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MANCHESTER

Archaeological Desk-based Assessment

Mayfield,
Manchester

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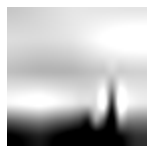
Mayfield Development
Partnership Limited

Technical Report:

Ashley Brogan

Report No:

SA/2019/36



Site Location: The Site is located in Manchester City Centre and is bound by the former Mayfield Railway Station to the north, Baring Street to the west, the Mancunian Way to the south and south-east and Temperance Street to the northeast.

NGR: Centred at NGR 38520, 39753

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Summary

Mayfield Development Partnership Limited is devising proposals for the redevelopment of an area of land situated to the south of Piccadilly Railway Station in the centre of Manchester. The proposals are for the redevelopment of the former industrial site, which lies within the Mayfield Strategic Regeneration Framework (SRF) area, to provide commercial and residential buildings, a multi-storey car park, and the creation of an urban park.

In order to facilitate the planning process, Deloitte Real Estate, on behalf of Mayfield Development Partnership Limited, commissioned Salford Archaeology to carry out a desk-based assessment of The Mayfield Area development site, which was intended to establish, as far as possible, the nature and significance of the sub-surface archaeological resource within the site, and to establish the impact of any future development on this resource.

Research has revealed that the site lay outside the medieval core of Manchester. Little evidence of prehistoric, Roman or Medieval occupation has been identified and it is likely that the site remained undeveloped until the late 18th century, when the area experienced the first phase of the rapid industrial development and associated expansion of population which continued into the 19th century. A diverse range of industrial businesses were based on the site, attracted by the location on the edge of Manchester as well as easy access to the River Medlock. One of the earliest, and certainly most famous of these businesses was the Mayfield Printworks, which grew from humble beginnings in 1782 to become the largest textile finishing business in the country during the 19th century. The changing fortunes of the industry meant however that by 1897 the company had gone into voluntary liquidation.

None of the sub-surface archaeological assets within the study area of the proposed development are afforded statutory designation that would necessarily warrant their preservation *in-situ*. However, the assessment has identified areas of potential buried archaeological interest across the site. These potential remains include the former Mayfield Print Works as well as a diverse range of remains dating from the 18th and 19th centuries, including the former Chapelfield dye works, the Ardwick dye works, the Ardwick tannery, the Britannia Brewery and the Mayfield Ice Factory. Remains of the dense network of 19th-century worker's housing that occupied other parts of the site are also likely to survive, as well as the remains of a number of public buildings such as Mayfield Baths and the Corporation Inn public house.

The requirement for any further archaeological investigation in advance of, or during, development works will be decided by the Greater Manchester Archaeological Advisory Service, in their capacity as archaeological advisor to Manchester City Council. In the first instance, however, it may be anticipated that the presence or absence of the potential remains identified by this assessment will require verification through a programme of archaeological trial trenching prior to development and, pending the extent and significance of any surviving remains, further archaeological excavation may be required to mitigate the loss of buried remains during the proposed construction programme.

It is also anticipated that an archaeological survey of the historic retaining walls on the River Medlock within the site will be required prior to any enabling works or construction works taking place.

1. Introduction

1.1 Planning Background

In February 2019, Salford Archaeology was commissioned by Deloitte Real Estate on behalf of Mayfield Development Partnership Limited to undertake an archaeological desk-based assessment to support a planning application for the development of The Mayfield Area within the Mayfield Strategic Regeneration Framework area (centred on NGR 38520, 39753; referred to herein as the Site). The desk-based study was coupled with a site inspection and aimed to identify as far as possible the nature, extent and significance of the archaeological resource within the Site in order to enable informed recommendations to be made for the future treatment of any surviving remains.

1.2 Government and Local Planning Policies

1.2.1 National Planning Policy Framework (NPPF)

The significance of the archaeological resource identified within this report has been assessed as recommended in the revised *National Planning Policy Framework* (Ministry of Housing, Communities and Local Government, February 2019).

The NPPF sets out the Government's planning policies and outlines the presumption in favour of sustainable development, which is defined by three principles: economic, social and environmental. Of the core planning principles underpinning decision making, conserving heritage assets 'in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations' is one.

Section 16 specifically deals with this historic environment (paragraphs 184-202), and local planning authorities should consider:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
- the desirability of new development making a positive contribution to local character and distinctiveness; and
- opportunities to draw on the contribution made by the historic environment to the character of a place.

Paragraph 189 states that local planning authorities, when determining applications, should require the applicant to describe the significance of any affected heritage assets, including any contribution made by their setting. 'The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation'.

Paragraph 197 states that the effect of a proposal on non-designated heritage assets (designated assets are covered in paragraphs 193-96) should be taken into account in determining a planning application. Paragraph 199 states that local planning authorities should require developers to record and advance understanding of any heritage assets to be lost, in a manner appropriate to their importance and impact, and to make this evidence publicly accessible.

1.2.2 Local Development Framework

The NPPF outlines the need for local planning policies to create plans and frameworks to implement the NPPF at a local level. Manchester adopted a Core Strategy in 2012, which is scheduled until 2027. The heritage strategy is outlined in Objective 6: Environment and summarises the approach the local authority will take in determining planning applications which may affect the historic environment.

Policy EN3 states:

'Throughout the City, the Council will encourage development that complements and takes advantage of the distinct historic and heritage features of its districts and neighbourhoods, including those of the City Centre.

New developments must be designed so as to support the Council in preserving or, where possible, enhancing the historic environment, the character, setting and accessibility of areas and buildings of acknowledged importance, including scheduled ancient monuments, listed buildings, registered parks and gardens, conservation areas and archaeological remains.

Proposals which enable the re-use of heritage assets will be encourage where they are considered consistent with the significance of the heritage asset.'

Manchester City Council is advised on archaeological matters by the Greater Manchester Archaeological Advisory Service (GMAAS).

2. Method Statement

The assessment considers the potential impact of the proposed development upon any buried archaeological remains or heritage assets within the Site, and comprises a desk-based study and site inspection. The production of the assessment follows the Chartered Institute for Archaeologists (CIfA) standard and guidance for undertaking archaeological desk-based assessments (*Standard and Guidance for Historic Environment Desk-based Assessment*, revised 2017).

2.1 Research Sources

The desk-based assessment made use of the following sources:

- Published and unpublished cartographic, documentary and photographic sources;
- The Greater Manchester Historic Environment Record, maintained by the Greater Manchester Archaeological Advisory Service;
- Manchester Local Archives and the Greater Manchester Record Office in Manchester Central Library;
- The National Heritage List for England;
- Salford Archaeology's extensive library of archaeological work carried out in the vicinity of the Site.

The aim of the research was to provide the relevant historical and archaeological background relating to the development of the Site. The available sequence of historical mapping was the principal source of information, as this provides evidence for the development of the Site since the late 18th century.

2.2 Site Inspection

The aim of the site inspection was to relate the findings of the desk-based study to the existing land use of the Site in order to identify any evidence for surviving below-ground archaeological remains. This was undertaken in a single day on 23rd January 2019.

2.3 The Document

The following presents the historical and archaeological evidence for the study area. A gazetteer (Chapter 5) is presented of heritage assets and sites of potential archaeological interest identified within the Site and this information, along with map regression (*Appendix 2*), is used to assess the significance of the remains (Chapter 7) and impact of the development (Chapter 8). A strategy for further investigation is outlined in Chapter 9, based on the assessment presented in the previous chapters.

3. The Setting

3.1 Site Location and Description

The Site (centred at NGR 38520, 39753) is located in Manchester City Centre and is bounded by the former Mayfield Railway Station to the north, Baring Street to the west and Mancunian Way to the south and Temperance Street to the northeast (Plate 1). The river Medlock runs approximately east-west through the centre of the Site. The Site is currently being cleared of standing industrial buildings on the Site, the majority of which date to the 20th century, prior to redevelopment.



Plate 1: Approximate study area superimposed on a recent aerial view

3.2 Geology and Topography

The underlying solid geology of the Site comprises of Chester formation sandstone formed during the Triassic Period. The overlying drift surrounding the river consists of alluvial deposits, including clay, silt, sand and gravel. Elsewhere on the Site the superficial deposits include till.

Topographically, the Manchester Conurbation as a region lies within an undulating lowland basin, which is bounded by the Pennine uplands to the east and to the north. The region as a whole comprises the Mersey river valley; whilst the rivers Irwell, Medlock, and Irk represent the principal watercourses in Manchester (Countryside Commission 1998, 125). The Site is bisected the River Medlock, which runs east-west in broad meanders through the Site.

3.3 Designations

No heritage assets within the study area have been afforded statutory protection. The Site does not fall within a Conservation Area, although elements of two Conservation Areas lie within a 300m radius of the study area: the Manchester South Junction and Altrincham Viaduct Conservation area and the Police & Fire Station Conservation Area. In addition, 17 listed buildings are located within a 300m radius of the Site; whilst development will not have a direct impact on these designated buildings and areas, their settings will require consideration in development schemes in a separate assessment of the built heritage.

The Site contains no other designations such as Scheduled Monuments or Registered Parks and Gardens.

HER ID	Designation	Name	Location
11408.1.0	Grade II listed	Star and Garter Public House	385000, 397720
8528.1.0	Grade II listed	2 & 4, Palfrey Place	385470, 397200
11715.1.0	Grade II listed	Milepost beside railings of Ardwick Green Park	38510 39720
11681.1.0	Conservation Area	Manchester South Junction and Altrincham Viaduct	383030, 397220
16186.1.0	Grade II listed	Sculptural Wall	384760, 397650
11407.1.0	Grade II listed	Train Shed, Piccadilly Station	384900, 397850
8278.1.0	Grade II listed	Church of St. Thomas (former)	385180, 397320
8473.1.0	Grade II listed	25, Manor Street	385110, 397340
11407.1.1	Grade II listed	Former Goods Offices, Piccadilly Station	384730, 397830
8274.1.0	Grade II listed	Drill Hall, Ardwick	385000, 397300
8464.1.0	Grade II* listed/ Conservation Area	Police & Fire Station (former)	384660, 397820
8474.1.0	Grade II listed	27, Manor Street (formally Grove Hotel)	385110, 397330
8279.1.0	Grade II listed	Railings of Ardwick Green	385290, 397190
8472.1.0	Grade II listed	21 & 23, Manor Street	385110, 397350
8277.1.0	Grade II listed	31, Ardwick Green North	385140, 397310
8276.1.0	Grade II listed	Milford House	385110, 397320
8275.1.0	Grade II listed	27, Ardwick Green North	385110, 397320
8427.1.0	Grade II listed	Fenton House	385400, 397160

Table 1: Summary of designated heritage assets within a 300m radius of the Site

4. Historical Background

This section of the report is based on cartographic and documentary research, and provides a framework to the present study, working chronologically through the periods listed below. Each section details evidence of archaeological remains and the potential for their recovery. Key sites are summarized in the Gazetteer of Sites (Chapter 5).

Period		Date Range
Prehistoric	Palaeolithic	Pre-10000 BC
	Mesolithic	10000 – 3500 BC
	Neolithic	3500 – 2200 BC
	Bronze Age	2300 – 700 BC
	Iron Age	700 BC – AD 43
Romano-British		AD 43 – AD 410
Early Medieval		AD 410 – AD 1066
Late Medieval		AD 1066 – AD 1540
Post-Medieval		AD 1540 – AD 1750
Industrial Period		AD 1750 – 1914
Modern		Post- 1914

Table 2: Summary of British archaeological periods and date ranges

4.1 Prehistoric Period

4.1.1 Archaeological Evidence

Our current understanding of any human activity in the Manchester region during the prehistoric period is poor, although it is reasonable to suggest that the Castlefield area in the centre of the city, may have been conducive for late prehistoric settlement on account of the natural topography and its riverside location (Gregory 2007). Physical indications of human activity are provided by a small number of residual finds, including Mesolithic and Neolithic flints, a Neolithic stone hammer and a single sherd of Bronze Age/Iron Age pottery. These finds complement a growing regional body of finds representing prehistoric activity, known to be concentrated on well-drained sand and gravel sites in proximity to water courses and moss lands.

4.1.2 Archaeological Potential

There is no known evidence for prehistoric activity within the study area, and whilst the proximity of the River Medlock means that prehistoric remains within the Site cannot be ruled out entirely, any buried remains are likely to have been heavily disturbed by the later intensive development of the Site during the Industrial Period.

4.2 Romano-British Period

4.2.1 Archaeological Evidence

The first military occupation of Manchester was established during the governorship of Agricola (AD 77-84), and commenced with a five-acre wooden fort, known as *Mamucium* (Bruton 1909), situated c 1.6km west of the Site. The fort underwent several phases of development subsequently, the earlier defences being deconstructed and improved. The military complex evolved in response to the on-going military campaigns, from a purely

defensive site to an established supply depot, essential to the expansion and consolidation of control in the north. The maturation of the military complex can be seen in the growing body of evidence for a military annexe, occupying an area to the north and east of the fort (Arrowsmith 2016, 9-12). Evidence pertaining to this annexe is relatively scant and thus the exact nature of early settlement is unclear.

As this military complex developed, a grid of roads was laid out and a substantial extramural settlement, or *vicus*, grew up. This settlement was made up of civilians, attracted by the security and commercial benefits of the nearby fort. Based on archaeological excavations and the distribution of Roman finds, the limits of this civilian settlement appear to have extended south-eastwards along Chester Road, terminating somewhere in the vicinity of Great Jackson Street, northwards from the fort to approximately Quay Street, westwards along Liverpool Road for c 100m from the north-west corner of the fort, eastwards across Deansgate to the area now occupied by the Beetham Tower.

Roads from the fort linked Manchester with Buxton to the south-east, Chester to the south, Wigan to the north-west, Ribchester to the north, and Castleshaw and York to the north-east. The settlement was well connected in terms of trade and consequently lasted until the late 3rd century AD. Store Street and its continuation as Old Mill Street, situated 400m to the north of the Site, is potentially the continuation of the Roman road from Manchester to Castleshaw (HER 24.1.8). However, this awaits confirmation, and there is as yet very little physical evidence for any Roman activity in the vicinity of the Site. The only indication is a coin of Claudius Gothicus that is reported to have been found in the basement of a warehouse in Piccadilly in 1882, although the precise location of this discovery is uncertain.,

4.2.2 Archaeological Potential

The potential for buried archaeological remains deriving from Romano-British activity within the Site is considered to be low. The possibility of isolated artefacts should not be dismissed entirely, although it is considered unlikely that artefacts will be found *in-situ* given the later intensive development of the Site.

4.3 Medieval Period

4.3.1 Historical and Archaeological Evidence

There is little archaeological evidence in the region as a whole that represents the period between the end of the Roman occupation and the Norman Conquest. The area around Manchester is known to have come under the control of several kingdoms during this period. In AD 620, Edwin conquered and occupied Manchester, and it may have been at this time that settlement in the town was established around the cathedral (Farrer and Brownbill 1911).

In AD 919, the Anglo-Saxon king Edward the Elder established a fortified base, or burh, at Manchester, which was then part of Viking Northumbria. It has been suggested that the burh lay within the area around the cathedral, which had become a focus for settlement by the late 11th century. The site occupied presently by Chetham's School is thought to have been the site of a castle founded by Manchester's Norman barons. This early settlement at the confluence of the Rivers Irwell and Irk seems to have been bounded on the landward side by Hanging Ditch, whose curving line ran between the two rivers, taking a line that was followed subsequently by Toad Lane, the forerunner of Todd Street and Corporation Street.

Following the Norman Conquest of 1066, William I assigned most of the land between the Ribble and Mersey rivers to Roger of Poitou, who retained the manor of Salford demesne (Tupling 1962, 116), but divided his other newly acquired land into several fiefdoms (Kidd 1996, 13). The largest of these was the landholding centred on Manchester, created by the grant of extensive lands in the hundreds of Salford, Leyland and West Derby to Albert Grelley (Tupling 1962, 116).

By the 13th century, the Grelley family had established a manor house at the confluence of the rivers Irwell and Irk, located over 1km to the north of the Site, and the medieval town grew up around it (Hartwell *et al* 2004, 256). It was from this hall that they governed both the manor and the extensive barony. In 1222 Manchester was granted an annual fair, and in 1301 Thomas Grelley was granted the Great Charter of Manchester by Edward I, and thus it became a free borough (*ibid*). The distance of the Site from the medieval centre means that it is likely to have remained entirely undeveloped until the 18th century.

4.3.2 Archaeological Potential

Given the location of the Site away from known medieval settlement activity, the potential for buried archaeological remains is considered to be low. The possibility of medieval finds should not be ruled out completely given the historic landscape, although it is very unlikely that any *in-situ* remains will survive due to the intensive later development of the Site.

4.4. Post-medieval and Industrial Period

4.4.1 Historic Setting

By 1539, John Leland was able to describe Manchester as the ‘finest and busiest town in the whole of Lancashire, with the best buildings and the greatest population’ (Chandler 1993, 263), at a time when the textile industries in South Lancashire were beginning to flourish. Manchester emerged as a centre for the textile finishing processes, as woollen cloth was brought in from outlying areas for bleaching and dyeing. Most importantly, however, Manchester expanded its role as a market centre for textiles produced in the towns and hamlets of the surrounding district (Frangopulo 1962, 26).

From the early 17th century, fustians produced in a network of towns with Manchester at their hub were being exported regularly to western and southern Europe, and the town became the principal commercial centre for the region (Hartwell 2001, 8-9). A flourishing business community developed, which was dominated by a few wealthy merchant manufacturers and fustian-dealing families, notably the Chethams, the Booths, the Wrigleys, and the Byroms (*op cit*, 299). During this period, however, it is probable that the Site and surrounding study area was an undeveloped element of the rural landscape on the fringe of the expanding town.

In his tour of the country in the 1720s, Daniel Defoe (1971, 219) noted that Manchester had ‘extended in a surprising manner, being almost double to what it was a few years ago’, reflecting further expansion of the textile trade. By the 1790s, Manchester’s thriving export market was beginning to displace London as a centre of overseas trade in cotton cloth (Edwards 1967, 176), reflecting great improvements to the transport network across the North West. In particular, the development of the canal system following the completion of the Worsley Canal to Castlefield in 1765 was of prime importance (Hadfield 1994, 65).

Manchester underwent a rapid expansion during the post-medieval period. The population of Manchester increased from approximately 1800 people in 1563 (Willan 1980, 38-39) to just over 3000 people in the year 1642 (Willan 1980, 39; Willan 1983, 36; Nevell 2003, 30). The Hearth Tax Returns of 1664 list 820 households, which suggests a population of approximately 3690. The population of Manchester roughly doubled between 1563 and 1664, despite an outbreak of plague during 1645 (Arrowsmith 1985, 100; Philips and Smith 1994, 7). By the census of 1773, the town's population had dramatically increased even further, with approximately 24,937 people living in the township of Manchester, 23,032 of which were living in the town itself. During the post-medieval period, Manchester changed from what had been a small market centre into the largest town in Lancashire (Nevell 2003, 30).

4.5.1 *The origins of calico-printing in Britain*

The boom of the textile industry in the North-West of England during the late 18th century was based to a large extent on the area's established calico printing trade, which had first been introduced to England in the 1670s with the arrival of chintz, a fine cotton cloth imported from India. The bright and exotic patterns of Indian chintz quickly made the cloth fashionable and by 1676 English printers began to copy the designs onto calico cloth on the banks of the River Thames near Richmond. During this period, London was the centre of the textile industry as it was the point where the imported calico arrived in England. These London printers were seen as a distinct group of highly skilled artisans who, according to one observer, wore 'rather curious costumes' with 'cocked hats, scarlet coats and top boots' and were 'very aristocratic in their way' (Miller 2012, 8).

The first master printer was probably William Sherwin who in 1676 took out a patent for 'printing broad Calico and Scots cloth with a double necked rolling press' and set up a factory at West Ham, which became the chief early centre of calico printing in England (Clayton & Oakes 1954, 136). Towards the end of the 17th century, woollen manufacturers felt under threat by the rise of the calico industry, which in 1701 was estimated to employ 800 men, women and children (*ibid*). By 1701, these manufacturers had influenced parliament to prohibit Indian chintz by law in order to protect their trade, and by 1721, all printed, painted or dyed calicos had been banned. This gave rise to the use of fustian, which was used to copy chintz and was exempt from the 1721 ban as it was a mixed fabric. Fustian was made by Lancashire weavers with the result that, after the ban of 1721, the centre of the calico-printing trade shifted to Lancashire, where copies of chintz could be produced. The textile finishing industry flourished in Lancashire due to the local supply of cloth, the inexpensive value of the land for bleach crofts, the convenience of an abundant supply of fresh running water from the rivers and the lower rates of wages (Miller 2012, 8; Phelps *et al* 2018, 2). By 1774, the ban against calicos was lifted, allowing printers to produce chintz from cotton.

One of the earliest printworks in Lancashire was set up in 1764 by Edmund Clayton at Bamber Bridge near Preston. This printworks was vastly successful and within a few years others appeared along the River Darwen near Blackburn. Early printworks required skilled workers who were highly paid, and in the early years the Lancashire printworks had to pay for the services of skilled artisans from London who were brought up to teach the trade to the Lancashire men, who were held "in great contempt" by the London artisans (Graham 1846, 345). Clayton's printworks produced a local fabric known as 'Blackburn grey', which was suitable for printing. According to John Graham, writing in 1846, printing was "at that

time very slow in all its processes, chemistry not being understood as at present” (Graham 1846, 345). Graham also noted that “bleaching out the Grey Cloth required a great breadth of land, cloth for printing was linen, cotton and strong velvet for the Russian market”. Another early printworks is reported as being under construction in Crumpsall in the *Manchester Mercury* in January 1762 (Wadsworth 1931, 308).

Robert Peel also began printing cotton around 1764 at Brookside Mill in Oswaldtwistle. Peel was a pioneer in printing as he discovered that a roller with a carved decoration could be used to print a pattern onto a cloth. This was the beginning of the textile industry changing from a skilled craftsman’s trade to a factory-based industry, as Peel was the first to begin mechanised calico printing on an industrial scale and brought many innovations into the cotton industry (Miller 2012, 9). Howarth, Peel and Yates became partners and established several printworks sites across Bury. In 1773, they bought a ruined corn mill at Bury Ground. This was the first (of many) factory-based printworks and quickly became famous for the designs and colours of the cloth.

The early printworks in the North West were often located by rivers as a constant supply of water was needed for the washing of cloth as it passed through the different printing processes and for the driving of machinery using waterwheels (Miller 2012, 6-7; Phelps *et al* 2018, 2). The water would have been pumped from the river by a steam engine at the rate of approximately 50,000 gallons per hour. This water would have entered a reservoir bedded with gravel before being conveyed to the croft and the dye house (Penny Magazine 1843, 290). A Parliamentary Commission in 1868 calculated the amount of water used on average by a printworks was approximately 400,000,000 gallons *per annum*, which was then redeposited into the river polluted with the chemicals from the printing process. During the late nineteenth century, filter beds were implemented to limit the amount of pollution entering the rivers (Miller 2012, 7).

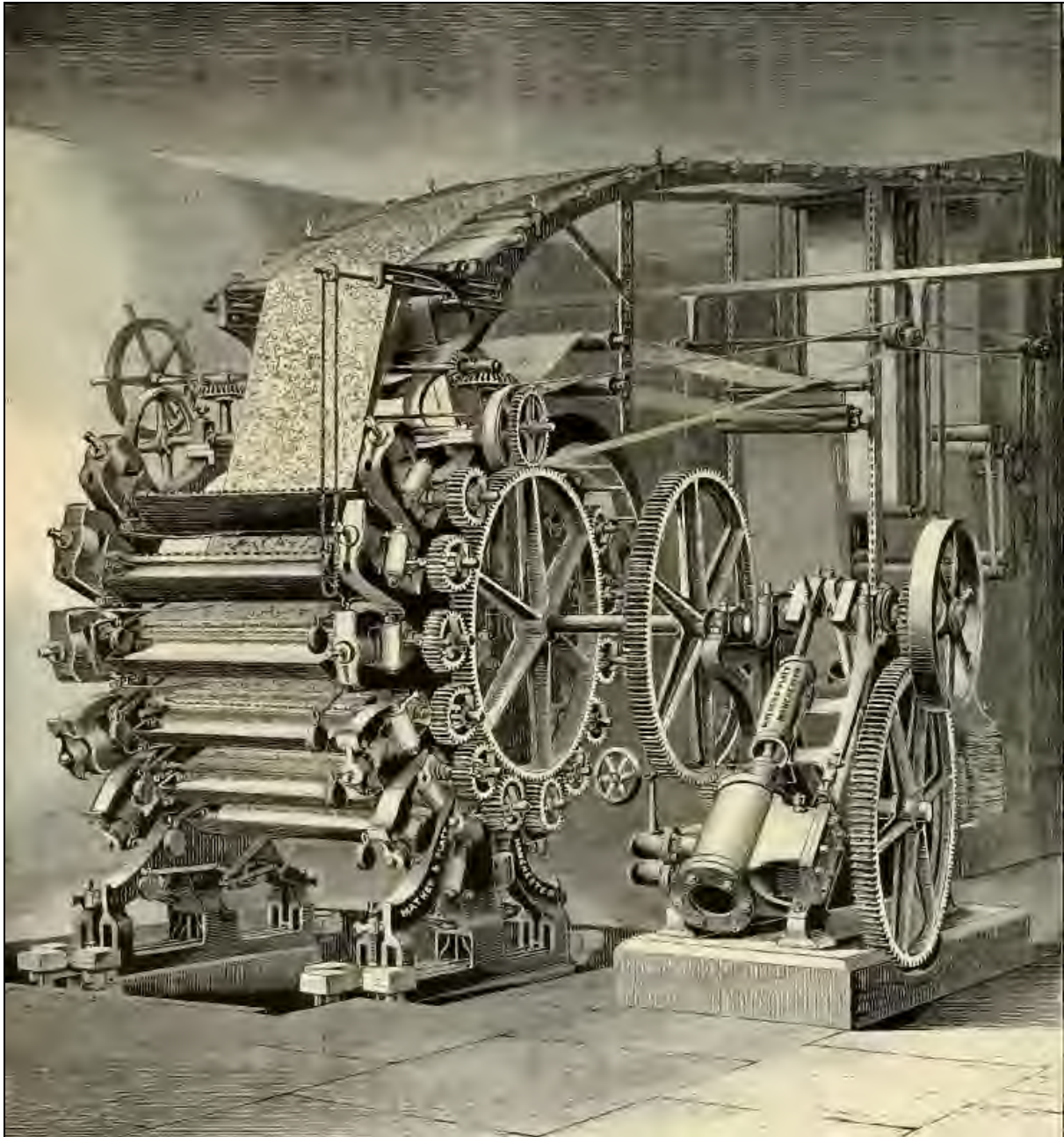


Plate 4: A Colour printing machine depicted in 'The Printing of Cotton Fabrics' (Sansone 1887, 16)

4.5.3 The development of finishing-works factories

Finishing works factories often had several different processes taking place in designated areas. These can be divided into printing, bleaching and dyeing processes.

Block Printing (Plate 5) – The earliest form of printing required skilled craftsmen to use wooden printing blocks. These blocks were made up of carefully engraved layers of wood sandwiched together. Within block printing, three different types of blocks could be used – line blocks, blotch blocks and ground blocks. Line blocks were used for printing small details and outlines. Blotch blocks had felted surfaces and were used for large areas of colour, whereas ground blocks were used for small areas of colour. Each colour on a textile was applied with a different block, with some pattern sets including over 100 blocks (*op cit.*, 10).

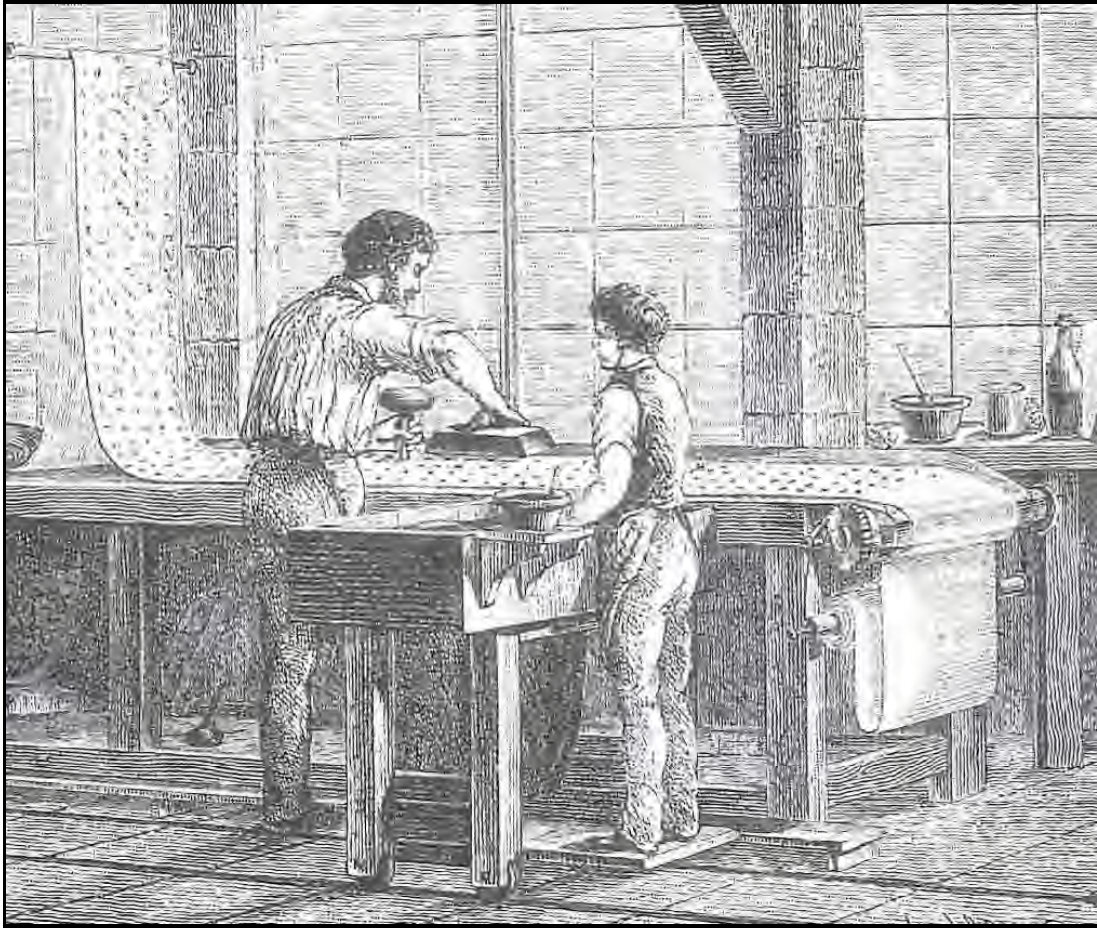


Plate 5: Depiction of a block printing during the late 18th century

Several hundred block printers would be employed by each large printworks. These workers would each have a table with a heavy flagstone placed over a framework of wood or iron. The cloth would be stretched over the flagstone, providing a surface on which to print. As the block printer printed the cloth, guide rollers would suspend the printed cloth from the ceiling, allowing the textile to dry. A child would often work alongside each block printer, pushing a tub of paint along the table and cleaning the blocks. Though this work was not necessarily physically exhausting, working in the printworks factories often included long shifts. An examination of the working conditions within printworks in 1842 by a Parliamentary Commission found that children were working 12 hours a day on average and often fell asleep at their tubs (*ibid*).

Block printing was a slow process and required a high skill level. Carving the blocks in preparation for the printing was also a difficult task and the designs on these blocks deteriorated quickly as the wooden blocks wore down during use. In 1783, machine printing industrialised printing as an addition to block printing.

Machine Printing (Plates 4 and 6) – Early attempts were made by Scottish inventor Thomas Bell to create a roller-printing machine. In 1770, Bell began printing textiles using engraved copper plates, a technique borrowed from copper plate printing. This worked in reverse to wood block printing in that the designs were engraved into the copper at a deeper level, so the colour would be added to the smooth surface, which would then be printed onto the cloth, leaving the designs themselves unpainted. Bell revolutionised the industry in 1783 with his patented continuous roller-printing machine which was fitted with six rollers. In theory, in

roller would have had a different colour and as the cloth passed through each roller, a different part of the pattern would be added in a different colour. However, Bell struggled to keep the six rollers working in unison. Despite some technical issues, Bell had demonstrated the concept of using rollers in a more efficient way of printing cloth and, with the help of Adam Parkinson, by 1785 the instrument was successfully applied at the Livesey, Hargreaves, Hall Company near Preston (Nieto-Galan 2001, 56). By the early 19th century, roller-printer, or cylinder machines could produce up to three quarters of a mile of cloth within an hour (Penny Magazine 1843, 295).

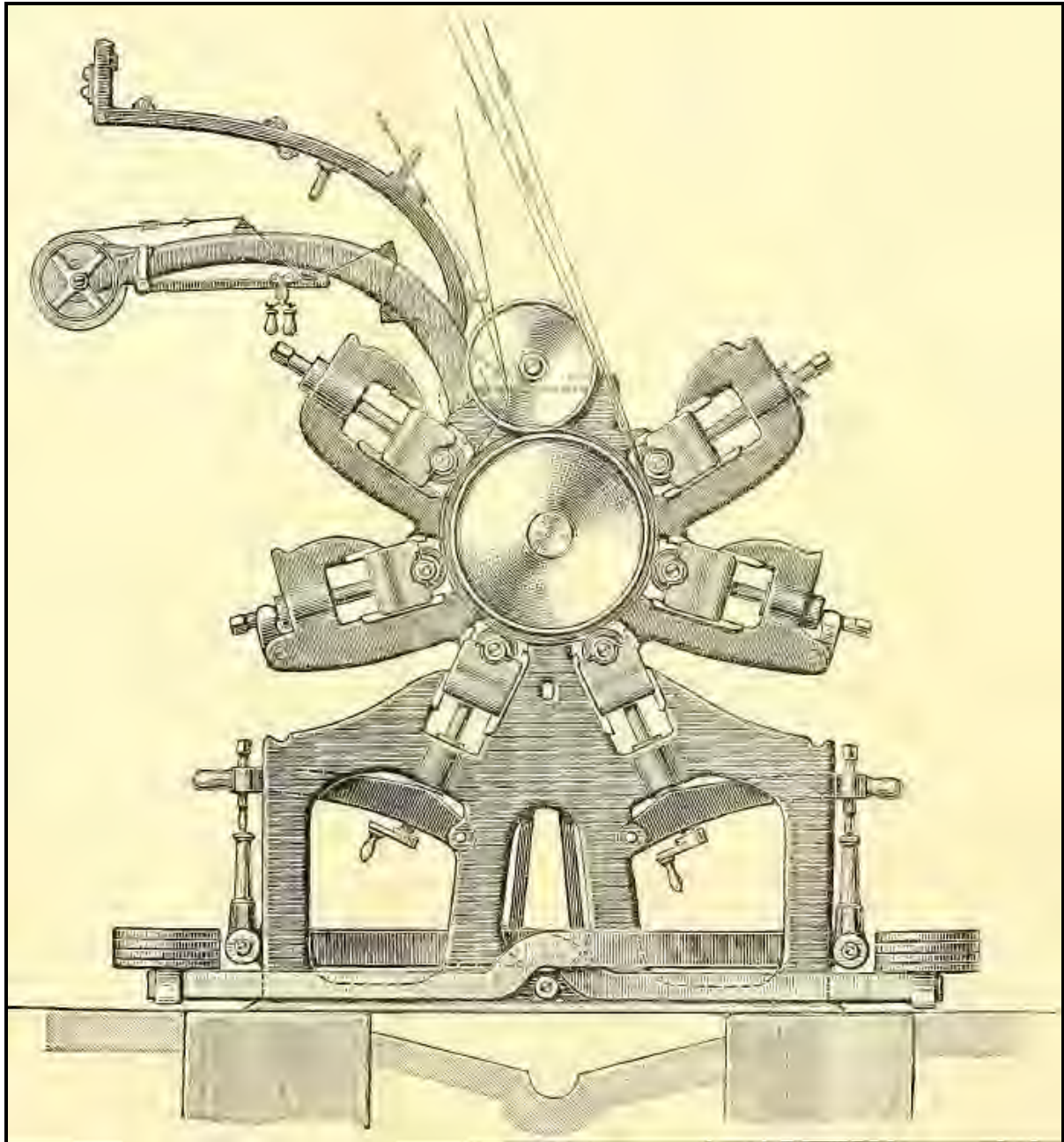


Plate 6: A six colour printing machine depicted in 'The Printing of Cotton Fabrics' (Sansone 1887)

Each roller-printing machine was tended to by three employees. The machine printer stood in front of the machine to check that the colour being added to the cloth was flawless; a young person, known as a 'back-tenter' would stand at the back of the machine and ensure the cloth was passing through the roller evenly and free of creases; the third employee, often a child known as the 'plaiter-down', would fold the cloth as it came out of the machine allowing the newly printed cloth to dry (Miller 2012, 11-12).

The use of block printing within printworks declined in the 1860s as a result of the advancing technology of the machine printers. However, block printing was still seen as an artisan trade and was kept alive due to the influence of William Morris, who believed that the skill of block printing was being lost due to the industrialisation of printing. Morris' work brought block printing into a renaissance during the 1870s. However, during the late 1880s the printing trade entered a depression due to inefficiency, price cutting and long credit. Within three years of this depression, 25 printing firms went out of business. As a result of the difficulties, the remaining printing businesses amalgamated, forming into three groups of associations. The largest association was the Calico Printers' Association (CPA), which was formed by the merging of 46 printworks, representing 85% of the British textile-printing capacity. Despite amalgamation, many dye and print works closed over the following decades, by 1939, only 11 printworks were operated by the CPA (*op cit*, 13).

Bleaching – Bleaching removed impurities from cloth prior to dyeing and printing and turned the cloth completely white. Traditionally, this process was a lengthy one, taking several months to complete. The first stage of this process was called 'bucking', which referred to boiling the cloth in alkaline lye made from wood ashes. During the 18th century, this took place in what was known as a 'kier' (Plate 7). The cloth was then washed thoroughly in troughs of water and steeped in buttermilk. The final stage of the process to suspend the cloth in open air, exposing it to sunlight over a long period of time, which whitened the cloth. Much land was needed to expose the cloth to sunlight, giving a commercial purpose to the infertile moorland in much of Lancashire (Miller 2012, 11-12).

Towards the end of the 18th century, it was becoming clear that a new, more efficient, approach was needed for bleaching cloth. In 1798, Charles Tennant introduced a bleach powder to the textile industry. The powder was made by impregnating dry-slaked lime with chlorine gas, which was said to be powerful enough for 7lb. of the powder to bleach 500 pieces of cloth (one piece being 28 yards long and 40 inches wide) (Penny Magazine 1843, 291). Industrialisation encouraged the mechanisation of the bleaching process, with steam and water power being used to drive machines such as dash wheels and washing machines (Plate 8). These innovations in the bleaching allowed the process to be brought indoors during the 19th century, leading many printworks to develop their own bleaching departments.

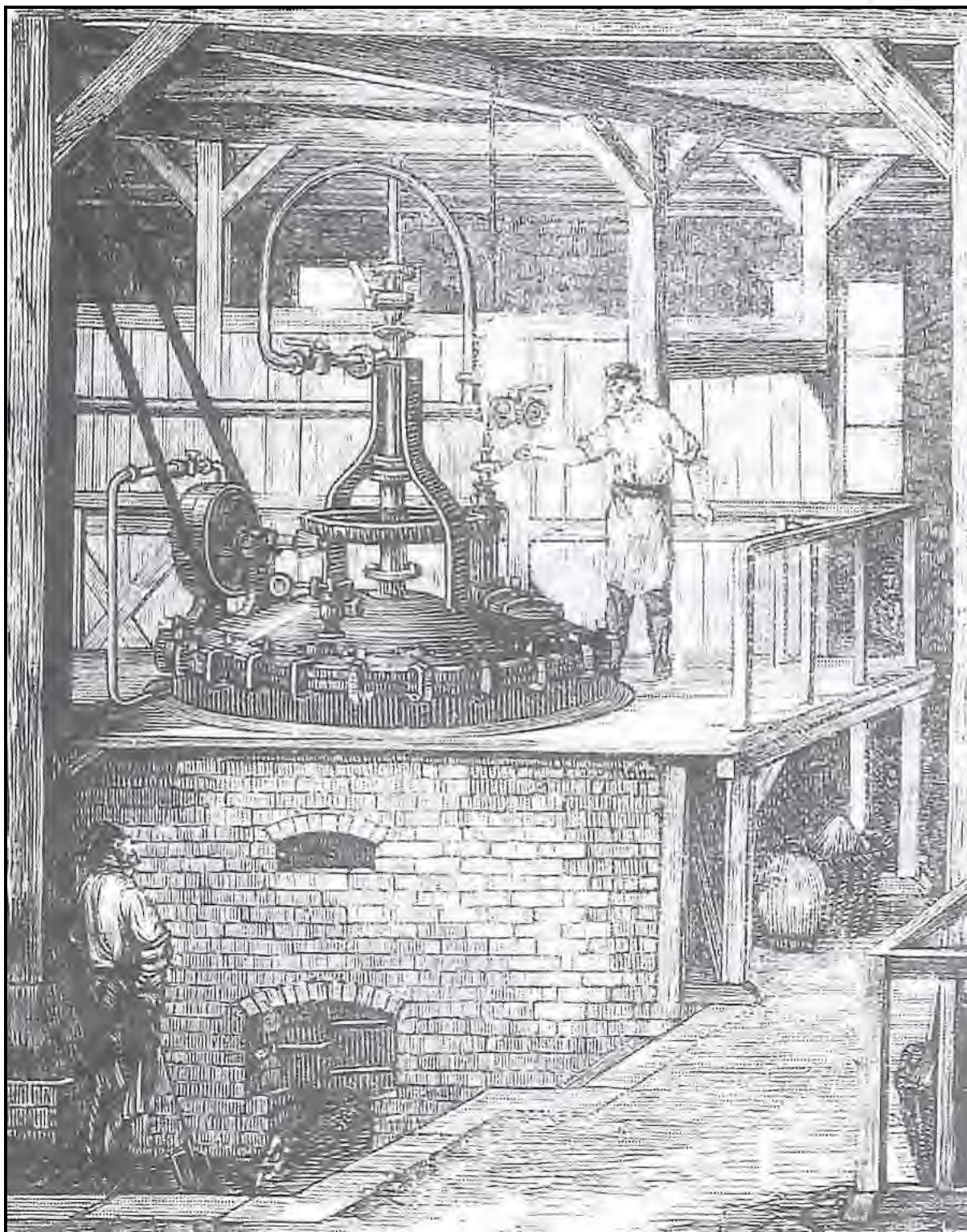


Plate 7: Large scale bleaching kier

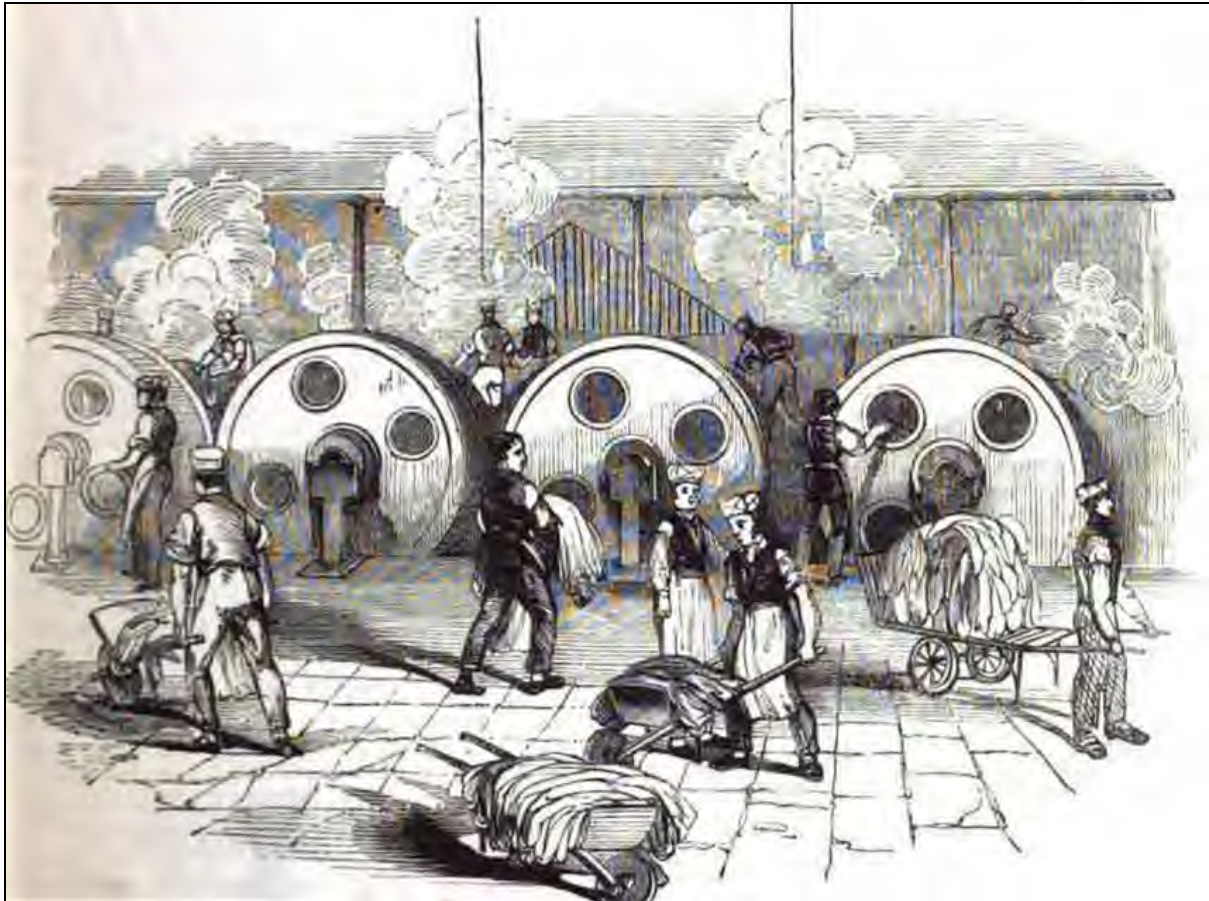


Plate 8: The dash wheels of the Dukinfield Works, Thomas Hoyle & Sons

By 1828, the dash wheels, which had been used to wash cloth, were replaced with washing machines invented by David Bentley, which washed lengthy pieces of cloth after the bleaching process. The cotton cloth was brought for bleaching in a grey state and several pieces of cloth were sewn together in preparation for bleaching, each 'piece' of cloth often being around 28 yards long and 40 inches wide (Penny Magazine 1843, 290). After the cloth had been bleached, the pieces were again sewn together with more pieces, creating a single piece of cloth reaching approximately 14,000 yards long (*ibid*). The lengthy cloth would then be placed in a washing machine or 'wash engine', which wound the cloth in a spiral, with the water in the machines being renewed throughout the process. Washing machines were used in various stages of the process to keep the cloth clean and prepared for the next stages (Miller 2012, 15-16).

Singe house – Once the cloth had arrived at the printworks, the first step would be to create a smooth surface on the grey cloth by removing any stray fibres or any fraying which may have occurred during weaving. This took place in a singe house by running the cloth over red-hot plates (Plate 9).

Grey sour cisterns (Plate 10)– The next step was the 'grey-wash'. The cloth would be transferred to the bleach croft for this process and then mixed with souring liquor to break down any oils or grease.

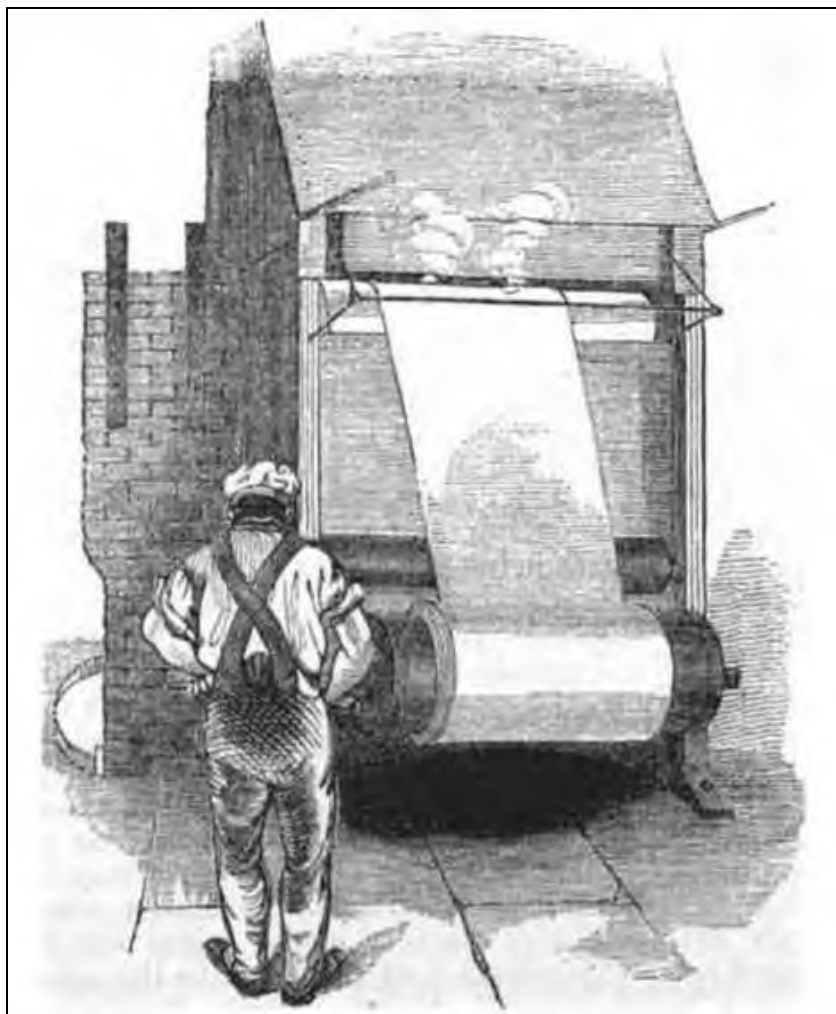


Plate 9: The singeing process, Penny Magazine 1843, 290

Boiling kier – Not all of the waxy coating of the fibres of the cloth could be removed using just a washing machine. The cloth would be placed into a kier with boiling water and a lime solution. This would be stirred for several hours at a temperature of at least 100°C. After the cloth had been soaked in the grey sour cistern, the cloth would go to another kier for boiling in soda ash.

Chemic cisterns – The cloth was then saturated in a clear solution of chloride of lime, or bleaching powder, which bleached the cloth.

White sour cisterns – The cloth was then passed through a dilute solution of sulphuric acid, known as 'white sour'. This was followed immediately by a final washing in clean water, which rendered the cloth perfectly pure.

Squeezing rollers - The cloth was then washed and squeezed dry through rollers.

White pile cisterns – After drying, the cloth was stored in 'white pile' cisterns, ready for printing or dyeing.

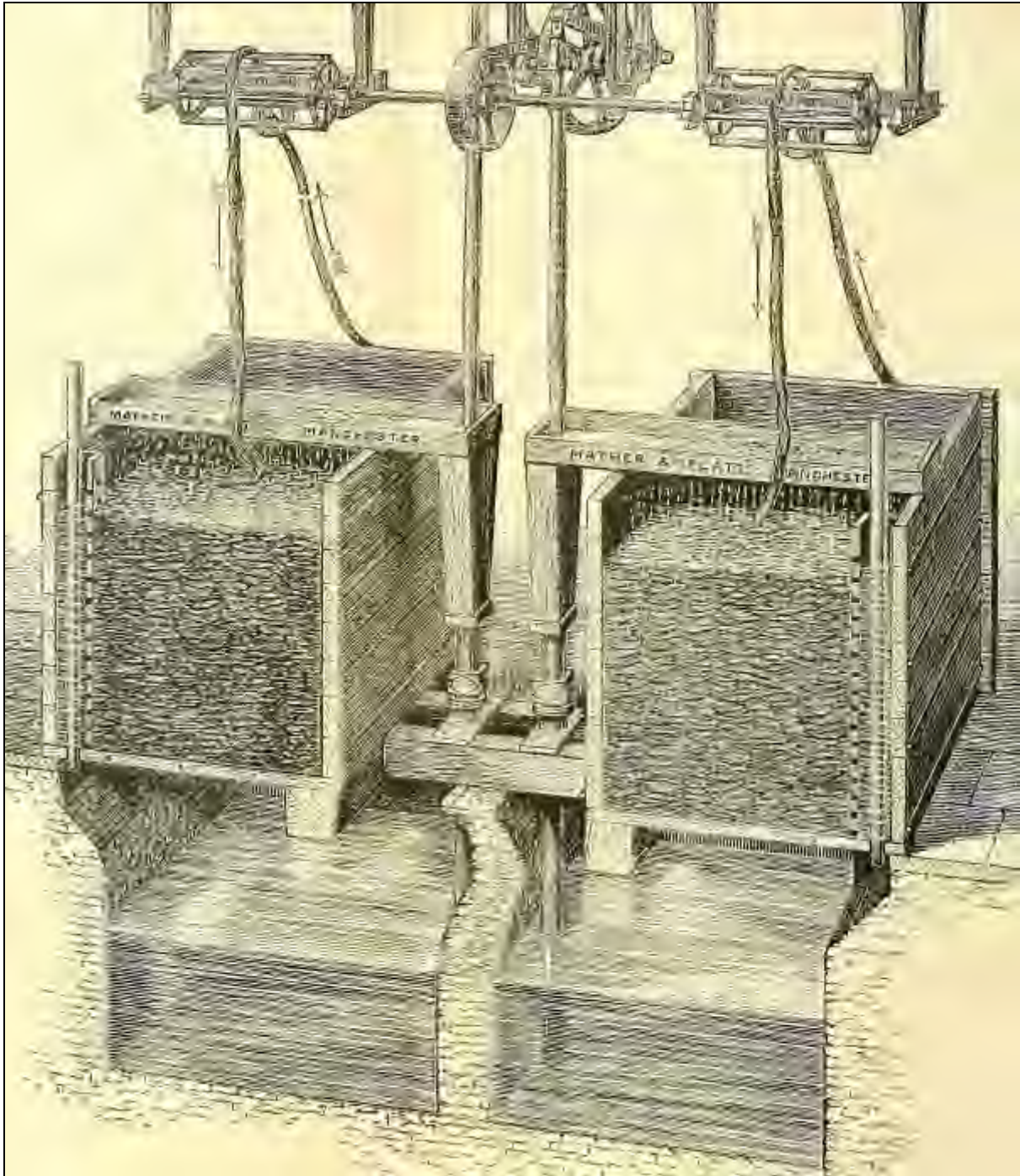


Plate 10: Bleaching and souring cisterns depicted in 'The Printing of Cotton Fabrics' (Sansone 1887)

Dyeing – Two agents were needed for the dyeing process: the colouring matter and the mordant. Mordant is an alum, occurring naturally as sulphate mineral alunite. Traditionally, the alum was imported then used to 'fix' the dye within the cloth. However, during the seventeenth century, it was discovered that alum could be manufactured chemically using certain type of shale. This brought a boost to the industry in northeast Yorkshire, where shale occurred naturally alongside aluminium salts and pyrites, which were required to create alum (*ibid.*, 18).

The colouring matter used to dye the cloth prior to the 19th century was often sourced from plants. The plants most commonly used included indigo, madder and logwood (Plate 11), however, colourants were also derived from cochineal insects and tropical sea snails (Nieto-Galan 2001, 23-25). The process of converting the natural colouring matter into dyes was complex and often the dyes did not adhere to the cloth easily. This prompted the use of chemically produced dyes, which brought added benefits, including lower costs and a new, more varied, range of colours (Miller 2012, 18).

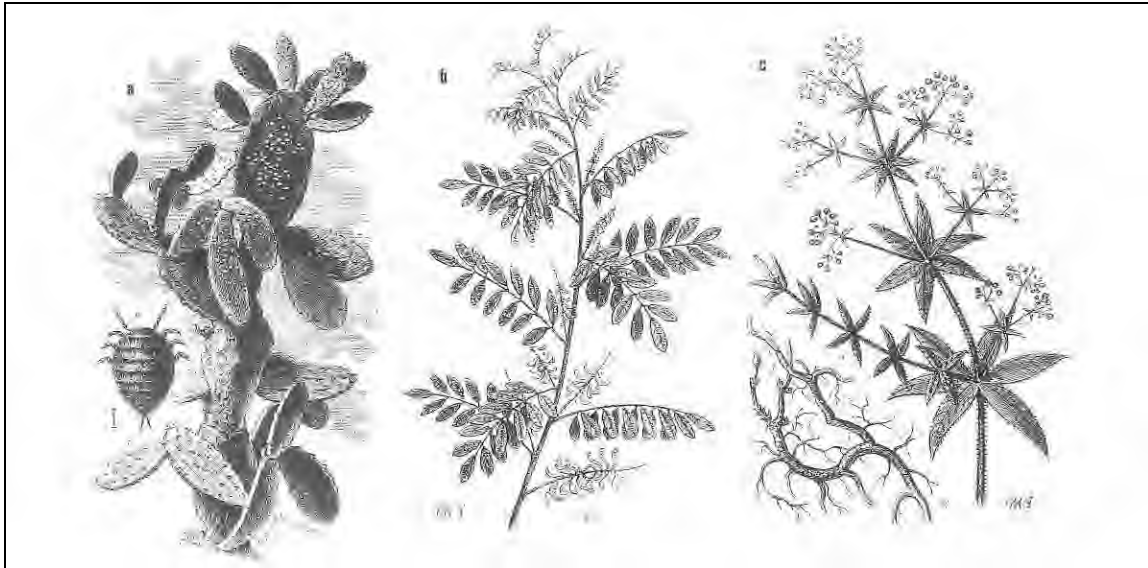


Plate 11: Plants used as dyes in the late 18th – early 19th century: a) The Nopal cactus of cochineal, b) indigo plant, c) madder root

The first synthetic dye was invented, accidentally, by William Henry Perkins in 1856. Reacting aniline with potassium dichromate produced a rich purple dye that could be extracted by adding alcohol. Perkins started his own company producing the dye, known as ‘mauve aniline’, which further boosted the textile industry. By 1859, synthetic dyes had become incredibly fashionable, demonstrated by Queen Victoria’s mauve dress worn at the International Exhibition of 1862 (*ibid.*, 18).

As the textile industry advanced, chemical engineering found new techniques of applying dye to cloth. One particularly popular technique was to print mordants onto the cloth before the dye was added, allowing the dye to adhere to the printed area. A technique known as ‘resist dyeing’ involved printing a wax onto the cloth before immersing it in dye. The dye would not adhere to the waxy areas, creating plain patterns on the coloured cloth. In 1802, Peel revolutionised this process by introducing a way of printing the wax using mechanical rollers. Discharge printing was similar in that it included printing a bleaching agent onto an already dyed fabric, which removed the colour, again, creating a plain pattern on a coloured cloth (*ibid.*, 19).

The machinery used in the dyeing process included a large cistern, or beck, below a large roller. The cloth would be attached to the roller and rotated in and out of the beck, which contained hot water and the dye. Once the cloth had been dyed, it was washed again to remove any colourant residues (*ibid.*).

Together, bleaching, dyeing and printing had a profound impact on the textile industry in the North West. This boom in Lancashire’s textile industry impacted Manchester’s economy, social structure, and architecture (Phelps *et al* 2018, 11). The printworks companies lasted

over a century, being a common sight on many rivers across the region. By the mid-twentieth century, the cotton industry's demise led to the closure of many printworks sites. The buildings that make up the printworks were difficult to adapt for other uses, and subsequently many sites were demolished.

4.5.4 Working conditions at printworks

The first Factory Act was introduced by Robert Peel in 1802, a factory owner himself. This act was called the 'Health and Morals of Apprentices Act' and limited the numbers of hours apprentices could work to 12 hours a day and after 1804, apprentices could not be kept after 9pm. Despite Peel's efforts to improve conditions in factories, employers found a way of evading this act, by employing wage-earning children, rather than apprentices (Hopwood 1969, 63-64). In 1831, and again in 1833, the Factory Act was passed with the purpose of improving working conditions, particularly for children. The aim was to stop children under the age of nine from working, to reduce working hours for children over the age of nine and to encourage children to attend school for at least two hours a day. Throughout the 19th century, several subsequent Factory Acts were passed, seeking to reduce the numbers of hours worked in the factories, increase the age limit of child workers and prohibit nightwork, however, many employers would continue to ignore these Acts, and would even pay fines using money deducted from worker's wages (Hopwood 1969, 64).

Conditions at printworks factories are reported in Lord Ashley's 1845 speech (Cooper 1845, 13) on the regulating of the labour of children working in calico print works across Britain. It is clear from the evidence given in his speech that the Factory Act was not being enforced in many print works across Britain over a decade after the Factory Act had been passed. In his speech, Lord Ashley states that one child worked such long hours they resorted to taking 'snuff' to keep themselves awake. Another child, Ellen Radcliffe, aged 10, reported her experience of working in a printworks: *"I was once a teerer, but I could not stand the work. Once worked three nights teering blue colour, but it made me sick and giddy in the head."* Margaret Morris also recalled her experiences working in a printworks: *"Many times, I worked all day and all night too. Sometimes I have gone at 8 o'clock the next morning."* Lord Ashley also reported on a block printer's observation of a child named Hellin, aged just seven years old: *"[Hellin would] work from 6 o'clock in the morning until 11 o'clock at night for a week together on an average; he teered for his father, who worked him quite beyond his strength."* Another account given by William Archer, a foreman, portrayed in Lord Ashley's speech stated: *"I have known a man work three days and three nights, without ever going home, and he had the same teerer all the time"*



Plate 12: Female block printer working with a young girl

The speech also includes Mr Emery's comments, a master of a school at Disley, on the education of children working in the printworks during the 1830s and 1840s. He claimed that:

"When I first came into this district, which is now many years since, my scholars stayed much longer with me; and I then had a chance of making something of them. On looking at numbers of scholars it appeared that they had diminished one half since 1832, notwithstanding the remarkable increase of population in this district within the last ten years"

Lord Ashley's speech includes the reasons given by Mr. Emery for the changes in numbers of children attending schools:

"[Mr Emery explains the fall in number of children attending school] the facility of getting employment at high wages for very young children, and to the indifference of the parents about the education of their children"

Further impacts on the children working in the printworks is discussed in Lord Ashley's speech:

"Of many of the children in the print grounds of Lancashire, and especially of those who have been the least educated, it is stated that they appear to have no sense of moral obligation: they are generally not trust-worthy, and are given to pilfering, lying and fighting"

The long unsociable hours working in the printworks prevented children from developing social skills and gaining an education. Lord Ashley's speech provides an insight into the social complications caused by the working hours expected of the children working in the printworks during the first half of the 19th century. Furthermore, the dyeworks during this time had a negative impact on the health of those employed to work there, with children reporting feeling ill whilst working with some of the dyes (Cooper 1845, 13).

The Mayfield Printworks was mentioned Lord Ashley's 1845 speech. Referred to by Lord Ashley as a respectable and intelligent person, Mr John Graham, superintendent of the Mayfield Printworks, wrote to Lord Ashley regarding children and working hours at the Mayfield Printworks:

'So far as we are concerned at Mayfield, it would be advisable to give up night-work for women, young persons, and children, night-work being understood as those hours between 10pm and 6am'

4.5.5 Development and History of the Mayfield Printworks

Thomas Hoyle was born on 6th June 1739 in Rossendale, Lancashire, and established the Mayfield Printworks (Plate 13) in 1782 on the River Medlock on what was at that time a mainly rural area close to Manchester. It is unclear where the name 'Mayfield' derived from, however, it is possible that the name was chosen to reflect his wife's maiden name, Mary Fielden, whom Hoyle had married in 1764. Their son, Thomas, born in 1765, was to inherit the printworks after his father's death in 1821 (Wright 2013). The address of the company was listed as 'Thomas Hoyle & Sons, dyers, Mayfield' in 1797, showing the company was established as a dyers. Only in 1808, the company became known as a calico printers and dyers. After 1845, the company was listed as a calico printers only (Wright 2013, 3). Thomas Hoyle junior passed the printworks on to his three sons-in-law, William Neild, Joseph Compton and Alfred Binyon. Neild Street, the sign for which can still be seen today, was named after William Neild, who married Thomas Hoyle's daughter, Mary Hoyle, in 1816, and who had taken over the Mayfield Printworks by 1830. In 1833, Bonyon took on William Pattinson as a partner, and later John Butterworth and the chemist John Graham. After Pattinson's death in 1844, Richard Shillingford, who owned a large bleach and dye works in Sandywater, became a partner.

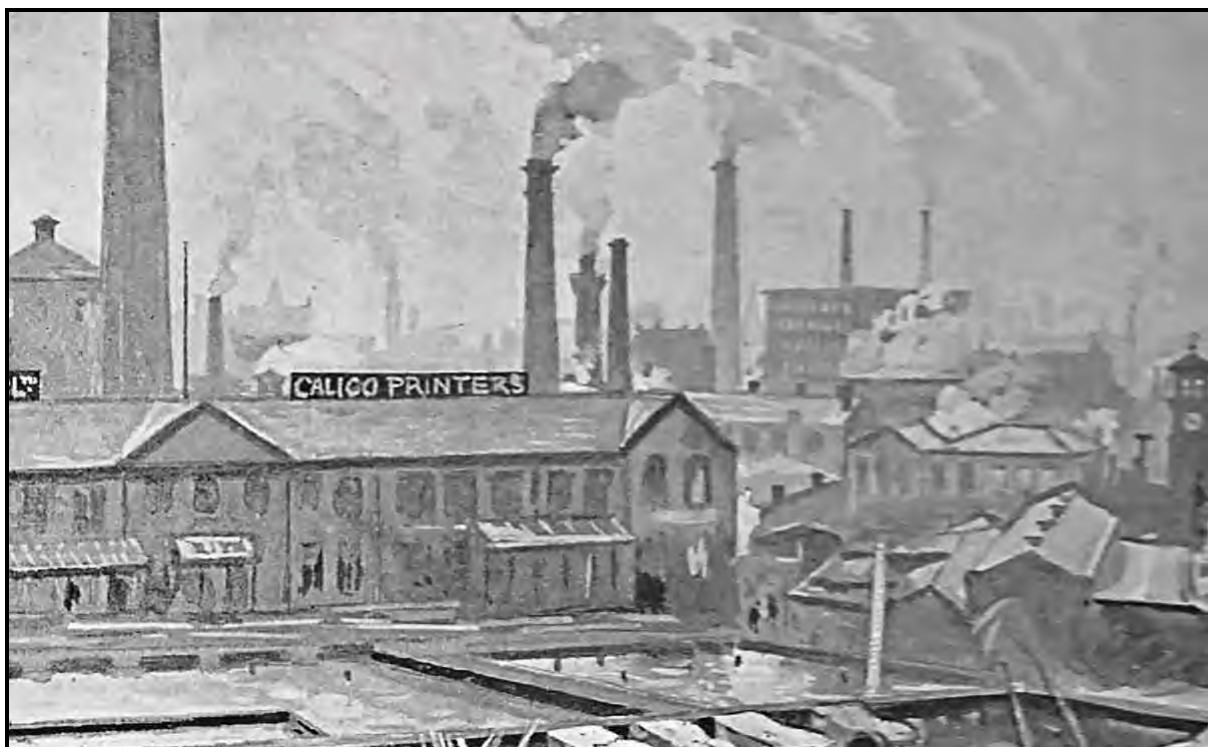


Plate 13: A depiction of the Mayfield Printworks, looking south from Fairfield Street

Some of the earliest references to the Mayfield Printworks can be found in newspaper articles from the 18th century. On 21st June 1785, a job advertisement appeared in the *Manchester Mercury* from '3 or 4 Journeymen Volveret Printers Who are perfect masters of their business'. Another article in the *Manchester Mercury* on 3rd November 1795 mentioned the printworks, which advertised the sale of a water wheel and a pit wheel (Plate 14). It is possible that the water wheel was being sold due to the growing use of steam engines during this period.

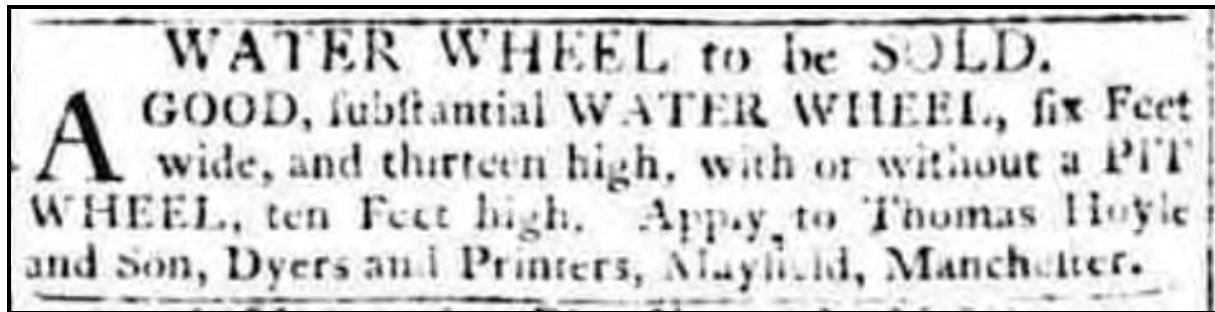


Plate 14: Advertisement in the *Manchester Mercury* 3rd November 1795

An account given by Alfred Neild, the grandson of Thomas Hoyle Jnr. and son of William Neild gives an insight into the Mayfield Printworks during the 1820s and 1830s. Alfred Neild was born in 1822 and reports on his memories of the printworks during this period.

'My earliest remembrances are when my father (William Neild) lived in the precincts of the Mayfield Print Works; close to the house of Thomas Hoyle, the founder of the printing business; whose eldest daughter, Mary he had married. At this time Mayfield was almost in the country, and the works themselves were of small dimensions. Neither the new Ashton Road (now Fairfield Street), nor the London and North Western Railway, were in existence. To the north and east there was a large extent of fields, running along the banks of the River Medlock; which was then sufficiently attractive for boys to bathe in. Hay was made where now there are only streets and houses; and we had a good view of the Derbyshire hills. There was an extensive range of reservoirs abounding in aquatic plants and minute fresh-water shells. My grandfather had a garden of fair size, where fruit and vegetables grew. He had also a greenhouse and hot-houses where grapes and pines flourished.' (Neild 1898, 1-2)

'When I was about eight years old my grandfather removed to a country-house, Spring Cottage, at Marsden near by Burnley and my father removed into his house at Mayfield. We, his grandchildren, spent many a happy holidays at Spring Cottage.' (op cit, 7)

'My grandfather died in 1834, and the business was carried on by my father and two uncles. Soon after this a chemist was engaged to assist in the business, who afterwards became a partner. From him I learned something of chemistry, at which I read and worked pretty diligently, in a fairly appointed laboratory which was in the works.' (op cit, 8)

'I left the College at the close of the session in the summer of 1839. I had a desire at this time to take up the study of medicine, but my father did not approve of it, and it was eventually settled that I should enter his business of calico printing.' (op cit, 14)

'At the beginning of 1840 I entered the works at Mayfield. My father then lived at Mayfield. I used to be in the works at six o'clock in the morning, and sometimes at five. There was a short interval for breakfast; and at twelve o'clock I mounted my horse and rode for an hour.'

At that time I could get in a few minutes into lanes with turf borders where I could gallop. At half past one I dined, and at six o'clock I was free.' (op cit, 15-16)

'Among the characters in the works was a man named John Hutton, who lived until more than a hundred. Another notable man was George Maxwell, a store keeper. He was a plain man with no pretensions to much education; but a man of remarkable powers of thought. (op cit, 16)

In 1843, an article appeared in the Penny Magazine titled '*A Day at a Lancashire Print-Work*', which described in depth a visit to Thomas Hoyle and Sons finishing works, including the Mayfield Printworks in Manchester and another finishing works owned by Hoyle in Dukinfield (Penny Magazine 1843, 289). Printworks are described in the article as odd places that "combine taste, chemistry and mechanism, three agencies that are often associated with manufacture however only found working together within finishing works" (Penny Magazine 1843, 289). The article gives a detailed description of the finishing works.

The Dukinfield Works was mainly used for the bleaching and dyeing whereas the Mayfield Printworks focused on dyeing and printing (*ibid*). The Dukinfield Works was located on a large area by the banks of the River Tame, approximately six miles from Manchester. The complex included the croft or bleach-house, dye house, reservoirs and water filtering ponds and subsidiary buildings. The croft was a large area of stone flooring occupied by vessels filled with water. The croft was described as being 'not often free from clouds of steam' (Penny Magazine 1843, 290). According to the *Penny Magazine* article, approximately 5000 miles of cloth was bleached each year at Dukinfield. The dye house was considered to be 'one of the finest in the kingdom', measuring at more than 100 feet square with a complete drainage system. The building had a low roof with plenty of skylights and contained several dash wheels, becks and cisterns (Penny Magazine 1843, 291).

The bleached cloth from Dukinfield was often sent to Mayfield Printworks for the process of printing. The Penny Magazine gives the following description of the Mayfield Printworks:

'The works at Mayfield have been gradually increasing in extent for sixty years, and now appear more like a small town than a single establishment, for there are so many open courts and small lanes and passages, so many distinct and isolated buildings, and the whole cover so large an area of ground that a visitor is apt to lose sight of the connection between them, and to forget that they form, in fact, but one great workshop.'

The Penny Magazine article also identified several distinct departments within the Mayfield Printworks, including the mechanical department, the chemical department, the dye house and the finishing department. The establishment also had areas such as smiths' workshops and millwrights' workshops to manage the upkeep of the various pieces of mechanism incidental to dyeing and drying (Penny Magazine 1843, 291).

The knowledge of chemistry needed in the printing and dyeing process was profound, as the effects of chemicals used in the process had to be fully understood. The effect of the drug used on the vegetable fibres of the cloth also needed to be understood in order to consider how the cloth would retain the colour of the dye. Matching the dye on the cloth to the colour of the design on paper was also a necessary area of expertise. At the Mayfield Printworks, a laboratory was fitted with the apparatus, sand-baths, furnaces and other equipment needed for conducting chemical experiments. Calico-printers needed to stay up-to-date with the

latest chemistry of colours and therefore they would have spent much time studying new sources of information. The dyes were prepared at Mayfield in the colour house, which was located near the laboratory in a large and lofty workshop (Penny Magazine 1843, 292).

The chemist John Graham, who became a partner of Mayfield Printworks in 1839, wrote detailed works about the history and chemistry of calico printing. His works include '*The Chemistry of Calico Printing from 1790-1835*' and '*History of Print Works in the Manchester District 1760-1846*'. John Graham's interest in the chemistry of the print works might have been influenced by his brother, Thomas Graham, a famous chemist. In January 1851, Graham wrote a letter to the *Manchester Guardian* regarding the chemistry of calico printing. This letter was published on the 25th January 1851 and demonstrates his expertise on the subject. Some of his works give details into the Mayfield Printworks, for example, that the printworks had 156 block printers' tables (Wright 2013).

An example of the complexities involved in creating designs is given in the Penny Magazine, one of the designs produced at the Mayfield Printworks consisted of purple squares separated by white lines. To produce this design, the cloth would have arrived at Mayfield from Dukinfield after having been bleached. The squares were printed on the cloth using a cylinder with a mordant of acetate of iron. The cloth was stoved and then passed through a hot emulsion of cow dung before being washed again. The cloth was then placed in phosphate of soda and dyed with madder, which gave a purple tint where the cloth had been printed with mordant but left the rest of the cloth white. The cloth was then soaped and 'chemicked' to clear the unmordanted parts (Penny Magazine 1843, 296).

The Mayfield Printworks employed its own designers to create new patterns and styles for printing. To calico printers, the term 'pattern' was used to describe the form of the design, whereas the term 'style' referred to the colour of the design. Each design was drawn no longer than four inches square and fully coloured. The limited size of these drawings was due to the low success rate of many of the designs, as only 1 in 100 were selected for working into a final result, with as many as 80 of every 100 designs being rejected whilst still on paper. After a design was chosen, it was transferred on to either wood or metal as an engraving, depending on the mode of printing (*op cit*, 293).

The success of the Mayfield Printworks made the factory complex a 'must-see' for many important foreign visitors during the 19th century. The site had become famous for its purple dyes, which had been patented in 1831, and the business was recognised as being a perfect example of Manchester's impressive industrialisation. In July 1844, the King of Saxony visited the printworks and was reportedly impressed by the newly patented block-printing machine, 'with which he was much pleased' (Wright 2013). In July 1847, the Arch-Duke Constantine of Russia received a tour of the Mayfield Printworks by Neild, who showed the Arch-Duke various rooms and processes taking place at the printworks, including the roller room, which contained 5000 engraved copper cylinders, the machine printing room with 20 machines in operation, high pressure engines, and the drying room, where freshly dyed fabrics were spread out to dry (Manchester Times 9th July 1847) *The Manchester Guardian* also reported visits from Feroukh Khan, a Persian ambassador in December 1857, an ambassador from Madagascar in June 1864 and the Sultan of Zanzibar in 1875 (*Manchester Evening News* 9th July 1875). The *Manchester Evening News* reported that the Emperor and Empress of Brazil visited the Mayfield Printworks during July 1871.

Many printworks during the 19th century were known for their poor working conditions, including long shifts and child workers. However, during Lord Ashley's speech, the Mayfield Printworks is mentioned as being in agreement to ending night work. In 1849, a spacious reading room and a smoking room were added for the workers, where tobacco and drinks could be bought at cost price. On 10th November 1849, an article appeared in the *Northern Star and Leeds General Advertiser* concerning these additional rooms.

'Long will it be remembered and fondly recorded upon the tablets of many hearts of the workpeople of Mayfield, that on the 13th of October 1849, for the especial use, advantage, and amusement of the employed, were opened the news and reading rooms, furnished with a well-chosen assortment of newspapers, and miscellaneous useful and instructive periodicals. At a great expense to the firm, part of a very spacious dwelling-house, lately occupied by one of the partners, has been, by their particular wish, converted into two beautifully decorated and commodious rooms, replenished with magnificent maps, and all that is desired to make it convenient, attractive and comfortable. To attend to these rooms, a person has been appointed by the hands themselves, who is to furnish them at cost price with hot coffee before six in the morning, or during the day; and he has permission also to sell ginger-beer, tobacco, and cigars. The smaller, or smoking room, besides being used for that purpose, is also intended for various kinds of amusements, so that such of the hands as are votaries of the scientific game of draughts, or the more ancient game of chess, have now an opportunity of innocently amusing themselves until the retiring hour of ten o'clock'

The article continues and gives details of the high-quality furniture and the range of newspapers present in the reading room. It also stresses that, in allowing the 'working man' time to read, he will become 'acquainted with the events passing in the world'. The article suggests that, 'the more he [the workman] knows, the less hasty, the less violent, and the more correct will be his judgement and opinions'. The employees at the Mayfield Printworks were clearly given more respect and care than the workers at other printworks during this period.

On the 21st October 1896, the *Manchester Guardian* published winding-up notices from companies that were closing down, with the Mayfield Printworks being included on the list. On Saturday 6th February 1897, the Mayfield Printworks appears in the *Manchester Guardian* as up for auction due to voluntary liquidation. The auction was for the contents of the Mayfield Printworks and was due to begin the following Monday and continue throughout the week. The advertisement gives a summary of some of the items that would be sold at auction at the printworks.

'The catalogue will include 28 printing machines as follows: - Four one-colour, six three-colour, one four-colour, one five colour, ten six-colour, three eight colour, one ten-colour and two twelve-colour machines, with blanket framing, drying apparatus, and grey racks, complete (the machines are mostly by Gadd and Hill, T. Gadd, and Houston and Co.); four mandril forcing presses, two doctor planning machines, open soaping machines, by Furnival and Co. and Hawthorn and Co.; blue dyeing machine, with four cast-iron becks and pair of diagonal engines; dunging, soaping and washing becks; dye becks, squeezing rolls, starching and finishing mangles, washing padding, and ageing machines; ten horizontal drying machines, mostly with copper cylinders; two three-bowl and one five-bowl calendars, two stretching machines 42in. and 44in. wide; five plaiting-down machines, by Hacking and Co.; two shearing machines, and four canroys, six Rayer and Lincoln and numerous Birch sewing machines, two hydro-extractors, three Blackman air propellers, two steam cots,

brick-built continuous steaming chamber, with gearing, by Mather and Platt; wrought and cast iron soap pans, wood liquor vats, 62 copper colour pans, from six to 80 gallons capacity; contents of mechanics' shop and smithy, comprising two slide and screw cutting lathes, planing machine, radial drill. Massey steam hammer, fitters', turners' and smiths' tools and appliances, band saw, saw bench, engraving plant, wood counters, benches, racks, stillaging, trucks, office furniture and fittings; horses, vans, lurry [lorry], carts and harness. The motive power comprises one Galloway boiler, 30ft by 7ft. 6in., working at 60lb. pressure; two ditto, 26ft. by 7ft. working at 60lb/ pressure; one ditto. 26ft. by 6ft. 6in., working at 60lb. pressure; one ditto, 26ft. by 7ft., working at 50lb. pressure: one Lancashire boiler, 28ft. by 7ft., working at 60lb. pressure, by Tetlow; two ditto, 30ft. by 7ft. 6in., working at 60lb. pressure, by Tetlow; Green's economiser, 192 pipes; horizontal condensing machine, 22in. cylinder; numerous vertical, diagonal, and horizontal steam engine; shafting and gearing throughout the work, donkey, Worthington, and deep-well pumps, wrought and cast iron piping, gas fittings'

Alfred Neild reflected on seeing the growth and decline of the Mayfield Printworks throughout his lifetime:

'My life in the Works, where I was learning the business, does not call for much remark. I put my hand to nearly every department. I witnessed a large extension of it and great prosperity; and it has been my lot, in old age, to witness its decline and fall.' (Neild 1898, 18).

4.5.6 Housing

Perhaps due to the increasing importance of the Mayfield Printworks, a variety of houses built up in the area of research during the first half of the 19th century. Buxton Street, Neild Street, Station Street appear in the north-west area of the Site and Selby Street, Ashton Place, Egerton Place, Broadie Street, Vernon Street, Robert Street, Victoria Street, Chapelfield Road, Gray Street and Arthur Street appear to the east of the Site, all during the period between 1794 and 1850. The 1851 OS map shows that Mewett Street had back-to-back housing, indicating that living conditions on these streets would have been very cramped.

Attempts were made by the Manchester Police Commissioners to apply a rudimentary form of building regulations as early as 1792. However, with no way to enforce these regulations, they were largely ignored (Hylton 2003, 152). By the 1820s and 1830s, housing conditions deteriorated further, with poor sanitation, no form of water supply and poor-quality bricks and mortar (Nevell 2008, 136; Pearlman 1956, 3). At best, an open drain from an ashpit privy might have been installed down the middle of the street or court (Parkinson-Bailey 2000, 35). 18th century houses were compromised during this period by the infilling of areas between these dwellings with back-to-back and blind-back housing, and by the increasing use of these buildings, originally designed for occupation by one family, as tenements, that were occupied by two or more families. As a result, houses became increasingly overcrowded and cellars were used as separate dwellings (Nevell 2008, 152; Marr 1904, 34 and 60).

A description of the housing conditions during the early 19th century was given by Dr J Ferriar in the proceedings of the Board of Health in 1805:

"The number of damp and very ill-ventilated cellars inhabited in many parts of the town is a most extensive and prominent evil. It may be necessary to explain to gentlemen who have not visited such places, that they each consist of two rooms underground, the front

apartment of which is used as a kitchen, and though frequently noxious by its dampness, and closeness, is greatly preferable to the back-room: the latter has only one small window, which, though on a level with the outer ground, is near the roof of the cellar, it is often patched with boards or paper, and in its best state, is so much covered with mud, as to admit very little either of air or light. In this cell, the beds of the whole family, sometimes consisting of seven or eight, are placed. The floor of this room is often unpaved: the beds are fixed on the damp earth. But the floor, even when paved, is always damp. In such places, where a candle is required, even at noon-day, to examine a patient, I have seen the sick without bedsteads, lying on rags; they can seldom afford straw. This deplorable state of misery becomes frequently the origin, and certainly supports in a great degree the progress, of infectious fevers.” (Board of Health 1805, 12-13).

Further acts were introduced during the 19th century in an attempt to improve living conditions in Manchester. The Manchester Police Act of 1844 stated that any new house should be provided with a toilet, with a door and covering, and all existing houses were to have one installed; significantly, this act also banned the building of new back-to-backs (Muthesius 1982, 126; Lloyd-Jones and Lewis 1993). The Public Health Act of 1848 further sought to improve conditions by giving ‘local authorities powers to supply water, to pave and clean streets, to arrange the collection of refuse and the whitewashing and purifying of houses’ (Parkinson-Bailey 2000, 40). Cellar dwellings also became illegal in 1853 through the Manchester New Streets Act, however, this took approximately three decades to take full effect, as many cellar dwellings remained occupied until 1872 (Hylton 2003, 154).

Two significant advances in housing legislation were introduced in the late 1860s. The first was the Manchester Waterworks and Improvement Act of 1867, which led to the appointment of a Medical Officer of Health for the town, the first of which was Dr John Leigh (Parkinson-Bailey 2000, 41). Nationally, this act was the first of its kind that enabled houses unfit for habitation to be closed and demolished. Significantly, the 1867 act also specified the minimum requirements for room sizes and window areas in new dwellings, and also required that every new house had a yard at the rear. This act also required a minimum street width of 30ft (*ibid.*). This local act was then supplemented in 1868 by the passing of a national act. This was the Artisans’ and Labourers’ Dwelling Act, also known as the Torren’s Act after its author, which focused on the improvement, maintenance, or demolition of pre-existing houses and also new-build houses (*ibid.*). To bring houses up to the required standard, landlords might create a through-dwelling by knocking doors through the party wall between a pair of back-to-backs. Pairs of back-to-backs or individual one-up one-downs might be removed altogether to create the space for yards for the remaining property (Roberts 1993, 22-3). In 1875, the Artisans’ and Labourers’ Dwellings Improvement Act was introduced to provide the mechanism of slum clearance, the first act of its kind (Pearlman 1956, 28). However, the Manchester authorities were initially resistant to this act, and it was not until 1890, with the amendment of this Act, that slum clearance and regeneration began in earnest (*op. cit.* 34).

Despite regulations being introduced and in place throughout the 19th century, back-to-back houses were still present in the Site area until at least 1890. The houses on Mewett Street still seem to be back-to-backs on the 1908 OS map (Plate 15), however, the buildings seem to have undergone some modification. By 1922, the houses were finally developed into single dwellings (Plate 16).

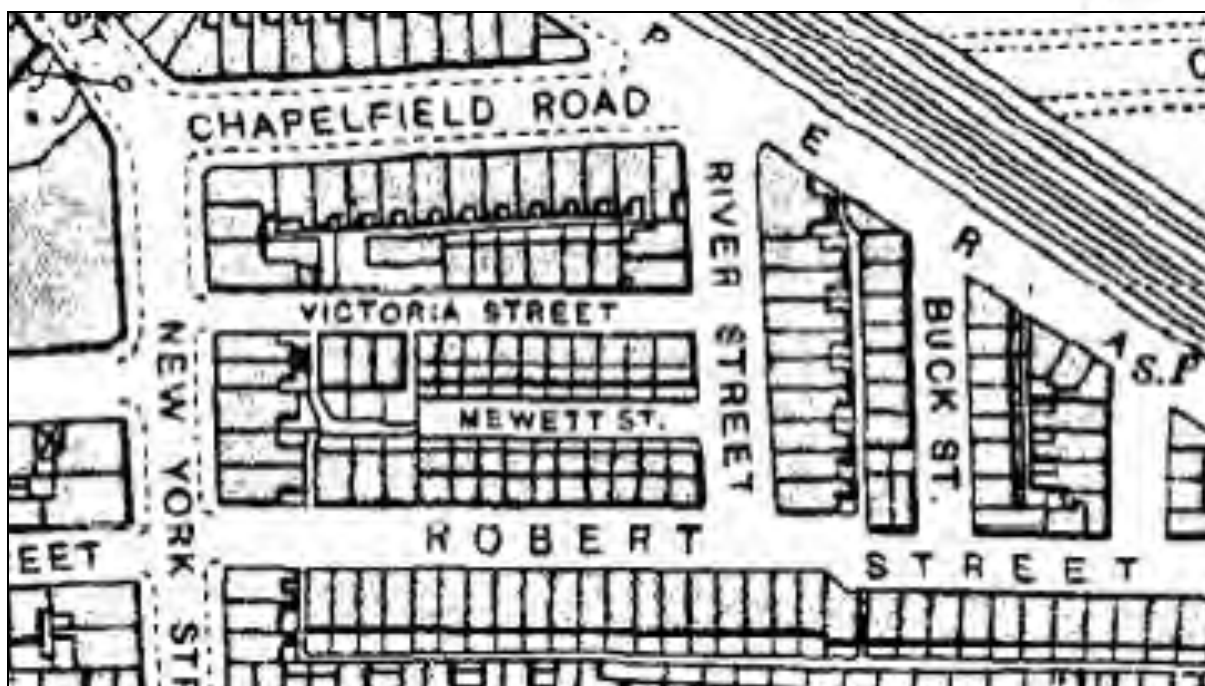


Plate 15: 1908 OS map showing the back-to-back houses still standing but with the addition of private yards for the properties fronting Mewett Street

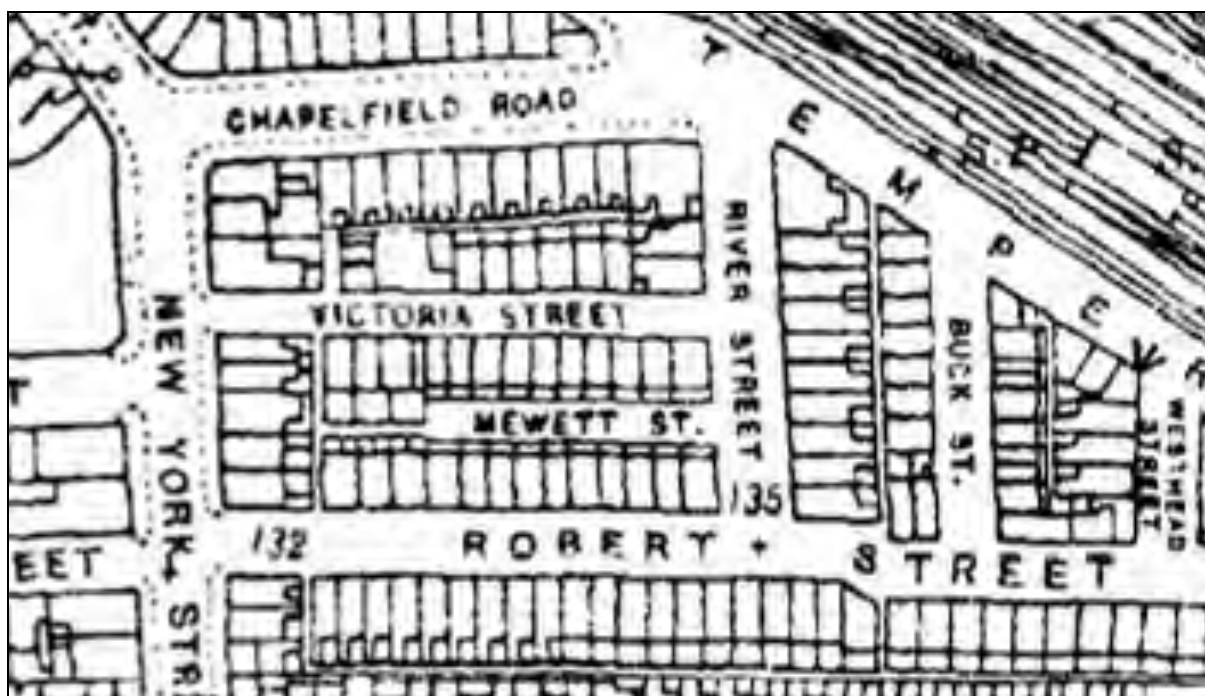


Plate 16: 1922 OS map showing the back-to-back houses having been redeveloped

4.6. Modern

4.6.1 The development of the railway in Manchester

The Liverpool and Manchester Railway opened on the 15th September 1830 and was the world's first public railway. It had the aim of creating better links between Manchester and Liverpool, with more links branching off to different areas across Lancashire. The railway was the first to exclusively use steam power, a scheduled passenger service and a system of signalling. Until 1844, there were four unconnected lines that fed into Manchester, their termini being Liverpool Road (1830), Salford (1838), Oldham Road (1839) and London Road (1840-2) (Wright 2011, 11). In 1846, the Liverpool and Manchester Railway became the London North Western Railway (LNWR), which existed from 1846 until 1922. It was an amalgamation of Manchester and Birmingham Railway, the Grand Junction Railway and the London and Birmingham Railway.

In 1842, the Manchester and Birmingham Railway opened the permanent station at London Road (Plate 17), known until 1847 as Store Street Station. The station has had its name changed twice throughout its lifespan, by 1847, the station was renamed London Road Station and in 1960 was renamed Manchester Piccadilly Station. The original station at London Road had two platforms, one for arrivals and one for departures. By 1860, the station was becoming overcrowded and tensions were building between London North Western and the Manchester Sheffield and Lincolnshire Railway (MS&L). By 1862, an agreement was reached to divide the station at London Road in two, splitting LNWR and MS&L on the south western side and north eastern sides of the station respectively. Problems with overcrowding continued resulting in an expansion of London Road Station in 1881, costing LNWR £300,000 (over £20 million today) (Wright 2011, 26). By 1910, a decision was made to build the Mayfield Station, which acted as a secondary station to deal with the increasing number of passengers at London Road Station. Manchester London Road Station changed its name to Manchester Piccadilly in 1960, after further work was undertaken by British Railways.



Plate 17: Manchester London Road Station and forecourt, 1913

4.6.2 *Mayfield Railway Station*

By 1901, approximately 20,000 passengers were using London Road Station daily, with 14,000 season ticket holders. In 1909, work took place at London Road Station to accommodate the increasing numbers of passengers and services, including the widening of the viaduct between Ardwick and Manchester to fit 10 more sets of rails. To help further ease congestion, Mayfield Station (Plates 18 and 19) was built on the other side of Fairfield Street from Manchester London Road Station with a passenger footbridge connecting the two stations. Due to a series of protests and concerns regarding the delays and 'local passenger traffic', Mayfield opened on the 8th August 1910 with no formal opening ceremony (Wright 2011, 50). By September 1910, there were 37 departures from the Mayfield Station on weekdays, and 34 on Saturdays.

Mayfield Railway Station was impacted during the events of the early 20th century. In 1912, the National Coal Strike impacted the use of the Mayfield Railway Station and LNWR were forced to limit their services. The Mayfield Railway Station played a role in helping with the war efforts during the First World War. In October 1914, 85 wounded Belgian soldiers and refugees were brought into Manchester via Mayfield Station.

The Railways Act 1921 created four main railway companies, which came into existence in 1923. During this time, LNWR was absorbed into the 'London, Midland and Scottish Railway' (LMS) (Wright 2011, 61). The Mayfield Station continued to operate as usual until the Second World War, with some redevelopments occurring during this time.

Many trains operating to and from Mayfield Station were suspended from the 1st September 1939 to provide transport to the evacuees due to the outbreak of World War II. The station was bombed on the 22nd December 1940 using a parachute mine, causing short-term disruption. The stables were damaged, and the signal box destroyed. In 1948, British Rail formed and split the railway system into regions, with Mayfield Station becoming part of British Rail's London Midland Region. In January 1958, British Rail announced that the Mayfield Rail Station would be closed to passengers and instead be used as a parcel depot by Royal Mail. The station closed to the public on the 27th August 1960, fifty years after the station opened. The station operated as a parcel service for the following 26 years, until its final closure in 1986, following the decision by Parcelforce to abandon rail transport in favour of road haulage. The station has remained disused since its closure and following a fire the majority of the roof was removed in 2013.



Plate 18: The platforms and hydraulic buffer stops at Mayfield Railway Station, March 2019.



Plate 19: Stairs at Mayfield linking the ground floor to the platforms, March 2019

4.7 Development of the Site

The development of the Site may be traced reasonably well from the sequence of available historic mapping. The earliest reliable published maps that show the study area at a useful scale are Charles Laurent's *Map of Manchester & Salford*, published in 1793 and William Green's *Map of Manchester & Salford*, published 1787-94. Laurent's 1793 map of the Mayfield area (Plate 20) shows that the Site during this period was largely rural. Several structures occupied the Site during this period, including Hoyle's Mayfield Dyeworks (HA **01-08**), established in 1782, Chapelfield Works (HA **12**), Ardwick Dyeworks (HA **20**), Stove Street House (HA **19**), Travis Street Houses (HA **22**), Mayfield House (HA **09**) and Tipping Street House (HA **23**). The rural lands surrounding the structures appear to be of agricultural and pastoral use.



Plate 20: Charles Laurent's 1793 map of the Mayfield area, orientated with north at a bearing of 225°

Swire's map shows the area of the Site in 1824 (Plate 21). The Ardwick, Chapelfield and Mayfield Dyeworks still dominated the Site, with additions to the areas including Victoria Street House (HA **21**), Tipping Street and Buxton Street. The Victoria Street House occupies a field owned by Thomas Tipping in the late 18th century, with the house being surrounded by gardens. By 1824, Buxton Street, Travis Street, Tipping Street (now the Mancunian Way), and parts of Boardman Street and Stove Street (now Baring Street) were constructed. Tipping Street House does not appear on the 1824 map, indicating the site had been demolished in the late 18th or early 19th century. The Site remained largely rural during the early 19th century. Banks and Co.'s 1831 map (Plate 22; Fig. 3) is not dissimilar to Swire's, showing development in the north-western extent of the site in the form of new streets and housing, with little development having taken place towards the east other than Victoria Street House.

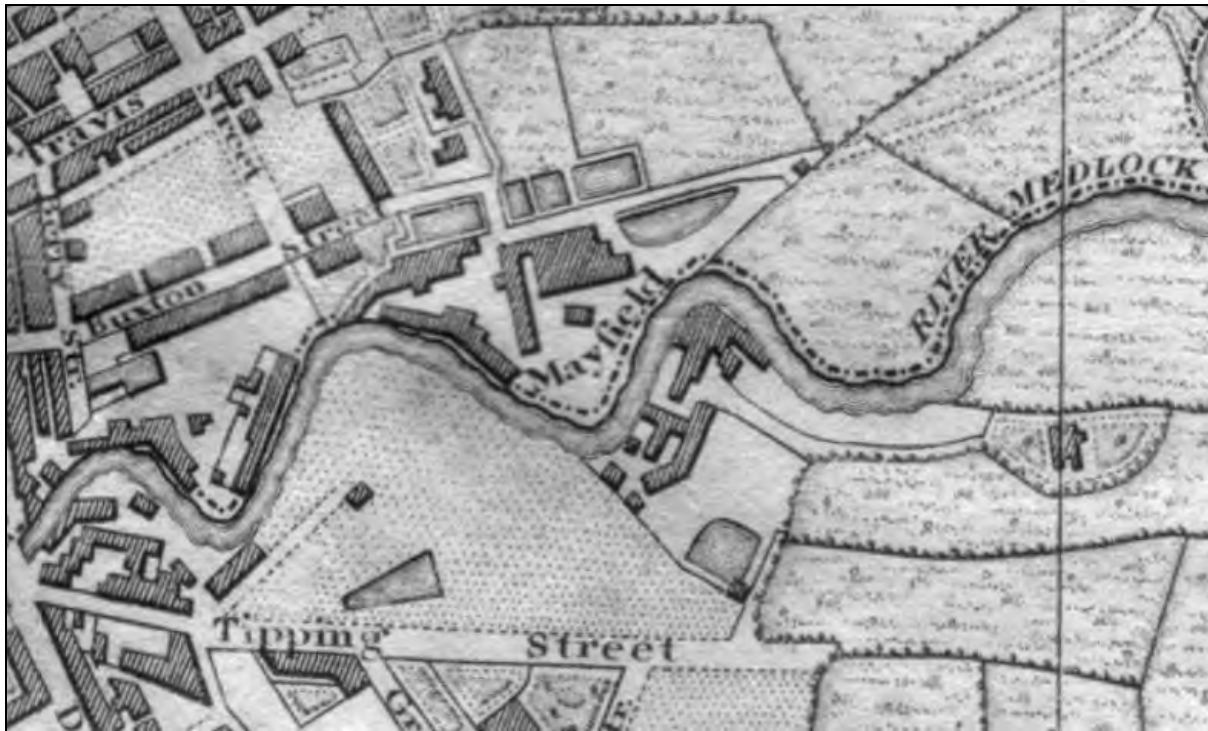


Plate 21: Swire's 1824 map of the Mayfield area with Victoria Street House being the most eastern structure within the map



Plate 22: Bancks' map of 1831, showing the study area

The first edition ordnance survey map of 1851 (Plate 23; Fig. 4) shows that more housing had been established in the north-western extent of the site, with Neild Street, Station Street, Bailey Street and School Lane having been constructed off Buxton Street and Travis Street by this time. Blocks 2 and 5 (HA **03** and **06**) of the Mayfield Printworks had been constructed on the banks of the River Medlock. The Ardwick Tannery (HA **14**) appeared for the first time on this map to the south of the Mayfield Printworks. A brewery had been constructed on Stove Street, on the footprint of what would later become the Mayfield Ice Factory. By this time, many more houses had been constructed along new laid out streets. To the east,

Broadie Street, New York Street (now Hoyle Street), Victoria Street, Mewett Street (HA 18), Robert Street (now Rachel Street), River Street, Buck Street and Vernon Street had all been built by the mid-19th century, all lined with terraced houses, with back-to-back houses being constructed on Mewett Street. Victoria Street House was still standing at this point and was incorporated onto Victoria Street. Tipping Street Chapel (HA 17) was situated in the south-eastern portion of the site. More houses had been constructed on Selby Street, Ashton Street and Egerton Street (or Egerton Place), all of which were situated off Tipping Street towards the south of the Site. Houses had also been constructed at the east of the Mayfield Printworks, with names relating to the printworks, including Indigo Street (Plate 24), Maddar Street, Mayfield Street, Arthur Street, Gray Street, and Hoyle Street. Broadie Street had been constructed off Chapelfield Lane, where the Britannia Brewery (HA 15) was established.

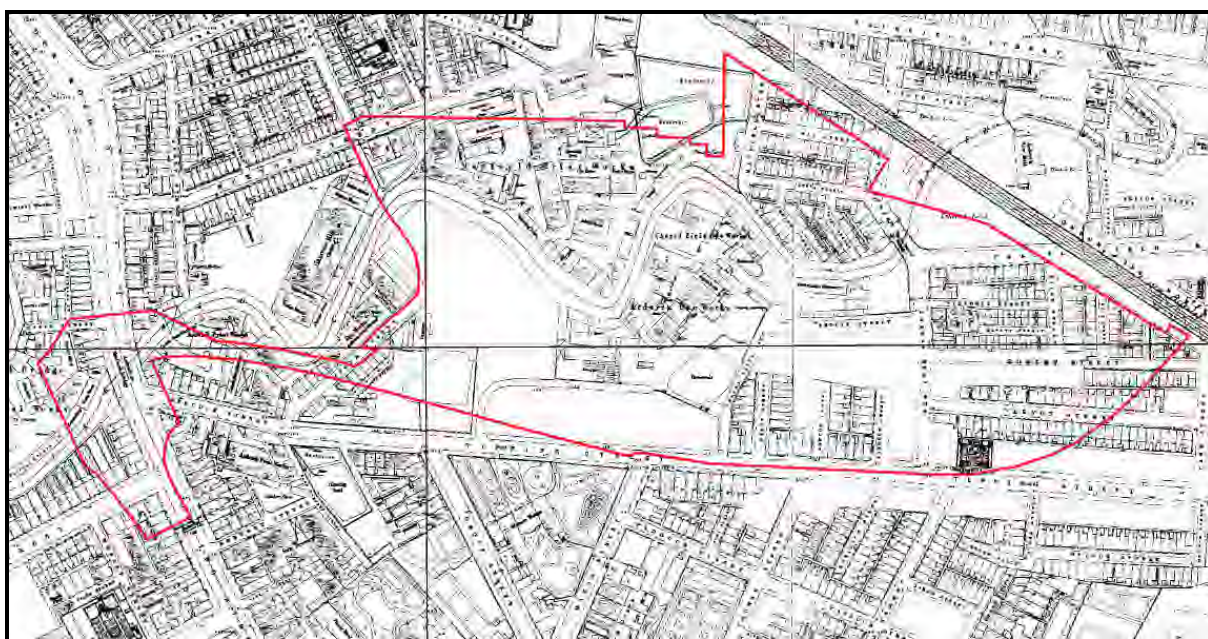


Plate 23: The 1851 OS map of the Mayfield area, including the study area

The 1893 OS map (Plate 25; Fig 5) shows further development had taken place, particularly in the south-eastern extent of the Site, where Howard Street, Nether Street and Bond Street were constructed. The Mayfield Baths (HA 13) had been built off Stove Street, directly south of the Mayfield Printworks and the Water Meter Works (HA 27), which had been built off Tipping Street. The Mayfield Printworks had expanded again in the late 19th century, crossing the river and abutting the Mayfield Baths. The Corporation Inn (HA 16) first appeared on the 1851 OS map, located on Tipping Street, just west of the Tipping Street Chapel.



Plate 24: Photograph of Indigo Street, looking northwest from the south east end of the street

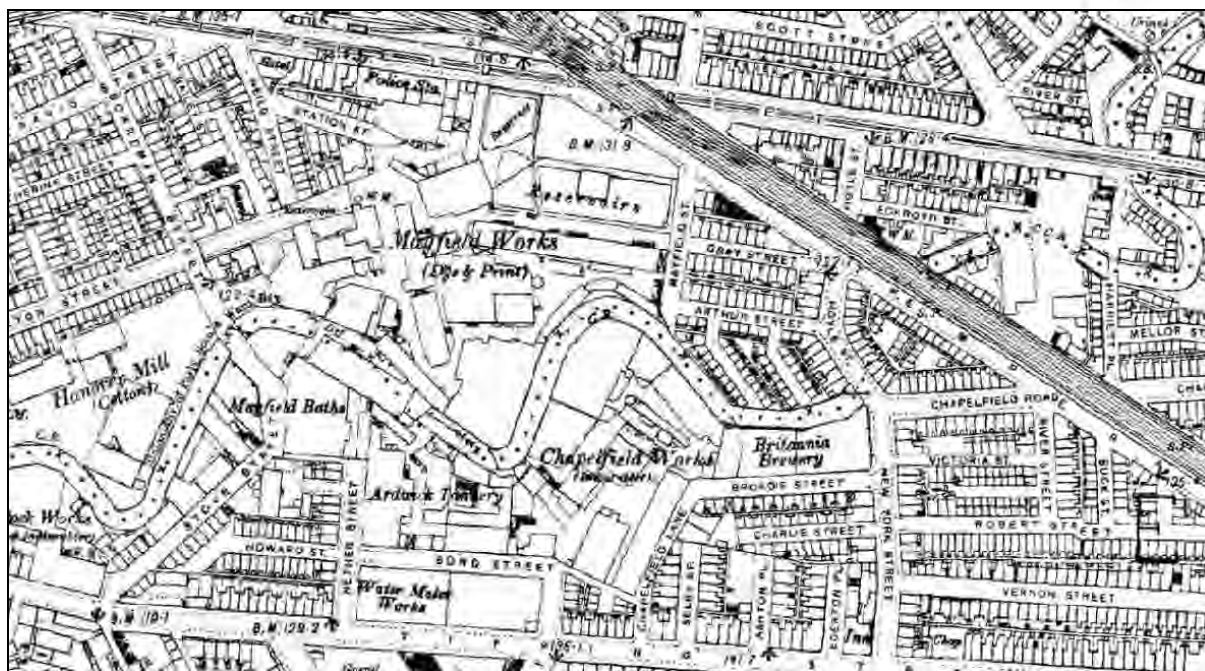


Plate 25: The 1893 OS map of the Mayfield area,

By 1908, the Chapelfield Works had extended westwards, incorporating the Ardwick Tannery structures into the works. The 1908 OS map (Plate 26; Fig. 6) shows the Mayfield Ice Factory (HA 24) had also been established by the early 20th century on the site of a former brewery.

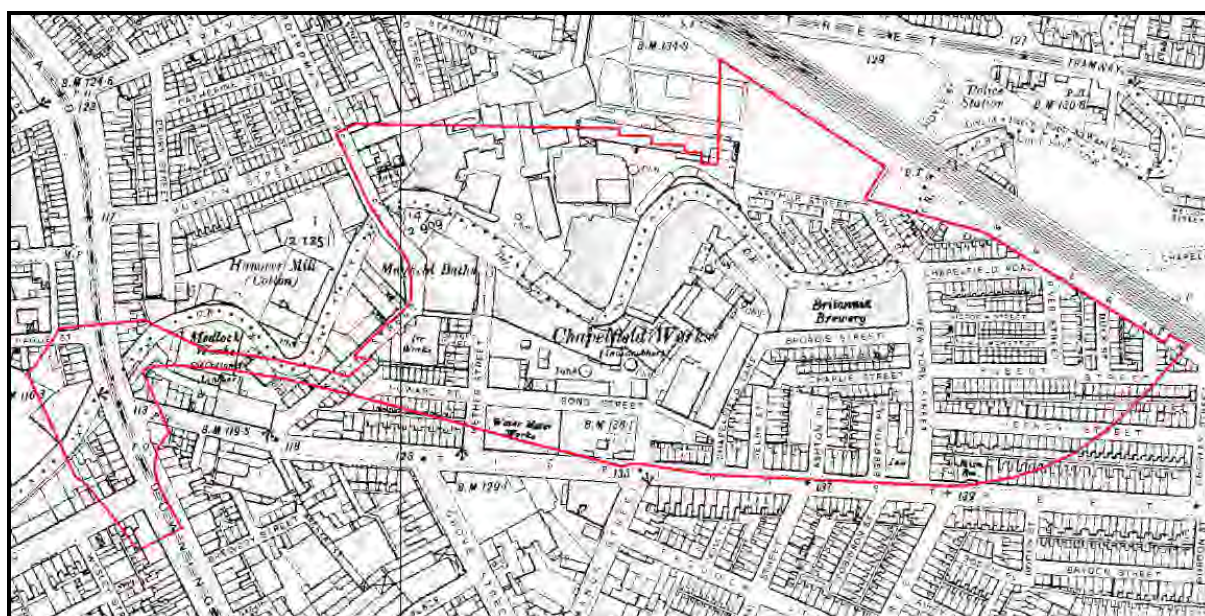


Plate 26: The 1908 OS map of the Mayfield area, showing the study area

By 1910, the Mayfield Railway Station (HA 10 and 11) was constructed, vastly impacting the Site north of the River Medlock. The Mayfield Printworks was mostly demolished, with a chimney remaining and some structures from blocks 2 and 5. The chimney can still be seen in a photograph taken of the site area in 1924 (Plate 27).



Plate 27: 1924 aerial Photograph of the site area, looking north, showing a chimney remaining in the land below the Mayfield Railway Station

The changes to the site during the early 20th century can be seen on the 1922 OS map (Plate 28; Fig. 7). The Mayfield Railway Station extends across the northern extent of the Site, with the Mayfield Printworks no longer shown on the map. However, the chimney and structure, previously belonging to Block 2, appear on the 1924 aerial photograph and on the 1922 OS map, indicating that the Mayfield Printworks had not been fully demolished. Streets north of Arthur Street were removed, along with any houses occupying the area cleared in advance of the railway's construction. The Britannia Brewery is labelled as 'disused' on this map, showing the building was still standing but was not in use.

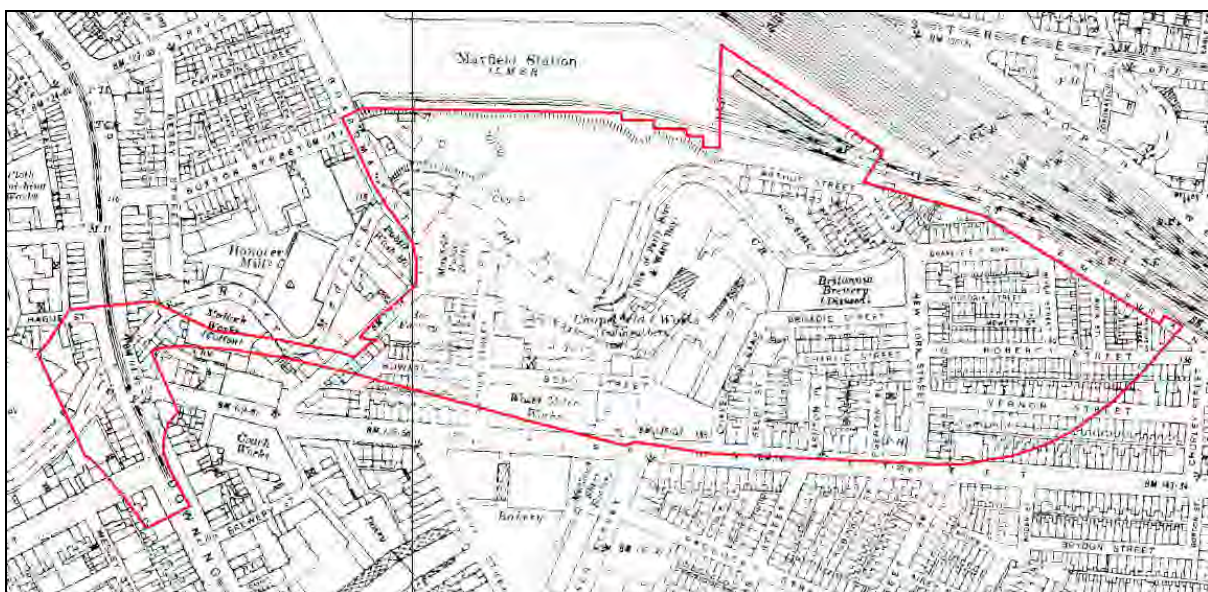


Plate 28: The 1922 OS map of the Mayfield area, showing the study area

The 1954 map shows the changes to the housing in the area of the Site. By the mid-20th century, many of the houses within the area of the Site had been demolished, leaving many areas open to redevelopment. The previous sites of Victoria Street and Mewett Street became the site of a mortuary. The majority of the houses that had occupied Selby Street, Ashton Street and Egerton Street (or Place) and the Tipping Street Chapel had been demolished, leaving the Corporation Inn standing alone (Plate 29). The sites of the Britannia Brewery and the Mayfield Baths are labelled as 'Ruins' on the 1954 OS map (Plate 30). The Mayfield Railway Station, Mayfield Ice Factory, Water Meter Works, Corporation Inn and the Chapelfield Works remained in use in 1954.



Plate 29: A Photograph of the Corporation Inn, 1956

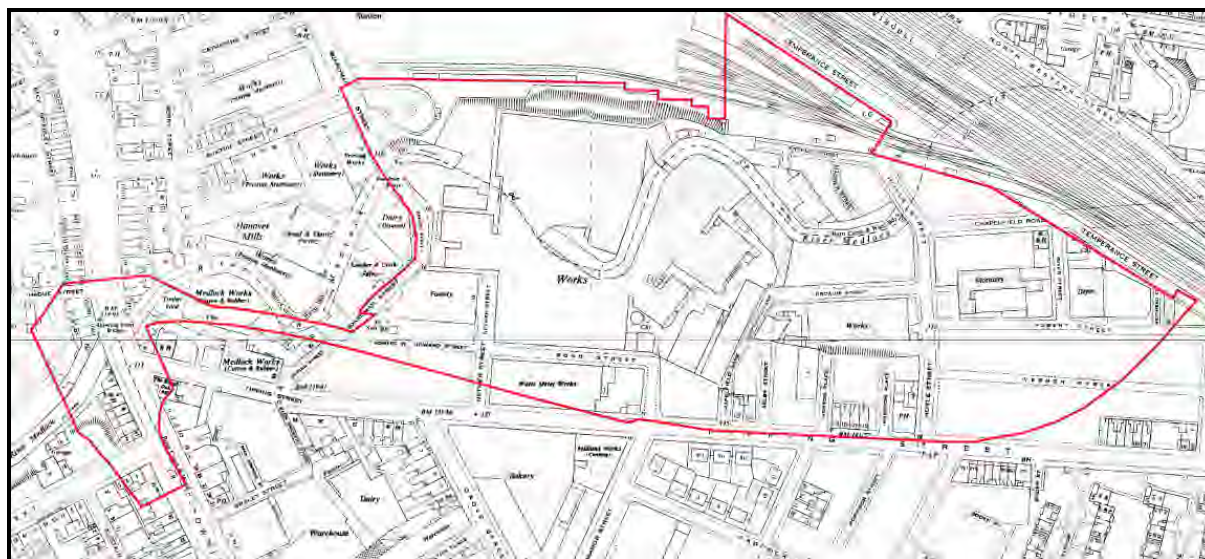


Plate 30: The 1954 OS map of the Mayfield area

5. Gazetteer of Sites

The following gazetteer provides a list of the heritage assets (HAs) identified within the study area. This has been compiled from Greater Manchester Historic Environment Record (HER) data, coupled with a study of the historical map sequence.

- HA Number:** 01
Site Name: Mayfield Printworks
NGR: 385100, 397625
HER No: 16083.1.0
Designation: Undesignated
Site Type: Dye and Printworks (site of)
Period: 18th-19th century
Source: Green 1794; Swire 1824; Bancks and Co. 1831; OS 1851; 1872 Insurance Plan
- Description:** The Mayfield Printworks was established in 1782 by Thomas Hoyle. It was located on Buxton Street, off London Road within and to the south of the site of Mayfield Railway Station. The dyeworks is an early example within Manchester and was particularly large and well established, with many prestigious visitors to Manchester receiving tours of the complex. The company became well known for its production of rich purple cloths.
- Assessment:** The Mayfield Printworks was a large complex and therefore, for the purposes of this assessment, the complex has been divided into seven blocks and have been assessed individually as separate gazetteer entries. Buried remains of the printworks are likely to survive within the Site in the area between the footprint of the railway station and the River Medlock.

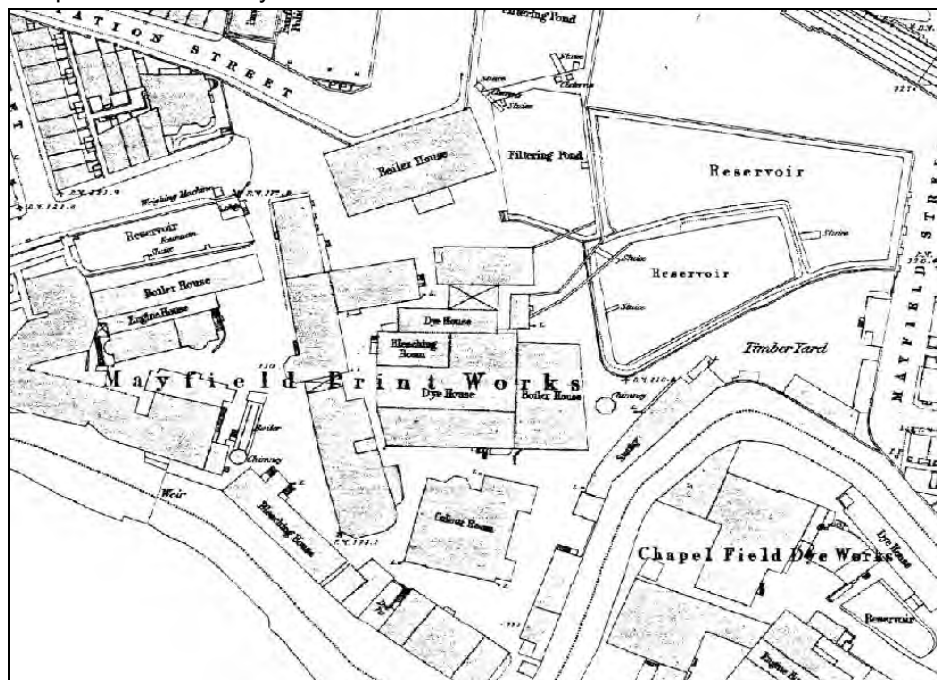


Plate 31: 1851 OS map showing the labelled buildings at Mayfield Printworks

HA Number: 02
Site Name: Mayfield Printworks – ‘Block 1’
NGR: 385073, 397681
HER No: 16083.1.0
Designation: Undesignated
Site Type: Dye and Printworks (site of)
Period: Late 18th century
Source: Green 1794; Pigot 1813; Swire 1824; Bancks and Co. 1831; OS mapping
Description: ‘Block 1’, an allocation given for the purposes of this report, refers to the block of buildings within the Mayfield Printworks towards the west of the Site. On the insurance plan, this block includes risk areas 1-8 and rooms 1-40. On the 1872 insurance plan (see Appendix 1), these buildings include the entrance house, two fireproof safes, offices and water closets, an engine house, colour filtering rooms, washhouses, a copper roller room, steaming room, machine printing room, a colour box washing room and several others. On the 1851 OS map (Plate 31), the block is labelled as ‘boiler house’ and ‘engine house’. Block 1 is one of the earlier blocks of the printworks, as it appears on Pigot’s 1813 map, alongside parts of Blocks 3 and 6.
Assessment: Buried remains from these buildings may survive within the area immediately to the south of the railway depot.

HA Number: 03
Site Name: Mayfield Printworks – ‘Block 2’
NGR: 385080, 397567
HER No: 16083.1.0
Designation: Undesignated
Site Type: Dye and Printworks (site of)
Period: 19th century
Source: Green 1794; Pigot 1813; Swire 1824; Bancks and Co. 1831; Pigot 1836; Slater 1848; OS mapping
Description: ‘Block 2’, an allocation given for the purposes of this report, refers to the block of buildings of the Mayfield Printworks furthest south within the Site. On the 1872 insurance plan (Appendix 1), this block includes risk areas 9-19 and rooms 41-59. These buildings included a soup manufactory, a gasmeter room, drug (chemical) rooms, chemical mixing rooms, a steam engine house, steaming machine room, as well rooms with many other functions. The southern and eastern walls that make up rooms 56 and 57 (56 being a gasmeter and chemical room, 57 being a steaming machine room) were still extant during the site visit and had been incorporated into a later warehouse (Plates 32-34). Block 2 appears on Slater’s 1848 map of the site, but not on any earlier maps, which suggests that Block 2 was built sometime after Pigot’s 1836 map but prior to 1848. On the 1851 OS map of the site, the buildings on the banks of the river (risk area 10, rooms 42-44 on the insurance plan) are labelled as the ‘bleaching house’.
Assessment: The area does not appear to have been built on significantly during the 20th century and therefore buried remains of the printworks may survive intact.



Plate 32: ‘Block 2’ of the Mayfield Printworks, as seen on the 1872 insurance plan. The area red-dotted line indicates the location of the printworks walls that were present on the Site in March 2019. The location of a short flight of steps possibly associated with the dye works was also noted during the Site inspection and their location is indicated by the red arrow.



Plate 33: A remnant of the Mayfield Printworks, photographed in March 2019. The apex roof is a modern addition.



Plate 34: Steps remaining possible from 'Block 2' of the Mayfield Printworks, March 2019

HA Number: 04
Site Name: Mayfield Printworks – ‘Block 3’
NGR: 385101, 397616
HER No: 16083.1.0
Designation: Undesignated
Site Type: Dye and Printworks (site of)
Period: 19th century
Source: Green 1794; Pigot 1813; Swire 1824; Pigot 1836; OS mapping
Description: ‘Block 3’, an allocation given for the purposes of this report, refers to the block of buildings of the Mayfield Printworks in the centre of the Site, just east of Block 6. On the 1872 insurance plan (Appendix 1), this block includes risk areas 20-24 and rooms 60-87. According to the 1872 plan, the buildings that make up Block 3 included a colour mixing room, colour grinding shed, laboratory for experiments, washing room, print washing shed, boiler houses, buff raising places and steam engine house. On the 1851 OS map of the site, Block 3 is shown as the ‘boiler house’ and ‘engine house’. Block 3 lies south of the present-day Mayfield Railway Station and is one of the earlier blocks of the site, as some buildings appear as early as 1813 and the majority of this block was built by 1836.
Assessment: Buried remains of ‘Block 3’ are likely to survive within the Site.



Plate 35: Stone and brick-built river retaining walls associated with the Mayfield Printworks survive within Block 2 and Block 5

HA Number: 05
Site Name: Mayfield Printworks – ‘Block 4’
NGR: 385140, 397635
HER No: 16083.1.0
Designation: Undesignated
Site Type: Dye and Printworks (site of)
Period: 19th century
Source: Green 1794; Swire 1824; Bancks and Co. 1831; Slater 1848; OS mapping
Description: ‘Block 4’, an allocation given for the purposes of this report, refers to the long rectangular block of buildings of the Mayfield Printworks running east-west towards the north-eastern extent of the site. This block includes risk areas 25-26 and rooms 88-104. According to the 1872 insurance plan (Appendix 1), the buildings that make up Block 4 include a steam calendaring room, coal store, drilling room, machine printing rooms, steam chest room, mechanic’s workshop, gearing rooms and several different types of store rooms. Block 4 was built by 1848 but does not appear on the maps of the site prior to this date. Prior to the building of Block 4, the land was used as filtering ponds, reservoirs and a timber yard for the printworks.
Assessment: Buried remains of ‘Block 4’ are likely to survive within the Site.



Plate 36: Stone and brick-built river retaining walls associated with the Mayfield Printworks

HA Number: 06
Site Name: Mayfield Printworks – ‘Block 5’
NGR: 385080, 397567
HER No: 16083.1.0
Designation: Undesignated
Site Type: Dye and Printworks (site of)
Period: 19th century
Source: Green 1794; Swire 1824; Bancks and Co. 1831; Slater 1848; OS mapping
Description: ‘Block 5’, an allocation given for the purposes of this report, refers to the block of buildings of the Mayfield Printworks towards the south east of the site. On the insurance plan, this block includes risk areas 27-32 and rooms 105-104. These buildings are narrow and follow the bend of the river. The buildings here have several functions, including a steam boiler house, millwrights’ offices and storerooms, joiners’ office, brick setters’ and masons’ shop, paint shop and wheelwrights’ shop. Within this area, during the site visit a remaining engine bed from the Mayfield Printworks was identified (Plate 37). River are also standing extant, which originally formed as part of the printworks (Plate 35 and 36). Block 5 was one of the later blocks of the Mayfield Printworks, as the earlier buildings within the block appear on Slater’s 1848 map.
Assessment: Block 5 is of particular archaeological interest due to the surviving engine bed that lies within this area. Further, buried remains of ‘Block 5’ are likely to survive within the Site.



Plate 37: Remaining engine bed within ‘Block 5’ identified on the site visit, March 2019

HA Number: 07
Site Name: Mayfield Printworks – ‘Block 6’
NGR: 384073, 397623
HER No: 16083.1.0
Designation: Undesignated
Site Type: Dye and Printworks (site of)
Period: 19th century
Source: Green 1794; OS mapping
Description: ‘Block 6’, an allocation given for the purposes of this report, refers to the block of buildings of the Mayfield Printworks towards the south east of the site. On the 1872 insurance plan (Appendix 1), this block includes risk areas 33-35 and rooms 118-132. The buildings in Block 6 include a grey pasting room, colour room, folding room, printing rooms, the ‘old’ block printing rooms and colour mixing rooms. Block 6 was one of the earlier blocks of the Mayfield Printworks, as the earlier buildings within the block begin to appear on maps as early as 1813.
Assessment: Buried remains of ‘Block 6’ are likely to survive within the Site.

HA Number: 08
Site Name: Mayfield Printworks – ‘Block 7’
NGR: 385089, 397681
HER No: 16083.1.0
Designation: Undesignated
Site Type: Dye and Printworks (site of)
Period: 19th century
Source: Green 1794; Swire 1824; Bancks and Co. 1831; OS mapping
Description: ‘Block 7’, an allocation given for the purposes of this report, refers to the block of buildings of the Mayfield Printworks towards the south east of the site. On the insurance plan, this block includes risk areas 36-39 and rooms 133-155. Block 7 includes copper roller rooms, the pattern book room, pad pin engraving room, engraver’s etching room, stables, straw and hay rooms, a cart shed and several others. Block 7 was a later addition to the Mayfield Printworks, as most of the buildings within the block only appear on the maps during the 1860s. The 1851 OS map shows a standalone ‘boiler house’, that later became incorporated into Block 7.
Assessment: The majority of any buried remains of ‘Block 7’ are likely to have been destroyed during construction works for Mayfield Railway Station.

HA Number: 09
Site Name: Mayfield Printworks – Mayfield House
NGR: 385042, 397679
HER No: 16083.1.0
Designation: Undesignated
Site Type: House (site of)
Period: 18th century
Source: Green 1794; Swire 1824; Bancks and Co. 1831; Adshead 1851; OS mapping
Description: Mayfield House (Plate 38) is possibly the oldest building associated with the Mayfield Printworks. The site of the printworks was apparently built on the land of an old country house. Laurent's 1793 map of the printworks shows what appears to be a country house surrounded by gardens. The house appeared on later maps as 'Mayfield House', located at 46 Buxton Street. The house appears on the 1871 census, where Henry Thorp, whose occupation is noted as being 'manager of printworks', lived at Mayfield House with his family. The house was demolished when the Mayfield Railway Station was built in the early 20th century.
Assessment: Any buried remains of Mayfield House are likely to have been destroyed during construction works for Mayfield Railway Station.

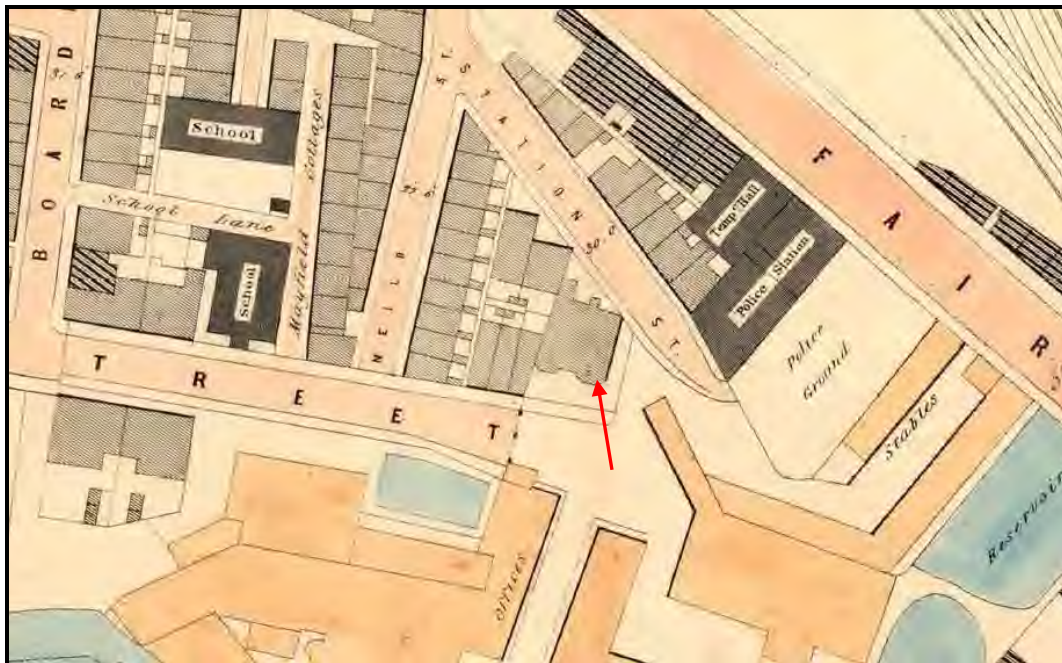


Plate 38: Mayfield House on Adshead's 1851 map

HA Number: 10
Site Name: Mayfield Train Station – platforms and ticket office
NGR: 385052, 397674
HER No: 9670.1.0
Designation: Undesignated
Site Type: Railway, Railway Station
Period: 20th century
Source: Wright 2011; OS mapping
Description: Opened in August 1910, Mayfield Train Station (Plates 39-41) was built to support Manchester Piccadilly as the number of passengers using the railways had increased. The railway station closed to the public in 1960 and became used as a parcel depot. The station was abandoned in 1986.
Assessment: The Mayfield Railway Station lies outside the current study area and will not therefore be affected by the proposed development.

HA Number: 11
Site Name: Mayfield Train Station – warehouse and depot beneath platforms
NGR: 385052, 397674
HER No: 9670.1.0
Designation: Undesignated
Site Type: Railway, Railway Station
Period: 20th century
Source: Wright 2011; OS mapping
Description: Beneath the platform of the Mayfield Station is the loading bay (Plate 42). The warehouse extends beneath the length of the platforms.
Assessment: Many features of the Mayfield Railway Station remain standing, including the depot and loading bay beneath the platforms. The loading bay and depot beneath the platforms survives largely intact.



Plate 39: Platforms and part of the roof skeleton at Mayfield Railway Station



Plate 40: The ticket office at the former Mayfield Railway Station

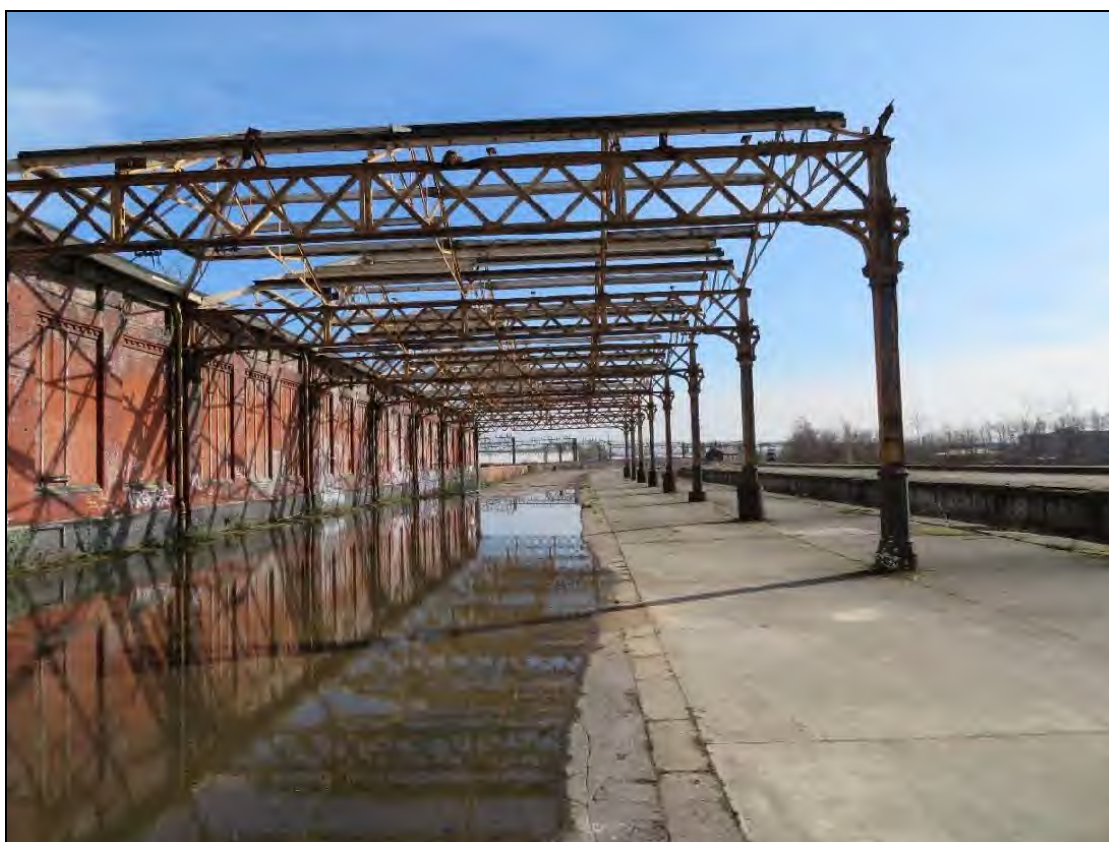


Plate 41: The remains of the roof over the former Mayfield Railway Station



Plate 42: Area beneath the platform at the former Mayfield Railway Station

HA Number:	12
Site Name:	Chapelfield Works
NGR:	385172, 397545
HER No:	-
Designation:	Undesignated
Site Type:	Dyeworks and India rubber works (site of)
Period:	18 th century
Source:	Laurent 1793; Green 1794; OS 1851
Description:	The Chapelfield Works first appears on Laurent's 1793 map, showing the Chapelfield works on the River Medlock, labelled as 'Beswick', which likely refers to the owner of the dyeworks at this time. Green's 1794 map (Plate 43), labelled the site as a dyeworks. An article in the <i>Manchester Courier and Lancashire General Advertiser</i> from the 9th February 1839, advertises the sale of the Chapelfield Works. Within the article, the former owner is stated as being a William Wells, who used the Chapelfield Works "for the general business of machine making". The works is described as having "engine power, a plentiful supply of water and good lights". It states that the works "are fitted up with a 17-horse power steam engine, mill gearing, steam pipes, gas piping and lights". During the late 1830s, the site occupied 3075 square yards of land, covering 132 yards of river frontage. By 1846, the Chapelfield Works changed hands again. The works had been used for cotton manufacturing and were owned by Hordern and Riding. After Riding's death, Hordern sold the works to Mr Thomas Barlow, who, as stated in the <i>Manchester Courier and Lancashire General Advertiser</i> on the 13th June 1846, as having the intentions to continue the business under the same name. The 1851 OS map (Plate 44) shows the Chapelfield Works as a dyeworks, with the dye house shown on the banks of the river. By the 1860s, the Chapelfield Works had come into ownership of David Moseley, of David Moseley & Sons. The works was used to produce India rubber (Plates 45-49). David Moseley & Sons manufactured rubber items at the Chapelfield Works until the company was bought by the Avon Rubber Company in 1964, who continued business on the site until 1981.
Assessment:	The Chapelfield Works is an example of an early dyeworks within Manchester, dating to the late 18th century, however, unlike Mayfield, the site changed function on several occasions, most recently manufacturing India rubber. It is possible that remains for the earliest phases of the site may survive below ground, and if so, may be significant in adding to current knowledge of these very early printworks sites.



Plate 43: Green's 1794 map showing the Chapelfield Works located to the south of the River Medlock.

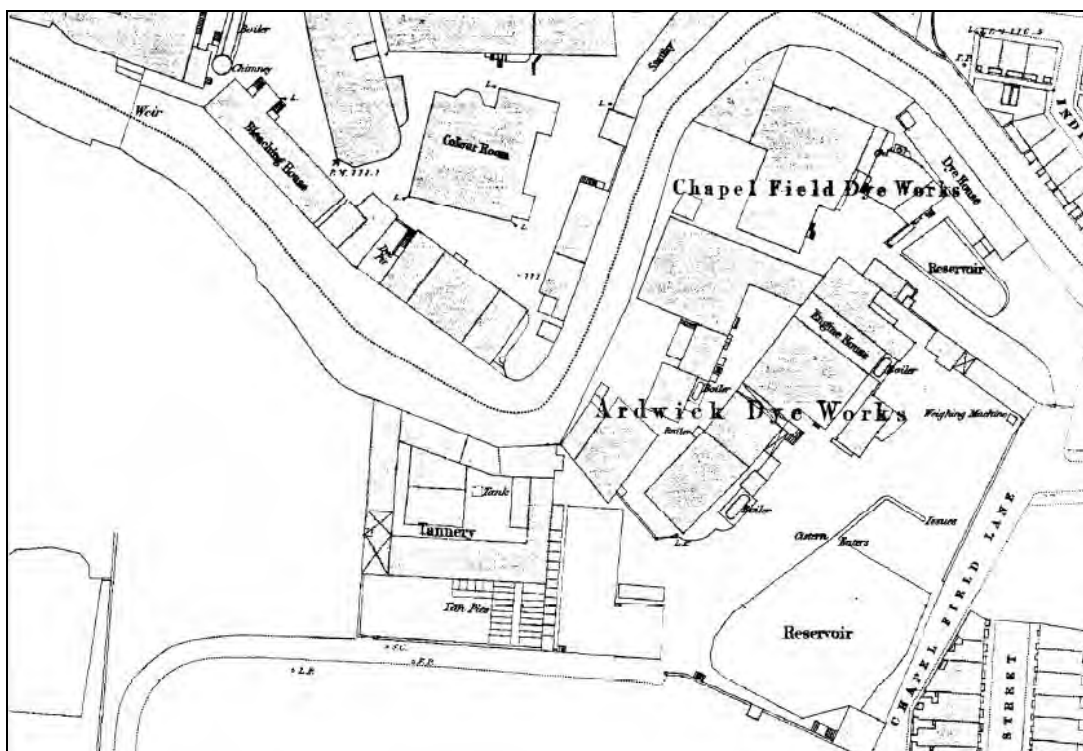


Plate 44: 1851 OS map showing the Chapelfield Works, including dye house and reservoir

DAVID MOSELEY & SONS
India Rubber
MANUFACTURERS.

SIMPLEX PATENT COTTON MACHINE BELTING AND HAIR BELTING.
SPECIALLY ADAPTED FOR MAIN DRIVING.

CHAPEL FIELD WORKS
- ARDWICK, -
MANCHESTER.

WAREHOUSES,
MANCHESTER,
2 & 4, NEW BROWN STREET.

LONDON,
4 ALDERMANBURY AVENUE E.C.

GLASGOW
67, MILLER ST.

VALVES FOR
MARINE & OTHER ENGINES.

WASHERS FOR
STEAM & WATER JOINTS.

TUBING FOR
GAS & CHEMICAL PURPOSES.

HOSE PIPES FOR
WATER AND GENERAL USE.

SHEET RUBBER
FOR MECHANICAL PURPOSES.

GUTTA-PERCHA
TUBING, SHEETING, BELTING, &c.

CHEMICAL APPLIANCES.

PRINTERS' BLANKETS.

ANY WIDTH AND STRENGTH OF THE PATENT
COTTON "SIMPLEX" BELTING
UP TO THIRTY-SIX INCHES KEPT IN STOCK.

PRICE LISTS AND TERMS FORWARDED ON APPLICATION.

**THE ANCHOR
PATENT
LINEN
FIRE HOSE**

THE SIMPLEX BELTING
IS NOT AFFECTED BY
TEMPERATURE.

Plate 45: Advertisement of David Moseley and Sons, 1896



Plate 46: The Chapelfield Works, 1969



Plate 47: David Moseley and Sons Ltd Bus and umbrellas, Manchester 1918



Plate 48: Chapelfield Works, 1969



Plate 49: Chapelfield Works with a datestone reading 1876. 'David Moseley & Son' can be read above the sign for Avon, and above the company name reads 'Field' – indicating Chapelfield.

HA Number: 13
Site Name: Mayfield Public Baths
NGR: 385028, 397559
HER No: -
Designation: Undesignated
Site Type: Public baths (site of)
Period: Mid-Late 19th century
Source: OS mapping
Description: The Mayfield baths were built in approximately 1857 and abutted the Mayfield Printworks. The plunge bath at the establishment measured at 63ft long. The baths were highly decorated with ironwork constructed by E.T. Bellhouse & Co. The Mayfield Baths, along with Leaf Street Baths, were bought by the Corporation of Manchester from the Manchester and Salford Baths and Laundries Company in October 1877 for £19,000. It is likely that the baths were shut shortly after they were purchased for alterations and improvements, as the plans to do so were expressed in the *Manchester Courier and Lancashire General Advertiser* (3rd October 1877).
Assessment: Buried remains of the Mayfield Baths are likely to survive beneath the carpark that currently occupies the footprint of the site.



Plate 50: The female swimming pool at the Mayfield Baths, 1902

- HA Number:** 14
- Site Name:** Ardwick Tannery
- NGR:** 385085, 397522
- HER No:** -
- Designation:** Undesignated
- Site Type:** Tannery (site of)
- Period:** 19th century
- Source:** OS mapping
- Description:** The Ardwick Tannery first appeared on the 1851 OS map, with the tank and tan pits belonging to the tannery clearly labelled. Advertisements in the *Lincolnshire Chronicles* (23rd March 1867) and the *Manchester Courier and Lancashire General Advertiser* (10th August 1866), show the tannery was owned by Thomas Cunliffe and Sons, and sold oak bark-tanned strapping, machinery strapping, strap butts and laces. By 1891, the tannery had extended westwards along the River Medlock. On the 11th October 1892, the Ardwick Tannery was advertised for sale at auction in the *Manchester Courier and Lancashire General Advertiser*. The plot of land for auction included the tannery, beam shed, lime pit, tawing and scouring house, picker hide room, grease house, drying and hair stoves, sizing house, drying and machine rooms, hide, sizing bark and other stores, grinding mill, warehouses, counting house and lodge, boiler and engine house, mechanics' and joiners' shops, stables, coach house and other premises. The advertisement also stressed the central location of the site within Manchester, with frontages on Bond Street, Nether Street and the River Medlock. The Ardwick Tannery also advertised the contents of the tannery in the *Manchester Courier and Lancashire General Advertiser* on the 1st October 1892, for their sale on the 12th October. The contents of the tannery included a single-slue steam boiler, donkey engine, two Jackson's self-contained scouring machines, bark breakers and grinding mills, a Milner's fireproof safe, patent setting machines by J. Hall and Co. and internal furniture and fixtures for sale from offices, workshops and stores. By 1908, the Chapelfield Works, which had bordered the tannery to the east, had expanded over the site, possibly having bought the tannery during its auction in 1892.
- Assessment:** The tannery was absorbed into the Chapelfield Works by 1908 and may have been redeveloped as a result of this amalgamation. However, little development has taken place on the site since the closure of the Chapelfield Works. It is possible that, depending on the changes to the tannery during the early 20th century, below ground remains of the tannery may survive intact. The advertisements mention wells and the OS maps identify tanning pits, which are likely to be detected under archaeological investigation.

HA Number: 15
Site Name: Britannia Brewery
NGR: 385247, 397544
HER No: -
Designation: Undesignated
Site Type: Brewery (site of)
Period: Early 19th century
Source: OS mapping, *Manchester Courier and Lancashire General Advertiser*
Description: The Britannia Brewery (Plate 51) was situated on Broadie Street. The brewery was established during the 1830s and appears on the 1851 OS map of the area. On the 24th January 1857, the *Manchester Courier and Lancashire General Advertiser* advertised the auction of the brewery, stating that the site had “2605 superficial square yards” and the sale included “the boiler house, warehouse, two cottages, cooperage, six-stalled stables, and other buildings, steam engine, boilers, cistern, hoist, copper pans and pipes, becks, mash tubs, and all other plant and fixtures”. The article also stated that the brewery was capable of brewing 300 barrels per week and stressed that the buildings of the brewery were substantial and included a cellar in good working order. Another article in the *Manchester Courier and Lancashire General Advertiser* (8th February 1888), describes the brewery as “one of the most important in Lancashire”, having “an ample supply of excellent water both from its own well and from the town supply well adapted for brewery purposes. There are also extensive malthouses belonging to the brewery”. The site appeared on the OS maps until 1922, when the site is labelled as ‘disused’. By the 1954 OS map, the site read ‘ruins’, suggesting the building by this point fallen into disrepair. The site remains as a series of ruined walls, overgrown and fenced off from the public.

Assessment: Buried remains of the brewery are likely to survive within the Site.

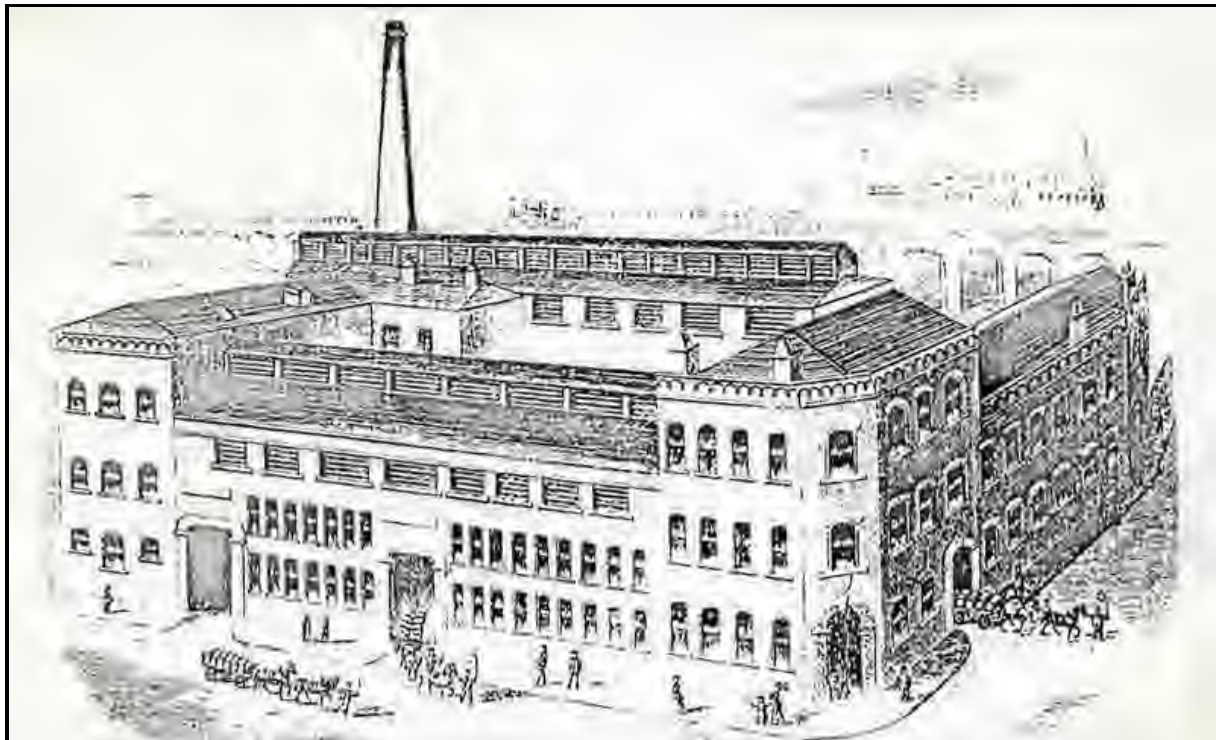


Plate 51: 19th century illustration of the Britannia Brewery

HA Number: 16
Site Name: Corporation Inn
NGR: 385273, 397456
HER No: -
Designation: Undesignated
Site Type: Public House (site of)
Period: Late 19th century
Source: OS mapping
Description: The Corporation Inn (Plate 52) was located on Tipping Street, on the 1891 OS map, the site is shown between the junctions of Egerton Place and New York Street (now Hoyle Street). The inn was in use for some decades, being demolished between 1954 and 1969. The area on which the site stood became a rubber and plastic works, however, no structures appear to have been built on the footprint of the Corporation Inn itself.
Assessment: The site of the Corporation Inn does not seem to have been developed since the demolition of the site, and therefore below ground remains of the inn, including possible cellars, are likely to survive intact.



Plate 52: The Cooperation Inn, 1956, with the railway viaduct visible in the background

HA Number: 17
Site Name: Tipping Street Chapel
NGR: 385305, 397438
HER No: -
Designation: Undesignated
Site Type: Religious building (site of)
Period: 19th century
Source: OS mapping; *Manchester Courier and Lancashire General Advertiser*
Description: The Tipping Street Chapel appears on the 1851 OS map and, as suggested by the name, is situated on Tipping Street, just east of the junction for New York Street (now Hoyle Street). The chapel is labelled on the 1891 OS map as the 'Non-conformist chapel', used by the Congregationalists. The building is demolished by the 1948 OS map. On the 28th December 1888, an article in the *Manchester Courier and Lancashire General Advertiser* describes the role of the chapel in providing a "substantial ham tea" for "200 deserving poor of Ardwick", adding that many of those attending were elderly. The building appears to be quite substantial based on the OS mapping.
Assessment: The chapel was demolished in the first half of the 20th century and the land does not appear to have been significantly developed since. It is possible that the chapel

HA Number: 18
Site Name: Mewett Street back-to-back housing
NGR: 385328, 397509
HER No: -
Designation: None
Site Type: Workers' Housing (site of)
Period: 19th century
Source: OS mapping
Description: The back-to-back houses on Mewett Street are located towards the eastern extent of the Site. The houses and streets have been demolished, however the area containing the back-to-backs is bounded by the current River Street, Rachel Street, Chapelfield Road and Hoyle Street. The houses appear on the 1851 OS map and remain in this form on the 1908 OS map. It is only by the 1922 OS map that the houses had been redeveloped. By 1965, Mewett Street was demolished, and a mortuary was built on the former site of the houses.
Assessment: It is possible that some remains survive intact below ground, however the mortuary built on the site after the demolition of the buildings may have impacted the survival of the below ground remains.

HA Number: 19
Site Name: Stove Street House (site of)
NGR: 38499, 39751
HER No: -
Designation: Undesignated
Site Type: Structure (site of)
Period: 18th century
Source: Laurent 1793; Green 1787-1794
Description: A structure appeared on Laurent's 1793 and Green's 1787-1794 maps on what was to become Stove Street, now the southern extent of Baring Street. The house appears to have been quite substantial on these early maps and was located within a field owned by Thomas Tipping. The house no longer appeared on Swire's 1824 map, indicating that the building had been demolished by this point.
Assessment: Below ground remains of the 18th century house may remain *in-situ* towards the southwestern extent of the Site, likely to be beneath or in close proximity to what was to become the Mayfield Ice Factory (HA 24).

HA Number: 20
Site Name: Ardwick Dyeworks
NGR: 385143, 397523
HER No: -
Designation: Undesignated
Site Type: Dye and Printworks (site of)
Period: 18th-19th century
Source: OS mapping
Description: The Ardwick dyeworks was identified only on the 1851 OS map. Prior to this map, a structure appeared on Laurent's 1893, Green's 1787-1894, Swire's 1824 and Bancks & Co.'s 1831 maps, however, these were not labelled. The close proximity to the Chapelfield Dyeworks makes it somewhat difficult to distinguish which structures were associated with which dyeworks, especially on early maps where neither site is labelled. The 1851 OS map labelled the structures south of the Chapelfield Works as the Ardwick Dyeworks, with the engine house, boilers, cistern, weighing machine and reservoir clearly identified. By the 1891 OS map, the Ardwick Dyeworks had become part of the Chapelfield Works.
Assessment: Buried remains may survive *in-situ* from the Ardwick Dyeworks, including remains of the boiler house and engine house.

HA Number: 21
Site Name: Victoria Street House
NGR: 385297, 397517
HER No: -
Designation: Undesignated
Site Type: Structure (site of)
Period: Early 19th century
Source: Swire 1824; Bancks & Co. 1831; OS mapping
Description: A substantial house can be found on Swire's 1824 map, surrounded by extensive gardens. The house does not appear on earlier maps and was therefore likely built in the early 19th century. The house was built on land owned during the late 17th century by Thomas Tipping, near the field boundary separating Thomas Tipping's land from Nathan Hyde's land to the north. This field boundary is no longer shown on Swire's map. The house appears on the 1851 OS map, located by this time on Victoria Street, with other houses, mostly back-to-backs, built within close proximity to the house. By the 1891 OS map, the Victoria Street House had been demolished, with terrace houses being built on the former footprint of the site. By 1950, these houses were demolished, and Victoria Street no longer existed. What were once Victoria Street and Mewett Street were built upon and became the site of a mortuary, which has since fallen into disrepair.
Assessment: The Victoria House may have intact foundations surviving below ground, depending on whether the later construction of the terrace houses and mortuary impacted these below ground remains.

HA Number: 22
Site Name: Travis Street Houses
NGR: 384938, 397705
HER No: -
Designation: Undesignated
Site Type: Houses (site of)
Period: 18th century
Source: Laurent 1793; Green 1787-1794; Bancks & Co. 1831; OS mapping
Description: Houses appear on Travis Street on Laurent's 1793 and Green's 1787-1794 maps. These houses do not appear as substantial as the other houses that appear on these maps, which are situated in more rural areas. The houses on Travis Street do not appear significantly changed on from 1851-1908 OS mapping. Travis Street remained built up with houses until the majority were demolished for the Mayfield Railway Station and the extension of Fairfield Street.
Assessment: The houses were demolished for the construction of the Mayfield Railway Station and the extension of Fairfield Street, however, it is possible that the foundations of these houses survive intact below ground.

Site Number: 23
Site Name: Tipping Street House
NGR: 38510, 39747
HER No: -
Designation: Undesignated
Site Type: Structure (site of)
Period: 18th century
Source: Laurent 1793; Green 1787-1794
Description: Tipping Street House appears on Laurent's 1793 and Green's 1794 maps, prior to the construction of Tipping Street. What appears to be a substantial house on Thomas Tipping's land had gardens and an associated smaller structure. The house does not appear on Swire's 1824 map, suggesting the buildings were demolished in the late 18th century or early 19th century. The footprint of the structure is located between the present-day Mancunian Way and Manor Street.
Assessment: Buried remains of the 18th century house may survive within the Site.

HA Number: 24
Site Name: Mayfield Ice Factory
NGR: 385010, 397523
HER No: -
Designation: Undesignated
Site Type: Factory (site of)
Period: Early 20th century
Source: OS mapping
Description: The ice factory (Plate 53) first appeared on the 1908 OS map, located on Stove Street, within the vicinity of Stove Street House which pre-dated the factory.
Assessment: Buried remains of the ice factory are likely to survive within the Site.



Plate 53: The Mayfield Ice Factory in 1963, with Moseley Plastics in the background

HA Number: 25
Site Name: The Royal Oak
NGR: 384865 397474
HER No: -
Designation: Undesignated
Site Type: Public House (site of)
Period: 19th century
Source: Green 1787-1794; Swire 1820; Bancks and Co. 1831; OS mapping
Description: The Royal Oak was a public house fronting Medlock Street and Downing Street. The site was first labelled on the 1851 OS map, however, a building occupied the location of the site as early as Green's 1794 map. The site continued to appear on OS map throughout the 19th and 20th centuries until its last appearance on the 1964 OS map. The footprint of the site now lies beneath the present-day Mancunian Way.
Assessment: Any buried remains of the Royal Oak are likely to have been destroyed during the construction of the Mancunian Way.

HA Number: 26
Site Name: Medlock Works ./ Ardwick Print Works
NGR: 384895 397519
HER No: -
Designation: Undesignated
Site Type: Cotton Works, formerly printworks (site of)
Period: 18th century
Source: Green 1787-1794; Swire 1820; Bancks and Co. 1831; OS mapping
Description: The Medlock Works was originally the site of the Ardwick Print Works, which appeared on Green's 1787-1794 map of Manchester. The printworks had become the Medlock Works by the 1891 OS map, which was a cotton and indiarubber works. The site last appeared on the 1964 OS map of the area. The site of the Medlock Works lies beneath the present-day Mancunian Way. The study area crosses through a small portion of the Medlock Works,
Assessment: Buried remains of the Works may survive within the Site, however only a small section of the former factory falls within the study area.

HA Number: 27
Site Name: Manchester Water Meter Company Works
NGR: 385065, 397477
HER No: -
Designation: Undesignated
Site Type: 19th century factory (site of)
Period: 19th century
Source: OS mapping
Description: The Manchester Water Meter Company Works was established in 1860 on Tipping Street. In the catalogue for the International Exhibition, which took place in London in 1862, the company advertised itself as providing “water meters for general and trade purposes, for steam boilers, works, warehouses, shops, offices, etc.” The factory continued in use for several decades and could still be identified on the 1977 OS map. The site is bounded by the Mancunian Way to the south, and Bond Street to the north. The factory has since been demolished and the site has not been redeveloped.
Assessment: Buried remains of the Works are likely to survive within the Site.



Plate 54: 1888 advertisement for the Manchester Water Meter Company

HA Number: 28
Site Name: Arboreal Feature
NGR: 38503, 39750
HER No: -
Designation: Undesignated
Site Type: Landscape feature (site of)
Period: 18th century
Source: Laurent 1793; Green 1787-1794
Description: An unusual circle of trees appears on both Laurent's 1793 and Green's 1794 (Plate 54) maps. The trees do not appear to be part of a garden, as instead they lie in the centre of a field owned by Thomas Tipping. It is possible that these trees were planted around another feature, such as a prospect mound.
Assessment: Any buried remains of the feature are likely to have been destroyed during the construction of the Mancunian Way.



Plate 55: Green's 1794 map showing the circular feature within Thomas Tipping's field

HA Number: 29
Site Name: Ardwick Bridge Chemical Works
NGR: 384807 397471
HER No: -
Designation: Undesignated
Site Type: Chemical Works (site of)
Period: 19th century
Source: OS mapping
Description: The Ardwick Bridge Chemical Works does not appear on Swire's 1820 or Bancks' 1831 maps of Manchester, as the land the works later occupied was rural during the early 19th century. The chemical works does not fall fully within the Site, however, the works' laboratory, store room and office labelled on the 1851 OS map all fall within the study area.
Assessment: It is possible that remains survive extant below ground from the Ardwick Bridge Chemical Works, however, only a small section of the site falls within the study area.

HA Number: 30
Site Name: Area of Workers' Housing bounded by Hoyle Street and Mayfield Street
NGR: 385222 397601
HER No: -
Designation: Undesignated
Site Type: Workers' housing (site of)
Period: 19th century
Source: OS mapping
Description: An area of workers' terraced housing along a series of streets with names taken from the Mayfield Printworks. These include Indigo Street, Madder Street, Hoyle Street and Mayfield Street. The site also includes Gray Street and Arthur Street. The workers' houses were demolished by the 1940s.
Assessment: The area of workers' housing north of the River Medlock, bounded by Hoyle Street and Mayfield Street, are likely to survive as buried remains. *In situ* cobbled street surfaces representing Madder Street, Arthur Street and Indigo Street were observed during the site visit.

6 Site Inspection

The aim of the site inspection was to relate the findings of the desk-based study to the existing land use of the Site in order to contribute to an understanding of the potential for surviving below-ground remains. The visit was carried out on 20th March 2019, and included an inspection of Baring Street, Nether Street and Bond Street, where the Mayfield Baths, Water Meter Works, Ardwick Tannery and the Ice Factory were located. Hoyle Street, Rachel Street and River Street were inspected and the sites of the Britannia Brewery, Mewett Street back-to-back housing, Tipping Street Chapel and Corporation Inn were noted. Arthur Street and Fairfield Street were also inspected, to investigate the remains of housing and remains of the eastern extent of the Mayfield Printworks. The site inspection began with a tour of the standing remains of the Mayfield Railway Station, including the platforms above and the warehouse and depot below.

The site inspection identified some standing remains of the Mayfield Printworks (Plates 55-57) near a bend of the river, however, these remains have since been demolished. The remains consisted of brick walls that had been reused within a warehouse. The standing remains included at least two walls, each with arched windows that had since been blocked. The structure would have been part of 'Block 2', which was used as, according to the 1872 insurance plan (see Appendix 1), the gas meter and drug (chemical) room and the steaming machine room. The form of the building, with its many arches, suggests air circulation was a key requirement for this part of the complex and it is therefore possible that this building originally functioned a drying room, where freshly printed calico was spread out to dry.



Plate 56: The standing remains of the Mayfield Printworks, 20th March 2019



Plate 57: The south-facing wall of the Mayfield Printworks with arched windows and doorways, 20th March 2019



Plate 58: The blocked south-facing arched doorway of the Mayfield Printworks, 20th March 2019

Steps were also located on the site inspection (Plate 58), which may have originally belonged to the Mayfield Printworks. A series of steps are shown on the Mayfield Printworks' 1872 insurance plan within the same location, suggesting the remaining steps are the same as those on the insurance plan.



Plate 59: The remains of steps at the site of the Mayfield Printworks, 20th March 2019

An engine bed (Plate 59) was also identified on the site inspection, north of the standing remains with the arched windows. The engine bed was likely to have been within Block 5, which was used as a steam engine room and store room.



Plate 60: The remains of an engine bed at the site of the Mayfield Printworks, 20th March 2019

The Ground level of the site has not varied a great deal since the 19th century, as the cobbled street surfaces from the 19th century were visible (Plates 60 and 61), along with features such as a yard or street drain. The remains of Indigo Street and Madder Street are still very clear, as the curve in the road indicating the junction of the streets are still visible. Bond Street and Nether Street also have cobbles remaining, showing that the ground level remains similar across the Site.



Plate 61: Remains of Madder Street and Arthur Street, 20th March 2019



Plate 62: Remains of Madder Street and Arthur Street, 20th March 2019

7. Significance of the Remains

7.1 The Policy Context of Heritage Assets

The archaeological resource of an area can encompass a range of assets, including below-ground remains, earthworks, and standing buildings and other structures. Some of these remains may have statutory protection, such as Scheduled Monuments or Listed Buildings. Others do not, but may nevertheless be of archaeological significance. Under both national and local planning policy, as outlined below, both statutory and non-statutory remains are to be considered within the planning process.

The updated NPPF (National Planning Policy Framework, February 2019) sets out the Secretary of State's policy on planning and includes a section on the conservation of the historic environment (including historic, archaeological, architectural and artistic heritage assets, NPPF paras 184-202), and its wider economic, environmental and social benefits. The NPPF places particular emphasis on assessing the development proposals in line with an up-to-date local plan. Consequently, Manchester's Core Strategy (adopted July 2012) was consulted as the key Development Plan Document in the Local Development Framework (LDF), with particular reference to Policy EN3: Heritage. In determining applications, local planning authorities must be able to understand the significance of any heritage assets affected by a proposed development in order to assess its impact. This enables the conservation of heritage assets in a manner suitable to their significance so that they can be enjoyed for their contribution to the quality of life of this and future generations, or else they can be recorded and advance understanding of the significance of any heritage assets to be lost in a manner proportionate to their importance and the impact, and to make this evidence publicly accessible.

7.2 Assessment Methodology and Significance Criteria

One methodology for assessing archaeological significance is the Secretary of State's criteria for the scheduling of ancient monuments, outlined in Annex 1 of *Scheduled Monuments: identifying, protecting, conserving and investigating nationally important archaeological sites under the Ancient Monuments and Archaeological Areas Act 1979*. These criteria have all been utilised in this assessment and are:

- Period
- Rarity
- Documentation
- Group Value
- Survival/Condition
- Fragility/Vulnerability
- Diversity
- Potential

7.3 *Baseline Significance Conditions for the land within the Site*

7.3.1 *Period*

The Site is considered significant in relation to the Industrial Period. The Site lies outside the centre of medieval Manchester and remained rural until the late 18th century. The Mayfield Printworks and Chapelfield Works are two early printworks located on the River Medlock. The Mayfield Printworks was established in 1782, making it a very early example of the textile finishing industry.

The development of the Site during the late 18th and early 19th century during the industrial expansion of Manchester resulted in much private investment, with several waves of house building of varying quality. The majority of the houses within the Site were terraced houses, some of which were back-to-backs, which stood until the early 20th century.

Elsewhere on the Site, warehouses and commercial premises dominated, of significance in terms of their early industrial interest.

In summary there is potential for three main types of activity:

- Industrial activity: (Has **01-08; 12; 14-15; 20; 24-26**)
- Public buildings: (Has **10-11; 13; 16-17; 27**)
- Housing: (Has **9; 18-19; 21-23**)

There is little potential for buried archaeological remains pertaining to prehistoric, Roman, or medieval activity, though residual material may be encountered during the course of excavation.

7.3.2 *Rarity*

The later sites identified within the Site are key elements of the early industrialising town. Historic maps have highlighted potential for a sequence of building remains, potentially spanning the late 18th to early 20th century, including printworks, tanneries and breweries. The printworks are particularly early and rare examples of 18th century printworks. Within the current North West Archaeological Research Framework, it is suggested that there are many aspects of 19th-century urban life which are insufficiently covered within the documentary record, and archaeological research is needed to shed light on the urban working classes in general within the region (see *Initiative 7.6*; Newman and McNeil 2007, 144).

7.3.3 *Documentation*

The landscape history of the site has been recovered from the historic map base, the use of archival material such as trade directories, from local historical sources and previous historical research and archaeological work. More detail could undoubtedly be gleaned about the development and use of the Site through the examination of further documentary sources, but these are unlikely to alter significantly the archaeological and historical importance of the sites identified in this report.

7.3.4 *Group Value*

The group of assets, as identified through historic map regression, cover a range of site types, including early industrial works, workers' housing, country houses with gardens, and

public buildings. The inclusion of these elements certainly enhances the value of the Site, providing a cross-section of different spheres of activity.

7.3.5 *Survival/Condition*

Cartographic sources, combined with the site inspection, have established that many of the non-designated heritage assets described in the gazetteer would only survive as below-ground remains. No standing remains have been identified belonging to the majority of sites and therefore these sites are likely to survive only as below ground remains. Other sites are likely to have been demolished, but due the site accessibility, not all sites were fully inspected during the site visit. The standing remains of the Mayfield Printworks and the Ice Factory were recently demolished, however, the river walls, which demonstrate various phases relating to industrial activity on the Site, survive *in-situ*.

The survival of Industrial period remains within the Mayfield area has been proven and should be expected within the Site. There is an increased chance of survival for those buildings which were cellared; an indication of this can be gained through study of the 1851 Ordnance Survey map, which shows the presence or absence of light wells and steps. However, further investigation via trial trenching will be required to firmly establish the survival of below-ground archaeological remains.

7.3.6 *Fragility/Vulnerability*

Any buried archaeological remains, should they be present and survive *in-situ*, are vulnerable to damage or destruction during any earthmoving works across the Site.

7.3.7 *Diversity*

The diversity of the below-ground remains with the Site is presently unknown. However, research undertaken for the purposes of this report suggests that any intact remains would most probably relate to the Industrial Period, which document the development of the Site from agricultural hinterland to industrialised quarter. There is also potential for houses occupying the land prior to the industrialization of the area to be found, surviving as below ground remains.

7.3.8 *Potential*

Within areas of the Site not containing 19th century cellars there is potential for pre-Industrial period relict agricultural soils. However, it is likely that the majority of the Site will produce remains dating from the 18th and 19th century. The area was developed for housing during the 19th century and is therefore likely to produce remains of these buildings, particularly in the southern, eastern and north-western extents of the Site. The central area of the Site was heavily industrialised, with the Mayfield Printworks, Chapelfield Works, Ardwick Dyeworks, Ardwick Tannery and the Britannia Brewery making up this area. These complexes are likely to have cellars surviving as below ground remains, with potentially some standing remains surviving too. The Mayfield Printworks was not fully demolished during the 20th century, as a site inspection identified an engine bed and structural remains of the printworks, including walls with arched windows, however, these remains have since been demolished.

7.3.9 *Significance*

It can be concluded from the information gained from the desk-based research that the Site as a whole is of archaeological interest, as it has a very high potential to yield evidence of industrialization of Manchester during the 18th- century, as well as 18th- and 19th- century settlement of the area during the Industrial Revolution.

Using the above criteria, and particularly rarity, survival/condition and potential, any surviving physical remains of the Mayfield print works and/or the Chapelfield dye works are likely to be of regional importance as examples of early print and dye works. Any surviving remains of the other industrial dating to the Industrial Period are likely to be of high local importance, depending on the extent and condition of their survival.

The Site contains potential remains of 18th- and early 19th- century housing and commercial buildings, which could be considered to be of high local significance, depending upon the full extent of survival and condition.

8. Impact of Development

8.1 Impact of the development on below-ground remains

The development proposals for The Mayfield Area include the construction of office buildings, a multi-storey car park, a residential area and the creation of an urban park. Delivery of the proposals will necessitate ground-breaking and earth-moving works across the Site, with potential to impact on buried remains. None of the sites of archaeological interest identified within the Site are afforded statutory designation, and are thus not considered to necessarily merit preservation *in-situ*. However, any physical remains of the non-designated heritage assets identified through this assessment have been determined to be of local, and potentially regional significance, pending the extent to which buried remains survive *in situ*, and the impact of the development on these remains would be major.

The potential archaeological remains that will be affected by the proposed development are set out in Table 3, below. Those gazetteer sites not listed are considered unlikely to be affected by the development works, either because they lie outside The Mayfield Area study area (as in the case of Site **02**: Mayfield Railway Station) or because desk-based research suggests that no substantial *in situ* remains are considered likely to survive due to later development.

Gazetteer entry number	Site name	Significance (Importance) of buried remains	Likely magnitude of impact of the proposed development
01 – 07	Mayfield Printworks	Local/regional	Major
12	Chapelfield Works	Local/regional	Major
13	Mayfield Public Baths	Local	Major
14	Ardwick Tannery	Local	Major
15	Britannia Brewery	Local	Major
16	Corporation Inn	Local	Major
17	Tipping Street Chapel	Local	Major
18, 22, 30	Workers' housing	Local	Major
19, 23	18 th -century mansions	Local	Major
20	Ardwick Dyeworks	Local	Major
23	Tipping Street House	Local	Major
24	Ice Factory	Local	Major
26	Medlock Works	Local	Major (for that part which lies within the study area)
27	Water Meter Works	Local	Major
29	Ardwick Bridge Chemical Works	Local	Major

Table 3: Sites of archaeological interest likely to be affected by the development

9. Further Investigation

9.1 Heritage Assets

Where the loss of the whole or a material part of a heritage asset's significance is justified by a development, the developer should be required to record that asset and advance understanding of its significance, and to make this evidence publicly accessible.

None of the known below-ground archaeological remains identified within the Site are considered to be of national importance that would necessarily require preservation *in-situ*. However, there are known and potential heritage assets of lesser archaeological significance which would merit preservation 'by record'.

9.2 Further Investigation

In the first instance, further archaeological investigation via a programme of evaluation trenching should aim to establish the presence or absence of buried archaeological remains and, if present, their extent and significance. This should be focused on those areas within the Site that are considered to be of particular archaeological interest, as identified on Figure 13.

Should the evaluation trenching reveal significant, intact archaeological remains, further targeted archaeological works in the form of an open-area excavation may be warranted to mitigate the ultimate loss of buried remains, in line with guidance provided by the National Planning Policy Framework.

The scope and extent of any such further investigation of the site, however, would be determined by the Greater Manchester Archaeological Advisory Service (GMAAS), in their capacity as archaeological advisor to Manchester City Council. Any archaeological works will require a Written Scheme of Investigation (WSI) to be produced in consultation with GMAAS and should be concluded at the earliest possible opportunity.

10. Sources

10.1 Maps

Map of Manchester and Salford, drawn from a survey by William Green, begun in 1787 and completed in 1794

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10.2 Trade Directories

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10.3 Newspapers

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Manchester Courier and Lancashire General Advertiser 1st October 1892

Manchester Courier and Lancashire General Advertiser 11th October 1892

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Hoyle's purple print from an album assembled in Manchester in the 1840s. Downing Collection at MMU.

10.5 Websites

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11 Acknowledgements

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The archive comprises a historical map regression, photographs and historical research notes. This archive is currently held by the Centre for Applied Archaeology and a copy of this report will be forwarded to the client and deposited with the Greater Manchester Historic Environment Record.

Appendix 1: Insurance Plan

Mayfield Printworks Insurance Plan

An insurance plan of the Mayfield Printworks was drawn in 1872 (Plates 62-63; 65-69), giving details of the ground floor of the site, alongside a list of functions for each of the rooms. The plan is labelled with two sets of numbers. The larger numbers on the plan are 'risk numbers', these categorise groups of rooms according to their contents. Smaller numbers have been allocated to the various ground floor rooms of the printworks, which are all assigned functions a separate document. Unfortunately, there are some discrepancies between the plan and the room descriptions, however, for the most part the functions of the rooms can be understood. The different buildings have been allocated different 'Block' numbers for the purposes of this report.

Block One



Plate 62: Buildings of the Mayfield Printworks assigned to 'Block One'

Block one includes what have been allocated as risk areas 1-8 and rooms 1-40. Risk area one includes the entrance way leading from Buxton Street, which was four stories high. The rooms are each given a function, which are outlined in Table 4.

Room number	Function
1	Entrance house with passage, weigh house. Belfry over and cloak room, four stories
2-5	Offices, one storey
6-7	Two fireproof safes with lumber cellar beneath
9	Passage

10	Office, with council room above
11, 13 and 14	Water closets
12	Unknown (12 and 16 have been confused during the surveying)
15	Confused with 17. Possibly the 'new calendar room'
16	Single storey engine house
17	Unknown (confused with 15)
19	Surface roller room
20	Dash wheel house with mangling and finishing room above
21	Colour filtering room
22	Covered yard
23	Disused china blue dipping shed, one storey
24	Rag sorting shed
25-26	Unknown. Missing from document.
27	Washhouse with mangling and drying rooms over four stories
28	Unknown
29	Print preparing place, two storeys
30	Copper roller room and second storey steaming room
31	Passage or gangway
32	Disused steam engine room
33	Covered yard
34	Steam boiler house
35	Chimney stack
36	Machine printing room
37-38	Colour box washing sheds
39	Entrance porch and doctor benches
40	Cleansing place

Table 4: Rooms associated with Block One

Block Two



Plate 63: Buildings of the Mayfield Printworks assigned to 'Block Two'

Block two refers to the most southern buildings that make up the Mayfield Printworks complex and includes what have been allocated as risk areas 9-19 and rooms 41-59. Rooms 42-44 and 51-58 are all built up against the River Medlock, whereas rooms 45, 48 and 49 have been built extending across the river. The rooms are each given a function, which are outlined in Table 5.

Room number	Function
41	Single storey dressing shed
42	Covered roadway
43	Soaping machine room
44	Boiler house
45 and 47	Firing up places and spent madder pit, three storeys, third storey disused
46	Steam engine house
48	Print, dye and wash house
49	Print dye-house
50	Chemic and steam cylinder drying machine room
51-53	Drug room, blanket store, drug mixing room and oil store
54	Soap manufactory, one storey
55	Drug receiving shed, weighing room and office
56	Gas metre and drug room
57	Steaming machine room, two stories

58	Stone staircase
59	Gangway

Table 5: Rooms associated with Block Two

The majority of the Mayfield Printworks was demolished during the construction of the Mayfield Railway Station, however, it is possible that some of the walls from block two, particularly surrounding the River Medlock remain standing.



Plate 64: Photograph of the standing remains of the Mayfield Printworks

The photograph above shows the outer wall of rooms 56 and 57 within block two. According to the 1872 insurance plan, these walls would have been the outer walls of the gas meter and drug room and the steaming machine room. The standing walls have been reinterred into a later warehouse, which was inaccessible due to the asbestos roof.

Block Three

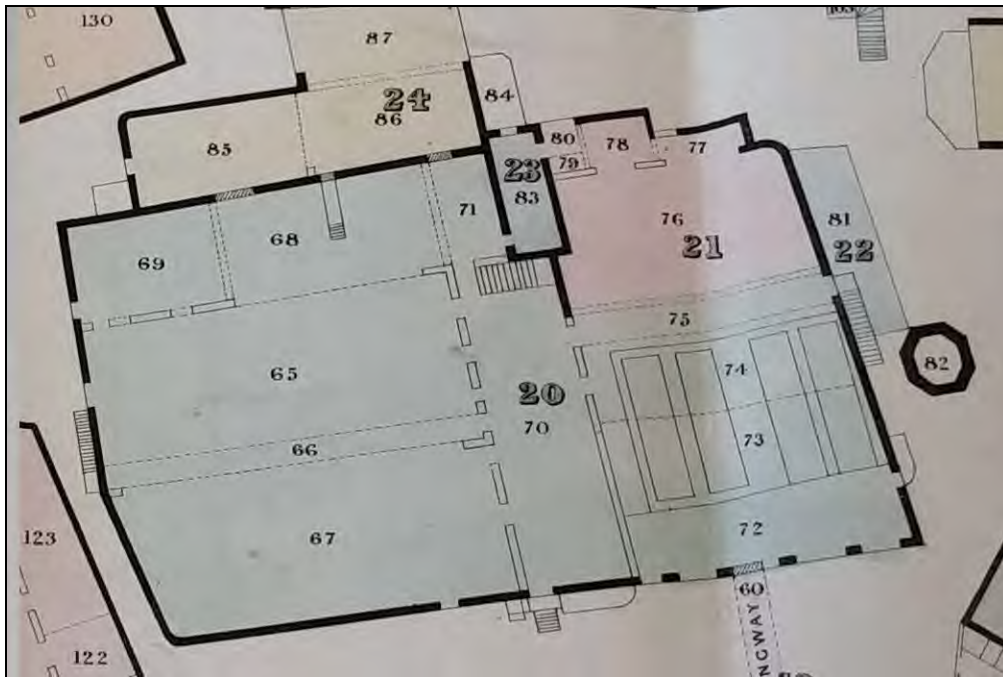


Plate 65: Buildings of the Mayfield Printworks assigned to 'Block Three'

Block three refers to the building containing risk areas 20-24 and rooms 60-87. This block refers to a sub-rectangular shaped building north of block two and east of blocks 2 and 6. The rooms within block three are each given a function, which are outlined in Table 6.

Room number	Function
60	Timber built passage
61	Colour grinding shed
62	Colour mixing room, one storey
63	Staircase
64	Laboratory for experiments and library
65-67	Soaping, orange raising room and washing room, two storeys
68	Print washing shed
69	Extractor drying machine
70	Cellar with packing room, boiler house and firing place, sorting and canroying room, ammonia machine room
71	Fly wheel house and well
72-73	Firing place and boiler house with print hanging rooms, three storeys
74-75	Boiler houses
76	Fire proof building for gum and starch manufacturing

77-78	Firing sheds for ovens with gum sieving and gum and farina stove, two storeys
79	Hoist
80	Covered yard
81	Fuel economiser
82	Chimney stack
83	Steam engine house
84	Unknown
85	Buff raising place with canroving room and print sorting room, three storeys
86	Buff raising place with shearing room and lumber room over three stories
87	Roadway

Table 6: Rooms associated with Block Three

Block Four



Plate 66: Buildings of the Mayfield Printworks assigned to 'Block Four'

Block four is the long rectangular building running east-west, north of block three. Block four includes risk areas 25-26 and rooms 88-104. This block refers to a sub-rectangular shaped building north of block two and east of blocks 2 and 6. The rooms within block four are each given a function, which are outlined in Table 7.

Room number	Function
88	Machine printing and steam chest room
89	Drilling room or mechanics' workshop
90	Steam calendaring room
91	Gas meter and steam engine house

92	Millwrights' store room
93	Joiners' store room
94	Timber store
95	Passage
96	Coal store
97	Gearing room
98	Wood store
99	Timber drying stove
100	Gearing room
101	Roller turning off and polishing room with machine printing rooms above making three storeys
102	Colour box store
103	Brick store and brush washing shed
104	Steam sawing shed, one storey

Table 7: Rooms associated with Block Four

Block Five



Plate 67: Buildings of the Mayfield Printworks assigned to 'Block Five'

Block five includes risk areas 27-32 and rooms 105-104. This block refers to the building that takes the shape of the River Medlock, south of block four and risk area 27, containing rooms 105 and 106, which is a separate building to the south of the long rectangular building that makes up the majority of block four. The rooms within block five are each given a function, which are outlined in Table 8.

Room number	Function
105	Steam boiler house and firing place, one storey
106	Unknown, associated with room 105
107-108	Millwrights' office and store room, millwrights' shop with two pattern rooms and nail store above, three storeys
109-110	Millwrights' store and steam engine house with turning shop and joiners' shop above
111	Millwrights' store drilling shop and joiners' office, two storeys and cellar
112	Not on plan
113	Single storey smithy
114	Brick setters' and masons' shop
115	Paint shop with store above
116	Wheelwrights' shop, one storey
117	Sawpit shed

Table 8: Rooms associated with Block Five

Block Six



Plate 68: Buildings of the Mayfield Printworks assigned to 'Block Six'

Block six is another long rectangular building but running approximately north-south, north of block two. Block six includes risk areas 33-35 and rooms 118-132. This block refers to the building in the centre of the dyeworks complex. The rooms within block six are each given a function, which are outlined in Table 9.

Room number	Function
118	Grey pasting room
119	Colour room with folding and print room above, three storeys
120	Colour shop with print room and disused 'old' block printing room above
121	Colour mixing room with printing room with disused 'old' block printing room above, three storeys
122	Colour mixing room with steam calendaring room above, two storeys
124	Covered passage
125	Gas meter, lumber and metal store, cellar with offices and fent room above, three storeys and cellar
126	White room with two print rooms and a disused

	block printing room above
126a	Colour mixing room, one storey
127a	Colour mixing rooms with print rooms above
126b	Stone staircase
128	Colour mixing room, arched over with white and fent room above, fireproof
130	White room, two floors
131	Loading shed, one storey
132	Box washing shed

Table 9: Rooms associated with Block Six

Block Seven



Plate 69: Buildings of the Mayfield Printworks assigned to 'Block Seven'

Block seven includes the building furthest north within the printworks complex, accessible from Station Street. Block seven includes risk areas 36-39 and rooms 133-155. The rooms within block seven are each given a function, which are outlined in Table 10.

Room number	Function
133	Copper roller room, one storey
134	Entrance passage

135	Roller washing room
136	Copper roller room, one storey
138	Entrance porch
139	Pattern book room
140	Weighing room
141	Pad pin engraving room with pentagraph room above
142	Hand engraving room with pentagraph room above
143	Passage and staircase and engravers' store
144	Engravers' etching room, one storey
145	Cart, caravan and provender shed with bean crusher, oat crusher, a hay chopper and small steam engine, one storey
146	Harness room, one storey
147	Stable, one storey
148	Stable, one storey
149	Cart gear room, one storey
150	Loose box, one storey
151	Cart shed and water meter house, one storey
152	Straw room, one storey
153	Hay room, one storey
154	Coach house and fire engine house, one storey
155	Covered yard

Table 10: Rooms associated with Block Seven

The building that make up the Mayfield Printworks were all brick built and slated, unless otherwise stated in the tables above. They were all heated by steamed and had gas lighting. The policy allowed the printworks to store methylated spirits for the solution of aniline colours. These were stored in buildings 52 in block two and 121 in block six. Building 64, in block two, stored naphtha, which was used for the thinning of prepared macintosh paste (Wright). The policy also includes conditions that must be followed in order to prevent fires, for example, no unenclosed lights were to be kept in rooms where goods were suspended to dry. The policy covers the contents of the printworks, including mill gearing, machinery, stock-in-trade, steam engines, copper and surface rollers and steam boilers.

Appendix 2: Figures

- Figure 1: Site location
- Figure 2: Study area superimposed on Green's map of 1787-1894
- Figure 3: Study area superimposed on the Banck's & Co.'s map of 1831
- Figure 4: Study area superimposed on the Ordnance Survey map of 1851
- Figure 5: Study area superimposed on the Ordnance Survey map of 1891
- Figure 6: Study area superimposed on the Ordnance Survey map of 1908
- Figure 7: Study area superimposed on the Ordnance Survey map of 1922
- Figure 8: Study area superimposed on the Ordnance Survey map of 1948
- Figure 9: Study area superimposed on the Ordnance Survey map of 1954
- Figure 10: Study area superimposed on the Ordnance Survey map of 1964
- Figure 11: Study area superimposed on the modern mapping
- Figure 12: Location of gazetteer sites
- Figure 13: Areas of archaeological interest within the Site

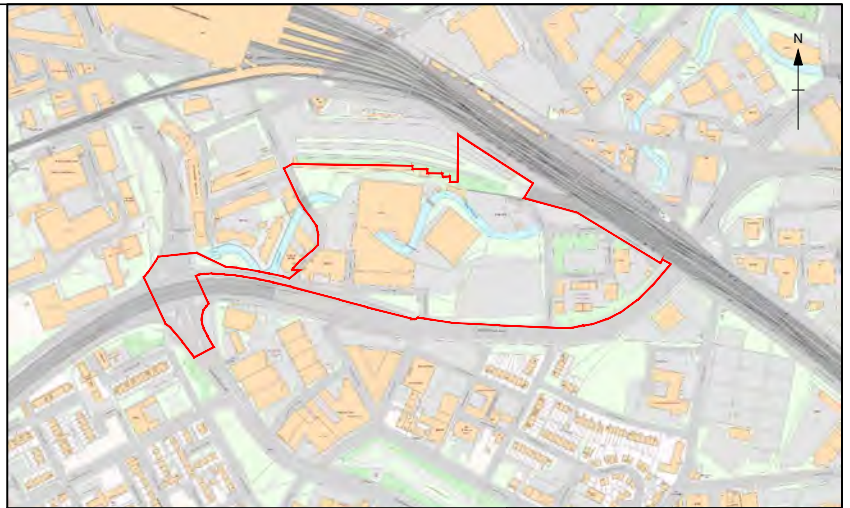
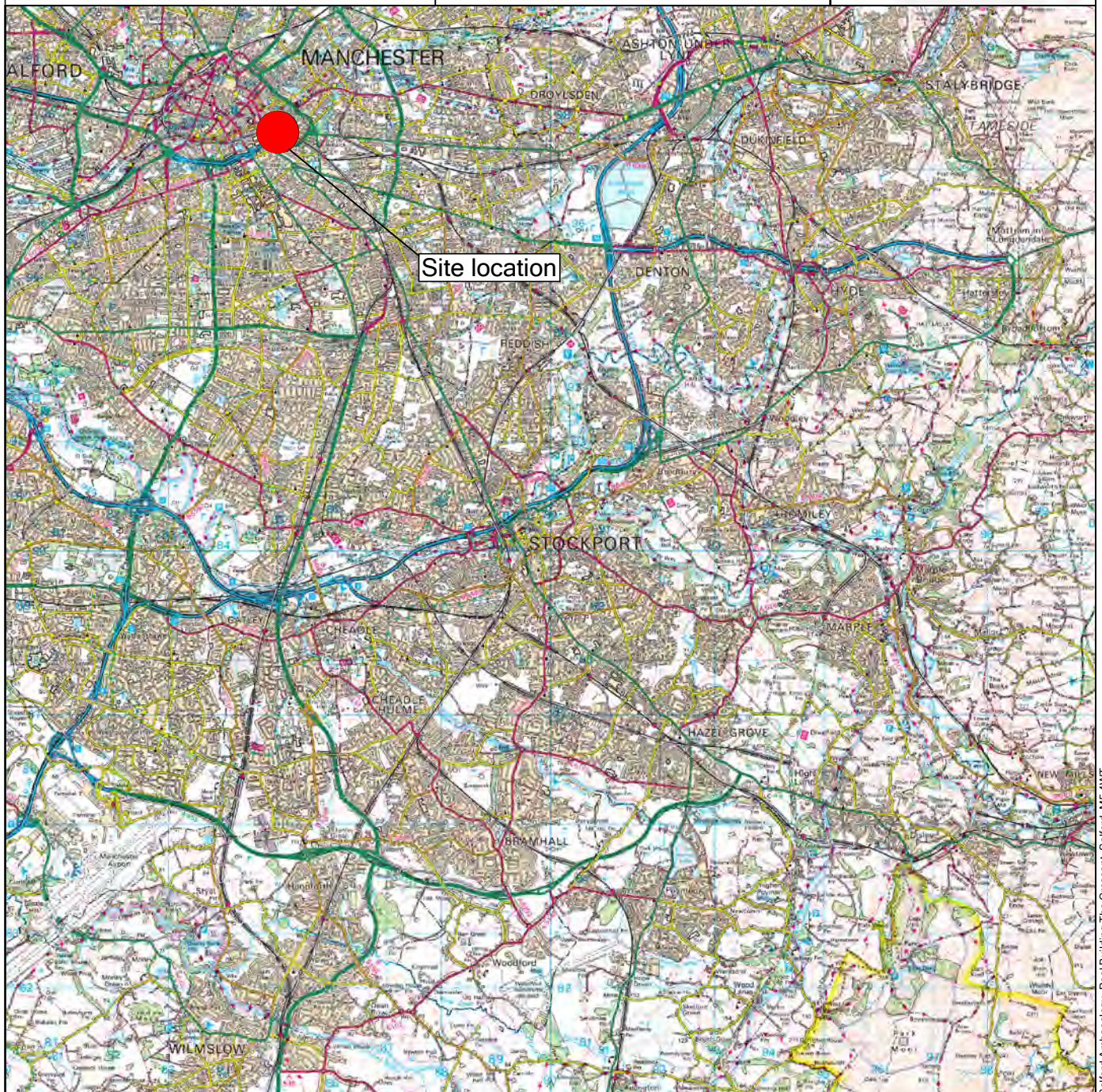
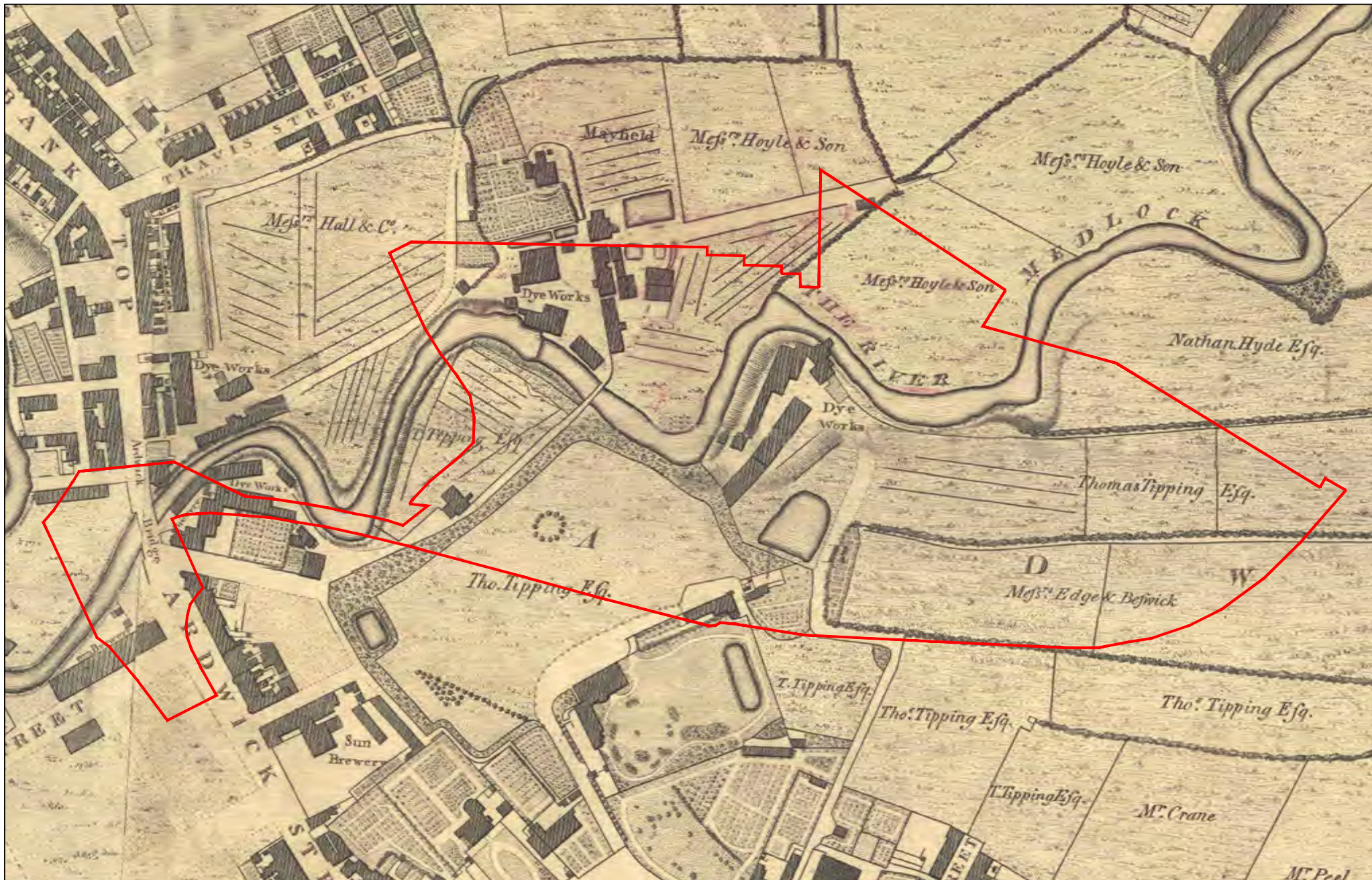


Figure 1:
Location of study area

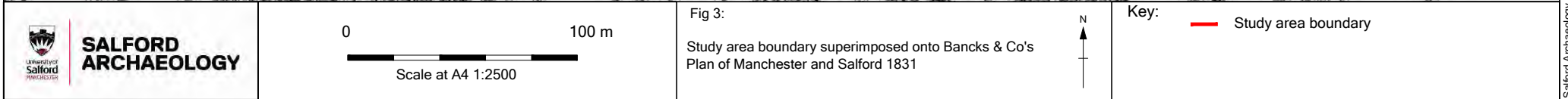
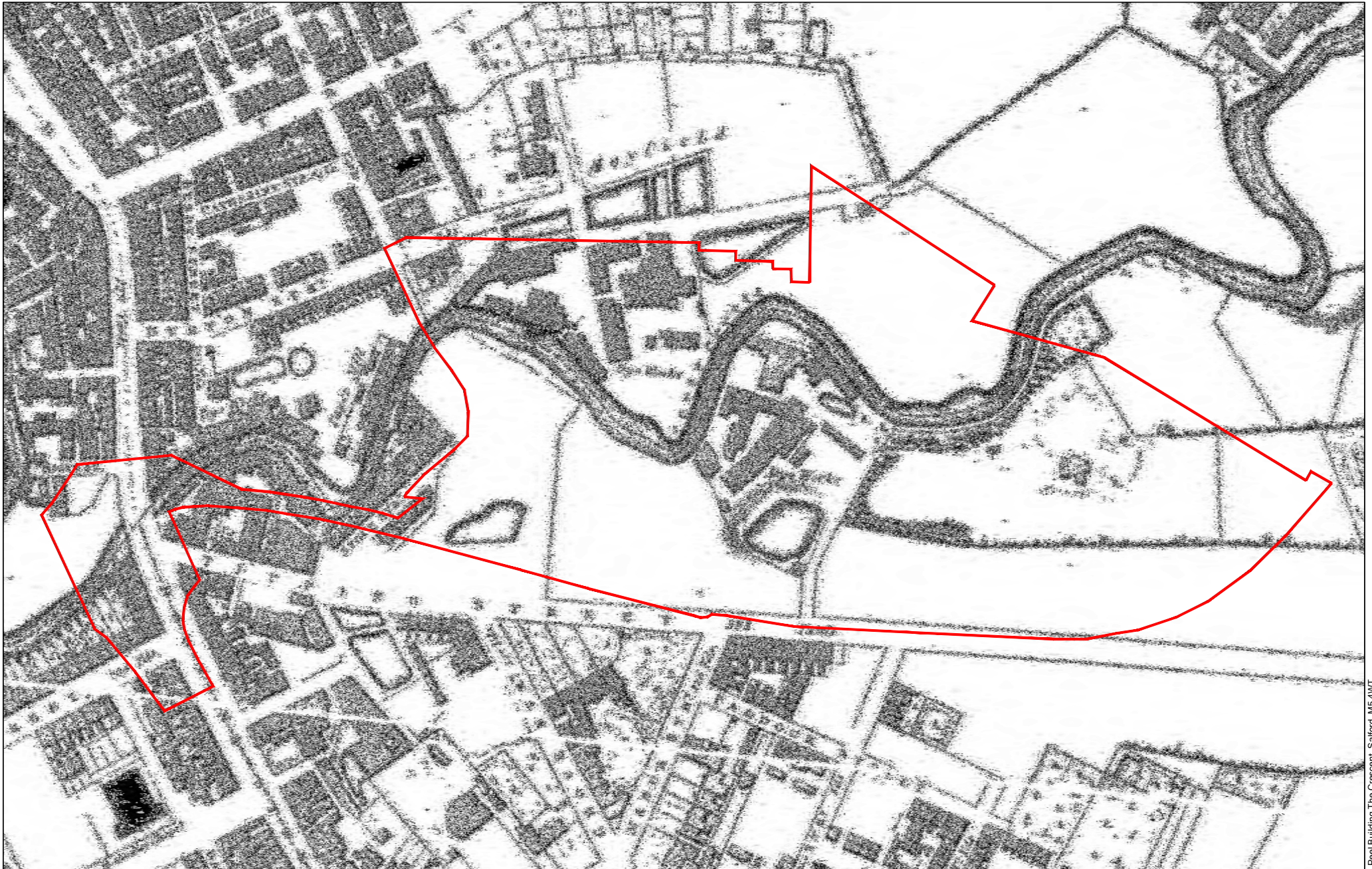


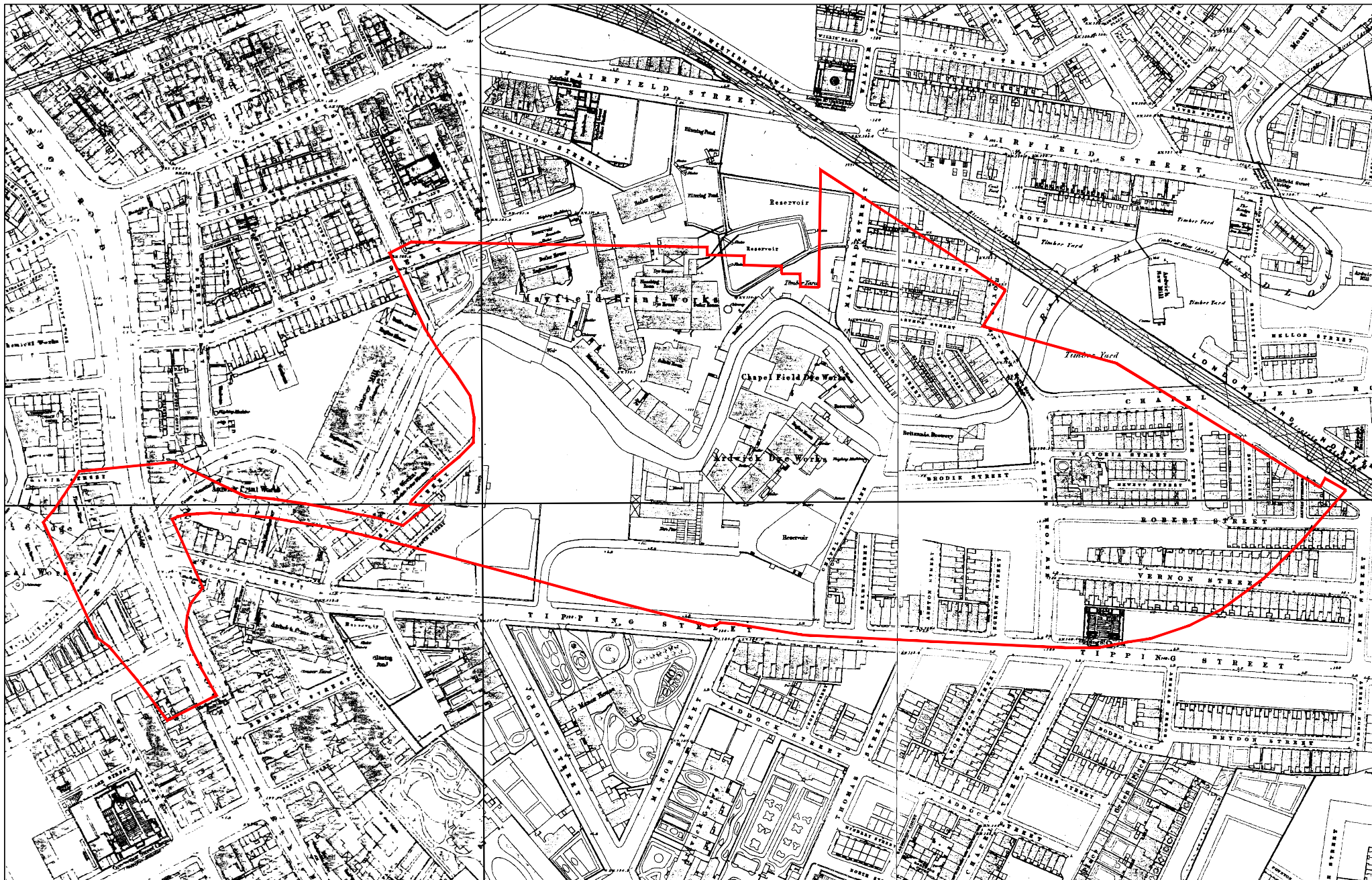
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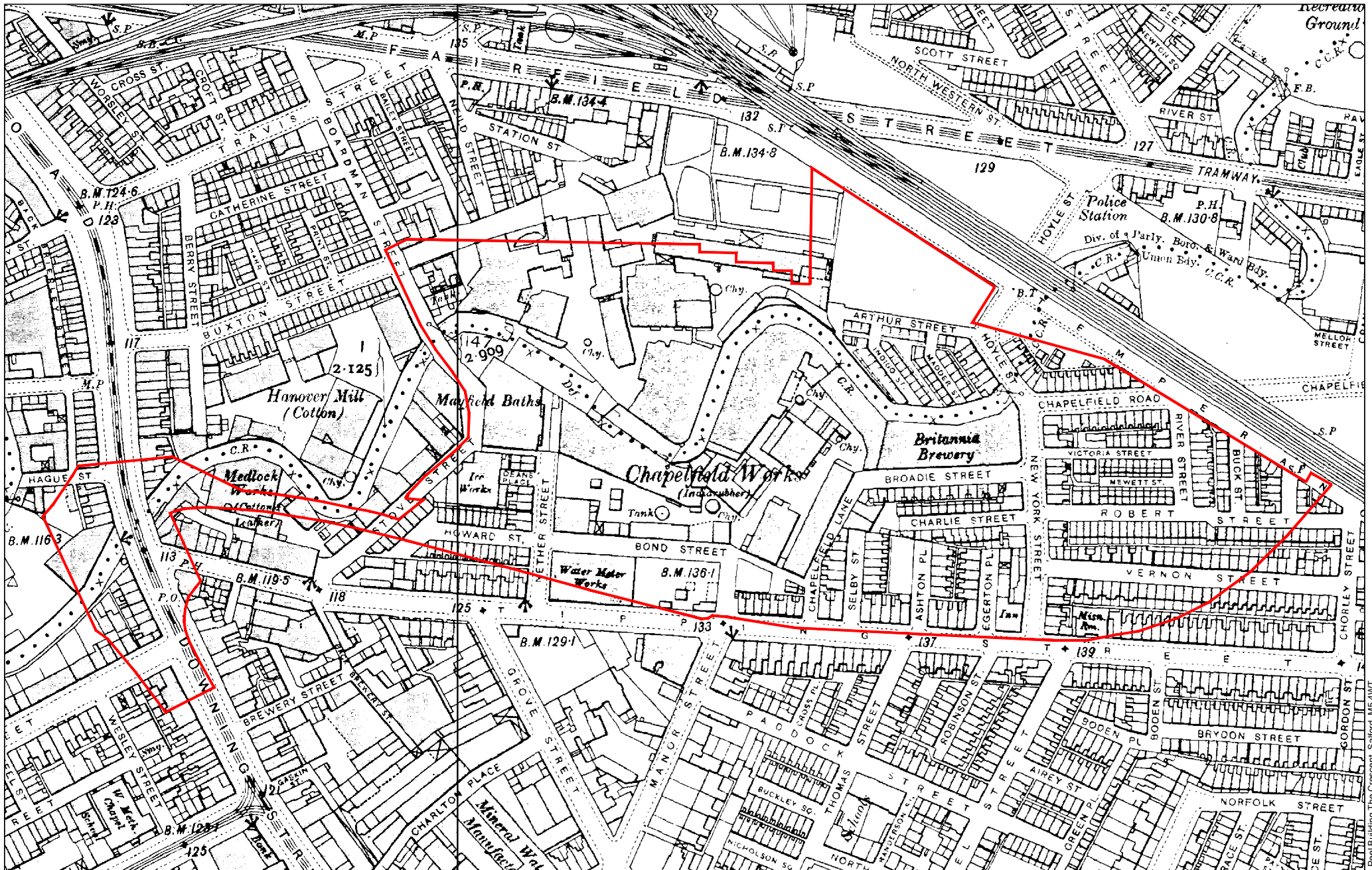
Fig 4:

Study area boundary superimposed onto Ordnance Survey 1:1056 Town Plan 1851

Key: — Study area boundary

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 SALFORD ARCHAEOLOGY	0 100 m  Scale at A4 1:2500	Fig 6: Study area boundary superimposed onto Ordnance Survey 1:2500 County Series 1908	Key: — Study area boundary 
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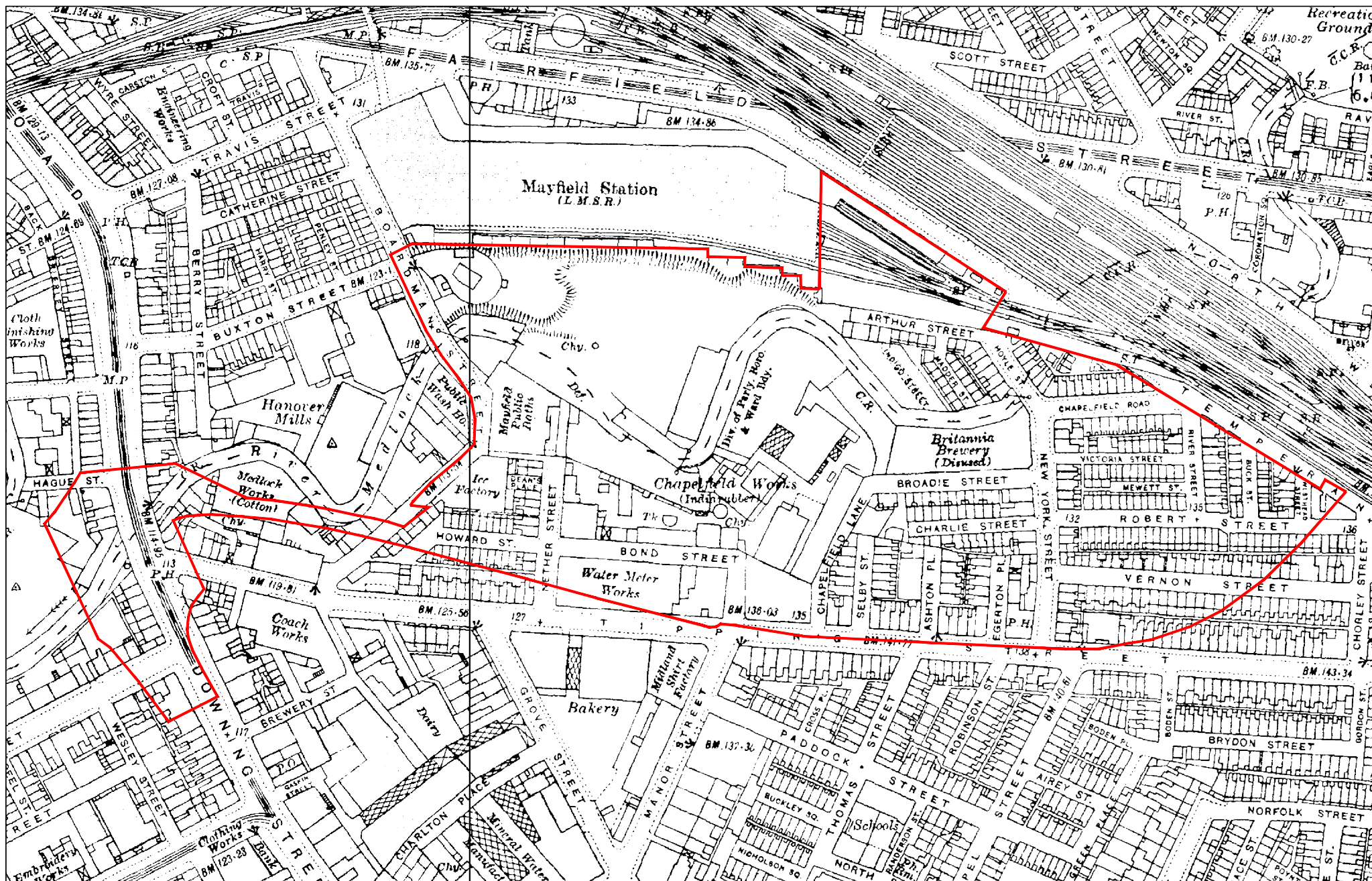


Fig 7:

Study area boundary superimposed onto Ordnance Survey
1:2500 County Series 1922

Key:

— Study area boundary



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Scale at A4 1:2500



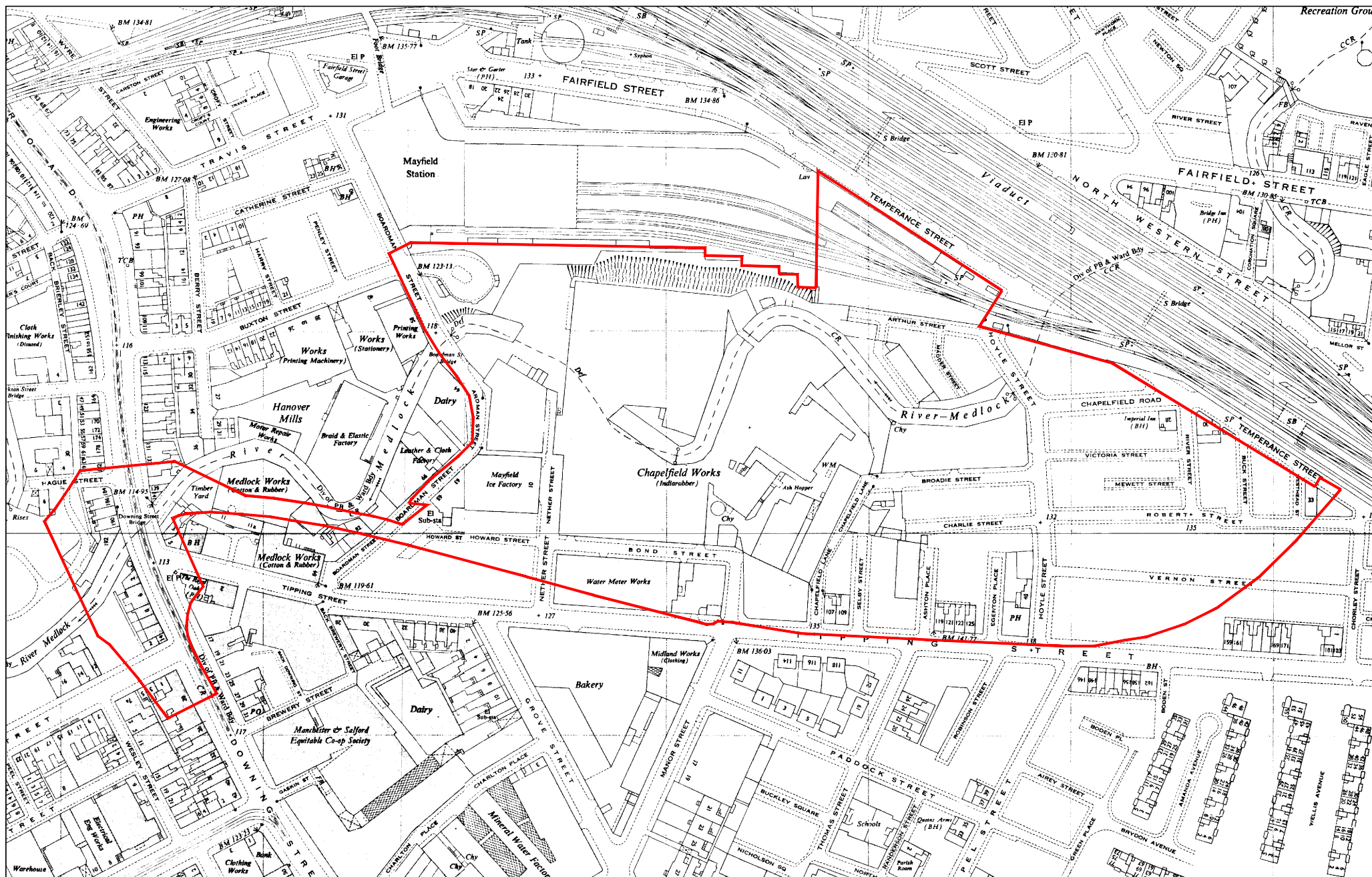


Fig 8:

Study area boundary superimposed onto Ordnance Survey
1:1250 National Grid Series 1948

Key:

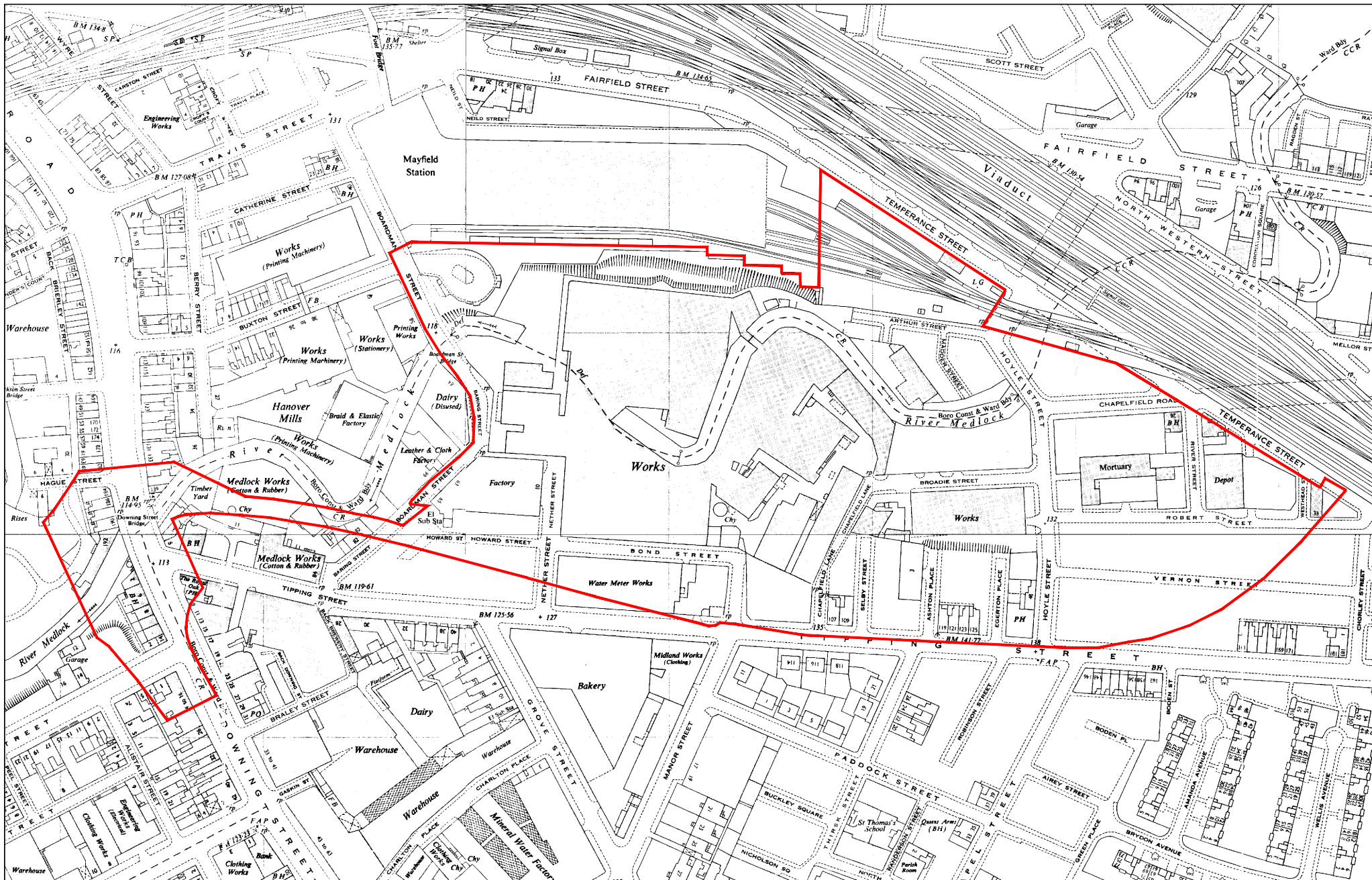
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ARCHAEOLOGY

0 100 m

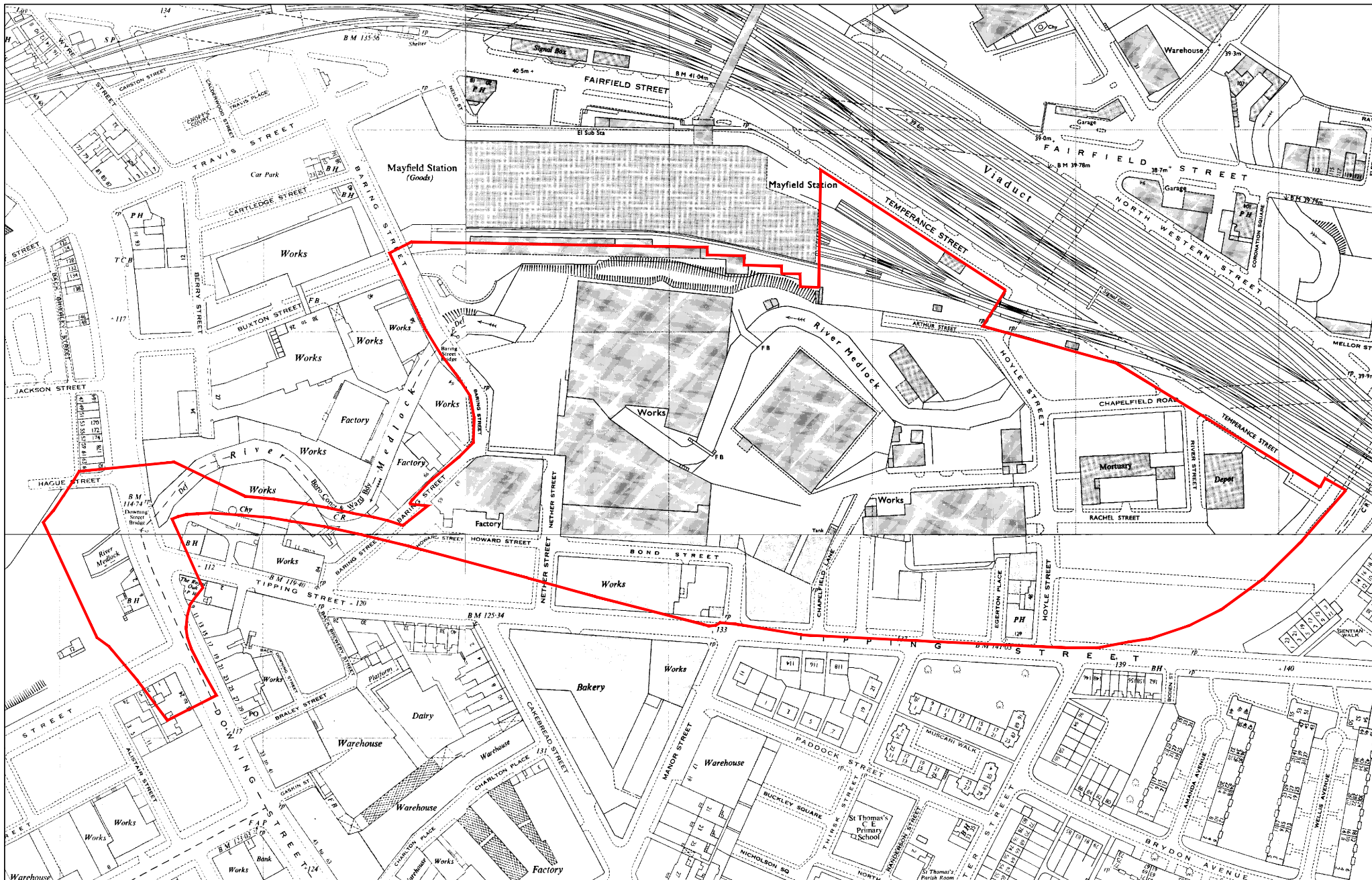
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Fig 9:

Study area boundary superimposed onto Ordnance Survey
1:1250 National Grid Series 1954

Key:

— Study area boundary





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ARCHAEOLOGY

0 100 m

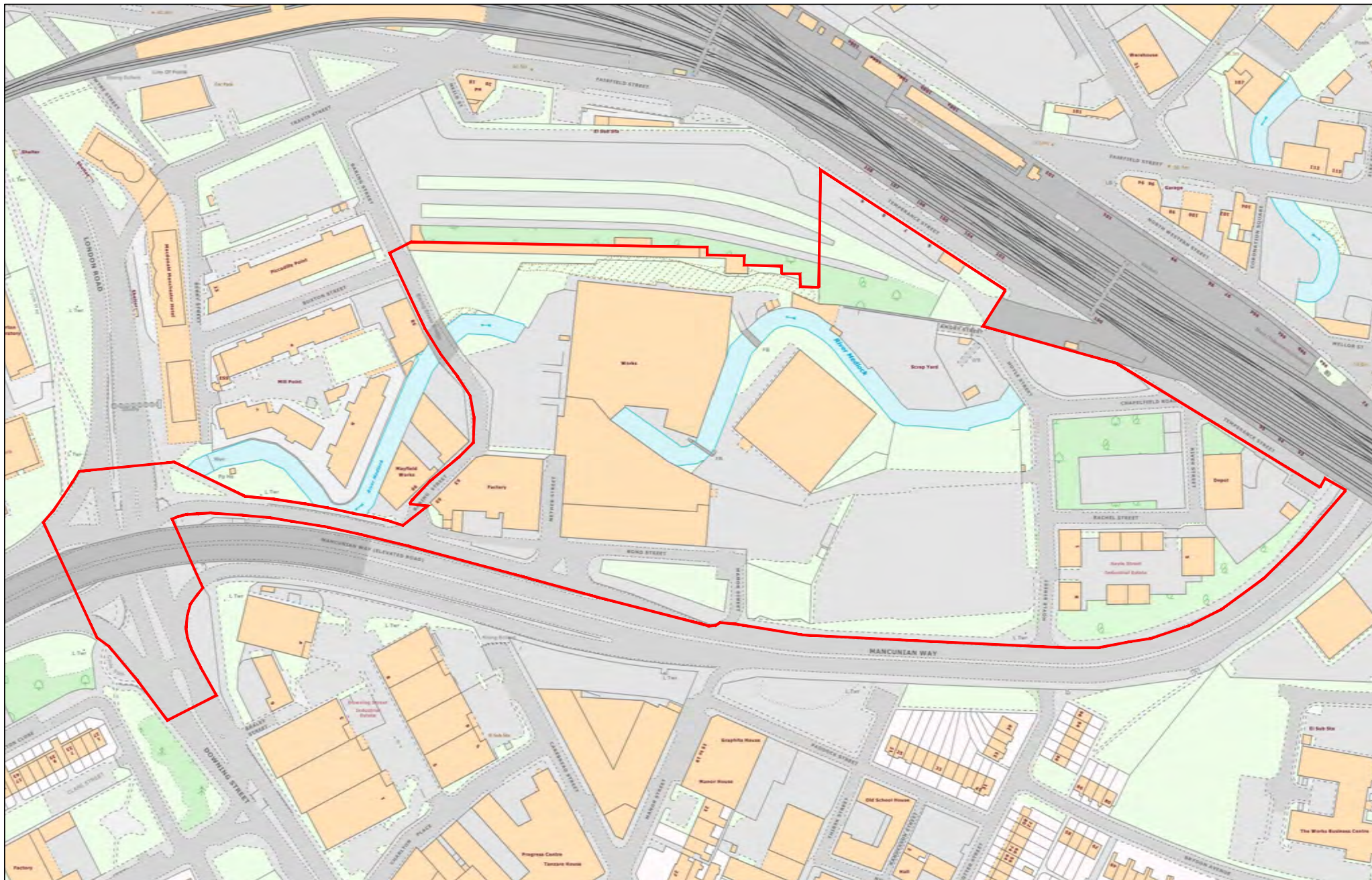


Scale at A4 1:2500

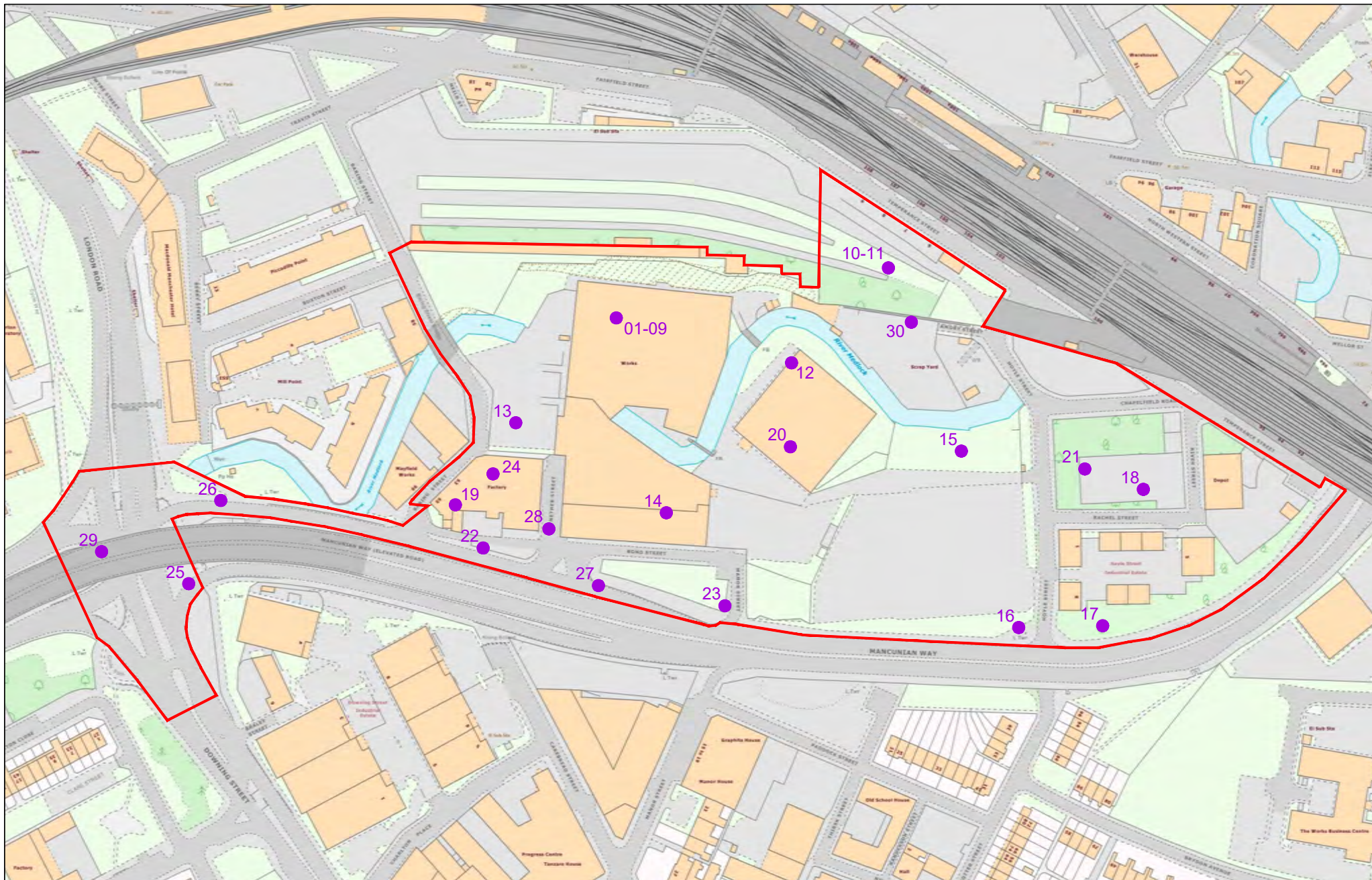
Fig 10:
Study area boundary superimposed onto Ordnance Survey
1:1250 National Grid Series 1964

Key: — Study area boundary

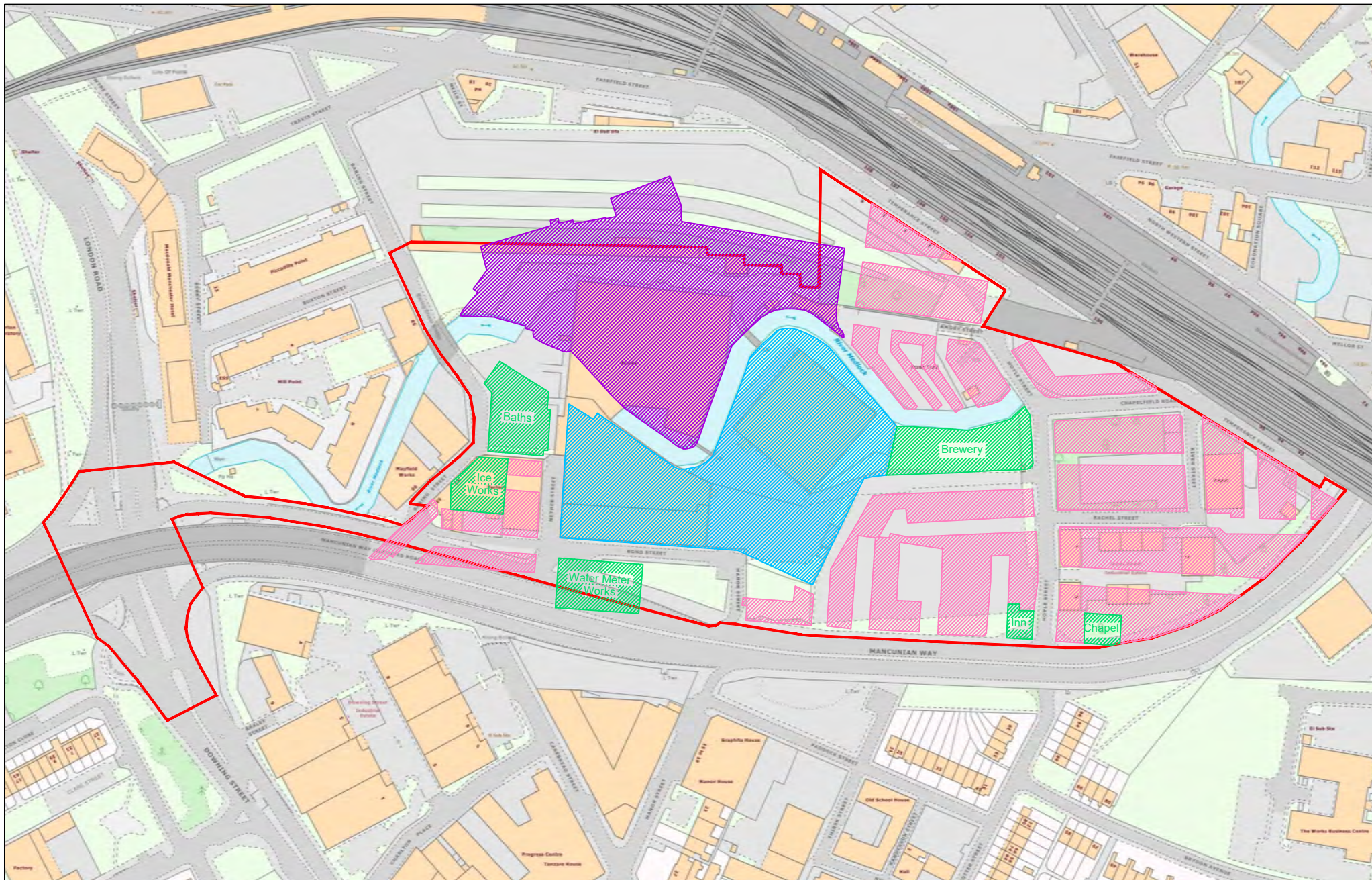




 SALFORD ARCHAEOLOGY	0 100 m  Scale at A4 1:2500	Fig 11: Study area boundary superimposed onto modern Ordnance Survey mapping	Key:  Study area boundary N 
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 SALFORD ARCHAEOLOGY	0 100 m  Scale at A4 1:2500	Fig 12: Location of gazetteer sites	Key: — Study area boundary ● Gazetteer site
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SALFORD
ARCHAEOLOGY

0 100 m

Scale at A4 1:2500

Fig 13:
Areas of archaeological interest

N

Key:

- Study area boundary
- Worker's housing
- Chapelfield complex
- Mayfield complex
- Other sites (labelled)