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Connecting Derby Inner Ring  
Road

Archaeological Excavation  
and Watching Brief at the  
sites of King Street, Ford  
Street and Agard Street

Assessment of Potential and  
Updated Project Design

**Project No. 1913.02**

**July 2010**

**Connecting Derby Inner Ring Road**

Archaeological Excavation and Watching Brief at the sites of King Street,  
Ford Street, Agard Street, Stafford Street and Babbington Lane

**Assessment of Potential and Updated Project Design**

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**for**  
**Derby City Council**  
**Regeneration and Community Department**  
**Derby City Council Roman House**  
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## **Connecting Derby Inner Ring Road**

### Assessment of Potential and Updated Project Design

July 2010

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## Connecting Derby Inner Ring Road

### Assessment of Potential and Updated Project Design

July 2010

#### **Summary**

*Birmingham Archaeology was commissioned by Derby City Council Regeneration and Community Department to undertake an archaeological excavation and subsequent watching brief ahead of a proposed redevelopment of Derby Inner Ring Road. This report provides an assessment of the results of this archaeological work, carried out between March 2009 and June 2010 and outlines the remaining and recommended work necessary to achieve completion and dissemination of the project.*

*The route of the inner ring road and its proposed road line and junction improvements affected several sites of archaeological interest. The sites which required detailed archaeological mitigation included; land behind the seven stars pub, 85-89 King Street, the corner of King Street and St Helen's Street, Ford Street/ Friar gate car park and land at the corner of Agard Street and Ford Street, Stafford Street and the junction of Babbington Lane.*

*The results from the archaeological excavations provide extensive archaeological evidence which contribute to a greater understanding of the medieval and post-medieval periods in central Derby. Specific and detailed archaeological information has been recovered from the sites of the Old Crown Derby China Works, King Street (c 1848/9 – 1935) the Spar and Marble Manufactory, King Street (c 1802 – late-19th century, c 1869) and the site of 'Cheshyre's House', Friar Gate (c 1708 – 1938). In several of these cases the archaeological information has supplemented the extensive documentary evidence and important additional evidence has also been recovered.*

*Stratified archaeological deposits spanned a period from the 11<sup>th</sup> to 20<sup>th</sup> centuries. Residual evidence of prehistoric and Roman occupation was also recovered. Evidence relating to the medieval development of Derby City centre was primarily preserved on the Ford Street/ Friar Gate site, where extensive pitting, levelling and structural features were identified. Evidence of medieval field and burgage boundaries were discovered during watching briefs in the Ford Street Car Park and in Stafford Street. Further evidence of the medieval town, in the form of two severely truncated burials was noted at the corner of King Street and St Helen's Street.*

*Evidence of 18<sup>th</sup>-century domestic buildings was identified beneath the Ford Street/Friar Gate car park. These structures are known through the surviving historical records to form part of 'Cheshyre's House' constructed in c 1708. The 19<sup>th</sup>-century industrial heritage of Derby was represented by the bottle and muffle kiln bases and workshop buildings of the Old Crown Derby China Works and the Spar and Marble manufactory works boiler house, steam engine base, swimming pool and workshop buildings, identified on King Street. Evidence of burial practices of the 19<sup>th</sup> century, were preserved at the corner of Agard Street, where an intact, upstanding burial vault was exposed. This probably represented the surviving remains of the burial ground of the Calvinist (Particular) Baptist Chapel, known to have been located on this site.*

*This report represents the preliminary findings of these investigations with recommendations for further work.*

## **Connecting Derby Inner Ring Road**

### Assessment of Potential and Updated Project Design

October 2009

#### **1. INTRODUCTION**

- 1.1.1. Birmingham Archaeology was commissioned by Derby City Council Regeneration and Community Department to undertake archaeological fieldwork ahead of the redevelopment of Derby Inner Ring Road. The sites which required detailed archaeological mitigation included; land behind the Seven Stars Public House, 85-89 King Street, the corner of King Street and St Helen's Street, Ford Street/ Friar gate car park, land at the corner of Agard Street, Stafford Street and Green Lane/ Babbington Road Junction (Figures 1 & 2).
- 1.1.2. This report provides an assessment and updated project design of the excavations and watching brief carried out between March and August 2009. The report includes assessment of the archaeological findings of the site and of the environmental and artefactual evidence recovered. An updated project design is given alongside a publication outline and details of further work necessary for completion. The structure of the report is based on guidelines provided by English Heritage (1991; 2006a).
- 1.1.3. This report does not represent the final analysis of the excavation results, but outlines the remaining and recommended work which is necessary to achieve the dissemination of the project as outlined below.
- 1.1.4. The work follows on from a series of investigations undertaken over a number of years. These include initial desk-based assessment of the archaeological potential of the Road Scheme by John Samuels Archaeological Consultants (John Samuels 2004). Further desk-based assessment of the King Street/ St. Helen's Street site in 2004 (Hislop 2003); Historic building assessment and recording of the road scheme was undertaken in 2004, 2005, 2007 and 2009 (Hislop 2004; Driver and Hislop 2006; Tyler 2007; Hislop 2009) and archaeological evaluation of selected areas of the road scheme was undertaken in 2005 (Hewitson 2005). A detailed archaeological background of the site can be found in Appendix 1.
- 1.1.5. The excavation conformed to a brief produced by Derbyshire County Council (Appendix 5), and a Written Scheme of Investigation (Birmingham Archaeology 2009a; 2009b; 2009c; 2009d) which was approved by the Local Planning Authority prior to implementation, in accordance with guidelines laid down in Planning Policy Guidance Note 16 (DoE 1990).

#### **2. INITIAL AIMS OF INVESTIGATION**

- 2.1.1. The overall archaeological objective of the programme of archaeological mitigation was to secure *preservation by record (sensu PPG 16)* of the deposits to be impacted by the proposed road line and junction improvements.
- 2.1.2. The principle aim of the programme of archaeological work was to determine the character, extent, date, state of preservation and the potential significance of any buried remains.

- 2.1.3. More specific objectives were to;
- Examine, in part through comparison with the historic/ cartographic evidence, the extent to which we can claim to understand the character of settlement and activity in this part of Derby.
  - Examine medieval and post-medieval remains behind King Street.
  - Examine medieval remains in Friar Gate/ Ford Street.
  - Record and observe potential remains off Ford Street/ Agard Street/ Cavendish Road.
- 2.1.4. A methodological statement pertaining to the work can be found in Appendix 2.

### **3. SUMMARY AND EXCAVATION ASSESSMENT**

- 3.1.1. The following discussion provides an interim outline of the archaeology recorded at the site. Detailed summaries of the individual contexts are presented in Appendix 3 including context numbers and further interpretation. Full details are available in the project archive.
- 3.1.2. An overall phase chronology has been adopted for all sites, with sub-phases represented within individual sites. The phases follow the broad chronological template provided by the pottery dating. They are as follows;
- Phase 0 – Residual prehistoric/ Romano-British
  - Phase 1 – Medieval late-11<sup>th</sup> to 13<sup>th</sup> century
  - Phase 2a – Medieval 13<sup>th</sup> to 14<sup>th</sup> century
  - Phase 2b – Late medieval/post-medieval transition 15<sup>th</sup> to 16<sup>th</sup> century
  - Phase 3 – Early post-medieval 16<sup>th</sup> to 17<sup>th</sup> century
  - Phase 4 – Later post-medieval late-17<sup>th</sup> to 18<sup>th</sup> century
  - Phase 5 – Early modern period late-18<sup>th</sup> to 19<sup>th</sup> century
  - Phase 6 – Modern period 20<sup>th</sup> century
- 3.1.3. The sites can be variously identified by the context numbers attributed to them;
- 1000-1999: 85-89 King Street/ Old Crown Works
  - 2000-2999: 85-89 King Street/ Marble and Spar Manufactory
  - 3000-3999 and 4300 to 4499: Ford Street Car Park
  - 4000-4099: Severn Stars Public House, King Street
  - 4100-4199: Babbington Lane Watching Brief
  - 4200-4299: Stafford Street Watching Brief
  - 4600-4699 and 100-999: Agard Street Watching Brief
  - 5000-5999: St. Helen's Street Watching Brief
- 3.1.4. The numerical identification will continue throughout the report.

#### **King Street Excavations and Watching Brief: The Oratory of St. Helen's and surrounds**

##### *Phase 1a - 11th to mid-12th century*

- 3.1.5. Outside of southern edge of the King Street site and within St Helen's street were two truncated burial cuts which contained the remains of at least 3



individuals interred during the 11<sup>th</sup> to mid-12<sup>th</sup> century. This represents a surviving island of archaeology from the burial ground of the Oratory of St. Helen's, the majority of which was likely to have been removed during construction of the Marble and Spar manufactory in the early 19<sup>th</sup> century. There had been severe truncation both in antiquity and during the modern period leading to disturbed and disarticulated remains. (Figs. 3 & 7, Plate 6).

**King Street Excavations and Watching Brief: Land behind the Seven Stars Public House, King Street**

- 3.1.6. An area of land behind the Seven Stars Public House (constructed c 1680) was excavated due to the likelihood of finding features relating to the back-plot of the Public House. Evidence of any substantial occupation deposits or building foundations were not forthcoming within this excavation area, but there was incidental evidence of various industries and earlier activity, including medieval levelling deposits (Figs. 3 & 6, Plate 7).

*Phase 1/ 2 - medieval*

- 3.1.7. Generally, the site was characterised by levelling layers, which sealed the natural. These layers can be tentatively dated to the medieval period. One linear feature identified at the base of a pit and along the line of the southern boundary wall of the Seven Stars Public House, probably represented an earlier boundary ditch.

- 3.1.8. Two residual sherds of Samian Ware pottery were recovered from the levelling layers, confirming the known Roman presence in the area.

*Phase 4 - 17<sup>th</sup>/ 18<sup>th</sup> century*

- 3.1.9. A vaulted cellar and linear wall foundations were partially exposed along the northern edge of the excavation area, overlying and cutting the medieval layers. These were probably related to sections of demolished 17<sup>th</sup>-/ 18<sup>th</sup>-century outbuildings which were once part of the Seven Stars Public House visible on the 1767 map evidence (Burdett).

*Phase 5 - 19<sup>th</sup> century*

- 3.1.10. One rectangular pit was identified. The main fill of the pit appeared to be a deliberate waste deposit, and included ceramics which covered a long date range. Malt house tiles were also recovered from the fill of this pit. The presence of these reflects the cartographic evidence which suggest that there was a malt house situated on this site in the 19<sup>th</sup> century.

**Ford Street/ Friar Gate Excavations**

- 3.1.11. Six distinct phases of occupation and building construction were identified on this site, dating from the late-11<sup>th</sup> to the 19<sup>th</sup>-century period. These phases were characterised by occupation and construction episodes followed by levelling and restructuring. A finely worked flint scraper identified in the overburden and a Roman Flavian period brooch from medieval layers provided evidence of prehistoric and Roman occupation in the area (Figures 9-13, Plates 8-11).

*Phase 1 - Late-11<sup>th</sup> to 13<sup>th</sup> century*

- 3.1.12. Significant activity dating from the late-11<sup>th</sup> to 13<sup>th</sup> century was identified at the southern end of the excavation area. This activity was characterised by pit and post-hole cutting activity and occupation layers (Figure 9; Plate 8). Patterns of the distribution of these features may suggest possible structures with the Phase 1 features predominating in the west on the Friargate street frontage.
- 3.1.13. A series of layers overlay these earlier features. It is unclear as to the extent and coverage of these layers as they were truncated by successive periods of occupation and construction.
- Phase 2a - 13<sup>th</sup> to 14<sup>th</sup> century*
- 3.1.14. A period of urban growth followed during the 13<sup>th</sup> to 14<sup>th</sup> centuries (Figure 9). This can be identified by the construction of more permanent and robust structures and their associated occupation layers. A layer containing a large quantity of horn cores and associated burnt clay deposits, perhaps represent the accumulation of working debris close to an area of production. A pit containing the complete base of an *in situ* storage vessel was identified within one of the associated occupation layers (Plate 9) Taken as a whole these structures, deposits and features may have been part of a tenement plot (or plots) aligned approximately north to south against Friar Gate. The evidence suggests that along with the domestic elements, small scale industries were located here.
- 3.1.15. To the rear of the plot were a series of pits, including at least two lime pits and one containing residues that suggest that the land plot was being used for industrial purposes as well as waste deposition.
- Phase 2b - 15<sup>th</sup> to 16<sup>th</sup> century*
- 3.1.16. The foundations of these structures were constructed of sandstone and had survived well, partly due to their incorporation into a later arrangement of buildings (Figure 10; Plate 10). The structural elements attributed to this phase included a large medieval faced, rubble-core wall with two thinner walls attached to either end. There were two further sandstone walls of a similar construction, at this level.
- 3.1.17. Further waste pits were cut in this phase to the rear of the land plot. They were fewer and may suggest reduced occupancy in this time period. The dating of pits from these two phases is difficult and earlier pits may in fact reflect later occupation that has come to incorporate material from earlier occupation layers.
- Phase 3 - 16<sup>th</sup> to 17<sup>th</sup> century*
- 3.1.18. During the 16<sup>th</sup> to 17<sup>th</sup> century there was significant rebuilding and reuse of earlier sandstone foundations (Figure 11, Plate 10). A u-shaped structure, constructed of mixed materials (brick and sandstone), was tied in to the earlier foundations. A further wall was attached to its eastern side. Occupation surfaces were also present.
- 3.1.19. A large pit located during the watching brief to the rear of the land plot in along Ford Street contained considerable quantities of tile and may suggest that a structure was demolished at this time in this location. A rebuilding or renovation of the structures along Friargate may account for this.
- Phase 4 - 18<sup>th</sup> century (c 1708)*

- 3.1.20. A major construction phase commenced in 1708 with the establishment of a grand brick townhouse of three storeys (Figure 12; Plate 10). It appeared to partially re-use the earlier sandstone foundations laid down in the medieval period and present throughout the 16th-17th century. These foundations were re-used to form at least part of the southern elevation of the building. The plan of the building was well defined and included the main rooms, outhouses, paved corridors and yard surfaces (Plate 11). The ground to the rear of the property was significantly levelled with fertile garden soil.

*Phase 5/ 6 - 19<sup>th</sup> to 20<sup>th</sup> century*

- 3.1.21. During the 19<sup>th</sup> and 20<sup>th</sup> centuries additional buildings were constructed at the rear of the main house. These structures may have been remains of outbuildings at the rear of the property constructed as industrial properties. Further alteration of the frontage buildings occurred which included internal subdivision of the rooms towards the front.

#### **Ford Street Car Park Watching Brief**

- 3.1.22. Immediately north of the Ford Street Car Park excavations a watching brief was maintained on groundworks. It revealed evidence of occupation from the medieval to 19th century. The general ground level appeared to slope gradually from north to south towards the Markeaton Brook. A single medieval feature was a wide ditch (c 3m diameter), initially revealed in section during excavation of a service trench and subsequently fully exposed and excavated during stripping for the remainder of the roadway. The ditch would appear to have been a rear boundary ditch of the burgage plots facing Frairgate.
- 3.1.23. A later pit was revealed dating to the 17th/ 18th century and a series of brick-built walls were associated with the laying out and expansion of Ford Street in the 19th century.

#### **Stafford Street Watching Brief**

- 3.1.24. The watching brief revealed evidence dating from the medieval period to the 19<sup>th</sup>-century. Most notable was a ditch or natural feature seen at the southern end of Stafford Street that contained pottery dating in-filling to the medieval period (Figure 15). This corresponded closely with landscape feature visible on Burdett's map of 1767 and suggests that a former channel of the Bramble Brook may have passed along the approximate line of Stafford Street and towards the end of Frairy Street/ Abbey Street junction.

#### **King Street Excavations and Watching Brief: The Marble and Spar Manufactory**

- 3.1.25. The remains of the Spar and Marble manufactory works boiler house, steam engine base, swimming pool and workshop buildings were all identified. The buildings were laid out in ranges surrounding a central space, which in the latter period became covered over. The works were dated from c 1802 and there was fragmentary evidence of earlier 17<sup>th</sup>-/ 18<sup>th</sup>-century structures, which were incorporated into the eastern range. One residual sherd of Late Saxon

pottery was encountered within the levelled backfill of the boiler house (Figures 3 & 5).

- 3.1.26. Three distinct phases of construction and alteration were apparent during the 19<sup>th</sup> century. These sub-phases are fully outlined in Appendix 3 below.

*Phase 4 - 17<sup>th</sup>/ 18<sup>th</sup> century*

- 3.1.27. At the eastern edge of site, along King Street was a range of buildings, part of which may have been the re-used elements of Old St Helen's house (possibly 17<sup>th</sup> century). The construction of the western elevation in particular revealed successive rebuilds and brickwork dating to the 18<sup>th</sup> century. A trial hole dug against the western elevation to a depth of 1.05m exposed the foundations of two further walls, again confirming the extent of rebuilding of this range. These walls may predate this phase as their brick dimensions (2 to 2¼ inch depth) are comparable with examples from the 16<sup>th</sup> to 17<sup>th</sup> century. Brick however, is a notoriously poor dating tool due to its reuse and longevity in the archaeological record.

- 3.1.28. The sett cobbled road way (2034) between the Spar manufactory site and the Old Crown Works site was laid out by the mid-18<sup>th</sup> century. The build-up of material beneath the roadway (2035) was consistently dated to the late-17<sup>th</sup> to 18<sup>th</sup> century by pottery, glass and clay tobacco pipe.

*Phase 5 - 19<sup>th</sup> century*

- 3.1.29. The northern range of buildings comprised two main elements; the boiler and engine houses. The range appeared to be separated into three separate rooms by internal walls. The location of the boiler base itself has to be surmised, as a likely candidate for the boiler base was not found, but it is likely that it was situated within the central room of the northern range, where a brick arched flue was located (Plate 5). The westernmost room was only partially excavated, but set within its floor was a group of large Ashford Black Marble stone foundation blocks, these were probably used as a secure and level base for the steam engine.
- 3.1.30. Between the buildings of the northern range and the southern extent of the Derby China Works was a well preserved cobble sett roadway, typical of the type of road surface used at this period.
- 3.1.31. The foundations of a swimming pool, known to have been constructed by c 1827, were identified in the centre of site. This pool was reportedly heated by steam from the boiler (Steer 2003).
- 3.1.32. Many of the structures identified on site, including that of the east range and swimming pool, were abandoned and demolished in the later 19<sup>th</sup> century, making way for further construction and reorganisation of the site. The eastern range was demolished by 1884, and by 1886 the swimming pool had been covered over and a further building was built upon it (extant). The northern range stayed in tact throughout this period of alteration. During the later 19<sup>th</sup> and 20<sup>th</sup> centuries further buildings were erected upon the eastern side of site, in place of the originals, to again give it, its courtyard appearance.

### **King Street Excavations and Watching Brief: The Derby Crown China Works**

#### *Phase 5 – Mid-19<sup>th</sup> century (1848/49- )*

- 3.1.33. The well preserved remains of the Old Crown Derby China Works were identified along the western edge of King Street. The remains consisted of bottle and muffle kiln bases, workshop buildings and toilet blocks. The works dated from 1848/49-1935 and it was demolished and levelled in the later 20<sup>th</sup> century (Figures 3 & 4).
- 3.1.34. The excavated features and artefactual remains are well matched with the surviving documentary evidence. The alterations present in the successive mapping are apparent in the construction of the walls and the archaeology is able to confirm the location of interior elements not previously recorded. The artefactual evidence included occasional evidence of the items produced at the factory. These included decorative ceramics, biscuit fired ceramics and painted wares.
- 3.1.35. The remains of the bottle kiln were identified to the north of the China works site. The central oven consisted of a circular brick structure, intersected by radiating flues, above which would have been the firemouths. The wares would have been stacked in the central circular oven space within saggars until they became biscuit fired, a secondary firing, when the biscuit wares would have been glazed, would have taken place separately (Plates 1 & 2).
- 3.1.36. The remains of a contemporary rectangular kiln lay to the northeast of the bottle kiln. This was interpreted as a muffle (or glost) kiln and would have been used to fire the glazed biscuit wares in a regulated atmosphere, without direct contact with the products of combustion, the wares being fired via radiation and convection.
- 3.1.37. Evidence of workshop buildings were preserved to the east and south of these kiln buildings.

#### *Phase 6 - Early 20<sup>th</sup> century (1919/20)*

- 3.1.38. A further range of workshop buildings were situated to the south of the main kiln buildings. These were constructed in 1919/ 20 following the demolition of some earlier buildings (Plates 3 & 4). Within these buildings there was possible evidence of clay preparation and/ or storage. A shallow brick lined pit with roughly constructed tile floor, was likely to have been used for settling or storage. This was filled with yellow clay, reminiscent of the type of clay used in the manufacture of saggars and kiln furniture, which was perhaps made and fired on site.

### **Agard Street Watching Brief: The Calvinistic (Particular) Baptist Chapel**

#### *Phase 5 - 19<sup>th</sup> century*

- 3.1.39. The site lies at the junction of Agard Street, Cavendish Street and Ford Street. On the corner of Agard Street was the location of a Calvinistic (Particular) Baptist Chapel, constructed in 1794 with a vestry and burial grounds to the north end. The Chapel was demolished in the 1980s and some graves exhumed. The burial ground lay to the north of the chapel and there was the

potential for burials to the south as well. A concrete block containing the remains of unclaimed burials was known to still exist on the site.

- 3.1.40. The intact, upstanding burial vault was exposed at the corner of Agard Street and Ford Street prior to road construction work (Figure15). The burial vault represented the only surviving remains of the burial ground of the Calvinistic (Particular) Baptist Chapel (Plate 12). The burials survived as coffins within the vault and they lay within the route of the proposed road development. The coffins were exhumed as part of this process for environmental health reasons and reburied at the Nottingham Road Cemetery. Each coffin was placed in a new wooden box with all elements (brass fittings, stud decoration, organic elements etc. included).
- 3.1.41. The archaeological element of the exhumation process involved the detailed recording of the coffins and the vault structure. Access was obtained through the outer wall of structure. To the south of these was a probable internal dividing wall. The vault appeared to have several phases of construction.
- 3.1.42. Six lead lined coffins were recovered with associated coffin furniture, including 'brass' fittings (grips, grip plates and coffin plates), stacked one on top of each other in the northeastern corner of the vault. The coffins were well-preserved although the process of exhumation inevitably involved some damage to the decayed wooden elements. Coffin fittings were photographically recorded during the removal process, they were then included with the coffins for reburial. No human remains were examined during the process.
- 3.1.43. The Coffins have been identified as relating to six persons (see Appendix) with death dates from 1800 to 1841. A single coffin has a burial date that pre-dates the construction of the chapel (1776; Elizabeth Ward) and may suggest it was re-buried. It would seem then that the vault belonged to the Ward family. Archer Ward who provided the money for the construction of the Agard St Particular Baptist Chapel in 1794 ([www.wmward.org](http://www.wmward.org)). His status as the main benefactor of the Chapel is demonstrated by the position of the vault within the building and suggests he had the vault built after the death of his wife Elizabeth in 1796 and then was buried there himself in 1800. The names of those buried in the vault are as follows: Anne Hoby (b.27th may 1798, d.15th July 1830, Archer Ward (b.28th October 1741, d.22 July 1800), Elizabeth Ward (b.8th July 1734, d.1776) Archer Swinburne (d.Jan 11<sup>th</sup> 1841, aged 34), Thomas Ward Swinburne (d.June 20th 1825, Aged 64) and Mrs Anne Swinburne (d.April 2<sup>nd</sup> 1840, aged 71).
- 3.1.44. The vault and coffins have the potential for understanding burial practices with regard to Baptist community. They also provide important information for the local community and those tracing their ancestors.
- 3.1.45. The ground clearance of the site was also monitored (Figure 17). Evidence for three phases of construction was identified during the watching brief on groundworks. The first phase was associated with the Calvinist Chapel above and revealed the upper most courses of a stone built wall aligned north to south running parallel to Ford Street from the frontage of Agard Street. Possibly associated with this was a brick and stone lined storage pit (probably for coal).
- 3.1.46. At a slightly later date the frontage along Ford Street was developed with several 19th-century buildings. Associated with these to the rear were the remains of four wells. To the rear of the site were the possible remains of the

footings for the railway viaduct. The final phase of construction was associated with the 20th century buildings located on the site.

### **Junction of Green Lane/ Babbington Road Watching Brief**

- 3.1.47. The watching brief was during the removal of the road surface at the southern extent of Green Lane, at the junction with Babington Road. It revealed little evidence of medieval occupation. The upper horizon of a layer of orange-brown sandy silt produced medieval pottery but also 18th-century pottery and suggested a shallow mixed horizon. This probable relates to plough soils outside the boundaries of the medieval and early post-medieval town that were not occupied until the 19th century expansion of Derby.

### **Statement of preservation**

- 3.1.48. The preservation of features was acutely affected by the subsequent land usage of each site. On King Street, the 19<sup>th</sup>-century features (china works and marble and spar manufactory) survived well. This was to the detriment of the possible underlying remains, which had largely been truncated by this later construction and associated cellaring.
- 3.1.49. The methodology of excavation has also, substantially affected the outcome of these archaeological results. The maximum depth of machine stripping in each area was 600mm below finished road level. This was often around foundation level for the 19<sup>th</sup>-century structures. In some cases in particular at Ford Street Car Park this varied. In most cases the level of excavation was above the natural deposits, and it is therefore possible that earlier archaeological features survive beneath this level. However, in the case of the area around Ford Street Car Park it is likely that all archaeologically significant remains have now been removed.
- 3.1.50. The medieval remains (Ford Street/ Friar Gate and King Street/ St Helen's Street) were primarily dated through the few securely dated features, and their stratigraphic relationships. There was good ceramic, and structural evidence to date these earlier features. Dating of the 19<sup>th</sup>-century features was successfully achieved through a combination of stratigraphic relationships, material evidence and documentary sources.



## **4. ARTEFACTUAL ASSESSMENT**

- 4.1.1. The nature of the work involved within the Connecting Derby Road Scheme has led to an artefactual assemblage that reflects the chronological time-scale encountered within the sites. The nature of any road scheme means that it produces a linear sample of a series of sites that are often unconnected in both time and geography. The results of this report are no different, with artefacts from the prehistoric, Roman, medieval, post-medieval and modern periods. However, there is a clear distribution associated with the medieval, post-medieval and modern periods.
- 4.1.2. The artefactual assessment has included the remains of a single flint scraper; residual Roman pottery; a significant assemblage of medieval pottery, as well as post-medieval pottery and modern pottery associated with the Crown Derby China Works; clay tobacco pipe; vessel and window glass; both ceramic building material and artefacts; assemblage of ferrous and non-ferrous metal items and industrial residues.
- 4.1.3. The finds are discussed by material group. Full assessment and data reports are given in Appendix 4, the following sections detail the nature, preservation and potential of each material group.

### **4.2. Flint** by Barry Bishop

- 4.2.1. A single opposed-platformed blade core with keeled striking platforms was recovered as a residual find in a levelling layer from Ford Street (unstratified).
- 4.2.2. There is some battering to its edges that suggest it may have been used as a chopper or even a hammerstone after it had become exhausted, and it is dateable to the Mesolithic or Early Neolithic periods.
- 4.2.3. On its own the flint has limited archaeological potential. However, the flint is unusual given its location and should be placed in its context and illustrated as part of the full report. It is stable and can be included as part of the archive.

### **4.3. Pottery** by Chris Cumberpatch

- 4.3.1. 1,373 sherds of pottery were recovered from the site weighing 32,746g during the watching brief and excavation phase. In addition to this 544 sherds weighing 5,875g were recovered during the evaluation stage of the work. Additional material from a second phase of excavation at Ford Street and a series of watching briefs on the line of Stafford Street, Ford Street, Agard Street and Babbington Lane have also been included. The details of these have been incorporated into the initial data set including spot dates but additional comment with regard to assessment has been left until full post-excavation.
- 4.3.2. Two sherds of Samian Ware were recovered from levelling layers 4022 and 4008. These layers also contained ceramics dated to the medieval period (11<sup>th</sup> - 12<sup>th</sup> century). These residual sherds of Roman ceramics confirmed the known Roman presence in the area.
- 4.3.3. Contexts with assemblages which appear to be wholly of medieval date were 2090, 3012, 3018, 3030, 3047, 3054, 3063, 3064, 3072, 3079, 3101, 3115,



3118, 3122, 3127, 3128, 4008, the charnel fill context (5005) and possibly 3003, 3029 and 3071. A group of contexts with double context numbers (probably cut and fill numbers) also produced small quantities of medieval pottery; (3087) [3086], (3088) [3086], (3103) [3102], (3117) [3116], (5001) [5000], (5006) [5005]. It should be noted that some of these contexts produced very small quantities of pottery and as there is evidence of residuality in the form of small quantities of medieval pottery in later contexts from the site. Generally some caution should be exercised with regard to those contexts with only one or two sherds. Medieval pottery was also recovered from the assessment trenches, as detailed in the earlier report (Cumberpatch in Hewitson 2005) and as indicated on the relevant data tables (see archive).

- 4.3.4. Mixed contexts which include residual medieval pottery included 1037, 2048, 3003, 3029, 3045 and 3074. Context 2048 was notable for the presence of the sherd of Torksey type ware mentioned above.
- 4.3.5. Post-medieval pottery (dating to the period between the mid- to late-15<sup>th</sup> century and the end of the 17<sup>th</sup> century) was recovered from a number of contexts but in very few cases did there appear to be contexts with assemblages exclusively spanning this date range. Context 3002 produced the only sherd of Cistercian ware (c 1450 – c 1600) from the main phase of the excavation and this was associated with later types of pottery. 17<sup>th</sup>-century Blackwares were commoner, notably in contexts 3044, 3002 south and subsoil layers, but were invariably found associated with later pottery (e.g. context 3045). It would seem that the post-medieval contexts on the site have been extensively disturbed by later activity and the material incorporated as a residual element into later groups.
- 4.3.6. Early modern pottery (c 1720 – c 1820) was recovered from a variety of contexts including 1024, 2006 and 2053, while contexts 1036, 2035 and 3055 produced somewhat more mixed groups which included either small quantities of later pottery or wares such as Pearlware which overlapped with the earlier types such as Creamware.
- 4.3.7. A brief note should be added on the Brown Glazed Coarseware (BGCW) which was distinguished by the presence of red slip underneath the glaze. While slip coating is common on 18<sup>th</sup>-century tablewares, it is generally rare on Brown Glazed Coarsewares and the examples here may well be from a single pottery where this practice was commonplace.
- 4.3.8. Broadly speaking both the post-medieval and early modern phases of the sites, while clearly present, do not seem, on the basis of the pottery evidence, to have been well preserved. The integration of the data from the site, including that from other artefacts notably the vessel glass and clay tobacco pipes and the observations on the stratigraphic record will be required before a satisfactory account of these phases of the site is possible.
- 4.3.9. The latest phases of activity on the site can be broadly divided into two parts; those with evidence for porcelain manufacture and those without. Evidence for the occupation of the site by the Old Crown Derby Works exists in both documentary (cartographic) and archaeological form and the presence of artefactual material associated with porcelain manufacture is unsurprising. Contexts 1001, 1021, 1022, 1023, 1028, 1037, 2001, 2002, 2010, and 3020 all produced fragments of biscuit fired pottery, sherds damaged during firing and, of most interest, a number of pieces of glazed porcelain bearing patches

of colour apparently fired under test conditions, presumably to assess the behaviour of the colours during firing. Examples from contexts 1021 and 1022 also bore sample numbers and dates, indicating that these tests were taking place at the very end of the life of the pottery in March and April 1935. Details of the individual pieces are given in the data tables (see archive).

- 4.3.10. Sherds of biscuit fired Whiteware were noted in contexts 1037 and 2004, suggesting that the pottery was not only involved in the manufacture of porcelain but also refined earthenwares.
- 4.3.11. Pottery manufacture produces a considerable amount of waste material in the form of saggar fragments, kiln shelving, vessel props and stilts and pieces of clay rod used to seal saggar lids and to separate items in the kiln. While this waste was often sold for road making and mending and as hardcore for building, much was also discarded around the site or used to make paths and hard areas. In the present case the material listed in the data tables appeared to have been dumped rather than reused and was generally mixed with larger assemblages of pottery. Dating rods and saggar fragments is difficult, but the ring stilts from contexts 1001 and 2001 appear to be late in date and are entirely consistent with the dates written on the test sherds discussed above. The ring stilts were not abundant but three size and form groups were identified. The sizes are recorded in the data tables:
- Type 1 stilts have one flat face and one 'U' shaped face with a wide groove between the internal and external sides
  - Type 2 stilts have an 'L' shaped profile with the upright on the inner side of the ring
  - Type 3 stilts have an asymmetrical triangular profile
- 4.3.12. In addition to the evidence for porcelain manufacture, the site also produced a considerable number of Brown Salt Glazed Stoneware (BSGSW) bottles from contexts 2001, 2012, 2045, 4014, 4021 and 3002 Centre. The bottles fell into a number of distinct size classes which for the purposes of description were recorded as Classes 1, 2 and 3, as follow:
- Class 1: Base diameter 58mm – 62mm: 19 bases , two were part full of a white mortar-like material, two survived to shoulder height (92-93 mm) no complete profiles, several with minor blistering from firing, usually with a cone inside the base from throwing
  - Class 2: Base diameter 72 – 76mm; none survived to shoulder height
  - Class 3: Base diameter 79mm – 81mm; two survived to shoulder height and these were different as noted in data tables.
- 4.3.13. It is unclear whether the Class 1 bottles with blistered bodies were manufactured on the site or whether the bottles were usable in spite of their imperfections. If the latter was the case then it might be that the bottles contained something that was used in the manufacture of the pottery which would account for the presence of such a narrow range of sizes on the site.

#### *Recommendations*

- 4.3.14. The site fully justifies a full report covering all phases of activity from the earlier medieval onwards. It is unlikely that under present circumstances it will be possible to advance very much further with the identification of the medieval pottery to specific sources but further work should involve the

comparison of the various fabrics and the presentation of a type series including more comprehensive fabric descriptions which are consistent with current practice. A specialist report will be required to cover the sherds of Shell Tempered ware, a cost for which is included in the figures below.

- 4.3.15. The later pottery will also be included in the type series as it is of considerable interest in local and regional terms.
- 4.3.16. Further details of the wares associated with the Old Crown Derby works will also be of interest and a representative range of the sherds and production waste should be selected for illustration. Some drawings will be required but the porcelain test pieces will perhaps be better represented by photographs or digital scanned images.
- 4.3.17. Once the work on the stratigraphic and structural narrative has been completed it will be possible to discuss the significance of the pottery with reference to this and perhaps to elucidate the significance of the post-medieval and early modern wares which, as noted above, are difficult to interpret in isolation owing to the ambiguities surrounding the contexts concerned. The evidence of other artefact categories, notably vessel glass and clay tobacco pipes will also be of interest in this respect.
- 4.3.18. The pottery is stable and can be included as part of the material archive.

#### **4.4. Clay Tobacco Pipe** by Erica Macey-Bracken

- 4.4.1. A total of thirty clay tobacco pipe fragments were recovered from the site, see Appendix 3. Of these 23 were stems and a further seven were bowls, or stem bowl junctions.
- 4.4.2. None of the stems were diagnostic. The most complete bowl, recovered from an overburden levelling layer (2035), a large, thin-walled bowl with a long spur, was tentatively dated to 1840 – 60 (Ayto 1999). A further five stem/ bowl fragments came from a single deposit (4014) whilst a further stem/ bowl fragment came from deposit 3003. All the deposits containing these fragments can be dated by association to the 19<sup>th</sup> century.
- 4.4.3. The bowl fragments should be examined as a group by a specialist in order to set them within their local context. Illustration should be undertaken of the complete bowl fragment. The clay tobacco pipes are stable and should be included as part of the material archive.

#### **4.5. Ceramic Artefacts** by Erica Macey-Bracken

- 4.5.1. Two ceramic wheels were recovered from an overburden layer (1001). Both wheels are glazed, the smaller of the two with a dark brown glaze and the larger with a red-brown glaze. The smaller wheel, which was 28mm in diameter showed signs of heavy wear on its sides. The larger of the two wheels, which was 38mm in diameter, was also worn on its sides but not to the extent that the smaller wheel was. It is possible that these items are castor wheels.
- 4.5.2. The artefacts come from a non-secure stratigraphic level and as such cannot be related to a specific process, structure or time period. Therefore no further

work is recommended for the objects apart from cataloguing as part of the full report. No illustration is necessary. The objects are stable and should be included as part of the material archive.

**4.6. Glass** by Cecily Cropper

- 4.6.1. The assemblage from the excavation totalled 99 fragments, comprising 74 from bottles (from a maximum of 43 individual bottles), 6 from vessels and 19 from window glass (from a maximum of 8 individual glass panes).
- 4.6.2. Overall the assemblage is highly fragmented and is focused within the date range of the 18<sup>th</sup> to 20<sup>th</sup> centuries. The earliest glass is represented by 18<sup>th</sup>-century wine bottles, in particular contexts 2035 and 3002 (Centre) that both yielded early to mid-18<sup>th</sup> century Onion bottle fragments.
- 4.6.3. The bottles range from early 18<sup>th</sup>-century types through to late-19<sup>th</sup>/ early 20<sup>th</sup> century examples including a complete household/ poison bottle manufactured by the York Glass Company dating from between 1835-1900 (context 2014). The majority of fragments are of wine/ beer bottles but household and medicines are also present, as well as three phials.
- 4.6.4. 5 vessels are represented, all being from lead glass or crystal and all of which has been deep cut or possibly pressed (contexts 1037, 4014). All vessels are examples of tableware.
- 4.6.5. One piece of window glass stands right out from all the others, that of a bullseye, the centre of a spun roundel of glass used for glazing. The use of these pieces took on a whimsical use rather than functional particularly in the 19<sup>th</sup> century onwards. The piece has been cut and also grozed, nibbled along one edge with pliers to take off superfluous glass, so this indicates that it was most likely used in some leaded glazing. The other piece of interest is a shaped border fragment, again cut to a specific shape and grozed along one edge. This would have been incorporated into a decorative leaded window or door panel.
- 4.6.6. The assemblage is too fragmentary to be of any intrinsic informational value to the site as a whole. As such little further work is suggested other than a basic final report outlining the bottle typology and a note on pieces of interest within the bottle and window assemblages. No illustrations are deemed necessary. The assemblage is stable and should be included into the material archive.

**4.7. Ceramic Building Material** by John Tibbles

- 4.7.1. A total of 323 fragments of brick, tile, flue lining and stone – with a combined weight of 51730g were submitted for assessment. The assemblage was recovered from 33 contexts and comprised of material dated from the medieval, post-medieval and 19<sup>th</sup>/ 20<sup>th</sup> century (see Appendix 4, Table 4.6).
- 4.7.2. *Brick:* A single complete brick from the overburden (2001) measuring 215 x 100 x 45mm displayed signs of wear suggesting side elements of a malting floor. Mortar over upper surface and breaks indicates reuse.
- 4.7.3. Within the material from within the upper fill of the kiln flue (1037) were two fused lumps of bricks from the construction fabric of the kilns. Size of the bricks was not discernable.

- 4.7.4. The bricks recovered from the machine-footings (2030) and the modern man-hole (2020) may represent re-use of earlier materials. The dimensions of the example from 2020 (235mm x 115mm 60mm) are comparable with a late-18<sup>th</sup> century date and the example from 2030 (255 x 120 x 75mm), possibly representing a 'Tax' brick of c very late -18<sup>th</sup> to early 19<sup>th</sup>-century date (Hartley 1974, 75). The example from wall foundation 2046 displayed (dimensions 230 x 110 x 58mm) and of hand-made manufacture. Size is comparable with examples from the 16<sup>th</sup> to 17<sup>th</sup> century (Lloyd 1925, 92).
- 4.7.5. The complete bricks recovered from context 3017, displaying dimensions of 230-235 x 110-115 x 52-55mm (9/ 9¼" x 4½" x 2/ 2¼") are comparable with other bricks of the late-17<sup>th</sup> to early 18<sup>th</sup> century (Lloyd 1925, 90-9). The two joining fragments from wall foundation 3011 displayed complete brick dimensions of 230 x 110 x 40mm and of hand-made manufacture. Size is slightly thinner than comparable examples from the 16<sup>th</sup> to 17<sup>th</sup> century (Lloyd 1925, 92). However, best-fit scenario would suggest a medieval date of manufacture biased towards thickness. Of the three brick examples from contexts 3024, 3040 and 3068, the example from wall 3024 (230 x 110 x 65mm) displays 'pressed' characteristics of probable late-17<sup>th</sup> to 18<sup>th</sup>-century date. Buttress 3068 example measuring 230mm x 110mm x 45mm, based on a best fit may be of a 15<sup>th</sup> to 16<sup>th</sup> century date (Lloyd 1925, 96-97). The dimensions of the example from 3040 (255 x 126 x 78mm) are comparable to 'Tax' bricks of late-18<sup>th</sup> to early 19<sup>th</sup> century date (Hartley 1974, 75).
- 4.7.6. Three part bricks (4014) displaying residual dimensions of 110-115mm x 37-40mm (4½" x 1½") also displayed heavy wear on one surface suggesting side elements of a (malting?) floor. Width suggests a date range between the 17<sup>th</sup> to 19<sup>th</sup> centuries, the lack of full length and thickness preventing a more concise date.
- 4.7.7. *Flat tile:* Fifty-six fragments of flat roof tile representing 17% of the total assemblage were identified of which none were complete. Only one fragment displayed width and thickness (context 3029 185mm x 15mm). Thickness ranged between 13-22mm. Three joining fragments from 3029 and one fragment from 3065 displayed elements of a single centrally pulled nib suggesting a medieval date of manufacture. A single fragment from context 1037 displayed a black 'glaze-like' coating often found on pantiles therefore this fragment could be of either type.
- 4.7.8. *Pantile:* Two fragments of pantile with a thickness of 15mm represented <1% of the assemblage. No evidence of suspension was identified on either fragment. Fabric and manufacturing characteristics would suggest late-18<sup>th</sup> to 19<sup>th</sup>-century date.
- 4.7.9. *Ridge tile:* Two fragments of ridge tile 20mm thick were recorded within context 1035 representing <1% of the assemblage. No mortar or glaze was identified on either fragment.
- 4.7.10. *Malting tile:* Four fragments of glazed tile of which 3 are probably the same tile. Larger fragment (205 x 30mm thick) is slightly thicker. Upper surfaces on all fragments display extreme wear.
- 4.7.11. *Wall/ floor tile:* Six fragments of glazed floor/wall tile from within context 1001 are of a late-19<sup>th</sup>/ 20<sup>th</sup>-century date of manufacture.

- 4.7.12. The majority of the assemblage has limited archaeological potential, due to its size and limited diagnostic nature. None of the remains warrant illustration. The remains as a whole are stable. Discussion should be conducted with Derby City Museums about the suitability of the material for the archive and a discard policy implemented with the material photographed prior to discard. Examples should be included as part of the material archive.

**4.8. Worked Stone** by Erica Macey-Bracken with identification by Rob Ixer

- 4.8.1. Only one stone artefact was recovered from the Old Crown Works, King Street (1001, Phase 6). This was a fashioned fine-grained micaceous sandstone wheel associated with grinding/ polishing of a possible Pennines origin from modern deposits.
- 4.8.2. The single stone artefact, the grindstone, is of limited significance given its modern deposition. No further work or illustration is recommended. The artefact is stable and can be included as part of the material archive.

**4.9. Unworked Stone** by Erica Macey-Bracken with identification by Rob Ixer

- 4.9.1. A total of 26 stone samples were taken from the excavations. These came from 13 separate contexts. These are catalogued in Appendix 4.
- 4.9.2. Stone items related to samples of marble associated with the Spar Marble Works or as scatter in contexts at the adjacent Old Crown Works. Of the samples there was a clear bias towards the local providence Derby Fossil Stone also known as Derbyshire Deene. This is a limestone with large crinoidal debris and was a common, locally quarried ornamental 'marble'. Locally these fossiliferous limestones were called called screwstones. A number of quarries in Derbyshire produced this 'marble' including those from Monyash east of Bakewell. Many of the Derby Fossil Stone fragments have mortar attached to them so are true facing stones. Although most of the specimens are very similar a minority differ in the size of their fossils and so may have a different geographical origin. However all the material is local/ regional in origin.
- 4.9.3. The fine-grained micritic limestones are probably local as many occur in Derbyshire including the famous and highly decorative Ashford Black Marble. The presence of polished local siltstones and sandstones shows the variance of material adopted for the production of dressed stone.
- 4.9.4. The presence of non-localised stone including a fragment of Mesozoic limestone that looks like Purbeck marble from Southern England. Some of the very white fine-grained Carrara-type marble has very well-polished surfaces and mortar is absent but others have traces of mortar adhering to them. This is a true metamorphic marble and is probably not British as pure white marbles are rare in the British Isles, the main 19<sup>th</sup> century source for British marble was the Isle of Skye and that was famous for its green veining.
- 4.9.5. The assemblage has some potential to further elucidate the types of marble worked within the factory. Quantification, cataloguing and petrological examination has been undertaken as part of the assessment. No further analysis is required. Further work should concentrate on research to establish



the known origins of marble within the works and establishing potential trade links associated with the marble.

- 4.9.6. The stone types should be illustrated by means of detailed photography of cross-sections to allow future research for provenance. The assemblage is stable and does not require conservation. A discard policy should be undertaken for the majority of the assemblage with good examples of each stone type kept for the archive. The stones should be photographed digitally for the archive prior to discard.

**4.10. Fe Metal Artefacts** by Erica Macey-Bracken

- 4.10.1. Twenty-four iron finds were recovered from the site, including seven nails (1001 x 3, 1027 x 1, 2007 x 1, 2012 x 1, 3002 x 1). Other identifiable iron find included a short section of coiled wire (1001), two hooks with threaded ends for screwing the hook to a wall or ceiling which were recovered from the fill of a kiln ash pit (1021), a bent rod (4017) from the lower backfill of a cellar on the Seven Stars site and the head of a shovel or spade, which was found in demolition rubble (2004).
- 4.10.2. Other iron items from the site included two possible fitments (2045, 4017), a circular item (1001) in three pieces and seven unidentified conglomerated iron covered with corrosion products (1027 x 1, 1037 x 1, 3072 x 2, 4004 x 2, 4017 x 1).
- 4.10.3. The fe metal artefacts are generally of domestic or industrial nature. None of the identified objects are sufficiently significant to warrant any further work. For the purposes of the archive deposition requirements all of the iron assemblage requires x-ray. After the completion of the x-rays the unidentified conglomerated iron artefacts should be examined as this may help to identify their form and function. The fe metal artefacts should be included as part of the material archive.

**4.11. Cu Metal Artefacts** by Erica Macey-Bracken

- 4.11.1. Eighteen copper alloy items were recovered from the site. Most of the material was relatively easily identifiable, including domestic and industrial items such as a rectangular buckle (1001), a circular handle with mounting (1022), a pulley (1037), two nails (2045), a button (4014) and a curtain ring (U/S).
- 4.11.2. Personal and domestic items recovered from the site included the buckle (1001), which was rectangular, with the long sides tapering outwards to form a point. It was made from thin metal and was plain, with no decoration on either side. A button, which was recovered from pit fill 4014 was also undecorated. This item had a circular loop for attaching to an item of clothing on the rear. A curtain ring was also recovered from the fill of a posthole (3052).
- 4.11.3. The circular handle from the clay storage pit (1022) had part of its mount attached. The handle itself was very small and thin, and may have been for decorative rather than practical purposes. Another handle, this one from a drawer or other piece of furniture, was recovered from a layer of overburden (1001). This item was decorated with a floral and leaf design on the plate which would have attached to the drawer.

- 4.11.4. Industrial, and possible industrial items recovered from the site included two lots of nails (2012 x 3, 2045 x 2), a pulley wheel recovered from the upper fill of the kiln (1037), two flat brass discs recovered from the same overburden (1001) layer as the drawer handle, and a possible cap with a circular hole drilled through the centre and a slightly wedge-shaped copper strip were recovered from the fill of the chimney belonging to flue 2030 (2039). Three short fragments of twisted wire were also recovered from a posthole (3052).
- 4.11.5. One small scrap of copper alloy was also recovered from the heavy residues of a sample from the fill of a brick-lined chimney or pit (2012, Sample 3).
- 4.11.6. A single Roman Brooch initially identified to the Flavian period was recovered from a medieval levelling layer (4316) during Ford Street Excavations. The brooch has been sent for conservation. Once conservation has been undertaken the brooch will be archive stable and can be included as part of the material archive. Further specialist analysis and reporting is recommended for the full report. The brooch should be illustrated from the full publication.
- 4.11.7. Further research will allow dating and comparative understanding of the domestic copper alloy items. These include the buckle (1001) and drawer handles (1001, 1022). These should be catalogued and the buckle should be illustrated for full publication.
- 4.11.8. Several of the industrial items may be associated with specific aspects of production within the pottery works. Identification of the industrial items should be undertaken for the pulley (1037), flat brass discs (1001) and copper strip associated with the flue (2039). Where the objects are directly related to industrial structures further analysis is recommended for the full report with illustration by photographic means. The Cu metal artefacts are stable and as such should be added to the material archive.
- 4.12. Pb Metal Artefacts** by Erica Macey-Bracken
- 4.12.1. Six fragments of possible window calme were recovered from the overburden that was present across the site (3002).
- 4.12.2. The window calme should be catalogued and comments incorporated into the full glass report. No illustration is necessary. The remains are stable and should be incorporated into the material archive.
- 4.13. Leather Artefacts** by Erica Macey-Bracken
- 4.13.1. Six fragments of dried leather were recovered from context 2045. The fragments included two shoe sole parts and a shoe upper, as well as three smaller fragments that may well also be shoe fragments. Copper alloy pins were visible in both the sole and the upper fragments.
- 4.13.2. The shoe fragments come from a context dateable to the late-19<sup>th</sup> to 20<sup>th</sup> century and clearly represent waste from the demolition or the period of latest abandonment of the site. Although further information may be obtainable from a leather specialist the date of these remains does not conform to the research aims of the project as set out in the brief. Long-term preservation of the dry



leather may be possible but the value of these remains is limited and as such a full photographic record of the remains should be produced prior to discard.

**4.14. Worked Bone** by Matilda Holmes

- 4.14.1. Only two bone items were identified as being worked. The worked bone implements took the form of a hole punched in a long bone from a large bird such as a goose (2004, Phase 6), and a handle constructed from a mammal long bone, with metal inserted inside (3002, Phase 6).
- 4.14.2. Both the items came from Phase 6 contexts and because of their late date no further work is recommended. The items are stable and can be included as part of the site archive.

**4.15. Other Artefacts** by Erica Macey-Bracken

- 4.15.1. Other finds from the site included shell, mortar, plaster and charcoal. The material was quantified by count and weight and examined macroscopically for the purposes of this assessment.
- 4.15.2. The charcoal should be included in discussion of other fuel types (see 4.16 below). The shell, mortar and plaster were generally from 19<sup>th</sup>-/ 20<sup>th</sup>-century contexts and no further work or illustration is recommended. They are stable and should be included as part of the material archive.

**4.16. Industrial Residues** by Chris Hewitson and Will Mitchell

- 4.16.1. A series of industrial samples have been taken in order to answer specific questions with relation to features including the kiln and kiln complex. These have been taken in line with advice issued within the English Heritage publication *Science for Historic Industries* (2006).
- 4.16.2. From the site of 85-87 King Street, the Crown Derby Works a series of bulk industrial samples were taken (Sample Nos. 1-6). In addition to this a single bulk sample was taken from the adjacent site behind the Severn Stars (Sample No. 200).
- 4.16.3. The samples from the King Street site have been predominantly taken to assess fuel types. Samples 1 (1021), 3 (1027), 4 (1030) and 5 (1033) have all been taken in order to assess what fuel was present within the samples. The samples have been assessed for fuel types (see appendix 3). No further work is recommended for the samples and the flots and heavy residues should be added to the material archive.
- 4.16.4. Sample 2 (1028) was taken as a specific sample from the remains of a sealed tank (1025) that contained very clean clay. The sample was identified as having the potential for analysing the composition of the clay as it was believed that it may possibly relate to the same material with which the Crown Derby saggar and kiln furniture ceramics were produced. Once analysis of the material has been completed the sample should be discarded.

- 4.16.5. Sample 6 (1034) was specifically taken from the 'cork' the material that made up the base of the kiln that is of a very specific soil composition designed to stop the soil drying out and cracking and thus causing the pottery kiln to collapse. By analysing the materials composition it is hoped to compare this with other excavated examples from the same time period (eg Barker and Goodwin in English Heritage 2006, 8). Once complete the sample should be discarded.
- 4.16.6. The heavy residues and flots should be included as part of the material archive.

**4.17. Archaeo-metallurgical Residues** by David Starley

- 4.17.1. One box of metalworking debris, containing 14.4kg of slag was visually examined. This material was classified into the standard categories based on those used by the former English Heritage Ancient Monuments Laboratory. Visual observation of the exterior was backed up by examination of fresh fracture surfaces, the use of a geological streak plate and magnet. The detailed breakdown of debris by context is attached in Appendix C. Table 14 presents a summary of these findings, based on the categories used and the metalworking or other activities which are indicated by the debris.
- 4.17.2. Some forms of slag are visually diagnostic, providing unambiguous evidence for a specific metallurgical process. However, a high proportion of the material from Derby did not correspond to these categories. As is normally the case, much material can only be classified as undiagnostic ironworking debris or even possible metalworking waste. Perhaps surprising was a significant proportion of material that has been recognised from other sites across the UK but for which no agreement has yet been reached as to a single process, and it seems these too might be better classed as undiagnostic, if they were not supported by the evidence of other debris.
- 4.17.3. In terms of scale of activity the quantity of material recovered from the two sites amounts to no more than about one day's smelting and about the same of smithing. There appears to be no supporting evidence for activity on the site, with the possible exception of some corroded iron lumps, which could be smithing waste. It would seem most likely that any focus for these activities lay outside the areas of excavation. The identification of iron smelting and smithing do however, together with the findings from King St (Bain 2006), begin to raise an awareness of iron production and working in the medieval and post-medieval town.
- 4.17.4. Although the examination of the debris from Connecting Derby Inner Ring Road, reached only limited conclusions, it is not considered that further analytical examination of material from this site is justified.
- 4.17.5. Ironworking slag, being predominantly fayalitic, is not prone to deterioration and requires no special storage treatment. Ideally the material could be washed and re-bagged. It is recommended that all the slag and other technological debris should be saved, particularly to allow future researchers the opportunity to examine the more unusual types present in this assemblage.

## **5. ENVIRONMENTAL ASSESSMENT**

- 5.1.1. The environmental evidence included bulk samples taken for environmental remains in particular plant macros, animal bone and human bone remains.
- 5.1.2. Assessment of the environmental evidence has been limited to assessment of the plant macros. This was due to the fact that no archaeological contexts were excavated that displayed suitable conditions or potential for either waterlogged plant remains, coleoptera remains or pollen remains and therefore no specialist sampling such as bulk waterlogged sampling, monolith or pollen spot sampling was undertaken. Bulk samples were taken of contexts where potential for plant macros were present and suitable dating evidence occurred.
- 5.1.3. In addition to this several bulk samples were taken specifically for industrial residues (see above).

### **5.2. Plant Macro Assessment** by Ros McKenna

- 5.2.1. Bulk samples were taken of deposits (10 to 40L) where conditions of preservation suggested the possibility of preserved organic remains. A total of 8 bulk samples were assessed for environmental remains.
- 5.2.2. Charcoal fragments were present in all of the samples, and scored a maximum of 4 on the semi quantitative scale. Due to the small size of the charcoal fragments and their poor preservation, no interpretable information can be gained from the samples.
- 5.2.3. Charred plant macrofossils were present in most of the samples and were relatively well preserved, but were generally only present in small volumes, and hence there could be no interpretable information gained from their study. In SN.101 (3003) however, the preservation was good and the diversity and abundance of remains was high.
- 5.2.4. Ceramic building material (CBM) and slag fragments were present in a number of the samples, and this could point to some sort of industrial activity associated with the features which these samples came from.
- 5.2.5. Root/ rootlet fragments were also present within the majority of the samples. This indicates disturbance of the archaeological features, and this may be due to the nature of some features being relatively close to the surface, as well as deep root action from vegetation that covered the site. This disturbance is further confirmed by the presence of waterlogged plant macrofossils present in limited volumes in a lot of the samples. The preservation of these was excellent and it is probable that they are modern contaminants. Those present (*Sambucus nigra* and *Betula* sp.) are both species often found in varying abundance in archaeological samples as a modern contaminant.
- 5.2.6. It is recommended that a full analysis of the plant macrofossils from SN.101 (3003) is undertaken.
- 5.2.7. A quick assessment of the other samples will be incorporated into the analysis report, however these samples produced very small assemblages and so independently are of little value. No further interpretable proxy evidence such as archaeological waterlogged plant remains and insects were recovered from the remaining samples, hence further environmental analysis on these samples is not recommended. Taphonomic and post-depositional processes at the site

clearly preclude the preservation of identifiable or interpretable, site-specific proxy evidence.

- 5.2.8. Any sediment that remains from these samples and others from the site can be discarded with the agreement of the project manager and the development control archaeologist.

**5.3. Animal Bone** by Matilda Holmes

- 5.3.1. This very small assemblage of 48 fragments identified to species or anatomy included a range of animal, bird, fish and amphibian bones (tables 4.10 and 4.11), the majority of which came from undated and post medieval contexts. The most commonly represented animals were cattle, sheep/ goat, pig and goose. The bones recovered from environmental sampling of post hole 3052 revealed wild species (hare/ rabbit, fish and frog) and none of the domestic species found in other features.
- 5.3.2. As noted above, the assemblage was not very fragmentary, consequently a relatively high proportion of the bones would provide fusion data (33%), fewer potential data were available from tooth wear (three sheep/ goat mandibles) and metrical data (four fragments).
- 5.3.3. Evidence for butchery was present on the bones from undated contexts 2004, 2007 and 3002 and one post medieval bone from context 3055. All but one incidence was characterised by the use of a saw, which is a method of butchery common in the post medieval period, and may be an indication of the date of the former contexts. It is also a method used from the later medieval period in the preparation of bone for working, however, the absence of bone working offcuts suggests that this was not an area of bone working.
- 5.3.4. The small find labelled as worked was a heavily butchered 'slice' of cattle pelvis which may have been a bone working offcut, but more likely butchery waste.
- 5.3.5. This extremely small assemblage is of limited potential for understanding the animal husbandry, diet, economy or social standing of the inhabitants of this area of Derby, although it is likely that the post-medieval assemblage may be the result of primary butchery.
- 5.3.6. At this stage, there is no recommendation for further work. However, it would be desirable for the species list to be made available in the site report to be used as comparanda if further fieldwork is carried out in the local area.

- 5.4. Human Bone** by Samantha Hepburn comments by Megan Brickley
- 5.4.1. During service trench work on the corner of King Street and St Helen's Street, a total of 104 fragments of articulated and disarticulated human remains were uncovered.
- 5.4.2. Partial articulation of an adult arm was observed in what appeared to be the original grave cut [5000]. Much of the remains however were recovered from an adjacent charnel pit in a severely disarticulated form suggesting the burial had previously been exposed, probably when the cellar foundations of the workshop buildings were constructed in 1866-69. The remains represent a minimum of three individuals, two adults and one adolescent.
- 5.4.3. The disarticulated and fragmentary nature of the human remains suggests that further work would be unable to elucidate further information on the nature of the remains. The presence of associated pottery (Medieval Whiteware, Shell Tempered Ware, Stamford type Ware, Cumberpatch this volume) dated to the medieval period (11<sup>th</sup> to 12<sup>th</sup> century) suggests the bones are associated with the period when the site was occupied by the Medieval Oratory of St. Helen's. However, the disarticulated nature of all but one of the remains suggest heavy truncation by service runs and possible dispersal of the human remains have removed them from their original location and this represents an island of survival within a landscape altered by the 19<sup>th</sup> century. No further analysis is therefore recommended.
- 5.4.4. Illustration of the bone should be by photography of the material *in situ* as well as illustration of the arthritic changes on the vertebra and the other non-specific pathology. The bone is due to be re-interred in line with the Ministry of Justice Licence and as such this will represent the final opportunity to examine the remains. Therefore the material has been photographed in detail to provide a permanent record for future research using 35mm black and white film and digital photography.

## **6. INTEGRATED ASSESSMENT OF POTENTIAL**

- 6.1.1. The data set produced by the Connecting Derby road scheme is diverse, a reflection of the nature of the work. This led to sites in several locations throughout the city being evaluated and excavated along the line of the road scheme. The extensive nature of the evaluation work (Hewitson 2005) should also be included within this data set and conclusions drawn even from the negative results of the archaeological assessment in the area. Although this report does not deal with the built environment, this also produced a substantial quantity of data associated with the late post-medieval and modern periods, in terms of the standing buildings (see Hislop 2004; Hislop and Driver 2006; Hislop 2009; Tyler 2007). The potential of the data set should be viewed on a holistic period by period basis, but with specific reference to the individual sites.
- 6.1.2. The medieval period within Derby is poorly understood in an archaeological sense. Excavations within the city have been infrequent and publication within the city centre limited. Excavation work relating to only one excavation, a multi-period site at Full Street, was recorded during the desk-based assessment (JSAC 2004) with one further excavation occurring subsequent to this at King Street (Bain *et al* 2008). The current work has produced very limited remains from the medieval period given the potential. Of these, both the site of the medieval Oratory of St. Helen's and the Friary Street Frontage will provide useful information on the medieval period in Derby as a whole. Although the data set is comparatively small it has expanded the knowledge of the medieval period within this area of the city substantially, given the limited quantity of previous work. Although extensive work has been conducted at the medieval centres of Lincoln and Stamford (see Lewis 2006, 5 for details), little work has been undertaken in Derby and as such the publication of this work is regionally important.
- 6.1.3. In particular the pottery evidence has allowed the expansion of the type series associated with the city at this time (see Cumberpatch above). The regional research framework states that systematic regional study of the distribution of post-conquest ceramics should be undertaken (Lewis 2006, 43).
- 6.1.4. The post-medieval and modern period are better understood. The Modern sites of the Derby Crown China Works, The Spar Manufactory and The Calvinistic Baptist Chapel are well researched as part of a programme of work undertaken by the local history society (see D'Arcy and Steer 2002; Steer 2003, 2004; Billson 2006). The opportunity presented by the excavation work and the survey of the built heritage has provided a valuable type series for the development of the post-medieval and modern period within this area of the city that can be expanded to the city as a whole. As such they are not only valuable as an archaeological resource but allow quality research undertaken by amateur historians and archaeologists to be combined with the results of archaeological excavation in order to provide a universal product that is superior to the sum of its parts. It is therefore proposed that further work should seek to combine both the historical and archaeological data.
- 6.1.5. Specific sites have also provided valuable information on a regional and potentially national level. The most notable of these is the Crown Derby Works. Although archaeologically this type of the 19<sup>th</sup>-century bottle kiln site has been extensively examined in the Staffordshire Potteries (see Barker 2004, 203-221

for an extensive discussion) the excavated kiln represents the first examined in Derby itself. Royal Crown Derby Porcelain is specifically referred to within the Regional Research Framework (Campion 2006, 17) and as the Old Crown Derby Works represents the only continuous production of the distinctive porcelain (production at Nottingham Road ceased and was started at King Street by former employees, although the actual name transferred to another business set up on Osmaston Road) and hence its significance should not be underestimated. The current work adds an archaeological element to the extensive historical records (Blackwood and Head 2003; Steer 2004). The absence of excavated kiln sites in Derbyshire is highlighted in the *Resource Assessment of Derbyshire for the East Midlands Regional Research Framework* (Barrett 2006, 10). It is therefore important that further work should focus on the ceramic industry in Derby within its regional context.

## 7. THE ARCHIVE

7.1.1. The documentary archive comprises all the records made during the archaeological project.

7.1.2. The paper and artefactual archive consists of the following:

*Table 1: Documentary archive.*

<b>Documentary Archive Type</b>	<b>Number</b>
Context Cards	293
Plans (including sketch)	14
Sections/ profiles/ elevations	42
Sample Register	3
Photographic Register	29
Drawing Register	4
Other	14

7.1.3. The photographic archive comprises all the photographs taken during the archaeological project.

*Table 2: Photographic archive.*

<b>Type of Photograph</b>	<b>Number</b>
Slide Film	5 films
Black and White	7 films
Colour Print	1 film
Digital	10 files- 525 photos

7.1.4. The environmental archive comprises all the samples taken during the archaeological project.

*Table 3: Environmental archive.*

<b>Sample Type</b>	<b>Number</b>
General Bulk Samples	8
Industrial Residue	7

7.1.5. The artefact archive comprises all the small finds and general context finds recovered during the archaeological project.



Table 4: Artefactual archive.

<b>Material Type</b>	<b>Quantity (Eval. finds)</b>
General context finds	
Prehistoric Flint	1
Prehistoric Pottery	1
Roman Pottery	2
Medieval Pottery	149 (20)
Post-medieval Pottery	899 (545)
Other Ceramics	125
Saggars	19
CBM (Tile, Brick, Fired clay)	242 (19)
Clay pipe	27 (6)
Fe	21 (8)
Copper Alloy	16
Lead	6
Other Metal	4 (1)
Slag	209 (7)
Charcoal	100
Building Stone	4 (2)
Other Stone	33
Animal Bone (worked)	3
Animal Bone (un-worked) (g)	1720
Shell	15 (1)
Leather (dry)	6
Glass	92 (204)

## **8. UPDATED PROJECT DESIGN**

- 8.1.1. In order to produce a coherent report it is important that the individual sites are examined within their contexts prior to examination as a whole within the project. The project should aim to examine the following five separate sites;
- The Oratory of St. Helen’s and King Street – medieval period.
  - The street frontage of Friar Gate Street – medieval and post-medieval period.
  - The Spar Manufactory, King Street – modern period.
  - The Derby Crown China Works, King Street – modern period.
  - The Calvinistic (Particular) Baptist Chapel, Agard Street – modern period.
- 8.1.2. It is suggested that the archaeological record should focus on these five sites as separate research areas and then use the overall background material from assessment and historical research to set them within their context. The value of a holistic approach is that the overall evidence can be examined on a period by period basis. The cycle of development within the city can be seen from the combined evidence set around the framework of specific sites.
- 8.1.3. In addition to this specific further research should be conducted associated with the medieval and post-medieval pottery remains as highlighted above (section 6.1.3).
- 8.1.4. Further objectives should be to;
- Combine assessment reports, historic background and undertake geographic evaluation of the sites, to produce a coherent period by period framework.
  - Examination of the medieval and post-medieval pottery remains and placing them in a type series for Derby.
  - Place the sites listed above within the overall framework produced by the historic assessment and building work.

## **9. DISSEMINATION AND ARCHIVE**

- 9.1.1. The initial stage of dissemination should focus on the production of a detailed archive report of the work. This will be lodged with the Derbyshire Sites and Monuments Record on behalf of Derby City Council. A digital copy will be lodged with the Archaeological Data Service to be placed on OASIS and made publicly accessible.
- 9.1.2. The report will detail the following chapters;
- Chapter 1: Examination of the development of the western periphery of Derby City Centre
  - Chapter 2: St. Helen’s Oratory and Surrounds – the medieval development of King Street
  - Chapter 3: Ford Street – development from the medieval to modern period.
  - Chapter 4: The Spar Manufactory

- Chapter 5: The Old Crown Works
- Chapter 6: The Calvinistic Baptist Chapel
- Chapter 7: The finds from the excavations
- Chapter 8: Discussion and overview

9.1.3. A summary publication of the work will be produced for the Derbyshire Archaeological Journal within one year of the completion of fieldwork. This will follow the format outlined above for the final report but will be condensed to a publication of between 20-30 pages with 5-8 figures/ plates. It will discuss the major findings of the investigations within their regional context.

9.1.4. The following time table has been set out for the completion of all reporting;

	DRAFT	FINAL
Final Report	End Sep 2010	End Oct 2010
DAJ Publication	End Oct 2010	End Dec 2010
Deposition of Archive		End March 2011

9.1.5. The archive will be deposited with Derby City Museum & Art Gallery under the accession number DBYMU 2008-365. Rachel Atherton of the museum will be consulted prior to deposition to finalise details with regards archive standards to be adhered to.

## **10. METHOD STATEMENT**

10.1.1. An initial stage of the review of all the desk-based assessment reports and historic background material as well as additional research to produce an integrated assessment of the potential.

10.1.2. Assessment of the evaluation report to establish what elements of the report will be required to be integrated into the full report.

10.1.3. Production of a geographic model of sites around the western periphery of Derby City centre, including additional material from SMR.

10.1.4. In order to complete the archive report the following work on the artefacts is required;

- Flint – a short report and illustration.
- Pottery – full report on the medieval and post-medieval pottery with type series; full report on sherds and production waste from the Old Crown works. This will include the results of the evaluation. Illustration of selected sherds by drawing and photography.
- Clay tobacco pipe – short report on bowl fragments; illustration as required.
- Ceramic artefacts, glass, ceramic building material – short report.
- Stone – short report detailing known marble locations. Illustration of cross-section.
- Fe metal – X-ray and catalogue for full report.

- Cu metal – further work on buckle and handles, industrial furniture associated with kiln. Illustration of key pieces as required.
  - Pb metal – catalogue and include in short glass report.
  - Industrial residues – specific assessment of the industrial residues. Full report on the findings.
  - Slag and hammerscale residue – full report by an archaeometallurgist.
  - Plant macro remains – full analysis and reporting.
  - Animal bone – Short report for full publication.
  - Human bone – full report for publication and illustration of key pieces by photography. Interment as soon as practically possible due to sensitive nature of the remains.
- 10.1.5. Once the full specialist reports are completed the site narrative will be reviewed in light of additional findings and updated. Phasing will be updated as required.
- 10.1.6. Integration of the results of the evaluation should be undertaken at this stage. This includes trenches that produced negative results.
- 10.1.7. Completion of illustrations and selection of plates, updating of phased site drawings for the full report.
- 10.1.8. Proof, editing, submission and review of archive report.
- 10.1.9. Preparation of report for the Derbyshire Archaeological Journal.
- 10.1.10. Preparation and deposition of archive.

Table 5: Task List

<b>Task</b>	<b><u>Production of Archive Report</u></b>	
1.01	Project management	C Hewitson
1.02	Integration of historic material	W Mitchell
1.03	Integration of evaluation material	W Mitchell
1.04	Summary of historic building recording	C Hewitson
1.05	Geographic model of sites	W Mitchell
1.06	Preparation of illustrations/ plates	N Dodds
1.07	Preparation of final phasing	W Mitchell
1.08	Integration of specialist reports	W Mitchell
1.09	Preparation of discussion	W Mitchell
	<b><u>Specialists</u></b>	
2.01	Flint	B Bishop
2.02	Pottery	C Cumberpatch
2.03	Clay tobacco pipe	D Higgins
2.04	Ceramic artefacts, CBM, glass	E M-Bracken
2.05	Stone	C Hewitson
2.06	Fe, Cu and Pb metal	E M-Bracken
2.07	Industrial residues	Various
2.08	Slag and hammerscale	D Starley
2.09	Plant macros	R McKenna
2.10	Animal bone	M Holmes
2.11	Human bone	S Hepburn
	<b><u>Publication</u></b>	
3.01	Proof, editing, review	C Hewitson
3.02	Amendments	W Mitchell
3.03	Submission of archive report	C Hewitson
3.04	Summary for Derbyshire Archaeological Journal	W Mitchell
	<b><u>Archive</u></b>	
4.01	Preparation and deposition of archive	M Duncan

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## **12. BIBLIOGRAPHY**

Ayto, EG 1990 *Clay Tobacco Pipes* Shire Album 37, 199 Shire Publications, Princes Risborough.

Bain, K 2006 Late Saxon and Medieval Derby: Excavations at King Street Derby, 2004 *Derbyshire Archaeological Journal* 126; 46-81.

Barker, D 2004 The Industrialization of the Staffordshire Potteries in D Cranstone and D Barker *The Archaeology of Industrialization*. Maney Publications: Leeds

Barrett, D 2006a An Archaeological Resource Assessment of Medieval Derbyshire, East Midlands Archaeological Research Framework, Leicester University Press: Leicester Archaeology Monographs

Barrett, D 2006b An Archaeological Resource Assessment of Post-medieval Derbyshire, East Midlands Archaeological Research Framework, Leicester University Press: Leicester Archaeology Monographs

Billson, P 2006 A brief history and archaeological analysis of Brook Street Chapel, Derby: a General Baptist Chapel 1792-1854 and a Wesleyan Methodist Chapel 1856-2002 with contributions from Joan D'Arcy, *Derbyshire Miscellany* 17, Part 5 (Spring 2006).

Birmingham Archaeology 2009a-d Written Schemes of Investigation Connecting Derby Phase 3.

Blackwood, R and Head, C, 2003 *Old Crown Derby China Works 1849-1935*, Landmark Publishing , Ashbourne.

Brown, D 2007 *Archaeological Archives; a guide to best practice in creation, compilation, transfer and curation*. Archaeological Archive Forum and the Institute of Field Archaeologists.

Campion, G 2006 An Archaeological Resource Assessment and Research Agenda for the East Midlands during the modern period (1750-2000), East Midlands Archaeological Research Framework, Leicester University Press: Leicester Archaeology Monographs

Coppack, G 1972 Medieval and post-medieval pottery In: R. Hall and G. Coppack Excavations at Full Street, Derby. *Derbyshire Archaeological Journal* 92; 44-77.

Coppack, G 2002 *Anglo-Saxon and medieval pottery* In: C. Sparey-Green (Ed.) Excavations on the southeastern defences and extra-mural settlement of Little Chester , Derby 1971-2, *Derbyshire Archaeological Journal* 122; 245-253.

Craven, M and Keene, M 1993 *Keene's Derby* The Breedon book publishing company, Derby.

Cumberpatch, CG 2002 - 2003 Medieval pottery from manufacturing sites at King Street, Duffield and Burley Hill Duffield, Derbyshire: a summary report, *Medieval Ceramics* 26/7; 85-100.

Cumberpatch, CG 2004 Medieval pottery production in Derbyshire: a review, *Derbyshire Archaeological Journal* 124;86 – 112.

Cumberpatch, CG 2005 *Medieval and later pottery from excavations on the line of the Derby inner ring road (Connecting Derby)* in C Hewitson *Connecting Derby: An Archaeological Evaluation*, Birmingham Archaeology Report No. 1325.02

Cumberpatch, CG 2007 *Pottery from excavations at St Mary's Gate / Warser Gate Nottingham 2005 (BA1347): An assessment with spot dates* Unpublished archive report for Birmingham Archaeology.

Cumberpatch, CG unpublished 1 Late Saxon and medieval pottery from Queen Street, Derby Incomplete archive report for T&PAU, University of Nottingham.

Cumberpatch, CG Unpublished 2 *Medieval and later pottery from excavations in King Street, Derby (DKS): An assessment with spot dating* Unpublished assessment report for T&PAU, University of Nottingham.

Cumberpatch, CG unpublished 3 *Pottery from Burley Hill, Derby* Unpublished archive report.

Cumberpatch, CG and Thorpe, R 2002 *The archaeology of Chesterfield* Unpublished project report for English Heritage.

D'Arcy, J and Steer, J 2002 From Religious Oratory to Spar Manufactory - the development of the site of St Helen's, Derby, *Derbyshire Miscellany* 16, Part 4, Autumn 2002.

Department of the Environment 1990 *Planning Policy Guidance Note 16: Archaeology and Planning*. HMSO: London.

Driver, L and Hislop, M 2006 *Connecting Derby Archaeological Building Recording 2005: Stage 1*, Birmingham Archaeology Report No. 1325.01

English Heritage 1991 *The Management of Archaeological Projects*. English Heritage: London.

English Heritage 2001 *Archaeometallurgy*. English Heritage: London

English Heritage 2002 *Environmental Archaeology: A guide to the theory and practise of methods, from sampling and recovery to post-excavation*. English Heritage Publications. Swindon.

English Heritage 2004 (McKinley, J) *Human Bones from Archaeological Sites Guidelines for producing assessment documents and analytical reports* English Heritage: London

English Heritage 2005 *Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England*. English Heritage: London

English Heritage 2006 *Science for Historic Industries: Guidelines for the investigation of 17<sup>th</sup>- to 19<sup>th</sup>-century industries* English Heritage: London

English Heritage 2006a *Management of Research Projects in the Historic Environment: The MoRPHE project managers' guidelines*. English Heritage: London

Hartley, L 1974 *A Typology of Brick*. Journal of the British Archaeological Association 37.

Hewitson, C 2005 *Connecting Derby: An Archaeological Evaluation*, Birmingham Archaeology Report No. 1325.02

Hislop, M. 2003 *Land between King Street, St Helen's Street and Lodge Lane, Derby: an archaeological desk-based assessment and building assessment* Birmingham Archaeology Project No. 1140

Hislop, M. 2004 *Connecting Derby: an historic buildings assessment 2004* Birmingham Archaeology Project No. 1169

Hislop, M 2009 *Archaeological Building Recording: Stage 3, 2009, Birmingham* Archaeology Report No. 1932

Institute of Field Archaeologists 2001 *Standard and guidance for archaeological desk-based assessment; Standard and guidance for archaeological field evaluation; Standard and guidance for an archaeological watching brief; Standard and guidance for archaeological excavation; Standard and guidelines for finds work*, IFA blue folder of policy, standards and guidance. IFA

Institute of Field Archaeologists 2001 *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*, IFA blue folder of policy, standards and guidance. IFA

John Samuels Archaeological Consultants, 2004 *An Archaeological Desk-based Assessment of the Connecting Derby Route, Phases 3B, 2 & 3A, Derby City Centre, Derby*.

Kenward, HK, Hall, A.R. and Jones AKG 1980 *A tested set of techniques for the extraction of plant and animal microfossils from waterlogged archaeological deposits*. Science and Archaeology 22, 315.

Lewis, B 2005 *An Archaeological Evaluation at Ford Street, Derby, Trent and Peak* Archaeological Unit unpub rep.

Lewis, C 2006 *An Archaeological Resource Assessment and Research Agenda for the East Midlands for the medieval period (850-1500)*, *East Midlands Archaeological Research Framework*, Leicester University Press: Leicester Archaeology Monographs

Lloyd, N 1925 *A History of English Brickwork* (reprinted 2003).

Lyman, RL 1994 *Vertebrate Taphonomy*. Cambridge, Cambridge University Press.

McKinley, J. and Roberts, C. 1993 *Excavation and post-excavation treatment of cremated and inhumed human remains*. IFA Technical Paper 13, Institute of Field Archaeologists

Nailor, V and Young, J 2001 *A fabric type series for post-Roman pottery in Nottingham (5<sup>th</sup> to 16<sup>th</sup> centuries)*. Unpublished manuscript.



Steer, J 2003 *The site of the Hospital of St Helens in the 19th Century 1. The Spar Manufactory*. Derbyshire Miscellany, Volume 16, Part 6 Autumn 2003.

Steer, J 2004 *Former Derby China Works, 85 King Street, Derby*. Derbyshire Miscellany Volume 17 Part 1 Spring 2004

Tibbles J (in prep) *A History, Manufacture and Usage of Ceramic Land Drains*.

Tyler, R. 2007 *Connecting Derby: Historic Building Recording: Stage 2, 2006*, Birmingham Archaeology Report 1325.02.

UKIC 1990 (Walker, K.) *Guidelines for the preparation of excavation archives for long-term storage*, Archaeology Section of the United Kingdom Institute for Conservation.

Watkinson, D and Neal, V 1998 *First Aid for Finds* (3<sup>rd</sup> edition), RESCUE and the Archaeology Section of the United Kingdom Institute for Conservation

Young, J and Vince A. with Nailor, V 2005 *A corpus of Anglo-Saxon and medieval pottery from Lincoln*. Lincoln Archaeological Studies No. 7. Oxbow Books

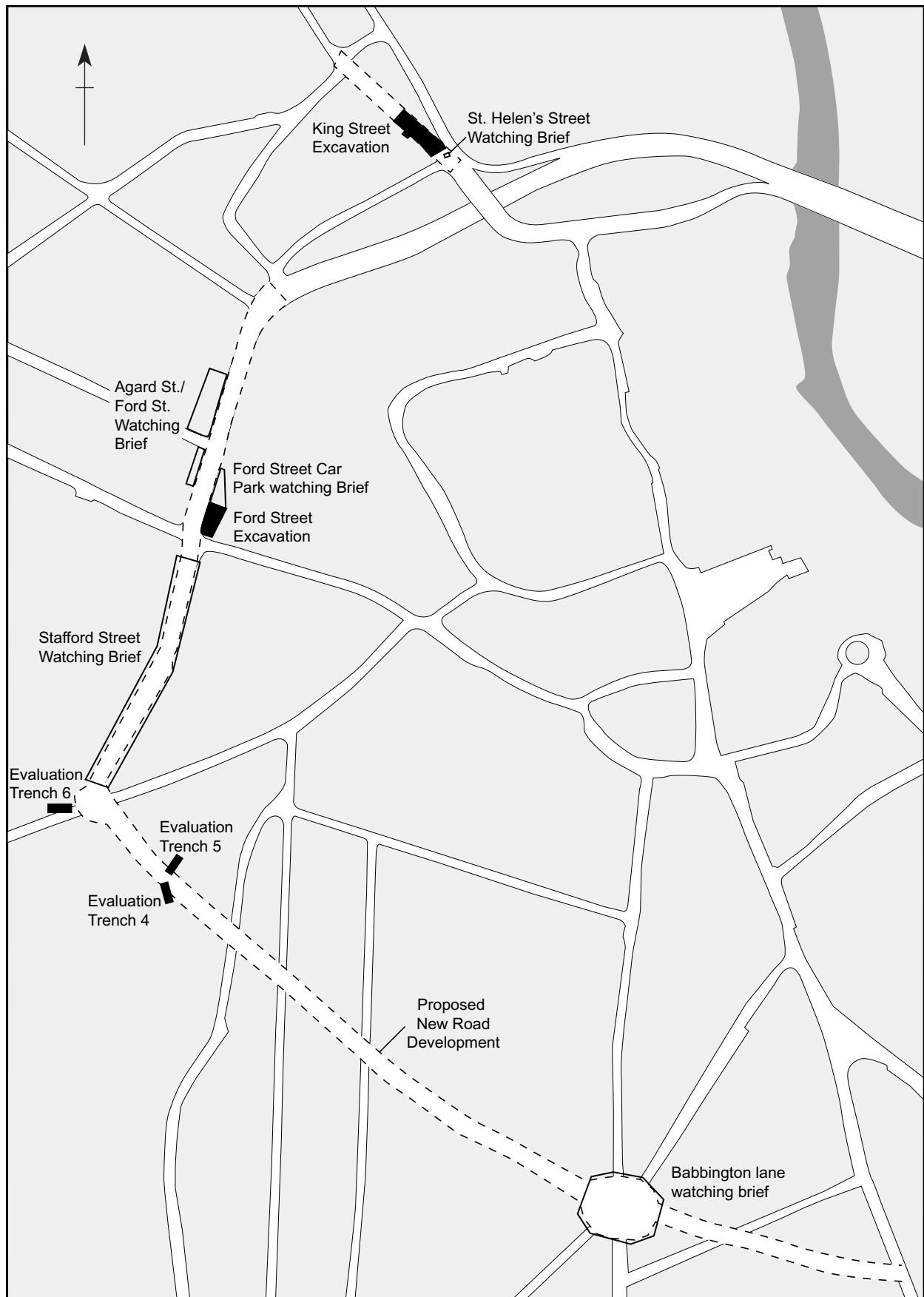
<http://www.thepotteries.org/>, accessed 1/6/09



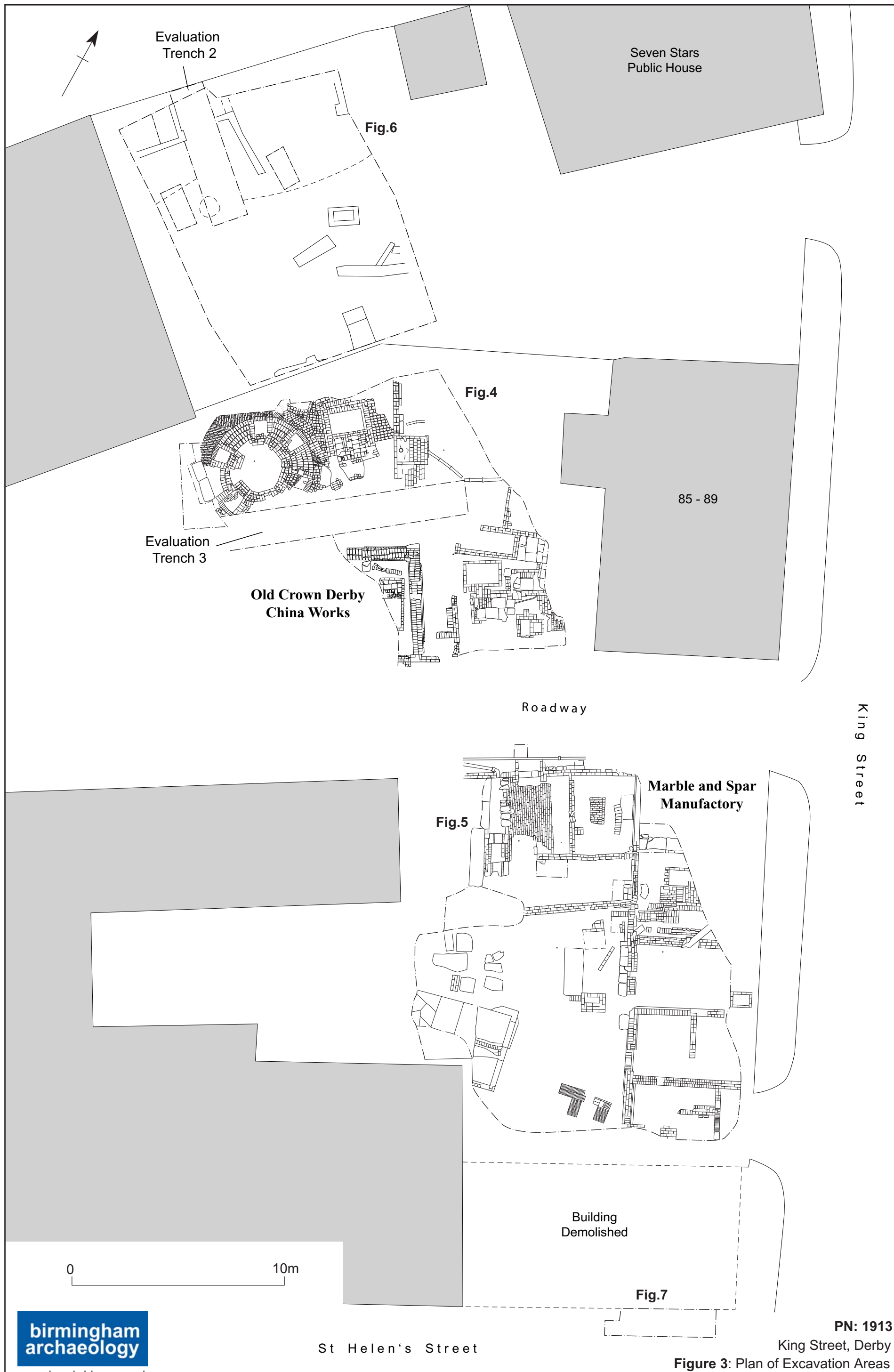
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**PN: 1913**  
King Street, Derby  
**Figure 1: Site location**

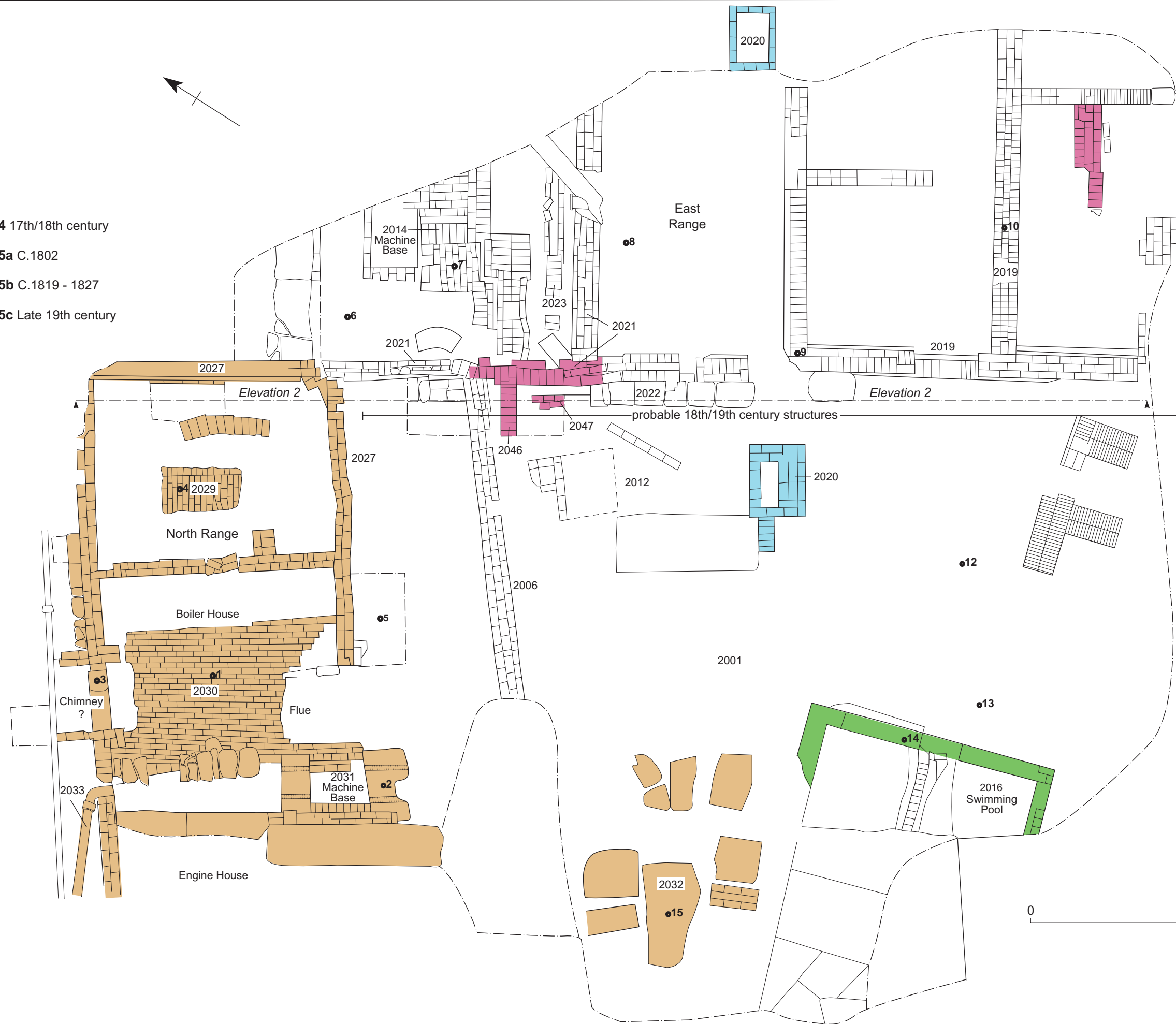


**Figure 2:** Excavation Areas, including location of 2005 trenches





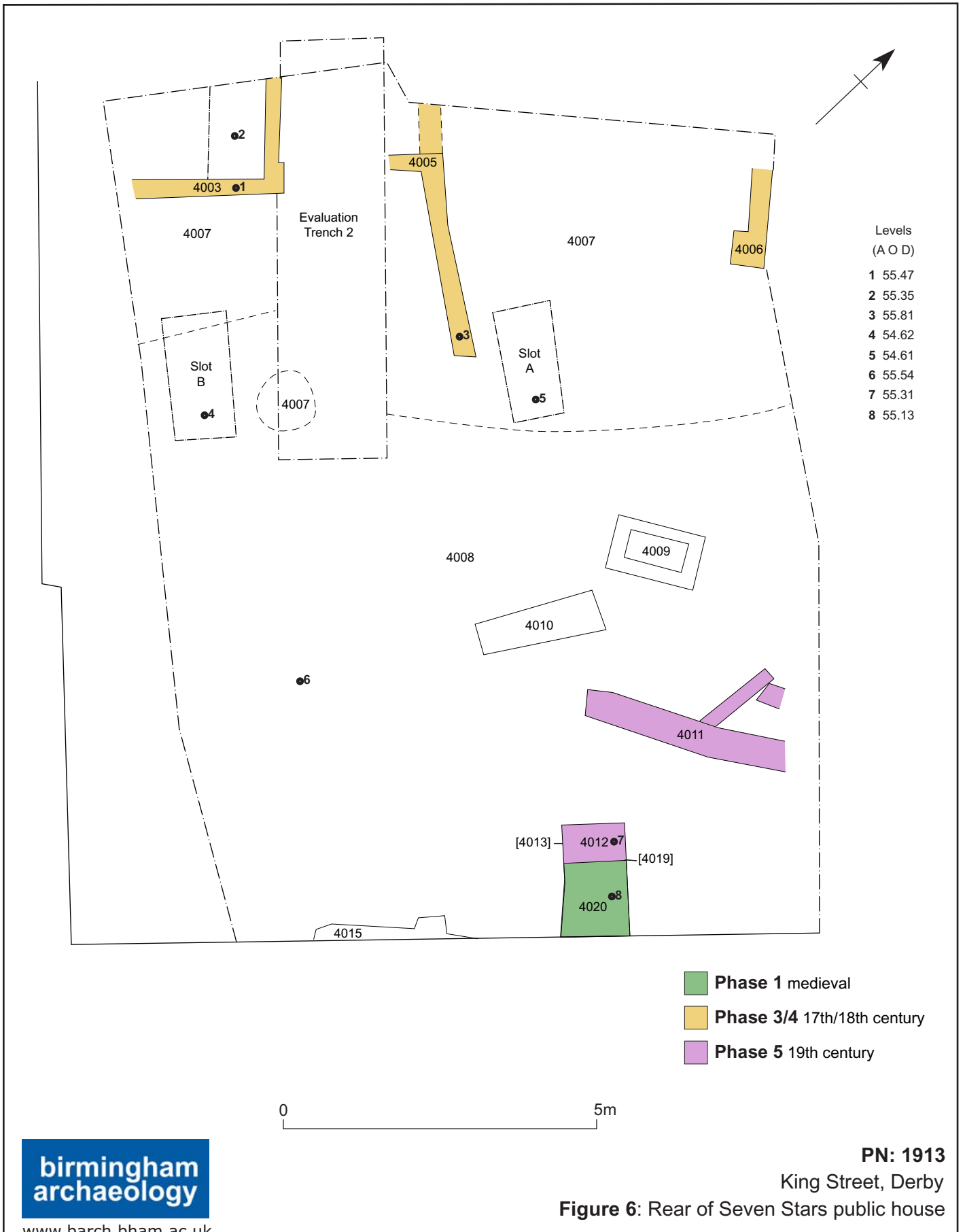
- Phase 4 17th/18th century
- Phase 5a C.1802
- Phase 5b C.1819 - 1827
- Phase 5c Late 19th century

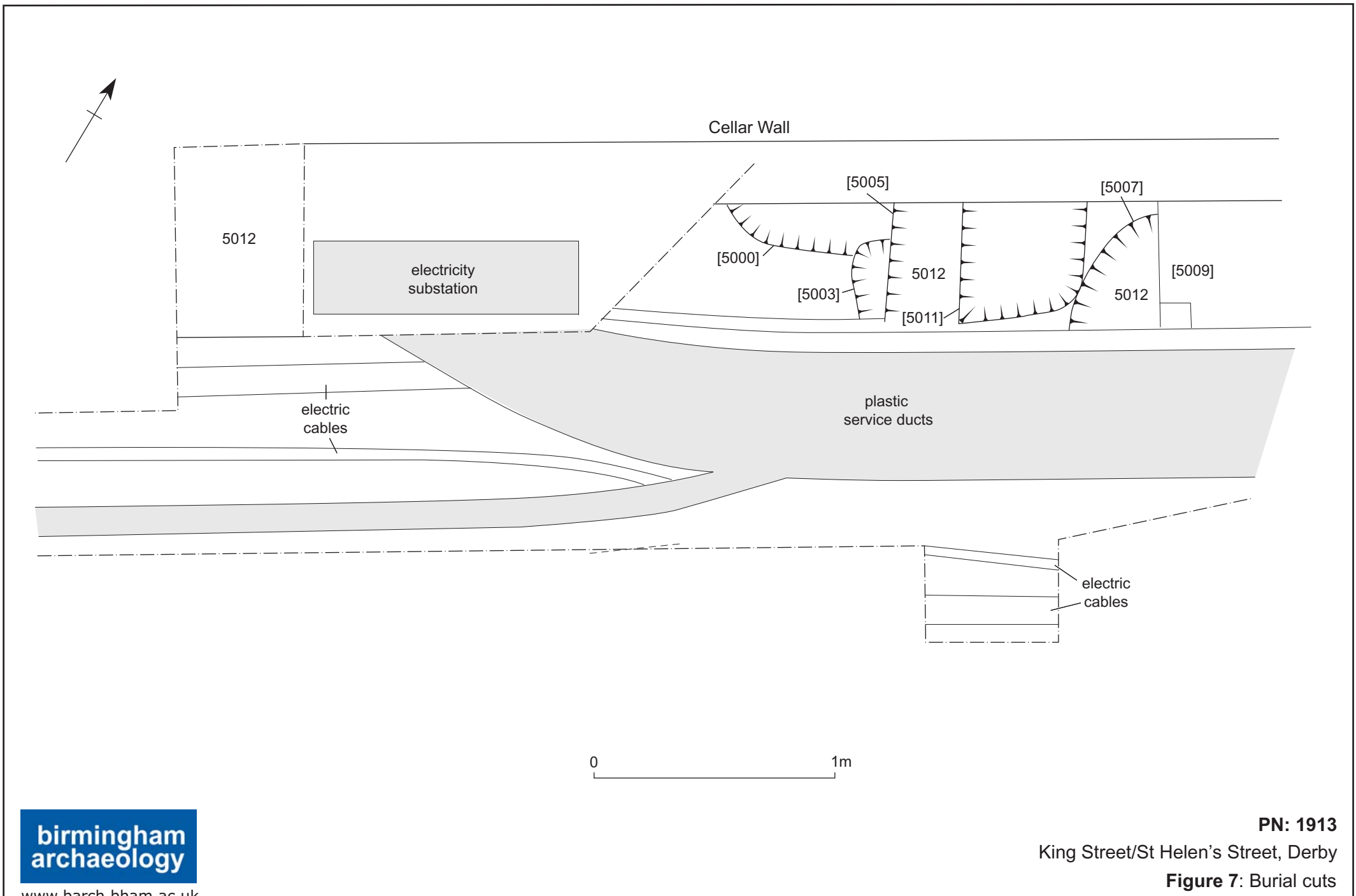


Levels (A O D)

1	55.27
2	54.98
3	55.51
4	55.73
5	53.85
6	54.70
7	54.72
8	54.57
9	54.88
10	54.72
11	54.26
12	54.52
13	54.40
14	54.99
15	55.18

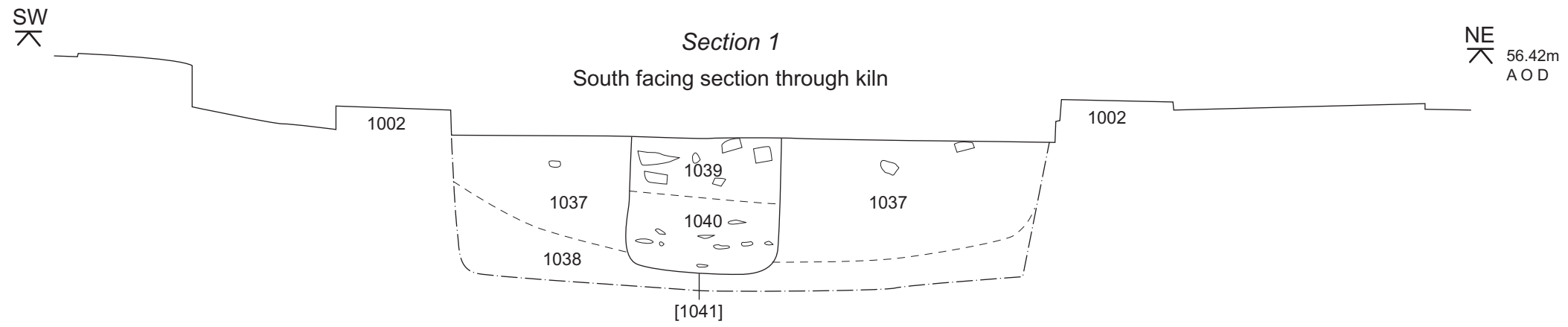




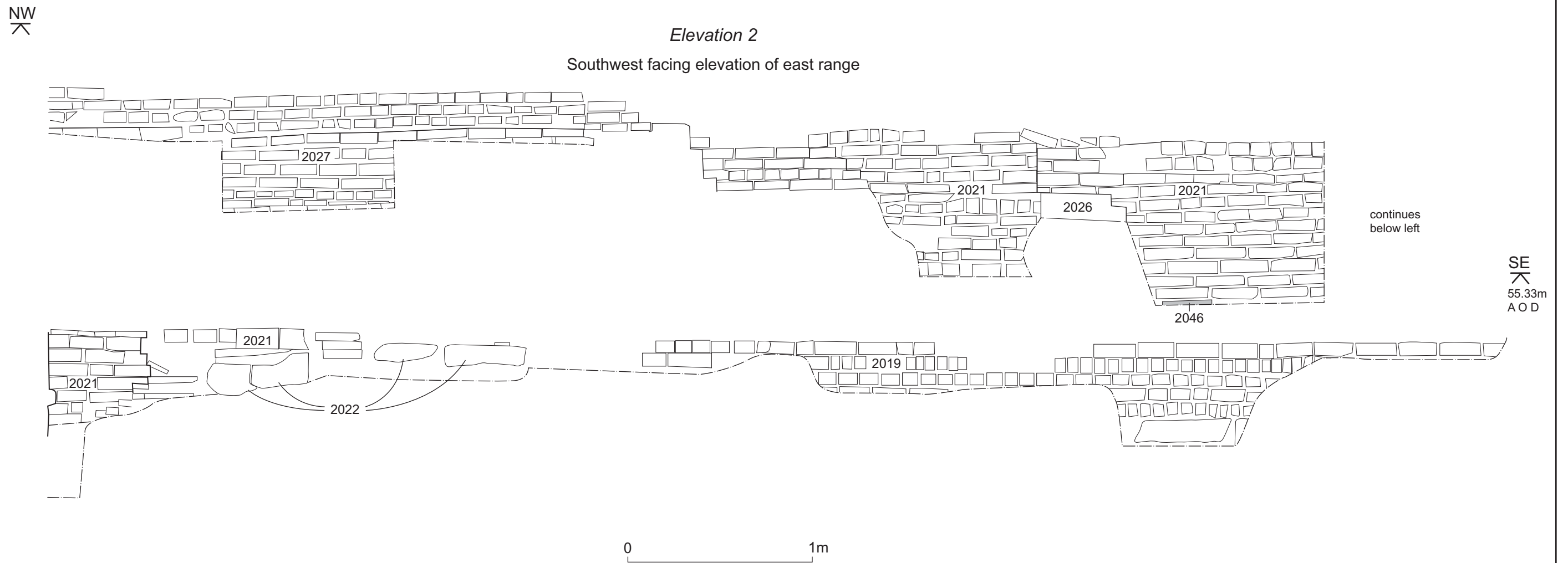


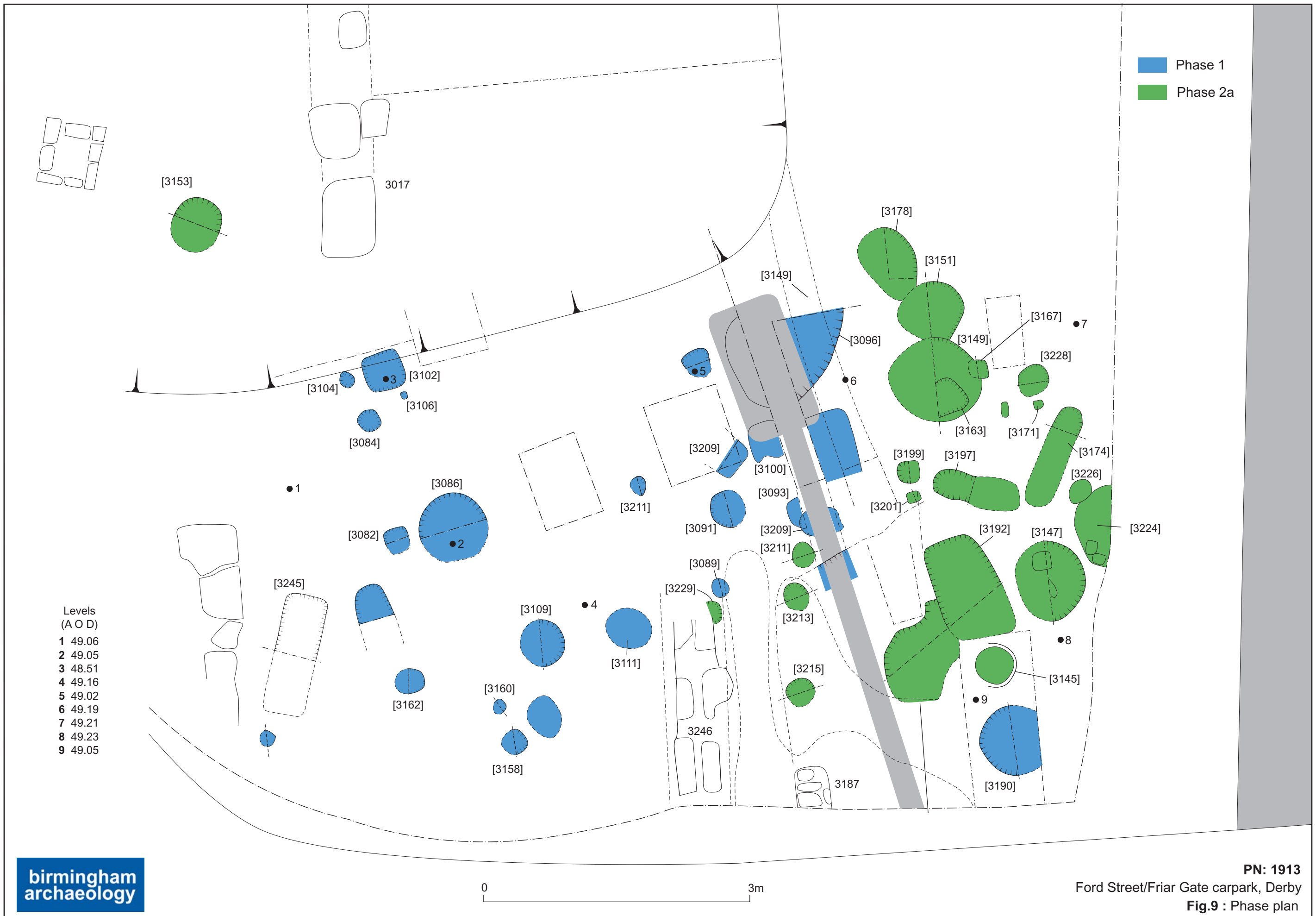


Old Crown Derby Works



Marble and Spar Manufactory





Phase 1  
Phase 2a

Levels  
(A O D)

1	49.06
2	49.05
3	48.51
4	49.16
5	49.02
6	49.19
7	49.21
8	49.23
9	49.05

0 3m

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**PN: 1913**  
Ford Street/Friar Gate carpark, Derby  
**Fig.9 : Phase plan**



Phase 2a  
 Phase 2b

Levels (A O D)

1	49.28
2	49.29
3	49.46
4	49.23
5	49.19
6	49.21
7	49.23
8	49.26
9	49.15
10	49.12
11	48.77
12	48.67

0 5m

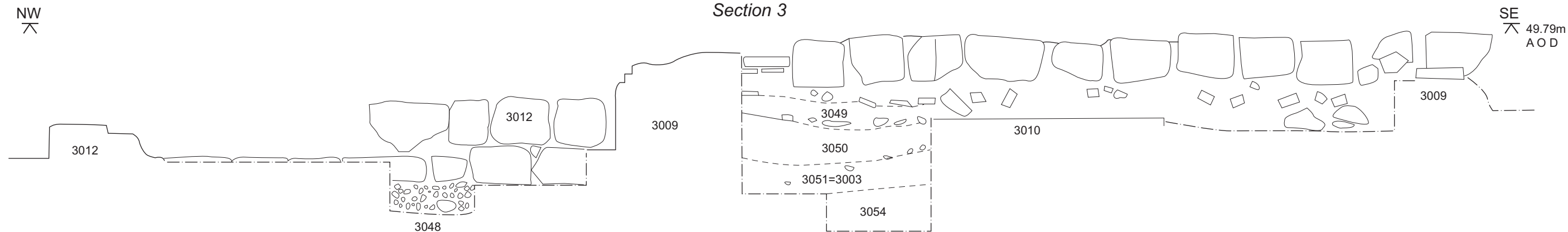




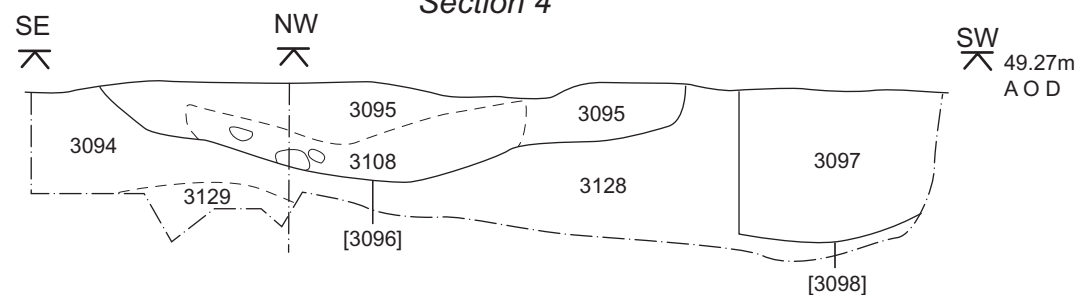
Ford Street/ Friar Gate Street

Southwest facing section

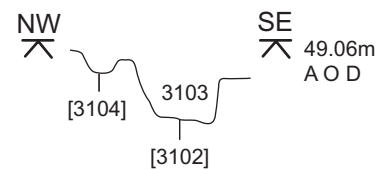
Section 3



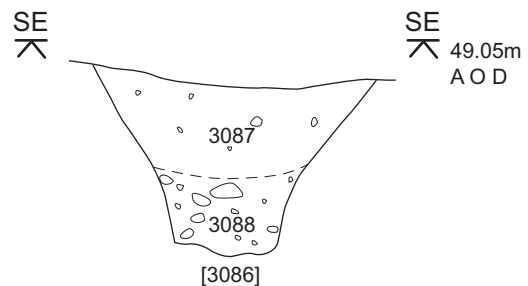
Section 4



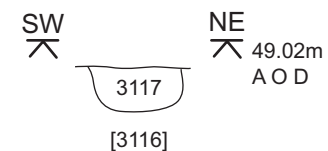
Section 5



Section 6



Section 7

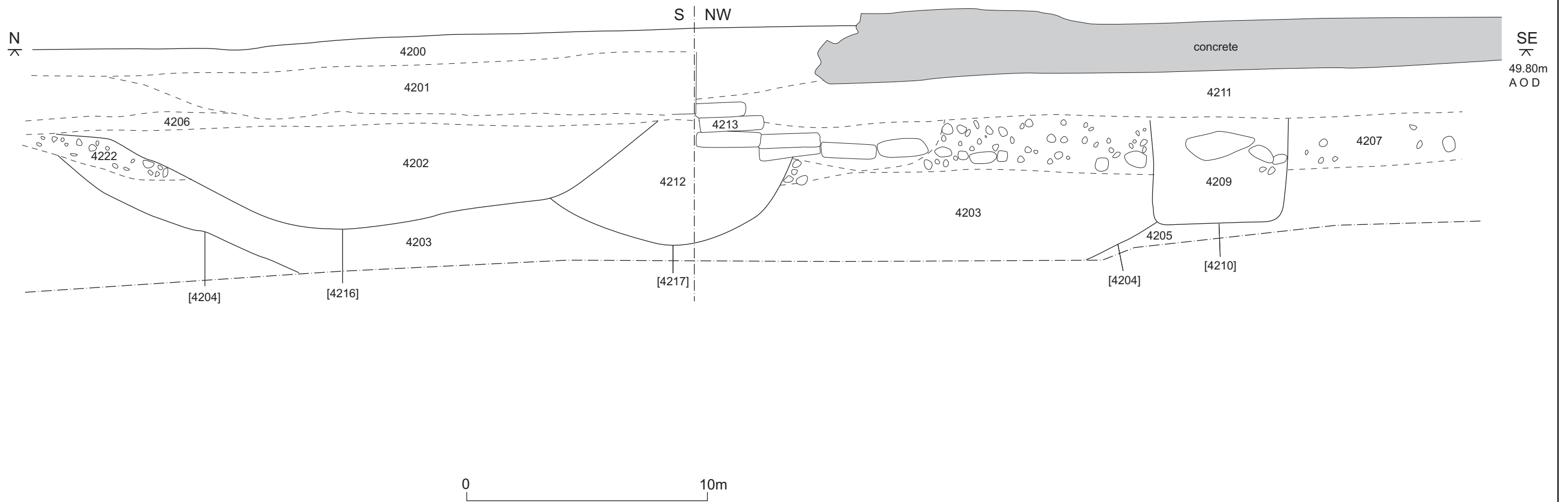


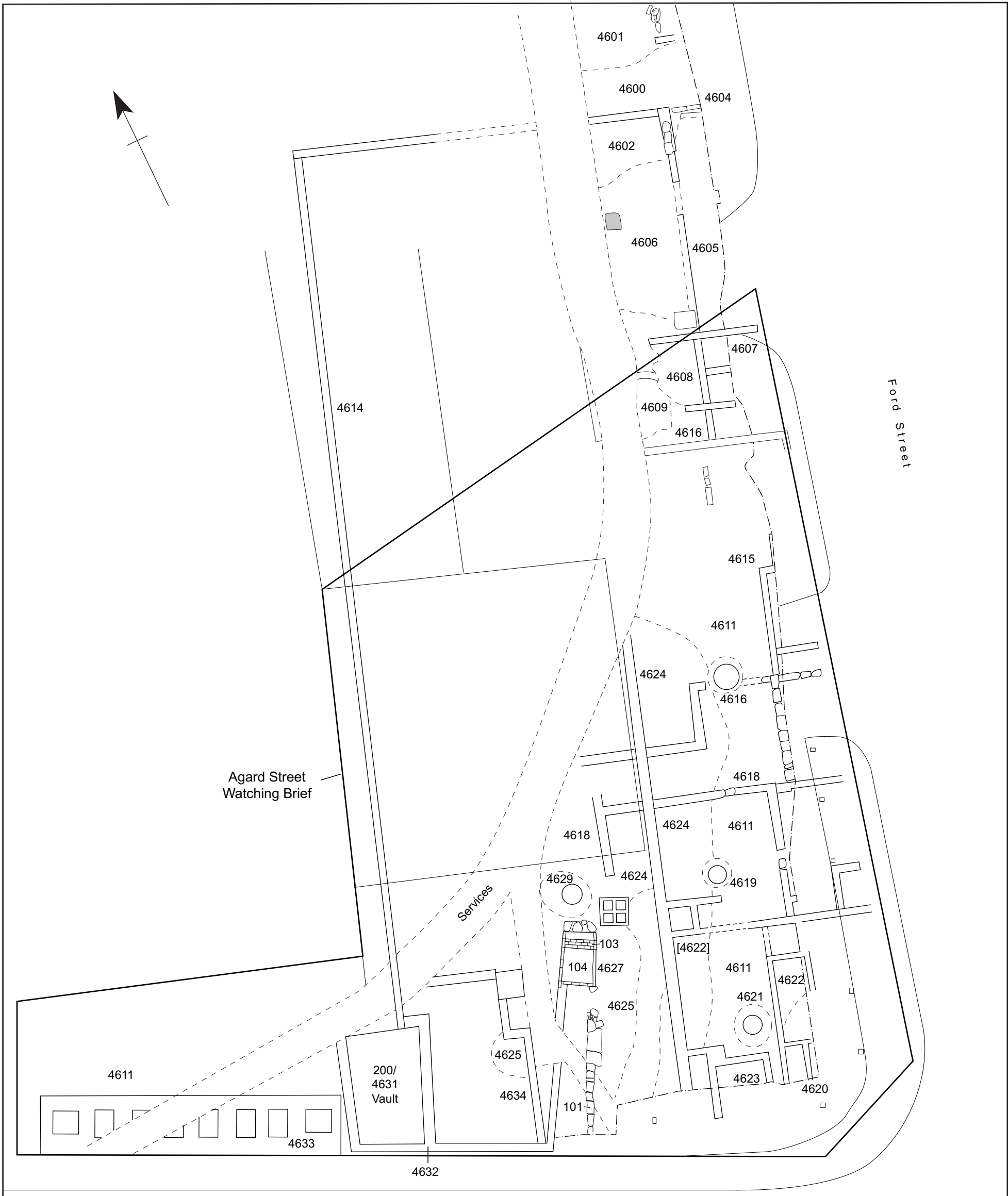












Ford Street

Agard Street Watching Brief

Services

200/  
4631  
Vault

Agard Street

0 10m

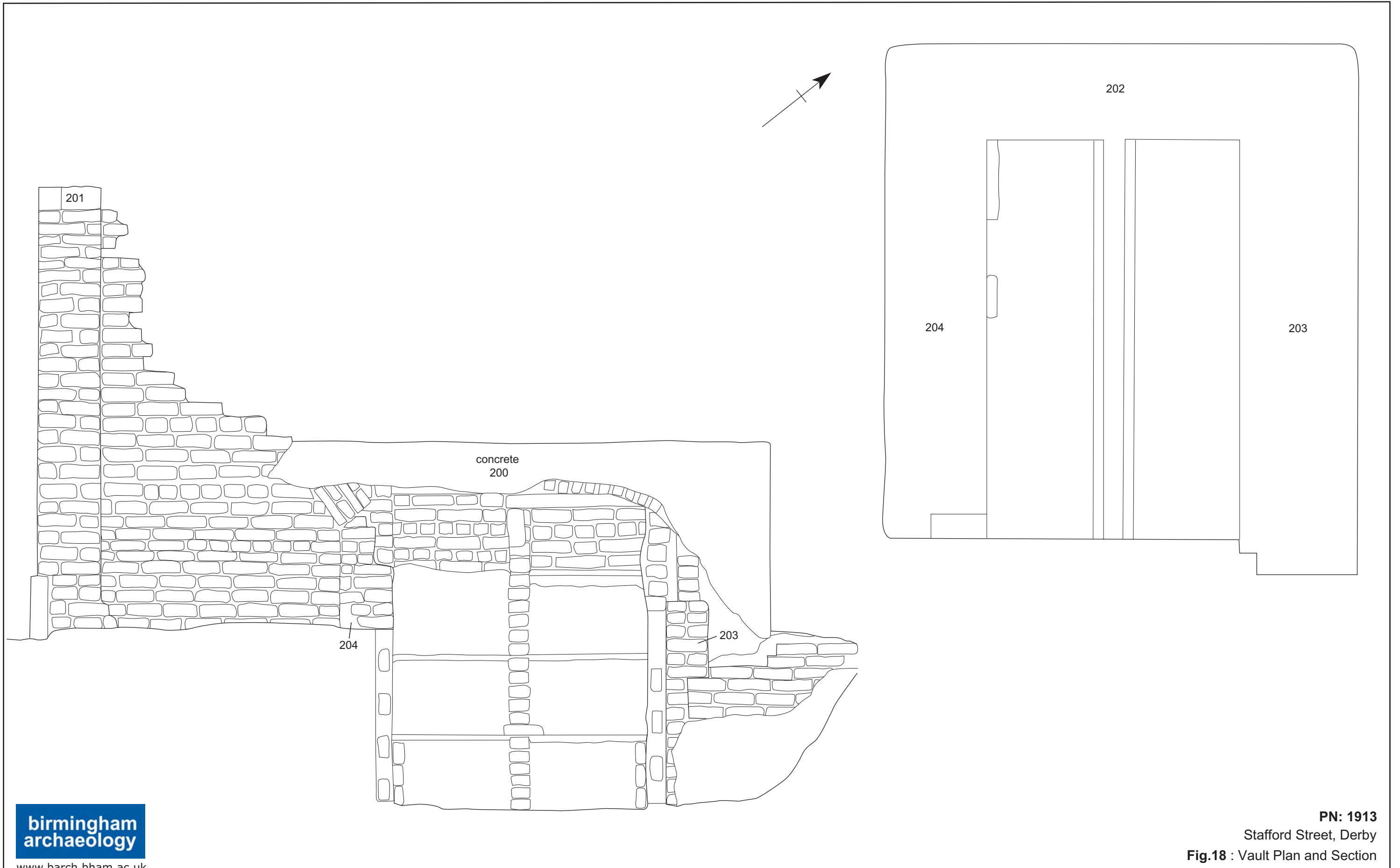
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PN: 1913

Agard Street, Derby

**Fig.17** : Agard Street Watching Brief







King Street. Old Crown Derby China Works. Bottle and muffle kilns

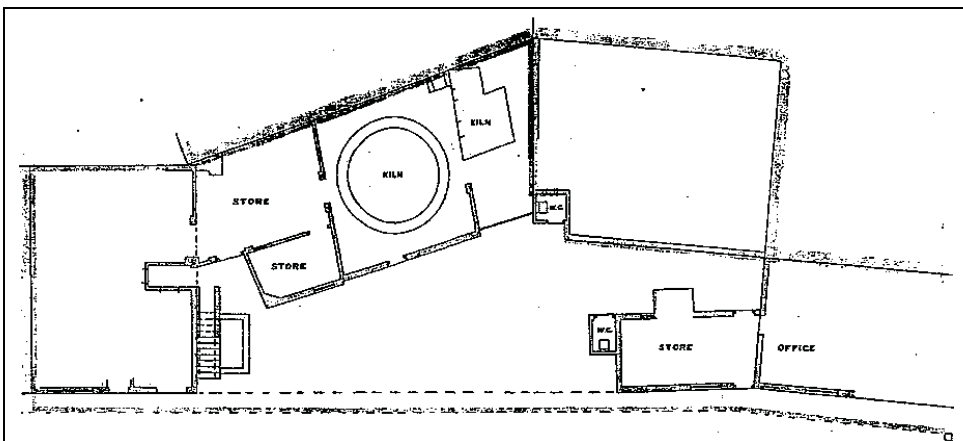


Old Crown Derby China Works. Watercolour by W.E. Mosley, c1895

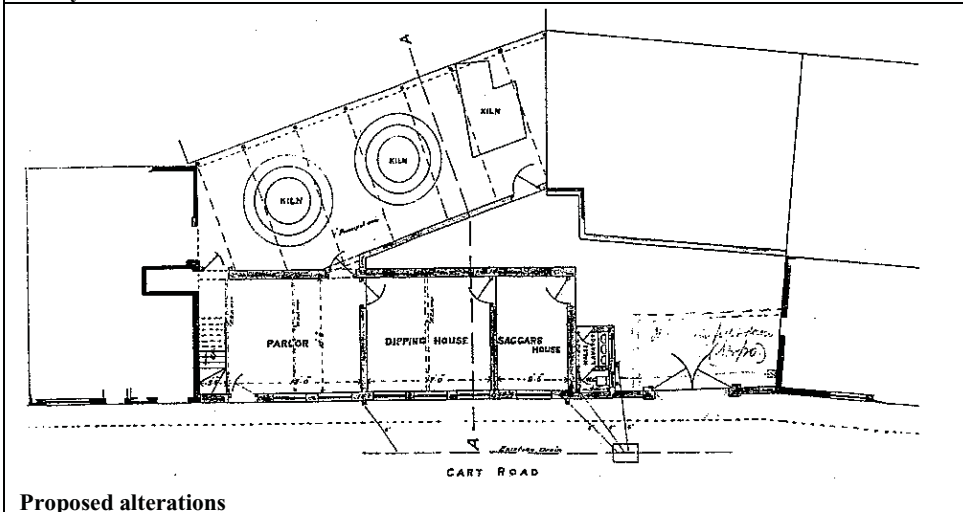




King Street. Old Crown Derby China Works. Workshop buildings



Derby China Works



Proposed alterations

Plan of Derby China Works c1919 and proposed alterations





King Street. Marble and Spar Manufactory. Boiler House



King Street/St Helen's Street. Burial Cut





King Street. Land behind the Seven Stars Public House. General view, W facing



Ford Street/Friar Gate car park. Pits beneath medieval foundations. General view , NE facing





Phase 2a Medieval Storage Vessel, Ford Street Car Park



'Queen Anne House' Friar Gate. Photograph,  
1906, N facing





Ford Street/Friar Gate car park. 'Queen Anne House' and medieval foundations, E facing



Agard Street/Ford Street. Burial vault, W facing

## **Appendix 1 Site Information**

### **Location and Geology**

The work was undertaken at a series of sites. These sites consisted of a series of locations;

Site 1 (Fig. 2) runs in a linear corridor to the rear of the Seven Stars Public House and 85-89 King Street NGR SK 3498 3678. The site is presently characterised as the backplots of the buildings facing King Street.

Site 2 (Fig. 2) lies within a car park on the corner of Ford Street and Friar Gate and is centred on NGR SK 3478 3639.

Site 3 (Fig. 2) is located either side of Ford Street around the area of Agard Street (NGR SK 3478 3646) and Cavendish Street (NGR SK 3481 3655).

Site 4 (Fig. 2) runs the length of Stafford Street and involves road improvements either side of Stafford Street from NGR SK 3476 3637 to NGR SK 3466 3611.

Site 5 (Fig. 2) involves major road improvements at the junction of Green Lane, Babington Lane, and Burton Road centred on NGR SK 3518 3570.

The character of the sites at present varies, but generally consists of areas of tarmac or concrete hardstanding adjacent to the proposed road scheme.

### **Archaeological Background**

At Site 1 documentary and cartographic evidence indicated that the former site of St Helen's Oratory, dated to 1137, was located on the corner of St Helen's Street/ King's Street. The discovery in 1801/ 2 of human remains in the grounds of the Oratory indicated that there was a graveyard associated with the building. In addition to this medieval potential, the land behind 85 King Street was occupied by part of the Derby China Works (1848- c 1964). Evaluation behind the Seven Stars public house/ 85-9 King Street identified medieval cut features and levelling deposits, followed by 17<sup>th</sup> century buildings to the rear of the Seven Stars. Buildings and kilns associated with the 19<sup>th</sup> century Derby China Works were also identified on the site. There was reason to believe that the proposed road improvements would impact upon sealed medieval deposits and the structural remains of the China Works.

At Site 2, the Ford Street/ Friargate site was formerly occupied by properties which can be traced back to at least 1610. Evaluation of the site showed that stratified medieval deposits, with 11<sup>th</sup> - 14<sup>th</sup> century pottery, were cut into by the sandstone footings of 17<sup>th</sup> and 18<sup>th</sup> century buildings along Friar Gate. Elsewhere on site the medieval layers were sealed by later ground level enhancements, and there was reason to believe that the proposed road improvements would impact upon further sealed medieval deposits.

Site 3 lies at the junction of Agard Street, Cavendish Street and Ford Street. At the Cavendish Street/ Ford Street Junction there was a medium potential for Anglo-saxon and medieval deposits associated with the Markeaton Brook. Previous evaluation work had encountered post-medieval deposits associated with mill leats in the vicinity (Lewis 2005). On the corner of Agard Street was the location of a

Calvanistic (Particular) Baptist Chapel, constructed in 1794 with a vestry and burial grounds to the north end. The Chapel was demolished in the 1980s and some graves exhumed. The burial ground lay to the north of the chapel and there was the potential for burials to the south as well. A concrete block containing the remains of unclaimed burials was known to still exist on the site. Site 2 was in close proximity to the area and revealed deposits which helped inform the nature of the archaeology in this area.

Site 4 runs the length of Stafford Street. The principal archaeological remains centre on the Priory of Dominican Friars which was founded before 1239AD and was dissolved in 1539AD and was founded on the site of the 18<sup>th</sup> century Friary Hotel which is known to have structural evidence in the cellars relating to the medieval period. An incised grave slab, a large key and human remains have all been recovered from the site. There is particular potential for the development to impact on the boundary wall of the Frairy.

Site 5 lies around the junction of Babbington Lane, Green Lane and Burton Road. The sites and monuments record suggests settlement existed around the site from the medieval period. Known sites exist at the other end of Green land and Babbington Lane and there is some suggestion that these may continue along the road.

### **Previous Archaeological Work**

As part of the current scheme of investigation several pieces of work have been undertaken investigating the archaeology of the proposed inner ring road. These include initial desk-based assessment of the archaeological potential of the Road Scheme by John Samuels Archaeological Consultants (John Samuels 2004). Further desk-based assessment of the King Street/ St. Helen's Street site in 2004 (Hislop 2003) Further historic building assessment and recording of the road scheme was undertaken in 2004, 2005, 2007 and 2009 (Hislop 2004; Driver and Hislop 2006; Tyler 2007; Hislop 2009). Archaeological evaluation of selected areas of the road scheme was undertaken in 2005 (Hewitson 2005).

In addition to this work the active participation of the Derbyshire Archaeological Society has produced a series of publications on elements of the site. These include investigations of the St. Helen's Hospital Oratory Site (D'Arcy and Steer 2002), the Spar Manufactory (Steer 2003), No. 71 King Street and Crown Derby China Works (Steer 2004).



## **Appendix 2 Excavation Methodology**

### **Excavation (Sites 1 and 2)**

The mitigation methodology consisted of open-area excavation of the areas defined on King Street (Site 1, Fig. 2) and Ford Street/ Friargate (Site 2, Fig. 2). The maximum depth of machine stripping in each area was 600-700mm below finished road level. Further hand excavation was carried out below this level, in consultation with the Development Control Archaeologist, in order to meet the archaeological objectives.

All topsoil and modern overburden was removed using a 360° tracked mechanical excavator with a toothless ditching bucket, under direct archaeological supervision, down to the top of the uppermost archaeological horizon or the subsoil. Subsequent cleaning and excavation was by hand.

### **Watching Brief**

The watching brief on the demolition of the buildings on the corner of King Street and St. Helen's Street (Site 1) involved the observation of groundworks within the area. Below-ground works were monitored on all excavation that impacted on significant archaeological levels. Excavation of the remains was undertaken to a level that enabled definition of the remains. The watching brief was undertaken by a suitably qualified archaeologist. The human remains were removed and were undertaken under the terms of the Ministry of Justice Licence (No. 09-0109).

The watching brief at Agard Street (Site 3) involved the demolition of the buildings that currently existed on the site, removal of the slab and excavation of the remains to formation level for the road and footway to a depth of 600mm below the current ground level.

Specific reference was paid to the vault discovered at the site. The scope of this work involved the removal of the coffins contained within the vaults. The vault was reduced by manual means, and machinery where appropriate. An excavator was used to reduce the ground in front of the vault to allow access. This was monitored by an archaeologist as for the remainder of the watching brief. The vault was recorded prior to the any reduction occurring. The vault itself was subject to archaeological recording including photography, written recording of the structure and planning at a suitable scale with reference to the National Grid.

The coffins were lifted via slings and slides. The coffins and any remains were recorded prior to removal. The coffins were photographically recorded to a level sufficiently high to allow photographic rectification. To this affect scales were included in all photographs. Specific attention was paid to details on the coffin including name plates, coffin handles and decoration. The human remains were removed under the terms of Ministry of Justice Licence (No. 09-0105).

The watching briefs at Stafford Street (Site 4) and Green Lane/ Babbington Road (Site 5) involved road widening and alteration of service runs and some excavation to depths of around 600mm.

## General

The excavation and watching brief areas were surveyed-in using an EDM total station or other appropriate survey instruments and located on the Ordnance Survey National Grid.

A representative sample of archaeological features and deposits were manually sample excavated, sufficiently to define their character and to obtain suitable dating evidence. Generally, the following strategy was followed;

- 50% of pits under 1.5m or postholes.
- 25% of pits over 1.5m including a complete section.
- A minimum sample of 1m for linear/ curvi-linear features under 10m in length.
- 20% sample of linear/ curvi-linear features over 10m in length (sample sections not less than 1m in width).

All stratigraphic sequences were recorded, even where no archaeology was present. Features were planned at a scale of 1:20 or 1:50 as appropriate, and sections were drawn of all cut features and significant vertical stratigraphy at a scale of 1:10 or 1:20 as appropriate. A comprehensive written record was maintained using a continuous numbered context system on *pro-forma* cards. Written records and scale plans were supplemented by photographs using black and white monochrome, colour slide and digital photography. Digital photography was undertaken using an SLR camera to a minimum of 7 megapixel resolution

For brick structures, the record included details of brick dimensions and type (handmade/machine-made, plain/frogged), mortar (colour, composition, hardness) and the extent of structures (number of courses, thickness in skins). Brick samples were taken for analysis where considered appropriate.

Deposits were sampled for retrieval and assessment of the preservation conditions and potential for analysis of biological remains. The environmental sampling policy was established in consultation with a member of Birmingham Archaeology Environmental (BAe) and followed the guidelines contained in the Birmingham Archaeology Fieldwork Manual and *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2002).

Where there was evidence for industrial activity, samples were taken to identify macroscopic technological residues in accordance with *Archaeometallurgy* (English Heritage 2001) and *Science for Historic Industries* (English Heritage 2006).

Recovered finds were cleaned, marked and remedial conservation work will be undertaken as necessary. Treatment of all finds conformed to guidance contained within the Birmingham Archaeology Fieldwork Manual and *First Aid for Finds* (Watkinson and Neal 1998).

Human remains were left *in situ* initially but excavated after consultation had been undertaken with the Derbyshire development control archaeologist and Derby City Council Special Projects Team (the client) under the terms of a Ministry of Justice licence (see above).

Excavation of human remains confirmed with advice provided in *Excavation and post-excavation treatment of cremated and inhumed human remains* (McKinley and Roberts 1993), *Human bones from Archaeological Sites* (English Heritage 2004) and

in *Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England* (English Heritage 2005).

During the course of the fieldwork provision was made for the Development Control Archaeologist to undertake monitoring visits. In particular, a site meeting was held once trenches were open and archaeological features flagged, in order to establish the scope of sampling and excavation.



## Appendix 3: Excavation Results

### Introduction

The following phasing is based upon the spot dating of the pottery, stratigraphic relationships identified on site and primary documentary evidence. The site narrative has been split into separately phased sections; 85-89 King Street, land behind the Seven Stars public house, King Street and Ford Street/ Friar Gate car park and land at the corner of Agard Street and Ford Street.

These sites were at separate locations and there was no direct relationship between them, the only common relationship between them being the layout of the new road itself.

The methodology of excavation has substantially affected the outcome of the archaeological results. The maximum depth of machine stripping in each area was 600mm below finished road level. In all cases this was above the level of natural deposits, and therefore natural was not encountered. It is likely that earlier archaeological features have remained preserved beneath this level. Trial sondages were hand excavated on each site to establish the depth of stratigraphy and building construction.

### Land behind the Seven Stars Public house- King Street

An area of land behind the Seven Stars Public house (constructed c 1680) was excavated due to the likelihood of finding features relating to the back-plot of the pub. Evidence of any substantial occupation deposits or building foundations were not forthcoming within this excavation area, but there was incidental evidence of various industries and earlier activity, including medieval levelling deposits and a possible ditch. There were likely to have been earlier archaeological deposits which remained unexcavated, as they were beneath the level required for the roadway (Figures 3 & 6).

#### *Phase 1a – medieval*

Generally the site was characterised by levelling layers, which sealed the natural clay (4023), identified at 1.8m below ground level. These layers can be tentatively dated to the medieval period. The primary levelling layer (4022) of reddish brown clay was overlain by further grey brown clay (4008). These layers contained ceramics dated to the medieval period (11<sup>th</sup> - 12<sup>th</sup> century). There were also two residual sherds of Samian Ware pottery recovered from these levelling layers confirming the known Roman presence in the area. A further re-deposited red clay levelling layer (4007) sealed these layers on the northern side of site.

At the base of pit 4013 was the cut of a linear feature (4019) running along the line of the extant 19<sup>th</sup> century boundary wall 4015. This linear feature ran northeast to southwest and it was at least 1.2m in width (the full extent being obscured by the boundary wall. The fill 4020 was predominantly composed of metalworking slags (possible smithing hearth). Two sherds of medieval pottery were recovered from the fill. The ditch probably represents the medieval plot ditch at the rear of King Street (Plate 7)

*Phase 4 - 17<sup>th</sup>/ 18<sup>th</sup> century*

Constructed above these levelling layers were several truncated brick structures. A vaulted cellar (4003) and linear wall foundations (4005, 4006), were partially exposed along the northern edge of the excavation area, overlying and cutting the medieval layers. These were probably related to demolished sections of 17<sup>th</sup>/ 18<sup>th</sup>-century outbuildings which were once part of the Severn Stars public house. The walls were made up of hand-made, unfrogged bricks in a mixture of sizes but primarily 230mm x 110mm x 55mm (9 x 4¼ x 2¼ inches), set within in a lime based mortar in an English Garden Wall bond. The cellar had been vigorously backfilled with demolition rubble in the 19<sup>th</sup> century (4004, 4017), complete bricks and general waste material had been used for this purpose.

*Phase 5 - 19<sup>th</sup> century*

One rectangular pit (4013) was identified. The main fill of the pit (4014) appeared to be a deliberate waste deposit, and included ceramics which covered a long date range. These ceramics dated from the mid-18<sup>th</sup> century to the early-20<sup>th</sup> century. Other finds included; charcoal, clinker, slag, ceramics, tile, and bone. Malt house tiles were also recovered from the fill of this pit. The presence of these reflects the cartographic evidence which suggest that there was a malt house situated on this site in the 19<sup>th</sup> century. Upon the base of this pit there was a single course square brick structure and brick wall constructed along one edge (4018), the purpose of which was unknown. A large quantity of slag (possible smithing hearth slags) were recovered, suggesting forging activity taking place on or near to site. These had probably been introduced into the fill from the deposit beneath, when it was dug. This underlying deposit 4020 filled linear feature 4019.

Several drainage features were identified owing to the sites position behind the Seven Stars pub. One brick-lined drainage channel, orientated east-west was capped with sandstone blocks (4011), it had naturally silted (4016), probably leading to its abandonment. This drain was likely to have been superseded by drainage system (4009). This was made up of a brick built man hole with ceramic salt glazed drainage pipes leading into it from northern, eastern and western directions.

**85-89 King Street – Old Crown Derby China works 1848/49-1935**

The well preserved remains of the Old Crown Derby China Works were identified along the western edge of King Street on the adjacent site to the Seven Stars pub. The remains consisted of bottle and muffle kiln bases, workshop buildings and toilet blocks. No features predating this factory were identified as it was constructed upon a significant accumulation of deliberately levelled material. The works dated from 1848/49 – 1935 and it was demolished and levelled in the later 20<sup>th</sup> century; however, contemporary frontage buildings still survive along King Street. These would have housed the reception rooms to the factory as well as being the painting and japanning workshops. A painted sign still survives on the external elevation of these buildings detailing the date of establishment as 1750. A good general history of the site and its products is available in 'Old Crown Derby China Works. The King Street Factory 1849-1935' by Robin Blackwood and Cherryl Head.

The excavated features are well matched with the surviving cartographic evidence . The alterations present in the successive mapping are apparent in the construction of the walls and the archaeology is able to confirm the location of interior elements not

recorded in this type of evidence. The primary construction of the kiln buildings in 1849 was followed by successive extensions, the most comprehensive of which occurred in 1919/20 when the buildings were remodelled and a building known as the store house was demolished to make way for the construction of the southern range which included the saggars house. (Plate 4) This, along with the kiln building was identified in the archaeology (Figures 3 & 4).

#### *Phase 5 Mid-19<sup>th</sup> century (1848/49-)*

##### *The Kiln Buildings*

The remains of the bottle kiln were identified (1002) to the north of the China works site. The central oven consisted of a circular brick structure, intersected by radiating flues, above which would have been the firemouths (Plate 1). Contemporary pictures show that this kiln was of an enclosed type with the bottle oven protruding through the building roof (Plate 2). The wares would have been stacked in the central oven within saggars until they became biscuit fired, a secondary firing, when the biscuit wares would have been glazed, would have taken place separately.

The bricks used in the construction of the kiln were set on bed and were machine-cut unfrosted 230 x 110 x 65-75mm (9 x 4¼ x 2½-3 inch) red bricks. The bricks were bonded with a loose lime mortar. The external diameter of the kiln was 6m (approximately 19½ ft) across. There was evidence of an entrance doorway, identified by stone block footings, which led into the central oven, the position of which is present in the cartographic evidence. Surrounding the central area was a brick paved flooring approximately 1m in width. This can be interpreted as the internal floor of the hovel structure.

The kiln had six flues (of which only five survived in their complete form) and fire bricks were used around the flue openings. The flues were used to evenly distribute the heat and provide draft. The interiors of the flues were filled with clinker (1033), these had no solid base. The amount of clinker present, confirmed that the firing of the kiln was likely to have been coal. Many of the bricks surrounding the oven showed discolouration and deformity due to the intense heat. The kiln was constructed upon levelled material and the layer immediately below the kiln base (1034) had turned orange due to the intense heat generated in the oven. Beneath this was a layer of mid brown silty-clay (1035). Creamware dating from the late-18<sup>th</sup> to 19<sup>th</sup> century dated these levelling layers immediately beneath the kiln base (Figure 8).

The inside floor of the oven was unpaved and was formed by a mixture of clay and accumulated kiln debris (1037, 1038), the upper levels of which were heat affected. Excavation of this central space confirmed that this kiln was the single phase constructed. Two recesses within this central space of the oven may have provided further space for the stacking of saggars.

The kiln had been truncated on its southeastern side by an evaluation trench, excavated by Birmingham Archaeology in 2005 (Hewitson 2005).

The remains of a contemporary rectangular kiln (1003, filled by 1021) lay to the northeast of the bottle kiln (Plate 1). This was interpreted as a muffle (or glost) kiln and would have been used to fire the glazed biscuit wares in a regulated atmosphere, without direct contact with the products of combustion, the wares being fired via radiation and convection. Contemporary illustrations show this kiln to have included a tapering chimney stack, taller than that of the bottle kiln. A rectangular

brick base with two integral fireboxes, made up the oven. The heat passed from these fireboxes through flues into the main rectangular chamber where the wares were fired. The bricks used in the construction of the kiln were again machine-cut, unfroged, 230 x 110 x 65-75mm (9 x 4¼ x 2 ½-3 inch) red bricks. Firebricks had been used around the central rectangular oven and fireboxes. Bricks had been used to line the base of these fireboxes. This kiln was 2.8m x 2.3m (approximately 9ft x 7.5ft).

The fireboxes were filled with accumulated clinker and coal. Evidence of experimental glazing undertaken during the final kiln firings of 1935 were found within the clinker fills of the fireboxes. Numerous sherds were found with different shades of glazing painted onto them and dates of firing painted onto the back. These sherds give a clear indication of the type of glazes being produced, the method of experimentation, the type of kiln used for this activity and a clear date of abandonment.

Surrounding this kiln was a truncated granite cobble sett and brick floor surface (1004, 1005). The northeastern extent of these kiln structures and floor surfaces was defined by a northwest- southeast orientated external wall (1006). This was also constructed of machine-cut, unfroged, 230 x 110 x 65-75mm (9 x 4¼ x 2 ½-3 inch) red bricks set in a loose lime mortar within a Flemish garden wall bond. A square toilet block (1007) including ceramic waste pipe and brick and tile floor was attached to the eastern elevation of this building. The existence of this is confirmed in the cartographic evidence. The partial remains of the northeastern range of buildings (1008, 1009) were also encountered. These were tied in to the remains of the store building.

#### *The workshop buildings*

Evidence of workshop buildings were preserved to the east and south of the kiln buildings. These were identified in the cartographic evidence as the Store and Saggar House and represent separate phases of construction. The store house was apparently contemporary with the primary construction, whereas the southern range of buildings including the saggar house was constructed in the early 20<sup>th</sup> century. The remains of the store house was made up of several different elements including yorkstone pathways (1011, 1016), brick and tile surfaces (1013) and associated walls (1017). There was also the remains of a fireplace and ash pit (1015, 1014, filled by 1027) and a large brick lined tank (1012). This tank was not noted in the documentary sources. It was constructed to a depth of 1.5m, was rendered, and it had a chute constructed on its southern side. This pit may have been used for the storage of wet clays, slip or water.

#### *Phase 6 – Early 20<sup>th</sup> century (1919/20)*

A further range of workshop buildings were situated to the south of the kiln buildings (1020). These were constructed in 1919/20 following the demolition of the store building. The section exposed in the excavation is labelled as the Saggar House. Approximately 5.5m x 3.5m of this building was exposed, the northern wall of which continued into the western excavation edge. The bricks used in the construction were machine-cut, unfroged, 230 x 115 x 65-75mm (9 x 4½ x 2½-3 inch) red bricks. The bricks were bonded with a loose, cement based mortar. Within this building there was possible evidence of clay preparation and/ or storage. A shallow brick lined pit (1025) with roughly constructed tile floor, was likely to have been used for settling or storage. This was filled with yellow clay (1028), reminiscent of the type of

clay used in the manufacture of saggars and kiln furniture which was perhaps made and fired on site (Plate 3).

The site of a further toilet block (including lead water and ceramic waste pipes) was identified (1018, 1019), this was a separate block attached to the eastern elevation of these workshop buildings.

The artefactual evidence included the occasional evidence of the items produced at the factory. These included decorative ceramics, biscuit fired ceramics and painted wares. These were found within the layers of overlying demolition material (1001) or in layers surrounding the foundation levels and not in any specific waster dumps. The majority of waste ceramics were either cleared or were taken off site. Some examples of the kiln furniture used in the firing process were also recovered. Fragments of saggars, kiln rods, ring stilts, and props used to contain and support the ceramics within the kilns were all found.

**85-89 King Street -Marble and Spar Manufactory 1802 to late-19<sup>th</sup> century (c 1869)**

According to comprehensive documentary sources, the 19<sup>th</sup> century marble and spar manufactory was constructed upon the site of a 12<sup>th</sup>-century religious oratory dedicated to St Helen. However, no physical evidence of these early period structures was encountered. The successive alterations and refurbishments of the buildings on the site throughout this period have made it difficult to identify any earlier elements which may have survived and therefore no features prior to the 17<sup>th</sup>/ 18<sup>th</sup> century were exposed on the main site area (Figures 3 & 5). However, further work outside of southern edge of the marble works site and within St Helen's street identified two truncated burial cuts which contained the remains of at least 3 individuals interred during the 11<sup>th</sup> to mid-12<sup>th</sup> century. This represents a surviving island of archaeology from the burial ground of the Oratory of St. Helen's. Historical sources also suggest that during the construction of the marble works in the 19<sup>th</sup> century; further burials were discovered, supporting this assumption.

The remains of the works boiler house, steam engine base, swimming pool and workshop buildings were all identified. The buildings were laid out in ranges surrounding a central space, which in the latter period became covered over. One residual sherd of late-Saxon pottery was encountered within the levelled backfill of the boiler house (2048).

It appears that fragmentary evidence of the earlier 17<sup>th</sup>-/ 18<sup>th</sup>-century structures were preserved along the eastern edge of site, having been incorporated into a later range of buildings. These remains were insubstantial and difficult to phase, made more so by the reuse of building materials (namely 2¼ inch bricks). The majority of the archaeological material recovered was dated to the early 19<sup>th</sup> century and some of the features can be more accurately dated using the documentary sources. For further and more detailed documentary reference please refer to the works of J. Steer (2002, 2003) and M. Hislop (2004).

The works made architectural and ornamental pieces such as fire surrounds, chimney pots and candlesticks. Various examples of the types of marble used to by the works in the creation of these items were recovered.

*Phase 1a – King Street/ St Helen’s Street 11<sup>th</sup> to mid-12<sup>th</sup> century*

Subsequent to the completion of the excavations by Birmingham Archaeology on King Street, human bones were discovered during contractors service trench work on the corner of King Street and St Helen’s Street. These remains represent a minimum of three individuals, two adults and one adolescent; they have a likely deposition date of the 11<sup>th</sup> to mid-12<sup>th</sup> century (Figure 7).

There had been severe truncation both in antiquity and during the modern period leading to disturbed and disarticulated remains. There were two notable shallow burial cuts, both set into the underlying natural clay (5012). The primary cut (5000) contained the partial remains of an adult skeleton (the right arm and hand) Partial articulation was observed in what appeared to be this original grave cut and it is likely that these remains represented one adult individual (Plate 6).

A further shallow and severely truncated grave cut was noted (5003), this only partially survived and contained no finds but it had truncated the original grave. It is possible this was roughly contemporary.

Many of the remains however, were recovered from an adjacent deeply cut charnel pit (5005) in a severely disarticulated form. This pit is likely to have contained the contents of more than one burial. This suggests the original medieval burial(s) had previously been exposed, and cut through, probably when the cellar foundations of the workshop buildings were constructed in 1866-69 and then the contents gathered together and placed within a single pit. The pottery associated with this bone (5006) was all dated from the 11<sup>th</sup> to early to mid-12<sup>th</sup> century, which could also suggest contemporary re-cutting of the graves.

*Phase 4 - 17<sup>th</sup>/ 18<sup>th</sup> century*

*The East Range*

At the eastern edge of site, along King Street was a range of buildings, part of which may have been the re-used elements of St Helen’s house (possibly 17<sup>th</sup> century). The construction of the western elevation in particular (2019, 2021) revealed successive rebuilds and brickwork dating to the 18<sup>th</sup> century. This main elevation was comprised of several abutting elements and sections of rebuilding and strengthening including small buttresses. A 12.5m length of this elevation was exposed; it survived to a depth of 11 courses in places and appeared to be orientated along a slightly different alignment at its southern end. It is perhaps likely that this was an earlier phase of building which had developed northwards. The brickwork used in these constructions was handmade, unfrogged 230 x 115 x 55-65mm (9 x 4½ x 2¼-2½ inch) red bricks set in a lime mortar primarily within an English Garden wall bond. The physical and stratigraphic elements appear to confirm the documentary evidence that this was the location of the earlier buildings. A trial hole dug against the western elevation to a depth of 1.05m exposed the foundations of two further walls (2046, 2047) again confirming the extent of rebuilding of this range. These walls may predate this phase as their brick dimensions are comparable with examples from the 16<sup>th</sup> to 17<sup>th</sup> century (Figure 8).

Evidence from the watching brief on the levelling of the surviving walls as part of the preparation of ground levels revealed the natural red sand clay at depths just below the levels of these walls, suggesting they were constructed directly on these ground levels.



These foundations were constructed upon levelled ground. Parts of the construction of this eastern range appeared to survive to a significant depth and deep fills up against the western side of the main elevation were demolition deposits (2012), perhaps suggesting that this range was partially cellared. Several of the internal walls (2019, 2021) of this range of buildings had survived, particularly towards the southern end of the buildings. Many of these were of much the same construction and were therefore likely to have been contemporary.

Along the western side of the east range was evidence of a sandstone drainage channel (2022) with evidence of the location of a down-pipe at the northern end. The presence of this confirmed the external elevation of this range of buildings.

Within the northern end of this range there were a series of structures which appeared to be the remains of a small machine base, associated flue and brick working surface (2024). The overall dimensions of the base were approximately 2.9m x 2.5m, an iron plate and regularly spaced holes were set into the surface and were presumably the footings for the machinery. A brick lined drain (2023) was situated to the south of the machine base.

The sett cobbled road way (2034) between the Spar manufactory site and the Old Crown Works site was laid out by the mid-18<sup>th</sup> century. The build-up of material beneath the roadway (2035) was consistently dated to the late-17<sup>th</sup> to 18<sup>th</sup> century by pottery, glass and clay tobacco pipe.

#### *Phase 5a – c 1802*

##### *The North Range (including boiler and engine houses)*

The northern range of buildings comprised two main elements; the boiler and engine houses. The range appeared to be separated into three separate rooms by internal walls.

Within the easternmost room there were two sections of brickwork (2028, 2029) which were probably the remains of truncated flooring. The location of the boiler base itself has to be surmised, as a likely candidate for the boiler base was not found, but it is likely that it was situated within the central room of the northern range, where the brick arched flue (2030) was located. The westernmost room was only partially excavated, but set within its floor was a group of large stone foundation blocks (2032), these were probably used as a secure and level base for the steam engine.

##### *The boiler house*

The boiler house (2027) was a rectangular building approximately 7m x 4m and divided into two parts (see above). The boiler would have used the flue (2030), possible chimney and iron pipes (2033). The brickwork used in the construction was handmade, unfrogged 240 x 110 x 65mm (9½ x 4¼ x 2½ inch) red bricks set in a lime based mortar within an English Garden wall bond (Plate 5).

Within the central room was the large brick flue (2030), this had an attached small rectangular brick feature set within it. This sloping feature fed into the flue on its northern side and may have provided draft to the boiler or could have been a chimney. The flue is likely to have carried away the combustion products to the chimney. Adjacent to the flue was a stone built machine base with bolts and bolt



holes for restraining rods and grooves cut into it (2031). This structure was approximately 2m x 1m and was substantially built to support some heavy machinery. The square central section of the feature was sunken, perhaps for use as an ash pit.

#### *The engine house*

Evidence of probable location of the steam engine base lay adjacent to the boiler house in the westernmost room of the north range. Some exceptionally large blocks of possible Ashford Black Marble were used to create a substantial base, upon which the steam engine would be anchored (2032). Many of these blocks were located outside of the northern range, to the south. It may be that the engine house was a north-south orientated building attached to the western end of the boiler house. There was evidence of fixing holes cut into the blocks. This type of construction would have acted as a secure foundation which would have buffered and supported the steam engine fixed to it. The steam engine would have powered the machinery for the sawing and polishing of the marble.

#### *The roadway*

Between the north range buildings and the southern extent of the Derby China Works was a well preserved cobble sett roadway (2034). This was primarily composed of smaller square granite setts but there were larger rectangular setts forming the gutter on either side. The roadway was constructed upon a black ash and hardcore layer and had been skimmed over with tarmac at a later date

#### *Phase 5b – c 1819-1827*

The foundations of a swimming pool (2016), known to have been constructed by c 1827, were identified in the centre of site. It was brick built and was tiled using stone, around the top were dressed stone tiles. It survived to a depth of at least 1m. The brickwork was constructed of machine cut, unfrogged, 230 x 120 x 75mm (9 x 4¾ x 3 inch) red bricks set in a cement based mortar. The pool was reportedly heated by steam from the boiler (Steer 2003).

#### *Phase 5c – later 19<sup>th</sup> century*

Many of the structures identified on site, including that of the east range and swimming pool, were abandoned and demolished in the later 19th century, making way for further construction and reorganisation of the site. The eastern range was demolished by 1884 and by 1886 the swimming pool had been covered over and a further building was built upon it (extant). The northern range stayed in tact throughout this period of alteration. During the later 19th and 20th centuries further buildings were erected upon the eastern side of site, in place of the originals, to again give it, its courtyard appearance. Many of the intrusive features date to this period the main of which were the man-holes and ceramic foul water pipes (2017, 2020). These crossed the site from east to west truncating the eastern range and the swimming pool. A large deposit of broken stoneware bottles found within this courtyard area (2001) confirmed a 19<sup>th</sup>- to early 20<sup>th</sup>- century date for this reorganisation.

### **Ford Street/Friar Gate car park**

Six distinct phases of occupation and building construction were identified on this site, dating from the late-11<sup>th</sup> to the 19<sup>th</sup> century period. These phases were characterised by occupation and construction episodes followed by levelling and reconstruction. The methodology of this excavation area initially followed that of the proposed written scheme of investigation with excavation depths brought kept to 600m below finished road level. Later adjustments to the service trench locations and road level meant that this level would be exceeded and further excavation was necessary. This area of further work extended over the southern end of site (Figures 9-13).

The site occupied an area at the periphery of the medieval centre of Derby just south of the now culverted, Markeaton Brook. The proximity of the river and its flood plain may have resulted in ground levelling visible throughout the site.

#### *Natural*

This required the excavation of the site down to the level of the natural gravel (4302), within the area of the proposed roadway, about 1.3m below the modern ground surface. Undisturbed natural ground was not encountered at any location across the site, during the excavations. The evaluation trenches undertaken during 2005 revealed a natural red silt-clay, 2.00m below modern ground level (49.81m). The subsoils overlying this natural consisted of re-deposited natural sandy gravels (3181) and clays (3129/ 3219) deposits. These were likely to have been both naturally occurring river flood plain deposits and deliberately deposited ground levelling deposits for the purpose of ground reclamation. No direct evidence of human activity was contained within these layers. They were however, mottled and contained very occasional flecks of charcoal.

#### *Phase 0 - Prehistoric*

One finely worked flint scraper was identified within the one of the medieval levelling layers at the southern end of site. This provides residual evidence of flint tool usage usually associated with the prehistoric period. It was not securely stratified and therefore may not necessarily confirm usage of the site during this period, as it may derive from an imported soil.

#### *Phase 1 - 11th/ 12th century*

Alteration and construction the natural subsoil appears to have occurred at an early date as there were 11th-13th century features cutting these layers. To the north of the site this was represented by a layer (4311) 0.2m deep, and located over the area of the site of beige-yellow clay and silt with pebbles throughout.

Significant activity dating from the late-11<sup>th</sup> to 13<sup>th</sup> century was identified at the southern end of the excavation area adjacent to Friargate. Three of the features were dated through their ceramic assemblage and there were further features which although lacking in artefactual evidence were securely stratified beneath later occupation/ levelling deposits. These features can therefore reasonably be attributed to this phase (Plates 8 & 9).

Several layers overlying the natural clay were identified. These layers (3094, 3115, 3121, 3126 and 3128) were present within the trial slots and also within the southern area towards Friar Gate. These layers provided early evidence of occupation surfaces and are contemporary with the large group of pits and post holes which are cutting them.

No clear arrangement of pits or post-holes could be readily identified. There were however, post-holes of similar shapes and dimensions (3082, 3084 and 3113-squared) and (3089, 3104 and 3116- circular).

Two of the pits (3086 and 3102) and two postholes (3093 and 3116) were securely dated. Pit 3086 was circular in shape and U-shaped in profile at 0.73 in diameter. It was one of the largest pits identified. Pit 3102 was square in plan and also U-shaped in profile. Post-holes (3093 and 3116) were circular in appearance and very shallow (Figure 10). Several of the postholes (3089, 3104, 3113) and pits (3119 and 3125) were stratigraphically secure to this level, whilst the rest of the postholes (3089, 3104, 3113,) pits (3080, 3119 and 3125) and stake hole (3106) provided no evidence to date them. It is probable that they were 11th-13th century in origin as they were at the same stratigraphic level and were similar in appearance to the features with a known origin.

Possible functions of these pits and post-holes are not immediately obvious. Functions would have included structural features for domestic or industrial use with the associated pit cutting activity that occurs alongside this type of occupation. Their distribution and frequency suggest that the Phase 1 post-holes and stake-holes are distributed around and area with few pits. This also seems to be mutually exclusive to an area of slightly later Phase 2a occupation to the east (see below) and may suggest plot boundaries existed, or later Phase 2b activity has removed evidence in the western side of the Friargate street frontage.

A series of occupation layers overlay these earlier features. It is unclear as to the extent and coverage of these layers as they were truncated by successive periods of occupation and construction. These layers (3079 and 3101) sealed many of the 11<sup>th</sup>- to 13<sup>th</sup>-century features and may represent a period of levelling of the site.

#### *Phase 2a - 13<sup>th</sup> to 14<sup>th</sup> century*

A period of urban growth followed during the 13<sup>th</sup> to 16<sup>th</sup> centuries. This can be identified by the construction of more permanent and robust structures and their associated occupation layers. This site's development is perhaps representative of the town of Derby as a whole and is a process which has been identified in other medieval towns of this period. In the earlier period from the 13th century the foundations of these structures were constructed of timber but appear to have been replaced by sandstone in the 15th century. Good survival occurred partly due to their incorporation into a later arrangement of buildings (See Figures 9 & 10, Plates 9 & 10).

A series of metallised surfaces (3048, 3064 and 3186) were cut by the later sandstone walls and beneath subsequent occupation layers. These compacted pebble surfaces could be construction levels or contemporary occupation levels. These were overlain by a series of occupation layers (3047, 3054, 3071, and 3072) and further occupation layers (3155, 3180, 3184, and 3185) in the south-western most extent of the excavation area. One layer in particular (3185) contained material evidence relating a specific industry. A large quantity of horn cores were recovered along with

an associated assemblage of bone. These perhaps represent the accumulation of working debris close to an area of production. The use of horn in the medieval period for window lights, drinking vessels and food containers is well documented.

Two post-holes were securely dated to this period 3209 and 3229 but underlay the occupation layers and had no discernable relationship with the metalled surface. Post-hole 3229 was vertically cut in appearance. A series of pits (3147, 3215, 3224, 3226, and 3228), post-holes and stake-holes (3158, 3160, 3162, 3199, 3211, 3213, 3243, 3169, 3171 and 3201) were probably contemporary with these.

A spread of reddened clay interpreted as a burnt clay hearth base (3196) was associated with these occupation layers and may represent the location of a hearth. A shallow pit containing similar material (3149) was also found just north of this, perhaps representing a second area of hearth material.

Set into occupation layer 3155 was a circular cut (3145) within which was the base of an *in situ* storage vessel (3146). This was 0.4m in diameter and survived to a height of 0.2m. It had been fragmented through root disturbance and later developments but it was clear that it had been deliberately placed in a hole cut at ground level. Due to its size this would have effectively supported it and its contents. The vessel was carefully excavated and lifted with its contents in tact (Plate 9).

The occupation layers were also cut by a series of later pits (3151, 3163, 3167, 3169, 3171, 3174, 3176, and 3178). Two similar, thin and steeply cut oval pits were identified at the east of site (3174 and 3197). These may represent beam slots or pits to support vertical structures.

Overall the distribution of the layers pits and post-holes suggests occupation occurred to the east of the site at a slightly later date to the earlier Phase 1 occupation. There may have been a period of mutual occupation, or earlier occupation evidence was destroyed in this location by the Phase 2 development.

#### *Backplot activity*

To the rear of the structural areas and north of the site, a series of deposits were identified with backplot activity associated broadly with Phase 2. Some of the activity discussed here may in fact be continuous and more closely associated with the stone structures of Phase 2b. The pottery dates are broad and the stratigraphy suggests that the land-plot was an open yard through much of the medieval period.

Cutting or overlying layer 4311 was an area of grey silt and clay with pebbles 6m long and 3m wide located on the western side of the site (4312 and 4317). The nature of these deposits could not be confirmed as they were not excavated, but were left *in situ*. Pottery was collected that suggested a date of between the 13th and 14th century.

Also cutting 4311, at the very western extent of the site was a feature identified in section (4304), probably a small pit 0.8m in diameter and 0.68m deep. This was, filled by 4303, brown sand and silt with pebbles throughout, and a lens of pink clay at the top of the feature.

Layer 4311 had been sealed by a layer of sandy silt, rich in soil (4320). This extended over the northern 25m of the site and became deeper towards the north (up to 0.35m) that contained pottery dated to the 12th to 13th century. This had been cut by several negative features, although this relationship was only visible in section, and this relationship was generally not clear, unless the nature of the fill

differed substantially from the natural of the layer (as with pits 4305 and 4308 with their distinctive white lime fill). As some of the features on the site were not visible in section, and did not have stratigraphic relationships with features that were, it has been assumed that these features cut this layer (4310, 4336, 4341, 4350, and 4359), however the pottery spot dates suggests two distinct phases of activity were visible.

Pit 4350 was located to the west of 4323, this was roughly circular, 1.8m in diameter and excavated to a depth of 0.2m below the machined surface, it seems probable that the upper 0.3m was removed by machine prior to this. The fill of this (4330) consisted of grey sandy silt with pebbles and gravel throughout. Pottery from this dated to from the 11th through to the 14th century including Burley Hill wares and Nottingham Green Glazed wares.

A probable beam slot (4340) aligned north-north-east, to south-south-west close to the eastern edge of excavation. This was exposed for a length of 5.5m and a width of 0.3m and was 0.26m deep. The fill of this 4326 consisted of quite clean sandy silt, although a lens of yellow clay was visible in section only at the top of the fill. Some daub or burnt clay was recovered from the northern end of this feature, and pottery dating to 13th and 14th century including Nottingham Green Glazed Ware from the southern end of the feature.

The western side of beam slot 4340 was cut at the northern extent by 4346, a wide shallow feature 2.36m in diameter and 0.12m deep, this had a primary fill (4347) similar to 3411 and two further fills 4334, rich in iron slag and animal bone, and 4344, also rich in slag, but also in charcoal and dated by medieval shell tempered wares.

To the south of this, also cutting 4326 was pit 4323; this was 3.25m long, exposed for a width of 1.8m and was 1.16m deep. The lower fill (4360), consisted of green-grey sandy silt, but was excavated by machine, so could not be examined in great detail. Above this 4325 consisted of dark grey sand and silt. Pottery dating to the 13th to 15th century including Nottingham reduced green glazed ware was recovered from this. Over this was 4348, a deposit of slumped natural evident in plan around the edge of the pit, over this the upper fill (4324) consisted of clean, grey sandy silt, with large stones throughout, pottery recovered from this dated to 13th to 15th century including Nottingham Green Glazed wares and Burley Hill wares.

Four pits on the eastern extent of excavation (4338, 4343, 4352 and 4354) cut the upper fill of 4323, (4325). Pit 4354 was 0.44m wide and 0.2m deep and filled by 4353. Pit 4352 was 0.48m wide 0.24m deep and filled by 4351. Pit 4343 was 0.75m wide and 0.36m deep and filled by 4342 that contained Burley Hill and Nottingham reduced ware dating to the 13th to 15th century. The fills of all of these features consisted of pink clay and grey silt lenses with stone and tile throughout.

To the southeast of this was a small pit or posthole 4341, 0.38m in diameter and excavated to a depth of 0.1m. The fill of this, 4327, grey sandy silt had tiles throughout the upper part of this fill.

Pit 4305 was located on the western side of the site, close to the pavement of Ford Street roughly midway along the area. This was round in plan and steep sided, 1m in diameter and 0.2m deep. The primary fill (4316) contained a Roman Brooch, as well as Nottingham reduced green glazed ware dating to the 13th to 15th century. Over this was the remains of a wooden barrel, or lining to the pit (4315) this seems to have been preserved as a stain in the soil by the overlying fill, a deposit of lime (4307) up to 0.2m deep. Over this, the upper fill (4306) consisted of brown sandy

silt. Immediately to the east of this was a similar lime filled pit (4308) this was also 1m in diameter and excavated to a depth of 0.4m, the base of this was left *in situ*. The lower fill (4313) consisted of a solid concretion of lime excavated to a depth of 0.1m. The upper fill (4314) consisted of friable brown sandy silt with lime flecks throughout.

#### *Phase 2b 15th/ 16th century*

The structural elements attributed to this phase included a large medieval faced, rubble-core wall, 1.5m wide and aligned northwest to southeast (3012/ 3077). Two thinner walls were attached to either end. These walls made up three sides of a building, approximately 2.5m x 3m, the eastern and western walls were significantly thinner (Figure 10 & Plate 10). One sherd of pottery found within the central core packing of the main wall was of later medieval origin (Cistercian type ware).

There were two further sandstone walls of a similar construction, laid at this level 3016 and 3068/3075/3076. These were constructed along the same orientation and were stratigraphically contemporary although no direct construction relationship existed. The gap between walls 3012/3077 and 3068/3075/3076 could be interpreted as an access through this wall or possible plot division. A small truncated section of walling (3187) was identified to the south of these structures orientated north to south, which was probably a continuation of 3076.

Taken as a whole these structures may have been part of a tenement plot (or plots) aligned approximately north to south against Friar Gate. The parts of large faced rubble core wall may represent furthestmost boundary wall at situated towards the back of the properties.

During this construction phase there was a deliberate attempt to level the area, the main layer of which (3074) was dated predominantly to the end of this period in the 16th or 17th century and probably represents the end of occupation prior to redevelopment. This layer appeared to exist across the entire western half of the site.

#### *Backplot activity*

To the north of this was pit 4310, this was rectangular in plan, 1.7m long and 0.7m wide with sloping sides 0.3m deep. The fill of this (4309) consisted of grey silt sand and clay and was notable for the large amount of animal bones within it, the majority of which seemed to be articulated. It contained pottery dating to the 13th to 15th century and Midlands Purple ware dating to the 15th and 16th century.

Pit 4335, this was 2.8m long and 1.8m wide and 1m deep. The primary fill, 4333, of grey sandy silt was only deposited in the southwestern quadrant of the pit. A mix of pottery including Nottingham Light Bodied Gritty ware, Burley Hill ware and Midlands Purple ware were recovered with a broad date from the 13th to 16th century. Over this was 4345 a fill of silt and gravel, up to 0.6m wide and 1m deep deposited around the edge of the pit. Over this was 4355 a fill rich in pink clay, visible in plan only on the southwestern side of the pit, and over this was 4356, grey sandy silt, rich in coal and charcoal, 1.2m wide and 1m deep that contained Midlands Purple ware dating to the 15th to 16th century.



Immediately to the south of pit 4335 was 4336 a pit 0.7m in diameter. The fill of this (4331) was a distinct mix of lenses of pink clay and grey silt with tile and stone throughout, this was not excavated and left *in situ*.

Pit 4359 was located on the eastern edge of excavation, to the south of pit 4323, the eastern extent of this had been cut by a modern service trench. This was rectangular in plan 0.9m of the length surviving and 0.72m wide this was 0.96m deep with a 'u' shaped profile. The fill of this consisted of dark grey sandy silt with charcoal and coal throughout (4358) that contained pottery dated to the 15th and 16th century including Midland Purple ware. Pit 4337 was located at the southern extent of the site, this was a circular pit 1m in diameter and excavated to a depth of 0.42m. This was filled by 4332, friable brown sandy silt.

### *Phase 3 - 16<sup>th</sup> to 17<sup>th</sup> century*

During the 16<sup>th</sup> to 17<sup>th</sup> century there appeared to have been a rebuilding and reuse of these earlier sandstone foundations. A structure (3009) constructed of mixed materials (brick and sandstone), was tied in to the earlier foundations. The construction techniques and material differed from that of the earlier structures but these earlier walls appeared to have been incorporated into the structure.

This structure was made up of three walls making up a U-shaped structure 3.5m x 3.5m. A further wall (3008) was attached to its eastern side. The wall was constructed by having occasional levelling courses of brick and tile between rough-cut sandstone blocks some of which were re-used (carved mouldings). The bricks used were 9 x 5 7/8 x 1 3/4 inches and may also have been re-used.

There was evidence of further rebuilding of this wall at the southern end of the western elevation. An additional section of wall (3246) appears to have been constructed in the early 19th century, confirming these walls had a long period of usage.

A further stone wall foundation (3018), located to the north of the main group of walls was also constructed during this period. The wall was orientated northeast to southwest and was well faced; it had also been levelled with tile and brick. A sherd of midlands purple type ware securely dated this wall.

There were also occupation surfaces constructed of chalk, and brick (3004, 3005 & 3010). A small post (3053) had been set into chalk surface 3004. The surfaces were severely truncated and their full extent was unclear.

Further pits appear to have been cut in the later 17th early 18th century. Two of these (3147 and 3190) were shallow, circular and 0.7m+ in diameter and the third was a steep rectangular cut (3188) which had been filled with rubble. These features had truncated earlier underlying features.

In the rear of the property and cutting layer 4320, but not itself dated was pit 4319, this was located towards the northern extent of the site and was 1.5m long, 1m wide and 0.4m deep. This had bricks lining the base, consisting of red and firebricks measuring 10" x 4 3/4" x 3", and backfilled with sand. This was sealed by layer 4301.

Pit 4343 was cut by pit 4338, this was close to the eastern extent of excavation, this was 1.4m long, 1.1m wide and 0.65m deep. The earlier excavated fill (4329) consisted of grey sandy silt and contained Midland Purple Ware suggesting a 16th century date. The upper fill of this consisted of a deposit of tiles and brick at the



southern and eastern sides of the pit and may suggest a slightly later date for deposition (4329).

*Phase 4 - 18<sup>th</sup> century (c 1708)*

*Chesshyre's House, 25 Friar Gate, also known as 'Queen Anne House', c 1708-1938*

A major construction phase commenced in 1708 with the establishment of a grand brick townhouse of three storeys. Built for Gilbert Chesshyre of Dalbury Lees (1664-1743), (Craven and Keene 1993, 41), it appeared to partially re-use the earlier sandstone foundations laid down in the medieval period, These had been re-used to form the at least part of the southern elevation of the building.

The photograph shows a brick building of five bays and three storeys under a high hipped and sproketed roof. There were ornamental stone dressings to the windows and a stone porch detailed with Doric columns. A stone wall with wrought-iron railings stood along the frontage (Craven and Keene 1993, 41 & 194; Plate 11)

The main surviving foundations (3011, 3017, 3024, 3025, 3026, 3027, 3028 and 3035-39) were constructed of sandstone and brick and made up a building approximately 6m in width x 13m in length. The bricks used were hand-clamped, 9 x 4¼ x 2¼ inch red bricks set in a compact lie mortar. The bond was unclear at this foundation level. The plan of the building was well defined and included main rooms, outhouses, paved corridors and yard surfaces (Plate 10). Photographs and plans (such as the board of health and ordnance survey maps) have survived to inform the interpretation of the remains.

There was evidence of internal walls, drainage, strengthening buttresses and external York-stone paving. To the north of the building was a truncated York-stone pathway (3020). This is likely to have been the walkway between this building and its neighbour which was located beneath what is now Ford Street. The rear extent of the building was defined by a long northwest to southeast wall (3037-3039). The remains of cobble (3032) and brick (3034) surfaces abutted this wall.

There was evidence of large scale ground levelling at the north of site towards the backs of the buildings. There was a 0.3-0.5m thick layer of buried soil (3217) which contained material dating to 17<sup>th</sup>- 18<sup>th</sup> century, overlying the redeposited gravels. This layer probably represents a deliberate importing and subsequent accumulation of soils within the back gardens of these properties.

*Backplot activity*

The northern portion of the site was sealed by a layer of garden soil (4301), recorded in the excavation (3217) and contained pottery dated to the 18<sup>th</sup> century as well as residual medieval pottery.

Cutting pit 4338 was well 4357 this was not visible during the previous phase of archaeological excavation, although it is probable that it was present in plan at this level, and it probably accounts for the disturbance of wall 3028 in the previous excavation phase, thereby dating this to post 18<sup>th</sup> century. The well was square in plan (1.4m wide) and was excavated to a depth of 1.4m. The primary backfill of the cut for this well (4339) consisted of grey sandy silt. Along the southern edge of the well was line of tiles, and on excavation it was revealed that the upper 1m of this well was lined with tiles set in clay, which seemed to have partially collapsed. Below

this the well was lined with bricks. The well had been backfilled by grey sandy silt with loose stone rubble.

A later foundation structure was recorded in the watching brief, and not in the excavation, this was 4361 and it was located at the south-western corner of excavation. Foundation wall 4361 cut, or overlay feature 4304. The northern end of this extended 2.6m onto the site, and was 0.5m wide and survived for a depth of 0.6m. This was constructed of rough-cut sandstone blocks and was similar and ran parallel to walls 3144 and 3246, recorded as part of the excavation. These are thought to be part of the internal structures of 'Queen Anne House' a late 18<sup>th</sup> to early 19<sup>th</sup> century structure once standing on the site.

#### *Phase 5 - 19<sup>th</sup> to 20<sup>th</sup> century*

During the 19<sup>th</sup> and 20<sup>th</sup> centuries additional buildings were constructed at the rear of the main house. This is typical of the trend in the later periods for structural infilling of the back-plots. A significant extension was placed upon the back wall of the 18th century house. This was made up of long brick and sandstone walls (3040 and 3042) and extensive brick yard surfaces (3041). These structures may have been remains of outbuildings at the rear of the property constructed as industrial properties.

There also appeared to be further reconstruction and alteration of the existing properties. This was evident in the house elevation facing the street, which showed further evidence of strengthening (3069).

A significant rebuilding of wall 3009 occurred during this period. A section of walling composed of faced stone foundations upon a flat foundation pad was constructed (3246). Six coins (2 of which were King George III 'cartwheel' pennies and dating to the early 19th century), apparently placed either side of this wall, were recovered from the fill (3183) of the construction cut (3182) of this wall. These appeared to have been deliberately deposited. A further wall (3144), of identical construction and orientation was identified in the southwest corner of the excavation area. Taken together these walls probably represent internal subdivision of the frontage rooms of 'Chesshyre's House', the construction of which probably occurred in the early 19th century.

Part of the eastern elevation of the neighbouring building to 'Chesshyres house' was identified at the beneath the within the western excavation edge (3218). This building would have occupied a position along Ford Street prior to the road widening scheme in the 1930s when it was demolished.

#### **Site at Ford Street Car park**

Directly adjacent to the north of the site at the corner of Friar Gate and Ford Street was a watching brief site in the Ford Street car park. This covered a wedge shaped area 26m long and 9m wide on the frontage of Ford Street. A drainage trench up to 2m deep was excavated along the eastern boundary of this site (Figure 16).

#### *Natural*

This was through the upper horizon of the natural sand and gravel (4405). This was overlaid by a layer 0.3m deep of grey sand and gravel with some silt (4404); it is

probable that this was the upper horizon of the natural subsoil, with some mixing or bioturbation at the interface with the overlying layer.

#### *Phase 2a – 13th to 14th century*

The northerly most 10m of the site this was overlaid by a layer (4403) 0.3m deep of yellow-beige sandy silt with clay lenses throughout. Pottery from this layer dated to the 13th century. Possibly of the same date was layer 4414, this was located at the southern end of the site, but had no stratigraphic relationship with 4403. This was excavated up to a depth of 0.7m (2m below the modern ground surface), but the full extent of this was not revealed within the extent of excavation, and this became steadily deeper to the south of the site. This consisted of dark grey sandy silt with pebble throughout. This was not especially rich in material culture, but pottery retrieved from this dated to 13th to 15th century with some Nottingham reduced green glazed ware. This was overlaid by layer 4417, up to 0.4m deep. This may have been part of layer 4414, the relationship was not particularly clear, but the upper part of this or these deposits seemed to be darker grey with more silt and less gravel.

#### *Phase 2b – 15th to 16th century*

At the southern extent of layer 4403 this and layer 4414 had been cut by a large pit (4412), this was 3m wide and 1.2m deep. The primary fill of this (4413) consisted of grey sand, silt and gravel, and appeared to be present only on the northern side of the pit, the main part of the pit was back filled by 4411 this consisted of dark grey and silt with quite a large quantity of roof tile throughout the fill. Pottery from this dated to 15th to 16th century including Cistercian and Midlands Purple ware. To the south of this layer 4417 was cut by pit 4415, this was a square, or rectangular pit 2.5m long and revealed to a width of 0.7m within the site boundaries. This was filled with 4416, crushed mortar and/or plaster with brick and roof tile rubble.

#### *Phase 4/5 18th to 19th century*

The site was sealed by a layer (4402) up to 0.5m deep of dark grey soil rich sandy silt with lenses of pink clay towards the base. This had been cut, towards the northern extent of the site by a structure probably at one time fronting onto Ford Street. The remains of this consisted of sandstone built footings constructed of large rough-cut blocks (4406 and 4409) cut to a depth of 0.4-0.8m (4408 and 4410). Abutted to the northern side of this was a brick built cellar, or sunken floored room (4407 the bricks were 10" x 4¾" x 3"), the brick floor survived at a depth of 0.4m below the modern ground surface. Demolition rubble within the cellar (4400) had finds including pot, glass, clay pipe and plaster dating to the 19th century. This site was sealed by a layer (4401) of road stone, tarmac and some disturbed garden soil up to 0.7m deep, relating to the construction of the car park.

### **Site on Stafford Street**

A watching brief was carried out during the excavation and moving of services on the eastern side of Stafford Street between the junctions with Friar Gate to the north and Friary Street to the south. This required two roughly parallel trenches about 90m

long, one along the current pavement (about 2.2m wide and around 1.1m deep) and one through the landscaped flowerbeds and paths on the eastern side of the pavement (generally 0.8m wide and 0.8m deep). The majority of deposits in the pavement trench had been completely truncated by modern service trenches, and only stratigraphy in the west facing section survived (Figure 15).

### *Natural*

The natural gravel (4208) was encountered around 0.4m below the modern ground surface over the majority of the length of the trench. This seemed to drop down sharply, or have been cut at the southern most 20m.

### *Phase 2 – 12th/ 16th century*

At this point was a possibly alluvial deposit (4205) consisting of yellow and grey clay. This was excavated to a depth of 1.2m below the modern ground surface. Overlying this and present in the most southerly 15m of the area was layer 4207. This became progressively deeper to the south, up to 0.22m at the southern extent of excavation, and consisted of beige sandy silt with stones and gravel throughout.

This was cut, at the very southern end of the site by a large negative feature, 4204. This was aligned east to west and was 5.6m wide and exposed for a length of 2.3m, and depth of 0.65m (1.1m below the modern ground surface). The lower fill (4203) was excavated to a depth of 0.5m, and consisted of grey and yellow sandy clay. Over this, the upper fill (4222) was 0.25m deep and consisted of compact gravel. Neither of these fills was dated. Pit 4210, cut the very southern edge of this and was 0.65m wide and survived for a length of 0.3m and a depth of 0.51m. The fill of this (4209) consisted of dark grey sandy silt with some large pieces of sandstone throughout.

Also cutting the upper fills of 4204 was 4217, this was a linear feature aligned north-east to south-west, surviving to a width of 1m and depth of 0.6m and exposed for a length of 2m. This fill of this (4212) consisted of dark grey sandy silt with coal and charcoal throughout. Overlying or cutting this was a probable stone built structure (4213). So little of this remained (length 0.4m, width 1.2m and height 0.3m) that very little can be said beyond that this structure was made of rough-cut sandstone blocks 0.3m long, 0.2m wide and 0.06m high and did not appear to have been mortared. This and the southern most 6m if the site were sealed by layer 4211. This appeared to be a layer rich in soil up to 0.4m deep. Pottery from this dated to the 12th century.

### *Phase 3/4 16th to 18th century*

This had been cut by 4216 a wide shallow ditch 3.45m wide, that almost exactly shadowed the northern side of ditch 4204. This was exposed for a length of 2m and was 3.45m wide and 0.6m deep. The fill of this (4202) consisted of dark grey sandy silt with stones throughout, pottery from this dated to 16th and 17th century including Midlands Purple ware.

Several brick built structures survived. About midway along the site was 4220, a brick lined well, 1.2m in diameter, excavated to a depth of 0.8m and backfilled with soil and rubble. A further 27m to the north of this was another brick lined well (4223). This was 2.6m long and 1.4m wide and excavated to a depth of 1m. It was

apparent that the structure of this had mostly collapsed on itself at this level. The remains of a brick foundation wall (4214) and associated brick floor (4215) were visible in section only close to the northern end of the site. These survived for a length of 1.45m and were exposed to a height of 0.5m. The structures that these represent seem to have been levelled to the top of the floor surface, as these remains were sealed by a layer (4226) of brick rubble 0.3m deep. This layer started 0.3m to the south of 4214 and continued to the north, to the end of the excavation (a further 2m). Pit 4225 was filled with dark grey sandy silt with pebble brick and stone masonry throughout.

#### Phase 6 Modern

This and the area of the trench had been sealed by the pavement surface and in places topsoil relating to the ornamental flowerbeds along the length of the site (4200), including on the eastern side of the pavement by a low retaining wall (4201 and 4206) made of brick and stone running along the side of the flowerbeds. Pit 4219 recorded close to the southern end of the site cut the topsoil and probably represents disturbance from the removal of ornamental trees planted along Stafford Street. This is of note only because the base of this appeared to be packed with sandstone masonry (4221), possibly relating to an earlier feature obscured by the later tree removal. The footpath had subsequently been cut by numerous service trenches.

#### **Site at the corner of Agard Street and Ford Street**

An archaeological watching brief was carried out during contractor's excavations on a site at the corner of Agard Street and Ford Street. A strip 55m long and 50m wide was inspected along the frontage of Ford Street and Agard Street. This was excavated to around a depth of 1.2m below the modern ground surface across the site, although this was slightly deeper towards the south and west.

Further to this demolition works undertaken at the corner of Agard Street and Ford Street prior to road construction work, exposed an intact upstanding burial vault towards the southwest corner of the site, close to the Agard Street frontage. Further to this a watching brief was required to monitor and record the removal of this burial vault and its contents.

The natural subsoil (4625) was encountered in a small island 5m long and 5m wide at the southern end of the site. The remainder of the site was not excavated to the depth of the natural. This was overlaid by a cobbled surface, or road 4624. The full extent of this was not exposed in the course of this work, and this remained *in situ*. This seemed to be aligned north to south and ran roughly parallel to Ford Street, about 8m to the west of it. It was around 5m wide and exposed for a length of about 20m at the southern end of the site. This had been overlaid by layer 4611 that contained a considerable quantity of pottery dated between the late-18th and mid-19th century. This was a mixed deposit up to 1m deep consisting mainly of dark grey soil rich sandy silt with numerous pieces of broken pottery throughout, of which a representative sample was collected. There were different lenses of re-deposited natural, burnt material and notably to the south of the site broken roofing slate. A soil rich lens, 4620, close to the base of this layer was given a separate context number due to the recovery of medieval pottery from this deposit; it seems that this was a residual sherd, although presumably this came from a relatively local source.



This layer was cut by, or possibly had in some cases, built up against a series of foundation and cellar walls. The majority of these structures were constructed of sandstone lower foundation courses with brick upper courses, generally measuring (9" x 4½" x 3"). There seems to have been three broad phases of construction

#### *Phase 5a – 1st Construction phase*

This burial vault probably represents the surviving remains of the burial ground of the Calvinistic (Particular) Baptist Chapel which was known to have existed on the site during the 19<sup>th</sup> century (Plate 13).

The ground clearance of the site was also monitored and revealed the upper most courses of a stone built wall aligned north to south running parallel to Ford Street from the frontage of Agard Street. Possibly associated with this was a brick and stone lined storage pit (probably for coal). The extent of these structures was masked by a layer of demolition rubble that was present over the area of the site. These features were left in situ.

During the monitoring of the removal of the garage floor surface the upper most parts of several walls were visible. Including the upper two courses of a stone and brick built wall (101). This was aligned north to south and was visible running 4.4m across the middle of the site from the frontage of Agard Street. It was 0.54m wide and survived to a height of 0.4m. The wall was constructed of roughly worked sandstone blocks, of assorted sizes between 0.3m and 0.5m wide and around 0.5m high.

Approximately 0.65m to the north of this on the same alignment was the remnants of a brick and stone lined storage pit (102, 103 and 105). The brick built floor surface of this structure (104) was visible at this level of excavation. The overlying layer, or the backfill of this consisted of coal, suggesting the use of this as a coal store. These features and the area of the site were sealed by a layer of demolition rubble (100) made up of stone, and brick debris. The pottery recovered from the overburden layers was consistent with the 19<sup>th</sup> century period. Of note was a lens of broken roofing slate was located on the western side of wall 101. This layer was not fully excavated. This demolition rubble was in turn sealed by the concrete floor surface of the garage, and in places cut by associated service trenches and access pits.

An upstanding concrete capped structure (200) was located at the southwestern corner of the site. This was 2.9m long, 2.6m wide, and stood to height of 0.9m above the modern ground level. Originally this seemed to form part of the structure of the garage buildings and butted with the western side of the outside wall. During the demolition of the garage it became apparent that this was an *in situ* burial vault (201, 202 and 203) (Plate 11). Access was obtained through the outer wall of structure, this revealed three lead lined coffins with associated coffin furniture, including 'brass' fittings (grips, grip plates and coffin plates), stacked one on top of each other in the northeastern corner of the vault (204). To the south of these was a probable internal dividing wall. The vault appeared to have several phases of construction. The names of those buried in the vault are as follows: Anne Hoby (b.27th may 1798, d.15th July 1830, Archer Ward (b.28th October 1741, d.22 July 1800), Wlizabeth Ward (b.8th July 1734, d.1776) Archer Swinburne (d.Jan 11<sup>th</sup> 1841, aged 34), Thomas Ward Swinburne (d.June 20th 1825, Aged 64) and Mrs Anne Swinburne (d.April 2<sup>nd</sup> 1840, aged 71). These coffins were either interred into

this burial vault at a contemporary period or had been re-interred at later date (during construction of the present building).

*Phase 5b – 2nd construction phase*

This could predate the deposition of 4611, and be associated with surface 4624. This phase is based mainly on map evidence and evidence from the excavation of the vault. In this later strip of the site the remnants of burial vault still present on site was numbered 204/ 4631. Structure 4633 may be the footing for the former viaduct that ran along the western edge of the site. This was aligned east to west along the frontage of Agard Street and was 15m long and 3m wide and exposed to a depth of 0.5m and seemed to consist of a series of niches along the length of the structure, later filled by concrete. This was solidly constructed of yellow sandstone and mortar, with remnants of brick parts of the structure visible in places around the modern ground level. Between this structure and the burial vault was wall 4632, this linear stretch of wall 5.7m long ran along the modern frontage of Agard Street and was constructed quite roughly broken bits of sandstone.

These structures consisted of several house plots along the frontage of Ford Street (4603, 4604, 4605, 4607, 4615, 4617, 4618, 4620, 4622, 4623, 4624, 4626, and 4627). The eastern extent of these structures was not located on the site, suggesting Ford Street had been widened in the past. Associated with these structures were four brick lined wells (4616, 4619, 4621, and 4629), with a clay lining to the cut, two of these had been back-filled with loose soil and rubble rich silt, and two had been capped with a slab of sandstone. There is some evidence for sub-phases of activity on these structures within this phase, (one of the wells cut on of the walls); however these structures seem to form a coherent structural group that related to the mapping evidence from the first edition ordinance survey map. The associated floor surfaces were apparent at the northern end of the site only. Floor 4606 was an engineering brick surface and Floor 4609 the remains of a cobbled yard surface, the remainder of the floor surface levels, beyond those in cellars had been removed.

At the very northern extent of the site was a double culvert (4600 and 4601), purportedly associated with the gas works, located on the eastern side of Ford Street, illustrated on the 1881 Ordnance Survey Map. This was stabilised and left *in situ*.

*Phase 5c – 3rd construction phase*

This relates to the buildings that were until recently standing on the site. The foundations of these remains and as with the earlier phase were constructed of brick or brick and stone, some of these walls had additional concrete piles (4604). A boundary wall running almost the length of the site, (4614) had pieces of slate grave stone incorporated into the wall, lining the foundation cut, and acting as a damp proof course in some parts of the construction. The foundations for the building on Agard Street were visible, (4627), which was noticeably out of alignment, perpendicular to Agard Street as it is now, in contrast to the rest of the structure (4634), which was aligned with Ford Street, echoing the plot boundary wall (4614). The majority of the structures in this phase followed the same boundaries as buildings in the previous phase, and probably shared common walls with buildings in

the previous two phases. Certainly burial vault 204/ 4631 was incorporated into the structure of the buildings that until recently were standing on the site.

The area of the site was sealed by a general layer of demolition material and disturbance (4630) resulting from the earlier phase of work carried out on the site.

### **Site at Green Lane and Babington Road junction**

#### *Phase 4*

The watching brief carried out on this site was during the removal of the road surface at the southern extent of Green Lane, at the junction with Babington Road. The current road surface was reduced by 0.6m and revealed small islands the upper horizon of a layer of orange-brown sandy silt (4100), from which medieval pottery but also 18th century pottery suggested a shallow mixed horizon. The majority of the area of this was cut by numerous service trenches, the majority of which were left *in situ*. The area of the trench was sealed by the modern road surface (4101), which consisted of road stone overlaid by tarmac.

## Appendix 4 Specialist Reports

### Medieval and later pottery by C.G. Cumberpatch

#### *Introduction*

The pottery assemblage from the Ford Street / Friargate car park, the land behind the Seven Stars public house and 85 – 89 King Street was examined by the author between the 19<sup>th</sup> and 28<sup>th</sup> July 2009. This followed an earlier report on material from an evaluative excavation on part of the site, reported elsewhere (Cumberpatch in Hewitson 2005) which should be read in conjunction with the present report. The brief for the work called for the spot dating of the contexts defined during the excavation, an assessment report and, eventually, a full report on the assemblage. Constraints on the author's time and the pressure of other deadlines meant that it was deemed more efficient (and more cost-effective for the client, Birmingham Archaeology) for the first two elements to be combined into a single phase with this report and the accompanying spreadsheets the outcome of the initial phase of work.

#### *Spot dating*

The dating of the material is presented in a series of Excel spreadsheets which accompany the narrative and are largely self-explanatory. The sheets listing 'Other' material (ceramic and other building material, sewer pipe fragments etc) should be read in conjunction with the list of pottery as in at least one case (context 3071) a fragment of material of very recent date (a piece of asbestos sheet) was included in what otherwise appeared to be an entirely medieval context. The problems involved in providing reliable date ranges for the medieval pottery are outlined below.

#### *Assessment*

##### *Medieval pottery in the Derby area; general considerations*

An assessment report normally involves the identification of the wares present in an assemblage and brief comments on the significance of assemblages from individual phases, features, structures or contexts identified on the site. This task is rendered particularly difficult in Derby because of the rather limited attention paid to the medieval archaeology of the city and of neighbouring Nottingham in recent years. In order to set this assessment in context it is necessary to outline briefly the sources of information used as the basis for this report and their limitations as these have a significant impact on the information that can be extracted from the data presented in the spreadsheets.

In Derby itself, there have been no significant publications of medieval pottery from formal excavations since Coppack's report on the Full Street assemblage in 1972 (Coppack 1972). This report, while still useful in general terms has been rendered out of date by work elsewhere and is in need of revision and re-evaluation. A shorter, more recent publication by the same author (Coppack 2002) usefully extends the earlier fabric series but lacks the necessary detail required to move the discussion of the local medieval pottery sequence forward.

The uncompleted report on the pottery from Queen Street, Derby, which exists simply as an uncorrected catalogue (Cumberpatch unpublished 1) provided a useful source of comparison for the present assemblage but the process of cataloguing the Queen Street material raised many questions regarding identification, the definition of hitherto unrecognised ware types and dating. The fact that the work on the assemblage remains incomplete means that these issues are unresolved and as a result the same problems attend the present report which includes material spanning part of the same date range. The same problems attend a second unpublished report which pertains to a site in King Street which has proceeded no further than the assessment stage (Cumberpatch, unpublished 2).

Looking beyond Derby to the regional situation, the situation is little better. An unpublished type series for the city of Nottingham (Nailor and Young 2001) was supplied by one of the authors (Jane Young, pers comm.) in 2007 and this was used, together with a partial fabric type series held in the Brewhouse Yard Museum, Nottingham to assemble an *ad hoc* type series for use in identifying pottery from a site in St Mary's Gate / Warser Gate in Nottingham (Cumberpatch 2007). This partial type series was also used for the identification of the Nottingham wares in the present assemblage. It remains part of the St Mary's Gate / Warser Gate archive, currently held by the author but due to be returned to the contractor (Birmingham Archaeology) in the near future.

A recent review of pottery assemblages from Derbyshire (Cumberpatch 2004) drew attention to the problems attending the definition and dating of pottery from rural sites in the county and in particular the large number of provisional fabric types defined and described by different authors but which remain poorly understood and dated. While related groups of what are believed to be earlier medieval wares were defined which may be linked with Coppack's Derby Brown Sandy ware (Derbyshire Medieval Sandy and Gritty wares; cf. Coppack 2002: 245) these were not common in the present assemblage and were noted only in two of the assessment trenches (2 and 7).

Other identifiable wares included Burley Hill types (Cumberpatch 2002/3, unpublished 3) and types also identified in Chesterfield (Cumberpatch 2004; for a detailed discussion of the unpublished archives from excavations in Chesterfield, see Cumberpatch and Thorpe 2002). The Burley Hill industry remains almost as poorly dated as do the wares which are unattributed to specific sources although the range of vessel types and of fabrics are better understood.

The problems surrounding the medieval component of the present assemblage, including the vagueness of the dates and the difficulty, in some cases of ascribing dates with any degree of precision at all, attests to the very poor state of our understanding of the medieval pottery industry of Nottingham and Derby and the urgent need to publish selected pottery groups from both Nottingham and Derby. It is little short of scandalous that the best guide to the medieval and early post-medieval pottery of Derby specifically dates to 1972 and that the best published guide to the pottery of Nottingham is contained in the corpus of pottery from Lincoln (Young and Vince 2005). There is a good case to be made for an externally funded review of the pottery of Nottingham and Derby (independent of the vagaries of commercial project funding) which will result in the publication of a full type series for the two towns and their immediate environs. This should draw together the early work of Coppack, the unpublished work of Nailor, Young and Vince on the



Nottingham pottery, the unpublished work on assemblages from Derby and published work on the local rural potteries, notably Burley Hill (Cumberpatch 2002/3, unpublished). Until such time as a project of this type can be carried out, reports on assemblages from Derby and to some considerable extent, Nottingham, will remain partial, inconsistent and potentially misleading. Given the high profile of Nottingham in popular perceptions of the medieval period, it is scarcely credible that such fundamental archaeological information is not only unavailable, but is seemingly considered to be unworthy of funding. The contrast with other regionally important medieval towns such as Hull, Doncaster and Southampton (to name but three) in this regard is striking.

In the light of this situation, the dates attributed to the medieval pottery identified in the accompanying data tables should be treated as indicative rather than definite. What is clear is that unlike the situation in the earlier site in King Street (Cumberpatch, unpublished 2), the present site produced only one sherd of definite pre-Conquest date (a residual sherd of Torksey type ware from context 2048) together with a very small quantity of Stamford type ware sherds (contexts 4008 and (5006) [5005]) and of the early brown sandy fabrics from the assessment phase although the latter two types are probably of post-Conquest date.

#### *An assessment of the pottery assemblage*

For details of the assessment see section 4.3.

As noted above, context 3071 appeared to be medieval in date until a fragment of abraded asbestos sheet was identified amongst the assemblage. This item has been retained with the assemblage until the full report is complete but should be discarded thereafter in accordance with health and safety rules and a proxy card placed in the bag with the pottery noting its presence and removal.

#### *Further work*

Full details of further work recommended see section 4.3.

Finally it should be noted that this assemblage will not be suitable for studies of sherd fragmentation or taphonomy because of the damage it has sustained in transit. This damage was evidenced by the large number of fresh breaks seen on the sherds, the numbers of unmarked sherds within an assemblage that had been marked prior to transport and the abundance of small chips which suggested that crushing had taken place while the pottery was in the bags. In many cases the sharp edges of the sherds had pierced the plastic bags. In the case of context 4014 damage to the bags was so severe that they had to be rebagged. Specific examples of damage include the following;

When originally counted the Edged wares from context 8010 numbered twenty-seven sherds, when checked during the reporting phase there were thirty-five sherds. The original numbers have been retained in the data tables but it means that no figures for fragmentation can be relied on. Similarly context 3010 which originally consisted of six sherds now numbers twenty-seven sherds plus many small chips and flakes.

A very thick, heavy base in Brown Salt Glazed Stoneware from context 3007, originally intact, was found to have been broken onto three pieces. Considerable force must have been exerted in order to achieve this breakage.

The Burley Hill wares from context 8020 had been smashed in the bag with the new breaks clearly visible.

While some degree of breakage during excavation, processing and transport has to be accepted, the extent of the damage noted here is exceptional and has a definite negative effect on the inferential potential offered by the assemblage to future researchers.

## **Ceramic Building Materials** *by John Tibbles*

### **Factual Data**

A total of 323 fragments of brick, tile, flue lining and stone – with a combined weight of 51730 gms were submitted for assessment. The assemblage was recovered from 33 contexts, and comprised of material dated from the medieval, post-medieval and 19<sup>th</sup> / 20<sup>th</sup> century (see Table 1).

### **Methodology**

The assemblage was visibly examined using a 15x-magnification lens and was subject to basic quantification by count and weight. Information regarding the dimensions, shape, fabric and stone type was recorded and catalogued accordingly. The part bricks were classified adopting a best-fit policy based on surviving dimensions, fabrics and general characteristics; however, based upon the above method a general comparison could be made heavily biased towards thickness.

It should be noted that the diversity of size and colour within bricks and tiles caused during the manufacturing process, must be taken into consideration when comparing examples within collected assemblages and local typologies. The varying sizes and colours can be attributed to the variation in the clays used, shrinkage during drying, firing within the kiln or clamp and the location of the brick/tile within the kiln.

### **Discussion**

#### **Provenance of material**

The material was recovered from excavations undertaken within the centre of Derby ahead of a major road scheme.

#### **Range and variety of material**

Of the nineteen identifiable complete/ fragments of brick within the assemblage, examples of both hand-made medieval brick/ post medieval brick and post-medieval '*pressed*' bricks were identified. Bricks forming kiln fabric debris may be of refractory clays.

Three types of roof tile were identified Flat, Pantile and ridge with fragments of Malting kiln floor tile.

Several miscellaneous fragments of material were identified within the assemblage which included post-medieval land drains, marble, modern wall tiles and mouldings.

#### **Bricks**

For details of the brick see section 4.5.

#### **Tile**

For details of the tile see section 4.5.

#### **Miscellaneous**

*Land drains.*

Two fragments of land drain were present from within topsoil 1001. Their form and manufacture can be paralleled with type 1c (Tibbles in prep) common in East Yorkshire and North Lincolnshire. Date of manufacture is of a very late 18<sup>th</sup> to early 19<sup>th</sup> century

*Not identified.*

One hundred and ninety-nine fragments of ceramic material (61%) of the assemblage count (average fragment weight <1g) were not identified due to its small size and lack of diagnostic traits.

### **Statement of Potential**

The majority of the assemblage has limited archaeological potential, due to its size and limited diagnostic nature.

### **Storage and Conservation**

All non-diagnostic and unidentifiable material should be selectively disposed of. The remainder of the assemblage should be retained and deposited within the appropriate museum.

The assemblage was in a good state of preservation, in a stable condition and requires no special treatment for long-term storage. Prior to deposition, the assemblage should be archived in accordance with the recipient museums' guidelines.

### **Illustrations**

None required.

### **Further work.**

No further work is deemed necessary on this material.

Table 4.1: Summary of ceramic building materials assemblage

Context	Interpretation	Type	Frag	Wgt gm	Mortar	Notes	Phase
0	Subsoil	Brick	1	73	No	Smooth upper	U/S
1001	Topsoil	Wall/floor tile	1	27	No	Glazed upper with floral decoration 19th c	6
1001	Topsoil	Land drain	2	602	No	Similar to Type 1 in East Yorkshire.	6
1001	Topsoil	Wall tile	1	11	No	Dark green glaze upper surface. 20 th c	6
1001	Topsoil	Wall/floor tile	1	18	No	base of tile. Probably part of tile above	6
1001	Topsoil	Wall/floor tile	1	2	No	Decorated glazed upper chip	6
1001	Topsoil	Hearth tile	22	259	No	Screen painted hearth tile. Floral decoration. Glazed	6
1001	Topsoil	Wall tile	2	84	No	Joining. White glazed. 20th c	6
1021	Ash pit fill kiln 1003	Lining	6	1276	No	Joining frags. Creates rectangular lining.210mm od x 170mm	6
1021	Ash pit fill kiln 1003	CBM	15	4	No	Chips	6
1027	Industrial waste	CBM	33	3	No	Chips	6
1033	Flue clinker layer	CBM	15	18	No	Chips	5
1035	Lower fill of flue	Flat roof tile	1	11	No		5
1035	Lower fill of flue	Ridge	2	100	No		5
1035	Lower fill of flue	Flat roof tile	2	45	Yes		5
1035	Lower fill of flue	Flat roof tile	7	130	No		5
1037	Upper fill of flue	Pantile	1	230	Yes	Mortar over break.	6
1037	Upper fill of flue	Pantile	1	27	No		6
1037	Upper fill of flue	Flat roof tile	1	164	Yes	Mortar over break.	6

Context	Interpretation	Type	Frag	Wgt gm	Mortar	Notes	Phase
1037	Upper fill of flue	Brick	1	3944	No	Fused brick. Kiln fabric. Poss firebrick	6
1037	Upper fill of flue	Flat roof tile	1	46	No	Black glaze or deposit on one surface	6
1037	Upper fill of flue	Flat roof tile	1	276	Yes	Mortar over break.	6
1037	Upper fill of flue	Brick	3	1865	No	Fused brick. Kiln fabric or wasters?	6
1037	Upper fill of flue	Flat roof tile	1	109	No		6
1038	Lower fill of kiln centre	CBM	3	117	Yes		5
2001	Overburden	Brick	1	1953	No	Hand-made. Smooth upper. Burning on one surface	6
2012	Demolition rubble	Moulding	2	254	No	Joining. Residual white paint.	5a
2020	Modern manhole	Brick	1	3155	Yes	Pressed?	6
2030	Machine footings	Brick	1	3915	Yes	Hand-made	5a
2032	Floor/machine base/swimming pool	Stone	1	2233	Yes	Black Ashford (?) marble	5a
2032	Floor/machine base/swimming pool	Stone	1	1858	No	Black Ashford (?) marble	5a
2046	Wall foundation	Brick	1	2738	Yes	Hand-made	4
2049	Backfill of wall cut	Flat roof tile	1	38	No		5a
2053	?	Flat roof tile	1	9	Yes		6
3003	surface	Flat roof tile	1	21	No		4
3003	surface	Flat roof tile	3	57	No		4
3003	surface	Flat roof tile	1	3	No		4
3003	surface	CBM	10	1	No	Chips	4
3004	surface	Flat roof tile	1	54	Yes	Thumb impression. Mortar over break.	4
3004	surface	Flat roof tile	1	67	No		4



Context	Interpretation	Type	Frag	Wgt gm	Mortar	Notes	Phase
3004	surface	CBM	16	4	No	Chips	4
3011	Foundation	Brick	2	2092	Yes	Hand-made	4
3017	1709 building	Brick	1	2723	Yes		4
3017	1709 building	Brick	1	2641	No	Slightly distorted	4
3024	East wall to room	Brick	1	2878	Yes	Sharp arrisses. Pressed?	4
3029	Demolition dump	Flat roof tile	3	380	No	Joining frags. Residual elements of pulled nib.	6
3029	Demolition dump	Flat roof tile	3	42	No		6
3029	Demolition dump	Flat roof tile	5	270	No		6
3029	Demolition dump	Flat roof tile	8	1246	No		6
3040	Wall	Brick	1	4213	Yes	Sharp arrisses. Pressed?	5
3052	Fill of posthole	CBM	20	3	No	Chips	4
3063	Levelling	Flat roof tile	1	61	No		2
3065	Levelling	Flat roof tile	12	1701	No		4
3065	Levelling	Flat roof tile	1	312	No	Single centrally pulled nib.	4
3068	Buttress	Brick	1	2058	Yes	Hand-made	3
3071	Foundation layer for 3012	CBM	15	3	No	Chips	1b
3072	Build up or surface	CBM	35	28	No	Chips	1b
3073	Foundation layer for 3012	CBM	3	4	No	Coarse fabric	1b
3073	Foundation layer for 3012	CBM	24	2	No	Chips	1b
4014	Malthouse bricks	Brick	1	853	Yes	Smooth upper. Mortar over breaks and upper surface	5
4014	Malthouse bricks	Malting tile	3	1291	No	6 rows of 5 block perforations 2mm dia. Heavy wear	5
4014	Malthouse bricks	Brick	1	908	Yes	Smooth upper. Mortar over breaks and upper surface	5

<b>Context</b>	<b>Interpretation</b>	<b>Type</b>	<b>Frag</b>	<b>Wgt gm</b>	<b>Mortar</b>	<b>Notes</b>	<b>Phase</b>
4014	Malthouse bricks	Marble block	1	577	No	Smooth surfaces, White.	5
4014	Malthouse bricks	Malting tile	1	1003	No	6 rows of 5 block perforations 2mm dia. Heavy wear.	5
4014	Malthouse bricks	Brick	1	637	No	Upper surface worn smooth. Minimum th 30mm	5
4020	Dump of forging waste	CBM	10	3	No	Chips	4

**Glass Assessment** by Cecily Cropper

The assemblage from the excavation totalled 99 fragments, comprising 74 from bottles (from a maximum of 43 individual bottles), 6 from vessels and 19 from window glass (from a maximum of 8 individual glass panes).

Overall the assemblage is highly fragmented and is focused within the date range of the 18<sup>th</sup> to 20<sup>th</sup> centuries. The earliest glass is represented by 18<sup>th</sup> century wine bottles, in particular contexts 2035 and 3002 (Centre) that both yielded early to mid-18<sup>th</sup> century Onion fragments.

**Bottles**

The bottles range from early 18<sup>th</sup> century types through to late 19<sup>th</sup>/early 20<sup>th</sup> century examples including a complete household/poison bottle manufactured by the York Glass Company dating from between 1835-1900 (context 2014). The majority of fragments are of wine/beer bottles but household and medicines are also present, as well as three phials.

*Table 4.2: Summary of bottle glass assemblage*

<b>Context</b>	<b>Category</b>	<b>Parts</b>	<b>No of fragments</b>	<b>Date</b>	<b>Phase</b>
1001	Bottle	Body	1	L19/20	6
1001	Bottle	Body	1	20	6
1001	Bottle	Finish	1	20	6
1001	Bottle	Body and base	1	L19/E20	6
1036	Bottle	Finish	1	L18/E19	6
1037	Bottle	Finish	1	L18/19	6
1037	Bottle	Finish, body and base	5	L18/E19	6
2001	Bottle	Body	1	L19/E20	6
2001	Bottle	Body and heel	1	20	6
2002	Bottle	Body	1	M18-M19	6
2005	Bottle	Body	2	M-L18	5
2014	Bottle	All	3	1835-1900	6
2035	Bottle	Base	1	18	4
2035	Bottle	Body	4	18	4
2035	Bottle	Finish and neck	2	M-L18	4
2035	Bottle	Finish	2	L17/E18	4

2035	Bottle	Heel	1	E-M18	4
2035	Bottle	Base	5	M-L18	4
2035	Bottle	Body	3	L17/E18	4
2039	Bottle	Body	1	19/E20	6
2039	Bottle	Finish and base	2	19	6
2039	Bottle	Base	1	M19-E20	6
2039	Bottle	Body	2	19	6
2039	Bottle	Body	1	M19-E20	6
2039	Bottle	Body	1	20	6
2039	Bottle	Body	2	L19/E20	6
2045	Bottle	Finish	1	19/E20	6
2049	Bottle	Base	1	18	5a
2053	Bottle	Shoulder	1	18	5a
2053	Bottle	Body	2	18	5a
3002 Centre	Bottle	Base	1	19/E20	6
3002 Centre	Bottle	Base	1	M18-M19	6
3002 Centre	Bottle	Base	1	M18-M19	6
3002 Centre	Bottle	Base	2	M18-M19	6
3002 Centre	Bottle	Finish	1	E-M18	6
3002 South	Bottle	Base	1		6
3044 Slot B	Bottle	Body	1	M18-M19	5
3044 Slot B	Bottle	Shoulder and body	1	19	5
3055	Bottle	Heel	1	L18-M19	6
4014	Bottle	Body and heel	4	M18-M19	5
4014	Bottle	Base	2	M18-M19	5
4014	Bottle	Body	5	M18-M19	5
4014	Bottle	Base	1	M18-M19	5

**Vessel**

5 vessels are represented, all being from lead glass or crystal and all of which has been deep cut or possibly pressed (contexts 1037, 4014). All vessels are examples of tableware.

*Table 4.3: Summary of Vessel Glass Assemblage*

Context	Category	Subcategory	Parts	No of fragments	Date	Phase
1001	Vessel	Bowl/dish	Rim and body	2	L19/20	6
1037	Vessel		Rim and body	1	?19	5
2039	Vessel	Bowl/vase	Rim and body	1	19/E20	6
3002 Centre	Vessel	Drinking glass	Bowl and stem	1	18/E19	6
4014	Vessel	Drinking glass	Body/base	1	19	5

**Window**

One piece of window glass stands right out from all the others, that of a bullseye, the centre of a spun roundel of glass used for glazing. The use of these pieces took on a whimsical use rather than functional particularly in the 19<sup>th</sup> century onwards. The piece has been cut and also grozed, nibbled along one edge with pliers to take off superfluous glass, so this indicates that it was most likely used in some leaded glazing. The other piece of interest is a shaped border fragment, again cut to a specific shape and grozed along one edge. This would have been incorporated into a decorative leaded window or door panel.

*Table 4.4: Summary of Window Glass Assemblage*

Context	Category	Parts	No of fragments	Date	Phase
1001	Window		1	L19/20	6
1001	Window		1	20	6
2001	Window	Bullseye	1	19?	6
2001	Window		1	20	6
2001	Window		1	20	6
2001	Window		1	20	6
2001	Window		8	20	6
2039	Window		5	20	6

**Further work**

The assemblage is too fragmentary to be of any intrinsic informational value to the site as a whole. As such little further work is suggested other than a basic final

report outlining the bottle typology and a note on pieces of interest within the bottle and window assemblages.

No illustrations are deemed necessary.



**Assessment of Other Finds** by Erica Macey-Bracken

Other finds from the site included clay pipe, shell, leather, mortar, charcoal and two ceramic wheels. The material was quantified by count and weight and examined macroscopically for the purposes of this assessment.

For details of the recommendations see sections 4.4; 4.10; 4.11; 4.12; 4.13; 4.15.

**Clay Pipe**

A total of thirty clay pipe fragments were recovered from the site, as shown below:

*Table 4.5: Summary of Clay Pipe Assemblage*

<b>Context</b>	<b>Stem</b>	<b>Bowl</b>	<b>Phase</b>
1001	1		6
1035	1		5
1037	1		6
2001	2		6
2004	1		6
2009	1		6
2035	3	1	6
2039	1		6
3002	1	1	6
3044	3		6
3055	1		6
4014	4	5	5
4017	2		5
4021	1		6
<b>TOTAL</b>	<b>23</b>	<b>7</b>	

None of the stems were diagnostic, but the most complete bowl, recovered from an overburden levelling layer (2035), a large, thin-walled bowl with a long spur, was tentatively dated to 1840 – 60 (Ayto, 1999). The more fragmentary bowls and the stems may well be dateable by a specialist.

**Ceramic Wheels**

Two ceramic wheels were recovered from an overburden layer (1001, Phase 6). Both wheels are glazed, the smaller of the two with a dark brown glaze and the larger with a red-brown glaze. The smaller wheel, which was 28mm in diameter showed signs of heavy wear on its sides. The larger of the two wheels, which was 38mm in diameter was also worn on its sides, but not to the extent that the smaller wheel was. It is possible that these items are castor wheels.

**Leather**

Six fragments of dried leather were recovered from context 2045 (Phase 6). The fragments included two shoe sole parts and a shoe upper, as well as three smaller fragments that may well also be shoe fragments. Copper alloy pins were visible in both the sole and the upper fragments.

**Mortar and Plaster**

Mortar fragments were recovered from contexts 2006 (2, Phase 6) and 2008 (2, Phase 6) and further fragments were recovered from heavy residues from Sample

100 (3052, Phase 4) and Sample 104 (3072, Phase 1b). Eight fragments of grey-blue painted plaster were recovered from context 2045, Phase 6.

### ***Charcoal***

Two hundred and eighteen fragments of charcoal were recovered from the site (1001 x 1, Phase 6; 1021 x 186, Phase 6; 3003 x 42, Phase 4; 3052 x 22, Phase 4; 3071 x 37, Phase 1b; 3072 x 28, Phase 1b; 3073 x 2, Phase 1b).

### ***Mineral***

Two fragments of a fibrous white mineral were recovered from the demolition rubble infill of Room 2019 (2004, Phase 6).

### ***Shell***

Fifteen oyster shells were recovered from the site (1001 x 3, Phase 6; 2035 x 9, Phase 6; 2039 x 3, Phase 6). Most of these were recovered from topsoil or overburden layers (1001, 2035) with a further three shells coming from a chimney fill (2039). No evidence of shell working was noted.

**Assessment of Metal Finds** by Erica Macey Bracken

For details of the description and recommendations for further work see the main body of the text.

*Catalogue*

**Fe metal**

1. 3 nails: lengths 154mm, 105mm, 92mm; 1001, Phase 6.
2. Wire coil, diameter 46mm; 1001, Phase 6.
3. Circular item, broken into three pieces, diameter 25mm; 1001, Phase 6.
4. Two hooks with threaded ends for screwing into walls etc; Both hooks length 112mm; 1021, Phase 6.
5. Nail, bent in middle; length 25mm; 1027, Phase 6.
6. Amorphous iron fragment; 1027, Phase 6.
7. Rectangular piece of iron; 1037, Phase 6.
8. Head of shovel or spade; Dimensions 267mm x 103mm x 6mm; 2004, Phase 6.
9. Nail, length 79mm; 2007, Phase 6.
10. Nail, length 113mm; 2012, Phase 5a.
11. Possible iron fitment (pending x-ray); Dimensions 89mm x 31mm x 10-30mm; 2045, Phase 6.
12. Nail, length 113mm; 3002, Phase 6.
13. Two amorphous iron fragments; 3072, Phase 1b.
14. Two amorphous iron fragments; 4004, Phase 4.
15. Section of iron rod, bent in the middle to form an L shape; Very thin at bend; length 333mm; 4017, Phase 4.
16. Possible fitment (pending x-ray); dimensions 135mm x 30mm x 15mm; 4017, Phase 4.
17. Amorphous iron fragment; 4017, Phase 4.

**Cu Alloy**

1. Buckle, rectangular and very thin with two pointed long edges; dimensions 46mm, 34-46mm; 1001, Phase 6.
2. Two flat brass discs; diameter 49mm and 38mm; 1001, Phase 6.
3. Drawer handle with decorated fastening plate showing floral and leaf pattern; dimensions 85mm x 35mm; 1001, Phase 6.
4. Circular ring with attached mount, possibly a handle from a small vessel; Ring diameter 21mm, mount height 11mm; 1022, Phase 6.
5. Circular pulley wheel, concave on one side, other side has concave band around the outer edge and a raised centre with three rivet holes; diameter 47mm, thickness 9mm; 1037, Phase 6.
6. Three nails, one stuck through dried wood; lengths 31mm, 31mm, 31mm; 2012, Phase 5a.
7. Slightly wedge-shaped strip; dimensions 77mm x 11mm x 7-19mm; 2039, Phase 6.
8. Cap, slightly crushed on one edge. Circular hole in centre; diameter 27mm, thickness 8mm; 2039, Phase 6.
9. Two nails; lengths 31mm, 33mm; 2045, Phase 6.
10. Three fragments of twisted wire; lengths 15mm, 25mm, 29mm; 3052, Phase 4.
11. Probable curtain ring; diameter 45mm; 3052, Phase 4.
12. Plain button with circular loop on back, no decoration; diameter 20mm; 4014, Phase 5.

**Pb Metal**

1. Six fragments of window calme; 3002, Phase 6.

**The Stone Artefacts– by Erica Macey Bracken with petrological identification by Rob Ixer**

For full details of the stone artefacts and recommendations see the mains body of the text.

*Catalogue*

**Worked Stone**

1. Small worked grindstone, estimated radius 900mm, 30% survives; pale-coloured, fine-grained micaceous sandstone from the Coal Measures – regional/ local; size 130mm, 60mm, 55mm; weight 530g; 1001, Phase 6.

**Unworked Stone**

2. Two irregular fragments of black Ashford (?) marble. Likely to represent raw material for the demolished factory. U/S, Phase 6
3. Single rectangular fragment of white marble often associated with sanitary areas. Date suggested late-19<sup>th</sup> to 20<sup>th</sup> century. U/S, Phase 6
4. Fragment of fine-grained, unfossiliferous, micritic limestone, probably local, faced on one side; 90mm, 90mm, 20mm, 280g; 1028, Phase 6.
5. Crinoidal limestone fragment (Derby Fossil Stone), polished on one surface. 75mm, 60mm, 8mm, 115g; 1037, Phase 6.
6. Probable facing stone, very fine-grained, dark coloured, indurated sandstone/metasediment, probably not local, similar to lithographic stone,; 55mm, 7mm, 7mm, 14g; 1037, Phase 6.
7. Small fragment of pale-coloured, fine-grained silica. Not facing stone, possibly carved decorative; 38mm, 16mm, 10mm, 8g; 1037, Phase 6.
8. Six fragments of crinoidal limestone (Derby Fossil Stone), all are faced, five are polished and one unpolished; 155mm, 120mm, 36mm, 1670g; 150mm, 80mm, 25mm, 520g; 220mm, 130mm, 32mm, 2200g; 120mm, 100mm, 30mm, Highly polished fragment, 1020g; 160mm, 70mm, 22mm, 690g; Unpolished fragment with cut groove, 90mm, 40mm, 26mm, 205g; 2001, Phase 6.
9. One fragment of a Mesozoic fossiliferous limestone with bivalves, possibly Purbeck marble, highly polished on two sides; 85mm, 50mm, 26mm, 310g; 2001, Phase 6.
10. Two fragments of buff-coloured, fine-grained sandstones. Probably local/regional; 160mm, 120mm, 25mm, 860g; 145mm, 100mm, 25mm, 800g; 2001, Phase 6.
11. Fragment of unfossiliferous marble, provenance uncertain, but not local, highly polished on one surface, 95mm, 63mm, 16mm, 270g; 2001, Phase 6.
12. Fragment of thinly-laminated indurated siltstone / metasilstone not local, faced and polished on three sides, 175mm, 105mm, 30mm, 1240g; 2001, Phase 6.
13. Fragment of gypsum, from the Permo-Trias of the East Midlands, not a faced but rough cut; 110mm, 70mm, 15mm, 215g; 2002, Phase 6.
14. Fragment of uniform, very white marmorised "Carrara-type" marble; 75mm, 70mm, 11mm, 140g; 2004, Phase 6.
15. Fragment of fine-grained, unfossiliferous, micritic limestone, similar to 1028, two grooves on surface and polished face on one side, 27mm, 25mm, 8mm, 23g; 2007, Phase 6.
16. Fragment of crinoidal limestone (Derby Fossil Stone) cement mortar adheres; 195mm, 45mm, 26mm, 400g; 2008, Phase 6.

17. Four fragments of white marmorised "Carrara-type" marble; Faced on all sides, lime mortar adheres, 110mm, 55mm, 28mm, 545g; Faced on all sides, lime mortar adheres, 100mm, 80mm, 24mm, 500g; Faced on two sides, polished on one side, 50mm, 30mm, 25mm, 130g; Faced on three sides, polished on two sides, 65mm, 45mm, 16mm, 90g; 2008, Phase 6.
18. Fragment of marble/ travertine, a common soft facing stone, faced on two sides and polished on one, 1700mm, 1600mm, 28mm, 1500g; 2008, Phase 6.
19. Three pieces of crinoidal limestone (Derby Fossil Stone); Single grooved faced piece, 70mm, 42mm, 30mm, 210g; Faced stone 95mm, 30mm, 20mm, 140g; Faced stone 120mm, 30mm, 15mm, 180g; 2011, Phase 6.
20. Fragment of faced crinoidal limestone (Derby Fossil Stone); 115mm, 28mm, 20mm, 150g; 2012, Phase 5a.
21. Two samples of white marmorised "Carrara-type" marble. Both are faced on two sides but unpolished. Size 95mm, 90mm, 30mm, 600g; 170mm, 105mm, 28mm, 900g; 2015, Phase 6.
22. Fragment of crinoidal limestone (Derby Fossil Stone), faced on two surfaces, polished on one surface; 130mm, 90mm, 36mm, 560g; 2035, Phase 6.
23. Four fragments of white marmorised "Carrara-type" marble; Unpolished, 110mm, 65mm, 23mm, 440g; Polished on one face, 100mm, 60mm, 23mm, 370g; Highly polished on two faces 120mm, 30mm, 30mm, 285g; Highly polished on two faces 110mm, 26mm, 13mm, 120mm; 2035, Phase 6.
24. Small fragment of polished of white marmorised "Carrara-type" marble, Green staining possibly with corrosion from exposure to a copper/ copper alloy item, 32mm, 21mm, 15mm, 16g; 2045, Phase 6.



**Assessment of the industrial fuel types** by *Chris Hewitson and Will Mitchell*

For details of the description and recommendations for further work see section 4.16.

*Table 4.6: Industrial residues from hand collection*

Sample No:	Context No:	Residue	Further Assessment? Y/N	Phase
1	1021	Coke?	N	6
100	3052	Charcoal	N	4
101	3003	Charcoal	N	4
103	3071	Charcoal	N	1b
104	3072	Charcoal	N	1b
105	3073	Charcoal	N	1b
200	4020	Charcoal	N	4

*Table 4.7: Industrial residues from the flots*

Sample No:	Context No:	Residue	Further Assessment? Y/N	Phase
1	1021	Coke?	N	6
3	1027	Coke?	N	6
5	1033	Charcoal	N	5
102	3004	Charcoal	Y (environmental)	3
200	4020	Charcoal	N	4

*Table 4.8: Industrial residues from the heavy residues*

Sample No:	Context No:	Residue	Further Assessment? Y/N	Phase
1	1021	Slag, mortar, marble?	N	6
3	1027	Coke, bone, mortar, slag	N	6
5	1033	Bone, slag	N	5
102	3004	Slag?, charcoal, bone, burnt bone	Y	3
200	4020	Slag, bone, mortar magnetic residues (hammer-scales?), pottery	Y	4

No further work is necessary on any of the Old Crown Derby China works residues. The presence of coke within the fills of the flues (1021, 1033) may be a result of being used as fuel for firing the kilns or a by-product of coal firing resulting in a clinker reminiscent of coke.

Further work is necessary on the slag type material from the 16<sup>th</sup>/ 17<sup>th</sup> century surface (3004). Looks like broken a mortar surface, has inclusions of charcoal, broken CBM and chalk.

Also need further work on the slag, magnetic residues (hammer-scales? And pottery which came from the linear feature (4020) likely to be a boundary ditch behind the seven stars pub.

#### *Summary*

See main body of the text.

#### *Recommendations*

No further work is necessary on any of the Old Crown Derby China works residues. The presence of coke within the fills of the flues (1021, 1033) may be a result of being used as fuel for firing the kilns or a by-product of coal firing resulting in a clinker reminiscent of coke.

Further work is necessary on the slag type material from the 16<sup>th</sup>/ 17<sup>th</sup> century surface (3004). Looks like broken a mortar surface, has inclusions of charcoal, broken CBM and chalk.

Also need further work on the slag, magnetic residues (hammer-scales? And pottery which came from the linear feature (4020) likely to be a boundary ditch behind the seven stars pub.

**Archaeometallurgical samples** by David Starley

For details and recommendations for the samples see the main body of the text.

*Table 4.8: Summary of archaeometallurgical residues*

Context	Sample	Slag type	Mass (g)	Comments	Phase
3003	101	undiagnostic ironworking slag	48		4
3003	101	vitrified hearth lining	2		4
3003	101	burned stone	<1	not hammerscale as recorded	4
3003	101	fired clay	10		4
3003	101	hammerscale	13	30% flake, 5% spheroidal. Flakes small and smooth	4
3004	102	cinder	<1		3
3004	102	?mortar	550	light grey mortar-like material containing frequent charcoal and stone frags. Not thought to be metallurgical.	3
3052		undiagnostic ironworking slag	20		4
3063		vitrified hearth lining	6		2
3071		undiagnostic ironworking slag	130		1b
3071	103	vitrified hearth lining	3		1b
3071	103	iron concretion	43		1b
3072	104	hammerscale	1	spheroidal	1b
3074		undiagnostic ironworking slag	113		2
3074		vitrified hearth lining	107		2
3074		smithing hearth bottom?	212	90x70x35mm	2
3079		undiagnostic ironworking slag	15	red fired clay on back	1b
4008		undiagnostic ironworking slag	407		1a
4008		fired clay	7		1a
4008		fayalitic run slag	41		1a
4008	201	hammerscale	5	20% flake, 10% spheroidal	1a
4008	201	hammerscale	8	10% spheroidal. (Is high proportion indicative of flot only?).	1a
4008		smithing hearth bottom?	276	100x80x40mm	1a
4020		cinder	270		4
4020		iron-rich cinder	78		4
4020		undiagnostic ironworking slag	5040		4
4020		vitrified hearth lining	1201	red fired clay on back	4
4020		fayalitic run slag	944		4
4020		furnace bottom?	1060	lunate dense with well formed side. 150x90x70mm	4
4020		furnace bottom?	843	lunate dense with well formed side. 150x100x60mm	4
4020		furnace bottom?	743	150x80x60mm	4
4020		slag rods	1433		4
4020	200	hammerscale	64	20% flake. Gen rough bubbly surface. Not especially thick. 4% spheroidal	4
4020		hammerscale	not quant.	flake	4
4020		smithing hearth bottom?	250	100x60x40mm	4
4020		smithing hearth bottom?	104	70x60x30mm	4
4020		smithing hearth bottom?	124	60x55x35mm	4
4020		smithing hearth bottom?	200	80x70x40mm	4
4022	202	undiagnostic ironworking slag	8		1a
4022	202	fayalitic run slag	12		1a
4022	202	hammerscale	2	20% flake, 1% spheroidal	1a
			14393		

## **Animal bone assessment** by Matilda Holmes

### **Introduction**

The animal bones were recovered from the King Street site, from building, drain, layer, chimney, pit and post hole features. Provisional dates were given for some features as medieval and post medieval while others were as yet unphased. Data from the latter, undated features are included in this report, as the butchery noted is consistent with the post medieval material. The bulk of the assemblage was retrieved by hand excavation, but a number of fragments from environmental samples were also made available.

### **Methodology**

The bones were scanned and basic information recorded for those that could be identified to species or anatomy in order to give an idea of the size of workable data likely to be retrieved from a full catalogue. Data recorded included species, anatomy, condition (based on a score of 1-5, where 1 is fresh bone and 5 almost unrecognisable; after Lyman, 1994), the presence of gnawing, burning, bone fusion, tooth wear, butchery, pathology and bone working was also noted.

### **Condition of the material**

The bones were in good condition, and not very fragmentary. There were no burnt or gnawed bones, indicating minimal processing after butchery, that they were buried quickly, and remained in primary deposits.

### **Basic quantification**

This very small assemblage of 48 fragments identified to species or anatomy included a range of animal, bird, fish and amphibian bones (tables 1 and 2), the majority of which came from undated and post medieval contexts. The most commonly represented animals were cattle, sheep/ goat, pig and goose. The bones recovered from environmental sampling of ?medieval post hole 3052 revealed wild species (hare/ rabbit, fish and frog) and none of the domestic species found in other features.

As noted above, the assemblage was not very fragmentary, consequently a relatively high proportion of the bones would provide fusion data (33%), fewer potential data were available from tooth wear (three sheep/ goat mandibles) and metrical data (four fragments).

### **Notes on the nature of the butchery and worked bone**

Evidence for butchery was present on the bones from undated contexts 2004, 2007 and 3002 and one post-medieval bone from context 3055. All but one incidence was characterised by the use of a saw, which is a method of butchery common in the post medieval period, and may be an indication of the date of the former contexts. It is also a method used from the later medieval period in the preparation of bone for working, however, the absence of bone working offcuts suggests that this was not an area of bone working.

The worked bone implements took the form of a hole punched in a long bone from a large bird such as a goose, and a handle constructed from a mammal long bone, with metal inserted inside. The other small find labelled as worked was a heavily butchered 'slice' of cattle pelvis which may have been a bone working offcut, but more likely butchery waste.

### Summary of potential

This extremely small assemblage is of limited potential for understanding the animal husbandry, diet, economy or social standing of the inhabitants of this area of Derby, although it is likely that the post medieval assemblage may be the result of primary butchery.

### Suggested further work

At this stage, there is no recommendation for further work. However, it would be desirable for the species list to be made available in the site report to be used as comparanda if further fieldwork is carried out in the local area.

Table 4.9: Animal bone assessment: species represented (NISP) from hand collection

Species represented (NISP) from hand collection								
Phase/ Feature	Medieval	Post medieval				Undated		
Species	Layer	Chimney	Drain	Layer	Pit	Building	Drain	Layer
Cattle	3					1	6	1
Sheep / Goat		1			1		8	1
Pig		2	1	1		1	3*	
Goose								1
Large Mammal							1	1
Medium Mammal								1
Large Bird						1		
Medium Bird							1	
Total Identified	3	3	1	1	1	3	19	5
* partial skeleton of pig included as a count of one								

Table 4.10: Animal bone assessment: Species represented (NISP) from samples

Species represented (NISP) from samples. (?medieval post hole 3052)							
Species	n						
Hare / Rabbit	1						
Frog	4						
Fish	7						

## **Report on the Human Bone Excavated from St Helen’s Street, Derby.**

*Samantha Hepburn*

### *Introduction*

During service trench work on the corner of King Street and St Helen’s Street, articulated and disarticulated human remains were uncovered. Partial articulation of an adult arm was observed in what appeared to be the original grave cut [5000].

Much of the remains however were recovered from an adjacent charnel pit in a severely disarticulated form suggesting the burial had previously been exposed, probably when the cellar foundations of the workshop buildings were constructed in 1866-69. The remains represent a minimum of three individuals, two adults and one adolescent.

### *Preservation*

The remains were not well preserved, a total of 104 pieces of human bone were recovered from the excavation. The table below shows the breakdown of bone present among the fragments. Using the system of bone surface preservation recommended by McKinley (2004) much of the bone was recorded as Grade 2-3. The edges and ends of long bones were damaged; the fragmentary nature of the bone has greatly reduced the amount of metrical information that could be derived from the remains. It has been possible to fit several of the fragments together, and as a result reduce the minimum number of individuals present.

*Table 4.11: Summary of human bone fragment classification*

	Number of Fragments	
	Adult	Adolescent
Skull	11	
Ribs	7	
Pelvis	5	
Vertebrae	4	
Humerus	3	6
Radius	5	
Ulna	3	
Femur	8	
Tibia	2	2
Fibula	2	
Meta Tarsals	5	
Phalanges	9	
Miscellaneous	32	



### *Age and Sex Determination*

Due to the nature of the bones it is not possible to offer any estimation as to the age the individuals present. The majority of the bone is robust; where the ends are present epiphyseal fusion is evident, marking them as adult. The exceptions to this are the eight fragments of adolescent bone that represent a left and right humerus and a left and right tibia, the bones are gracile and missing their epiphysis, the ends being too damaged to age them more precisely.

Four of the pelvis fragments fitted together to form part of the right innominate of an adult male, a small section of a left innominate was also present and was that of an adult with masculine characteristics. The skull fragments present are from the cranial vault and contain no indication of the sex of the individual represented by them.

### *Pathology/Trauma*

There is no trauma evident on any of the bone fragments. Several of the long bone pieces show signs of osteophyte formation, although not enough survives to be able to draw any firm conclusions as to the cause of this, they could be a result of disease, physical action or age.

### *Summary*

See main body of the text.

### *Recommendations*

See main body of the text.

## Palaeoenvironmental assessment by Rosalind McKenna

### Introduction

A programme of soil sampling was implemented during the excavation, which included the collection of soil samples from sealed contexts, ranging from less than 10L to 40L in size. Five of these sediment samples were selected for an evaluation for their palaeoenvironmental potential.

### Methods

Following description and selection, subsamples of raw sediment from the selected samples were processed. The samples were examined in the laboratory, where they were described using a pro forma. The subsamples were processed by staff at Birmingham Archaeology using their standard water flotation methods. The flot (the sum of the material from each sample that floats) was sieved to 0.5mm and air dried. The heavy residue (the material which does not float) was not examined, and therefore the results presented here are based entirely on the material from the flot. The flot was examined under a low-power binocular microscope at magnifications between x12 and x40.

A four point semi quantitative scale was used, from '1' – one or a few specimens (less than an estimated six per kg of raw sediment) to '4' – abundant remains (many specimens per kg or a major component of the matrix). Data were recorded on paper and subsequently on a personal computer using a Microsoft Access database.

### Results

Charcoal fragments were present in all of the samples, and scored a maximum of 4 on the semi quantitative scale. Due to the small size of the charcoal fragments and their poor preservation, no interpretable information can be gained from the samples.

Charred plant macrofossils were present in most of the samples and were relatively well preserved, but were generally only present in small volumes, and hence there could be no interpretable information gained from their study. In SN.101 (3003) however, the preservation was good and the diversity and abundance of remains was high.

Ceramic building material (CBM) and slag fragments were present in a number of the samples, and this could point to some sort of industrial activity associated with the features which these samples came from.

Root / rootlet fragments were also present within the majority of the samples. This indicates disturbance of the archaeological features, and this may be due to the nature of some features being relatively close to the surface, as well as deep root action from vegetation that covered the site. This disturbance is further confirmed by the presence of waterlogged plant macrofossils present in limited volumes in a lot of the samples. The preservation of these was excellent and it is probable that they are modern contaminants. Those present (*Sambucus nigra* and *Betula* sp.) are both species often found in varying abundance in archaeological samples as a modern contaminant.

Table 4.12: Components of subsamples from Ford Street, Derby (BA1913)

Quantitative score on a scale of 1 – 4: from '1' – one or a few (less than an

<b>Component</b>	<b>SN. 100 (3052)</b>	<b>SN.101 (3003)</b>	<b>SN.103 (3071)</b>	<b>SN.104 (3072)</b>	<b>SN.105 (3073)</b>
Bone fgts.	1	-	-	-	-
CBM fgts.	-	2	1	-	-
Charcoal fgts.	4	4	4	4	3
Plant Macrofossils	2	3	1	1	1
Root/rootlet fgts.	3	3	3	4	4
Sand	-	3	-	-	3
Slag fgts.	-	2	-	-	-
Stones	-	2	3	2	-

estimated six per kg of raw sediment) to '4' – abundant remains (many specimens per kg or a major component of the matrix).

#### *Recommendations*

It is recommended that a full analysis of the plant macrofossils from SN.101 (3003) is undertaken.

A quick assessment of the other samples will be incorporated into the analysis report, however these samples produced very small assemblages and so independently are of little value. No further interpretable proxy evidence such as archaeological waterlogged plant remains and insects were recovered from the remaining samples, hence further environmental analysis on these samples is not recommended. Taphonomic and post-depositional processes at the site clearly preclude the preservation of identifiable or interpretable, site-specific proxy evidence.

Any sediment that remains from these samples and others from the site can be discarded with the agreement of the project manager and the county archaeologist.

#### *Archive*

All extracted fossils and flots are currently stored with the site archive in the stores at Birmingham Archaeology, along with a paper and electronic record pertaining to the work described here.