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 Supported by the  
Heritage Lottery Fund



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# REVEALING CHESHIRE'S PAST

## Salt, Silk and Soap

### 6 Industrial





# Industrial Life

The industrial revolution saw changes in technology that allowed manufacturing processes to become mechanised.

This made them more efficient and led to the mass production of goods.

The needs of one industry fed the development of others. Engineering trades supplied new machinery, and the need for more efficient transport links led to the development of the canals and railways.

Mass production required an increased workforce and the population migrated from the countryside towards the

expanding towns, where work and accommodation were more available.

Chester had been the main town in Cheshire since Roman times. This changed during the Industrial Revolution, when the cities of Manchester, Liverpool and Warrington became the most important centres of trade and industry.



*Above: Quarry Bank Mill, Styal  
Below: Macclesfield from the Hollins  
c.18th century*







# The Textile Industry

*Dane Inn Shaw Mill was Congleton's first cotton mill, later converted to a silk throwing mill in 1822*

In Cheshire, the east of the county became central to the textile industry with a great number of water-powered mills built in Macclesfield and Congleton. Steam engines were introduced later, giving a more reliable source of power.

Macclesfield and Congleton were the main textile production centres in Cheshire, with a long history of domestic production. In Macclesfield, silk buttons had been made since Elizabethan times and Congleton was known for its silk ribbons.

## Silk

Silk throwing (twisting silk threads together) was an important domestic industry. It became a mechanised process with the use of water



powered machinery in the mid 18th century. East Cheshire was one of the first places in Britain to have silk throwing mills.

*Woven silk cloth*

## Cotton

Cotton mills were built in Macclesfield and Congleton when patents on cotton spinning machines were lifted in the 1780s. Production of cotton did not survive the slump in the cotton industry in the 1820s, so silk production became the main industry.

The 19th century saw a revival in the cotton industry with mills based around Bollington, Styal and Rainow. Quarry Bank Mill at Styal now operates as an industrial museum with working water and steam powered machinery.

## Weaving

Textile weaving was at first a cottage industry, with looms in many homes. The distinctive three storey garret buildings of Macclesfield and Congleton had workshops on the top floor with extra windows to allow in more light. The invention of the flying shuttle in around 1750 increased the productivity of handlooms.

By the 19th century, advances in weaving technology brought power looms to the textile mills. For cotton weaving, power looms replaced handlooms as a more efficient way of weaving but fine, patterned silks were still produced on handlooms. **Jacquard looms** were still used in the 20th century.

*Garret houses in Paradise Street, Macclesfield*





# Metal and Coal

## Metal

Copper ore was mined at Alderley Edge on a small scale in the 17th and 18th centuries. A mill was built by Charles Roe in Macclesfield to process the ore but the industry was short lived and the mill was later used for textiles.



Copper mined in Anglesey was smelted in Warrington, at copper works built by Thomas Patten. Warrington Town Hall (*above*) is a reminder of this industry. It was originally built in 1750 for Patten using waste from his copper works for the foundations. The window frames are also largely made from copper. It became the Town Hall in 1872.

Warrington was also home to a number of other metal working industries including file, tool and pin making. Iron was produced in southeast Cheshire from the 17th century and supplied metal working industries in the Midlands. Production was ended by competition from more productive coke fuelled smelting operations.

In Chester, an imposing 19th century lead shot tower is evidence of another metal industry (*right*). Here, molten lead was dropped from the top of the tower into a tank of cold water, forming small pellets that were used for gunshot.

## Coal

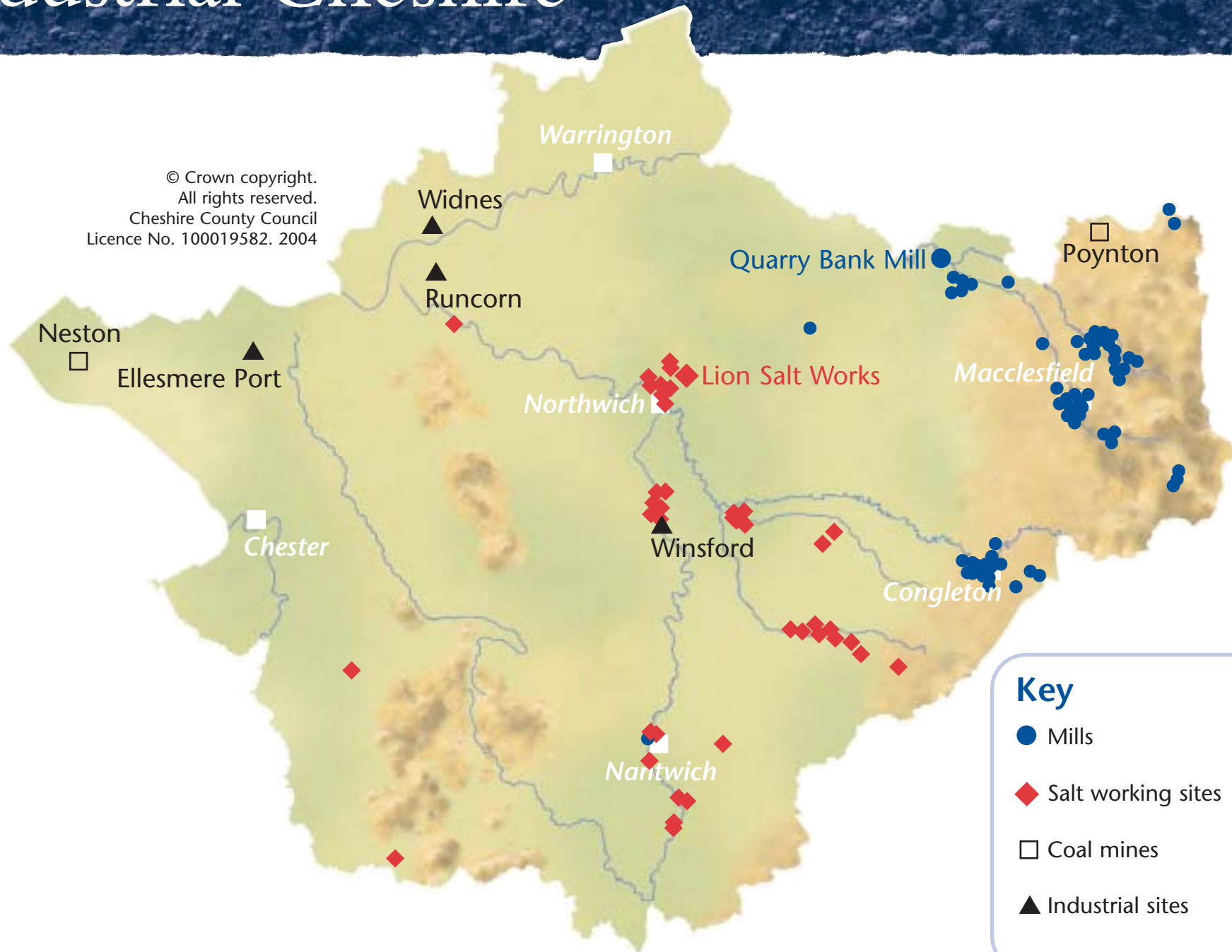
Some small scale coal extraction in the Wirral is recorded from the 1600s. The first commercial mining began in the 18th century, when the colliery at Ness was the largest in Cheshire. The mines were last worked in 1927.

Poynton was once a coal mining community with collieries operating from the 17th century until their closure in 1935. A network of railway branch lines linked the different pits and allowed the coal to be transported to Manchester, Winsford and Crewe. A number of terraced cottages built for the miners are evidence of Poynton's industrial past.



# Industrial Cheshire

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## Key

- Mills
- ◆ Salt working sites
- Coal mines
- ▲ Industrial sites



# Salt

Northwich, Middlewich and Nantwich all began as Roman salt towns, using open pan evaporation to extract salt from the brine springs of central Cheshire. Nantwich was the largest producer of salt by medieval times.

Rock salt mining began when rock salt deposits were discovered in Marbury near Northwich in 1670. Improvements were made to the River Weaver as far as Winsford during the 18th century. Coal could then be transported to the saltworks and the salt could be exported easily. Northwich became the main centre for salt production using coal-fired, iron evaporation pans.

## *Subsidence in Northwich*



*1950s Rock salt miner's helmet*

In the 19th century, salt

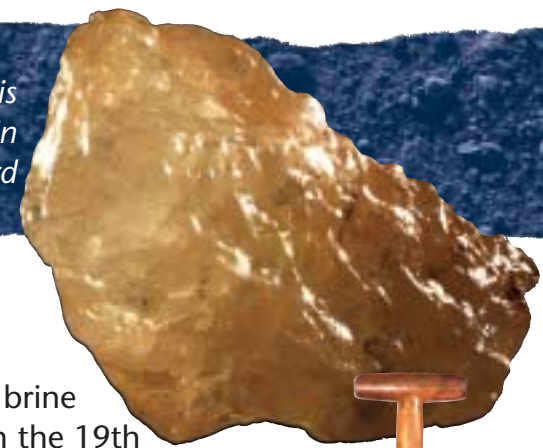
production was at its peak. Salt was a vital ingredient to the chemical, glass and soap industries developing in Cheshire and Merseyside. Many new open pan salt works were built in Northwich and Winsford in the 19th century. The iron salt-pans used were much larger than the lead pans used in Roman and Medieval salt production. The production method remained the same.

Furnaces beneath the pans caused the water in the brine to evaporate, leaving behind the salt, which was raked to the sides of the pan and shovelled out to be dried.

Clouds of thick smoke and steam were produced during the process and the pan houses had louvred roofs and open sides for ventilation.

Open pan salt production was replaced by the more efficient vacuum method, which was first used in 1905. The last open pan salt-works in production was the Lion Works at Marston, which was closed in the 1980s.

*Rock salt is still mined in Winsford*



The huge increase in mining and brine extraction in the 19th century led to extensive and dramatic subsidence with some saltworks collapsing entirely, and lakes known as flashes being created. Controlled pumping was introduced in the 20th century to reduce subsidence. One of the main uses of the rock salt mined today is for de-icing roads.

*Right: Skimmer used to sift salt out of pans. Below: Open pan salt production.*



# Chemical Industry

The availability of salt in vast quantities in Cheshire resulted in a number of related chemical industries.

Chemical works were built along the Mersey Estuary in the 19th century, with several at Widnes producing soda from salt. Soda, an alkali, was essential to the soap and glass making industries. A new way of producing soda was brought to Cheshire by Ludwig Mond and J.T. Brunner, who built a chemical plant at Winnington, Northwich which still produces soda today.

## Glass

Glass works in Warrington in the 17th century were producing “**crow**n” window glass. Advances in technology led to the development of plate glass, made in St Helens, which came to dominate glass manufacture.

## Soap

Soap manufacture began in the 18th century and by the 19th century; there were a number of large soap factories along the Mersey Estuary. All the raw ingredients needed were



readily available, palm oil was imported into Liverpool and salt and coal were produced locally.

There were a number of soap works in Warrington, including those of and William Lever and Joseph Crossfield. Crossfield built his factory at Bank Quay in 1815. William Lever later built a new factory and accommodation for his workers on the Wirral at Port Sunlight. In Runcorn, a soap works begun in 1803 by John Johnson was producing a third of the soap made in the country by 1832.

The 20th century has seen the development of further heavy industry in north Cheshire with the oil refinery at Stanlow and related petro-chemical industries dominating the landscape.



*Left: Alkali works, Winnington. Above: Widnes chemical industry.*



# Glossary



## **Jacquard looms**

A loom for creating elaborate patterns in fabric. Cards with punched holes in them dictate the patterns.

## **Crown glass**

A blown glass vessel that was then spun, resulting in a sheet of glass.





# Sites to Visit

*Opening times vary; please check before planning a visit*

## The Salt Industry

### The Salt Museum

162 London Road, Northwich, CW9 8AB

Tel: 01606 41331

[www.saltmuseum.org.uk](http://www.saltmuseum.org.uk)

*Admission Charge*

### Lion Salt Works

Ollershaw Lane, Marston, Northwich, CW9 6ES

Tel: 01606 41823

[www.lionsaltworkstrust.co.uk](http://www.lionsaltworkstrust.co.uk)

## The Chemical Industry

### Catalyst Science Discovery Centre

Mersey Road, Widnes, Cheshire, WA8 0DF

Tel: 0151 420 1121

[www.catalyst.org.uk](http://www.catalyst.org.uk)

*Admission Charge*

## The Textile Industry

### Quarry Bank Mill

Styal, Wilmslow, SK9 4LA

Tel: 01625 527468

[www.quarrybankmill.org.uk](http://www.quarrybankmill.org.uk)

*Admission Charge*

### Paradise Mill & Silk Industry Museum

Park Lane, Macclesfield, SK11 6TJ

Tel: 01625 618228

[www.silk-macclesfield.org](http://www.silk-macclesfield.org)

*Admission Charge*

### Silk Heritage Centre

Roe Street, Macclesfield

Tel: 01625 613210

[www.silk-macclesfield.org](http://www.silk-macclesfield.org)

*Admission Charge*

## Congleton Museum

Market Square, Congleton, CW12 1ET

Tel: 01260 276360

[www.congletonmuseum.co.uk](http://www.congletonmuseum.co.uk)

*Admission Charge*

## Glass Making

### The World of Glass

St Helens, Merseyside, WA10 1BX

Tel: 08700 11 4466

[www.worldofglass.com](http://www.worldofglass.com)

*Admission Charge*

[www.cheshire.gov.uk/archaeology](http://www.cheshire.gov.uk/archaeology)

