



ArcHeritage



**ARUNDEL GATE/CHARLES ST, SHEFFIELD
SOUTH YORKSHIRE**

ARCHAEOLOGICAL DESK-BASED ASSESSMENT

by Rowan May

REPORT NUMBER 2010/25



ArcHeritage

ArcHeritage is a trading name of York Archaeological Trust. The Trust undertakes a wide range of urban and rural archaeological consultancies, surveys, evaluations, assessments and excavations for commercial, academic and charitable clients. It can manage projects, provide professional advice and monitor archaeological works to ensure high quality, cost effective archaeology. Its staff have a considerable depth and variety of professional experience and an international reputation for research, development and maximising the public, educational and commercial benefits of archaeology. Based in York and Sheffield its services are available throughout Britain and beyond.



ArcHeritage, Campo House, 54 Campo Lane, Sheffield S1 2EG

Phone: +44 (0)114 3279793 Fax: +44 (0)114 3279793

Email: abadcock@yorkat.co.uk Internet: <http://www.yorkarchaeology.co.uk>

© 2010 York Archaeological Trust for Excavation and Research Limited

Registered Office: 47 Aldwark, York, UK, YO1 7BX

York Archaeological Trust is a Registered Charity No. 509060

A Company Limited by Guarantee Without Share Capital Registered in England No. 1430801

CONTENTS

	page
NON-TECHNICAL SUMMARY	1
1. INTRODUCTION.....	2
2. METHODOLOGY	2
3. LOCATION, GEOLOGY AND TOPOGRAPHY	4
4. BASELINE CONDITIONS	5
5. ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL	25
6. CONCLUSION	27
7. ACKNOWLEDGEMENTS	27
8. BIBLIOGRAPHY	28
APPENDIX 1 – GAZETTEER OF KNOWN ARCHAEOLOGICAL SITES	30
APPENDIX 2 – TRADE DIRECTORY INFORMATION	33

Figures

1.	Site location plan showing proposed development footprint and plot locations.....	4
2.	Plan showing location of known archaeological sites.....	5
3	1771 Fairbank map of Sheffield.....	7
4	1829 Fairbank plan of site.....	8
5	1853 OS map, showing plot numbers.....	9
6	1896 Goad fire insurance plan.....	10
7	1953 OS map, showing plot numbers.....	11
8	1970 OS map.....	12
9	1997 OS map.....	14
10	2004 OS map.....	15
11	Plan showing location of features identified in watching brief on Plot B, 2006	21

Plates

Cover: View of west half of site (Plot B), facing southeast towards the Butcher Wheel

1.	View of Eyre Street in 1967, nos.53-71 in centre of picture	12
2.	View of Charles Street frontage, 1960s, showing nos.100 and 108	12
3.	View of 1930s-40s extension to Canada Works in 1967, Eyre Street Works to rear.....	17
4	View along Clay Lane towards Eyre Lane, showing Eyre Street Works, undated.....	17
5.	View northwest across Plot A from southeast corner.....	19
6.	View west across Plot B from northeast corner.....	20
7.	View northwest along Clay Lane, showing stone setts	20
8.	Structural remains of houses at northeast side of Plot B, from watching brief.....	22
9	Sandstone wall footings at southeast end of Plot B1, from watching brief	23
10	Section through made ground beneath Building D, from watching brief.....	23

NON-TECHNICAL SUMMARY

This report consists of an archaeological desk-based assessment of a site at the junction of Arundel Gate and Charles Street, Sheffield, South Yorkshire. The assessment was required to inform proposals for proposed development at the site, and comprised a site visit, documentary and cartographic research, and was commissioned by Turner Townsend on behalf of Sheffield Hallam University. The area was fields prior to development in the early 19th century. The initial development consisted of houses, shops and industrial workshops. Industries represented within the site from the first half of the 19th century to the late 20th century included a whitesmith's works, a cabinet makers, a brass foundry, a saw manufactory, cutlery works, an engineering works, a wire works and a mark maker's works. The buildings were demolished between 1970 and 2006 and the site currently consists of a car park and a vacant lot. An archaeological watching brief was conducted on the vacant lot in 2006 during the removal of building foundations and basements, and recorded the remains of earlier building footings, cellars and a stone boundary wall. The extent of sub-surface disturbance across the vacant lot is unclear, but it is likely that much of the underlying archaeology will have been impacted in areas where foundations and basements have been removed. There is a higher potential for the preservation of archaeological remains within the current car park site.

1. INTRODUCTION

This report consists of an archaeological desk-based assessment for a site at the junction of Arundel Gate and Charles Street, Sheffield, South Yorkshire. The assessment was required to inform proposals for redevelopment at the site. The assessment is undertaken following the guidelines of the Institute for Archaeologists (IfA 2008). ArcHeritage were commissioned by Turner Townsend, on behalf of Sheffield Hallam University, to undertake the assessment.

2. METHODOLOGY

2.1 AIMS AND OBJECTIVES

The general aim of the assessment is to determine the nature of the archaeological resource in areas affected by the proposed development. This is achieved by collating existing archaeological and historic information relating to the proposed development area and its immediate environs and by placing it in its local, regional and national context.

The specific aims are to:

- assess the potential for survival and significance of buried archaeological remains within the proposed development site; and to
- assess the impact of the proposed development on the cultural heritage resource.

2.2 SOURCES

All readily available published and unpublished documentary sources were consulted, including historic maps and recent aerial photographic data. Information on recorded archaeological sites within 500m of the proposed development area was obtained from the regional authority. Relevant documents, databases and secondary sources, published and unpublished, were consulted. Data was collected from the following sources:

- South Yorkshire Sites and Monuments Record (SMR);
- Sheffield Archives;
- Sheffield Local Studies Library;
- National Monuments Record (NMR);
- Archaeology Data Service (ADS);
- Multi-Agency Geographic Information for the Countryside (MAGIC).

A site visit was undertaken on the 16th April 2010 to investigate the current condition of the site, the location of any above-ground archaeological remains and any areas where ground disturbance is likely to have damaged sub-surface deposits.

2.3 DESIGNATIONS

All cultural heritage designations were checked for the area, including Scheduled Ancient Monuments, Listed Buildings, Conservation Areas, Registered Parks and Gardens and Registered Battlefields. The site lies within the Cultural Industries Quarter Conservation Area, and there are several listed buildings within the vicinity, the nearest being the Grade II* listed Butcher Works on the south side of Eyre Lane (site 1) and the Grade II listed 92-92A and 94 Arundel Street (sites 7-8). There are no Scheduled Ancient Monuments, Registered Parks and Gardens or Registered Battlefields within 500m of the site.

2.4 PLANNING POLICIES

Sheffield City Council's Unitary Development Plan (UDP), adopted 1998 and saved from 2007 pending finalisation of Sheffield Development Framework, contains policies relating to the historic environment. The policies were based on governmental guidance set down in PPG16 (Archaeology and Planning, 1990) and PPG15 (Planning and the Historic Environment, 1994). This guidance has now been superseded by PPS5 (Planning for the Historic Environment), which provides a framework for the investigation of sites and the management of heritage assets, including Conservation Areas, Listed Buildings, non-listed historic buildings and archaeological remains, which are considered to be a finite and non-renewable resource (PPS5 paragraph 7).

Applications for development within Conservation Areas are expected to contain sufficient information to enable their impact on the Area to be assessed (PPS5 policies HE6, HE7; UDP policy BE16). Design of new buildings within Conservation Areas is expected to be of a high standard, with a use of traditional materials and a sensitive approach to layout of streets and buildings (UDP policy BE17). Similar sensitivity is expected for construction within the setting of listed buildings (UDP policy BE19). Within areas which are likely to have the potential for the survival of archaeological deposits an assessment of the nature and significance of the remains will be required (PPS5 policy HE6). Proposals that would adversely affect a significant archaeological feature will only be permitted where it has been demonstrated that the overall benefits of the proposed development clearly outweigh the need to safeguard the interest of the feature, and where archaeological remains can be preserved *in situ* or by record (PPS5 policy HE9, HE12; UDP policy BE22).

3. LOCATION, GEOLOGY AND TOPOGRAPHY

The site (centred on NGR SK 3544 8691) is located to the southeast of Arundel Gate, within Sheffield city centre. The northeast side of the site is bounded by Charles Street, the southeast side by Eyre Lane, and the southwest side by Clay Lane (Figure 1). Brown Lane runs through the site on a northwest-southeast alignment, dividing it into two separate plots. The site is located on a gentle slope downwards from northwest to southeast, and comprises an area of c.2615m². The underlying geology comprises mudstone, siltstone and sandstone of the Pennine Lower Coal Measures Formation.

For the purposes of the assessment, the site has been divided into two plots, A and B. Plot A is located to the northeast of Brown Lane, and Plot B to the southwest (see Figure 1 for plot locations). Plot A is currently a carpark, whilst Plot B is a vacant site.

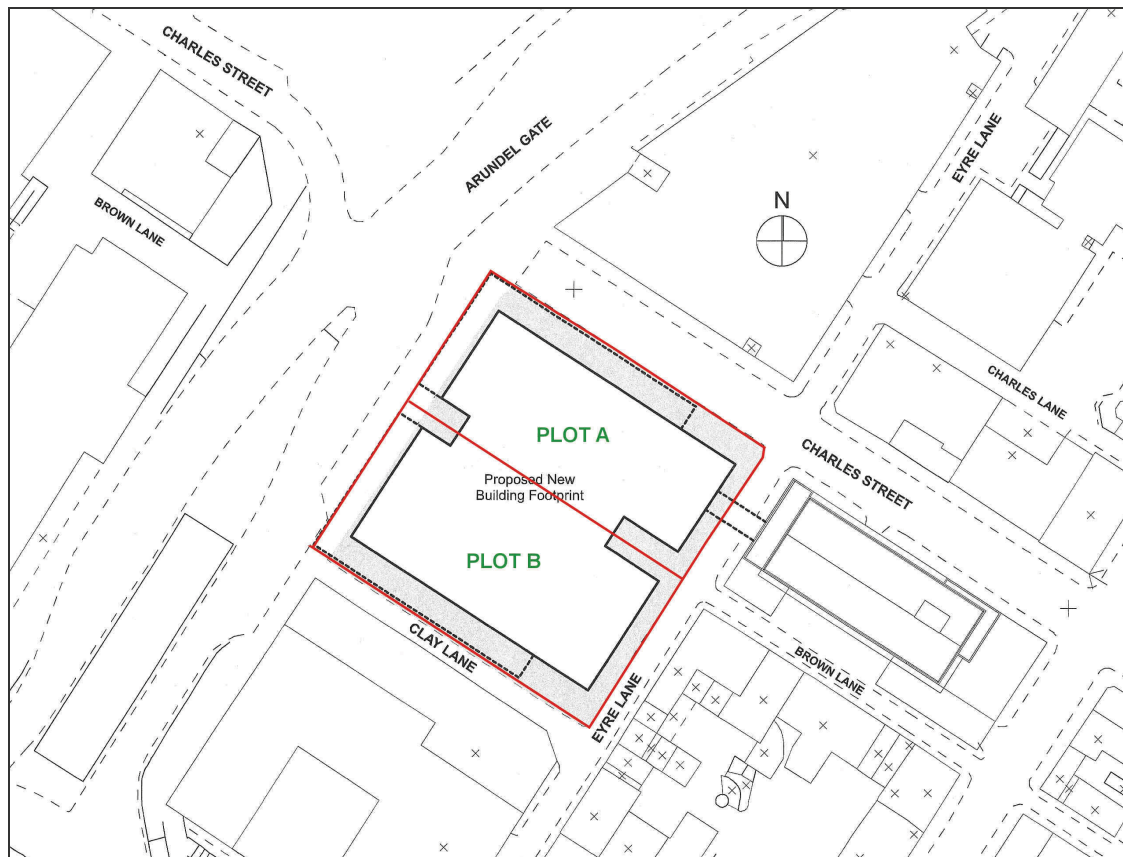


Figure 1: Site location plan showing proposed development footprint and plot locations

4. BASELINE CONDITIONS

4.1 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

This section presents a summary of the archaeological and historical background of the area, focusing in particular on the proposed development site. A gazetteer of known archaeological sites has been compiled from South Yorkshire Sites and Monuments Record as well as cartographic and documentary sources, and is presented in Appendix 1. The locations of the sites are shown in Figure 2.

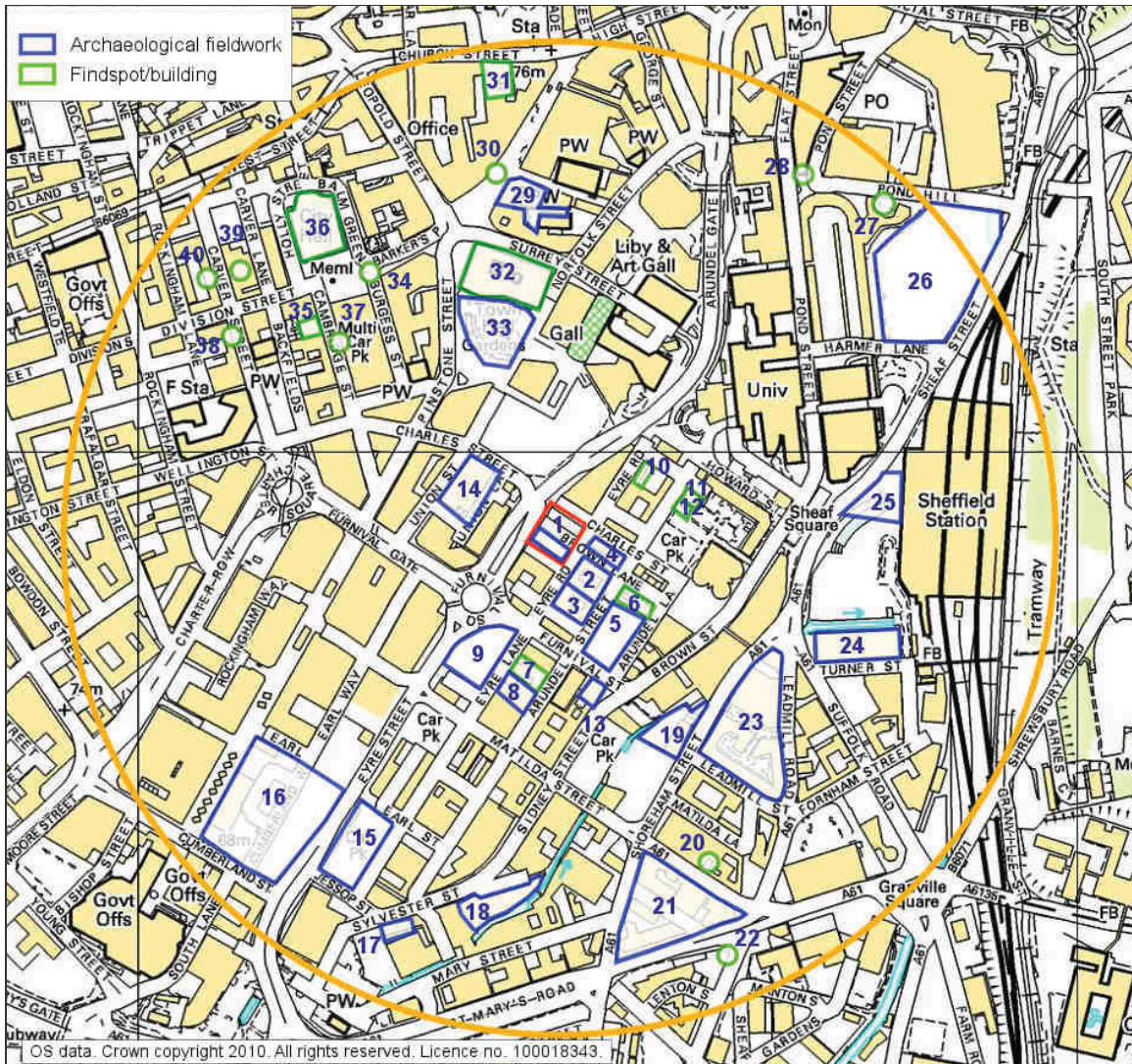


Figure 2: Plan showing location of known archaeological sites (location of site 41 unknown)

4.1.1 PREHISTORIC TO ROMANO-BRITISH

The available sources record no prehistoric sites and only one Romano-British site within the search area. The precise findspot of the 'late' Roman coin hoard (site 41) is unknown, and its proximity to the application area cannot be judged.

4.1.2 MEDIEVAL

In the early medieval period, Sheffield was part of Hallamshire. A timber castle was built near the confluence of the rivers Don and Sheaf c.1100, replaced by a stone structure c.1270. The parish church (now cathedral) was also constructed in stone at around this date, possibly on the site of an earlier church. The medieval town of Sheffield clustered around the castle and church, with a market established between the two.

A large hunting park for the lords of Sheffield was first recorded in 1281 and was probably in existence much earlier. It was located to the east of the town, and in 1637 was recorded as being 2,461 acres in extent, surrounded by a fence 8 miles in circumference (Harrison 1637). Hey (2005, 19) suggests that the western edge of the park crossed the Sheaf and ran along the line of Union Street and Norfolk Street, encompassing the low-lying land known as the Pastures (which likely incorporated the proposed development area) and the Ponds. The main entrance to the park was along the line of Broad Street. A 15th-century timber-framed building known as the Hall in the Ponds, possibly originally a hunting lodge, forms the core of the Old Queen's Head public house near Sheffield Interchange (site 27). This is the oldest domestic building in the city centre, and was first recorded in 1582.

The only other medieval remains within the search area consist of medieval ceramics found in a rock-cut well and a buried soil layer during archaeological mitigation at Fargate and Norfolk Row (site 29). The well had been heavily truncated by late 19th-century cellaring, and only a fragment of the buried soil had survived later terracing of the site. The ceramics suggested that some of the pottery had been produced in Sheffield, probably in the vicinity of the site (Baker, Baker and Symonds, forthcoming).

4.1.3 16TH TO 18TH CENTURIES

By the time of Harrison's survey of the manor of Sheffield, the proposed development site was within a group of fields belonging to 'Aslopp Farm', recorded on the 1736 Gosling map as Alsop Fields. The land to the west of the River Sheaf had been enclosed from the park by that date. A number of water-powered cutlers' wheels were recorded in the vicinity as 'the wheels in the pastures' in the 16th century, including Cinderhill Wheel (site 22) and probably the Sylvester Wheel (site 17) and Marriott Wheel (site 23). The 1736 map does not show the proposed development area, but it was located within fields at that date.

The area was still fields in 1771, although Fairbank's map of Sheffield of that date depicted the layout of proposed new streets across the fields (Figure 3). The area was designated as an area for residential development by the Duke of Norfolk, who owned the land, but a lack of demand meant that mixed industrial and residential development occurred in a piecemeal

fashion over the subsequent decades (Beauchamp 1996, 39). The site was undeveloped in 1793, at which date only the northeast plot (A) had been leased, by Samuel Broomhead Ward (FC SheS 745L).

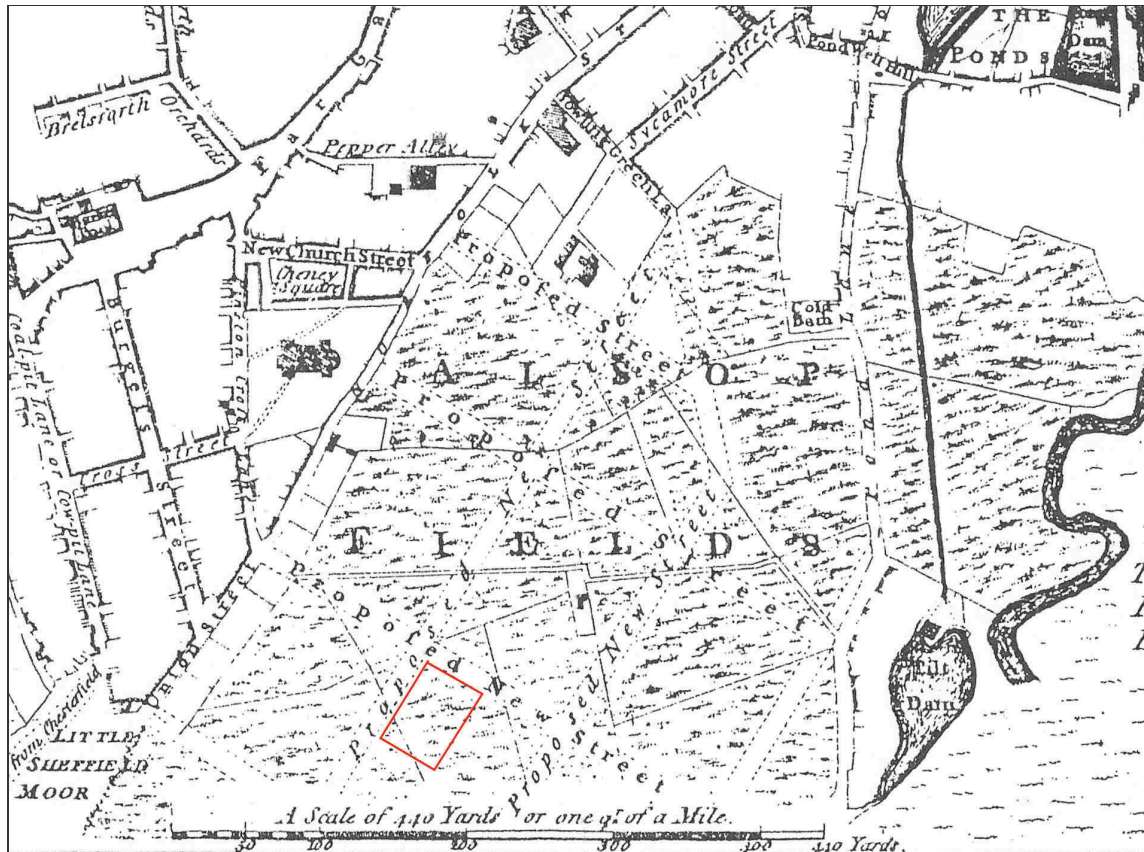


Figure 3: 1771 Fairbank map of Sheffield

4.1.4 19TH TO 20TH CENTURY

Much of the Alsop Fields estate was sold off by the Duke of Norfolk to speculator-developers c.1804. The majority of the site appears to have been purchased by Thomas Holy at this date, and was shown on a number of plans of Holy's lands in the 1810s-1830s. Buildings were shown within the site on two separate plans of 1818-1819 (FC SheS 261 and FC SheS 382). The same structures were shown on a plan covering the site in 1829 (FC SheS 52, Figure 4). Some of the plots may have been leased for building or sub-letting, rather than for occupation.

A Thomas Fisher, builder and joiner, appears to have owned land in the vicinity, and Fisher Lane (later Clay Lane) is likely to have been named after him. The derivation of the later name is unknown. Brown Lane was shown on the 1818-1819 maps as Charles Lane, in association with the parallel Charles Street. 'Charles' was the name of the Duke of Norfolk who developed the land, whilst 'Brown' may refer to Ralph Brown, a publican who owned

land in the vicinity. 'Eyre' refers to Vincent Eyre, a prominent member of the Town Trust and the chief agent for the Duke of Norfolk's Sheffield estates, who supervised much of the development of the Alsop Fields area (Harvey 2001, 28, 32 and 56).

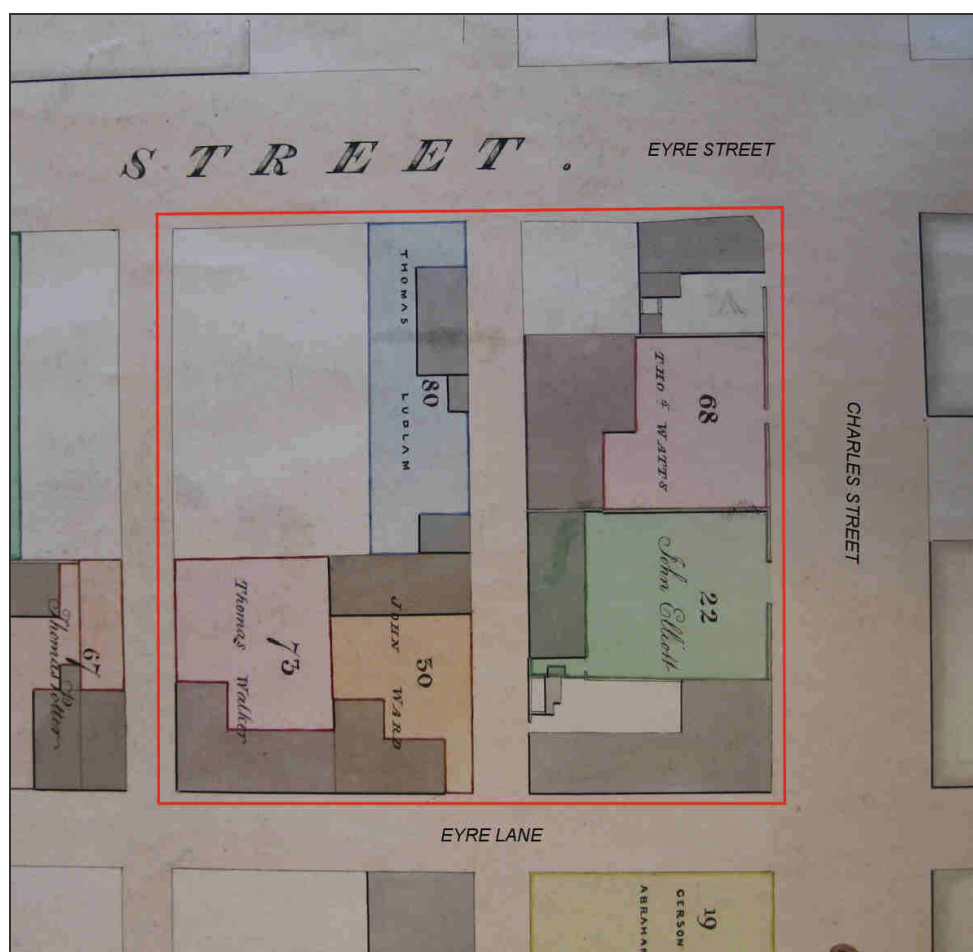


Figure 4: 1829 plan of the site, measured for Thomas Holy (FC SheS 52)

Detailed trade directory entries are listed in Appendix 2. For the purposes of clarity, the site has been divided into six plots (A1-A3, B1-B3). The location of the plots are shown on the 1853 (Figure 5) and 1953 OS maps (Figure 7).

Plot A1

Plot A1, on the frontage of Eyre Street between Charles Street and Brown Lane, had a building in the northeast corner by 1819. In 1839, nos.53 and 59 Eyre Street were recorded, possibly as a shop and a house, although this is not clear from the reference. The 1841 directory recorded nos.57 and 59 Eyre Street, again possibly as houses, but perhaps with associated workshops for the piercer, razor manufacturer and scissors manufacturer listed in 1841, 1856 and 1862 respectively. These references suggest that the structures shown within the plot on the 1853 OS map were in existence by the late 1830s. No.53-55 appears to have been amalgamated into a single building by the mid-1870s, and was used as a shop

for at least the next 100 years. An electro-plate and britannia metal manufacturer was listed at 57-59 Eyre Street in 1876-1881, replaced by William Godley, a mark maker by 1888. Godley remained at the site until the 1930s, with the building occupied by cutlery manufacturers by 1948. It was still listed as a cutlery works in 1972.

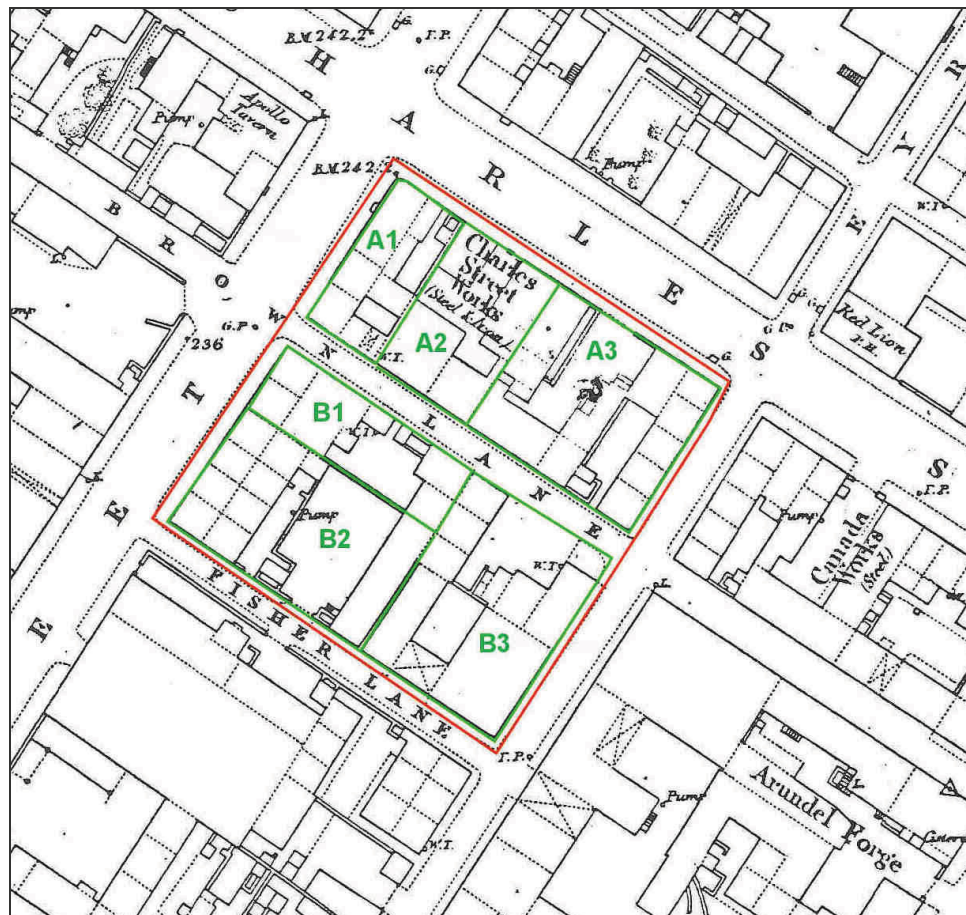


Figure 5: 1853 OS map, showing plot numbers

The 1853 OS map depicts the buildings shown on the 1819 and 1829 maps in the northeast corner of the plot (nos. 53-55), with nos. 57-59 adjacent (not depicted on the earlier map). The latter two, with an L-shaped range returning along Brown Lane and covered entrance into a narrow yard, had been incorporated into a single larger structure by 1896 (Figure 6). It had a three-storey range along the Eyre Street frontage and a parallel two-storey range behind, with no covered entrance, and was marked 'Die Stamper'. Nos.53-55 were shown as a three-storey shop (53) and adjacent house (55) at that date, likely to have been the same structures (or modified versions) shown in 1819. The buildings do not appear to have been substantially altered following this date, as a photograph of the site taken in the 1960s showed three-storey structures of likely 19th-century date on Eyre Street (Plate 1). Eyre Street was widened in the late 1960s and renamed Arundel Gate, and the buildings were re-numbered 153-159 by 1972. All the buildings were still depicted on the 1996 OS map, but

the 1997 map showed that nos.153-155 had been demolished (Figure 9). The remaining buildings were demolished between 1997 and 2004 (Figure 10).

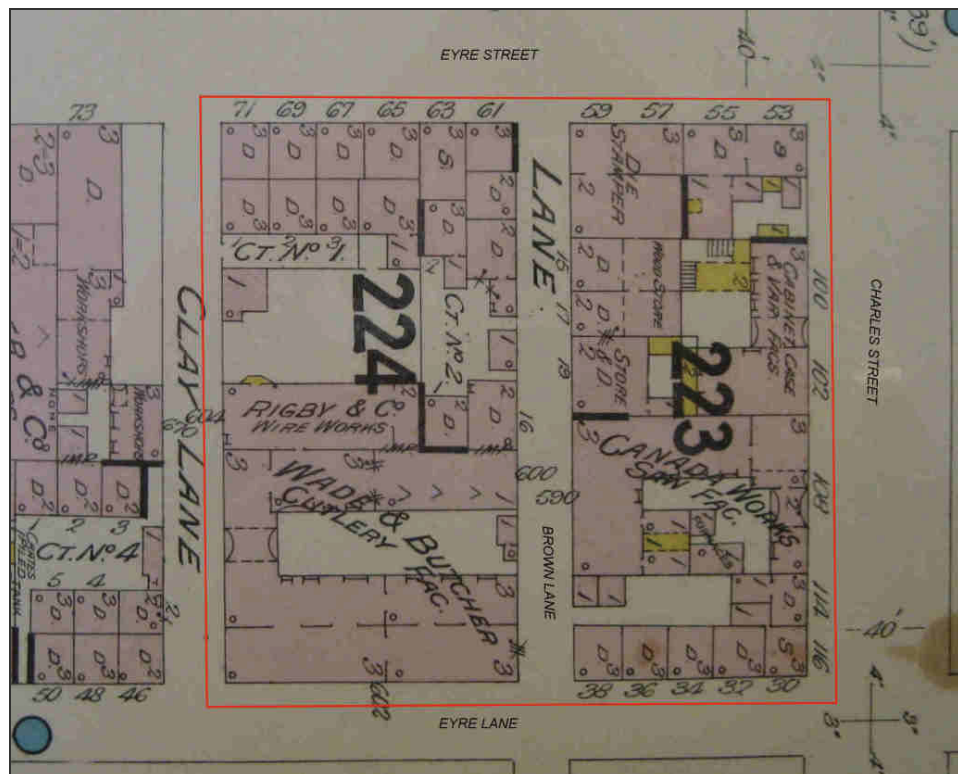


Figure 6: 1896 Goad fire insurance plan

Plot A2

Buildings were shown within this plot, on the Brown Lane frontage, in 1819 and 1829, when the plot was leased to Thomas Watts. In 1839 and 1841, Adam Bramall, whitesmith and locksmith, was listed at 22 Charles Street. Two houses along the Brown Lane frontage (probably those shown in 1819) were listed in the 1841 trade directory, but have no further listings. Private houses were often not listed, and the buildings were still shown as 'domestic' two-storey structures in 1896 (Figure 6), with stores to the rear. The 1853 map depicted nos.18-22 as the Charles Street Works ('steel and iron'), and the trade directory entries of 1856-1865 record William Radford, whitesmith, at the site. 'Whitesmith' may refer to someone working with light-coloured metals (e.g. pewter and tin), including melting and re-melting of alloys; it can also refer to the finishing of metal items (e.g. polishing). In 1876 and 1881, the works was occupied by a nickel silver manufacturer and a cut nail manufacturer. No reference to a steel and iron works has been found in the trade directories for this plot, though it is possible that the whitesmith's works would have had a crucible furnace for melting alloys.

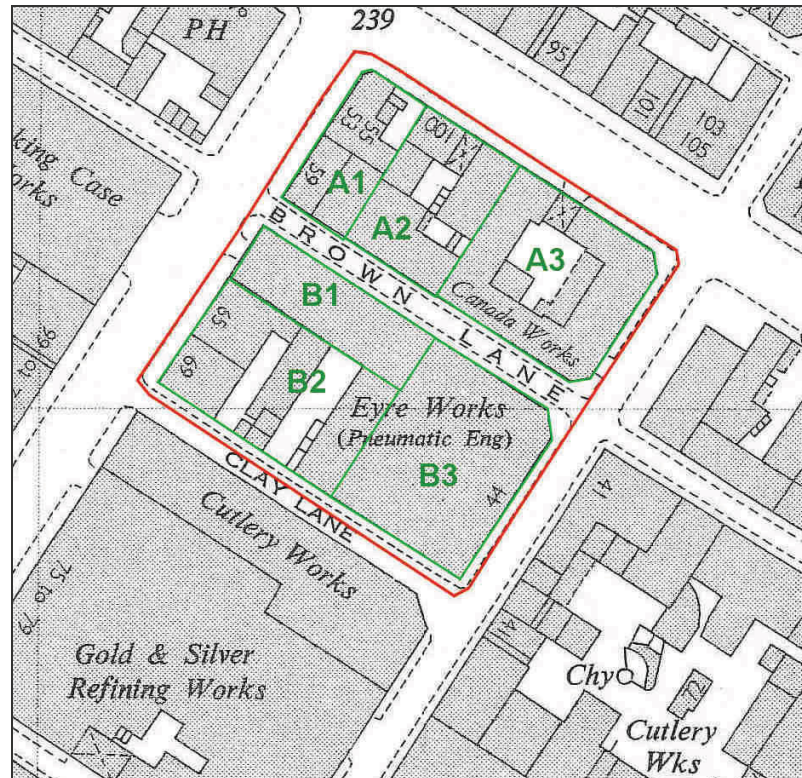


Figure 7: 1953 OS map showing plot numbers

By 1888, the main occupant of the works was George Thomas Spurr, cabinet case manufacturer. Spurr's firm was still listed at the works in 1963, and was depicted on photographs from 1967. The firm was primarily dedicated to the manufacture of wooden cases to hold and display items such as table cutlery and flatware. A description of the firm in 1893 stated that 'operations are carried on in a large and commodious block of buildings, having a frontage of some 50 feet', with offices on the first floor, spacious stock rooms and various warehouses, and a row of three-storey workshops to the rear (Century's Progress 1893, 138). Between 1905 and 1931, the works was shared with George Ellis, manufacturer of fish eaters, carvers etc.

The street numbers were changed between 1888 and 1896, from 18-24 to 100-108 Charles Street. The 1896 map depicted wood stores to the southwest of the central yard, which were presumably associated with the works, and the three-storey workshops referred to presumably consist of the long building at no.102. The structures at no.100, facing onto the street, were constructed after 1853, whilst that at 102 may be the building shown on the 1853 map. A photograph from the 1960s shows differences in the architectural details of 100 and 102 (Plate 2). No substantial alterations to the layout of the buildings appear to have been carried out during the 20th century, based on the map evidence. The buildings were still shown on the 1997 map, but were demolished by 2004 (Figures 9-10).

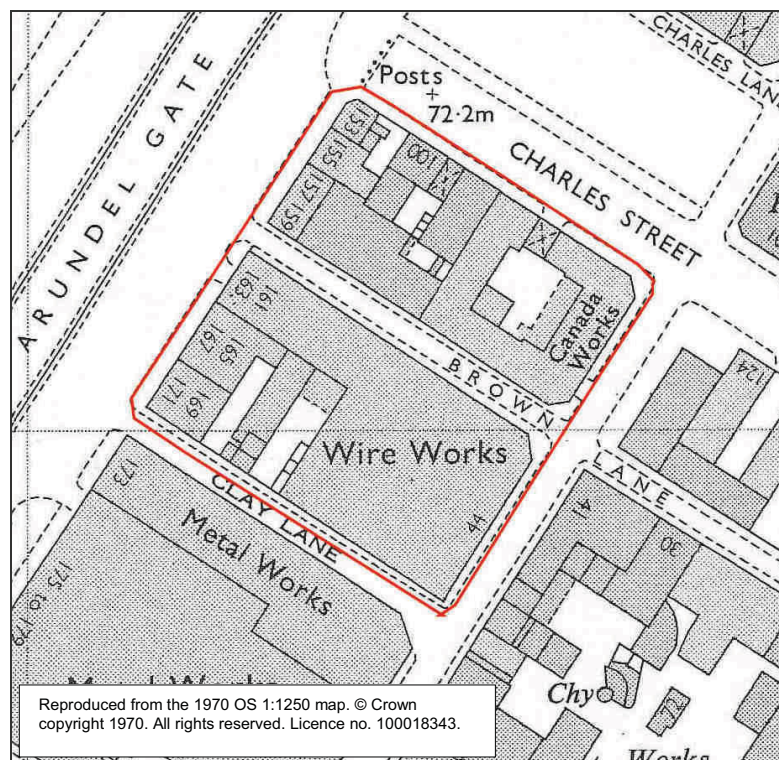


Figure 8: 1970 OS map

Plot A3

Plot A3 comprised two lots in 1819, the southern plot being along the Eyre Lane frontage, and leased to 'White' (not named in 1829), with the second lot to the north leased to John Elliott in both 1819 and 1829. A Samuel White, porter, was listed in the 1822 directory at Eyre Lane, and John Elliott, 'ivory, brass and wood turner, manufacturer of table and butcher's steels, teapot handles, bottle stands, etc' was listed at Charles Street. It is unclear if either of these were actually located within the site, but the 1839 directory lists George and William Elliott, manufacturers of all kinds of brass taps, at no.26 Charles Street, in this plot. A saw maker, Josiah Ellis, was listed at 36 Eyre Lane in 1833, possibly his house rather than a works.

In 1839 and 1856, no.30 Charles Street, on the corner with Eyre Lane, was a house occupied by Edwin Priest, a local manufacturing optician. From 1876 to 1931, this property was listed as a shop. No.38 Eyre Lane, at the corner of Brown Lane, was the only other building on the lane regularly listed, as a shoemaker's in 1839-41 and a shop in 1876-81.

The works at 24-26 Charles Street was occupied by brass founders from 1841 to 1881, first John Lambert, then John Hicks. By 1888, Russell, Horsfield and White, saw manufacturers, had moved to the works from the Canada Works at no.38 Charles Street, to the south, where they were recorded in 1876. The firm appear to have transferred the works name to the new

property, as depicted on the 1896 plan. The street numbers on Charles Street were changed between 1888 and 1896, from 24-30 to 108-116.



Plate 1: View of Eyre Street in 1967, facing east with nos.53-71 in centre of picture (© Sheffield City Council)



Plate 2: View of Charles Street from Eyre Street, no.100 in centre and Canada Works to left, taken in 1967 (© Copyright Picture Sheffield)

Russell, Horsfield and White were still at the works in 1931, but by 1948 had been replaced by Hallamshire Electric Co Ltd, wholesale electrical accessory suppliers. The Canada Works had been extended by that date to cover the whole of Plot A3, replacing the houses along Eyre Lane. It is possible that the loss of the housing may have been associated with bomb

damage, as a map of bomb locations depicts an impact in the vicinity of the corner of Eyre Lane and Charles Street (Holliday 1987). The accuracy of the map is unclear. Hallamshire Electric Co Ltd are the only listed occupants of the works from 1948 to 1972, although photographs of the works in 1967 show a sign reading 'Use Crompton Lamps' over the door at the corner of Eyre Lane and Charles Street (Plate 3).

The 1896 map depicted three storey ranges along the northwest and southwest (Brown Lane) sides of the Canada Works, and a two-storey range along Charles Street. The northeast three-storey range had its gable end on Charles Street (see Plate 2), and may be the building shown on the 1853 map, whilst the two-storey range was constructed between 1853 and 1896. A group of small, single-storey structures were shown at the south side of the central yard, including two described as 'furnaces'. These may have been forging hearths rather than melting furnaces, but are in the same location as buildings shown in 1853, and may possibly be the site of crucible furnaces formerly used for brass production. The 1935 map showed essentially the same layout as in 1896, but by 1953 the houses along Eyre Street had been demolished and the works extended (Figure 7). Plates 2 and 3 show the difference in style between the 19th-century buildings of the earlier works and the 1940s structure adjoining it. The buildings shown in 1953 were still extant in 1997, but had been demolished by 2004 (Figures 9-10).

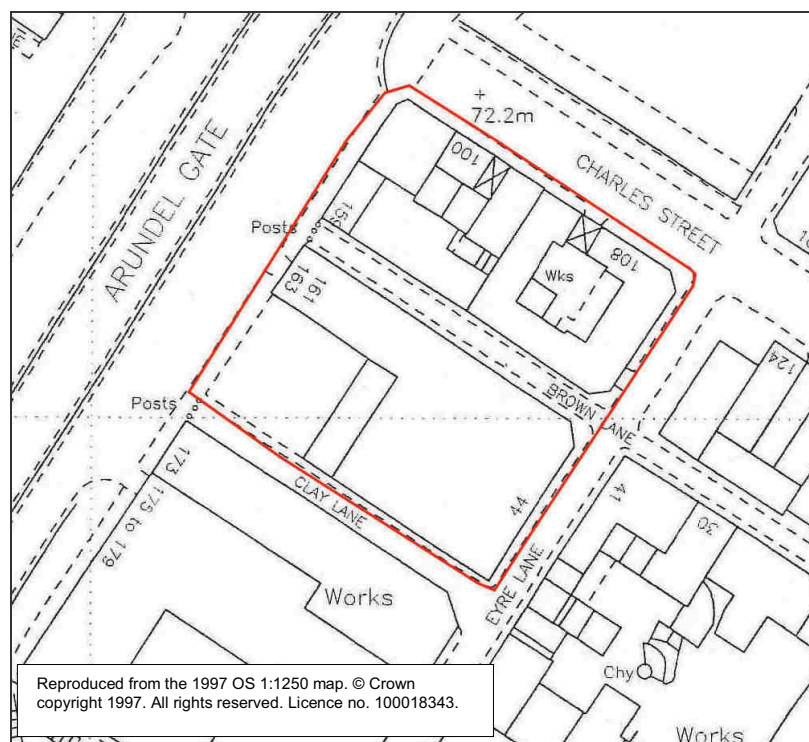


Figure 9: 1997 OS map

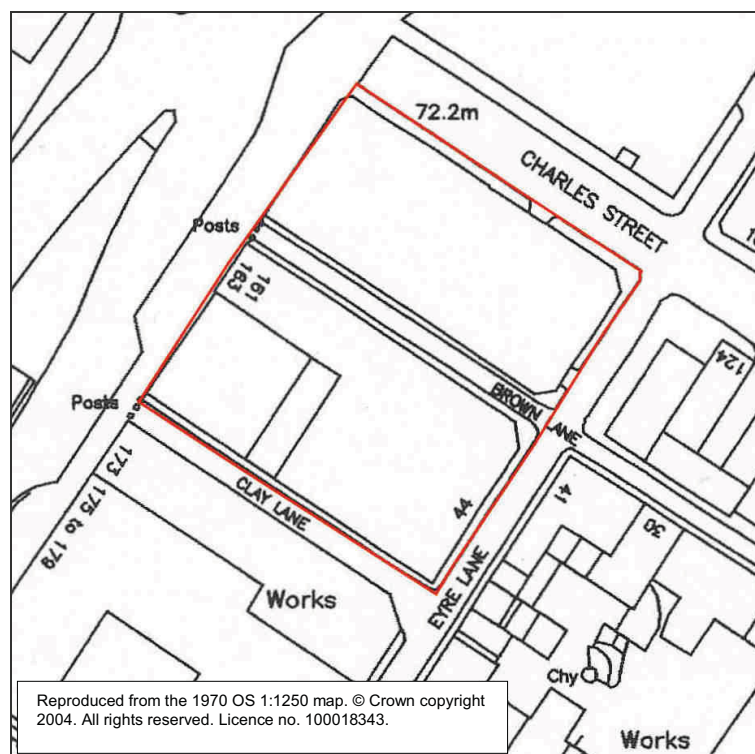


Figure 10: 2004 OS map

Plot B1

In 1818, this plot was leased to a Joseph Skinner and a building with an extension to the south was shown on the Brown Lane frontage, with a smaller structure to the south. By 1829, the lessee was Thomas Ludlam, and the same buildings were shown. Joseph Skinner, bricklayer and builder, was recorded at an unspecified location on Eyre Street in 1822, possibly within the site. In 1841, an Edwin Ludlam, clerk, had a house at 14 Brown Lane, which was part of the structure shown in 1829. No other reference to the houses on Brown Lane were found in trade directories. The buildings on Eyre Street appear to have been a house and a shop. No references were found to any of the buildings on the plot after 1931, with the site forming part of the works of William Turner (Kismet) Ltd, pneumatic engineers by 1948 (see Plot B3).

The 1853 map depicted the larger structure shown in 1829, as well as further buildings, which were shown as houses on the 1896 map, apart from the shop at no.63 Eyre Street. The buildings on Eyre Street were three storeys in height, whilst those along Brown Lane and within Court 2 were mainly two- or one-storey. The buildings were still shown in 1935, but by 1953 the plot had been incorporated into the Eyre Works of William Turner and Co Ltd and a new, two-storey works building occupied the site. It had a flat roof, and a roller-shutter door onto Eyre Street. This building was still shown on the 2008 OS map, despite having been demolished in 2006, when archaeological building recording and a watching brief were undertaken (see Section 4.3).

Plot B2

This plot does not appear to have been part of Holy's lands in 1818 and 1829, and was not shown in detail on the map. It is unclear whether any of the buildings shown in 1853 were in existence in 1829. In 1818 the plot to the south (B3) was leased by Richard Riley, and in 1839 the Riley Brothers, merchants and manufacturers of knives, were listed at 69 Eyre Lane and at Eyre Place, which may have been off Clay Lane. 'Eyre Place' was also occupied by Thomas Fisher, joiner and builder, in 1839. Nos.65-71 Eyre Street were houses, whilst the Clay Lane part of the plot appears to have comprised a yard and workshops related to no.65 Eyre Street, with the same firms often listed at both in the rare cases where Clay Lane was listed. In 1841, the occupant of 65 Eyre Lane and Eyre Place was Thomas Fisher, followed by a cooper in 1856 (listed only at 65), and George Hollingsworth, builder and joiner, from 1865 to 1888.

By 1896, James Rigby, wire worker, was the occupant of no.65 Eyre Street, and Rigby and Co, wireworkers, were at Clay Lane. The 1896 Goad plan depicted Rigby's works in the southern half of the plot. Rigby (Wireworkers) and Co were still listed at the site in 1972. Reportedly, the firm primarily manufactured wire guards for electric motors (Ken Hawley, quoted in Matrix Archaeology 2005). The only other firm mentioned in trade directories during that period was Priest and Ashmore, manufacturing opticians, at No.69 Eyre Street in 1957.

The 1853 OS map showed back-to-back housing along Eyre Street, with the houses to the rear facing onto a narrow yard ('Court 1', Clay Lane, in 1896). The yard appeared to contain a pump and possibly a privy block. To the south of the yard was a boundary wall separating it from a larger yard, with a narrow workshop building along the southern part of the plot. The layout was mainly unchanged on the 1896 plan, which depicted the back-to-backs as three storeys in height, and Rigby's wire works as two storeys.

The same layout was shown in 1935, but by 1953 the workshop appeared to have been replaced with one further to the north, with a narrow yard to the south. The former workshop had been demolished and the location incorporated into Turner's Eyre Street Works by that date. The former houses at nos.65-71 and Court 1 had been amalgamated into two buildings (65 and 69) by 1953, with 65 forming part of the wire works, and no. 69 occupied by Priest and Ashmore opticians in 1948 and 1957. A photograph of Eyre Street in 1967 showed a sign for Priest and Ashmore on no.69, and indicated that the buildings were still the modified mid-19th-century back-to-backs. By 1970, Eyre Street had become Arundel Gate, and the buildings were renumbered 165-167 and 167-171 (Figure 8). All the buildings within the plot were demolished between 1970 and 1987.

Plot B3

Two lots were depicted within this plot in 1818 and 1829. The northeast lot was leased to John Ward at both dates, whilst the southwest plot was leased to Richard Riley in 1818 and Thomas Walker in 1829. A John Ward, cow keeper, was listed in the 1822 trade directory on Eyre Lane. Trade directory listings for the properties on Eyre Lane were sporadic, the first clear reference to occupants being in 1841, when William and Samuel Butcher, steel manufacturers, occupied premises at 44 Eyre Lane, in addition to their main works on the opposite side of Eyre Lane (Butcher Wheel, site 2) and further premises at 13-17 Furnival Street. The firm reached its peak in the 1860s with around 1000 workers and a dedicated steelworks at Neepsend, and the main products were files, razors, chisels and planes (Tweeddale 1995, 160). The Butchers were still listed at the site in 1888, and the 1896 map showed the works as being occupied by Wade and Butcher, a subsidiary branch of the firm mainly involved in trade with America, including the export of Bowie knives.

In 1913, 44 Eyre Lane was occupied by two cutlery manufacturers, but by 1921, the occupants were William Turner and Co, brass founders. In 1896, the plot to the southwest of Clay Lane (75 Eyre Street) was occupied by W Turner and Co, silver refiners, presumably a related firm. The firm had clearly diversified further by 1931, when William Turner and Brother Ltd, pneumatic engineers occupied the site, with William Turner and Co, gold and silver refiners, at 73-87 Eyre Street. By 1948, it appears that various branches of the firm occupied the majority of the block between Brown Lane and Furnival Street. Within the site, the name of the firm had become William Turner (Kismet) Ltd by 1948, and the buildings were named the Eyre Street Works. According to Ken Hawley, the works was used for light engineering, manufacturing air pumps and motor accessories in the 1940s (quoted in Matrix Archaeology 2005). Between 1957 and 1963, the firm was renamed Kismet Ltd, who were still listed in 1972.

The 1853 map depicted the buildings shown on the 1818 map in the northeast half of the plot (Ward's lot). These comprised three houses at the northwest side, facing onto a yard, with a longer building, possibly a workshop, on the Eyre Lane frontage and smaller structure behind. To the southwest, the buildings shown in 1818 appeared to have been enlarged or replaced by a larger works of two buildings running parallel with Eyre Lane joined by a central structure with a cart entrance leading into a narrow yard. The 1896 map showed that the works buildings in the southwest half had been extended across the site of the older buildings to the northeast, forming a single cutlery factory with a central rectangular yard. The workshop ranges were all three storeys in height, with a small single-storey structure at the Brown Lane end of the yard, possibly privies.

The northern workshop was extended over the majority of the yard between 1905 and 1935, and the entire works was shown as a single, much larger structure by 1953, extending over part of Plot B2 and all of Plot B1. The Eyre Lane frontage was three storeys in height, with concrete floors and offices on the second storey (Plate 3), and a mixture of two- to three-storey workshop ranges to the rear (Plate 4). It appears that the site was largely rebuilt in the 1940s, possibly as a result of bomb damage during a WWII air raid (Ken Hawley, quoted in Matrix Archaeology 2005). The buildings were demolished in 2006. Archaeological recording and a watching brief were carried out prior to and during the demolition (see Section 4.3).



Plate 3: View of 1930s-40s extension to the Canada Works, Charles Street, in 1967, with the Eyre Street Works to the rear (© Copyright Sheffield City Council)



Plate 4: View along Clay Lane towards Eyre Lane, undated, showing Eyre Street Works on the left (© Copyright Sheffield City Council)

4.2 SITE VISIT

A site visit was undertaken on the 16th April 2010. The main purpose of the site visit was to identify areas where sub-surface archaeological remains may survive. Plot A, to the northeast, currently consists of a tarmac surfaced carpark (Plate 5). The carpark surface is slightly higher than the surrounding pavement across much of the site, and slopes downwards from north to south, with a steeper ramp and built-up ground at the southeast end. No archaeological features are visible within the carpark. Plot B, to the southwest, is surfaced in crushed rubble hardcore, much of it probably resulting from the demolition of the buildings in 2006 (Plate 6). It is a relatively smooth surface, sloping down from north to south, at the same level as the surrounding pavement surface. There are historic kerbs along the pavement edges on Brown Lane and Clay Lane, and stone setts are visible below the tarmac road surfaces. Former vehicular entrances are indicated on the Clay Lane side of Plot B by curving kerbs (Plate 7). The grade II* listed Butcher Works is on the opposite side of Eyre Lane to Plot B (see cover picture), and a former cutlery works (now Council Street Force depot) of early 20th-century date, is located to the southwest of Clay Lane. The buildings to the northeast and southeast of Plot A are modern.

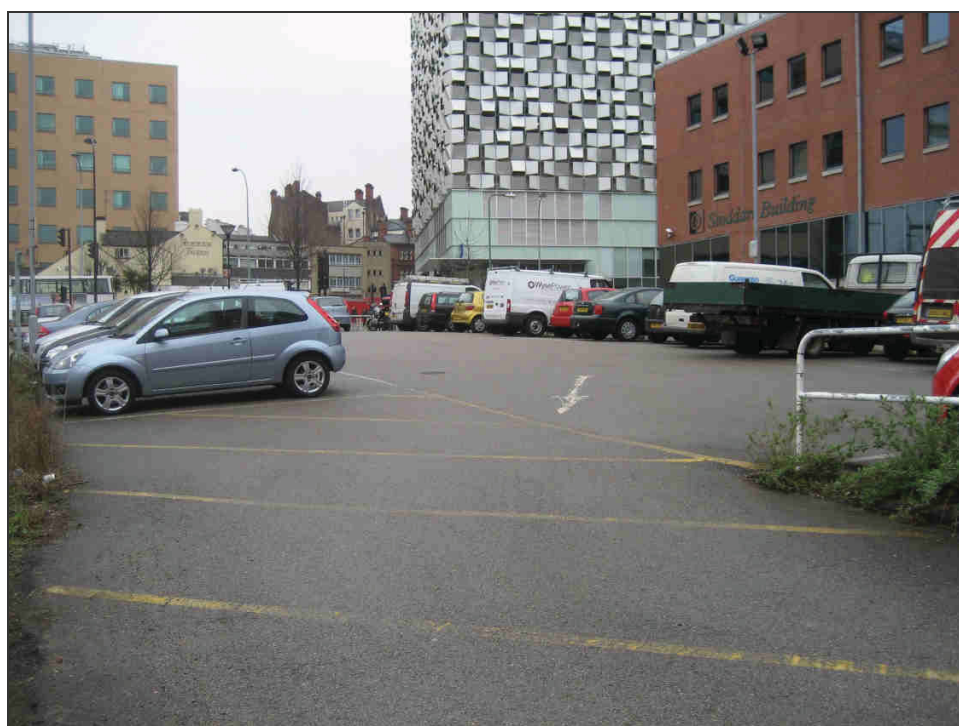


Plate 5: View northwest across Plot A from southeast corner



Plate 6: View west across Plot B, from northeast corner



Plate 7: View northwest along Clay Lane, showing stone setts and location of former vehicular entrances

4.3 ARCHAEOLOGICAL AND GEOTECHNICAL INVESTIGATIONS

Geotechnical investigations, consisting of boreholes and window samples, have been undertaken across the site by SKM Enviro (2010). Plot B was subject to archaeological recording prior to and during the demolition of the Eyre Street Works in 2006 (Matrix Archaeology 2005; 2006). The building recording (including the watching brief on demolition) established that the works was likely all of 1930s to 1940s construction, built in several phases (Matrix 2006).

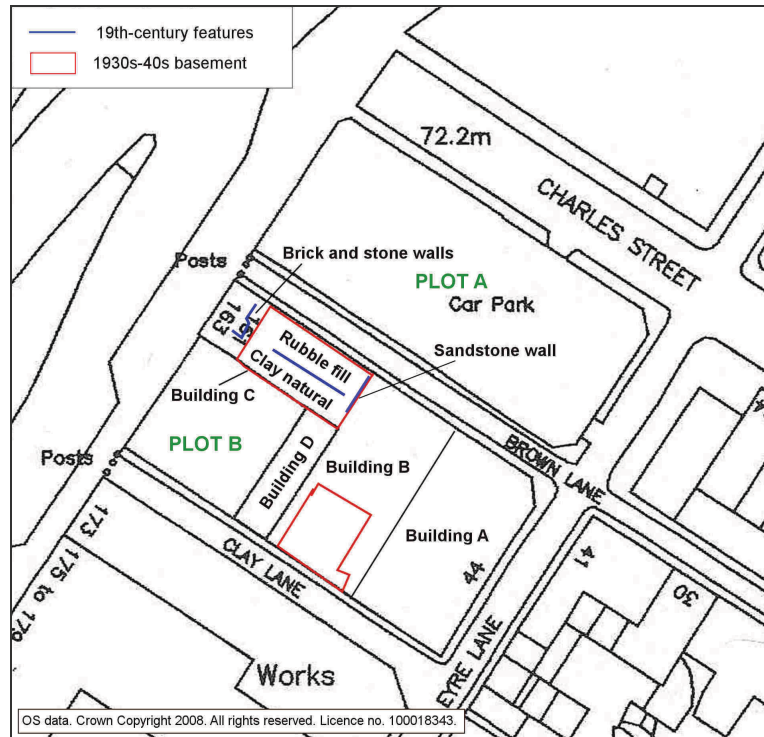


Figure 11: Plan showing location of features identified in watching brief on Plot B, 2006 (after Matrix Archaeology 2006, figure 4; not to scale)

The watching brief on the grubbing-out of the concrete slab floor and foundations of the Eyre Street Works revealed two 20th-century basements, which were also removed. One was located below the of the majority of the range covering Plot B1 (Matrix Building C), ending about 1½ structural bays southeast of the Arundel Gate frontage (see Figure 11). The basement depth was 1.4m below the adjacent ground level of Brown Lane, and was equivalent to the ground floor level of the main part of the works in Plot B3 (Buildings A and B), which were lower down the slope. Below this modern basement, a clear southeast-northwest aligned cut was identified in the southeast half, with truncated natural yellow clay identified to the south of the cut. To the north, the cut was filled with demolition debris, including 19th-century pottery, and was almost certainly related to cellars of the former houses along Brown Lane. During removal of the basement, footings of earlier walls of stone and handmade brick were exposed to the northwest of the end wall, probably related to the

back-to-back houses and shop at the corner of Eyre Street and Brown Lane (Plate 8). The exposure of truncated natural below the basement suggests that any earlier remains will have been removed, with the exception of the lower levels of the basements on the Brown Lane frontage. It was postulated that further remains of the houses along the Eyre Street frontage may survive outside the basement area.



Plate 8: Structural remains of houses at northwest side of Plot B1 (© Matrix 2006)

To the southeast of the basement and below the floor of Building B, the base of a substantial north-south sandstone wall was identified, 0.4m thick and 1.4m below the Brown Lane ground level. The wall comprised irregular sandstone slabs without any mortar bonding. A trial slot excavated against the western face indicated that it was greater than 0.6m in depth (2.0m below the level of Brown Lane), and probably represented a boundary wall pre-dating the 1940s building (Plate 9).

A second modern basement was uncovered below Building B on the Clay Lane frontage. This appeared to have been sealed, as it was not located during the building recording. The floor was of concrete and the walls were of machine-made brick. A flue of yellow/white firebrick construction was located immediately east of the cellar, and it was suggested that the basement may have been a boiler house, with the flue used to vent boiler fumes. The flue location corresponded with a chimney stack on Building B. There was no evidence for any industrial usage for the flue, and it is likely to be 1930s-40s in date.

To the west of the basement, below Building D, a build-up of at least 2.5 to 3m of made ground was noted. It was uncertain whether this represented a broad, deep cut for the basement, or whether it was infilling of a pre-existing deep cut, such as a former cellar. The full extent of this made ground was not ascertained (Matrix 2006).



Plate 9: Sandstone wall footings at the southeast end of Plot B1 (© Matrix Archaeology)



Plate 10: Section through made ground beneath Building D, viewed from the east (© Matrix Archaeology)

Geotechnical investigations undertaken in 2010 consisted of five boreholes and five window samples (SKM Enviros 2010). The majority (three boreholes and three window samples) were undertaken within Plot B. These confirmed the presence of made ground to a depth of between 3.0 to 3.7m below the ground surface (BGS). The upper levels of made ground at the northern end of the plot consisted of loose fine to coarse gravel of brick, concrete and sandstone, presumably crushed demolition rubble, to a depth of 1.8-1.9m, overlying a sandy, clay made ground deposit containing gravel of brick and other materials. In the southern corner there were three made ground deposits, the upper layer being sand containing brick cobbles and gravel of brick, sandstone and concrete, to a depth of 0.90m. This overlay a firm gravelly clay, similar to the lower deposit in the other two boreholes, to 2.50m depth, over a black clay with brick and sandstone gravel. The two lower layers contained occasional metal fragments. The results suggest greater disturbance at the northern end of the site, with less modern disturbance at the southern end. The lower layers of made ground could be archaeological in nature. At a greater depth, two of the boreholes encountered voids which could be related to old coal workings. These were recorded at 60m above Ordnance Datum (AOD), 9.30m and 11.0m BGS at the southern corner and central northeast edge respectively. The window samples in Plot B revealed made ground to depths of between 2.50m and 3.50m BGS, the greater depth being at the northern corner, which was similar in composition to that in the northern boreholes. The profiles in the other window samples were also similar, suggesting greater disturbance to the north of the Eyre Lane frontage.

In Plot A, two boreholes were carried out, one at the northern corner and one towards the southeast end. The northern borehole had made ground to a depth of 2.0m BGS, consisting of sand with brick gravel to 1.50m, underlying the tarmac and concrete surface and overlying a 0.50m thick firm sandy clay made ground deposit. This overlay natural clay, encountered at a depth of 2m BGS. The southern borehole contained a loose gravel made ground to a depth of 3.70m, the gravel including brick, ash and concrete. This overlay natural mudstone. Two window samples were also undertaken, one on the northwest side encountering structural brick in the upper 0.50m, within or containing (unclear) a sandy made ground with brick gravel inclusions. This overlay a very loose dark sand made ground deposit to a depth of 2.7m, over a thin natural clay layer. The second window sample, further south, contained a similar upper made ground deposit, over a lower thick deposit of firm light brown clay containing brick, glass and sandstone gravel, to a depth of 3.30m BGS. This overlay natural mudstone. The lower levels of the made ground within this plot could be archaeological in nature, possibly cellar fills or earlier levelling deposits. The boreholes suggest that the southeast corner has had substantial modern disturbance.

5. ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

The term 'heritage assets' covers a variety of features, including buildings, standing, buried and submerged archaeological remains, sites and landscapes, and parks and gardens, whether designated or not. Heritage assets hold meaning for society over and above functional utility. The significance of a heritage asset relates to its archaeological, architectural, artistic and historic interest. It is possible to distinguish between sites of national, regional, local or negligible archaeological significance based on period, rarity, documentation, group value, vulnerability and diversity. "Local significance" covers a wide range of sites, and has therefore been divided into further categories of Low, Medium and High Local. Low Local refers to sites of which many examples survive in the area or which are of limited relevance to the historic development of Sheffield. Medium Local and High Local indicate structures or sites of greater rarity or importance to the historic development of Sheffield. A "Low Local" significance rating does not necessarily mean that a site would not merit further archaeological investigation; the rating would, however, offer a mechanism for prioritising any further investigations that may be required.

The assessment of the potential for preservation of archaeological remains is based on known archaeological sites in the vicinity, the nature of the current and historic land-use, and available information on the nature and condition of sub-surface deposits (previous archaeological investigation and geotechnical boreholes). A low potential reflects a below-average likelihood of the preservation of remains based on known parameters; moderate represents an average potential, and high would reflect an above-average likelihood of survival. Archaeological investigations in the immediate vicinity of the proposed development site (e.g. sites 2, 4, 5, 9 and 14), have indicated that there is a high potential for survival of 18th- to 19th-century buried archaeology in areas where there has been minimal 20th-century re-development.

5.1 PLOT A

The extent of preservation of below-ground deposits in this plot is currently uncertain. Geotechnical investigations encountered one buried brick structure in Plot A, and suggested that there is a greater potential for the preservation of 19th-century archaeological remains within this plot, in comparison with Plot B. There was a lack of substantial 20th-century development across the majority of the plot, apart from the 1930s-40s extension to the Canada Works at the southern end, where greater levels of modern made ground were encountered. The data suggests that there is a high potential for the survival of sub-surface remains across the majority of Plot A.

Remains associated with the Canada Works within Plot A3, a brass foundry possibly from the 1820s to the 1880s, then a saw manufactory until the 1940s, could incorporate a crucible furnace, and would be of High to Medium Local significance depending on the extent of survival of remains. In Plot A2, remains associated with the former whitesmith's works, later a cabinet case manufactory, could also include a crucible furnace and would be of High to Medium Local significance. The High Local significance relates to a relative lack of archaeological investigation of the brass and whitesmithing industries in Sheffield. Remains associated with the mark makers' works, later a cutlery works, in Plot A1, and the early to mid-19th-century housing and shops within Plots A1 and A2 would be of Low to Medium Local archaeological significance.

5.2 PLOT B

It appears from the Matrix Archaeology watching brief report (2006) that the grubbing-out of the footings or basements of the 1930s buildings is likely to have damaged or removed the underlying earlier walls and fill deposits noted during the groundworks. More recent geotechnical data suggested that there were greater levels of made ground towards the northern end of the site, with a greater potential for archaeological deposits surviving at the southern corner. It is possible that remains may survive in areas where there were no 20th-century basements and foundations. Within Plot B1 and B2, remains associated with the housing and shops along Eyre Street would be of Medium to Low Local archaeological significance, depending on the extent of truncation. Remains associated with the wire works in Plot B2 would be of Medium Local archaeological significance. In Plot B3, remains associated with the former Butcher cutlery works on Eyre Lane and Brown Lane could be of Medium Local archaeological significance, depending on the extent of truncation.

Summary of potential archaeology:

Nature of Archaeology	Significance	Potential for preservation	Location
Shop and houses on Arundel Gate and Brown Lane frontages	Medium Local	High	Plots A1 and A2
Electro-plate, mark makers' and cutlery works at 57-59 Eyre Street	Medium Local	High	Plot A1
Houses and shop on Eyre Lane frontage	Medium Local	Moderate	Plot A3
Charles Street Works (whitesmiths – possible crucible furnace), later cabinet manufacturers	High Local	High	Plot A2
Canada Works (brass foundry, saw manufacturers), Charles Street	High Local	High	Plot A3
Back-to-back houses (later shops) on Arundel Gate frontage	Medium to Low Local	Low	Plots B1 and B2

Nature of Archaeology	Significance	Potential for preservation	Location
Wire works along Clay Lane frontage	Medium Local	Low	Plot B2
Cutlery works (Butchers') on Eyre Lane	Medium Local	Low to Moderate	Plot B3

5.3 IMPACT OF DEVELOPMENT PROPOSALS

The proposed development consists of a seven-storey building covering both plots and the route of Brown Lane. No substantial cellarage is envisioned, but the height of the building and the nature of the current ground conditions suggest that ground consolidation and/or the construction of piled foundations would be necessary. These activities would damage or destroy any sub-surface archaeological remains within the building's footprint.

6 CONCLUSIONS

The desk-based assessment has indicated that there is a low to high potential for buried archaeological remains of 19th-century housing, shops and industrial works across the proposed development site. There is a greater potential for well-preserved remains within Plot A, due to a relative lack of 20th-century redevelopment. The construction and demolition of 1930s-40s works buildings within Plot B has impacted on buried remains in this area; however, the extent of disturbance across the plot is unclear. Archaeological evaluation and/or mitigation is likely to be required by South Yorkshire Archaeology Service (SYAS) in areas where disturbance of sub-surface deposits is required.

7. ACKNOWLEDGEMENTS

The author would like to thank Mark Fletcher of Matrix Archaeology for permission to reproduce photographs, Louisa Matthews of South Yorkshire Archaeology Service and the staff of Sheffield Archives and Sheffield Local Studies Library.

Research and author	Rowan May
Illustrations	Rowan May
Editor	Anna Badcock

8. BIBLIOGRAPHY

- Baker, K., Baker, S. and Symonds, J. (Forthcoming). Archaeological Investigations at the Upper Chapel, Norfolk Street, Sheffield, UK. *Internet Archaeology*.
- Beauchamp, V. 1996. *The Workshops of the Cutlery Industry in Hallamshire, 1750-1900*. Unpublished University of Sheffield PhD thesis.
- Century's Progress. 1893. *Progress in Commerce*. London Printing and Engraving Co.
- Harrison, J. 1637. *An Exact and Perfect Survey of the Manor of Sheffield*. Transcribed and Published by J.G. Ronksley, 1908.
- Hey, D. 2005. *A History of Sheffield*. Carnegie: Lancaster.
- IfA. 2008. *Standard and Guidance for Archaeological Desk-Based Assessment*. Institute for Archaeologists.
- Matrix Archaeology. 2005. *44 Eyre Lane and 161/163 Arundel Gate, Sheffield City Centre. Archaeological Assessment and Building Appraisal*. Unpublished Matrix Archaeology report.
- Matrix Archaeology. 2006. *44 Eyre Lane and 161/163 Arundel Gate, Sheffield City Centre. Archaeological Watching Brief*. Unpublished Matrix Archaeology report.
- SKM Enviros. 2010. *Sheffield Hallam University, Charles Street Campus. Phase II Geo-Environmental Investigation*. Unpublished draft report.
- Smith, A.H. 1961. *Place-Names of the West Riding of Yorkshire. Part 1*. EPNS volume 30. Cambridge University Press.
- Tweedale, G. 1995. *Steel City: Entrepreneurship, Strategy and Technology in Sheffield*. Clarendon Press: Oxford.

Trade Directories

- Blackwell's Sheffield Directory and Guide 1828
- Gell's Sheffield Directory 1822, 1825
- Kelly's Directory of Sheffield 1865, 1881, 1888, 1931, 1948, 1957, 1963, 1972
- Robson's Directory of Sheffield 1839, 1841
- White's Directory of Sheffield 1833, 1856, 1862, 1865, 1876, 1879, 1895-6, 1905, 1913, 1921

Historic maps

- 1736 Ralph Gosling's map of Sheffield
- 1771 Fairbank's map of Sheffield
- 1793 Fairbank plan of land in Alsop Fields laid out for building. (FC SheS 745 L)
- 1818 Fairbank plan of building lots between Eyre St and Arundel St. (FC SheS 382 S)
- 1819 Fairbank plan of ground at Charles St. (FC SheS 261 S)
- 1829 Fairbank plan of land measured for Thomas Holy. (FC SheS 52 L)
- 1853 OS 60 inch: 1 mile map sheet Sheffield 25
- 1896 Goad fire insurance plan sheet Sheffield 22
- 1905 OS 25 inch: 1 mile map sheets Sheffield 294.8 and 294.12
- 1923 OS 25 inch: 1 mile map sheets Sheffield 294.8 and 294.12

1935 OS 25 inch: 1 mile map sheets Sheffield 294.8 and 294.12

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

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

1995 OS 1:1250 map sheet SK 3586 NW 1996 OS 1:1250 map sheet SK 3586 NW

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

2007 OS 1:1250 map sheet SK 3586 NW 2008 OS 1:1250 map sheet SK 3586 NW

APPENDIX 1 – GAZETTEER OF KNOWN ARCHAEOLOGICAL SITES

Location of sites shown on Figure 2.

Site no	Description	NGR	Identifier
1	Archaeological building recording and watching brief, 44 Eyre Lane and 161-163 Arundel Gate. Works building, L-shaped in plan, three storeys in height occupied the site. The building was part of Eyre Works of William Turner (Kismet) Ltd, pneumatic engineers. The buildings appeared to have been largely rebuilt in the 1940s following air raid damage. Previously occupied by a wire works, a builders' yard, and some back-to-back housing. A watching brief was undertaken on the grubbing-out of foundations and cellars. Features revealed included a sealed, 20 th -century cellar with a flue, probably from a boiler house, an area of made ground of unknown derivation, and walls of earlier structures towards the northern end of the site, probably related to former houses on Brown Lane. A stone boundary wall was also found, which appeared to predate the works.	SK 3544 8690	Matrix Archaeology 2006
2	Butcher Works, 72 Arundel Street. Grade II* listed complex, consisting of four main ranges of buildings, each extending to three or four storeys, surrounding an enclosed yard with a central toilet block and tall brick chimney. The works originated as a cutlery, edge-tool and file making works of William and Samuel Butcher, and the complex developed from initial works occupying two plots on Eyre Lane in the early 19 th century, ultimately occupying six plots from the 1870s. A separate building on the opposite side of Eyre Lane (in Plot B) was also owned by the works. The buildings of the main complex were recorded in 2006-2007, including <i>in situ</i> grinding troughs on the upper storeys, and archaeological watching brief was maintained on groundworks during refurbishment of the complex.	SK 3547 8686	NBR 94655
3	Sterling Works, 74-76 Arundel Street. Works occupied in the 19 th century by Lockwood Brothers, cutlery and edge tool manufacturers, who returned to a works in Spital Hill late in the century. CW Fletcher, silver forgers, came to the site after WWI, and were still occupants in 1995. At the latter date the firm had two separate branches, traditional silver makers, and precision engineers. Buildings recorded in 2005 prior to refurbishment.	SK 3545 8683	SMR 4574, ESY 657
4	118-138 Charles Street. Archaeological mitigation, including building recording of the remains of the former Canada Works and excavation of sub-surface remains including housing and workshops.	SK 3550 8689	ESY 660 ARCUS 846, 957
5	Former Graham's site. Archaeological evaluation revealed cellars associated with domestic structures along Furnival Street and a three-hole crucible furnace on Arundel Street, possibly used for brass rather than steel.	SK 3551 8680	ESY 658 ARCUS 980
6	Sellers Wheel, 151 Arundel Street.	SK 3552 8684	NBR 98281
7	Lion Works, 92-92a Arundel Street. Grade II listed works.	SK 3543 8676	NBR 98303
8	Challenge Works, 94 Arundel Street. Grade II listed edge tool works, incorporating the former owner's house, built in 1804 prior to the works. The original workshops were constructed in the 1820s, but were demolished in the 1880s and replaced by new buildings on the same footprint. The house was gradually enveloped by the works. A crucible furnace was located on the site.	SK 3541 8675	NBR 98220 ARCUS 979
9	Archaeological excavation at Furnival Square, prior to hotel construction. Remains of the Trinity Cutlery Works were recorded, including the power plant, chimney base and a flue complex, and a machine pit. The majority of the works had been removed or severely truncated by later construction work on the site.	SK 3537 8678	ESY 663 ARS
10	Pearl Works, 17-19 Eyre Lane. Formerly pearl scale cutting and razor cutlers' works.	SK 3553 8698	NBR 98266

Site no	Description	NGR	Identifier
11	Venture Works, 103-105 Arundel Street. Grade II listed cutlery, haft and scale works.	SK 3558 8696	NBR 98296
12	113 Arundel Street. Grade II listed edge tool factory.	SK 3557 8694	NBR 98206
13	Archaeological evaluation, Furnival Street/Sidney Street. Remains of a cellar associated with the Howard Street Chapel Sunday School, and adjacent remains of stone-built workshops, some furnace slag reused in the construction. A dump of broken crucible pots, slag and other steel-making waste was found adjacent to the cellar. Some 18 th -century pottery found, probably redeposited.	SK 3551 8681	ESY 658 ARCUS 912
14	Heart of the City – archaeological watching brief, Union Street. Remains mainly consisted of cellars and foundations associated with 19 th - to 20 th -century structures, with some possibly earlier walls. A deposit containing 18 th -century ceramics and lots of worked bone was encountered in a pile hole, possibly from a pit. Masonry and glass was found from a public house destroyed in WWII bombing, and sixteen unusual, highly decorated beer pump handles were found in a dumping layer, probably late 19 th century in date and of unknown provenance.	SK 353 869	ARCUS
15	Archaeological mitigation, Eyre Street Fire Station. A watching brief on test pits indicated that substantial sub-surface remains of the 19 th -century buildings survived across the site, where ground levels had been raised prior to 20 th -century redevelopment. A watching brief was maintained on development groundworks.	SK 3522 8657	ESY 622, ARCUS 982, 1012
16	Archaeological excavation, the Moor. The earliest remains consisted of two parallel ditches, pre-dating the 18 th -century development of the area. These may have related to field boundaries. The 18 th - to 20 th -century development included domestic dwellings, a public house, and a mid-20 th -century works.	SK 3514 8665 SK 3519 8665	ESY 665 OAN
17	Site of the Sylvester Wheel, which was not recorded specifically until 1650. It had three troughs and one ease trough in 1725 and 1745. The dam was expanded in 1748 and a second one created after 1769, with 20 troughs recorded in 1794. Sold in 1827 to Ellin and Ingall, table knife manufacturers. The extant buildings consist of a late 1830s-40s workshop ranges and a later front range. The site of the wheel was excavated in 2006, revealing remains of the workshop, wheelpit and part of the dam.	SK 3525 8650	SMR 1619 ESY 666
18	Sylvester Gardens. Archaeological building recording of the remains of Wards Wheel works. Archaeological evaluation is pending prior to redevelopment.	SK 3537 8651	ESY 670 ARCUS 1264
19	Archaeological watching brief on Shoreham Street, BBC broadcast centre. Remains consisted of truncated cellarage of 19 th -century buildings.	SK 3560 8670	ESY 669 ASWYAS
20	Truro Works, Matilda Street. Grade II listed industrial workshops of 1830s and 1850s, with later additions and alterations, including the construction of a crucible furnace for melting non-ferrous metals.	SK 3562 8654	SMR 3503
21	Archaeological evaluation on Shoreham Street, prior to construction of flats. Remains of 19 th -century buildings found, including housing and a public house.	SK 355 865	ESY 667 ARCUS 897
22	Site of the Cinderhill Wheel/New Pond Mill. Tenancies of the wheel can be traced from 1581, recorded as the 'sinderheap wheel in the pastures' in 1588 and 'Cinderhill Wheel' in 1670. It became a corn mill in 1753, known as Pond Mill in 1774. Demolished in 1866 and dam filled in.	SK 3546 8644	SMR 1620
23	Site of the Marriott Wheel, a cutlers' wheel built in 1732-3, probably on the site of a pre-existing wheel. A lead mill was erected on the site, operated in the mid-19th century by Rawson, Barker and Co. The site was excavated in 2001-2 prior to development of the former bus depot.	SK 3566 8673	SMR 1739

Site no	Description	NGR	Identifier
24	Archaeological evaluation and mitigation at the site of the Suffolk Works of Thomas Turner and Co.	SK 3577 8679	ARCUS 836
25	Site of the Pond Tilt. A new tilt had been built by 1793, with the old tilt converted to a saw mill. Bamforth Dam was constructed next to the tilt in 1780 as a reserve supply. Site evaluated in 2004 prior to redevelopment of the Midland Station concourse, and one wall found.	SK 3579 8685	SMR 1740 ESY 675
26	Archaeological excavations on land off Harmer Lane and Sheaf Street, undertaken in association with D-Campus. Remains included the Central Hammer Works and 19 th -century housing.	SK 3585 8720	ESY 642 ASWYAS
27	The Old Queen's Head, Pond Hill, formerly known as the Hall in the Ponds. Grade II* listed 15 th -century timber-framed house, with later additions and restorations. It was first mentioned in 1582 and is the oldest domestic building in Sheffield, possibly initially a hunting lodge. 52 sherds of post-medieval pottery found in a trench alongside the western wall. Mainly coarse ware type with six sherds of table ware. Sandstone and river cobble wall, running north-south, surviving as a buried feature adjacent to the Old Queen's Head pub. Probably post-medieval.	SK 3578 8727 SK 3579 8725	SMR 789 SMR 4188
28	Spa bath, the water of which was reputed to have healing properties. Located just below the road surface of Pond Hill. Described in the 1930s as a 'large stone-built bath'.	SK 3572 8730	SMR 3698
29	Archaeological mitigation at Fargate and Norfolk Row uncovered the base of a well containing medieval pottery. Burials of 18 th - to 19 th -century date were recorded adjacent to the Norfolk Street Methodist chapel, and fragments of a buried soil layer were found, containing medieval (12 th - to 15 th -century) ceramics, some of which appeared to be made in Sheffield.	SK 3541 8727	ARCUS 743
30	Wooden water pipes forming a conduit, found in 1944 on the northwest side of Fargate during laying of a new water main. Pipes made from the trunks of oak trees, 9-10" in diameter with a bore of 4". Wooden pipes were used in Sheffield from 1700 to 1830.	SK 3540 8730	SMR 3779
31	Cutlers' Hall. Grade II* listed building, probably by Worth and Taylor 1832. The building replaced an earlier cutlers' hall which stood on the site.	SK 3537 8737	SMR 2217
32	Town Hall. Grade I listed building by E.W. Mountford. Built 1890-97 and extended 1923.	SK 3536 8719	SMR 3986
33	Site of St Paul's Church opened in 1740, with a domed feature added in 1769. Demolished in 1936 for proposed extensions to the Town Hall. Archaeological mitigation prior to the renovations of the Peace Gardens found several burials associated with the former churchyard.	SK 353 874	SMR 2217
34	Site of Barker's Pool Waterworks, 17 th century.	SK 3525 8718	SMR 2761
35	Leah's Yard. Grade II* listed electroplate and silversmith's works.	SK 352 872	NBR 95122
36	City Hall, constructed 1920-1934 by E Vincent Harris, with alterations in 1984. Classical Revival Style.	SK 3519 8724	SMR 3987
37	Site of a stone cistern fed by the Portobello drain. Post-medieval.	SK 3520 8712	SMR 2760
38	Well and wooden pipework found dating from the period 1700-1830s.	SK 3510 8713	SMR 2762
39	Kendal Works. Early 19 th -century cutlery works around a courtyard. Nowill and Son edge tool makers until 1990s. Now being restored.	SK 3525 8720	SMR 4389 NBR 98247
40	Alpha Works, constructed 1900. Originally steam-powered, later electric. Formerly Harrison Brothers and Howson, cutlers.	SK 3520 8720	SMR 4385
41	'Late' Roman coin hoard, not accurately located. Currently held by Sheffield City Museum.	SK 35 87	SMR 2756

APPENDIX 2 TRADE DIRECTORY INFORMATION

Plot A1:

Date:	53-55 Eyre St (153-155 Arundel Gate)	57 Eyre Street (157 Arundel Gate)	59 Eyre Street (159 Arundel Gate)
1839	Henry Cooper, chemist and druggist (53)		J Jaker, fluter, chaser and embosser
1841		William Gilbert, razor manufacturer	William Goodlad, brewer
1856	A. Atley, shopkeeper (55)	Michael Parker, clerk	J Sanders, piercer
1862-1865	George Bingham, shopkeeper (55)	Michael Parker, surgeon	Edwin Blyde, fine scissors manufacturer
1876	Branch Post Office Henry Clark, grocer	George Davenport, electro-plater and britannia metal manufacturer	George Davenport, electro-plater and britannia metal manufacturer
1881	Henry Clarke, confectioner	George Davenport, electro-plater and britannia metal manufacturer	George Davenport, electro-plater and britannia metal manufacturer
1888	Albert Faulkner, confectioner	William Godley, mark maker	William Godley, mark maker
1895-1896	Miss Annie Faulkner, confectioner	William Godley, mark maker	William Godley, mark maker
1905	George House, confectioner	William Godley, mark maker	William Godley, mark maker
1913	James Woodhouse, confectioner	William Godley, mark maker	William Godley, mark maker
1921	James Woodhouse, confectioner	William Godley, mark maker	William Godley, mark maker
1931	Mrs Beatrice Woodhouse, confectioner	William Godley, mark maker	William Godley, mark maker
1948	Mrs Margery Jackson, shopkeeper	Gregory and Co Cutlers (Sheffield) Ltd, table knife manufacturers	Gregory and Co Cutlers (Sheffield) Ltd, table knife manufacturers
1957	F Bownes, confectioner	Gregory and Co Cutlers (Sheffield) Ltd, table knife manufacturers	Gregory and Co Cutlers (Sheffield) Ltd, table knife manufacturers
1963	F Bownes, confectioner	Central Buffing Co, cutlery manufacturers	Central Buffing Co, cutlery manufacturers
1972	F and M Steel, groceries	Central Buffing Co, cutlery manufacturers	Central Buffing Co, cutlery manufacturers

Plot A2:

Date:	18 Charles Street (100)	20-22 Charles Street (100?)	22 (100a-102) Charles Street	17-19 Brown Lane
1839		A Bramall, whitesmith and locksmith		
1841		Adam Bramall, whitesmith, locksmith and bell-hangers, manufacturer of screw stocks, teu-irons etc	James Gilbert, book and print establishment	Harriet Bromley, gent (house, 17) William Smith, joiner (house, 19)
1856		W. Radford, smith		
1862-1865		William Radford, whitesmith etc		
1876	Thomas Lievesley, cut nail manufacturer	Walter George Memmott, nickel silver etc manufacturer	William Memmott, saw manufacturer (1879)	
1881	Thomas Lievesley, cut nail manufacturer	Walter George Memmott, electroplate manufacturer		
1888	George Thomas Spurr, cabinet case manufacturer	Ernest Henry Hill, syringe maker		
1895-1896	George Thomas Spurr, cabinet case manufacturer			
1905-1931	George Thomas Spurr, cabinet case manufacturer		George Ellis, manufacturer of fish eaters, carvers etc	
1948-1963	G. T. Spurr Ltd, cabinet manufacturers			
1972				

Plot A3:

Date:	24-26 Charles St (108)	28 Charles St (114)	30 Charles St (116)	30 Eyre Lane	36 Eyre Lane	38 Eyre Lane
1822-1828	?John Elliott, ivory brass and woodturner?			?Samuel White, porter	Josiah Ellis, saw maker	
1839	George and William Elliott, mfs of all kinds of brass taps		Edwin Priest, spectacle maker (house)			George Kay, boot and shoemaker
1841	John Lambert, brass founder		Edwin Priest, optician (house)	Thomas Swift, grocer		Charles Kay, boot and shoemaker
1856	John Lambert, brass founder		Edwin Priest, spectacle maker (house)			
1862	John Lambert, brass founder		Ezra Sanderson, shopkeeper			
1876	John Hicks, brass founder	Samuel Sales, meter inspector	Mrs Mary Swinburn, confectioner			Mrs Martha Leavesley, shopkeeper
1881	John Hicks, brass founder		Miss Sarah Swinburn, shopkeeper			Mrs Martha Leavesley, newsagent
1888	Russell, Horsfield and White, saw manufacturers (Canada Works)		Miss Sarah Swinburn, shopkeeper			
1895-6	Russell, Horsfield and White, saw manufacturers		Mrs Ann Axe, shopkeeper			
1905	Russell, Horsfield and White, saw manufacturers		John Wilkins, shopkeeper			
1913	Russell, Horsfield and White, saw manufacturers		George Henry Reville, shopkeeper			
1921	Russell, Horsfield and White, saw manufacturers					

Date:	24-26 Charles St (108)	28 Charles St (114)	30 Charles St (116)	30 Eyre Lane	36 Eyre Lane	38 Eyre Lane
1931	Russell, Horsfield and White, saw manufacturers	John Ackroyd, sheet metal worker	Mrs Ada Roome, confectioner			
1948-1972	Hallamshire Electric Co Ltd, wholesale electrical accessories (Canada Works)	Hallamshire Electric Co Ltd, wholesale electrical accessories (Canada Works)	Hallamshire Electric Co Ltd, wholesale electrical accessories (Canada Works)	Hallamshire Electric Co Ltd, wholesale electrical accessories (Canada Works)	Hallamshire Electric Co Ltd, wholesale electrical accessories (Canada Works)	Hallamshire Electric Co Ltd, wholesale electrical accessories (Canada Works)

(Entries in italics denote unclear locations)

Plot B1:

Date:	61 Eyre St (161 Arundel Gate)	63 Eyre St (163 Arundel Gate)	14 Brown Lane
1822-1828	<i>Joseph Skinner, bricklayer and builder</i>		
1839			
1841			Edwin, Ludlam, clerk
1856	John Grubb, surgeon's instrument manufacturer		
1865	Mrs Eliza Eason, dressmaker		
1876		Mrs Eliza Eason, dressmaker	
1881		Mrs Eliza Eason, dressmaker	
1895-6	James Brown (scale maker)	James Fretwell, shopkeeper	
1905		James Fretwell, shopkeeper	
1913		Mrs Ada Fretwell, shopkeeper	
1921		Mrs Ada Fretwell, shopkeeper	
1931		Mrs Ada Fretwell, confectioner	
1948-1972			

(Entries in italics denote unclear locations)

Plot B2:

Date:	65 Eyre St (165 Arundel Gate)	67 Eyre St (167 Arundel Gate)	69 Eyre St (169 Arundel Gate)	71 Eyre St (171 Arundel Gate)	Clay Lane
1839		J Stephenson, milliner and dressmaker	Riley Brothers, merchants and manufacturers of knives		<i>Riley Brothers, merchants and manufacturers of table knives (Eyre Place)</i> <i>Thomas Fisher, joiner and builder</i>
1841	Nicholas Swift, teacher of singing Eliza Cusins, dressmaker Thomas Fisher, joiner and builder (yard)	Henry Booth, cabinet case manufacturer	John Wood, cutler		Thomas Fisher, joiner and builder
1856	W Morfitt, cooper	J White, book agent	W Johnson	W Crowder, sawyer	
1862	Edwin White, hatter	E and S Wilding, milliners	William Johnson, plumber		
1865	George Hollingsworth, joiner and builder	Mrs Elizabeth Revitt, dressmaker			George Hollingsworth, joiner and builder
1876-1888	George Hollingsworth, joiner and builder				George Hollingsworth, joiner and builder
1895-6	James Rigby, wire worker				Rigby and Co, wire workers
1905	Rigby and Co, wire workers				Rigby and Co, wire workers
1913	Francis Rigby, wire worker				Rigby, wire worker
1931-1948	W.F. Rigby and Co, wire workers				W.F. Rigby and Co, wire workers
1957	Rigby (WF) and Co, wire workers	Rigby (WF) and Co, wire workers	Priest and Ashmore, manufacturing opticians		Rigby (WF) and Co, wire workers
1972	Rigby (Wireworkers) and Co, wire workers	Rigby (Wireworkers) and Co, wire workers	Rigby (Wireworkers) and Co, wire workers	Rigby (Wireworkers) and Co, wire workers	Rigby (Wireworkers) and Co, wire workers

(Entries in italics denote unclear locations)

Plot B3:

Date:	44 Eyre Lane
1822	<i>John Ward, cowkeeper</i>
1839	
1841	W and S Butcher, merchants, steel refiners, file and edge tool manufacturers (also 41 Eyre Lane and 13-17 Furnival Street)
1856-1876	
1888	W. and S Butcher, steel manufacturers (41 and 44 Eyre Lane, 13 Furnival St)
1895-1905	
1913	Alfred Williams, cutlery manufacturer George Gill and Sons, penknife manufacturers
1921	William Turner and Co, brassfounders
1931	William Turner and Brother Ltd, pneumatic engineers
1948	William Turner (Kismet) Ltd, pneumatic engineers (Eyre Works)
1957	William Turner (Kismet) Ltd, pneumatic engineers (Eyre Works)
1963	Kismet Ltd, pneumatic engineers (Eyre Works)
1972	Kismet Ltd, pneumatic engineers (Eyre Works)

(Entries in italics denote unclear locations)