

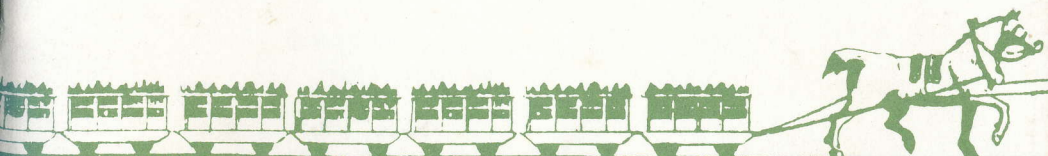


Rails to Ayr



18th and 19th century coal waggonways

Harry Broad



Ayrshire Collections

Volume thirteen

Number Three

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AYRSHIRE ARCHAEOLOGICAL AND
NATURAL HISTORY SOCIETY
1981

CORRECTED, REVISED AND REPRINTED 1989

1.— Introduction

I first discovered traces of this long-vanished transport network while playing with my school-mates on the banks of the River Ayr a quarter of a century ago, without having any idea of what I had really found. Many years later, in 1968, I rediscovered it during a winter of unemployment, during which I eased my feelings of depression by walking in the country, often returning to my childhood haunts.

One day I walked out to Auchincruive, and as I stood on Oswald's Bridge, watching the brown water swirl over the rocks upstream, I remembered my previous explorations, which had ended at the piers of what had obviously been a railway bridge. Picturing in my mind a map of the area, I could find no reason for the existence of a railway bridge at that obscure bend in the river, deep among wooded banks. Where could such a railway have gone to? How could it have connected with the existing main lines? What on earth was it for?

As I walked on across the bridge, I reasoned that this mysterious bygone railway must have come in this direction, and therefore at some point it must have crossed the road along which I was walking. Just as these thoughts occurred to me, I rounded a bend and came in sight of the smallholding named 'Oaklea', and noticed that the hedges on each side of the road gave place to a short, low stone wall, which looked exactly like the parapet of a bridge. Hurrying forward, I looked over one of these walls and found a narrow cutting, much overgrown by trees and brambles, leading into a beautiful stone arch beneath the road.

I have never been a real railway enthusiast, but I can easily become hooked on solving a mystery, and this proved to be quite a mystery. During the remainder of that winter I spent a lot of time exploring the area around Laigland Wood, Pheasant Nook and Brockle Quarry; talking to farmers and cottagers; and delving in Ayr's Carnegie Library. I am indebted to all those who talked to me about local history and answered my questions, and allowed me to explore their fields and woods; to Mr J. W. Forsyth, Mr Allan Leach, and Mrs Sheena Andrew of the Carnegie Library; and to Mr David Smith, the historian of Ayrshire's railways.

When did the railway reach Ayr? When were railways invented? The answer that is most often given to the first question is — in 1840, when the Glasgow and South Western Railway was completed as far as Ayr, and regular passenger services began. The usual answer to the second is — 1825, when the Stockton and Darlington Railway hit the

headlines. But some readers may recall that the Kilmarnock and Troon Railway was operating in 1812; and the lines I am about to describe date from at least 1775. To digress slightly, so as to answer this question more fully, I discovered that at the Battle of Prestonpans, in 1745, General Cope used the Tranent waggonway as a line of defence against Bonnie Prince Charlie, and this is the earliest recorded military use of a railway. However, that line was built in 1722, and there are mentions of others in Elizabethan England at the beginning of the seventeenth century, and in Germany in the middle of the sixteenth century.

The idea of using rails to guide the wheels of wagons and bogies was used by the ancient Romans, Greeks, Egyptians and Sumerians. Their rails were grooved stone blocks. Later, wooden rails were used, and then cast iron. During these early centuries the locomotive power was most commonly provided by horses. (At this point I cannot refrain from mentioning Hero of Alexandria, the Greek inventor who died around 75 AD, having designed the first steam engine. What a pity that it took seventeen hundred years for technology to allow the marriage of these two inventions!).

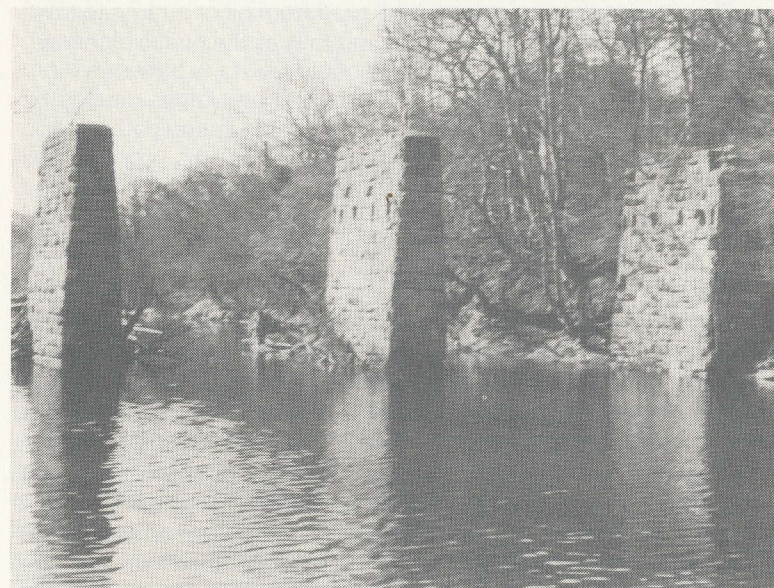
To begin with, various names were given to this transport system: Rayleway, railroad, waggonway, waggon road, tramway, tram road, etc. Today it is common to refer to the urban street passenger networks as 'Tramways'; to British Rail's network, and all similar networks as 'Railways'; and to the earlier system which gradually became obsolete during the nineteenth century, as 'Waggonways'. As this usage avoids confusion, I will stick to it from now on.

Although the waggonways became obsolete, they did not all vanish. The Kilmarnock and Troon waggonway, for instance, was strengthened and modernised, and became a branch-line of the present railway system. The waggonways which served Ayr and its surrounding villages and coal-pits, however, fell into disuse during the second half of the nineteenth century, and as their external appearance has been eroded from the landscape by the spread of industry and suburbia, by ploughing and afforestation, the very knowledge of their existence has dwindled and is in danger of being lost altogether. There is very little documentary evidence; and they lie beyond the interests of most railway enthusiasts and conservationists.

It is for this reason that I am writing this account, although my researches are far from complete, and there are many gaps in the story. Nevertheless, I believe that it should go some way toward filling a gap in the history of Ayrshire's transport and urbanisation.



Auchincruive Waggonway: Bridge at 'Oaklea', Auchincruive, March 1969.



Auchincruive Waggonway: Bridge at Brockle Wood, Auchincruive, April 1969.

2.— The Waggonways

Prior to the industrial revolution and the building of the national railway network, there was an extensive system of waggonways, mostly centred around coalfields. While researching four lines terminating in the town of Ayr, I have come across the mention of twenty-nine separate waggonways in Scotland, mostly serving coalpits, and mostly between one and twelve miles in length. Ten of them are in Ayrshire.

Why were waggonways built? In eighteenth-century Ayrshire, roads were pretty poor, and most highways resembled present-day farm-tracks. John McAdam did not begin to build his roads until well into the nineteenth century. Heavy wagon-loads, such as stone and coal, were slow and difficult to move, and made heavy demands on manpower as well as horsepower. And in Ayrshire, stone was the almost-universal building material, and coal the almost-universal fuel. Not only were these goods in great demand locally, but there was commercial pressure to export to Ireland and even America. And so the greatest transport need was to move these heavy substances to town centres and harbours, in ever-increasing quantities as urban populations grew and commercial horizons widened.

By engineering a purpose-built road from pit or quarry, to town or harbour (thus avoiding the traffic and tolls of the public highway), and by fitting it with iron rails, and a cobbled surface between them for the horses (thus avoiding the delays and breakages caused by rocks and pot-holes), a mineral-producer could speed delivery and cut his operating costs, thereby increasing his commercial advantage over competitors. (Such were also the reasons behind canal-building, although there was very little of this in Ayrshire, and it is interesting to note that long-distance rail freight is still mostly concerned with heavy materials such as coal).

In the next chapters I shall describe the four waggonways terminating in Ayr. Although the last of these closed just over a hundred years ago, and someone taking a walk around Ayr today would be unlikely to guess that they ever existed, there is a surprising amount to be seen — if he knows what to look for.

How did Waggon Road get its name? Why is the farm track that leaves the by-pass at Laigh Thornyflat Farm raised on a narrow embankment? There are several miles of cutting and embankment still hidden among trees and along the banks of the River Ayr, the remains of five bridges, a limekiln, stone sleeper-blocks, traces of numerous coal-pits and quarries and other curious things.

As these waggonways do not appear to have had names, I have called them:—

The Auchincruive Waggonway, which ran from the 1770s until the 1870s, and stretched eventually from Ayr Harbour to Annbank;

The Wallacetown Waggonway, which was in operation in 1775, but disappeared soon after;

The Craigie Waggonway, which operated around the middle of the nineteenth century; and

The Holmston Waggonway, which spanned the first half of the nineteenth century.

The demand for coal was, without doubt, the force that gave birth to, and sustained for a century, these waggonways as it did many other waggonways in many parts of Britain.

The big obstacle to the unravelling of the history of these particular lines is the lack of documentary evidence: I have not discovered the whereabouts of the coal companies' records; and maps, prior to the First Edition of the Ordnance Survey in 1857, were not always reliable, not comprehensive in their coverage or detail.

There *are* contemporary references, but these are very brief, and were not written by those involved at first-hand with the waggonways. Later Histories and Reminiscences of the locality, while giving more details, are speaking at second- and third-hand, and are therefore less reliable. In addition, these latter tend to speak rather vaguely of 'waggon-ways' or 'a rail road' without specifying exactly to *which* line they are referring.

One local writer who seems to have made no mention of this new addition to the town's amenities was Rabbie Burns, although it was in operation when he was a lad of sixteen, and he must surely have been familiar with it, though his mind was on other things. Would he, I wonder, have penned an 'Address to a Waggonway' if he had realised how revolutionary would be its effects on town, countryside, industry and population during the succeeding century? After all, he was a modern man. But then, it was not until the twentieth century, when railways were on the decline, that they gained romanticism.

3.— The Auchincruive Waggonway

Although coal had been mined in Ayr and Alloway from as early as 1593, and there is mention of coal being exported via Ayr Harbour in the year 1616, it was not until 1765 that mining was begun in Newton upon Ayr, on the north side of the River Ayr.¹ This date can be considered as marking Ayr's entry into the Industrial Revolution. (It was the year following Hargreave's invention of the Spinning Jenny. Four years later, in 1769, Arkwright patented his spinning frame, Watt patented his condensing steam-engine, and locally, the Ayr Bank of Douglas, Heron and Co., pushed forward the frontiers of capitalism).

By now, coal was not simply a domestic fuel, a substance for keeping landlord and cottager warm in the winter and for cooking their food, the getting of which kept the farm-workers busy after the harvest. It had become an industry in its own right, firing the saltpans and limekilns (the parents of the chemical industry), and powering the stationary steam-engines that drove the new machines of the textile industry and pumped water from the coal mines themselves, as they were dug ever deeper in the search for new seams. It also gave rise to a new class of men and women who depended for their livelihood on the fruits of their labours below ground, and brought into existence the Coal-Masters — men who sought to change the face of the country, and the state of their bank balances.

And so, in the year 1765, coal pits were sunk in the parish of Newton upon Ayr, and six years later in 1771, James Montgomerie and Co., working a pit at Newton Green, were given permission by the town council to 'erect a temporary wharf for exporting coals'. In 1772 an Act of Parliament empowered the burgh to borrow £15,000 to improve the harbour.¹

The building of a waggonway may have been part of these improvements but the first reference to it that I have found is on Armstrong's town plan of Ayr, dated 1775. It extended only about 800 yards from the North Quay to two coal-pits close to Newton shore. No details, such as sidings or passing-loops, are shown. An 'Engine' (presumably a stationary steam engine for pumping) is shown close to the coal-pits.²

In 1778, the coal-pits were temporarily closed, and the population of Newton, which had been increasing since the coal-works were begun, now decreased.³

Between 1781 and 1784 an estate plan of Auchincruive was made. (Auchincruive House lies about three miles east of Ayr, and

the estate encompassed large tracts of surrounding farmland). It has an inset showing a 'waggonway' running from a plot of land on the north quay north-eastwards 'to the march between Newton and Prestick commonlies'. The waggonway shown is a double one, but no coal-pits or any other details are shown.⁴ Unfortunately this inset does not show the northern end of the waggonway — it shows, in fact, only about 700 yards of track extending to the edge of the map, and the Parish boundary lies a further mile to the north. Thus it would have ended near the open-cast mine of Annpit (next to what is now Heathfield Hospital), or perhaps at the quarries near the Bell Rock.

In 1786 the pits were re-opened 'by a company of respectable gentlemen at Edinburgh', and produced over 1,200 tons annually (tons of 24 cwt.).⁵ The population of Newton once again increased, and in 1790 the company built a lighthouse on the north side of the harbour⁶, thus demonstrating the importance which they placed on the export of coal, principally to Ireland.

It seems that the waggonway was the first link in this export trade. At this stage it may, or may not, have had rails. It may simply have been a paved road across the sand-dunes. Auchincruive, across whose land the waggonway ran, was owned by the Oswald family (Richard Oswald from 1764 to 1784; and his nephew George Oswald from 1784 to 1819). The Oswald family may have had a stake in the coal company, or may simply have rented-out their land, as the town council of Newton did theirs, to the company who worked the pits, and presumably also the waggonway.

It is interesting to note that there is now a muddy lane running for about 400 yards north-east from the north quay, on the approximate line of the waggonway shown on the map of 1781-84. It is called 'Oswald Lane'.

In 1792 it was said that 'The present company, at some expense, have made a waggon way from the pits to the harbour, the road reaching to the key, which renders it exceedingly convenient for loading vessels'.⁷

The earliest description of the waggonway that I have discovered is in the 'Ayr Advertiser' of 1st October, 1807, in an article titled 'Iron Railway'. It indicates that the previous waggonway had been completely replaced:

'We formerly mentioned the iron rail-road then in the course of being constructed at Air Colliery, belonging to Messrs Taylor and Sons, from the coal pits to the harbour of Air; now that it is completed and in use, and regarding these roads as capable of

affording incalculable facilities in transporting heavy commodities from the interior to the sea, we gladly acquit ourselves of our promise to give a more particular statement respecting this one.

'The distance from the pits farthest off from the harbour is a mile and a half, and the nearest pits half a mile.

... 'The whole of this rail road and machinery has been planned and executed by Mr Outrum, of the Clyde Iron Works, and Mr Renwick, the manager of the Colliery, and does credit to these gentlemen, being thought as complete and as well constructed as any in Britain'.

The article describes the rails, equipment and operation:

'The rails are of a peculiar construction, singularly well adapted to the particular state of the surface which, being composed of blowing sand, did not admit of any rail on which a particle of sand could rest'.

This indicates to me, an early version of the modern edge-rail (requiring a flanged wagon-wheel), rather than the earlier design of an L-plate (where the wagon-wheel runs on a flat horizontal bar, to which is attached a vertical flange, so that in cross-section the rail forms the shape of the letter L). The L-plate has the advantage that it does not require a specially-designed flanged wheel, but can take any ordinary wagon wheel provided that the gauge (distance between the wheels) is the same as the distance between the rails. In the case of this particular waggonway, blowing sand would certainly tend to settle and build up on the horizontal surface of an L-plate, necessitating constant sweeping, and an edge-rail would avoid this considerable inconvenience.

The waggonway is single-track, as the writer mentions delays 'from the waggons not meeting precisely at the instant, at the bye-passes'.

... 'The waggons are filled by passing the coals as they come from the pits over screens into the waggons, the small or refuse passing through the screen, and the great coal filling the waggons.

... 'Each waggon when loaded contains 26 cwt. of coal. It is computed a single horse can draw nine of these, and adding the weight of the waggon (6 cwt.) would draw about 14 tons; but, in fact, a horse brings only 5, 6 or 7 of these waggons, according as they are ready, and filled at the pits.

... 'When these again reach the hurries or loading places, the horse is taken out, and the foremost waggon pushed by the

driver into a frame of iron, suspended over the ship's hatch; this frame, with the weight of the waggon, is made to drop and form an inclined plane, or spout, of the waggon and in the course of descending the waggon opens at one end, and thus after dropping the coal into the hold of the ship and unloading the waggon, the iron frame, with the empty waggon recovers its horizontal position, and the waggon is drawn back by the driver by a bye-road, or a bout-gate, and the next waggon brought forward, and the whole emptied in succession in same manner by the driver, without any other assistance. It takes only about six minutes to unload the whole six waggons and set them out on their return'.

A similar method of unloading is still in use almost two hundred years later.

The writer of this article gives the cost of constructing and installing this mile-and-a-half of waggonway and its associated equipment:

'The expense of the Iron Rails, and laying them, at £750 a mile, per contract	£1125. 0.0
Levelling, forming the ground, and furnishing stones, wood, etc., at £300 per mile	450. 0.0
Machinery of screens, etc., for filling the waggons at the pits, and of two hurries, and machinery for unloading the waggons	500. 0.0
Thirty-six waggons complete	400. 0.0
<i>Total expense</i>	£2475. 0.0

He also gives the annual running costs:

'10 per cent on the above capital expended	£247. 0.0
3 waggon horses, and 3 drivers at £4 per week	208. 0.0
4 men for trimming the coals in the waggon, at £2 per week	126 16.0
A man trimming and ballasting, and keeping the road in repair, at 15s per week	39. 0.0
A pony for ballast waggons	18. 4.0
<i>Total Annual Expense</i>	£639. 0.0

He calculates that a horse will pull an average of six waggons, carrying eight tons of coal, at a speed of three miles per hour, and return with the empty waggons at four miles per hour; and that in an eight-hour working day, allowing for delays, a horse could deliver seventy tons of coal to the ship, and that the three horses employed could deliver 45,000 tons per annum. If this amount were achieved,

the transport cost would average 3d per ton compared with 1s 6d per ton previously, when the coal had been carried by cart along the highway — and this did not take into account the cost of road repairs. This gives a hypothetical saving of £2736.0.0 per annum.

He adds: 'There were often times and seasons when it was impossible to find carts to hire, to take down the coals, though the quantity was far under the above calculations'.

That his calculations were no more than hypothetical is confirmed by the final paragraph:

'At present only one hurry, or loading place, is completed, but the other is in the course of being constructed. In the mean time, from the delays occasioned in shifting vessels, and from their being often neaped, it has been found that no more than 600 tons a week could be located at one hurry, and this too required the utmost exertion and attention in placing and removing the ships'.

So Newton now had an iron rail-road one and a half miles long, single-track with passing-places, custom-built to connect two coal-pits with the harbour, employing thirty-six waggons, eight men, three horses, and one pony. The 'stones, wood, etc.' would be mainly for sleepers (which could be of either stone or wood) and a cobbled strip between the rails, on which the horses would walk.

The nearest pits, half a mile from the harbour, were presumably in the same position as previously — i.e. close to Newton shore. The further pits, one and a half miles distant, were probably at Annpit.

One mile of waggonway, allowing for passing loops and sidings, might have one and a half miles or more of actual track — all of which must be included in the construction cost. This, added to the evidence of the map of 1781-84, suggests Annpit as the further termination, although this new waggonway need not have followed the course of the old.

An abortive attempt was made by Taylor and Co., sometime prior to the building of this waggonway in 1807, to construct a wet dock at the Bell Rock, almost a mile and a half north of Ayr harbour.⁸ There are many possible reasons for this, but the most immediately obvious is the proximity of Annpit, less than three-quarters of a mile to the east, and I consider that this indirect evidence adds a little more weight to my theory. I still have hope that some *real* evidence in this, and other questions, exists and I will mention this again later.

In the meantime I will move forward to the year 1818, when John Wood's map was published.⁹ It shows a single track 'Rail Road' extending from the north quay to a 'Saltworks' approximately

on the site of the present Scottish Agricultural Industries factory at Newton shore. The line has a double termination at the quay, where a 'coal yard' and a 'colliery office' are marked. There is a small loop to a limekiln, another longer loop, and a long fork at the saltworks, extending northwards to the edge of the map — beyond which both prongs of the fork may continue, as no definite termination is shown. Immediately south of the saltworks, and beside the waggonway, is a large rectangular area marked 'Ground in feu to Geo. Taylor Esq.' This is close to the site of the two coal-pits shown on earlier maps, but no actual pit is shown on this one, and the waggonway is not shown to enter Geo. Taylor's ground.

The distance from the north quay to the saltworks is approximately 970 yards, or slightly over half a mile. Including the forks at each end, and the two loops, the total length of track shown amounts to approximately 1465 yards, or slightly less than a mile. So there is still about half to one mile of track unaccounted for, presumably stretching to the northwards beyond the saltworks. One thing that the waggonway did *not* do in 1818 was to turn sharply eastwards from its original course, and pass down the street now known as Waggon Road (and known in 1818 as Pebble Street) en route to Whitletts, as shown on later maps. This is yet another pointer to the termination being at Annpit.

The plan also shows that the waggonway no longer runs down Oswald's Lane, but lies a few yards to the west.

The limekiln on the small loop shows yet another use to which the new form of transport could be put. Although Ayrshire was rich in limestone, it had been written, back in 1791, that 'there is much limestone daily imported from Ireland, in the coal vessels'.⁶ Coal was needed to fire the kiln, the raw limestone had to be taken to the kiln, and the treated lime removed. Limekilns had previously been scattered throughout the countryside, most within easy reach of a coal-pit. Now it seemed economic to build them close to waggonways.

A roughly-drawn sketch-map — dated 1826, but naming no surveyor¹⁰ — shows a waggonway forking at the north quay, and terminating there at 'G. Taylor's coal yard', and forking also at the northern edge of the map, where the words 'Railway to Annpit' are written. It shows no other details, and the track shown extends less than a quarter of a mile from the quay. Although this map is interesting, it is not wholly satisfactory as a piece of documentation.

It is also of interest that by 1826 Newton had known a waggonway for at least fifty-one years, and this particular 'iron rail road' for nineteen years. The Kilmarnock and Troon Railway, which

had been running for fourteen years, since 1812, had tried steam locomotion tentatively in 1817; but the date at which steam was introduced to Newton is not known — probably not for several more years, when the line was extended considerably.

The Stockton and Darlington Railway was now one year old.

In 1830, the Ayr Directory¹¹ lists 'Taylor and Sons, coal merchants and ship owners, Newton Green; 'Archibald Kerr, manager of coal works, Newton Green'; and 'Ayr Colliery Office, Newton Green'. Following a brief mention of the waggonway, the following slightly enigmatic paragraph occurs:—

'... an improvement of much advantage has lately been invented by James Aird and James Dunlop, two workmen, for which they received the Prize from the Society of Scotland, for the improvement of Agriculture and Prize Essays, and the construction and utility of this great invention'. The 'great invention' was an ingenious method for retaining a wheel upon a fixed axle so as to improve lubrication, cut down the use of grease, and exclude sand and dirt. A diagram and description can be found in Vol. 2 of the Second Series of Transactions of the Highland Society (1831). George Taylor's letter to the society relating to the invention was sent in June, 1824.

The next Ayr Directory repeats these details in 1832¹², but whereas the former says 'Magnesia and Salts are also manufactured at the extensive works of George Taylor, Esquire, in Newton Green', the latter changes this to 'Magnesia and Epsom and Glauber Salts, and vitriol and marine acid are also manufactured for the wholesale and retail trade, at Mr Taylor's work'.

The Newton pits were finally closed in 1832, when both seams of coal were exhausted,⁵ and this has led some to think that the waggonway was abandoned then. On the contrary, this very fact led to its extension, as the coal company sought new seams further inland.

The New Statistical Account of Scotland mentions, in 1837, that 'There is ... a railroad from Whitelets to the harbour of Ayr for the conveyance of coal'¹³ and 'One hundred waggon-loads are daily conveyed to the port along a railway, from the coal-mines in the parish of St. Quivox'⁵.

In this, the year in which Victoria was proclaimed Queen, plans for a 'Glasgow, Paisley, Kilmarnock and Ayr Railway' were formulated, and the ensuing Railway Act¹⁴ gives the waggonway a brief mention. In the schedule which lists the owners of the land across which the new railway will pass, is given the name of John

Taylor Gordon as lessee of a plot of land owned by the Burgh of Newton, and it describes the property as a 'railway'.

This is the earliest reference that I have found to John Taylor Gordon, but from now on his name takes the place of George Taylor's. He had moved to this district from Nethermuir in Aberdeenshire in 1832, and had taken up residence at Newton Lodge¹ which lay close to Newton shore, on the same spot that had in 1818 been marked 'Ground in feu to Geo. Taylor, Esq.⁹. It seems most likely that he was related to George Taylor in some way, and became his heir.

In the following year, 1838, 'Johnston's Map of the County of Ayr' was published, and it shows our waggonway extending from the cross-roads of Waggon Road and Weaver Street in a north-easterly direction to Kerr Pit at Whitletts, and then south-eastwards across the Whitletts Road, to end in the vicinity of the present Dalmilling Crescent. At this place there was a coal-pit, but it is not shown on Johnston's map, and no survey-date or surveyor's name is given, so its accuracy is in doubt. But it *does* show that the waggonway had reached Dalmilling by that year. It does not show any details of the waggonway in the vicinity of the harbour, Newton shore or Annpit.

The modern railway-network was approaching, but had not yet reached Ayr. The first part of the line, from Ayr to Irvine, opened for public traffic on the 5th of August, 1839¹⁵.

Early in 1840, another Railway Act was made,¹⁶ amending the previous one, and it takes account of our waggonway:—

'And be it further enacted, that nothing in the said recited Act, or this Act contained, shall authorise or empower the said Company to alter, deviate, or interfere with the line or course of the private Railway now in the occupation of John Taylor Gordon, at the point where the same crosses the main line of Railway by the said recited Act authorised, at Peebles Street, in the parish and town of Newton upon Ayr; nor shall the said Company be allowed to form their Branch Railway to the Harbour of Ayr further west than a point situated five feet to the east of the easternmost branch of the said private Railway, as the same existed at the time of the passing of the said recited Act'.

This new railway came straight down through Newton, running parallel and to the west of Main Street, to end at the north quay, one hundred yards from the New Bridge, where a passenger terminus was built. A branch-line was to run westward along the quay, to end close to the hurries of the waggonway. Almost exactly a year after the first section was completed, on the 12th of August, 1840, the line was opened throughout, and regular steam services ran

between Ayr and Glasgow on a standard-gauge (4 feet 8½ inch) railway.¹⁷

No hint is given in either of the above-mentioned Railway Acts that the waggonway was to be connected to the new system. But then, there seems to be no reason why it should — they were run by two independent companies (neither George Taylor nor John Taylor Gordon appear in the list of subscribers, or the board of directors, of the new railway), and their routes and purposes were quite different. The only point at which they had to take heed of each other was at the point in Pebble Street where their paths crossed at right-angles, by level crossing. More information about the technicalities involved in this are given in the next Amendment Act, made two years later¹⁸: —

'And whereas the main line of the said railway crosses on its surface a private railway or tram road, leading from Ayr Collieries to the harbour of Ayr, in the present occupation of John Taylor Gordon, and also crosses at the same point on the surface of a street, called Peebles Street, and it is expedient to regulate the said crossings so far as necessary to provide for the safety of the public: Be it therefore Enacted, That the Company shall, on their own expenses, make and maintain, along the sides of the main line of railway, good and sufficient gates, thirty feet in width, across the said private railway or tram road and street, and shall employ proper persons to open and shut such gates, which shall not be more than thirty-two feet apart, and shall be erected and constructed so as that when opened across the said private railway, and street, they shall be shut across the said main line of railway, and the Company shall if necessary provide at their own expense a residence for such persons at or near the said crossings Provided that the said gates shall be kept shut across the said private railway and street, except at the time of the passing of any waggon or other carriage or horse or other beast of draught on the said private railway; and provided also that the erection and maintenance, and the opening and shutting of such gates shall be conducted and managed by the said company with as little interruption to the traffic on the said private railway as may be consistent with public safety'.

There follow details of fines which the Sheriff of the County of Ayr may impose on the Company for any neglect of their duties with respect to the erection, maintenance or the opening and shutting of these gates. The 'Company' of course is the Glasgow, Paisley, Kilmarnock and Ayr Railway Company.

I feel a little confusion as regards 'Pebble Street' (later Waggon Road) and 'Peebles Street' (formerly part of Main Street,

and joining Waggon Road at right angles). Spelling was variable in those days, but it was the former street (Pebble or Waggon) which must be the one mentioned in the Railway Acts, and not the road which is today known as Peebles Street.

And so, while the Kilmarnock and Troon waggonway was being incorporated into the new steam railway, our waggonway remained independent of the national railway network that was growing up around it, and continued to operate and expand for another thirty years.

The new Ayr Directory¹⁵ lists 'John Taylor Gordon, of Newton Lodge'; 'Angus McPherson, clerk at J. Taylor Gordon's coal works, Whiteletts'; 'George Paton, wright to J. T. Gordon's works, Whiteletts'; and 'John Stevenson, overseer of J. T. Gordon's coal works'. It includes 'John T. Gordon' in the list of Ayr Harbour Trustees, and gives figures for the export of coal from the harbour:

1836	—	39,724 tons
1837	—	49,494 tons
1838	—	49,537 tons
1839	—	69,513 tons

It will be seen that the export trade was flourishing during these years. Not all of it would have come from Gordon's collieries, although they do seem to have been the most productive. Two paragraphs in the Directory give a further insight:

'Colliery — The trade in coals — which forms the staple traffic of the harbour — has been carried on for nearly a century, by the predecessors and connexions of the present proprietor, John Taylor Gordon, Esq., of Newton Lodge. The pits — which go under the general designation of the 'Ayr Colliery' — are on the estates of Auchincruive, Sanquhar, Blackhouse and Newton. The coal — nearly 100,000 tons of which is annually raised — is conveyed by means of a private railway to the north quay, and shipped, principally to Ireland, where it is in great demand. The coal obtained at the majority of these pits being of a hard, splinty nature, is in much request for steam-boats and furnaces. There is also a soft house coal, which is very generally used among the inhabitants. Upwards of 700 persons — including engineers, smiths, wrights, colliers, labourers and boys — are kept in constant employment at the different pits. The wages of the men average from 1s 6d to 4s per day, and that of the boys from 6d to 1s 8d. A number of the colliers reside in Wallacetown; but the great proportion live in Whitletts and New Prestwick, where they constitute almost the entire population'.

'Salt Pans — These works, belonging to John Taylor Gordon, Esq., of Newton Lodge, are situated on the north beach. They have been in operation for nearly forty years. The salt is held in high

estimation among country people on account of its superior curing qualities. There are upwards of six tons manufactured weekly. Five hands are generally engaged at the works, who are paid at the rate of 10s and 12s per week'.

It is significant that the Ayr Colliery of J. T. Gordon is the only one mentioned in the Directory, although there were certainly others in the vicinity which also sent coal to Ayr. Note that J. T. Gordon had inherited the salt pans as well as the colliery, but that the colliery was a vast industry (upwards of 700 employees) compared with the salt industry (five employees). This is not surprising when it is considered that the average person consumes a far greater quantity of coal than he does of salt. The average wages at the colliery were much higher than those at the salt pans, and this may be because of the higher proportion of craftsmen and skilled workers at the former.

As the amount of coal raised exceeds the amount exported, some must have been used locally, and it would be nice to think that perhaps some of it fired the boilers of locomotives plying to Glasgow each day, as well as the other uses mentioned.

J. T. Gordon's shipping interest is mentioned in an unfortunate circumstance, in the pages of the 'Ayr Observer' of the 5th of January, 1841:—

'Portpatrick, Jan. 3 — The brig 'Jane Gordon' of Ayr, returning in ballast from Cork, where she had been with a cargo of coal, encountered, off the Irish coast, the severe gale of last night, and having her sails split, she became unmanageable, and at four this morning drifted upon the rocks at the back of the North Pier of this place. The vessel very soon went to pieces, and I grieve to say that four out of the seven hands on board were drowned . . .'

And something of his personality is shown in an incident described by a contemporary:¹⁹

'Mr Gordon was a coalmaster, and of a haughty, tyrannical disposition, often at variance with his workmen. He would not listen to any complaint they had to make, reasonable or unreasonable; and as for redress of grievances, that was entirely out of the question. The consequence was that his men were inclined to dissatisfaction and not overly forbearing with the tyranny of their employer. In 1842, a dispute arose between Mr Gordon and his men on some matters pertaining to the works. Instead of meeting them on reasonable grounds, and endeavouring to settle the dispute in an amicable manner, Mr Gordon immediately filled his pits with men unaccustomed to the trade, his own hands being sent adrift. In order to enable the work to be in some way properly done,

Mr Gordon hired at high rates of wages some experienced workmen to act as guides and instructors to the new hands, or 'nobs', as they were termed. As was to be expected, this procedure on the part of Mr Gordon highly irritated his old workmen. They were equally enraged with their former master and the new men. Not being the most prudent or moderate sort of men, for colliers then were much worse than they are now, and more inclined to take violent measures in such occurrences, the peace of the district was in great danger of being broken, and the Yeomanry were called out in order to assist in preserving the quiet of the locality'.

He goes on to tell of a fight between the old hands and the new which resulted in a death, and the subsequent trials for murder and conspiracy in the High Court of Justiciary at Edinburgh. He concludes with:—

'This unfortunate occurrence might have been avoided; at least the fatal act would not in all likelihood have happened had Mr Gordon met his men with anything like the spirit of conciliation and good-will, and showed them that the cause of dispute was one which lay within the province of compromise by both parties'.

To return to the waggonway — it would greatly assist our understanding of its gradual development if we could say precisely where the coal-pits were located, and during which years each was in operation. But the history of the mines is still shrouded in mystery; the records are far from complete, and the matter is complicated by the rapidity with which the mines changed ownership and even their names. Geographical names can be very misleading — for instance, in the twentieth century there was an 'Ayr Colliery' at Annbank (five miles from Ayr), but none at Ayr; and an 'Auchincruive Colliery' in Prestwick (two miles from Auchincruive) but none at Auchincruive.

The Directory for 1841¹⁵ says that the pits of the Ayr Colliery were in Newton (which seems unlikely at this date, as the small parish of Newton was almost entirely built-up) and on the estates of Auchincruive, Sanquhar and Blackhouse. This is useful, but it does not help us to pinpoint the pits, as these three estates together cover a vast area — including practically everything north of the River Ayr within a radius of four miles from Ayr, except for the small estate of Craigie and the Burgh lands of Prestwick (and also a large area south of the river, which lies outside the scope of this waggonway).

The New Statistical Account of 1837 says that the coal was 'conveyed to the port along a railway, from the coal-mines in the parish of St. Quivox⁵', but this covers almost exactly the same ground as the three estates mentioned above, north of the river.

Kerr Pit, at Whitletts, was situated close to the boundary between the Sanquhar and Blackhouse estates, and I am not certain as to which of these lands it belonged. After leaving Kerr Pit, the waggonway definitely entered Blackhouse Estate, which corresponded roughly with the area now occupied by Braehead and Dalmilling housing estates; and the northern part of Ayr Racecourse; and the pit at Dalmilling Crescent, at the terminus of the waggonway, was on Blackhouse property. It is not surprising to learn that sometime around the year 1840, Blackhouse Estate was acquired by John Taylor Gordon²⁰, thus assisting in the expansion of his commercial interests and at the same time securing for himself a more desirable residence in the shape of the house of Blackhouse, on the site of the present Western House.

Even though the waggonway, at this time, connected with no other pits directly, it is likely that coal from the Sanquhar pits to the north, and the Auchincruive pits to the east, would be brought by cart to the railhead for onward shipment to the town.

There is nothing to indicate that the waggonway was ever extended north of Kerr Pit to connect directly with the Sanquhar Pits that lie beneath the present industrial estate on either side of Heathfield Road; but as it was about to be extended eastwards into the lands of Auchincruive, this is an appropriate point at which to reintroduce the Oswald family, successive generations of which owned Auchincruive throughout the period in which we are interested, and which was last mentioned in connection with the original waggonway at the north quay in the 1780s.

Coal appears to have been wrought on the estate as early as the 1780s⁴. Richard Alexander Oswald, M.P., the owner between 1819 and 1842, exploited the coal that lay beneath his parks and farmlands, and pits were operating close to Auchincruive House during the 1830s²¹ and 1840s^{1 22}. His interests are protected in the 1837 Railway Act¹⁴.

'Provided also, That nothing herein contained shall extend to prevent Richard Alexander Oswald of Auchincruive, Esquire, or his heirs and successors, from exercising any right which he may at present have to make a private railway or common road for the use of himself or heirs and successors, or their or either of their tenants, from his or their mineral fields, in the county of Ayr, so that the same may cross the said Railway hereby authorized to be made at a point in the parish of Newton-upon-Ayr or Prestwick, on the level of the said railway, to the town or harbour of Ayr'.

This indicates that he had had thoughts about building a waggonway, but had not as yet started, and wished to keep his options open. Notice that he was authorised to make a level-

crossing at a point as yet unspecified (and presumably undecided) in the parish of Newton or Prestwick. Successive Railway Acts, in 1853²³, 1865²⁴, and 1866²⁵ repeat these protections, and elaborate on them, but nothing in any of the Acts refers to a waggonway already in existence. The Act of 1865 mentions that the then owner, Alexander Haldane Oswald, 'has Right to a Yard and Wharf situate on the North Side of the Harbour of Ayr, and to a Waggon Road or private Railway to connect his Estate with the said Yard and Wharf, but which Waggon Road or private Railway has not yet been fully constructed'. The Act of 1866 elaborates further, but suggests that no level-crossings have actually been made. It is my guess that the waggonway was never even begun.

To return to Gordon:—The Directory of 1845²⁶ mentions 'John Stevenson, manager, Ayr Colliery, Whitletts', and 'Angus McPherson, clerk, Ayr Colliery, Whitletts'. That of 1851²⁷ includes 'William Dickson, manager, Ayr Colliery; house, Whitletts'; 'John Russell, manager, Ayr Colliery Store, Whitletts' — all indicating that the industry is now centred on the village of Whitletts — and 'Gilbert Cuthbert, superintendent of rails, Ayr Colliery; house, Weaver Street' (in Newton).

By 1854 Kerr Pit appears to have closed, and J. T. Gordon owned and operated not only the pits on his own land, but also those on Oswald's²⁸. At some date after 1838 the waggonway was extended to connect with a further pit on his land, to the south of Laigh Thornyflat farmhouse, which is shown in the records as having borne the name of 'Blackhouse Pit'²¹ and then, probably after 1846²⁹, extended further to connect with the Auchincruive pits

The main line of the Glasgow and South-western Railway Company (successor to the Glasgow, Paisley, Kilmarnock and Ayr Railway Company) was also forging ahead, and a new line to the south was planned in 1853, branching off the original line north of Newton Lodge and by-passing the town to the east, en route to Dalmellington. This line would have to cross our waggonway by a second level-crossing in what is now Viewfield Road:—

'It shall not be lawful for the Company either when constructing the Railway and works by this Act authorized, or at any future period, to alter the level of the road and private Railway numbered on the said plans 45, in the parish of Newton-upon-Ayr, without the consent in writing of John Taylor Gordon, of Blackhouse, or his successors, and it shall be competent to him at any time to apply to the Sheriff of Ayrshire, and the said Sheriff shall have power, upon such application being made to him, to ordain the Company to erect and maintain gates, and to employ a gatekeeper at the crossing of

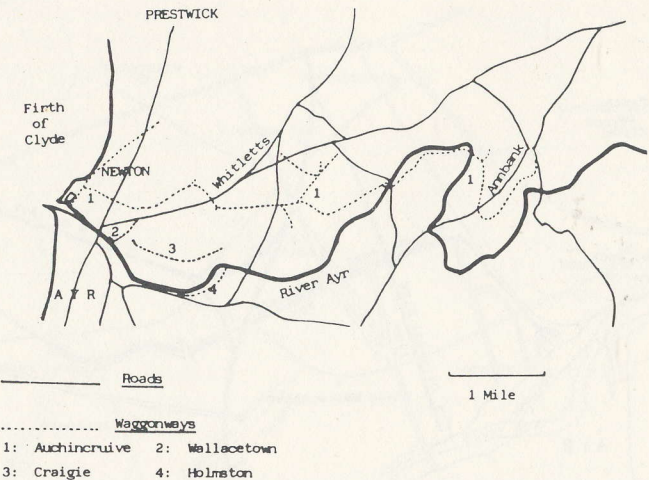
such road and private Railway, and also to adopt such other measures as the said Sheriff shall judge necessary and proper for the protection and security of the traffic of the said John Taylor Gordon passing along the said private Railway and of the parties engaged in conveying the same, which protective measures shall be determined by the said Sheriff in such a manner as to occasion as little obstruction as possible to the said traffic, and the expense of all such measures shall be borne by the Company, and the expense of the proceedings before the said Sheriff shall be subject to his determination'.²³

There is no suggestion here that the gates were intended for 'the safety of the public', as was the case for the Peebles Street crossing¹⁸, and although this new railway was completed in 1856, there is no record of the gates being erected and manned.

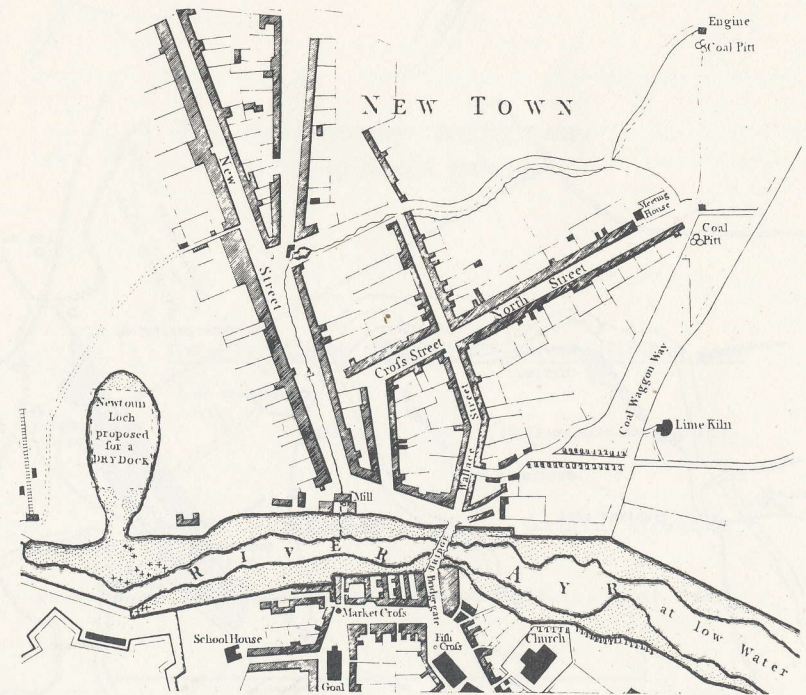
In the following year the first edition of the Ordnance Survey maps was published for this area, and it shows the waggonway in considerable detail³⁰. A single-track 'Tram Road' is shown zig-zagging eastwards from Ayr north quay to Oswald's Bridge (which carries a road across the River Ayr close to Auchincruive House). Having zigged northward towards Kerr Pit, the line then zagged south to the pit at Dalmilling, and then northward again to Laigh Thornyflat, where a branch led off to the south, to end on the site of Blackhouse Pit. The main line carried on eastward, and as it reached the boundary of Auchincruive estate it forked. One prong led north-east to Stevenson Pit, on the site of the present Diamond Cottages, close to the main entrance of the West of Scotland Agricultural College. A much shorter branch connected with Dickson New Pit. (Note that Kerr, Stevenson and Dickson were the names of successive managers of Ayr Colliery, according to the Ayr Directories). The other prong led further south, traversing the Long Holm beside the river, and ending at Holm Pit close to Oswald's Bridge.

In all, there was by now (excluding the eighteen passing loops) five miles one hundred yards of track. The longest run, from Holm Pit to the north quay, was three and three-quarter miles. The line served five coal-pits:—Holm, Stevenson, Dickson New, Blackhouse³¹, and the one at Dalmilling. It may also have served the two Gibbseyard Quarries, between which it passed before reaching Dickson New, and the limekiln near the north quay, although the loop to this latter had by now disappeared. On the north quay itself there was now a complex of five terminations, with passing loops interwoven.

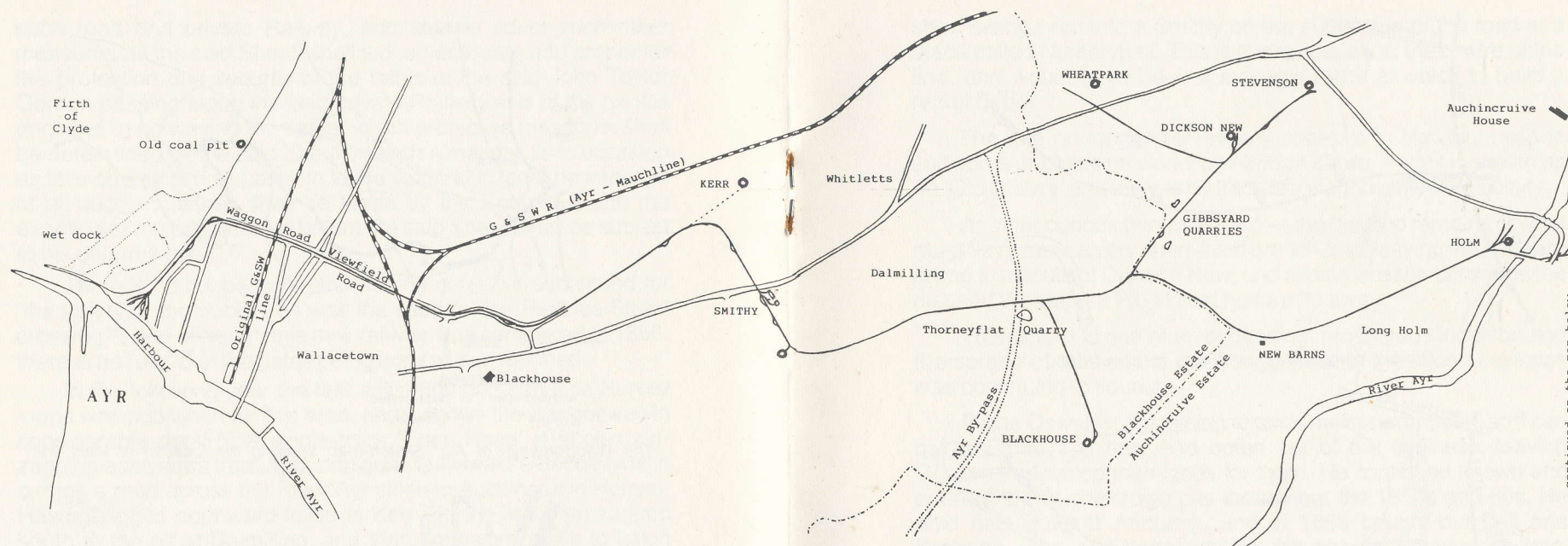
Two hundred yards east of Braehead farmhouse (now the Braehead Hotel) the line crossed the Whitlets Road, and three



The Waggonways of Ayr: Sketch-map showing the location of each line

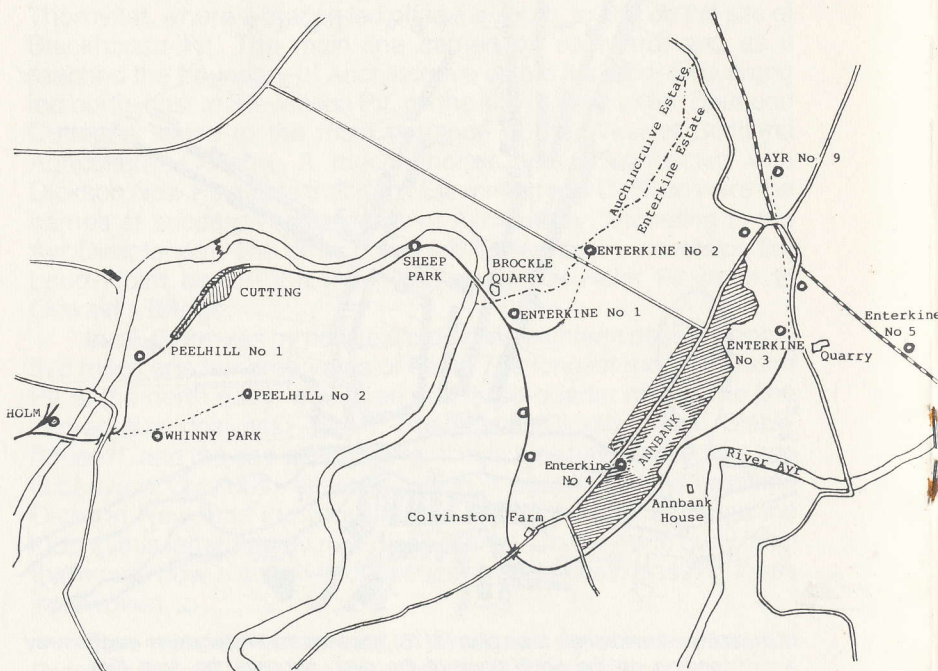


Extract from Armstrong's town plan (1775), showing the Wallacetown waggonway ending on the north bank of the river, opposite the Auld Kirk



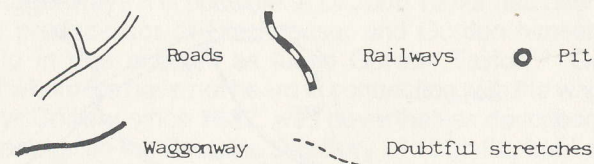
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The Auchincruive Waggonway
at its greatest extent

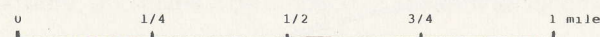


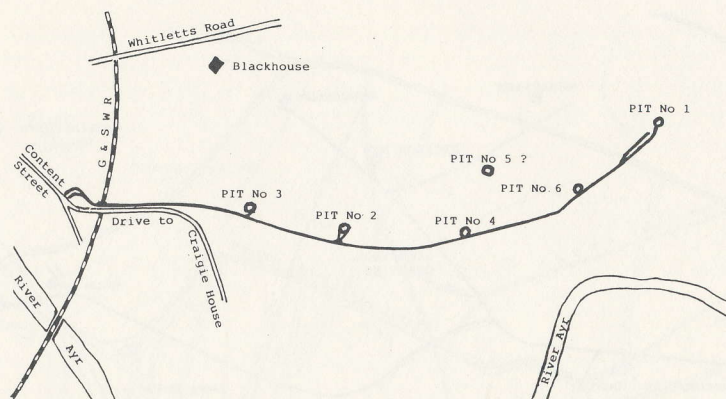
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These signs also apply on the three following maps

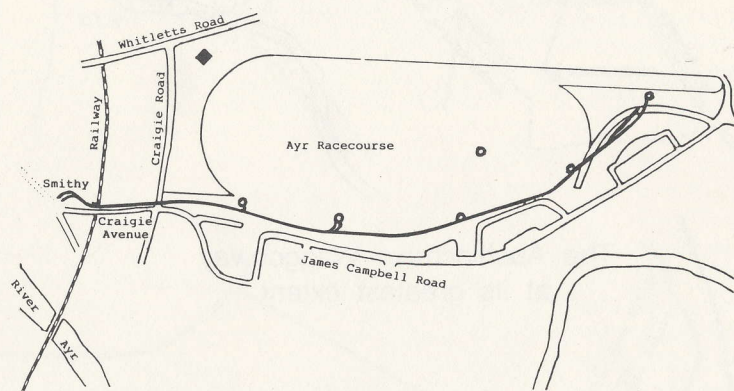


Features on the Waggonway are named in capitals, thus: HOLM

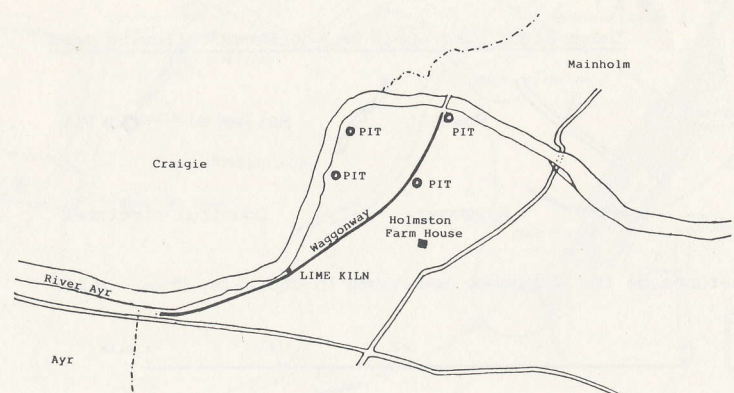




Craigie Waggonway as it was in about 1860



Craigie Waggonway, superimposed on the present road system



Holmston Waggonway

short sidings ran into a Smithy on the south side of the road at a place called Nurseryhall. This is approximately at the centre of the line, and would have been a strategic place at which to build a repair depot.

The line no longer serves any coal-pits in Newton, nor the saltworks or chemical works on Newton shore. Annpit is shown as an 'Old Quarry' and there is no trace of a waggonway in its vicinity.

Another curious thing is shown — the disused remains of what must have been a very short-lived branch-line, leaving the northern prong just south of Dickson New, and aiming westward towards the disused Wheatpark Pit, almost half a mile away.

The picture is one of an expanding, prosperous industry; and the spread of rails on the quay suggests that the export business was continuing to flourish.

Of the Oswalds, the mining records make no mention, so it can be assumed that they had opted out of the business, leaving Gordon to develop their lands for them. He continued to own and operate the Auchincruive pits throughout the 1850s and 60s. He also had a pit at Annbank, and in 1858 bought-out Bell and Drennan, who had been running the pits on Enterkine estate, upriver from Auchincruive. In 1863, the year that Blackhouse Pit closed, he moved south of the river, and took over the Sundrum Pits, and two years later the Gadgirth Pits⁴⁸. During these years, steam locomotion was in use, and the waggonway was stretching inland, linking up more of the pits that lay in the bend of the River Ayr between Oswald's Bridge and Annbank.

Information on the locomotives is very scarce. Neilson of Glasgow built two locomotives in 1855 for John Taylor, and four between 1860 and 1863 for George Taylor and Co.³² Were these for our waggonway? It is possible. A Dr John Taylor had been J. T. Gordon's predecessor at Blackhouse, and Gordon himself was referred to in one account as 'John Gordon Taylor'¹⁹ George Taylor, of whom we have not heard in connection with the waggonway or Ayr Colliery since 1832, was nevertheless described as a 'coal-proprietor' in the Ayrshire Directory of 1851-52, but I do not know where his business interests lay at that date, nor whether he had any connection with Gordon, or with the waggonway. Also in 1863, a newspaper article links the name of Taylor once again with Ayr Colliery, and gives a description of yet another locomotive:—

'New Locomotive Engine — We had an opportunity this week of inspecting a new locomotive engine, manufactured by the Messrs J. and T. Young, engineers, Ayr, for the railway of Messrs

Taylor and Co., Ayr Colliery. We believe it is the first locomotive engine ever made in Ayr, and shows the enterprising spirit of the above firm, as well as their great success in the engineering department. The engine, which is about 25 horse-power, is constructed on the same principle as those already in the possession of Messrs Taylor and Co. It requires no tender, the water tank being fitted above the boiler, and coal boxes placed on either side of the engine-driver's stand. The locomotive, which appears to be strongly built and well finished, was tested on Monday last, and realised the best expectations. Altogether, it reflects great credit on the Messrs Young³³.

Although this article is quite brief, it tells us that Ayr Colliery already owned at least two other locomotives of a similar type.

As other contemporary sources also refer to 'Taylor and Co. and 'George Taylor and Co.' in connection with Ayr Colliery and the waggonway during this period, I surmise that the name of the company had remained unchanged after George's retirement from the business. (In 1880, several years after this waggonway finally closed, the pits which had been registered under the owner's name of John Taylor Gordon reverted to the ownership of G. Taylor and Co.²⁸, although it is unlikely that the original George Taylor, coal-master in 1818⁹, would still be alive, let alone playing an active part in the boardroom).

During 1864, Taylor and Co. exported 121,877 tons of coal through Ayr harbour, while all the other coal companies' exports totalled a mere 21,983 tons.³⁴

The route that the waggonway took beyond Oswald's Bridge is not shown on any map that I have yet discovered, but traces of its path are shown on later maps⁵ after it had been dismantled, and also on the ground itself.

Beyond Oswald's Bridge, the pits lay on the south of the river. A bridge was built two hundred yards downstream from the road bridge, and rails branched from the earlier line a few yards to the west of Holm Pit and crossed over, passing under the road at the present Oaklea small-holding and then swinging north to Peelhill No. 1 Pit, close to the river bank. It continued into a large cutting in the hillside, and emerged half a mile upstream and close to the river bank again in Pheasant Nook, at the far end of which it connected with Sheep Park Pit. It then followed the curve of the river southward and crossed to the north bank once again by another bridge, and ran close past Brockle Quarry, at the further edge of Auchincruive estate. Passing into Enterkine estate, it forked at



Auchincruive Waggonway: Bridge at Colvinston, May 1977.



Auchincruive Waggonway: The 'old line', Annbank, February 1970.

Enterkine No. 1 Pit, and a short branch led north to Enterkine No. 2 Pit, which lay close to the footpath and the small stream near the western extremity of the present bing belonging to Ayr No. 9 Pit.

The main line continued south from Enterkine No. 1, across the field known as Peebles Park, and passed between two other pits whose names I do not know. Just south of Colvinston farmhouse a cutting and an arch took the waggonway beneath the road, and the line immediately swung northwards again, passing between Enterkine No. 4 Pit and Annbank House, and then running to the east of Annbank village (which was built about the same time) to Enterkine No. 3 Pit. It may have ended here, but more likely continued north a further six hundred yards to Ayr No. 9 Pit, which was one of Gordon's also. There may have been branches to a further three pits and a freestone quarry in this vicinity, and to Peelhill No. 2 and Whinnypark Pits back on Auchincruive ground, but this is only guess-work on my part.

Between Oswald's Bridge and Ayr No. 9, seven coal-pits lay on the waggonway's route, and seven more lay within four hundred yards of it; and most, and perhaps all of them were registered in the name of J. T. Gordon. I have no positive proof that the waggonway served any of the seven pits that lay on its direct route, but every twist in its sinuous path leads it from one pit to the next, and I can see no reason for such deviousness unless the tracks were laid with the sole purpose of serving every one of them.

Judging by the traces still visible, it remained single-track with passing-loops until its closure. The longest run, from Annbank to the north quay, was six and a half miles.

The new section, as far as Annbank, was in operation by the beginning of 1865, according to another newspaper report of misfortune:—

'Fatal Accident — About four o' clock on Saturday afternoon a fatal accident occurred to a young man, named John Thomson, about nineteen years of age, a stoker on Messrs George Taylor and Co.'s mineral railway. The engine was bringing a train of loaded waggons from Annbank to the depot near Wallacetown, and having occasion to be stopped when between Braehead farmhouse and the depot, in coming down from the engine while it was still in motion, Thomson's foot slipped and he fell among the wheels, when all waggons, six in number, went over him, mangling his legs in a shocking manner. He was lifted into a cart and conveyed to the hospital, where he was attended by Dr Erskine, but the poor fellow's injuries were of too severe a nature to yield to medical aid,

and he died in about three hours after the occurrence of the accident'.³⁶

The Auchincruive pits appear from the records to have been closing during the late 1860s, the latest reference to operations being in 1869, in a complex stretching from Wheatpark to Peelhill.²¹ The Enterkine Pits survived into the 1870s, the complex of Nos. 1, 2, 3 and 4 lasting until 1878.

By this time the Glasgow and South Western Railway had also arrived at Annbank. First the branch-line from Ayr to Mauchline was opened on the 1st of September, 1870, passing through the northern part of Auchincruive estate; and then, on the 11th of June, 1872, a further branch was opened, coming south from the Mauchline branch at Mossblown to connect with Ayr No. 9 Pit and pass on to Drongan and beyond.¹⁷

This was probably the date at which the major part of our waggonway was abandoned. The section connecting the remaining Enterkine Pits (Nos. 1, 2, 3 and 4) may have continued in operation, this time shipping coal in the opposite direction, to the new railway at Ayr No. 9, until the last of these closed. However, it is extremely unlikely that the waggonway connected directly with the tracks of the G. and S-W, as if this had been the case I should almost certainly have found references to it.

Writing in 1875, a local historian comments that 'Traces of the waggon road and of several of the old pits are still visible'³⁷. In 1884 Rab the Rambler stood on the river bank at Brockle Quarry and observed that 'Here is a bridge across the river, which once carried Gordon's railway into the rich coal fields of Annbank, but is not now in use, since the field has been opened up by the Ayr and Muirkirk line'.³⁸

The section of track which must have required the greatest amount of engineering skill and sweat in its construction, that between Oswald's Bridge and Annbank, seems to have operated for a mere fifteen years at most. But altogether waggons had been running along Taylor's waggonway for practically a century, and in that time must have carried several million tons of coal into Ayr, from at least seventeen pits. It may have served as many as twenty-five pits, or even more, and three quarries, two limekilns and a saltworks. It had its origin at the beginning of the American War of Independence, and ran through the years of the French Revolution, the Napoleonic Wars, the Crimean War, and the American Civil War; through the reigns of George the 3rd and George the 4th, William the 4th, and Victoria.

It is not possible to say just how much track was in use at any one time, but in total at least eight miles two hundred yards (not

counting passing-loops) was operated during the 1850s and 1860s. If we add the original line to Annpit, and the conjectured lines to the other pits mentioned above, this brings the total track laid to between ten and eleven miles (again not counting passing-loops).

Remaining Traces. When a railway is abandoned the rails are lifted and sold, being valuable as scrap. Wooden and stone sleepers would also be sold to building contractors. I have found two stone sleeper-blocks on the course of the waggonway, and two built into the wall of the Gardens at the West of Scotland Agricultural College. Other relics were dug up during draining operations and are preserved at the College. These consist of:

- One broken edge-rail (wrought iron), about eight feet long
- Three rail chairs (cast iron)
- Six pegs (wood)
- Three spikes (wrought iron)
- One L-section girder (cast iron?)
- One chain
- One bent rod (a crank?)
- One small spoked wheel (wrought iron), eleven inches in diameter

There were also three or four transverse wooden sleepers, but nothing is known of the longitudinal sleepers with imprints of 1½ inch iron bar that are mentioned by John Butt,³⁹

The wooden pegs are of the type and size used to plug the holes in sleeper-blocks, and the wrought iron spikes are of the type used to nail the cast iron chairs to the wooden pegs, and thus to the sleepers. The purpose of the remaining items on the list is not obvious. The wheel is not a waggon wheel, being too small and light, and having no flange.

The transverse wooden sleepers were dug up by the forester in Murdoch Park (between Low Thornyflat Cottage and Newbarns). He described them as roughly squared beech, five or six feet long, by about eight inches by about four inches. Two flat areas had been adzed in the upper surface to take the iron chairs. Unfortunately the sleepers had been mislaid at Gibbseyard Farm, and I did not have the opportunity to see them. The other relics were unearthed in Pheasant Nook.⁴⁹

On Newton Shore, a hundred yards south of the end of Saltpans Road, and about sixteen yards out from the sea wall, the stone lining of a pit-shaft can be seen at low tide, protruding slightly above the sand. This was one of the two pits shown on Armstrong's map of 1775, at the northern end of the original waggonway. It was built like a well, the circular wall being about two feet thick, and the inside diameter about twelve feet. The pit was sunk, of course, on dry land but the sea had advanced this far as early as 1875:—

'Encroachment of the Sea. The shanks of one or two of the Newton pits which, when put down, were surrounded by green fields, are now submerged at high water. Indeed, so great has been the encroachment by the sea on that north beach that the site of a row of colliers' houses which stood at a considerable distance seaward from the lighthouse has long since disappeared . . . Perhaps to the subsidence of the ground through the working of the upper seam of coal along the beach this encroachment of the sea may in part be attributed'.³⁷

On the north side of Saltpans Road, where the salt pans themselves were situated, the chemical industry lives on in the Scottish Agricultural Industries factory. North of here nothing is to be seen. Annpit has been filled-in, and a housing estate built on it. The name remains in Annpit Road. There is also Saltpans Road, mentioned above, and Limekiln Road, Waggon Road, and Taylor Street. Green Street marks the old Newton Green.

At the north quay the landscape has been changed by the addition of the Wet Dock (completed in 1878), so that the sea wall today is three hundred yards further west than it was before. Oswald Lane still exists. The coal terminal beside it still exists, the original tracks having been replaced by those of the G. and S. W. (now British Rail).

The course of the waggonway can be followed through the built-up area, though nothing of the waggonway itself remains. The track ran along the south side of Waggon Road, the level-crossing with the G. and S. W. being near the site of the new roundabout. After crossing New Road and Weaver Street the track continued along the north side of Viewfield Road, crossing the Dalmellington branch of the G. and S. W. on the level and continuing along the north side of Tryfield Place (beside the present Somerset Park football ground), then following the course of Back Hawkhill Avenue and Gould Street (which had not then been built), and on through fields now occupied by Braehead School and the housing estate beyond, to Kerr Pit, which lay near the end of the present Glenmuir Place.

At Nurseryhall, where the track crossed the Whitletts Road, the Ordnance Survey map of 1857 shows a level-crossing. However, an old miner to whom I spoke remembers walking as a boy with his father along the disused track, and through a tunnel beneath this road. This was in the years before the First World War — long before the housing estate was built.⁴¹ (At the present time, the lie of the land suggests that a tunnel would probably have been necessary from the outset, and it may simply have been missed by the Ordnance Survey).

After leaving the coal-pit near the present Dalmilling Crescent, the line follows part of the present Westwood Avenue, and crosses the Ayr-Prestwick By-pass between Thornyflat Maternity Hospital and Laigh Thornyflat farmhouse.

Now that we have left the built-up area, earthworks begin to appear. The farm-track from the entrance to Laigh Thornyflat Farm, eastward to Low Thornyflat Cottage runs along a raised embankment which marks the last part of the route through Blackhouse territory to the edge of Auchincruive estate. The branch-line south of Laigh Thornyflat farmhouse, to Blackhouse Pit, has left no trace. Along the northern prong to Stevenson Pit, the two Gibbyside Quarries are still visible, but of the waggonway itself only a very short piece of embankment remains, close to the site of Dickson New Pit. There is the mound of a pit bing beside Wheatpark Cottage.

The southern prong can be followed along the edge of Murdoch Park, into a shallow cutting at Newbarns, where among the young trees can be seen the ruins of a small stone building. It has been suggested that this building housed a stationary steam engine for winching loaded trains up the steep hill beyond. However, the building existed before the waggonway so it must have had another purpose⁴². The Ordnance Survey map of 1857 shows a single track, whereas it was usual to have double track on a winch-worked incline, so that descending empties partly counter-balanced the train ascending. From this point the map of 1857 shows a large embankment descending across the Long Holm to Holm Pit at Oswald's Bridge. This would have lessened the gradient at Newbarns considerably. Also, it would not have been necessary to build this enormous earthwork if a steam-winch was planned.

This embankment was partially levelled during the 1920s as a sort of 'job creation' project for the unemployed.⁴³ Until then, it must have been a considerable obstacle to the cultivation of these fields. Today it is still visible in low relief, but presents few problems to the ploughman.

Also visible are the remains of the bridge where the waggonway first crossed the River Ayr. About two hundred yards below Oswald's Bridge, on the south bank, is a stone buttress, and when the river is running low and clear, the bases of two stone piers can be seen on the river bed, showing that the waggonway crossed at slightly less than ninety degrees.

From this point an embankment runs for a few yards through trees, into a tunnel below the road. This was the tunnel that I discovered in 1968, causing me to begin my enquiries. It is in almost perfect condition, but by now almost full of rubbish. The walls protecting the road above are badly damaged, but in the wall on the west side of the road is set a stone sleeper-block, with two holes and the oval imprint of a rail-chair.

The track enters another shallow cutting and passes between Oaklea small-holding and 'The Knowe', beyond which traces of Peelhill No. 1 Pit can be seen. Next it enters a large cutting a quarter of a mile long and about twenty feet deep, and like the rest of the track, about twelve feet wide at the bottom. The sides of this cutting have been planted with conifers and it is marked on the current Ordnance Survey maps as 'Cutting Wood'.

It emerges from this cutting on the bank high above the river, and continues by a smaller cutting and an embankment through the trees in Pheasant Nook, at the end of which a depression in the river bank shows the position of the Sheep Park shaft. By Brockle Quarry four bridge-piers and a buttress stride across to the north bank. They are of red sandstone, almost certainly hewn from the adjacent quarry, and are at present in a dangerous condition. The top is now gone, but obviously consisted of iron girders, on which was laid a wooden roadway, and then the rails. Grooves near the top of the piers and the buttress show where supports for the girders once slotted.

Brockle Quarry lies deserted, although it too is being used as an occasional rubbish tip. Beyond this was Enterkine No. 1 Pit and a branch north to Enterkine No. 2. Of these there is no sign. Across Peebles Park, to the south, the first of the two unnamed pits is to be seen followed by about 50 yards of slight embankment. The line then vanishes across a flat field and reappears to the south of Colvinston farmhouse as a tunnel below the road, and then a shallow cutting.

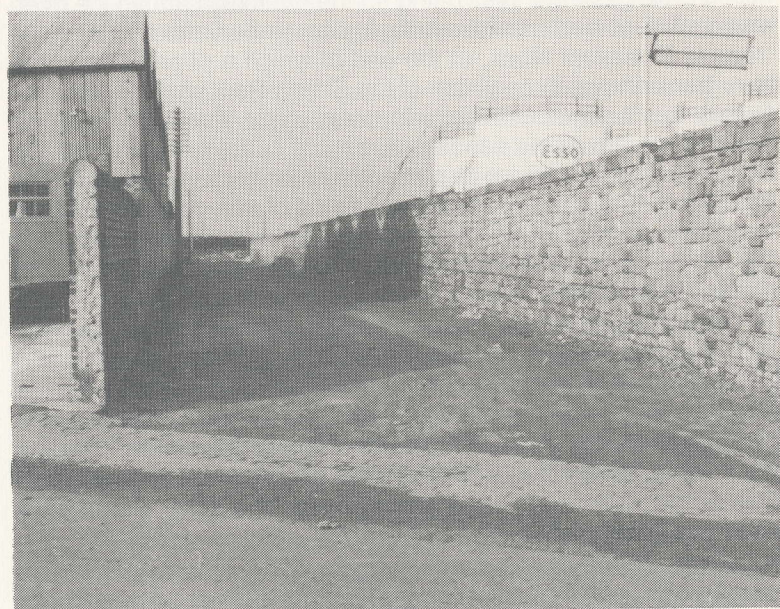
From here the track can just be traced along the edge of a field, through an area of scrub, and along the back fences of Whitehill Crescent in Annbank Village. From the site of Annbank House the track is used as a footpath and is known locally as 'the old line',

running through a shallow cutting behind the village to the Gadgirth Bridge road, just at the point where Enterkine No. 3 Pit once existed. After this there is nothing to be seen, except possibly the short stub of cutting which diverges from the G. and S. W. line to the west of the road, where the road crosses the railway.

A few yards to the north lies Ayr No. 9 Pit, which continued in use well into the twentieth century.

Many questions remain unanswered, the most obvious perhaps being that of gauge. The transverse wooden sleepers showed a gauge that the forester estimated at three feet six inches. A note in Nielson's records shows that the locomotives supplied to George Taylor and Co. were of four foot two inch gauge, while another estimate is that the line had a standard four foot eight and a half inch gauge.³²

All rather confusing — but that might inspire someone to delve a little deeper.



*Auchincruive Waggonway: Oswald's Lane. Ayr.
in March 1969.*

4.— The Wallacetown Waggonway

I have discovered very little about this line. It appears on only one map, and there seems to be no written reference to it at all.

It is shown as a 'Coal Waggon Way' on Armstrong's map of 1775², but its route and extent are not clear. It seems to begin close to the north end of the Old Bridge and run upstream along the river bank for about one hundred yards, and then turn sharply northwards and run almost at right angles to its previous direction, along the line of what is now Elba Street. It appears to fork near the centre point of Elba Street, the left branch leading to a 'Coal Pitt' at the entrance to the present Queen Street, and the right branch continuing off the map into Blackhouse estate.

The difficulty is that Armstrong drew waggonways and roads in exactly the same manner, so that it is impossible to tell where the waggonway ends and the road begins. It is quite likely that the right branch was an ordinary road. But it is worth remembering that the then owners of Blackhouse estate, Robert and William Alexander, were already exploiting the coal under their land.⁴⁴

Another 'Coal Pitt' and an 'Engine' are shown a short distance to the north, near the present junction of Somerset Road and Back Hawkhill Avenue, but these do not seem to be linked directly to the waggonway. (This pit was on the line of the later Auchincruive Waggonway but it seems to have closed before that line reached it).

Towards the river, near the point where Content Street now meets Elba Street, a lime kiln lay a few yards east of the waggonway, and was connected to it by what may have been either a branch-line or a side-street.

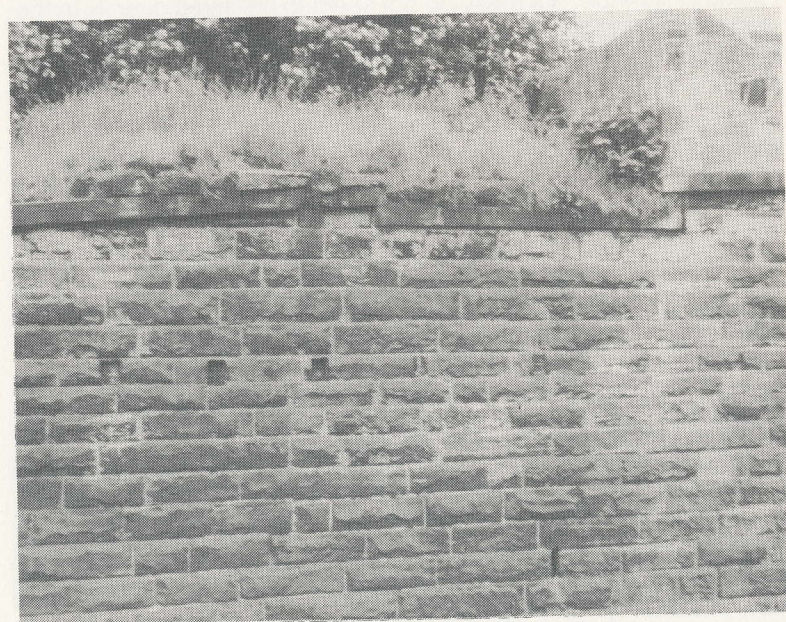
The length of the waggonway was at least five hundred yards, from the river bank to the first coal pit; and possibly one thousand yards, if the stretch along the river bank and the right fork towards Blackhouse are included.

I can find no indication of this line either on earlier or on later maps. John Wood's map of 1818⁹ is detailed and meticulously drawn. It shows neither the waggonway, the coal pits, nor the lime kiln; but it does show Elba Street, with buildings on either side, and this marks the extent of the built-up area in this direction.

It has been suggested that this was the original waggonway to Whitletts, but I find that extremely unlikely. (Significantly, it does not show on Armstrong's county map of the same date², nor do any coal pits east or north-east of the town). The earliest references to a waggonway reaching as far as Whitletts are from 1837^{5 13} —

sixty-two years later. They are obviously describing the Auchincruive line; and equally obviously the Wallacetown line had long since vanished. All earlier references must also be to the Auchincruive line, such as 'from the pits to the harbour, the road reaching to the key'.³

And so this waggonway remains a mystery. I do not know when it was built, nor when it was dismantled, who built and operated it, nor how far it extended. I only know that it was there in 1775 and gone by 1818; and I guess that it was quite short and not of great significance, or it would certainly have been written about.



Craigie Waggonway: Traces of the bridge over the main line.

5.— The Craigie Waggonway

This line was built almost a century later than the previous two — and well into the era of steam railways. It was short in length and life, but apparently very productive.

The estate of Craigie lies adjacent to the town, cradled in a loop of the River Ayr, and bordering Wallacetown to the west, Auchincruive to the east, and Blackhouse to the north. The owners of Craigie — the Wallace family (related to William Wallace) had been interested in coal-mining as early as 1489, but whether they were successful in their ventures, and whether they explored Craigie estate itself, is not known.¹

The name Craigie is not connected directly with the coal industry until 1855, by which date the estate had passed into the hands of James Campbell. He is mentioned in the Railway Act of 1853²³, but only in connection with the protection of his property, as the Dalmellington railway was routed through two of his fields.

The Craigie Pits were first registered in 1855, and the owner's name is given as Robert Brown.²⁸ The original pit was under what is now Dunlop Terrace, at Hayhill, close to the eastern edge of the estate. By 1857 two other pits were operating — No. 2 on the waste ground beside the track of the present Ayr Racecourse, around the centre point of James Campbell Road, and No. 3 under the race track itself, behind Lymburn Place.³⁰

The Ordnance Survey map of 1857³⁰ shows a 'Tram Road' connecting these three pits. It begins at Craigie No. 1 Pit and runs in a gentle curve south of Craigie Nos. 2 and 3 pits, to each of which runs a very short branch-line. It continues westward, and crosses the Dalmellington railway by a bridge, about twenty yards north of the Craigie Avenue bridge, and then turns sharply north, and after a few yards sharply south, to end at a smithy at the eastern end of Content Street. It is single track. At each of the three pits, and at the smithy, the line divides in two, but elsewhere no passing-loops are shown. The track is approximately one mile three hundred yards long, not including the doubling of track at the terminations.

One would expect to find the crossing of this waggonway and the Dalmellington branch of the G. and S. W. detailed in the Railway Acts, but it is level-crossings that are specified in these Acts, and regulations as to bridges are given only in general terms.

The Directory of 1858⁴⁵ lists 'Robert Brown, coalmaster — office, 21 South Quay — house, 14 Beresford Terrace, Killoch Place' and 'John Robertson, manager, Craigie Colliery, Content Street'. That of 1861⁴⁶ includes 'Robert Brown, coalmaster, Craigie Colliery Office, 22 Harbour Street'. In that year six pits were

working on Craigie estate²¹, and five of them lay on the waggonway³¹. The location of the other pit (No. 5) is in some doubt. It lay toward the centre of the present race-track, and in any case was between two hundred and four hundred yards to the north of the waggonway. A branch-line was probably laid to connect with it.

Robert Brown, coalmaster, is last mentioned in the Directory of 1864⁴⁷, and the Craigie pits were abandoned in the following year, 1865²⁸.

And so this waggonway must have closed, no more than ten years after opening. However, the cost of building would have been minimal, as it lay entirely within the one estate (except perhaps for the last few yards from the final bend to Content Street) and the land across which it ran was flat and had no obstacles except for the Dalmellington railway. It is interesting to speculate as to which line was built first. Was the Dalmellington line carved beneath the Craigie, or was the Craigie line built over the Dalmellington? And who paid for the bridge?

Was steam locomotion used? Although by these dates we are well into the Steam Age, the Horse Age is far from ended. It could have been steam, or horse, or a mixture of both. On such a short track, on almost a dead level, steam would have had little, if any, advantage over horse-traction. The fact that the line ended at a smithy might be significant.

The waggonway ended on the edge of the built-up area of Wallacetown, and presumably would have continued to the harbour if this had been allowed by the town council — because there would have been no need for a colliery office on the south quay had Brown not been involved in the export trade; and as things stood, the coal that was destined for the harbour must have been off-loaded at the Content Street terminal and re-loaded into road-carts. I suspect that it was Brown's intention to continue the waggonway to the north or south quay as soon as the opportunity presented itself. According to the evidence, it never did.

Like the Oswalds, James Campbell seems to have had no business interest in the coal-works. Both families were prominent locally, and held public offices, and yet their names do not seem to be linked with coal in any way. No doubt the coal taken from their lands did benefit them financially, however.

Remaining Traces. As is to be expected, very little remains today. No. 1 Pit lies under the housing estate that occupies the central strip of the old Craigie estate, and the other five pits lie beneath the turf of Ayr Racecourse. The line of the waggonway from No. 6 Pit to Craigie Road follows exactly the southern

boundary fence of the Racecourse, which is also the fence along the north side of Churchill Crescent and the back gardens of James Campbell Road and Lymburn Place. Nothing is to be seen here. For the last two hundred yards or so, the waggonway must have run along the roadway which is now a private access road for the Racecourse.

The only visible remains are of the bridge, and these can easily be seen by looking over the northern parapet of the bridge in Craigie Avenue. They consist of a step in both retaining walls of the cutting, some horizontal stone slabs on top of the eastern wall (covered by grass), and a row of slots for the bridge supports cut into the stone three or four feet down on either side.

Beyond the Dalmellington railway the land has been redeveloped quite recently, and a car park and blocks of flats have erased not only the course of the waggonway, but also this end of Content Street.



Holmston Waggonway: Cutting above the old lime kiln, River Ayr walk, April 1969.

6.— The Holmston Waggonway

This, the last of the four waggonways, is the only one to begin and end south of the River Ayr.

The farmlands of Holmston were owned at one time by the Wallace family, and were sold to Richard Oswald in 1781.¹ Thus they became a south-western extension of Auchincruive, and took the boundary of Oswald's property to meet that of the Burgh of Ayr.

Ayr had seen coal mining since the sixteenth century, and several pits had been sunk in the town, but none had been notably productive or long-lived⁴⁸ — in striking contrast with those of Newton and Wallacetown, a few yards away across the river; and with Holmston, whose pits were said at one time to be famous for 'sending more coal to the town than all the rest of the collieries in the neighbourhood'.³⁷ Exactly who said this I do not know. It seems to refer to the middle or late eighteenth century. But the statistical Account of 1791 makes no mention of a pit at Holmston, although it mentions others in the surrounding parishes of Coylton and Stair, as well as those previously mentioned in Ayr and north of the river. The same can be said of the New Statistical Account, and I am therefore led to believe that the quotation refers to the middle or perhaps early eighteenth century.

Only three of the seven estate maps of Auchincruive show the fields of Holmston. That of 1781-84⁴ shows nothing of present interest, and that in itself is significant in view of the waggonway that is shown on Ayr north quay. Those of 1806 and 1846⁴⁹ show what must be a waggonway. It is not labelled as such, but is shown by two parallel lines, marking a width considerably less than that of any road shown, and not connecting with any road. It begins in the East Holm, close to the river bank, and in line with a bridge which crosses to Mainholm (also part of Auchincruive estate). From this point it runs south-westward in a curve, and coming close to the river again near the spring known as 'Wallace's Heel', continues for another five hundred yards between the river and the Holmston Road, and ends beside two small buildings. Many years later, Rab the Rambler referred to this spot as 'the Coups gate . . . for in former days, when coals were wrought on Holmston and Mainholm, they were brought down here on a railway or tram-road, and sold to the public at the gate'.³⁸

On the map, approximately 1150 yards of track are shown, but no details, such as passing-loops or sidings; and no coal pits. The Ordnance Survey Geological sheets⁵⁰ show four pits as having existed at Holmston. Two are in the West Holm; and two are in the East Holm on the direct line of the waggonway — one at the river's

edge by the end of the waggonway and the bridge, the other two hundred yards along the track. No pits are specifically shown as having existed at Mainholm, although it is indicated that coal had been worked in that area. (A local inhabitant told me that coal outcrops in the bank behind the Mainholm smallholdings).

In 1811, William Aiton recorded that 'Richard Oswald of Auchincruive, Esq., formed, some years ago, an iron rail-way, from his coal-works to near the town of Ayr; but could not obtain liberty to carry it through the Burgh-acres, to the harbour'.⁵¹ Aiton hints that Oswald himself was in charge of operations, and that he, too, was interested in the export trade.

The map of 1846 (which is a revised copy of the 1806 map) also shows the waggonway, but by this date the bridge had gone, and so had one of the two small buildings at the 'Coups gate' end.

By the time of the first Ordnance Survey in 1857³⁰, the waggonway had gone, leaving only some small traces of bings on the site of each of the two pits concerned.

I have found no other reference to this line. It seems to have come into existence between 1781 and 1806, and to have been abandoned between 1846 and 1857. It may have extended further — perhaps to the two pits in the West Holm, and across the bridge to Mainholm, but there is no evidence for this.

Having reached the western edge of Holmston, which was also the most westerly point in Auchincruive estate, there is no sign of the track extending further along the river bank or the Holmston Road into Ayr.

Remaining Traces. The electricity sub-station beside the first house on the north of the Holmston Road marks the approximate site of the Coups Gate. There is nothing to see here, but if you proceed along the River Ayr Walk, upstream past what seems to have been a small quarry, and then scramble up the bank on your right, you will see a shallow cutting about twelve feet wide following the line of the river for about one hundred and fifty yards, ending above the old limekiln by Wallace's Heel. The limekiln was obviously contemporaneous with the waggonway, but is not shown on the maps. Recently it had been fitted with bench-seats, but these have now gone.

Beyond this, a small stream falls from the higher level of the fields into the river, and there must have been a small bridge (most likely of wood, as no buttresses remain) to carry the track across to the corner of the bank beyond, where traces of a possible cutting can be seen below the tree roots.

From here it vanishes along the approximate line of the fence. The pit-bing can be seen quite clearly at the far corner of this field; and on the river bank, almost directly to the north, is a depression, cut across by a stone wall supporting the riverside walk. This is probably the pit at the end of the waggonway. Nothing is to be seen of the bridge here or of anything on the golf course on the Mainholm side.

The maps of 1806 and 1846 show a width that **could** have accommodated a double track, but the remaining cutting shows it to have been a single track. (Maps do not show widths of roads and railways with much accuracy and these estate maps were mostly concerned with recording acreages, so that the parallel lines are more likely to have shown the boundary fences than the rails themselves).

Now, in the spring of 1981, the remaining part of the cutting is threatened by the new housing development between Holmston Crescent and Kyle Academy.

7.— Conclusion

The remains of later railways are often confused with those of early waggonways. In the vicinity of the Holmston line there are many wooden sleepers, used as retaining piles for the river bank, and made into benches to adorn the River Ayr Walk. These are all of a much more recent pattern. A few yards further upstream, at the old Overmills, is a wrought-iron rail, built into the filter that protects the upstream end of the mill-race. It also is of a later design, of the type used for street tramways, and may have come from Ayr's tramway system.

I have not come across one advertisement, in the newspapers or the Directories, for the carriage of goods or passengers along any of these lines, nor any reference to stone or anything other than coal being carried. So it seems that they offered no competition to the road-carriers and stage-coaches.

They may seem small, and perhaps insignificant, compared with modern railways; but they were the quickest and most efficient mode of transport in their day, and were at the forefront of technology and commerce.

As I promised in chapter one, my story is far from complete. In fact, the holes in it are enormous. But my notes and maps have been lying in a drawer for over ten years now, with more being added from time to time, and I have been persuaded that now is the time to write it down properly. I agree — if I put it off until I know it all, it would never be done.

I have spoken to many people about these waggonways, some of whom have given me useful information, and some of whom have pointed me in a direction where information might be found. But if I have not spoken to **you** and you know something that I do not, I would be very interested to hear from you.

I can be contacted via the Reference Department of the Carnegie Library, Ayr.

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28. List of Mines, 1854 et seq.
29. No waggonway is shown on two estate plans of Auchincruive, dated 1838 and 1846. These are maps 7 and 8 (my numbering) of the collection in the possession of the West of Scotland Agricultural College, Auchincruive. (Map 8 is an updated copy of an earlier map).

30. Ordnance Survey, First Edition, Ayrshire, Sheet XXXIII, Scale: 6 inches — 1 mile, surveyed 1857.
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