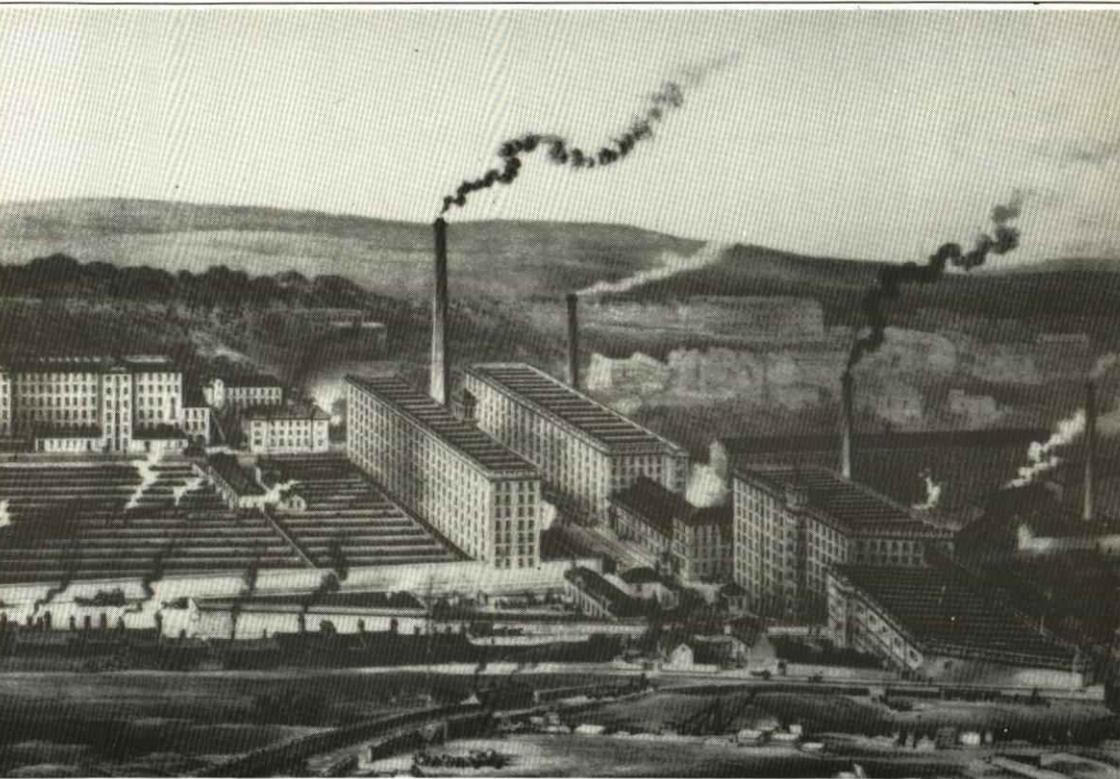


A Brief Guide to the

**INDUSTRIAL
HERITAGE
of
WEST YORKSHIRE**



W J Thompson
GENERAL EDITOR

Association for Industrial Archaeology

This booklet was published by the Association for Industrial Archaeology, and was prepared for the annual conference of the **AIA**, held in Huddersfield in 1989.

The **AIA** was established in 1973 to promote the study of Industrial Archaeology and encourage improved standards of recording, research, conservation and publication. It aims to support individuals and groups involved in the study and recording of past industrial activity and the preservation of industrial monuments; to represent the interests of industrial archaeo-

logy at national level; to hold conferences and seminars; and to publish the results of research. The Association is a voluntary one. It publishes the *Industrial Archaeology Review* which is sent twice yearly to all members, who also receive the *AIA Bulletin*. Additional occasional publications include the Education Group's Newsletter and *World Industrial History*. Further details may be obtained from the Membership Secretary, Association for Industrial Archaeology, The Wharfage, Ironbridge, Telford, Shropshire TF8 7AW.

GENERAL EDITOR

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CONTRIBUTORS

The following people have made contributions to the gazetteer, in relation to the different districts covered.

CALDERDALE

Mr J A E Robinson, Mr J C Bateman, Mr P W Robinson, all of the Industrial Heritage Group of the Halifax Antiquarian Society and Mr G J Drake, Curator of the Calderdale Industrial Museum. Between them they provided a most detailed list and location map of sites, with far more information than could possibly be used in this guide.

BRADFORD

Mr David Cant, a graduate of the Ironbridge Institute who was working in Bradford at the time. He provided a lot of detailed information, located many sites, covered a considerable distance checking on remains and OS map references and read and checked the drafts many times.

KIRKLEES

Dr J Roberts, of Huddersfield Polytechnic, who not only provided an initial list of sites but read through several drafts; Dr D Perrot, a member of AIA Council, who provided additional information on many sites as well as useful advice.

LEEDS

Dr E Connell, Chairman of the Industrial History Section of the Yorkshire Archaeological Society, who provided advice and a comprehensive list of sites, particularly in the South

Leeds area; Mr Bob Cooper, who suggested additional sites, checked on remains and provided many OS map references; Mr and Mrs Cooper, who read through the drafts and made useful comments and corrections.

WAKEFIELD

Mr John Goodchild, Hon Archivist of Wakefield Metropolitan District, a native of Wakefield who is a most dedicated historian, with over 100 publications to his credit (many of which are still available). He has amassed a most extensive archive relating to all aspects of the industrial history of the District. His meticulous scholarship was matched only by the promptness of replies for information requested and comments upon many drafts of the document.

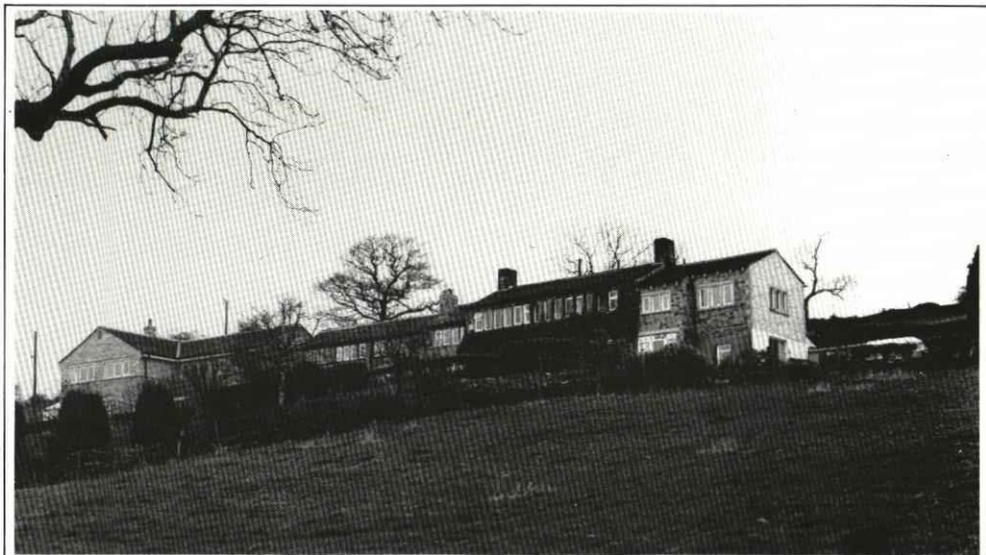
To all the above named persons I owe a deep debt of gratitude, for without their help this guide would not have been produced.

Thanks are also due to Dr W N (Bill) Slatcher, who helped throughout from the beginning, with a seemingly limitless knowledge of the industrial history and archaeology of his native county.

Finally, as general editor the various introductions are mine, as are major parts of the Bradford and Kirklees sections. Also mine are any omissions, errors or ambiguities in the text, none being the responsibility of any of the contributors.

W J Thompson, General Editor

INDUSTRIAL HERITAGE of WEST YORKSHIRE



73 Lumb Lane, Almondbury.

West Yorkshire was created as a Metropolitan County in 1974, consisting of the heavily industrialised part of the former West Riding based primarily upon textile industries. Within it are five Metropolitan Districts; these are Calderdale, Kirklees, Bradford, Leeds and Wakefield. The geology of the area ranges from Millstone Grits in the West, Upper Carboniferous Coal Measures in the central area and Permian Magnesian Limestone and Marls in the East. This determines both the soil type and quality so that the richest agricultural part is in the east, being based upon arable and livestock farming. In the west the soils are thin, peaty and acid and in the main are only suitable for grazing, with sheep on the hills and some cattle in the valleys. Thus for many centuries, at least up to the late Middle Ages, the bulk of the population and the wealth was in the east, with Wakefield being a major cloth and corn marketing centre. At this time the centres of the woollen industry were in York and Beverley.

By the end of the 17th century however the centre of population growth had moved to the central western area. Here where there was an abundance of soft water and fast flowing streams the domestic textile industry had slowly developed, as an adjunct to subsistence farming. The water was ideal for washing and dyeing purposes and the streams powered many water wheels, many of which drove fulling stocks. Fulling mills had been established in the area in the late 12th century (Temple Newsam 1185), Halifax had become a major woollen town by the 16th century, because, it is claimed, it was free of control from the Guilds. At this time the industry was dominated by the Yeoman-Clothier, with small scale wool merchants (wooldrivers) forming a link between Clothier and weaver.

For many years the staple product was Kersey, a coarse, narrow cloth, which was well suited to the local wools. By the 17th century 'Bays'—a mixture of woollen and worsted cloth—was being made and by the 18th century worsted was being produced, with Halifax being an important centre. Towards the end of the 18th century Yorkshire, particularly the West Riding, had become the major worsted producing area of Britain. However, in order to allow these finer cloths to be made higher quality wools were necessary. Initially these came from within Britain, with Wakefield becoming the most important wool marketing centre, but later imported from abroad *ie* from Spain. It was the Rev Sam. Marsden, a native of Farsley nr Leeds, who first brought wool into the area from Australia. Later developments with Merino crosses, established Australia as the biggest supplier, but it was in these early days that the name 'Botany Wool' comes from. By the early 19th century Wakefield had lost its importance as a wool and cloth centre to such towns as Leeds, Halifax and Bradford. To handle and market the increasing amounts of cloth, Cloth Halls were established, such as in Heptonstall in 1545 and Halifax in 1572 & 1660. However the big, purpose built halls came in the 18th century with Wakefield 1710, Leeds 1711, 1758 & 1774, Huddersfield 1766, Bradford 1773 and Halifax in 1779.

After a slump from 1750 to 1780, the industry began to grow strongly and also to mechanise by adapting the cotton processing machinery, such as Hargreaves 'Jenny' and Cromptons 'mule' spinning machines. However whilst worsted, being a stronger yarn, could be spun by these machines, woollens created a need for a further preliminary process. This was achieved by the 'scribbling' machine developed in the late 18th century. Mills containing scribbling machines were soon built, often in association with existing fulling mills. As the amount of wool processed and yarn spun increased there was a big rise in the number of weavers and weavers cottages were built in large numbers between 1770 and 1840 throughout the area, sometimes in association with the spinning mills. Weaving was not successfully mechanised until about 1840–50, when all stages could then be brought into the factory under one roof. The movement into mills though was slow, by 1800 there was reckoned to be just over 200 mills, engaged in woollens, worsted, cotton and flax production, of which 18 were worsted, 50 were cotton and 10 were flax. In fact the first purpose built 'Arkwright' type spinning mill was for cotton; this was Low Mill, Keighley, of 1780, which has been demolished.

At this point the difference between woollen and worsted and their processes needs explaining, albeit very briefly. Basically the difference is that woollens use short staple length wool that is carded before spinning and then fullled after weaving, whereas worsted uses long staple wool that is combed before spinning and which is not fullled. During the domestic period the fleece from the sheep was cleaned by washing and then opened up prior to being carded. It was spun into yarn, woven into cloth and fullled. Fulling was a most important process for during it the material was thickened, felted and made stronger, by being washed and beaten at the same time. The cloth was then dried, stretched on tenters, had the nap raised by brushing with teasels and then had the surface levelled by cropping. In worsted production more care had to be taken in sorting the wool prior to combing. This process removed the short fibres and aligned the longer ones so that a finer, tighter and stronger yarn could be spun. After weaving the cloth, properly called 'stuff', is not fullled and has a much smoother, clearer patterned surface.

During mechanisation a further process had to be introduced for woollens namely scribbling. This operation was done prior to carding by passing the wool through fine wire toothed rollers, thus disentangling the wool and aligning the fibres. After weaving, fulling was replaced by milling, 'Gig' mills were used to raise the nap and shearing frames replaced hand cropping shears. It was the introduction of these 'dressing' machines that led to the famous machine breaking riots by the Luddites in the early 1800s. It was at this time too that some of the wealthier Clothiers acquired scribbling mills and so evolved into merchant-manufacturers. Worsted production had to wait much longer for the invention of the combing machine by such men as Donesthorpe, Heillmann, Lister, Holden and Noble but by the 1860s the technical problems had been overcome. So by this time all stages in both woollens and worsted were fully mechanised and the era of very big combined mills was started. The concentration of different processes on one site is characterised by the 4 or 5 storey spinning mill, the single storey weaving sheds with their north facing lights, an assortment of

outbuildings and often a very tall chimney. Some of these later mills are spectacular indeed, such as the Crossley Mills in Halifax, the mill at Saltaire and Lister's Manningham Mills in Bradford.

It was this process of mechanisation coupled with the application of steam power that led to the explosive growth of such towns as Bradford, which rose from being a relatively small town at the beginning of the 19th century to become pre-eminent in the worsted trade. Huddersfield also developed rapidly with a mixture of woollens and worsted, whereas during this time Leeds moved into clothing manufacture, in the process becoming dominant in this trade in the area. It was in 1813 that Benjamin Law devised machinery that was able to tear up woollen rags so that it could be re-spun, thus was born 'Shoddy'. Then in 1834 Geo. Parr developed machinery that could tear up the harder broadcloths, giving rise to 'Mungo'. The towns of Batley and Dewsbury soon became centres of this 'Heavy Woollens' trade. Dyeing could be done either before spinning—wool dyed, or after weaving—piece dyed. In a similar way to the spinning and weaving sectors, dyeing evolved machines and better materials to keep pace with the vast increase of material being produced. It was at Ripley's Dyeworks in Bowling, Bradford, that many innovations were introduced. This gave rise to a specialised chemical and dyestuffs industry, with Huddersfield becoming the home of I.C.I.'s Dyestuffs Division.

Since the area had a plentiful supply of stone, coal, clay and ironstone, they were all exploited. The stone industry has been active throughout the area, with Elland Flags and Bramley Fell stone being well known. There are many quarries in the area, most of which are abandoned but some are still active.

The coal industry by virtue of the way the measures tend to get deeper towards the east has moved in that direction. There are remains of bell pits throughout the area. The coal mining industry was always more important around Bradford, Leeds, Batley, Dewsbury and Wakefield than in other districts, but today coal mining is virtually confined to the eastern part of the area around Castleford and Featherstone. It is in this area that 'model' pit villages were built by the colliery owners from around the middle of the 19th century, on what up to that time had been agricultural land.

Throughout the central and eastern parts of the area the clays have been exploited mainly for bricks but also for pottery. The best known pottery being the Leeds Pottery founded in Hunslet c1770 which lasted in one form or another up to the 1880s. This works was only one of a number in the Hunslet area, with others being established in Castleford and Ferrybridge. Many of the later brickworks, particularly in the east, were associated with collieries.

Since iron ore is present it has been mined and smelted for centuries but only on a small scale up until the 1780s. Then a large number of furnaces were erected to the south of Bradford. The first was Birkenshaw, being quickly followed by Wibsey Low Moor, Bowling, Shelf and North Bierley. Only Low Moor went in for steel making and lasted into this century. In their day they were world famous, particularly for their 'Best Yorkshire' iron.

Today there is virtually nothing left, the sites being redeveloped in recent years to house light industry and warehousing.

Leeds on the other hand moved into engineering, with the area to the south of the city having a very high concentration of works, many of whom are world famous. Locomotive building was a speciality with such firms as Kitsons, Hudswell Clarke & Hunslet Engine Co. Other firms were Fowlers, of traction engine fame, and Hathorn Davey, who built large stationary steam engines. It was in Leeds that Matthew Murray, the 'Father' of Leeds engineering, of Fenton, Murray and Wood, built in 1812 the first locomotive for the Middleton Railway, running on Blenkinsop's rack rail. Today part of this route is run by a Preservation Society who have a number of Leeds built locomotives. Of all the locomotive works only Hunslet are in existence today. Other towns also have their engineering heritage, Huddersfield was home to David Brown and Hopkinsons, Keighley to Dean, Smith and Grace—lathemakers, and Hattersley's—textile machinery makers since 1789. Halifax is noted for its machine tool makers, such as Butler and Asquiths, whilst Wakefield is home to Green's—of economist fame and British Jeffrey Diamond—makers of coal mining machinery.

The very rapid growth of industry and the towns with their burgeoning populations led to severe problems of housing, water supply and sanitation. The processing of wool resulted in further pollution of rivers and streams. The inevitable consequences were numerous Cholera and Typhoid

epidemics, coupled with high mortality rates particularly among infants. Reservoirs had been built for many years to provide water supply to mills and dyeworks but it was not until the 1820s that they were built in any number for domestic supply. The area has a fine collection of reservoirs in the moorland areas, virtually all having an earth dam with a puddled clay core. This technique was virtually a British monopoly and has proved to be both economical and long lasting. However there have been failures, most notably that of Bilberry Dam, nr Holmfirth, in 1856 when many lives were lost. Today because of age, changing legislation and safety requirements many of these dams are under threat. However they ought to be kept, not just for their scenic or amenity value but because they are a wonderful testament to British civil engineering.

Because of the high population density public transport developed reasonably early in the area. First came the coaches and then horse buses, to be followed by horse drawn tramways. It was in the area that the first steam hauled trams ran, that the first electric tram using the overhead system of current collection was used, that the first municipally owned tramway company was established and that also had the first trolleybuses in operation.

Within the area are a fine collection of workers houses of all sorts and sizes, ranging from speculatively built rows of 'back to back' houses to 'model' communities, from remote moorland weaving hamlets to densely packed terraced rows. There are houses built for colliers, iron workers, quarry workers, railwaymen and for textile workers. They range from the simplest two room single storey cottage to the superior middle class houses in the suburbs. In the area are the 'over and under-dwellings' with there 'flying freeholds', notably around Hebden Bridge. Their appearance is often quite striking since so many of them are built of stone and placed in some remarkable locations.

In the eastern area the agricultural industry was always important and it has a number of water-powered corn mill sites and the remains of many windmills. Since the growing of corn was important there are a number of warehouses, often located by the rivers. Corn milling and malting have also been important. Two other crops should be mentioned, rhubarb and liquorice. The heavy soils in the Leeds, Wakefield, Dewsbury area (the rhubarb triangle) are suited to growing rhubarb. The plants are grown outdoors for two years when the roots (crowns) are brought indoors and 'forced' to produce a crop in the late winter and early spring. The characteristic long, low, windowless sheds can be seen in the area, being plentiful around Morley. Pontefract has given its name to a well known sweet, more properly called Pomfrets. Liquorice was grown extensively around the town but cultivation had virtually ceased by the 1930s. Nowadays it is all imported and the two firms which remain are both now foreign owned.

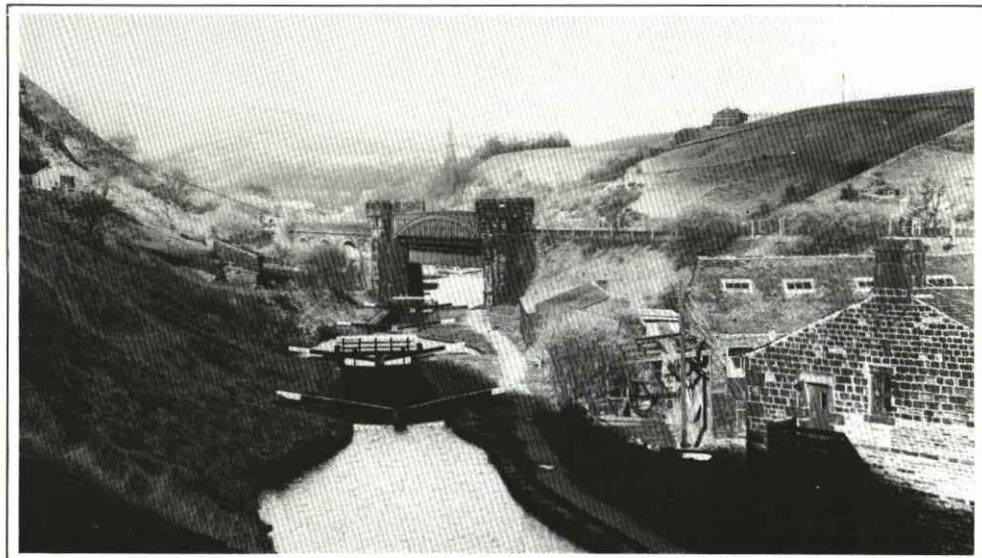
Over the past thirty years all the traditional industries have undergone drastic change and contraction. Woollens and worsteds are still produced but hundreds of mills are now either derelict or in other use. Some of the smaller, rural mills have been converted to houses or restaurants, whilst many others have been demolished. However despite the contraction Yorkshire is still the home of the major portion of the British wool textile and clothing industries.

THE DEVELOPMENT OF TRANSPORT IN WEST YORKSHIRE

This development took place over a period of two thousand years and embraces all forms of inland transport. The terrain is in general quite difficult on the eastern flanks of the Pennines, with the hills being well over a thousand feet in many places. There is a considerable rainfall and in the winter months snowfalls are common. Over much of the area the routes have a distinct east/west orientation, with the links over the Pennines with Lancashire always being of importance. In the east of the area though it is the north/south routes that are important, particularly the 'Great North Road'.

The Romans had a number of routes in the area, with a cross-Pennine road as part of the Chester-York route. This came from Manchester to Oldham and then over Standedge to Huddersfield, there being forts at Castleshaw (nr Delph) and Slack (nr Huddersfield). By medieval times this route had fallen into disuse and several other routes were in use, in association with the domestic textile industry. Through the 17th and 18th centuries a complex network of packhorse routes were established throughout the area, connecting all the major settlements. Many have disappeared, others became tracks and then roads, but in the moorland areas considerable stretches remain. These often have the 'causey' stones or 'setts' in place. There are also a considerable number of bridges and guideposts or 'stoops' to be seen.

In common with the pattern nationally, roads began to be turnpiked from the 1740s onwards, with major phases being in the 1750/60s and the 1820/30s. Often they were only improvements to existing tracks but some, particularly in the second phase were entirely new routes. During the first phase 'Blind' Jack Metcalfe built many routes, for example the Wakefield to Austerlands (nr. Oldham) road which passed over Standedge. The Great North Road although turnpiked in Hertfordshire in 1663 was not done until stretches were turnpiked in the 1740s. Following this the towns of Ferrybridge and Pontefract developed large numbers of coaching and waggoners inns. Along this road are a number of elegant bridges with their toll houses, such as at Ferrybridge. One of the earliest roads over the Pennines to be improved was the Elland to Rochdale via Blackstone edge in 1735. Other roads built at this time were the Leeds/Elland—1740/41; Leeds, Bradford & Halifax;



12 Railway bridge over the Rochdale Canal at Gauxholme.

Leeds/Selby; Wakefield/Halifax; all in the 1740/50s. In 1758/60 the Wakefield/Austerlands; Dewsbury/Elkland and the Halifax, Sowerby Bridge, Burnley and Littleborough (Blackstone Edge) were all brought into use after major improvements. The Halifax/Huddersfield via Grimscar (laid out by Metcalfe) and the Huddersfield/Penistone roads were built 1776/77. During the second phase some very major work was undertaken, for example the very deep cuttings on the Halifax/Wakefield road at Godley and the Wakefield/Austerlands roads on Standedge. This latter road forms the present route of the A62 from Huddersfield to Oldham along the Colne Valley. The latest roads to be built were the M1 south from Leeds and the M62 Trans-Pennine Liverpool to Hull.

Due to the high rainfall there are an abundance of streams and rivers but in the west they are too narrow and swift for navigation purposes. However on the flatter land in the east the rivers have been used for such purposes for centuries. For example Knottingley on the River Aire was a port of some importance for many decades.

Despite many previous attempts it was not until 1699 that an Act was obtained to improve the R Aire up to Leeds and the River Calder to Wakefield, reaching Leeds in 1700 and Wakefield in 1704. This, the Aire & Calder Navigation, was to prove a very important contribution to the development of industry in the area. An Act to improve the Calder up to Sowerby Bridge, led to the formation of the Calder & Hebble Navigation, opened to Sowerby Bridge in 1758. In the 1770/80s considerable improvements were made to the Aire & Calder with many lengths of canal being built to shorten the route. In 1776 Sir John Ramsden's Canal linked Huddersfield with the Calder and Hebble and in 1828 a branch was constructed to Halifax.

However the Pennines presented a formidable obstacle to further development and it was left to the promoters of canal companies to provide the cross-Pennine routes. Although the first to be promoted was the Leeds and Liverpool, with an Act of 1770, using the Aire valley, it was the last to be opened throughout. However it was open through to Skipton by 1774, at which time a link to Bradford via the Bradford Canal was also opened. It is on this part of the L&L that the Bingley 5 and 3 rise staircase locks are situated. The first cross-Pennine canal to open was the Rochdale Canal, going from Sowerby Bridge to Manchester via Hebden Bridge, Littleborough and Rochdale, opened to Littleborough in 1798 and Manchester in 1804. It was built by Jessop as a barge canal and by following the Calder Valley it avoided the need for a tunnel. Currently it is undergoing restoration, with many lengths now in use but it will not be open throughout until the mid 1990s. The third and last but perhaps the most spectacular canal was the Huddersfield Canal, with an Act of 1794, but not opened throughout until 1811. This was caused by the construction of the long tunnel under Standedge some 3m 175 yds long (as built) and 638ft above sea level. It was later acquired by a railway company which used it to construct the railway tunnel. As a consequence the canal was never very profitable and closed in the 1930s. However the stretch from Marsden down to Huddersfield is currently undergoing restoration with a number of locks and stretches of canal in water. One other canal built in the area was the Barnsley canal from the R Calder in Wakefield, opened in 1799. This canal suffered after the building of the railways and has been closed for many years. However there are considerable stretches still in water.

Because of the development of trade in general and the opening of the canals in particular the Aire & Calder carried out major improvements in the 1820/30s. An Act of 1824 authorised a new line from Ferrybridge to Goole, opened in 1826, with Goole replacing Selby as the major port outlet. Many new cuts were also made upstream and it was in 1837 that the Stanley Ferry aqueduct was opened.

The first Act of Parliament for a railway in Britain was for the Middleton Railway in 1758 and one of the first, if not the first, public railways was the Lake Lock Railway of 1796. There had been a number of colliery tramways leading down to nearby waterway before this, but they were of wood and of relatively short length. The coming of the 'main line' railway produced one of the most complex networks in Britain, with some seven major companies and a large number of joint lines, all competing with one another for the lucrative traffic and attempting to get a monopoly in one part of

6 the area or another. However, all of the companies had to take account of the terrain which produced an amazing number of tunnels and many miles of embankments and cuttings, often with very severe gradients. As a result of this a town such as Bradford finished up without a main line route to London.

The first company to get an Act was the Leeds and Selby, which opened in 1834, giving Leeds a much improved access to the port for its goods and supplies. By 1840 the Leeds and Manchester (L&M) had linked with the North Midland (NM) at Normanton. When Summit Tunnel was opened in 1841, Leeds was linked with Manchester by a very roundabout route of some 62 miles compared with the direct route of about 40 miles. Inevitably this led to fresh routes being proposed and by 1849 upon completion of the Standedge Tunnel there was a more direct line via Huddersfield and Staleybridge. On this line in Huddersfield is the finest station built in Yorkshire. As the traffic increased two other tunnels were built under Standedge in 1868/71 and 1892/94. In all between Manchester and Leeds on this route there are over 5 miles of tunnel. Another line that had a large number of tunnels and viaducts was the Huddersfield and Sheffield, via Penistone. In Huddersfield, at Paddock Wood and at Lockwood, are two splendid viaducts, the one at Lockwood being the longest on the Lancashire and Yorkshire Railway (L&YR) at 476yds.

The Midland Railway (MR) of which the North Midland was a constituent company, made its Northern headquarters in Leeds, with a very large depot at Holbeck, when it had obtained its own route to Scotland with the Settle to Carlisle line in 1876. The Great Northern (GN) came into the area in 1849 when through a series of agreements with other smaller companies it arrived in Leeds from Wakefield.

The Manchester, Sheffield and Lincolnshire Railway (MSL) later the Great Central (GCR), got into Huddersfield via the Penistone line and into the Wakefield area via the Barnsley Branch Railway. It was by using this GCR route via Penistone that between 1900 and 1960 Bradford had a direct line to Marylebone in London. Since Leeds was the major city in the area all the companies attempted to gain access to it and the story of the development of the railway stations in the city to a single station is a most complex one. Suffice to say that by 1869 there were three major stations namely Central, Wellington and New, all very close together. In the 1960s New was developed into the present Leeds City Station, with the others either being demolished or transferred to goods or parcels traffic. The East coast main line route to Scotland passes through on the extreme east of the area and as part of the current electrification of this line Leeds to Wakefield is also being converted.

A great number of the lines have been closed in recent years, with many stations being demolished and cuttings and tunnels being in-filled. However in recent years there has been a revival in the use of the railways, both intercity and local. There are two preserved lines in the area, one being the Keighley and Worth Valley, one of the first standard gauge lines to be so preserved, whilst the other is the Middleton Railway in Leeds, the descendent of the first Railway to obtain an Act from Parliament.

CALDERDALE

Calderdale, as designated by the Local Government Reorganisation in 1974, is the most westerly of the Districts in West Yorkshire and lies adjacent to the Lancashire border on its western side, being otherwise surrounded by the Districts of Bradford, Leeds and Kirklees. It is centred upon the town of Halifax and includes Todmorden, Hebden Bridge, Sowerby Bridge, Elland and Brighouse. As its name implies the River Calder runs throughout the length of the District from west to east and has been the major influence upon the development of the area. It is an area dominated by hills and valleys which determined both settlement patterns and transport routes. Geologically the area provides stone, clay, coal and iron ore. Due to its position in the centre of the Pennine range of hills it has ample rainfall which provides an abundance of fast flowing streams and rivers, ideal for the establishment of a wool textile industry. The area was once covered in thick forest which provided ample fuel and building material.

Because of these particular circumstances the manufacture of cloth was established quite early, being based upon the small farmer and tenant, having a farmstead with few animals, other than sheep, with the women folk and children preparing the yarn, and the men tending the animals and weaving the cloth. The organisation of these small manufacturers was undertaken by the so-called 'Clothiers' many of whom became very wealthy as they exported the area's cloth and reputation far and wide. Many fine gritstone halls and houses survive to testify to the level of activity and income generated in the area. A Cloth Hall was established in Heptonstall in 1545 and in 1660 a Wool and Linen Hall was established in Halifax. This culminated in the construction of the magnificent Piece Hall in Halifax in 1777, perhaps the finest monument to the domestic textile industry in the world.

In the moorland areas, particularly to the west of Halifax, there are many miles of paved packhorse routes (causeys) and bridges. Amongst these are Reddyshore Scout Gate, which runs from Summit via Bottoms to Gauxholme and Todmorden and the Long Causeway, running from Burnley via Hebden Bridge to Halifax, much of which is now a road. Due to the extension of the Calder and Hebble Navigation to Sowerby Bridge in 1770 followed by the construction of the Rochdale Canal, opened from Sowerby Bridge to Rochdale by 1798 and through to Manchester by 1804, a flourishing cotton textile industry was soon established. Although mechanisation slowly spread to the wool textile industry there has always remained a strong cotton section in the local textile industry.

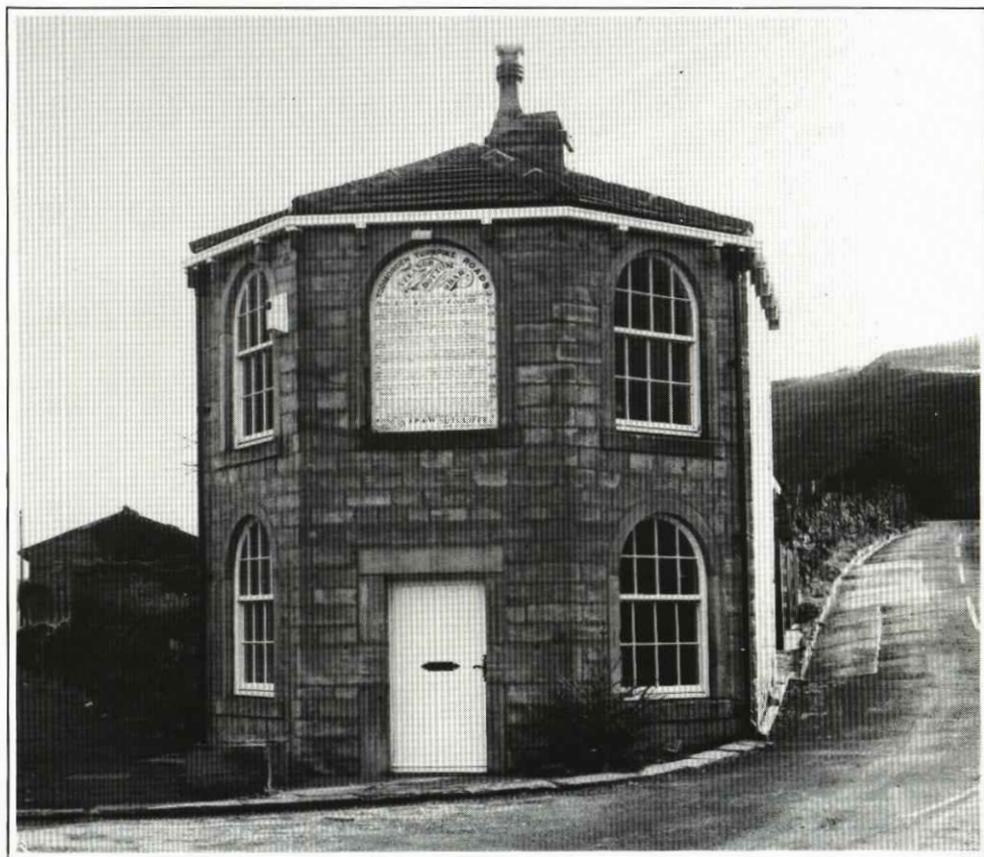
As a result of the construction of the canal, drainage was improved along the Calder valley so the road along the valley was constructed as a turnpike, taking out many steep gradients and tight bends, that were a feature of the older routes. The Leeds and Manchester Railway of 1838 uses the valley, running parallel for most of its way with the canal and road. Thus in the valley to the west of Halifax, the river, canal, road and railway jostle for space. From the surrounding hills splendid views can be had of the transport routes and their attendant industrial development.

As the textile industry developed and mechanised, the need for tools and machinery led to an increased demand for blacksmiths, talworkers and millwrights, who had the raw materials at hand. The millwrights, who had evolved to service the early corn and fulling mills, along with the clock and instrument makers, provided the skilled workforce necessary to produce the new machines as they were invented and also led to further development and invention. A strong feature of Calderdale has been its very wide variety of trades and industries. Centred upon textiles and engineering, many ancillary industries have been established and the area has never suffered a really serious depression. The mechanic, textile machine builder and engine makers were all established by 1800, along with wire drawers and card makers. There is also an old established machine tool industry.

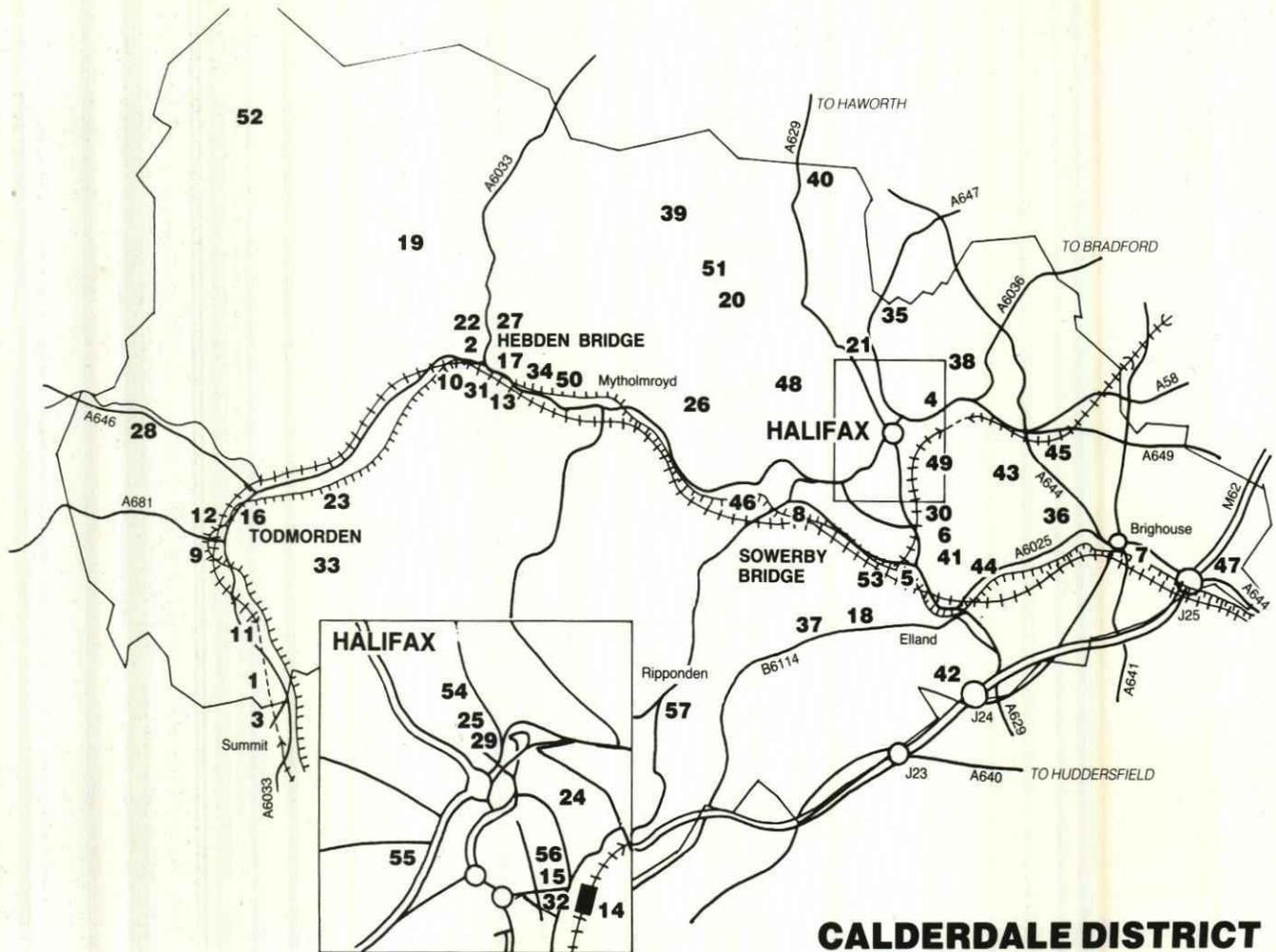
- 8 Following the introduction of the steam engine and mechanisation of the textile industries mills were built all along the valley, working not only in wool and cotton, but also linen and silk. Around the turn of this century Halifax was known as the 'Town of a 100 Trades' and this was by no means an exaggeration.

As with other Districts in West Yorkshire, it grew at an enormous rate throughout the 19th century, but Halifax was fortunate that it possessed a number of philanthropists such as the Akroyd and Crossley families. Both erected model villages and houses, such as Copley, Akroyden and West Hill Park and a number of public buildings. Eminent architects were employed such as Sir Gilbert Scott (All Souls Church) and Sir Charles Barry (Halifax Town Hall).

While in recent years many of the mills, factories and chimneys have been demolished, the District is still rich in examples and remains of the industrial revolution. It attracts many thousands of tourists throughout the year, with such places as Hebden Bridge and Halifax becoming increasingly popular. Halifax town centre has in recent years undergone a tremendous transformation with refurbishment and cleaning of many of the older buildings and newer ones clad in stone. An ideal start for a town trail would be at the Piece Hall and the nearby Award winning Industrial Museum. In the museum is an excellent collection of working machines and engines as well as many examples of the industrial products of the area.



3 The Tollhouse at Steanor Bottom.



CALDERDALE DISTRICT

Ordnance Survey Maps No 103, 104, 110.

★ Denotes a listed site.

TRANSPORT

ROADS *PACKHORSE ROUTES*

1 **SUMMIT**

Reddysore Scout Gate, from [SD 945 191], on 1771 turnpike, to [SD 935 212] at Bottoms. At Allerscholes [SD 942 203] is a guide post (stoop), indicating distances to Halifax, Burnley, Todmorden and Rochdale.

There is another route from Deanroyd Bridge [SD 939 210] to Hey Head Green [SD 946 232], on the Gauxholme to Lumbutts road. Several routes meet at Gauxholme; Naze Road [SD 928 231] is surfaced with stone sets as the route zig-zags up a steep hill.

2 **HEBDEN BRIDGE** [SD 992 273] ★ **Bridge Gate**

A 3-arched packhorse bridge. Originally built in 1570 but repaired in 1602, 1657, 1845 and 1890. The Halifax to Burnley route passed over it, up the Buttress to Heptonstall. At nearby Mytholmroyd is Hawks Clough Bridge [SE 007 264].

TURNPIKE ROUTES

3 **STEANOR BOTTOM** [SD 945 148] ★ **Tollhouse**

Built, c1824, when the route along the valley was improved. The 1777 route to Rochdale via Caldermoor passes up the hillside to the right of the building. Now a private house.

At Stump Cross [SE 107 263] an early 19th century toll house at the junction of the Halifax, Bradford and Wakefield roads. Now a post office.

4 **HALIFAX** [SE 100 256] **Godley Cutting**

Built between 1827 & 1830. Over the cutting is a bridge of 1900, built to provide headroom for the new trams.

On the hillside beyond on Beacon Hill [SE 102 252], route of medieval highway, known as Wakefield Gate. North Bridge [SE 094 257], cast iron bridge of 1871 with 160ft span.

RIVER NAVIGATIONS

5 **SALTERHEBBLE** [SE 095 224] **Locks**

Lock of 1770, rebuilt in 1783, with lock cottage. Nearby is a basin and dry dock [SE 097 228]. The Halifax Branch Canal was built from here.

6 **HALIFAX** [SE 098 236] **Siddal**

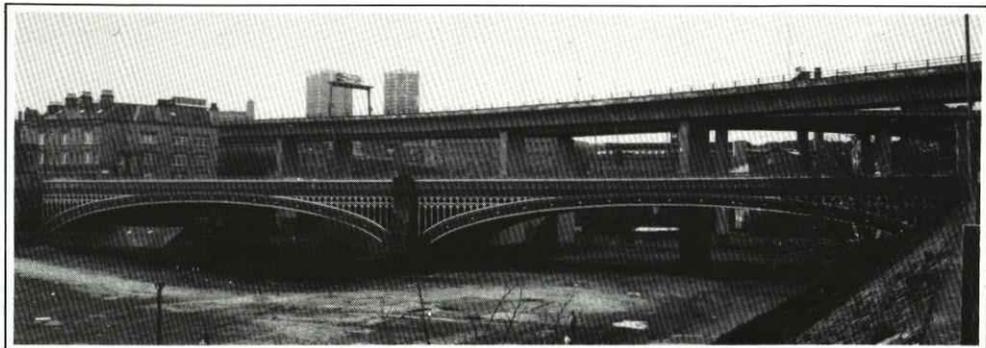
On Phoebe Lane is the pump house and cottage of 1828 Halifax Branch Canal extension of Calder and Hebble. It had 14 locks to rise 100ft in 1.25 miles and the water had to be pumped through a complex of culverts and a shaft to the summit level. At Siddal Bottoms [SE 099 233] is a 2 arched aqueduct.

7 **BRIGHOUSE** [SE 149 227] **Basin**

T-shape basin; two locks connect it to the river. The bottom lock has three different paddle mechanisms. The lock cottage has a typical C & H doorway. At Brookfoot [SE 135 228] and Elland lock [SE 111 219], are lengthman's houses.

8 **SOWERBY BRIDGE** [SE 065 237] **Canal Basin**

Ultimate head of the Calder and Hebble. Has 3 ranges of 3-storey warehouses. The central



4 Halifax: the ornate cast iron North Bridge of 1871, now dominated by the modern High Level bridge.

one, the Salt warehouse, was for transhipment to and from the Rochdale Canal, which enters the eastern end of the basin.

9 GAUXHOLME Warehouse
[SD 929 231]

Off-Rochdale Canal with gable end to canal, has an arched boat entrance. Now a builders merchants' depot.

10 HEBDEN BRIDGE Blackpits
[SD 991 271]

Aqueduct with four low arches of 25ft span, the largest structure on the Rochdale Canal. At its eastern end is a lock. Nearby are Stubbins locks [SD 985.271] with a lock cottage.

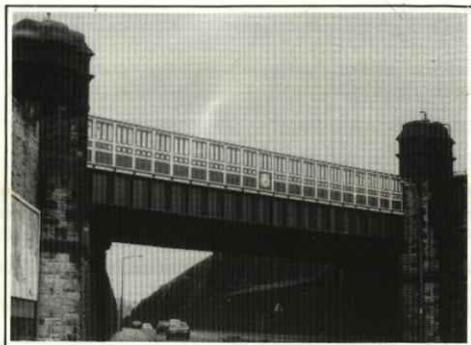
RAILWAYS

11 SUMMIT TUNNEL North East Portal
[SD 940 208]

At 2885 yds long, it was the longest in the world when built. In 1984 there was a fire in the tunnel but it was re-opened in 1985.

12 GAUXHOLME Viaduct
[SD 931 233]

Comprising 17 spans of 35ft and one of 60ft (over the river), with a cast iron span of 101ft over the Rochdale Canal. The girders are inscribed 'J. Butler & Co. Iron Founders, Stanningley, Nr Leeds 1840'. Additional steel girders were added beneath the tracks in 1905. In Todmorden [SD 935 241] is a long, red brick retaining wall of 1881 for goods yard next to the canal. Through the town centre runs a 9 arch viaduct [SD 937 242]. At [SD 920 257] is Knotts Wood viaduct of 13 arches and at [SD 923 257] is Kitson Wood tunnel, both on the 1849 Todmorden/Burnley line.



4 Halifax: the bridge over the Godley Cutting.

13 HEBDEN BRIDGE Station
[SD 994 269] ★

Two-storey building of 1840s, with later platform additions. It has been carefully restored to produce a fine Victorian period piece.

14 HALIFAX Station
[SE 097 249]

Built in 1855 with 236ft long Italianate frontage. Architect was T Butterworth of Manchester. The station layout was re-structured in 1885/86 for GNR Queensbury line. It is presently becoming part of the Eureka Museum. Water Lane bridge [SE 096 245] has a coat of arms of the Leeds and Manchester Rly on the east side. Beacon Hill tunnel [SE 100 252] of 1105yds cut through coal workings so an iron plate 'Galloway Gate' had to be provided. Milner Royd [SE 079 229] signal box by Wm. Smith of 1878, but has modern panel inside. Copley [SE 082 228] viaduct of 1852 with 23 arches, one of 51ft over the river being very flat.



12

8 Warehouse at Sowerby Bridge.

TEXTILES
DOMESTIC

15
[SE 095 252]★

HALIFAX
Piece Hall

Opened in 1779 and built on a hollow square plan with the quadrangle being about 10,000sq yds. Since the ground slopes the lower part is three storeys and the upper is two storeys to keep a level roof line. Became a wholesale fish, fruit and vegetable market in the mid 19th century and was redundant in 1970s. It has been restored and now houses shops in the former selling rooms. It also contains a museum of the domestic textile industry.

16
[SD 933 236]

TODMORDEN
Laneside

Three cottages used by Joshua Fielden to establish a cotton spinning and weaving factory in 1782. It has a purpose built extension at right angles to the rear and there is evidence of a taking in door and hoist on the front elevation. It was the birthplace of 'Honest' John Fielden, who became a wealthy mill owner and MP for Oldham in 1833 and who was instrumental in getting the 'Ten Hour' Act on to the statute book in 1847. His statue is in Centre Vale Park [SD 931 246].

17
[SE 995 271]

HEBDEN BRIDGE
Machpelah

Gable end of 3 storey row of cottages has a double row of lights, used for Fustian cutting in the 19th century.

18
[SE 084 210]★

GREETLAND
Lower Ellistones

A small late 18th century 3 storey loomshop. Recently converted to a house.

EARLY MILLS

19
[SD 973 299]★

HARDCASTLE CRAGS
Gibson Mill

A water powered cotton mill of c1800, extended and converted to steam in 1860s. Closed in 1890s, now in care of the National Trust.

20
[SE 047 289]

WAINSTALLS
Lumb Mill

Water powered cotton mill built before 1803 and extended in 1833, when a 36ft suspension wheel was installed. It was in use until 1953 and survives in situ.

21
[SE 086 264]

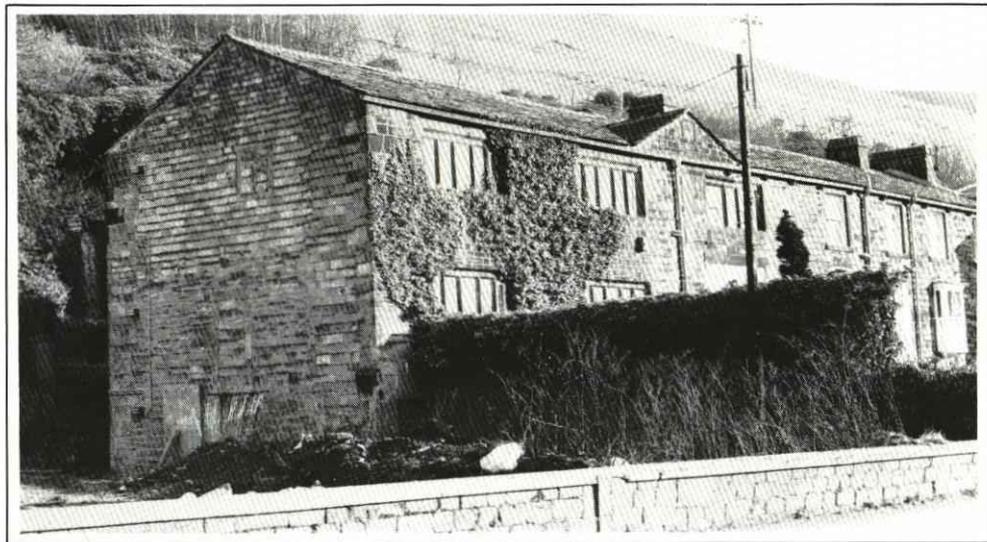
HALIFAX
Old Lane Mill

A fireproof structure of 1827 for James Akroyd and Son. A shed at the mill is said to have housed the first Jacquard looms in Yorkshire.

22
[SD 993 273]★

HEBDEN BRIDGE
Bridge Mill

Water powered mill of c1830 but later converted to steam power. The tail goit passes beneath the nearby packhorse bridge. Now shops, cafe, etc.



16 Laneside, Todmorden.

23

[SD 952 244]★

**TODMORDEN
Woodhouse Mill**

Of 1832 by the Rochdale Canal. Is 5 storey by 10 bay and has a 4 storey by 2 bay extension. There is also a 2 storey engine house.

24

[SE 097 254]

**HALIFAX
Stone Dam Mill**

Of 1834, on Well Lane, on site of 14th century corn mill. Originally a worsted spinning mill, later a buffalo and leather picker manufactory. (A picker is part of a power loom). Now a furniture store. Garden St. Mill [SE 097 257] is a cotton mill of 1840s at New Bank.

LATER MILLS**25**

[SE 091 257]

**HALIFAX
Dean Clough Mills**

Crossley's carpet mills which at one time employed over 6,000 people. They patented and built carpet looms. Building commenced in 1841 with 'A' mill of 6 storeys, followed by 'B' of 6 storeys in 1844, 'C' of 8 storeys in 1850 (now demolished), 'D' of 6 storeys in 1854, 'E' of 9 storeys in 1857, 'F' of 6 storeys in 1858, 'G' of 10 storeys in 1867 and 'H' of 5 storeys in 1869 (now demolished). The chimney of 1857 is 300ft high, being surmounted by a metal crown. It is now an 'Industrial Park'.

26

[SE 139 266]★

**LUDDENHAM
Oats Royd Mills**

Dean House Lane. Built for worsted manufacture with mills of 1847, 1863, 1881 and 1893. Had steam engines and water turbines. Ridges in fields below indicate sites of tenterframes. The main part of the mills was destroyed by a fire in February 1989.

27

[SD 995 276]★

**HEBDEN BRIDGE
Nutclough Mill**

A 4 storey by 5 bay mill of mid 1850s, with extensions and tower of 1890. Acquired in 1873 by The Fustian Society, a most successful co-operative, making velvet. Taken over by the CWS after World War I and closed in the 1960s. Now being refurbished as Industrial units. At Hangingroyd [SD 992 274] ★ is a late 19th century mill of metal frame construction, the only one of its type in the District.

28

[SD 920 256]★

**TODMORDEN
Robinwood Mill**

14 In Burnley Rd, Lydgate. A 6 storey 'U' shaped mill of 1848, engineered by Fairbairn for the Fieldens. Nearby are cottages built for the mill workers by the Fieldens.

29

[SE 091 259]

**HALIFAX
Bowling Dyke Mill**

A 6 storey worsted spinning mill of 1851 for James Akroyd, with projecting semi-circular staircases. Another Akroyd mill is at Haley Hill [SE 071 259].

30

[SE 097 242]

**HALIFAX
Shaw Lodge Mills**

John Holdsworth and Co mills. Has an engine house of 1855, offices of 1866, weaving sheds and clock tower of 1867, plus other buildings, which include the remains of the firm's gas works, declared an ancient monument in November 1988.

WAREHOUSES**31**

[SD 995 270]★

**HEBDEN BRIDGE
Machpelah Works**

A fustian warehouse of the 1850s, adjacent to the Rochdale Canal.

32

[SE 096 249]★

**HALIFAX
India Buildings**

Built in 1861 for J Riley and Sons. There are also others opposite the Industrial Museum, near to the railway station.

OTHER STRUCTURES**33**

[SE 956 234] ★

**LUMBUTTS
Tower**

Built to house three thirty foot diameter waterwheels, one above the other, in the early 19th century. It is 98ft high and used to power the Fieldens' cotton mill nearby.

34

[SD 996 269]

**HEBDEN BRIDGE
Mayroyd**

A water wheel, 16ft diameter by 15ft wide, that powered a nearby mill. It was last used in the 1960s but is now fairly derelict. The building is in a dangerous state.

OTHER INDUSTRIES**COAL MINING & QUARRYING****35**

[SE 089 285]

**CATHERINE SLACK
Brow Pit**

At the junction of Howcars Lane and Queensbury Road. The remains of a horse gin race and pit shaft (infilled) can be seen. The site is surrounded by a stone wall. The shaft was some 120yds deep.

36

[SE 122 236]

**SOUTHWRAM
Cromwell Quarry**

A quarry of Marshall's opened in the 1900s to work the Elland Flags. Only small amounts are extracted today, the site being used for the making of concrete paving slabs.

37

[SE 066 212]

**GREETLAND
Wall Nook Quarry**

A rail mounted steam crane by J Booth, Rodley, nr Leeds.

38**JUDD WALLS**

These were built to contain the quarry waste and they can be seen at Northowram [SE 109 271]; Beacon Hill [SE 102 251] and in the Shibden Valley at [SE 106 281].

39**KNOLL HILL**

Between [SE 038 312] and [SE 045 307] can be seen a stretch of road with large paving stones laid for a cart track running from the nearby quarries down into Luddenden.

POTTERIES.**40**

[SE 072.315]

SOIL HILL

A works established by Isaac Button in 1898. Closed in 1964, plans are afoot to open it as a working museum. On the hillside behind are the collapsed remains of coal and clay workings.

BRICKWORKS**41**

[SE 102 237]

**SIDDAL
Cinder Hill Fireclay Works**

Opened in 1885/6 and closed in 1962. The site is now a scrapyards.

42

[SE 103 109]

BLACKLEY

Works of Butterley Fireclay and Refractory Co has a Staffordshire kiln in situ.

43

[SE 120 246]

**HIPPERHOLME
Sunny Vale Works**

G R Stein Refractories Ltd, with surviving rectangular and round intermittent downdraft kilns. Now closed.

44

[SE 117 224]

**ELLAND
Ash Grove Works**

Sanitary Pipe works of W T Knowles and Son Ltd. at Cromwell Bottom. Started in 1897 it is the last remaining salt glazed pipe works in the country, with coal fired intermittent downdraft kilns still in use.

45

[SE 129 252]

LIGHTCLIFFE

Offices of former works of Brookes Ltd. makers of concrete and fireclay products. In 1898 the company patented the first successful concrete paving slab. Part of the site is still used for this purpose by Marshall's.

ENGINEERING**46**

[SE 061 236]

**SOWERBY BRIDGE
Bank Foundry**

The last remaining casting shed of steam engine builders Timothy Bates & Co founded in 1770, later becoming Pollitt and Wigzell. Nearby at [SE 061 235] was the works of Wood Bros. also builders of steam engines. Mearclough, Gas Works Bridge [SE 067 237] is an early cast iron bridge of 1816, made by Aydon and Elwell at Shelf Moor Ironworks.

MALTING**47**

[SE 172 222]

**KIRKLEES PARK
Home Farm**

Malthouse ★ of the late 17th century, of three storeys with attic. Grade 1 listed.

ON PRIVATE LAND AND INACCESSIBLE.

48

[SE 067 268]

**HALIFAX
Overden Woods**

Saml. Webster and Sons Ltd brewery maltings of 1900. Being converted to offices. The brewery plant is all modern and is the biggest working in the District. There is a small micro brewery in Todmorden.

MISCELLANEOUS**49**

[SE 098 248]

**HALIFAX
Mackintosh's Toffee Works**

Established in Queens Road in 1898 and on the present site since 1911. John Mackintosh originated a new form of toffee between English Butterscotch and American Caramel. Other sites in the area are also occupied by the firm, now part of Rowntree Mackintosh.

50

[SE 003 265]

**HEBDEN BRIDGE
Saw Mills**

At Fallingroyd, a 4-storey mill of c1870, now containing Britain's last remaining clog sole mill. Bought by Walkleys in 1972, but in new ownership since 1987. It is open for visitors with clogs for sale and a cafe.

PUBLIC UTILITIES**WATER SUPPLY RESERVOIRS****51**

[SE 043 298]

[SE 043 295]

**COLDEGE
Haigh Cote
Leadbeater Dam**

A pair of reservoirs built to supply water to mills. The Company was formed in 1806 and built Haigh Cote soon afterwards enlarging it in 1831. Leadbeater was built in 1835-36. Lumb Mill got its water from here. **15**

52

[SD 935 236]

Built between 1872 and 1878 for Halifax Corporation, with Bateman as the Engineer. The valve tower ★ is Egyptian in style, said to be due to Bateman's visit to Egypt to see the opening of the Suez Canal.

HOUSING**53**

[SE 084 225]

Built for Col Edward Akroyd between 1847 and 1853 to house mill workers from Copley Mill (now demolished). It predates Saltaire. Col Akroyd helped found the famous Yorkshire Penny Bank.

54

[SE 089 264]

Built by James Akroyd in 1859 for mill workers of the nearby Haley Hill Mills. It is a larger settlement than Copley and the houses are of a higher standard. The nearby All Souls Church was also built for Akroyd, from 1856 to 1859, the architect being Sir George Gilbert Scott.

55

[SE 085 253]

An Italianate style development of Gibbert Street built by the Crossley's in 1867–68.

WIDDOP**HALIFAX
Copley****HALIFAX
Akroyden****HALIFAX
West Hill Park****MUSEUMS****56**

[SE 096 251]

Calderdale Industrial Museum

On the lower side of the Piece Hall, housed in a former foundry pattern makers works. It covers all aspects of the District's industrial development and includes textile machinery, carpet weaving, knitting, moquette manufacture, cork and leather, washing machines, wire drawing and confectionary, to name but a few. It has working steam and diesel engines, a water wheel and a replica coal mine.

The National Museum of the Working Horse [SE 096 246] is housed within a former L&YR goods warehouse and yard. Demonstrations of grooming, harnessing and working methods accompany static displays and exhibits.

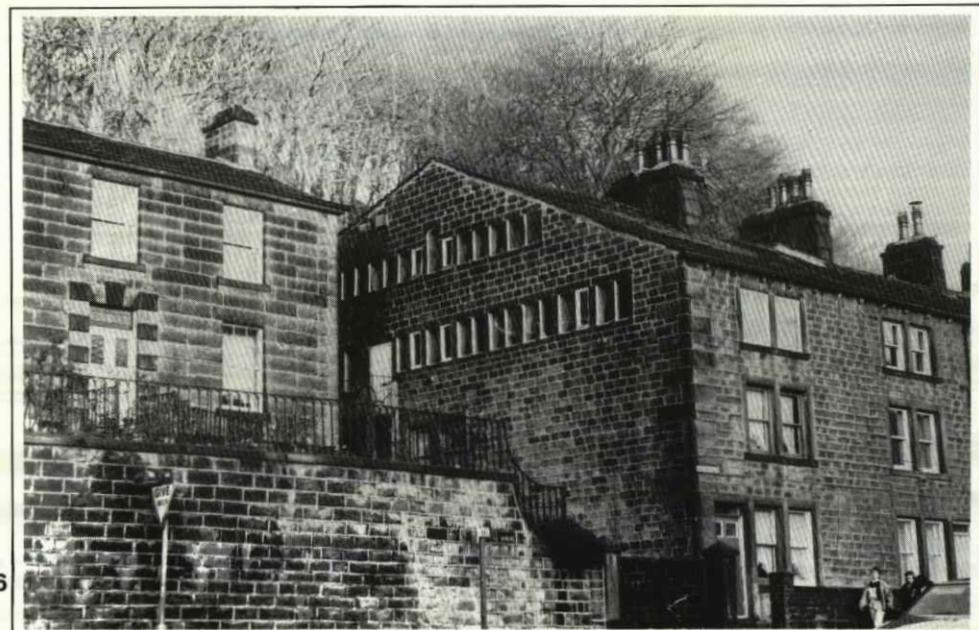
Shibden Hall [SE 107 258] also contains some artifacts of an industrial nature.

57

[SE 042 197]

**RIPPONDEN
Pennine Farm Museum**

Open on an occasional basis and by request. Nearby is a packhorse bridge of 1533, rebuilt in 1973.



17 Machpelah, Hebden Bridge, cottages with windows for Fustian cutting.

KIRKLEES

Forming the South-West part of West Yorkshire it is an area that on its west side contains a large amount of high moorland intersected by a number of deep valleys, notably the Colne and Holme. It is centred upon the town of Huddersfield and includes the towns of Holmfirth, Marsden, Dewsbury, Batley, Cleckheaton, Heckmondwyke, Honley and Slaithwaite (pronounced Slathwaite or Slawit). It is an area of high rainfall and the water has been utilised for industrial purposes for many centuries. It contains many reservoirs used for industrial, domestic and canal purposes. There was a Roman fort at Slack and place names such as Golcar indicate Norse origins whilst Batley was a Saxon settlement. However the settlements were small and well scattered throughout the District.

By the early medieval period a domestic textile industry was in existence with Almondbury having a cloth market by 1294 and fulling mills being established in the district by the 14th century. Although Huddersfield is now the largest town in the district it was considerably smaller than Almondbury and Golcar until the beginning of the 19th century. The Cloth Hall in Huddersfield was erected in 1766, by the Ramsden family and was enlarged later in the century but demolished in the 1920s.

Many of the packhorse routes, particularly in the moorland areas still survive, often with their bridges and guide posts, or 'stoops'. The first road to be turnpiked in the area was the Huddersfield to Rochdale via Elland route in 1735, followed by the Wakefield and Austerlands (nr Oldham) in 1759. It was this latter route that gave Huddersfield town its shape as it passed between Aspley and Longroyd bridges. The road has also left considerable remains of different alignments between Huddersfield and Standedge, particularly on Standedge Moor. In Marsden there are in close proximity the 'New Inn' and the 'Old New Inn'.

However the most important step in the development of Huddersfield was taken when a canal was built from the town by Sir John Ramsden, to link with the Calder and Hebble Navigation near Colne Bridge in 1778. This ran from a point in the town, just below where the rivers Colne and Holme meet and near to the site of the old Almondbury manorial corn mill, (Kings mill), a fulling mill from the 16th century. Once the canal was opened the town grew rapidly and by the mid 19th century it was the dominant town in the area. Huddersfield became a mixed woollen and worsted spinning and weaving centre. However in the early 19th century cotton and silk were also processed; in fact in 1805 five out of eleven mills in the Colne valley were spinning cotton. In 1780 the first steam engine was placed in a mill at Holmfirth and there is a preserved, working steam engine, in a mill on the outskirts of the town. The opening of the Huddersfield Canal and later the building of the railway along the Colne Valley, resulted in a very rapid development of mills, particularly in Marsden, Milnsbridge and Slaithwaite. Both canal and railway have also left considerable traces of their construction phases on Standedge Moor.

It was the introduction of shearing frames, built by the Taylor Bros, at Ottiwells mills in Marsden that led to Luddite riots and murder. One of the ring leaders came from a cropping shop nr Longroyd Bridge, now the site of a bus depot. Following the introduction of 'shoddy' and 'mungo' Dewsbury and Batley became the centre of the 'heavy woollens' trade. Benjamin Law who developed the shoddy process is buried in Batley Parish Church. Nearby Heckmondwyke was a blanket making centre that later became noted for carpet weaving. Cleckheaton became a centre for wire drawing and the making of card clothing (used for carding wool) and much later a centre of asbestos processing, initially for belting.

In many parts of the district are dyeworks many of which are still in operation. A famous name associated with this part of the industry is Read Holliday. Established at Turnbridge, Huddersfield in the mid 19th century making naphtha, by 1860 dye stuffs were being made. After various mergers it became part of ICI dyestuffs division in 1923, whose very large modern works is along the Leeds road.

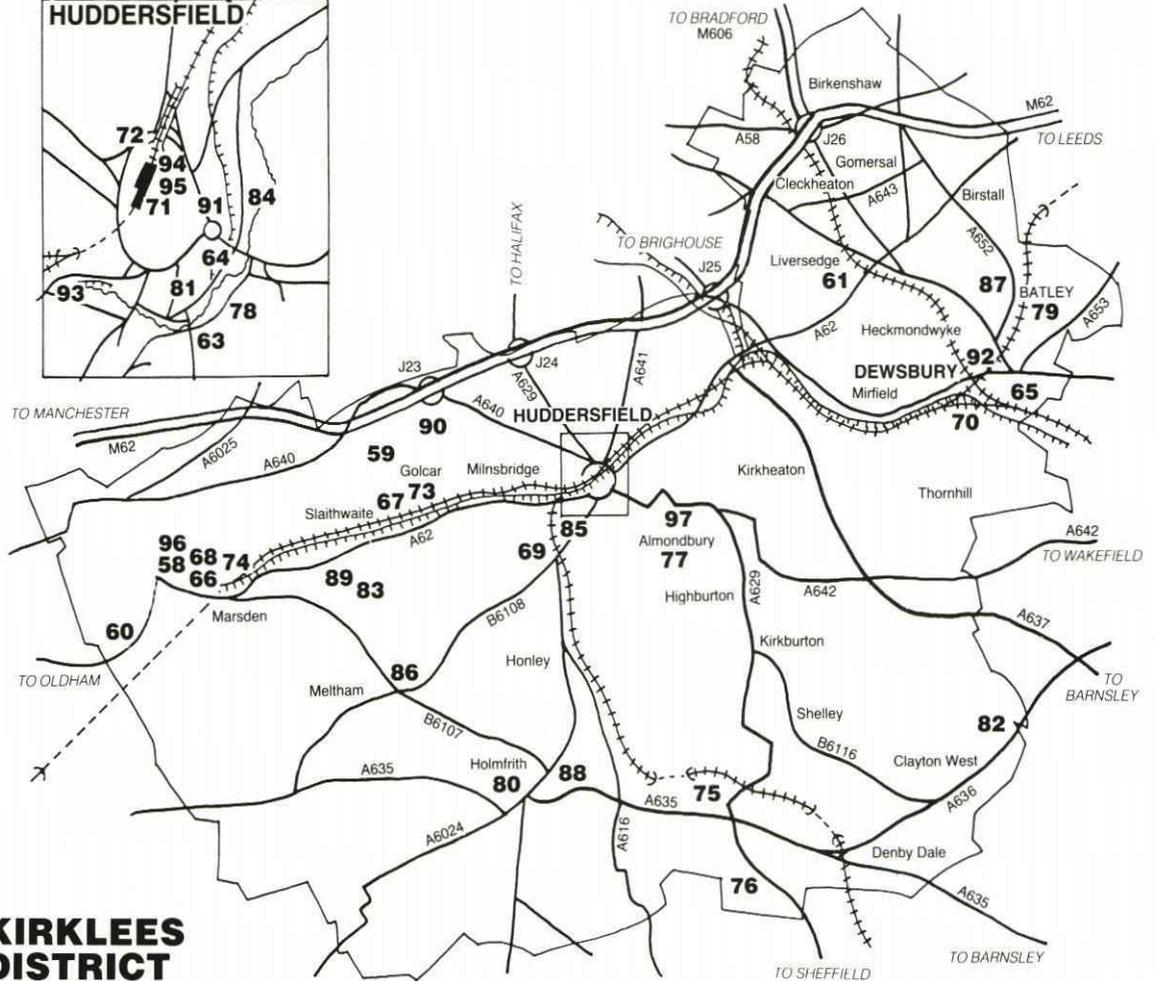
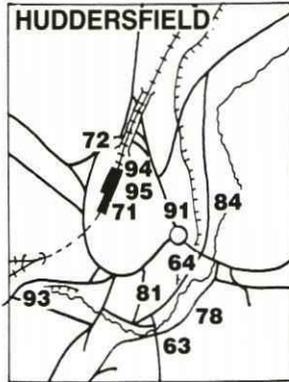
Associated particularly with the textile industry has been the growth of engineering, with such famous names as David Brown, Hopkinsons, Broadbents, Brooks (electric motors) and Harrisons (lathes). Also in the area were the motor manufacturers Karriers and Panther Motorcycles. Karriers were initially established by Claytons in the 1900s but the name was changed to Karrier in 1920. In the 1930s the firm was acquired by the Rootes Group and production was transferred to Luton. In nearby Golcar are a few old Karrier buses.

The last working coal mine is at Clayton West and stone quarrying is still carried on in the area with working quarries on Crosland Hill and nr Shepley.

Throughout the area are many hundreds of domestic textile premises and a considerable number of weaving hamlets, dozens of mills (but few are used for textile manufacture), reservoirs, railway bridges, viaducts and tunnels, turnpike roads and canals. The gazetteer is only a very small selection of the sites that can be seen and is intended to give an indication of the existing remains as they reflect the industrial development of the area.



64 The lift bridge at Turnbridge.



**KIRKLEES
DISTRICT**

Ordnance Survey Map No 104 & 110.

★ denotes a Listed site.

TRANSPORT

ROADS PACKHORSE ROUTES

58 **MARSDEN**
[SE 117 047] **Mellors bridge**

Built in 1775; Close Gate (or Eastergate) bridge [SE 112 028], on Rapes Highway which was a route to Newhay, along Willykay and Oldgate Cloughs.

Clayton West. Bridge ★ [SE 262 117].

59 **Guide stoops**

Scapegoat Hill [SE 086 168]; Farnley Moor End ★ [SE 166 126].

TURNPIKE ROADS

60 **STANDEGE MOOR**

Thieves Clough bridge [SE 021 101] of 1759; road [SE 032 101], route of 1759 over marsh.

Bobus Moor [SE 035 100], abandoned route of 1815 road; cutting [SE 097 022], 1839 route (opened out this century, in 1920s); Marsden, Old mount Rd [SE 048 116], the 1759 route; Mount Rd. [SE 048 113], 1779/81 route; the present A62 is the 1834/39 route.

61 **LIVERSEDE**
[SE 202 233] **Tollhouse**

On Leeds/Huddersfield road c1830.

OTHER ROADS

62 **SLAITHWAITE**
[SE 078 150] **Surat Road**

Also Varley Road [SE 079 138], now B6109, built in the 'hungry 40s' by the Legge family.

63 **HUDDERSFIELD**
[SE 146 158] **Kings Bridge**

Cast iron bridge circa 1870.

CANALS

64 **HUDDERSFIELD**
[SE 149 165] **Ramsden's Canal**

Aspley basin and warehouse of 1780; Colne Bridge [SE 176 205], junction with Calder and Hebble; Turnbridge [SE 149 168], lift bridge of 1865.

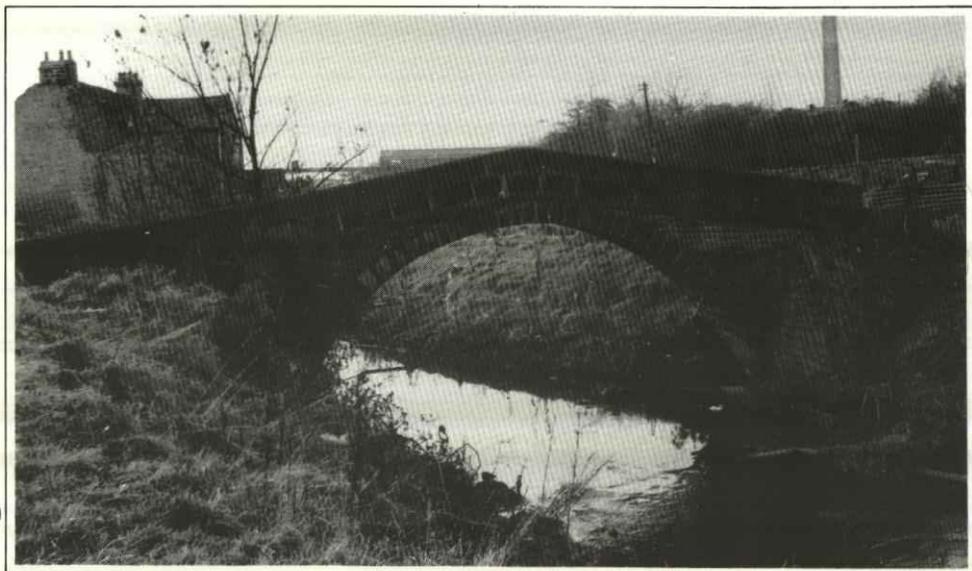
65 **DEWSBURY**
[SE 249 209] **Saville Town**

Basin of Aire and Calder, (in remaining buildings is a small private museum).

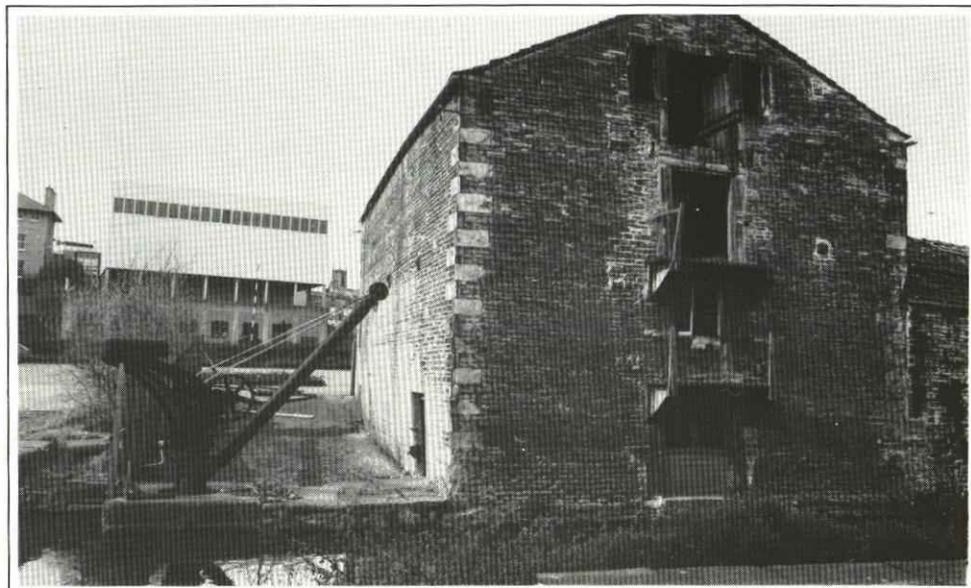
66 **MARSDEN**
[SE 119 049] **Standedge tunnel entrance**

Opened 1810 and 3m 135yds long as built. At 645ft above sea level it is the longest and highest canal tunnel in Britain; tunnel keepers cottage (now information centre).

Tunnel End reservoir [SE 121 039]; Redbrook reservoir [SE 099 025]; March Hey Dam [SE 015



58 Bridge at Clayton West.



64 Warehouse of 1780 on Ramsden's Canal, Huddersfield.

129] largest dam for canal at 912ft long and 60ft high. Warehouse [SE 041 119], now depot.

67

[SE 096 147]

LINTHWAITE Low Westwood

Restored lock and bed of canal.

RAILWAYS

68

Tunnels

Marsden, Standedge tunnel entrance [SE 039 119] of 1848, 1870 and 1894 (in use), 3m 66yds long.

Huddersfield Tunnels [SE 137 168] of 1849 and 1886, 685yds long, westwards from station.

Penistone line: Tunnels at Thurstonland [SE 174 110], 1631yds long and Cumberworth [SE 223 090], 906yds long.

69

Viaducts

Huddersfield, Lockwood [SE 113 145] viaduct of 1848 built of snecked rubble, got nearby; it is 476yds long and 122ft above river level at its highest point.

Paddock [SE 134 160] viaduct of 1848, built on a curve with 9 stone & 4 x 77ft wrought iron spans.

Town Viaduct [SE 145 174] of 1848, is 663yds long with 45 stone and two iron spans, east from station.

Batley Union Mill viaduct [SE 250 236] of 1848, has 18 x 30ft spans.

Dewsbury Viaduct [SE 245 220] of 1848 across town centre.

NOTE: there are many more viaducts, particularly along the Colne valley and Penistone lines. The one at Mytholmbridge [SE 154 100] collapsed during building in 1865.

70

Bridges

Dewsbury Raventhorpe [SE 234 205], 1848 LNWR bridge with Cast iron arches.

Saville Town [SE 251 208] an L&YR bridge of bow-girder type of 1866, by the Butterley Co.

71

Stations

Huddersfield Station [SE 143 169] ★ a joint L&YR and LNWR station of Oct 1850, designed by J P Pritchett & Sons. Built in the Corinthian style it has a total length of 416ft, with a central portico having columns 68ft high.

Dewsbury Station [SE 243 218] an LNWR station of 1848, enlarged in 1889, it has LNWR monograms cut in the stone.

Batley Station [SE 250 238] an LNWR station of 1848.

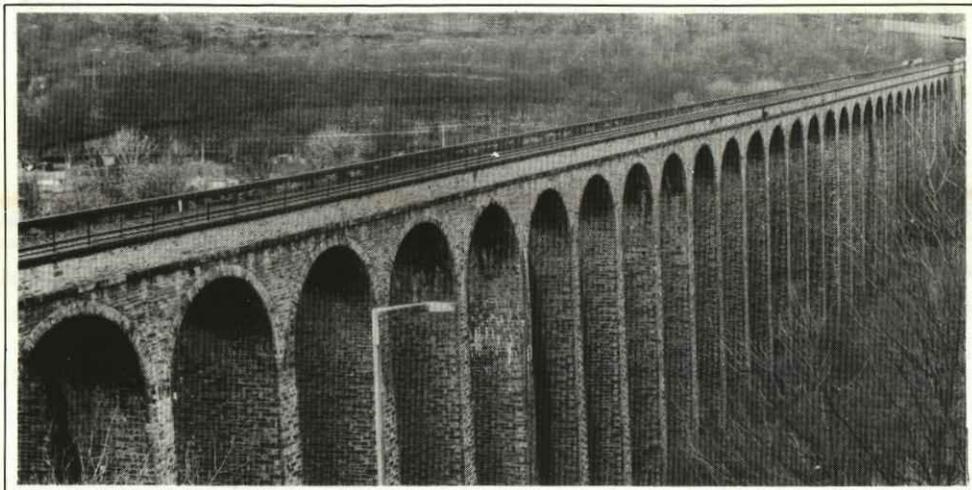
Holmfirth [SE 144 086] and Meltham [SE 100107] both have remains of stations on disused branches from the L&YR Penistone line.

72

Warehouses

Huddersfield Warehouse [SE 143 169] of 1885, joint LNWR & LYR.

Batley [SE 249 238] red brick LNWR warehouse 21 of 1848.



69 Lockwood viaduct, Huddersfield.

TEXTILES
DOMESTIC

73

[SE 096 158]

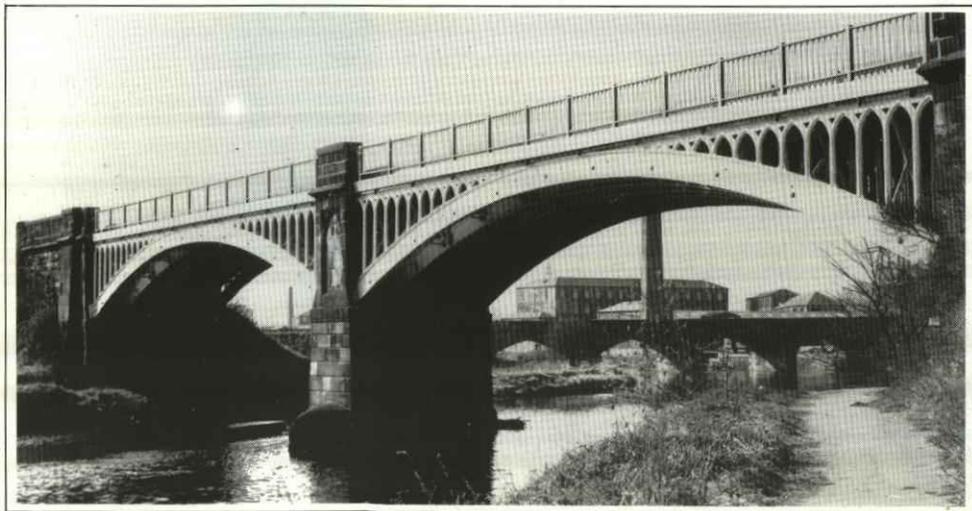
GOLCAR
Cliffe Ash

The home of the Colne Valley museum is in a 19th century hand loom weavers cottage. At the rear are tenter posts (from nearby Royles Head farm) and in the wall are 'wuzzing' holes. In the village are many good examples of hand loom weavers cottages. In the vicinity there are a number of weaving hamlets, notably Welhouse Green [SE 095 152], Scapegoat Hill [SE 088 164] and Bolster Moor [SE 086 155]. How-

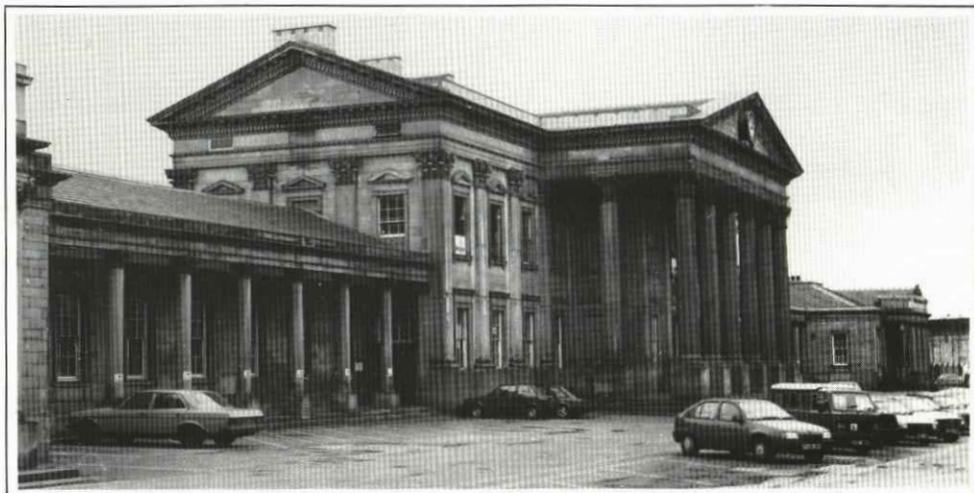
ever throughout the area there are many hundreds of weavers cottages eg Almondbury, Helme, Honley, Holmfirth etc.

Almondbury Lumb Lane [SE 157 138] ★ a late 18th century complex of merchants house, farm, warehouse and dyehouse, with a tenter-croft and bleaching ground in front.

NOTE: 'Wuzzing' holes are believed to be for holding one end of a stick which was threaded through the handles of a basket of wet wool and as the free end was rotated the wool was spun dry. Examples are to be found at Upper Welhouse Rd [SE 095 153] and in Holmfirth [SE 144 083] on Bunkers Hill nr Rattle Row.



70 London & North Western Railway cast iron bridge at Dewsbury.



71 Huddersfield Station.

74

[SE 051 118]

MARSDEN

At the rear of Colne Valley Spinning Co. mill is a row of tenter posts. Another set is in Pighill Wood [SE 0935 1745].

75

[SE 199 103]

SHEPLEY

A 3-storey loomshop (the top floor being a workshop running over all the cottages below). Also Berry Brow [SE 136 146] loomshop and an adjacent mill.

76

[SE 203 075] ★

BIRDS EDGE

Houses

An early weaving colony.

EARLY MILLS

77

[SE 176 148]

ALMONDBURY

Birks mill

Late 18th century, fulling.

Marsden Grove mill [SE 047 117] early 19th century.

Batley Howley mill [SE 250 250] early 19th century shoddy mill, now a house.

Golcar at [SE 102 153], late 18th century mill.

Birds Edge [SE 202 080] ★ early 19th century mill and pool.

LATER MILLS

78

[SE 147 159]

HUDDERSFIELD

Kings Mill

Of 1799, but rebuilt in 1850s; currently derelict. Along Firth street and in Queen St South are a number of mills including Fairfield mill [SE 146 160] of 1855; in Colne Road are Britannia mills [SE 146 159]; at the junction of Folly Hall and St Thomas St. [SE 142 159], the empty mills of Jos.Lumb & Co.

Milnsbridge contains a large number of mills of which those along Tanyard Lane [SE 117 158] include Elm Ing, Union (of c1850 fire proof construction), Old Mill, Stonefield, Stanley, Spring and Burdett mill ★, dated 1838 (with an oval opening date plaque on the wall). George St. Mills of James Shires [SE 118 161] has three enclosed steam engines. Also has mill built in 1980s.



73 Cliffe Ash, Golcar.

Slaitwaite Brook Mill [SE 082 145] of 1864; Globe Worsted Co [SE 081 141] mill of 1887; Spar Mill [SE 083.143] of 1880/1907. Adjoining is Spar mill Terrace of 1880.

Linthwaite Titanic Mill [SE 097 144] of 1911, one of the last to be built in the District, now dis-used.

Marsden Bank Bottom mills [SE 048 113] of various dates from 1860, built on the site of Ottiwells mill, the scene of Luddite riots in 1812. The owner Wm Horsfall was murdered at nearby Crosland Hill, for which a number of men were subsequently tried and executed.

Meltham Bent Ley [SE 110 113] ★ an 1840 silk mill; nearby are Meltham Mills [SE 108 107], now the home of Case Tractor, formerly David Brown) but built from 1790 onwards as a cotton mill by the Brooke family.

Holmfirth Green Lane mill [SE 165 074] a spinning mill of 1848 and nearby Washpits mill [SE 164 073] with buildings dated 1880, 1916, 1938 and 1947. The steam engine of 1880 is in situ and in working order.

Brockholes [SE 150 111] Jos Sykes 1880 mill, an early example of a combined woollen and worsted mill.

Armitage Bridge Mills [SE 134 137] bought by Brookes family in 1798, extended from 1819 onwards. Now in multiple occupancy.

Dewsbury Raven Ing mills [SE 230 235] of 1910; Cloth Hall mills [SE 245 219] of 1874, now occupied by Machells Waste Merchants (1856), has on its frontage medallions of Disraeli, Gladstone and others.

Batley New Ing mills [SE 245 241] of 1863.

Cleckheaton Scandinavia mills [SE 186 264] of Scandura, once the home of the British Belting & Asbestos Co founded in 1879 and on the present site since 1901.

Heckmondwyke Firths Carpet mills [SE 212 237].

Birstall Smithies mill [SE 221 261] a steam powered scribbling and fulling mill of 1797. Part of the original mill survives, as does the dry-house chimney of 1825 complete with its carved face above the datestone.

Scissett Nortonthorpe Mill [SE 247 101] pile fabric makers, has a horizontal compound engine of 1886, rebuilt 1931, in situ.

79

[SE 249 283]

BATLEY Warehouses

The best collection in the District, adjacent to the railway station. Built 1864 as selling houses they became warehouses from the 1880s onwards. Many are currently empty but some have recently been refurbished.

Dewsbury Warehouses, from 1860, opposite the railway station.

Huddersfield St Georges Sq, nos 8 to 20 [SE 145 168] ★ a 4 storey warehouse and office development. Another is at 2-6 Railway St [SE 144 168] ★ .

80

[SE 143 095]

HOLMFIRTH Dyeworks

At Albert mills, of 1865.

Cleckheaton. Hunsworth mills [SE 185 269] Hunsworth Dyers Ltd.



78 Burdett Mill, Milnsbridge of 1838.

OTHER INDUSTRIES

ENGINEERING

81

HUDDERSFIELD

[SE 146 160]

Priest Royd ironworks

Only the arch over the works entrance on Firth St survives. Est. 1835 by John Haigh to make textile machinery.

Nearby is the original site of David Brown. Starting in Vulcan St in 1860 as a pattern maker, in partnership with Thos. Broadbent but set up on his own in 1864. After several moves, in Park Works [SE 131 135] by 1902 making gears. Meltham mills were acquired in 1939 when tractor production started. Bought Aston Martin cars in 1947, but were sold off, as was the tractor division (to Case), in the 1970s.

Hopkinsons, the steam boiler and accessory makers were established in 1843 the works is at Birkby [SE 138 180]. Holset Engineering on Andrews Rd [SE 151 168] were founded in 1952, they make turbo chargers and flexible shaft couplings.

Nearby in Turnbridge is the works of WC Holmes, gas engineers since 1845, now Peabody-Holmes. They recently made the famous Denby Dale Pie dish, weighing some 2.25tons. Thomas Broadbent & Sons, Queensgate [SE 145 162], established in 1864. Now specialising in making centrifuges they have built steam engines and overhead cranes. They also built the control and operating gear for the River Tees lift bridge.

Sellers and Co [SE 140 162] makers of finishing and cutting machines (descendents of the crop-

ping frames). Brook Motors were started in 1904, by 1905 in Colne Rd. Later moving to present site in St Thomas St [SE 140 159]. Phelon and Moore, of Cleckheaton made Panther motorcycles. Production ceased in 1966. The works site is in Horncastle St [SE 191 255] now occupied by Wynsor Footwear.

COAL MINING

82

Elmley Bell pits [SE 265 130] spread over a wide area.

Huddersfield Chimney [SE 186 159] on Wakefield Rd. associated with a local coal mine.

Clayton West [SE 258 117] a working colliery.

NOTE: There are considerable remains on the very eastern edge of the area but these will be dealt with in the Wakefield section for completeness. (See Flockton)

QUARRIES

83

Crosland Moor Wellfield [SE 117 147]—Johnson's of 1895.

Lane Head [SE 196 808] in a disused part of the quarry is a large crane. Shot saws are still in use in the nearby workshops.

CHEMICALS

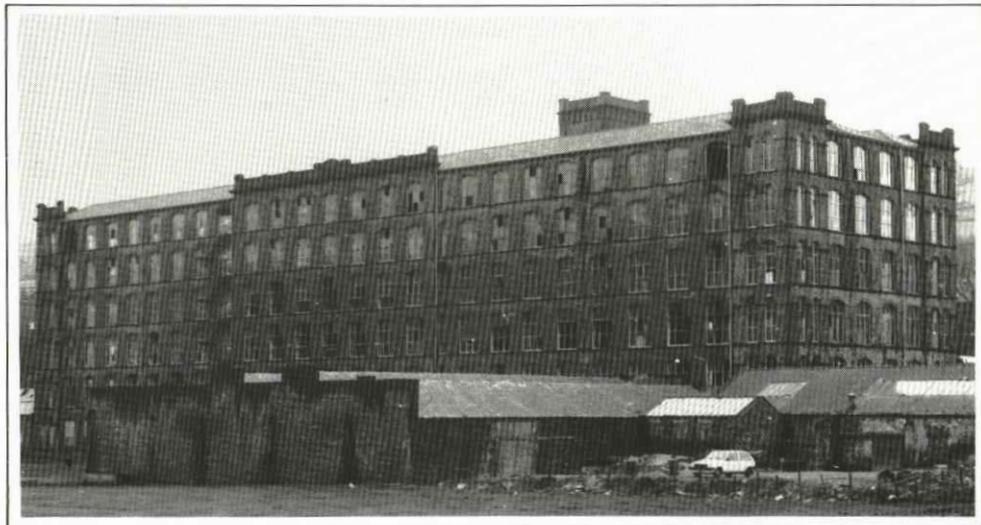
84

HUDDERSFIELD

British Dyes

[SE 152 170]

Only the works entrance of British Dyes survives on Andrews Rd. In 1919 this firm merged with Levinsteins of Manchester to become the British Dyestuffs Corpn. which in 1926 merged with I.C.I. to become their dyestuffs division.



78 Titanic Mill, Linthwaite.

The present day works covers a very large site on the Leeds Rd [SE 165 185].

Batley Lloyds works in Dark Lane [SE 238 239] is still in use but the firm is now part of the Reckitt and Coleman group.

BREWERIES

85

HUDDERSFIELD

[SE 136 149]

Lockwood

Site of the brewery where Yorkshire 'squares' were invented by Timothy Bentley in mid 1790s (with help from Jo. Priestley). Few original buildings remain on the site.

In St Andrews Rd [SE 151 164] there is a small warehouse of Bentleys Yorks Brewery dated 1900.

New Mill, Old Brewery [SE 163 088] now converted to houses.

BRICKWORKS

86

Meltham [SE 103 109] now demolished with few remains.

Huddersfield, Wakefield Rd [SE 179.164] a working site.

FOOD AND DRINK

87

BATLEY

[SE 244 239]

Fox's Biscuits

Established in 1853, making Brandy snaps for fairground booths. The present works is in the Victoria Rd area.

Huddersfield Ben Shaw, established 1871 to make non-alcoholic beverages. By 1895 in Willow Lane [SE 144 177] and in 1976 a works was established at Queens Square in Honley.

MISCELLANEOUS

88

HOLMFIRTH

At Station Rd [SE 144 083] the home of Bam-forths post cards. Starting in 1870 making lantern slides, by 1896 short cine films were being made. Post card manufacture started in 1904 in Station Rd. In 1915 a film company was set up but this ceased in 1919. There is a museum in the town information centre.

89

CROSLAND HILL

[SE 114 148]

Fireworks factory

Standard Fireworks, established in 1924. In 1987 they took over Brocks.

PUBLIC UTILITIES

WATER SUPPLY

26 90

HUDDERSFIELD

The town commissioners built three reservoirs at Longwood viz Compensation [SE 101 173] in 1826/27; Lower [SE 099 171] in 1829; and Upper

[SE 097 170] in 1848. Wessenden Old [SE 057 087] of 1837, nr Marsden.

The Corporation took over in 1868 and later built many other reservoirs viz Deerhill [SE 070 118] and Blackmoorfoot [SE 098 130]; the latest is Scammonden [SE 053 177] of 1968/71, the largest earth dam with puddled clay core in Britain.

In the Holme Valley, the Holme Reservoir Commissioners built Bilberry reservoir [SE 103 070]; the dam burst on 5th February 1852, shortly after completion, killing 81 people. There are Almshouses in Holmfirth [SE 146 087] built from the proceeds of a fund set up to help victims of the disaster and several plaques in the town recording that and other flood levels. The dam was rebuilt in the late 1850s. In 1954 Huddersfield Corporation completed Digley [SE 111 070] immediately below Bilberry.

However other towns draw their water from the same area and there are many other reservoirs to be seen.

GAS SUPPLY

91

Huddersfield Est.1821 and taken over by the Corporation in 1871. The gas holders and some other buildings remain at [SE 150 174].

Heckmondwyke [SE 211 235] works founded 1840, some remains.

Dewsbury Saville Town [SE 252 202] a joint undertaking with Batley established in 1825 and bought by the towns in 1873.

ELECTRICITY

92

[SE 244 255]

Dewsbury

Bradford Road

The works of 1902/03 is now a motor showroom and garage.

PUBLIC TRANSPORT

93

Huddersfield Longroyd Bridge [SE 138 161] electric power station and depot of 1901; Gt Northern St. [SE 147 174] depot of 1931.

Yorkshire Woollens Tramway

Depots can be seen at:-

Carlinghow [SE 238 248], a horse and steam depot; Savile Town [SE 245 213], now the garage for Yorkshire Transport; Liversedge [SE 209 248], now a National Travel depot.

PUBLIC MARKETS

94

Huddersfield Brook St.[SE 146 170] an iron-framed market hall of 1887/89.

Dewsbury Wood St.[SE 247 220] Market hall of 1904.

SHOPPING ARCADES

95

Huddersfield Byram [SE 144 168] ★ Westgate/Station St. of 1880, 5 storey, with open cast iron galleries.

Imperial [SE 144 166] ★ links Market St and New St. of 1884, with good cast iron gates.

MECHANICS INSTITUTES

96

[SE 049 117]

Built in 1860 by Jos. Hogg of Halifax. Probably the best in the area and currently being refurbished.

MARSDEN

MUSEUMS

97

[SE 162 165]

HUDDERSFIELD

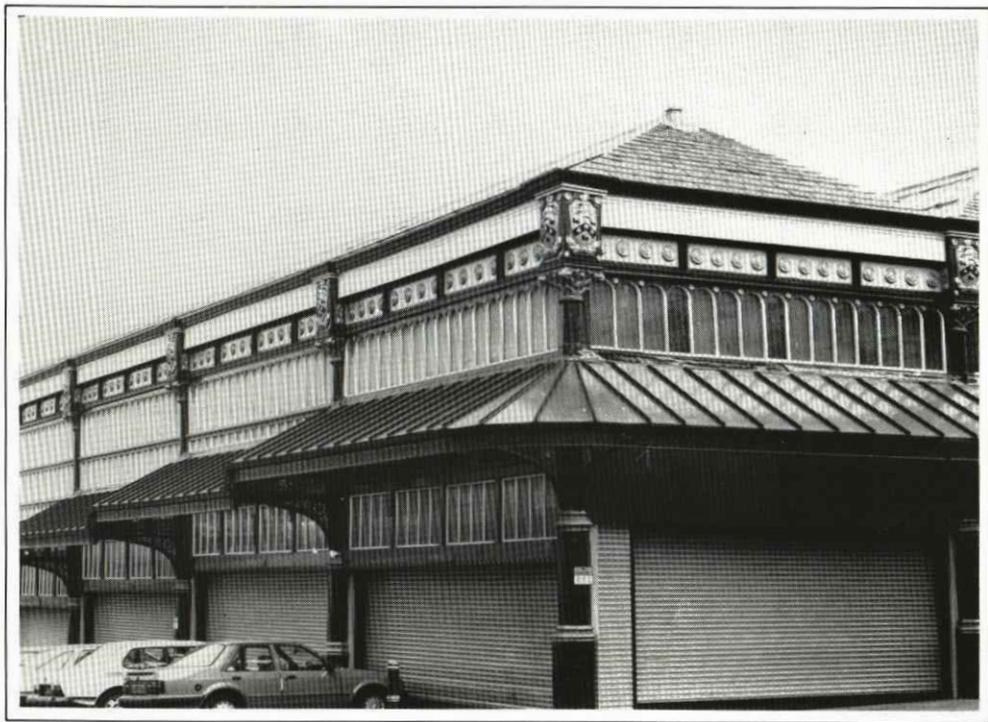
Tolson Memorial Museum

Wakefield Road

It has a transport collection, including a David Brown and LSD cars, and a local history section. Outside is a small, early 19th century horizontal steam engine and the cupola and entrance door of the 1780 Cloth Hall (Demolished in 1930).

Batley Bagshaw Museum [SE 258 235].

Dewsbury Crow Nest Park Museum [SE 234 214].



94 Brook Street Market, Huddersfield.

BRADFORD

The area covered by Bradford Metropolitan District includes the City of Bradford and the surrounding towns of Keighley, Ilkley, Haworth, Shipley, Bingley, Silsden and Denholme.

Once commonly known as 'Worstedopolis', the city of Bradford grew from a small town at an enormous rate in the early 19th century. Its industrial landscape and that of the surrounding area is dominated by the developments in the textile industry and its subsidiaries over the past two hundred years. From the early years of the 18th century the manufacture of worsteds became concentrated in Bradford and Halifax. The mechanisation of the processes from the end of the 18th century and the introduction of steam power led to the rapid development of Bradford itself, since it had abundant supplies of coal near to the town. However the decline of worsted manufacture has led to many closures and demolition of buildings. Survivors such as Lister's Manningham mills (built as a silk mill and later making velvet) and Salt's mill at Saltaire (with its associated housing) are outstanding examples. More typical though are those along Thornton Rd, Canal Rd, Valley Rd and in Keighley, Bingley, Denholme, Silsden, Burley-in-Wharfedale and the Worth valley. Cotton mills were also built, particularly in the Keighley area, but by 1840 most had turned over either to woollen or worsted manufacture.

In order to service the rapidly increasing industry, the warehouse that handled either raw wool or finished cloth and stuff, was built in many parts of the district. A particularly fine concentration is to be found in the area known as 'Little Germany', in the Church Bank area. Others can be found along Canal Rd and in the Thornton Rd/Sunbridge Rd area. At Ripley's Dyeworks in Bowling many new innovations were introduced. Dyeing firms boomed and from this developed the Bradford Dyers Association, or BDA, the largest combine of its kind in the world. This helped to develop a large chemical industry, which now is mainly on the south side, such as Allied Colloids. This is near the site of the notorious Low Moor Chemical Co. works that exploded with such ferocity in 1916 whilst making Picric acid, (normally a yellow dye), but then being made for explosives. As a result of the explosion 39 people died.

The mechanisation of the textile industry led to the development of machine makers and other engineering concerns. Keighley became an important centre with such firms as Prince Smith's making combing and spinning machinery & Hattersley's, who in 1989 celebrate their two hundredth anniversary. Also in Keighley were firms that specialised in making washing machines and mangles, so much so that by the late 19th century the town was supplying some 80% of the British domestic market. In Bowling, boilers were made by Hewitt and Kellett; pulleys, belts and engines by Crofts of Thornbury (later Renold Chains) and electrical machines by the Pheonix Dynamo Co of Bradford Moor, who survived until the 1950s.

It was on the south side of the city that the world famous ironwork sites were situated. Bowling of 1788 and Low Moor of 1789 were dominant. Low Moor acquired the North Bierley and Shelf ironworks and had all its ironworks and mines connected by a network of tramways. Bowling closed in 1898 and Low Moor ceased production in 1928 and there are very few remains. However some housing for the workers can be seen as well as tramway remains.

The coal mining industry which in 1866 from 46 collieries produced 20% of Yorkshire's coal has left scant remains. Stone is still quarried in the area eg at Bolton Woods, with the dressing sheds at Fagley.

Canal developments in the late 1770s bypassed the town so a separate canal was built, from the L&L at Shipley up into Bradford. This, the Bradford Canal, always a source of trouble because of polluted water, opened in 1774 and was finally closed in 1922. The railways arrived in 1846, from Leeds, along the Aire valley. It was part of this route and its extension to Skipton that became the Midland route to Scotland with the building of the Settle and Carlisle railway. The terminus in

Bradford was rebuilt in 1890 but today has little traffic. The L&YR arrived in 1850, again from Leeds but via the longer Calder Valley route and giving connections to Halifax and Manchester. In 1854 the Gt Northern had reached the town by a more direct route through Bramley and built a third station, Adolphus St. By 1867 a short spur enabled GN trains to enter the L&YR station. This terminus was rebuilt as Exchange in 1886 but was demolished in 1973/74 to make way for a more modern road/rail interchange. The Great Northern built a network of lines in the area culminating in the famous Queensbury triangle and its complex station layout, all of which was closed in the Beeching era. However the Worth Valley line from Keighley remains in use being run by one of the pioneering preservation societies.

Bradford was a pioneer in the use of trolleybuses, using them from 1911 to 1972. It was also famous for Jowett and Scott. Jowett made cars and light commercial vehicles culminating in the late 1950s with a very successful sports car, the Jupiter. The firm closed in the 1960s and the works site in Idle, Bradford, is now a supermarket. Scott motorcycles are also no longer made but in their day were one of the most successful makes and always considered to be a real enthusiasts machine, with its water-cooled, parallel twin two-stroke engine. In their early days there were business contacts between Jowett and Scott but before long they went their own ways. The later Shipley works of Scott still survives. The Bradford Industrial Museum has a good collection of both makes of vehicle.

To provide a domestic water supply, which was always an acute problem, the first supply reservoir was built at Hewenden, nr Denholme, in 1846. In this century fresh supplies have come from the Nidd valley, some 30 miles north. Due both to a massive rise in population and the effect of wool processing, pollution of water courses and the canal became acute by the 1840s. From a population of 13,000 in 1800 it had reached 100,000 by 1844. Until 1871, although sewage pipes had been installed, it was only discharged raw into the R Aire. However, in that year the first treatment works were opened at Frizinghall, which in turn was replaced by a much larger works at Esholt, in the Aire valley, from 1910. The works successfully extracted and sold waste products, notably the lanolin from wool processing.

Throughout the area are a very wide variety of domestic premises, some indicating very clearly the development of the city as it expanded and swallowed up the surrounding villages and hamlets, a very good example is Wibsey. There are also a wide variety of 'back to back' houses in many parts of the District.

Bradford is not only proud of the work of such men as Salt, Lister, Holden and Ripley but also of Richard Oastler and W E Forster. Oastler fought for the 'ten hours' Bill and better employment conditions for children, whilst W E Forster, an advocate of universal education, finally got the 1870 Education Act on to the statute book. In the city are many early schools built under this act by the 'School Board', notably Lilycroft nr Manningham mills.

The sites selected cover a large part of the district and of the industrial development and heritage that still remains. However the pace of redevelopment has increased rapidly in the past few years and many sites particularly in the town centres have been cleared and other structures are under threat.

BRADFORD GAZETTEER

Ordnance Survey Map No 104.

★ Denotes a listed site.

TRANSPORT

ROADS

98

[SE 105 393] ★

BINGLEY **Ireland Bridge**

Rebuild of 1686 in stone.

99

Turnpike Roads

The Leeds, Bradford and Halifax of 1740, now the B6381; the Bradford and Wakefield of 1752/3, now A650; Keighley and Bradford of 1752/3, now B6269; all in use today, using most of the original routes.

Along the A6034 Addingham to Silsden road are a number of milestones bearing the legend of 'The Blackburn, Addingham and Cocking End Road'.

CANALS

100

[SE 107 399] ★

BINGLEY **5 Rise**

Having a lift of 60ft and 3 Rise at [SE 107 395] ★ both designed by J Longbotham for the Leeds & Liverpool Canal Co and opened in 1774.

Dowey Gap Locks [SE 119 383] ★ with nearby, a cast iron bridge and 7 arch aqueduct at [SE 121 383]

Shipley Basin [SE 148 376] with warehouse and carriers yard.

Junction [SE 154 377] with Bradford canal (of which only a very short arm exists in water). The building by the bridge at the junction was a toll house and a boatmans lodging house. On the east side is a swing bridge over the canal and between the swing bridge and the junction there is the site of a boatbuilding yard.

Bradford Canal overbridge at [SE 156 359] and Queens Rd bridge has an arch at [SE 162 348]. Spink Well Lock [SE 164 345], partially infilled.

RAILWAYS

101

[SE 166 308]

North portal, 1648yds long; and Wyke [SE 157 278] North portal, 1365yds long (both on the L&YR line of 1850).

Shipley Thackley [SE 170 389] West portal, 1496yds long on the Leeds and Bradford (later MR) line of 1846.

Queensbury [SE 104 309] 1m 741yds long, GNR of 1878, now being infilled.

102

[SE 188 387]

4 track of 1846/1900 of Midland Railway.

Denholme Hewendon [SE 075 357] of 17 arches, 376yds long; and Thornton [SE 096 326] of 20 arches, 330yds long; both on the now abandoned GNR Keighley to Queensbury line of 1884.

103

[SE 164 333]

Station and adjoining Midland Hotel, both of 1885/90. The Architect was Trubshaw of the MR.

Keighley Joint station [SE 066 412] for MR, GNR and KWR, of 1885. It has an attractive canopy over the passenger entrance.

Shipley [SE 150 374] station of 1885 on two of the three lines of a triangular junction.

Shipley [SE 157 380] GNR of 1875, closed in 1968. Now a motorcycle showroom.

Queensbury Triangular Junction Station [SE 106 311] of 1874 & 1890. One part was on a three arch bridge, a colliery tramway passing beneath another part on its way up to Queensbury. Nearby is a former brickworks chimney.

TUNNELS

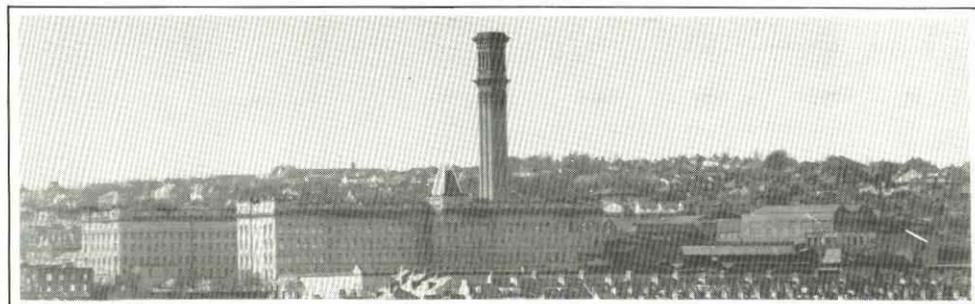
BRADFORD **Bowling tunnel**

VIADUCTS

SHIPLEY **Thackley**

STATIONS

BRADFORD **Forster Square**



108 Manningham Mill.

WAREHOUSES

104

[SE 167 284]

LOW MOOR

Furnace Lane

Great Northern Railway of 1893. (It is close to the site of the Bierley Furnaces).

Shipley [SE 149 379] Midland Railway of 1870s. Now used by a scrapyards.

PRESERVED LINES

105

[SE 035 373]

HOWARTH

Headquarters of the Keighley and Worth Valley Railway. Closed in the early 1960s it was reopened in 1968.

Shipley Glen Tramway [SE 138 385] opened in 1889 using former horse drawn trams, it is cable hauled and powered by a gas engine. It closed in 1981 but was reopened in 1982.

TEXTILES

106

[SE 169 334]

BRADFORD

Paper Hall

An 18th century building where it is claimed that the first factory type processing of wool was carried out in 1781.

EARLY MILLS

107

[SE 091 493]

ADDINGHAM

Low Mill

Built in 1787 as a cotton mill but only ever spun worsted yarn. Remaining parts now converted to houses.

High Mill [SE 082 502] of 1790s, has also been converted to houses.

Burley-in-Wharfedale Greenholme Mills

[SE 168 468] Starting in 1815 as a cotton mill but spinning wool by 1845. Originally water powered, by 1895 the wheels were replaced by 3 turbines. Closed in the 1960s and now in multi-occupancy.

Queensbury Black Dyke Mills [SE 104 330] started by John Foster in 1835 and progressively developed into a very large complex. At one time they had their own coal mine on the site. Home to the world famous Brass Band.

Keighley Goose Eye [SE 027 406] Turkey Mill, a water powered mill built in 1840.

Wilsden [SE 091 367] Providence Mill, a water powered spinning mill of 1840, with hand loom weavers houses nearby.

LATER MILLS

32 108

[SE 104 381]

SALTAIRE

The very large mills built by Titus Salt in 1853 & 1868 to process Alpaca and Angora. They

were designed by Lockwood and Mawson, with the engineering by Fairbairn. The mills straddle the L&L Canal. Chimney designed to look like an Venetian Campanile.

Manningham [SE 146 347] Built for Lister and Co as silk mills in 1873/75 (on the site of an 1838 mill burnt down in 1870). In later years it produced velvet. Part is now disused. The Architects were Andrew and Pepper. Has probably the most monumental mill chimney ever built.

Lumb Lane [SE 156 338] Drummonds of 1862 with a fine chimney. Architects were Lockwood and Mawson.

Ripley Mills [SE 162 315] a very large complex of mills built from 1850s onwards as a speculative venture by the nearby Dyeworks owner, on a room and power basis.

Buttershaw Mill [SE 138 293] of 1852 to spin Alpaca and Mohair.

Factory Street [SE 180 309] two large red-brick mills on both sides of the street, still in worsted production.

Bingley Bowling Green Mill [SE 108 395] built in 1871 and now the home of Damart.

Keighley Dalton Mill [SE 070 414] of 1866/70, originally built on a room and power basis.

Keighley Knowle Mill [SE 060 403] now the Keighley Business Centre.

Apperley Valley Mills [SE 193 376] Garnetts built these mills in 1868 and 1889.

WAREHOUSES

109

[SE 168 332]

BRADFORD

'Little Germany'

Centred around Burnett St, a most remarkable collection of warehouses used in the stuff trade, the majority of which are now used for other purposes.

Quebec St [SE 161 329] a 4 storey building of the 1830s.

There are also a number of others in the area around [SE 135 334], bounded by Thornton Rd. and Sunbridge Rd.

OTHER BUILDINGS

110

[SE 164 338]

BRADFORD

Conditioning House

Established in the 1890s, the present building is of 1902. The Architect was F Wild. Its purpose was to establish and maintain standard conditions for the raw materials eg keep the water content to a low level. It developed a whole range of standard tests for wool and the finished products and is still in use today.

The Wool Exchange [SE 164 332] opened in 1867 but no longer used for its original purpose. The Architects were Lockwood and Mawson.

DYEWORKS

111

[SE 151 336]

**BRADFORD
Oakwood**

On Thornton Road, of 1861. Bowling [SE 067 315] the site of the famous Ripley works is now occupied by a chemical works.

Keighley [SE 073 416] Atkinsons Dyers.

OTHER INDUSTRIES

IRONWORKS

112

BRADFORD

Low Moor [SE 158 284] site only, recently much development. At [SE 154 286] a large flywheel from a steam engine has been placed at the end of New Works Road. At Short Row [SE 157 285] and Hurd Road [SE 158 289] are cottages built to house ironworkers.

Bowling [SE 180 324] the gate posts to the works survive as well as a long section of the surrounding wall. Within the present collection of buildings on the site there are some from the ironworks era but all have been used for other purposes since the 1890s. Of the once extensive tramway network there are still a few traces. At [SE 184 298] is a tramway crossing keepers cottage (now Waggon House Farm), with the route of the tramway easily identifiable; nearby at [SE 184 293] the route passes between colliery waste tips. There is a very large earth embankment at [SE 208 311] and some bridge abutments at [SE 219 315] on Keeper Lane.

Bierley [SE 170 287] Ironworks site only, near Furnace Lane.

ENGINEERING

113

[SE 158 339]

BRADFORD

Part of the works occupied by Jowett's from 1921 to 1938.

Phoenix Dynamo Works [SE 195 336] now GEC.

Shipley Hirstwood Road [SE 130 380] works occupied by Scott's prior to closure, in the 1960s.

Keighley [SE 055 406] Hattersley's textile machine works, and at [SE 068 413], Dean, Smith and Grace lathe works.

COAL MINING

114

[SE 193 296]

**BRADFORD
Toftshaw Moor**

Engine house and waste tips, now a transport depot. There are few other remains save for a number of spoil tips, such as Bunkers Hill [SE 181 338] and along the valley between Oakenshaw and Fulneck, *eg* [SE 184 293] and [SE 225 312].

QUARRIES

115

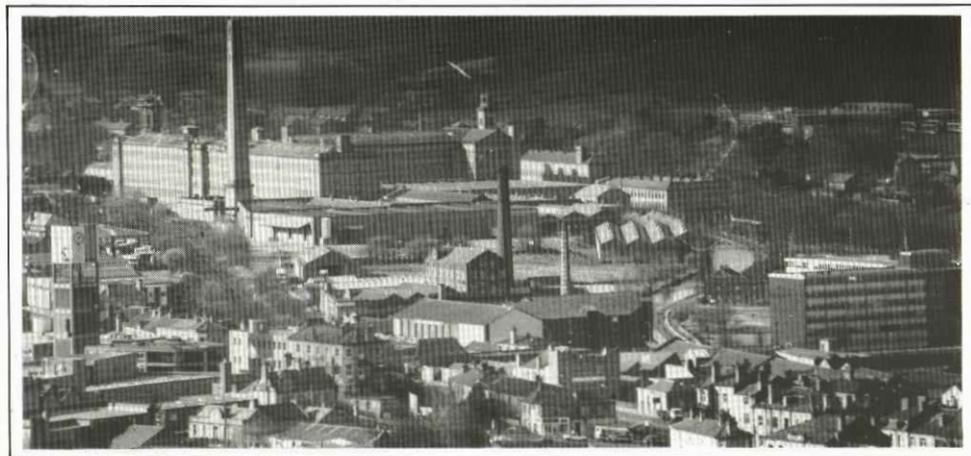
BRADFORD

Bolton Wood [SE 173 360] a working quarry.

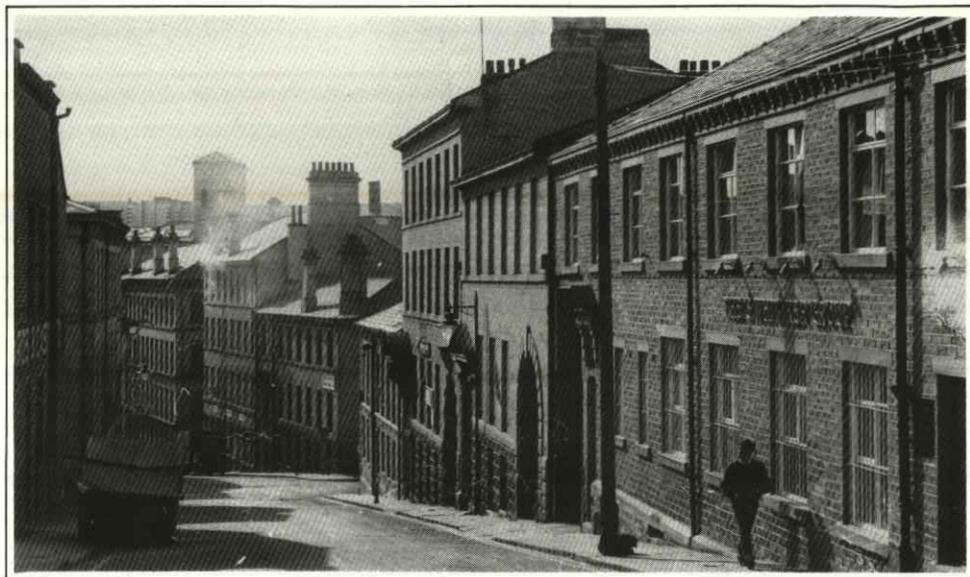
Fagley [SE 186 353] disused quarry but the dressing and shaping sheds are still in use. In the quarry are two disused steam powered jib cranes.

Howarth [SE 040 364] a working quarry, with dressing sheds.

Egypt [SE 090 340] an area containing a large number of disused quarries as well as a number of quarry workers houses. Famous for the 'Walls of Jericho'—built to retain the quarry waste.



108 Saltaire Mills and Shipley.



109 Warehouses in Bradford's 'Little Germany'.

AGRICULTURE

116 **BRADFORD**
[SE 182 296] **Toftshaw Fold Model Farm**

Shown on a map of 1871.

117 **Burley-In-Wharfedale**
[SE 171 464] **Corn Mill**

Still working but the machinery is all modern. The mill pond and iron pipe leading water to the mill remain.

BREWERIES

118 **KEIGHLEY**
[SE 056 403] **Knowle Spring**

Timothy Taylor's tower brewery, one of the last working ones in the area.

MISCELLANEOUS

119 **BRADFORD**
[SE 127 361]

Sharpes Card Factory, on Bingley Road. Built in 1936. Architects were Chippendale and Edmondson.

PUBLIC UTILITIES

WATER SUPPLY
120 **BRADFORD**

Chellow Dean [SE 121 348] completed in 1846 and Hewenden [SE 073 357] opened in 1847.

Whetley Hill [SE 149 343] a service reservoir of 1846/47. All these were bought by the Corporation in 1855. Later reservoirs were built in the valley of the River Nidd, north of Pateley Bridge.

Goit Side [SE 161 330] a covered water supply to old corn mills (long since demolished) in the town centre. It runs parallel to Thornton Road, on its North side.

SEWAGE WORKS

121 **ESHOLT**
[SE 185 396]

Initially opened in 1912 with considerable extensions later. From 1930 to the 1950s the filter beds used coal. To house the workmen a small village was built nearby.

GASWORKS

122 **BRADFORD**

Corporation works of the 1870/80s exist at Canal Rd. [SE 163 346] and Bowling [SE 182 320].

Keighley [SE 080 413] Thwaite works of 1876, considerable remains.

PUBLIC TRANSPORT

123 **BRADFORD**
[SE 192 335] **Thornbury**

Large tramway depot of 1882 built by the Bradford Tramways and Omnibus Co. Also a large complex of Car repair shops (1915) and sheds (1911). Part only now used for buses. At Ludlam St [SE 162 323] the road vehicles collection of the West Yorkshire Transport Museum is stored. It is open once a month on a Sunday.

Saltaire [SE 136 377] a Bradford Corporation Electric Tramway depot of 1904.

PUBLIC BUILDINGS

124

BRADFORD

Town Hall [SE 164 329] of 1873 and 1909, now the City Hall.

Post Office [SE 166 333] of 1887, now an insurance company office.

Alhambra Theatre [SE 161 328] of 1914, recently refurbished; nearby is the New Victoria Cinema of 1930, now the Odeon 1 & 2.

Dudley Hill [SE 181 309] a disused 'Picture Palace' of 1912.

CEMETERY

125

BRADFORD
Undercliffe

Established in 1854 by a private company. There have been over 123,000 interments and in it many of the major mill owners and merchants are buried. It contains a superb collection of memorials etc. It is currently being renovated and cleaned up. From nearby Undercliffe Road there is a magnificent view over the Industrial and Commercial heartland of the City.

HOUSING

126

BRADFORD
Wibsey

[SE 152 302]

In the vicinity are a wide range of housing types. The oldest is dated 1626; in Chapel St. is one dated 1753. There are single storey terraced cottages, back to backs of various sorts, blind back houses etc.

Victoria Terrace [SE 148 347] back to backs.

Heaton Rd [SE 145 350] 'tunnel' back to backs, having a passage from the front street to a back alley to give access to the other half of the house.

Preston St [SE 153 331] a set of high quality 'superior' back to back houses.

Bowling [SE 168 313] almshouses built by the Ripleys in 1857 and rebuilt in their present position in 1881.

Canal Rd [SE 160 350] Midland Terrace, built by the Midland Railway in late 1870s.

Low Moor [SE 165 285] Railway Terrace, built by the L&YR in 1874.

Saltire [SE 139 379] the model community built between 1851 and 1871. The architects were Lockwood and Mawson. It contains a wide variety of housing types, church, hospital, almshouses, school and Institute.

Across the canal in Roberts Park, is a statue of Sir Titus Salt.

MUSEUMS

127

BRADFORD
Moorside Mills

[SE 185 350]

Building of 1875 which houses the Industrial Museum. It has a fine collection of textile machinery, (much of it working) and road vehicles.

Keighley Cliffe Castle [SE 056 420] has a good display relating to the industrial development of the town.



126 Almshouses at Bowling.

LEEDS

The Metropolitan district of Leeds consists of the City of Leeds and surrounding towns of Otley, Guiseley, Yeadon, Morley, Pudsey, Rothwell and Wetherby. Because of its size and importance Leeds tends to dominate the area, being the major business, commercial and cultural centre of the District.

Leeds is well over one thousand years old, possibly 1500 years old. There was a small settlement here at the time of the Domesday Survey, at a crossing point on the river and towards the upper limits of navigation. In 1152 Cistercian monks established a monastery at nearby Kirkstall. Leeds has always been important for its transport links, for besides being on the river it was on the Roman road from Chester to York and on the route along the Aire Valley through the Pennines.

Textiles dominated the early industrial development, by the 14th century weaving, fulling and dyeing were established as well as coal mining and iron working. In 1619 it became a staple town for marketing wool and in 1626 obtained its charter as a Free Borough. However it was the 18th century that saw the town transformed from primarily a marketing town to a large industrial centre. By 1720 wool textiles were the largest trade but by 1830 it had been overtaken by other manufacturing, such as soap boiling, coal mining, pottery making, linen, sugar refining, chemical manufacture and transport.

The first cloth hall to be built was the White Cloth Hall in 1710–11 followed by the Coloured Cloth Hall in 1755–56 and a third, the Second White Cloth Hall in 1776. From 1790 wool, worsted, cotton and linen all expanded, so that by 1830 Leeds had become the predominant marketing and finishing centre for the West Riding. The first steam powered mills came in the 1790s, built first for cotton then for worsted and woollens, Benjamin Gott building his first mill at this time. In 1792 John Marshall built his first purpose built flax spinning mill which quickly led to the setting up of others; there were 37 by 1855. By 1900 textiles was mainly in worsted with some cotton but linen was virtually finished.

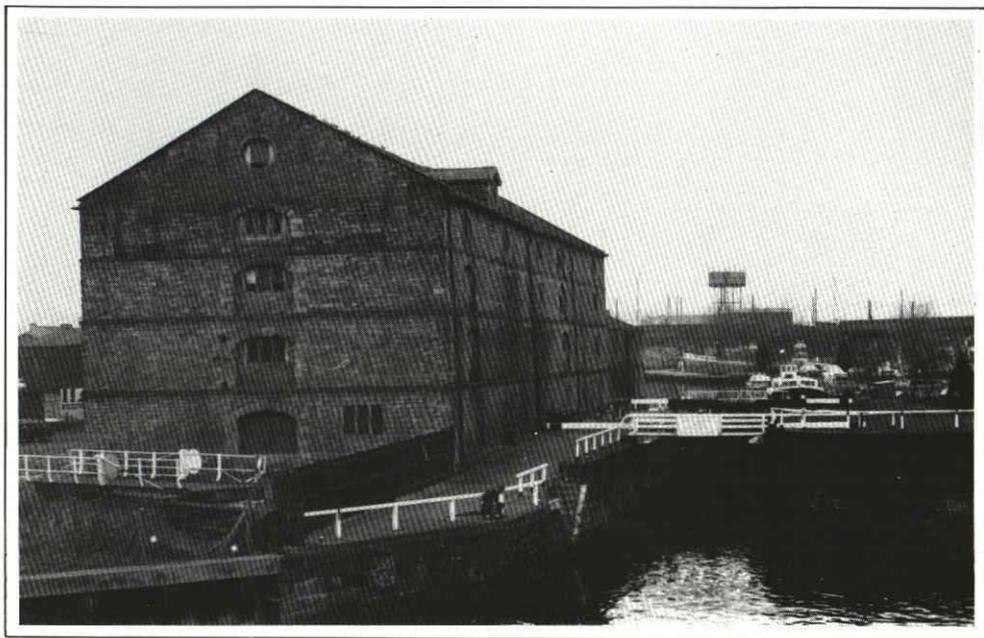
It was in 1856 that John Barran established a clothing factory, making use of the recently invented band knife, made by Greenwood and Batley. The clothing industry expanded greatly from 1881, so that by 1914 there were over 100 manufacturers, in some 80 factories and hundreds of small workshops, with such names as Hepworth, Blackburns, May, Price and from 1906, Burtons.

A large scale tanning industry was established around 1820, with the peak period being 1850 to 1880. Established in 1834 as curriers, Stead and Simpson were by 1840 making boots and shoes.

The coal mining industry expanded rapidly from the late 1700s being concentrated on the east and south sides of the town. In the 1870s there were over one hundred collieries producing some 2.5 million tons per annum. With an abundance of clay with the coal, brickmaking and pottery have been long established. The most famous pottery being the Leeds, sited in Hunslet, but there were many others. Brickworks were scattered throughout the area with sites in Morley, Farnley, Holbeck and Garforth. Quarrying has been long established with a large quarry at Morley still in use.

Transport had always been crucial in the development of the town and it was Leeds money and initiative that led to the act of 1699 to improve the Aire and Calder. It was opened to Leeds Bridge by 1700. To the west the Leeds & Liverpool canal was finished by 1816. Later improvements to the A & C led to the development first of Selby and then Goole as the main port on the system.

Parts of the old York to Chester road were turnpiked by acts of 1741, these being the Leeds/Elland and the Leeds/Tadcaster stretches. Others built at this time were the Leeds/Selby, Leeds/Bradford/Halifax, followed by the Leeds/Wakefield and the Leeds/Otley/Skipton. Most of these were improved parish roads but the Leeds/Wetherby and the Leeds/Armley/Bramley/Bradford were new routes. In recent years the building of the M1 and M62 to the city emphasis its importance as a transport centre.



129 Water Lane Warehouse of the Leeds and Liverpool Canal Co.

It was in 1758 that the Middleton Waggonway was opened, having iron rails by 1807. In 1812 it had its first steam locomotive, by Murray and Blenkinsop, which proved to be one of the most successful of the locomotives built at this time. The first main line railway to reach the town was the Leeds and Selby in 1834. Others that arrived soon after were the Leeds/Derby in 1840, Leeds/Manchester in 1841 and the Leeds/Bradford in 1846.

Following the success of the Murray locomotive, built by Fenton, Murray and Wood (established 1795), other locomotive builders were soon established such as Kitson's, Hudswell Clarke, Hunslet and Fowlers. Other engineering firms were established building hydraulic, textile and printing machinery. Leeds was a pioneer in aircraft construction with Blackburn starting in Hunslet in 1909, moving to the Olympia works in Roundhay in 1913.

Printing has always been a large industry and for many years Leeds was second only to London in importance, with such firms as Alf Cooke, Waddingtons and E J Arnold.

Brewing has always been significant in the area but today there is only one major brewery, that of Joshua Tetley. Although the plant inside is ultra modern some older 19th century buildings still survive.

Public transport has a long history, with horse buses running by 1839. The first Tramway Act of 1872 led to the establishment of five horse drawn tram routes. Later came steam hauled trams and then in 1891 Leeds became the first place to run an electric tram with an overhead collection system. The electric tramway routes were very extensive, with special 'reserved' tracks being provided on roads developed in the 1930s. Many of these routes can be identified today because of their generous width.

In such a large, rapidly developing area housing was always a problem. Leeds probably has more 'back to back' houses than any other comparable city. However over the past thirty years many thousands have been swept away.

The City has a fine collection of public buildings and at the present time is undergoing a vast **37** redevelopment. This is putting under threat many of the older and currently disused industrial buildings and many are likely to disappear in the near future.

Ordnance Survey Map No 104.

★ Denotes a listed site.

TRANSPORT

ROADS

128

LEEDS

Crown Point Bridge [SE 307 332] a cast iron bridge of 1842 by George and J W Leather, still as built.

Victoria Bridge [SE 229 330] a cast iron bridge of 1837/39 by George Leather Jnr, still as built.

Horsforth, Newlay Bridge [SE 239 369] ★ a cast iron bridge of 1819 by Aydon & Elwell of Shelf ironworks.

RIVER NAVIGATIONS AND CANALS

129

LEEDS

[SE 298 330]

Water Lane warehouse

Built for the Leeds and Liverpool Canal Co, c1780. Nearby is a crane pre-1845.

Original Canal Office of 1822 is by the lock, whilst the second office of 1882 backs on to Holbeck. Opposite is the dry dock c1798, first used by Jas. Fletcher, then the Teall family until after 1875, later W Rider & Son.

Aire and Calder warehouses [SE 304 332]: off Dock St, near to Leeds Bridge.

RAILWAYS

130

HUNSLET

[SE 305 310]

On the alignment of the Middleton Railway plateau built under 1758 Act running from a nearby colliery to Casson Close in Leeds. Murray supplied two locomotives in 1812 and two more in 1813. A section of the line is preserved and run by the Middleton Railway Trust.

131

LEEDS

[SE 288 333]

Roundhouse

For Leeds and Thirsk Rly, built in 1840s. Nearby is a semi-circular building used as a

locomotive shed and a workshop, built by the NER in 1873.

Wellington Goods Yard [SE 294 334]: disused waggon hoist towers.

Viaduct [SE 285 324]: in blue brick, once a route of the Manchester trains, now disused.

Bridge [SE 291 332]: over R Aire and L&L canal, formerly GNR route into Central Station (now demolished). Has attractive stone balustrades.

Holbeck [SE 293 325]: locomotive depot built by the Midland Rly in the late 1860s. Still in use.

132

[SE 299 333]

LEEDS

City Station

Modern station in use but with adjoining LMS station of 1938 (this replaced Wellington Station) called Leeds North, now a parcel depot. Underneath the station are the 'dark arches' through which flows the River Aire. The continual enlargement of the station can be clearly seen from the different series of arches spanning the river.

133

[SE 202 454]

OTLEY

All Saints Churchyard

Memorial to navvies killed digging the Bramhope tunnel on the Leeds to Thirsk railway, 1845/49. Memorial in form of replica of tunnel entrance.

TEXTILES

134

[SE 285 387]

LEEDS

Scotland Mill, Adel

Former corn mill bought by John Marshall for his first flax spinning mill in 1788. Later used as a paper mill that was burnt out in 1906. Remains of cottages and retting pits survive.

135

[SE 310.310]

HUNSLET

Balm Road Flax Mill

Rebuilt in 1826 with extensions of 1880. Built by Wolf for flax spinning and weaving, it originally had no power source.



131 Roundhouse of the Leeds and Thirsk Railway.



133 Memorial to navvies in All Saints Church, Otley.

Hunslet Mills [SE 315 320] on Goodman St built in 1838 by Wm Fairbairn for J Wilkinson, flax spinner. Fire proof mill with ornate office interior.

136 **LEEDS**
[SE 310 332] **East Street Mill**

Originally a carpet yarn spinning mill, it was rebuilt in 1825 and 1834 as a flax spinning mill of fire proof construction, for Moses Atkinson.

Bank Mills [SE 310 331]: on East St built as water powered cotton spinning mill. Had a Boulton & Watt engine installed in 1792, being converted to flax spinning in 1823. Five storey block added in 1824 and extended in 1831.

Marsh Lane Mills [SE 308 343]: flax mills of 1798, later a brass foundry.

Water Lane [SE 297 329]: site now occupied by 'Magnetic Motors' was originally a 'buckram house' built for John Wilson (1754-1833) and part of the Camp Hall linen manufacturing complex.

137 **LEEDS**
[SE 295 328] **Marshall Street Mills**

At the Water St end there is a warehouse & mechanics shops of 1806, with the remains of a wooden crane at the rear.

40 Marshall's Mill 'C' of 1817 is end on to the street, of 5 storey by 12 bays, with a projecting 2 bay staircase block in the centre. Mill 'D' of 1826 lies further south and is of 6 storeys with engine

and boiler house at the west end. The in-fill is Mill 'E' of 1830. Note that the ground floor has only half of the number of windows of the upper floors and under these windows are inverted brick arches.

Temple Mill [SE 295 327] built in 1840, James Combe was engineer and Ignatius Bonomi the architect. It is a single storey building covering two acres, lit by 65 conical glass domes supported by hollow cast iron columns having papyrus capitals. The adjacent offices of 1843 also by Bonomi is based on the Promaos of the great Ptolemaic Temple of Horus at Edfu of 257-37BC.

138 **LEEDS**
[SE 304 334] **White Cloth Hall**

Remains of 1775 building on Crown St with bell tower of earlier 1755 Hall. The site was mutilated by the building of the viaduct for the extension line from Marsh Lane to Leeds New Station in 1869 for the NER.

CLOTHING FACTORIES

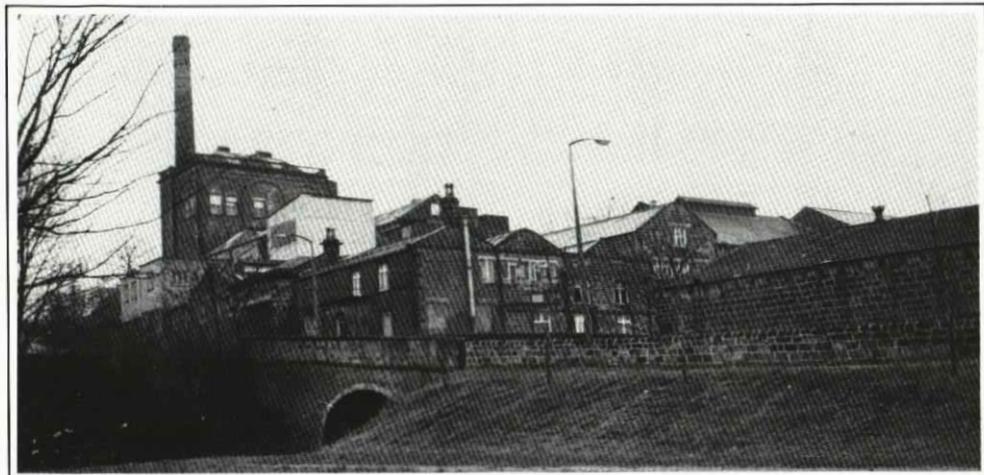
139 **LEEDS**
[SE 296.337] **Barran's Warehouse**

In St Pauls Sq, built in 1878 for clothing manufacture, by Ambler.

Nearby are other warehouses.

Centuar Factory [SE 294 339]: on Gt George St by underpass.

Joseph's Well Works [SE 293 339]: John Barrans later works, now in other use.



143

Burton's factory [SE 323 344]: on Hudson Rd. Kirkstall Road [SE 276 344]: modern clothing factory, close to the industrial museum.

OTHER MILLS

140

THORPE ARCH

[SE 423 473]

A former corn mill converted to a Flint Grinding Mill for the Leeds Pottery in 1772. It reverted to a corn mill in 1878 and finally closed in 1950. Now a private house with the water wheel and main shaft preserved in situ.

141

LEEDS

Thwaite Mills

[SE 328 313]

Originally a corn mill but extensively redeveloped, c1825 as part of Rennie's improvements to the Aire & Calder Navigation, as Putty Mills. Now preserved and in the process of conversion to a working museum.

Crown Point Oil Mills, Leeds [SE 307 333]

Taken over by Turton in 1844 as a provender depot and rebuilt in 1876. Note the horses head in the keystone over the entrance. Now housing.

(Turton was the chairman of both the Leeds and Bradford horse drawn tramway companies).

OTHER INDUSTRIES

TANNERIES

142

LEEDS

Oak Tannery

[SE 284 340]

Built 1876, on Kirkstall Rd, it has a Bulls Head over the Doorway.

Meanwood Rd [SE 296 357]: large complex of buildings, with typical louvred windows, now under threat of redevelopment.

BREWERIES

143

LEEDS

Kirkstall

[SE 257 356]

A tower brewery of the 1880s closed recently, it was last used to brew Mackeson's Stout for Whitbreads. Now in the care of the City Leisure Services Dept.

Armley [SE 274 377]: small tower brewery of the 1880s. Part is now used by Phillips Yeast Products.

144

HUNSLET

Tetley's Brewery

[SE 303 328]

Started c1790 by Wm Sykes and taken over by Joshua Tetley in 1824. A tower brewery was built in 1864. Some of the older buildings survive but surrounded by later developments. The maltings on Chadwick St [SE 307 327] survive, used by Allbrew Maltsters.

ENGINEERING

145

KIRKSTALL FORGE

[SE 248 365]

Site of a 12th century bloomery established by monks from nearby Abbey. Developed as a forge from 1779, with remains of water powered belly helve hammer preserved. Firm now makes heavy duty rear axles.

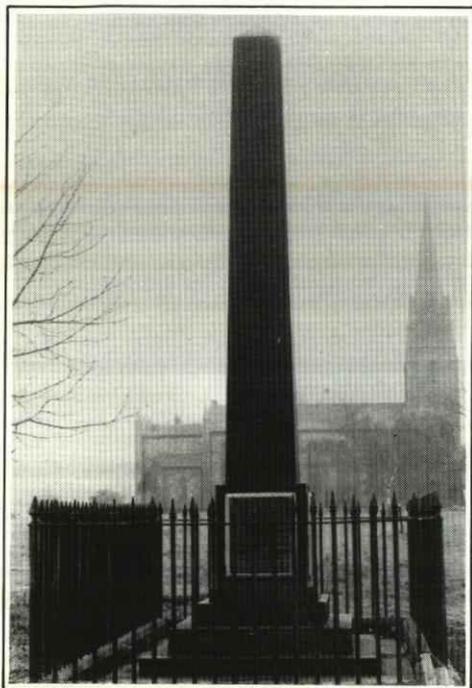
146

HUNSLET

Jack Lane Works

[SE 306 320]

Hunslet Engine Co Ltd. Offices of 1864. Part of the site includes the 1858 'Boyne' works of Manning Wardle. Hudswell & Clarke occupied the site opposite. Rails leading from the works to the nearby main line can be seen. In the yard can be seen tracks of different gauges.



147

147

[SE 292 324]

HOLBECK

Matthew Murray's grave

Cast iron obelisk of 1826 in St Matthews churchyard.

Leeds David St/Foundry St area [SE 296 328]. On the corner of David St is a plaque commemorating Matthew Murray, on Round Foundry building of 1806/48 works of Fenton, Murray & Wood. In David St are the original gate posts of Smith, Beacock & Tannett's Victoria Foundry of 1862.

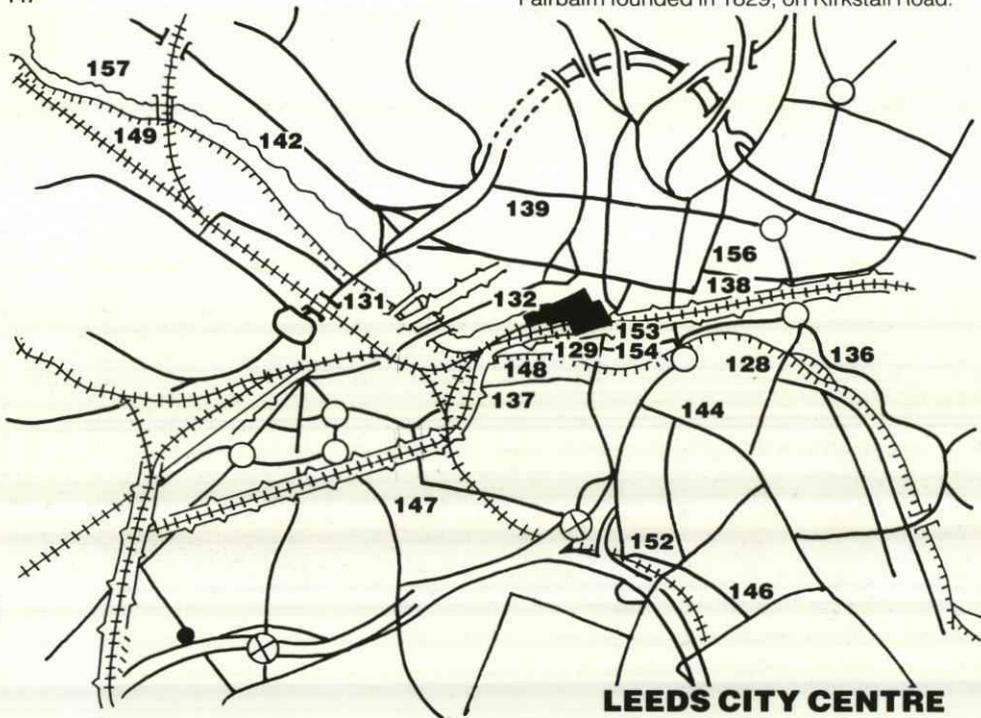
148

[SE 296 330]

LEEDS

Tower Works

T R Hardings works of 1864. Originally for making gill-pins for combing machinery and later famous for their 'Improved' Engine Counter. Gateway is of 1864, Tower [SE 1864] by Shaw, styled after the Torre Del Communa, Verona. The second tower is by Wm Bakewell and is based on Giotto's Campanile, Florence. In the boiler house are twelve bronze medallions of textile machinery, by Alfred Drury. At [SE 297 329] are the works of Crabtree Vickers, makers of printing machinery and at [SE 306 325] are the works and offices of Braimes, sheet metal and pressings, wellknown makers of long spouted oil cans. Wellington [SE 288 336]: Works of Peter Fairbairn founded in 1829, on Kirkstall Road.



42

LEEDS CITY CENTRE

PAPERWORKS

149

ARMLEY

[SE 277 339]

Wiggins Teape Mills

A superb 3-storey red brick building of 1888, on Canal Road, with an adjacent 20th century re-inforced concrete building. Now a depot.

BRICKWORKS

150

LEEDS

[SE 272 301]

A works with a Hoffman kiln, now a car scrap yard. (Close to football ground.)

Morley [SE 237 283]: derelict Hoffman kiln, in a building supplies merchants depot.

At Swillington [SE 386 314]: a modern brick 'factory'!

PUBLIC UTILITIES

WATER SUPPLY

151

HEADINGLEY

Water pumping station [SE 277 362], part of the High Level Distribution scheme of 1850.

GAS WORKS

152

HUNSLET

Works of the 1870s at [SE 286 329], gasholders only.

ELECTRICITY WORKS

153

LEEDS

Generating Station [SE 297 333] on Whitehall Rd. City of Leeds Electric Light works of 1902, with

later additions. Part is still used as depots and as a training school.

TRAMWAYS

154

LEEDS

Depot of 1900s at [SE 302 311], with 1929 additions, now used as an Exhibition Hall (Queens Hall).

HOUSING

155

LEEDS

Lumley's [SE 272.359] a collection of 'back-to-back' houses.

PUBLIC BUILDINGS

156

LEEDS

[SE 304 336]

Market Hall

Built in 1857, with the facade rebuilt in 1904. (By Leeming & Leeming).

Corn Exchange [SE 304 334] of 1861/63, having a superb elliptical domed roof by Brodrick.

MUSEUMS

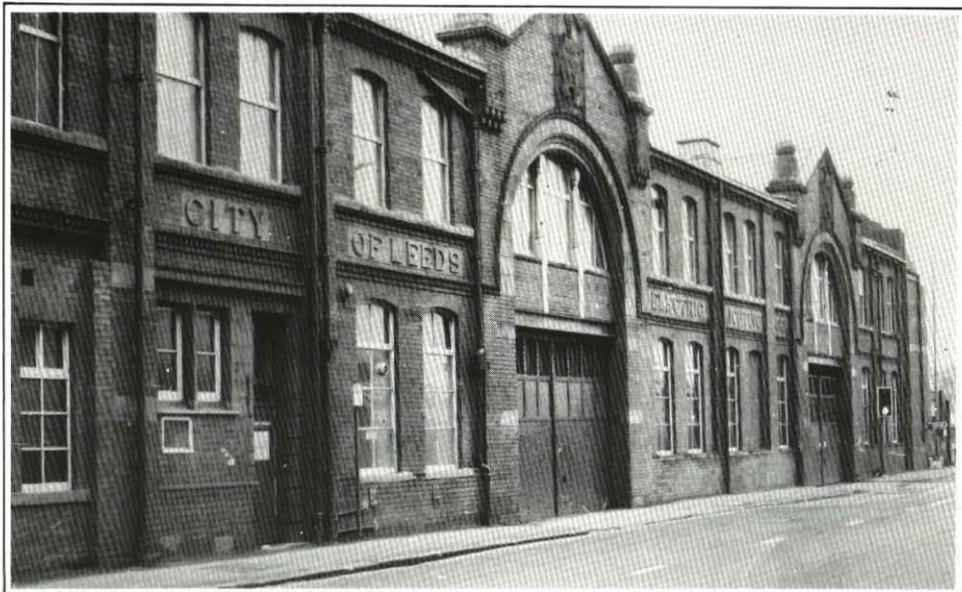
157

LEEDS

[SE 276 342]

Armley Mills

The home of the Leeds Industrial Museum. The present mill was built in 1805 for Benjamin Gott, being of fire proof construction. It houses an extensive collection of machinery and displays relating to all the industries of Leeds, as well as a period cinema and a Victorian classroom.



153 'City of Leeds Electric Lighting Works'.

WAKEFIELD

The most easterly of the Metropolitan Districts in West Yorkshire centres upon the City of Wakefield and includes the towns of Castleford, Pontefract, Knottingley, Featherstone, Ossett and Normanton. The District's main industry prior to the 18th century was agriculture, but associated with the farming in the western part of the District was the manufacture of wool textiles, coal mining and some iron making. By the 13th century weaving, fulling and dyeing were well established in the area. Wakefield was a major market for agricultural produce and a well established wool and cloth merchanting centre.

Agriculture in the east of the District is still an important industry. Here the magnesian limestone soils are particularly suitable for arable farming. Wakefield was traditionally a corn marketing centre, but with the opening of the Aire and Calder Navigation it became the most important corn market in the North of England. Large grain warehouses and mills were established in the town and the first corn exchange opened in 1820. Malting is an established industry around Castleford and Pontefract but today there is only one working brewery, Clarkes, in the District. A feature of the area around Outwood and Stanley are the rhubarb 'forcing' sheds, a crop particularly suited to the heavy soils. Although much of the land in the district was enclosed by the early 1800s, there is a central belt, running from Warmfield to Havercroft where the old system of strip fields and commons can still be seen. A cattle market was established in 1765, and during the 19th century Wakefield became the largest cattle market in Yorkshire.

By the 16th century Wakefield was well established as a major trading centre for finished cloth and in 1616 it was licensed as a staple town for wool. By 1700 it had become the chief Yorkshire wool marketing town, with a short lived cloth hall established in the 18th century. In the 1770s the Tammy Hall was built (tammy was a form of thin worsted, often glazed). Wakefield was primarily a raw wool marketing, cloth dyeing, dressing and trading centre. However this declined in the first half of the 19th century and was replaced by worsted spinning. From the 1840s Ossett became a centre for shoddy and mungo manufacture, cotton and linen also being processed in the District. There are still several clothing manufacturers, including The Wakefield Shirt Co. (Double Two) at Thornes Wharf. At the end of the 18th century copperas was being made for use in the local dyeing industry. In 1878 (Sir) Edward Allen (later Lord) Brotherton began making ammonia at his Calder Vale works in Wakefield, so successfully that he became known as the 'Ammonia King'. That works is now gone but chemical works still exist as at Castleford. An offshoot of this industry was soap making and an important works established in 1818 was that of W T Hodgson, later Hodgson and Simpson, which closed down in the early 20th century.

Coal mining in the West Riding dates back to Roman times, being used for brick, tile, pottery making and iron working. The District saw the early introduction of the steam engine for pumping and from the 1740s tramways connected collieries to the rivers. The late 18th century saw an increased demand for coal and then came a third development phase, in the east of the District, with the advent of the railways. This industrial expansion led to a demand for labour and created big increases in the population of many villages, such as Normanton, which prior to the arrival of railways had a population of 280. This reached 481 by 1841, 563 by 1861, 3448 by 1871 and 12,352 by 1901. Many new villages were built, such as the 'model' village of New Sharlston, complete with houses, schools, churches, libraries and other community facilities. Others were Lower Altofts, New Crofton. However, villages that did not become industrialised suffered losses of population, as at West Bretton.

44 The Romans made pottery, bricks and tiles from the local clays and coal and in the 17th and 18th centuries there were potteries at Wrenthorpe (Potovens Rd) and Castleford. In the late 18th and early 19th centuries works were established at Castleford and Knottingley, but today only one small

works in Knottingley is still active. Brickmaking expanded during the 17th century, many works being associated with collieries. The first Hoffman type brick kiln in Britain was in the District at the works of John Craven (of Bradley, Craven & Co.) between 1862 and 1906. There are still a number of active works and considerable remains. Glass was made in the area, nr Castleford (Glasshoughton) from the 1690s, but the big development took place from 1829–30 with works being established in Castleford and Knottingley. There are some modern works still in operation.

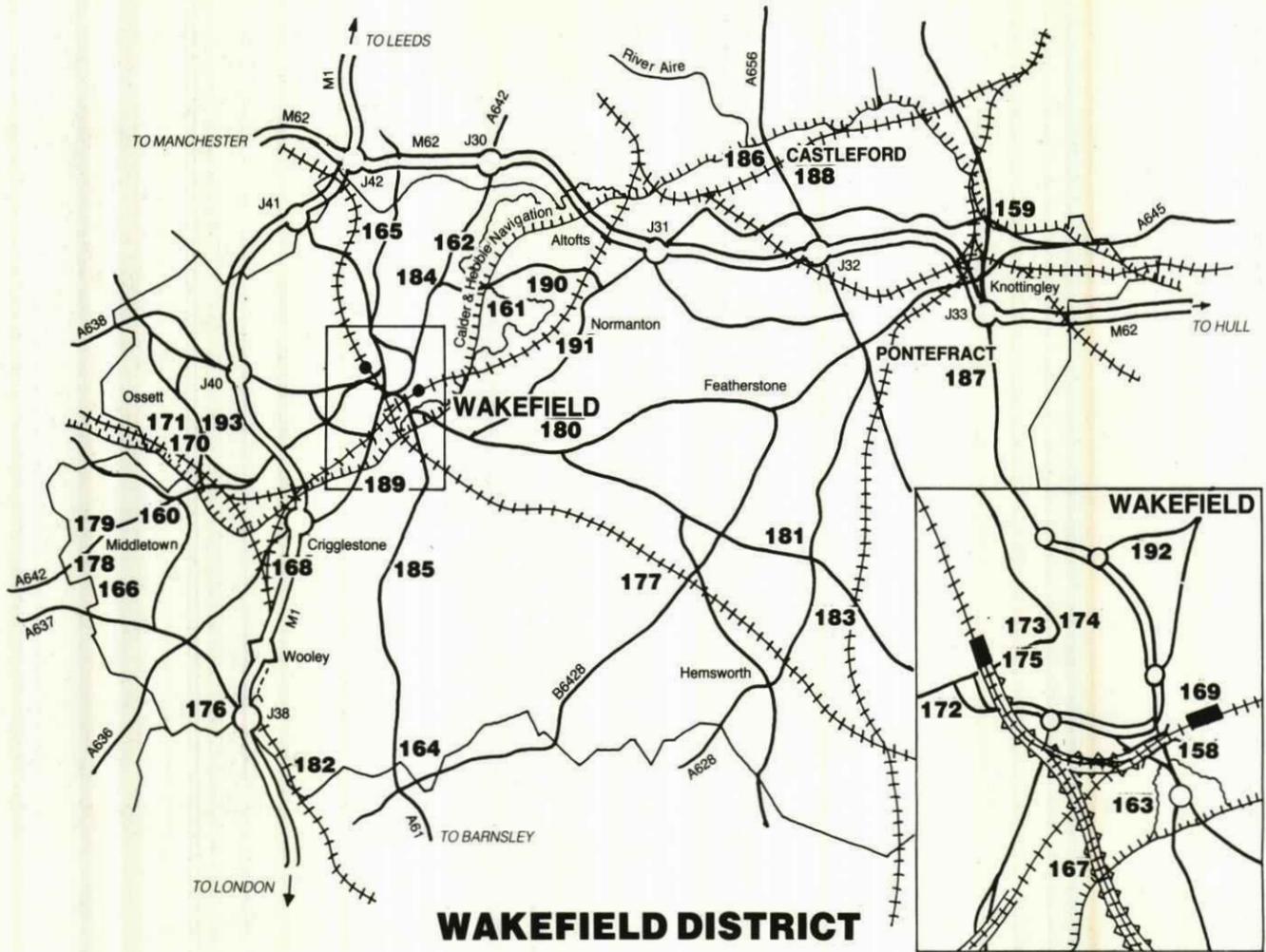
Ironstone has been mined and worked from medieval times. By the 17th century there were charcoal furnaces at Flockton and Haig and an early coke fueled furnace at Emroyd. From the 1780s a technologically advanced foundry was at work in Wakefield at Fall Ings, Sandal. Subsequently other foundries were set up and over the years they slowly specialised, such as Greens, est. 1821 (fuel economisers) and Bradley, Cravens & Co. est. 1843 (brick making machinery). Other firms include British Jeffrey Diamond who make coal cutting machinery, in Wakefield since 1902; Chas. Roberts Eng Co. established in Wakefield, moving to Horbury in 1856; Geo. Cradock & Co. who established a works in Wakefield in 1853 and went on to specialise in making wire ropes.

For centuries the main route north—'The Great North Road'—passed through the District, but only parts of its route are followed by the present A1. Bridges were built in medieval times at Ferrybridge, Castleford and Wakefield (whose bridge with chantry chapel still survives). However the East/West roads were less good and so the rivers were developed becoming the main arteries of trade. The Aire and Calder was opened to Wakefield in 1704 and soon collieries had tramways to the river. One of these, the Lake Lock Rail Road is possibly the oldest public railway in the country. The Aire and Calder was always progressive and was famous for its compartment boats (Tom Puddings).

From the early 1740s the roads began to be turnpiked, amongst them being the Wakefield and Austerlands and 'The Great North Road'. Ferrybridge was an important centre for coaches and stage waggons.

The first 'main line' railways in the district were the North Midland, the York and North Midland and the Manchester and Leeds, which all met at Normanton. For a time this village was a major centre of the railway network becoming famous for its long platforms and dining rooms.

Public transport commenced with horse buses in the late 19th century, to be followed by trams. There were major tramway routes radiating out from Wakefield and Ossett, with another large network in the Normanton and Pontefract area, but by the 1930s all were closed down.



Ordnance Survey Map No 104, 105, 110, 111.

★ Denotes a Listed site.

TRANSPORT

ROADS

158

[SE 340 200]

WAKEFIELD Bridge & Chantry Chapel

Licensed to take a toll in 1342 and twice widened in the 18th century. The chapel was licensed in 1356 and restored in 1847 and 1930/40s. At the southern end is a horse bridge of 1730.

159

[SE 483 246]

FERRYBRIDGE Bridge

Begun in 1797 and designed by John Carr. Nearby is a toll house of probably the same period.

Ferrybridge itself was an important coaching stop on the Great North Road and several of its coaching inns survive, if shorn of their stables etc.

Castleford Bridge [SE 430 259] built 1804–08, over the R Aire.

Walton Hall Bridge [SE 364 163] a cast iron bridge of uncertain date. The mansion is of 1760s but the bridge is believed to date from c1800 based evidence from maps.

160

[SE 278 178]

SITLINGTON Toll Bar Houses

On the Wakefield and Austerlands Turnpike road. One on Sandy Lane is single storey, another more ornate has been rebuilt in a garden at Netherton while a third stands on the new line of the TP at the crossroads at Overton.

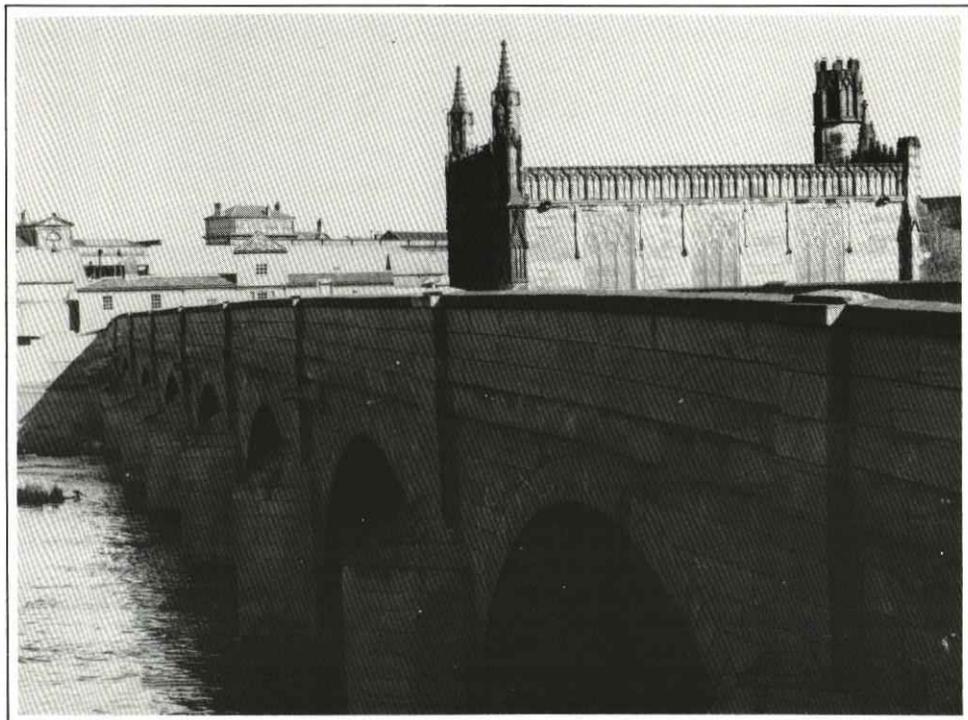
WATERWAYS AND CANALS

161

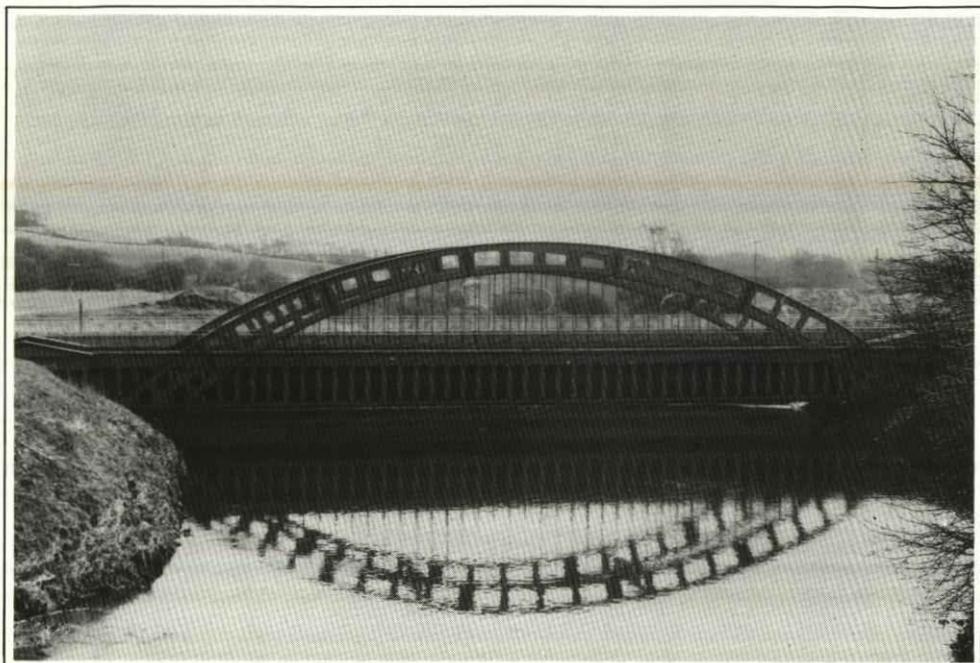
[SE 356 230]

STANLEY Stanley Ferry Aqueduct

Built under an act of 1828 and opened in 1839, designed by Geo Leather of Leeds. Ironwork by the Milton Co from Elsecar nr Barnsley and Kirkstall Forge. Claimed to be the first iron suspension aqueduct in the world. A few years ago it was superseded by a concrete aqueduct running alongside. Nearby is the Stanley Ferry Depot with its workshops.



158 The Bridge and Chantry Chapel at Wakefield.



161 Stanley Ferry Aqueduct.

162

[SE 353 244]

**STANLEY
Lake Lock Yard**

Built in the first decade of the 19th Century as the A&C waterways timber yard and workshops. Boatbuilding was also carried out here.

163

[SE 336 199]

**WAKEFIELD
Water Front**

Below the flood lock basin are bridges carrying the Wakefield & Sheffield turnpike (Act of 1758). The larger bridge was enlarged in c1840 to take sea going boats (Billy Boys), the smaller bridge is original. Large warehouse on the riverside at [SE 337 199], built in stone between 1791/1794. In recent years much has been demolished in the area. Above Hirst's warehouse (Corn, Cake and Barley) was the site of a coal staith. Near the top of the weir on the south side are a group of former fulling, whitening and corn mills, in which there are the remains of a waterwheel. Boatbuilding was formerly carried out on the south side of the river but now it is confined to the north bank.

48 164

[SE 367 133]

**NOTTON
Canal Cutting**

On the Barnsley Canal, which ran from Wakefield, opened in 1799 and abandoned in 1953.

This is one of the deepest canal cuttings in Britain. There is a considerable length of canal in water.

Reservoirs Cold Hiendley [SE 370 147] of 1799 and Wintersett [SE 376 148] of 1857, provided water to the Barnsley Canal.

RAILWAYS

**165 STANLEY-WITH-WRENTHORPE
[SE 325 245] Overbridge**

Overbridge, c1840, of the Lake Lock Rail Road opened in 1798 and worked until mid 1830s. Parts were relaid in 1880s for use by Lofthouse Colliery, running to Stanley Ferry until 1926. At Limepit Lane crossing, narrow gauge lines are still in-situ.

166

[SE 255 158]

**SITLINGTON
Flockton**

Railway tunnel of 1790-93 and nearby viaduct of c1803, being remains of a once extensive tramway and railway network built between 1775 and 1893. *Care is needed at this site for it is close to one of HMG prisons.*

167

[SE 333 200]

**WAKEFIELD
Viaduct**

Ninety-five arches in red brick, over 1300yds long opened in 1857. Built by the West Riding and Grimsby Rly, (later GNR & GCR). The iron spans over the R Calder are of the 20th century.

168

[SE 302 166]

**CRIGGLESTONE
Viaduct**

Twenty-one arches in blue brick. Built by the Midland Railway as part of their proposed new line from Bradford to Royston that never got further than Thornhill. Opened in 1905 and closed in 1968.

169

[SE 338 204]

**WAKEFIELD
Kirkgate Station**

Originally built by the Manchester and Leeds Rly in 1840, on the site of Aspdin's Portland Cement works (at the time the oldest in the world). It was rebuilt in 1857 as a joint L&YR and GNR station. New Westgate station [SE 327 207] of 1857 and replaced in 1867 as a joint GNR and GCR station. In recent years it has been modernised, much of the old station being demolished.

TEXTILES**DOMESTIC****170**

[SE 280 190]

**OSSETT
Sowood Green**

Farmhouse and weaving shops. The farmhouse dates from the 17th century and the typical, two-storey weaving shop, from the late 18th or early 19th century.

MILLS**171**

[SE 269 189]

**OSSETT
Healey New Mill**

A joint stock company carding, scribbling and fulling mill. Originally built in 1836 it seems to be virtually intact. The nearby *Miller's Arms* Inn takes its name from the fulling miller.

172

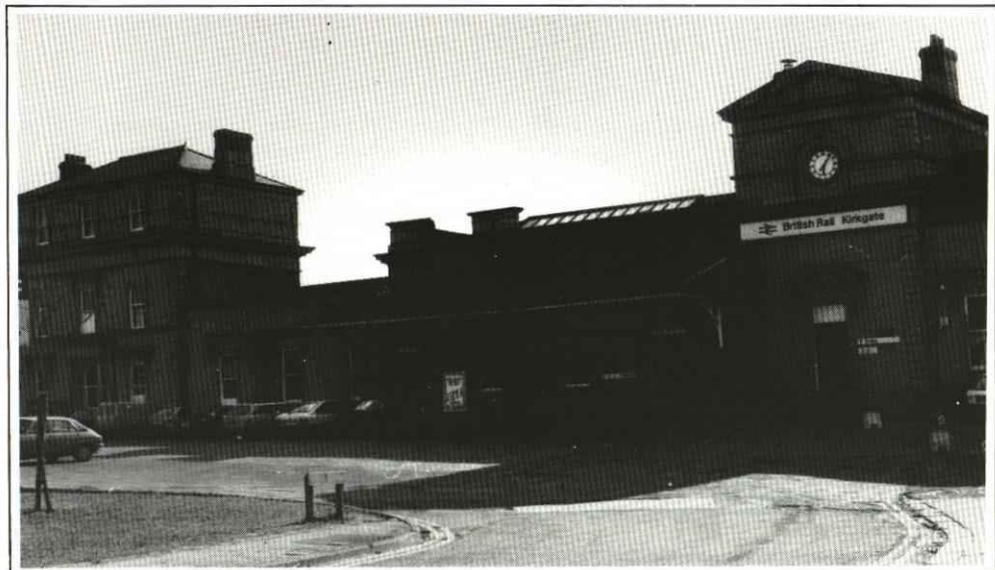
[SE 320 205 to 326 204]

**WAKEFIELD
Westgate End**

Red brick mill of M P Stonehouse, worsted spinners, built 1930s.

Fall Ings [SE 336 199] Rutland Mills, built by Isaac Briggs in 1870s and latterly occupied by Paton & Baldwins but now in multi-occupation.

Alverthorpe [SE 309 204] mill of Brook, Walker & Co, it has an attractive single storey stone office block.



169 Kirkgate Station, Wakefield.

CLOTH HALL

173

[SE 330 209]

Remnants of a cloth hall opened in 1778. Out of use in 1823 it was converted into a power loom factory in 1829. Bought by Wakefield Corporation in 1875, half was demolished to make way for the new town hall. It then became a police and fire brigade station and is now used as court rooms and offices. It has some fine carvings of fire fighting and a policeman's head.

WAREHOUSES

174

[SE 331 208]

On the east side is a former wool warehouse, occupied in the 19th century by Jo Jackson, an important woolstapler. Titus Salt learned the wool trade as an apprentice to Jackson.

Along Westgate towards the City centre is Woolpacks Yard.

175

[SE 329 208]

Built in 1751–52, its principal supporters were the cloth merchants, some of whom are buried in the catacombs below. In the 19th century Henry Briggs, the coal owner, and W T Marriot, the worsted spinner, were members of the congregation.

OTHER INDUSTRIES

IRON INDUSTRY

176

[SE 295 122]

In operation from c1690 to c1792, run by the Cotton family from Haigh Hall. The nearby foundry worked somewhat later. The ironstone was from the local Tankersley Bed, obtained in the neighbouring woods to the south.

Middletown Emroyd Common [SE 264 174] and Bank Wood [SE 263 138] remains of bell pits used to work the local ironstones.

COAL MINING

177

[SE 399 163]

In a wood to the west of the railway line at Nostell Station. The regular pattern of the pits can be clearly seen. It also illustrates the way in which land despoiled by coal mining was put to use as a 'spring wood', the trees growing rapidly and then cut down for pit props. Other sites of bell pits are on Sharlston Common, at [SE 395 195].

WAKEFIELD

Tammy Hall

WAKEFIELD

King Street

WAKEFIELD

Westgate Chapel

BRETTON WEST

Haigh Furnace

NOSTELL

Bell Pits

178

[SE 255 158]

Remains of a pumping engine house c1790s, later used as a cottage. *Care is needed at this site for it is very close to one of HMG prisons.*

179

[SE 254 165]

On the site of a shaft shown on a plan of in 1791 and worked for only a few years. It was released in 1827 by the Lister-Kaye family and worked almost continuously until the 1980s. It was re-opened in 1988 as a coal mining museum. The steam winding engine is by Davy of Sheffield; the headstocks are of timber (hence prior to the 1911 Act). Also on site are some old 'drops' for the landsale of coal.

An ambitious standard gauge railway, using powered incline planes was opened in 1856 to connect it and other collieries to the river and to Barnsley Branch railway line. It was in use up to the 1940s and many remains are to be seen.

In the District there are still a number of large modern coal mines at work. However, at Castleford, Wheldale Colliery has recently closed and is being demolished. It has an attractive red brick bungalow type office, fronting the main road.

180

[SE 382 201]

One of the few remaining colliery communities built in the 19th century, from 1865 onwards. It includes houses, schools and chapel, with the original water supply (of the 1870s) coming from nearby Sharlston Dam on the Common.

Other housing built at this time can be seen at Nostell Long Row [SE 402 166] and New Crofton [SE 388 174]. There is an unusual row of high quality houses, intended for colliery officials, at Whitwood, [SE 405 243] built for the Briggs in 1904–05, designed by Voysey.

QUARRYING

181

[SE 430 165]

Produced fine quality building stone and grindstones, particularly during the 19th century. Small quantities of stone are still extracted for building fireplaces; some buildings and cranes survive.

Horbury Quarry Hill [SE 288 182] ceased working this century, has a high quarry face. Believed to have associations with the Carr family. **New Fryston** [SE 454 267] a large, disused quarry in the magnesian limestone, now a vehicle scrapyard.

SITLINGTON

Flockton

SITLINGTON

Caphouse Colliery

NEW SHARLSTON

'Model' village

ACKWORTH

Moor Top



180 Houses for colliery officials designed by C F A Voysey.

AGRICULTURE

182

[SE 319 115]

Excellent surviving 18th century farmhouse and associated buildings. An extensive archive dating from the early 19th century survives.

183

[SE 449 151]

A mid-Victorian model dairy farm with stables, shippens, cart shed, dutch barn, fodder rooms, cake stores, turnip house, hay chamber, etc. There is a 5 bedroom farmhouse and two 2-bedroom cottages. Part of the Badsworth Hall estate.

184

[SE 347 236]

In order to 'force' an early crop, the roots are dug up and brought into the sheds, hence they produce new growth without natural light.

CORN MILLING

185

[SE 332 158]

Rebuilt shortly before 1830, damaged by fire in 1975 and since converted to a restaurant. The mill pond and water control works survive.

WOOLLEY

Windhill Gates Farm

BADSWORTH

Common Farm

STANLEY

Rhubarb sheds

CRIGGLESTONE

Newmillerdam Mill

186

[SE 428 259]

A mill controlled by the Aire and Calder from 1700 and bought by them in 1779. At one time it had a flint grinding mill, an oil mill and a whiting mill attached. The main mill was rebuilt in 1884 and after a fire part was rebuilt in 1898/99. It is this latter part that survives. Dr T R Allinson became the tenant in 1921. An undershot wheel survives and there are composite stones of French 'Burr' in the yard. Now Allinson's Stone ground wholemeal flour mill.

187

[SE 474 198]

A surviving tower of a mill shown on a map of 1817/18. It had three sets of stones and by 1850 it possessed an auxiliary steam engine.

There are other windmill tower stumps to be seen in the District, such as at Pontefract [SE 467 230].

MALTINGS

188

[SE 433 257]

Built by the Austin family in the 1860s.

Pontefract Former maltings at [SE 458 222], now a bus garage.

CASTLEFORD

Mill

DARRINGTON

Windmill

CASTLEFORD

Ferrybridge Road

SOAP MAKING

189

WAKEFIELD

Hodgson and Simpson's works of c1850 at Thornes [SE 328 188], but soap making ceased in 1907.

BRICK MAKING

190

NEWLAND

Brick kilns [SE 368 221] of the Hoffman type. At Normanton [SE 381 221] is a surviving working Hoffman kiln.

PUBLIC UTILITIES

WATER SUPPLY

191

NORMANTON

[SE 373 212]

Warmfield

Only the ornamental surrounding wall survives of this typical Local Board scheme. Unusually however the water came from a local coal mine,

with the pumps being provided by the Local Board to the colliery company.

Ossett [SE 270 226], a fine ferro-concrete water tower of the 20th century.

GAS WORKS

192

WAKEFIELD

The original Act was in 1822 with the works built in Warrengate by 1823. There are gasholders of a later works on Jacobs Well Lane at [SE 337 212].

TRAMWAYS

193

OSSETT

[SE 285 192]

Depot

The Ossett-Wakefield-Agbrigg electric tramway opened in 1904 and closed in 1932. The brick built sheds retains a fan of tracks outside its shed doors. Now a bus depot.

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COVER ILLUSTRATION Dean Clough Mills, Halifax, of John Crossley & Sons Ltd, Carpet Manufacturers. From an engraving of 1903.

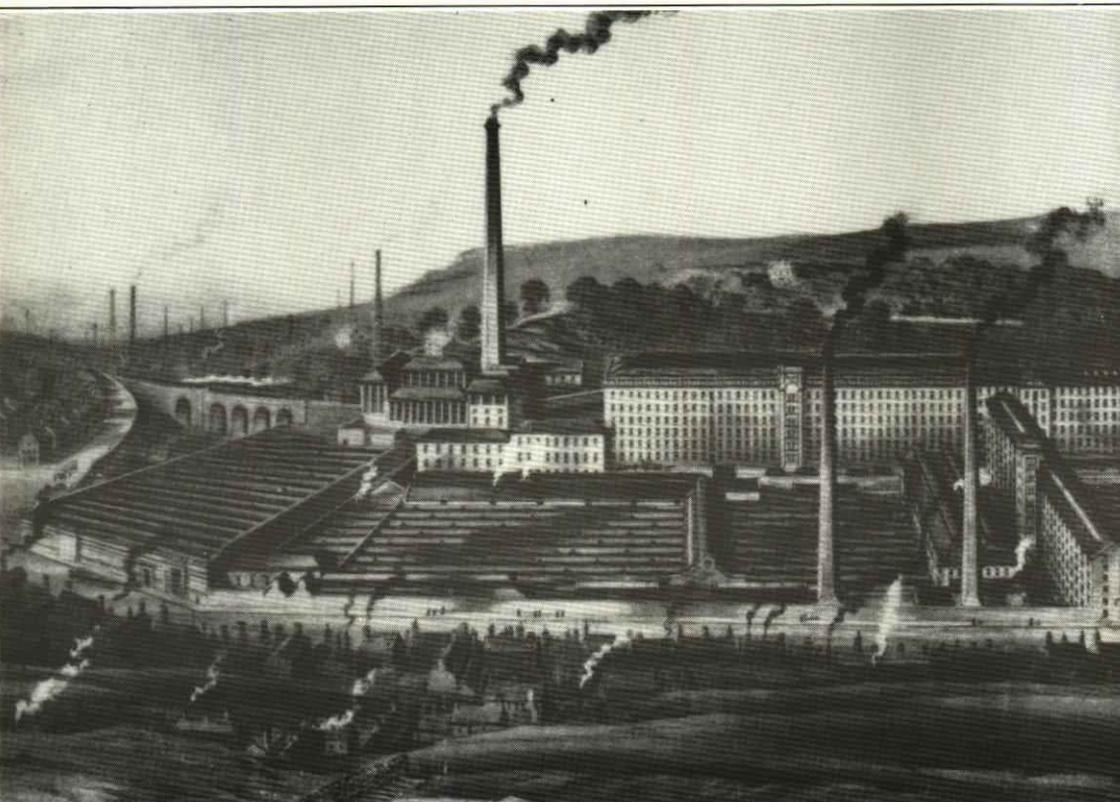
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