

For centuries the economy of Great Ayton was based on a blend of agriculture and industry. The earliest industries were milling (including seed-crushing), tanning, linen weaving and, briefly, alum manufacture. During the second half of the nineteenth century, with the coming of the railway, these were replaced by whinstone extraction and the rapid growth of the village. Ironstone mining flourished early in the twentieth century. By mid-twentieth century, virtually all industry had disappeared.

Tomlinson's North Eastern Railway, its rise and development

New edition with introduction by K. Hoole

David & Charles, Newton Abbot, 1967

This is the standard text on the North Eastern Railway, which took over the North Yorkshire and Cleveland Railway in 1859. Soon after, construction began on the Ayton branch, from Battersby to Nunthorpe, which shortened the route from the Rosedale ironstone mines to Middlesbrough.

The Ayton branch was completed in 1862, but not opened until 1 June 1864. It was initially worked only with mineral traffic, but was opened for passenger traffic on 1 April 1868. At the Board Meeting on 19 November 1867 a substantial programme of work to be carried out during 1869 and 1870 was put forward. This included the "Ayton curve" a short section of line at Battersby Junction which would avoid the necessity for trains to reverse direction at this point in order to continue their journey (this was never built).

The Mineral Tramways of Great Ayton

R. Pepper and R.J. Stewart

Narrow Gauge Railway Society, Peterborough, 1994

Mainly concerned with the tramway systems associated with whinstone extraction at Langbaugh, Cliff Rigg, Slacks Wood and Gribdale, but also including those serving the Roseberry and Monument ironstone mines and the overhead cable system from Ayton Banks ironstone mine.

Leeds Corporation's decision in 1868 to purchase vast quantities of Ayton whinstone for street paving resulted in rapid expansion of the whinstone extraction industry, particularly at Winn's Cliff Rigg quarry. The tramway system was developed along the ridge as underground extraction increased.

Whinstone from Slack's Wood at first went via a tramway running close to White House and down to a knapping yard by the station, but later a connection was made to the Cliff Rigg tramway via a tunnel under Aireyholme Lane.

The route of the Gribdale tramway is described, with some details of the locomotive working it. Similar treatment is given to Bradley's whinstone operation at Langbaugh.

The final three chapters cover the three Great Ayton ironstone mines. For Roseberry and Monument there are plans of the route of tramways and descriptions of their operation. Finally there is a brief description of the Ayton Banks aerial ropeway system carrying ore from the mine to the sidings associated with the Cliff Rigg whinstone quarry.

Glimpses of Monument Mine, Great Ayton 1908-1931

Richard Pepper

Cleveland Ironstone Series

Peter Tuffs, Guisborough, 1996

This booklet covers the history and operation of the largest of the three ironstone mines in Great Ayton. There are details of the method of working and the men employed, including records of their wages and outputs. The

construction of the incline leading to the main railway line is covered, the track requiring piling at its lower end due to the boggy ground.

Initially ventilated by an underground furnace, in 1919 a Sirocco fan was installed driven by a steam engine. Internal haulage was at first by ponies, then by steam engine, and finally by electric motors. The mine was electrified around 1921, with the supply coming from Guisborough. Great Ayton itself was not electrified until 1929. Pumps for drainage were initially driven by oil-engine, and later by electric motor.

With relatively low grade ore and high operating costs, mining ceased in 1928, the mine closed in 1930 and the dismantling and sale of equipment the following year.

There are a few facts about the adjacent Ayton Banks ironstone mine.

Roseberry Ironstone Mine

Richard Pepper

Cleveland Ironstone Series

Peter Tuffs, Guisborough, 1999

This booklet describes the history of the mine, which had two periods of operation, briefly around 1881-3 and then more substantially from 1907 to 1924. Final closure and the sale of assets was in 1931. There are comprehensive site plans, details of the workforce and of the railway from the mine to the main line. In the first phase of operation this was worked by a steam locomotive, but in the second phase a stationary haulage engine was used.

Eight Centuries of Milling in North East Yorkshire

John K. Harrison

North York Moors National Park Authority, Helmsley, 2001

A comprehensive and well-researched guide to mills, predominantly water-powered, across the region. Great Ayton's three mills have full entries in the gazetteer.

The mill at the Little Ayton end of the village started life in the late eighteenth century as a cotton mill, owned by James Davison of Great Ayton. By the early nineteenth century it had been acquired by Philip Hesleton, who had an extensive flax dressing and linen manufacturing interests. The mill was then used as an oil mill. On Hesleton's death it was rented to a Stockton business before being taken into the North of England Agricultural School, set up in 1841. The oil pressing machinery was then taken out and the mill used for threshing and grinding. Finally, the building became part of the school and was eventually demolished in 1999 (the mill building was re-built, roughly preserving its original appearance, as part of the conversion of the school premises into apartments).

The East Mill, which stood at the end of Race Terrace, was recorded in 1282, and generally used for milling grain, although there is evidence of some fulling in the fourteenth century. In 1938, Kettlewell wrote that the picturesque buildings with red tiled roofs were largely destroyed by fire and patched up with brick and covered with corrugated iron sheeting. Nothing remains of the mill today. A list of millers is given from 1800.

The Grange or West Mill was probably the ancient Westmulne of Great Ayton and like the East Mill, was recorded in 1282. It was powered by water from the tail race of the East Mill. Over the centuries it was used for milling grain, tanning, oil milling and finally reverting to a corn mill. At times it was referred to as the Low Mill at times. For many years it was owned by the Richardson family. In 1944 a water turbine was installed to generate electricity. The mill buildings were converted into a house in the 1950s.

Steeped in History, the Alum Industry of North-East Yorkshire

Editor I. Miller

North York Moors National Park Authority, Helmsley, 2002

A collection of articles about the alum industry, its history and the more significant coastal sites. The economic background to the development of the Ayton Banks works is given, but nothing is said about the work's brief history.

Sir George Colebrooke's attempted alum monopoly and the Great Ayton alum works

Ian Pearce

The Cleveland Industrial Archaeologist Number 30, 2005

Sir George Colebrooke, with others, attempted to corner the world market for alum by agreements to purchase alum and restrict production. As part of this ill-fated venture, he purchased the Ayton Banks alum works for £1,250 in 1772. When the venture failed and the partners were bankrupt, the Ayton Banks works continued operation for a while, managed by John Ridley. Falling alum prices and the high cost of production at Ayton Banks (being some distance from the coast) led to its closure in 1774.

Ayton Banks Alum Works

Robert H. de Wardt and David W. Taylor

The Cleveland Industrial Archaeologist Number 30, 2005

A full description of a survey by English Heritage of what remains of the works today. This covers the alum shale quarry, clamps of shale, steeping pits, collecting cisterns and the channel to the boil house, and the water supply reservoir. The location of the boil house itself is unknown, but is likely to be in the area of Bank House Farm. Of particular interest is a clamp of burnt shale, covered with clay in 1773 to make it water-proof, which was intended for processing the following year although this was never carried out.

Lost Railways of North and East Yorkshire

Gordon Suggitt

Countryside Books, Newbury, 2006

Chapter 6, on Cleveland, contains a short history of the North Yorkshire and Cleveland Railway.

Railway Memories No.18 Cleveland & Whitby

Stephen Chapman

Bellcode Books, Todmorden, 2007

Page 106 has a description of the line through Great Ayton, and a photograph of the station in the early 1950s. There is an extract from the operating instructions for the electric token system installed at Ayton after the signal box had been abolished, controlling the shunting of trains into the siding to allow faster trains to pass by. There is also a description of the branch lines serving Winn's and Bradley's whinstone quarries and the Roseberry Ironstone Mine.

A Fading Memory: the North Yorkshire Coastal Alum Industry in the light of recent analytical field survey by English Heritage

Marcus Jecock

Industrial Archaeology Review XXXI

Maney Publishing, 2009

Makes passing references to the Ayton Banks site.