

1 Railways and the Industrial Revolution

People debate the relative importance of the role of the railways in the Great British Industrial Revolution epic - were they in the lead, or merely in supporting roles? Such debates are usually carried on in economic terms, but there is no doubt that the railways had a real social impact on most people. In 1800 the average family might have been William Cobbett's agricultural workers, living in a cottage by the farm and sustained on local bread, bacon and beer. One hundred years on the same family would probably live in an urban terraced house, buy groceries at the Co-op, and work for an unknown factory owner. It was the railways that transported raw materials to factories and then the finished goods across the country, thus enabling a few centres to supply national and international markets. And it was the railways that supplied the towns and cities with fresh food from countryside, thus enabling large numbers of industrial workers to live nearby the new factories.

National-level debates will be in terms of geographical regions and urban masses, passing over the heads of individual families. By looking at the effect of the railways on a small village, it is possible to see how the railways touched the lives of everyday country folk. In this essay I will examine the impact of the railway on the village of Great Ayton, predominantly in the nineteenth century.

2 Great Ayton

The village of Great Ayton, at the foot of Roseberry Topping, was one of the classical locations of Old Cleveland. At the start of the nineteenth century it was a typical agricultural village with about 900 inhabitants. One hundred years later the population had just about doubled, the result of whinstone extraction and the building of the Friends' School. By that time the village had established its reputation as a favoured place of residence, with several comfortable mansions built with 'new money'. It had also gained a Post Office and a Gas Works and lost its nail maker and brewery. Such changes were typical of small towns and villages.

What was less typical was the growing influence of the Quakers. Superficially the established Church of England was at the centre of the village, a view reinforced by the building of the imposing but architecturally uninteresting Christchurch in 1876. But the Quakers probably had much greater influence on village life, with their temperance campaigns and many charitable donations to the village, all carried out through their complex family, business and social networks. Perhaps the most obvious expression of the Quaker influence was the opening of the Friends' School of 1841.

In the following sections I will describe how the effects of the railway on social changes in the village, and assess its contribution to these changes. But first I should explain how the railway came to the village in the first place. This was a tantalising process. The first accessible station was some three miles to the east at Pinchinthorpe, opening in 1853. This was followed by a station at Ingleby in 1858, this one some three miles to the south. Eventually in 1864 a railway was built within a mile of the High Green, but even then the village had to wait four years for the opening of Ayton station in 1868!

3 The railway comes within three miles of the village

The celebrated Stockton and Darlington Railway, and its later extension to Middlesbrough, were built to carry coal. But the first railways around Great Ayton were for the transport of ironstone. In the climate of national laissez-faire and ferocious local rivalries, individual companies made their own plans as if the other companies did not exist. This

resulted in the duplication and fragmentation, as for example between Middlesbrough and Guisborough. Bell Brothers' Cleveland Railway of 1861 carried Skinningrove ironstone to their Port Clarence ironworks, passing to the north of the town, whilst the Pease's Middlesbrough and Guisbrough (sic) Railway of 1853, carrying ironstone from Codhill to their Middlesbrough ironworks, ran to the south. In places there was just over half a mile separating the two tracks. As if this wasn't enough, at the same time the Stockton and Darlington Railway was gradually stretching itself out eastwards along the coast, eventually reaching Whitby in 1883. The Middlesbrough and Guisbrough Railway included a station at Pinchinthorpe, about three miles from Great Ayton.

A struggle between two other companies was eventually to bring the railway nearer to Great Ayton. The Stockton & Cleveland Union Railway had plans for a route from Stockton to Stokesley, and the North Yorkshire and Cleveland Railway had plans for a route from Picton to Grosmont via Stokesley. Rival bills were presented to Parliament, and on 10 July 1854 the North Yorkshire & Cleveland Railway won the Royal Assent. Construction began the following year. The line ran eastward from Picton to Kildale, including the branch to the Rosedale ironstone mines. By 1858 the line reached Kildale, with stations at Ingleby, Battersby (originally called Ingleby Junction) and Kildale. Ingleby Station was some three miles south of Great Ayton, no nearer than Pinchinthorpe. The line past Great Ayton was only to come about later as a shorter route for Rosedale ironstone to reach Middlesbrough.

The arrogant independence of the iron companies behind so many different railways soon yielded to economic realities, and rationalisation began almost as soon as new lines opened. By the start of 1859 the North Yorkshire and Cleveland Railway had been absorbed into the North Eastern Railway, and the Middlesbrough and Guisbrough Railway was taken over by the Stockton and Darlington Railway. This in turn became part of the North Eastern Railway in 1863.

4 The railway arrives here at last

Even at the planning stage of the Rosedale Branch, it was apparent that a line through Great Ayton would shorten the journey of ironstone wagons from Rosedale to Middlesbrough, which would have gone through Stokesley to join the Northallerton to Stockton line at Picton. So in November 1854 plans were published for a railway from the Middlesbrough to Guisborough Railway down to Battersby Junction. There was an intermediate station at Great Ayton (originally referred to simply as Ayton).

The proposed route of the new line went over land owned by the North of England Agricultural College, established by the Quakers in 1841. In 1861 at a special General Meeting the Friends agreed 'to sell absolutely to the North Eastern Railway Company a Stripe of Land contained by admeasurement Two Roods as now staked out being part of a Close of Land commonly called High Dykes'. The NER paid the sum of £100 for this land, equivalent to over £50,000 at today's values. Given that this is possibly a relatively small sum for half an acre of ground of great importance to the new railway, and that it is such a round figure, there doesn't seem to have been much negotiation over the deal. But then the Quakers always recognised long-term business interests.

This line was opened on 1 June 1864 for the Rosedale ironstone traffic, and passenger services started on 1 April 1868 after the station at Great Ayton had been completed in 1867. It was not until some years later that the station name was changed from Ayton to Great Ayton.

5 Increased nineteenth century employment - whinstone

Whinstone setts, blocks of extremely hard and durable basalt, made ideal road surfacing. Between Great Ayton and Kildale geological processes have brought a vertical seam of basalt up to the surface to form the high ridge known as

Cliff Rigg. Whinstone had been worked here for many years before the railways, and early OS maps show no fewer than sixteen small quarries in Great Ayton and Kildale. However the heavy setts had to be carried away in horse-drawn wagons, and this obviously limited the amount of material that could be sold.

Two factors would vastly increase the output of whinstone - the arrival of the railways in 1864 and a visit by Leeds Corporation councillors in 1866. Leeds was in need of large quantities of road stone, and the Corporation felt that leasing a suitable quarry would meet this need. They were impressed with the quality and quantity of whinstone at William Winn's quarry at Cliff Rigg, and on 30 October 1868 they made a draft agreement with the landowner, confirming this five months later after further site work. An inclined plane was constructed to take the whinstone down to sidings specially installed by the NER. In 1870 over 33,000 tons of stone were quarried, and taken the 67 miles to Leeds. By 1878 quarrying was no longer sufficient to meet the demand and mining operations began, with workings at several levels. Leeds Corporation managed the operation themselves, presumably leaving Winn to continue working the smaller Slacks Wood quarry which he also owned. Ownership of Cliff Rigg would revert to Winn when Leeds gave up their lease in 1883.

Other existing whinstone quarries also benefited from the railway. Bradley's quarry to the west of Cliff Rigg was smaller, but installed a narrow gauge line to take stone to the NER railway sidings. Joseph Whitwell Pease, ever keen to exploit a new business opportunity, bought Ayton Banks Farm at Gribdale in 1882 specifically in order to mine whinstone, although he worried that his £4000 bid at the auction was too high. A narrow gauge railway to take stone to a yard immediately opposite the station was completed by 1891 and mining began. In the first year of operation nearly 11,000 tons were extracted.

By the end of the century Winn's operations at Cliff Rigg and Slacks Wood, Bradley's at Langbaugh West and the Pease Gribdale mine probably employed about 150 men. This significantly increased job opportunities in the village, providing better wages and more certain employment than agricultural labouring.

6 Increased twentieth century employment – ironstone

Middlesbrough's iron industry expanded rapidly from 1850 onwards, with 30 blast furnaces being built on the banks of the Tees in the period 1852 to 1855. This increased the demand for iron ore, and it was known that the Cleveland hills contained ironstone of sufficient quality to make commercial mining an economic proposition. The Main Seam was found under Roseberry Topping, and ironstone from Roseberry was being tested in the laboratories at the Friends' School in 1851. Nothing was done until 1880, when a narrow gauge railway was constructed to take ironstone down to the NER sidings, and mining operations started. For whatever reason it was not an initial success, and the mine only worked for three years. Mining restarted in 1907, and within three years Roseberry was joined by Ayton (Monument) Mine and Ayton Banks Mine. Although the three mines provided considerable employment in the period from 1910 to 1930, ironstone mining was not a major source of employment in Ayton in the nineteenth century.

7 Deliveries of Goods

A railway could bring all manner of goods into the village, including coal. Coal had been mined in the North Yorkshire Moors for centuries, and was being sold in Stokesley market in the middle of the eighteenth century. Otherwise coal had to be brought by packhorse from the Durham coalfields, which made it very expensive. The railway brought plentiful supplies of cheap coal to the village, and a coal depot was an early feature of the station yard. As well as being used as a domestic fuel to replace wood and peat, coal was the raw material for gas production. The first gas

works in Ayton, built by the Quakers to serve Cleveland Lodge and the Friends' School, went into service in 1850, well before the railway. It was limited in output, and other potential customers were turned away. With the arrival of cheaper coal, and rising village affluence, a commercial gas works was constructed about the turn of the century. Gas lighting, brilliant and convenient, must have been a revelation to households previously lit by candles.

In addition to coal, the railway could be used to deliver all manner of bulky goods. Thus in 1878 George Dixon could have a large quantity of wire for farm fencing delivered from the Newport Wire Mills in Middlesbrough to Ayton Station. And in 1879 Jonathan Backhouse Hodgkin of Cleveland Lodge could order thousands of trees from Stuart Mein & Allan, Seedsmen to the Queen, at Kelso in Scotland with delivery to Ayton Station.

Of course the station was some way out of the village, and the goods had to be taken up and down Station Road. This increased the traffic considerably on what had previously been a quiet lane.

8 The Friends' School

Quakers were much concerned about the children of mixed marriages, where one partner was not a practising Quaker, and the descendants of those who had drifted away from the Society. This concern led to the establishment of 'The North of England Agricultural School' in 1841, later known as the Friends' School. The successful London financier Thomas Richardson, who already lived in the village, donated virtually all the money needed to start the school on the condition that he could choose the location, Great Ayton. A local miller, also a Quaker, was willing to sell his large house, cottages and associated land for the new school.

The Quakers, for all their egalitarian ideals, saw the children of lost Friends as being destined for lives as labourers (the boys) or domestic servants (the girls). In the words of the founding committee 'to fit young people of both sexes to be useful and happy in those circles in which an unerring Creator has placed them, rather than prompt them to aspire after the more elevated walks of life ...'. At that time labouring meant farm labouring, hence the name of the school.

During the nineteenth century most scholars came from the North of England, but others came from farther afield, including ten from Scandinavia and two from America. At first sight it would seem that school growth might have been hampered by the difficulties of long-distance travel prior to the railways. Since early scholars only made two journeys, one at the start and one at the end of their schooling (summer holidays were only introduced in the 1860s and a formal Christmas holiday in 1883) transport was not a major problem. The opening of stations at Pinchinthorpe in 1853 and at Ayton (for passengers) in 1868 did not have any effect on the numbers of pupils, which remained fairly constant until 1900. But the stations were important to the school. With a station at Pinchinthorpe, rail travel was within reach of Great Ayton, and in 1855 the Friends' School was given a 'commodious phaeton' for travelling the three miles between the school and the station. With the opening of Ayton Station a complex transaction was agreed between the School, its Superintendent and his eldest son to provide a 'good useful Donkey' for trips to and from the railway station.

Rail travel changed the annual girls' outing from a day at Redcar in John Fletcher's large farm wagon to visiting Whitby and getting the last train back at 7:15pm.

9 The first Ayton commuter to Teesside?

The passenger service introduced in 1868 made commuting between Middlesbrough and Ayton a possibility. At first there were only two trains a day, running from Middlesbrough to Ingleby Junction and returning to Middlesbrough.

The morning train left Middlesbrough at 7:45am and the afternoon train at 3:50pm. Since the journey from Ayton to Middlesbrough took about 30 minutes, a commuter from the village would arrive in Middlesbrough at 9:15am and would have to leave at 3:50pm. Clearly these times only suited those enjoying rather leisurely working hours! However we know that they must have suited William Jones, who moved into a rented house in Ayton in either 1870 or 1871. Jones, yet another Quaker entrepreneur and friend of the Pease family, had founded the first chemical works in Middlesbrough some ten years earlier in a corner of the Cargo Fleet brickworks. He employed a capable foreman, and he did some work from home, so the short working day probably didn't prove too much of a problem. He could stay overnight in a house on the site from time to time; indeed he was away from home on the day of the 1871 Census. The arrangements obviously suited William, his business prospered and he built an imposing country house on the edge of the village in 1874. Significantly both of Jones's houses in Great Ayton were a brisk four minutes walk from the station.

By the mid-1880s the service had expanded to five trains in each direction. Although it was still not possible to arrive in Middlesbrough before 9:15am, there was a choice of two trains at the end of the working day, at about 4:30pm and 6:00pm. The journey time was now only 20 minutes. From now daily commuting was a practical proposition, and others would follow William Jones's pioneering example.

This brought more professional and business people into the village, with their new ideas and new money, a trend that was to continue throughout the twentieth century.

10 Social activities

Social activities in Great Ayton were always limited, partly because it did not have any form of market and partly because of the strong influence of the Quakers. Thus Ayton only had two hostelries serving alcoholic beverages in 1890, compared with fourteen in neighbouring Stokesley serving a smaller population! There were occasional entertainments held in the Village Hall, but these were closely controlled by the Quakers. In 1896 a Ladies Dance Quartette was only just allowed because there was 'no exposure of the limbs, as, if held up at an angle of 90 degrees it is so fully pleated that it does not even expose the underskirt at all'.

Surely many of the working men moving into the village in the later stages of the nineteenth century, as whinstone working expanded, must have hankered after a wider range of entertainments. Gradually NER provided later trains back from Middlesbrough, opening up the chance of an evening in the bright lights of Middlesbrough, with its theatres, pubs, billiard halls and other attractions. In 1890 the last train from Middlesbrough to Ayton left at 6:05pm, by 1900 the last train left at 8:30pm and by 1910 a new late evening service left at 11:10pm. This was the time when ironstone mining started in earnest, and there might be some connection! However the chance for a night on the town was short-lived, for the 11:10pm became a casualty of the First World War.

11 Conclusions

The coming of the railway brought increased employment to the village, initially through increased whinstone extraction and later through ironstone mining. Undoubtedly this was the most significant effect of the railway on village life, creating industrial jobs in what had been previously an agricultural community.

Supplies of cheap coal would have been welcomed by all families, and the later introduction of gas for domestic lighting was little short of a miracle at the time.

The Friends' School, drawing boarders from across the country was, perhaps surprisingly, little affected, but then scholars did not have holidays.

The railway opened the way for commuting, working in Middlesbrough whilst enjoying family life in a country village. The first commuter appeared almost as soon as the railway opened, and was later joined by others. This was important for social life, bringing professional and business people into the village.

Whilst commuters travelled from Middlesbrough to Ayton at the end of the day, for a brief period it was possible for villagers to travel in the opposite direction for an evening's entertainment. More usefully it enabled villagers to shop in Middlesbrough. This, coupled with the easy distribution of mass-produced goods, effectively finished off many of the old village crafts.

All of the above factors are fairly easy to understand and point to a real impact of the railway on village life. An interesting comparison can be made with Easingwold (although as a market town it more comparable with Stokesley). Easingwold didn't get a railway connection until the 1890s and, presumably because of this, remained virtually static in terms of population and structure throughout the nineteenth century. A greater mystery is the connection between the railways, the Quakers (particularly the expanding Pease family), and Great Ayton. This requires further research!

A final thought. It is just as well that not all local folk agreed with a certain Mrs B (described as a very stout, unhealthily fat woman) who had been asked by Canon Atkinson in 1868 how she liked her first train ride.

'Wheea, sae badly, Ah'll nivver gan in yan o' thae nasty vans nae more. Ah trimml'd and dither'd, while Ah wur all iv a jother'

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