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Saving Manchester's Industrial Past: Regeneration and New Uses of Industrial Archaeology Structures in Greater Manchester, 1980 to 2018

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Summary & Introduction

2020 marks the 40th anniversary of the establishment of professional archaeology within the Manchester city region, with the creation of the Greater Manchester Archaeological Unit (GMAU) in 1980. This was the culmination of a decade of raising awareness of the archaeology and heritage of the Manchester city region. It saw the establishment of dedicated conservation officers in each of the ten new metropolitan boroughs of Greater Manchester (established in the local government re-organisation of 1974), a growth in the number of conservation areas and a significant rise in the number of historic buildings protected through the listing process, on the back of changes to the listing process in 1970. This paper looks at the particular impact of the growth of heritage protection and the role of conservation and re-use in retaining and understanding industrial buildings in the Manchester area. It examines the way in which industrial sites in the region have been preserved and displayed for the public over the last 38 years by heritage professionals, highlighting the impact of the Greater Manchester Archaeological Unit (and its successors), and its sister unit the University of Manchester Archaeological Unit. First, the range of industrial archaeology sites surviving in the area is briefly reviewed. Then, the next part of this paper studies the conservation of industrial buildings in the Manchester Area, which began in the late 1970s with a number of pioneering projects such as Samuel Oldknow's canal warehouse in Marple. However, it was the purchase of the Liverpool Road Railway Station in Manchester in 1978 by the Greater Manchester County Council, and its subsequent restoration, that gave the conservation of industrial buildings the boost it needed. Since then canal warehouses, packing warehouses and textile mills have been conserved through conversion to offices, student accommodation or flats. Some of the problems encountered in this trend, in particular the lack of interest in particular types of sites, will also be looked at. The final part of this paper examines the way in which industrial sites around the Manchester city region have been preserved and displayed to the public. Liverpool Road Railway Station was the first such site and is home to the Museum of Science and Industry in Manchester (now part of the Science Museum Group). However, there are many smaller and local industrial archaeology sites which have been excavated and displayed since the early 1980s through the work of GMAU. These range from textile mills and bleachworks to coal mining sites. This part of the paper looks at the successes and problems encountered by this approach.

The Industrial Archaeology of Greater Manchester

In order to understand the problems and possibilities of regenerating and re-using industrial buildings and landscapes in Manchester it is necessary to review, briefly, the industrial archaeology of the region. Greater Manchester is one of the classic areas of industrial and urban growth, the result of a combination of forces that came together in the 18th and 19th centuries; a phenomenal rise in population, the appearance of the specialist industrial town, a transport revolution, and weak or disinterested local lordship. Nationally, the proliferation of the specialist industrial town was one of the most distinctive and novel elements of the Industrial Revolution. Daniel Defoe had noted in 1728 that for the great towns, including Manchester 'there are few or no Families of Gentry among them; yet they are full of Wealth, and full of People, and daily increasing in both; all off which is occasioned by the meer Strength of Trade, and the growing Manufactures established in them' (1). He was one of the first to use the term 'manufacturing town', which was in growing currency from the 1750s onwards and recognized that they owed their wealth and growth not to gentry or patronage, but to an expanding industrial and commercial life. Late 18th century maps, such as Peter Burdett's map of Cheshire (1777) and William Yates' map of Lancashire (1786) show the burgeoning towns of Manchester and Salford, and the rise of the manufacturing towns and villages of Ashton-under-Lyne, Bolton, Bury, Oldham, Rochdale, Stockport, Stalybridge, and Wigan.(2)

During the early 19th century Manchester and the surrounding cotton towns gained an international reputation for the use of the factory system and the distribution and export of cotton goods, the mills representative of the former and the warehouses of the latter.(3) The cotton mills in Greater Manchester are a rare grouping covering over 160 years of the origins, growth, development and maturity of this monument type, where innovations in

technology and power systems, advances in fireproofing systems and revolutionary designs in mill architecture are all represented. Collectively the surviving mills demonstrate why the region was at the forefront of the industrial revolution in cotton manufacture.(4) Textile mills have thus been central features of this industrial landscape for over 250 years and consequently mills are the most distinctive type of industrial building in the region.

Prior to the 19th century Greater Manchester had been a predominantly agricultural area of isolated farmsteads, hamlets, and market towns. However, domestic cloth manufacture had long been important, first of linen and wool pieces and then from the later 17th century of cotton goods.(5) The region still has hundreds of weavers=cottages built during the 18th century which reflect the dominance of domestic textile manufacture in an arc to the north and east of Manchester from Bolton and Bury, through Rochdale and Oldham to Mossley, Stalybridge, Marple and Mellor.(6) There was also a large domestic textile manufacturing base in Manchester itself, again reflected by the survival of more than 50 workshop dwellings in the Northern Quart of the modern 21st city and in other parts of the city such as Liverpool Road.(7) By the 1780s the national demand for textiles, particularly cotton, and the range of natural and economic advantages of the area resulted in a dramatic increase in mill building and transformed the area into a great centre of the factory-based cotton industry. The period 1780 to 1820 saw a dramatic expansion of the cotton trade and the emergence of the multi-storeyed steam-powered mill. Some of the most significant mills, socially and technologically, date from this period and the greatest concentrations of these is found in Manchester itself. A & G Murray's mills in Ancoats, built 1798 to 1806, is Manchester city's only surviving 18th century mill.(8) Elsewhere in the region wool production had been a significant local industry around Bury, Littleborough, Mossley, Rochdale, Saddleworth and Stalybridge throughout the 18th century and this industry also adopted the new factory system in these years. This period also saw the establishment of a vigorous finishing trade in a number of areas, in particular Bolton, Bury and Tameside.(9) Nevertheless, it was cotton spinning that predominated. The greatest technological development in the period 1820-1860 was the adoption of the power loom for weaving, first by the addition of power looms to spinning mills, and later by the construction of the purpose built integrated spinning and weaving mill. Many mid-19th century mill buildings can be found around the county but a typical example is that of Good Hope Mill built in 1824 in Ashton-under-Lyne as a spinning mill and extended of 1840s by the addition of a weaving sheds to hold c. 20,000 spindles and several hundred looms. By 1850 larger mills with more than 50,000 spindles were being embellished with external ornamentation, such as Gilnow Mill in Bolton, which had corner pilasters, decorative banding and parapets, deliberately emphasising the most important parts of the mill.(10).

The resurgence of the cotton spinning industry in the late 19th century in Greater Manchester accounted for a high proportion of the mills surviving today. These mills were built during periods of economic boom in the surrounding cotton towns, with little mill construction in Manchester itself. The new mills were larger, often holding 75,000 or 100,000 spindles, and there was considerable development in their form and detailed design under the influence of specialist mill architects. Improvements in machinery and power systems achieved a more efficient internal layout of processes; Cavendish Mill in Ashton-under-Lyne and Houldsworth Mill in Reddish are typical of these advances.(11) The final stage in the development of the cotton mill in Greater Manchester, during the early years of the 20th century, was characterised by the construction of numerous huge spinning mills containing over 100,000 spindles. Often on new sites, they dominated the landscape and many incorporated electric power for driving textile machinery. Examples of this late mill landscape can still be seen along the Bridgewater Canal in Leigh, in Oldham town centre and at Chadderton. Most of these late mills were designed by specialist architects, notably the Stotts of Oldham who accounted for the highest number of architect-designed mill buildings in all parts of Greater Manchester, as well as abroad, and the Bolton firm of Bradshaw, Gass and Hope. These late mills are distinguished from earlier mills by their massive size and flamboyant embellishments in red brick and terracotta, reflecting Edwardian fashions and the prosperity of the industry.(12)

Although cotton dominated these new manufacturing centres around Manchester, coal and engineering were also very significant elements of the industrialised economy. Perhaps the most significant of these two industries was that of coal. The crescent-shaped Lancashire coalfield, running from Wigan, Leigh and Bolton in the West to Ashton-under-Lyne, Hyde and Poynton in the south-east, is almost completely encompassed by the modern county. Extensively exploited since the 16th century, by 1854 there 362 collieries in this area, and the numbers peaked at 480 in 1880, the mines employing tens of thousands of people. In the Wigan area a number of colliery communities grew around the pit heads such as Atherton, Leigh and Tyldesley.(13) However, the rapid decline of the mid-20th century and subsequent regeneration efforts has meant that little of this industry now remains.

Greater Manchester also became a major engineering centre during the 19th century. Events in these areas began as a spin-off from cotton, but soon developed their own momentum. The main products from about 1780 included textile machinery, power equipment, steam engines, water wheels, boilers, mill gearing, iron pillars, beams and girders for mill building and bridges. Initial engineering centres included Park Bridge near Ashton-under-Lyne, and sites in Bolton and Manchester. From 1830 the region played a lead role in the development of machine-tool production and of precision engineering with new centres emerging in Bury, Oldham, Salford and Stockport. After the 1870s the region also developed a significant manufacturing expertise in electrical power plant and cables with notable centres in Broadheath, Dukinfield, east Manchester and above all Trafford Park.(14) Although engineering has declined greatly in the last 20 years the Clarington Forge in Wigan and the Kenyon Rope Works in Dukinfield are examples of 19th century works which are still operating in the 21st century.

A fourth element in the region 's industrial economy, which is often overlooked, is the role played by the transport revolution of the 18th and 19th centuries and the trade this generated, firstly, through the development of the canal network and secondly with the building of the railway system. The Bridgewater Canal was the first arterial canal in Britain. The initial stretch, built between 1759 and 1761 by the Duke of Bridgewater, enabled coal to be transported cheaply from the Duke 's mines at Worsley to the growing industrial town of Manchester.(15) At its terminus in Manchester, the Castlefield Basin, prodigious engineering feats included the building of a clover-leaf shaped weir to control the flow of water from the River Medlock into the canal. It also successfully crossed a number of river valleys, most spectacularly with the Barton aqueduct over the River Irwell. The canal was a remarkable commercial success which served as a model for canal entrepreneurs throughout Britain and the following decades saw a period of 'canal mania' .(16) By the 1800s Manchester was the hub of a considerable canal system which included not only the Bridgewater Canal, but also the Ashton Canal, the Rochdale Canal and the Manchester, Bolton and Bury Canal, all built in the 1790s.(17) Other canals such as the Huddersfield Canal, the Leeds and Liverpool Canal and the Peak Forest Canal were connected to this inner core and gave the county a pre-eminence in the cheap transportation of fuels and raw materials. It also linked the burgeoning cotton towns of the region with other industrial heartlands such as the mill towns of West Yorkshire, the manufacturing centres of the Potteries and the Midlands, as well as London and the seaports of Hull and Liverpool. The opening of the Manchester Ship Canal in 1894 transformed the city into an inland port 55 miles from the sea and marked the final flourish of industrialised water transport.

Manchester maintained its role as a transport hub throughout the development of the railways. Inevitably many of these lines have been overshadowed by the Liverpool and Manchester railway line of 1830, the first mainline passenger carrying service, which from its inception was viewed as a momentous achievement in transport history. The county 's railway system was constructed in two main phases between 1830 and 1880 linking Manchester to other major industrial centres such as Birmingham, Glasgow and London. Yet as early as 1849 there were three lines over the Pennines; the Manchester and Leeds through Rochdale, the London & North Western line to Huddersfield via Ashton-under-Lyne and the Manchester, Sheffield & Lincolnshire via Ashton and Glossop. Embankments, cuttings, viaducts and tunnels were used to deal with the geographical features of a particular route. Two viaducts stand out through their scale and architecture. The great brick viaduct at Stockport, a magnificent landmark straddling the Mersey, is the largest brick structure in Europe. At Castlefield the cast iron viaducts combining brute strength with romanticism are spectacular features of the landscape around the Bridgewater Canal and serve as enduring symbols of the power and majesty of the railway. (18)

The county of Greater Manchester thus contains some of the most significant industrial monuments in Britain, all of which are now listed on the Greater Manchester Historic Environment Record, held by the Greater Manchester Archaeological Advisory Service (successor to GMAU) at the Centre for Applied Archaeology, University of Salford.

Conserving the Industrial Remains

Whilst there is a rich industrial heritage in the Manchester region, such industrial sites are more vulnerable to damage and loss than any other class of archaeological monument because of their high rate of survival, frequent urban location and the continuing pressure for re-use, which has been increased by the British Government's emphasis on building on brownfield, urban, sites. Where the traditional industry has declined its buildings and structures are at particular risk. For instance, over 2400 textile mills and cloth-finishing works were built between 1732 and 1924 in the Greater Manchester area. By 1988, when the Greater Manchester Cotton Mills Survey was completed, the absolute decline of the cotton industry had resulted in the loss of over

half these mills with just 973 sites retaining standing structures in 1989. By the time of a resurvey of surviving textile mills in Greater Manchester was undertaken in 2016-17 by the Greater Manchester Archaeological Advisory Service just 540 sites with standing buildings were left, an attrition rate of 45%.⁽¹⁹⁾ In 2000 the Manchester Region Industrial Archaeology Society calculated that the loss of significant recorded industrial sites and buildings between the publication of Owen Ashmore's inventory of North West industrial sites in 1982 and a rapid re-survey for a new gazetteer in early 2000 was about 40%.⁽²⁰⁾ These losses were not evenly spread but were greatest in two industrial sectors, coal and engineering, with the highest attrition rate being amongst the remains of the coal industry, which have largely disappeared. Astley Green colliery has the last remaining pit head gear in the Lancashire coalfield (dating from c. 1912), whilst a colliery pumping engine house from c. 1840, survives at Norbury in Hazel Grove, converted into a domestic dwelling. Elsewhere remains of what was once the county's second industry, after cotton, are rare.⁽²¹⁾ Engineering works, an industry which witnessed a dramatic collapse in the last 20 years of the 20th century in the Manchester area, have suffered a similar fate. Therefore, the conservation and re-use of such standing industrial buildings is the main way, perhaps the only way, of securing a future for structures which no longer perform their original function, but which nevertheless have regional and national significance.

Despite the loss of many industrial sites in the region since 1980 the preservation, conservation and display of industrial buildings has a long history in the Manchester region which can be traced to the mid-1970s. Since then the process has been through three distinct phases.

The first phase was marked by a period of rapid recording and listing of endangered industrial buildings during the 1970s. This was prompted by a period of rapid loss for many industrial structures, but in the Manchester region was particularly associated with the decline of the transport network and the closure of many of the region's early canals and railways. An early casualty was the Huddersfield Canal, closed in 1944, but the real period of neglect took hold in the early 1960s when the Ashton Canal, the Manchester, Bolton & Bury Canal, the Peak Forest Canal and the Rochdale Canal were all closed. Amongst the many railway lines and stations closed were the first passenger railway line in the region, the Bolton & Leigh Railway, engineered by George Stephenson, and opened in 1829, a year before the Manchester to Liverpool Intercity Line, and the closure of the Central Station in Manchester in 1969, noted for its single span, wrought iron, segmental roof, 64m in width and built during the years 1875-1880 ⁽²²⁾

A number of industrial buildings were listed in this period in emergency situations. For instance, although the three storey Portland Basin Canal Warehouse of 1834 in Ashton-under-Lyne was burnt down in 1972, the ruins were given listed building status.⁽²³⁾ Likewise, the Merchant's Warehouse, the earliest complete canal warehouse surviving in Castlefield (it has a datestone of 1825) was also given listed building status even though the roof was partially destroyed by fire in 1971 and the building subsequently lay derelict. Other complexes were saved by individuals or enthusiasts. Samuel Oldknow's warehouse on the Peak Forest Canal in Marple, and dating from 1810-6, was converted into architect's offices in 1976, whilst part of the Bolton Street Station in Bury was saved by railway enthusiasts. This latter site was a passenger and goods station on the Manchester and Bolton line to Rawtenstall which had been opened in 1846. The station was closed in 1965, and most of the passenger station demolished, only the approach paved with stone setts and the surrounding stone walls surviving. However, the Castlecroft goods station became the home of the Bury Transport Museum run by the East Lancashire Railway Society and was re-opened in 1972.⁽²⁴⁾

By the late 1970s conservation in the Manchester region had moved into a second phase of piecemeal conversion and re-use of specific buildings which was to last until the end of the early 1990s. The two biggest examples of this were the redevelopment and restoration of the Liverpool Road Railway Station and the restoration and redevelopment of the Castlefield Basin both in the city centre. By the 1950s and 1960s the Castlefield area, a regionally and nationally important transport hub, had become badly neglected due to changes in the location of city centre industries and transport routes, resulting in many rundown and abandoned buildings, silted canals and overgrown railways viaducts. In 1975 Liverpool Road Station closed and the site could have been sold for redevelopment. Fortunately in 1978 the station was bought for £1 by the Greater Manchester County Council with the intention of housing the North West Museum of Science and Industry, then resident on the University of Manchester's campus at Grosvenor Street. The museum, later re-named as the Museum of Science and Industry in Manchester, opened on this site in 1983 and progressive phases of restoration have produced a large site covering a number of hectares and incorporating not only the 1830 passenger station but also the 1830 Railway Warehouse, the 1855 Transfer Shed, and the 1880 Lower Byrom Street Warehouse.⁽²⁵⁾

This project has ran parallel with the conservation and revitalisation of the whole Castlefield area as part of the Urban Heritage Park. From 1988 until 1996 the Central Manchester Development Corporation, in partnership with Manchester City Council and others, used nearly£80m of funds from government urban aid, the European Regional Development Fund, English Heritage, the Millennium Fund and private investment to carry out a massive programme of reconstruction and regeneration in this area.(26) Undesirable industries were relocated, dereliction removed, the Bridgewater Canal basin restored, the Merchant and Middle canal warehouses converted into flats and new canal-side housing and hotels built, along with an outdoor events arena that re-used the Staffordshire warehouse canal arms. Other buildings converted and retained in this period included the Victoria and Albert warehouses on Water Street, part of the New Quay complex, and the lower lock of the Manchester and Salford Junction Canal. Yet the impetus for this change was the raising of public awareness directly through the action of archaeologists, in particular the work of the late Professor Barri Jones.(27) His excavations in Castlefield between 1972 and 1979 not only uncovered extensive remains relating to a Romano-British industrial settlement outside the Roman fort, but raised public awareness of the importance of the Roman and industrial heritage of Castlefield through the local media and public excavation. It led directly to designation of the Castlefield Conservation Area by Manchester City Council in 1979, the establishment of the Greater Manchester Archaeological Unit in 1980, the preservation of the remains of the northern gateway of the fort and the establishment of the Roman gardens to display the archaeology. His work in Castlefield was continued during the 1980s by GMAU, who excavated the site of two demolished canal warehouses (Kenworthy's built during the 1820s and the Staffordshire Warehouse built around 1794), recorded the ruinous Merchant's canal warehouse, excavated the site of a lock-keepers cottage on the Rochdale canal, and investigated further Roman remains around the northern gateway of the Roman fort.(28)

A new, third phase, in the development of the conservation and re-use of industrial buildings in the Manchester region began in the late 1980s with the development of thematic building surveys and listing policies, allowing the examination of a large number of buildings comparatively, assessing them against criteria developed specifically for that building type. In Manchester, at least, this development was spurred by a property boom, which resulted by the mid-1980s in one textile mill per week being demolished. Since it was not clear which were the most important mills, nor which were those mills that could be converted and saved, the Royal Commission on the Historical Monuments of England set up a joint mills survey with the University of Manchester and GMAU in May 1985. This recorded the site of 2434 mills across the county. Three levels of record were made for these surviving sites, the most detailed being a full measured survey of 31 sites. Although the archive and final publication, led to many mills being listed, the continued erosion of this important industrial monument type led English Heritage to undertake a further listing and upgrading exercise in the mid-1990s, resulting in the number of listed mills rising to over 80. However, this time the information was also used to promote the regeneration of inner city and urban areas through conservation. This has led directly to the Ancoats Project, an inner-city regeneration scheme on the north-eastern side of Manchester that was focussed on the world's first industrial suburb based on steam, and encompassed the restoration of the oldest surviving cotton spinning factory in Manchester, Murray's Mills dating from 1797-1806.(29) Conserving the textile heritage of the city region is, however, a constant battle and in 2016 and 2017 the Greater Manchester Archaeological Advisory Service undertook a buildings at risk survey of mill buildings of the region, funded by Historic England. The intention was to highlight examples of good practise in terms of heritage re-use, whilst also quantifying the potential floor space available in the surviving mill stock suitable for conversion to apartments, offices and storage.(30)

In the early 2000s the University of Manchester Archaeological Unit used the methodology of thematic building surveys to study several types of industrial buildings in the city region and the wider North West. This included surveys of the surviving canal and railway warehouses of the North West England (Cheshire, Cumbria, Greater Manchester, Lancashire and Merseyside). The resulting publications provide a comparative assessment of building type where the first and last examples both lie in the Manchester city region.(31) Whilst the surveys showed that many surviving canal and railway warehouses had already been converted to commercial or residential use, it also indicated that other structures remained derelict. Such comparative surveys provide a basis for any future assessment of the historical value of each of these monument types, with a wider national survey of railway goods shed and warehouses being undertaken by Historic England. (32)

Many of these developments have prompted, and in turn been prompted by, changes in the national planning framework. The *Ancient Monuments and Archaeological Areas Act* of 1979 and the *Planning (Listed Buildings and Conservation Areas) Act* of 1990 were both a response to decades of redevelopment without an adequate record of the more important standing buildings of the Britain. In the early 1990s two documents were issued by

the then Department for the Environment which provided some form of protection to all archaeological sites, whether scheduled, listed or not, either through retention or through record before removal. *Planning and Policy Guidance Note 16 (Archaeology and Planning)*, issued in December 1990, dealt with the preservation of below ground and ruinous archaeological remains threatened by development. *Planning and Policy Guidance Note 15 (Planning and the Historic Environment)*, issued in September 1994, forced consideration of the historic environment onto the agenda and in so doing attempted to ensure that >above ground archaeology= (the built environment) as well as >below ground archaeology= was considered in the determination of a planning application whether or not sites had statutory protection (through conservation area status, listing or as a scheduled ancient monument). At the heart of both guidance notes was a policy of preservation, either through conservation, or as a last resort through record, using the 'polluter pays' principle. Once consequence of this approach has been the emergence of a historically large professional archaeology sector, which peaked in terms of employment in 2008, just before the recession, at around 7,000 full-time archaeologists. A decade later and there are over 5,700 full-time archaeologists in the UK working for more than 80 professional archaeology bodies on more than 4,000 heritage projects annually.(33) Planning advice and guidance has continued to evolve in the early 21st century, and the current *National Planning Policy Framework* for England (revised in 2018) retains the 'polluter pays' principle for the historic environment (archaeology and buildings). At a pragmatic level these planning regulations are tools for conserving local sites but at a strategic level they serve as an authoritative voice, giving a framework and context for policy and best practice in buildings and (industrial) archaeology.

In the Manchester city region the rise of the thematic survey and the recording of archaeological sites through developer-funded projects, particularly though not exclusively through the use of archaeology and heritage planning conditions, was only possible because of the growing academic maturity of the archaeology professional and of the disciplines of Post-Medieval and Industrial Archaeology coupled with the development and use of the Greater Manchester Historic Environment Record.(34) This large data-base is maintained and expanded by the Greater Manchester Archaeological Advisory Service, the successor to GMAU since 2011, and is funded by the Greater Manchester Combined Authority and housed at the University of Salford. It is a key heritage planning tool which now includes records of over 18,000 archaeological sites comprising monuments, find spots, listed buildings, local historic interest buildings, historic places and ancient landscapes. It has formed the basis for a growing number of archaeological excavations and building surveys, especially of industrial buildings and sites in the city region, from collieries, glass kilns and hat works to baths, institutes and workers' houses.

Preservation and Display of the Industrial Remains: the issue of public access

The first extensive attempt to preserve and display to the public the industrial heritage of the Manchester area was the creation of the Castlefield Urban Heritage Park. This area encompassed a substantial part of the south-west sector of the city centre and was bounded by Egerton Street and Chester Road in the south, Deansgate to the east, Quay Street and New Quay Street to the north and the River Irwell to the west. At its heart is the Castlefield Basin, the eastern terminus of the Bridgewater Canal, including the syphon in the Giant's Basin, the canal arms for Potato Wharf and the surviving foundations for the Staffordshire and Kenworthy Canal warehouses. The zone also includes the site of the Liverpool Road Railway Station and the site of Manchester's 18th and 19th century quays between Water Street and the River Irwell, including standing remains relating to The Old Quay Company (Albert Shed, Victoria & Albert Warehouses and Manchester & Salford Junction Canal Lock No 1), and below ground remains relating to the New Quay Company.(35) It included an archaeological park containing the reconstructed remains of the northern gateway of the Roman fort, and the foundation of the Roman road and three civilian settlement buildings as excavated by Professor Barri Jones and the Greater Manchester Archaeological Unit in the period 1979 to 1982.

The Greater Manchester Archaeological Unit were involved during the 1980s in a number of schemes to restore industrial urban, valley and upland landscapes through presenting the archaeology and heritage. The work at Castlefield has already been mentioned. In the upper Irwell Valley the Burrs Country at Woodhill in Bury, an area of 36 hectares roughly 2km north-west of Bury town centre. This was created around the extensive remains of two of Bury's earliest water-powered textile mills: the 1792 Burrs Mill and the 1792 Higher Woodhill Mill. In the hills around the Watergrove Reservoir in Wardle, Rochdale, a series of post-medieval farmsteads were excavated and consolidated. These had been demolished when the reservoir was built in 1930s, drowning the village of Watergrove. This was part of a scheme to open up this moorland landscape to public.(36) The work at Broadbottom in Tameside during the 1980s demonstrates the impact of such an approach for public display

and interpretation of other less prominent industrial archaeology sites and landscape. The 1820s to 1840s textile mills complex at Broadbottom, in the Etherow Valley, 15km to the south-east of Manchester, was excavated and displayed to the public in the mid-1980s. The textile village of Broadbottom, on the River Etherow near Mottram, is a fine example of the impact on the landscape of the new textile mill freeholders that sprang up around Manchester in the late eighteenth and early nineteenth centuries. At the heart of this village was Broad Mills, originally Broadbottom Mills, founded by the Sidebottom family in 1801 as a water-powered cotton spinning mill, with a weaving shed added in 1850. It was the largest of several textile works that were established in and around Broadbottom. This industry, coupled with the drive of the Sidebottom family, was largely responsible for transforming a rural landscape into the extensive village of today. Textile production ceased on the site in 1937 when Broad Mills (1920) Limited sold the Broad Mills complex. The buildings were subsequently used for a variety of industrial purposes until 1949 when fire damage led to the demolition of most of the site.(37) The 1980s excavation and display work involved the clearance of rubble and the select excavation of parts of the complex, and the creation of foot paths and provision of sign-boards. The visible remains include fragments of the walls of the 1850 weaving, still showing the outline of its >saw-tooth= roof, the outline of the late 19th-century gas holder, with the sluices and channels which fed the water-wheels of the early spinning mills, and the remains of an engine house of the 1830s. The site is still maintained by the local council, Tameside MBC, who built a visitor centre and provided guide walks and education days for school parties before 2010. The whole complex provides an opportunity to view the development of the textile industry in its original rural setting.

During the 1990s and 2000s the University of Manchester Archaeological Unit, working with the Greater Manchester Archaeological Unit and Tameside Metropolitan Borough Council, explored through excavation and displayed through consolidation several other post-medieval and industrial landscapes in Tameside. These included Glasshouse Fold in Haughton and Gorse Hill in Stalybridge. This work was undertaken as part of the Tameside Archaeological Survey, a twenty-two-year research project (running from 1990 to 2012) that included the publication of an eight volume history and archaeology series about the borough (*A History and Archaeology of Tameside*) and a second series focussing on key archaeological sites in the borough (*The Archaeology of Tameside*).

Of the industrial valley landscapes restored and displayed in this manner that around the Park Bridge Ironworks in the Medlock valley, approximately 10km to the east of Manchester, has seen one of the longest running programmes of restoration combining natural history and archaeology. The site was a regionally important iron producing centre established in the 1780s by Samuel Lees and after his death taken over by his wife Hannah Lees. The ironworks expanded to include a top and bottom forge, a roller mill, a bright works, as well as a three rows of terraced housing, stables and a factory owner=s mansion. Its products were used in the construction of the Eiffel Tower and the Sidney Harbour Bridge. During the mid-19th century the Oldham and Guide Bridge railway was built across the valley with railway sidings running to the iron works. The Lees family took over the local colliery company and although coal mining in this part of the Medlock valley ceased in the 1880s but the ironworks remained open until 1963.(38) Two phases of preservation and display work have taken place on this site; the first in the late 1970s and early 1980s saw the renovation of the 1860 stables block as a visitor centre and the landscaping of the valley through the removal of spoil heaps and the planting of 1000s of trees. This work was undertaken by the Greater Manchester County Council. The second phase began in 1986 when Tameside MBC took over the running of the site and culminated in 2001 with the opening of a re-vamped visitor centre and tearooms. It also included a programme of archaeological works from 1997 to 2006 that saw the excavation and consolidated of the remains of a 1770s Newcomen-style colliery pumping engine known as Fairbottom Bobs, the excavation and consolidation of the late 18th and 19th century tram way, the consolidation and recording of the c. 1830 Rocher Vale pumping engine house, and the building recording of surviving buildings in the industrial village. It also included a programme of community archaeology training digs between 2003 and 2006 on the site of the Top Forge. This work led to the creation of new heritage trails (included a downloadable version), sign boards, and fed into guided walks by the countryside rangers.(39) This later work was funded with the aid of a grant from the Heritage Lottery Fund and grants from Oldham MBC and Tameside MBC, with the archaeological survey and excavation work being undertaken by the University of Manchester Archaeological Unit. As at Broadbottom public access was and is free.

Telling the public what we have found is vital part of the archaeologist's work. There are many ways to do this from open days and community work to twitter and blogs. More traditional publication such as books, articles, heritage trails and information boards have a vital role to play in disseminating this information in a more permanent manner. One such way of adding value through heritage to developer-funded works on industrial

sites was the establishment of the Greater Manchester Past Revealed series of popular archaeology booklets. It has been overseen by the Greater Manchester Archaeological Advisory Service since 2011 and many of the volumes are funded through developer-led archaeology and produced in conjunction with the commercial archaeology units working within Greater Manchester. As of 2018 there are 22 volumes in this series, and often such projects have also generated information boards in the site of the remains and even downloadable heritage trails and information leaflets. Most of these booklets are available as free downloadable pdfs and can be downloaded.(40)

Conclusion

This paper has reviewed 38 years of conservation and display work on the industrial heritage of the Manchester area by the University of Manchester Archaeology Unit and other bodies. Many other sites could have been mentioned in this study, from individual textile mill conversions such as that at Holdsworth Mill in Stockport to other urban centre regeneration projects such as Wigan Pier on the Leeds-Liverpool Canal basin in that town. However, what is clear is that the redevelopment of most of the industrial buildings in the last decade in the Manchester area have been informed by three principles; understanding, appreciation and preservation. Continued research of individual building types and landscape, and further co-operation with all interested parties and individuals appears to be the key for future work.

Thus, the success of town centre projects such as the Castlefield Canal Basin, and the preservation and presentation of a number of important industrial sites such as the Liverpool Road Station in Manchester and the Park Bridge Ironworks in Tameside, demonstrate that when all interested parties co-operate and work together (academics, local government, architects, developers and the community) industrial archaeology is a heritage asset and can make a real contribution to urban regeneration and sustainable tourism. The proposal to include Manchester and Salford on the United Kingdom's list of proposed World Heritage Sites is recognition of the region's world class archaeology. However, there is a danger that the concentration on the buildings on the largest industry of the region could detract from the record and preservation of smaller scale but potentially no less important industrial remains.

The chief lesson we have learnt in the Manchester city region over the last 38 years is that different buildings and landscapes require different solutions. Frequently, a flexible programme that covers conservation, preservation and public access and which uses a multi-disciplinary team from surveyors, engineers and architects to conservation officers and archaeologists, is needed to secure the future of particular industrial sites or landscapes. Perceived ownership of a building or industrial site that has been opened to the public is an important part of this process. However, all of this work has to be supported by research. This is the context within which conservation and re-use must function. It is only through research that buildings, industries and landscapes of local, regional and national importance can be identified. Research is a continuing process, whereby understanding informs appreciation and thereby protection. Although philosophy, policy and practice do not necessarily come together and such aspirations are not always realizable or practicable, there is a growing recognition that the historic environment is a heritage asset. It is now believed that it can make a significant contribution to regeneration and sustainable tourism. In this context its protection is paramount.

Footnotes

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