GREATER MANCHESTER’S PAST REVEALED

PICCADILLY PLACE
UNCOVERING MANCHESTER’S INDUSTRIAL ORIGINS
The location of Piccadilly Place
A great deal of archaeological work has been undertaken in recent years in Manchester city centre. Much of this archaeological endeavour has been prompted in response to development proposals which can destroy archaeological remains. Manchester has a rich legacy of industrial heritage, as befits a city that became the world’s leading manufacturing centre in the nineteenth century, and much of this heritage still lies underground, immediately beneath our feet. Twentieth-century urban improvements may have swept away run-down workers’ housing and redundant factories, but the foundations often survive beneath modern car parks, green spaces, streets and buildings. The excavations at Piccadilly Place and City Inn provide an excellent illustration of the character and importance of these remains from the industrial period – densely concentrated workers’ dwellings, early textile mills, including one of the world’s first steam-powered cotton mills, and a Victorian lithographic print works. As well as describing the results of archaeological investigations, this booklet seeks to provide historical context and an understanding of the industrial processes undertaken.

Spreading the word on Manchester’s fascinating but relatively unrecognised archaeology is challenging. One of the ways to do this is through publication in the form of ‘popular’ booklets. I have considerable pleasure therefore in introducing you to this publication, which is Volume 1 in a new archaeology series covering not only Manchester city’s wonderful archaeology, but also that of the whole of the Greater Manchester area: Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan.

This new series is called ‘Greater Manchester’s Past Revealed’. It provides a format for publishing significant archaeology from developer-funded, research or community projects in an attractive, easy to read, well-illustrated style. The idea is to produce a short print run with copies being given to local schools, libraries and other institutions, as well as the local community and wider public.
Piccadilly Place (centred on NGR SJ 8461 9590) lies immediately to the north-west of Piccadilly Railway Station, close to the heart of the modern city. In many ways, it is typical of other areas found within the centre of Manchester. Prior to the Industrial Revolution it lay on the outskirts of the town, only to be subsumed during rapid urban expansion in the late eighteenth and early nineteenth centuries. However, in other ways the history of Piccadilly Place is unique, particularly as the site was to play a significant part in the emergence of the industrial city. This booklet charts that development, and also summarises the history of the city and the textile industry, which was to have a fundamental influence on the development of both Piccadilly Place, and other parts of Manchester.

Central to this development was Peter Drinkwater’s Piccadilly Mill, which is widely acknowledged as the first cotton-spinning mill in the world to have been designed as a steam-powered textile factory. It operated as a cotton mill until 1873, and was then converted for use as a lithographic printing factory. The building was demolished in the 1930s, but its buried remains, along with those of an adjacent textile mill on Shepley Street, were excavated by Oxford Archaeology North in 2005 in advance of the site’s redevelopment as the City Inn hotel.

The remains of the workers’ housing that originally surrounded these mills, forming a key feature of the new industrialised townscape, were also excavated. During the nineteenth century, the living conditions of people residing in this type of housing formed the subject of numerous
written accounts, including an influential study by Frederick Engels, the famous socialist and political philosopher. The excavation of the buried remains at Piccadilly Place has allowed the construction and form of these houses to be examined in some detail, and it has also revealed important evidence relating more generally to the early development of workers’ housing.

The cellars of early nineteenth-century workers’ houses uncovered during archaeological excavation at Piccadilly Place.
The earliest settlement in Manchester was at Castlefield, to the south-west of the modern city centre, where a Roman fort was built in the late first century AD. Initially, this fort was constructed from timber and turf, but parts of its defences and internal buildings were rebuilt in stone during the early third century. An extensive settlement, which housed a largely civilian population, evolved around the fort. Although it is clear from recent archaeological work that the boundaries of this settlement did not extend as far as Piccadilly Place, it is probable that the course of a Roman road, between Chester and York, ran immediately to the north.

Little is known about the nature of settlement in Manchester following the withdrawal of the Roman military, and the collapse of Roman administration in Britain in the fifth century. A brief reference in the *Anglo-Saxon Chronicle* for the year 919 mentions Edward the Elder sending men to ‘repair and man Mameceaster’, implying that Manchester was a Saxon burh, or fortified site, at that date.
The physical remains from these centuries, however, are limited to an Anglo-Saxon pottery urn found at Red Bank and a few coins discovered by chance in the nineteenth century.

Following the Conquest of 1066, the Norman settlement was focused on the naturally defensible position overlooking the Rivers Irwell and Irk, the site occupied today by Manchester Cathedral and Chetham’s College, where a castle had been built by 1184. The medieval town was established to the south and east of this castle, and was bounded by a modified watercourse known as Hanging Ditch.

The first Norman lords of the manor were the Grelley family, who had built a manor house at the confluence of the Rivers Irwell and Irk by the thirteenth century. In 1227, Henry III granted Robert Grelley the right to hold an annual fair, and Manchester’s status as a borough was granted in 1301. It was during this period that a fulling mill was established on the River Irk, where newly woven woollen cloth was scoured with water and a cleaning agent to get rid of any natural oil and greases, and then pounded to consolidate and thicken the fabric. This demonstrates that some of the inhabitants of the medieval manor were weavers of woollen cloth.
It was also during the fourteenth century that Flemish weavers from France and the Low Countries came to England at the invitation of Edward III. A community of these weavers was established in Manchester, providing the town with a highly skilled and industrialised workforce for the production of wool and linen goods. Their important contribution to the development of a cloth-manufacturing industry in the area is commemorated by a fresco painted by Ford Maddox Brown in Manchester Town Hall, which depicts Queen Philippa of Hainault, wife of Edward III, arriving in Manchester in 1363 to greet Flemish weavers.
By the fifteenth century, woollen cloth was being produced on the Pennine slopes to the north and east of Manchester, and coarse linens were being woven, bleached and dyed on the plains to the west and in the townships to the south. By the end of the sixteenth century, however, the weaving of pure woollen cloth in south Lancashire had started to decline in favour of mixed fabrics, called smallwares and fustians.

Significantly, the market of Manchester lay at the centre of this fledgling textile trade, providing lucrative business opportunities that were seized by a few wealthy merchant manufacturers and fustian-dealing families, notably the Chethams, the Booths, the Wrigleys, and the Byroms. These families dominated Manchester’s flourishing business community, and increasingly controlled the domestic textile industry, which at that date was based around the ‘putting-out’ system.

A copy of a map of Manchester and Salford, thought to have been produced around 1650. Piccadilly Place was still fields at this date, and lies beyond the edge of the map.
Advances in technology revolutionised the production of textiles during the late eighteenth century, and the manufacturing processes of spinning and weaving were transformed from a cottage-based industry to the factory-based system. An important step in this transformation was the introduction of James Hargreaves’ spinning jenny in 1764, whereby a single worker could operate eight spindles simultaneously. Five years later, Richard Arkwright took out a patent for a water-driven spinning machine, called the water-frame.

The success of this machine enabled Arkwright to establish England’s first cotton factory at Cromford, near Derby, in 1771. Eight years later, in 1779, Samuel Crompton introduced the spinning mule, which combined the best features of the spinning jenny with those of the water-frame, to make strong and thin thread. By using the mule, English spinners were able to produce fine cotton goods, which could compete with those made anywhere else in the world. Subsequent modifications and improvements to this unpatented invention allowed the number of spindles each machine contained, and therefore its output of spun yarn, to be increased dramatically. A major advance was achieved in Manchester in 1793 by John Kennedy, who was reputedly the first person to power a spinning mule using steam power. These technological advances in the cotton-spinning industry were to transform the social and economic structure of the region.
Eighteenth-Century Improvements in Transport

Improvements in transport were also fundamental to the establishment of Manchester as a leading centre of the textile industry. Initially, the opening of the Mersey Irwell Navigation in 1734 formed an efficient link to the expanding port of Liverpool, enabling waterborne trade to enter into Manchester for the first time. The local transport network was further improved in 1761 by the opening of the Bridgewater Canal, which was extended to Castlefield in 1765, where it utilised a section of the River Medlock. The canal had been built to allow large quantities of coal to be transported from mines at Worsley to the rapidly expanding markets of Manchester and Salford. The opening of the canal allowed the price of coal in Manchester to halve which, in turn, helped to guarantee a supply of cheap fuel for the developing industry of the town. A wharf and warehouses were constructed at the Castlefield terminus, which incorporated several novel design features. These included a short tunnel running beneath Castlefield, from which coal was unloaded from boats through the use of a water-powered hoist.
Bank Top

Some of the earliest developments in the Piccadilly area were associated with the canal, including the development of a coal ‘wharf’ on Shooter’s Brow. A vertical shaft connected this wharf with Bank Top Tunnel, which formed a navigable link to the Bridgewater Canal via a section of the River Medlock. This tunnel mimicked the earlier tunnel in Castlefield: a vertical shaft descended from the Bank Top wharf to the tunnel below, allowing coal to be hoisted from the canal barges. The tunnel was 649 yards (593m) long, and was opened in April 1789.
It seems that the Bank Top Tunnel was superseded by the Rochdale Canal, which was opened between Castlefield and Piccadilly in 1799. The construction of this canal was authorised by an Act of 1794, which stated that any waste water from the canal had to be diverted to the Bridgewater Canal through the Bank Top Tunnel. The tunnel also later acted as a culvert for the diverted watercourse known as Shooter’s Brook, a function that it still fulfils to this day.

Green’s map of 1794 shows that Manchester had expanded eastwards along Bank Top, beyond Shooter’s Brook, although much of the intervening land between Bank Top and the town centre comprised vacant plots sandwiched between a newly established grid-iron pattern of streets. These plots soon became sought-after real estate, and surviving documents attest to land changing hands rapidly as property speculators bought and re-sold individual plots within a matter of months.

The sale of undeveloped land between Shepley Street and Shooter’s Brook in October 1789 is described in a legal document between the trustees of former landowner John Gore Booth and John Pooley, a carpenter. The land, ‘containing in the whole 5644 square yards’, was bounded ‘on the westerly side by a new laid out street of 12 yards wide and on the northerly end in an irregular line by the highway leading from Manchester to Stockport…’. The eastern side of the plot was bounded ‘by an irregular line by a certain rivulet or brook known by the name of the Shooter’s Brook…’.
Once he had acquired the land, John Pooley wasted no time in dividing it into five plots and, by May 1790, he was renting the empty land to three separate people. The following year, the land was sub-divided further, creating seven plots in total, and by the end of 1791, these plots had passed through the hands of no less than 11 named property speculators. By the turn of the nineteenth century, however, Shepley Street Mill had been built on the northern part of Pooley’s landholding, and the southern part was given over to housing.

*Distribution of the principal late eighteenth-century cotton mills in Manchester, superimposed upon Laurent’s map of 1793*
Land to the north-west of John Pooley’s landholding was also developed in 1789, when Peter Drinkwater chose the site for his new, and revolutionary, cotton mill. Peter Drinkwater was a fustian manufacturer and textile merchant, who established a business in Spring Gardens in Manchester in 1781. The following year he diversified into cotton spinning when he saw the profits others had been making, and purchased a water-powered cotton mill in the centre of Northwich, Cheshire. He was evidently a man of considerable practical ability and knowledge, with a reputation for innovation, and at an early date he recognised the huge potential of applying steam power to textile manufacturing. This led Drinkwater to design and erect a mill that was entirely steam powered, and therefore fully independent of a riverside location, which had previously been an essential factor when choosing a site to build a factory. This proved to be crucial for the expansion of Manchester as a world centre of the cotton-spinning industry, and the significance of Drinkwater’s achievement should not be underestimated.

Several large water-powered cotton mills had been established in Manchester and Salford during the early 1780s, representing the origins of the factory-based textile industry in the area. Notable amongst these were Richard Arkwright’s mill of 1782, at Shude Hill, William Edge’s mill, and William and Thomas Douglas’ mill in Salford, established in 1782 and 1783 respectively, and David Holt’s ‘Holt Town’ industrial colony, established in 1784 on the River Medlock. Smaller water-powered mills are also known to have been built along Shooter’s Brook during this period.
The waterwheel technology of the eighteenth century was better adapted to relatively small, swiftly flowing rivers and streams. Appropriate sites, therefore, often lay in relatively narrow valleys within the countryside. In contrast, the major watercourses in Manchester were broad and sluggish, with few sites appropriate for water-powered factories. Given these limitations, it is not surprising that the basis of Manchester’s industrialisation was steam power.

The first genuine steam engine can be attributed to Thomas Newcomen, who in 1712 erected an engine for pumping water at Dudley Castle, Staffordshire. The crucial application of Newcomen’s engine to turn a crank and flywheel was achieved in around 1780, paving the way for its use to power machinery. Whilst undoubtedly being fairly crude machines, increasing numbers of this type of steam engine were introduced to textile mills over the following ten years.

Steam power in the eighteenth-century textile industry was also used to drive pumping engines, designed to furnish waterwheels in the mills with constant and regular supplies of water. The most widespread of these pumping engines in Manchester was developed by a local engineer, Joshua Wrigley. This system represented an important stage in
the transition from water-powered mills to those driven entirely by steam, not least for introducing the mill chimney to the urban skyline. In the last two decades of the eighteenth century, there were over 100 steam engines thought to have been at work within a mile of the town centre, and Wrigley is likely to have been responsible for a large proportion of these.

The key advances in steam-engine design were introduced by James Watt who, in partnership with Matthew Boulton of Birmingham, transformed the machinery from a ‘rough but robust piece of hardware into an efficient product of skilled engineering’. In terms of powering cotton-spinning machines, Watt’s major breakthroughs were the introduction of parallel motion, which was patented in 1784, and the centrifugal governor, patented in 1787. Crucially, these innovations permitted the smooth and even delivery of power, which was essential for successful cotton spinning.

Although Boulton and Watt rapidly became recognised as the makers of the best steam engines, the adoption of their machines in the cotton industry was slow, especially in Manchester. Their engines were expensive, but perhaps the overriding reason they were not bought in greater numbers was the strong competition from local engine builders. In particular, the Salford-based firm of Bateman and Sherratt built a considerable number of the steam engines used in Manchester in the late eighteenth century. Whilst Bateman and Sherratt’s engines were certainly inferior to Boulton and Watt’s, they were nevertheless cheap to build, reliable in performance, and were reasonably economical to run.
Peter Drinkwater’s new mill was built in Piccadilly Place in 1789, and was the first textile mill in Manchester to be powered entirely by steam. As such, the mill incorporated several innovative design features, many of which were to remain significant in mill building throughout the nineteenth century. It was to be five-storeys high, including a basement, and incorporated an engine and boiler house attached mid-way along the south elevation. Drinkwater intended that two smaller blocks extended from the rear of the main range, which he depicted in a sketch, although these smaller blocks were not actually built.

The mill was to be erected by Thomas Lowe, considered by the renowned engineer Sir William Fairbairn to be ‘the only person in the country qualified from experience to undertake the construction of the mill gearing during this period’. Building the mill was a lengthy process, and a letter from Drinkwater to Boulton and Watt, dated 3rd April 1789, states: ‘Of the inclos’d plan I propose to build no more at present than the front part with the two stair Cases’. This is likely to be the building shown on Green’s map of 1794 (p 11), situated on the southern side of Auburn Street, with an enclosed yard to the rear extending to Upton Street.
The Completed Mill

Piccadilly Mill was sufficiently complete by the end of May 1789 for an eight horsepower (8hp) engine to be installed, and this was set to work by December of that year. Initially, it only drove the preparatory machinery, as the spinning mules had yet to be adapted for mechanical operation. Following the successful application of power to drive a spinning mule by John Kennedy in 1793, it was not long before those in Piccadilly Mill were adapted so that they could also be driven mechanically.

The installation of the engine in Piccadilly Mill marked a turning point for Boulton and Watt, as further orders followed quickly and, by 1799, some 44 Boulton and Watt engines had been purchased by Manchester manufacturers. They also diversified their range of products, and supplied gas lighting, heating, and fire-fighting systems to numerous textile mills.
Piccadilly Mill was managed initially by Richard Slack who, following his death in 1791, was replaced by George Lee. However, within a few months, Lee had formed a partnership with George and John Philips of Salford, creating what became the famous and successful firm of Philips & Lee. The position of manager at Drinkwater’s Piccadilly Mill was filled in 1792 by the 21-year-old Robert Owen. In his autobiography, Owen states that when he took over as manager, he had to ‘make the machines, for the mill was not nearly filled with machinery’. It is likely that he meant this literally, as many of Manchester’s early factory masters started in business as machine-makers, most notably and successfully John Kennedy and Adam Murray in Ancoats.

In 1794, the original steam engine in Drinkwater’s Mill was replaced by a 14hp model, also manufactured by Boulton and Watt. It seems likely that its purchase coincided with the application of mechanical power to the spinning mules, which will have increased the demand for power at the mill. This engine was served by two new boilers, housed in a separate boiler room. Within a few years of these improvements, in 1801, Peter Drinkwater died and the mill passed to his sons, though it was soon bought by the firm of Peter Appleton & Co. By 1825, Appleton had formed a partnership with Joseph Plant, creating the firm of Appleton & Plant, which evidently invested in the building, adding a new wing to the eastern end of the mill and erecting a separate range along Upton Street.
The Remains of the Mill

In 2003, City Inn submitted an application to build a new hotel at Piccadilly Place, the ground plan of which lay across the site of the mill. In particular, it was the footprint of the eastern end of the mill, including the 1820s wing, that would be disturbed by redevelopment; the site of the western part of the mill, including the original engine house, lies beneath the Metrolink Tramway, the construction of which in 1991 probably destroyed any buried remains.

As a condition of the planning consent for the new development, City Inn funded an archaeological investigation of the site. This was intended to provide a complete drawn and photographic record of any buried remains that would be destroyed by building works. However, whilst the excavation provided exciting evidence for the later use of the mill as a lithographic printing works (p 30), it also demonstrated that very little of the original mill survived, other than the foundations for a single brick wall.

View across the excavated remains of Piccadilly Mill
Shepley Street Mill was built at the turn of the nineteenth century, and lay a short distance to the south-east of Piccadilly Mill. Like its older neighbour, Shepley Street Mill was designed as a multi-storey, steam-powered cotton-spinning mill. In March 1804, it was bought by Peter Appleton and his partner, Thomas Ogden, prior to their purchase of Piccadilly Mill. By that date, the Shepley Street and Shooter’s Brow frontages of the block lying between the two mills had been developed for housing. Within 20 years, this area had been developed
further, largely with the addition of another steam-powered mill that was laid across the line of Upton Street, and more housing. The resultant townscape of workers’ houses sandwiched between closely packed, multi-storey mills provided an image that was to characterise Manchester and the surrounding textile-manufacturing districts for the next century.

Following Peter Appleton’s death, the Ogdens took sole control of the mill in 1825. In 1851, the Ogdens secured a mortgage of £30,000, seemingly to raise capital for an expansion of their business. It appears that the firm had also taken over Brook Street Mill by this date, as it is shown on the 1849 Ordnance Survey map to have been linked to Shepley Street Mill by a suspended passage running across the line of Brook Street. This map also shows Brook Street Mill to have expanded considerably since 1831.

The death of Thomas Ogden in 1880 signalled the end of the family’s interest in the mills, and probably represented the end of cotton spinning at the site. Shepley Street Mill is named on the Ordnance Survey map of 1888, although it is marked ‘Disused’. It was sublet to a variety of businesses thereafter, including two skirt manufacturers, a sewing-machine manufacturer, and a metal-plate worker, with other parts of the building being used for warehousing. In December 1919, the site was purchased by the Cowley brothers, who rented out space in the building to several small firms, including manufacturers of quilts, gowns, cushions, and children’s clothing. The mill was eventually demolished in the late 1960s.
The Remains of the Mill

As with Piccadilly Mill, the sites of Shepley Street Mill and Brook Street Mill were subject to archaeological investigation, prior to redevelopment as Piccadilly Place. These sites, and Brook Street Mill in particular, were buried beneath a considerable depth of material from the landscaping and conversion of the site for use as a public open space prior to the Commonwealth Games, which were held in Manchester in 2002.

Excavation of trial trenches in 2005 revealed that the demolition of the mill buildings had been fairly comprehensive, although elements of substantial walling, forming the basement of the main block of Shepley Street Mill, survived intact to a height of more than 3m. Access to this part of the mill had been via circular stair towers, the arched entrances to which were finished with finely worked quoins. The partial remains of successive engine and boiler houses were also exposed at basement level, although too little survived to allow a meaningful plan of the power plant to be produced.
Early Workers’ Housing

The rapid industrialisation of Manchester from the last quarter of the eighteenth century was accompanied by a massive explosion in population. In 1774, a local census estimated a total of 22,481 inhabitants within the township of Manchester, whilst the census of 1801 recorded over 70,000 people. This rapid growth inevitably placed enormous pressures on the available housing stock, and presented opportunities for entrepreneurs wishing to invest in providing dwellings for the new urban working classes. By the late eighteenth century, Manchester’s housing stock included numerous terraced properties with attic workshops, intended for occupation by weavers and other artisan craft workers. Archaeological work in Manchester has demonstrated that these properties were frequently of a superior quality to those built specifically for the factory workers at a slightly later date.

The earliest housing for the new workers was erected with little legislative control. Very few were built by the factory owners, with the vast majority erected by property speculators. This led to unregulated and piecemeal expansion, with blocks of housing built at differing angles, following only the alignment of the intervening streets. By 1819, several early maps of Manchester show that this had already led to the creation of many small alleys and blind courtyards, with

*Entrance to a cellar dwelling in Manchester (reproduced from The Builder 1862)*
plots of land sub-divided into rows. This encouraged the construction of back-to-back and blind-back houses, which were often only a single room wide and deep, with windows found only on their front walls.

A description of these houses by Dr J Farriar in 1805 indicates that the cellars of many properties were inhabited, and that the average worker’s dwelling consisted of ‘two rooms, the first of which is used as a kitchen, and though frequently noxious by its dampness and closeness, is generally 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’. The results obtained from recent archaeological excavations of cellars in Manchester suggest that single-room dwellings were also commonplace.
Early Houses at Piccadilly Place

The earliest housing within Piccadilly Place was built along the northern edge of Pump Street (now Whitworth Street), and on the London Road frontage. Infilling, through the construction of more properties to the rear, then followed during the early decades of the nineteenth century, as shown on Bancks and Co’s map of 1831 (p 19).

The sites of these houses were examined during the archaeological excavations at Piccadilly Place, and whilst all of the buildings had been levelled by twentieth-century redevelopment schemes, the well-preserved remains of the cellars of some of the early dwellings had survived. These had formed part of a group of properties known in the early part of the nineteenth century as ‘Syes Buildings’. The earliest remains to be excavated included two cellars, each measuring approximately 14 x 15ft (4.27 x 4.57m), which is a typical room size for a dwelling constructed during this period. They were well built using hand-made brick, with walls of at least one full brick in thickness. Wide fireplaces were found on the dividing wall between the two properties, whilst they had windows in the west wall, allowing some light to enter from the street above. Both cellars had flagstone floors, with a brick and stone stairway in the opposite wall to the fireplace, which allowed access from the ground-floor level of the house.

Mid-nineteenth-century maps show that additional properties had been built which, together with those earlier houses, enclosed a courtyard known as ‘Syer’s Court’. The construction of these new properties typifies the
increased demand for housing in Manchester during this period, since the population was still expanding at a rapid rate. The resulting townscape was a common ‘attraction’ for visiting gentlemen. Notable Continental visitors to the area included the social commentator, Frederich Engels, who in 1844 remarked that ‘in such a hole [referring to a one-roomed house], I found two beds, which, with a staircase and chimney-place, exactly filled the room. Everywhere, before the doors, heaps of debris refuse and offal’. This latter comment related to the common practice of keeping pigs, in pens, within the courtyards sandwiched between the houses.

The archaeological excavation at Piccadilly Place also uncovered the remains of some of the properties that had fronted Minshull Street, and demonstrated that these differed from the earlier houses. In these later houses, construction costs were cut by reducing the thickness of internal partitions from one brick to a single skin. Also, instead of a stairway giving entry into each individual cellar, as seen in the earlier houses, a single stairway accessed via a small lobby served two cellars. This arrangement reduced the internal area of one of the cellars by approximately 20%. This, in turn, probably led to differences in standards of accommodation, making the cellars of some of the properties more desirable than others.
Prior to the health legislative acts of the mid-nineteenth century, skimping in construction was seen as necessary in order to make a profit. A major step forward in housing improvement was provided by a local Act of 1844, whereby all new houses were to be provided with a properly built privy, and all existing houses were to have one installed. An important outcome of this Act was that it effectively outlawed the building of back-to-back houses, and none were built in Manchester after this date. Unlike earlier legislation, the 1844 Act was enforced by a dedicated committee, which investigated some 9400 dwellings in the first year alone and, by 1850, over one third of Manchester’s dwellings had been ‘reconditioned’. A further Act of 1853 actually rendered cellar dwelling illegal, but Manchester’s cellar population, calculated at 22,924 in 1845, only fell slowly to 12,396 in 1861, and even rose again during the cotton famine of 1861-4.

Attempts to improve living conditions were represented by additions and modifications made to the original houses that were recorded during the archaeological excavation in 2005. Pavement lights had been inserted to improve the amount of light reaching the cellars, and all of the excavated fireplaces had been remodelled to incorporate ranges, which became popular in the late nineteenth century. Most of these ranges appeared to have included wash boilers, or ‘set pots’, which provide evidence for better hygiene during the late nineteenth and early twentieth centuries.

A fireplace remodelled in the late nineteenth century to contain a kitchen range
The final improvement, made to the cellars uncovered during the excavation, was marked by the insertion of a doorway between two of them. It therefore appears that the cellars stopped being individual dwellings, and were incorporated into the homes above. A drain had also been inserted into each cellar floor, all with ceramic covers. These drains may point to their use as sculleries, or washrooms, during the early twentieth century.
Piccadilly Mill had ceased to operate as a cotton-spinning factory by 1873, and in 1886 part of the mill provided commercial space for R H & J Sharp Ltd, engravers and lithographic printers. By 1895, this was one of 188 similar firms in the Manchester and Salford area, giving some indication of the significance of this trade. However, the printing works appears to have been abandoned and demolished by the early 1930s.

Lithographic printing, literally meaning ‘writing on stone’, was invented in Germany in about 1798. It was introduced into London in 1818, and by 1851 increased mechanism allowed printing rates of 800 sheets per hour. If the lithographic stone had been used before, it was ‘grained’ in order to remove the previous design, and a new design was drawn onto it, in reverse, with a greasy crayon. The surface of the stone was then ‘etched’ with an acidic solution. In this process, the entire surface of the stone was coated...
with this solution and, because grease and water repel each other, the stone accepted the solution, whilst the design, drawn by the greasy crayon, repelled the solution. Greasy ink was then applied and paper was placed over the stone and pressed down. This finally led to the design being printed onto the paper. Colour lithographic printing was also possible, but was more complex, requiring one stone per colour, and overprinting colours onto the same piece of paper. In this type of printing, up to 20 stones were used for every colour illustration produced. However, the stone plates were heavy to handle, and their surfaces needed careful preparation, and it was not until the late nineteenth century that an alternative was found, in the form of zinc and aluminium plates.

The excavated remains relating to the use of the mill for printing included several pits and tanks set into concrete floors, and concrete machine bases. Numerous large fragments of stone lithographic plates were recovered from these tanks, with many of the designs on them having been used for the labels on domestic products. All the fragments of lithographic plates recovered had reversed images, mostly in black ink, although some were red. However, it seems likely that those images that appeared black would not
all have been printed in black, since there were several blank labels and several very broad-lined designs, suggesting that these were for filling colours. Several plate edges also had pattern numbers painted on. These numbers would have been an essential form of labelling, especially since some of the early stages of the preparation would not have produced a visible image on the plate’s surface.

It is clear from the images surviving on the plates that RH & J Sharp Ltd printed labels for soap, sweets and cakes, beer and ginger beer bottles, for clients as far away as London. They also appear to have printed price-list posters and bill heads for gas engine manufacturers. Based on the range of products identified, and the companies involved, it is likely that the lithographic plates were last used between 1895 and 1913.
Changes in planning guidelines and government directives since the late 1980s have resulted in archaeology being considered as part of the planning process. Before development can proceed, the archaeological potential of particular sites needs to be established. This is frequently carried out by archaeological units such as Oxford Archaeology North, which are employed, and funded, by site developers to complete programmes of archaeological work. These programmes have been drawn up, and agreed by, archaeological curators (in this case the Greater Manchester Archaeological Unit) providing advice to the local planning authority. During this process, archaeologists are generally given access to the site prior to the development in order to excavate and record any surviving remains. The process is known as ‘preservation by record’ and it leads to the creation of a technical report and site archive, which can be consulted in the future. The archive generated from the excavations at Piccadilly Place has been deposited with the Museum of Science and Industry, on Liverpool Road, Manchester.

Although, traditionally, archaeology focused on those remains dating to the prehistoric or early historic eras, fortunately the importance of more recent phases of human activity has now been recognised as a significant area of study. This, in turn, has resulted in the excavation and study of industrial remains. These remains hold particular importance in industrial cities such as Manchester, where the events and developments of the eighteenth and nineteenth centuries have helped to shape the modern world.
Recent development at Piccadilly Place was undertaken as a joint venture between City Inn, Argent, Manchester City Council, and GMPTE. This has led to the construction of offices, homes and the impressive City Inn Hotel, along with ground-floor shops and restaurants accessed from a new piazza. This new development also hosts the ‘Poem for Manchester’ and the ‘Manchester Curve’ bridge. Hence, a site famous for Peter Drinkwater’s innovative ideas continues to demonstrate the enterprise of the modern city.
### Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anglo-Saxon Chronicle</strong></td>
<td>A collection of annals recording the history of the Anglo-Saxons. Created initially during the reign of Alfred the Great in the late ninth century, copies of the manuscript were distributed to monasteries across England, where they were often updated independently, until shortly after the Norman Conquest.</td>
</tr>
<tr>
<td><strong>Bridgewater Canal</strong></td>
<td>The world’s first arterial canal, commissioned by Francis Egerton, the Third Duke of Bridgewater, to transport coal from his mines at Worsley to Manchester. It was opened from Worsley to Manchester in 1761, and was extended subsequently to Runcorn, and then to Leigh, to connect with the Leeds and Liverpool Canal.</td>
</tr>
<tr>
<td><strong>Fulling</strong></td>
<td>Pounding newly woven woollen cloth in an alkaline liquor to absorb natural greases and oils that were added during the weaving, and to thicken up the fabric to give a stronger and denser material.</td>
</tr>
<tr>
<td><strong>Fustian</strong></td>
<td>A strong, twilled cloth, with a linen warp and a cotton weft, the production of which increased steadily in the Manchester area during the early seventeenth century. The term is often used to describe a variety of heavy woven cloth prepared for menswear.</td>
</tr>
<tr>
<td><strong>Horsepower</strong></td>
<td>A unit of power. It was defined originally to allow the output of steam engines to be measured and compared with the power output of horses. The horsepower was widely adopted to measure the output of piston engines, electric motors and other machinery. Specific definitions vary, although that used most commonly equates one horsepower (1 hp) to 735-746 watts.</td>
</tr>
</tbody>
</table>
**Linen:** cloth made from the natural fibres of flax. Linen textiles are known to have been produced for thousands of years.

**Putting-Out:** a system of sub-contracting work, whereby an agent contracted skilled workers to complete a manufacturing process, usually in their own homes. In the textile industry, for instance, merchants supplied spun yarn to weavers, who would produce cloth on hand looms in their homes, and then return the finished cloth to the merchant for an agreed sum. Putting-out was largely superseded by the factory-based system of production during the nineteenth century.

**Quoin:** shaped stone used to form the corners of walls or the surrounds to door and window openings.

**Small wares:** a cloth that usually comprised a linen warp and a worsted weft.

**Spindle:** a device used to spin fibres into thread, commonly a tapering pin of wood or metal.

**Warp:** yarn which lies lengthwise in the cloth.

**WORSTED:** a firm-textured, compactly twisted woollen yarn made from long-staple fibres. The name is also used for the lightweight, coarse-textured cloth, whose weave is usually twill or plain.

**Weft:** yarn that is drawn under and over parallel warp yarns during weaving to create a fabric.
Further Reading


Butt, J, 1971 Robert Owen, Prince of Cotton Spinners, Newton Abbot


Gregory, RA, 2007 Roman Manchester: The University of Manchester’s Excavations within the Vicus 2001-5, Oxford

Kidd, A, 1993 Manchester, Manchester

McConnel, J W, 1913 A Century of Fine Cotton Spinning 1790-1906, 2nd edn, Manchester


Morris, M, 1983 Medieval Manchester: A Regional Study, The Archaeology of Greater Manchester, 1, Manchester

Nevell, M, 2008 Manchester: The Hidden History, Stroud


All of the historical maps used in this booklet can be found at Manchester Archives and Local Studies, Manchester Central Library

Publications in The Archaeology of Greater Manchester series, and The Heritage Atlas series are available from GMAU. Other titles are available from: http://www.gmau.manchester.ac.uk/
ACKNOWLEDGEMENTS

This booklet arises from a programme of archaeological investigation carried out as part of the Piccadilly Place development in 2005, which was funded jointly by Argent and City Inn; the production of this booklet was funded entirely by City Inn. Historical images of Shepley Street Mill, Lower Brook Street, and Piccadilly Mill, have all been reproduced courtesy of Manchester Archives and Local Studies, housed within Manchester Central Library. The Boulton and Watt Archive in Birmingham kindly gave permission to reproduce the illustrations of the original steam engine installed in Piccadilly Mill, and Manchester City Council allowed reproduction of an image of Ford Maddox Brown’s mural that is housed within Manchester Town Hall.

The text was prepared by Ian Miller, Chris Wild and Richard Gregory of OA North, with advice from the Greater Manchester Archaeological Unit

Design and illustrations by Marie Rowland

Produced by Oxford Archaeology North

Funded by City Inn

Published by Oxford Archaeology North, Mill 3, Moor Lane Mills, Lancaster LA1 1GF

Printed by Information Press, Southfield Road, Eynsham, Oxford OX29 4JB
Piccadilly Place now forms the site of offices, the City Inn Hotel, and the ‘Manchester Curve’ bridge in the heart of the modern city. Prior to these new developments, the site played a significant part in Manchester’s rich industrial heritage. This booklet charts the history of the site, and presents a summary of the recent archaeological work carried out by Oxford Archaeology North, with advice from the Greater Manchester Archaeological Unit. This work has allowed some insight into the development of industrial Manchester, the world’s first industrial city.