	3	stems	
1200	1	moulded bowl with decorative foliage motifs	C19th ?

Context	No.	Description	Date
1212	1	stem	
1221	4	stems	
1223	2	bowls one moulded with decorative foliage motifs	C19th ?
1223	4	stems	
outside 1029	4	stems	

**Table 7: Clay Pipe**

Analysis of the clay pipe fragments (Figure 16) from the Eyre Street structures and associated outhouse was undertaken, as these areas appear to be the only clearly defined areas of domestic activity on the site. A total of five plain stems, three bowls and two bowl fragments were recovered from three contexts (1109, 1200 and 1223) in this area. Context 1109 contained 2 bowls and one stem, context 1200 contained one bowl, and context 1233 contained two bowl fragments and four stems. All of the bowls are a similar size and shape and probably to the late 18<sup>th</sup>/early 19<sup>th</sup> century. Two of the bowls and one of the bowl fragments have moulded decoration; one bowl depicting two human figures, one on each side of the bowl, and one bowl and bowl fragment having moulded lines. The decorated bowls could not be identified to a specific production source. The remaining bowl and bowl fragment are plain, although the bowl has been decorated with a leaf motif to cover the mould seams. No makers marks were present on either the bowls or the stems, although it is possible that the human figures may have been some form of advertising, maybe for a public house. One of the four stems recovered from 1223 dates to the late 17<sup>th</sup> or 18<sup>th</sup> century, though all other stems confirm a 19<sup>th</sup> century date for the assemblage.

Most of this material could be discarded with the exception of the possible 18<sup>th</sup>-century pipe bowls and decorated bowls which should be retained subject to the agreement of Museums Sheffield

### **Ceramic Building Material**

Three sherds of CBM were examined all of which were from Context 1022 (Table 5). All the bricks were machine-made firebricks dating to the mid-19<sup>th</sup> century or later, and one was a voussoir from an arch or vault. As no makers stamps were present these bricks cannot be linked to a specific manufacturer.

The bricks are mainly of use for dating the context in question and do not merit any further research or retention subject to the agreement of Museums Sheffield.

Context	Fabric	Form	Corners Present	Weight	Breadth	Thickness	Comments
1022	M110	Brick	2	475	115	70	Machine made firebrick
1022	M110	Brick	0	1200	0	70	Machine made firebrick
1022	M110	Brick	2	1525	111	70	Machine made firebrick, voussoir, measuring 70mm wide on extrados and 55mm wide on intrados.

**Table 8: Ceramic building material**

Two architectural fragments of micaceous sandstone were present. The first from cellar E was probably originally part of a step, this weighed 525g and was 36mm thick. The upper surface

was smooth, the edge had a horizontal roll moulding 16mm wide along the upper arris, and the basal surface was largely broken off. The second piece from Context 1111 weighs 900g and is 29mm thick. The basal surface has deep striated tooling, the edge has a curving shape, and the upper surface is smooth with a narrow groove running around the curving edge. The precise function of this fragment is unclear, possibly part of a decorative plaque. Both pieces are of mid-19<sup>th</sup>-century or later date.

Neither fragment merits retention or further research subject to the agreement of Museums Sheffield.

## Glass

A total of 38 sherds of post-medieval vessel glass were recovered from 14 contexts spanning a date range from the later 19<sup>th</sup> century to the early 20<sup>th</sup> century.

Drinking vessels are represented by late 19<sup>th</sup>-century free blown wine bottles, two of which have unusually high kick-up bases, later 19<sup>th</sup>- to early 20<sup>th</sup>-century beer bottles, a lemonade bottle and two Codd bottles which would have contained carbonated drinks. The Codd bottles found at this site were manufactured by Dan Rylands Limited which was formed in 1888 and existed under that name until 1897. The number '4' embossed on the bottles represented 'accuracy, cleanliness, neatness and strength'. The bottles were made for the Aerated Water manufactures 'Brothwell & Essam' who were located at 69 Forncett Street in the late 19<sup>th</sup> century. Other types of vessels present are medicine bottles, ointment jars and a possible paint container.

No further work is recommended and all of this material could be discarded subject to the agreement of Museums Sheffield.

Context	Quantity	Description	Date
1011	1	1 complete colourless glass jar with lid, machine made embossed with '1' on the base. Contains gold paint. May have been originally for ointment	Early-mid 20 <sup>th</sup> century
1013	1	1 body sherd of green wine bottle	Late 19 <sup>th</sup> /early 20 <sup>th</sup> century
1022	8	1 oval light blue glass medicinal bottle with neck and rim missing (machine made), 1 aquamarine lemonade bottle with neck and rim missing (machine made), 1 amber beer bottle (possibly mould blown) with deep kick up base, 1 green free blown wine bottle base, 1 body sherd and 1 applied rim of very large aquamarine bottle, 1 rim of green machine made beer bottle, 1 body sherd green wine bottle	Late 19 <sup>th</sup> / early 20 <sup>th</sup> century
1029	1	1 sherd window glass	Post-medieval
1042	3	2 Codd bottles (1 has the neck broken off. The neck is present). Both bottles embossed on the front with BROTHWELL/&ESAM/TRADEMARK/PROGRESS/FORNCETT ST/SHEFFIELD. On the back is embossed PATENT SAFEGROOVE/4/SOLEMAKERS/DAN RYLANDS LD/BARNSELY	Bottles date 1888-1897
1082	2	1 base sherd black free blown wine bottle with kick-up base. 1 body sherd of green wine bottle	Late 19 <sup>th</sup> century
1088	2	1 base sherd of free blown green wine bottle, 1 bottle sherd of olive wine or beer bottle.	Late 19 <sup>th</sup> /20 <sup>th</sup> century
1111	2	2 sherds olive thin bottle glass – probably wine	Early 20 <sup>th</sup> century



Context	Quantity	Description	Date
1128	1	1 rim and neck sherd of green beer bottle. Applied rim.	Late 19 <sup>th</sup> century

Table 9: Glass

### Metalworking debris

The table below summarises the debris recovered in excavations at Charles Street. It is indicative of ironworking in the post-medieval period. Previous excavations on this site also produced ironworking debris.

No further work is recommended for the metalworking debris although examples of the large crucible fragments found during the evaluation should be retained subject to the agreement of Museums Sheffield.

Context	Slag Type	Weight (g)	Notes
1013	Iron rich clinker slag	830	numerous fragments
1014	Blast furnace slag	796	four pieces with brown/red colours
1014	Fired clay crucible fragment	176	Body sherd, 29mm thick (max), black glassy slag layer on internal surface.

Table 10: Metalworking debris

### Other Artefacts

Evidence of shell working (possibly mother of pearl) in the form of off cuts from which circular objects (possibly buttons) had been cut out was found in Contexts 1022, 1029 and 1221, with other apparently unworked shell fragments being retrieved from Contexts 1012, 1022, 1111, 1210 and 1221. Three grindstone fragments were recovered from Context 1022, which also produced a possible cutlery handle; a handle was also found in Context 1200. A fragment of plastic sheet was found in 'no context number Cellar E'. Worked animal bones were found in Contexts 1200, 1221.

Fragments of unworked animal bone – which have not been further identified – were recovered from Contexts 1013, 1014, 1015, 1022, 1212, 1221, 1223 and 'outside 1029'.

No further work is recommended and all of this material could be discarded subject to the agreement of Museums Sheffield.

Context	Other	Animal bone
1002	worked bone object, rectangular with 2 possible rivet holes on one long edge	
1011	charcoal x 1	
1012	shell x 1	
1013		fragments x 2
1014		fragment x 1
1015		fragment x 1
1022	possible grindstone fragments x 3, organic handle x 1, shell off cuts with circular cut-outs x 10, unworked shell x 1, wood fragment x 1, charcoal/coal x 1	numerous small fragments

Context	Other	Animal bone
1029	shell off cut with circular cut-outs x 1	
1111	unworked shell x 1	
1200	mussel shell x 1, worked bone x 4, possible bone handle fragment x 1	
1212		fragment x 1
1221	shell off cuts x 2, shell fragment x 1, worked animal bone fragments x 5	fragments x 3
1223		fragments x 2
unstratified	plastic sheet fragment x 1	fragments x 4

**Table 11: Catalogue of other finds**

## APPENDIX 5 – WRITTEN SCHEME OF INVESTIGATION

Site Location:	Charles Street, Sheffield
NGR:	SK 3544 8691
Proposal:	New build for the Faculty of Development and Society
Planning ref:	10/01236/FUL
Prepared for:	Balfour Beatty by ArcHeritage, 30th August 2013
Status of WSI:	Version 3

### SUMMARY

1.1 Sheffield Hallam University are proposing to deliver a new building for the Faculty of Development and Society on Charles Street, Sheffield. The building is expected to be in the order of 9,500 m<sup>2</sup> gross internal floor area and will provide teaching and office accommodation for the Departments of Education and Architecture. The project has detailed planning permission with a condition requiring a programme of archaeological works.

1.2 This Written Scheme of Investigation (WSI) has been prepared in consultation with South Yorkshire Archaeology Service (SYAS). The work will be carried out in accordance with this WSI, and according to the principles of the Institute for Archaeology (IfA) Code of Conduct and all relevant standards and guidance.

### SITE LOCATION & DESCRIPTION

2.1 The development site is located south east of Arundel Gate (Figure 1) within Sheffield city centre. The north east side of the site is bounded by Charles Street, the south west by Clay Lane and the south east by Eyre Lane.

2.2 Previous work, discussed below, has identified that the northern half of the site between Charles Street and Brown Lane is of archaeological interest. The area for archaeological excavation is approximately 827m<sup>2</sup>.

### DESIGNATIONS & CONSTRAINTS

3.1 The site lies within the Cultural Industries Quarter Conservation Area, and there are several listed buildings within the vicinity, the nearest being the Grade II\* listed Butcher Works on the south side of Eyre Lane and the Grade II listed 92-92A and 94 Arundel Street.

3.2 The stability of the roads surrounding the site is a concern if deep archaeological excavations are required, for example in cellared areas. A batter for the excavations will be established in liaison with Balfour Beatty to maintain the stability of the excavations and surrounding road network.

### ARCHAEOLOGICAL INTEREST

4.1 The development site was the subject of a desk based assessment by ArcHeritage in 2010. The area was fields prior to development in the early 19th century. Initial development consisted of houses, shops and industrial workshops. Industries represented within the site from the first half of the 19th century to the late 20th century included a whitesmith's works, a cabinet maker's works, a brass foundry, a saw manufactory, cutlery works, an engineering works, a wire works and a mark maker's

works. The buildings were demolished between 1970 and 2006 and the site currently consists of a car park and a vacant lot.

4.2 An archaeological watching brief was conducted on the lot between Brown Lane and Clay Lane (formerly Fisher Lane) in 2006 during the removal of building foundations and basements, and recorded the remains of earlier building footings, cellars and a stone boundary wall. The extent of subsurface disturbance of the lot between Brown Lane and Clay Lane was confirmed in 2011 through the excavation of an evaluation trench by ArcHeritage. Due to the extent of this ground disturbance no further archaeological work is required in relation to development of the vacant lot between Brown Lane and Fisher Lane (Figure 1).

4.3 Evaluation trenching by ArcHeritage on the car park lot between Charles Street and Brown Lane revealed good survival of archaeological features and deposits associated with 19th- to 20th-century activity. Two trenches were excavated. Trench one exposed foundations and cellars associated with early 19th-century terraced houses, with a yard to the rear that had been truncated by mid-20th-century walls. Trench two contained a cellar and stone flag surface associated with a works fronting onto Charles Street. No evidence for furnaces or industrial processes was found in this trench. The remains were assessed as being of local archaeological significance.

### **AIMS AND OBJECTIVES**

5.1 The aim of the project is to provide an academically useful primary record of archaeological remains at the site; and understand and interpret the archaeological deposits present. Specific objectives will be:

- Identify different activity areas domestic/industrial within the site (the material culture recovered from cellar infills were markedly different in the two cellars exposed during the evaluation);
- Identify the types of industrial activities being carried out at the site;
- Identify the longevity/phasing of activity at the site as far as possible;
- Identify the construction methods used particularly in relation to domestic structures;
- Recover material culture associated with domestic activity to provide information on status and identity of residents, and how this compares with the construction methods of the buildings: and
- Identify any evidence regarding earlier land use and activity on the site pre the 19th century development of the site.
- Dependent on the results of the excavation further objectives may be identified in the updated project design.

### **EXCAVATION METHODOLOGY**

6.1 Excavation will take place in the area identified as having archaeological potential based on the evaluation. This will comprise the car park site between Charles Street and Brown Lane (Figure 1).

6.1 With the agreement of the client illustrated notices will be displayed on site explaining the nature and aims of the archaeological works in progress.

6.2 The area for investigation will be stripped of overburden. Mechanical excavation equipment will be used judiciously, under archaeological supervision down to the top of archaeological deposits, or the natural subsoil, whichever appears first. If archaeology is present machining will cease and excavation will normally proceed by hand. Where deep homogenous deposits, or deposits such as

rubble infills, are encountered, these may be carefully removed by machine, after consultation with South Yorkshire Archaeology Service (SYAS).

6.3 The use of mechanical, air-powered, or electrical excavation equipment may also be appropriate for removing deep intrusions (e.g. modern brick and concrete floors or footings) or through deposits to check that they are of natural origin, after consultation with SYAS. The machine will not be used to cut arbitrary sondages down to natural deposits.

6.4 In order to avoid damage or loss of archaeological remains plant or excavators will not be operated within the area of archaeological excavation except under archaeological supervision, and following explicit permission by the archaeologist for operations to commence at that location.

6.5 The site will be cleaned sufficient to enable potential archaeological features to be identified and recorded; areas without archaeological features or deposits will be recorded as sterile and no further work will take place in these areas. The potential for such areas to contain pre industrial remains and deposits will be investigated before recording the areas as being archaeologically sterile.

6.6 A pre-excavation plan will be made prior to hand excavation commencing (See recording methodology).

6.7 All archaeological features and deposits revealed will be excavated in an archaeologically controlled and stratigraphic manner in order to meet the aims of the excavation.

- Discrete features will be half-sectioned in the first instance.
- Linear features will be sample excavated (to a minimum of 25% of their length) with each sample being not less than 1m in length
- Deposits at junctions or interruptions in linear features will be sufficiently excavated to allow relationships to be determined.
- Structures will be sample excavated to a degree whereby their extent, nature, form, date, function and relationships to other features and deposits can be established.

Samples will be collected from archaeological deposits; the sampling strategy will be agreed with SYAS and appropriate specialist following stripping of the site.

6.7 During the field work the following work and monitoring stages will be undertaken

Strip the full excavation area down to the top of archaeological deposits and structures. A batter will be left around the edge of the site; this will not be required during the initial strip unless this exceeds 0.5m in depth.

Clean exposed archaeological deposits and structures and produce a pre-excavation plan.

Agree areas of the site requiring further work with SYAS, such areas will be chosen based on their potential to achieve the aims of the project including investigating pre-industrial activity on the site

Undertake further excavation and recording in areas chosen for further excavation. Such work to be undertaken by hand, or machine if agreed with SYAS. Further excavation will leave a batter around the edge of the site.

Where archaeologically significant remains extend into the batter the need for and scope of works will be agreed with SYAS. A safe working methodology will be agreed between ArcHeritage and Balfour Beatty to excavate these areas. Such works may require temporary shoring which will be provided by Balfour Beatty.

Complete the final plan and recording.

Agree completion of the excavation works with SYAS and hand over the site to Balfour Beatty with a provision for a watching brief if required.

## **RECORDING METHODOLOGY**

7.1 A site grid will be established using an EDM Total station relative to the Ordnance Survey National Grid by measurement to local permanent features shown on published Ordnance Survey maps. All measurements will be accurate to +/-10cm, and the excavation locatable on a 1:2500 Ordnance Survey map.

7.2 All archaeological features will be recorded using standardised pro forma record sheets. Plans, sections and elevations will be drawn as appropriate and a comprehensive photographic record will be made where archaeological features are encountered.

7.3 Archaeological deposits will be planned at a basic scale of 1:50, with individual features requiring greater detail being planned at a scale of 1:20. Larger scales will be utilised as appropriate. Cross-section of features will be drawn to a basic scale of 1:10 or 1:20 depending on the size of the feature. All drawings will be related to Ordnance Datum and the site grid. Where it aids interpretation, structural remains will also be recorded in elevation.

7.4 Each context will be described in full on a pro forma context record sheet in accordance with the accepted context record conventions. Each context will be given a unique number. These field records will be checked and indexes compiled.

7.5 Photographs of work in progress and post-excavation of individual and groups of features will be taken. This will include general views of entire features and of details such as sections as considered necessary. The photographic record will comprise 35mm format colour slides and black and white film. Digital photography may be used in addition, but will not form any part of the formal site archive. All site photography will adhere to accepted photographic record guidelines. Digital photogrammetry will be used where appropriate to aid in recording and the drawing of sections and plans.

7.6 Areas which do not contain any archaeological deposits will be photographed and recorded as being archaeologically sterile. The natural stratigraphic sequence within these areas will be recorded.

7.7 All finds will be collected and handled following the guidance set out in the IfA guidance for archaeological materials. Unstratified material will not be kept unless it is of exceptional intrinsic interest. Material discarded as a consequence of this policy will be described and quantified in the field. Finds of particular interest or fragility will be retrieved as Small Finds, and located on plans. Other finds, finds within the topsoil, and dense/discrete deposits of finds will be collected as Bulk Finds, from discrete contexts, bagged by material type. Any dense/discrete deposits will have their limits defined on the appropriate plan.

7.8 All artefacts and ecofacts will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication First Aid for Finds, and recording systems must be compatible with the recipient museum. All finds that fall within the purview of the Treasure Act (1996) will be reported to HM Coroner according to the procedures outlined in the Act, after discussion with the client and the local authority.

7.9 Samples will be taken from all securely stratified archaeological contexts; features that are clearly modern or of little archaeological value (field drains, furrows etc); or those that evidence a high degree of residuality will not be sampled. Sampling will be carried out in consultation with ArcHeritage specialists and the regional English Heritage Science Advisor, as appropriate (e.g. dendrochronology, soil micromorphology, monolith samples, C14, etc.). Material removed from site will be stored in appropriate controlled environments. All sampling for environmental and biological material will take place in accordance with the recommendations contained in the papers Environmental Archaeology and

Archaeological Evaluations, Association for Environmental Archaeology (1995) and Environmental Archaeology: A Guide to the Theory and Practice of Methods from Sampling and Recovery to Post - Excavation 2nd Edition (English Heritage 2011).

7.10 The sampling regime will include samples of the four types of deposit sample as appropriate. These are described below:

- Bulk-sieved Sample (BS). Sample size will depend upon the context/feature size, but should be up to 40- 60 litres in size (if the context size allows). They are taken for the recovery of charcoal, burnt seeds, bone and artefacts. The samples will be processed (flotation) on site where possible with 1mm and 500micron sieves on a rack to collect the carbonised washover. The retents and flots will then be dried, sorted and assessed to advise the potential for further analysis.
- General Biological Sample (GBA): These are only taken if a deposit is waterlogged. A 10 litre sample size will be used (if the context size allows). These samples will be processed in the laboratory, to recover macrofossils and microscopic remains such as pollen and insects.
- Column monolith: Kubiena tin samples may be taken for soils and pollen analysis and to determine soil accumulation processes.
- Spot samples: these samples are taken as required. they may be contexts or material not suited to sieving, such as caches of seeds, pieces of eggshell or any specific finds of organic material. They may also be specialist samples (e.g. charcoal for radiocarbon dating).

7.11 Industrial samples and process residues will also be collected. The sampling strategy will be agreed with SYAS and appropriate specialists (identified in 14.2) following stripping and examination of the site. The strategy will include systematic sampling of deposits related to industrial activity and spot samples where considered appropriate. Industrial samples will include:

Bulk sample for crucible fragments;

Bulk sample for in situ working debris;

Samples for micro-slugs, hammer-scale and spherical droplets (c. 10ml) (English Heritage 2001).

7.12 In the event of human remains being discovered during the excavation these will be left in-situ, covered and protected, in the first instance. The removal of human remains will only take place in compliance with environmental health regulations and following discussions with, and with the approval of, the Ministry of Justice. If human remains are identified, the Ministry of Justice and SYAS will be informed immediately. An osteoarchaeologist will be available to give advice on site.

If disarticulated remains are encountered, these will be identified and quantified on site. If trenches are being immediately backfilled, the remains will be left in the ground. If the excavations will remain open for any length of time, disarticulated remains will be removed and boxed for assessment by an osteoarchaeologist.

If articulated remains are encountered, these will be excavated in accordance with recognised guidelines and retained for assessment.

Any grave goods or coffin furniture will be retained for further assessment.

7.13 Where a licence is issued, all human skeletal remains must be properly removed in accordance with the terms of that licence. The treatment of human remains will be in accordance with the requirements of Civil Law, IfA Technical Paper 13 (1993) and English Heritage guidance (2005).

#### **WATCHING BRIEF METHODOLOGY**

8.1 In order to maintain the stability of the excavations and surrounding road network a batter is to be maintained around the excavations. Dependent on the results of the excavation it may be

appropriate to carry out a watching brief on the removal of the batter during construction works. This will be determined in consultation with SYAS.

8.2 The recording methodology for the watching brief will follow that for excavation above. Features and deposits recorded during the watching brief will be integrated with the excavation records.

8.3 Areas which are inaccessible (e.g. for health and safety reasons) will be recorded as thoroughly as possible within the site constraints. In these instances, recording may be entirely photographic, with sketch drawings only. Digital photogrammetry will be used as appropriate to aid in drawing up plans and sections.

#### **DELAYS TO THE DEVELOPMENT SCHEDULE**

9.1 All earth-moving machinery must be operated at an appropriate speed to allow the archaeologist to recognise, record and retrieve any archaeological deposits and material.

9.2 It is not intended that the archaeological watching brief should unduly delay site works. However, the archaeologist on site must be given the opportunity to observe, clean, assess and, where appropriate hand excavate, sample and record any exposed features and finds. In order to fulfil the requirements of this WSI, it may be necessary to halt the earth-moving activity to enable the archaeology to be recorded properly.

9.3 Plant or excavators shall not be operated in the immediate vicinity of archaeological remains until the remains have been recorded and the archaeologist on site has given explicit permission for operations to recommence at that location.

#### **SPECIALIST ASSESSMENT**

10.1 The stratigraphic information, artefacts, soil samples, and residues will be assessed as to their potential and significance for further analysis and study. All non-modern metal finds will be x-rayed. The material will be quantified (counted and weighted). Specialists will undertake a rapid scan of all excavated material. Ceramic spot dates will be given. Appropriately detailed specialist reports will be included in the report.

10.2 Provision exists for preliminary conservation and stabilization of all objects and a written assessment of long-term conservation and storage needs will be produced. Once assessed, all material will be packed and stored in optimum conditions, in accordance with Watkinson and Neal (1998), IfA (2007) and Museums and Galleries (1992).

10.3 Materials considered vulnerable will be selected for stabilisation after specialist recording. Where intervention is necessary, consideration will be given to possible investigative procedures (e.g. glass composition studies, residues on or in pottery, and mineral-preserved organic material).

10.4 All finds will be cleaned, marked and labelled as appropriate, prior to assessment. All finds will be passed to the appropriate specialists (see 14.2) for analysis. Provision exists for additional advice from named specialists or additional specialists to be consulted if required.

10.5 During assessment recognised local pottery reference collections and relevant fabric codes will be used.

10.6 Allowance will be made for the recovery of material suitable for scientific dating and contingency sums will be made available to undertake such dating, if necessary. This will be decided in consultation with SYAS.



## ASSESSMENT REPORT PREPARATION

11.1 Upon completion of the site work, an assessment report will be prepared to include the following:

- a) A non-technical summary of the results of the work.
- b) An introduction which will include the planning reference number, grid reference and dates when the fieldwork took place.
- c) An account of the methodology and overview of results, describing structural data, archaeological features, associated finds and environmental data, and a conclusion and discussion.
- d) Specialist artefact and environmental assessment reports including recommendations, and a context list/index.
- e) A selection of photographs and drawings, including a detailed plan of the site accurately identifying the excavation and watching brief areas and features within these, selected feature drawings, and selected artefacts, and phased feature plans where appropriate.
- f) Recommendations for analysis and publication
- g) A copy of the key OASIS form details
- h) Copy of the WSI
- i) Additional photographic images may be supplied on a CDROM appended to the report

11.2 Three copies of the report will be submitted to the commissioning body. A bound and digital copy of the report will be submitted direct to SYAS for planning purposes, and subsequently for inclusion into the HER.

11.3 ArcHeritage will give permission for the material presented within any reports, and other documents produced as part of this project, to be used by Balfour Beatty and the client, in perpetuity, although ArcHeritage retains the right to be identified as the author of all project documentation and reports as specified in the Copyright, Designs and Patents Act 1988 (chapter IV, section 79). The permission will also allow South Yorkshire Archaeology Service to reproduce material, including for non-commercial use by third parties, with the copyright owner suitably acknowledged.

## POST EXCAVATION ANALYSIS & PUBLICATION

12.1 The information contained in the assessment report will enable decisions to be taken regarding the analyses required to gain a detailed understanding of the features and finds recorded during the excavation and watching brief.

12.2 Based on the results of the assessment report and in consultation with SYAS, a full programme of post excavation analysis and publication of artefactual and scientific material from the archaeological works may be required by SYAS. An updated project design will be produced that defines the scope of the analysis and publication required, for agreement with SYAS. This work will be a new piece of work to be commissioned.

12.3 The contents of the final report will depend on the results of the assessment report and will be agreed with SYAS. The final report will include the following:

- a) A non-technical summary of the results of the work.
- b) An introduction which will include the planning reference number, grid reference and dates when the fieldwork took place.
- c) An account of the excavation methodology.

- d) Description of the site including stratigraphy, phasing, structural remains, features and layout.
- e) Analysis of finds, industrial residues and environmental data,
- f) A discussion of the site in its historical and archaeological context and a conclusion.
- g) A selection of photographs and drawings, including a detailed plan of the site accurately identifying the excavation and watching brief areas and features within these, feature drawings, and selected artefacts, and phased feature plans.
- h) The final report will include details of archive location and destination, together with a context list and catalogue of what is contained in that archive
- i) A copy of the key OASIS form details
- j) Copies of the WSI
- k) Additional photographic images may be supplied on a CDROM appended to the report

12.4 The results of the work will be publicised locally e.g. by presenting a paper at the South Yorkshire Archaeology Day and talking to local societies, as appropriate.

12.5 A summary report accompanied by illustrations will be presented in digital format for publication in the appropriate volume of Archaeology in South Yorkshire.

12.6 ArcHeritage will give permission for the material presented within any reports, and other documents produced as part of this project, to be used by Balfour Beatty and the client, in perpetuity, although ArcHeritage retains the right to be identified as the author of all project documentation and reports as specified in the Copyright, Designs and Patents Act 1988 (chapter IV, section 79). The permission will also allow South Yorkshire Archaeology Service to reproduce material, including for non-commercial use by third parties, with the copyright owner suitably acknowledged.

12.7 Upon completion of the reporting an OASIS form will be completed at <http://ads.ahds.ac.uk/project/oasis/>.

### **ARCHIVE PREPARATION**

13.1 On complete of the assessment report and final report, the site archive will be prepared and deposited with Museums Sheffield (Weston Park Museum).

13.2 The field archive will consist of all primary written documents, plans, sections and photographs. Catalogues of contexts, finds, soil samples, plans, sections and photographs will be produced. The archaeological contractor will liaise with the Archaeology Curator at Museums Sheffield (Weston Park Museum) prior to the commencement of fieldwork to establish the detailed curatorial requirements of the museum and discuss archive transfer and to complete the relevant museum forms. A Project Initiation Form will be completed and sent to the museum curator and SYAS prior to commencement of fieldwork. The relevant museum curator will be afforded access to visit the site and will be invited to discuss the project results and archiving requirements during the life of the project.

13.3 ArcHeritage will arrange to licence the archive repository to use the material, in perpetuity; this licence will allow the archive repository to reproduce material, including for use by third parties, with the copyright owner and author(s) suitably acknowledged.

13.4 Upon completion of the project an OASIS form will be completed at <http://ads.ahds.ac.uk/project/oasis/>.

### **PRE-START AND GENERAL REQUIREMENTS**

14.1 Any changes to the WSI will be discussed and agreed with SYAS before implementation.

14.2 It is a requirement of Sheffield Museum's deposition policy that ownership of the archive be handed to the museum on deposition; Balfour Beatty should discuss this with the client, so that transfer of title can be arranged before post-excavation work has been completed and the archiving stage is reached.

14.3 Balfour Beatty will be responsible for ensuring site access has been secured prior to the commencement of site works, and that the perimeter of the site is secure.

14.4 Balfour Beatty will provide ArcHeritage with up to date service plans and will be responsible for ensuring services have been disconnected, where appropriate. It is anticipated that as part of the main contractor's health and safety policy and CDM procedures a permission to dig will be issued to ArcHeritage confirming these requirements have been met.

14.5 Balfour Beatty will be responsible for ensuring that any existing reports (e.g. ground investigation, borehole logs, contamination reports) are made available to the archaeological contractor prior to the commencement of work on site.

14.6 Mechanical plant and staff welfare facilities will be provided by Balfour Beatty unless otherwise agreed.

14.7 Balfour Beatty will provide for disposal of the arisings from the site strip and excavations.

14.8 If shoring of excavation is required this will be provided by Balfour Beatty.

#### **HEALTH AND SAFETY**

15.1 Health and safety issues will take priority over archaeological matters and all archaeologists will comply with relevant Health and Safety Legislation.

15.2 A Risk Assessment will be prepared prior to the start of site works.

15.3 The Phase II Geo-Environmental Investigation Site Investigation Report (SKM Enviros, 2010) indicates a localised source of asbestos present at borehole 3. Where asbestos is encountered or suspected during the archaeological investigations Balfour Beatty will be informed immediately. It will be Balfour Beatty's responsibility for arranging removal and disposal of asbestos by qualified contractors. Archaeological works will be suspended in areas containing asbestos while it is dealt with.

#### **TIMETABLE & STAFFING**

16.1 The project will be managed by Glyn Davies (ArcHeritage Acting Operations Manager), who will be responsible for managing the fieldwork and reporting. Gary Millward (ArcHeritage Project Officer) will supervise the fieldwork Christine McDonnell (YAT Head of Curatorial Services) will manage archive preparation and deposition.

16.2 The project timetable is to be confirmed.

16.3 Specialist staff available for this work are as follows:

Head of Artefact Research - Dr Ailsa Mainman

Human Remains - Malin Holst (York Osteoarchaeology Ltd) & Rebecca Storm (University of Bradford)

Palaeoenvironmental remains – Dr Jennifer Miller (Dickson Laboratory for Bio-Archaeology)

Head of Curatorial Services - Christine McDonnell

Finds Researcher - Nicky Rogers

Pottery Researcher - Anne Jenner

Post-medieval Pottery – David Barker

Finds Officers - Geoffrey Krause & Rachel Cubitt

Archaeometallurgy & Industrial Residues – Dr Rod Mackenzie & Dr Roger Doonan

Conservation – Ian Panter

16.4 Alterations and additions to the specialist used will be discussed and agreed with SYAS before work is undertaken.

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17.1 ArcHeritage retain the copyright on this document. It has been prepared expressly for the named client, and may not be passed to third parties for use or for the purpose of gathering quotations.

#### **KEY REFERENCES**

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See also the HELM website for a full list of English Heritage Guidance documents.

<http://www.helm.org.uk/server/show/nav.19701>